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AN ATLAS OF CONTAMINANTS IN THE EGGS OF FISH-EATING COLONIAL BIRDS OF THE GREAT LAKES (1993-1997). VOLUME I. ACCOUNTS BY LOCATION

C. Pekarik¹, D.V. Weseloh¹, G. C. Barrett², M. Simon³, C. A. Bishop²,
K. E. Pettit⁴

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¹ Canadian Wildlife Service (Ontario Region), Environment Canada,
4905 Dufferin St., Downsview, Ontario M3H 5T4

² Canadian Wildlife Service (Ontario Region), Environment Canada,
P.O. Box 5050, 867 Lakeshore Rd., Burlington, Ontario L7R 4A6

³ National Wildlife Research Centre, 100 Gamelin Blvd., Hull, Quebec
K1A OH3

⁴ Department of Animal Science, University of British Columbia,
Vancouver, British Columbia

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Rose Iantorno
Canadian Wildlife Service
Environment Canada
Ontario Region
4905 Dufferin St.
Downsview, Ontario
M3H 5T4
Email address: Rose.Iantorno@ec.gc.ca

EXECUTIVE SUMMARY

During 1993-97, Canadian Wildlife Service (Ontario Region) collected 1252 eggs from 32 sites. Four species of fish-eating colonial waterbirds were sampled:

- Double-crested Cormorant (*Phalacrocorax auritus*)
- Great Black-backed Gull (*Larus marinus*)
- Herring Gull (*Larus argentatus*)
- Ring-billed Gull (*Larus delawarensis*)

The purpose was to measure the levels of the following compounds:

- organochlorine pesticides
- chlorinated benzenes
- polychlorinated biphenyls
- dioxins and furans
- lipid and moisture

These data were generated as part of a monitoring program started in 1970 to understand the temporal and spatial trends of environmental contaminant levels in biota of the Great Lakes. Since the 1970s the levels of most chlorinated hydrocarbons have decreased significantly at most colonies on the Great Lakes. A regression model that applied two temporal trends to the log-transformed values of most organochlorine pesticides and PCB:1254-1260 found that the rates of decline in recent years were similar to those seen in the years shortly after sampling began (Di Maio *et al.*, In Press; Pekarik and Weseloh, 1998).

The data from 1993-97 are summarized in two volumes. Volume I contains contaminant data for all (4) species summarized by location, and non-coplanar PCB data for Herring Gull eggs from 14 annual monitoring colonies. Volume II contains contaminant data for all (4) species summarized by compound. Both volumes contain sample locations and the means and standard deviations or pooled analysis values for organochlorine pesticide, chlorinated benzenes, polychlorinated biphenyls, dioxins and furans, and percent lipid and moisture. Additionally, data for mercury from Herring Gull eggs collected in 1992 have been listed, since they were inadvertently omitted from Pettit *et al.*, 1994a; b.

The publication of previous years' data has resulted in independent statistical analyses and publications of Herring Gull egg contaminant data (Smith, 1995; Stow, 1995). Within the Canadian Wildlife Service additional analyses have been published on the current dataset of contaminant levels in fish-eating birds of the Great Lakes (Hebert *et al.*, 1997; Koster *et al.*, 1997; Pekarik and Weseloh, 1998; Ryckman *et al.*, 1998).

RÉSUMÉ ADMINISTRATIF

Pendant la période allant de 1993 à 1997, le Service canadien de la faune (Région de l'Ontario) a recueilli 1252 œufs à 32 sites. On a étudié quatre espèces d'oiseaux coloniaux piscivores :

- le cormoran à aigrettes (*Phalacrocorax auritus*)
- le goéland à manteau noir (*Larus marinus*)
- le goéland argenté (*Larus argentatus*)
- le goéland à bec cerclé (*Larus delawarensis*)

Il s'agissait de mesurer les niveaux des composés suivants :

- les pesticides organochlorés
- les benzènes chlorés
- les biphenyles polychlorés
- les dioxines et les furans
- les lipides et l'humidité

On a calculé ces données en vertu d'un programme de surveillance commencé en 1970 pour comprendre les tendances temporelles et spatiales des niveaux des contaminants environnementaux dans la biote des Grands Lacs. Depuis les années 70, les niveaux de la plupart des hydrocarbures chlorés baissent beaucoup à la plupart des colonies des Grands Lacs. D'après un modèle de régression qui a affecté deux tendances temporelles aux valeurs transformées par registre de la plupart des pesticides organochlorés et du PCB:1254-1260, les taux de déclin des dernières années se rapprochent des taux observés pendant les années qui ont suivi de près le début de l'échantillonnage (Di Maio et collaborateurs, In Press; Pekarik et Weseloh, 1998).

Les données de 1993-1997 sont résumées en deux volumes. Le volume I contient les données sur les contaminants pour les quatre espèces au complet, résumées par lieu, et les données sur les BPC non-coplanaires pour les œufs de goélands argentés provenant de 14 colonies à surveillance annuelle. Le volume II renferme les données sur les contaminants de toutes les quatre espèces, résumés par composés. Les deux volumes contiennent les emplacements des échantillons, ainsi que la moyenne et l'écart type ou les valeurs d'analyses rassemblées pour le pesticide organochloré, les benzènes chlorés, les biphenyles polychlorés, les dioxines et les furans, ainsi que les lipides et l'humidité en pourcentage. En outre, on a énumérée les données sur le mercure contenu dans les œufs de goélands argentés recueillis en 1992, car on les avait omises par inadvertance dans Pettit et collaborateurs, 1994a; b.

La publication des données des années antérieures a entraîné des analyses et des publications statistiques indépendantes de données de contamination des œufs de goélands argentés (Smith, 1995; Stow, 1995). Au sein du Service canadien de la faune, on a publié d'autres analyses sur l'ensemble actuel de données sur les niveaux de contaminants contenus dans les oiseaux piscivores des Grands Lacs (Hebert et collaborateurs, 1997; Pekarik et Weseloh, 1998; Ryckman et collaborateurs, 1998).

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INTRODUCTION

During 1993-97, Canadian Wildlife Service (Ontario Region) collected 1252 eggs from four species of fish-eating colonial waterbirds from 32 colonies (sites) throughout the Great Lakes. The purpose was to measure the levels of chlorinated hydrocarbons and lipid concentrations. These data were generated as part of a monitoring program started in 1970 to understand the temporal and spatial trends of environmental contaminant levels in biota of the Great Lakes. Since the 1970s the levels of most chlorinated hydrocarbons have decreased significantly at most colonies on the Great Lakes.

Analyses of contaminant data in Great Lakes fish found that toxic substances were not declining as quickly in recent years as they had been following restrictive regulation (Borgmann and Whittle, 1991; 1992). For Herring Gull egg data, the rate of decline appeared to have slowed in recent years when observed on a non-transformed scale. Nonetheless, a regression model that applied two temporal trends to the log-transformed values of most organochlorine pesticides and PCB:1254:1260 found that the rates of decline in recent years were similar to those seen shortly after sampling began (Di Maio *et al.*, In Press; Pekarik and Weseloh, 1998). This model (referred to change point model) is one of many that has been used recently to describe the temporal trends of contaminants in Herring Gull eggs (Smith, 1995; Stow, 1995; Hebert *et al.*, 1997). Stow (1995) used a portion of the CWS Herring Gull egg contaminant database (1978-1992) to determine the long-term trends of lakewide values of PCB 1254:1260 (Bishop *et al.*, 1992a; b, Pettit *et al.*, 1994a; b). He found that: PCB 1254:1260 concentrations had ceased to decline in Herring Gull eggs from Lakes Ontario, Michigan, Huron and Superior and that levels in Lake Erie eggs continued to decline. Smith (1995) found that the short-term changes of five organochlorine contaminants in Herring Gull eggs, were synchronized within and between Great Lakes. He proposed that weather patterns, acting as large scale forces, were controlling the short-term patterns in Herring Gull eggs across the Great Lakes. Hebert *et al.* (1997) refined the relationship between PCB 1254:1260 accumulation in Herring Gull eggs and weather at two Lake Ontario colonies. They found that PCB 1254:1260 levels were higher than expected in years with cold winters and/or high alewife abundance. They also found that PCB 1254:1260 levels were higher than expected when alewife condition was low.

Ryckman *et al.* (1998) discussed the spatial and temporal trends of organochlorine contaminants in the eggs of Double-crested Cormorants from the Canadian Great Lakes. They found that since the 1970s, levels declined significantly at sites from all the Great Lakes, except Lake Erie where levels remained stable. From 1984 to 1995 spatial trends indicated that eggs from Lake Erie were most contaminated and those from Lake Huron were least contaminated. Koster *et al.* (1997) studied the levels of total mercury in Herring Gull eggs sampled in certain years from 1972 to 1992. They found that the highest levels were in Lake Ontario, followed by Lake Superior; Lake Erie was found to have the lowest levels. Levels declined significantly from 1972 to 1992 at five colonies and from 1981 to 1992 at three colonies.

The present documents, An atlas of contaminants in eggs of fish-eating colonial birds of the Great Lakes (1993-1997) Volume I, Accounts by Location and An atlas of contaminants in eggs of fish-eating colonial birds of the Great Lakes (1993-1997) Volume II, Accounts by Chemical, are meant to continue four earlier volumes:

- An atlas of contaminants in eggs of fish-eating colonial birds of the Great Lakes (1970-1988) Volume I, Accounts by Species and Locations (Bishop *et al.*, 1992a)
- An atlas of contaminants in eggs of fish-eating colonial birds of the Great Lakes (1989-1992) Volume I, Accounts by Location (Pettit *et al.*, 1994a)
- An atlas of contaminants in eggs of fish-eating colonial birds of the Great Lakes (1970-1988) Volume II, Accounts by Chemical (Bishop *et al.*, 1992b)
- An atlas of contaminants in eggs of fish-eating colonial birds of the Great Lakes (1989-1992) Volume II, Accounts by Chemical (Pettit *et al.*, 1994b)

To facilitate access to the data, we have organized the text and tables in the present reports similarly to the earlier reports. These reports contain the means and standard deviations or pooled analysis values for organochlorine pesticides, polychlorinated biphenyls, polychlorinated dioxins and furans for the four species of colonial waterbirds sampled between 1993-97. For Herring Gull eggs collected from 14 annual monitoring colonies we also present the congener patterns for non-coplanar PCBs.

Data from specific sampling locations or for specific compounds can be retrieved in a stepwise manner. Instructions for data retrieval are detailed below. In both volumes we provide maps showing the locations of the sampling sites (Section 1, Figures 1-10) and tables summarizing the number of eggs collected at each colony (Section 1, Tables 1-10). In Volume I (Section 2, Table 11) we present the data summarized by location and in Volume II (Section 2, Table 11) we present the data summarized by chemical. For Herring Gull eggs from 14 annual monitoring colonies the data are presented for the PCB congeners that contribute to the total PCB congeners (otherwise referred to as sum PCB) (Volume I, Section 3, Table 12). These PCB congener data are also presented graphically (Volume I, Section 3, Figures 11-24).

DOCUMENT OUTLINES

OUTLINE OF DOCUMENT - VOLUME I

Section 1 - Data Summary by Sample Size

For each area, a map (Figures 1-10) and a corresponding table (Tables 1-10) present sampling sites and compounds analyzed by species and year.

Section 2 - Data Summary by Location Sampled

The index (page 35) lists the pages in Table 11 where all contaminant data can be found concerning each species at each colony. Following the index, Table 11 presents contaminant data for eggs of fish-eating birds summarized by water body, colony, species and years sampled.

Section 3 - Non-Coplanar PCB Congener Patterns in Herring Gull Eggs

Figures 11-24, are graphic representations of the means (1993-97) and standard deviations of the percentage that each PCB congener contributes to total PCB congeners. This data is given only for Herring Gull eggs from 14 annual monitoring colonies. The index (page 187) lists the pages in Table 12 where PCB congener data can be found for each monitoring colony. Following the index, Table 12 presents non-coplanar PCB congener data summarized by water body, colony and years sampled.

OUTLINE OF DOCUMENT - VOLUME II

Section 1 - Data Summary by Sample Size

For each area, a map (Figures 1-10) and a corresponding table (Tables 1-10) present sampling sites and the compounds analyzed by species and year.

Section 2 - Data Summary by Compound

The index (page 35) lists the pages in Table 11 where data for each compound can be found for the colonies sampled in each water body. Table 11 presents contaminant data for eggs of fish-eating birds summarized by compound, water body, colony, species and years sampled.

INSTRUCTIONS FOR USERS OF THIS ATLAS**GENERAL NOTES:**

1. It is important that the summary of methodologies and statistical notes (page 10) be examined by all readers to facilitate proper interpretation of the data.
2. The locations, chemicals analyzed, and species are listed in the following order in all indices and tables:
 - A. The water bodies and colony locations are generally listed in east to west order.
 - B. The contaminants measured are generally listed in alphabetical order. A list of the order of the contaminants and the abbreviations used in the tables begins on page 7.
 - C. The species sampled are listed in checklist order (American Ornithologists' Union, 1983):
 - Double-crested Cormorant (*Phalacrocorax auritus*)
 - Great Black-backed Gull (*Larus marinus*)
 - Herring Gull (*Larus argentatus*)
 - Ring-billed Gull (*Larus delawarensis*)
- Three other species of fish-eating colonial waterbirds were sampled in previous years, but not between 1993-97 (Bishop *et al.*, 1992a; b; Pettit *et al.*, 1994a; b). They are: Black-crowned Night-Heron, Caspian Tern and Common Tern.
3. The atlas is designed to be used in a stepwise manner. The quickest methods of finding the data available for a specific location or chemical are described below.
4. Tables 1-10 are designed to indicate the data that are available. They summarize the locations where eggs were collected and the contaminants analyzed, by species and year. The accompanying maps (Figures 1-10) illustrate the locations of the sampling sites. The colony names are numbered on the maps, these correspond to numbers on the accompanying tables. These tables and figures are included in both volumes (Section 1). On Figures 1-10 and Tables 1-10 colonies that are part of the Herring Gull annual monitoring program are indicated by an asterisk (*).
5. In both volumes Table 11 summarizes the data, either by location (Volume I) or by chemical (Volume II). In Volume I, Table 12 summarizes (by location) the data for non-coplanar PCBs in Herring Gull eggs at 14 annual monitoring colonies.

EXAMPLES OF HOW TO LOCATE DATA:**EXAMPLE 1: LOCATING DATA BY LOCATION (VOLUME I)**

For example, if you were interested in types of contaminants and the levels found in eggs of fish-eating birds in the Kingston area, you would do the following:

1. Locate the map that covers the area of interest.
For Kingston you would refer to Figure 2 (page 16). Three colonies, from which eggs have been collected, are located near Kingston:
 - Snake Island (colony 2)
 - Pigeon Island (colony 3)
 - Little Galloo Island (colony 4).
2. Refer to the accompanying table and the sampling site(s) based on the colony number(s) determined in step 1.
In this case you would refer to Table 2 (page 17). You would then locate the appropriate colony numbers (in this case 2, 3 and 4) and determine which species were sampled, the years and the contaminants for which data are available.
3. Locate the appropriate page that contains the contaminant data.
Beginning on page 35 (Volume I) there is an index for the sampling sites presented in Table 11. You would locate the colonies of interest (in this case Snake Island, Pigeon Island, and Little Galloo Island) and turn to the appropriate page(s) to locate the contaminant data.

EXAMPLE 2: LOCATING DATA FOR NON-COPLANAR PCBs (VOLUME I) (AVAILABLE ONLY FOR HERRING GULL EGGS FROM 14 ANNUAL MONITORING COLONIES)

For example, if you were interested in the levels of non-coplanar PCBs in Herring Gull eggs from the Kingston area, you would do the following:

1. Locate the map and the Herring Gull annual monitoring colonies that cover the area of interest.

For Kingston you would refer to Figure 2 (page 16). One annual monitoring colony from which Herring Gull eggs have been collected is located near Kingston:

- Snake Island (colony 2)

2. Locate the appropriate page that contains the non-coplanar PCB data.

On page 187 (Volume I) there is an index for the Herring Gull annual monitoring colonies presented in Table 12. Determine the page(s) where the non-coplanar PCB data for Snake Island are summarized. In this case you would refer to page 192 (Volume I) to find the pooled values for non-coplanar PCB congeners in Herring Gull eggs from Snake Island.

EXAMPLE 3: LOCATING DATA BY CHEMICAL (VOLUME II)

For example, if you were interested in the data available for PCB:1254-1260, you would do the following:

1. In Volume II (Accounts by Chemical) refer to the index beginning on page 35.

For PCB:1254-1260 you would determine that the data begin on page 120. If you were interested in PCB: 1254-1260 data for a specific water body, the appropriate page can also be located in the index beginning on page 35.

2. Refer to the appropriate page in Section 2, Table 11 (Volume II).

In this case you would refer to page 120 to find the means and standard deviations or pooled values for PCB:1254-1260 at the various sampling sites and for various species.

COMPOUNDS ANALYZED IN EGGS OF FISH-EATING BIRDS OF THE GREAT LAKES

The following compounds are listed in alphabetical order except for "percent lipid in egg" and "percent moisture in egg", coplanar PCBs, dioxins and furans. The underlined sections of the chemical names are the words which were used to place the chemicals in their alphabetical positions. Chemical congeners are listed in order of increasing chlorination. The order of names in this list is used consistently throughout the tables in this document. Abbreviations correspond to those on Table 1-10. Chemical Abstract System (CAS) numbers have been included, when they were available. PCB congener numbering follows Ballschmiter and Zell (1980).

NOTES:**• Total Mercury (1992)**

Herring Gull eggs collected in 1992 were analyzed for total mercury (Hg), but the results were inadvertently omitted in previous volumes of the Atlas. We include these data in both volumes of this edition. In Figures 1-10 and Tables 1-10, we also include the locations of the colonies where eggs were collected for total mercury analysis.

For all other contaminant data for eggs collected in 1992, please refer to the previous edition of this publication (An atlas of contaminants in eggs of fish-eating colonial birds of the Great Lakes (1989-1992) Volume I, Accounts by Location or An atlas of contaminants in eggs of fish-eating colonial birds of the Great Lakes (1989-1992) Volume II, Accounts by Chemical (Pettit *et al.*, 1994a; b).

• Dioxin and furan compounds, analyzed but not detected

In 1995, 1996 and 1997, Herring Gull eggs were analyzed for the following dioxin and furan compounds. The compounds were not detected in any sample, thus they are not included in the tables.

1,2,4,7,9/1,2,4,6,8-pentachlorodibenzo-p-dioxin
1,2,3,6,8- pentachlorodibenzo-p-dioxin (CAS number: 71925-16-1)
1,2,4,7,8- pentachlorodibenzo-p-dioxin (CAS number: 58802-08-7)
1,2,3,7,9- pentachlorodibenzo-p-dioxin (CAS number: 71925-17-2)
1,2,4,6,7,9/1,2,4,6,8,9- hexachlorodibenzo-p-dioxin
1,2,3,6,7,9/1,2,3,6,8,9- hexachlorodibenzo-p-dioxin
1,2,3,4,6,7,9- heptachlorodibenzo-p-dioxin (CAS number: 58200-70-7)

2,4,6,8-tetrachlorodibenzofuran (CAS number: 58802-19-0)
2,3,6,8-tetrachlorodibenzofuran (CAS number: 57117-37-0)
1,2,7,8-tetrachlorodibenzofuran (CAS number: 58802-20-3)
2,3,6,7-tetrachlorodibenzofuran (CAS number: 57117-39-2)
1,2,3,6,8-pentachlorodibenzofuran (CAS number: 83704-51-2)
2,3,4,6,7-pentachlorodibenzofuran (CAS number: 57117-43-8)
1,2,3,4,6,8-hexachlorodibenzofuran (CAS number: 69698-60-8)

In 1996 and 1997, Herring Gull eggs were analyzed for the following dioxin and furan compounds. The compounds were not detected in any sample, thus they are not included in the tables.

1,3,7,8-tetrachlorodibenzo-p-dioxin (CAS number: 50585-46-1)
1,2,7,8-tetrachlorodibenzo-p-dioxin (CAS number: 34816-53-0)
1,2,3,7,9-pentachlorodibenzo-p-dioxin (CAS number: 71925-17-2)
1,2,3,8,9--pentachlorodibenzo-p-dioxin (CAS number: 83704-54-5)

2,3,4,6,8-pentachlorodibenzofuran (CAS number: 67481-22-5)

Compounds reported for all species at all colonies in Table 11 (Vols. I & II)

CAS #	COMPOUNDS	ABBREVIATION (used in Tables 1-10)
	Percent lipid in egg.....	% Lip
	Percent moisture in egg.....	% Mois
5103-71-9	Alpha(cis)-chlorodane.....	a-CHL
5103-74-2	Gamma(trans)-chlorodane.....	g-CHL
7304-13-8	Oxy-chlorodane.....	o-CHL
634-66-2	1,2,3,4-tetrachlorobenzene.....	1234-CB
95-94-2	1,2,4,5-tetrachlorobenzene.....	1245-CB
608-93-5	Pentachlorobenzene.....	PeCB
118-74-1	Hexachlorobenzene.....	HCB
72-54-8	pp'-DDD.....	DDD
72-55-9	pp'-DDE.....	DDE
50-29-3	pp'-DDT.....	DDT
60-57-1	Dieldrin.....	DIEL
1024-57-3	Heptachlor epoxide.....	HEP EPX
39-84-6	Alpha-hexachlorocyclohexane.....	a-HCH
39-85-7	Beta-hexachlorocyclohexane.....	b-HCH
58-89-8	Gamma-hexachlorocyclohexane.....	g-HCH
7439-97-6	Total mercury.....	Hg
3010-80-8	Tris (4-chlorophenyl) methanol.....	TCPM
2385-85-5	Mirex.....	MIR
39801-14-4	Photomirex.....	P-MIR
5103-73-1	Cis-nonachlor.....	c-NON
39765-80-5	Trans-nonachlor.....	t-NON
29082-74-4	Octachlorostyrene.....	OCS
11097-69-1	PCB:1260.....	PCB 1260
11096-82-5	PCB:1254-1260.....	PCB 1254:1260
7782-49-2	Total (sum of) PCB congeners (non-coplanar).....	SUM PCB

Coplanar PCB Congeners

38444-90-5	PCB #37 3,4,4'-trichlorobiphenyl.....	COP PCB
32598-13-3	PCB #77 3,3',4,4'-tetrachlorobiphenyl.....	COP PCB
70362-50-4	PCB #81 3,4,4',5-tetrachlorobiphenyl.....	COP PCB
57465-28-8	PCB #126 3,3',4,4',5-pentachlorobiphenyl.....	COP PCB
32774-16-6	PCB #169 3,3',4,4',5,5'-hexachlorobiphenyl.....	COP PCB
39635-31-9	PCB #189 2,3,3',4,4',5,5'-heptachlorobiphenyl.....	COP PCB

Dioxins

1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin.....	DIOXIN
40321-76-4	1,2,3,7,8-pentachlorodibenzo-p-dioxin.....	DIOXIN
39227-26-8	1,2,3,4,7,8-hexachlorodibenzo-p-dioxin.....	DIOXIN
39227-28-6	1,2,3,6,7,8-hexachlorodibenzo-p-dioxin.....	DIOXIN
19408-74-3	1,2,3,7,8,9-hexachlorodibenzo-p-dioxin.....	DIOXIN
35822-46-9	1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin.....	DIOXIN
3268-87-9	Octachlorodibenzo-p-dioxin.....	DIOXIN

Furans

51207-31-9	2,3,7,8-tetrachlorodibenzofuran.....	FURAN
69698-57-3	1,2,4,6,8-pentachlorodibenzofuran.....	FURAN
58802-15-6	1,2,4,7,8-pentachlorodibenzofuran.....	FURAN
57117-41-6	1,2,3,7,8-pentachlorodibenzofuran.....	FURAN
51207-31-4	2,3,4,7,8-pentachlorodibenzofuran.....	FURAN

67562-40-7	1,2,4,6,7,8-hexachlorodibenzofuran	FURAN
69698-59-5	1,2,4,6,8,9-hexachlorodibenzofuran	FURAN
70658-26-9	1,2,3,4,7,8-hexachlorodibenzofuran	FURAN
57117-44-9	1,2,3,6,7,8-hexachlorodibenzofuran	FURAN
72918-21-9	1,2,3,7,8,9-hexachlorodibenzofuran	FURAN
	2,3,4,6,7,8-hexachlorodibenzofuran	FURAN
67462-39-4	1,2,3,4,6,7,8-heptachlorodibenzofuran	FURAN
69698-58-4	1,2,3,4,6,8,9-heptachlorodibenzofuran	FURAN
55673-89-7	1,2,3,4,7,8,9-heptachlorodibenzofuran	FURAN
39001-02-0	Octachlorodibenzofuran	FURAN

Non-coplanar PCB congeners reported for Herring Gulls at annual monitoring colonies in Table 12 (Volume I)

Non-coplanar PCB congeners CAS #	COMPOUNDS	ABBREVIATION (not applicable)
38444-78-9/38444-77-8	PCB #16/32 2,2',3-trichlorobiphenyl/2,4',6-trichlorobiphenyl	
37680-66-3	PCB #17 2,2',4-trichlorobiphenyl	
37680-65-2	PCB #18 2,2',5-trichlorobiphenyl	
38444-85-8	PCB #22 2,3,4'-trichlorobiphenyl	
7012-37-5	PCB #28 2,4,4'-trichlorobiphenyl	
16606-02-3	PCB #31 2,4',5-trichlorobiphenyl	
38444-86-9/38444-84-7	PCB #33/20 2',3,4-trichlorobiphenyl/2,3,3'-trichlorobiphenyl	
36559-22-5	PCB #42 2,2',3,4'-tetrachlorobiphenyl	
41464-39-5	PCB #44 2,2',3,5'-tetrachlorobiphenyl	
2437798/70362-47-9	PCB #47/48 2,2',4,4'-tetrachlorobiphenyl/2,2',4,5-tetrachlorobiphenyl	
41464-40-8	PCB #49 2,2',4,5'-tetrachlorobiphenyl	
35693-99-3	PCB #52 2,2',5,5'-tetrachlorobiphenyl	
41464-43-9/33025-41-1	PCB #56/60 2,3,3',4'-tetrachlorobiphenyl /2,3,4,4'-tetrachlorobiphenyl	
33025-41-1	PCB #60 2,3,4,4'-tetrachlorobiphenyl	
52663-58-8	PCB #64 2,3,4',6-tetrachlorobiphenyl	
32598-10-0	PCB #66 2,3',4,4'-tetrachlorobiphenyl	
32598-11-1	PCB #70 2,3',4,5-tetrachlorobiphenyl	
32598-11-1/70362-48-0	PCB #70/76 2,3',4,5-tetrachlorobiphenyl/2',3,4,5-tetrachlorobiphenyl	
32690-93-0	PCB #74 2,4,4',5-tetrachlorobiphenyl	
65510-45-4	PCB #85 2,2',3,4,4'-pentachlorobiphenyl	
38380-02-8	PCB #87 2,2',3,4,5'-pentachlorobiphenyl	
52663-61-3	PCB #92 2,2',3,5,5'-pentachlorobiphenyl	
38379-99-6	PCB #95 2,2',3,5',6-pentachlorobiphenyl	
41464-51-1	PCB #97 2,2',3',4,5-pentachlorobiphenyl	
38380-01-7	PCB #99 2,2',4,4',5-pentachlorobiphenyl	
37680-73-2	PCB #101 2,2',4,5,5'-pentachlorobiphenyl	
37680-72-3/68194-07-0	PCB #101/90 2,2',4,5,5'-pentachlorobiphenyl/2,2',3,4',5-pentachlorobiphenyl	
32598-14-4	PCB #105 2,3,3',4,4'-pentachlorobiphenyl	
38380-03-9	PCB #110 2,3,3',4',6-pentachlorobiphenyl	
31508-00-6	PCB #118 2,3',4,4',5-pentachlorobiphenyl	
38380-07-3	PCB #128 2,2',3,3',4,4'-hexachlorobiphenyl	
55215-18-4	PCB #129 2,2',3,3',4,5-hexachlorobiphenyl	
52663-66-8	PCB #130 2,2',3,3',4,5'-hexachlorobiphenyl	
35694-06-5	PCB #137 2,2',3,4,4',5-hexachlorobiphenyl	
35065-28-2	PCB #138 2,2',3,4,4',5'-hexachlorobiphenyl	
52712-04-6	PCB #141 2,2',3,4,5,5'-hexachlorobiphenyl	
51908-16-8	PCB #146 2,2',3,4',5,5'-hexachlorobiphenyl	
38380-04-0	PCB #149 2,2',3,4',5',6-hexachlorobiphenyl	
52663-63-5	PCB #151 2,2',3,5,5',6-hexachlorobiphenyl	
35065-27-1	PCB #153 2,2',4,4',5,5'-hexachlorobiphenyl	

Non-coplanar PCB congeners reported for Herring Gulls at annual monitoring colonies in Table 12 (Volume I)

Non-coplanar PCB congeners	CAS #	COMPOUNDS	ABBREVIATION (not applicable)
38380-08-4		PCB #156 2,3,3',4,4',5-hexachlorobiphenyl	
69782-90-7		PCB #157 2,3,3',4,4',5'-hexachlorobiphenyl	
74472-42-7		PCB #158 2,3,3',4,4',6-hexachlorobiphenyl	
35065-30-6		PCB #170 2,2',3,3',4,4',5-heptachlorobiphenyl	
35065-30-6/41411-64-7		PCB #170 /190 2,2',3,3',4,4',5-heptachlorobiphenyl/ 2,3,3',4,4',5,6-heptachlorobiphenyl	
52663-71-5		PCB #171 2,2',3,3',4,4',6-heptachlorobiphenyl	
52663-74-8		PCB #172 2,2',3,3',4,5,5'-heptachlorobiphenyl	
38411-25-5		PCB #174 2,2',3,3',4,5,6'-heptachlorobiphenyl	
52663-65-7		PCB #176 2,2',3,3',4,6,6'-heptachlorobiphenyl	
52663-70-4		PCB #177 2,2',3,3',4,5,6-heptachlorobiphenyl	
52663-67-9		PCB #178 2,2',3,3',5,5',6-heptachlorobiphenyl	
52663-64-6		PCB #179 2,2',3,3',5,6,6'-heptachlorobiphenyl	
35065-29-3		PCB #180 2,2',3,4,4',5,5'-heptachlorobiphenyl	
60145-23-5		PCB #182 2,2',3,4,4',5,6'-heptachlorobiphenyl	
52663-69-1		PCB #183 2,2',3,4,4',5',6-heptachlorobiphenyl	
52712-05-7		PCB #185 2,2',3,4,5,5',6-heptachlorobiphenyl	
52663-68-0		PCB #187 2,2',3,4',5,5',6-heptachlorobiphenyl	
35694-08-7		PCB #194 2,2',3,3',4,4',5,5'-octachlorobiphenyl	
52663-78-2		PCB #195 2,2',3,3',4,4',5,6-octachlorobiphenyl	
42740-50-1/52663-76-0		PCB #196/203 2,2',3,3',4,4',5,6'-octachlorobiphenyl/ 2,2',3,4,4',5,5',6-octachlorobiphenyl	
52663-73-9		PCB #200 2,2',3,3',4,5',6,6'-octachlorobiphenyl	
40186-71-8		PCB #201 2,2',3,3',4,5',6,6'-octachlorobiphenyl	
2136-99-4		PCB #202 2,2',3,3',5,5',6,6'-octachlorobiphenyl	
52663-76-0		PCB #203 2,2',3,4,4',5,5',6-octachlorobiphenyl	
40186-72-9		PCB #206 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	
52663-79-3		PCB #207 2,2',3,3',4,4',5,6,6'-nonachlorobiphenyl	
52663-77-1		PCB #208 2,2',3,3',4,5,5',6,6'-nonachlorobiphenyl	

METHODOLOGICAL AND STATISTICAL NOTES SPECIFIC TO TABLES 11-12 (VOLUMES I & II)

1. All analytical data have been calculated on a wet weight basis.
2. Means and standard deviations for contaminant data are reported to four decimal places. For percent lipid and percent moisture they are reported to two decimal places. Trailing zeros in numerical values are truncated.
3. Dioxin and furan compounds are reported in pg/g (parts per trillion). All other compounds are reported in µg/g (parts per million).
4. All but one of the sample sizes reported as (N=1) represent a sample size of 3-13 eggs which were pooled and analyzed as a single sample. The exception is the Great Black-backed Gull sample from Gull Island, Presqu'ile Provincial Park collected in 1994. That sample size of one (N=1) represents an individual egg. One pooled sample consists of three eggs (Herring Gull eggs at Halfmoon Island, Lake Huron in 1994), one consists of four eggs (Great Black-backed Gull eggs at Pigeon Island, Lake Ontario in 1994) and one consists of six eggs (Herring Gull eggs at Pigeon Island, Lake Ontario in 1993). All other pooled samples consist of 7-13 eggs.

To provide a means for comparing values obtained by pooled analysis and individual analysis, some eggs were analyzed both ways within certain years at some colonies. When this was the case the data for pooled and individual analyses are presented in adjacent columns. Nonetheless it is not always the case that when samples were analyzed individually that they were also analyzed as pools. Eggs from the following colonies (and years) were only analyzed individually:

- Big Sister Island, Lake Michigan (1994)
- Agawa Rock, Lake Superior (1995)
- Granite Island, Lake Superior (1995)

To reduce analytical costs, from 1995 on, samples were only analyzed as pools.

5. From 1993 to 1996 the detection limits used in the analytical determination of PCBs, chlorinated benzenes, and organochlorine pesticides varied with the laboratory and methodology used. Changes in methodology principally affected determination and quantification of the PCBs. Detection limits have not been determined formally in every sample but, generally, the following can be used as a guide for samples collected from 1993-96:

All chlorinated benzenes	0.001 µg/g
All organochlorine pesticides	0.0003 µg/g
All polychlorinated biphenyls	0.01 µg/g

For Ring-billed Gull eggs collected in 1996, and all eggs collected in 1997, detection limits for all chlorinated hydrocarbons were established at 0.0001 µg/g. Trace levels were determined to be between 0.0001 and 0.0009 µg/g.

For dioxin and furan compounds the minimum detection limits occur between the ranges listed below:

1993-94		1995-97	
Tetrachlorodioxins/furans	1-2 pg/g	Tetrachlorodioxins/furans	0.1-2 pg/g
Pentachlorodioxins/furans	1-2 pg/g	Pentachlorodioxins/furans	0.1-2 pg/g
Hexachlorodioxins/furans	3-4 pg/g	Hexachlorodioxins/furans	0.1-4 pg/g
Heptachlorodioxins/furans	4-6 pg/g	Heptachlorodioxins/furans	0.1-6 pg/g
Octachlorodioxins/furans	6-7 pg/g	Octachlorodioxins/furans	0.1-7 pg/g

Fluctuations in the detection limits of dioxins and furans are subject to:

- The cleanliness of the samples at the time of analysis
- The sensitivity of the instrument used to perform the analysis (high or low resolution mass spectrometer). A low resolution mass spectrometer was used in 1993-94 and a high resolution mass spectrometer was used in 1995-97.
- The condition of the ion source of the mass spectrometer at any given time

Trace amounts below the detection limit (signal noise < 3) are estimated and values are placed in brackets, (). Compounds detected at the incorrect ion ration are indicated by 'i' next to the value.

6. From 1993-96 (and for data reported in previous editions of this Atlas) analyses were conducted by gas chromatography using an Electron Capture Detector (GC-ECD) system. In 1997 the gas chromatographic instrument used for the analysis was coupled to a Mass Selective Detector (GC-MSD). This did not affect the results for organochlorine compounds but it did affect the results of PCB congener analysis. The GC-MSD results for PCB congeners were more sensitive than they had been with GC-ECD. This resulted in the re-identification of some congeners, the detection of previously undetected congeners, and changes in the levels reported.

From 1993 to 1996, 42 non-coplanar PCBs were detected, they are the following:

28, 31, 42, 44, 49, 52, 60, 64, 66, 70, 74, 87, 97, 99, 101, 105, 110, 118, 128, 129, 137, 138, 141, 146, 149, 151, 153, 158, 170, 171, 172, 174, 180, 182, 183, 185, 194, 195, 200, 201, 203, 206.

A number of changes were made to the identity of particular PCB congeners when the methodology (GC-MSD) was changed in 1997. These changes were attributed to refinements in methodology and to the greater specificity of congener identification that is possible using the GC-MSD technology. Congener 129 was re-identified as PCB 178, and congener 182 was re-identified as PCB 187. Congener 185 was not reported via GC-MSD, it was reported but rarely detected in via GC-ECD (in one of 57 samples from 1993-96). Five congeners reported individually by GC-ECD and which co-elute from the gas chromatographic column were more properly identified in the newer reporting system which coincided with the adoption of GC-MSD. PCB 60 co-elutes with PCB 56 and is reported as PCB 56/60; similarly PCB 70 co-elutes with PCB 76 and is now reported as PCB 70/76; PCB 101 is now reported as PCB 101/90; PCB 170 is now reported as PCB 170/190; PCB 203 now is reported as PCB 196/203. Congeners 156, 171 and 202 co-eluted (and were reported as PCB 171) by GC-ECD, GC-MSD detected these congeners individually. Sixteen congeners were first reported in 1997: PCB16/32, PCB17, PCB18, PCB 22, PCB33/20, PCB 47/48, PCB 85, PCB 92, PCB 95, PCB 130, PCB157, PCB 176, PCB 177, PCB 179, PCB207 and PCB208. The total number of congeners reported by GC-MSD was 59.

For 1997, the value of sum PCB has been calculated in two ways, one based on 42 congeners eluted by GC-ECD and GC-MSD and the other based on 59 congeners eluted only by GC-MSD. Both values are indicated in adjacent cells of Table 11 in both volumes. When comparing 1997 values of sum PCB to those calculated in previous years the value based on 42 congeners should be used.

7. All PCB data are expressed as Aroclor 1254:1260 1:1 mixture or Aroclor 1260, as well as total PCB congeners. These Aroclor values were obtained using determination of PCB congeners #138 and 180.

However, the results of the Aroclor 1254:1260 1:1 mixture appear to be roughly twice that of results obtained by summing the PCB congeners (total PCB congeners). Factors have been calculated to convert Aroclor 1254:1260 1:1 mixture results to SUM PCB results for Herring Gulls in the Great Lakes only (Turle *et al.*, 1991). Those factors are:

Lake Ontario	0.461
Lake Erie	0.444
Lake Huron	0.484
Lake Superior	0.450

8. Organochlorine pesticide and PCB analyses were performed by Henry Won at the CWS National Wildlife Research Centre (NWRC) (Peakall *et al.*, 1986).
9. Dioxins, furans and coplanar PCB congeners were analyzed in 1993-94 by John Moisey using a low resolution mass spectrometer, in 1995-97 they were analyzed by Mary Simon using a high resolution mass spectrometer (Norstrom *et al.*, 1986). These analyses were done at NWRC. The methods have been automated.
10. Chlordane isomers have been presented as alpha-chlordane, trans-chlordane, and oxy-chlordane. Alpha-chlordane is synonymous with cis-chlordane, and trans-chlordane is synonymous with gamma-chlordane.



SECTION 1 – DATA SUMMARIZED BY SAMPLE SIZE

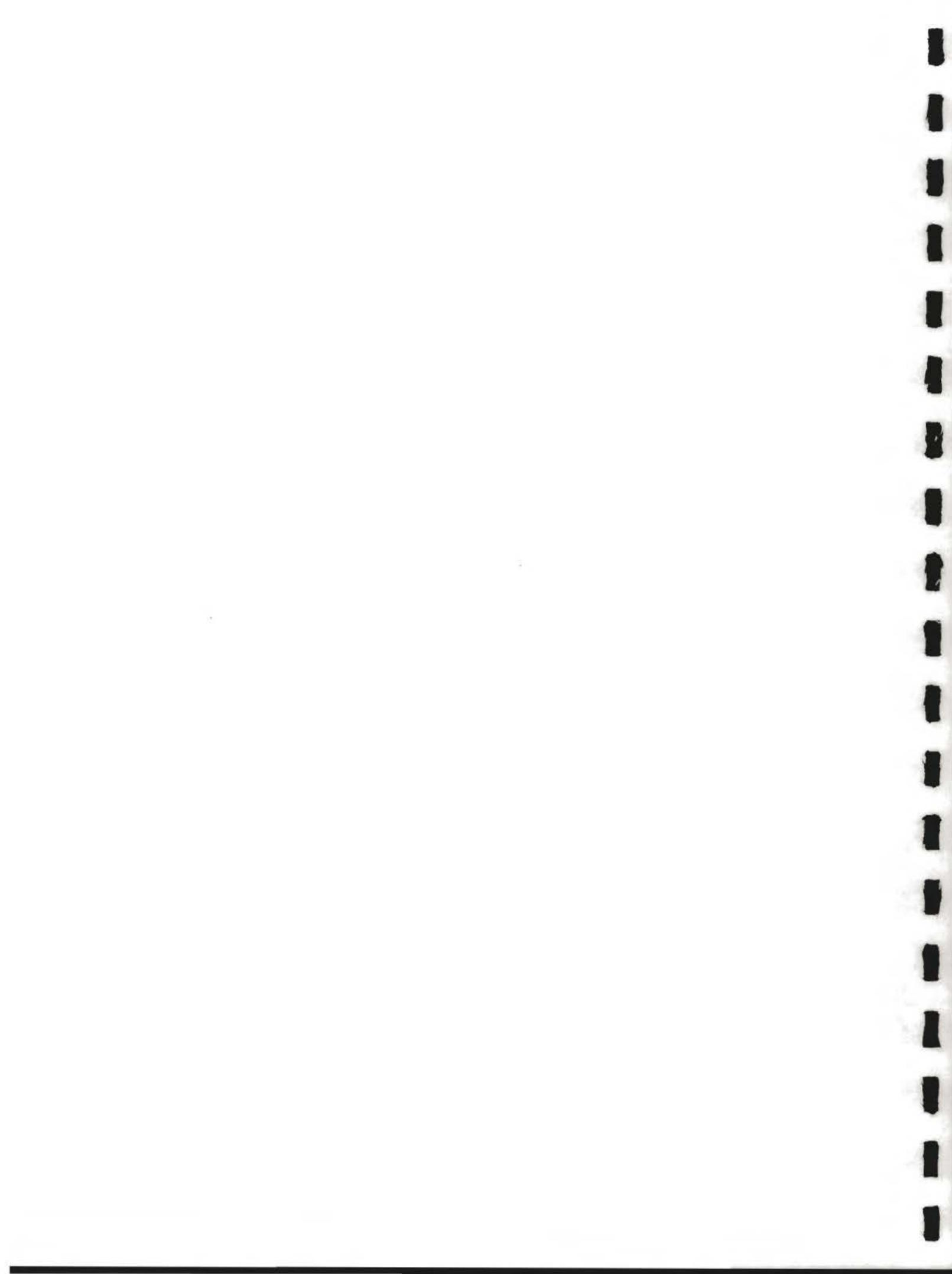
Figures 1-10. Colonies of Fish-Eating Birds from which Eggs Were Collected for:

- All Contaminant Analysis (1993-97) and
- Mercury Analysis in Herring Gull eggs (1992)

Tables 1-10. Sample Sizes of:

- All Eggs Collected (1993-97) and
- Herring Gull Eggs Collected for Mercury Analysis (1992)

Arranged by Collection Site, Species and Compound



LIST OF ABBREVIATIONS

Col. No.	Colony Number
Spec.	Species
Yr.	Year of Collection
DCCO	Double-crested Cormorant
GBBG	Great Black-backed Gull
HERG	Herring Gull
RBGU	Ring-billed Gull

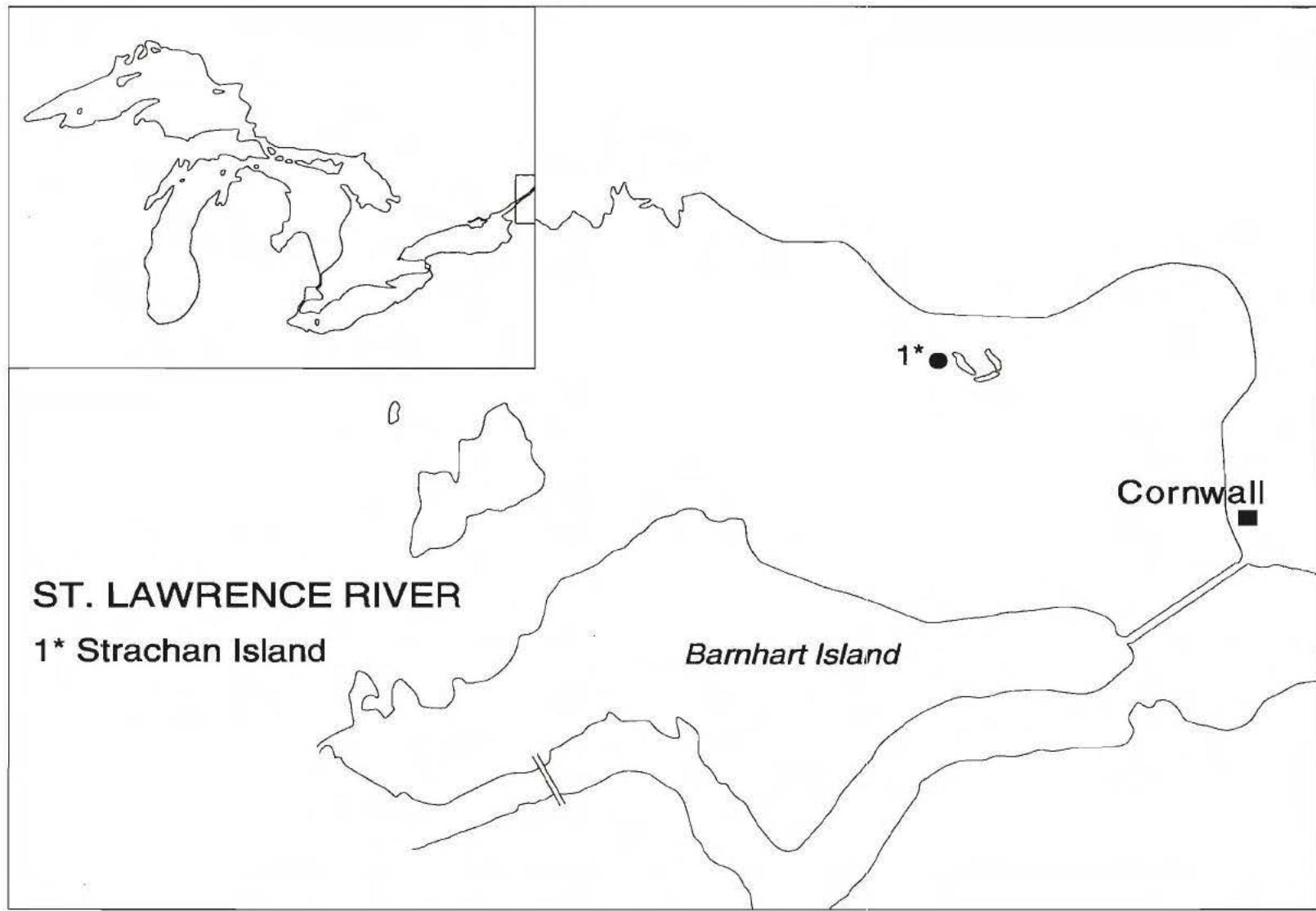


Figure 1. St. Lawrence River colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	%	%	a-	g-	o-	1234	1245	PoCB	HCB	DDD	DDE	DDT	Dieldrin	HE	a-	b-	g-	Hg	TCPM	MIR	P-	c-	t-	OCS	PCB	PCB	SUM	COP	Dioxin	Furan
					Lip	Mols	chl	chl	chl	CB	CB						HCH	HCH	HCH				MIR	non	non	1260	1264:	PCB	PCB	1260		
1*	DCCO	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	
	HERG	92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
		93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
		95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
		97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
	RBGU	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	

* For all 1992 data (except total mercury) see Pettit *et al.* (1994a,b).

Table 1. The sample sizes of eggs analyzed in each year (1992-1997) from the St. Lawrence River, arranged by collection site, species sampled and compound analyzed. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

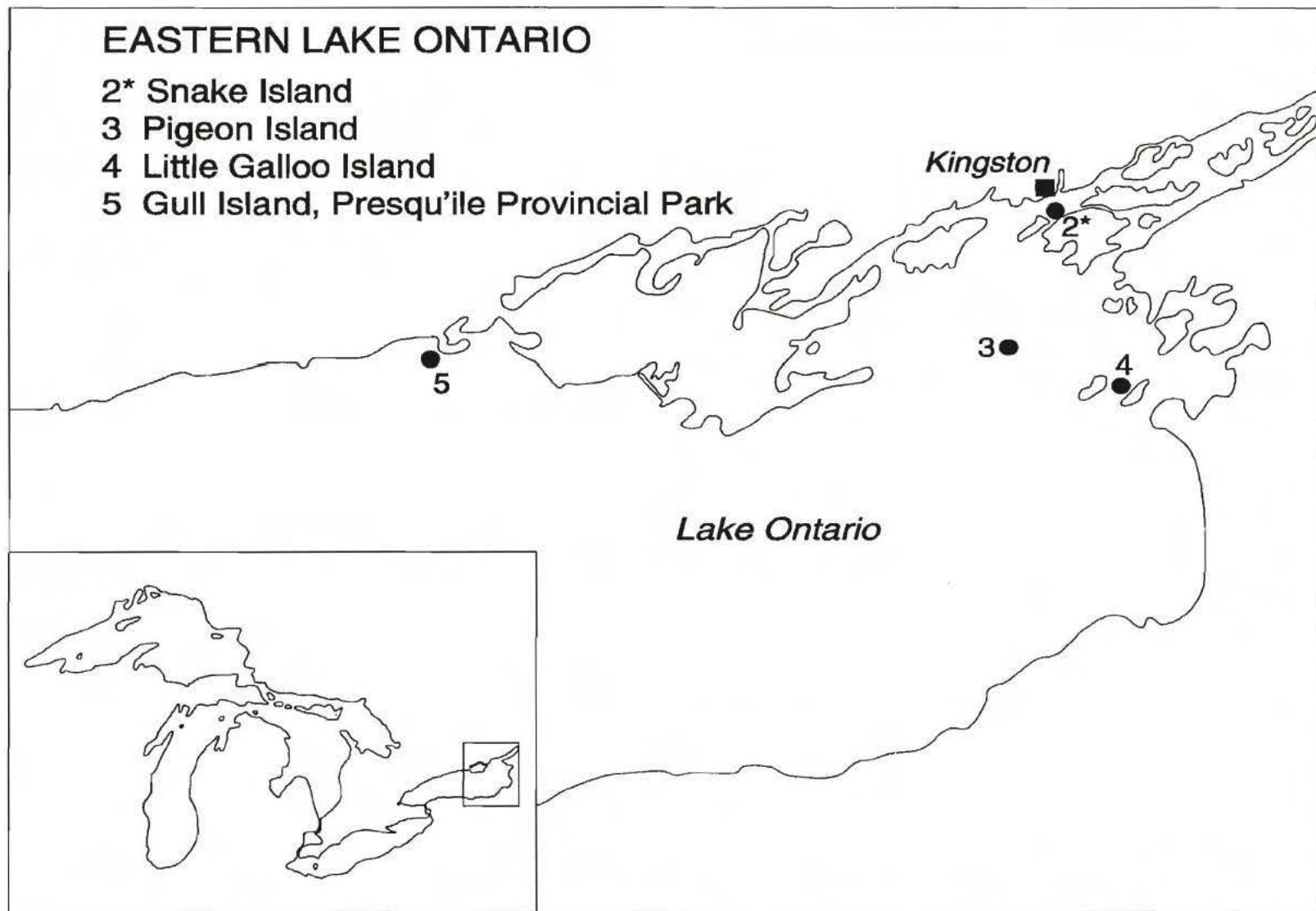


Figure 2. Eastern Lake Ontario colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec. Lip	Yr. 92*	% Mols	% chl	a- chil	g- chl	o- chl	1234- CB	1245- CB	PeCB	HCB	DDD	DDE	DDT	Diel	HE	a- HCH	b- HCH	g- HCH	Hg	TCPM	MIR	P- MIR	c- non	t- non	OCS	PCB 1260	PCB 1254:	SUM PCB 1260	COP PCB	Dioxin	Furan
2*	HERG	92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
		95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
		97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
3	DCCO	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	
		GBBG	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	
		94	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2	2	0	0	0	0	
		HERG	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1		
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
4	DCCO	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0		
		GBBG	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0		
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0		
		HERG	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1		
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1		
5	GBBG	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0		
		HERG	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1		

* For all 1992 data (except total mercury) see Pettit *et al.* (1994a,b).

Table 2. The sample sizes of eggs analyzed in each year (1992-1997) from eastern Lake Ontario, arranged by collection site, species sampled and compound analyzed. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

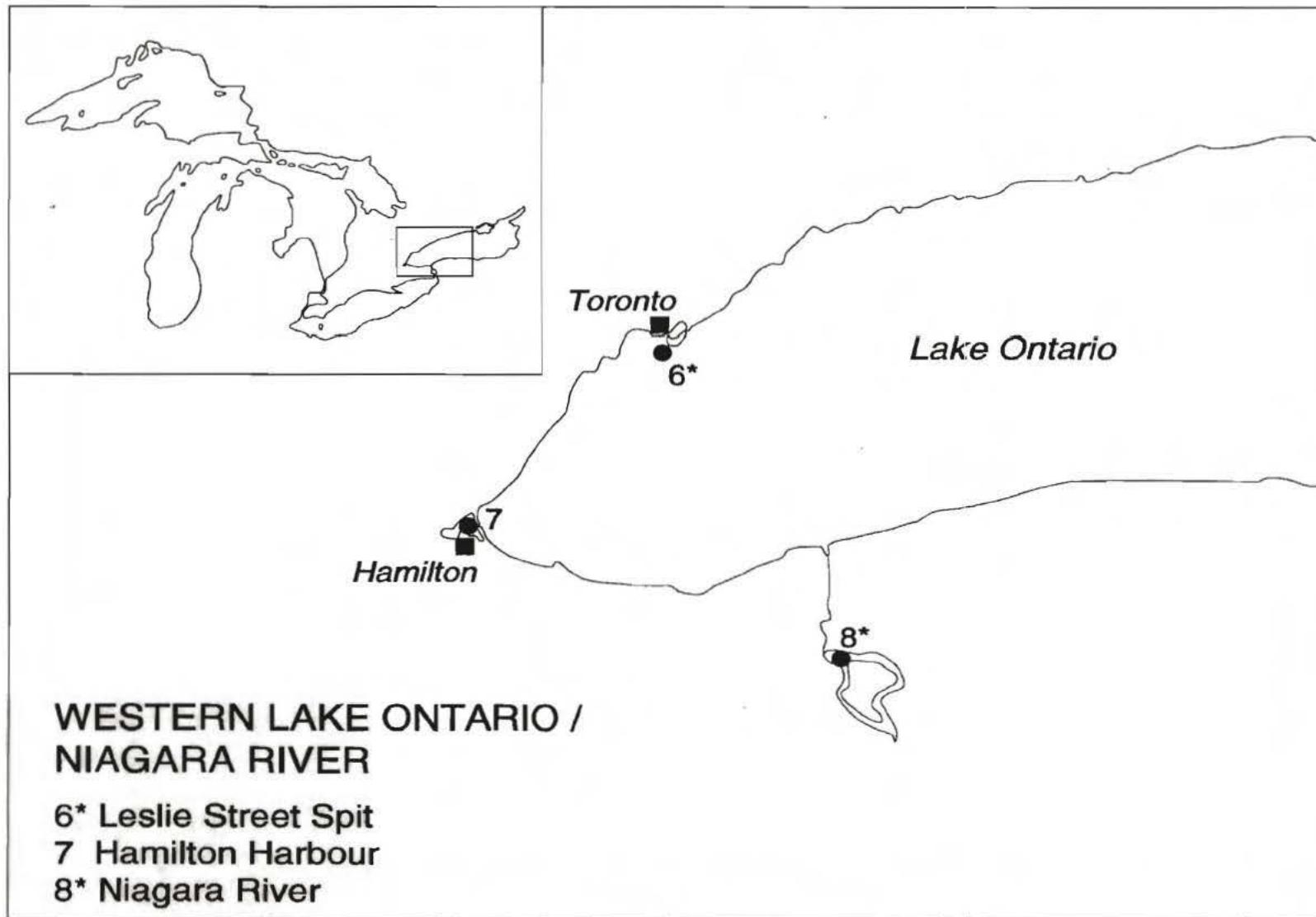


Figure 3. Western Lake Ontario and Niagara River colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec. Yr.	% Lip	% Mols	a- chl	g- chl	o- chl	1234- CB	1245- CB	PeCB	HCB	DDD	DDE	DDT	Diel	HE	a- HCH	b- HCH	g- HCH	Hg	TCPM	MIR	P- MIR	c- non	t- non	OCS	PCB 1260	PCB 1254:	SUM PCB 1260	COP	Dioxin	Furan	
6*	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	
	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
7	DCCO 95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0
	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1
	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	RBGU	94	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	1	
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	
8*	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	
	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	

* For all 1992 data (except total mercury) see Pettit *et al.* (1994a,b).

Table 3. The sample sizes of eggs analyzed in each year (1992-1997) from western Lake Ontario and the Niagara River arranged by collection site, species sampled and compound analyzed.

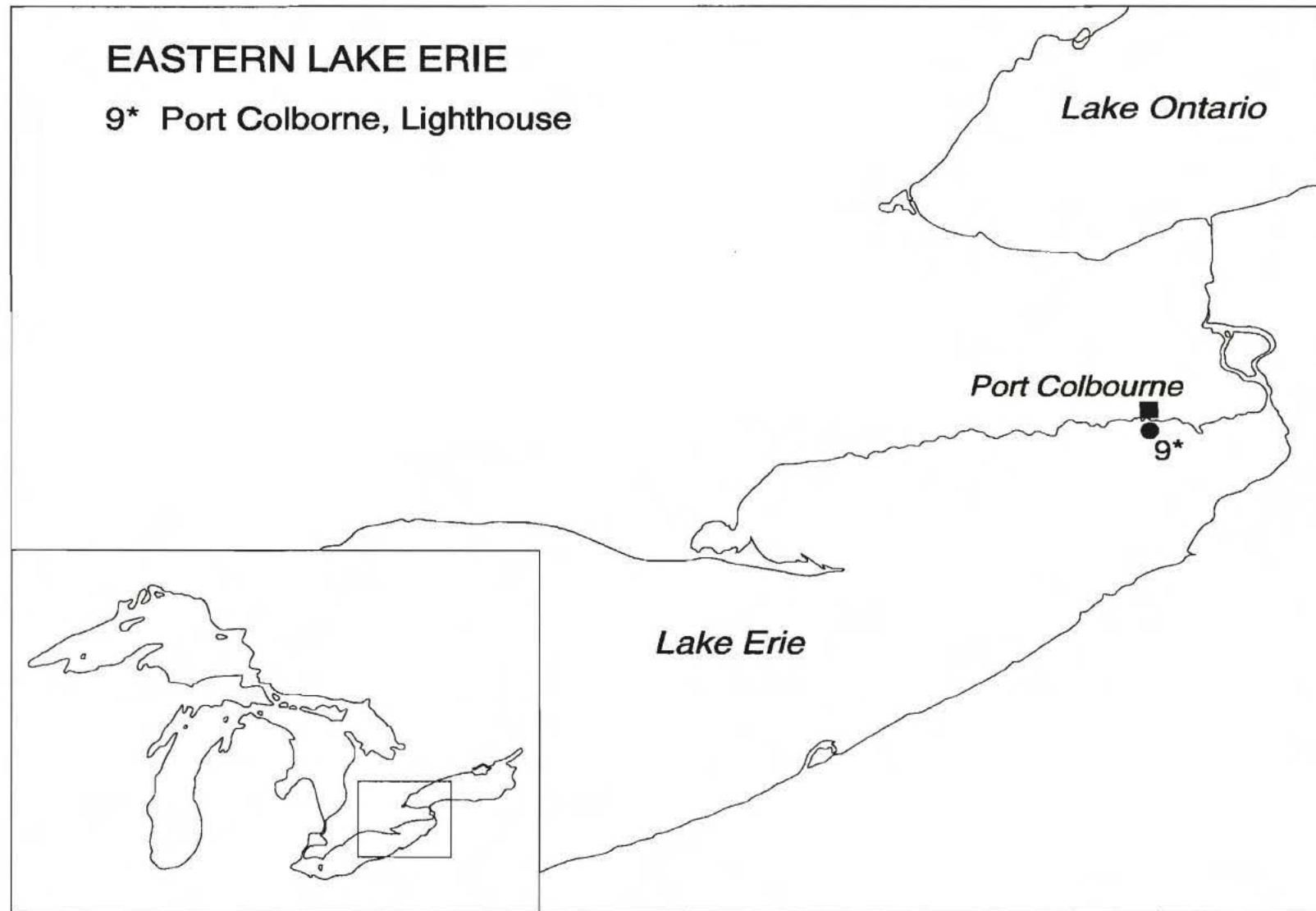


Figure 4. Eastern Lake Erie colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec. Yr.	% Lip	% Mols	a- chichi	g- chichi	o- CB	1234- PeCB	1245- HCB	DDD	DDE	DDT	Diel	HE	a- HCH	b- HCH	g- HCH	Hg	TCPM	MIR	P- MIR	c- non	t- non	OCS 1260	PCB 1260	SUM 1254: PCB	COP 1260	Dioxin	Furan
9*	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	
	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	
	96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	
	97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	

*For all 1992 data (except total mercury) see Pettit *et al.* (1994a,b).

Table 4. The sample sizes of eggs analyzed in each year (1992-1997) from eastern Lake Erie, arranged by collection site, species sampled and compound analyzed. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

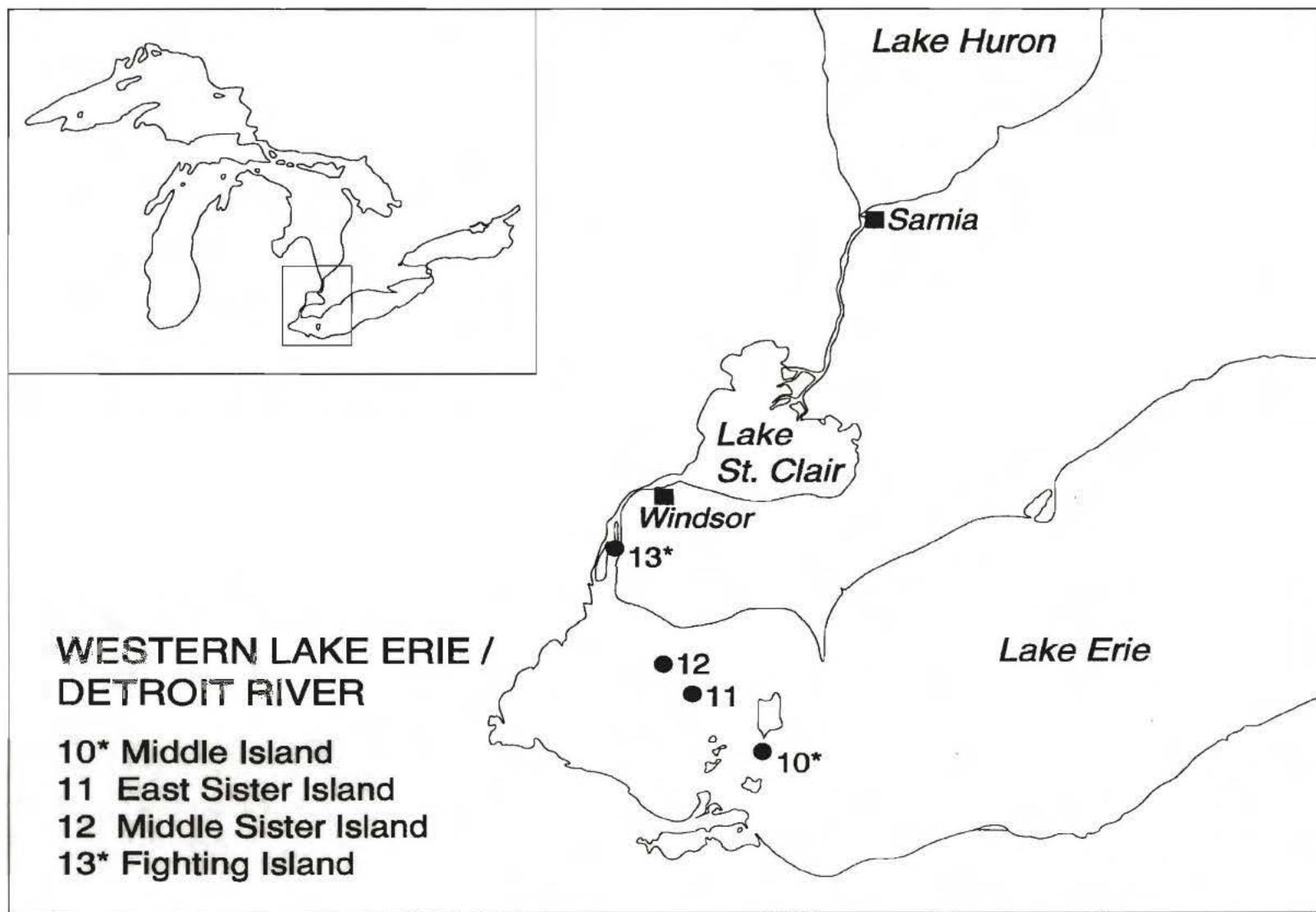


Figure 5. Western Lake Erie and Detroit River colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Molt	a- ch	g- ch	o- ch	1234- CB	1248- CB	PeCB	HCB	DDD	DDE	DDT	Diet	HE	a- HCH	b- HCH	g- HCH	Hg	TCPM	MIR	P- MIR	c- non	t- non	OCS	PCB 1260	PCB 1254: 1260	SUM PCB	COP PCB	Dioxin	Furan
10*	HERG	92 ^a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
		93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
		95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
		97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
11	DCCO	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0
12	HERG	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
13*	HERG	92 ^a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
		93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
		95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
		97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
	RBGU	96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0

* For all 1992 data (except total mercury) see Pettit *et al.* (1994a,b).

Table 5. The sample sizes of eggs analyzed in each year (1992-1997) from western Lake Erie and the Detroit River arranged by collection site, species sampled and compound analyzed. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

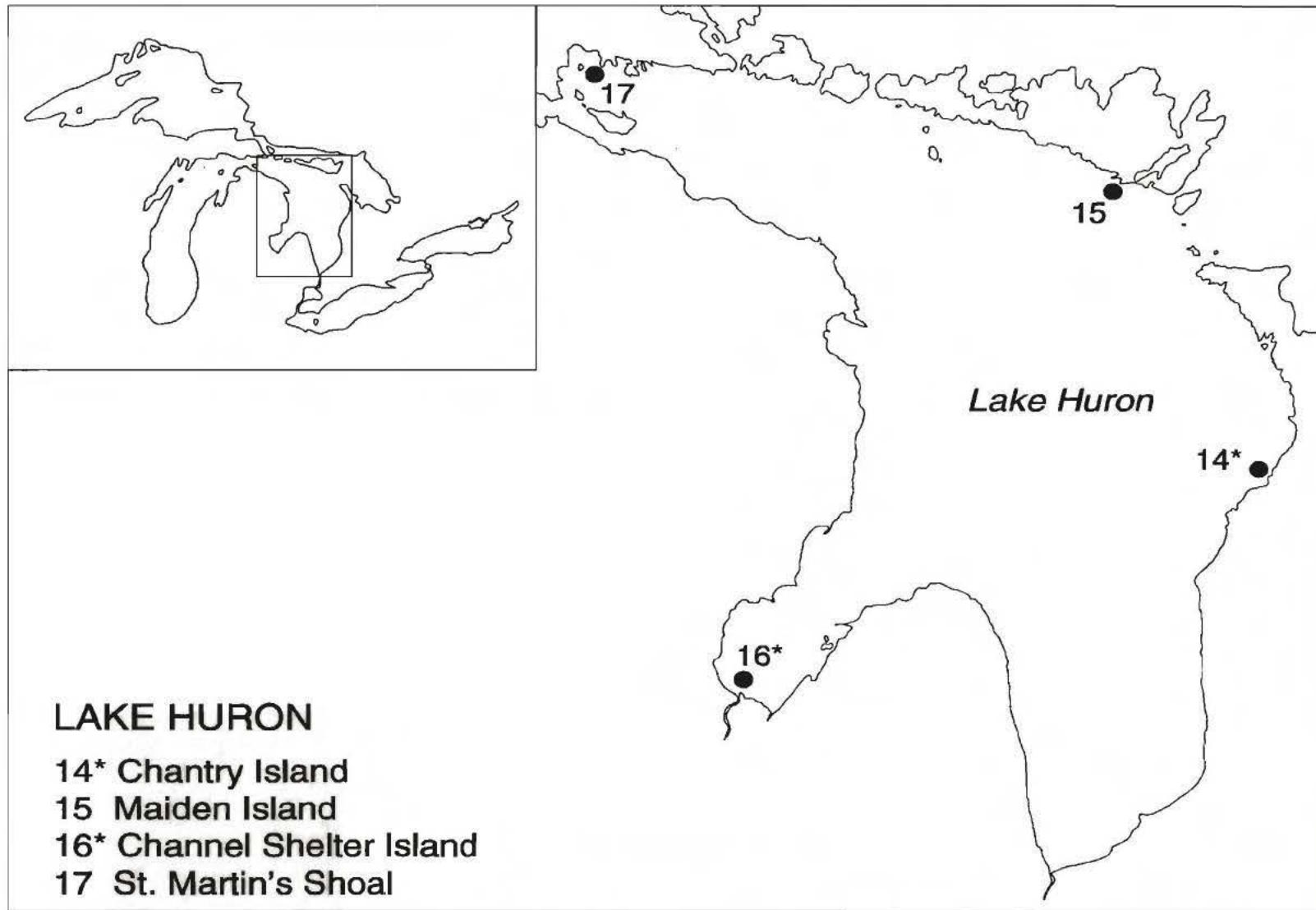


Figure 6. Lake Huron (main body) colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	%	%	a-	g-	c-	1234	1245	PoCB	HCB	DDD	DDE	DDT	Dial	HE	a-	b-	g-	Hg	TCPM	MIR	P-	c-	t-	OCS	PCB	PCB	SUM	COP	Dioxin	Furan	
					Lip	Mols	chichi	ch	CB	CB							HCH	HCH	HCH				non	non	1260	1264:	PCB	PCB	1260				
14*	HERG	92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		93	11	11	11	1	11	11	11	11	11	11	11	11	11	11	11	11	11	0	11	1	11	11	11	11	11	11	11	11	1	1	
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1		1	1	1	1	1	1	1	1	1	1	1
		95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1		1	1	1	1	1	1	1	1	1	1	1
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1		1	1	1	1	1	1	1	1	1	1	1
		97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1		1	1	1	1	1	1	1	1	1	1	1
15	HERG	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1		1	1	1	1	1	1	1	0	0	0	
16*	HERG	92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0	0	0	0	0	0	0	0	0	0	
		93	14	14	14	1	14	14	14	14	14	14	14	14	14	14	14	14	14	0	14	1	14	14	14	14	14	14	14	1	1		
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1		1	1	1	1	1	1	1	1	1	1	1
		95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1		1	1	1	1	1	1	1	1	1	1	1
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1		1	1	1	1	1	1	1	1	1	1	1
		97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1		1	1	1	1	1	1	1	1	1	1	1
17	HERG	92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0		0	0	0	0	0	0	0	0	0	0	

* For all 1992 data (except total mercury) see Pettit *et al.* (1994a,b).

Table 6. The sample sizes of eggs analyzed in each year (1992-1997) from Lake Huron (main body) arranged by collection site, species sampled and compound analyzed. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

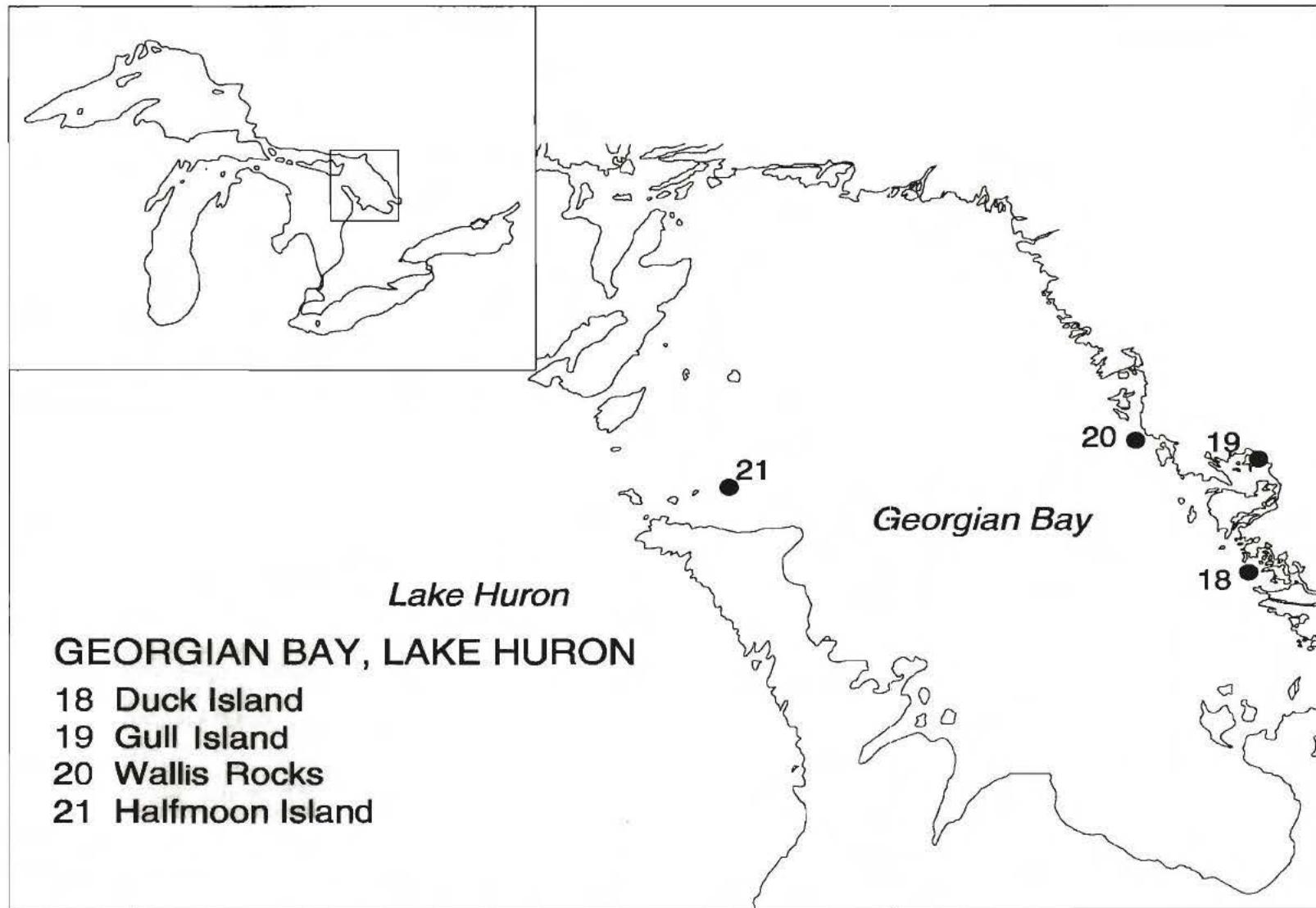


Figure 7. Georgian Bay (Lake Huron) colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Mols	a-chl	g-chl	c-1234	c-1245	PeCB	HCB	DDD	DDE	DDT	Dield	HE	a-HCH	b-HCH	g-HCH	Hg	TCPM	MIR	P-MIR	c-non	t-non	OCS	PCB 1260	PCB 1254:	SUM PCB	COP PCB	Dioxin 1260	Furan
18	HERG	93	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
19	HERG	93	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
20	DCCO	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0		
21	GBBG	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0		
	HERG	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0		

Table 7. The sample sizes of eggs analyzed in each year (1992-1997) from Georgian Bay (Lake Huron) arranged by collection site, species sampled and compound analyzed. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

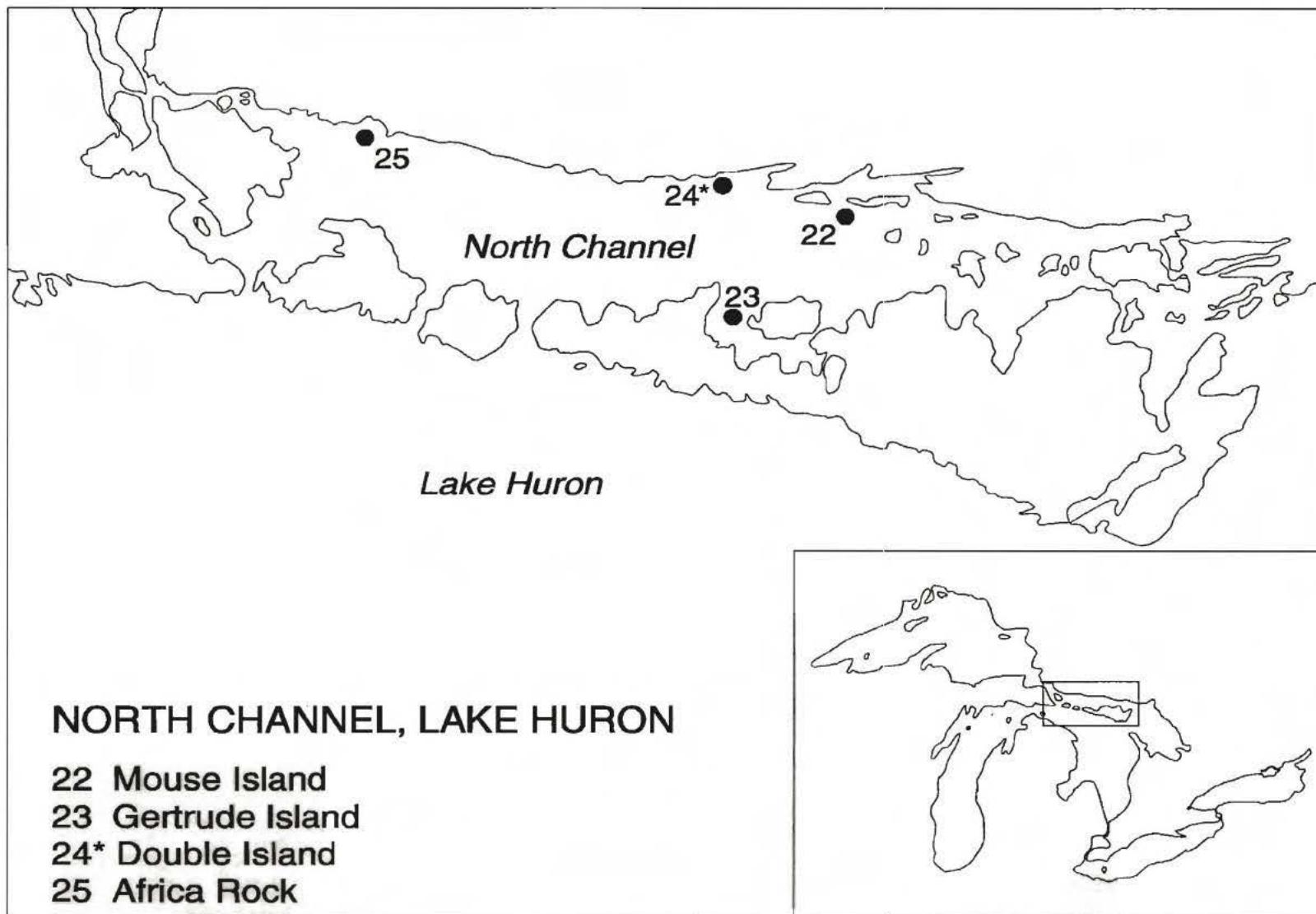


Figure 8. North Channel (Lake Huron) colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec. Yr.	% Lip	% Mols	a- ch	g- ch	o- ch	1234- CB	1245- CB	PeCB	HCB	DDD	DDE	DDT	Diel	HE	a- HCH	b- HCH	g- HCH	Hg	TCPM	MIR	P- MIR	c- non	i- non	OCS	PCB 1260	PCB 1254: 1260	SUM PCB	COP PCB	Dioxin	Furan
22	HERG	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
23	RBGU	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
24*	HERG	92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
		93	11	11	11	1	11	11	11	11	11	11	11	11	11	11	11	11	0	11	1	11	11	11	11	11	11	11	11		
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
		95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
		97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
25	DCCO	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0		

* For all 1992 data (except total mercury) see Pettit *et al.* (1994a,b).

Table 8. The sample sizes of eggs analyzed in each year (1992-1997) from North Channel (Lake Huron) arranged by collection site, species sampled and compound analyzed. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

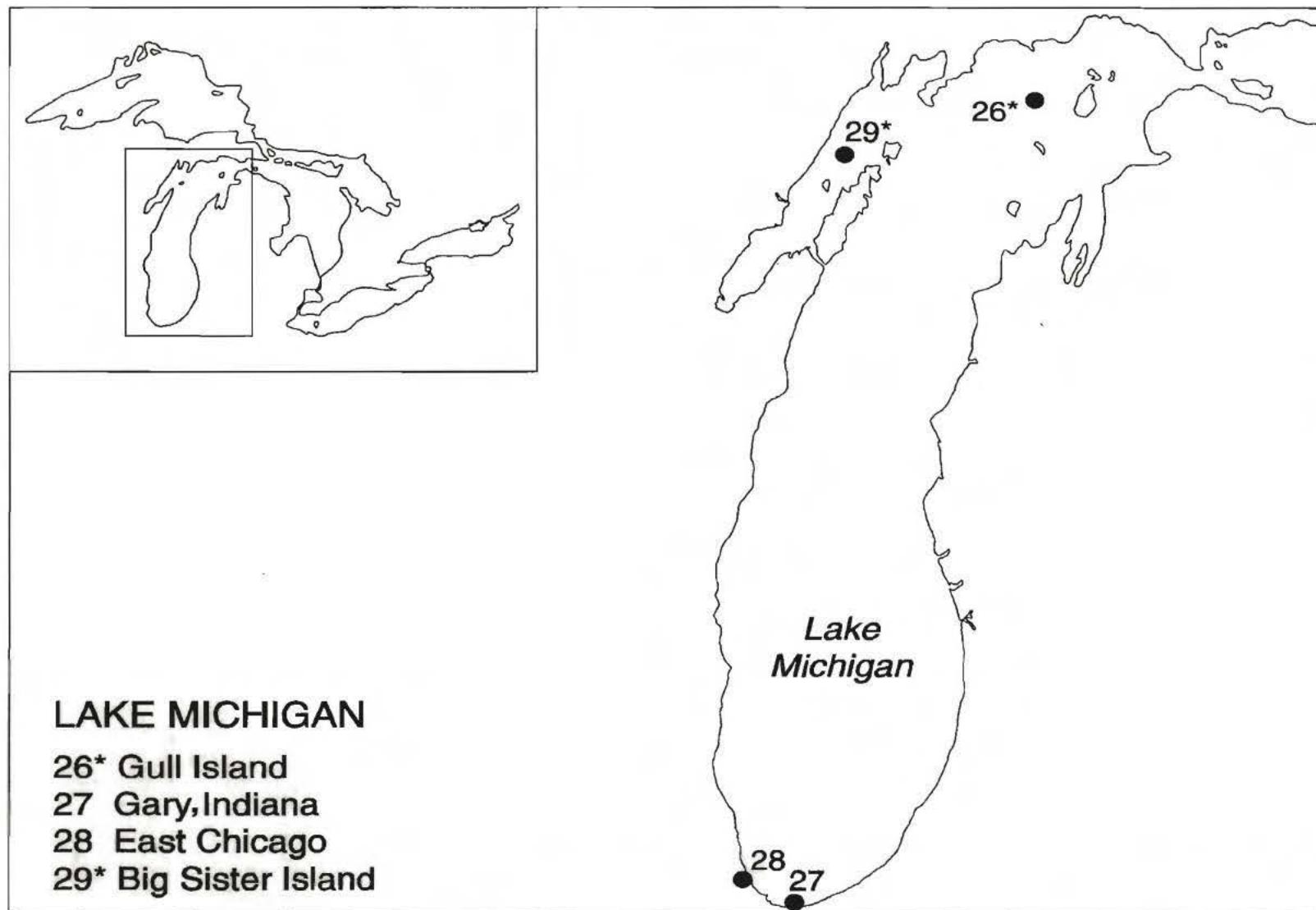


Figure 9. Lake Michigan colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	%	&	a-	g-	o-	1234	1245	PoCB	HCB	DDD	DDE	DDT	Diel	HE	a-	b-	g-	Hg	TCPM	MIR	P-	c-	t-	OCS	PCB	PCB	SUM	COP	Dioxin	Furan
					Lip	Mols	chichi	chichi	CB	CB							HCH	HCH	HCH			MIR	non	non	1260	1260	1264:	PCB	PCB	1260		
26*	HERG	92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
		93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	
		94	13	13	13	1	13	13	13	13	13	13	13	13	13	13	13	13	13	0	13	1	13	13	13	13	13	13	1	1	1	
		95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
		97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
27	HERG	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
28	HERG	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
		94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
		95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
29*	HERG	92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
		93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
		94	13	13	13	1	13	13	13	13	13	13	13	13	13	13	13	13	13	0	13	1	13	13	13	13	13	13	1	1	1	
		95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
		96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
		97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	

* For all 1992 data (except total mercury) see Pettit *et al.* (1994a,b).

Table 9. The sample sizes of eggs analyzed in each year (1992-1997) from Lake Michigan arranged by collection site, species sampled and compound analyzed. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

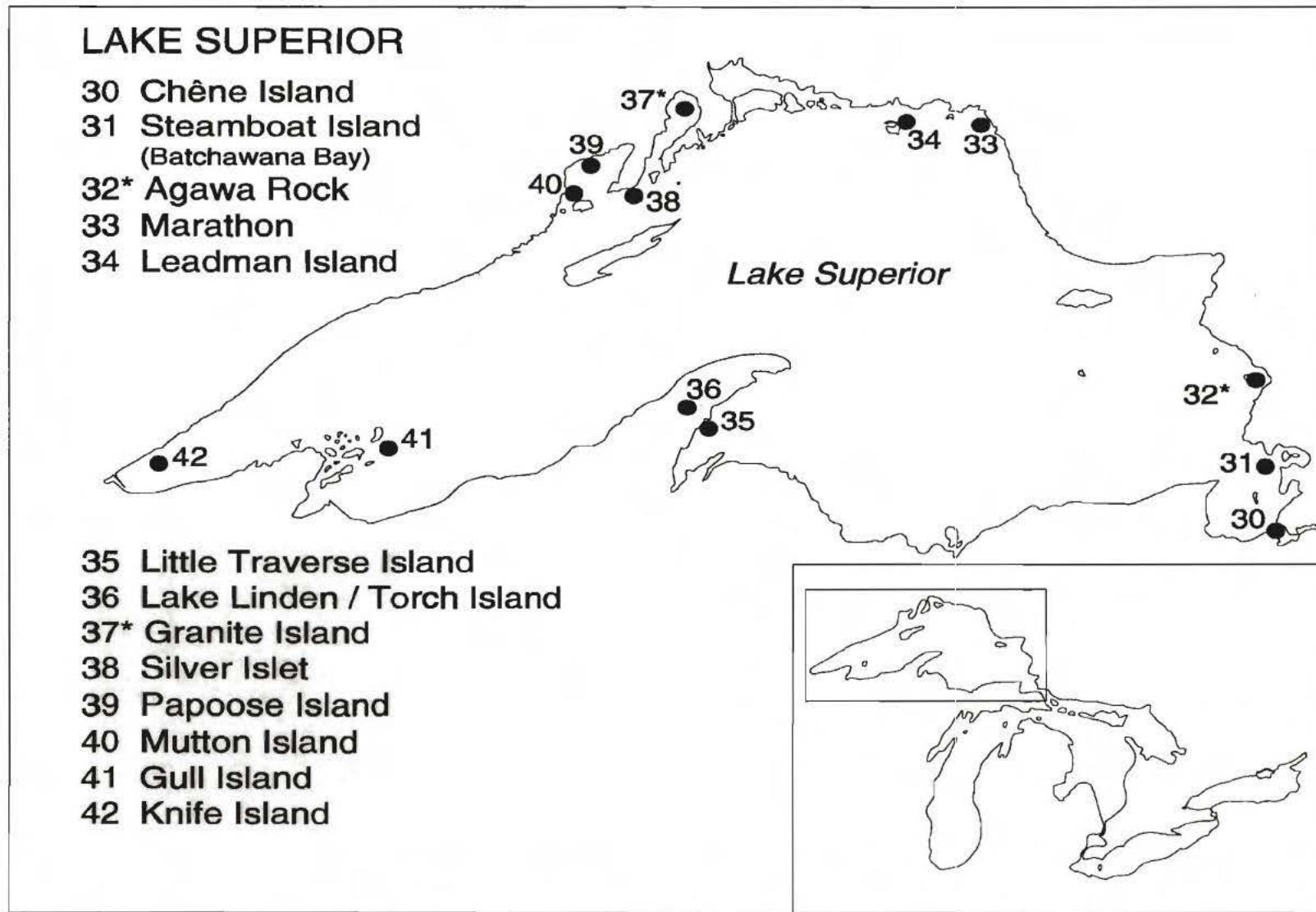


Figure 10. Lake Superior colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec. Yr.	% Lip	% Mols	a- chл	g- chl	o- chl	1234- CB	1245- CB	PoCB	HCB	DDD	DDE	DDT	Diel	HE	a- HCH	b- HCH	g- HCH	Hg	TCPM	MIR	P- MIR	c- non	t- non	OCS	PCB 1260	PCB 1254: 1260	SUM PCB	COP PCB	Dioxin	Furan
30	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
31	DCCO 95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0		
32*	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
	95	14	14	13	1	13	13	13	13	13	13	13	13	13	13	13	13	13	0	13	1	13	13	13	13	13	13	1	1		
	96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
	97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
33	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
34	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
35	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
36	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
37*	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
	93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	
	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
	95	14	14	13	1	13	13	13	13	13	13	13	13	13	13	13	13	13	0	13	1	13	13	13	13	13	13	1	1		
	97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
	RBGU 96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	
38	HERG 96	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		
39	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
40	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
41	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
42	HERG 92*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		

* For all 1992 data (except total mercury) see Pettit *et al.* (1994a,b).

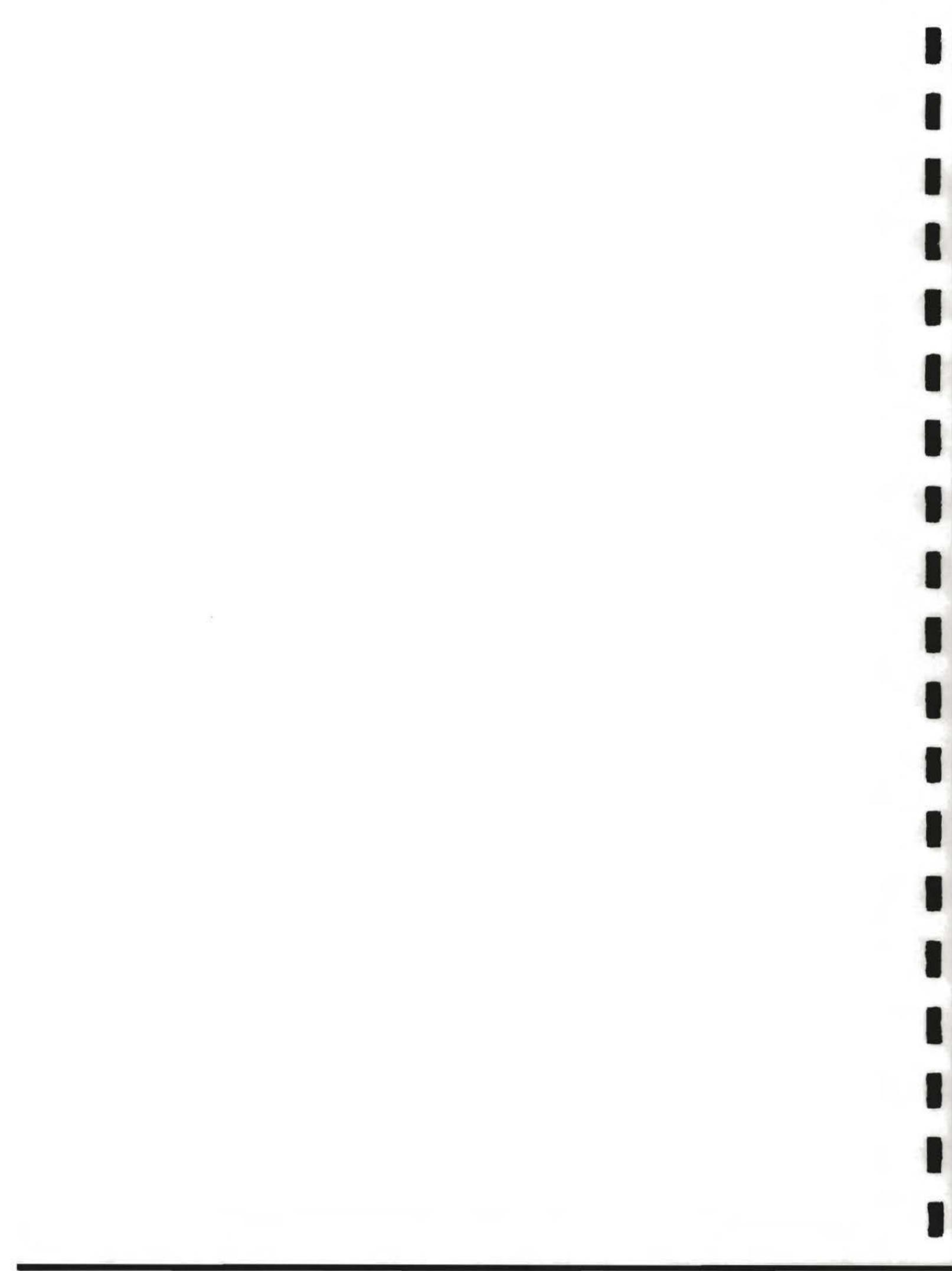
Table 10. The sample sizes of eggs analyzed in each year (1992-1997) from Lake Superior arranged by collection site, species sampled and compound analyzed. Herring Gull annual monitoring colonies are indicated by an asterisk (*).



SECTION 2 - DATA SUMMARIZED BY LOCATION

Index to Contaminant Data, Summarized by Location

Table 11. Contaminant Data, Summarized by Location



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TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
ST. LAWRENCE RIVER, STRACHAN ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
PERCENT LIPID IN EGG	N	1
	MEAN	5.4
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	83.6
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	ND
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.0173
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	0.0068
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0109
	STD	
DDD	N	1
	MEAN	0.0012
	STD	
DDE	N	1
	MEAN	1.625
	STD	
DDT	N	1
	MEAN	0.0086
	STD	
DIELDRIN	N	1
	MEAN	0.0249
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.0112
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0033
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.002
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0131
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
ST. LAWRENCE RIVER, STRACHAN ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
MIREX	N	1
	MEAN	0.159
	STD	
PHOTOMIREX	N	1
	MEAN	0.0485
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0082
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.01
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0114
	STD	
PCB: 1260	N	1
	MEAN	4.8709
	STD	
PCB:1254-1260	N	1
	MEAN	8.6261
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	4.7965
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	MEAN	0
12378-	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	MEAN	0
123478-	STD	
HEXAChLORODIBENZO-p-DIOXIN	MEAN	0
123678-	STD	
HEXAChLORODIBENZO-p-DIOXIN	MEAN	0
123789- HEXACHLORODIBENZO-p-DIOXIN	STD	
	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
ST. LAWRENCE RIVER, STRACHAN ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
ST. LAWRENCE RIVER, STRACHAN ISLAND

HERRING GULL		YEAR					
		92	93	94	95	96	97
PERCENT LIPID IN EGG	N	0	1	1	1	1	1
	MEAN		8.7	8.7	8.5	7.6	8.04
	STD						
PERCENT MOISTURE IN EGG	N	0	1	1	1	1	1
	MEAN		76.8	76.5	76.4	77.5	76.08
	STD						
CIS/ALPHA-CHLORDANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
TRANS/GAMMA-CHLORDANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
OXYCHLORDANE	N	0	1	1	1	1	1
	MEAN		0.0631	0.065	0.0492	0.0634	0.03
	STD						
1234-CHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
1245-CHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
PENTACHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	0.001
	STD						
HEXACHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		0.0285	0.0303	0.0112	0.0286	0.017
	STD						
DDD	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	0.002
	STD						
DDE	N	0	1	1	1	1	1
	MEAN		3.004	2.7792	1.9829	2.4391	1.697
	STD						
DDT	N	0	1	1	1	1	1
	MEAN		0.0189	0.0139	0.0089	0.0087	0.004
	STD						
DIELDRIN	N	0	1	1	1	1	1
	MEAN		0.0683	0.066	0.0348	0.0799	0.049
	STD						
HEPTACHLOR EPOXIDE	N	0	1	1	1	1	1
	MEAN		0.0379	0.0422	0.0202	0.0335	0.017
	STD						
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
TOTAL MERCURY	N	1	0	0	0	0	0
	MEAN		0.1679				
	STD						
TRIS (4-CHLOROPHENYL)METHANOL	N	0	1	1	1	1	1
	MEAN		0.0102	0.0081	0.004	ND	ND
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
ST. LAWRENCE RIVER, STRACHAN ISLAND

HERRING GULL	YEAR					
	92	93	94	95	96	97
MIREX	N MEAN STD	0 0.5476 0.351	1 0.5745 0.121	1 0.481 0.015	1 0.5414 0.0272	1 0.351 0.015
PHOTOMIREX	N MEAN STD	0 0.2092 0.121	1 0.203 0.015	1 0.1724 0.009	1 0.2099 0.0574	1 0.121 0.009
CIS-NONACHLOR	N MEAN STD	0 0.0301 0.015	1 0.0272 0.0194	1 0.0194 0.0272	1 0.0272 0.0137	1 0.015 0.005
TRANS-NONACHLOR	N MEAN STD	0 0.0577 0.009	1 0.0641 0.0473	1 0.0473 0.0574	1 0.0574 0.0137	1 0.009 0.005
OCTACHLOROSTYRENE	N MEAN STD	0 0.0187 0.005	1 0.0172 ND	1 ND 0.0137	1 0.0137 0.005	1 0.005
PCB: 1260	N MEAN STD	0 8.2893 6.7273	1 9.2519 8.184	1 8.0301 8.184	1 8.184 6.7273	1 6.7273
PCB:1254-1260	N MEAN STD	0 18.809 13.9758	1 19.9973 16.9023	1 16.2863 16.9023	1 16.9023 13.9758	1 13.9758
TOTAL PCB CONGENERS	N MEAN STD	0 9.6923 8.461	1 10.7764 9.531	1 8.2678 9.531	1 9.7064 9.531	1 8.461
(Based on 42 congeners) ^A						
TOTAL PCB CONGENERS	N MEAN STD					1
(Based on 59 congeners) ^A	N MEAN STD					9.531
PCB 37 3, 4, 4'-TRICHLOROBIPHENYL	N MEAN STD	0 0.0001 <0.0001	1 <0.0001 <0.0001	1 <0.0001 <0.0001	1 <0.0001 <0.0001	1 <0.0001
PCB 77 3, 3', 4, 4'-TETRACHLOROBIPHENYL	N MEAN STD	0 0.0006 0.0003	1 0.0002 0.0003	1 0.0002 0.0003	1 0.0003 0.0003	1 0.0003
PCB 81 3,4,4',5-TETRACHLOROBIPHENYL	N MEAN STD	0 0 0	0 0.0001 <0.0001	0 1 0.0001	1 1 0.0001	1 0.0001
PCB 126 3, 3', 4, 4', 5-PENTACHLOROBIPHENYL	N MEAN STD	0 0.0011 0.0017	1 0.0020 0.0017	1 0.0020 0.0017	1 0.0017 0.0015	1 0.0015
PCB 169 3, 3', 4, 4', 5, 5'-HEXAChLOROBIPHENYL	N MEAN STD	0 0.0001 0.0001	1 0.0002 0.0001	1 0.0002 0.0001	1 0.0001 0.0001	1 0.0001
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0	0 <0.0001 <0.0001	1 1 <0.0001	1 1 <0.0001	1 1 <0.0001
2378-TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 26.1 10.52	1 39.3 10.52	1 11.25 10.52	1 19.6 10.52	1 19.6 10.52
12378-PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 7 1.74	1 4.1 1.74	1 ND 2.23	1 1 2.23	1 1 1.74
123478-HEXAChLORODIBENZO-p-DIOXIN	N MEAN STD	0 ND ND	1 ND ND	1 ND ND	1 ND ND	1 ND ND
123678-HEXAChLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.3) ND	1 7.3 ND	1 ND 2.85	1 ND 1.98	1 ND 1.98
123789-HEXAChLORODIBENZO-p-DIOXIN	N MEAN STD	0 ND (0.17)	1 ND ND	1 ND ND	1 ND ND	1 ND ND

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
ST. LAWRENCE RIVER, STRACHAN ISLAND

HERRING GULL	YEAR					
	92	93	94	95	96	97
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	(1.5)	2.24	1.78
p-DIOXIN	STD					1.12
OCTACHLORODIBENZO-	N	0	1	1	1	1
p-DIOXIN	MEAN		ND	(0.8)	4.38	2.35
	STD					2.64
2378-	N	0	1	1	1	1
TETRACHLORODIBENZO-	MEAN		3.3	ND	ND	ND
FURAN	STD					
12468-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				ND	(0.15)
FURAN	STD					
12478-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				ND	0.84
FURAN	STD					
12378-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	ND	ND	ND
FURAN	STD					
23478-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		(4.3)	6.7	ND	2.9
FURAN	STD					0.99
23467-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
124678-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
124689-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					(0.2)
123478-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.3)	ND	1.89
FURAN	STD					0.7
123678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.3)	ND	1.29
FURAN	STD					0.54
123789-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.3)	ND	0.93
FURAN	STD					0.42
234678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	ND	ND
FURAN	STD					
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	ND	0.38
FURAN	STD					
1234689-	N	0	0	0	1	1
HEPTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
1234789-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	ND	(0.09)
FURAN	STD					
OCTACHLORODIBENZO-	N	0	1	1	1	1
FURAN	MEAN		ND	(0.6)	ND	0.51
	STD					ND

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
ST. LAWRENCE RIVER, STRACHAN ISLAND

RING-BILLED GULL	YEAR		
	94	96	
PERCENT LIPID IN EGG	N MEAN STD	1 9.7 1	1 8.55
PERCENT MOISTURE IN EGG	N MEAN STD	1 75.3 1	1 76.38
CIS/ALPHA-CHLORDANE	N MEAN STD	1 ND 1	1 0.002
TRANS/GAMMA-CHLORDANE	N MEAN STD	1 ND 1	1 ND
OXYCHLORDANE	N MEAN STD	1 0.021 1	1 0.015
1234-CHLOROBENZENE	N MEAN STD	1 ND 1	1 TR
1245-CHLOROBENZENE	N MEAN STD	1 ND 1	1 0.003
PENTACHLOROBENZENE	N MEAN STD	1 ND 1	1 0.003
HEXACHLOROBENZENE	N MEAN STD	1 0.0082 1	1 0.006
DDD	N MEAN STD	1 ND 1	1 TR
DDE	N MEAN STD	1 0.3681 1	1 0.545
DDT	N MEAN STD	1 0.0065 1	1 0.002
DIELDRIN	N MEAN STD	1 0.0534 1	1 0.122
HEPTACHLOR EPOXIDE	N MEAN STD	1 0.0119 1	1 0.014
ALPHA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND 1	1 ND
BETA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND 1	1 ND
GAMMA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND 1	1 ND
TOTAL MERCURY	N MEAN STD	0 ND 0	0 0
TRIS (4-CHLOROPHENYL) METHANOL	N MEAN STD	1 ND 1	1 ND

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
ST. LAWRENCE RIVER, STRACHAN ISLAND

RING-BILLED GULL	YEAR	
	94	96
MIREX	N MEAN STD	1 0.0152 0.016
PHOTOMIREX	N MEAN STD	1 0.0061 0.01
CIS-NONACHLOR	N MEAN STD	1 ND 0.006
TRANS-NONACHLOR	N MEAN STD	1 0.0367 0.031
OCTACHLOROSTYRENE	N MEAN STD	1 ND 0.001
PCB: 1260	N MEAN STD	1 0.3938 0.3558
PCB:1254-1260	N MEAN STD	1 0.9652 0.9178
TOTAL PCB CONGENERS	N MEAN STD	1 0.4606 0.5498
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0
2378- TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 0 0
12378- PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 0 0
123478- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 0 0
123678- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 0 0
123789- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 0 0

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
ST. LAWRENCE RIVER, STRACHAN ISLAND

RING-BILLED GULL	YEAR	
	94	96
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	0
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	0
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	0
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	0
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	0
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	0
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	0
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, SNAKE ISLAND

HERRING GULL	YEAR					
	92	93	94	95	96	97
PERCENT LIPID IN EGG	N MEAN STD	0 9 1	1 9.2 1	1 8.8 1	1 8.5 1	1 7.33 1
PERCENT MOISTURE IN EGG	N MEAN STD	0 76.7 1	1 77.1 1	1 76.3 1	1 76.6 1	1 77.12 1
CIS/ALPHA-CHLORDANE	N MEAN STD	0 ND 1	1 0.0067 1	1 ND 1	1 ND 1	1 TR 1
TRANS/GAMMA-CHLORDANE	N MEAN STD	0 ND 1	1 ND 1	1 0.0184 1	1 ND 1	1 ND 1
OXYCHLORDANE	N MEAN STD	0 0.1198 1	1 0.0962 1	1 0.069 1	1 0.0839 1	1 0.052 1
1234-CHLOROBENZENE	N MEAN STD	0 ND 1	1 ND 1	1 ND 1	1 ND 1	1 TR 1
1245-CHLOROBENZENE	N MEAN STD	0 ND 1	1 ND 1	1 ND 1	1 ND 1	1 TR 1
PENTACHLOROBENZENE	N MEAN STD	0 ND 1	1 ND 1	1 ND 1	1 ND 1	1 0.003 1
HEXACHLOROBENZENE	N MEAN STD	0 0.0494 1	1 0.0522 1	1 0.0217 1	1 0.0334 1	1 0.02 1
DDD	N MEAN STD	0 ND 1	1 ND 1	1 ND 1	1 ND 1	1 0.002 1
DDE	N MEAN STD	0 6.6153 1	1 4.0099 1	1 2.5882 1	1 2.623 1	1 2.818 1
DDT	N MEAN STD	0 0.0533 1	1 0.0295 1	1 0.0139 1	1 0.0087 1	1 0.007 1
DIELDRIN	N MEAN STD	0 0.1702 1	1 0.1547 1	1 0.0501 1	1 0.0911 1	1 0.066 1
HEPTACHLOR EPOXIDE	N MEAN STD	0 0.0843 1	1 0.0799 1	1 0.0311 1	1 0.0416 1	1 0.026 1
ALPHA-HEXACHLOROCYCLOHEXANE	N MEAN STD	0 ND 1	1 ND 1	1 ND 1	1 ND 1	1 ND 1
BETA-HEXACHLOROCYCLOHEXANE	N MEAN STD	0 ND 1	1 ND 1	1 ND 1	1 ND 1	1 ND 1
GAMMA-HEXACHLOROCYCLOHEXANE	N MEAN STD	0 ND 1	1 ND 1	1 ND 1	1 ND 1	1 ND 1
TOTAL MERCURY	N MEAN STD	1 0.2139	0 0	0 0	0 0	0 0
TRIS (4-CHLOROPHENYL) METHANOL	N MEAN STD	0 0.0171	1 0.0138	1 0.0073	1 ND	1 ND

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, SNAKE ISLAND

HERRING GULL		YEAR					
		92	93	94	95	96	97
MIREX	N	0	1	1	1	1	1
	MEAN	0.8698	0.7429	0.5349	0.5738	0.488	
	STD						
PHOTOMIREX	N	0	1	1	1	1	1
	MEAN	0.3722	0.2884	0.2148	0.2283	0.192	
	STD						
CIS-NONACHLOR	N	0	1	1	1	1	1
	MEAN	0.063	0.0568	0.0326	0.0343	0.027	
	STD						
TRANS-NONACHLOR	N	0	1	1	1	1	1
	MEAN	0.0896	0.0823	0.0389	0.0409	0.015	
	STD						
OCTACHLOROSTYRENE	N	0	1	1	1	1	1
	MEAN	0.0322	0.0246	ND	0.0131	0.009	
	STD						
PCB: 1260	N	0	1	1	1	1	1
	MEAN	9.172	8.5821	6.9699	6.2562	7.0056	
	STD						
PCB:1254-1260	N	0	1	1	1	1	1
	MEAN	23.3367	19.9495	14.7552	13.9862	14.997	
	STD						
TOTAL PCB CONGENERS	N	0	1	1	1	1	1
(Based on 42 congeners) ^A	MEAN	10.3326	9.1722	6.9411	7.1097	7.659	
	STD						
TOTAL PCB CONGENERS	N						1
(Based on 59 congeners) ^A	MEAN						8.369
	STD						
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0	0	<0.0001	<0.0001	<0.0001	<0.0001
	MEAN						
	STD						
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			0.0002	0.0002	0.0006	0.0001
	STD						
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0	0	0	1	1	1
	MEAN				0.0001	0.0003	0.0001
	STD						
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			0.0012	0.0025	0.0024	0.0013
	STD						
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			0.0001	0.0002	0.0002	0.0001
	STD						
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0	0	0	<0.0001	<0.0001	<0.0001
	MEAN						
	STD						
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1	1
	MEAN		67.4	61.2	30.32	25.75	13.44
	STD						
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1	1
	MEAN		12.8	11	4.44	4.39	2.46
	STD						
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	ND	ND
	MEAN		ND	(0.6)	ND	ND	ND
	STD						
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1	1
	MEAN		11.3	12.5	7.2	5.67	2.39
	STD						
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	ND	ND
	MEAN		ND	(0.4)	ND	ND	ND
	STD						

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, SNAKE ISLAND

HERRING GULL	YEAR					
	92	93	94	95	96	97
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	43.2	2.85	1.54
p-DIOXIN	STD					0.89
OCTACHLORDIBENZO-	N	0	1	1	1	1
p-DIOXIN	MEAN		ND	(0.8)	5.31	3.16
	STD					1.53
2378-	N	0	1	1	1	1
TETRACHLORODIBENZO-	MEAN		ND	ND	ND	ND
FURAN	STD					
12468-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				0.94	ND
FURAN	STD					ND
12478-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				1.55	1.95
FURAN	STD					0.38
12378-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	ND	(0.58)	ND
FURAN	STD					ND
23478-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		(7.7)	23.8	4.94	5.1
FURAN	STD					1.23
23467-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					ND
124678-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					ND
124689-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					ND
123478-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	14.4	2.62	2.33
FURAN	STD					0.71
123678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	10.3	1.91	1
FURAN	STD					0.69
123789-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.5)	1.1	1.2
FURAN	STD					0.29
234678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	ND	ND
FURAN	STD					0.38
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	58.2	1.2	0.53
FURAN	STD					0.33
1234689-	N	0	0	0	1	1
HEPTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					ND
1234789-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	ND	ND
FURAN	STD					0.1
OCTACHLORODIBENZO-	N	0	1	1	1	1
FURAN	MEAN		ND	ND	ND	ND
	STD					

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, PIGEON ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
PERCENT LIPID IN EGG	N	1
	MEAN	4.7
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	84
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0037
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	0.0012
	STD	
OXYCHLORDANE	N	1
	MEAN	0.0433
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0091
	STD	
DDD	N	1
	MEAN	0.0025
	STD	
DDE	N	1
	MEAN	2.3272
	STD	
DDT	N	1
	MEAN	0.0117
	STD	
DIELDRIN	N	1
	MEAN	0.0505
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.017
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0028
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0021
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0012
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0057
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, PIGEON ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
MIREX	N	1
	MEAN	0.2957
	STD	
PHOTOMIREX	N	1
	MEAN	0.1152
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0357
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0095
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0092
	STD	
PCB: 1260	N	1
	MEAN	5.4733
	STD	
PCB:1254-1260	N	1
	MEAN	9.6393
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	4.7714
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, PIGEON ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, PIGEON ISLAND

GREAT BLACK-BACKED GULL	YEAR	
	93	94
PERCENT LIPID IN EGG	N MEAN STD	1 8.7 0.4950
PERCENT MOISTURE IN EGG	N MEAN STD	1 76.1 1.2728
CIS/ALPHA-CHLORDANE	N MEAN STD	1 0.0549 0.0016
TRANS/GAMMA-CHLORDANE	N MEAN STD	1 ND ND
OXYCHLORDANE	N MEAN STD	1 0.1443 0.1294
1234-CHLOROBENZENE	N MEAN STD	1 ND ND
1245-CHLOROBENZENE	N MEAN STD	1 ND ND
PENTACHLOROBENZENE	N MEAN STD	1 ND ND
HEXACHLOROBENZENE	N MEAN STD	1 0.0812 0.0469
DDD	N MEAN STD	1 ND 0.0013
DDE	N MEAN STD	1 10.2415 0.0042
DDT	N MEAN STD	1 0.0208 0.0055
DIELDRIN	N MEAN STD	1 0.1736 0.0165
HEPTACHLOR EPOXIDE	N MEAN STD	1 0.0972 0.0252
ALPHA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND 0.0203
BETA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND ND
GAMMA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND ND
TOTAL MERCURY	N MEAN STD	0 0 0
TRIS (4-CHLOROPHENYL) METHANOL	N MEAN STD	1 0.0342 0.0002
		2 8.5447 0.3297
		2 0.1185 0.0252
		2 0.0708 0.0203
		2 ND ND
		2 ND ND
		2 ND ND
		2 0 0
		2 0.0237 0.0002

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g}/\text{g}$; all others in $\mu\text{g}/\text{g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, PIGEON ISLAND

GREAT BLACK-BACKED GULL	YEAR	
	93	94
MIREX	N 1	2
	MEAN 1.5501	1.5843
	STD 0.1324	
PHOTOMIREX	N 1	2
	MEAN 0.645	0.5471
	STD 0.1584	
CIS-NONACHLOR	N 1	2
	MEAN 0.0549	0.0564
	STD 0.0002	
TRANS-NONACHLOR	N 1	2
	MEAN ND	0.1484
	STD 0.0139	
OCTACHLOROSTYRENE	N 1	2
	MEAN 0.043	0.0349
	STD 0.0052	
PCB: 1260	N 1	2
	MEAN 23.8573	20.2936
	STD 0.2925	
PCB:1254-1260	N 1	2
	MEAN 48.6826	40.4849
	STD 2.1788	
TOTAL PCB CONGENERS	N 1	2
	MEAN 22.6768	18.4868
	STD 1.2851	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N 0	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N 0	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N 0	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N 0	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N 0	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N 0	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N 0	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N 0	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N 0	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N 0	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N 0	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, PIGEON ISLAND

GREAT BLACK-BACKED GULL	YEAR	
	93	94
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	0
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	0
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	0
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	0
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	0
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	0
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	0
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, PIGEON ISLAND

HERRING GULL	YEAR		
	93	94	
PERCENT LIPID IN EGG	N MEAN STD	1 8.5 1	1 9.1
PERCENT MOISTURE IN EGG	N MEAN STD	1 77 1	1 75.5
CIS/ALPHA-CHLORDANE	N MEAN STD	1 0.0069 1	1 0.0061
TRANS/GAMMA-CHLORDANE	N MEAN STD	1 0.0214 1	ND
OXYCHLORDANE	N MEAN STD	1 0.1006 1	1 0.1084
1234-CHLOROBENZENE	N MEAN STD	1 ND 1	1 ND
1245-CHLOROBENZENE	N MEAN STD	1 ND 1	ND ND
PENTACHLOROBENZENE	N MEAN STD	1 ND 1	1 ND
HEXACHLOROBENZENE	N MEAN STD	1 0.0475 1	1 0.0571
DDD	N MEAN STD	1 ND 1	1 0.0069
DDE	N MEAN STD	1 5.5359 1	1 5.8549
DDT	N MEAN STD	1 0.0433 1	1 0.0224
DIELDRIN	N MEAN STD	1 0.1283 1	1 0.1074
HEPTACHLOR EPOXIDE	N MEAN STD	1 0.0629 1	1 0.0697
ALPHA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND 1	1 ND
BETA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND 1	1 ND
GAMMA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND 1	1 ND
TOTAL MERCURY	N MEAN STD	0 ND 0	0 ND 0
TRIS (4-CHLOROPHENYL) METHANOL	N MEAN STD	1 0.0161 1	1 0.0131

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, PIGEON ISLAND

HERRING GULL	YEAR	
	93	94
MIREX	N MEAN STD	1 0.764 1
PHOTOMIREX	N MEAN STD	1 0.3318 0.326
CIS-NONACHLOR	N MEAN STD	1 0.0505 1
TRANS-NONACHLOR	N MEAN STD	1 0.0899 0.0704
OCTACHLOROSTYRENE	N MEAN STD	1 0.0288 0.036
PCB: 1260	N MEAN STD	1 8.8672 11.6604
PCB:1254-1260	N MEAN STD	1 21.5161 26.6913
TOTAL PCB CONGENERS	N MEAN STD	1 10.1052 12.1533
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N MEAN STD	0 <0.0001 1
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N MEAN STD	0 0.0002 1
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N MEAN STD	0 0.0014 1
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N MEAN STD	0 0.0002 1
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0
2378- TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 52.3 71.2
12378- PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 11.6 11.1
123478- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 ND ND
123678- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 11.6i 10.5
123789- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 ND ND

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, PIGEON ISLAND

HERRING GULL	YEAR	
	93	94
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
p-DIOXIN	STD	(0.6)
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	ND
	STD	(0.6)
2378-	N	1
TETRACHLORODIBENZO-	MEAN	4.5
FURAN	STD	ND
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	ND
23478-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	(2)
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	ND
123678-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	ND
123789-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	ND
234678-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	ND
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	ND
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	ND
OCTACHLORDIBENZO-	N	1
FURAN	MEAN	ND
	STD	(0.1)

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LITTLE GALLOO ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
PERCENT LIPID IN EGG	N	1
	MEAN	4.5
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	83.7
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0051
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.0173
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0112
	STD	
DDD	N	1
	MEAN	0.007
	STD	
DDE	N	1
	MEAN	1.5737
	STD	
DDT	N	1
	MEAN	0.0103
	STD	
DIELDRIN	N	1
	MEAN	0.0266
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.01
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0028
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0008
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0081
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LITTLE GALLOO ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
MIREX	N	1
	MEAN	0.2044
	STD	
PHOTOMIREX	N	1
	MEAN	0.0667
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0099
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0077
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0075
	STD	
PCB: 1260	N	1
	MEAN	3.1868
	STD	
PCB:1254-1260	N	1
	MEAN	6.1069
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	3.1171
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LITTLE GALLOO ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LITTLE GALLOO ISLAND

GREAT BLACK-BACKED GULL	YEAR		
	93	94	
PERCENT LIPID IN EGG	N MEAN STD	1 7.6 1	1 7.9
PERCENT MOISTURE IN EGG	N MEAN STD	1 77.3 1	1 77.1
CIS/ALPHA-CHLORDANE	N MEAN STD	1 0.0237 1	1 0.0301
TRANS/GAMMA-CHLORDANE	N MEAN STD	1 ND 1	1 ND
OXYCHLORDANE	N MEAN STD	1 0.1693 1	1 0.1662
1234-CHLOROBENZENE	N MEAN STD	1 ND 1	1 ND
1245-CHLOROBENZENE	N MEAN STD	1 ND 1	1 ND
PENTACHLOROBENZENE	N MEAN STD	1 0.015 1	1 ND
HEXACHLOROBENZENE	N MEAN STD	1 0.1192 1	1 0.0869
DDD	N MEAN STD	1 ND 1	1 0.0166
DDE	N MEAN STD	1 14.1681 1	1 14.8794
DDT	N MEAN STD	1 0.0274 1	1 0.0242
DIELDRIN	N MEAN STD	1 0.3869 1	1 0.3003
HEPTACHLOR EPOXIDE	N MEAN STD	1 0.1345 1	1 0.137
ALPHA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND 1	1 ND
BETA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND 1	1 ND
GAMMA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND 1	1 ND
TOTAL MERCURY	N MEAN STD	0 ND 0	0 ND 0
TRIS (4-CHLOROPHENYL) METHANOL	N MEAN STD	1 0.0375 1	1 0.0316

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LITTLE GALLOO ISLAND

GREAT BLACK-BACKED GULL	YEAR	
	93	94
MIREX	N MEAN STD	1 2.1956 2.4325
PHOTOMIREX	N MEAN STD	1 0.903 0.9871
CIS-NONACHLOR	N MEAN STD	1 0.0602 0.0789
TRANS-NONACHLOR	N MEAN STD	1 0.2201 0.2666
OCTACHLOROSTYRENE	N MEAN STD	1 0.0558 0.0613
PCB: 1260	N MEAN STD	1 31.4041 33.0507
PCB:1254-1260	N MEAN STD	1 60.5095 62.9434
TOTAL PCB CONGENERS	N MEAN STD	1 28.8328 29.6779
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 169 3, 3', 4, 4', 5, 5 - HEXACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0
2378- TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 0 0
12378- PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 0 0
123478- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 0 0
123678- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 0 0
123789- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 0 0

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LITTLE GALLOO ISLAND

GREAT BLACK-BACKED GULL	YEAR	
	93	94
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	0
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	0
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	0
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	0
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	0
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	0
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	0
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	0
FURAN	STD	
OCTACHLORDIBENZO-	N	0
FURAN	MEAN	0
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LITTLE GALLOO ISLAND

HERRING GULL	YEAR	
	93	94
PERCENT LIPID IN EGG	N MEAN STD	1 9.2 8.8
PERCENT MOISTURE IN EGG	N MEAN STD	1 76.4 75.8
CIS/ALPHA-CHLORDANE	N MEAN STD	1 0.0123 0.0112
TRANS/GAMMA-CHLORDANE	N MEAN STD	1 ND ND
OXYCHLORDANE	N MEAN STD	1 0.1063 0.1559
1234-CHLOROBENZENE	N MEAN STD	1 ND ND
1245-CHLOROBENZENE	N MEAN STD	1 ND ND
PENTACHLOROBENZENE	N MEAN STD	1 ND ND
HEXACHLOROBENZENE	N MEAN STD	1 0.0418 0.0567
DDD	N MEAN STD	1 0.0138 0.0101
DDE	N MEAN STD	1 6.3295 6.9729
DDT	N MEAN STD	1 0.0465 0.0301
DIELDRIN	N MEAN STD	1 0.1701 0.1947
HEPTACHLOR EPOXIDE	N MEAN STD	1 0.0639 0.1069
ALPHA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND ND
BETA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND ND
GAMMA-HEXACHLOROCYCLOHEXANE	N MEAN STD	1 ND ND
TOTAL MERCURY	N MEAN STD	0 0 0
TRIS (4-CHLOROPHENYL) METHANOL	N MEAN STD	1 0.0189 0.019

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LITTLE GALLOO ISLAND

HERRING GULL	YEAR	
	93	94
MIREX	N MEAN STD	1 0.9369 1
PHOTOMIREX	N MEAN STD	1 0.3731 1
CIS-NONACHLOR	N MEAN STD	1 0.0561 1
TRANS-NONACHLOR	N MEAN STD	1 0.0875 1
OCTACHLOROSTYRENE	N MEAN STD	1 0.0304 1
PCB: 1260	N MEAN STD	1 10.4712 13.5744
PCB:1254-1260	N MEAN STD	1 23.584 29.2399
TOTAL PCB CONGENERS	N MEAN STD	1 11.1744 13.4863
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N MEAN STD	0 <0.0001 1
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N MEAN STD	0 0.0009 1
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N MEAN STD	0 0.0062 1
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N MEAN STD	0 0.0006 1
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0
2378- TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 48.7 31.35
12378- PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 14.3 (15.71)i
123478- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 ND (0.18)
123678- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 7.4 (0.96)
123789- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 ND (0.09)

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LITTLE GALLOO ISLAND

HERRING GULL	YEAR	
	93	94
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	(0.1)
p-DIOXIN	STD	(0.94)
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	ND
	STD	(0.23)
2378-	N	1
TETRACHLORODIBENZO-	MEAN	7.1
FURAN	STD	8.99
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	(0.05)
23478-	N	1
PENTACHLORODIBENZO-	MEAN	6.6
FURAN	STD	(0.05)
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	(0.7)
123678-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	ND
123789-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	(0.35)
234678-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	(0.52)
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	(0.12)
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	ND
OCTACHLORDIBENZO-	N	1
FURAN	MEAN	ND
	STD	ND

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, GULL ISLAND, PRESQU'ILE PROVINCIAL PARK

GREAT BLACK-BACKED GULL	YEAR	
	93	
PERCENT LIPID IN EGG	N	1
	MEAN	8.7
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	76.9
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0374
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.3153
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.1064
	STD	
DDD	N	1
	MEAN	ND
	STD	
DDE	N	1
	MEAN	21.1277
	STD	
DDT	N	1
	MEAN	0.0572
	STD	
DIELDRIN	N	1
	MEAN	0.3368
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.1373
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0426
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, GULL ISLAND, PRESQU'ILE PROVINCIAL PARK

GREAT BLACK-BACKED GULL	YEAR	
	93	
MIREX	N	1
	MEAN	3.3238
	STD	
PHOTOMIREX	N	1
	MEAN	1.3694
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.2092
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.3923
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0962
	STD	
PCB: 1260	N	1
	MEAN	37.27
	STD	
PCB:1254-1260	N	1
	MEAN	79.2119
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	36.8039
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, GULL ISLAND, PRESQU'ILE PROVINCIAL PARK

GREAT BLACK-BACKED GULL	YEAR	
	93	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORDIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, GULL ISLAND, PRESQU'ILE PROVINCIAL PARK

HERRING GULL	YEAR	
	93	
PERCENT LIPID IN EGG	N	1
	MEAN	9.1
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	76.2
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.007
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.1173
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0473
	STD	
DDD	N	1
	MEAN	ND
	STD	
DDE	N	1
	MEAN	6.6442
	STD	
DDT	N	1
	MEAN	0.0584
	STD	
DIELDRIN	N	1
	MEAN	0.1401
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.0664
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0168
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, GULL ISLAND, PRESQU'ILE PROVINCIAL PARK

HERRING GULL	YEAR	
	93	
MIREX	N	1
	MEAN	0.9087
	STD	
PHOTOMIREX	N	1
	MEAN	0.3832
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0614
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0845
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0229
	STD	
PCB: 1260	N	1
	MEAN	11.3224
	STD	
PCB:1254-1260	N	1
	MEAN	23.836
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	10.9604
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	53.1
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	10
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	ND
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	7.8
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, GULL ISLAND, PRESQU'ILE PROVINCIAL PARK

HERRING GULL	YEAR	
	93	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	(0.1)
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	(0.1)
	STD	
2378-	N	1
TETRACHLORODIBENZO-	MEAN	ND
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
23478-	N	1
PENTACHLORODIBENZO-	MEAN	5.3
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXAChLORODIBENZO-	MEAN	ND
FURAN	STD	
123678-	N	1
HEXAChLORODIBENZO-	MEAN	(0.1)
FURAN	STD	
123789-	N	1
HEXAChLORODIBENZO-	MEAN	ND
FURAN	STD	
234678-	N	1
HEXAChLORODIBENZO-	MEAN	ND
FURAN	STD	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
OCTACHLORODIBENZO-	N	1
FURAN	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LESLIE STREET SPIT

HERRING GULL		YEAR					
		92	93	94	95	96	97
PERCENT LIPID IN EGG	N	0	1	1	1	1	1
	MEAN		9.4	9.5	9.3	9.1	7.4
	STD						
PERCENT MOISTURE IN EGG	N	0	1	1	1	1	1
	MEAN		76.9	75	76	77.3	76.68
	STD						
CIS/ALPHA-CHLORDANE	N	0	1	1	1	1	1
	MEAN		0.0095	0.0082	0.0065	0.003	0.003
	STD						
TRANS/GAMMA-CHLORDANE	N	0	1	1	1	1	1
	MEAN		ND	ND	0.0091	ND	ND
	STD						
OXYCHLORDANE	N	0	1	1	1	1	1
	MEAN		0.0804	0.0985	0.0649	0.1166	0.043
	STD						
1234-CHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
1245-CHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
PENTACHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	0.001
	STD						
HEXACHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		0.0222	0.031	0.0181	0.0409	0.01
	STD						
DDD	N	0	1	1	1	1	1
	MEAN		0.0068	0.0082	ND	ND	0.002
	STD						
DDE	N	0	1	1	1	1	1
	MEAN		3.9155	3.6433	1.8565	3.433	1.952
	STD						
DDT	N	0	1	1	1	1	1
	MEAN		0.0244	0.0144	0.0156	0.0116	0.004
	STD						
DIELDRIN	N	0	1	1	1	1	1
	MEAN		0.0921	0.096	0.0532	0.1066	0.04
	STD						
HEPTACHLOR EPOXIDE	N	0	1	1	1	1	1
	MEAN		0.0583	0.039	0.0242	0.0449	0.017
	STD						
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
TOTAL MERCURY	N	1	0	0	0	0	0
	MEAN	0.175					
	STD						
TRIS (4-CHLOROPHENYL)METHANOL	N	0	1	1	1	1	1
	MEAN		0.0101	0.0096	0.0067	0.0102	ND
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LESLIE STREET SPIT

HERRING GULL	YEAR					
	92	93	94	95	96	97
MIREX	N MEAN STD	0 0.7639 0.431	1 0.861 0.3032	1 0.6001 0.2428	1 0.7774 0.2093	1 0.431 0.157
PHOTOMIREX	N MEAN STD	0 0.3032 0.157	1 0.2428 0.1	1 0.2093 0.0404	1 0.326 0.0226	1 0.1 0.0401
CIS-NONACHLOR	N MEAN STD	0 0.0334 0.017	1 0.0404 0.01	1 0.0226 0.0303	1 0.0401 0.0737	1 0.017
TRANS-NONACHLOR	N MEAN STD	0 0.0813 0.017	1 0.061 0.01	1 0.0303 0.0737	1 0.0737 0.017	1 0.01
OCTACHLOROSTYRENE	N MEAN STD	0 0.0141 0.004	1 ND ND	1 ND 0.0138	1 0.0138 0.004	1 0.004
PCB: 1260	N MEAN STD	0 9.6681 5.4957	1 12.3646 1	1 7.2975 1	1 8.9991 1	1 1
PCB:1254-1260	N MEAN STD	0 18.7803 10.6616	1 19.5165 1	1 12.3745 1	1 18.2558 1	1 1
TOTAL PCB CONGENERS	N MEAN STD	0 8.4112 5.277	1 9.1599 1	1 5.6317 1	1 8.9432 1	1 1
(Based on 42 congeners) ^A						
TOTAL PCB CONGENERS	N MEAN STD					1 5.765
(Based on 59 congeners) ^A						
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N MEAN STD	0 0 0.0001	1 <0.0001 <0.0001	1 <0.0001 <0.0001	1 <0.0001 <0.0001	1 1 <0.0001
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N MEAN STD	0 0 0.0001	1 0.0001 0.0001	1 0.0001 0.0002	1 0.0002 0.0001	1 1
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N MEAN STD	0 0 0	0 0.0001 <0.0001	1 0.0001 0.0001	1 0.0001 0.0001	1 1
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N MEAN STD	0 0 0.0011	1 0.0017 0.0017	1 0.0021 0.0021	1 0.0021 0.0014	1 1
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N MEAN STD	0 0 0.0001	1 0.0002 0.0002	1 0.0002 0.0002	1 0.0002 0.0002	1 1
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0	0 <0.0001 <0.0001	1 1 <0.0001	1 1 <0.0001	1 1
2378- TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 18.2 11.89	1 33.8 1	1 13.57 26.94	1 1 11.89	1 1
12378- PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.2) 1.82	1 (2.6) 2.88	1 1 3.88	1 1 1.82	1 1
123478- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 ND ND	1 ND ND	1 ND 0.46	1 1 ND	1 1
123678- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.5) 2.98	1 7.5 4.07	1 1 4.62	1 1 2.98	1 1
123789- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 ND 0.38	1 ND 0.52	1 1 0.5	1 1 0.38	1 1

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, LESLIE STREET SPIT

HERRING GULL	YEAR					
	92	93	94	95	96	97
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		(0.1)	(0.1)	3.45	3.24
p-DIOXIN	STD					4.13
OCTACHLORODIBENZO-	N	0	1	1	1	1
p-DIOXIN	MEAN		ND	(0.2)	6.61	4.82
	STD					7.07
2378-	N	0	1	1	1	1
TETRACHLORODIBENZO-	MEAN		(0.8)	ND	ND	0.28
FURAN	STD					(0.23)
12468-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				(0.28)	0.12
FURAN	STD					0.09
12478-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				2.13	1.32
FURAN	STD					0.81
12378-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	ND	ND	0.12
FURAN	STD					0.12
23478-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		4.4	ND	2.16	4.26
FURAN	STD					1.15
23467-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					0.15
124678-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	0.18
FURAN	STD					ND
124689-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	0.26
FURAN	STD					ND
123478-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	1.38	2.18
FURAN	STD					0.9
123678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	1.15	1.56
FURAN	STD					0.73
123789-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	1.15	1.06
FURAN	STD					0.38
234678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	ND	0.46
FURAN	STD					ND
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	0.84	0.68
FURAN	STD					0.95
1234689-	N	0	0	0	1	1
HEPTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					ND
1234789-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	0.22	0.22
FURAN	STD					0.22
OCTACHLORODIBENZO-	N	0	1	1	1	1
FURAN	MEAN		ND	ND	0.97	0.44
	STD					0.77

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, HAMILTON HARBOUR

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
PERCENT LIPID IN EGG	N	1
	MEAN	4
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	84.4
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0041
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.0293
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0161
	STD	
DDD	N	1
	MEAN	0.0094
	STD	
DDE	N	1
	MEAN	3.2938
	STD	
DDT	N	1
	MEAN	0.0217
	STD	
DIELDRIN	N	1
	MEAN	0.0741
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.0221
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.003
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0027
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0059
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0095
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE 11. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, HAMILTON HARBOUR

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
MIREX	N	1
	MEAN	0.3764
	STD	
PHOTOMIREX	N	1
	MEAN	0.149
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0183
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0143
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0183
	STD	
PCB: 1260	N	1
	MEAN	7.2915
	STD	
PCB:1254-1260	N	1
	MEAN	13.2041
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	6.6009
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, HAMILTON HARBOUR

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORDIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, HAMILTON HARBOUR

HERRING GULL		YEAR					
		92	93	94	95	96	97
PERCENT LIPID IN EGG	N	0	1	1	1	1	1
	MEAN		9.3	8.6	7.9	8.2	7.47
	STD						
PERCENT MOISTURE IN EGG	N	0	1	1	1	1	1
	MEAN		76.5	76.6	76.2	76.5	79.06
	STD						
CIS/ALPHA-CHLORDANE	N	0	1	1	1	1	1
	MEAN		0.0113	0.006	0.0074	ND	0.002
	STD						
TRANS/GAMMA-CHLORDANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
OXYCHLORDANE	N	0	1	1	1	1	1
	MEAN		0.0713	0.0593	0.0953	0.0859	0.03
	STD						
1234-CHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
1245-CHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
PENTACHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	0.002
	STD						
HEXACHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		0.0272	0.031	0.0249	0.0321	0.009
	STD						
DDD	N	0	1	1	1	1	1
	MEAN		0.0078	0.0082	ND	ND	0.003
	STD						
DDE	N	0	1	1	1	1	1
	MEAN		4.0937	2.961	1.8441	2.8782	1.73
	STD						
DDT	N	0	1	1	1	1	1
	MEAN		0.0286	0.0144	0.0388	0.0056	0.006
	STD						
DIELDRIN	N	0	1	1	1	1	1
	MEAN		0.1062	0.0504	0.0853	0.0501	0.025
	STD						
HEPTACHLOR EPOXIDE	N	0	1	1	1	1	1
	MEAN		0.0393	0.0306	0.0581	0.0266	0.015
	STD						
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
TOTAL MERCURY	N	1	0	0	0	0	0
	MEAN		0.1248				
	STD						
TRIS (4-CHLOROPHENYL)METHANOL	N	0	1	1	1	1	1
	MEAN		0.0106	0.0089	0.0095	ND	ND
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, HAMILTON HARBOUR

HERRING GULL	YEAR					
	92	93	94	95	96	97
MIREX	N MEAN STD	0 0.5407 0.278	1 0.5521 0.1511	1 0.0559 0.0275	1 0.5713 0.2248	1 0.278 0.103
PHOTOMIREX	N MEAN STD	0 0.215 0.103	1 0.1511 0.0275	1 0.0526 0.0263	1 0.0263 0.015	1 0.015
CIS-NONACHLOR	N MEAN STD	0 0.0348 0.015	1 0.0308 0.0526	1 0.0526 0.0263	1 0.0263 0.015	1 0.015
TRANS-NONACHLOR	N MEAN STD	0 0.0617 0.011	1 0.042 0.0548	1 0.0548 0.0314	1 0.0314 0.011	1 0.011
OCTACHLOROSTYRENE	N MEAN STD	0 0.018 0.01	1 0.0142 ND	1 ND ND	1 ND ND	1 ND
PCB: 1260	N MEAN STD	0 10.4024 1	1 11.0301 1	1 4.2468 1	1 9.0585 1	1 7.1549 1
PCB:1254-1260	N MEAN STD	0 21.3611 1	1 21.0408 1	1 9.7111 1	1 17.7518 1	1 12.7216 1
TOTAL PCB CONGENERS (Based on 42 congeners) ^A	N MEAN STD	0 9.4083 1	1 9.746 1	1 4.1956 1	1 8.6910 1	1 6.583 1
TOTAL PCB CONGENERS (Based on 59 congeners) ^A	N MEAN STD					1 7.111
PCB 37 3, 4, 4'-TRICHLOROBIPHENYL	N MEAN STD	0 0 0	1 <0.0001 <0.0001	1 <0.0001 <0.0001	1 <0.0001 <0.0001	1 <0.0001 1
PCB 77 3, 3', 4, 4'-TETRACHLOROBIPHENYL	N MEAN STD	0 0 0	1 0.0002 0.0002	1 0.0002 0.0001	1 0.0001 0.0001	1 0.0001 1
PCB 81 3,4,4',5-TETRACHLOROBIPHENYL	N MEAN STD	0 0 0	0 0.0001 0.0001	1 0.0001 0.0001	1 0.0001 <0.0001	1 1
PCB 126 3, 3', 4, 4', 5-PENTACHLOROBIPHENYL	N MEAN STD	0 0 0	1 0.0008 0.0022	1 0.0022 0.002	1 0.002 0.0012	1 1
PCB 169 3, 3', 4, 4', 5, 5'-HEXACHLOROBIPHENYL	N MEAN STD	0 0 0	1 0.0001 0.0002	1 0.0002 0.0002	1 0.0002 0.0001	1 1
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0	0 <0.0001 <0.0001	1 <0.0001 <0.0001	1 <0.0001 0.0001	1 1
2378-TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 19 1	1 19.4 1	1 12.75 1	1 17.4 1	1 5.43 1
12378-PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.5) 1	1 (3.8) 1	1 5.96 1	1 3.08 1	1 1.25 1
123478-HEXAChLORODIBENZO-p-DIOXIN	N MEAN STD	0 ND 1	1 (0.1) 1	1 ND 1	1 0.44 1	1 ND 1
123678-HEXAChLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.4) 1	1 10.1 1	1 7.02 1	1 4.46 1	1 3.08 1
123789-HEXAChLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.1) 1	1 ND 1	1 1.07 1	1 0.54 1	1 0.31 1

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, HAMILTON HARBOUR

HERRING GULL		YEAR					
		92	93	94	95	96	97
1234678-	N	0	1	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		(0.1)	15.8	4.18	5.22	1.49
p-DIOXIN	STD						
OCTACHLORDIBENZO-	N	0	1	1	1	1	1
p-DIOXIN	MEAN		ND	(1)	3.06	6.24	1.73
	STD						
2378-	N	0	0	1	1	1	1
TETRACHLORODIBENZO-	MEAN			(0.1)	ND	0.18	ND
FURAN	STD						
12468-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				ND	0.08	1.53
FURAN	STD						
12478-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				ND	1.7	1.91
FURAN	STD						
12378-	N	0	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN			ND	ND	0.1	ND
FURAN	STD						
23478-	N	0	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN			10.9	4.61	3.08	0.92
FURAN	STD						
23467-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND	0.3
FURAN	STD						
124678-	N	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN				ND	0.14	0.15
FURAN	STD						
124689-	N	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN				ND	0.24	0.29
FURAN	STD						
123478-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			3.7	1.64	1.06	0.33
FURAN	STD						
123678-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			4.7	2.07	1.16	0.88
FURAN	STD						
123789-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			12.8	1.32	1.08	0.86
FURAN	STD						
234678-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			(0.1)	(0.17)	0.38	0.28
FURAN	STD						
1234678-	N	0	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN			(0.3)	1.06	1.08	0.59
FURAN	STD						
1234689-	N	0	0	0	1	1	1
HEPTACHLORODIBENZO-	MEAN				ND	0.22	ND
FURAN	STD						
1234789-	N	0	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN			(0.2)	ND	0.22	0.2
FURAN	STD						
OCTACHLORODIBENZO-	N	0	0	1	1	1	1
FURAN	MEAN			(0.7)	ND	0.56	ND
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, HAMILTON HARBOUR

RING-BILLED GULL	YEAR		
	94	96	
PERCENT LIPID IN EGG	N MEAN STD	2 9.5 -	1 8.53 -
PERCENT MOISTURE IN EGG	N MEAN STD	2 75.4 -	1 75.8 -
CIS/ALPHA-CHLORDANE	N MEAN STD	2 0.0175 -	1 0.003 -
TRANS/GAMMA-CHLORDANE	N MEAN STD	2 0.0007 -	1 ND -
OXYCHLORDANE	N MEAN STD	2 0.0397 -	1 0.022 -
1234-CHLOROBENZENE	N MEAN STD	2 0.0013 -	1 ND -
1245-CHLOROBENZENE	N MEAN STD	2 0.004 -	1 ND -
PENTACHLOROBENZENE	N MEAN STD	2 0.0053 -	1 TR -
HEXACHLOROBENZENE	N MEAN STD	2 0.0265 -	1 0.006 -
DDD	N MEAN STD	2 ND -	1 TR -
DDE	N MEAN STD	2 1.6879 -	1 0.608 -
DDT	N MEAN STD	2 0.0113 -	1 0.007 -
DIELDRIN	N MEAN STD	2 0.2353 -	1 0.081 -
HEPTACHLOR EPOXIDE	N MEAN STD	2 0.042 -	1 0.017 -
ALPHA-HEXACHLOROCYCLOHEXANE	N MEAN STD	2 ND -	1 ND -
BETA-HEXACHLOROCYCLOHEXANE	N MEAN STD	2 ND -	1 ND -
GAMMA-HEXACHLOROCYCLOHEXANE	N MEAN STD	2 ND -	1 ND -
TOTAL MERCURY	N MEAN STD	0 -	0 -
TRIS (4-CHLOROPHENYL) METHANOL	N MEAN STD	2 0.0029 -	1 ND -

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, HAMILTON HARBOUR

RING-BILLED GULL	YEAR	
	94	96
MIREX	N MEAN STD	2 0.2022 0.06
PHOTOMIREX	N MEAN STD	2 0.0716 0.022
CIS-NONACHLOR	N MEAN STD	2 0.0233 0.009
TRANS-NONACHLOR	N MEAN STD	2 0.1013 0.039
OCTACHLOROSTYRENE	N MEAN STD	2 0.0084 0.003
PCB: 1260	N MEAN STD	2 3.0717 0.8942
PCB:1254-1260	N MEAN STD	2 5.7198 2.0137
TOTAL PCB CONGENERS	N MEAN STD	2 2.7318 1.1866
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N MEAN STD	1 <0.0001 0
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N MEAN STD	1 0.0002 0
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N MEAN STD	0 0 0
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N MEAN STD	1 0.0002 0
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N MEAN STD	1 <0.0001 0
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0
2378- TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 13 0
12378- PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 8.5 0
123478- HEXACHLORDIBENZO-p-DIOXIN	N MEAN STD	1 ND 0
123678- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 (0.2) 0
123789- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	1 ND 0

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ONTARIO, HAMILTON HARBOUR

RING-BILLED GULL	YEAR	
	94	96
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	(0.1)
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	(0.5)
	STD	
2378-	N	1
TETRACHLORODIBENZO-	MEAN	ND
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
23478-	N	1
PENTACHLORODIBENZO-	MEAN	(0.1)
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
123678-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
123789-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
234678-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	(0.3)
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
OCTACHLORODIBENZO-	N	1
FURAN	MEAN	(0.7)
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
NIAGARA RIVER

HERRING GULL		YEAR					
		92	93	94	95	96	97
PERCENT LIPID IN EGG	N	0	1	1	1	1	1
	MEAN		9.1	9	8.5	8.3	7.65
	STD						
PERCENT MOISTURE IN EGG	N	0	1	1	1	1	1
	MEAN		76.6	75.9	76.4	76.9	76.95
	STD						
CIS/ALPHA-CHLORDANE	N	0	1	1	1	1	1
	MEAN		0.0067	0.0075	0.0052	0.0023	0.002
	STD						
TRANS/GAMMA-CHLORDANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
OXYCHLORDANE	N	0	1	1	1	1	1
	MEAN		0.0573	0.0687	0.0455	0.0662	0.019
	STD						
1234-CHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
1245-CHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
PENTACHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
HEXACHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		0.0369	0.0356	0.0253	0.0302	0.006
	STD						
DDD	N	0	1	1	1	1	1
	MEAN		0.0073	ND	ND	ND	0.002
	STD						
DDE	N	0	1	1	1	1	1
	MEAN		1.6678	1.8086	1.161	1.51	0.796
	STD						
DDT	N	0	1	1	1	1	1
	MEAN		ND	0.0105	0.0083	0.0088	0.002
	STD						
DIELDRIN	N	0	1	1	1	1	1
	MEAN		0.1127	0.063	0.0527	0.0598	0.02
	STD						
HEPTACHLOR EPOXIDE	N	0	1	1	1	1	1
	MEAN		0.0419	0.0342	0.021	0.0333	0.01
	STD						
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
TOTAL MERCURY	N	1	0	0	0	0	0
	MEAN		0.161				
	STD						
TRIS (4-CHLOROPHENYL) METHANOL	N	0	1	1	1	1	1
	MEAN		0.0087	0.0125	0.0043	ND	ND
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
NIAGARA RIVER

HERRING GULL	YEAR					
	92	93	94	95	96	97
MIREX	N MEAN STD	0 0.2278 0.0928	1 0.3001 0.0803	1 0.173 0.0645	1 0.2311 ND	1 0.077 0.031
PHOTOMIREX	N MEAN STD	0 0.0928 0.0293	1 0.0803 0.034	1 0.0645 0.0206	1 0.031 0.031	1 0.008 0.008
CIS-NONACHLOR	N MEAN STD	0 0.0293 0.0409	1 0.034 0.0398	1 0.0206 0.0368	1 0.031 0.0358	1 0.008 0.005
TRANS-NONACHLOR	N MEAN STD	0 0.0409 0.0163	1 0.0398 ND	1 0.0368 ND	1 0.0358 ND	1 0.005 0.002
OCTACHLOROSTYRENE	N MEAN STD	0 7.3865 14.6521	1 8.8057 14.5571	1 6.2906 11.0387	1 5.724 11.2764	1 2.8535 5.1588
PCB: 1260	N MEAN STD	0 7.3865 14.6521	1 8.8057 14.5571	1 6.2906 11.0387	1 5.724 11.2764	1 2.8535 5.1588
PCB:1254-1260	N MEAN STD	0 14.6521 6.7888	1 14.5571 6.8017	1 5.1447 5.4797	1 5.4797 2.692	1 2.946
TOTAL PCB CONGENERS (Based on 42 congeners) ^A	N MEAN STD	0 6.7888 0	1 6.8017 <0.0001	1 5.1447 (<0.0001)	1 5.4797 ND	1 2.692 <0.0001
TOTAL PCB CONGENERS (Based on 59 congeners) ^A	N MEAN STD	0 0 0	1 0.0001 0.0001	1 0.0002 <0.0001	1 0.0002 0.0001	1 0.0001
PCB 37 3, 4, 4'-TRICHLOROBIPHENYL	N MEAN STD	0 0 0	1 <0.0001 (<0.0001)	1 ND	1 ND	1 <0.0001
PCB 77 3, 3', 4, 4' -TETRACHLOROBIPHENYL	N MEAN STD	0 0 0	1 0.0001 0.0001	1 0.0002 0.0002	1 0.0002 0.0002	1 0.0002
PCB 81 3,4,4',5-TETRACHLOROBIPHENYL	N MEAN STD	0 0 0	0 0 0	1 1 <0.0001	1 0.0001 0.0001	1 0.0001
PCB 126 3, 3', 4, 4', 5 -PENTACHLOROBIPHENYL	N MEAN STD	0 0 0	1 0.0007 0.0007	1 0.0014 0.0014	1 0.0013 0.0013	1 0.0009
PCB 169 3, 3', 4, 4', 5, 5' -HEXAChLOROBIPHENYL	N MEAN STD	0 0 0	1 <0.0001 <0.0001	1 0.0001 0.0001	1 0.0001 0.0001	1 0.0001
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0	0 0 0	1 <0.0001 <0.0001	1 <0.0001 <0.0001	1 <0.0001
2378-TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 10.3 1	1 27.2 1	1 5.84 1	1 12.27 1	1 5.66 1
12378-PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 (2.0) 1	1 (4.8)i 1	1 3.56 1	1 3.41 1	1 1.64 1
123478-HEXAChLORODIBENZO-p-DIOXIN	N MEAN STD	0 ND 1	1 (0.1) ND	1 ND ND	1 ND ND	1 ND ND
123678-HEXAChLORODIBENZO-p-DIOXIN	N MEAN STD	0 10.4 1	1 11.1 1	1 4.5 1	1 4.89 1	1 2.53 1
123789-HEXAChLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.1) 1	1 ND ND	1 ND ND	1 ND ND	1 0.29 1

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
NIAGARA RIVER

HERRING GULL	YEAR					
	92	93	94	95	96	97
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		(0.1)	(1.1)	1.91	2.44
p-DIOXIN	STD					1.49
OCTACHLORDIBENZO-	N	0	1	1	1	1
p-DIOXIN	MEAN		ND	(1.1)	5.68	2.79
	STD					1.44
2378-	N	0	1	1	1	1
TETRACHLORODIBENZO-	MEAN		ND	ND	ND	0.45
FURAN	STD					
12468-	N	0	0	0	ND	ND
PENTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
12478-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				ND	0.86
FURAN	STD					0.36
12378-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	ND	ND	ND
FURAN	STD					
23478-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		(0.1)	(0.1)	2.23	2.87
FURAN	STD					1.02
23467-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					(0.12)
124678-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					(0.1)
124689-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					0.11
123478-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	2.09	1.9
FURAN	STD					0.55
123678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.2)	1.65	1.5
FURAN	STD					0.59
123789-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.2)	0.8	1.05
FURAN	STD					0.32
234678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	ND	ND
FURAN	STD					0.12
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	1.49	1.17
FURAN	STD					0.32
1234689-	N	0	0	0	1	1
HEPTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
1234789-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	ND	(0.24)
FURAN	STD					ND
OCTACHLORODIBENZO-	N	0	1	1	1	1
FURAN	MEAN		ND	ND	0.48	ND
	STD					ND

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, PORT COLBORNE LIGHTHOUSE

HERRING GULL	YEAR				
	92	93	95	96	97
PERCENT LIPID IN EGG	N MEAN STD	0 8.9 8	1 76.8 77.1	1 77.1 ND	1 76.42 0.002
PERCENT MOISTURE IN EGG	N MEAN STD	0 76.8 77.1	1 77.1 ND	1 77.1 ND	1 76.42 0.002
CIS/ALPHA-CHLORDANE	N MEAN STD	0 0.0055 0.0059	1 1 ND	1 ND ND	1 1 ND
TRANS/GAMMA-CHLORDANE	N MEAN STD	0 ND ND	1 1 ND	1 ND ND	1 1 ND
OXYCHLORDANE	N MEAN STD	0 0.0376 0.0378	1 1 0.0538	1 1 0.026	1 1 0.026
1234-CHLOROBENZENE	N MEAN STD	0 ND ND	1 1 ND	1 1 TR	1 1 TR
1245-CHLOROBENZENE	N MEAN STD	0 ND ND	1 1 ND	1 1 ND	1 1 0.001
PENTACHLOROBENZENE	N MEAN STD	0 ND ND	1 1 ND	1 1 ND	1 1 0.001
HEXACHLOROBENZENE	N MEAN STD	0 0.0191 0.023	1 1 0.0217	1 1 0.007	1 1 0.007
DDD	N MEAN STD	0 ND ND	1 1 ND	1 1 ND	1 1 0.002
DDE	N MEAN STD	0 0.9774 0.8794	1 1 1.1507	1 1 0.639	1 1 0.639
DDT	N MEAN STD	0 0.0139 0.0142	1 1 0.0083	1 1 0.002	1 1 0.002
DIELDRIN	N MEAN STD	0 0.0909 0.0597	1 1 0.0539	1 1 0.047	1 1 0.047
HEPTACHLOR EPOXIDE	N MEAN STD	0 0.0339 0.0234	1 1 0.0281	1 1 0.018	1 1 0.018
ALPHA-HEXACHLOROCYCLOHEXANE	N MEAN STD	0 ND ND	1 1 ND	1 1 ND	1 1 ND
BETA-HEXACHLOROCYCLOHEXANE	N MEAN STD	0 ND ND	1 1 ND	1 1 ND	1 1 ND
GAMMA-HEXACHLOROCYCLOHEXANE	N MEAN STD	0 ND ND	1 1 ND	1 1 ND	1 1 ND
TOTAL MERCURY	N MEAN STD	1 0.1365	0 0	0 0	0 0
TRIS (4-CHLOROPHENYL)METHANOL	N MEAN STD	0 0.0095 0.0037	1 1	1 ND	1 ND

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, PORT COLBORNE LIGHTHOUSE

HERRING GULL	YEAR				
	92	93	95	96	97
MIREX	N MEAN STD	0 0.1153 0.028	1 0.1081 0.0454	1 0.1139 0.0464	1 0.028 0.012
PHOTOMIREX	N MEAN STD	0 0.0455 0.012	1 0.0454 0.0464	1 0.0464 0.012	1 0.012
CIS-NONACHLOR	N MEAN STD	0 0.0257 0.014	1 0.0208 0.0258	1 0.0258 0.0303	1 0.014
TRANS-NONACHLOR	N MEAN STD	0 0.033 0.009	1 0.0404 0.0303	1 0.0303 0.009	1 0.009
OCTACHLOROSTYRENE	N MEAN STD	0 0.0088 0.003	1 ND ND	1 ND 0.003	1 0.003
PCB: 1260	N MEAN STD	0 5.7928 4.5252	1 6.5658 5.8014	1 5.8014 4.5252	1 4.5252
PCB:1254-1260	N MEAN STD	0 11.1159 7.6467	1 11.0278 10.0212	1 10.0212 7.6467	1 7.6467
TOTAL PCB CONGENERS (Based on 42 congeners) ^A	N MEAN STD	0 5.1087 4.021	1 5.3081 5.1733	1 5.1733 4.021	1 4.021
TOTAL PCB CONGENERS (Based on 59 congeners) ^A	N MEAN STD				1 4.368
PCB 37 3, 4, 4'-TRICHLOROBIPHENYL	N MEAN STD	0 0 0.0001	1 <0.0001 <0.0001	1 1 <0.0001	1 1 <0.0001
PCB 77 3, 3', 4, 4'-TETRACHLOROBIPHENYL	N MEAN STD	0 0 0.0002	1 1 0.0002	1 1 0.0003	1 1 0.0003
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N MEAN STD	0 0 0.0001	1 1 0.0001	1 1 0.0001	1 1 0.0001
PCB 126 3, 3', 4, 4', 5 -PENTACHLOROBIPHENYL	N MEAN STD	0 0 0.0012	1 1 0.0011	1 1 0.001	1 1 0.001
PCB 169 3, 3', 4, 4', 5, 5' -HEXACHLOROBIPHENYL	N MEAN STD	0 0 0.0001	1 1 0.0001	1 1 0.0001	1 1 0.0001
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0.0001	1 1 <0.0001	1 1 <0.0001	1 1 <0.0001
2378-TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 9.4 3.16	1 4.89 7.94	1 1 7.94	1 1 3.16
12378-PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.4)	1 3.37	1 3.35	1 2.46
123478-HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 ND	1 ND	1 ND	1 ND
123678-HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.2)	1 3.99	1 4.07	1 3.12
123789-HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 ND	1 ND	1 ND	1 0.4

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, PORT COLBORNE LIGHTHOUSE

HERRING GULL	YEAR				
	92	93	95	96	97
1234678-	N	0	1	1	1
HEPTACHLORODIBENZO-	MEAN		(0.1)	2.7	2.22
p-DIOXIN	STD				1.24
OCTACHLORDIBENZO-	N	0	1	1	1
p-DIOXIN	MEAN		(0.1)	4.64	2.61
	STD				2.26
2378-	N	0	1	1	1
TETRACHLORODIBENZO-	MEAN		(0.1)	ND	(0.22)
FURAN	STD				0.36
12468-	N	0	0	1	1
PENTACHLORODIBENZO-	MEAN			ND	ND
FURAN	STD				
12478-	N	0	0	1	1
PENTACHLORODIBENZO-	MEAN			ND	1.29
FURAN	STD				0.39
12378-	N	0	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	ND	ND
FURAN	STD				0.2
23478-	N	0	1	1	1
PENTACHLORODIBENZO-	MEAN		(0.1)	2.19	3.07
FURAN	STD				2.19
23467-	N	0	0	1	1
PENTACHLORODIBENZO-	MEAN			ND	ND
FURAN	STD				0.15
124678-	N	0	0	1	1
HEXACHLORODIBENZO-	MEAN			ND	ND
FURAN	STD				
124689-	N	0	0	1	1
HEXACHLORODIBENZO-	MEAN			ND	ND
FURAN	STD				(0.1)
123478-	N	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	0.28
FURAN	STD				
123678-	N	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	0.75
FURAN	STD				0.57
123789-	N	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	0.45
FURAN	STD				
234678-	N	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	0.15
FURAN	STD				
1234678-	N	0	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	0.45	0.4
FURAN	STD				0.42
1234689-	N	0	0	1	1
HEPTACHLORODIBENZO-	MEAN			ND	ND
FURAN	STD				
1234789-	N	0	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	ND
FURAN	STD				
OCTACHLORODIBENZO-	N	0	1	1	1
FURAN	MEAN		ND	ND	ND
	STD				

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, MIDDLE ISLAND

HERRING GULL		YEAR					
		92	93	94	95	96	97
PERCENT LIPID IN EGG	N	0	1	1	1	1	1
	MEAN		9.3	8.5	8	9.3	8.8
	STD						
PERCENT MOISTURE IN EGG	N	0	1	1	1	1	1
	MEAN		76.7	76.2	76.5	76.5	75.84
	STD						
CIS/ALPHA-CHLORDANE	N	0	1	1	1	1	1
	MEAN		0.0091	0.0084	0.0135	0.0062	0.003
	STD						
TRANS/GAMMA-CHLORDANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
OXYCHLORDANE	N	0	1	1	1	1	1
	MEAN		0.0642	0.0872	0.0672	0.0803	0.039
	STD						
1234-CHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
1245-CHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
PENTACHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	0.002
	STD						
HEXACHLOROBENZENE	N	0	1	1	1	1	1
	MEAN		0.0209	0.0308	0.0278	0.0294	0.011
	STD						
DDD	N	0	1	1	1	1	1
	MEAN		0.0081	0.01	0.0095	0.0093	0.004
	STD						
DDE	N	0	1	1	1	1	1
	MEAN		1.9952	2.181	1.9692	1.3458	0.847
	STD						
DDT	N	0	1	1	1	1	1
	MEAN		0.0082	0.0087	0.018	ND	0.002
	STD						
DIELDRIN	N	0	1	1	1	1	1
	MEAN		0.1027	0.0847	0.098	0.074	0.049
	STD						
HEPTACHLOR EPOXIDE	N	0	1	1	1	1	1
	MEAN		0.0503	0.0575	0.0533	0.0406	0.029
	STD						
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
TOTAL MERCURY	N	1	0	0	0	0	0
	MEAN		0.1518				
	STD						
TRIS (4-CHLOROPHENYL)METHANOL	N	0	1	1	1	1	1
	MEAN		0.0092	0.0106	0.0103	ND	ND
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, MIDDLE ISLAND

HERRING GULL		YEAR					
		92	93	94	95	96	97
MIREX	N	0	1	1	1	1	1
	MEAN		0.0328	0.0439	0.031	0.0608	0.008
	STD						
PHOTOMIREX	N	0	1	1	1	1	1
	MEAN		0.013	0.1934	ND	0.0234	0.003
	STD						
CIS-NONACHLOR	N	0	1	1	1	1	1
	MEAN		0.0335	0.0377	0.0413	0.038	0.015
	STD						
TRANS-NONACHLOR	N	0	1	1	1	1	1
	MEAN		0.0591	0.0569	0.0644	0.0677	0.009
	STD						
OCTACHLOROSTYRENE	N	0	1	1	1	1	1
	MEAN		0.017	0.0208	0.0201	0.0161	0.008
	STD						
PCB: 1260	N	0	1	1	1	1	1
	MEAN		17.4089	19.9493	22.1866	12.0447	13.32
	STD						
PCB:1254-1260	N	0	1	1	1	1	1
	MEAN		32.255	34.7128	36.1196	21.0039	19.51
	STD						
TOTAL PCB CONGENERS	N	0	1	1	1	1	1
(Based on 42 congeners) ^	MEAN		14.4285	16.3372	17.6795	11.1902	10.254
	STD						
TOTAL PCB CONGENERS	N						1
(Based on 59 congeners) ^	MEAN						11.04
	STD						
PCB 37 3, 4, 4'-TRICHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			<0.0001	<0.0001	<0.0001	<0.0001
	STD						
PCB 77 3, 3', 4, 4'-TETRACHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			0.0003	0.0007	0.0006	0.0004
	STD						
PCB 81 3,4,4',5-TETRACHLOROBIPHENYL	N	0	0	0	1	1	1
	MEAN				0.0002	0.0002	0.0002
	STD						
PCB 126 3, 3', 4, 4', 5-PENTACHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			0.0017	0.0045	0.0025	0.0024
	STD						
PCB 169 3, 3', 4, 4', 5, 5'-HEXACHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			0.0002	0.0004	0.0002	0.0003
	STD						
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0	0	0	1	1	1
	MEAN				<0.0001	<0.0001	0.0001
	STD						
2378-TETRACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1	1
	MEAN		11.7	17.9	11.11	7.38	6.05
	STD						
12378-PENTACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1	1
	MEAN		12.2	(1.8)	13.43	6.95	4.48
	STD						
123478-HEXAChLORODIBENZO-p-DIOXIN	N	0	1	1	1	1	1
	MEAN		ND	(0.4)	ND	(0.96)	ND
	STD						
123678-HEXAChLORODIBENZO-p-DIOXIN	N	0	1	1	1	1	1
	MEAN		23	16.4	15.07	8.72	6.8
	STD						
123789-HEXAChLORODIBENZO-p-DIOXIN	N	0	1	1	1	1	1
	MEAN		ND	(0.4)	2.89	1.83	0.91
	STD						

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, MIDDLE ISLAND

HERRING GULL		YEAR					
		92	93	94	95	96	97
1234678-	N	0	1	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		(0.5)	(0.6)	3.83	3.08	2.07
p-DIOXIN	STD						
OCTACHLORODIBENZO-	N	0	1	1	1	1	1
p-DIOXIN	MEAN		(0.1)	(1.1)	5.89	5.86	3.56
	STD						
2378-	N	0	1	1	1	1	1
TETRACHLORODIBENZO-	MEAN		(0.1)	ND	1.17	ND	1.02
FURAN	STD						
12468-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND	ND
FURAN	STD						
12478-	N	0	0	0	1	1.22	1.09
PENTACHLORODIBENZO-	MEAN				ND		
FURAN	STD						
12378-	N	0	1	1	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	ND	ND	0.42	0.16
FURAN	STD						
23478-	N	0	1	1	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	(0.1)	5.4	5.22	2.45
FURAN	STD						
23467-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND	0.4
FURAN	STD						
124678-	N	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND	ND
FURAN	STD						
124689-	N	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND	0.25
FURAN	STD						
123478-	N	0	1	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	ND	0.6	0.63
FURAN	STD						
123678-	N	0	1	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.1)	1.18	1.49	0.73
FURAN	STD						
123789-	N	0	1	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.8)	1.06	1.13	0.84
FURAN	STD						
234678-	N	0	1	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	ND	ND	ND
FURAN	STD						
1234678-	N	0	1	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	ND	0.6	ND
FURAN	STD						
1234689-	N	0	0	0	1	1	1
HEPTACHLORODIBENZO-	MEAN				ND	ND	ND
FURAN	STD						
1234789-	N	0	1	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	ND	ND	ND
FURAN	STD						
OCTACHLORODIBENZO-	N	0	1	1	1	1	1
FURAN	MEAN		ND	ND	ND	ND	ND
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, EAST SISTER ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
PERCENT LIPID IN EGG	N	1
	MEAN	5.1
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	83.8
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0033
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.0286
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0182
	STD	
DDD	N	1
	MEAN	0.0063
	STD	
DDE	N	1
	MEAN	2.4032
	STD	
DDT	N	1
	MEAN	0.0172
	STD	
DIELDRIN	N	1
	MEAN	0.0816
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.027
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0034
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.002
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0012
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0172
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, EAST SISTER ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
MIREX	N	1
	MEAN	0.031
	STD	
PHOTOMIREX	N	1
	MEAN	0.0119
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0172
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0182
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0197
	STD	
PCB: 1260	N	1
	MEAN	15.461
	STD	
PCB:1254-1260	N	1
	MEAN	20.8285
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	11.3499
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, EAST SISTER ISLAND

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, MIDDLE SISTER ISLAND

HERRING GULL	YEAR	
	94	
PERCENT LIPID IN EGG	N	1
	MEAN	8.8
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	76
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0085
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.0892
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0372
	STD	
DDD	N	1
	MEAN	0.0175
	STD	
DDE	N	1
	MEAN	2.752
	STD	
DDT	N	1
	MEAN	0.0096
	STD	
DIELDRIN	N	1
	MEAN	0.0871
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.0511
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0099
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g}/\text{g}$; all others in $\mu\text{g}/\text{g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, MIDDLE SISTER ISLAND

HERRING GULL	YEAR	
	94	
MIREX	N	1
	MEAN	0.0335
	STD	
PHOTOMIREX	N	1
	MEAN	ND
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0358
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0695
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0722
	STD	
PCB: 1260	N	1
	MEAN	22.2365
	STD	
PCB:1254-1260	N	1
	MEAN	37.8529
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	19.1234
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	1
	MEAN	0.0001
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	1
	MEAN	0.0002
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	1
	MEAN	0.0013
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	1
	MEAN	0.0001
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	31.6
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	7.5
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	(0.1)
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	22.6
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE ERIE, MIDDLE SISTER ISLAND

HERRING GULL	YEAR	
	94	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	(0.4)
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	(0.8)
	STD	
2378-	N	1
TETRACHLORODIBENZO-	MEAN	(0.1)
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
23478-	N	1
PENTACHLORODIBENZO-	MEAN	15.6
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
123678-	N	1
HEXACHLORODIBENZO-	MEAN	(0.1)
FURAN	STD	
123789-	N	1
HEXACHLORODIBENZO-	MEAN	(0.1)
FURAN	STD	
234678-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
OCTACHLORODIBENZO-	N	1
FURAN	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
DETROIT RIVER, FIGHTING ISLAND

HERRING GULL	YEAR					
	92	93	94	95	96	97
PERCENT LIPID IN EGG	N MEAN STD	0 9.9 -	1 7.9 -	1 8.5 -	1 7 -	1 7.29 -
PERCENT MOISTURE IN EGG	N MEAN STD	0 76.4 -	1 77.2 -	1 76.5 -	1 77.3 -	1 77.94 -
CIS/ALPHA-CHLORDANE	N MEAN STD	0 0.0114 -	1 0.0056 -	1 0.0052 -	1 0.0064 -	1 0.002 -
TRANS/GAMMA-CHLORDANE	N MEAN STD	0 ND -	1 ND -	1 ND -	1 ND -	1 ND -
OXYCHLORDANE	N MEAN STD	0 0.0593 -	1 0.0548 -	1 0.0431 -	1 0.0467 -	1 0.03 -
1234-CHLOROBENZENE	N MEAN STD	0 ND -	1 ND -	1 ND -	1 ND -	1 TR -
1245-CHLOROBENZENE	N MEAN STD	0 ND -	1 ND -	1 ND -	1 ND -	1 TR -
PENTACHLOROBENZENE	N MEAN STD	0 ND -	1 ND -	1 ND -	1 ND -	1 0.002 -
HEXACHLOROBENZENE	N MEAN STD	0 0.0219 -	1 0.0248 -	1 0.0218 -	1 0.0213 -	1 0.007 -
DDD	N MEAN STD	0 0.0257 -	1 0.0133 -	1 ND -	1 0.011 -	1 0.005 -
DDE	N MEAN STD	0 2.1415 -	1 1.6839 -	1 1.5336 -	1 1.1585 -	1 0.959 -
DDT	N MEAN STD	0 0.0102 -	1 0.0075 -	1 0.0238 -	1 ND -	1 TR -
DIELDRIN	N MEAN STD	0 0.0808 -	1 0.0504 -	1 0.0275 -	1 0.0504 -	1 0.046 -
HEPTACHLOR EPOXIDE	N MEAN STD	0 0.0401 -	1 0.0298 -	1 0.0168 -	1 0.0309 -	1 0.016 -
ALPHA-HEXACHLOROCYCLOHEXANE	N MEAN STD	0 ND -	1 ND -	1 ND -	1 ND -	1 ND -
BETA-HEXACHLOROCYCLOHEXANE	N MEAN STD	0 ND -	1 ND -	1 ND -	1 ND -	1 ND -
GAMMA-HEXACHLOROCYCLOHEXANE	N MEAN STD	0 ND -	1 ND -	1 ND -	1 ND -	1 ND -
TOTAL MERCURY	N MEAN STD	1 0.138	0 0 -	0 0 -	0 0 -	0 0 -
TRIS (4-CHLOROPHENYL)METHANOL	N MEAN STD	0 0.0094 -	1 0.0074 -	1 0.005 -	1 ND -	1 ND -

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
DETROIT RIVER, FIGHTING ISLAND

HERRING GULL		YEAR					
		92	93	94	95	96	97
MIREX	N	0	1	1	1	1	1
	MEAN	0.0385	0.0548	0.1164	0.0288	0.014	
	STD						
PHOTOMIREX	N	0	1	1	1	1	1
	MEAN	0.0136	0.2104	0.0471	ND	0.004	
	STD						
CIS-NONACHLOR	N	0	1	1	1	1	1
	MEAN	0.0261	0.0254	0.0146	0.0202	0.01	
	STD						
TRANS-NONACHLOR	N	0	1	1	1	1	1
	MEAN	0.051	0.0454	0.0256	0.0374	0.007	
	STD						
OCTACHLOROSTYRENE	N	0	1	1	1	1	1
	MEAN	0.0208	0.0282	ND	0.0177	0.009	
	STD						
PCB: 1260	N	0	1	1	1	1	1
	MEAN	16.5004	15.9751	13.5193	11.006	13.8319	
	STD						
PCB:1254-1260	N	0	1	1	1	1	1
	MEAN	26.7964	25.3828	20.7335	17.3626	19.6114	
	STD						
TOTAL PCB CONGENERS	N	0	1	1	1	1	1
(Based on 42 congeners) ^A	MEAN	13.1941	12.4041	10.2019	9.3772	10.416	
	STD						
TOTAL PCB CONGENERS	N						1
(Based on 59 congeners) ^A	MEAN						11.268
	STD						
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			<0.0001	<0.0001	<0.0001	<0.0001
	STD						
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			0.0002	0.0002	0.0002	0.0001
	STD						
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0	0	0	1	1	1
	MEAN				0.0001	0.0001	0.0001
	STD						
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			0.0008	0.0022	0.0015	0.0015
	STD						
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0	0	1	1	1	1
	MEAN			0.0001	0.0002	0.0002	0.0002
	STD						
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0	0	0	1	1	1
	MEAN				0.0001	<0.0001	0.0001
	STD						
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0	0	1	1	1	1
	MEAN			20.9	7.83	3.82	4.01
	STD						
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0	0	1	1	1	1
	MEAN			(1.3)	3.72	2.3	1.87
	STD						
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0	0	1	1	1	1
	MEAN			(0.1)	ND	ND	ND
	STD						
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0	0	1	1	1	1
	MEAN			12.1	6.75	5.14	4.95
	STD						
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0	0	1	1	1	1
	MEAN			ND	(0.78)	0.88	0.43
	STD						

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
DETROIT RIVER, FIGHTING ISLAND

HERRING GULL		YEAR					
		92	93	94	95	96	97
1234678-	N	0	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN			(4.2)	5.19	2.16	2.67
p-DIOXIN	STD						
OCTACHLORDIBENZO-	N	0	0	1	1	1	1
p-DIOXIN	MEAN			ND	13.69	5.34	6.09
	STD						
2378-	N	0	0	1	1	1	1
TETRACHLORODIBENZO-	MEAN			(0.3)	ND	0.52	0.25
FURAN	STD						
12468-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				0.4	(0.08)	0.07
FURAN	STD						
12478-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				6.33	1.3	0.88
FURAN	STD						
12378-	N	0	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN			ND	ND	(0.34)	0.14
FURAN	STD						
23478-	N	0	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN			(0.1)	3.87	2	1.46
FURAN	STD						
23467-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND	0.27
FURAN	STD						
124678-	N	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN				ND	0.12	0.07
FURAN	STD						
124689-	N	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN				ND	0.18	0.1
FURAN	STD						
123478-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			ND	ND	0.64	0.48
FURAN	STD						
123678-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			ND	0.94	0.88	0.56
FURAN	STD						
123789-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			ND	ND	1	0.56
FURAN	STD						
234678-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			ND	ND	0.72	0.12
FURAN	STD						
1234678-	N	0	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN			ND	1.06	2.16	0.71
FURAN	STD						
1234689-	N	0	0	0	1	1	1
HEPTACHLORODIBENZO-	MEAN				ND	ND	ND
FURAN	STD						
1234789-	N	0	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN			ND	ND	0.4	(0.14)
FURAN	STD						
OCTACHLORODIBENZO-	N	0	0	1	1	1	1
FURAN	MEAN			ND	0.65	0.98	0.56
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
DETROIT RIVER, FIGHTING ISLAND

RING-BILLED GULL	YEAR	
	96	
PERCENT LIPID IN EGG	N	1
	MEAN	8.65
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	75.8
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.003
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.031
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	0.001
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	0.002
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	0.002
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.006
	STD	
DDD	N	1
	MEAN	TR
	STD	
DDE	N	1
	MEAN	0.515
	STD	
DDT	N	1
	MEAN	0.003
	STD	
DIELDRIN	N	1
	MEAN	0.11
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.025
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
DETROIT RIVER, FIGHTING ISLAND

RING-BILLED GULL	YEAR	
	96	
MIREX	N	1
	MEAN	0.005
	STD	
PHOTOMIREX	N	1
	MEAN	0.002
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.005
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.037
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.004
	STD	
PCB: 1260	N	1
	MEAN	1.5328
	STD	
PCB:1254-1260	N	1
	MEAN	2.7397
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	1.6624
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
DETROIT RIVER, FIGHTING ISLAND

RING-BILLED GULL	YEAR	
	96	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, CHANTRY ISLAND

HERRING GULL		YEAR						
		92	93	93	94	95	96	97
PERCENT LIPID IN EGG	N	0	1	10	1	1	1	1
	MEAN		9.8	9.5	8.5	8.2	9	7.82
	STD			0.9888				
PERCENT MOISTURE IN EGG	N	0	1	10	1	1	1	1
	MEAN		75.9	75.78	76.4	76.4	76.6	76.34
	STD			0.8535				
CIS/ALPHA-CHLORDANE	N	0	1	10	1	1	1	1
	MEAN		0.0144	0.0112	ND	0.007	0.0125	0.002
	STD			0.0073				
TRANS/GAMMA-CHLORDANE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
OXYCHLORDANE	N	0	1	10	1	1	1	1
	MEAN		0.1331	0.1481	0.0976	0.0865	0.0904	0.051
	STD			0.124				
1234-CHLOROBENZENE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	TR
	STD							
1245-CHLOROBENZENE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	TR
	STD							
PENTACHLOROBENZENE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	0.001
	STD							
HEXACHLOROBENZENE	N	0	1	10	1	1	1	1
	MEAN		0.0252	0.0245	0.0268	0.0296	0.107	0.012
	STD			0.0099				
DDD	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	0.001
	STD							
DDE	N	0	1	10	1	1	1	1
	MEAN		2.4844	2.674	1.2663	1.5720	1.3491	1.176
	STD			2.6893				
DDT	N	0	1	10	1	1	1	1
	MEAN		0.0242	0.0098	0.0193	0.0328	0.0471	0.008
	STD			0.0089				
DIELDRIN	N	0	1	10	1	1	1	1
	MEAN		0.236	0.2290	0.0903	0.1129	0.1328	0.072
	STD			0.1704				
HEPTACHLOR EPOXIDE	N	0	1	10	1	1	1	1
	MEAN		0.11	0.1155	0.0506	0.0633	0.0494	0.035
	STD			0.0896				
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
TOTAL MERCURY	N	1	0	0	0	0	0	0
	MEAN		0.1512					
	STD							
TRIS (4-CHLOROPHENYL)METHANOL	N	0	1	10	1	1	1	1
	MEAN		0.0098	0.0098	0.0106	0.0059	ND	ND
	STD			0.0065				

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, CHANTRY ISLAND

HERRING GULL		YEAR						
		92	93	93	94	95	96	97
MIREX	N	0	1	10	1	1	1	1
	MEAN		0.0798	0.0322	0.0623	0.0687	0.1077	0.034
	STD			0.0169				
PHOTOMIREX	N	0	1	10	1	1	1	1
	MEAN		0.041	0.0216	0.0179	0.0367	0.0438	0.018
	STD			0.0132				
CIS-NONACHLOR	N	0	1	10	1	1	1	1
	MEAN		0.0569	0.0560	0.0347	0.0503	0.0487	0.026
	STD			0.0275				
TRANS-NONACHLOR	N	0	1	10	1	1	1	1
	MEAN		0.0835	0.0754	0.029	0.0695	0.0779	0.018
	STD			0.0424				
OCTACHLOROSTYRENE	N	0	1	10	1	1	1	1
	MEAN		0.0089	0.0046	ND	ND	0.0252	0.003
	STD			0.0045				
PCB: 1260	N	0	1	10	1	1	1	1
	MEAN		3.9471	4.1587	4.9604	4.6285	3.1049	2.5274
	STD			2.1864				
PCB:1254-1260	N	0	1	10	1	1	1	1
	MEAN		10.0505	9.7176	8.2551	9.5022	7.2977	5.4788
	STD			5.8754				
TOTAL PCB CONGENERS	N	0	1	10	1	1	1	1
(Based on 42 congeners) ^	MEAN		4.6309	4.6876	3.881	4.4415	3.7908	2.859
	STD			2.5051				
TOTAL PCB CONGENERS	N							1
(Based on 59 congeners) ^	MEAN							3.172
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0	0	0	1	1	1	1
	MEAN				0.0001	<0.0001	<0.0001	<0.0001
	STD							
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0	0	0	1	1	1	1
	MEAN				0.0001	0.0002	0.0007	0.0003
	STD							
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0	0	0	0	1	1	1
	MEAN					0.0001	0.0002	0.0001
	STD							
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0	0	0	1	1	1	1
	MEAN				0.0005	0.0018	0.0014	0.0011
	STD							
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0	0	0	1	1	1	1
	MEAN				0.0001	0.0003	0.0002	0.0002
	STD							
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0	0	0	0	1	1	1
	MEAN					<0.0001	<0.0001	<0.0001
	STD							
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0	1	0	1	1	1	1
	MEAN		15.2		16.7	11.55	11.22	6.07
	STD							
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0	1	0	1	1	1	1
	MEAN		14.4		30.4i	10.03	7.82	3.55
	STD							
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	0	1	1	1	1
	MEAN		ND		(0.1)	ND	ND	ND
	STD							
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	0	1	1	1	1
	MEAN		16.5		11.5	8.34	5.99	3.11
	STD							
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	0	1	1	1	1
	MEAN		ND		ND	0.85	ND	0.4
	STD							

* See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, CHANTRY ISLAND

HERRING GULL	YEAR						
	92	93	93	94	95	96	97
1234678-	N	0	1	0	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	(0.7)	2.47	1.89	1.16
p-DIOXIN	STD						
OCTACHLORDIBENZO-	N	0	1	0	1	1	1
p-DIOXIN	MEAN		ND	(0.6)	2.93	1.67	1.45
	STD						
2378-	N	0	1	0	1	1	1
TETRACHLORODIBENZO-	MEAN		ND	ND	ND	0.78	0.31
FURAN	STD						
12468-	N	0	0	0	0	ND	0.73
PENTACHLORODIBENZO-	MEAN						ND
FURAN	STD						
12478-	N	0	0	0	0	ND	3.99
PENTACHLORODIBENZO-	MEAN						0.87
FURAN	STD						
12378-	N	0	1	0	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	ND	ND	0.31	(0.14)
FURAN	STD						
23478-	N	0	1	0	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	5.9	6.88	9.54	2.99
FURAN	STD						
23467-	N	0	0	0	0	ND	ND
PENTACHLORODIBENZO-	MEAN						0.4
FURAN	STD						
124678-	N	0	0	0	0	ND	0.63
HEXACHLORODIBENZO-	MEAN						0.13
FURAN	STD						
124689-	N	0	0	0	0	ND	0.94
HEXACHLORODIBENZO-	MEAN						0.16
FURAN	STD						
123478-	N	0	1	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	2.02	4.28	0.8
FURAN	STD						
123678-	N	0	1	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	2.59	2.71	0.89
FURAN	STD						
123789-	N	0	1	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	1.27	2.82	0.96
FURAN	STD						
234678-	N	0	1	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	ND	ND	0.16
FURAN	STD						
1234678-	N	0	1	0	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	0.91	0.78	0.31
FURAN	STD						
1234689-	N	0	0	0	0	ND	ND
HEPTACHLORODIBENZO-	MEAN						ND
FURAN	STD						
1234789-	N	0	1	0	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	ND	ND	(0.1)
FURAN	STD						
OCTACHLORODIBENZO-	N	0	1	0	1	1	1
FURAN	MEAN		ND	ND	0.44	1.33	0.61
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, MAIDEN ISLAND

HERRING GULL	YEAR	
	93	
PERCENT LIPID IN EGG	N	1
	MEAN	9.7
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	75.9
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0157
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.2677
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0398
	STD	
DDD	N	1
	MEAN	ND
	STD	
DDE	N	1
	MEAN	5.8624
	STD	
DDT	N	1
	MEAN	0.0205
	STD	
DIELDRIN	N	1
	MEAN	0.3378
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.1856
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.015
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, MAIDEN ISLAND

HERRING GULL	YEAR	
	93	
MIREX	N	1
	MEAN	0.0636
	STD	
PHOTOMIREX	N	1
	MEAN	0.0446
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.09
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0975
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0125
	STD	
PCB: 1260	N	1
	MEAN	6.7795
	STD	
PCB:1254-1260	N	1
	MEAN	17.9956
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	7.9089
	STD	
PCB 37 3, 4, 4'- TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	17.5
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	25.8
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	0.6
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	10.7
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	0.5
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, MAIDEN ISLAND

HERRING GULL	YEAR	
	93	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	0.7
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	0.4
	STD	
2378-	N	1
TETRACHLORODIBENZO-	MEAN	0.2
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	0.3
FURAN	STD	
23478-	N	1
PENTACHLORODIBENZO-	MEAN	13.3
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXACHLORODIBENZO-	MEAN	2.6
FURAN	STD	
123678-	N	1
HEXACHLORODIBENZO-	MEAN	3.5
FURAN	STD	
123789-	N	1
HEXACHLORODIBENZO-	MEAN	7.8
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
OCTACHLORODIBENZO-	N	1
FURAN	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, CHANNEL SHELTER ISLAND

HERRING GULL		YEAR					
		92	93	94	95	96	97
PERCENT LIPID IN EGG	N	0	13	1	1	1	1
	MEAN		11.0769	8.9	7.4	7.9	7.74
	STD		3.0795				
PERCENT MOISTURE IN EGG	N	0	13	1	1	1	1
	MEAN		73.6692	76.3	74.4	76.8	75.49
	STD		4.6595				
CIS/ALPHA-CHLORDANE	N	0	13	1	1	1	1
	MEAN		0.0132	0.0092	0.0081	0.0084	0.004
	STD		0.0129				
TRANS/GAMMA-CHLORDANE	N	0	13	1	1	1	1
	MEAN		0.0056	ND	ND	ND	ND
	STD		0.0105				
OXYCHLORDANE	N	0	13	1	1	1	1
	MEAN		0.1991	0.1514	0.1084	0.109	0.06
	STD		0.1318				
1234-CHLOROBENZENE	N	0	13	1	1	1	1
	MEAN		0.0042	ND	ND	0.0967	0.013
	STD		0.0066				
1245-CHLOROBENZENE	N	0	13	1	1	1	1
	MEAN		ND	ND	ND	0.0427	0.002
	STD						
PENTACHLOROBENZENE	N	0	13	1	1	1	1
	MEAN		ND	ND	ND	0.0242	0.007
	STD						
HEXACHLOROBENZENE	N	0	13	1	1	1	1
	MEAN		0.0271	0.0414	0.0283	0.0495	0.023
	STD		0.0230				
DDD	N	0	13	1	1	1	1
	MEAN		0.0580	0.0283	0.0223	0.026	0.018
	STD		0.0422				
DDE	N	0	13	1	1	1	1
	MEAN		14.8343	7.7752	4.2271	4.3498	3.495
	STD		11.1302				
DDT	N	0	13	1	1	1	1
	MEAN		ND	0.0213	0.0331	0.022	0.01
	STD		0				
DIELDRIN	N	0	13	1	1	1	1
	MEAN		0.1882	0.079	0.0641	0.0944	0.051
	STD		0.1139				
HEPTACHLOR EPOXIDE	N	0	13	1	1	1	1
	MEAN		0.0716	0.0752	0.045	0.0638	0.032
	STD		0.0576				
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	13	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
BETA-HEXACHLOROCYCLOHEXANE	N	0	13	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	13	1	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
TOTAL MERCURY	N	1	0	0	0	0	0
	MEAN		0.2448				
	STD						
TRIS (4-CHLOROPHENYL)METHANOL	N	0	13	1	1	1	1
	MEAN		0.0266	0.0202	0.0147	0.0199	0.011
	STD		0.0176				

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, CHANNEL SHELTER ISLAND

HERRING GULL	YEAR					
	92	93	94	95	96	97
MIREX	N	0	13	1	1	1
	MEAN	0.065	0.0715	0.0699	0.1089	0.057
	STD	0.052				
PHOTOMIREX	N	0	13	1	1	1
	MEAN	0.0281	0.2922	0.0361	0.043	0.029
	STD	0.0303				
CIS-NONACHLOR	N	0	13	1	1	1
	MEAN	0.0662	0.0532	0.0335	0.0466	0.028
	STD	0.0354				
TRANS-NONACHLOR	N	0	13	1	1	1
	MEAN	0.2023	0.1415	0.0795	0.1157	0.022
	STD	0.1011				
OCTACHLOROSTYRENE	N	0	13	1	1	1
	MEAN	0.0490	0.0545	0.0187	0.0449	0.017
	STD	0.0366				
PCB: 1260	N	0	13	1	1	1
	MEAN	35.0583	20.0877	11.1221	12.2021	15.1234
	STD	22.0241				
PCB:1254-1260	N	0	13	1	1	1
	MEAN	86.0517	47.4151	24.6275	28.4149	32.5213
	STD	51.6295				
TOTAL PCB CONGENERS	N	0	13	1	1	1
(Based on 4 congeners) ^A	MEAN	43.8245	25.1145	13.3258	16.9642	19.425
	STD	25.9115				
TOTAL PCB CONGENERS	N					1
(Based on 59 congeners) ^A	MEAN					21.406
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0	0	1	1	1
	MEAN		<0.0001	<0.0001	<0.0001	<0.0001
	STD					
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0	0	1	1	1
	MEAN		0.0004	0.0005	0.0007	0.0004
	STD					
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0	0	0	1	1
	MEAN			0.0002	0.0004	0.0002
	STD					
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0	0	1	1	1
	MEAN		0.0029	0.0069	0.0048	0.0038
	STD					
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0	0	1	1	1
	MEAN		0.0004	0.0007	0.0005	0.0006
	STD					
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0	0	0	1	1
	MEAN			0.0001	0.0001	0.0001
	STD					
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1
	MEAN		56.8	42.2	24.97	29.98
	STD					19.56
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1
	MEAN		26.2	14.8	7.33	13.8
	STD					5.82
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1
	MEAN		(0.1)	(0.1)	0.84	0.83
	STD					ND
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1
	MEAN		47.3	30	12.76	17.24
	STD					10
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1
	MEAN		ND	(0.1)	ND	1.55
	STD					0.46

^A See page 11 for details.

- * All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, CHANNEL SHELTER ISLAND

HERRING GULL		YEAR					
		92	93	94	95	96	97
1234678-	N	0	1	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		13.7	(0.6)	3.4	5.19	4.39
p-DIOXIN	STD						
OCTACHLORDIBENZO-	N	0	1	1	1	1	1
p-DIOXIN	MEAN		(2.2)	27.6	9.67	24.44	15.1
	STD						
2378-	N	0	1	1	1	1	1
TETRACHLORODIBENZO-	MEAN		3.4	ND	1.38	29.98	1.04
FURAN	STD						
12468-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				0.83	0.56	(0.1)
FURAN	STD						
12478-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				7.13	3.21	3.05
FURAN	STD						
12378-	N	0	1	1	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	(0.1)	0.51	8.47	0.46
FURAN	STD						
23478-	N	0	1	1	1	1	1
PENTACHLORODIBENZO-	MEAN		19.5	14.8	9.31	18.4	5.71
FURAN	STD						
23467-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND	0.86
FURAN	STD						
124678-	N	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN				ND	0.31	0.17
FURAN	STD						
124689-	N	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN				0.62	0.69	0.4
FURAN	STD						
123478-	N	0	1	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	2.02	3.34	1.26
FURAN	STD						
123678-	N	0	1	1	1	1	1
HEXACHLORODIBENZO-	MEAN		8.1	(0.8)	3.42	4.66	2.24
FURAN	STD						
123789-	N	0	1	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.8)	3.32	2.95	1.41
FURAN	STD						
234678-	N	0	1	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.4)	ND	0.09	0.13
FURAN	STD						
1234678-	N	0	1	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		(0.1)	(0.6)	2.8	2.65	1.35
FURAN	STD						
1234689-	N	0	0	0	1	1	1
HEPTACHLORODIBENZO-	MEAN				ND	ND	ND
FURAN	STD						
1234789-	N	0	1	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	(0.6)	ND	0.18	0.17
FURAN	STD						
OCTACHLORODIBENZO-	N	0	1	1	1	1	1
FURAN	MEAN		ND	ND	0.31	0.54	ND
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, ST. MARTIN'S SHOAL

HERRING GULL		YEAR
		92
TOTAL MERCURY	N	1
	MEAN	0.165
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, DUCK ISLAND

HERRING GULL	YEAR	
	93	
PERCENT LIPID IN EGG	N	1
	MEAN	9.3
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	75.9
	STD	
CIS/ALPHA-CHLORDANE	N	0
	MEAN	
	STD	
TRANS/GAMMA-CHLORDANE	N	0
	MEAN	
	STD	
OXYCHLORDANE	N	0
	MEAN	
	STD	
1234-CHLOROBENZENE	N	0
	MEAN	
	STD	
1245-CHLOROBENZENE	N	0
	MEAN	
	STD	
PENTACHLOROBENZENE	N	0
	MEAN	
	STD	
HEXACHLOROBENZENE	N	0
	MEAN	
	STD	
DDD	N	0
	MEAN	
	STD	
DDE	N	0
	MEAN	
	STD	
DDT	N	0
	MEAN	
	STD	
DIELDRIN	N	0
	MEAN	
	STD	
HEPTACHLOR EPOXIDE	N	0
	MEAN	
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	0
	MEAN	
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	0
	MEAN	
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	0
	MEAN	
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, DUCK ISLAND

HERRING GULL	YEAR	
	93	
MIREX	N	0
	MEAN	
	STD	
PHOTOMIREX	N	0
	MEAN	
	STD	
CIS-NONACHLOR	N	0
	MEAN	
	STD	
TRANS-NONACHLOR	N	0
	MEAN	
	STD	
OCTACHLOROSTYRENE	N	0
	MEAN	
	STD	
PCB: 1260	N	0
	MEAN	
	STD	
PCB:1254-1260	N	0
	MEAN	
	STD	
TOTAL PCB CONGENERS	N	0
	MEAN	
	STD	
PCB 37 3, 4, 4'-TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4'-TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	28.5
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	27.4
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	1.1
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	16.5
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	0.7
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, DUCK ISLAND

HERRING GULL	YEAR	
	93	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	1.7
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	0.2
	STD	
2378-	N	1
TETRACHLORODIBENZO-	MEAN	1
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
23478-	N	1
PENTACHLORODIBENZO-	MEAN	16.4
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXACHLORODIBENZO-	MEAN	2.8
FURAN	STD	
123678-	N	1
HEXACHLORODIBENZO-	MEAN	5
FURAN	STD	
123789-	N	1
HEXACHLORODIBENZO-	MEAN	3.2
FURAN	STD	
234678-	N	1
HEXACHLORODIBENZO-	MEAN	7.6
FURAN	STD	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
OCTACHLORODIBENZO-	N	1
FURAN	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, GULL ISLAND

HERRING GULL	YEAR	
	93	
PERCENT LIPID IN EGG	N	1
	MEAN	8.9
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	76.4
	STD	
CIS/ALPHA-CHLORDANE	N	0
	MEAN	
	STD	
TRANS/GAMMA-CHLORDANE	N	0
	MEAN	
	STD	
OXYCHLORDANE	N	0
	MEAN	
	STD	
1234-CHLOROBENZENE	N	0
	MEAN	
	STD	
1245-CHLOROBENZENE	N	0
	MEAN	
	STD	
PENTACHLOROBENZENE	N	0
	MEAN	
	STD	
HEXACHLOROBENZENE	N	0
	MEAN	
	STD	
DDD	N	0
	MEAN	
	STD	
DDE	N	0
	MEAN	
	STD	
DDT	N	0
	MEAN	
	STD	
DIELDRIN	N	0
	MEAN	
	STD	
HEPTACHLOR EPOXIDE	N	0
	MEAN	
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	MEAN	
	STD	
BETA-HEXACHLOROCYCLOHEXANE	MEAN	
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	MEAN	
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, GULL ISLAND

HERRING GULL	YEAR	
	93	
MIREX	N	0
	MEAN	
	STD	
PHOTOMIREX	N	0
	MEAN	
	STD	
CIS-NONACHLOR	N	0
	MEAN	
	STD	
TRANS-NONACHLOR	N	0
	MEAN	
	STD	
OCTACHLOROSTYRENE	N	0
	MEAN	
	STD	
PCB: 1260	N	0
	MEAN	
	STD	
PCB:1254-1260	N	0
	MEAN	
	STD	
TOTAL PCB CONGENERS	N	0
	MEAN	
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	22.9
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	8.8
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	0.1
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	8
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	0.1
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, GULL ISLAND

HERRING GULL	YEAR	
	93	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	5.7
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	14.1
	STD	
2378-	N	1
TETRACHLORODIBENZO-	MEAN	ND
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
23478-	N	1
PENTACHLORODIBENZO-	MEAN	9
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXAChLORODIBENZO-	MEAN	4.2
FURAN	STD	
123678-	N	1
HEXAChLORODIBENZO-	MEAN	3.8
FURAN	STD	
123789-	N	1
HEXAChLORODIBENZO-	MEAN	1.1
FURAN	STD	
234678-	N	1
HEXAChLORODIBENZO-	MEAN	2.2
FURAN	STD	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	0.1
FURAN	STD	
OCTACHLORODIBENZO-	N	1
FURAN	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, WALLIS ROCKS

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
PERCENT LIPID IN EGG	N	1
	MEAN	4.3
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	84.6
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0027
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	0.0011
	STD	
OXYCHLORDANE	N	1
	MEAN	0.0373
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	0.0284
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.014
	STD	
DDD	N	1
	MEAN	0.003
	STD	
DDE	N	1
	MEAN	2.8034
	STD	
DDT	N	1
	MEAN	0.0189
	STD	
DIELDRIN	N	1
	MEAN	0.0644
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.0254
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0043
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0023
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0011
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0175
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, WALLIS ROCKS

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
MIREX	N	1
	MEAN	0.0916
	STD	
PHOTOMIREX	N	1
	MEAN	0.0341
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0157
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0126
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0103
	STD	
PCB: 1260	N	1
	MEAN	4.5111
	STD	
PCB:1254-1260	N	1
	MEAN	8.5324
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	4.0141
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, WALLIS ROCKS

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORDIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, HALFMON ISLAND

GREAT BLACK-BACKED GULL	YEAR	
	94	
PERCENT LIPID IN EGG	N	1
	MEAN	8.3
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	77.2
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0566
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	0.0048
	STD	
OXYCHLORDANE	N	1
	MEAN	0.3431
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0695
	STD	
DDD	N	1
	MEAN	ND
	STD	
DDE	N	1
	MEAN	9.9971
	STD	
DDT	N	1
	MEAN	0.0731
	STD	
DIELDRIN	N	1
	MEAN	0.7061
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.2068
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0211
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, HALFMONK ISLAND

GREAT BLACK-BACKED GULL	YEAR	
	94	
MIREX	N	1
	MEAN	0.2264
	STD	
PHOTOMIREX	N	1
	MEAN	0.1088
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.2433
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.7552
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.023
	STD	
PCB: 1260	N	1
	MEAN	15.5004
	STD	
PCB:1254-1260	N	1
	MEAN	33.7786
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	15.6438
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, HALFMOON ISLAND

GREAT BLACK-BACKED GULL	YEAR	
	94	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORDIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, HALFMOON ISLAND

HERRING GULL	YEAR	
	94	
PERCENT LIPID IN EGG	N	1
	MEAN	8.4
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	77.3
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0139
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.1361
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0292
	STD	
DDD	N	1
	MEAN	ND
	STD	
DDE	N	1
	MEAN	2.8123
	STD	
DDT	N	1
	MEAN	0.0354
	STD	
DIELDRIN	N	1
	MEAN	0.1473
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.0689
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0084
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, HALFMONK ISLAND

HERRING GULL	YEAR	
	94	
MIREX	N	1
	MEAN	0.0974
	STD	
PHOTOMIREX	N	1
	MEAN	0.0502
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0729
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0848
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	ND
	STD	
PCB: 1260	N	1
	MEAN	4.8014
	STD	
PCB:1254-1260	N	1
	MEAN	10.0895
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	4.3586
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, HALFMOON ISLAND

HERRING GULL	YEAR	
	94	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, MOUSE ISLAND

HERRING GULL	YEAR	
	94	
PERCENT LIPID IN EGG	N	1
	MEAN	8.7
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	76.7
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0193
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.1417
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0349
	STD	
DDD	N	1
	MEAN	ND
	STD	
DDE	N	1
	MEAN	2.5134
	STD	
DDT	N	1
	MEAN	0.0347
	STD	
DIELDRIN	N	1
	MEAN	0.1451
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.079
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0108
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, MOUSE ISLAND

HERRING GULL	YEAR	
	94	
MIREX	N	1
	MEAN	0.2094
	STD	
PHOTOMIREX	N	1
	MEAN	0.0919
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0662
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0655
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	ND
	STD	
PCB: 1260	N	1
	MEAN	6.7188
	STD	
PCB:1254-1260	N	1
	MEAN	14.8221
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	6.6835
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	1
	MEAN	<0.0001
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	1
	MEAN	0.0002
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	1
	MEAN	0.0009
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	1
	MEAN	0.0001
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	30.1
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	1.7
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	(0.1)
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	11.6
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, MOUSE ISLAND

HERRING GULL	YEAR	
	94	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	(0.1)
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	(0.2)
	STD	
2378-	N	1
TETRACHLORODIBENZO-	MEAN	ND
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	(0.4)
FURAN	STD	
23478-	N	1
PENTACHLORODIBENZO-	MEAN	13.5
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
123678-	N	1
HEXACHLORODIBENZO-	MEAN	(0.1)
FURAN	STD	
123789-	N	1
HEXACHLORODIBENZO-	MEAN	(0.1)
FURAN	STD	
234678-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
OCTACHLORODIBENZO-	N	1
FURAN	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, GERTRUDE ISLAND

RING-BILLED GULL	YEAR	
	94	
PERCENT LIPID IN EGG	N	1
	MEAN	9.5
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	75.5
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0049
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.0324
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	0.0027
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0077
	STD	
DDD	N	1
	MEAN	ND
	STD	
DDE	N	1
	MEAN	0.4965
	STD	
DDT	N	1
	MEAN	0.0067
	STD	
DIELDRIN	N	1
	MEAN	0.1657
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.0313
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0032
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, GERTRUDE ISLAND

RING-BILLED GULL	YEAR	
	94	
MIREX	N	1
	MEAN	0.0065
	STD	
PHOTOMIREX	N	1
	MEAN	ND
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0071
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0554
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0022
	STD	
PCB: 1260	N	1
	MEAN	1.3913
	STD	
PCB:1254-1260	N	1
	MEAN	2.5174
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	1.2017
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	1
	MEAN	<0.0001
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	1
	MEAN	0.0001
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	1
	MEAN	0.0001
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	1
	MEAN	<0.0001
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	4.7
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	(0.5)
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	ND
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	(0.5)
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, GERTRUDE ISLAND

RING-BILLED GULL	YEAR	
	94	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	(0.7)
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	(0.9)
	STD	
2378-	N	1
TETRACHLORODIBENZO-	MEAN	ND
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
23478-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
123678-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
123789-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
234678-	N	1
HEXACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	(0.4)
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
OCTACHLORODIBENZO-	N	1
FURAN	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, DOUBLE ISLAND

HERRING GULL		YEAR						
		92	93	93	94	95	96	97
PERCENT LIPID IN EGG	N	0	1	10	1	1	1	1
	MEAN		9	9.28	9	7.5	9	8.38
	STD			1.2354				
PERCENT MOISTURE IN EGG	N	0	1	10	1	1	1	1
	MEAN		77	76.86	76.3	75.4	76.3	76.45
	STD			0.8003				
CIS/ALPHA-CHLORDANE	N	0	1	10	1	1	1	1
	MEAN		0.0075	0.0051	0.0066	0.007	0.0023	0.002
	STD			0.0049				
TRANS/GAMMA-CHLORDANE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
OXYCHLORDANE	N	0	1	10	1	1	1	1
	MEAN		0.1399	0.1142	0.1584	0.0887	0.1623	0.059
	STD			0.0671				
1234-CHLOROBENZENE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	TR
	STD							
1245-CHLOROBENZENE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	TR
	STD							
PENTACHLOROBENZENE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	TR
	STD							
HEXACHLOROBENZENE	N	0	1	10	1	1	1	1
	MEAN		0.0337	0.0397	0.0340	0.0226	0.0474	0.02
	STD			0.0526				
DDD	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	0.001
	STD							
DDE	N	0	1	10	1	1	1	1
	MEAN		3.7473	3.6693	3.0951	1.6301	2.6556	1.343
	STD			2.5063				
DDT	N	0	1	10	1	1	1	1
	MEAN		0.0162	0.0043	0.0475	0.0374	0.0344	0.009
	STD			0.0068				
DIELDRIN	N	0	1	10	1	1	1	1
	MEAN		0.2006	0.1462	0.1793	0.0779	0.1309	0.056
	STD			0.0608				
HEPTACHLOR EPOXIDE	N	0	1	10	1	1	1	1
	MEAN		0.1185	0.0989	0.1135	0.0533	0.0773	0.034
	STD			0.054				
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	10	1	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
TOTAL MERCURY	N	1	0	0	0	0	0	0
	MEAN		0.1968					
	STD							
TRIS (4-CHLOROPHENYL)METHANOL	N	0	1	10	1	1	1	1
	MEAN		0.0128	0.0092	0.0152	0.0066	0.0086	ND
	STD			0.0059				

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, DOUBLE ISLAND

HERRING GULL		YEAR						
		92	93	93	94	95	96	97
MIREX	N	0	1	10	1	1	1	1
	MEAN		0.0879	0.0892	0.1434	0.0501	0.1726	0.023
	STD			0.0766				
PHOTOMIREX	N	0	1	10	1	1	1	1
	MEAN		0.0458	0.0437	0.0649	0.025	0.0768	0.014
	STD			0.0291				
CIS-NONACHLOR	N	0	1	10	1	1	1	1
	MEAN		0.0702	0.0551	0.0753	0.05	0.0584	0.031
	STD			0.0207				
TRANS-NONACHLOR	N	0	1	10	1	1	1	1
	MEAN		0.0769	0.0652	0.0737	0.0498	0.0745	0.017
	STD			0.0189				
OCTACHLOROSTYRENE	N	0	1	10	1	1	1	1
	MEAN		0.0107	0.0072	ND	ND	ND	0.004
	STD			0.0132				
PCB: 1260	N	0	1	10	1	1	1	1
	MEAN		5.0473	5.2292	6.2795	3.6492	5.4325	2.359
	STD			2.9725				
PCB:1254-1260	N	0	1	10	1	1	1	1
	MEAN		12.8246	12.1767	14.1528	8.4095	12.7966	5.5758
	STD			6.6934				
TOTAL PCB CONGENERS	N	0	1	10	1	1	1	1
(Based on 42 congeners) ^A	MEAN		5.6101	5.4772	6.2061	3.5978	5.9045	2.843
	STD			2.8403				
TOTAL PCB CONGENERS	N							1
(Based on 59 congeners) ^A	MEAN							3.131
PCB 37 3, 4, 4'-TRICHLOROBIPHENYL	N	0	0	0	1	1	1	1
	MEAN				<0.0001	(<0.0001)	(<0.0001)	<0.0001
	STD							
PCB 77 3, 3', 4, 4'-TETRACHLOROBIPHENYL	N	0	0	0	1	1	1	1
	MEAN				0.0001	0.0002	0.0002	0.0002
	STD							
PCB 81 3,4,4',5-TETRACHLOROBIPHENYL	N	0	0	0	0	1	1	1
	MEAN					0.0001	0.0002	0.0001
	STD							
PCB 126 3, 3', 4, 4', 5 -PENTACHLOROBIPHENYL	N	0	0	0	1	1	1	1
	MEAN				0.0011	0.0017	0.0022	0.0017
	STD							
PCB 169 3, 3', 4, 4', 5, 5' -HEXAChLOROBIPHENYL	N	0	0	0	1	1	1	1
	MEAN				0.0002	0.0002	0.0003	0.0002
	STD							
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0	0	0	0	1	1	1
	MEAN					ND	<0.0001	<0.0001
	STD							
2378-TETRACHLORODIBENZO-p-DIOXIN	N	0	1	0	1	1	1	1
	MEAN			17.6		30.1	10.33	14.98
	STD							10.18
12378-PENTACHLORODIBENZO-p-DIOXIN	N	0	1	0	1	1	1	1
	MEAN			17.6		46.7	9.98	9.04
	STD							7.59
123478-HEXAChLORODIBENZO-p-DIOXIN	N	0	1	0	1	1	1	1
	MEAN				(0.1)	0.44	ND	ND
	STD							
123678-HEXAChLORODIBENZO-p-DIOXIN	N	0	1	0	1	1	1	1
	MEAN			13.6		16.7	7.63	6.7
	STD							7.42
123789-HEXAChLORODIBENZO-p-DIOXIN	N	0	1	0	1	1	1	1
	MEAN			ND		(0.2)	1.1	(0.76)
	STD							0.51

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, DOUBLE ISLAND

HERRING GULL		YEAR						
		92	93	93	94	95	96	97
1234678-	N	0	1	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		(0.6)		(0.7)	1.87	1.46	2.23
p-DIOXIN	STD							
OCTACHLORDIBENZO-	N	0	1	0	1	1	1	1
p-DIOXIN	MEAN		ND		(0.7)	4.99	1.56	4.34
STD								
2378-	N	0	1	0	1	1	1	1
TETRACHLORODIBENZO-	MEAN		(0.1)		0	1.9	0.38	0.39
FURAN	STD							
12468-	N	0	0	0	0	0.14	ND	ND
PENTACHLORODIBENZO-	MEAN							
FURAN	STD							
12478-	N	0	0	0	0	0.9	1.48	0.87
PENTACHLORODIBENZO-	MEAN							
FURAN	STD							
12378-	N	0	1	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		ND		(0.2)	ND	ND	0.14
FURAN	STD							
23478-	N	0	1	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		ND		11.6	9.22	7.2	4.58
FURAN	STD							
23467-	N	0	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN					ND	ND	0.24
FURAN	STD							
124678-	N	0	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN					ND	ND	0.09
FURAN	STD							
124689-	N	0	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN					ND	ND	0.16
FURAN	STD							
123478-	N	0	1	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND		ND	3.25	1.16	0.85
FURAN	STD							
123678-	N	0	1	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND		(0.1)	3.11	1.24	1.2
FURAN	STD							
123789-	N	0	1	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND		(0.1)	1.81	1.18	0.87
FURAN	STD							
234678-	N	0	1	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND		ND	ND	ND	0.22
FURAN	STD							
1234678-	N	0	1	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND		ND	1.19	ND	0.73
FURAN	STD							
1234689-	N	0	0	0	0	1	1	1
HEPTACHLORODIBENZO-	MEAN					ND	ND	ND
FURAN	STD							
1234789-	N	0	1	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND		ND	ND	ND	0.11
FURAN	STD							
OCTACHLORODIBENZO-	N	0	1	0	1	1	1	1
FURAN	MEAN		ND		ND	0.23	0.22	ND
STD								

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, AFRICA ROCK

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
PERCENT LIPID IN EGG	N	1
	MEAN	5.3
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	84.5
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0022
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	0.0005
	STD	
OXYCHLORDANE	N	1
	MEAN	0.0303
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.013
	STD	
DDD	N	1
	MEAN	0.0019
	STD	
DDE	N	1
	MEAN	2.2593
	STD	
DDT	N	1
	MEAN	0.0131
	STD	
DIELDRIN	N	1
	MEAN	0.0662
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.0291
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0031
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0021
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0009
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.012
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, AFRICA ROCK

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
MIREX	N	1
	MEAN	0.0295
	STD	
PHOTOMIREX	N	1
	MEAN	0.0141
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0117
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0089
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0127
	STD	
PCB: 1260	N	1
	MEAN	4.7441
	STD	
PCB:1254-1260	N	1
	MEAN	8.9277
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	4.2534
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE HURON, AFRICA ROCK

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, GULL ISLAND

HERRING GULL		YEAR						
		92	93	94	94	95	96	97
PERCENT LIPID IN EGG	N	0	1	1	12	1	1	1
	MEAN		9.9	9.3	9.175	8.5	8.2	7.57
	STD				0.7899			
PERCENT MOISTURE IN EGG	N	0	1	1	12	1	1	1
	MEAN		76.2	76	75.6917	76.3	76.2	76.42
	STD				1.2214			
CIS/ALPHA-CHLORDANE	N	0	1	1	12	1	1	1
	MEAN		0.0215	0.0258	0.0242	0.017	0.0202	0.011
	STD				0.0144			
TRANS/GAMMA-CHLORDANE	N	0	1	1	12	1	1	1
	MEAN		ND	ND	0.0008	ND	ND	ND
	STD				0.0022			
OXYCHLORDANE	N	0	1	1	12	1	1	1
	MEAN		0.5553	0.436	0.4063	0.188	0.2731	0.333
	STD				0.2985			
1234-CHLOROBENZENE	N	0	1	1	12	1	1	1
	MEAN		ND	ND	ND	ND	ND	TR
	STD							
1245-CHLOROBENZENE	N	0	1	1	12	1	1	1
	MEAN		ND	ND	ND	ND	ND	TR
	STD							
PENTACHLOROBENZENE	N	0	1	1	12	1	1	1
	MEAN		ND	ND	ND	ND	ND	0.002
	STD							
HEXACHLOROBENZENE	N	0	1	1	12	1	1	1
	MEAN		0.0702	0.0524	0.0580	0.0259	0.0398	0.029
	STD				0.0228			
DDD	N	0	1	1	12	1	1	1
	MEAN		0.0081	0.0126	0.0077	ND	0.0082	0.004
	STD				0.0089			
DDE	N	0	1	1	12	1	1	1
	MEAN		11.0349	11.9428	12.2373	4.8426	6.0995	9.127
	STD				7.4297			
DDT	N	0	1	1	12	1	1	1
	MEAN		0.0492	0.0947	0.0694	0.0462	0.0669	0.022
	STD				0.0425			
DIELDRIN	N	0	1	1	12	1	1	1
	MEAN		0.3922	0.4853	0.4221	0.1396	0.2117	0.227
	STD				0.1945			
HEPTACHLOR EPOXIDE	N	0	1	1	12	1	1	1
	MEAN		0.3203	0.3618	0.3095	0.112	0.1362	0.177
	STD				0.1707			
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	1	12	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	1	12	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	1	12	1	1	1
	MEAN		ND	ND	ND	ND	ND	ND
	STD							
TOTAL MERCURY	N	1	0	0	0	0	0	0
	MEAN		0.1404					
	STD							
TRIS (4-CHLOROPHENYL) METHANOL	N	0	1	1	12	1	1	1
	MEAN		0.0373	0.0298	0.0254	0.0128	0.0214	0.016
	STD				0.0109			

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, GULL ISLAND

HERRING GULL	YEAR						
	92	93	94	94	95	96	97
MIREX	N MEAN STD	0 0.1355 0.0722	1 0.0965 0.1033	1 0.0537	12 0.0787 0.04	1 0.0787 0.04	1 0.04
PHOTOMIREX	N MEAN STD	0 0.0779 0.2493	1 0.0504 0.3625	1 0.0301	12 0.046 0.036	1 0.046 0.036	1 0.036
CIS-NONACHLOR	N MEAN STD	0 0.0764 0.0629	1 0.1308 0.1196	1 0.0695	12 0.0778 0.132	1 0.0778 0.132	1 0.132
TRANS-NONACHLOR	N MEAN STD	0 0.1282 0.0882	1 0.1816 0.2023	1 0.0989	12 0.1242 0.099	1 0.1242 0.099	1 0.099
OCTACHLOROSTYRENE	N MEAN STD	0 ND 0.0074 0.0096	1 ND 12 ND	1 ND	12 1 ND	1 ND 0.004	1 0.004
PCB: 1260	N MEAN STD	0 16.9433 16.4035	1 13.4351 7.0541	1 7.6217	12 8.2296 1 1	1 14.1889 1 1	1 1
PCB:1254-1260	N MEAN STD	0 39.4796 38.4749	1 37.8229 18.0638	1 20.0082	12 22.7412 1 1	1 41.7763 1 1	1 1
TOTAL PCB CONGENERS (Based on 59 congeners) ^A	N MEAN STD	0 17.582 16.2357	1 12 1 7.7262	1 8.4418	12 10.429 1 1	1 20.43 1 1	1 1
TOTAL PCB CONGENERS (Based on 59 congeners) ^A	N MEAN STD	0 17.582 16.2357	1 12 1 7.7262	1 8.4418	12 10.429 1 1	1 20.43 1 1	1 1
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N MEAN STD	0 0 <0.0001	0 1 0	0 1 (<0.0001)	0 1 1	0 <0.0001 1 <0.0001	0 1 1 <0.0001
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N MEAN STD	0 0 0.0007	0 1 0	0 1 0.0003	0 1 0.0013	0 1 1 0.0003	0 1 1 0.0003
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N MEAN STD	0 0 0	0 1 0	0 1 0.0002	0 1 0.0003	0 1 1 0.0002	0 1 1 0.0002
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N MEAN STD	0 0 0.0037	0 1 0	0 1 0.0051	0 1 0.0051	0 1 1 0.0033	0 1 1 0.0033
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N MEAN STD	0 0 0.0004	0 1 0	0 1 0.0006	0 1 0.0006	0 1 1 0.0004	0 1 1 0.0004
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0	0 0 0	0 1 <0.0001	0 1 <0.0001	0 1 1 <0.0001	0 1 1 <0.0001
2378- TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 20.6 27	1 0 0	1 6.67 9.78	1 9.78 3.74	1 9.78 3.74	1 3.74
12378- PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 28.7 22.7	1 0 0	1 13.31 16.34	1 13.31 16.34	1 16.34 4.86	1 4.86
123478- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.1) 0	1 0 0	1 ND 0.56	1 ND 0.56	1 ND 0.56	1 ND
123678- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 18.8 25.7	1 0 0	1 12.64 10.46	1 12.64 10.46	1 10.46 5.7	1 5.7
123789- HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 (0.1) ND	1 0 0	1 ND 1.34	1 ND 1.34	1 ND 0.44	1 0.44

* See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, GULL ISLAND

HERRING GULL		YEAR						
		92	93	94	94	95	96	97
1234678-	N	0	1	1	0	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	(0.7)		3.84	1.12	0.34
p-DIOXIN	STD							
OCTACHLORODIBENZO-	N	0	1	1	0	1	1	1
p-DIOXIN	MEAN		ND	(0.6)		5.88	1.34	0.65
STD								
2378-	N	0	1	1	0	1	1	1
TETRACHLORODIBENZO-	MEAN		(6.8)	(0.1)		0.62	1.62	0.33
FURAN	STD							
12468-	N	0	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN					0.42	0.26	ND
FURAN	STD							
12478-	N	0	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN					1.51	2.8	0.41
FURAN	STD							
12378-	N	0	1	1	0	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	ND		ND	0.6	0.14
FURAN	STD							
23478-	N	0	1	1	0	1	1	1
PENTACHLORODIBENZO-	MEAN		12	15.7		9.17	12.54	2.44
FURAN	STD							
23467-	N	0	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN					ND	ND	ND
FURAN	STD							
124678-	N	0	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN					ND	0.2	ND
FURAN	STD							
124689-	N	0	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN					ND	0.36	ND
FURAN	STD							
123478-	N	0	1	1	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND		1.45	1.62	0.5
FURAN	STD							
123678-	N	0	1	1	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	7		3.31	2.5	0.92
FURAN	STD							
123789-	N	0	1	1	0	1	1	1
HEXACHLORODIBENZO-	MEAN		(0.1)	6.6		1.88	2.18	0.45
FURAN	STD							
234678-	N	0	1	1	0	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND		(0.55)	0.6	0.16
FURAN	STD							
1234678-	N	0	1	1	0	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND		0.81	0.5	0.21
FURAN	STD							
1234689-	N	0	0	0	0	1	1	1
HEPTACHLORODIBENZO-	MEAN					ND	ND	ND
FURAN	STD							
1234789-	N	0	1	1	0	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND		ND	0.14	(0.03)
FURAN	STD							
OCTACHLORODIBENZO-	N	0	1	1	0	1	1	1
FURAN	MEAN		ND	ND		ND	ND	ND
STD								

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, GARY, INDIANA

HERRING GULL	YEAR	
	93	
PERCENT LIPID IN EGG	N	1
	MEAN	8.9
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	76.3
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.017
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.4467
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0293
	STD	
DDD	N	1
	MEAN	0.0097
	STD	
DDE	N	1
	MEAN	10.937
	STD	
DDT	N	1
	MEAN	0.0383
	STD	
DIELDRIN	N	1
	MEAN	0.2454
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.1783
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.02
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, GARY, INDIANA

HERRING GULL	YEAR	
	93	
MIREX	N	1
	MEAN	0.074
	STD	
PHOTOMIREX	N	1
	MEAN	ND
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.073
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.1332
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	ND
	STD	
PCB: 1260	N	1
	MEAN	17.4076
	STD	
PCB:1254-1260	N	1
	MEAN	39.9249
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	17.7352
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	1
	MEAN	0.0001
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	1
	MEAN	0.0005
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	1
	MEAN	0.0026
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	1
	MEAN	0.0003
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	10.8
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	ND
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	ND
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	13.5
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, GARY, INDIANA

HERRING GULL	YEAR	
	93	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	(0.3)
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	(0.6)
	STD	
2378-	N	1
TETRACHLORODIBENZO-	MEAN	(0.1)
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
23478-	N	1
PENTACHLORODIBENZO-	MEAN	11.2
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXAChLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	1
HEXAChLORODIBENZO-	MEAN	ND
FURAN	STD	
123678-	N	1
HEXAChLORODIBENZO-	MEAN	(0.1)
FURAN	STD	
123789-	N	1
HEXAChLORODIBENZO-	MEAN	11.1
FURAN	STD	
234678-	N	1
HEXAChLORODIBENZO-	MEAN	ND
FURAN	STD	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
OCTACHLORODIBENZO-	N	1
FURAN	MEAN	(0.2)

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, EAST CHICAGO

HERRING GULL		YEAR		
		93	94	95
PERCENT LIPID IN EGG	N	1	1	1
	MEAN	9.4	8.8	8.4
	STD			
PERCENT MOISTURE IN EGG	N	1	1	1
	MEAN	76.4	76.1	76.8
	STD			
CIS/ALPHA-CHLORDANE	N	1	1	1
	MEAN	0.0204	0.0166	0.0129
	STD			
TRANS/GAMMA-CHLORDANE	N	1	1	1
	MEAN	ND	ND	ND
	STD			
OXYCHLORDANE	N	1	1	1
	MEAN	0.2674	0.2503	0.2363
	STD			
1234-CHLOROBENZENE	N	1	1	1
	MEAN	ND	ND	ND
	STD			
1245-CHLOROBENZENE	N	1	1	1
	MEAN	ND	ND	ND
	STD			
PENTACHLOROBENZENE	N	1	1	1
	MEAN	ND	ND	ND
	STD			
HEXACHLOROBENZENE	N	1	1	1
	MEAN	0.0247	0.0222	0.0248
	STD			
DDD	N	1	1	1
	MEAN	0.014	0.0142	ND
	STD			
DDE	N	1	1	1
	MEAN	7.4503	6.3078	6.1193
	STD			
DDT	N	1	1	1
	MEAN	0.0354	0.0541	0.0414
	STD			
DIELDRIN	N	1	1	1
	MEAN	0.144	0.1134	0.1124
	STD			
HEPTACHLOR EPOXIDE	N	1	1	1
	MEAN	0.1228	0.099	0.0988
	STD			
ALPHA-HEXACHLOROCYCLOHEXANE	N	1	1	1
	MEAN	ND	ND	ND
	STD			
BETA-HEXACHLOROCYCLOHEXANE	N	1	1	1
	MEAN	ND	ND	ND
	STD			
GAMMA-HEXACHLOROCYCLOHEXANE	N	1	1	1
	MEAN	ND	ND	ND
	STD			
TOTAL MERCURY	N	0	0	0
	MEAN			
	STD			
TRIS (4-CHLOROPHENYL) METHANOL	N	1	1	1
	MEAN	0.015	0.0109	0.0129
	STD			

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, EAST CHICAGO

HERRING GULL		YEAR		
		93	94	95
MIREX	N	1	1	1
	MEAN	0.0624	0.0541	0.0489
	STD			
PHOTOMIREX	N	1	1	1
	MEAN	ND	0.0319	0.0315
	STD			
CIS-NONACHLOR	N	1	1	1
	MEAN	0.0687	0.0598	0.0603
	STD			
TRANS-NONACHLOR	N	1	1	1
	MEAN	0.1287	0.1084	0.1083
	STD			
OCTACHLOROSTYRENE	N	1	1	1
	MEAN	ND	ND	ND
	STD			
PCB: 1260	N	1	1	1
	MEAN	15.4961	11.6999	9.7799
	STD			
PCB:1254-1260	N	1	1	1
	MEAN	31.4744	26.0042	22.9844
	STD			
TOTAL PCB CONGENERS	N	1	1	1
	MEAN	15.8706	12.9526	11.5159
	STD			
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	1	1	1
	MEAN	<0.0001	<0.0001	<0.0001
	STD			
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	1	1	1
	MEAN	0.0005	0.0006	0.0007
	STD			
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0	1	1
	MEAN		0.0002	0.0003
	STD			
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	1	1	1
	MEAN	0.0023	0.0047	0.0063
	STD			
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	1	1	1
	MEAN	0.0003	0.0006	0.0007
	STD			
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0	1	1
	MEAN		<0.0001	<0.0001
	STD			
2378- TETRACHLORODIBENZO-p-DIOXIN	N	1	1	1
	MEAN	14.1	5.22	5.67
	STD			
12378- PENTACHLORODIBENZO-p-DIOXIN	N	1	1	1
	MEAN	(0.5)	5.04	5.05
	STD			
123478- HEXACHLORDIBENZO-p-DIOXIN	N	1	1	1
	MEAN	ND	ND	ND
	STD			
123678- HEXACHLORODIBENZO-p-DIOXIN	N	1	1	1
	MEAN	16.5	7.66	7.16
	STD			
123789- HEXACHLORODIBENZO-p-DIOXIN	N	1	1	1
	MEAN	ND	0.45	0.64
	STD			

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, EAST CHICAGO

HERRING GULL		YEAR		
		93	94	95
1234678-	N	1	1	1
HEPTACHLORODIBENZO-	MEAN	(0.8)	3.02	2.23
p-DIOXIN	STD			
OCTACHLORDIBENZO-	N	1	1	1
p-DIOXIN	MEAN	(1.6)	6.62	3.83
	STD			
2378-	N	1	1	1
TETRACHLORODIBENZO-	MEAN	ND	0.68	0.37
FURAN	STD			
12468-	N	0	1	1
PENTACHLORODIBENZO-	MEAN		(0.29)	0.16
FURAN	STD			
12478-	N	0	1	1
PENTACHLORODIBENZO-	MEAN		3.34	2.95
FURAN	STD			
12378-	N	1	1	1
PENTACHLORODIBENZO-	MEAN	ND	ND	ND
FURAN	STD			
23478-	N	1	1	1
PENTACHLORODIBENZO-	MEAN	ND	3.13	2.91
FURAN	STD			
23467-	N	0	1	1
PENTACHLORODIBENZO-	MEAN		ND	ND
FURAN	STD			
124678-	N	0	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND
FURAN	STD			
124689-	N	0	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND
FURAN	STD			
123478-	N	1	1	1
HEXACHLORODIBENZO-	MEAN	(0.1)	0.66	0.82
FURAN	STD			
123678-	N	1	1	1
HEXACHLORODIBENZO-	MEAN	(0.1)	1.5	1.65
FURAN	STD			
123789-	N	1	1	1
HEXACHLORODIBENZO-	MEAN	(0.3)	1.72	1.55
FURAN	STD			
234678-	N	1	1	1
HEXACHLORODIBENZO-	MEAN	(0.3)	ND	ND
FURAN	STD			
1234678-	N	1	1	1
HEPTACHLORODIBENZO-	MEAN	(1.6)	0.75	0.8
FURAN	STD			
1234689-	N	0	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND
FURAN	STD			
1234789-	N	1	1	1
HEPTACHLORODIBENZO-	MEAN	ND	ND	ND
FURAN	STD			
OCTACHLORODIBENZO-	N	1	1	1
FURAN	MEAN	ND	ND	ND
	STD			

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, BIG SISTER ISLAND

HERRING GULL		YEAR					
		92	93	94	95	96	97
PERCENT LIPID IN EGG	N	0	1	13	1	1	1
	MEAN		9.1	8.9	8.5	11.9	7.73
	STD			0.9229			
PERCENT MOISTURE IN EGG	N	0	1	13	1	1	1
	MEAN		76.2	76.2077	75.7	75.7	77.31
	STD			0.9962			
CIS/ALPHA-CHLORDANE	N	0	1	13	1	1	1
	MEAN		0.0162	0.0087	0.0157	0.0133	0.002
	STD			0.0082			
TRANS/GAMMA-CHLORDANE	N	0	1	13	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
OXYCHLORDANE	N	0	1	13	1	1	1
	MEAN		0.3261	0.3084	0.2854	0.221	0.219
	STD			0.1745			
1234-CHLOROBENZENE	N	0	1	13	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
1245-CHLOROBENZENE	N	0	1	13	1	1	1
	MEAN		ND	ND	ND	ND	TR
	STD						
PENTACHLOROBENZENE	N	0	1	13	1	1	1
	MEAN		0.0195	ND	ND	ND	0.001
	STD						
HEXACHLOROBENZENE	N	0	1	13	1	1	1
	MEAN		0.0435	0.0326	0.0301	0.0341	0.017
	STD			0.0105			
DDD	N	0	1	13	1	1	1
	MEAN		0.0083	0.0011	0.0073	ND	0.003
	STD			0.0026			
DDE	N	0	1	13	1	1	1
	MEAN		8.0899	6.3748	7.9167	3.9456	5.673
	STD			2.1244			
DDT	N	0	1	13	1	1	1
	MEAN		0.0618	0.0385	0.0681	0.0439	0.015
	STD			0.018			
DIELDRIN	N	0	1	13	1	1	1
	MEAN		0.2539	0.3167	0.2486	0.1543	0.133
	STD			0.2537			
HEPTACHLOR EPOXIDE	N	0	1	13	1	1	1
	MEAN		0.1981	0.1733	0.1795	0.0879	0.105
	STD			0.0734			
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	13	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	13	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	13	1	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
TOTAL MERCURY	N	1	0	0	0	0	0
	MEAN		0.2525				
	STD						
TRIS (4-CHLOROPHENYL) METHANOL	N	0	1	13	1	1	1
	MEAN		0.02	0.0168	0.0168	0.0135	0.008
	STD			0.0047			

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g}/\text{g}$; all others in $\mu\text{g}/\text{g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, BIG SISTER ISLAND

HERRING GULL	YEAR					
	92	93	94	95	96	97
MIREX	N	0	1	13	1	1
	MEAN		0.0484	0.0725	0.045	0.0353
	STD			0.0733		0.021
PHOTOMIREX	N	0	1	13	1	1
	MEAN		ND	0.0265	0.0313	0.0271
	STD			0.0329		0.018
CIS-NONACHLOR	N	0	1	13	1	1
	MEAN		0.0894	0.0837	0.1024	0.0635
	STD			0.0189		0.074
TRANS-NONACHLOR	N	0	1	13	1	1
	MEAN		0.1358	0.117	0.148	0.1002
	STD			0.0378		0.041
OCTACHLOROSTYRENE	N	0	1	13	1	1
	MEAN		ND	ND	ND	ND
	STD					0.002
PCB: 1260	N	0	1	13	1	1
	MEAN		11.411	8.9391	9.638	5.8366
	STD			1.74		8.1895
PCB:1254-1260	N	0	1	13	1	1
	MEAN		28.0161	23.1925	26.556	16.8285
	STD			5.1023		24.8698
TOTAL PCB CONGENERS (Based on 42 congeners) ^A	N	0	1	13	1	1
	MEAN		13.6776	9.7968	12.6348	7.8404
	STD			1.9205		13.251
TOTAL PCB CONGENERS (Based on 59 congeners) ^A	N					1
	MEAN					14.491
	STD					
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0	1	1	1	1
	MEAN		<0.0001	0.0001	<0.0001	<0.0001
	STD					
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0	1	1	1	1
	MEAN		0.0012	0.0006	0.0013	0.0012
	STD					0.0003
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0	0	0	1	1
	MEAN				0.0007	0.0004
	STD					0.0002
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0	1	1	1	1
	MEAN		0.0022	0.0017	0.0059	0.0034
	STD					0.0017
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0	1	1	1	1
	MEAN		0.0002	0.0002	0.0006	0.0003
	STD					0.0002
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0	0	0	1	1
	MEAN				<0.0001	<0.0001
	STD					<0.0001
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1
	MEAN		18.7	21.2	7.5	4.01
	STD					1.75
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1
	MEAN		0.4i	(0.4)	10.77	5.08
	STD					2.23
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1
	MEAN		(0.1)	ND	ND	ND
	STD					ND
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1
	MEAN		18.4	14.6	12.11	5.17
	STD					3.19
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1	1
	MEAN		ND	ND	ND	ND
	STD					0.24

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE MICHIGAN, BIG SISTER ISLAND

HERRING GULL	YEAR					
	92	93	94	95	96	97
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		(0.9)	8.8	2.49	0.63
p-DIOXIN	STD					0.75
OCTACHLORDIBENZO-	N	0	1	1	1	1
p-DIOXIN	MEAN		(1.9)	53	8.13	2
	STD					7.08
2378-	N	0	1	1	1	1
TETRACHLORODIBENZO-	MEAN		ND	1.8	0.79	0.61
FURAN	STD					0.29
12468-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				0.16	ND
FURAN	STD					(0.13)
12478-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				3.07	ND
FURAN	STD					0.66
12378-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		(0.1)	ND	ND	ND
FURAN	STD					
23478-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		9.4	12.2	7.51	3.45
FURAN	STD					0.83
23467-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
124678-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
124689-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				0.39	ND
FURAN	STD					
123478-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.1)	1.17	0.35
FURAN	STD					0.24
123678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.3)	2.24	0.52
FURAN	STD					0.44
123789-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	8.6	1.56	0.36
FURAN	STD					0.42
234678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		(0.1)	ND	(0.29)	(0.1)
FURAN	STD					0.24
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	0.86	ND
FURAN	STD					(0.17)
1234689-	N	0	0	0	1	1
HEPTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
1234789-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	(0.4)	ND
FURAN	STD					
OCTACHLORODIBENZO-	N	0	1	1	1	1
FURAN	MEAN		ND	ND	ND	ND
	STD					

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, STEAMBOAT ISLAND (BATCHAWANA BAY)

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
PERCENT LIPID IN EGG	N	1
	MEAN	5
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	84.4
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.0029
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	0.0005
	STD	
OXYCHLORDANE	N	1
	MEAN	0.039
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	0.0039
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0116
	STD	
DDD	N	1
	MEAN	0.0049
	STD	
DDE	N	1
	MEAN	2.8321
	STD	
DDT	N	1
	MEAN	0.0169
	STD	
DIELDRIN	N	1
	MEAN	0.0939
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.0337
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0026
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0022
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	0.0011
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.0111
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, STEAMBOAT ISLAND (BATCHAWANA BAY)

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
MIREX	N	1
	MEAN	0.0532
	STD	
PHOTOMIREX	N	1
	MEAN	0.0171
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.02
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0099
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	0.0071
	STD	
PCB: 1260	N	1
	MEAN	2.5206
	STD	
PCB:1254-1260	N	1
	MEAN	5.4199
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	2.5925
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, STEAMBOAT ISLAND (BATCHAWANA BAY)

DOUBLE-CRESTED CORMORANT	YEAR	
	95	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, CHENE ISLAND

HERRING GULL		YEAR
		92
TOTAL MERCURY	N	1
	MEAN	0.1296
	STD	

- * All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g}/\text{g}$; all others in $\mu\text{g}/\text{g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, AGAWA ROCK

HERRING GULL		YEAR					
		92	93	94	95	96	97
PERCENT LIPID IN EGG	N	0	1	1	13	1	1
	MEAN		8.3	8.5	8.8	8.5	7.19
	STD				0.8093		
PERCENT MOISTURE IN EGG	N	0	1	1	13	1	1
	MEAN		76.6	77.1	76.7	75.3	76.77
	STD				0.7874		
CIS/ALPHA-CHLORDANE	N	0	1	1	13	1	1
	MEAN		ND	0.0049	0.0062	0.0049	0.001
	STD				0.0040		
TRANS/GAMMA-CHLORDANE	N	0	1	1	13	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
OXYCHLORDANE	N	0	1	1	13	1	1
	MEAN		0.1294	0.1259	0.1392	0.1931	0.061
	STD				0.1021		
1234-CHLOROBENZENE	N	0	1	1	13	1	1
	MEAN		ND	0.006	ND	ND	TR
	STD						
1245-CHLOROBENZENE	N	0	1	1	13	1	1
	MEAN		ND	0.0501	ND	ND	TR
	STD						
PENTACHLOROBENZENE	N	0	1	1	13	1	1
	MEAN		ND	ND	ND	ND	0.001
	STD						
HEXACHLOROBENZENE	N	0	1	1	13	1	1
	MEAN		0.0201	0.0236	0.0258	0.04	0.013
	STD				0.0137		
DDD	N	0	1	1	13	1	1
	MEAN		ND	ND	0.0074	ND	TR
	STD				0.0213		
DDE	N	0	1	1	13	1	1
	MEAN		2.9685	1.7711	2.2858	2.8833	1.298
	STD				1.481		
DDT	N	0	1	1	13	1	1
	MEAN		0.0097	0.0335	0.0431	0.0449	0.005
	STD				0.0349		
DIELDRIN	N	0	1	1	13	1	1
	MEAN		0.1415	0.1307	0.1178	0.1534	0.06
	STD				0.0756		
HEPTACHLOR EPOXIDE	N	0	1	1	13	1	1
	MEAN		0.0996	0.1111	0.0769	0.0996	0.037
	STD				0.0407		
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	1	13	1	1
	MEAN		ND	ND	ND	ND	ND
	STD				0		
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	1	13	1	1
	MEAN		ND	ND	ND	ND	ND
	STD				0		
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	1	13	1	1
	MEAN		ND	ND	ND	ND	ND
	STD						
TOTAL MERCURY	N	1	0	0	0	0	0
	MEAN		0.1525				
	STD						
TRIS (4-CHLOROPHENYL) METHANOL	N	0	1	1	13	1	1
	MEAN		0.0095	0.0153	0.0082	0.0094	ND
	STD				0.0036		

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, AGAWA ROCK

HERRING GULL	YEAR					
	92	93	94	95	96	97
MIREX	N MEAN STD	0 0.0806 0.0683	1 0.0938 0.0418	1 0.0847 0.0831	13 0.0785 0.0417	1 0.017 0.011
PHOTOMIREX	N MEAN STD	0 0.0418 0.0337	1 0.0831 0.0503	13 0.0417 0.0552	1 0.0457 0.0659	1 0.011 0.028
CIS-NONACHLOR	N MEAN STD	0 0.0564 0.0386	1 0.0503 0.0552	13 0.0659 0.0515	1 0.0816 0.0816	1 0.016 0.016
TRANS-NONACHLOR	N MEAN STD	0 0.0646 0.0329	1 0.0526 0.0515	13 0.0816 0.0329	1 0.002	1 0.002
OCTACHLOROSTYRENE	N MEAN STD	0 0.0065 0.0065	1 ND ND	13 ND ND	1 ND ND	1 0.002
PCB: 1260	N MEAN STD	0 4.043 1.8529	1 4.6604 4.1722	13 4.6681 4.6681	1 1.9493	1 1.9493
PCB:1254-1260	N MEAN STD	0 10.9745 4.6858	1 11.2955 10.1488	13 12.6327 12.6327	1 5.4368	1 5.4368
TOTAL PCB CONGENERS	N MEAN STD	0 4.7602 2.0372	1 5.2016 4.2127	13 5.5554 5.5554	1 2.621	1 2.621
(Based on 42 congeners) ^A						
TOTAL PCB CONGENERS	N MEAN STD					1 2.876
(Based on 59 congeners) ^A						
PCB 37 3, 4, 4'-TRICHLOROBIPHENYL	N MEAN STD	0 <0.0001 <0.0001	0 <0.0001 <0.0001	1 1 1	1 <0.0001 <0.0001	1 1 1
PCB 77 3, 3', 4, 4'-TETRACHLOROBIPHENYL	N MEAN STD	0 0.0001 0.0001	0 0.0001 0.0001	1 1 1	1 0.0003 0.0003	1 0.0001
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N MEAN STD	0 0 0	0 0.0001 0.0001	1 1 1	1 0.0002 0.0002	1 0.0001
PCB 126 3, 3', 4, 4', 5 -PENTACHLOROBIPHENYL	N MEAN STD	0 0.0008 0.0008	0 0.0022 0.0022	1 1 1	1 0.002 0.002	1 0.0017
PCB 169 3, 3', 4, 4', 5, 5' -HEXACHLOROBIPHENYL	N MEAN STD	0 0.0001 0.0001	0 0.0004 0.0004	1 1 1	1 0.0003 0.0003	1 0.0002
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N MEAN STD	0 0 0	0 <0.0001 <0.0001	1 1 1	1 <0.0001 <0.0001	1 <0.0001
2378-TETRACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 17.1 17.1	0 10.27 10.27	1 1 1	1 8.66 8.66	1 6.29
12378-PENTACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 5.9 5.9	0 11.75 11.75	1 1 1	1 10 10	1 6.36
123478-HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 ND ND	0 1.07 1.07	1 1 1	1 0.58 0.58	1 0.26
123678-HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 10.1 10.1	0 8.77 8.77	1 1 1	1 7.66 7.66	1 6.74
123789-HEXACHLORODIBENZO-p-DIOXIN	N MEAN STD	0 ND ND	0 1.67 1.67	1 1 1	1 1.02 1.02	1 0.62

* See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, AGAWA ROCK

HERRING GULL		YEAR					
		92	93	94	95	96	97
1234678-	N	0	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN			(0.4)	3.76	2.04	1.97
p-DIOXIN	STD						
OCTACHLORDIBENZO-	N	0	0	1	1	1	1
p-DIOXIN	MEAN			(0.2)	7.9	3.06	2.32
STD							
2378-	N	0	0	1	1	1	1
TETRACHLORODIBENZO-	MEAN			(0.1)	(0.44)	0.34	0.19
FURAN	STD						
12468-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				ND	0.1	ND
FURAN	STD						
12478-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				1.99	0.9	1.17
FURAN	STD						
12378-	N	0	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN			0	0.43	0.24	ND
FURAN	STD						
23478-	N	0	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN			8.6	7.34	ND	4.06
FURAN	STD						
23467-	N	0	0	0	1	1	1
PENTACHLORODIBENZO-	MEAN				ND	ND	0.31
FURAN	STD						
124678-	N	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND	0.14
FURAN	STD						
124689-	N	0	0	0	1	1	1
HEXACHLORODIBENZO-	MEAN				ND	0.1	0.14
FURAN	STD						
123478-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			ND	2.03	1.22	0.97
FURAN	STD						
123678-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			(0.1)	3.03	1.58	1.38
FURAN	STD						
123789-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			ND	2.89	1.12	0.94
FURAN	STD						
234678-	N	0	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN			ND	1.29	0.46	0.17
FURAN	STD						
1234678-	N	0	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN			ND	1.49	0.48	0.48
FURAN	STD						
1234689-	N	0	0	0	1	1	1
HEPTACHLORODIBENZO-	MEAN				ND	ND	ND
FURAN	STD						
1234789-	N	0	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN			ND	0.9	0.12	ND
FURAN	STD						
OCTACHLORODIBENZO-	N	0	0	1	1	1	1
FURAN	MEAN			ND	3.57	0.38	ND
	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, MARATHON

HERRING GULL		YEAR
		92
TOTAL MERCURY	N	1
	MEAN	0.115
	STD	

LAKE SUPERIOR, LEADMAN ISLAND

HERRING GULL		YEAR
		92
TOTAL MERCURY	N	1
	MEAN	0.195
	STD	

LAKE SUPERIOR, LITTLE TRAVERSE ISLAND

HERRING GULL		YEAR
		92
TOTAL MERCURY	N	1
	MEAN	0.1976
	STD	

LAKE SUPERIOR, LAKE LINDEN/TORCH ISLAND

HERRING GULL		YEAR
		92
TOTAL MERCURY	N	1
	MEAN	0.1846
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, GRANITE ISLAND

HERRING GULL		YEAR				
		92	93	94	95	97
PERCENT LIPID IN EGG	N	0	1	1	13	1
	MEAN		8.4	9.5	8.6692	8.13
	STD				0.8460	
PERCENT MOISTURE IN EGG	N	0	1	1	13	1
	MEAN		77.3	75.9	76.3308	73.37
	STD				0.5808	
CIS/ALPHA-CHLORDANE	N	0	1	1	13	1
	MEAN		0.0135	0.0124	0.0027	0.002
	STD				0.0035	
TRANS/GAMMA-CHLORDANE	N	0	1	1	13	1
	MEAN		ND	ND	0.0111	ND
	STD				0.0064	
OXYCHLORDANE	N	0	1	1	13	1
	MEAN		0.2037	0.1914	0.1375	0.104
	STD				0.0845	
1234-CHLOROBENZENE	N	0	1	1	13	1
	MEAN		ND	ND	ND	TR
	STD					
1245-CHLOROBENZENE	N	0	1	1	13	1
	MEAN		ND	ND	ND	TR
	STD					
PENTACHLOROBENZENE	N	0	1	1	13	1
	MEAN		ND	ND	0.0068	0.001
	STD				0.0144	
HEXACHLOROBENZENE	N	0	1	1	13	1
	MEAN		0.0402	0.0444	0.0223	0.012
	STD				0.0074	
DDD	N	0	1	1	13	1
	MEAN		ND	ND	ND	TR
	STD					
DDE	N	0	1	1	13	1
	MEAN		5.1978	3.0133	2.6793	2.366
	STD				1.2498	
DDT	N	0	1	1	13	1
	MEAN		0.018	0.07	0.029	0.006
	STD				0.0139	
DIELDRIN	N	0	1	1	13	1
	MEAN		0.2368	0.1775	0.0939	0.081
	STD				0.0509	
HEPTACHLOR EPOXIDE	N	0	1	1	13	1
	MEAN		0.1635	0.1072	0.0863	0.054
	STD				0.0564	
ALPHA-HEXACHLOROCYCLOHEXANE	N	0	1	1	13	1
	MEAN		ND	ND	ND	ND
	STD					
BETA-HEXACHLOROCYCLOHEXANE	N	0	1	1	13	1
	MEAN		ND	ND	ND	ND
	STD					
GAMMA-HEXACHLOROCYCLOHEXANE	N	0	1	1	13	1
	MEAN		ND	ND	ND	ND
	STD					
TOTAL MERCURY	N	1	0	0	0	0
	MEAN	0.1675				
	STD					
TRIS (4-CHLOROPHENYL)METHANOL	N	0	1	1	13	1
	MEAN		0.0144	0.0105	0.0073	0.005
	STD				0.0024	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, GRANITE ISLAND

HERRING GULL	YEAR				
	92	93	94	95	97
MIREX	N	0	1	1	13
	MEAN		0.0691	0.109	0.0832
	STD				0.017
PHOTOMIREX	N	0	1	1	13
	MEAN		0.0386	0.0433	0.0395
	STD				0.013
CIS-NONACHLOR	N	0	1	1	13
	MEAN		0.072	0.0841	0.0508
	STD				0.0255
TRANS-NONACHLOR	N	0	1	1	13
	MEAN		0.1	0.1055	0.0681
	STD				0.06
OCTACHLOROSTYRENE	N	0	1	1	13
	MEAN		0.0097	ND	ND
	STD				0.002
PCB: 1260	N	0	1	1	13
	MEAN		8.7734	6.4497	5.0140
	STD				4.1951
PCB:1254-1260	N	0	1	1	13
	MEAN		20.3893	13.3169	12.1882
	STD				11.1699
TOTAL PCB CONGENERS	N	0	1	1	13
(Based on 42 congeners) ^A	MEAN		9.2444	6.2052	5.3199
	STD				5.354
TOTAL PCB CONGENERS	N				1
(Based on 59 congeners) ^A	MEAN				5.835
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	0	0	1	1
	MEAN			<0.0001	<0.0001
	STD				<0.0001
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	0	0	1	1
	MEAN			0.0002	0.0001
	STD				0.0001
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0	0	0	1
	MEAN				0.0002
	STD				0.0001
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	0	0	1	1
	MEAN			0.0009	0.0025
	STD				0.0021
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	0	0	1	1
	MEAN			0.0001	0.0003
	STD				0.0003
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0	0	0	1
	MEAN				<0.0001
	STD				<0.0001
2378- TETRACHLORODIBENZO-p-DIOXIN	N	0	1	1	1
	MEAN		13.8	17	6.12
	STD				3.66
12378- PENTACHLORODIBENZO-p-DIOXIN	N	0	1	1	1
	MEAN		13.5	7.9	6.52
	STD				3.41
123478- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1
	MEAN		ND	ND	ND
	STD				ND
123678- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1
	MEAN		12.4	11.2	8.45
	STD				4.31
123789- HEXACHLORODIBENZO-p-DIOXIN	N	0	1	1	1
	MEAN		(0.1)	ND	1.08
	STD				0.52

^A See page 11 for details.

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, GRANITE ISLAND

HERRING GULL		YEAR				
		92	93	94	95	97
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		(0.1)	(0.4)	3.99	1.89
p-DIOXIN	STD					
OCTACHLORODIBENZO-	N	0	1	1	1	1
p-DIOXIN	MEAN		ND	(0.4)	3.76	1.58
	STD					
2378-	N	0	1	1	1	1
TETRACHLORODIBENZO-	MEAN		(1.3)	ND	ND	ND
FURAN	STD					
12468-	N	0	0	0	ND	ND
PENTACHLORODIBENZO-	MEAN					
FURAN	STD					
12478-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				0.83	0.62
FURAN	STD					
12378-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		ND	ND	ND	ND
FURAN	STD					
23478-	N	0	1	1	1	1
PENTACHLORODIBENZO-	MEAN		(4.1)	(1.4)	3.79	1.6
FURAN	STD					
23467-	N	0	0	0	1	1
PENTACHLORODIBENZO-	MEAN				ND	0.27
FURAN	STD					
124678-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
124689-	N	0	0	0	1	1
HEXACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
123478-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	ND	1.5	0.38
FURAN	STD					
123678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(2.5)	1.68	0.92
FURAN	STD					
123789-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(2.4)	0.74	0.48
FURAN	STD					
234678-	N	0	1	1	1	1
HEXACHLORODIBENZO-	MEAN		ND	(0.1)	ND	(0.15)
FURAN	STD					
1234678-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	1.04	0.84
FURAN	STD					
1234689-	N	0	0	0	1	1
HEPTACHLORODIBENZO-	MEAN				ND	ND
FURAN	STD					
1234789-	N	0	1	1	1	1
HEPTACHLORODIBENZO-	MEAN		ND	ND	ND	(0.1)
FURAN	STD					
OCTACHLORODIBENZO-	N	0	1	1	1	1
FURAN	MEAN		ND	(0.1)	(0.56)	ND
	STD					

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, GRANITE ISLAND

RING-BILLED GULL	YEAR	
	96	
PERCENT LIPID IN EGG	N	1
	MEAN	7.95
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	76.33
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	0.006
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.059
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	TR
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	TR
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	0.002
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.017
	STD	
DDD	N	1
	MEAN	TR
	STD	
DDE	N	1
	MEAN	1.362
	STD	
DDT	N	1
	MEAN	TR
	STD	
DIELDRIN	N	1
	MEAN	0.314
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.066
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	ND
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, GRANITE ISLAND

RING-BILLED GULL	YEAR	
	96	
MIREX	N	1
	MEAN	0.038
	STD	
PHOTOMIREX	N	1
	MEAN	0.021
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.02
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.145
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	ND
	STD	
PCB: 1260	N	1
	MEAN	1.7427
	STD	
PCB:1254-1260	N	1
	MEAN	5.2055
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	2.7112
	STD	
PCB 37 3, 4, 4'-TRICHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 77 3, 3', 4, 4'-TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 126 3, 3', 4, 4', 5 -PENTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 169 3, 3', 4, 4', 5, 5' -HEXACHLOROBIPHENYL	N	0
	MEAN	
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	0
	MEAN	
	STD	
2378-TETRACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
12378-PENTACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123478-HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123678-HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	
123789-HEXACHLORODIBENZO-p-DIOXIN	N	0
	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, GRANITE ISLAND

RING-BILLED GULL	YEAR	
	96	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	0
p-DIOXIN	MEAN	
	STD	
2378-	N	0
TETRACHLORODIBENZO-	MEAN	
FURAN	STD	
12468-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
12378-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23478-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
23467-	N	0
PENTACHLORODIBENZO-	MEAN	
FURAN	STD	
124678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
124689-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123478-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
123789-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
234678-	N	0
HEXACHLORODIBENZO-	MEAN	
FURAN	STD	
1234678-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234689-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
1234789-	N	0
HEPTACHLORODIBENZO-	MEAN	
FURAN	STD	
OCTACHLORODIBENZO-	N	0
FURAN	MEAN	
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, SILVER ISLET

HERRING GULL	YEAR	
	96	
PERCENT LIPID IN EGG	N	1
	MEAN	7.2
	STD	
PERCENT MOISTURE IN EGG	N	1
	MEAN	77.9
	STD	
CIS/ALPHA-CHLORDANE	N	1
	MEAN	ND
	STD	
TRANS/GAMMA-CHLORDANE	N	1
	MEAN	ND
	STD	
OXYCHLORDANE	N	1
	MEAN	0.11
	STD	
1234-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
1245-CHLOROBENZENE	N	1
	MEAN	ND
	STD	
PENTACHLOROBENZENE	N	1
	MEAN	ND
	STD	
HEXACHLOROBENZENE	N	1
	MEAN	0.0252
	STD	
DDD	N	1
	MEAN	ND
	STD	
DDE	N	1
	MEAN	2.6947
	STD	
DDT	N	1
	MEAN	0.034
	STD	
DIELDRIN	N	1
	MEAN	0.0972
	STD	
HEPTACHLOR EPOXIDE	N	1
	MEAN	0.0876
	STD	
ALPHA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
BETA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
GAMMA-HEXACHLOROCYCLOHEXANE	N	1
	MEAN	ND
	STD	
TOTAL MERCURY	N	0
	MEAN	
	STD	
TRIS (4-CHLOROPHENYL) METHANOL	N	1
	MEAN	0.1114
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, SILVER ISLET

HERRING GULL	YEAR	
	96	
MIREX	N	1
	MEAN	0.0458
	STD	
PHOTOMIREX	N	1
	MEAN	0.1257
	STD	
CIS-NONACHLOR	N	1
	MEAN	0.0585
	STD	
TRANS-NONACHLOR	N	1
	MEAN	0.0597
	STD	
OCTACHLOROSTYRENE	N	1
	MEAN	ND
	STD	
PCB: 1260	N	1
	MEAN	4.2872
	STD	
PCB:1254-1260	N	1
	MEAN	9.412
	STD	
TOTAL PCB CONGENERS	N	1
	MEAN	4.4175
	STD	
PCB 37 3, 4, 4' - TRICHLOROBIPHENYL	N	1
	MEAN	ND
	STD	
PCB 77 3, 3', 4, 4' - TETRACHLOROBIPHENYL	N	1
	MEAN	0.0002
	STD	
PCB 81 3,4,4',5 TETRACHLOROBIPHENYL	N	1
	MEAN	0.0002
	STD	
PCB 126 3, 3', 4, 4', 5 - PENTACHLOROBIPHENYL	N	1
	MEAN	0.0029
	STD	
PCB 169 3, 3', 4, 4', 5, 5' - HEXACHLOROBIPHENYL	N	1
	MEAN	0.0003
	STD	
PCB 189 2,3,3',4,4',5,5' HEPTACHLOROBIPHENYL	N	1
	MEAN	<0.0001
	STD	
2378- TETRACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	6.05
	STD	
12378- PENTACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	6.57
	STD	
123478- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	0.24
	STD	
123678- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	5.99
	STD	
123789- HEXACHLORODIBENZO-p-DIOXIN	N	1
	MEAN	0.9
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, SILVER ISLET

HERRING GULL	YEAR	
	96	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	2.91
p-DIOXIN	STD	
OCTACHLORDIBENZO-	N	1
p-DIOXIN	MEAN	5.12
	STD	
2378-	N	1
TETRACHLORODIBENZO-	MEAN	0.1
FURAN	STD	
12468-	N	1
PENTACHLORODIBENZO-	MEAN	0.31
FURAN	STD	
12478-	N	1
PENTACHLORODIBENZO-	MEAN	2.85
FURAN	STD	
12378-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
23478-	N	1
PENTACHLORODIBENZO-	MEAN	5.43
FURAN	STD	
23467-	N	1
PENTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
124678-	N	1
HEXACHLORODIBENZO-	MEAN	0.28
FURAN	STD	
124689-	N	1
HEXACHLORODIBENZO-	MEAN	0.55
FURAN	STD	
123478-	N	1
HEXACHLORODIBENZO-	MEAN	1.06
FURAN	STD	
123678-	N	1
HEXACHLORODIBENZO-	MEAN	1.44
FURAN	STD	
123789-	N	1
HEXACHLORODIBENZO-	MEAN	1.45
FURAN	STD	
234678-	N	1
HEXACHLORODIBENZO-	MEAN	0.37
FURAN	STD	
1234678-	N	1
HEPTACHLORODIBENZO-	MEAN	0.83
FURAN	STD	
1234689-	N	1
HEPTACHLORODIBENZO-	MEAN	ND
FURAN	STD	
1234789-	N	1
HEPTACHLORODIBENZO-	MEAN	0.18
FURAN	STD	
OCTACHLORODIBENZO-	N	1
FURAN	MEAN	0.48
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in $\mu\text{g/g}$; all others in $\mu\text{g/g}$. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

TABLE II. CONTAMINANT DATA SUMMARIZED BY LOCATION*
LAKE SUPERIOR, PAPOOSE ISLAND

HERRING GULL		YEAR
		92
TOTAL MERCURY	N	1
	MEAN	0.1664
	STD	

LAKE SUPERIOR, MUTTON ISLAND

HERRING GULL		YEAR
		92
TOTAL MERCURY	N	1
	MEAN	0.13
	STD	

LAKE SUPERIOR, GULL ISLAND

HERRING GULL		YEAR
		92
TOTAL MERCURY	N	1
	MEAN	0.227
	STD	

LAKE SUPERIOR, KNIFE ISLAND

HERRING GULL		YEAR
		92
TOTAL MERCURY	N	1
	MEAN	0.185
	STD	

* All units measured on a wet weight basis. Dioxins and furans measured in pg/g; all others in µg/g. Percent lipid and percent moisture given in percent. For all compounds: ND indicates not detected. For organochlorines and PCBs: TR indicates trace amount. For dioxins and furans: () indicates trace amounts below the detection limit; i indicates compound detected at the incorrect ion ratio. See page 10 for methodology.

SECTION 3 – NON-COPLANAR PCB CONGENERS

Introduction to Non-coplanar PCB Congeners in Herring Gull Eggs from Annual Monitoring Colonies

Figures 11-24. Percent Contribution of Individual PCB Congeners to Total PCBs in Samples from Annual Monitoring Colonies

Table 12. Non-coplanar PCB Congeners in Herring Gull Eggs from Annual Monitoring Colonies, Summarized by Location



INTRODUCTION TO NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES

From 1993-96 (and for data reported in previous editions of this Atlas) analyses were conducted by gas chromatography using an Electron Capture Detector (GC-ECD) system. In 1997 the gas chromatographic instrument used for the analysis was coupled to a Mass Selective Detector (GC-MSD). This did not affect the results for organochlorine compounds but it did affect the results of PCB congener analysis. The GC-MSD results for PCB congeners were more sensitive than they had been with GC-ECD. This resulted in the re-identification of some congeners, the detection of previously undetected congeners, and changes in the levels reported.

From 1993 to 1996, 42 non-coplanar PCBs were detected, they are the following:

28, 31, 42, 44, 49, 52, 60, 64, 66, 70, 74, 87, 97, 99, 101, 105, 110, 118, 128, 129, 137, 138, 141, 146, 149, 151, 153, 158, 170, 171, 172, 174, 180, 182, 183, 185, 194, 195, 200, 201, 203, 206.

A number of changes were made to the identity of particular PCB congeners when the methodology (GC-MSD) was changed in 1997. These changes were attributed to refinements in methodology and to the greater specificity of congener identification that is possible using the GC-MSD technology. Congener 129 was re-identified as PCB 178, and congener 182 was re-identified as PCB 187. Congener 185 was not reported via GC-MSD, it was reported but rarely detected in via GC-ECD (in one of 57 samples from 1993-96). Five congeners reported individually by GC-ECD and which co-elute from the gas chromatographic column were more properly identified in the newer reporting system which coincided with the adoption of GC-MSD. PCB 60 co-elutes with PCB 56 and is reported as PCB 56/60; similarly PCB 70 co-elutes with PCB 76 and is now reported as PCB 70/76; PCB 101 is now reported as PCB 101/90; PCB 170 is now reported as PCB 170/190; PCB 203 now is reported as PCB 196/203. Congeners 156, 171 and 202 co-eluted (and were reported as PCB 171) by GC-ECD, GC-MSD detected these congeners individually. Sixteen congeners were first reported in 1997: PCB16/32, PCB17, PCB18, PCB 22, PCB33/20, PCB 47/48, PCB 85, PCB 92, PCB 95, PCB 130, PCB157, PCB 176, PCB 177, PCB 179, PCB207 and PCB208. The total number of congeners reported by GC-MSD was 59.

The percent contributions of individual PCB congeners to the sum were calculated for each pooled sample or based on the average of individual samples. The mean and standard deviation for the five years (N=5) were calculated for each congener at each of the 14 annual monitoring colonies. The results are presented graphically in figures 11-24. A brief interpretation precedes the figures.

The levels of individual PCB congeners in Herring Gull eggs from 14 annual monitoring colonies, summarized by location are presented in Table 12.

PCB CONGENER PATTERNS

Figures 11-24 present the congener patterns in Herring Gull eggs from 14 colonies sampled between 1993 and 1997. The ratio of PCB congener concentrations in female whole body lipid and eggs on a lipid weight basis is relatively constant at 0.47 ± 0.19 and independent of the degree of chlorination or susceptibility to metabolism (Braune and Norstrom, 1989). Eggs are, therefore, a good reflection of the PCB patterns in females. However, these patterns bear little resemblance to those in their forage fish diet, or in other compartments of the Great Lakes ecosystem.

The pattern of PCB congeners found in birds, including Herring Gulls, is strongly influenced by ease of metabolism during bioaccumulation from the diet.

PCB congeners can be divided into three groups based on the patterns of adjacent unchlorinated positions. These patterns affect the metabolism of the congeners. Congeners that have adjacent unchlorinated positions at the *para-met*a positions (3,4 or 4,5) are the easiest to metabolize. Examples of these congeners are PCB 52, PCB 101, PCB 149 and PCB 174. These congeners have biomagnification factors of 17-30 from forage fish to adult female Herring Gulls (Braune and Norstrom, 1989). Congeners with adjacent unchlorinated positions at the *meta-ortho* positions (2,3 or 5,6) are intermediate in their metabolic uptake. Examples of congeners in this group are PCB 153, PCB 138 and PCB 180. These congeners have biomagnification factors of 60-100 from forage fish to adult female Herring Gulls (Braune and Norstrom, 1989). Congeners with no adjacent unsubstituted positions are metabolized slowly or not at all. Examples of these congeners include PCB 153, PCB 138 and PCB 180. These congeners have biomagnification factors of 100-200 from forage fish to adult female Herring Gulls (Braune and Norstrom, 1989). For highly chlorinated congeners that are not metabolized, excretion into eggs may be a quantitatively important export mechanism.

PCB sources and vectors vary among the Great Lakes. Atmospheric input was probably a dominant source to Lake Superior and possibly Lake Huron (Eisenreich *et al.*, 1981). Direct inputs of Aroclors from industrial and municipal discharges undoubtedly contributed PCBs in the other Great Lakes (Mackay, 1989; Swackhamer and Armstrong, 1986).

Atmospheric exchange and sedimentation are important components in the flux of contaminants in and out of the Great Lakes (Mackay, 1989). The integrity of Aroclor patterns are, therefore, not expected to be preserved over time due to differences in physio-chemical properties that will result in different "weathering" patterns. Nonetheless, current point source contamination by a given Aroclor may result in specific congener patterns accumulating in the food web.

In spite of metabolic differences, PCB patterns in Herring Gull eggs can be used to deduce the differences in Aroclor contamination among the Great Lakes. This can be done by considering only those congeners which are characteristic of specific Aroclors. For example, PCB 118 is a good surrogate for Aroclor 1254 since it constitutes approximately 7% of the sum of congeners in Aroclor 1254 but less than 1% in the other common commercial mixtures (Aroclor 1242 and Aroclor 1260) (Manchester-Neesvig and Andren, 1989; Schultz *et al.*, 1989). Similarly, PCB 180 is a good surrogate for Aroclor 1260, and PCB 28, for Aroclor 1242. Since PCB 28 does not bioaccumulate significantly in Herring Gulls, PCB 66 is the best indicator of Aroclor 1242.

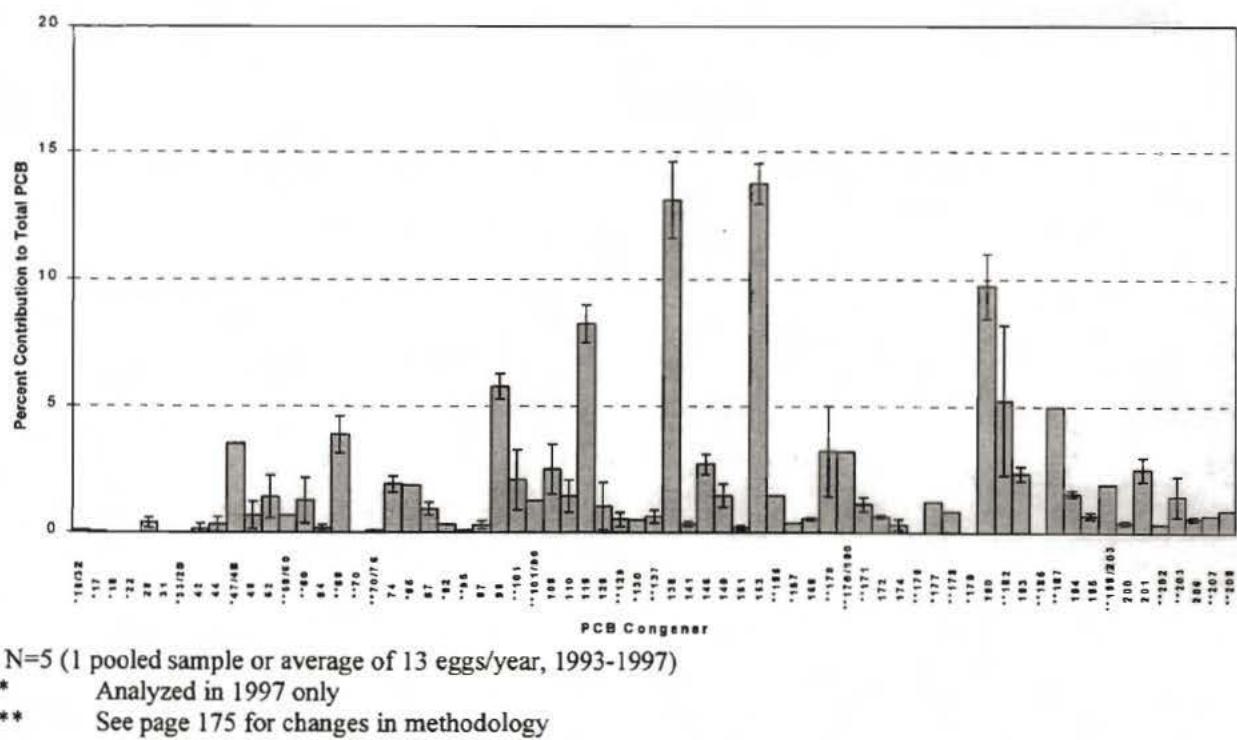
Considering these surrogate congeners, the most dramatic differences among Herring Gull eggs from different colonies are in the percent contribution of Aroclor 1260-related congeners. In the upper Great Lakes, PCB 180 constitutes approximately 10% of the total at both Lake Superior colonies, both Lake Michigan colonies and at the three Lake Huron colonies. At Fighting Island the PCB 180 contributes approximately 18% of the total. The relative contribution of PCB 180 decreases gradually at sites downstream of the Detroit River. At Strachan Island, St. Lawrence River, the percent contribution is similar to that of the upper Great Lakes. PCB 182 and PCB 183 are also congeners that contribute highly to Aroclor 1260. Pettit *et al.* (1994a) found that from 1989-92 the relative contributions of these PCBs decreased as sampling sites moved downstream from the Detroit River. Though this was also the case from 1993-97, the trend was not as dramatic. PCB 149 contributes significantly to Aroclor 1254 and Aroclor 1260, PCB 118 contributes mostly to Aroclor 1254. The ratio of PCB 149 to PCB 118 is significantly higher at Fighting Island and the two Lake Erie colonies than further downstream. These findings suggest that there is (or was) a specific source of Aroclor 1260 in the Detroit River. This is consistent with findings in sediment from

this area (Oliver and Bourbonniere, 1985). The trends in the congener patterns described above indicate that Herring Gull eggs can reflect the specific type(s) of PCB contamination to a given site.

Pettit *et al.* (1994a) found that the ratio of PCB 66 to PCB 118 was generally higher in the upper Great Lakes than in the lower Great Lakes. From 1993 to 1997 this relationship seemed to hold in all the bodies of water except the St. Lawrence River and Lake Superior. The average ratio in the lower Great Lakes (excluding the St. Lawrence River) ranged from 0.28 to 0.29. Lakes Huron and Michigan had values of 0.30 and 0.43, respectively. The ratio in Lake Superior eggs was most similar to that in the lower Great Lakes, having an average value of 0.28. The ratio in the St. Lawrence River was the highest (the average value was 1.00). The average for the St. Lawrence River was influenced by very low concentrations of PCB 118 in 1995. Proportionally more of the input of PCBs to the upper Great Lakes would come from atmospheric sources versus localized sources in the lower Great Lakes. Based on this one would expect the ratio of PCB 66 to 118 to be higher in the upper Great Lakes. From 1993 to 1997 this was the case for Lakes Huron and Michigan but the relationship did not hold for Lake Superior and the St. Lawrence River.

The Strachan Island colony bears a greater resemblance to the upper lakes than to Lake Ontario. This may be due to the influence of local sources of less chlorinated PCBs in the St. Lawrence River, or to the overwintering of birds from this colony in areas outside the Great Lakes.

ST. LAWRENCE RIVER



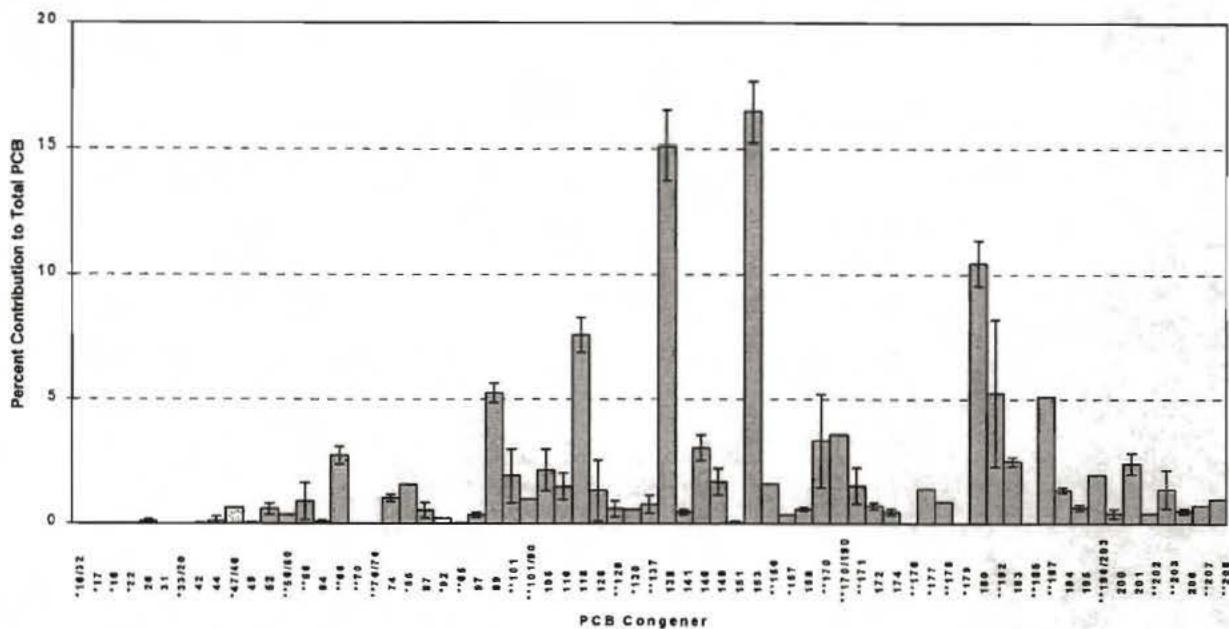
N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only

** See page 175 for changes in methodology

Figure 11. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Strachan Island, St. Lawrence River (1993-1997).

LAKE ONTARIO

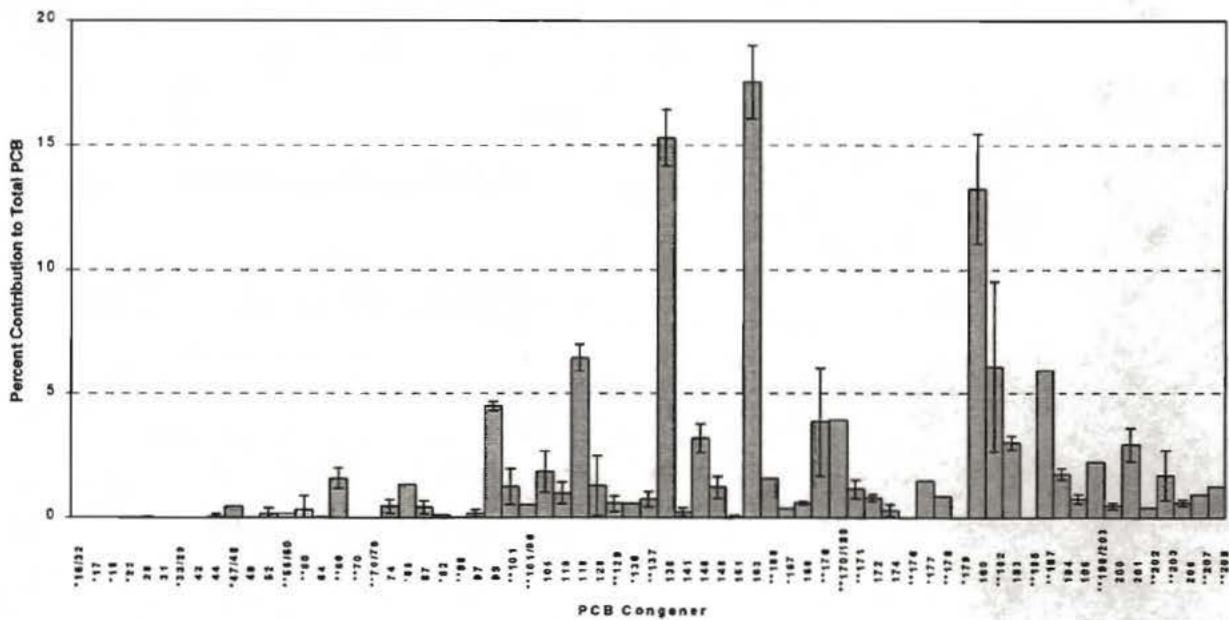


N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only

** See page 175 for changes in methodology

Figure 12. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Snake Island, Lake Ontario (1993-1997).



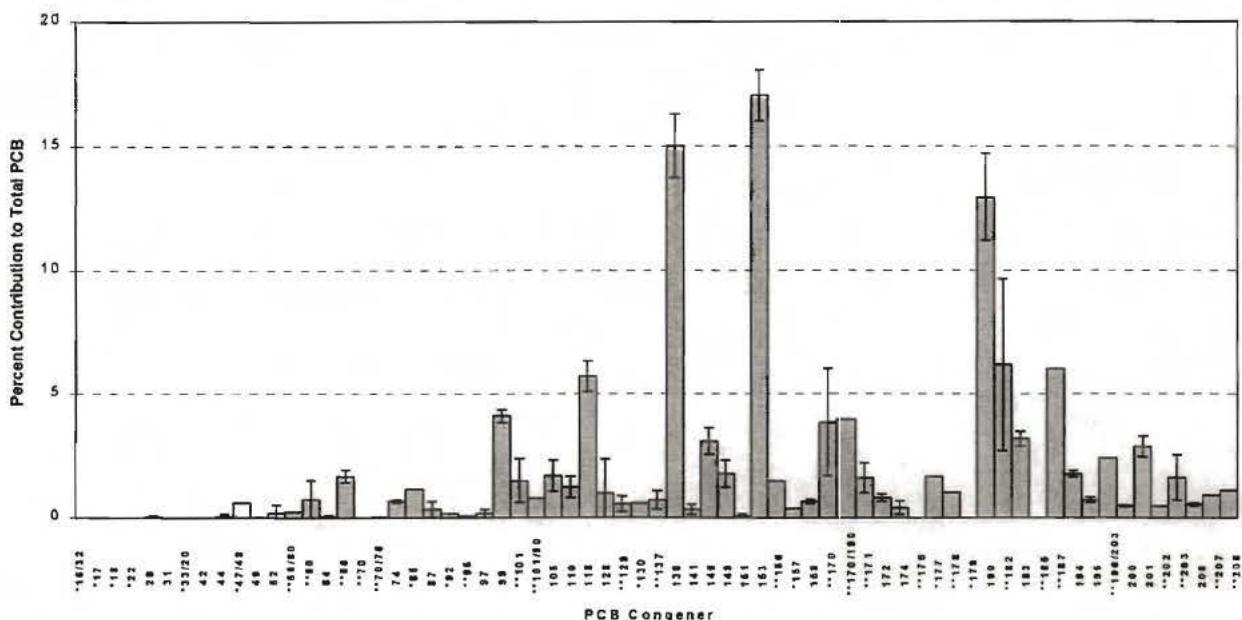
N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only

** See page 175 for changes in methodology

Figure 13. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Leslie Street Spit, Lake Ontario (1993-1997).

NIAGARA RIVER



N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only

** See page 175 for changes in methodology

Figure 14. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Niagara River (1993-1997).

LAKE ERIE

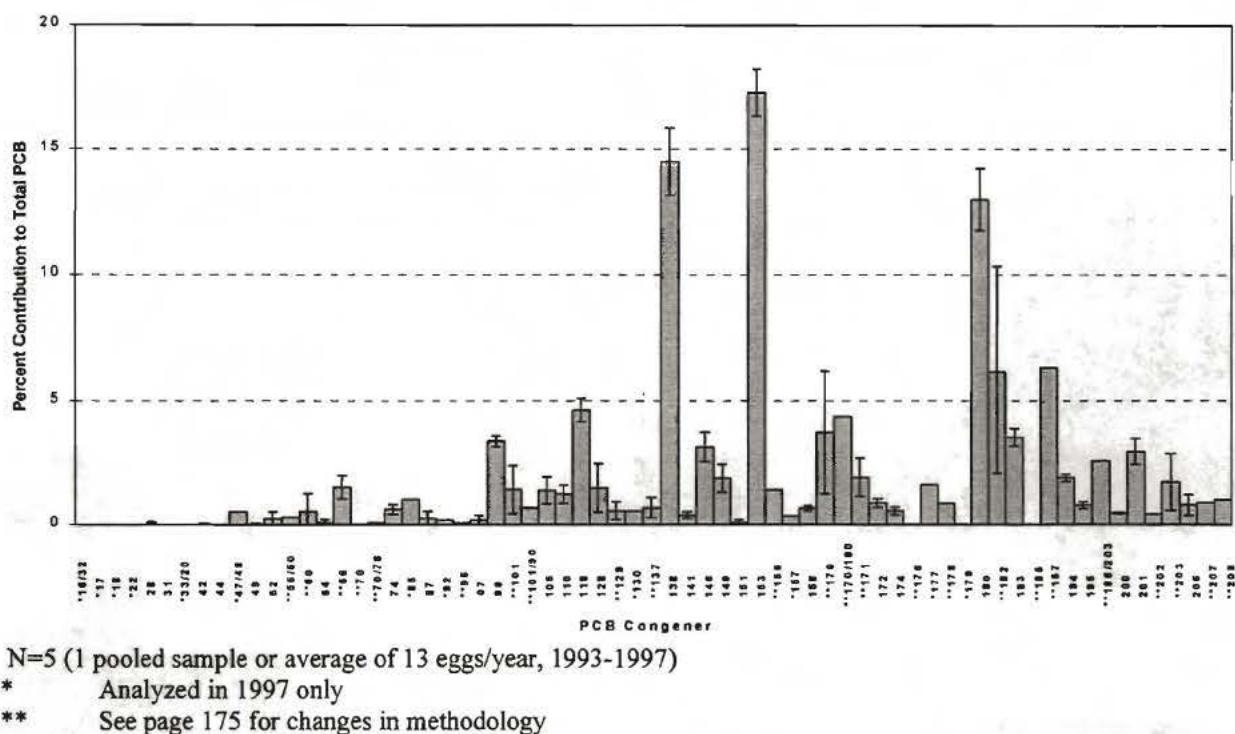
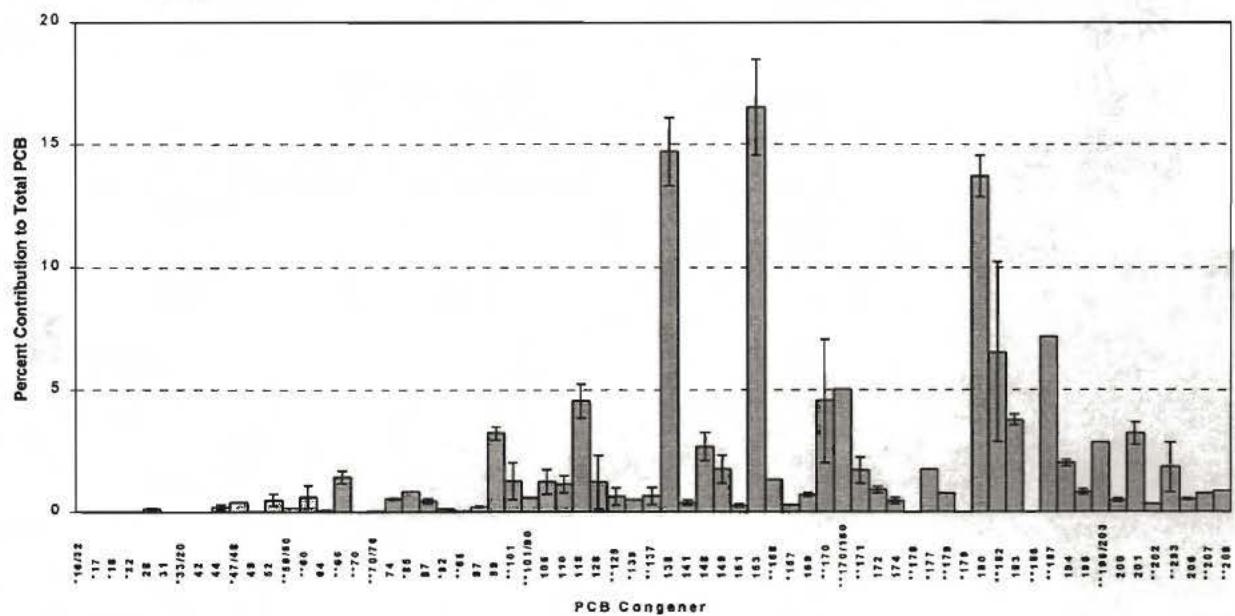


Figure 15. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Port Colborne Lighthouse, Lake Erie (1993-1997).



N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only
** See page 175 for changes in methodology

Figure 16. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Middle Island, Lake Erie (1993-1997).

DETROIT RIVER

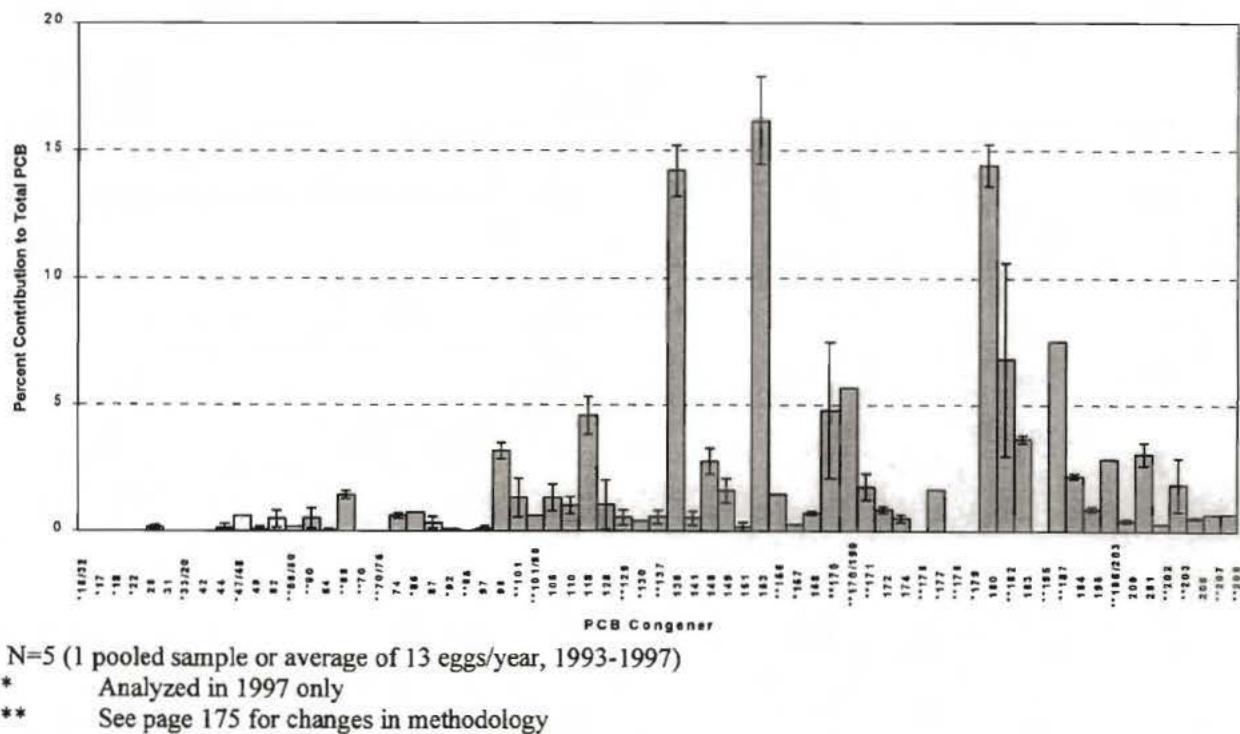
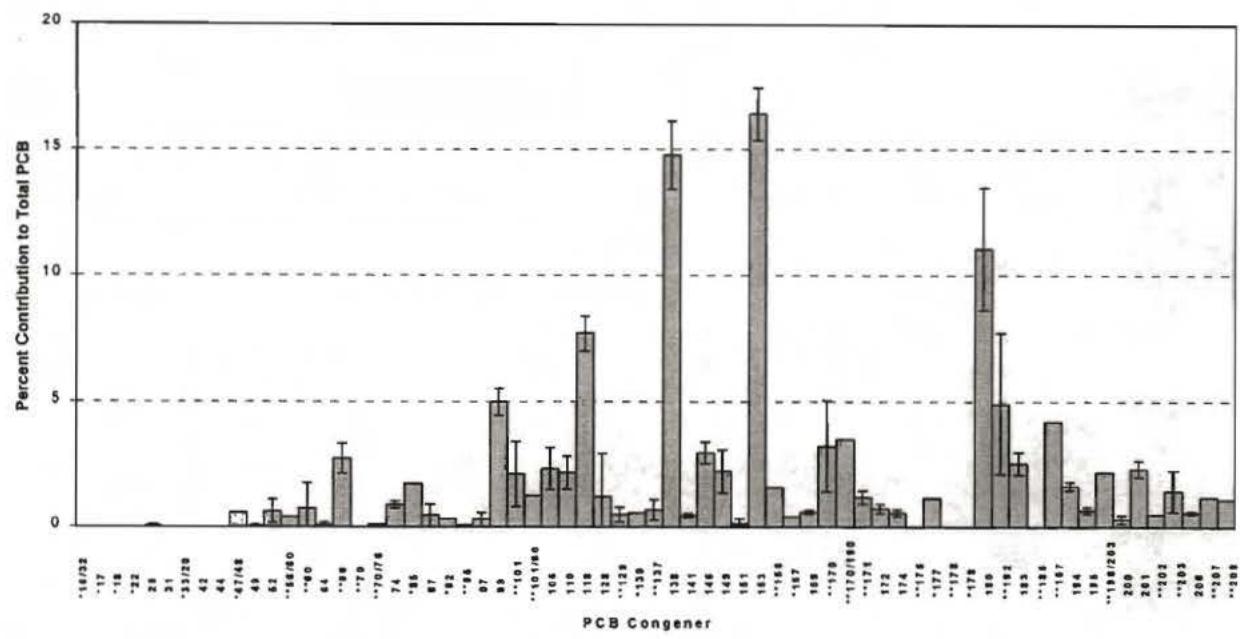


Figure 17. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Detroit River (1993-1997).

LAKE HURON

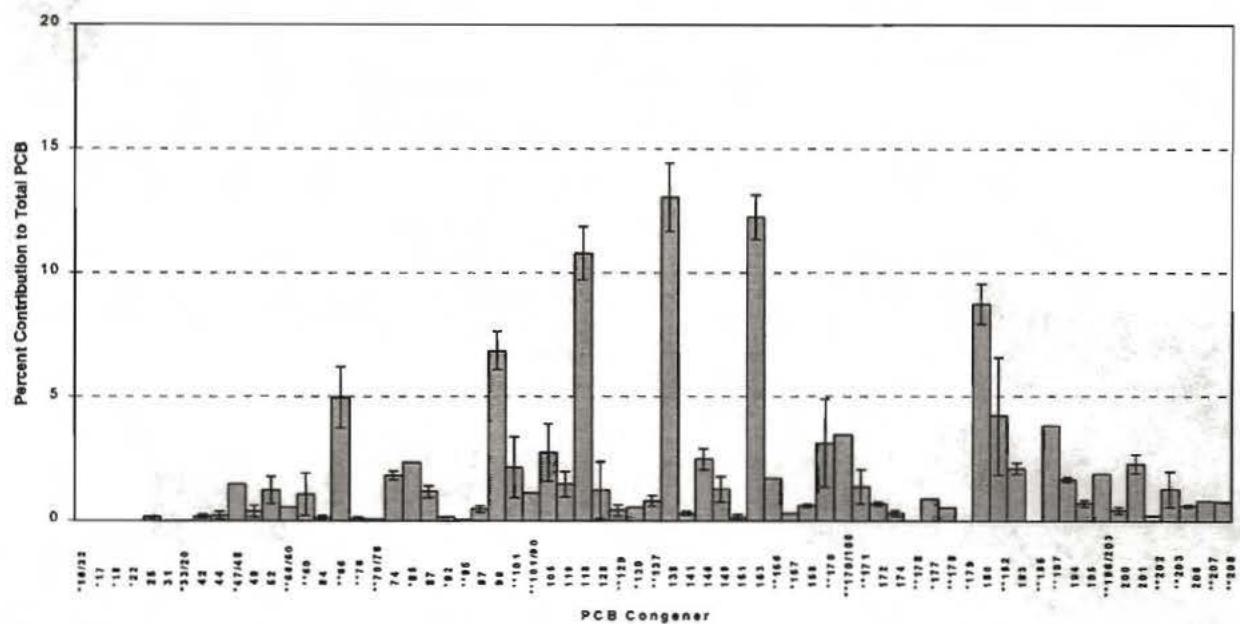


N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only

** See page 175 for changes in methodology

Figure 18. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Chantry Island, Lake Huron (1993-1997).



N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only

** See page 175 for changes in methodology

Figure 19. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Channel Shelter Island, Lake Huron (1993-1997).

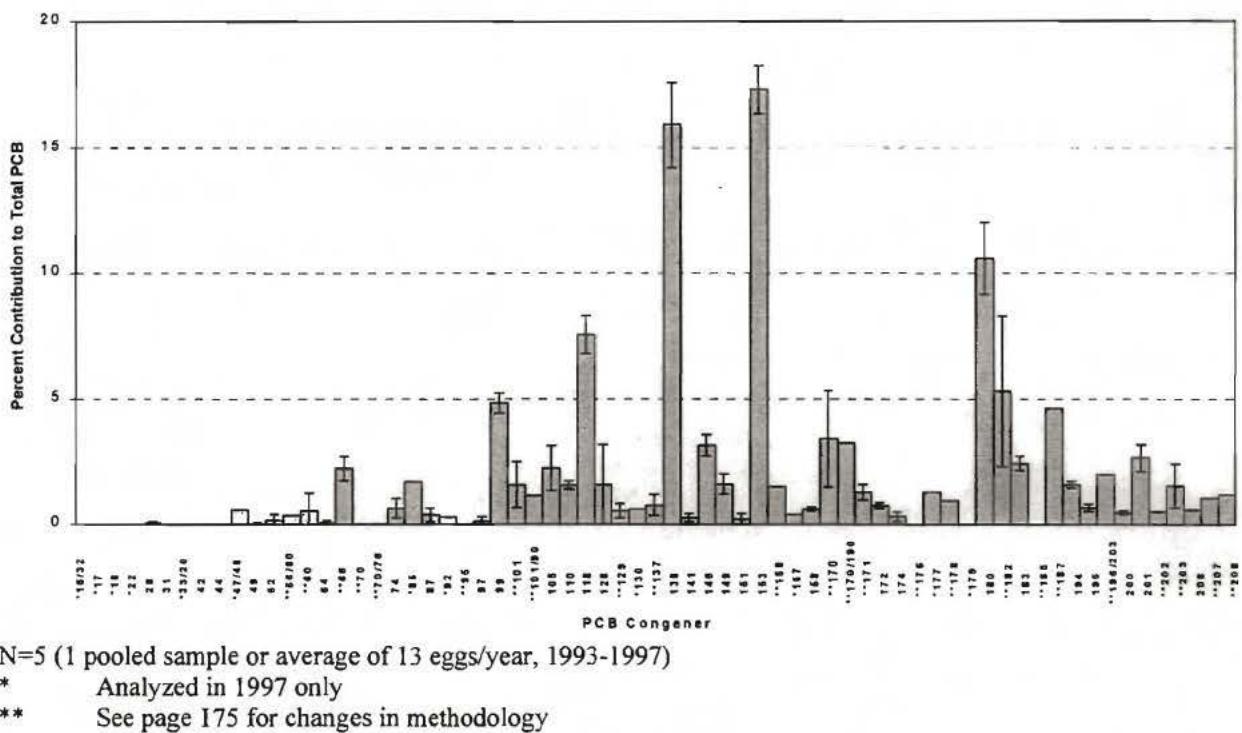
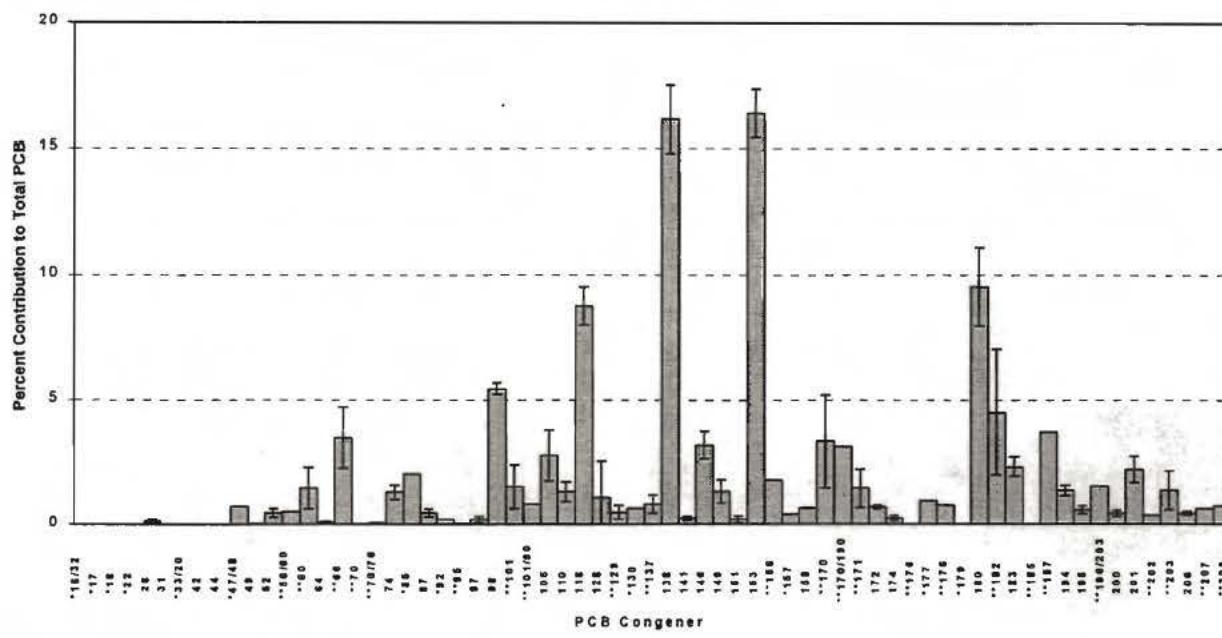


Figure 20. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Double Island, Lake Huron (1993-1997).

LAKE MICHIGAN

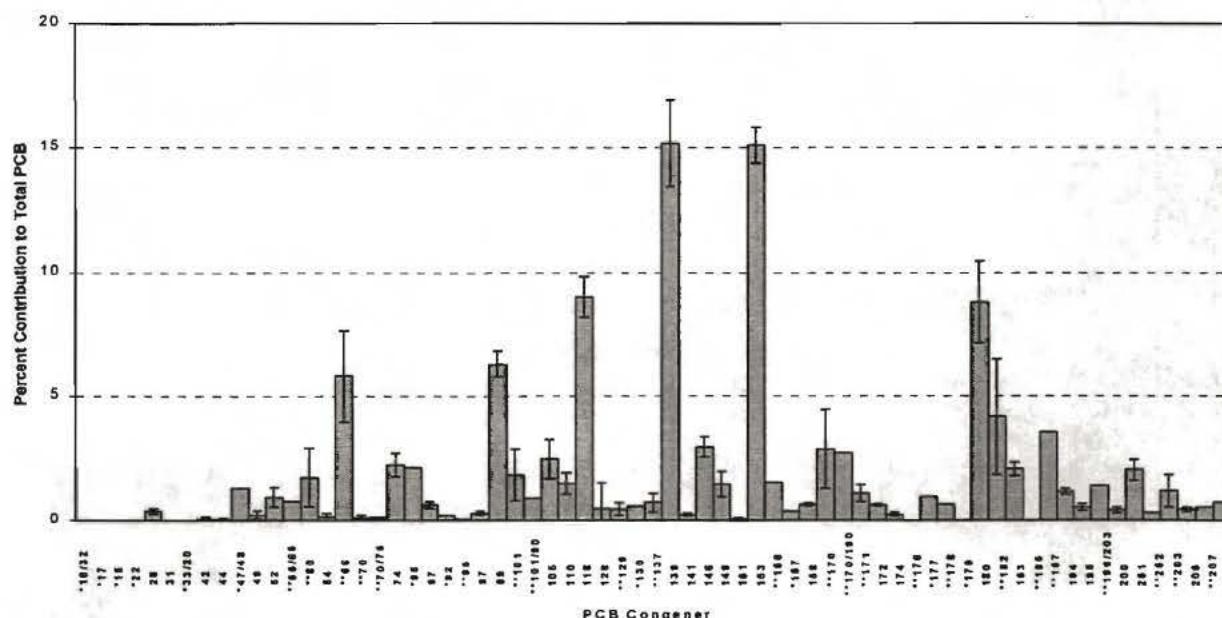


N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only

** See page 175 for changes in methodology

Figure 21. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Gull Island, Lake Michigan (1993-1997).



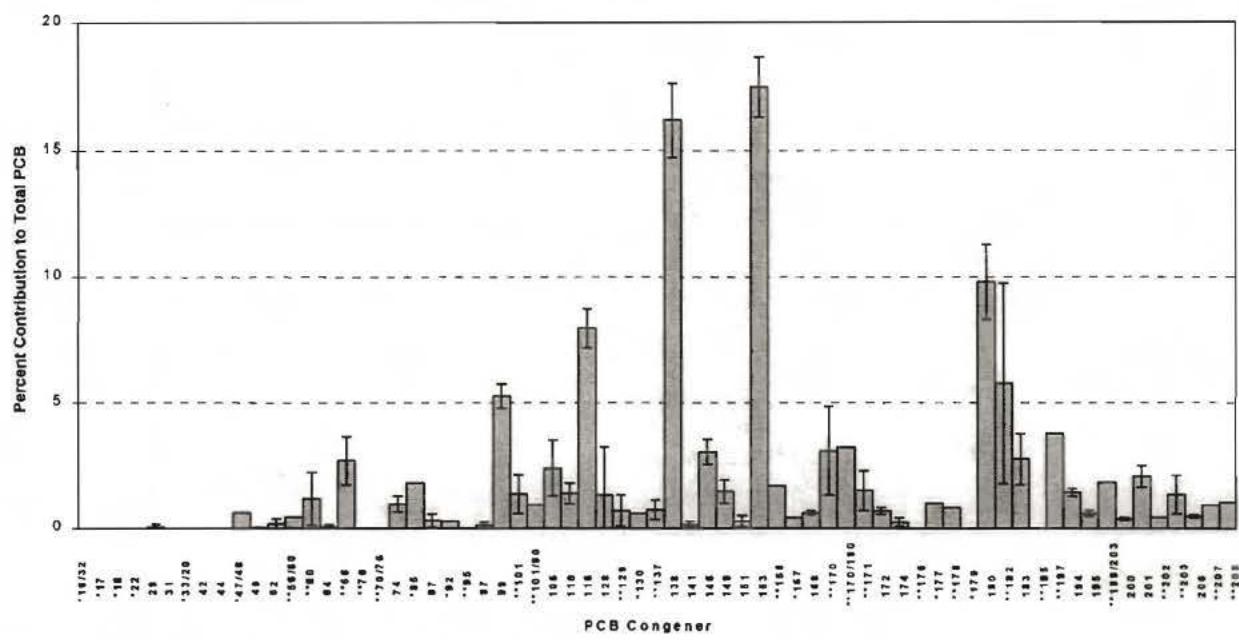
N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only

** See page 175 for changes in methodology

Figure 22. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Big Sister Island, Lake Michigan (1993-1997).

LAKE SUPERIOR

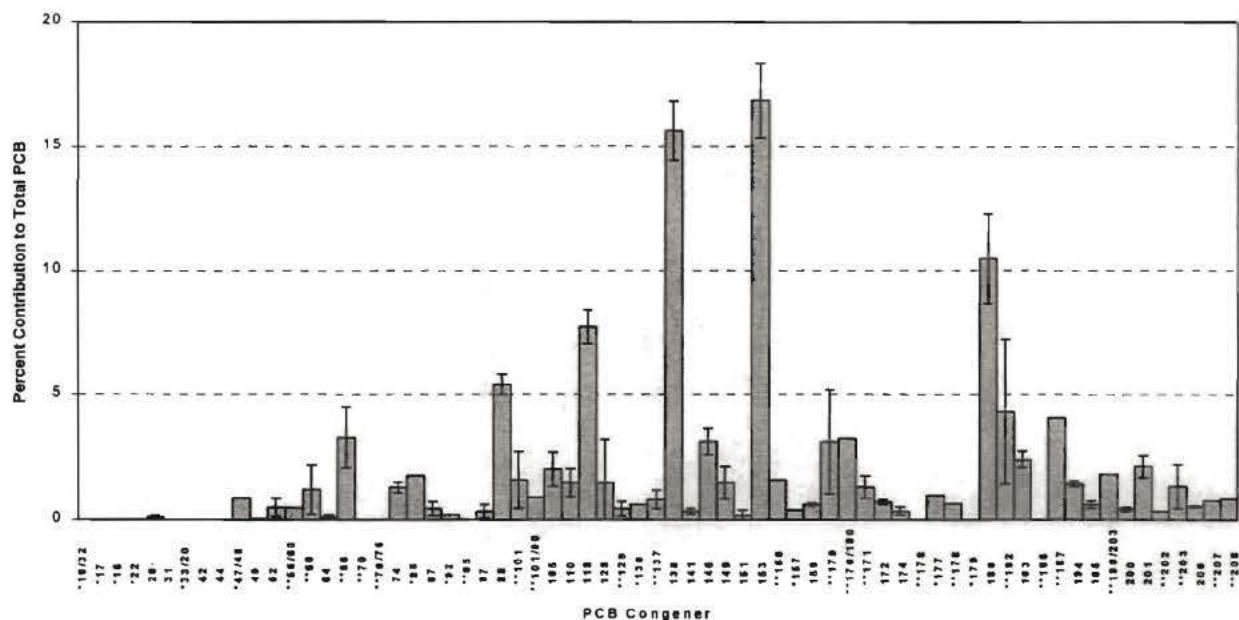


N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only

** See page 175 for changes in methodology

Figure 23. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Agawa Rock, Lake Superior (1993-1997).



N=5 (1 pooled sample or average of 13 eggs/year, 1993-1997)

* Analyzed in 1997 only

** See page 175 for changes in methodology

Figure 24. Percent contribution of individual PCB congeners to total PCB concentration in Herring Gull eggs from Granite Island, Lake Superior (1993-1997).

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
ST. LAWRENCE RIVER, STRACHAN ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 16 / 32	N	0	0	0	0	1
2,2',3 / 2,4',6-	MEAN					0.008
TRICHLOROBIPHENYL	STD					
PCB 17	N	0	0	0	0	1
2,2',4-	MEAN					0.002
TRICHLOROBIPHENYL	STD					
PCB 18	N	0	0	0	0	1
2,2',5-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 22	N	0	0	0	0	1
2,3,4'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 28	N	1	1	1	1	1
2,4,4'-	MEAN	0.0623	0.0451	0.0109	0.0388	0.018
TRICHLOROBIPHENYL	STD					
PCB 31	N	1	1	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD					
PCB 33 / 20	N	0	0	0	0	1
2',3,4 / 2,3,3'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 42	N	1	1	1	1	1
2,2',3,4'-	MEAN	0.0464	ND	ND	ND	0.018
TETRACHLOROBIPHENYL	STD					
PCB 44	N	1	1	1	1	1
2,2',3,5'-	MEAN	0.0667	0.0537	ND	0.0288	0.009
TETRACHLOROBIPHENYL	STD					
PCB 47 / 48	N	0	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN					0.335
TETRACHLOROBIPHENYL	STD					
PCB 49	N	1	1	1	1	1
2,2',4,5'-	MEAN	0.1334	0.1005	ND	0.0591	0.037
TETRACHLOROBIPHENYL	STD					
PCB 52	N	1	1	1	1	1
2,2',5,5'-	MEAN	0.2547	0.1903	0.0517	0.1309	0.056
TETRACHLOROBIPHENYL	STD					
PCB 56 / 60	N	Previously reported as PCB 60				1
2,3,3',4' / 2,3,4,4'-	MEAN					0.063
TETRACHLOROBIPHENYL	STD					
PCB 60	N	1	1	1	1	See
2,3,4,4'-	MEAN	0.0917	0.1557	0.1117	0.2424	PCB
TETRACHLOROBIPHENYL	STD					56/60
PCB 64	N	1	1	1	1	1
2,3,4',6-	MEAN	0.0194	0.0161	ND	0.0104	0.033
TETRACHLOROBIPHENYL	STD					
PCB 66	N	1	1	1	1	1
2,3',4,4'-	MEAN	0.3075	0.39	0.3097	0.3588	0.489
TETRACHLOROBIPHENYL	STD					
PCB 70	N	1	1	1	1	0
2,3',4,5-	MEAN	ND	ND	ND	ND	
TETRACHLOROBIPHENYL	STD					

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 175 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
ST. LAWRENCE RIVER, STRACHAN ISLAND

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>				
2,3',4',5/2',3,4,5-					1
TETRACHLOROBIPHENYL					0.007
PCB 74	N	1	1	1	1
2,4,4',5-	MEAN	0.1529	0.1892	0.162	0.169
TETRACHLOROBIPHENYL	STD				0.23
PCB 85	N	0	0	0	0
2,2',3,4,4'-	MEAN				0.176
PENTACHLOROBIPHENYL	STD				
PCB 87	N	1	1	1	1
2,2',3',4,5-	MEAN	0.1084	0.1189	0.0037	0.0962
PENTACHLOROBIPHENYL	STD				0.08
PCB 92	N	0	0	0	0
2,2',3,5,5'-	MEAN				0.029
PENTACHLOROBIPHENYL	STD				
PCB 95	N	0	0	0	0
2,2',3,5',6-	MEAN				0.007
PENTACHLOROBIPHENYL	STD				
PCB 97	N	1	1	1	1
2,2',3',4,5-	MEAN	0.0351	0.0447	0.0589	0.0332
PENTACHLOROBIPHENYL	STD				0.024
PCB 99	N	1	1	1	1
2,2',4,4',5-	MEAN	0.5472	0.6276	0.0413	0.5103
PENTACHLOROBIPHENYL	STD				0.534
PCB 101	N	1	1	1	1
2,2',4,5,5'-	MEAN	0.2323	0.3002	1.1924	0.2759
PENTACHLOROBIPHENYL	STD				See PCB 101/90
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>			
2,2',4,5,5'/ 2,2',3,4',5-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.117
PCB 105	N	1	1	1	1
2,3,3',4,4'-	MEAN	0.1761	0.2088	0.0196	0.3599
PENTACHLOROBIPHENYL	STD				0.327
PCB 110	N	1	1	1	1
2,3,3',4',6-	MEAN	0.1765	0.2075	0.227	0.1873
PENTACHLOROBIPHENYL	STD				0.079
PCB 118	N	1	1	1	1
2,3',4,4',5-	MEAN	0.7748	0.9829	0.1129	0.7422
PENTACHLOROBIPHENYL	STD				0.719
PCB 128	N	1	1	1	1
2,2',3,3',4,4'-	MEAN	0.1781	ND	ND	0.164
HEXACHLOROBIPHENYL	STD				0.15
PCB 129	N	1	1	1	1
2,2',3,3',4,5-	MEAN	0.0575	0.059	0.05	0.0633
HEXACHLOROBIPHENYL	STD				See PCB 178
PCB 130	N	0	0	0	0
2,2',3,3',4,5'-	MEAN				1
HEXACHLOROBIPHENYL	STD				0.045
PCB 137	N	1	1	1	1
2,2',3,4,4',5-	MEAN	0.0536	0.0549	0.0413	0.0444
HEXACHLOROBIPHENYL	STD				0.103

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
ST. LAWRENCE RIVER, STRACHAN ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 138	N	1	1	1	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.1765	0.2075	0.227	0.1873	0.079
	STD					
PCB 141	N	1	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.0364	0.0443	0.0196	0.04	0.022
	STD					
PCB 146	N	1	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.2359	0.2783	0.227	0.2321	0.323
	STD					
PCB 149	N	1	1	1	1	1
2,2',3,4,5',6'-HEXACHLOROBIPHENYL	MEAN	0.1562	0.1811	0.1129	0.1832	0.067
	STD					
PCB 151	N	1	1	1	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.0236	0.0213	ND	0.0291	0.014
	STD					
PCB 153	N	1	1	1	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	1.2857	1.4605	1.24	1.2562	1.337
	STD					
PCB 156	N	See footnote 'A'				1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.138
	STD					
PCB 157	N	0	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.034
	STD					
PCB 158	N	1	1	1	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.0469	0.054	0.05	0.0476	0.054
	STD					
PCB 170	N	1	1	1	1	0
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.3791	0.4282	0.3551	0.3815	
	STD					
PCB 170 / 190	N	0	0	0	0	1
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.305
	STD					
PCB 171 ^A	N	1	1	1	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.12	0.1484	0.092	0.1129	0.062
	STD					
PCB 172	N	1	1	1	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.054	0.0655	0.0559	0.0565	0.069
	STD					
PCB 174	N	1	1	1	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0436	0.0472	ND	0.044	0.019
	STD					
PCB 176	N	0	0	0	0	1
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 177	N	0	0	0	0	1
2,2',3,3',4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.114
	STD					
PCB 178	N	Previously reported as PCB 129				1
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.08
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
ST. LAWRENCE RIVER, STRACHAN ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 179	N	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 180	N	1	1	1	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	0.9641	1.076	0.9339	0.9518	0.737
	STD					
PCB 182	N	1	1	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.5922	0.6888	0.6121	0.6122	
	STD					
PCB 183	N	1	1	1	1	1
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.2311	0.256	0.2216	0.2271	0.18
	STD					
PCB 185	N	1	1	1	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	ND	
	STD					
PCB 187	N	0	0	0	0	1
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.475
	STD					
PCB 194	N	1	1	1	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.1347	0.1565	0.1421	0.1544	0.146
	STD					
PCB 195	N	1	1	1	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.0625	0.0774	0.068	0.0739	0.043
	STD					
PCB 196/203		Previously reported as PCB 203				1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL						0.18
PCB 200	N	1	1	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.039	0.0499	0.0342	0.0368	0.026
	STD					
PCB 201	N	1	1	1	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.2348	0.2889	0.2432	0.2694	0.161
	STD					
PCB 202	N		See footnote 'A'			1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN					0.033
	STD					
PCB 203	N	1	1	1	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.1541	0.1917	0.1616	0.1771	
	STD					
PCB 206	N	1	1	1	1	1
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	MEAN	0.0476	0.0532	0.0468	0.0682	0.048
	STD					
PCB 207	N	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN					0.064
	STD					
PCB 208	N	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN					0.085
	STD					

* From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ONTARIO, SNAKE ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 16 / 32	N	0	0	0	0	1
2,2',3 / 2,4',6-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 17	N	0	0	0	0	1
2,2',4-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 18	N	0	0	0	0	1
2,2',5-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 22	N	0	0	0	0	1
2,3,4'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 28	N	1	1	1	1	1
2,4,4'-	MEAN	0.0108	ND	0.0131	0.0112	0.014
TRICHLOROBIPHENYL	STD					
PCB 31	N	1	1	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD					
PCB 33 / 20	N	0	0	0	0	1
2',3,4 / 2,3,3'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 42	N	1	1	1	1	1
2,2',3,4'-	MEAN	ND	ND	ND	ND	ND
TETRACHLOROBIPHENYL	STD					
PCB 44	N	1	1	1	1	1
2,2',3,5'-	MEAN	0.0344	0.0252	0.0055	ND	ND
TETRACHLOROBIPHENYL	STD					
PCB 47 / 48	N	0	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN					0.054
TETRACHLOROBIPHENYL	STD					
PCB 49	N	1	1	1	1	1
2,2',4,5'-	MEAN	ND	ND	ND	ND	0.005
TETRACHLOROBIPHENYL	STD					
PCB 52	N	1	1	1	1	1
2,2',5,5'-	MEAN	0.0665	0.0732	0.035	0.0547	0.019
TETRACHLOROBIPHENYL	STD					
PCB 56 / 60	N	Previously reported as PCB 60				1
2,3,3',4' / 2,3,4,4'-	MEAN					0.03
TETRACHLOROBIPHENYL	STD					
PCB 60	N	1	1	1	1	See PCB 56/60
2,3,4,4'-	MEAN	0.1026	0.1035	0.0309	0.1409	
TETRACHLOROBIPHENYL	STD					
PCB 64	N	1	1	1	1	1
2,3,4',6-	MEAN	0.0063	0.0067	ND	0.0063	0.015
TETRACHLOROBIPHENYL	STD					
PCB 66	N	1	1	1	1	1
2,3',4,4'-	MEAN	0.2546	0.2397	0.1676	0.2125	0.271
TETRACHLOROBIPHENYL	STD					
PCB 70	N	1	1	1	1	0
2,3',4,5-	MEAN	ND	ND	ND	ND	
TETRACHLOROBIPHENYL	STD					

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ONTARIO, SNAKE ISLAND

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>				
2,3',4',5/2',3,4,5-					1
TETRACHLOROBIPHENYL					ND
PCB 74	N	1	1	1	1
2,4,4'-5-	MEAN	0.1004	0.0908	0.0652	0.0686
TETRACHLOROBIPHENYL	STD				0.105
PCB 85	N	0	0	0	0
2,2',3,4,4'-	MEAN				0.133
PENTACHLOROBIPHENYL	STD				
PCB 87	N	1	1	1	1
2,2',3',4,5-	MEAN	0.0757	0.0633	ND	0.0515
PENTACHLOROBIPHENYL	STD				0.046
PCB 92	N	0	0	0	0
2,2',3,5,5'-	MEAN				0.019
PENTACHLOROBIPHENYL	STD				
PCB 95	N	0	0	0	0
2,2',3,5',6-	MEAN				0.003
PENTACHLOROBIPHENYL	STD				
PCB 97	N	1	1	1	1
2,2',3',4,5-	MEAN	0.0425	0.0407	0.0179	0.0267
PENTACHLOROBIPHENYL	STD				0.02
PCB 99	N	1	1	1	1
2,2',4,4',5-	MEAN	0.5959	0.4868	0.3804	0.3521
PENTACHLOROBIPHENYL	STD				0.402
PCB 101	N	1	1	1	1
2,2',4,5,5'-	MEAN	0.2428	0.226	0.1586	0.1789
PENTACHLOROBIPHENYL	STD				See PCB 101/90
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>			1
2,2',4,5,5' / 2,2',3,4',5-	MEAN				0.081
PENTACHLOROBIPHENYL	STD				
PCB 105	N	1	1	1	1
2,3,3',4,4'-	MEAN	0.1832	0.1636	0.0823	0.2397
PENTACHLOROBIPHENYL	STD				0.217
PCB 110	N	1	1	1	1
2,3,3',4',6-	MEAN	0.1695	0.1797	0.0771	0.1409
PENTACHLOROBIPHENYL	STD				0.062
PCB 118	N	1	1	1	1
2,3',4,4',5-	MEAN	0.8802	0.7149	0.5316	0.5212
PENTACHLOROBIPHENYL	STD				0.552
PCB 128	N	1	1	1	1
2,2',3,3',4,4'-	MEAN	0.2511	ND	ND	0.1508
HEXACHLOROBIPHENYL	STD				0.169
PCB 129	N	1	1	1	1
2,2',3,3',4,5-	MEAN	0.0745	0.0651	0.0575	0.0452
HEXACHLOROBIPHENYL	STD				See PCB 178
PCB 130	N	0	0	0	0
2,2',3,3',4,5'-	MEAN				0.046
HEXACHLOROBIPHENYL	STD				
PCB 137	N	1	1	1	1
2,2',3,4,4',5-	MEAN	0.069	0.0538	0.0403	0.0395
HEXACHLOROBIPHENYL	STD				0.117

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ONTARIO, SNAKE ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 138	N	1	1	1	1	1
2,2',3,4,4',5'-	MEAN	0.1695	0.1797	0.0771	0.1409	0.062
HEXACHLOROBIPHENYL	STD					
PCB 141	N	1	1	1	1	1
2,2',3,4,5,5'-	MEAN	0.0493	0.0477	0.0288	0.0373	0.025
HEXACHLOROBIPHENYL	STD					
PCB 146	N	1	1	1	1	1
2,2',3,4',5,5'-	MEAN	0.2966	0.2689	0.1941	0.1897	0.331
HEXACHLOROBIPHENYL	STD					
PCB 149	N	1	1	1	1	1
2,2',3,4',5',6-	MEAN	0.188	0.178	0.1329	0.1423	0.059
HEXACHLOROBIPHENYL	STD					
PCB 151	N	1	1	1	1	1
2,2',3,5,5',6-	MEAN	0.0139	ND	ND	ND	0.008
HEXACHLOROBIPHENYL	STD					
PCB 153	N	1	1	1	1	1
2,2',4,4',5,5'-	MEAN	1.5801	1.4705	1.185	1.1016	1.529
HEXACHLOROBIPHENYL	STD					
PCB 156	N	See footnote 'A'				1
2,3,3',4,4',5-	MEAN					0.134
HEXACHLOROBIPHENYL	STD					,
PCB 157	N	0	0	0	0	1
2,3,3',4,4',5'-	MEAN					0.029
HEXACHLOROBIPHENYL	STD					
PCB 158	N	1	1	1	1	1
2,3,3',4,4',6-	MEAN	0.0511	0.0492	0.0426	0.0368	0.056
HEXACHLOROBIPHENYL	STD					
PCB 170	N	1	1	1	1	0
2,2',3,3',4,4',5-	MEAN	0.4083	0.393	0.3085	0.2818	
HEPTACHLOROBIPHENYL	STD					
PCB 170 / 190	N	0	0	0	0	1
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6-	MEAN					0.3
HEPTACHLOROBIPHENYL	STD					
PCB 171 ^A	N	1	1	1	1	1
2,2',3,3',4,4',6-	MEAN	0.1384	0.1359	0.1912	0.0893	0.067
HEPTACHLOROBIPHENYL	STD					
PCB 172	N	1	1	1	1	1
2,2',3,3',4,5,5'-	MEAN	0.0623	0.0569	0.0529	0.0447	0.076
HEPTACHLOROBIPHENYL	STD					
PCB 174	N	1	1	1	1	1
2,2',3,3',4,5,6'-	MEAN	0.0523	0.0497	0.0364	0.0352	0.021
HEPTACHLOROBIPHENYL	STD					
PCB 176	N	0	0	0	0	1
2,2',3,3',4,6,6'-	MEAN					ND
HEPTACHLOROBIPHENYL	STD					
PCB 177	N	0	0	0	0	1
2,2',3,3',4',5,6-	MEAN					0.117
HEPTACHLOROBIPHENYL	STD					
PCB 178	N	Previously reported as PCB 129				1
2,2',3,3',5,5',6-	MEAN					0.074
HEPTACHLOROBIPHENYL	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ONTARIO, SNAKE ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 179	N	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
STD						
PCB 180	N	1	1	1	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	1.0667	0.9981	0.8106	0.7276	0.768
STD						
PCB 182	N	1	1	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.6322	0.6225	0.4944	0.4437	
STD						
PCB 183	N	1	1	1	1	1
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.2492	0.2332	0.1916	0.1743	0.192
STD						
PCB 185	N	1	1	1	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	ND	
STD						
PCB 187	N	0	0	0	0	1
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.426
STD						
PCB 194	N	1	1	1	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.1185	0.1214	0.101	0.0974	0.116
STD						
PCB 195	N	1	1	1	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.0642	0.0635	0.0527	0.0484	0.037
STD						
PCB 196/203	N	Previously reported as PCB 203				1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN					0.163
STD						
PCB 200	N	1	1	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.0488	0.041	0.0359	0.0324	0.007
STD						
PCB 201	N	1	1	1	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.2438	0.2476	0.1815	0.1915	0.142
STD						
PCB 202	N	See footnote 'A'				1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN					0.033
STD						
PCB 203	N	1	1	1	1	0
2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL	MEAN	0.1591	0.1596	0.1309	0.1232	
STD						
PCB 206	N	1	1	1	1	1
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	MEAN	0.042	0.0419	0.0323	0.0478	0.042
STD						
PCB 207	N	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN					0.061
STD						
PCB 208	N	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN					0.081
STD						

* From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ONTARIO, LESLIE STREET SPIT

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 16 / 32	N	0	0	0	0	1
2,2',3 / 2,4',6-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 17	N	0	0	0	0	1
2,2',4-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 18	N	0	0	0	0	1
2,2',5-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 22	N	0	0	0	0	1
2,3,4'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 28	N	1	1	1	1	1
2,4,4'-	MEAN	0.0069	ND	ND	ND	0.003
TRICHLOROBIPHENYL	STD					
PCB 31	N	1	1	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD					
PCB 33 / 20	N	0	0	0	0	1
2',3,4 / 2,3,3'	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 42	N	1	1	1	1	1
2,2',3,4'-	MEAN	ND	ND	ND	ND	ND
TETRACHLOROBIPHENYL	STD					
PCB 44	N	1	1	1	1	1
2,2',3,5'-	MEAN	0.0219	ND	ND	ND	ND
TETRACHLOROBIPHENYL	STD					
PCB 47 / 48	N	0	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN					0.025
TETRACHLOROBIPHENYL	STD					
PCB 49	N	1	1	1	1	1
2,2',4,5'-	MEAN	ND	ND	ND	ND	0.001
TETRACHLOROBIPHENYL	STD					
PCB 52	N	1	1	1	1	1
2,2',5,5'-	MEAN	0.0344	ND	ND	0.0378	0.005
TETRACHLOROBIPHENYL	STD					
PCB 56 / 60	N	Previously reported as PCB 60				1
2,3,3',4' / 2,3,4,4'-	MEAN					0.012
TETRACHLOROBIPHENYL	STD					
PCB 60	N	1	1	1	1	See
2,3,4,4'-	MEAN	0.0402	ND	ND	0.1136	PCB
TETRACHLOROBIPHENYL	STD					56/60
PCB 64	N	1	1	1	1	1
2,3,4',6-	MEAN	0.0026	ND	ND	0.0042	0.004
TETRACHLOROBIPHENYL	STD					
PCB 66	N	1	1	1	1	1
2,3',4,4'-	MEAN	0.1101	0.1394	0.0617	0.1704	0.119
TETRACHLOROBIPHENYL	STD					
PCB 70	N	1	1	1	1	0
2,3',4',5-	MEAN	ND	ND	ND	ND	
TETRACHLOROBIPHENYL	STD					

* All units measured on a wet weight basis. Non-coplanar PCBs measured in $\mu\text{g/g}$. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ONTARIO, LESLIE STREET SPIT

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>				
2,3',4',5/2',3,4,5					1
TETRACHLOROBIPHENYL					TR
PCB 74	N	1	1	1	1
2,4,4'-5-	MEAN	0.0437	0.0489	ND	0.0554
TETRACHLOROBIPHENYL	STD				0.037
PCB 85	N	0	0	0	0
2,2',3,4,4'	MEAN				0.077
PENTACHLOROBIPHENYL	STD				
PCB 87	N	1	1	1	1
2,2',3',4,5-	MEAN	0.0591	0.045	ND	0.0454
PENTACHLOROBIPHENYL	STD				0.025
PCB 92	N	0	0	0	0
2,2',3,5,5'-	MEAN				0.007
PENTACHLOROBIPHENYL	STD				
PCB 95	N	0	0	0	0
2,2',3,5',6-	MEAN				0.001
PENTACHLOROBIPHENYL	STD				
PCB 97	N	1	1	1	1
2,2',3',4,5-	MEAN	0.0295	0.0207	ND	0.0228
PENTACHLOROBIPHENYL	STD				0.006
PCB 99	N	1	1	1	1
2,2',4,4',5-	MEAN	0.3948	0.4118	0.2414	0.414
PENTACHLOROBIPHENYL	STD				0.245
PCB 101	N	1	1	1	1
2,2',4,5,5'-	MEAN	0.1312	0.1523	0.0702	0.1507
PENTACHLOROBIPHENYL	STD				See PCB 101/90
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>			1
2,2',4,5,5' / 2,2',3,4',5-	MEAN				0.029
PENTACHLOROBIPHENYL	STD				
PCB 105	N	1	1	1	1
2,3,3',4,4'-	MEAN	0.1032	0.1474	0.0589	0.2741
PENTACHLOROBIPHENYL	STD				0.129
PCB 110	N	1	1	1	1
2,3,3',4',6-	MEAN	0.0972	0.1135	0.0387	0.1301
PENTACHLOROBIPHENYL	STD				0.021
PCB 118	N	1	1	1	1
2,3',4,4',5-	MEAN	0.542	0.5852	0.3528	0.655
PENTACHLOROBIPHENYL	STD				0.333
PCB 128	N	1	1	1	1
2,2',3,3',4,4'-	MEAN	0.1784	ND	ND	0.2164
HEXACHLOROBIPHENYL	STD				0.109
PCB 129	N	1	1	1	1
2,2',3,3',4,5-	MEAN	0.0566	0.068	0.0414	0.0591
HEXACHLOROBIPHENYL	STD				See PCB 178
PCB 130	N	0	0	0	0
2,2',3,3',4,5'-	MEAN				0.032
HEXACHLOROBIPHENYL	STD				
PCB 137	N	1	1	1	1
2,2',3,4,4',5-	MEAN	0.0486	0.0588	0.032	0.0535
HEXACHLOROBIPHENYL	STD				0.074

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ONTARIO, LESLIE STREET SPIT

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 138	N	1	1	1	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.0972	0.1135	0.0387	0.1301	0.021
	STD					
PCB 141	N	1	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.0314	0.0313	ND	0.0283	0.007
	STD					
PCB 146	N	1	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.2331	0.28	0.1726	0.2509	0.241
	STD					
PCB 149	N	1	1	1	1	1
2,2',3,4',5',6'-HEXACHLOROBIPHENYL	MEAN	0.1232	0.1297	0.0634	0.1422	0.029
	STD					
PCB 151	N	1	1	1	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.0117	ND	ND	ND	0.004
	STD					
PCB 153	N	1	1	1	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	1.386	1.5357	1.0434	1.457	1.132
	STD					
PCB 156	N		<i>See footnote 'A'</i>			1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.091
	STD					
PCB 157	N	0	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.021
	STD					
PCB 158	N	1	1	1	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.0425	0.0487	0.0357	0.0533	0.038
	STD					
PCB 170	N	1	1	1	1	0
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.3892	0.4412	0.3006	0.398	
	STD					
PCB 170 / 190	N	0	0	0	0	1
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.226
	STD					
PCB 171 ^A	N	1	1	1	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.1149	0.1442	0.042	0.1149	0.045
	STD					
PCB 172	N	1	1	1	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.0584	0.0743	0.0498	0.0576	0.057
	STD					
PCB 174	N	1	1	1	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0454	0.0402	ND	0.0343	0.009
	STD					
PCB 176	N	0	0	0	0	1
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 177	N	0	0	0	0	1
2,2',3,3',4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.085
	STD					
PCB 178	N		<i>Previously reported as PCB 129</i>			1
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.05
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ONTARIO, LESLIE STREET SPIT

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 179	N	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
PCB 180	STD					
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	1.1244	1.438	0.8487	1.0466	0.602
PCB 182	STD					
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	N	1	1	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.6264	0.6763	0.4717	0.6457	
PCB 183	STD					
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.2622	0.275	0.1916	0.2578	0.153
PCB 185	STD					
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	N	1	1	1	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	ND	
PCB 187	STD					
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	N	0	0	0	0	1
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.341
PCB 194	STD					
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.136	0.1618	0.1194	0.141	0.096
PCB 195	STD					
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.0626	0.0754	0.0561	0.0631	0.027
PCB 196/203	STD					
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	N	Previously reported as PCB 203				1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN					0.129
PCB 200	STD					
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.039	0.0494	0.0318	0.042	0.015
PCB 201	STD					
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.2423	0.2924	0.2108	0.2608	0.11
PCB 202	STD					
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	N	See footnote 'A'				1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN					0.023
PCB 203	STD					
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	N	1	1	1	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.1629	0.1938	0.1458	0.1711	
PCB 206	STD					
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	MEAN	0.0448	0.0526	0.0452	0.0395	0.036
PCB 207	STD					
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	N	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN					0.054
PCB 208	STD					
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	N	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN					0.072
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in $\mu\text{g/g}$. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
NIAGARA RIVER

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 16 / 32	N	0	0	0	0	1
2,2',3 / 2,4',6-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 17	N	0	0	0	0	1
2,2',4-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 18	N	0	0	0	0	1
2,2',5-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 22	N	0	0	0	0	1
2,3,4'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 28	N	1	1	1	1	1
2,4,4'-	MEAN	0.0086	ND	ND	ND	0.002
TRICHLOROBIPHENYL	STD					
PCB 31	N	1	1	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD					
PCB 33 / 20	N	0	0	0	0	1
2',3,4 / 2,3,3'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 42	N	1	1	1	1	1
2,2',3,4'-	MEAN	ND	ND	ND	ND	TR
TETRACHLOROBIPHENYL	STD					
PCB 44	N	1	1	1	1	1
2,2',3,5'-	MEAN	0.0157	ND	ND	ND	0.001
TETRACHLOROBIPHENYL	STD					
PCB 47 / 48	N	0	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN					0.018
TETRACHLOROBIPHENYL	STD					
PCB 49	N	1	1	1	1	1
2,2',4,5'-	MEAN	ND	ND	ND	ND	0.002
TETRACHLOROBIPHENYL	STD					
PCB 52	N	1	1	1	1	1
2,2',5,5'-	MEAN	0.0491	ND	ND	ND	0.007
TETRACHLOROBIPHENYL	STD					
PCB 56 / 60	N	Previously reported as PCB 60				1
2,3,3',4' / 2,3,4,4'-	MEAN					0.007
TETRACHLOROBIPHENYL	STD					
PCB 60	N	1	1	1	1	See
2,3,4,4'-	MEAN	0.0457	0.0865	ND	0.0972	PCB
TETRACHLOROBIPHENYL	STD					56/60
PCB 64	N	1	1	1	1	1
2,3,4',6-	MEAN	0.0031	ND	ND	ND	0.004
TETRACHLOROBIPHENYL	STD					
PCB 66	N	1	1	1	1	1
2,3',4,4'-	MEAN	0.1031	0.1192	0.0685	0.1087	0.052
TETRACHLOROBIPHENYL	STD					
PCB 70	N	1	1	1	1	0
2,3',4',5-	MEAN	ND	ND	ND	ND	
TETRACHLOROBIPHENYL	STD					

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
NIAGARA RIVER

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>				
2,3',4',5/2',3,4,5					1
TETRACHLOROBIPHENYL					0.001
PCB 74	N	1	1	1	1
2,4,4',5-	MEAN	0.0411	0.0467	0.0309	0.0403
TETRACHLOROBIPHENYL	STD				0.022
PCB 85	N	0	0	0	0
2,2',3,4,4'-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.034
PCB 87	N	1	1	1	1
2,2',3',4,5-	MEAN	0.0439	ND	ND	0.0329
PENTACHLOROBIPHENYL	STD				0.014
PCB 92	N	0	0	0	0
2,2',3,5,5'-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.005
PCB 95	N	0	0	0	0
2,2',3,5',6-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.002
PCB 97	N	1	1	1	1
2,2',3',4,5-	MEAN	0.021	ND	ND	0.0191
PENTACHLOROBIPHENYL	STD				0.006
PCB 99	N	1	1	1	1
2,2',4,4',5-	MEAN	0.2903	0.2927	0.2126	0.2294
PENTACHLOROBIPHENYL	STD				0.108
PCB 101	N	1	1	1	1
2,2',4,5,5'-	MEAN	0.1405	0.1158	0.0738	0.1234
PENTACHLOROBIPHENYL	STD				See PCB 101/90
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>			
2,2',4,5,5' / 2,2',3,4',5-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.023
PCB 105	N	1	1	1	1
2,3,3',4,4'-	MEAN	0.0727	0.1043	0.0648	0.1462
PENTACHLOROBIPHENYL	STD				0.057
PCB 110	N	1	1	1	1
2,3,3',4',6-	MEAN	0.1002	0.076	0.0561	0.1002
PENTACHLOROBIPHENYL	STD				0.02
PCB 118	N	1	1	1	1
2,3',4,4',5-	MEAN	0.3724	0.4229	0.3069	0.3374
PENTACHLOROBIPHENYL	STD				0.14
PCB 128	N	1	1	1	1
2,2',3,3',4,4'-	MEAN	0.1992	ND	ND	ND
HEXACHLOROBIPHENYL	STD				0.058
PCB 129	N	1	1	1	1
2,2',3,3',4,5-	MEAN	0.0475	0.045	0.037	0.0389
HEXACHLOROBIPHENYL	STD				PCB 178
PCB 130	N	0	0	0	0
2,2',3,3',4,5'-	MEAN				1
HEXACHLOROBIPHENYL	STD				0.017
PCB 137	N	1	1	1	1
2,2',3,4,4',5-	MEAN	0.0371	0.0422	0.0262	0.0273
HEXACHLOROBIPHENYL	STD				0.041

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
NIAGARA RIVER

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 138	N	1	1	1	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.1002	0.076	0.0561	0.1002	0.02
	STD					
PCB 141	N	1	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.0307	0.0236	ND	0.0285	0.008
	STD					
PCB 146	N	1	1	1	1	1
2,2',3,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.1896	0.1995	0.1501	0.1511	0.119
	STD					
PCB 149	N	1	1	1	1	1
2,2',3,4',5,6'-HEXACHLOROBIPHENYL	MEAN	0.135	0.1105	0.095	0.1353	0.028
	STD					
PCB 151	N	1	1	1	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.0086	ND	ND	ND	0.005
	STD					
PCB 153	N	1	1	1	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	1.0811	1.1371	0.9139	0.897	0.542
	STD					
PCB 156	N	See footnote 'A'				1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.044
	STD					
PCB 157	N	0	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.011
	STD					
PCB 158	N	1	1	1	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.0422	0.0426	0.0354	0.0314	0.024
	STD					
PCB 170	N	1	1	1	1	0
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.3205	0.3324	0.2615	0.2524	
	STD					
PCB 170 / 190	N	0	0	0	0	1
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL	MEAN					0.117
	STD					
PCB 171 ^A	N	1	1	1	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.097	0.1053	0.1345	0.0838	0.028
	STD					
PCB 172	N	1	1	1	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.0484	0.0497	0.0426	0.0387	0.031
	STD					
PCB 174	N	1	1	1	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0445	0.0301	ND	0.0338	0.009
	STD					
PCB 176	N	0	0	0	0	1
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 177	N	0	0	0	0	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN					0.049
	STD					
PCB 178	N	Previously reported as PCB 129				1
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.03
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
NIAGARA RIVER

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 179	N	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 180	N	1	1	1	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	0.8591	1.0241	0.7316	0.6657	0.313
	STD					
PCB 182	N	1	1	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.5062	0.5243	0.4257	0.407	
	STD					
PCB 183	N	1	1	1	1	1
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.2208	0.2192	0.1864	0.1663	0.084
	STD					
PCB 185	N	1	1	1	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	ND	
	STD					
PCB 187	N	0	0	0	0	1
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.177
	STD					
PCB 194	N	1	1	1	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.1108	0.1166	0.1011	0.0932	0.053
	STD					
PCB 195	N	1	1	1	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.047	0.0518	0.0426	0.0404	0.016
	STD					
PCB 196/203	N	Previously reported as PCB 203				1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN					0.071
	STD					
PCB 200	N	1	1	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.0314	0.0328	0.0263	0.0259	0.014
	STD					
PCB 201	N	1	1	1	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.1923	0.2096	0.1664	0.1667	0.064
	STD					
PCB 202	N	See footnote 'A'				1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN					0.014
	STD					
PCB 203	N	1	1	1	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.1273	0.1371	0.1157	0.1092	
	STD					
PCB 206	N	1	1	1	1	1
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	MEAN	0.033	0.0383	0.0309	0.0267	0.017
	STD					
PCB 207	N	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN					0.027
	STD					
PCB 208	N	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN					0.033
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ERIE, PORT COLBORNE LIGHTHOUSE

HERRING GULL		YEAR			
		93	95	96	97
PCB 16 / 32	N	0	0	0	1
2,2',3 / 2,4',6-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 17	N	0	0	0	1
2,2',4-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 18	N	0	0	0	1
2,2',5-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 22	N	0	0	0	1
2,3,4'-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 28	N	1	1	1	1
2,4,4'-	MEAN	ND	ND	ND	0.006
TRICHLOROBIPHENYL	STD				
PCB 31	N	1	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD				
PCB 33 / 20	N	0	0	0	1
2',3,4 / 2,3,3'-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 42	N	1	1	1	1
2,2',3,4'-	MEAN	ND	ND	ND	0.004
TETRACHLOROBIPHENYL	STD				
PCB 44	N	1	1	1	1
2,2',3,5'-	MEAN	ND	ND	ND	0.001
TETRACHLOROBIPHENYL	STD				
PCB 47 / 48	N	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN				0.022
TETRACHLOROBIPHENYL	STD				
PCB 49	N	1	1	1	1
2,2',4,5'-	MEAN	ND	ND	ND	0.003
TETRACHLOROBIPHENYL	STD				
PCB 52	N	1	1	1	1
2,2',5,5'-	MEAN	0.0297	ND	ND	0.014
TETRACHLOROBIPHENYL	STD				
PCB 56 / 60	N	Previously reported as PCB 60			1
2,3,3',4' / 2,3,4,4'-	MEAN				0.012
TETRACHLOROBIPHENYL	STD				
PCB 60	N	1	1	1	See PCB 56/60
2,3,4,4'-	MEAN	0.0302	ND	0.0789	
TETRACHLOROBIPHENYL	STD				
PCB 64	N	1	1	1	1
2,3,4',6-	MEAN	ND	ND	ND	0.011
TETRACHLOROBIPHENYL	STD				
PCB 66	N	1	1	1	1
2,3',4,4'-	MEAN	0.0602	0.0649	0.0737	0.095
TETRACHLOROBIPHENYL	STD				
PCB 70	N	1	1	1	0
2,3',4',5-	MEAN	ND	ND	ND	
TETRACHLOROBIPHENYL	STD				

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ERIE, PORT COLBORNE LIGHTHOUSE

HERRING GULL	YEAR			
	93	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>			
2,3',4',5/2',3,4,5-				0.003
TETRACHLOROBIPHENYL				
PCB 74	N	1	1	1
2,4,4',5-	MEAN	0.0251	0.0279	0.0257
TETRACHLOROBIPHENYL	STD			0.039
PCB 85	N	0	0	1
2,2',3,4,4'-	MEAN			0.044
PENTACHLOROBIPHENYL	STD			
PCB 87	N	1	1	1
2,2',3',4,5-	MEAN	0.0294	ND	ND
PENTACHLOROBIPHENYL	STD			0.018
PCB 92	N	0	0	1
2,2',3,5,5'-	MEAN			0.007
PENTACHLOROBIPHENYL	STD			
PCB 95	N	0	0	1
2,2',3,5',6-	MEAN			0.003
PENTACHLOROBIPHENYL	STD			
PCB 97	N	1	1	1
2,2',3',4,5-	MEAN	0.0215	ND	ND
PENTACHLOROBIPHENYL	STD			0.009
PCB 99	N	1	1	1
2,2',4,4',5-	MEAN	0.1804	0.1873	0.1731
PENTACHLOROBIPHENYL	STD			0.134
PCB 101	N	1	1	1
2,2',4,5,5'-	MEAN	0.104	0.0817	0.1068
PENTACHLOROBIPHENYL	STD			<i>See PCB 101/90</i>
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>		1
2,2',4,5,5' / 2,2',3,4',5-	MEAN			0.029
PENTACHLOROBIPHENYL	STD			
PCB 105	N	1	1	1
2,3,3',4,4'-	MEAN	0.0465	0.049	0.1053
PENTACHLOROBIPHENYL	STD			0.07
PCB 110	N	1	1	1
2,3,3',4',6-	MEAN	0.0722	0.0521	0.0855
PENTACHLOROBIPHENYL	STD			0.037
PCB 118	N	1	1	1
2,3',4,4',5-	MEAN	0.2426	0.2695	0.244
PENTACHLOROBIPHENYL	STD			0.173
PCB 128	N	1	1	1
2,2',3,3',4,4'-	MEAN	0.1068	ND	0.0914
HEXACHLOROBIPHENYL	STD			0.087
PCB 129	N	1	1	1
2,2',3,3',4,5-	MEAN	0.0384	0.0404	0.0345
HEXACHLOROBIPHENYL	STD			<i>See PCB 178</i>
PCB 130	N	0	0	1
2,2',3,3',4,5'-	MEAN			0.024
HEXACHLOROBIPHENYL	STD			
PCB 137	N	1	1	1
2,2',3,4,4',5-	MEAN	0.027	0.024	0.0228
HEXACHLOROBIPHENYL	STD			0.056

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ERIE, PORT COLBORNE LIGHTHOUSE

HERRING GULL		YEAR			
		93	95	96	97
PCB 138	N	1	1	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.0722	0.0521	0.0855	0.037
	STD				
PCB 141	N	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.0266	0.015	0.0229	0.011
	STD				
PCB 146	N	1	1	1	1
2,2',3,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.1451	0.1606	0.1372	0.175
	STD				
PCB 149	N	1	1	1	1
2,2',3,4',5',6'-HEXACHLOROBIPHENYL	MEAN	0.1089	0.1061	0.1182	0.045
	STD				
PCB 151	N	1	1	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.0089	ND	ND	0.006
	STD				
PCB 153	N	1	1	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.8539	0.9554	0.8403	0.793
	STD				
PCB 156	N	See footnote 'A'			1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN				0.061
	STD				
PCB 157	N	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN				0.015
	STD				
PCB 158	N	1	1	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.0286	0.0365	0.0299	0.034
	STD				
PCB 170	N	1	1	1	0
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.2505	0.2708	0.2521	
	STD				
PCB 170 / 190	N	0	0	0	1
2,2',3,3',4,4',5'/2,3,3',4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN				0.19
	STD				
PCB 171 ^A	N	1	1	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.0768	0.1372	0.1283	0.044
	STD				
PCB 172	N	1	1	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.0372	0.0458	0.0387	0.048
	STD				
PCB 174	N	1	1	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0321	0.0353	0.0293	0.014
	STD				
PCB 176	N	0	0	0	1
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN				ND
	STD				
PCB 177	N	0	0	0	1
2,2',3,3',4',5,6'-HEPTACHLOROBIPHENYL	MEAN				0.071
	STD				
PCB 178	N	Previously reported as PCB 129			1
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN				0.037
	STD				

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ERIE, PORT COLBORNE LIGHTHOUSE

HERRING GULL		YEAR			
		93	95	96	97
PCB 179	N	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN				ND
PCB 180	STD				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	N	1	1	1	1
PCB 182	MEAN	0.6737	0.7636	0.6747	0.496
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	STD				
PCB 183	N	1	1	1	1
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.4194	0.4589	0.4067	
PCB 185	STD				
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	N	1	1	1	0
PCB 187	MEAN	ND	ND	ND	
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	STD				
PCB 194	N	0	0	0	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.086	0.1057	0.1023	0.08
PCB 195	STD				
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	N	1	1	1	1
PCB 196/203	MEAN	0.0392	0.0469	0.0439	0.026
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	STD				
PCB 200	N	1	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.0245	0.0266	0.023	0.019
PCB 201	STD				
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	N	1	1	1	1
PCB 202	MEAN	0.1528	0.1718	0.1744	0.096
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	STD				
PCB 203	N	1	1	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.1066	0.1249	0.1244	
PCB 206	STD				
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	N	1	1	1	1
PCB 207	MEAN	0.0276	0.0327	0.0732	0.025
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	STD				
PCB 208	N	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN				0.038
PCB 208	STD				

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ERIE, MIDDLE ISLAND

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 16 / 32	N	0	0	0	0
2,2',3 / 2,4',6-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 17	N	0	0	0	1
2,2',4-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 18	N	0	0	0	1
2,2',5-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 22	N	0	0	0	1
2,3,4'-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 28	N	1	1	1	1
2,4,4'-	MEAN	0.0241	0.0176	0.0184	0.015
TRICHLOROBIPHENYL	STD				0.009
PCB 31	N	1	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD				
PCB 33 / 20	N	0	0	0	0
2',3,4 / 2,3,3'-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 42	N	1	1	1	1
2,2',3,4'-	MEAN	ND	ND	ND	0.004
TETRACHLOROBIPHENYL	STD				
PCB 44	N	1	1	1	1
2,2',3,5'-	MEAN	0.0346	0.0447	0.0426	0.0272
TETRACHLOROBIPHENYL	STD				0.002
PCB 47 / 48	N	0	0	0	0
2,2',4,4' / 2,2',4,5-	MEAN				0.044
TETRACHLOROBIPHENYL	STD				
PCB 49	N	1	1	1	1
2,2',4,5'-	MEAN	ND	ND	ND	0.005
TETRACHLOROBIPHENYL	STD				
PCB 52	N	1	1	1	1
2,2',5,5'-	MEAN	0.0845	0.075	0.082	0.0869
TETRACHLOROBIPHENYL	STD				0.015
PCB 56 / 60	N	Previously reported as PCB 60			
2,3,3',4' / 2,3,4,4'-	MEAN				0.017
TETRACHLOROBIPHENYL	STD				
PCB 60	N	1	1	1	1
2,3,4,4'-	MEAN	0.0628	0.157	0.0869	0.1297
TETRACHLOROBIPHENYL	STD				See PCB 56/60
PCB 64	N	1	1	1	1
2,3,4',6-	MEAN	0.0054	ND	ND	0.0056
TETRACHLOROBIPHENYL	STD				0.011
PCB 66	N	1	1	1	1
2,3',4,4'-	MEAN	0.1698	0.2216	0.2153	0.1652
TETRACHLOROBIPHENYL	STD				0.202
PCB 70	N	1	1	1	1
2,3',4',5-	MEAN	ND	ND	ND	0
TETRACHLOROBIPHENYL	STD				

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ERIE, MIDDLE ISLAND

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>				
2,3',4'5/2',3,4,5-					1
TETRACHLOROBIPHENYL					0.005
PCB 74	N	1	1	1	1
2,4,4',5-	MEAN	0.0709	0.0931	0.0878	0.0587
TETRACHLOROBIPHENYL	STD				0.063
PCB 85	N	0	0	0	0
2,2',3,4,4'-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.091
PCB 87	N	1	1	1	1
2,2',3',4,5-	MEAN	0.0744	0.0636	0.0742	0.062
PENTACHLOROBIPHENYL	STD				0.037
PCB 92	N	0	0	0	0
2,2',3,5,5'-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.012
PCB 95	N	0	0	0	0
2,2',3,5',6-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.005
PCB 97	N	1	1	1	1
2,2',3',4,5-	MEAN	0.0314	0.03	0.0364	0.03
PENTACHLOROBIPHENYL	STD				0.015
PCB 99	N	1	1	1	1
2,2',4,4',5-	MEAN	0.4853	0.5685	0.5698	0.3567
PENTACHLOROBIPHENYL	STD				0.305
PCB 101	N	1	1	1	1
2,2',4,5,5'-	MEAN	0.2058	0.2349	0.2406	0.2266
PENTACHLOROBIPHENYL	STD				See PCB 101/90
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>			
2,2',4,5,5' / 2,2',3,4',5-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.064
PCB 105	N	1	1	1	1
2,3,3',4,4'-	MEAN	0.1206	0.1706	0.1616	0.2327
PENTACHLOROBIPHENYL	STD				0.133
PCB 110	N	1	1	1	1
2,3,3',4',6-	MEAN	0.1673	0.1815	0.2028	0.1757
PENTACHLOROBIPHENYL	STD				0.065
PCB 118	N	1	1	1	1
2,3',4,4',5-	MEAN	0.656	0.7904	0.8354	0.5802
PENTACHLOROBIPHENYL	STD				0.37
PCB 128	N	1	1	1	1
2,2',3,3',4,4'-	MEAN	0.312	ND	ND	0.22
HEXACHLOROBIPHENYL	STD				0.208
PCB 129	N	1	1	1	1
2,2',3,3',4,5-	MEAN	0.1046	0.1161	0.1586	0.0856
HEXACHLOROBIPHENYL	STD				See PCB 178
PCB 130	N	0	0	0	0
2,2',3,3',4,5'-	MEAN				1
HEXACHLOROBIPHENYL	STD				0.053
PCB 137	N	1	1	1	1
2,2',3,4,4',5-	MEAN	0.0684	0.0882	0.0922	0.0465
HEXACHLOROBIPHENYL	STD				0.139

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ERIE, MIDDLE ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 138	N	1	1	1	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.1673	0.1815	0.2028	0.1757	0.065
	STD					
PCB 141	N	1	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.0573	0.0536	0.0637	0.0583	0.026
	STD					
PCB 146	N	1	1	1	1	1
2,2',3,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.4136	0.4911	0.5264	0.3109	0.178
	STD					
PCB 149	N	1	1	1	1	1
2,2',3,4',5',6'-HEXACHLOROBIPHENYL	MEAN	0.2566	0.285	0.33	0.2762	0.094
	STD					
PCB 151	N	1	1	1	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.0381	0.0361	0.0437	0.0379	0.013
	STD					
PCB 153	N	1	1	1	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	2.288	2.6149	2.8063	1.6714	2.202
	STD					
PCB 156	N	See footnote 'A'				1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.144
	STD					
PCB 157	N	0	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.032
	STD					
PCB 158	N	1	1	1	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.0934	0.1075	0.1295	0.071	0.09
	STD					
PCB 170	N	1	1	1	1	0
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.8403	0.9543	1.0492	0.5721	
	STD					
PCB 170 / 190	N	0	0	0	0	1
2,2',3,3',4,4',5' / 2,3,3',4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.555
	STD					
PCB 171 ^A	N	1	1	1	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.218	0.2608	0.2935	0.2896	0.124
	STD					
PCB 172	N	1	1	1	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.1142	0.1451	0.1581	0.0887	0.124
	STD					
PCB 174	N	1	1	1	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0695	0.0668	0.0893	0.0686	0.03
	STD					
PCB 176	N	0	0	0	0	1
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 177	N	0	0	0	0	1
2,2',3,3',4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.191
	STD					
PCB 178	N	Previously reported as PCB 129				1
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.084
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE ERIE, MIDDLE ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 179	N	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
PCB 180	STD					
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	N	1	1	1	1	1
PCB 182	MEAN	2.0247	2.3201	2.5803	1.4008	1.46
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	STD					
PCB 183	N	1	1	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	1.1601	1.3656	1.5189	0.8742	0.397
PCB 185	STD					
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	N	1	1	1	1	0
PCB 187	MEAN	ND	ND	ND	ND	
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	STD					
PCB 194	N	0	0	0	0	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.2664	0.3346	0.3837	0.2091	0.224
PCB 195	STD					
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	N	1	1	1	1	1
PCB 196/203	MEAN	0.114	0.1454	0.1636	0.0958	0.072
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	STD					
PCB 200	N	1	1	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.067	0.0831	0.101	0.0526	0.044
PCB 201	STD					
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	N	1	1	1	1	1
PCB 202	MEAN	0.4446	0.5746	0.646	0.3706	0.272
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	STD					
PCB 203	N	1	1	1	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.3073	0.3865	0.4427	0.2458	
PCB 206	STD					
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	N	1	1	1	1	1
PCB 207	MEAN	0.0682	0.0827	0.0944	0.0647	0.06
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	STD					
PCB 208	N	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN					0.086
PCB 208	STD					0.095

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
DETROIT RIVER, FIGHTING ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 16 / 32	N	0	0	0	0	1
2,2',3 / 2,4',6-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 17	N	0	0	0	0	1
2,2',4-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 18	N	0	0	0	0	1
2,2',5-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 22	N	0	0	0	0	1
2,3,4'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 28	N	1	1	1	1	1
2,4,4'-	MEAN	0.0297	0.0256	0.0154	0.0106	0.006
TRICHLOROBIPHENYL	STD					
PCB 31	N	1	1	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD					
PCB 33 / 20	N	0	0	0	0	1
2',3,4 / 2,3,3'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 42	N	1	1	1	1	1
2,2',3,4'-	MEAN	ND	ND	ND	ND	0.003
TETRACHLOROBIPHENYL	STD					
PCB 44	N	1	1	1	1	1
2,2',3,5'-	MEAN	0.0428	ND	ND	0.0263	0.001
TETRACHLOROBIPHENYL	STD					
PCB 47 / 48	N	0	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN					0.067
TETRACHLOROBIPHENYL	STD					
PCB 49	N	1	1	1	1	1
2,2',4,5'-	MEAN	0.0352	ND	ND	ND	0.005
TETRACHLOROBIPHENYL	STD					
PCB 52	N	1	1	1	1	1
2,2',5,5'-	MEAN	0.1158	0.00923	0.054	0.0681	0.02
TETRACHLOROBIPHENYL	STD					
PCB 56 / 60	N	Previously reported as PCB 60				1
2,3,3',4' / 2,3,4,4'-	MEAN					0.019
TETRACHLOROBIPHENYL	STD					
PCB 60	N	1	1	1	1	See
2,3,4,4'-	MEAN	0.0616	0.0299	0.085	0.0914	PCB
TETRACHLOROBIPHENYL	STD					56/60
PCB 64	N	1	1	1	1	1
2,3,4',6-	MEAN	0.0085	ND	ND	0.0048	0.012
TETRACHLOROBIPHENYL	STD					
PCB 66	N	1	1	1	1	1
2,3',4,4'-	MEAN	0.1948	0.2073	0.1297	0.1295	0.152
TETRACHLOROBIPHENYL	STD					
PCB 70	N	1	1	1	1	0
2,3',4',5-	MEAN	ND	ND	ND	ND	
TETRACHLOROBIPHENYL	STD					

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
DETROIT RIVER, FIGHTING ISLAND

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>				
2,3',4',5/2',3,4,5-					1
TETRACHLOROBIPHENYL					0.002
PCB 74	N	1	1	1	1
2,4,4',5-	MEAN	0.0904	0.0927	0.0559	0.0456
TETRACHLOROBIPHENYL	STD				0.06
PCB 85	N	0	0	0	0
2,2',3,4,4'-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.082
PCB 87	N	1	1	1	1
2,2',3',4,5-	MEAN	0.0754	ND	0.0292	0.0475
PENTACHLOROBIPHENYL	STD				0.033
PCB 92	N	0	0	0	0
2,2',3,5,5'-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.01
PCB 95	N	0	0	0	0
2,2',3,5',6-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.004
PCB 97	N	1	1	1	1
2,2',3',4,5-	MEAN	0.0293	ND	ND	0.0197
PENTACHLOROBIPHENYL	STD				0.011
PCB 99	N	1	1	1	1
2,2',4,4',5-	MEAN	0.4503	0.426	0.3362	0.2879
PENTACHLOROBIPHENYL	STD				0.299
PCB 101	N	1	1	1	1
2,2',4,5,5'-	MEAN	0.2008	0.2496	0.1371	0.1568
PENTACHLOROBIPHENYL	STD				See PCB 101/90
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>			
2,2',4,5,5'/2,2',3,4',5-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.066
PCB 105	N	1	1	1	1
2,3,3',4,4'-	MEAN	0.1266	0.1415	0.1081	0.2094
PENTACHLOROBIPHENYL	STD				0.136
PCB 110	N	1	1	1	1
2,3,3',4',6-	MEAN	0.1404	0.1561	0.0914	0.1263
PENTACHLOROBIPHENYL	STD				0.054
PCB 118	N	1	1	1	1
2,3',4,4',5-	MEAN	0.6429	0.6269	0.5217	0.421
PENTACHLOROBIPHENYL	STD				0.369
PCB 128	N	1	1	1	1
2,2',3,3',4,4'-	MEAN	0.2254	ND	ND	0.179
HEXACHLOROBIPHENYL	STD				0.18
PCB 129	N	1	1	1	1
2,2',3,3',4,5-	MEAN	0.0862	0.0891	0.0634	0.063
HEXACHLOROBIPHENYL	STD				See PCB 178
PCB 130	N	0	0	0	0
2,2',3,3',4,5'-	MEAN				1
HEXACHLOROBIPHENYL	STD				0.044
PCB 137	N	1	1	1	1
2,2',3,4,4',5-	MEAN	0.0589	0.0566	0.0479	0.0356
HEXACHLOROBIPHENYL	STD				0.114

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
DETROIT RIVER, FIGHTING ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 138	N	1	1	1	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.1404	0.1561	0.0914	0.1263	0.054
PCB 141	STD					
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.1291	0.0649	0.0339	0.0438	0.027
PCB 146	STD					
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.3473	0.3173	0.2729	0.2161	0.406
PCB 149	STD					
2,2',3,4,5',6'-HEXACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,4,5',6'-HEXACHLOROBIPHENYL	MEAN	0.2134	0.2409	0.1447	0.2004	0.101
PCB 151	STD					
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.0471	ND	ND	0.0332	0.014
PCB 153	STD					
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	N	1	1	1	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	1.937	1.9294	1.6738	1.4226	2.123
PCB 156	STD					
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	N	See footnote 'A'				1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.164
PCB 157	STD					
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	N	0	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.03
PCB 158	STD					
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	N	1	1	1	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.0878	0.087	0.0717	0.0618	0.095
PCB 170	STD					
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	N	1	1	1	1	0
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.8115	0.7406	0.6261	0.5254	
PCB 170 / 190	STD					
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6'-HEPTACHLOROBIPHENYL	N	0	0	0	0	1
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.636
PCB 171 ^A	STD					
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.2133	0.2042	0.1689	0.2458	0.133
PCB 172	STD					
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.1093	0.0941	0.0842	0.0727	0.119
PCB 174	STD					
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	N	1	1	1	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0711	0.074	0.0385	0.062	0.037
PCB 176	STD					
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	N	0	0	0	0	ND
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN					
PCB 177	STD					
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	N	0	0	0	0	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN					0.185
PCB 178	STD					
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	N	Previously reported as PCB 129				1
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.082
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
DETROIT RIVER, FIGHTING ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 179	N	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
STD						
PCB 180	N	1	1	1	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	1.9119	1.8579	1.5723	1.28	1.516
STD						
PCB 182	N	1	1	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	1.0539	1.089	0.8861	0.7949	
STD						
PCB 183	N	1	1	1	1	1
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.4773	0.4605	0.3917	0.3403	0.386
STD						
PCB 185	N	1	1	1	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	ND	
STD						
PCB 187	N	0	0	0	0	1
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.838
STD						
PCB 194	N	1	1	1	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.2699	0.2685	0.2286	0.2018	0.259
STD						
PCB 195	N	1	1	1	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.1127	0.1163	0.0966	0.0902	0.082
STD						
PCB 196/203	N	Previously reported as PCB 203				1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN					0.32
STD						
PCB 200	N	1	1	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.0611	0.0556	0.046	0.0355	0.036
STD						
PCB 201	N	1	1	1	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.404	0.4053	0.3575	0.2969	0.257
STD						
PCB 202	N	See footnote 'A'				1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN					0.034
STD						
PCB 203	N	1	1	1	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.2901	0.2842	0.2583	0.2102	
STD						
PCB 206	N	1	1	1	1	1
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	MEAN	0.0631	0.0624	0.0571	0.0499	0.057
STD						
PCB 207	N	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN					0.074
STD						
PCB 208	N	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN					0.076
STD						

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, CHANTRY ISLAND

HERRING GULL	YEAR					
	93	93	94	95	96	97
PCB 16 / 32	N	0	0	0	0	1
2,2',3 / 2,4',6-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 17	N	0	0	0	0	1
2,2',4-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 18	N	0	0	0	0	1
2,2',5-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 22	N	0	0	0	0	1
2,3,4'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 28	N	1	10	1	1	1
2,4,4'-	MEAN	0.0006	0.0037	ND	ND	0.005
TRICHLOROBIPHENYL	STD		0.0051			
PCB 31	N	1	10	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD					
PCB 33 / 20	N	0	0	0	0	1
2',3,4 / 2,3,3'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 42	N	1	10	1	1	1
2,2',3,4'-	MEAN	ND	ND	ND	ND	ND
TETRACHLOROBIPHENYL	STD					
PCB 44	N	1	10	1	1	1
2,2',3,5'-	MEAN	0.0013	0.0044	ND	ND	ND
TETRACHLOROBIPHENYL	STD		0.0099			TR
PCB 47 / 48	N	0	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN					0.018
TETRACHLOROBIPHENYL	STD					
PCB 49	N	1	10	1	1	1
2,2',4,5'-	MEAN	ND	ND	ND	ND	0.004
TETRACHLOROBIPHENYL	STD					
PCB 52	N	1	10	1	1	1
2,2',5,5'-	MEAN	0.0323	0.0245	ND	0.0347	0.0479
TETRACHLOROBIPHENYL	STD		0.0187			0.011
PCB 56 / 60	N	Previously reported as PCB 60				1
2,3,3',4' / 2,3,4,4'-	MEAN					0.012
TETRACHLOROBIPHENYL	STD					
PCB 60	N	1	10	1	1	1
2,3,4,4'-	MEAN	0.0451	0.0599	0.0114	ND	See PCB 56/60
TETRACHLOROBIPHENYL	STD		0.0451			
PCB 64	N	1	10	1	1	1
2,3,4',6-	MEAN	0.0034	0.0028	ND	ND	ND
TETRACHLOROBIPHENYL	STD		0.0024			0.008
PCB 66	N	1	10	1	1	1
2,3',4,4'-	MEAN	0.119	0.121	0.082	0.0988	0.1199
TETRACHLOROBIPHENYL	STD		0.0634			0.11
PCB 70	N	1	10	1	1	1
2,3',4,5-	MEAN	ND	ND	ND	ND	0
TETRACHLOROBIPHENYL	STD					

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, CHANTRY ISLAND

HERRING GULL	YEAR					
	93	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>					
2,3,4',5/2',3,4,5						1
TETRACHLOROBIPHENYL						0.003
PCB 74	N	1	10	1	1	1
2,4,4'-5-	MEAN	0.0421	0.0493	0.0298	0.0367	0.0301
TETRACHLOROBIPHENYL	STD		0.0258			0.035
PCB 85	N	0	0	0	0	0
2,2',3,4,4'-	MEAN					1
PENTACHLOROBIPHENYL	STD					0.054
PCB 87	N	1	10	1	1	1
2,2',3',4,5-	MEAN	0.0379	0.0336	ND	ND	0.0322
PENTACHLOROBIPHENYL	STD		0.0256			0.02
PCB 92	N	0	0	0	0	0
2,2',3,5,5'-	MEAN					1
PENTACHLOROBIPHENYL	STD					0.01
PCB 95	N	0	0	0	0	0
2,2',3,5',6-	MEAN					1
PENTACHLOROBIPHENYL	STD					0.002
PCB 97	N	1	10	1	1	1
2,2',3',4,5-	MEAN	0.0219	0.0238	ND	ND	0.0233
PENTACHLOROBIPHENYL	STD		0.0183			0.011
PCB 99	N	1	10	1	1	1
2,2',4,4',5-	MEAN	0.2724	0.2926	0.1917	0.2147	0.1872
PENTACHLOROBIPHENYL	STD		0.1627			0.138
PCB 101	N	1	10	1	1	1
2,2',4,5,5'-	MEAN	0.1094	0.1031	0.0883	0.1006	0.1362
PENTACHLOROBIPHENYL	STD		0.0442			See PCB 101/90
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>				
2,2',4,5,5' / 2,2',3,4',5-	MEAN					1
PENTACHLOROBIPHENYL	STD					0.039
PCB 105	N	1	10	1	1	1
2,3,3',4,4'-	MEAN	0.0789	0.083	0.0683	0.0744	0.1265
PENTACHLOROBIPHENYL	STD		0.0515			0.099
PCB 110	N	1	10	1	1	1
2,3,3',4',6-	MEAN	0.0961	0.096	0.0715	0.1002	0.1207
PENTACHLOROBIPHENYL	STD		0.043			0.044
PCB 118	N	1	10	1	1	1
2,3',4,4',5-	MEAN	0.3798	0.3972	0.2852	0.3367	0.3206
PENTACHLOROBIPHENYL	STD		0.2386			0.214
PCB 128	N	1	10	1	1	1
2,2',3,3',4,4'-	MEAN	0.1748	0.173	ND	ND	ND
HEXACHLOROBIPHENYL	STD		0.1044			0.07
PCB 129	N	1	10	1	1	1
2,2',3,3',4,5-	MEAN	0.0248	0.0253	0.0172	0.0372	0.021
HEXACHLOROBIPHENYL	STD		0.0188			See PCB 178
PCB 130	N	0	0	0	0	0
2,2',3,3',4,5'-	MEAN					1
HEXACHLOROBIPHENYL	STD					0.017
PCB 137	N	1	10	1	1	1
2,2',3,4,4',5-	MEAN	0.0249	0.0266	0.0196	0.0192	0.0169
HEXACHLOROBIPHENYL	STD		0.0157			0.044

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, CHANTRY ISLAND

HERRING GULL	YEAR					
	93	93	94	95	96	97
PCB 138	N	1	10	1	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.0961	0.096	0.0715	0.1002	0.1207
	STD		0.4302			0.044
PCB 141	N	1	10	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.0209	0.0166	0.0179	0.019	0.0217
	STD		0.0103			0.01
PCB 146	N	1	10	1	1	1
2,2',3,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.1248	0.1306	0.1168	0.1226	0.0997
	STD		0.0711			0.116
PCB 149	N	1	10	1	1	1
2,2',3,4',5,6'-HEXACHLOROBIPHENYL	MEAN	0.0953	0.089	0.0826	0.1104	0.1289
	STD		0.034			0.031
PCB 151	N	1	10	1	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.0217	0.026	ND	ND	ND
	STD		0.0233			0.004
PCB 153	N	1	10	1	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.719	0.6989	0.6667	0.7626	0.5721
	STD		0.3802			0.54
PCB 156	N	See footnote 'A'				
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.049
	STD					
PCB 157	N	0	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.012
	STD					
PCB 158	N	1	10	1	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.0222	0.0248	0.0208	0.0269	0.0227
	STD		0.0168			0.021
PCB 170	N	1	10	1	1	1
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.1771	0.1804	0.1714	0.1929	0.1333
	STD		0.0990			
PCB 170 / 190	N	0	0	0	0	1
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.11
	STD					
PCB 171 ^	N	1	10	1	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.0601	0.0644	0.0549	0.0581	0.0414
	STD		0.0360			0.023
PCB 172	N	1	10	1	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.0278	0.0314	0.0287	0.0328	0.0197
	STD		0.0175			0.031
PCB 174	N	1	10	1	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0317	0.0196	0.0206	0.0223	0.0244
	STD		0.0108			0.011
PCB 176	N	0	0	0	0	1
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 177	N	0	0	0	0	1
2,2',3,3',4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.036
	STD					
PCB 178	N	Previously reported as PCB 129				
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.029
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, CHANTRY ISLAND

HERRING GULL		YEAR					
		93	93	94	95	96	97
PCB 179	N	0	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN						ND
	STD						
PCB 180	N	1	10	1	1	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	0.4591	0.4837	0.5769	0.5383	0.3611	0.277
	STD		0.2543				
PCB 182	N	1	10	1	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.2489	0.2508	0.2474	0.3101	0.2169	0.064
	STD		0.1262				
PCB 183	N	1	10	1	1	1	1
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.111	0.1131	0.1113	0.1389	0.0831	0.064
	STD		0.0562				
PCB 185	N	1	10	1	1	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	ND	ND	
	STD						
PCB 187	N	0	0	0	0	0	1
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN						0.132
	STD						
PCB 194	N	1	10	1	1	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.0665	0.0702	0.069	0.078	0.0542	0.052
	STD		0.0351				
PCB 195	N	1	10	1	1	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.0283	0.031	0.0287	0.0353	0.0231	0.015
	STD		0.0151				
PCB 196/203	N	Previously reported as PCB 203					1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN						0.068
	STD						
PCB 200	N	1	10	1	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.0186	0.0172	ND	0.0154	0.0127	0.011
	STD		0.0175				
PCB 201	N	1	10	1	1	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.1017	0.107	0.1024	0.1161	0.0835	0.058
	STD		0.0514				
PCB 202	N	See footnote 'A'					1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN						0.015
	STD						
PCB 203	N	1	10	1	1	1	0
2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL	MEAN	0.073	0.0789	0.0762	0.0882	0.0593	
	STD		0.0394				
PCB 206	N	1	10	1	1	1	1
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	MEAN	0.0252	0.0269	0.0193	0.0247	0.0248	0.018
	STD		0.0148				
PCB 207	N	0	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN						0.037
	STD						
PCB 208	N	0	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN						0.034
	STD						

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, CHANNEL SHELTER ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 16 / 32	N	0	0	0	0	1
2,2',3 / 2,4',6-	MEAN					0.002
TRICHLOROBIPHENYL	STD					
PCB 17	N	0	0	0	0	1
2,2',4-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 18	N	0	0	0	0	1
2,2',5-	MEAN					0.002
TRICHLOROBIPHENYL	STD					
PCB 22	N	0	0	0	0	1
2,3,4'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 28	N	13	1	1	1	1
2,4,4'-	MEAN	0.0767	0.0444	0.0166	0.0307	0.03
TRICHLOROBIPHENYL	STD	0.0801				
PCB 31	N	13	1	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD					
PCB 33 / 20	N	0	0	0	0	1
2',3,4 / 2,3,3'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 42	N	13	1	1	1	1
2,2',3,4'-	MEAN	0.0949	0.0634	0.00974	0.0341	0.027
TETRACHLOROBIPHENYL	STD	0.1042				
PCB 44	N	13	1	1	1	1
2,2',3,5'-	MEAN	0.1058	0.0793	0.00974	0.0638	0.014
TETRACHLOROBIPHENYL	STD	0.0792				
PCB 47 / 48	N	0	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN					0.316
TETRACHLOROBIPHENYL	STD					
PCB 49	N	13	1	1	1	1
2,2',4,5'-	MEAN	0.1746	0.1583	0.00974	0.096	0.045
TETRACHLOROBIPHENYL	STD	0.1359				
PCB 52	N	13	1	1	1	1
2,2',5,5'-	MEAN	0.4744	0.4368	0.1599	0.2873	0.087
TETRACHLOROBIPHENYL	STD	0.3879				
PCB 56 / 60	N	Previously reported as PCB 60				1
2,3,3',4' / 2,3,4,4'-	MEAN					0.113
TETRACHLOROBIPHENYL	STD					
PCB 60	N	13	1	1	1	See
2,3,4,4'-	MEAN	0.4385	0.3544	0.0839	0.3854	PCB
TETRACHLOROBIPHENYL	STD	0.2622				56/60
PCB 64	N	13	1	1	1	1
2,3,4',6-	MEAN	0.0403	0.0285	ND	0.0192	0.055
TETRACHLOROBIPHENYL	STD	0.0337				
PCB 66	N	13	1	1	1	1
2,3',4,4'-	MEAN	1.7815	1.1602	0.5641	0.793	1.537
TETRACHLOROBIPHENYL	STD	1.1934				
PCB 70	N	13	1	1	1	0
2,3',4',5-	MEAN	0.0321	0.0335	ND	0.0277	
TETRACHLOROBIPHENYL	STD	0.0429				

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, CHANNEL SHELTER ISLAND

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>				
2,3',4',5/2',3,4,5					1
TETRACHLOROBIPHENYL					0.015
PCB 74	N	13	1	1	1
2,4,4',5-	MEAN	0.7809	0.4633	0.2149	0.2937
TETRACHLOROBIPHENYL	STD	0.5221			0.449
PCB 85	N	0	0	0	0
2,2',3,4,4'-	MEAN				0.5
PENTACHLOROBIPHENYL	STD				
PCB 87	N	13	1	1	1
2,2',3',4,5-	MEAN	0.5492	0.348	0.1301	0.2315
PENTACHLOROBIPHENYL	STD	0.3784			0.183
PCB 92	N	0	0	0	0
2,2',3,5,5'-	MEAN				0.034
PENTACHLOROBIPHENYL	STD				
PCB 95	N	0	0	0	0
2,2',3,5',6-	MEAN				0.011
PENTACHLOROBIPHENYL	STD				
PCB 97	N	13	1	1	1
2,2',3',4,5-	MEAN	0.2018	0.1464	0.0497	0.1015
PENTACHLOROBIPHENYL	STD	0.1571			0.058
PCB 99	N	13	1	1	1
2,2',4,4',5-	MEAN	3.2881	1.6908	1.0235	0.9908
PENTACHLOROBIPHENYL	STD	1.9098			1.395
PCB 101	N	13	1	1	1
2,2',4,5,5'-	MEAN	0.9991	0.7151	0.3538	0.4895
PENTACHLOROBIPHENYL	STD	0.6031			See PCB 101/90
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>			
2,2',4,5,5'/2,2',3,4',5-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.234
PCB 105	N	13	1	1	1
2,3,3',4,4'-	MEAN	0.91	0.5884	0.1852	0.6965
PENTACHLOROBIPHENYL	STD	0.611			0.813
PCB 110	N	13	1	1	1
2,3,3',4',6-	MEAN	0.6047	0.4648	0.1607	0.3587
PENTACHLOROBIPHENYL	STD	0.3884			0.177
PCB 118	N	13	1	1	1
2,3',4,4',5-	MEAN	5.1756	2.6661	1.5117	1.8546
PENTACHLOROBIPHENYL	STD	3.1804			1.942
PCB 128	N	13	1	1	1
2,2',3,3',4,4'-	MEAN	1.0489	ND	ND	0.2993
HEXACHLOROBIPHENYL	STD	0.6398			0.41
PCB 129	N	13	1	1	1
2,2',3,3',4,5-	MEAN	0.1852	0.1328	0.0705	0.0931
HEXACHLOROBIPHENYL	STD	0.1394			See PCB 178
PCB 130	N	0	0	0	0
2,2',3,3',4,5'-	MEAN				1
HEXACHLOROBIPHENYL	STD				0.111
PCB 137	N	13	1	1	1
2,2',3,4,4',5-	MEAN	0.2932	0.1872	0.0972	0.1037
HEXACHLOROBIPHENYL	STD	0.1884			0.252

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, CHANNEL SHELTER ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 138	N	13	1	1	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.6047	0.4648	0.1607	0.3587	0.177
	STD	3.7801				
PCB 141	N	13	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.128	0.0852	0.0386	0.0645	0.038
	STD	0.096				
PCB 146	N	13	1	1	1	1
2,2',3,4',5,5'-HEXACHLOROBIPHENYL	MEAN	1.0761	0.5733	0.3083	0.3585	0.684
	STD	0.6202				
PCB 149	N	13	1	1	1	1
2,2',3,4',5',6'-HEXACHLOROBIPHENYL	MEAN	0.4829	0.3671	0.1998	0.3065	0.105
	STD	0.3455				
PCB 151	N	13	1	1	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.0638	0.0303	ND	0.0542	0.015
	STD	0.0608				
PCB 153	N	13	1	1	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	5.2325	2.8771	1.7512	1.9287	2.827
	STD	2.8466				
PCB 156	N	See footnote 'A'				1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.363
	STD					
PCB 157	N	0	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.061
	STD					
PCB 158	N	13	1	1	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.2271	0.1593	0.0852	0.0913	0.148
	STD	0.1322				
PCB 170	N	13	1	1	1	0
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	1.7054	1.0386	0.5207	0.6111	
	STD	1.1567				
PCB 170 / 190	N	0	0	0	0	1
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL	MEAN					0.737
	STD					
PCB 171 ^A	N	13	1	1	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.5227	0.3541	0.3314	0.1865	0.139
	STD	0.3113				
PCB 172	N	13	1	1	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.3115	0.1575	0.0938	0.0981	0.168
	STD	0.2007				
PCB 174	N	13	1	1	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.1083	0.0855	0.0554	0.0589	0.033
	STD	0.0645				
PCB 176	N	0	0	0	0	1
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 177	N	0	0	0	0	1
2,2',3,3',4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.19
	STD					
PCB 178	N	Previously reported as PCB 129				1
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.11
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, CHANNEL SHELTER ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 179	N	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 180	N	13	1	1	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	3.7242	2.3362	1.2935	1.4191	1.658
	STD	2.9932				
PCB 182	N	13	1	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	2.1756	1.3041	0.7839	0.8633	
	STD	1.2464				
PCB 183	N	13	1	1	1	1
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.9264	0.5397	0.3186	0.3465	0.38
	STD	0.5646				
PCB 185	N	13	1	1	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	0.0043	ND	ND	ND	
	STD	0.0117				
PCB 187	N	0	0	0	0	1
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.816
	STD					
PCB 194	N	13	1	1	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.6964	0.4549	0.2232	0.267	0.347
	STD	0.4539				
PCB 195	N	13	1	1	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.3086	0.1996	0.1033	0.1286	0.098
	STD	0.189				
PCB 196/203	N	Previously reported as PCB 203				1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN					0.406
	STD					
PCB 200	N	13	1	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.2007	0.1175	0.0666	0.0781	0.041
	STD	0.1191				
PCB 201	N	13	1	1	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	1.0449	0.6148	0.3399	0.4046	0.351
	STD	0.6393				
PCB 202	N	See footnote 'A'				1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN					0.049
	STD					
PCB 203	N	13	1	1	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.6773	0.4182	0.2204	0.2564	
	STD	0.4212				
PCB 206	N	13	1	1	1	1
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	MEAN	0.2411	0.1683	0.0818	0.1118	0.114
	STD	0.129				
PCB 207	N	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN					0.174
	STD					
PCB 208	N	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN					0.168
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, DOUBLE ISLAND

HERRING GULL		YEAR					
		93	93	94	95	96	97
PCB 16 / 32	N	0	0	0	0	0	1
2,2',3 / 2,4',6-	MEAN						ND
TRICHLOROBIPHENYL	STD						
PCB 17	N	0	0	0	0	0	1
2,2',4-	MEAN						ND
TRICHLOROBIPHENYL	STD						
PCB 18	N	0	0	0	0	0	1
2,2',5-	MEAN						ND
TRICHLOROBIPHENYL	STD						
PCB 22	N	0	0	0	0	0	1
2,3,4'-	MEAN						ND
TRICHLOROBIPHENYL	STD						
PCB 28	N	1	10	1	1	1	1
2,4,4'-	MEAN	0.0062	0.0047	ND	ND	ND	0.004
TRICHLOROBIPHENYL	STD		0.0103				
PCB 31	N	1	10	1	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD						
PCB 33 / 20	N	0	0	0	0	0	1
2',3,4 / 2,3,3'-	MEAN						ND
TRICHLOROBIPHENYL	STD						
PCB 42	N	1	10	1	1	1	1
2,2',3,4'-	MEAN	ND	ND	ND	ND	ND	ND
TETRACHLOROBIPHENYL	STD						
PCB 44	N	1	10	1	1	1	1
2,2',3,5'-	MEAN	0.0013	0.0035	ND	ND	ND	ND
TETRACHLOROBIPHENYL	STD		0.007				
PCB 47 / 48	N	0	0	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN						0.018
TETRACHLOROBIPHENYL	STD						
PCB 49	N	1	10	1	1	1	1
2,2',4,5'-	MEAN	ND	ND	ND	ND	ND	0.003
TETRACHLOROBIPHENYL	STD						
PCB 52	N	1	10	1	1	1	1
2,2',5,5'-	MEAN	0.0282	0.0183	ND	ND	ND	0.009
TETRACHLOROBIPHENYL	STD		0.0273				
PCB 56 / 60	N	Previously reported as PCB 60					1
2,3,3',4' / 2,3,4,4'-	MEAN						0.011
TETRACHLOROBIPHENYL	STD						
PCB 60	N	1	10	1	1	1	1
2,3,4,4'-	MEAN	0.0377	0.0787	0.0157	ND	0.1023	See PCB 56/60
TETRACHLOROBIPHENYL	STD		0.0671				
PCB 64	N	1	10	1	1	1	1
2,3,4',6-	MEAN	0.0027	0.0012	ND	ND	ND	0.007
TETRACHLOROBIPHENYL	STD		0.002				
PCB 66	N	1	10	1	1	1	1
2,3',4,4'-	MEAN	0.1133	0.1069	0.1236	0.0666	0.1326	0.096
TETRACHLOROBIPHENYL	STD		0.0615				
PCB 70	N	1	10	1	1	1	0
2,3',4',5-	MEAN	ND	ND	ND	ND	ND	
TETRACHLOROBIPHENYL	STD						

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, DOUBLE ISLAND

HERRING GULL	YEAR					
	93	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>					
2,3',4',5/2',3,4,5-						1
TETRACHLOROBIPHENYL						0.001
PCB 74	N	1	10	1	1	1
2,4,4',5-	MEAN	0.042	0.0455	0.0419	ND	0.0419
TETRACHLOROBIPHENYL	STD	0.0303				
PCB 85	N	0	0	0	0	1
2,2',3,4,4'-	MEAN					0.054
PENTACHLOROBIPHENYL	STD					
PCB 87	N	1	10	1	1	1
2,2',3',4,5-	MEAN	0.038	0.022	0.0269	ND	0.013
PENTACHLOROBIPHENYL	STD	0.0143				
PCB 92	N	0	0	0	0	1
2,2',3,5,5'-	MEAN					0.009
PENTACHLOROBIPHENYL	STD					
PCB 95	N	0	0	0	0	1
2,2',3,5',6-	MEAN					0.001
PENTACHLOROBIPHENYL	STD					
PCB 97	N	1	10	1	1	1
2,2',3',4,5-	MEAN	0.0165	0.0107	ND	ND	0.01
PENTACHLOROBIPHENYL	STD	0.0095				
PCB 99	N	1	10	1	1	1
2,2',4,4',5-	MEAN	0.2977	0.3015	0.3048	0.1824	0.279
PENTACHLOROBIPHENYL	STD	0.1589				
PCB 101	N	1	10	1	1	1
2,2',4,5,5'-	MEAN	0.1037	0.0921	0.1217	0.0838	0.1085
PENTACHLOROBIPHENYL	STD	0.0587				
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>				
2,2',4,5,5' / 2,2',3,4',5-	MEAN					1
PENTACHLOROBIPHENYL	STD					0.036
PCB 105	N	1	10	1	1	1
2,3,3',4,4'-	MEAN	0.089	0.0874	0.1035	0.0575	0.2031
PENTACHLOROBIPHENYL	STD	0.0436				
PCB 110	N	1	10	1	1	1
2,3,3',4',6-	MEAN	0.0853	0.0725	0.1057	0.0623	0.0941
PENTACHLOROBIPHENYL	STD	0.0372				
PCB 118	N	1	10	1	1	1
2,3',4,4',5-	MEAN	0.445	0.4321	0.5153	0.2845	0.4354
PENTACHLOROBIPHENYL	STD	0.2415				
PCB 128	N	1	10	1	1	1
2,2',3,3',4,4'-	MEAN	0.2066	0.1804	ND	ND	0.1157
HEXACHLOROBIPHENYL	STD	0.0828				
PCB 129	N	1	10	1	1	1
2,2',3,3',4,5-	MEAN	0.0384	0.0367	0.0367	0.0253	0.0423
HEXACHLOROBIPHENYL	STD	0.0188				
PCB 130	N	0	0	0	0	1
2,2',3,3',4,5'-	MEAN					0.019
HEXACHLOROBIPHENYL	STD					
PCB 137	N	1	10	1	1	1
2,2',3,4,4',5-	MEAN	0.0329	0.0331	0.0361	0.022	0.0297
HEXACHLOROBIPHENYL	STD	0.0189				

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, DOUBLE ISLAND

HERRING GULL		YEAR					
		93	93	94	95	96	97
PCB 138	N	1	10	1	1	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.0853	0.0725	0.1057	0.0623	0.0941	0.042
	STD		0.4901				
PCB 141	N	1	10	1	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.0171	0.0171	0.0236	ND	0.0142	0.011
	STD		0.0204				
PCB 146	N	1	10	1	1	1	1
2,2',3,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.1566	0.1633	0.1921	0.1125	0.1749	0.122
	STD		0.0787				
PCB 149	N	1	10	1	1	1	1
2,2',3,4',5,6'-HEXACHLOROBIPHENYL	MEAN	0.087	0.0792	0.1126	0.0642	0.1175	0.03
	STD		0.0315				
PCB 151	N	1	10	1	1	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.026	0.0194	ND	ND	0.0244	0.004
	STD		0.0104				
PCB 153	N	1	10	1	1	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.9023	0.866	1.0774	0.6674	0.9804	0.555
	STD		0.4279				
PCB 156	N			See footnote 'A'			1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN						0.048
	STD						
PCB 157	N	0	0	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN						0.012
	STD						
PCB 158	N	1	10	1	1	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.0291	0.0299	0.0346	0.0221	0.0374	0.023
	STD		0.0161				
PCB 170	N	1	10	1	1	1	0
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.2255	0.2245	0.2736	0.1597	0.2504	
	STD		0.1264				
PCB 170 / 190	N	0	0	0	0	0	1
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN						0.102
	STD						
PCB 171 ^A	N	1	10	1	1	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.0778	0.0797	0.0937	0.0558	0.0736	0.024
	STD		0.0401				
PCB 172	N	1	10	1	1	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.0394	0.0408	0.0458	0.0274	0.0373	0.03
	STD		0.0216				
PCB 174	N	1	10	1	1	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0226	0.0189	0.0278	ND	0.018	0.011
	STD		0.0093				
PCB 176	N	0	0	0	0	0	1
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN						ND
	STD						
PCB 177	N	0	0	0	0	0	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN						0.041
	STD						
PCB 178	N			Previously reported as PCB 129			1
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN						0.03
	STD						

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE HURON, DOUBLE ISLAND

HERRING GULL		YEAR					
		93	93	94	95	96	97
PCB 179	N	0	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN						ND
	STD						
PCB 180	N	1	10	1	1	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	0.587	0.6082	0.7303	0.4244	0.6318	0.259
	STD		0.3457				
PCB 182	N	1	10	1	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.3444	0.3391	0.4299	0.2476	0.3917	
	STD		0.1716				
PCB 183	N	1	10	1	1	1	1
2,2',3,4,4',5',6'-HEPTACHLOROBIPHENYL	MEAN	0.1352	0.1348	0.1656	0.0972	0.1474	0.063
	STD		0.0722				
PCB 185	N	1	10	1	1	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	ND	ND	
	STD						
PCB 187	N	0	0	0	0	0	1
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	MEAN						0.145
	STD						
PCB 194	N	1	10	1	1	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.0871	0.0868	0.1028	0.0646	0.0926	0.046
	STD		0.0593				
PCB 195	N	1	10	1	1	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.0401	0.041	0.0478	0.0284	0.0402	0.013
	STD		0.0256				
PCB 196/203	N	Previously reported as PCB 203					1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN						0.063
	STD						
PCB 200	N	1	10	1	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.0277	0.0295	0.0304	0.0208	0.0237	0.012
	STD		0.0165				
PCB 201	N	1	10	1	1	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.1488	0.152	0.1876	0.109	0.1694	0.055
	STD		0.092				
PCB 202	N	See footnote 'A'					1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN						0.016
	STD						
PCB 203	N	1	10	1	1	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.1029	0.102	0.1276	0.0736	0.1113	
	STD		0.0628				
PCB 206	N	1	10	1	1	1	1
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	MEAN	0.0323	0.031	0.0348	0.023	0.0338	0.017
	STD		0.0224				
PCB 207	N	0	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN						0.033
	STD						
PCB 208	N	0	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN						0.037
	STD						

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE MICHIGAN, GULL ISLAND

HERRING GULL		YEAR					
		93	94	94	95	96	97
PCB 16 / 32	N	0	0	0	0	0	1
2,2',3 / 2,4',6-	MEAN						ND
TRICHLOROBIPHENYL	STD						
PCB 17	N	0	0	0	0	0	1
2,2',4-	MEAN						ND
TRICHLOROBIPHENYL	STD						
PCB 18	N	0	0	0	0	0	1
2,2',5-	MEAN						ND
TRICHLOROBIPHENYL	STD						
PCB 22	N	0	0	0	0	0	1
2,3,4'-	MEAN						ND
TRICHLOROBIPHENYL	STD						
PCB 28	N	1	1	12	1	1	1
2,4,4'-	MEAN	0.0262	0.0274	0.0282	ND	0.0191	0.023
TRICHLOROBIPHENYL	STD			0.0211			
PCB 31	N	1	1	12	1	1	1
2,4,5-	MEAN	ND	ND	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD						
PCB 33 / 20	N	0	0	0	0	0	1
2',3,4 / 2,3,3'-	MEAN						ND
TRICHLOROBIPHENYL	STD						
PCB 42	N	1	1	12	1	1	1
2,2',3,4'-	MEAN	ND	ND	ND	ND	ND	0.008
TETRACHLOROBIPHENYL	STD						
PCB 44	N	1	1	12	1	1	1
2,2',3,5'-	MEAN	ND	ND	ND	ND	ND	0.003
TETRACHLOROBIPHENYL	STD						
PCB 47 / 48	N	0	0	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN						0.156
TETRACHLOROBIPHENYL	STD						
PCB 49	N	1	1	12	1	1	1
2,2',4,5'-	MEAN	ND	ND	0.0119	ND	ND	0.011
TETRACHLOROBIPHENYL	STD			0.0179			
PCB 52	N	1	1	12	1	1	1
2,2',5,5'-	MEAN	0.0681	0.1116	0.1143	0.0381	0.0548	0.042
TETRACHLOROBIPHENYL	STD			0.0478			
PCB 56 / 60	N	Previously reported as PCB 60					1
2,3,3',4' / 2,3,4,4'-	MEAN						0.11
TETRACHLOROBIPHENYL	STD						
PCB 60	N	1	1	12	1	1	See
2,3,4,4'-	MEAN	0.2886	0.3234	0.3628	0.1311	0.2158	PCB
TETRACHLOROBIPHENYL	STD			0.2035			56/60
PCB 64	N	1	1	12	1	1	1
2,3,4',6-	MEAN	0.0091	0.0102	0.0124	ND	0.0066	0.03
TETRACHLOROBIPHENYL	STD			0.0055			
PCB 66	N	1	1	12	1	1	1
2,3',4,4'-	MEAN	0.5382	0.512	0.5559	0.2052	0.334	1.231
TETRACHLOROBIPHENYL	STD			0.3112			
PCB 70	N	1	1	12	1	1	0
2,3',4',5-	MEAN	ND	ND	0.0042	ND	ND	
TETRACHLOROBIPHENYL	STD			0.0077			

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE MICHIGAN, GULL ISLAND

HERRING GULL	YEAR						
	93	94	94	95	96	97	
PCB 70/76	<i>Previously reported as PCB 70</i>						
2,3',4',5/2',3,4,5-						1 0.01	
TETRACHLOROBIPHENYL							
PCB 74	N	1	1	12	1	1 1	
2,4,4',5-	MEAN	0.216	0.2074	0.2126	0.0791	0.1239 0.383	
TETRACHLOROBIPHENYL	STD			0.1207			
PCB 85	N	0	0	0	0	0 1	
2,2',3,4,4'-	MEAN					0.439	
PENTACHLOROBIPHENYL	STD						
PCB 87	N	1	1	12	1	1 1	
2,2',3',4,5-	MEAN	0.0954	0.0972	0.1128	0.0338	0.0206 0.118	
PENTACHLOROBIPHENYL	STD			0.0514			
PCB 92	N	0	0	0	0	0 1	
2,2',3,5,5'-	MEAN					0.042	
PENTACHLOROBIPHENYL	STD						
PCB 95	N	0	0	0	0	0 1	
2,2',3,5',6-	MEAN					0.005	
PENTACHLOROBIPHENYL	STD						
PCB 97	N	1	1	12	1	1 1	
2,2',3',4,5-	MEAN	0.0298	0.049	0.0547	ND	0.0301 0.035	
PENTACHLOROBIPHENYL	STD			0.0227			
PCB 99	N	1	1	12	1	1 1	
2,2',4,4',5-	MEAN	0.9769	0.9243	0.9941	0.4751	0.5463 1.132	
PENTACHLOROBIPHENYL	STD			0.4864			
PCB 101	N	1	1	12	1	1 See PCB 101/90	
2,2',4,5,5'-	MEAN	0.2557	0.3476	0.3827	0.154	0.2204	
PENTACHLOROBIPHENYL	STD			0.1798			
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>					
2,2',4,5,5' / 2,2',3,4',5-	MEAN					1 0.178	
PENTACHLOROBIPHENYL	STD						
PCB 105	N	1	1	12	1	1 1	
2,3,3',4,4'-	MEAN	0.3592	0.3425	0.3863	0.1608	0.4142 0.837	
PENTACHLOROBIPHENYL	STD			0.2103			
PCB 110	N	1	1	12	1	1 1	
2,3,3',4',6-	MEAN	0.2115	0.2652	0.2807	0.1163	0.172 0.15	
PENTACHLOROBIPHENYL	STD			0.1311			
PCB 118	N	1	1	12	1	1 1	
2,3',4,4',5-	MEAN	1.4696	1.6066	1.5635	0.7565	0.9125 1.718	
PENTACHLOROBIPHENYL	STD			0.7608			
PCB 128	N	1	1	12	1	1 1	
2,2',3,3',4,4'-	MEAN	ND	ND	ND	ND	0.2719 0.599	
HEXACHLOROBIPHENYL	STD						
PCB 129	N	1	1	12	1	1 See PCB 178	
2,2',3,3',4,5-	MEAN	0.0797	0.1072	0.1117	0.0555	0.0648	
HEXACHLOROBIPHENYL	STD			0.0538			
PCB 130	N	0	0	0	0	0 1	
2,2',3,3',4,5'-	MEAN					0.14	
HEXACHLOROBIPHENYL	STD						
PCB 137	N	1	1	12	1	1 1	
2,2',3,4,4',5-	MEAN	0.1165	0.106	0.1107	0.0562	0.0632 0.321	
HEXACHLOROBIPHENYL	STD			0.0519			

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE MICHIGAN, GULL ISLAND

HERRING GULL	YEAR					
	93	94	94	95	96	97
PCB 138	N	1	1	12	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.2115	0.2652	0.2807	0.1163	0.172
	STD			1.3225		0.15
PCB 141	N	1	1	12	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.0249	0.0546	0.0588	0.0233	0.0261
	STD			0.0352		0.036
PCB 146	N	1	1	12	1	1
2,2',3,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.5055	0.4846	0.492	0.2602	0.294
	STD			0.2224		0.911
PCB 149	N	1	1	12	1	1
2,2',3,4',5,6'-HEXACHLOROBIPHENYL	MEAN	0.2157	0.2542	0.2781	0.1243	0.1801
	STD			0.1155		0.122
PCB 151	N	1	1	12	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.0437	0.0484	0.0287	ND	0.0322
	STD			0.0288		0.013
PCB 153	N	1	1	12	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	2.7829	2.5591	2.5456	1.4544	1.6139
	STD			1.0913		3.847
PCB 156	N			See footnote 'A'		
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.386
	STD					
PCB 157	N	0	0	0	0	0
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.088
	STD					
PCB 158	N	1	1	12	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.1139	0.0993	0.1097	0.056	0.0671
	STD			0.0525		0.141
PCB 170	N	1	1	12	1	1
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.7862	0.6445	0.673	0.3601	0.4104
	STD			0.298		
PCB 170 / 190	N	0	0	0	0	0
2,2',3,3',4,4',5'/2,3,3',4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.684
	STD					
PCB 171 ^A	N	1	1	12	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.4677	0.2353	0.2563	0.1289	0.1066
	STD			0.1203		0.127
PCB 172	N	1	1	12	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.1343	0.1022	0.1131	0.0594	0.0614
	STD			0.0505		0.171
PCB 174	N	1	1	12	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0234	0.053	0.0597	0.0262	0.0318
	STD			0.026		0.03
PCB 176	N	0	0	0	0	0
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 177	N	0	0	0	0	0
2,2',3,3',4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.207
	STD					
PCB 178	N			Previously reported as PCB 129		
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.168
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE MICHIGAN, GULL ISLAND

HERRING GULL		YEAR					
		93	94	94	95	96	97
PCB 179	N	0	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN						ND
	STD						
PCB 180	N	1	1	12	1	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	1.9705	1.5625	1.9077	0.8864	0.9571	1.555
	STD			0.8204			
PCB 182	N	1	1	12	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.9903	0.8887	0.9104	0.5071	0.5646	
	STD			0.3835			
PCB 183	N	1	1	12	1	1	1
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.478	0.3834	0.3959	0.2146	0.2346	0.37
	STD			0.1747			
PCB 185	N	1	1	12	1	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	ND	ND	
	STD						
PCB 187	N	0	0	0	0	0	1
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	MEAN						0.814
	STD						
PCB 194	N	1	1	12	1	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.2903	0.1982	0.2138	0.1217	0.1443	0.238
	STD			0.0851			
PCB 195	N	1	1	12	1	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.123	0.0953	0.1006	0.0552	0.0669	0.069
	STD			0.0393			
PCB 196/203	N	Previously reported as PCB 203					1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN						0.337
	STD						
PCB 200	N	1	1	12	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.0908	0.0726	0.0899	0.0448	0.0484	0.051
	STD			0.0454			
PCB 201	N	1	1	12	1	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.4704	0.3665	0.3767	0.2114	0.2402	0.293
	STD			0.1479			
PCB 202	N	See footnote 'A'					1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN						0.079
	STD						
PCB 203	N	1	1	12	1	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.3409	0.26	0.2668	0.1434	0.1663	
	STD			0.1073			
PCB 206	N	1	1	12	1	1	1
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	MEAN	0.0986	0.0665	0.0673	0.0378	0.0478	0.077
	STD			0.0253			
PCB 207	N	0	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN						0.138
	STD						
PCB 208	N	0	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN						0.161
	STD						

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE MICHIGAN, BIG SISTER ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 16 / 32	N	0	0	0	0	1
2,2',3 / 2,4',6-	MEAN					0.002
TRICHLOROBIPHENYL	STD					
PCB 17	N	0	0	0	0	1
2,2',4-	MEAN					TR
TRICHLOROBIPHENYL	STD					
PCB 18	N	0	0	0	0	1
2,2',5-	MEAN					TR
TRICHLOROBIPHENYL	STD					
PCB 22	N	0	0	0	0	1
2,3,4'-	MEAN					0.001
TRICHLOROBIPHENYL	STD					
PCB 28	N	1	13	1	1	1
2,4,4'-	MEAN	0.0578	0.0242	0.0658	0.0245	0.053
TRICHLOROBIPHENYL	STD		0.008			
PCB 31	N	1	13	1	1	1
2,4',5-	MEAN	ND	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD					
PCB 33 / 20	N	0	0	0	0	1
2',3,4 / 2,3,3'-	MEAN					ND
TRICHLOROBIPHENYL	STD					
PCB 42	N	1	13	1	1	1
2,2',3,4'-	MEAN	ND	ND	ND	ND	0.029
TETRACHLOROBIPHENYL	STD					
PCB 44	N	1	13	1	1	1
2,2',3,5'-	MEAN	ND	0.005	ND	ND	0.016
TETRACHLOROBIPHENYL	STD		0.0084			
PCB 47 / 48	N	0	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN					0.183
TETRACHLOROBIPHENYL	STD					
PCB 49	N	1	13	1	1	1
2,2',4,5'-	MEAN	0.0515	0.0119	0.0474	ND	0.031
TETRACHLOROBIPHENYL	STD		0.0195			
PCB 52	N	1	13	1	1	1
2,2',5,5'-	MEAN	0.1739	0.0524	0.1719	0.0707	0.077
TETRACHLOROBIPHENYL	STD		0.0472			
PCB 56 / 60	N	Previously reported as PCB 60				1
2,3,3',4' / 2,3,4,4'-	MEAN					0.108
TETRACHLOROBIPHENYL	STD					
PCB 60	N	1	13	1	1	See
2,3,4,4'-	MEAN	0.3377	0.2038	0.1372	0.2326	PCB
TETRACHLOROBIPHENYL	STD		0.0477			56/60
PCB 64	N	1	13	1	1	1
2,3,4',6-	MEAN	0.0158	0.0071	0.0105	0.0075	0.057
TETRACHLOROBIPHENYL	STD		0.0038			
PCB 66	N	1	13	1	1	1
2,3',4,4'-	MEAN	0.7421	0.4409	0.6752	0.3715	1.313
TETRACHLOROBIPHENYL	STD		0.1088			
PCB 70	N	1	13	1	1	0
2,3',4',5-	MEAN	0.0324	0.006	0.0246	ND	
TETRACHLOROBIPHENYL	STD		0.0093			

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE MICHIGAN, BIG SISTER ISLAND

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>				
2,3',4'5/2',3,4,5-					1
TETRACHLOROBIPHENYL					0.017
PCB 74	N	1	13	1	1
2,4,4',5-	MEAN	0.3019	0.1653	0.3031	0.1519
TETRACHLOROBIPHENYL	STD		0.0419		0.42
PCB 85	N	0	0	0	1
2,2',3,4,4'-	MEAN				0.305
PENTACHLOROBIPHENYL	STD				
PCB 87	N	1	13	1	1
2,2',3',4,5-	MEAN	0.0991	0.0616	0.051	0.0553
PENTACHLOROBIPHENYL	STD		0.0231		0.089
PCB 92	N	0	0	0	1
2,2',3,5,5'-	MEAN				0.028
PENTACHLOROBIPHENYL	STD				
PCB 95	N	0	0	0	1
2,2',3,5',6-	MEAN				0.007
PENTACHLOROBIPHENYL	STD				
PCB 97	N	1	13	1	1
2,2',3',4,5-	MEAN	0.0493	0.0177	0.0456	0.0263
PENTACHLOROBIPHENYL	STD		0.0169		0.033
PCB 99	N	1	13	1	1
2,2',4,4',5-	MEAN	0.8948	0.6633	0.8591	0.4624
PENTACHLOROBIPHENYL	STD		0.1622		0.806
PCB 101	N	1	13	1	1
2,2',4,5,5'-	MEAN	0.3326	0.1843	0.3098	0.1823
PENTACHLOROBIPHENYL	STD		0.076		See PCB 101/90
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>			
2,2',4,5,5'/ 2,2',3,4',5-	MEAN				1
PENTACHLOROBIPHENYL	STD				0.129
PCB 105	N	1	13	1	1
2,3,3',4,4'-	MEAN	0.3216	0.2196	0.1971	0.19
PENTACHLOROBIPHENYL	STD		0.0504		0.539
PCB 110	N	1	13	1	1
2,3,3',4',6-	MEAN	0.2272	0.1348	0.1819	0.1574
PENTACHLOROBIPHENYL	STD		0.0478		0.128
PCB 118	N	1	13	1	1
2,3',4,4',5-	MEAN	1.29	0.8934	1.2444	0.708
PENTACHLOROBIPHENYL	STD		0.2092		1.113
PCB 128	N	1	13	1	1
2,2',3,3',4,4'-	MEAN	ND	ND	ND	0.333
HEXACHLOROBIPHENYL	STD				
PCB 129	N	1	13	1	1
2,2',3,3',4,5-	MEAN	0.0767	0.0446	0.078	0.0421
HEXACHLOROBIPHENYL	STD		0.016		See PCB 178
PCB 130	N	0	0	0	1
2,2',3,3',4,5'-	MEAN				0.081
HEXACHLOROBIPHENYL	STD				
PCB 137	N	1	13	1	1
2,2',3,4,4',5-	MEAN	0.0789	0.0504	0.073	0.0397
HEXACHLOROBIPHENYL	STD		0.0115		0.199

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE MICHIGAN, BIG SISTER ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 138	N	1	13	1	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.2272	0.1348	0.1819	0.1574	0.128
	STD		0.3736			
PCB 141	N	1	13	1	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.035	0.0165	0.0307	0.0231	0.02
	STD		0.0162			
PCB 146	N	1	13	1	1	1
2,2',3,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.3639	0.2766	0.3583	0.2111	0.531
	STD		0.0568			
PCB 149	N	1	13	1	1	1
2,2',3,4',5',6'-HEXACHLOROBIPHENYL	MEAN	0.209	0.1418	0.2009	0.1584	0.093
	STD		0.033			
PCB 151	N	1	13	1	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	ND	0.0127	ND	ND	0.008
	STD		0.0209			
PCB 153	N	1	13	1	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	1.9012	1.4838	1.9368	1.2368	2.241
	STD		0.2854			
PCB 156	N		<i>See footnote 'A'</i>			1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.22
	STD					
PCB 157	N	0	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.051
	STD					
PCB 158	N	1	13	1	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.0818	0.0698	0.0735	0.0495	0.084
	STD		0.0173			
PCB 170	N	1	13	1	1	0
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.473	0.3609	0.4523	0.281	
	STD		0.0719			
PCB 170 / 190	N	0	0	0	0	1
2,2',3,3',4,4',5' / 2,3,3',4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.389
	STD					
PCB 171 ^A	N	1	13	1	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.1838	0.1226	0.1668	0.0753	0.078
	STD		0.0249			
PCB 172	N	1	13	1	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.0803	0.0538	0.0775	0.049	0.096
	STD		0.0113			
PCB 174	N	1	13	1	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0376	0.0138	0.0389	0.0252	0.022
	STD		0.0163			
PCB 176	N	0	0	0	0	1
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 177	N	0	0	0	0	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN					0.138
	STD					
PCB 178	N		<i>Previously reported as PCB 129</i>			1
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.092
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE MICHIGAN, BIG SISTER ISLAND

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 179	N	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
STD						
PCB 180	N	1	13	1	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	1.3271	1.0396	1.1209	0.6788	0.898
STD		0.2024				
PCB 182	N	1	13	1	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.6918	0.498	0.6794	0.4249	
STD		0.084				
PCB 183	N	1	13	1	1	1
2,2',3,4,4',5',6'-HEPTACHLOROBIPHENYL	MEAN	0.2908	0.2046	0.2849	0.1735	0.23
STD		0.0363				
PCB 185	N	1	13	1	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	ND	
STD		0.0258				
PCB 187	N	0	0	0	0	1
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.513
STD						
PCB 194	N	1	13	1	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.153	0.1248	0.1478	0.0964	0.142
STD		0.0258				
PCB 195	N	1	13	1	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.0784	0.0587	0.0718	0.0426	0.042
STD		0.0121				
PCB 196/203	N	Previously reported as PCB 203				1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN					0.201
STD						
PCB 200	N	1	13	1	1	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.0659	0.036	0.0595	0.0368	0.034
STD		0.0086				
PCB 201	N	1	13	1	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.2962	0.2194	0.2767	0.1743	0.184
STD		0.0386				
PCB 202	N	See footnote 'A'				1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN					0.046
STD						
PCB 203	N	1	13	1	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.1987	0.1471	0.1862	0.1158	
STD		0.0275				
PCB 206	N	1	13	1	1	1
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	MEAN	0.0756	0.0448	0.052	0.0336	0.048
STD		0.0108				
PCB 207	N	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN					0.074
STD						
PCB 208	N	0	0	0	0	1
2,2',3,3',4,4',5,5',6,6'-NONACHLOROBIPHENYL	MEAN					0.104
STD						

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE SUPERIOR, AGAWA ROCK

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 16 / 32	N	0	0	0	1
2,2',3 / 2,4',6-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 17	N	0	0	0	1
2,2',4-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 18	N	0	0	0	1
2,2',5-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 22	N	0	0	0	1
2,3,4'-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 28	N	1	1	13	1
2,4,4'-	MEAN	ND	ND	ND	0.0105
TRICHLOROBIPHENYL	STD				
PCB 31	N	1	1	13	1
2,4',5-	MEAN	ND	ND	ND	ND
TRICHLOROBIPHENYL	STD				
PCB 33 / 20	N	0	0	0	1
2',3,4 / 2,3,3'-	MEAN				ND
TRICHLOROBIPHENYL	STD				
PCB 42	N	1	1	13	1
2,2',3,4'-	MEAN	ND	ND	ND	ND
TETRACHLOROBIPHENYL	STD				
PCB 44	N	1	1	13	1
2,2',3,5'-	MEAN	ND	ND	ND	ND
TETRACHLOROBIPHENYL	STD				
PCB 47 / 48	N	0	0	0	1
2,2',4,4' / 2,2',4,5-	MEAN				0.018
TETRACHLOROBIPHENYL	STD				
PCB 49	N	1	1	13	1
2,2',4,5'-	MEAN	ND	ND	ND	0.002
TETRACHLOROBIPHENYL	STD				
PCB 52	N	1	1	13	1
2,2',5,5'-	MEAN	0.0222	ND	0.0065	ND
TETRACHLOROBIPHENYL	STD			0.0109	0.008
PCB 56 / 60	N	Previously reported as PCB 60			1
2,3,3',4' / 2,3,4,4'-	MEAN				0.013
TETRACHLOROBIPHENYL	STD				
PCB 60	N	1	1	13	1
2,3,4,4'-	MEAN	0.1114	0.0742	0.0061	0.1092
TETRACHLOROBIPHENYL	STD			0.0115	See PCB 56/60
PCB 64	N	1	1	13	1
2,3,4',6-	MEAN	ND	ND	ND	0.006
TETRACHLOROBIPHENYL	STD				
PCB 66	N	1	1	13	1
2,3',4,4'-	MEAN	0.113	0.1197	0.0753	0.1532
TETRACHLOROBIPHENYL	STD			0.0529	0.124
PCB 70	N	1	1	13	1
2,3',4',5-	MEAN	ND	ND	ND	0
TETRACHLOROBIPHENYL	STD				

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE SUPERIOR, AGAWA ROCK

HERRING GULL	YEAR				
	93	94	95	96	97
PCB 70/76	<i>Previously reported as PCB 70</i>				
2,3',4',5/2',3,4,5					1
TETRACHLOROBIPHENYL					ND
PCB 74	N	1	1	13	1
2,4,4',5-	MEAN	0.0435	0.0516	0.023	0.0529
TETRACHLOROBIPHENYL	STD			0.0233	0.041
PCB 85	N	0	0	0	1
2,2',3,4,4'-	MEAN				0.052
PENTACHLOROBIPHENYL	STD				
PCB 87	N	1	1	13	1
2,2',3',4,5-	MEAN	0.0229	ND	ND	0.0252
PENTACHLOROBIPHENYL	STD				0.016
PCB 92	N	0	0	0	1
2,2',3,5,5'-	MEAN				0.008
PENTACHLOROBIPHENYL	STD				
PCB 95	N	0	0	0	1
2,2',3,5',6-	MEAN				TR
PENTACHLOROBIPHENYL	STD				
PCB 97	N	1	1	13	1
2,2',3',4,5-	MEAN	0.0127	ND	0.0042	ND
PENTACHLOROBIPHENYL	STD			0.0091	0.007
PCB 99	N	1	1	13	1
2,2',4,4',5-	MEAN	0.274	0.2615	0.2346	0.2998
PENTACHLOROBIPHENYL	STD			0.1175	0.131
PCB 101	N	1	1	13	1
2,2',4,5,5'-	MEAN	0.081	0.0871	0.0649	0.1052
PENTACHLOROBIPHENYL	STD			0.0676	See PCB 101/90
PCB 101 / 90	N	<i>Previously reported as PCB 101</i>			
2,2',4,5,5' / 2,2',3,4',5-	MEAN				0.027
PENTACHLOROBIPHENYL	STD				
PCB 105	N	1	1	13	1
2,3,3',4,4'-	MEAN	0.0814	0.0911	0.057	0.2126
PENTACHLOROBIPHENYL	STD			0.0299	0.096
PCB 110	N	1	1	13	1
2,3,3',4',6-	MEAN	0.0686	0.0779	0.041	0.111
PENTACHLOROBIPHENYL	STD			0.0431	0.03
PCB 118	N	1	1	13	1
2,3',4,4',5-	MEAN	0.3952	0.3731	0.3718	0.4699
PENTACHLOROBIPHENYL	STD			0.1976	0.203
PCB 128	N	1	1	13	1
2,2',3,3',4,4'-	MEAN	0.1991	ND	ND	ND
HEXACHLOROBIPHENYL	STD				0.071
PCB 129	N	1	1	13	1
2,2',3,3',4,5-	MEAN	0.0267	0.0888	0.0241	0.0368
HEXACHLOROBIPHENYL	STD			0.0181	See PCB 178
PCB 130	N	0	0	0	0
2,2',3,3',4,5'-	MEAN				1
HEXACHLOROBIPHENYL	STD				0.017
PCB 137	N	1	1	13	1
2,2',3,4,4',5-	MEAN	0.0258	0.0299	0.0246	0.0298
HEXACHLOROBIPHENYL	STD			0.0156	0.041

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE SUPERIOR, AGAWA ROCK

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 138	N	1	1	13	1	1
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	MEAN	0.0686	0.0779	0.041	0.111	0.03
	STD			0.3431		
PCB 141	N	1	1	13	1	1
2,2',3,4,5,5'-HEXACHLOROBIPHENYL	MEAN	0.0111	ND	0.0083	ND	0.007
	STD			0.0152		
PCB 146	N	1	1	13	1	1
2,2',3,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.1347	0.1322	0.1325	0.1588	0.111
	STD			0.0604		
PCB 149	N	1	1	13	1	1
2,2',3,4',5,6'-HEXACHLOROBIPHENYL	MEAN	0.073	0.075	0.0587	0.1191	0.024
	STD			0.0401		
PCB 151	N	1	1	13	1	1
2,2',3,5,5',6'-HEXACHLOROBIPHENYL	MEAN	0.022	ND	0.0119	0.0303	0.003
	STD			0.0176		
PCB 153	N	1	1	13	1	1
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	MEAN	0.7865	0.8453	0.8088	0.9537	0.52
	STD			0.35		
PCB 156	N			See footnote 'A'		
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.049
	STD					
PCB 157	N	0	0	0	0	1
2,3,3',4,4',5'-HEXACHLOROBIPHENYL	MEAN					0.012
	STD					
PCB 158	N	1	1	13	1	1
2,3,3',4,4',6'-HEXACHLOROBIPHENYL	MEAN	0.0261	0.028	0.0266	0.041	0.018
	STD			0.0155		
PCB 170	N	1	1	13	1	0
2,2',3,3',4,4',5'-HEPTACHLOROBIPHENYL	MEAN	0.1819	0.1741	0.1845	0.2168	
	STD			0.0849		
PCB 170 / 190	N	0	0	0	0	1
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL	MEAN					0.093
	STD					
PCB 171 ^A	N	1	1	13	1	1
2,2',3,3',4,4',6'-HEPTACHLOROBIPHENYL	MEAN	0.0608	0.1425	0.0778	0.0566	0.02
	STD			0.0377		
PCB 172	N	1	1	13	1	1
2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL	MEAN	0.0278	0.0345	0.0321	0.0309	0.026
	STD			0.0144		
PCB 174	N	1	1	13	1	1
2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL	MEAN	0.0204	ND	0.0053	0.0195	0.008
	STD			0.0136		
PCB 176	N	0	0	0	0	1
2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 177	N	0	0	0	0	1
2,2',3,3',4',5,6'-HEPTACHLOROBIPHENYL	MEAN					0.029
	STD					
PCB 178	N			Previously reported as PCB 129		
2,2',3,3',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.024
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE SUPERIOR, AGAWA ROCK

HERRING GULL		YEAR				
		93	94	95	96	97
PCB 179	N	0	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN					ND
	STD					
PCB 180	N	1	1	13	1	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	0.4702	0.542	0.4852	0.5429	0.214
	STD			0.2155		
PCB 182	N	1	1	13	1	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.2539	0.5821	0.2678	0.3293	
	STD			0.1158		
PCB 183	N	1	1	13	1	1
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.1138	0.2331	0.1127	0.1344	0.054
	STD			0.0499		
PCB 185	N	1	1	13	1	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	ND	
	STD					
PCB 187	N	0	0	0	0	1
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	MEAN					0.109
	STD					
PCB 194	N	1	1	13	1	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.0605	0.07	0.0713	0.0804	0.04
	STD			0.032		
PCB 195	N	1	1	13	1	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.0268	0.0349	0.0296	0.0353	0.012
	STD			0.0171		
PCB 196/203	N	Previously reported as PCB 203				1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN					0.053
	STD					
PCB 200	N	1	1	13	1	1
2,2',3,3',4,5',6'-OCTACHLOROBIPHENYL	MEAN	0.0176	0.0205	0.02	0.0214	0.008
	STD			0.0149		
PCB 201	N	1	1	13	1	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.0973	0.1016	0.1128	0.1255	0.043
	STD			0.0487		
PCB 202	N	See footnote 'A'				1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN					0.013
	STD					
PCB 203	N	1	1	13	1	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.0742	0.0827	0.082	0.0917	
	STD			0.0366		
PCB 206	N	1	1	13	1	1
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	MEAN	0.0214	0.0212	0.0237	0.0268	0.016
	STD			0.0124		
PCB 207	N	0	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN					0.027
	STD					
PCB 208	N	0	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN					0.03
	STD					

^A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE SUPERIOR, GRANITE ISLAND

HERRING GULL	YEAR			
	93	94	95	97
PCB 16 / 32	N	0	0	0
2,2',3 / 2,4',6-	MEAN			ND
TRICHLOROBIPHENYL	STD			
PCB 17	N	0	0	1
2,2',4-	MEAN			ND
TRICHLOROBIPHENYL	STD			
PCB 18	N	0	0	1
2,2',5-	MEAN			ND
TRICHLOROBIPHENYL	STD			
PCB 22	N	0	0	1
2,3,4'-	MEAN			ND
TRICHLOROBIPHENYL	STD			
PCB 28	N	1	1	13
2,4,4'-	MEAN	0.0108	ND	0.0084
TRICHLOROBIPHENYL	STD			0.0111
PCB 31	N	1	1	13
2,4',5-	MEAN	ND	ND	ND
TRICHLOROBIPHENYL	STD			
PCB 33 / 20	N	0	0	0
2',3,4 / 2,3,3'-	MEAN			ND
TRICHLOROBIPHENYL	STD			
PCB 42	N	1	1	13
2,2',3,4'-	MEAN	ND	ND	ND
TETRACHLOROBIPHENYL	STD			
PCB 44	N	1	1	13
2,2',3,5'-	MEAN	ND	ND	ND
TETRACHLOROBIPHENYL	STD			
PCB 47 / 48	N	0	0	0
2,2',4,4' / 2,2',4,5-	MEAN			0.049
TETRACHLOROBIPHENYL	STD			
PCB 49	N	1	1	13
2,2',4,5'-	MEAN	ND	ND	0.003
TETRACHLOROBIPHENYL	STD			
PCB 52	N	1	1	13
2,2',5,5'-	MEAN	0.0331	0.0624	0.0124
TETRACHLOROBIPHENYL	STD			0.0172
PCB 56 / 60	N	Previously reported as PCB 60		
2,3,3',4' / 2,3,4,4'-	MEAN			1
TETRACHLOROBIPHENYL	STD			0.027
PCB 60	N	1	1	13
2,3,4,4'-	MEAN	0.2201	0.0813	0.0567
TETRACHLOROBIPHENYL	STD			0.0391
PCB 64	N	1	1	13
2,3,4',6-	MEAN	0.0042	0.0063	ND
TETRACHLOROBIPHENYL	STD			0.013
PCB 66	N	1	1	13
2,3',4,4'-	MEAN	0.2003	0.184	0.1556
TETRACHLOROBIPHENYL	STD			0.293
PCB 70	N	1	1	13
2,3',4',5-	MEAN	ND	ND	ND
TETRACHLOROBIPHENYL	STD			0

* All units measured on a wet weight basis. Non-coplanar PCBs measured in µg/g. For all compounds: ND indicates not detected; TR indicates trace amount. See page 174 for methodology and for changes in the detection of non-coplanar PCBs in 1997.

TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE SUPERIOR, GRANITE ISLAND

HERRING GULL		YEAR			
		93	94	95	97
PCB 70/76	N				1
2,3',4',5/2',3,4,5	MEAN	<i>Reported as PCB 70 from 1993-96</i>			ND
TETRACHLOROBIPHENYL	STD				
PCB 74	N	1	1	13	1
2,4,4',5-	MEAN	0.1025	0.0709	0.0655	0.092
TETRACHLOROBIPHENYL	STD			0.0259	
PCB 85	N	0	0	0	1
2,2',3,4,4'-	MEAN				0.102
PENTACHLOROBIPHENYL	STD				
PCB 87	N	1	1	13	1
2,2',3',4,5-	MEAN	0.0257	0.0471	0.0071	0.031
PENTACHLOROBIPHENYL	STD			0.0099	
PCB 92	N	0	0	0	1
2,2',3,5,5'-	MEAN				0.011
PENTACHLOROBIPHENYL	STD				
PCB 95	N	0	0	0	1
2,2',3,5',6-	MEAN				0.001
PENTACHLOROBIPHENYL	STD				
PCB 97	N	1	1	13	1
2,2',3',4,5-	MEAN	0.0615	0.0248	0.003	0.01
PENTACHLOROBIPHENYL	STD			0.0049	
PCB 99	N	1	1	13	1
2,2',4,4',5-	MEAN	0.5257	0.3401	0.2995	0.281
PENTACHLOROBIPHENYL	STD			0.0961	
PCB 101	N	1	1	13	See
2,2',4,5,5'-	MEAN	0.1665	0.1681	0.0931	PCB
PENTACHLOROBIPHENYL	STD			0.045	101/90
PCB 101 / 90	N	<i>Reported as PCB 101 from 1993-96</i>			1
2,2',4,5,5' / 2,2',3,4',5-	MEAN				0.051
PENTACHLOROBIPHENYL	STD				
PCB 105	N	1	1	13	1
2,3,3',4,4'-	MEAN	0.137	0.1205	0.0835	0.174
PENTACHLOROBIPHENYL	STD			0.0318	
PCB 110	N	1	1	13	1
2,3,3',4',6-	MEAN	0.1294	0.1386	0.0697	0.052
PENTACHLOROBIPHENYL	STD			0.019	
PCB 118	N	1	1	13	1
2,3',4,4',5-	MEAN	0.7241	0.4755	0.4535	0.4
PENTACHLOROBIPHENYL	STD			0.1488	
PCB 128	N	1	1	13	1
2,2',3,3',4,4'-	MEAN	0.327	ND	ND	0.133
HEXACHLOROBIPHENYL	STD				
PCB 129	N	1	1	13	See
2,2',3,3',4,5-	MEAN	0.0461	0.0346	0.0338	PCB 178
HEXACHLOROBIPHENYL	STD			0.0115	
PCB 130	N	0	0	0	1
2,2',3,3',4,5'-	MEAN				0.035
HEXACHLOROBIPHENYL	STD				
PCB 137	N	1	1	13	1
2,2',3,4,4',5-	MEAN	0.0503	0.0445	0.0298	0.078
HEXACHLOROBIPHENYL	STD			0.0111	

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE SUPERIOR, GRANITE ISLAND

HERRING GULL		YEAR			
		93	94	95	97
PCB 138	N	1	1	13	1
2,2',3,4,4',5'-	MEAN	0.1294	0.1386	0.0697	0.052
HEXACHLOROBIPHENYL	STD			0.2838	
PCB 141	N	1	1	13	1
2,2',3,4,5,5'-	MEAN	0.0339	0.0289	0.0135	0.013
HEXACHLOROBIPHENYL	STD			0.0121	
PCB 146	N	1	1	13	1
2,2',3,4',5,5'-	MEAN	0.257	0.1759	0.1597	0.228
HEXACHLOROBIPHENYL	STD			0.0511	
PCB 149	N	1	1	13	1
2,2',3,4',5',6-	MEAN	0.13	0.1372	0.0837	0.039
HEXACHLOROBIPHENYL	STD			0.0257	
PCB 151	N	1	1	13	1
2,2',3,5,5',6-	MEAN	0.0456	ND	0.0044	0.003
HEXACHLOROBIPHENYL	STD			0.0086	
PCB 153	N	1	1	13	1
2,2',4,4',5,5'-	MEAN	1.4125	0.9933	0.9397	1.081
HEXACHLOROBIPHENYL	STD			0.2853	
PCB 156	N	See footnote 'A'			1
2,3,3',4,4',5-	MEAN				0.092
HEXACHLOROBIPHENYL	STD				
PCB 157	N	0	0	0	1
2,3,3',4,4',5'-	MEAN				0.022
HEXACHLOROBIPHENYL	STD				
PCB 158	N	1	1	13	1
2,3,3',4,4',6-	MEAN	0.0504	0.0323	0.0338	0.038
HEXACHLOROBIPHENYL	STD			0.0106	
PCB 170	N	1	1	13	0
2,2',3,3',4,4',5-	MEAN	0.3982	0.2421	0.2249	
HEPTACHLOROBIPHENYL	STD			0.0812	
PCB 170 / 190	N	0	0	0	1
2,2',3,3',4,4',5 / 2,3,3',4,4',5,6-	MEAN				0.189
HEPTACHLOROBIPHENYL	STD				
PCB 171 A	N	1	1	13	1
2,2',3,3',4,4',6-	MEAN	0.1336	0.0822	0.0931	0.039
HEPTACHLOROBIPHENYL	STD			0.0534	
PCB 172	N	1	1	13	1
2,2',3,3',4,5,5'-	MEAN	0.0661	0.0363	0.0374	0.047
HEPTACHLOROBIPHENYL	STD			0.0134	
PCB 174	N	1	1	13	1
2,2',3,3',4,5,6'-	MEAN	0.0455	0.0283	0.0106	0.011
HEPTACHLOROBIPHENYL	STD			0.0155	
PCB 176	N	0	0	0	1
2,2',3,3',4,6,6'-	MEAN				ND
HEPTACHLOROBIPHENYL	STD				
PCB 177	N	0	0	0	1
2,2',3,3',4',5,6-	MEAN				0.057
HEPTACHLOROBIPHENYL	STD				
PCB 178	N	Reported as PCB 129 from 1993-96			1
2,2',3,3',5,5',6-	MEAN				0.037
HEPTACHLOROBIPHENYL	STD				

A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

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TABLE 12. NON-COPLANAR PCB CONGENERS IN HERRING GULL EGGS FROM ANNUAL MONITORING COLONIES*
LAKE SUPERIOR, GRANITE ISLAND

HERRING GULL		YEAR			
		93	94	95	97
PCB 179	N	0	0	0	1
2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL	MEAN				ND
	STD				
PCB 180	N	1	1	13	1
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	MEAN	1.0204	0.7501	0.5831	0.46
	STD			0.213	
PCB 182	N	1	1	13	0
2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL	MEAN	0.5015	0.3545	0.3265	
	STD			0.1134	
PCB 183	N	1	1	13	1
2,2',3,4,4',5',6'-HEPTACHLOROBIPHENYL	MEAN	0.2321	0.1505	0.1457	0.114
	STD			0.0542	
PCB 185	N	1	1	13	0
2,2',3,4,5,5',6'-HEPTACHLOROBIPHENYL	MEAN	ND	ND	ND	
	STD				
PCB 187	N	0	0	0	1
2,2',3,4',5,5',6'-HEPTACHLOROBIPHENYL	MEAN				0.238
	STD				
PCB 194	N	1	1	13	1
2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL	MEAN	0.1368	0.0862	0.0835	0.076
	STD			0.0298	
PCB 195	N	1	1	13	1
2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL	MEAN	0.0587	0.0393	0.0391	0.023
	STD			0.0131	
PCB 196/203	N	Reported as PCB 203 from 1993-96			1
2,2',3,3',4,4',5,6'/2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN				0.106
	STD				
PCB 200	N	1	1	13	1
2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL	MEAN	0.0422	0.0254	0.0244	0.017
	STD			0.0131	
PCB 201	N	1	1	13	1
2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.2126	0.1377	0.1332	0.087
	STD			0.0480	
PCB 202	N	See footnote 'A'			1
2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL	MEAN				0.019
	STD				
PCB 203	N	1	1	13	0
2,2',3,4,4',5,5',6'-OCTACHLOROBIPHENYL	MEAN	0.1624	0.1007	0.1001	
	STD			0.0363	
PCB 206	N	1	1	13	1
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	MEAN	0.0485	0.0306	0.03	0.028
	STD			0.0101	
PCB 207	N	0	0	0	1
2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL	MEAN				0.044
	STD				
PCB 208	N	0	0	0	1
2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL	MEAN				0.049
	STD				

A From 1993-96 values reported as PCB 171 represent coelutions of PCB 156, 171 and 202.

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