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

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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 oeufs 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 biphényles 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 oeufs 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 diphényles polychlorés, les dioxines et les furans, ainsi que les lipides et l'humidité en pourcentage. En outre, on a énuméré les données sur le mercure contenu dans les oeufs 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 oeufs 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)-chlordane	a-CHL
5103-74-2	Gamma(trans)-chlordane	g-CHL
7304-13-8	Oxy-chlordane	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

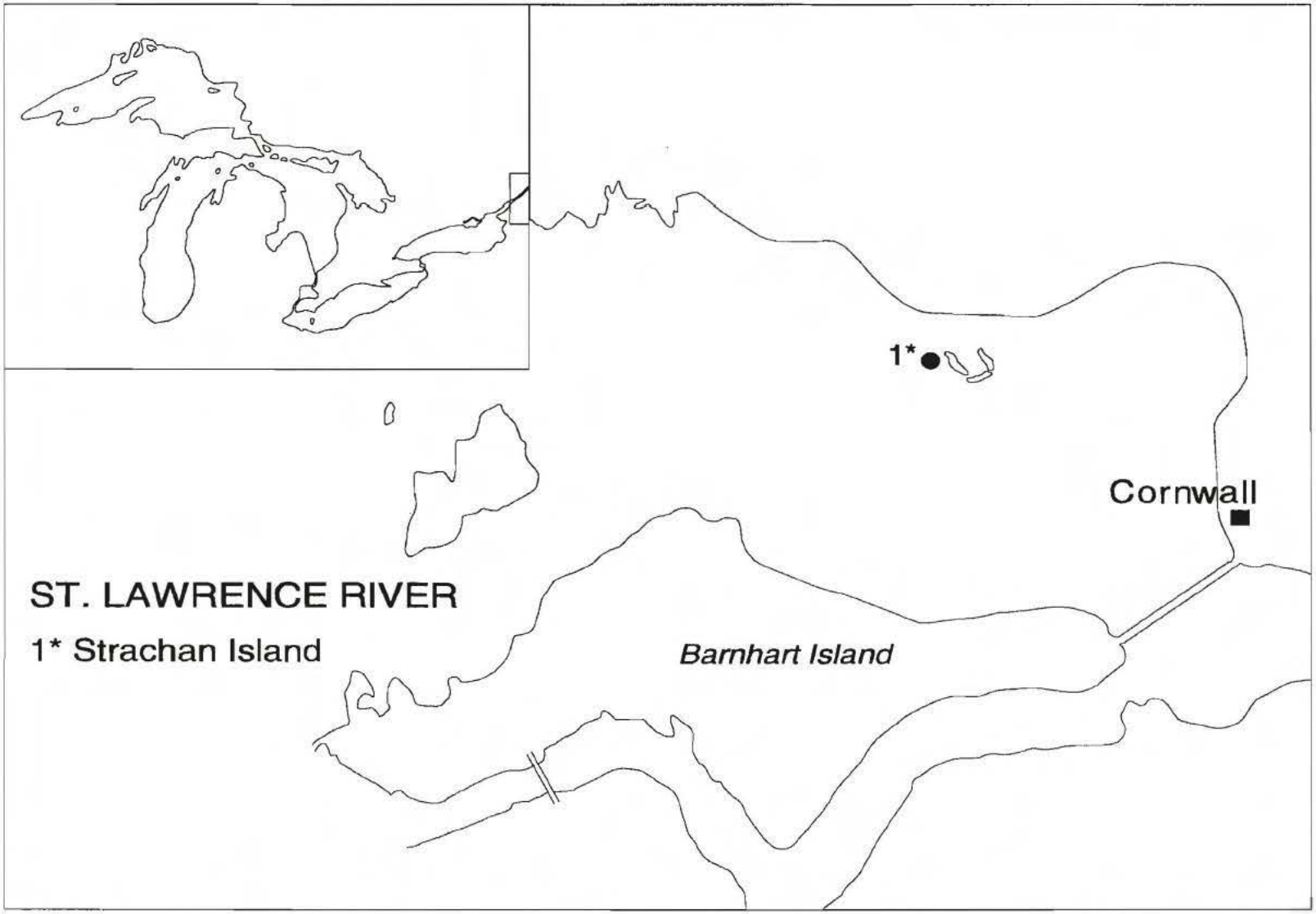

Figure 1. St. Lawrence River colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Mois	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: 1260	SUM PCB	COP PCB	Dioxin	Furan
1*	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	1	1	0	0	0
	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	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	1	1	1	0	1	1
		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	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	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	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	1	1
	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	0	0	0
		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	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 (*).

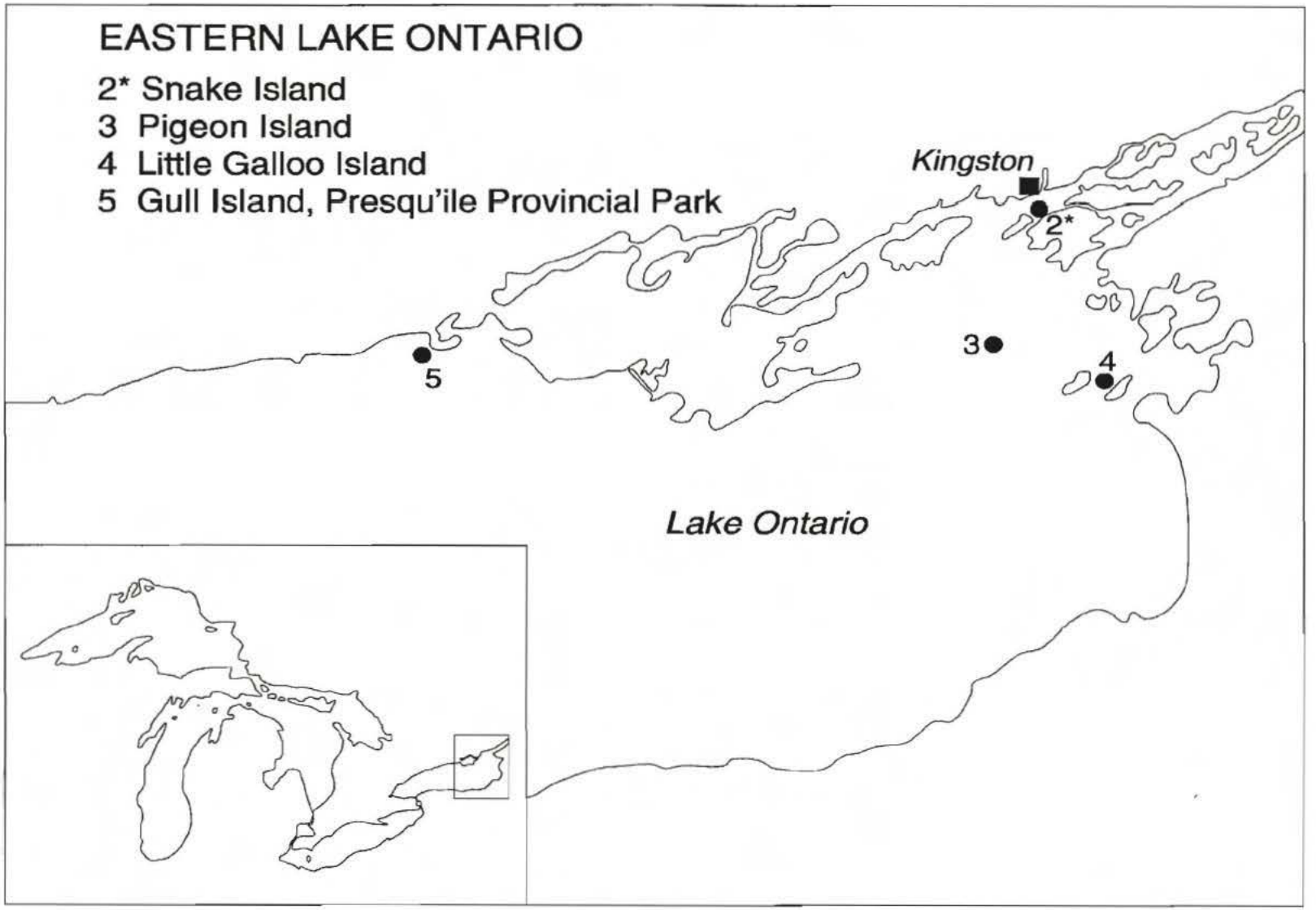

Figure 2. Eastern Lake Ontario colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Mois	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: 1260	SUM PCB	COP PCB	Dioxin	Furan
2*	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	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	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
3	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
	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	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
	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	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	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	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	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	0	1		1	1	1	1	1	1		1	1	1
5	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
	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

* 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 (*).

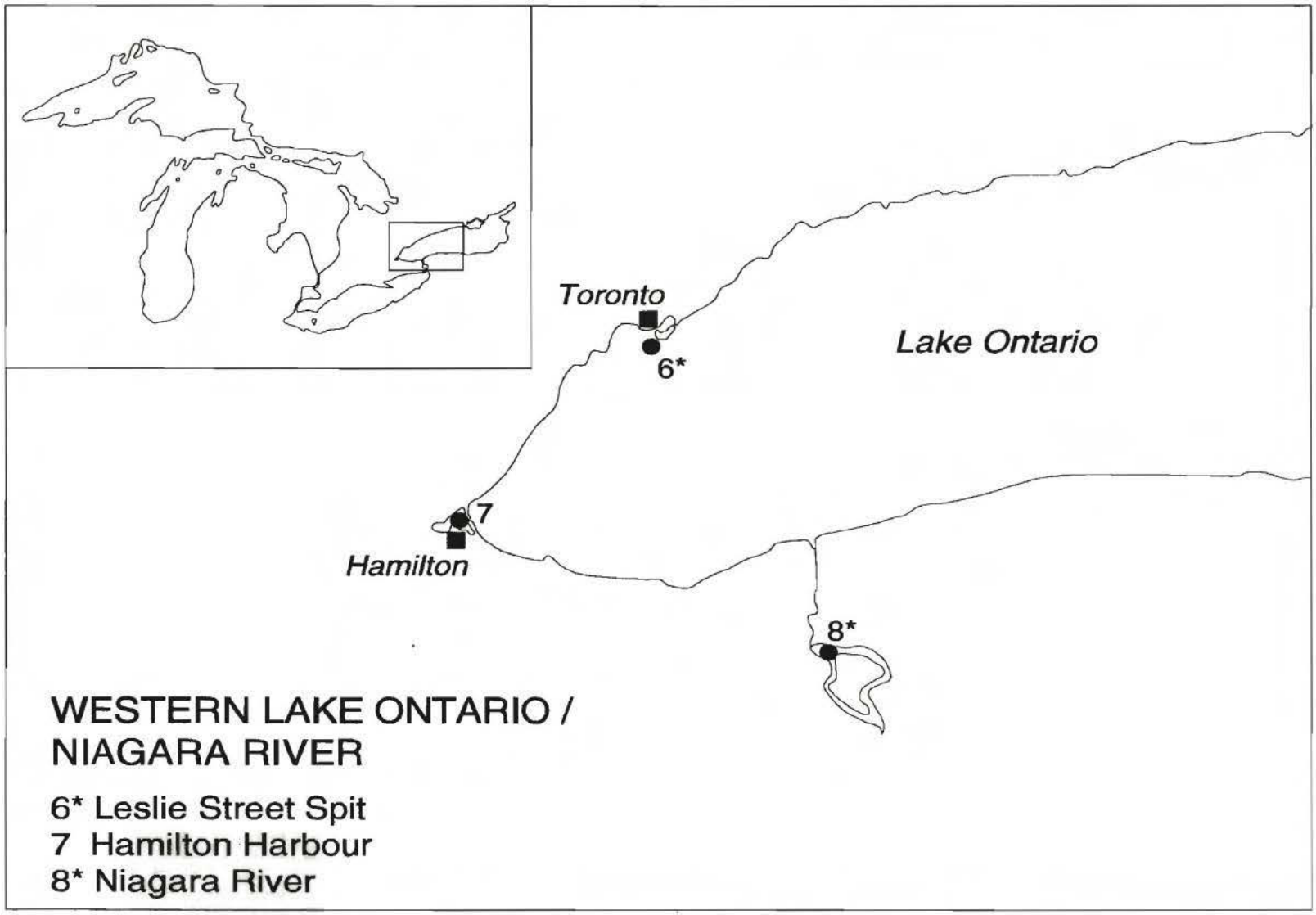

Figure 3. Western Lake Ontario and Niagara River colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Mois	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: 1260	SUM PCB	COP PCB	Dioxin	Furan
6*	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		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	1	1	1	0		1
		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		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		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		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		1
7	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	1	1	0		0
	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		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	1	1	1	0		1
		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		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		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		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		1
	RBGU	94	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	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	0		0
8*	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		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	1	1	1	0		1
		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		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		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		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		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.

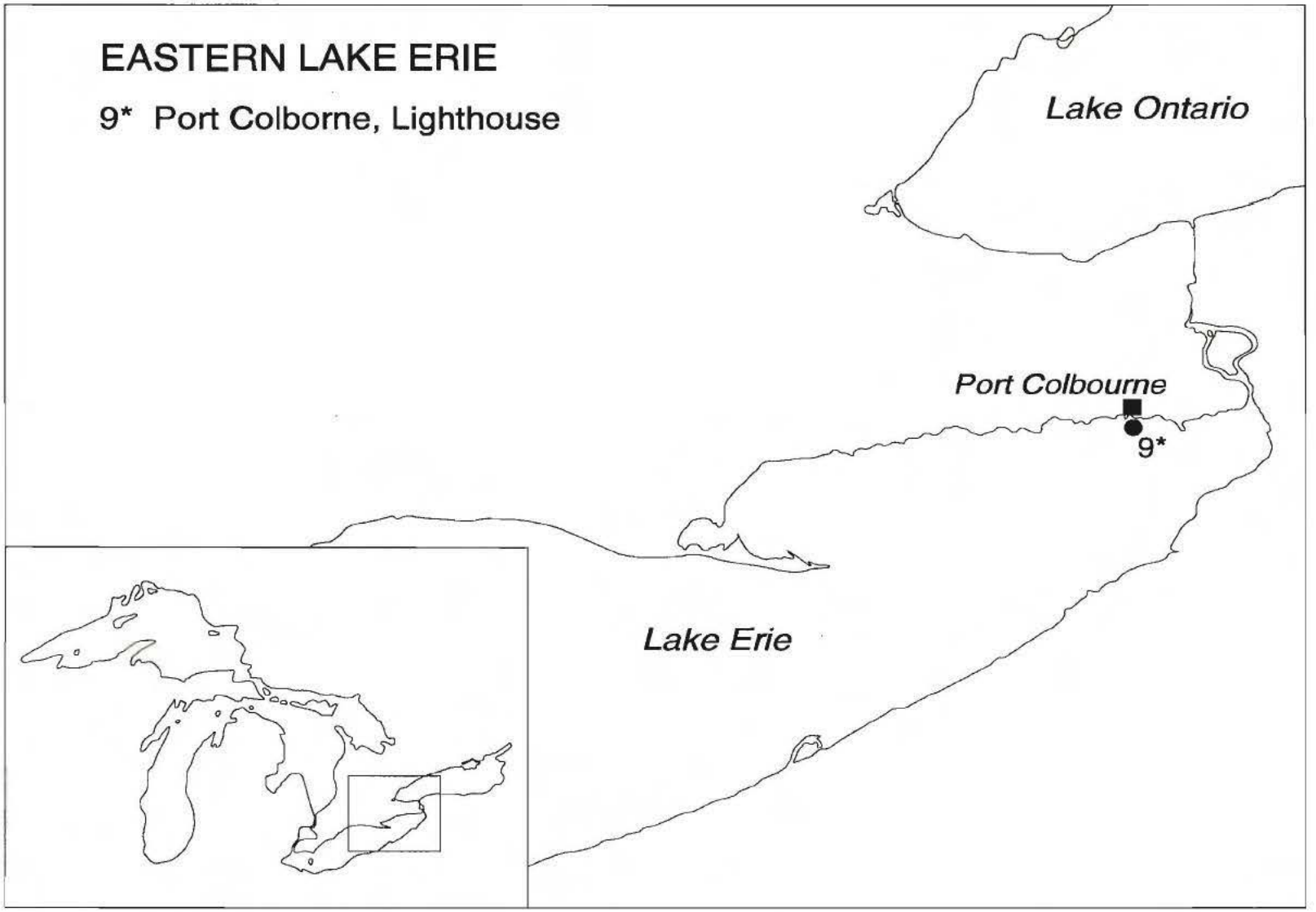

Figure 4. Eastern Lake Erie colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Mois	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: 1260	SUM PCB	COP PCB	Dioxin	Furan
9*	HERG	92[a]	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	0	1		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	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

[a] 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 (*).

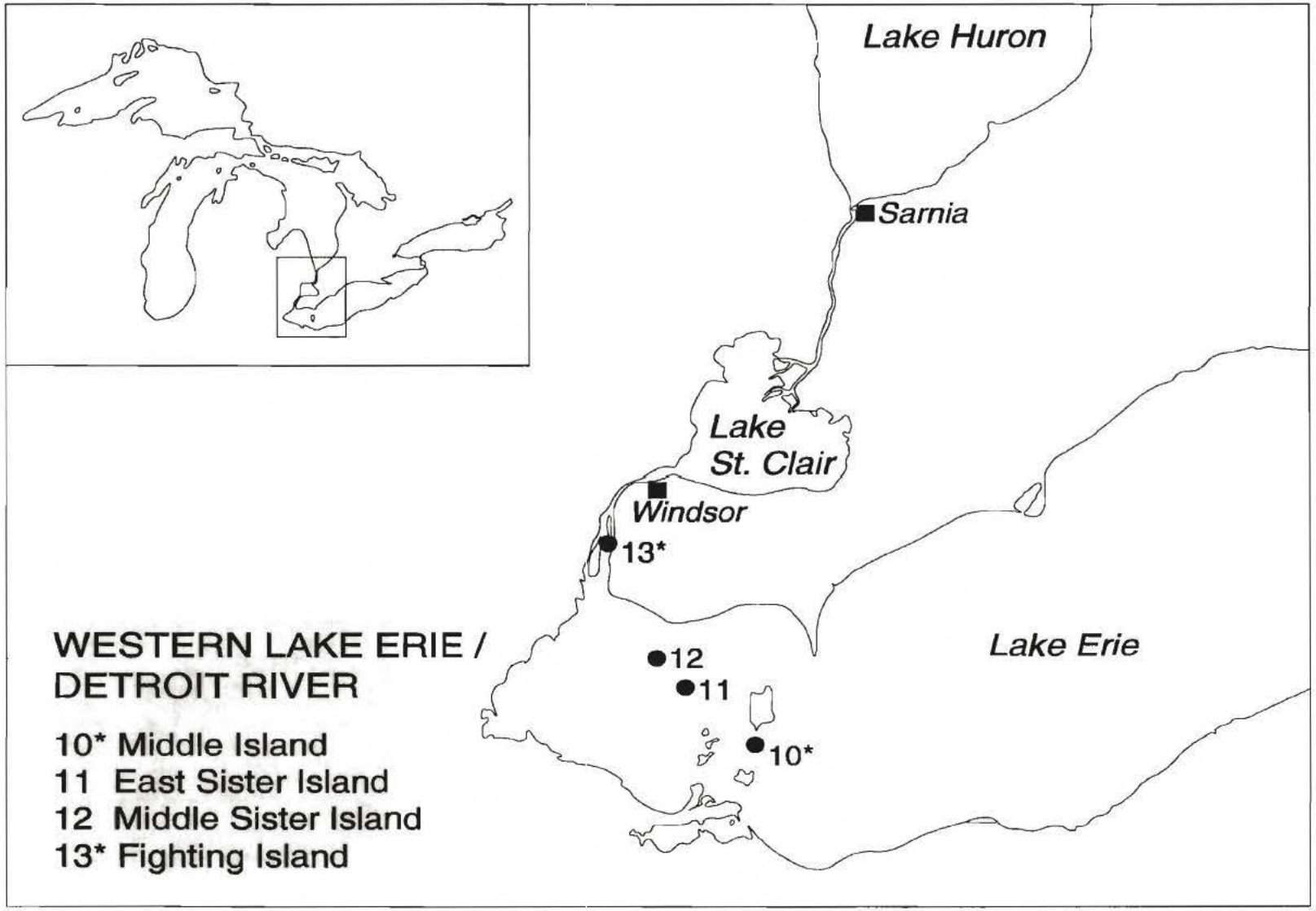

Figure 5. Western Lake Erie and Detroit River colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Mois	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: 1260	SUM PCB	COP PCB	Dioxin	Furan
10*	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	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	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
11	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
12	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
13*	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	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	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
	RBGU	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		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 (*).

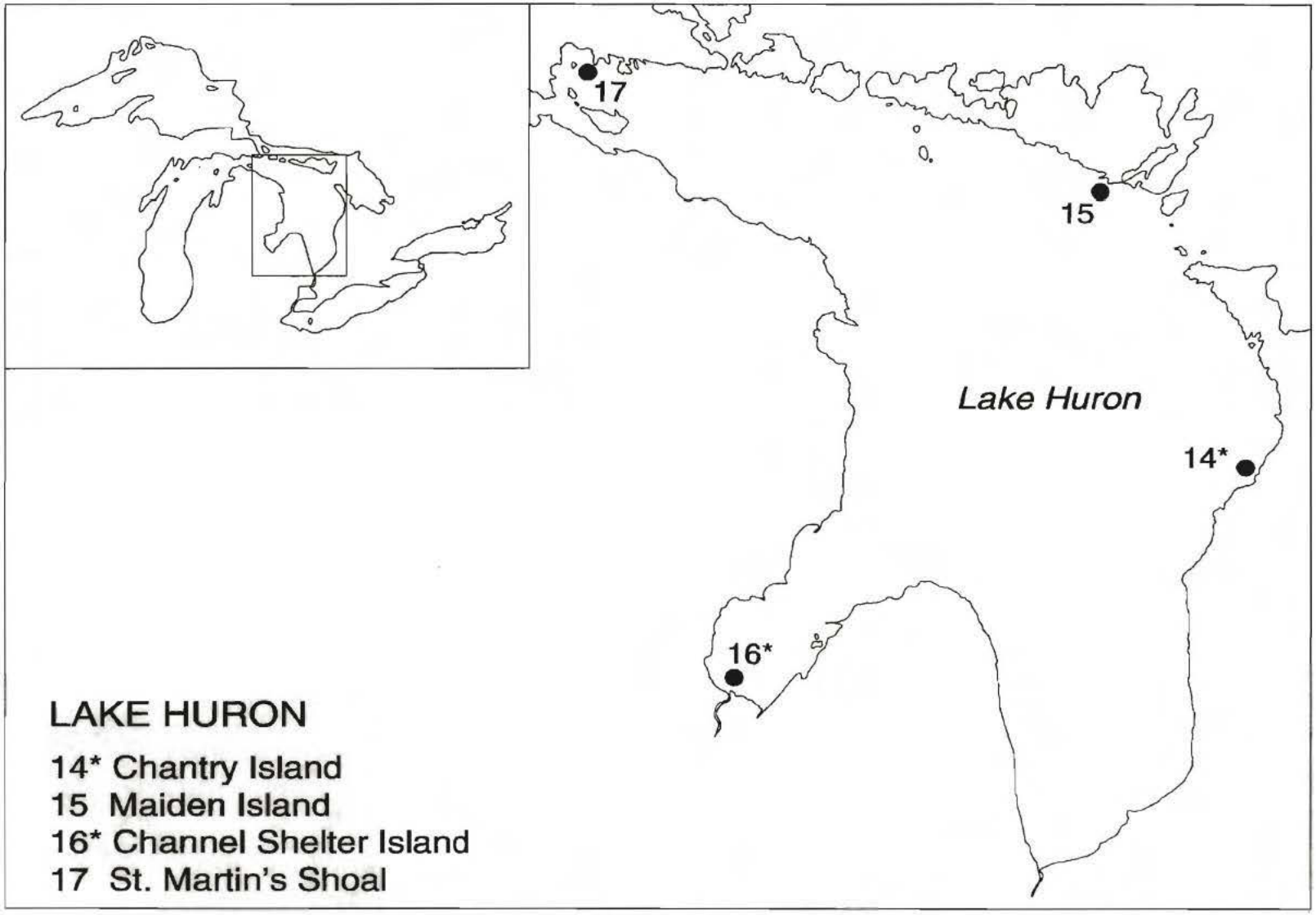

Figure 6. Lake Huron (main body) colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Mois	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: 1260	SUM PCB	COP PCB	Dioxin	Furan
14*	HERG	92[a]	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	11	0	11	1	11	11	11	11	11	11	1	0	1	1
		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
15	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	0	0
16*	HERG	92[a]	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	1	0	1	1
		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
17	HERG	92[a]	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

[a] 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 (*).

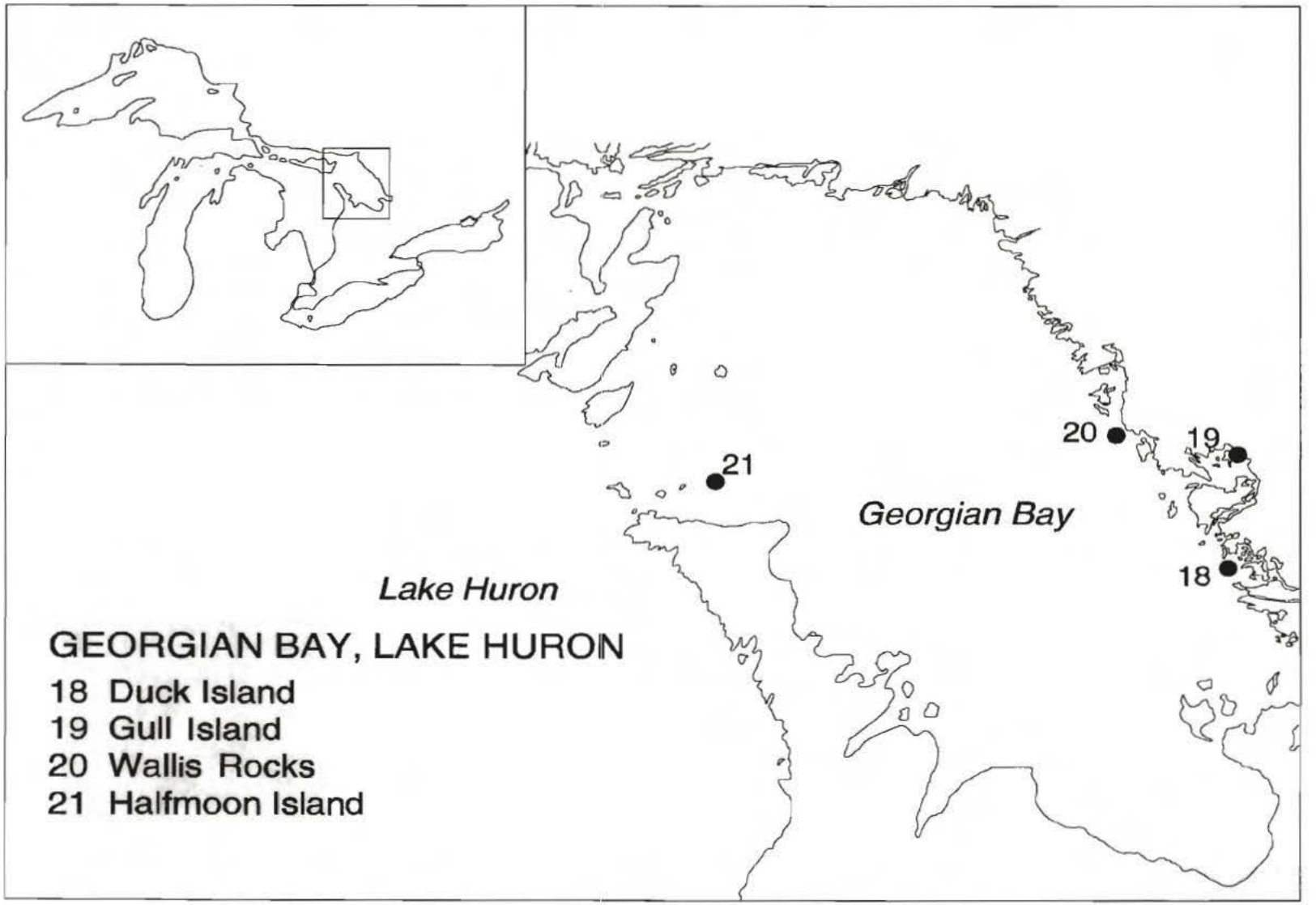

Figure 7. Georgian Bay (Lake Huron) colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Mois	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: 1260	SUM PCB	COP PCB	Dioxin	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	0	1		1	1	1	1	1	1		0	0	0
21	GBBG	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		0	0	0
	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		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 (*).

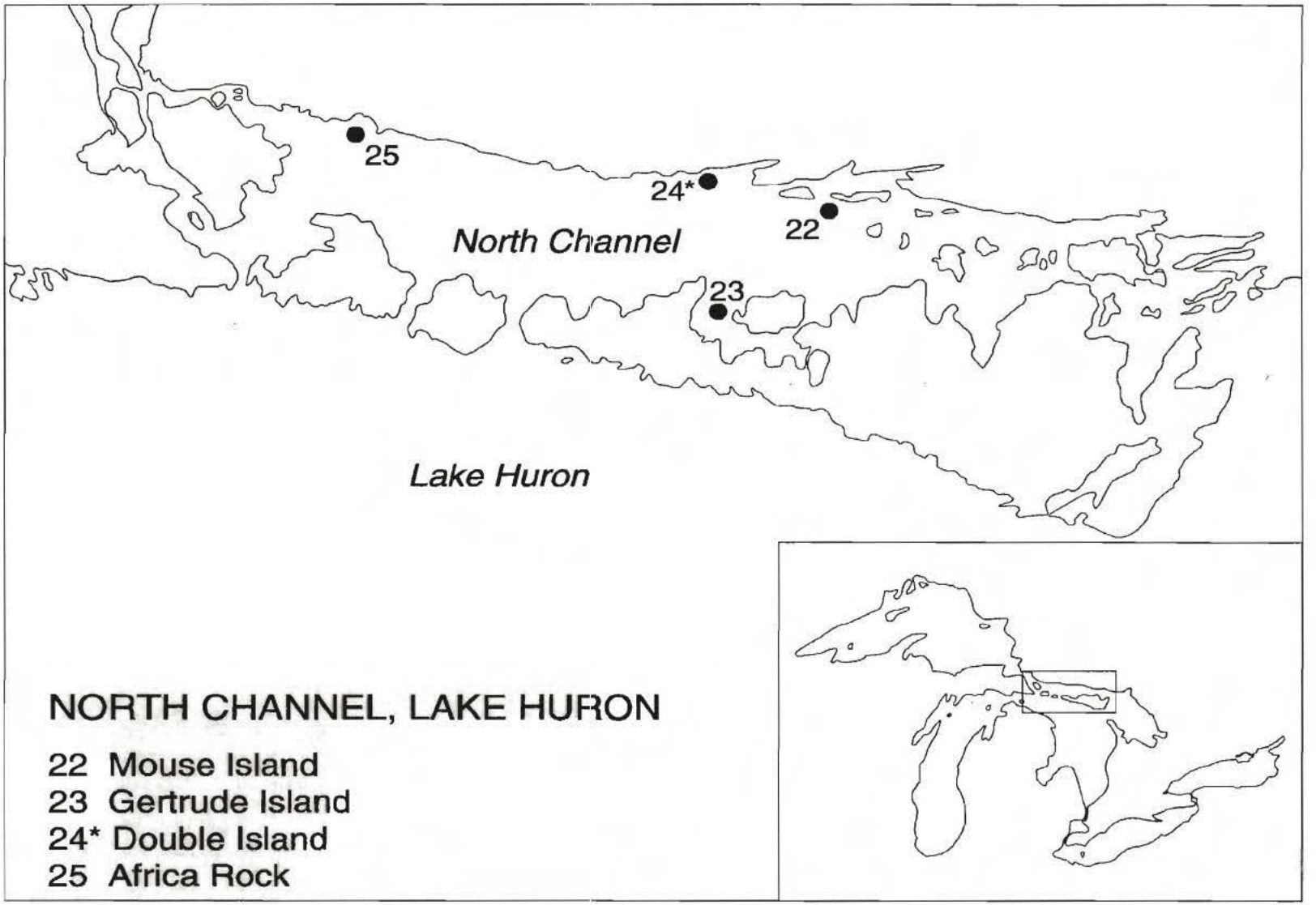

Figure 8. North Channel (Lake Huron) colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Mois	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: 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[a]	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	11	0	11	1	11	11	11	11	11	11	1	0	1	1
		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

[a] 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 (*).

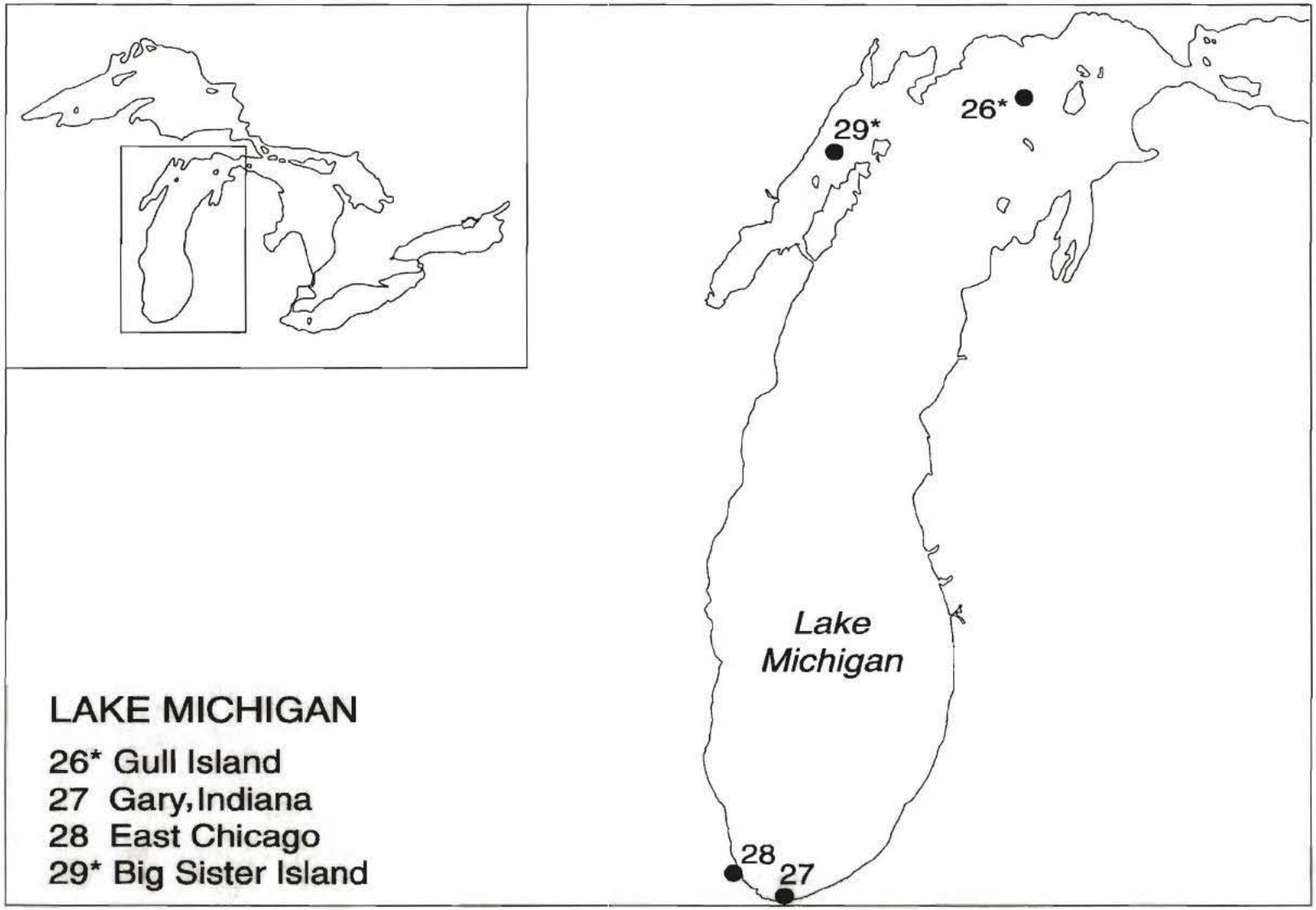

Figure 9. Lake Michigan colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	& Mois	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: 1260	SUM PCB	COP PCB	Dioxin	Furan
26*	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	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	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	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
27	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		1	1	1
28	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		1	1	1
		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
29*	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	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	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	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

* 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 (*).

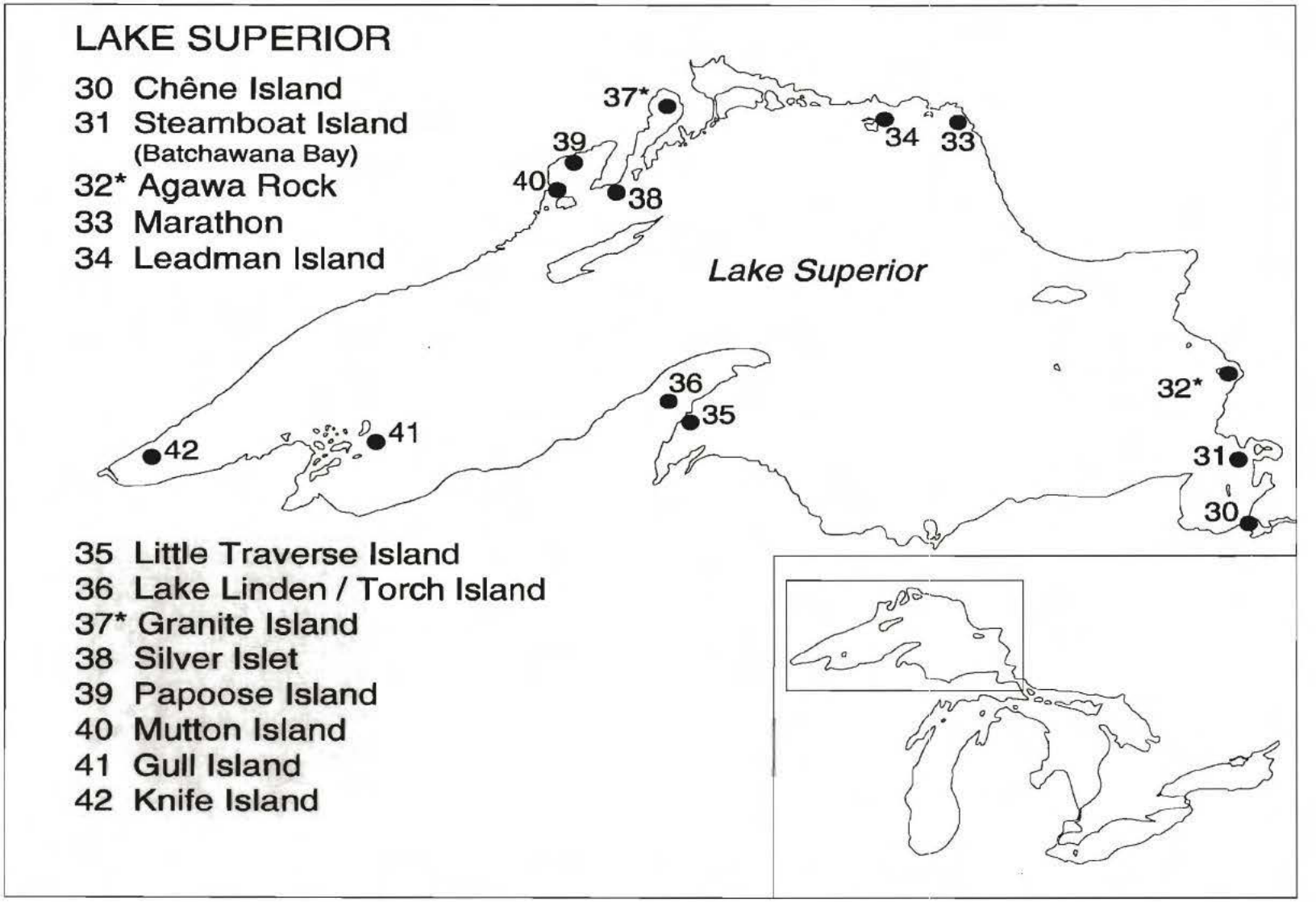

Figure 10. Lake Superior colonies of fish-eating birds from which eggs were collected for contaminant analysis. Herring Gull annual monitoring colonies are indicated by an asterisk (*).

Col. No.	Spec.	Yr.	% Lip	% Mois	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: 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	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	0	1		1	1	1	1	1	1		0	0	0
32*	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	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	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	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
33	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
34	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
35	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
36	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
37*	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	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	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	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
	RBGU	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		0	0	0
38	HERG	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
39	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
40	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
41	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
42	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

* 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 COMPOUND

Index to Contaminant Data, Summarized by Compounds

Table 11. Contaminant Data, Summarized by Compound

INDEX TO CONTAMINANT DATA, SUMMARIZED BY COMPOUND

TABLE 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PERCENT LIPID IN EGG

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			5.4		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	8.7	8.7	8.5	7.6	8.04
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		9.7		8.55	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	9	9.2	8.8	8.5	7.33
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			4.7		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	8.7	8.65			
		STD		0.4950			
	HERRING GULL	N	1	1			
		MEAN	8.5	9.1			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			4.5		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	7.6	7.9			
		STD					
	HERRING GULL	N	1	1			
		MEAN	9.2	8.8			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	8.7				
		STD					
	HERRING GULL	N	1				
		MEAN	9.1				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	9.4	9.5	9.3	9.1	7.4
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			4		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	9.3	8.6	7.9	8.2	7.47
		STD					
	RING-BILLED GULL	N		2	1		
		MEAN		9.5	8.53		
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PERCENT LIPID IN EGG

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	9.1	9	8.5	8.3	7.65
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1	0	1	1	1
COLBORNE	GULL	MEAN	8.9		8	8.9	7.49
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	9.3	8.5	8	9.3	8.8
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			5.1		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		8.8			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	9.9	7.9	8.5	7	7.29
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				8.65	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	9.8	9.5	8.5	8.2	9	7.82
		STD		0.9888				
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	9.7					
		STD						
CHANNEL	HERRING	N	1	13	1	1	1	1
SHELTER	GULL	MEAN	11.1	11.0769	8.9	7.4	7.9	7.74
ISLAND		STD		3.0795				
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	9.3					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	8.9					
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				4.3		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PERCENT LIPID IN EGG

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON	GREAT BLACK-	N			1			
ISLAND	BACKED GULL	MEAN			8.3			
		STD						
	HERRING	N			1			
	GULL	MEAN			8.4			
		STD						
MOUSE ISLAND	HERRING	N			1			
	GULL	MEAN			8.7			
		STD						
GERTRUDE	RING-BILLED	N			1			
ISLAND	GULL	MEAN			9.5			
		STD						
DOUBLE	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	9	9.28	9	7.5	9	8.38
		STD		1.2354				
AFRICA ROCK	DOUBLE-	N				1		
	CRESTED	MEAN				5.3		
	CORMORANT	STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING	N	1	1	12	1	1	1
	GULL	MEAN	9.9	9.3	9.175	8.5	8.2	7.57
		STD			0.7899			
GARY, INDIANA	HERRING	N	1					
	GULL	MEAN	8.9					
		STD						
EAST CHICAGO	HERRING	N	1	1		1		
	GULL	MEAN	9.4	8.8		8.4		
		STD						
BIG SISTER	HERRING	N	1	13		1	1	1
ISLAND	GULL	MEAN	9.1	8.9		8.5	11.9	7.73
		STD		0.9229				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			5		
	CORMORANT	STD					
AGAWA ROCK	HERRING	N	1	1	13	1	1
	GULL	MEAN	8.3	8.5	8.8	8.5	7.19
		STD			0.8093		
GRANITE	HERRING	N	1	1	13		1
ISLAND	GULL	MEAN	8.4	9.5	8.6692		8.13
		STD			0.8460		
	RING-BILLED	N				1	
	GULL	MEAN				7.95	
		STD					
SILVER ISLET	HERRING	N				1	
	GULL	MEAN				7.2	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PERCENT MOISTURE IN EGG

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			83.6		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	76.8	76.5	76.4	77.5	76.08
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		75.3		76.38	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	76.7	77.1	76.3	76.6	77.12
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			84		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	76.1	76.6			
		STD		1.2728			
	HERRING GULL	N	1	1			
		MEAN	77	75.5			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			83.7		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	77.3	77.1			
		STD					
	HERRING GULL	N	1	1			
		MEAN	76.4	75.8			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	76.9				
		STD					
	HERRING GULL	N	1				
		MEAN	76.2				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	76.9	75	76	77.3	76.68
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			84.4		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	76.5	76.6	76.2	76.5	79.06
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		75.4		75.8	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PERCENT MOISTURE IN EGG

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	76.6	75.9	76.4	76.9	76.95
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	76.8		77.1	77.1	76.42
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	76.7	76.2	76.5	76.5	75.84
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			83.8		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		76			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	76.4	77.2	76.5	77.3	77.94
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				75.8	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	75.9	75.78	76.4	76.4	76.6	76.34
		STD		0.8535				
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	75.9					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		73.6692	76.3	74.4	76.8	75.49
ISLAND		STD		4.6595				
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	75.9					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	76.4					
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				84.6		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PERCENT MOISTURE IN EGG

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			77.2			
		STD						
	HERRING GULL	N			1			
		MEAN			77.3			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			76.7			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			75.5			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	77	76.86	76.3	75.4	76.3	76.45
		STD		0.8003				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				84.5		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	76.2	76	75.6917	76.3	76.2	76.42
		STD			1.2214			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	76.3					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	76.4	76.1		76.8		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	76.2	76.2077		75.7	75.7	77.31
		STD		0.9962				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			84.4		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	76.6	77.1	76.7	75.3	76.77
		STD			0.7874		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	77.3	75.9	76.3308		73.37
		STD			0.5808		
	RING-BILLED GULL	N				1	
		MEAN				76.33	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				77.9	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
CIS/ALPHA-CHLORDANE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	TR
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		0.002	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	0.0067	ND	ND	TR
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0037		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.0107	0.0134			
		STD		0.0016			
	HERRING GULL	N	1	1			
		MEAN	0.0069	0.0061			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0051		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.0237	0.0301			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.0123	0.0112			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	0.0374				
		STD					
	HERRING GULL	N	1				
		MEAN	0.007				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0095	0.0082	0.0065	0.003	0.003
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0041		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0113	0.006	0.0074	ND	0.002
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.0175		0.003	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
CIS/ALPHA-CHLORDANE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0067	0.0075	0.0052	0.0023	0.002
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	0.0055		0.0059	ND	0.002
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0091	0.0084	0.0135	0.0062	0.003
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.0033		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		0.0085			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	0.0114	0.0056	0.0052	0.0064	0.002
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				0.003	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	0.0144	0.0112	ND	0.007	0.0125	0.002
		STD		0.0073				
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.0157					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		0.0132	0.0092	0.0081	0.0084	0.004
ISLAND		STD		0.0129				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0027		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
CIS/ALPHA-CHLORDANE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.0566			
		STD						
	HERRING GULL	N			1			
		MEAN			0.0139			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.0193			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0049			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0075	0.0051	0.0066	0.007	0.0023	0.002
		STD		0.0049				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0022		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.0215	0.0258	0.0242	0.017	0.0202	0.011
		STD			0.0144			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.017					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.0204	0.0166		0.0129		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.0162	0.0087		0.0157	0.0133	0.002
		STD		0.0082				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0029		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	ND	0.0049	0.0062	0.0049	0.001
		STD			0.0040		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.0135	0.0124	0.0027		0.002
		STD			0.0035		
	RING-BILLED GULL	N				1	
		MEAN				0.006	
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TRANS/GAMMA-CHLORDANE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		ND	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	0.0184	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0012		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.0214	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	ND				
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	0.0091	ND	ND
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.0007		ND	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TRANS/GAMMA-CHLORDANE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	ND
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			ND		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				ND	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND	ND
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		0.0056	ND	ND	ND	ND
ISLAND		STD		0.0105				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0011		
	CORMORANT	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TRANS/GAMMA-CHLORDANE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.0048			
		STD						
	HERRING GULL	N			1			
		MEAN			ND			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	ND	ND	ND	ND	ND	ND
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0005		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	ND	ND	0.0008	ND	ND	ND
		STD			0.0022			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	ND	ND		ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0005		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	ND	ND	0.0111		ND
		STD			0.0064		
	RING-BILLED GULL	N				1	
		MEAN				ND	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				ND	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OXYCHLORDANE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0173		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0631	0.065	0.0492	0.0634	0.03
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.021		0.015	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.1198	0.0962	0.069	0.0839	0.052
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0433		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.1443	0.1294			
		STD		0.0334			
	HERRING GULL	N	1	1			
		MEAN	0.1006	0.1084			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0173		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.1693	0.1662			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.1063	0.1559			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	0.3153				
		STD					
	HERRING GULL	N	1				
		MEAN	0.1173				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0804	0.0985	0.0649	0.1166	0.043
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0293		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0713	0.0593	0.0953	0.0859	0.03
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.0397		0.022	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OXYCHLORDANE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
NIAGARA RIVER	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0573	0.0687	0.0455	0.0662	0.019
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	1		1	1	1
		MEAN	0.0376		0.0378	0.0538	0.026
		STD					
MIDDLE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0642	0.0872	0.0672	0.0803	0.039
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0286		
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		0.0892			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
FIGHTING ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0593	0.0548	0.0431	0.0467	0.03
		STD					
	RING-BILLED GULL	N				1	
		MEAN				0.031	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	**SPECIES**							
CHANTRY ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.1331	0.1481	0.0976	0.0865	0.0904	0.051
		STD		0.124				
MAIDEN ISLAND	HERRING GULL	N	1					
		MEAN	0.2677					
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		13	1	1	1	1
		MEAN		0.1991	0.1514	0.1084	0.109	0.06
		STD		0.1318				
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0373		
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OXYCHLORDANE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.3431			
		STD						
	HERRING GULL	N			1			
		MEAN			0.1361			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.1417			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0324			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.1399	0.1142	0.1584	0.0887	0.1623	0.059
		STD		0.0671				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0303		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.5553	0.436	0.4063	0.188	0.2731	0.333
		STD			0.2985			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.4467					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.2674	0.2503		0.2363		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.3261	0.3084		0.2854	0.221	0.219
		STD		0.1745				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.039		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	0.1294	0.1259	0.1392	0.1931	0.061
		STD			0.1021		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.2037	0.1914	0.1375		0.104
		STD			0.0845		
	RING-BILLED GULL	N				1	
		MEAN				0.059	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.11	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234-CHLOROBENZENE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	TR
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		TR	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	TR
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	ND				
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	TR
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	TR
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.0013		ND	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234-CHLOROBENZENE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	TR
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	TR
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	TR
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			ND		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	TR
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				0.001	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	**SPECIES**							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND	TR
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		0.0042	ND	ND	0.0967	0.013
ISLAND		STD		0.0066				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				ND		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234-CHLOROBENZENE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			ND			
		STD						
	HERRING GULL	N			1			
		MEAN			ND			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	ND	ND	ND	ND	ND	TR
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				ND		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	ND	ND	ND	ND	ND	TR
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	ND	ND		ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	ND	0.006	ND	ND	TR
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	ND	ND	ND		TR
		STD					
	RING-BILLED GULL	N				1	
		MEAN				TR	
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1245-CHLOROBENZENE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	TR
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		0.003	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	TR
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	ND				
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	TR
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	TR
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.004		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1245-CHLOROBENZENE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	TR
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	0.001
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	TR
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			ND		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	TR
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				0.002	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND	TR
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		ND	ND	ND	0.0427	0.002
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				ND		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1245-CHLOROBENZENE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			ND			
		STD						
	HERRING GULL	N			1			
		MEAN			ND			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	ND	ND	ND	ND	ND	TR
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				ND		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	ND	ND	ND	ND	ND	TR
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	ND	ND		ND	ND	TR
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	ND	0.0501	ND	ND	TR
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	ND	ND	ND		TR
		STD					
	RING-BILLED GULL	N				1	
		MEAN				TR	
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PENTACHLOROBENZENE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0068		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	0.001
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		0.003	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	0.003
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.015	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	ND				
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	0.001
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	0.002
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.0053		TR	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PENTACHLOROBENZENE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	TR
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	0.001
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	0.002
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			ND		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	0.002
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				0.002	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND	0.001
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		ND	ND	ND	0.0242	0.007
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0284		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PENTACHLOROBENZENE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			ND			
		STD						
	HERRING GULL	N			1			
		MEAN			ND			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0027			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	ND	ND	ND	ND	ND	TR
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				ND		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	ND	ND	ND	ND	ND	0.002
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.0195	ND		ND	ND	0.001
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0039		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	ND	ND	ND	ND	0.001
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	ND	ND	0.0068		0.001
		STD			0.0144		
	RING-BILLED GULL	N				1	
		MEAN				0.002	
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
HEXACHLOROBENZENE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0109		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0285	0.0303	0.0112	0.0286	0.017
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.0082		0.006	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0494	0.0522	0.0217	0.0334	0.02
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0091		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.0812	0.0469			
		STD		0.0013			
	HERRING GULL	N	1	1			
		MEAN	0.0475	0.0571			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0112		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.1192	0.0869			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.0418	0.0567			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	0.1064				
		STD					
	HERRING GULL	N	1				
		MEAN	0.0473				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0222	0.031	0.0181	0.0409	0.01
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0161		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0272	0.031	0.0249	0.0321	0.009
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.0265		0.006	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
HEXACHLOROBENZENE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0369	0.0356	0.0253	0.0302	0.006
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	1		1	1	1
		MEAN	0.0191		0.023	0.0217	0.007
		STD					
MIDDLE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0209	0.0308	0.0278	0.0294	0.011
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0182		
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		0.0372			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0219	0.0248	0.0218	0.0213	0.007
		STD					
	RING-BILLED GULL	N				1	
		MEAN				0.006	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0252	0.0245	0.0268	0.0296	0.107	0.012
		STD		0.0099				
MAIDEN ISLAND	HERRING GULL	N	1					
		MEAN	0.0398					
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		13	1	1	1	1
		MEAN		0.0271	0.0414	0.0283	0.0495	0.023
		STD		0.0230				
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.014		
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
HEXACHLOROBENZENE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.0695			
		STD						
	HERRING GULL	N			1			
		MEAN			0.0292			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.0349			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0077			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0337	0.0397	0.034	0.0226	0.0474	0.02
		STD		0.0526				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.013		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.0702	0.0524	0.0580	0.0259	0.0398	0.029
		STD			0.0228			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.0293					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.0247	0.0222		0.0248		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.0435	0.0326		0.0301	0.0341	0.017
		STD		0.0105				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0116		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	0.0201	0.0236	0.0258	0.04	0.013
		STD			0.0137		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.0402	0.0444	0.0223		0.012
		STD			0.0074		
	RING-BILLED GULL	N				1	
		MEAN				0.017	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.0252	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DDD

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0012		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	0.002
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		TR	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	0.002
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0025		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	ND	0.0042			
		STD		0.0055			
	HERRING GULL	N	1	1			
		MEAN	ND	0.0069			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.007		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	ND	0.0166			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.0138	0.0101			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	ND				
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0068	0.0082	ND	ND	0.002
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0094		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0078	0.0082	ND	ND	0.003
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		ND		TR	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DDD

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0073	ND	ND	ND	0.002
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	0.002
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0081	0.01	0.0095	0.0093	0.004
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.0063		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		0.0175			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	0.0257	0.0133	ND	0.011	0.005
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				TR	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND	0.001
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		0.058	0.0283	0.0223	0.026	0.018
ISLAND		STD		0.0422				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.003		
	CORMORANT	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DDD

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			ND			
		STD						
	HERRING GULL	N			1			
		MEAN			ND			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	ND	ND	ND	ND	ND	0.001
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0019		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.0081	0.0126	0.0077	ND	0.0082	0.004
		STD			0.0089			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.0097					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.014	0.0142		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.0083	0.0011		0.0073	ND	0.003
		STD		0.0026				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0049		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	ND	ND	0.0074	ND	TR
		STD			0.0213		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	ND	ND	ND		TR
		STD					
	RING-BILLED GULL	N				1	
		MEAN				TR	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				ND	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DDE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			1.625		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	3.004	2.7792	1.9829	2.4391	1.697
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.3681		0.545	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	6.6153	4.0099	2.5882	2.623	2.818
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			2.3272		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	10.2415	8.5447			
		STD		0.3297			
	HERRING GULL	N	1	1			
		MEAN	5.5359	5.8549			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			1.5737		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	14.1681	14.8794			
		STD					
	HERRING GULL	N	1	1			
		MEAN	6.3295	6.9729			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	21.1277				
		STD					
	HERRING GULL	N	1				
		MEAN	6.6442				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	3.9155	3.6433	1.8565	3.433	1.952
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			3.2938		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	4.0937	2.961	1.8441	2.8782	1.73
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		1.6879		0.608	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DDE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	1.6678	1.8086	1.161	1.51	0.796
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	0.9774		0.8794	1.1507	0.639
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	1.9952	2.181	1.9692	1.3458	0.847
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			2.4032		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		2.752			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	2.1415	1.6839	1.5336	1.1585	0.959
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				0.515	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	2.4844	2.674	1.2663	1.572	1.3491	1.176
		STD		2.6893				
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	5.8624					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		14.8343	7.7752	4.2271	4.3498	3.495
ISLAND		STD		11.1302				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				2.8034		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DDE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			9.9971			
		STD						
	HERRING GULL	N			1			
		MEAN			2.8123			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			2.5134			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.4965			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	3.7473	3.6693	3.0951	1.6301	2.6556	1.343
		STD		2.5063				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				2.2593		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	11.0349	11.9428	12.2373	4.8426	6.0995	9.127
		STD			7.4297			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	10.937					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	7.4503	6.3078		6.1193		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	8.0899	6.3748		7.9167	3.9456	5.673
		STD		2.1244				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			2.8321		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	2.9685	1.7711	2.2858	2.8833	1.298
		STD			1.481		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	5.1978	3.0133	2.6793		2.366
		STD			1.2498		
	RING-BILLED GULL	N				1	
		MEAN				1.362	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				2.6947	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DDT

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0086		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0189	0.0139	0.0089	0.0087	0.004
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.0065		0.002	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0533	0.0295	0.0139	0.0087	0.007
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0117		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.0208	0.0165			
		STD		0.0103			
	HERRING GULL	N	1	1			
		MEAN	0.0433	0.0224			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0103		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.0274	0.0242			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.0465	0.0301			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	0.0572				
		STD					
	HERRING GULL	N	1				
		MEAN	0.0584				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0244	0.0144	0.0156	0.0116	0.004
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0217		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0286	0.0144	0.0388	0.0056	0.006
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.0113		0.007	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DDT

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	0.0105	0.0083	0.0088	0.002
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	1		1	1	1
		MEAN	0.0139		0.0142	0.0083	0.002
		STD					
MIDDLE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0082	0.0087	0.0180	ND	0.002
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0172		
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		0.0096			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0102	0.0075	0.0238	ND	TR
		STD					
	RING-BILLED GULL	N				1	
		MEAN				0.003	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0242	0.0098	0.0193	0.0328	0.0471	0.008
		STD		0.0089				
MAIDEN ISLAND	HERRING GULL	N	1					
		MEAN	0.0205					
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		13	1	1	1	1
		MEAN		ND	0.0213	0.0331	0.022	0.01
		STD						
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0189		
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DDT

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.0731			
		STD						
	HERRING GULL	N			1			
		MEAN			0.0354			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.0347			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0067			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0162	0.0043	0.0475	0.0374	0.0344	0.009
		STD		0.0068				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0131		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.0492	0.0947	0.0694	0.0462	0.0669	0.022
		STD			0.0425			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.0383					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.0354	0.0541		0.0414		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.0618	0.0385		0.0681	0.0439	0.015
		STD		0.018				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0169		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	0.0097	0.0335	0.0431	0.0449	0.005
		STD			0.0349		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.018	0.07	0.029		0.006
		STD			0.0139		
	RING-BILLED GULL	N				1	
		MEAN				TR	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.034	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DIELDRIN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0249		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0683	0.066	0.0348	0.0799	0.049
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.0534		0.122	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.1702	0.1547	0.0501	0.0911	0.066
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0505		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.1736	0.1185			
		STD		0.0252			
	HERRING GULL	N	1	1			
		MEAN	0.1283	0.1074			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0266		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.3869	0.3003			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.1701	0.1947			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	0.3368				
		STD					
	HERRING GULL	N	1				
		MEAN	0.1401				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0921	0.096	0.0532	0.1066	0.04
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0741		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.1062	0.0504	0.0853	0.0501	0.025
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.2353		0.081	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DIELDRIN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.1127	0.063	0.0527	0.0598	0.02
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	0.0909		0.0597	0.0539	0.047
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.1027	0.0847	0.098	0.074	0.049
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.0816		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		0.0871			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	0.0808	0.0504	0.0275	0.0504	0.046
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				0.11	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	0.236	0.229	0.0903	0.1129	0.1328	0.072
		STD		0.1704				
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.3378					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		0.1882	0.079	0.0641	0.0944	0.051
ISLAND		STD		0.1139				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0644		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
DIELDRIN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.7061			
		STD						
	HERRING GULL	N			1			
		MEAN			0.1473			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.1451			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.1657			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.2006	0.1462	0.1793	0.0779	0.1309	0.056
		STD		0.0608				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0662		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.3922	0.4853	0.4221	0.1396	0.2117	0.227
		STD			0.1945			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.2454					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.144	0.1134		0.1124		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.2539	0.3167		0.2486	0.1543	0.133
		STD		0.2537				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0939		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	0.1415	0.1307	0.1178	0.1534	0.06
		STD			0.0756		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.2368	0.1775	0.0939		0.081
		STD			0.0509		
	RING-BILLED GULL	N				1	
		MEAN				0.314	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.0972	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
HEPTACHLOR EPOXIDE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0112		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0379	0.0422	0.0202	0.0335	0.017
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.0119		0.014	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0843	0.0799	0.0311	0.0416	0.026
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.017		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.0972	0.0708			
		STD		0.0203			
	HERRING GULL	N	1	1			
		MEAN	0.0629	0.0697			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.01		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.1345	0.137			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.0639	0.1069			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	0.1373				
		STD					
	HERRING GULL	N	1				
		MEAN	0.0664				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0583	0.039	0.0242	0.0449	0.017
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0221		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0393	0.0306	0.0581	0.0266	0.015
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.042		0.017	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
HEPTACHLOR EPOXIDE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0419	0.0342	0.021	0.0333	0.01
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	0.0339		0.0234	0.0281	0.018
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0503	0.0575	0.0533	0.0406	0.029
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.027		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		0.0511			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	0.0401	0.0298	0.0168	0.0309	0.016
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				0.025	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	0.11	0.1155	0.0506	0.0633	0.0494	0.035
		STD		0.0896				
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.1856					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		0.0716	0.0752	0.045	0.0638	0.032
ISLAND		STD		0.0576				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0254		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
HEPTACHLOR EPOXIDE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.2068			
		STD						
	HERRING GULL	N			1			
		MEAN			0.0689			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.079			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0313			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.1185	0.0989	0.1135	0.0533	0.0773	0.034
		STD		0.054				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0291		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.3203	0.3618	0.3095	0.112	0.1362	0.177
		STD			0.1707			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.1783					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.1228	0.099		0.0988		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.1981	0.1733		0.1795	0.0879	0.105
		STD		0.0734				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0337		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	0.0996	0.1111	0.0769	0.0996	0.037
		STD			0.0407		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.1635	0.1072	0.0863		0.054
		STD			0.0564		
	RING-BILLED GULL	N				1	
		MEAN				0.066	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.0876	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
ALPHA-HEXACHLOROCYCLOHEXANE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0033		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		ND	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0028		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0028		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	ND				
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.003		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
ALPHA-HEXACHLOROCYCLOHEXANE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	ND
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.0034		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				ND	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND	ND
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		ND	ND	ND	ND	ND
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0043		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
ALPHA-HEXACHLOROCYCLOHEXANE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			ND			
		STD						
	HERRING GULL	N			1			
		MEAN			ND			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	ND	ND	ND	ND	ND	ND
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0031		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	ND	ND	ND	ND	ND	ND
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	ND	ND		ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0026		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	ND	ND	ND		ND
		STD					
	RING-BILLED GULL	N				1	
		MEAN				ND	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				ND	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
BETA-HEXACHLOROCYCLOHEXANE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.002		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		ND	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0021		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	ND				
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0027		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
BETA-HEXACHLOROCYCLOHEXANE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	ND
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.002		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				ND	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND	ND
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		ND	ND	ND	ND	ND
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0023		
	CORMORANT	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
BETA-HEXACHLOROCYCLOHEXANE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			ND			
		STD						
	HERRING GULL	N			1			
		MEAN			ND			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	ND	ND	ND	ND	ND	ND
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0021		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	ND	ND	ND	ND	ND	ND
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	ND	ND		ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0022		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	ND	ND	ND		ND
		STD					
	RING-BILLED GULL	N				1	
		MEAN				ND	
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
GAMMA-HEXACHLOROCYCLOHEXANE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			ND		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		ND	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0012		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	ND	ND			
		STD		0			
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0008		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	ND	ND			
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	ND				
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0059		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
GAMMA-HEXACHLOROCYCLOHEXANE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	ND
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.0012		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				ND	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	ND	ND	ND	ND	ND	ND
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		ND	ND	ND	ND	ND
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0011		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
GAMMA-HEXACHLOROCYCLOHEXANE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			ND			
		STD						
	HERRING GULL	N			1			
		MEAN			ND			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	ND	ND	ND	ND	ND	ND
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0009		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	ND	ND	ND	ND	ND	ND
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	ND	ND		ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0011		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	ND	ND	ND		ND
		STD					
	RING-BILLED GULL	N				1	
		MEAN				ND	
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TOTAL MERCURY IN HERRING GULL EGGS (FOR 1992 ONLY)

ST. LAWRENCE RIVER			YEAR
			92
COLONY	SPECIES		
STRACHAN	HERRING	N	1
ISLAND	GULL	MEAN	0.1679
		STD	

LAKE ONTARIO			YEAR
			92
COLONY	SPECIES		
SNAKE ISLAND	HERRING	N	1
	GULL	MEAN	0.2139
		STD	
LESLIE	HERRING	N	1
STREET SPIT	GULL	MEAN	0.175
		STD	
HAMILTON	HERRING	N	1
HARBOUR	GULL	MEAN	0.1248
		STD	

NIAGARA RIVER			YEAR
			92
COLONY	SPECIES		
NIAGARA RIVER	HERRING	N	1
	GULL	MEAN	0.161
		STD	

LAKE ERIE			YEAR
			92
COLONY	SPECIES		
PORT	HERRING	N	1
COLBORNE	GULL	MEAN	0.1365
LIGHTHOUSE		STD	
MIDDLE ISLAND	HERRING	N	1
	GULL	MEAN	0.1518
		STD	

DETROIT RIVER			YEAR
			92
COLONY	SPECIES		
FIGHTING	HERRING	N	1
ISLAND	GULL	MEAN	0.138
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TOTAL MERCURY IN HERRING GULL EGGS (FOR 1992 ONLY)

LAKE HURON			YEAR
			92
COLONY	SPECIES		
CHANTRY	HERRING	N	1
ISLAND	GULL	MEAN	0.1512
		STD	
CHANNEL	HERRING	N	1
SHELTER	GULL	MEAN	0.2448
ISLAND		STD	
ST. MARTIN'S	HERRING	N	1
SHOAL	GULL	MEAN	0.165
		STD	
DOUBLE	HERRING	N	1
ISLAND	GULL	MEAN	0.1968
		STD	

LAKE MICHIGAN			YEAR
			92
COLONY	SPECIES		
GULL ISLAND	HERRING	N	1
	GULL	MEAN	0.1404
		STD	
BIG SISTER	HERRING	N	1
ISLAND	GULL	MEAN	0.2525
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TOTAL MERCURY IN HERRING GULL EGGS (FOR 1992 ONLY)

LAKE SUPERIOR			YEAR
			92
COLONY	**SPECIES**		
CHENE ISLAND	HERRING	N	1
	GULL	MEAN	0.1296
		STD	
AGAWA ROCK	HERRING	N	1
	GULL	MEAN	0.1525
		STD	
MARATHON	HERRING	N	1
	GULL	MEAN	0.115
		STD	
LEADMAN	HERRING	N	1
ISLAND	GULL	MEAN	0.195
		STD	
LITTLE	HERRING	N	1
TRAVERSE	GULL	MEAN	0.1976
ISLAND		STD	
LAKE LINDEN/	HERRING	N	1
TORCH ISLAND	GULL	MEAN	0.1846
		STD	
GRANITE	HERRING	N	1
ISLAND	GULL	MEAN	0.1675
		STD	
PAPOOSE	HERRING	N	1
ISLAND	GULL	MEAN	0.1664
		STD	
MUTTON	HERRING	N	1
ISLAND	GULL	MEAN	0.13
		STD	
GULL ISLAND	HERRING	N	1
	GULL	MEAN	0.2275
		STD	
KNIFE ISLAND	HERRING	N	1
	GULL	MEAN	0.185
		STD	

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TRIS (4-CHLOROPHENYL) METHANOL

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0131		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0102	0.0081	0.004	ND	ND
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		ND	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0171	0.0138	0.0073	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0057		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.0342	0.0237			
		STD		0.0002			
	HERRING GULL	N	1	1			
		MEAN	0.0161	0.0131			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0081		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.0375	0.0316			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.0189	0.019			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	0.0426				
		STD					
	HERRING GULL	N	1				
		MEAN	0.0168				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0101	0.0096	0.0067	0.0102	ND
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0095		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0106	0.0089	0.0095	ND	ND
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.0029		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TRIS (4-CHLOROPHENYL) METHANOL

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0087	0.0125	0.0043	ND	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	0.0095		0.0037	ND	ND
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0092	0.0106	0.0103	ND	ND
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.0172		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		0.0099			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	0.0094	0.0074	0.005	ND	ND
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				ND	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	0.0098	0.0098	0.0106	0.0059	ND	ND
		STD		0.0065				
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.015					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		0.0266	0.0202	0.0147	0.0199	0.011
ISLAND		STD		0.0176				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0175		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TRIS (4-CHLOROPHENYL) METHANOL

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON	GREAT BLACK-	N			1			
ISLAND	BACKED GULL	MEAN			0.0211			
		STD						
	HERRING	N			1			
	GULL	MEAN			0.0084			
		STD						
MOUSE ISLAND	HERRING	N			1			
	GULL	MEAN			0.0108			
		STD						
GERTRUDE	RING-BILLED	N			1			
ISLAND	GULL	MEAN			0.0032			
		STD						
DOUBLE	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	0.0128	0.0092	0.0152	0.0066	0.0086	ND
		STD		0.0059				
AFRICA ROCK	DOUBLE-	N				1		
	CRESTED	MEAN				0.012		
	CORMORANT	STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING	N	1	1	12	1	1	1
	GULL	MEAN	0.0373	0.0298	0.0254	0.0128	0.0214	0.016
		STD			0.0109			
GARY, INDIANA	HERRING	N	1					
	GULL	MEAN	0.02					
		STD						
EAST CHICAGO	HERRING	N	1	1		1		
	GULL	MEAN	0.015	0.0109		0.0129		
		STD						
BIG SISTER	HERRING	N	1	13		1	1	1
ISLAND	GULL	MEAN	0.02	0.0168		0.0168	0.0135	0.008
		STD		0.0047				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.0111		
	CORMORANT	STD					
AGAWA ROCK	HERRING	N	1	1	13	1	1
	GULL	MEAN	0.0095	0.0153	0.0082	0.0094	ND
		STD			0.0036		
GRANITE	HERRING	N	1	1	13		1
ISLAND	GULL	MEAN	0.0144	0.0105	0.0073		0.005
		STD			0.0024		
	RING-BILLED	N				1	
	GULL	MEAN				ND	
		STD					
SILVER ISLET	HERRING	N				1	
	GULL	MEAN				0.1114	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
MIREX

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.159		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.5476	0.5745	0.481	0.5414	0.351
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.0152		0.016	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.8698	0.7429	0.5349	0.5738	0.488
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.2957		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	1.5501	1.5843			
		STD		0.1324			
	HERRING GULL	N	1	1			
		MEAN	0.764	1.1014			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.2044		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	2.1956	2.4325			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.9369	1.151			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	3.3238				
		STD					
	HERRING GULL	N	1				
		MEAN	0.9087				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.7639	0.861	0.6001	0.7774	0.431
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.3764		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.5407	0.5521	0.0559	0.5713	0.278
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.2022		0.06	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
MIREX

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	1	1	1	1	1
		MEAN	0.2278	0.3001	0.173	0.2311	0.077
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	1		1	1	1
		MEAN	0.1153		0.1081	0.1139	0.028
		STD					
MIDDLE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0328	0.0439	0.031	0.0608	0.008
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.031		
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		0.0335			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0385	0.0055	0.1164	0.0288	0.014
		STD					
	RING-BILLED GULL	N				1	
		MEAN				0.005	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0798	0.0322	0.0623	0.0687	0.1077	0.034
		STD		0.0169				
MAIDEN ISLAND	HERRING GULL	N	1					
		MEAN	0.0636					
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		13	1	1	1	1
		MEAN		0.065	0.0715	0.0699	0.1089	0.057
		STD		0.052				
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0916		
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
MIREX

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.2264			
		STD						
	HERRING GULL	N			1			
		MEAN			0.0974			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.2094			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0065			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0879	0.0892	0.1434	0.0501	0.1726	0.023
		STD		0.0766				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0295		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.1355	0.0965	0.1033	0.0537	0.0787	0.04
		STD			0.0722			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.074					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.0624	0.0541		0.0489		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.0484	0.0725		0.045	0.0353	0.021
		STD		0.0733				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0532		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	0.0806	0.0938	0.0847	0.0785	0.017
		STD			0.0683		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.0691	0.109	0.0832		0.017
		STD			0.1063		
	RING-BILLED GULL	N				1	
		MEAN				0.038	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.0458	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PHOTOMIREX

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0485		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.2092	0.203	0.1724	0.2099	0.121
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.0061		0.01	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.3722	0.2884	0.2148	0.2283	0.192
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.1152		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.645	0.5471			
		STD		0.1584			
	HERRING GULL	N	1	1			
		MEAN	0.3318	0.326			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0667		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.9030	0.9871			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.3731	0.4271			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	1.3694				
		STD					
	HERRING GULL	N	1				
		MEAN	0.3832				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.3032	0.2428	0.2093	0.326	0.157
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.149		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.215	0.1511	0.0275	0.2248	0.103
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.0716		0.022	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PHOTOMIREX

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0928	0.0803	0.0645	ND	0.031
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	0.0455		0.0454	0.0464	0.012
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.013	0.1934	ND	0.0234	0.003
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.0119		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	0.0136	0.2104	0.0471	ND	0.004
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				0.002	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	0.041	0.0216	0.0179	0.0367	0.0438	0.018
		STD		0.0132				
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.0446					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		0.0281	0.2922	0.0361	0.043	0.029
ISLAND		STD		0.0303				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0341		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PHOTOMIREX

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	**SPECIES**							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.1088			
		STD						
	HERRING GULL	N			1			
		MEAN			0.0502			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.0919			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0458	0.0437	0.0649	0.025	0.0768	0.014
		STD		0.0291				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0141		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	**SPECIES**							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.0779	0.0504	0.3625	0.0301	0.046	0.036
		STD			0.2493			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	0.0319		0.0315		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	ND	0.0265		0.0313	0.0271	0.018
		STD		0.0329				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0171		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	0.0418	0.0831	0.0417	0.0457	0.011
		STD			0.0337		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.0386	0.0433	0.0395		0.013
		STD			0.0449		
	RING-BILLED GULL	N				1	
		MEAN				0.021	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.1257	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
CIS-NONACHLOR

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0082		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0301	0.0272	0.0194	0.0272	0.015
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		0.006	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.063	0.0568	0.0326	0.0343	0.027
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0357		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.0549	0.0564			
		STD		0.0002			
	HERRING GULL	N	1	1			
		MEAN	0.0505	0.0515			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0099		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.0602	0.0789			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.0561	0.0576			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	0.2092				
		STD					
	HERRING GULL	N	1				
		MEAN	0.0614				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0334	0.0404	0.0226	0.0401	0.017
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0183		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0348	0.0308	0.0526	0.0263	0.015
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.0233		0.009	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
CIS-NONACHLOR

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0293	0.034	0.0206	0.031	0.008
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	1		1	1	1
		MEAN	0.0257		0.0208	0.0258	0.014
		STD					
MIDDLE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0335	0.0377	0.0413	0.038	0.015
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0172		
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		0.0358			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0261	0.0254	0.0146	0.0202	0.01
		STD					
	RING-BILLED GULL	N				1	
		MEAN				0.005	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0569	0.056	0.0347	0.0503	0.0487	0.026
		STD		0.0275				
MAIDEN ISLAND	HERRING GULL	N	1					
		MEAN	0.09					
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		13	1	1	1	1
		MEAN		0.0662	0.0532	0.0335	0.0466	0.028
		STD		0.0354				
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0157		
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
CIS-NONACHLOR

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.2433			
		STD						
	HERRING GULL	N			1			
		MEAN			0.0729			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.0662			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0071			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0702	0.0551	0.0753	0.05	0.0584	0.031
		STD		0.0207				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0117		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.0764	0.1308	0.1196	0.0695	0.0778	0.132
		STD			0.0629			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.073					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.0687	0.0598		0.0603		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.0894	0.0837		0.1024	0.0635	0.074
		STD		0.0189				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.02		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	0.0564	0.0503	0.0552	0.0659	0.028
		STD			0.0386		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.072	0.0841	0.0508		0.037
		STD			0.0255		
	RING-BILLED GULL	N				1	
		MEAN				0.02	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.0585	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TRANS-NONACHLOR

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.01		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0577	0.0641	0.0473	0.0574	0.009
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.0367		0.031	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0896	0.0823	0.0389	0.0409	0.015
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0095		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.1452	0.1484			
		STD		0.0139			
	HERRING GULL	N	1	1			
		MEAN	0.0899	0.0704			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0077		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.2201	0.2666			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.0875	0.0968			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	0.3923				
		STD					
	HERRING GULL	N	1				
		MEAN	0.0845				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0813	0.0610	0.0303	0.0737	0.017
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0143		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0617	0.042	0.0548	0.0314	0.011
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.1013		0.039	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TRANS-NONACHLOR

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0409	0.0398	0.0368	0.0358	0.005
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	0.033		0.0404	0.0303	0.009
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	0.0591	0.0569	0.0644	0.0677	0.009
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			0.0182		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		0.0695			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	0.0510	0.0454	0.0256	0.0374	0.007
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				0.037	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	0.0835	0.0754	0.029	0.0695	0.0779	0.018
		STD		0.0424				
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.0975					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		0.2023	0.1415	0.0795	0.1157	0.022
ISLAND		STD		0.1011				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				0.0126		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TRANS-NONACHLOR

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.7552			
		STD						
	HERRING GULL	N			1			
		MEAN			0.0848			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.0655			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0554			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0769	0.0652	0.0737	0.0498	0.0745	0.017
		STD		0.0189				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0089		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	0.1282	0.1816	0.2023	0.0989	0.1242	0.099
		STD			0.0882			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.1332					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.1287	0.1084		0.1083		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	0.1358	0.117		0.148	0.1002	0.041
		STD		0.0378				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0099		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	0.0646	0.0526	0.0515	0.0816	0.016
		STD			0.0329		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.1	0.1055	0.0681		0.02
		STD			0.06		
	RING-BILLED GULL	N				1	
		MEAN				0.145	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.0597	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OCTACHLOROSTYRENE

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0114		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0187	0.0172	ND	0.0137	0.005
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		ND		0.001	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0322	0.0246	ND	0.0131	0.009
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0092		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	0.043	0.0349			
		STD		0.0052			
	HERRING GULL	N	1	1			
		MEAN	0.0288	0.036			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0075		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	0.0558	0.0613			
		STD					
	HERRING GULL	N	1	1			
		MEAN	0.0304	0.0284			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	0.0962				
		STD					
	HERRING GULL	N	1				
		MEAN	0.0229				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0141	ND	ND	0.0138	0.004
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0183		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	0.018	0.0142	ND	ND	ND
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		0.0084		0.003	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OCTACHLOROSTYRENE

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0163	ND	ND	ND	0.002
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	1		1	1	1
		MEAN	0.0088		ND	ND	0.003
		STD					
MIDDLE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.017	0.0208	0.0201	0.0161	0.008
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0197		
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		0.0722			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	0.0208	0.0282	ND	0.0177	0.009
		STD					
	RING-BILLED GULL	N				1	
		MEAN				0.004	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0089	0.0046	ND	ND	0.0252	0.003
		STD		0.0045				
MAIDEN ISLAND	HERRING GULL	N	1					
		MEAN	0.0125					
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		13	1	1	1	1
		MEAN		0.049	0.0545	0.0187	0.0449	0.017
		STD		0.0366				
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0103		
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OCTACHLOROSTYRENE

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			0.023			
		STD						
	HERRING GULL	N			1			
		MEAN			ND			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0022			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	0.0107	0.0072	ND	ND	ND	0.004
		STD		0.0132				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				0.0127		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	ND	ND	0.0074	ND	ND	0.004
		STD			0.0096			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	ND	ND		ND	ND	0.002
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			0.0071		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	0.0065	ND	ND	ND	0.002
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	0.0097	ND	ND		0.002
		STD					
	RING-BILLED GULL	N				1	
		MEAN				ND	
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB: 1260

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			4.8709		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	8.2893	9.2519	8.0301	8.184	6.7273
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.3938		0.3558	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	9.172	8.5821	6.9699	6.2562	7.0056
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			5.4733		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	23.8573	20.2936			
		STD		0.2925			
	HERRING GULL	N	1	1			
		MEAN	8.8672	11.6604			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			3.1868		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	31.4041	33.0507			
		STD					
	HERRING GULL	N	1	1			
		MEAN	10.4712	13.5744			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	37.27				
		STD					
	HERRING GULL	N	1				
		MEAN	11.3224				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	9.6681	12.3646	7.2975	8.9991	5.4957
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			7.2915		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	10.4024	11.0301	4.2468	9.0585	7.1549
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		3.0717		0.8942	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB: 1260

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	7.3865	8.8057	6.2906	5.724	2.8535
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	5.7928		6.5658	5.8014	4.5252
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	17.4089	19.9493	22.1866	12.0447	13.32
		STD					
EAST SISTER	DOUBLE-	N			1		
ISLAND	CRESTED	MEAN			15.461		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		22.2365			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	1	1	1	1	1
ISLAND	GULL	MEAN	16.5004	15.9751	13.5193	11.006	13.8319
		STD					
	RING-BILLED	N				1	
	GULL	MEAN				1.5328	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	10	1	1	1	1
ISLAND	GULL	MEAN	3.9471	4.1587	4.9604	4.6285	3.1049	2.5274
		STD		2.1864				
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	6.7795					
		STD						
CHANNEL	HERRING	N		13	1	1	1	1
SHELTER	GULL	MEAN		35.0583	20.0877	11.1221	12.2021	15.1234
ISLAND		STD		22.0241				
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				1		
ROCKS	CRESTED	MEAN				4.5111		
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB: 1260

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			15.5004			
		STD						
	HERRING GULL	N			1			
		MEAN			4.8014			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			6.7188			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			1.3913			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	5.0473	5.2292	6.2795	3.6492	5.4325	2.359
		STD		2.9725				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				4.7441		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	16.9433	13.4351	16.4035	7.6217	8.2296	14.1889
		STD			7.0541			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	17.4076					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	15.4961	11.6999		9.7799		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	11.411	8.9391		9.638	5.8366	8.1895
		STD		1.74				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			2.5206		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	4.043	4.6604	4.1722	4.6681	1.9493
		STD			1.8529		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	8.7734	6.4497	5.014		4.1951
		STD			1.8313		
	RING-BILLED GULL	N				1	
		MEAN				1.7427	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				4.2872	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB: 1254-1260

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			8.6261		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	18.809	19.9973	16.2863	16.9023	13.9758
		STD					
	RING-BILLED GULL	N		1		1	
		MEAN		0.9652		0.9178	
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	23.3367	19.9495	14.7552	13.9862	14.997
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			9.6393		
		STD					
	GREAT BLACK-BACKED GULL	N	1	2			
		MEAN	48.6826	40.4849			
		STD		2.1788			
	HERRING GULL	N	1	1			
		MEAN	21.5161	26.6913			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			6.1069		
		STD					
	GREAT BLACK-BACKED GULL	N	1	1			
		MEAN	60.5095	62.9434			
		STD					
	HERRING GULL	N	1	1			
		MEAN	23.584	29.2399			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1				
		MEAN	79.2119				
		STD					
	HERRING GULL	N	1				
		MEAN	23.836				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	18.7803	19.5165	12.3745	18.2558	10.6616
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			13.2041		
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	21.3611	21.0408	9.7111	17.7518	12.7216
		STD					
	RING-BILLED GULL	N		2		1	
		MEAN		5.7198		2.0137	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB: 1254-1260

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	1	1	1	1	1
		MEAN	14.6521	14.5571	11.0387	11.2764	5.1588
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	1		1	1	1
		MEAN	11.1159		11.0278	10.0212	7.6467
		STD					
MIDDLE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	32.255	34.7128	36.1196	21.0039	19.51
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			20.8285		
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		37.8529			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	26.7964	25.3828	20.7335	17.3626	19.6114
		STD					
	RING-BILLED GULL	N				1	
		MEAN				2.7397	
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	10.0505	9.7176	8.2551	9.5022	7.2977	5.4788
		STD		5.8754				
MAIDEN ISLAND	HERRING GULL	N	1					
		MEAN	17.9956					
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		13	1	1	1	1
		MEAN		86.0517	47.4151	24.6275	28.4149	32.5213
		STD		51.6295				
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				8.5324		
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB: 1254-1260

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1			
		MEAN			33.7786			
		STD						
	HERRING GULL	N			1			
		MEAN			10.0895			
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			14.8221			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			2.5174			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1
		MEAN	12.8246	12.1767	14.1528	8.4095	12.7966	5.5758
		STD		6.6934				
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1		
		MEAN				8.9277		
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1
		MEAN	39.4796	37.8229	38.4749	20.0082	22.7412	41.7763
		STD			18.0638			
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	39.9249					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	31.4744	26.0042		22.9844		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1
		MEAN	28.0161	23.1925		26.556	16.8285	24.8698
		STD		5.1023				

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1		
		MEAN			5.4199		
		STD					
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1
		MEAN	10.9745	11.2955	10.1488	12.6327	5.4368
		STD			4.6858		
GRANITE ISLAND	HERRING GULL	N	1	1	13		1
		MEAN	20.3893	13.3169	12.1882		11.1699
		STD			3.8763		
	RING-BILLED GULL	N				1	
		MEAN				5.2055	
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				9.412	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TOTAL PCB CONGENERS

ST. LAWRENCE RIVER			YEAR					
			93	94	95	96	97 [A]	97 [B]
COLONY	SPECIES							
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			1			
		MEAN			4.79648			
		STD						
	HERRING GULL	N	1	1	1	1	1	1
		MEAN	9.6923	10.7764	8.2678	9.7064	8.461	9.531
		STD						
	RING-BILLED GULL	N		1		1		
		MEAN		0.4606		0.5498		
		STD						

LAKE ONTARIO			YEAR					
			93	94	95	96	97 [A]	97 [B]
COLONY	SPECIES							
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1	1
		MEAN	10.3326	9.1722	6.9411	7.1097	7.659	8.369
		STD						
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			1			
		MEAN			4.7714			
		STD						
	GREAT BLACK-BACKED GULL	N	1	2				
		MEAN	22.6768	18.4868				
		STD		1.2851				
	HERRING GULL	N	1	1				
		MEAN	10.1052	12.1533				
		STD						
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			1			
		MEAN			3.1171			
		STD						
	GREAT BLACK-BACKED GULL	N	1	1				
		MEAN	28.8328	29.6779				
		STD						
	HERRING GULL	N	1	1				
		MEAN	11.1744	13.4863				
		STD						
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	1					
		MEAN	36.8039					
		STD						
	HERRING GULL	N	1					
		MEAN	10.9604					
		STD						
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1	1
		MEAN	8.4112	9.1599	5.6317	8.9432	5.277	5.765
		STD						
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			1			
		MEAN			6.6009			
		STD						
	HERRING GULL	N	1	1	1	1	1	1
		MEAN	9.4083	9.746	4.1956	8.691	6.583	7.111
		STD						
	RING-BILLED GULL	N		2		1		
		MEAN		2.7318		1.1866		
		STD						

[A] Based on 42 congeners; [B] Based on 59 congeners. 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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TOTAL PCB CONGENERS

NIAGARA RIVER			YEAR					
			93	94	95	96	97 [A]	97 [B]
COLONY	SPECIES							
NIAGARA RIVER	HERRING	N	1	1	1	1	1	1
	GULL	MEAN	6.7888	6.8017	5.1447	5.4797	2.692	2.946
		STD						

LAKE ERIE			YEAR					
			93	94	95	96	97 [A]	97 [B]
COLONY	SPECIES							
PORT	HERRING	N	1		1	1	1	1
COLBORNE	GULL	MEAN	5.1087		5.3081	5.1733	4.021	4.368
LIGHTHOUSE		STD						
MIDDLE ISLAND	HERRING	N	1	1	1	1	1	1
	GULL	MEAN	14.4285	16.3372	17.6795	11.1902	10.254	11.04
		STD						
EAST SISTER	DOUBLE-	N			1			
ISLAND	CRESTED	MEAN			11.3499			
	CORMORANT	STD						
MIDDLE SISTER	HERRING	N		1				
ISLAND	GULL	MEAN		19.1234				
		STD						

DETROIT RIVER			YEAR					
			93	94	95	96	97 [A]	97 [B]
COLONY	SPECIES							
FIGHTING	HERRING	N	1	1	1	1	1	1
ISLAND	GULL	MEAN	13.1941	12.4041	10.2019	9.3772	10.416	11.268
		STD						
	RING-BILLED	N				1		
	GULL	MEAN				1.6624		
		STD						

LAKE HURON			YEAR						
			93	93	94	95	96	97 [A]	97 [B]
COLONY	SPECIES								
CHANTRY	HERRING	N	1	10	1	1	1	1	1
ISLAND	GULL	MEAN	4.6309	4.6876	3.881	4.4415	3.7908	2.859	3.172
		STD		2.5051					
MAIDEN ISLAND	HERRING	N	1						
	GULL	MEAN	7.9089						
		STD							
CHANNEL	HERRING	N		13	1	1	1	1	1
SHELTER	GULL	MEAN		43.8245	25.1145	13.3258	16.9642	19.425	21.406
ISLAND		STD		25.9115					
DUCK ISLAND	HERRING	N	0						
	GULL	MEAN							
		STD							
GULL ISLAND	HERRING	N	0						
	GULL	MEAN							
		STD							
WALLIS	DOUBLE-	N				1			
ROCKS	CRESTED	MEAN				4.0141			
	CORMORANT	STD							

[A] Based on 42 congeners; [B] Based on 59 congeners. 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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
TOTAL PCB CONGENERS

LAKE HURON (CONT.)			YEAR						
			93	93	94	95	96	97 [A]	97 [B]
COLONY	SPECIES								
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			1				
		MEAN			15.6438				
		STD							
	HERRING GULL	N			1				
		MEAN			4.3586				
		STD							
MOUSE ISLAND	HERRING GULL	N			1				
		MEAN			6.6835				
		STD							
GERTRUDE ISLAND	RING-BILLED GULL	N			1				
		MEAN			1.2017				
		STD							
DOUBLE ISLAND	HERRING GULL	N	1	10	1	1	1	1	1
		MEAN	5.6101	5.4772	6.2061	3.5978	5.9045	2.843	3.131
		STD		2.8403					
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				1			
		MEAN				4.2534			
		STD							

LAKE MICHIGAN			YEAR						
			93	94	94	95	96	97 [A]	97 [B]
COLONY	SPECIES								
GULL ISLAND	HERRING GULL	N	1	1	12	1	1	1	1
		MEAN	17.582	16.2357	17.0556	8.4418	10.429	20.043	21.884
		STD			7.7262				
GARY, INDIANA	HERRING GULL	N	1						
		MEAN	17.7352						
		STD							
EAST CHICAGO	HERRING GULL	N	1	1		1			
		MEAN	15.8706	12.9526		11.5159			
		STD							
BIG SISTER ISLAND	HERRING GULL	N	1	13		1	1	1	1
		MEAN	13.6776	9.7968		12.6348	7.8404	13.251	14.491
		STD		1.9205					

LAKE SUPERIOR			YEAR					
			93	94	95	96	97 [A]	97 [B]
COLONY	SPECIES							
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			1			
		MEAN			2.5925			
		STD						
AGAWA ROCK	HERRING GULL	N	1	1	13	1	1	1
		MEAN	4.7602	5.2016	4.2127	5.5554	2.621	2.876
		STD			2.0372			
GRANITE ISLAND	HERRING GULL	N	1	1	13		1	1
		MEAN	9.2444	6.2052	5.3199		5.354	5.835
		STD			1.6608			
	RING-BILLED GULL	N				1		
		MEAN				2.7112		
		STD						
SILVER ISLET	HERRING GULL	N				1		
		MEAN				4.4175		
		STD						

[A] Based on 42 congeners; [B] Based on 59 congeners. 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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 37 3,4,4'-TRICHLOROBIPHENYL

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0001	<0.0001	<0.0001	<0.0001
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		<0.0001	<0.0001	<0.0001	<0.0001
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	1			
		MEAN		<0.0001			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	1			
		MEAN		<0.0001			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	1	1	1	1
		MEAN		<0.0001	<0.0001	<0.0001	<0.0001
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		<0.0001	<0.0001	<0.0001	<0.0001
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		<0.0001			
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 37 3,4,4'-TRICHLOROBIPHENYL

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	0	1	1	1	1
		MEAN		<0.0001	(<0.0001)	<0.0001	<0.0001
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	0		1	1	1
		MEAN			<0.0001	<0.0001	<0.0001
		STD					
MIDDLE ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		<0.0001	<0.0001	<0.0001	<0.0001
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		0.0001			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		<0.0001	<0.0001	<0.0001	<0.0001
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	0	0	1	1	1	1
		MEAN			0.0001	<0.0001	<0.0001	<0.0001
		STD						
MAIDEN ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		0	1	1	1	1
		MEAN			<0.0001	<0.0001	<0.0001	<0.0001
		STD						
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 37 3,4,4'-TRICHLOROBIPHENYL

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			<0.0001			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			<0.0001			
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	1	1	1	1
		MEAN			<0.0001	(<0.0001)	(<0.0001)	<0.0001
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	1	0	1	1	1
		MEAN		<0.0001		(<0.0001)	<0.0001	<0.0001
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.0001					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	<0.0001	<0.0001		<0.0001		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	<0.0001	0.0001		<0.0001	<0.0001	<0.0001
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		<0.0001	<0.0001	<0.0001	<0.0001
		STD					
GRANITE ISLAND	HERRING GULL	N	0	1	1		1
		MEAN		<0.0001	<0.0001		<0.0001
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				ND	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 77 3,3',4,4'-TRETRACHLOROBIPHENYL

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0006	0.0002	0.0003	0.0003
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0002	0.0002	0.0006	0.0001
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	1			
		MEAN		0.0002			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	1			
		MEAN		0.0009			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0001	0.0001	0.0002	0.0001
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0002	0.0002	0.0001	0.0001
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		0.0002			
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 77 3,3',4,4'-TRETRACHLOROBIPHENYL

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0001	0.0002	0.0002	0.0002
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	0		1	1	1
		MEAN			0.0002	0.0002	0.0003
		STD					
MIDDLE ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0003	0.0007	0.0006	0.0004
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		0.0002			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0002	0.0002	0.0002	0.0001
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	0	0	1	1	1	1
		MEAN			0.0001	0.1873	0.0007	0.0003
		STD						
MAIDEN ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		0	1	1	1	1
		MEAN			0.0004	0.0005	0.0007	0.0004
		STD						
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 77 3,3',4,4'-TRETRACHLOROBIPHENYL

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.0002			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0001			
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	1	1	1	1
		MEAN			0.0001	0.0002	0.0002	0.0002
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	1	0	1	1	1
		MEAN		0.0007		0.0003	0.0013	0.0003
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.0005					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.0005	0.0006		0.0007		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	0.0012	0.0006		0.0013	0.0012	0.0003
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0001	0.0001	0.0003	0.0001
		STD					
GRANITE ISLAND	HERRING GULL	N	0	1	1		1
		MEAN		0.0002	0.0001		0.0001
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.0002	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 81 3,4,4',5-TRETRACHLOROBIPHENYL

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			<0.0001	0.0001	0.0001
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			0.0001	0.0003	0.0001
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	0	1	1	1
		MEAN			<0.0001	0.0001	0.0001
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			0.0001	0.0001	<0.0001
		STD					
	RING-BILLED GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 81 3,4,4',5-TRETRACHLOROBIPHENYL

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	0	0	1	1	1
		MEAN			<0.0001	0.0001	0.0001
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	0		1	1	1
		MEAN			<0.0001	0.0001	0.0001
		STD					
MIDDLE ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			0.0002	0.0002	0.0002
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		0			
		MEAN					
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			0.0001	0.0001	0.0001
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				0.0001	0.0002	0.0001
		STD						
MAIDEN ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		0	0	1	1	1
		MEAN				0.0002	0.0004	0.0002
		STD						
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 81 3,4,4',5-TRETRACHLOROBIPHENYL

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			0			
		MEAN						
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			0			
		MEAN						
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				0.0001	0.0002	0.0001
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				0.0002	0.0003	0.0002
		STD						
GARY, INDIANA	HERRING GULL	N	0					
		MEAN						
		STD						
EAST CHICAGO	HERRING GULL	N	0	1		1		
		MEAN		0.0002		0.0003		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	0	0		1	1	1
		MEAN				0.0007	0.0004	0.0002
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	0	1	1	1
		MEAN			0.0001	0.0002	0.0001
		STD					
GRANITE ISLAND	HERRING GULL	N	0	0	1		1
		MEAN			0.0002		0.0001
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.0002	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 126 3,3',4,5,5'-PENTACHLOROBIPHENYL

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0011	0.0020	0.0017	0.0015
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0012	0.0025	0.0024	0.0013
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	1			
		MEAN		0.0014			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	1			
		MEAN		0.0062			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0011	0.0017	0.0021	0.0014
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0008	0.0022	0.002	0.0012
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		0.0002			
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 126 3,3',4,5,5'-PENTACHLOROBIPHENYL

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	0	1	1	1	1
	GULL	MEAN		0.0007	0.0014	0.0013	0.0009
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	0		1	1	1
COLBORNE	GULL	MEAN			0.0012	0.0011	0.001
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	0	1	1	1	1
	GULL	MEAN		0.0017	0.0045	0.0025	0.0024
		STD					
EAST SISTER	DOUBLE-	N					
ISLAND	CRESTED	MEAN			0		
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		0.0013			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		0.0008	0.0022	0.0015	0.0015
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	0	0	1	1	1	1
ISLAND	GULL	MEAN			0.0005	0.0018	0.0014	0.0011
		STD						
MAIDEN ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
CHANNEL	HERRING	N		0	1	1	1	1
SHELTER	GULL	MEAN			0.0029	0.0069	0.0048	0.0038
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 126 3,3',4,5,5'-PENTACHLOROBIPHENYL

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.0009			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			0.0001			
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	1	1	1	1
		MEAN			0.0011	0.0017	0.0022	0.0017
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	1	0	1	1	1
		MEAN		0.0037		0.0051	0.0051	0.0033
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.0026					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.0023	0.0047		0.0063		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	0.0022	0.0017		0.0059	0.0034	0.0017
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0008	0.0022	0.002	0.0017
		STD					
GRANITE ISLAND	HERRING GULL	N	0	1	1		1
		MEAN		0.0009	0.0025		0.0021
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.0029	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 169 3,3',4,4',5,5'-HEXACHLOROBIPHENYL

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0001	0.0002	0.0001	0.0001
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0001	0.0002	0.0002	0.0001
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	1			
		MEAN		0.0002			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	1			
		MEAN		0.0006			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0001	0.0002	0.0002	0.0002
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0001	0.0002	0.0002	0.0001
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		<0.0001			
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 169 3,3',4,4',5,5'-HEXACHLOROBIPHENYL

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	0	1	1	1	1
		MEAN		<0.0001	0.0001	0.0001	0.0001
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	0		1	1	1
		MEAN			0.0001	0.0001	0.0001
		STD					
MIDDLE ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0002	0.0004	0.0002	0.0003
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		0.0001			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0001	0.0002	0.0002	0.0002
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	0	0	1	1	1	1
		MEAN			0.0001	0.0003	0.0002	0.0002
		STD						
MAIDEN ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N		0	1	1	1	1
		MEAN			0.0004	0.0007	0.0005	0.0006
		STD						
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 169 3,3',4,4',5,5'-HEXACHLOROBIPHENYL

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			0.0001			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			<0.0001			
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	1	1	1	1
		MEAN			0.0002	0.0002	0.0003	0.0002
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	1	0	1	1	1
		MEAN		0.0004		0.0006	0.0006	0.0004
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	0.0003					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	0.0003	0.0006		0.0007		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	0.0002	0.0002		0.0006	0.0003	0.0002
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		0.0001	0.0004	0.0003	0.0002
		STD					
GRANITE ISLAND	HERRING GULL	N	0	1	1		1
		MEAN		0.0001	0.0003		0.0003
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.0003	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 189 2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			<0.0001	<0.0001	<0.0001
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			<0.0001	<0.0001	<0.0001
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	0	1	1	1
		MEAN			<0.0001	<0.0001	<0.0001
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			<0.0001	<0.0001	0.0001
		STD					
	RING-BILLED GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 189 2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	0	0	1	1	1
	GULL	MEAN			<0.0001	<0.0001	<0.0001
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	0		1	1	1
COLBORNE	GULL	MEAN			<0.0001	<0.0001	<0.0001
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	0	0	1	1	1
	GULL	MEAN			<0.0001	<0.0001	0.0001
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		0			
ISLAND	GULL	MEAN					
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	0	1	1	1
ISLAND	GULL	MEAN			0.0001	<0.0001	0.0001
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	0	0	0	1	1	1
ISLAND	GULL	MEAN				<0.0001	<0.0001	<0.0001
		STD						
MAIDEN ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
CHANNEL	HERRING	N		0	0	1	1	1
SHELTER	GULL	MEAN				0.0001	0.0001	0.0001
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
PCB 189 2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			0			
		MEAN						
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			0			
		MEAN						
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				ND	<0.0001	<0.0001
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				<0.0001	<0.0001	<0.0001
		STD						
GARY, INDIANA	HERRING GULL	N	0					
		MEAN						
		STD						
EAST CHICAGO	HERRING GULL	N	0	1		1		
		MEAN		<0.0001		<0.0001		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	0	0		1	1	1
		MEAN				<0.0001	<0.0001	<0.0001
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	0	1	1	1
		MEAN			<0.0001	<0.0001	<0.0001
		STD					
GRANITE ISLAND	HERRING GULL	N	0	0	1		1
		MEAN			<0.0001		<0.0001
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				<0.0001	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
2378-TETRACHLORODIBENZO-p-DIOXIN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	26.1	39.3	11.25	19.6	10.52
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	67.4	61.2	30.32	25.75	13.44
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	52.3	71.2			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	48.7	31.35			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	53.1				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	18.2	33.8	13.57	26.94	11.89
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	19	19.4	12.75	17.4	5.43
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		13			
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
2378-TETRACHLORODIBENZO-p-DIOXIN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	1	1	1	1	1
		MEAN	10.3	27.2	5.84	12.27	5.66
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	1		1	1	1
		MEAN	9.4		4.89	7.94	3.16
		STD					
MIDDLE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	11.7	17.9	11.11	7.38	6.05
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		31.6			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		20.9	7.83	3.82	4.01
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	15.2		16.7	11.55	11.22	6.07
		STD						
MAIDEN ISLAND	HERRING GULL	N	1					
		MEAN	17.5					
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N	1		1	1	1	1
		MEAN	56.8		42.2	24.97	29.98	19.56
		STD						
DUCK ISLAND	HERRING GULL	N	1					
		MEAN	28.5					
		STD						
GULL ISLAND	HERRING GULL	N	1					
		MEAN	22.9					
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
2378-TETRACHLORODIBENZO-p-DIOXIN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			30.1			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			4.7			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	17.6		30.1	10.33	14.98	10.18
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	20.6	27		6.67	9.78	3.74
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	10.8					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	14.1	5.22		5.67		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	18.7	21.2		7.5	4.01	1.75
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		17.1	10.27	8.66	6.29
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	13.8	17	6.12		3.66
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				6.05	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12378-PENTACHLORODIBENZO-p-DIOXIN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	7	4.1	ND	2.23	1.74
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	12.8	11	4.44	4.39	2.46
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	11.6	11.1			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	14.3	(15.71)i			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	10				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	(0.2)	(2.6)	2.88	3.88	1.82
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	(0.5)	(3.8)	5.96	3.08	1.25
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		8.5			
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12378-PENTACHLORODIBENZO-p-DIOXIN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	2	(4.8)i	3.56	3.41	1.64
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	(0.4)		3.37	3.35	2.46
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	12.2	(1.8)	13.43	6.95	4.48
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		7.5			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		(1.3)	3.72	2.3	1.87
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	14.4		30.4i	10.03	7.82	3.55
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	25.8					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	26.2		14.8	7.33	13.8	5.82
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	27.4					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	8.8					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12378-PENTACHLORODIBENZO-p-DIOXIN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			1.7			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			(0.5)			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	17.6		46.7	9.98	9.04	7.59
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	28.7	22.7		13.31	16.34	4.86
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	(0.5)	5.04		5.05		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	0.4i	(0.4)		10.77	5.08	2.23
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		5.9	11.75	10	6.36
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	13.5	7.9	6.52		3.41
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				6.57	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123478-HEXACHLORODIBENZO-p-DIOXIN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.6)	ND	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.18)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	0.46	ND
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.1)	ND	0.44	ND
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		ND			
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123478-HEXACHLORODIBENZO-p-DIOXIN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	(0.1)	ND	ND	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	ND
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	(0.4)	ND	(0.96)	ND
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		(0.1)			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		(0.1)	ND	ND	ND
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		(0.1)	ND	ND	ND
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.6					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	(0.1)		(0.1)	0.84	0.83	ND
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	1.1					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	0.1					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123478-HEXACHLORODIBENZO-p-DIOXIN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			(0.1)			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		(0.1)	0.44	ND	ND
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	(0.1)	ND		ND	0.56	ND
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	(0.1)	ND		ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		ND	1.07	0.58	0.26
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	ND	ND	ND		ND
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.24	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123678-HEXACHLORODIBENZO-p-DIOXIN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	(0.3)	7.3	ND	2.85	1.98
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	11.3	12.5	7.2	5.67	2.39
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	11.6i	10.5			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	7.4	(0.96)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	7.8				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	(0.5)	7.5	4.07	4.62	2.98
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	(0.4)	10.1	7.02	4.46	3.08
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		(0.2)			
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123678-HEXACHLORODIBENZO-p-DIOXIN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	10.4	11.1	4.5	4.89	2.53
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	(0.2)		3.99	4.07	3.12
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	23	16.4	15.07	8.72	6.8
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		22.6			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		12.1	6.75	5.14	4.95
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	16.5		11.5	8.34	5.99	3.11
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	10.7					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	47.3		30	12.76	17.24	10
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	16.5					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	8					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123678-HEXACHLORODIBENZO-p-DIOXIN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			11.6			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			(0.5)			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	13.6		16.7	7.63	6.7	7.42
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	18.8	25.7		12.64	10.46	5.7
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	13.5					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	16.5	7.66		7.16		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	18.4	14.6		12.11	5.17	3.19
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		10.1	8.77	7.66	6.74
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	12.4	11.2	8.45		4.31
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				5.99	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123789-HEXACHLORODIBENZO-p-DIOXIN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	(0.17)
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.4)	ND	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.09)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	0.52	0.5	0.38
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	(0.1)	ND	1.07	0.54	0.31
		STD					
	RING-BILLED GULL	N		1		0	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123789-HEXACHLORODIBENZO-p-DIOXIN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	(0.1)	ND	ND	ND	0.29
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	0.4
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	(0.4)	2.89	1.83	0.91
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		ND	(0.78)	0.88	0.43
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		ND	ND	0.85	0.4
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.5					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	ND		(0.1)	ND	1.55	0.46
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	0.7					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	0.1					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123789-HEXACHLORODIBENZO-p-DIOXIN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		(0.2)	1.1	(0.76)	0.51
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	(0.1)	ND		ND	1.34	0.44
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	0.45		0.64		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	ND	ND		ND	ND	0.24
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		ND	1.67	1.02	0.62
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	(0.1)	ND	1.08		0.52
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.9	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234678-HEPTACHLORODIBENZO-p-DIOXIN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(1.5)	2.24	1.78	1.12
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	43.2	2.85	1.54	0.89
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.6)			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	(0.1)	(0.94)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	(0.1)				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	(0.1)	(0.1)	3.45	3.24	4.13
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	(0.1)	15.8	4.18	5.22	1.49
		STD					
	RING-BILLED GULL	N		1		0	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234678-HEPTACHLORODIBENZO-p-DIOXIN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	(0.1)	(1.1)	1.91	2.44	1.49
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	(0.1)		2.7	2.22	1.24
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	(0.5)	(0.6)	3.83	3.08	2.07
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		(0.4)			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		(4.2)	5.19	2.16	2.67
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		(0.7)	2.47	1.89	1.16
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.7					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	13.7		(0.6)	3.4	5.19	4.39
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	1.7					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	5.7					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234678-HEPTACHLORODIBENZO-p-DIOXIN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			(0.1)			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			(0.7)			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	(0.6)		(0.7)	1.87	1.46	2.23
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	ND	(0.7)		3.84	1.12	0.34
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	(0.3)					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	(0.8)	3.02		2.23		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	(0.9)	8.8		2.49	0.63	0.75
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		(0.4)	3.76	2.04	1.97
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	(0.1)	(0.4)	3.99		1.89
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				2.91	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OCTACHLORODIBENZO-p-DIOXIN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.8)	4.38	2.35	2.64
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.8)	5.31	3.16	1.53
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.6)			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.23)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	(0.1)				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.2)	6.61	4.82	7.07
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(1)	3.06	6.24	1.73
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		(0.5)			
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OCTACHLORODIBENZO-p-DIOXIN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	(1.1)	5.68	2.79	1.44
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	(0.1)		4.64	2.61	2.26
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	(0.1)	(1.1)	5.89	5.86	3.56
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		(0.8)			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		ND	13.69	5.34	6.09
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		(0.6)	2.93	1.67	1.45
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.4					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	(2.2)		27.6	9.67	24.44	15.1
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	0.2					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	14.1					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OCTACHLORODIBENZO-p-DIOXIN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			(0.2)			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			(0.9)			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		(0.7)	4.99	1.56	4.34
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	ND	(0.6)		5.88	1.34	0.65
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	(0.6)					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	(1.6)	6.62		3.83		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	(1.9)	53		8.13	2	7.08
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		(0.2)	7.9	3.06	2.32
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	ND	(0.4)	3.76		1.58
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				5.12	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
2378-TETRACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	3.3	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	1.01	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	4.5	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	7.1	8.99			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	(0.8)	0	ND	0.28	(0.23)
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N		1	1	1	1
		MEAN		(0.1)	ND	0.18	ND
		STD					
	RING-BILLED GULL	N		1		0	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
2378-TETRACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	0.45
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	(0.1)		ND	(0.22)	0.36
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	(0.1)	ND	1.17	ND	1.02
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		(0.1)			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		(0.3)	ND	0.52	0.25
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		ND	ND	0.78	0.31
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.2					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	3.4		ND	1.38	29.98	1.04
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	1					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
2378-TETRACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	(0.1)		ND	1.9	0.38	0.39
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	(6.8)	(0.1)		0.62	1.62	0.33
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	(0.1)					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	0.68		0.37		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	ND	1.8		0.79	0.61	0.29
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		(0.1)	(0.4)	0.34	0.19
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	(1.3)	ND	ND		ND
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12468-PENTACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	(0.15)
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			0.94	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	0	1	1	1
		MEAN			(0.28)	0.12	0.09
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	0.08	1.53
		STD					
	RING-BILLED GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12468-PENTACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	0	0	1	1	1
	GULL	MEAN			ND	ND	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	0		1	1	1
COLBORNE	GULL	MEAN			ND	ND	ND
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	0	0	1	1	1
	GULL	MEAN			ND	ND	ND
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		0			
ISLAND	GULL	MEAN					
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	0	1	1	1
ISLAND	GULL	MEAN			0.4	(0.08)	0.07
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	0	0	0	1	1	1
ISLAND	GULL	MEAN				ND	0.73	ND
		STD						
MAIDEN ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
CHANNEL	HERRING	N	0		0	1	1	1
SHELTER	GULL	MEAN				0.83	0.56	(0.1)
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12468-PENTACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			0			
		MEAN						
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			0			
		MEAN						
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				0.14	ND	ND
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				0.42	0.26	ND
		STD						
GARY, INDIANA	HERRING GULL	N	0					
		MEAN						
		STD						
EAST CHICAGO	HERRING GULL	N	0	1		1		
		MEAN		(0.29)		0.16		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	0	0		1	1	1
		MEAN				0.16	ND	(0.13)
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	0.1	ND
		STD					
GRANITE ISLAND	HERRING GULL	N	0	0	1		1
		MEAN			ND		ND
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.31	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12478-PENTACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	1.78	0.84
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			1.55	1.95	0.38
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	0	1	1	1
		MEAN			2.13	1.32	0.81
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	1.7	1.91
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12478-PENTACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	0	0	1	1	1
	GULL	MEAN			ND	0.86	0.36
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	0		1	1	1
COLBORNE	GULL	MEAN			ND	1.29	0.39
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	0	0	1	1	1
	GULL	MEAN			ND	1.22	1.09
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		0			
ISLAND	GULL	MEAN					
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	0	1	1	1
ISLAND	GULL	MEAN			6.33	1.3	0.88
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	0	0	0	1	1	1
ISLAND	GULL	MEAN				ND	3.99	0.87
		STD						
MAIDEN ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
CHANNEL	HERRING	N	0		0	1	1	1
SHELTER	GULL	MEAN				7.13	3.21	3.05
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12478-PENTACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			0			
		MEAN						
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			0			
		MEAN						
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				0.9	1.48	0.87
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				1.51	2.8	0.41
		STD						
GARY, INDIANA	HERRING GULL	N	0					
		MEAN						
		STD						
EAST CHICAGO	HERRING GULL	N	0	1		1		
		MEAN		3.34		2.95		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	0	0		1	1	1
		MEAN				3.07	ND	0.66
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	0	1	1	1
		MEAN			1.99	0.9	1.17
		STD					
GRANITE ISLAND	HERRING GULL	N	0	0	1		1
		MEAN			0.83		0.62
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				2.85	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12378-PENTACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	(0.58)	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.05)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	0.12	0.12
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		ND	ND	0.1	ND
		STD					
	RING-BILLED GULL	N		1		0	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12378-PENTACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	0.2
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	0.42	0.16
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N		1	1	1	1
ISLAND	GULL	MEAN		ND	ND	(0.34)	0.14
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		ND	ND	0.31	(0.14)
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	0.3					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	ND		(0.1)	0.51	8.47	0.46
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
12378-PENTACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			(0.4)			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		(0.2)	ND	ND	0.14
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	ND	ND		ND	0.6	0.14
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	(0.1)	ND		ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N		1	1	1	1
		MEAN		ND	0.43	0.24	ND
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	ND	ND	ND		ND
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
23478-PENTACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	(4.3)	6.7	ND	2.9	0.99
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	(7.7)	23.8	4.94	5.1	1.23
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(2)			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	6.6	(0.05)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	5.3				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	4.4	ND	2.16	4.26	1.15
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		10.9	4.61	3.08	0.92
		STD					
	RING-BILLED GULL	N		1		0	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
23478-PENTACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	(0.1)	(0.1)	2.23	2.87	1.02
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	(0.1)		2.19	3.07	2.19
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	(0.1)	5.4	5.22	2.45
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		15.6			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		(0.1)	3.87	2	1.46
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		5.9	6.88	9.54	2.99
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	13.3					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	19.5		14.8	9.31	18.4	5.71
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	16.4					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	9					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
23478-PENTACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			13.5			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		11.6	9.22	7.2	4.58
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	12	15.7		9.17	12.54	2.44
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	11.2					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	3.13		2.91		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	9.4	12.2		7.51	3.45	0.83
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		8.6	7.34	ND	4.06
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	(4.1)	(1.4)	3.79		1.6
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				5.43	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
23467-PENTACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	0.15
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	0.3
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
23467-PENTACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	0	0	1	1	1
	GULL	MEAN			ND	ND	(0.12)
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	0		1	1	1
COLBORNE	GULL	MEAN			ND	ND	(0.15)
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	0	0	1	1	1
	GULL	MEAN			ND	ND	0.4
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		0			
ISLAND	GULL	MEAN					
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	0	1	1	1
ISLAND	GULL	MEAN			ND	ND	0.27
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	0	0	0	1	1	1
ISLAND	GULL	MEAN				ND	ND	0.4
		STD						
MAIDEN ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
CHANNEL	HERRING	N	0		0	1	1	1
SHELTER	GULL	MEAN				ND	ND	0.86
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
23467-PENTACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			0			
		MEAN						
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			0			
		MEAN						
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				ND	ND	0.24
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				ND	ND	ND
		STD						
GARY, INDIANA	HERRING GULL	N	0					
		MEAN						
		STD						
EAST CHICAGO	HERRING GULL	N	0	1		1		
		MEAN		ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	0	0		1	1	1
		MEAN				ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	0.31
		STD					
GRANITE ISLAND	HERRING GULL	N	0	0	1		1
		MEAN			ND		0.27
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
124678-HEXACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	0.18	ND
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	0.14	0.15
		STD					
	RING-BILLED GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
124678-HEXACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	0	0	1	1	1
	GULL	MEAN			ND	ND	(0.1)
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	0		1	1	1
COLBORNE	GULL	MEAN			ND	ND	ND
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	0	0	1	1	1
	GULL	MEAN			ND	ND	ND
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		0			
ISLAND	GULL	MEAN					
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	0	1	1	1
ISLAND	GULL	MEAN			ND	0.12	0.07
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	0	0	0	1	1	1
ISLAND	GULL	MEAN				ND	0.63	0.13
		STD						
MAIDEN ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
CHANNEL	HERRING	N	0		0	1	1	1
SHELTER	GULL	MEAN				ND	0.31	0.17
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
124678-HEXACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			0			
		MEAN						
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			0			
		MEAN						
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				ND	ND	0.09
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				ND	0.2	ND
		STD						
GARY, INDIANA	HERRING GULL	N	0					
		MEAN						
		STD						
EAST CHICAGO	HERRING GULL	N	0	1		1		
		MEAN		ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	0	0		1	1	1
		MEAN				ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	0.14
		STD					
GRANITE ISLAND	HERRING GULL	N	0	0	1		1
		MEAN			ND		ND
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.28	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
124689-HEXACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	(0.2)
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	0.26	ND
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	0.24	0.29
		STD					
	RING-BILLED GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
124689-HEXACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	0	0	1	1	1
	GULL	MEAN			ND	ND	0.11
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	0		1	1	1
COLBORNE	GULL	MEAN			ND	ND	(0.1)
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	0	0	1	1	1
	GULL	MEAN			ND	ND	0.25
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		0			
ISLAND	GULL	MEAN					
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	0	1	1	1
ISLAND	GULL	MEAN			ND	0.18	0.1
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	0	0	0	1	1	1
ISLAND	GULL	MEAN				ND	0.94	0.16
		STD						
MAIDEN ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
CHANNEL	HERRING	N	0		0	1	1	1
SHELTER	GULL	MEAN				0.62	0.69	0.4
ISLAND		STD						
DUCK ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
GULL ISLAND	HERRING	N	0					
	GULL	MEAN						
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
124689-HEXACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			0			
		MEAN						
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			0			
		MEAN						
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				ND	ND	0.16
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				ND	0.36	ND
		STD						
GARY, INDIANA	HERRING GULL	N	0					
		MEAN						
		STD						
EAST CHICAGO	HERRING GULL	N	0	1		1		
		MEAN		ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	0	0		1	1	1
		MEAN				0.39	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	0.1	0.14
		STD					
GRANITE ISLAND	HERRING GULL	N	0	0	1		1
		MEAN			ND		ND
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.55	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123478-HEXACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.3)	ND	1.89	0.7
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	14.4	2.62	2.33	0.71
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.7)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	1.38	2.18	0.9
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		3.7	1.64	1.06	0.33
		STD					
	RING-BILLED GULL	N		1		0	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123478-HEXACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	2.09	1.9	0.55
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	0.81	0.28
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	0.6	0.63
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		ND	ND	0.64	0.48
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		ND	2.02	4.28	0.8
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	2.6					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	ND		ND	2.02	3.34	1.26
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	2.8					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	4.2					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123478-HEXACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		ND	3.25	1.16	0.85
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	ND	ND		1.45	1.62	0.5
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	(0.1)	0.66		0.82		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	ND	(0.1)		1.17	0.35	0.24
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		ND	2.03	1.22	0.97
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	ND	ND	1.5		0.38
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				1.06	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123678-HEXACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.3)	ND	1.29	0.54
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	**SPECIES**						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	10.3	1.91	1	0.69
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	(0.1)				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	1.15	1.56	0.73
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		4.7	2.07	1.16	0.88
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		ND			
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123678-HEXACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	(0.2)	1.65	1.5	0.59
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	0.75	0.57
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	(0.1)	1.18	1.49	0.73
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		(0.1)			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		ND	0.94	0.88	0.56
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		ND	2.59	2.71	0.89
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	3.5					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	8.1		(0.8)	3.42	4.66	2.24
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	5					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	3.8					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123678-HEXACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			(0.1)			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		(0.1)	3.11	1.24	1.2
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	ND	7		3.31	2.5	0.92
		STD						
GARY, INDIANA	HERRING GULL	N	1			0	0	
		MEAN	(0.1)					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	(0.1)	1.5		1.65		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	ND	(0.3)		2.24	0.52	0.44
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		(0.1)	3.03	1.58	1.38
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	ND	(2.5)	1.68		0.92
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				1.44	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123789-HEXACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.3)	ND	0.93	0.42
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.5)	1.1	1.2	0.29
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.35)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	1.15	1.06	0.38
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		12.8	1.32	1.08	0.86
		STD					
	RING-BILLED GULL	N		1		0	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123789-HEXACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	(0.2)	0.8	1.05	0.32
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	0.89	0.45
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	(0.8)	1.06	1.13	0.84
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		0			
ISLAND	GULL	MEAN		(0.1)			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		ND	ND	1	0.56
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		ND	1.27	2.82	0.96
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	7.8					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	ND		(0.8)	3.32	2.95	1.41
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	3.2					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	1.1					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
123789-HEXACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			(0.1)			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		(0.1)	1.81	1.18	0.87
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	(0.1)	6.6		1.88	2.18	0.45
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	11.1					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	(0.3)	1.72		1.55		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	ND	8.6		1.56	0.36	0.42
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		ND	2.89	1.12	0.94
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	ND	(2.4)	0.74		0.48
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				1.45	
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
234678-HEXACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	(0.19)	ND
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	0.38
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.52)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	0.46	ND
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		(0.1)	(0.17)	0.38	0.28
		STD					
	RING-BILLED GULL	N		1		0	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
234678-HEXACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	0.12
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	1		1	1	1
		MEAN	ND		ND	ND	0.15
		STD					
MIDDLE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	ND
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		1			
		MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	0	1	1	1	1
		MEAN		ND	ND	0.72	0.12
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		ND	ND	ND	0.16
		STD						
MAIDEN ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N	1		1	1	1	1
		MEAN	ND		(0.4)	ND	0.09	0.13
		STD						
DUCK ISLAND	HERRING GULL	N	1					
		MEAN	7.6					
		STD						
GULL ISLAND	HERRING GULL	N	1					
		MEAN	2.2					
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
234678-HEXACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		ND	ND	ND	0.22
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	ND	ND		(0.55)	0.6	0.16
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	(0.3)	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	(0.1)	ND		(0.29)	(0.1)	0.24
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		ND	1.29	0.46	0.17
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	ND	(0.1)	ND		(0.15)
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.37	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234678-HEPTACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	1	0.38
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	58.2	1.2	0.53	0.33
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.12)			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	0.84	0.68	0.95
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		(0.3)	1.06	1.08	0.59
		STD					
	RING-BILLED GULL	N		1		0	
		MEAN		(0.3)			
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234678-HEPTACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	1.49	1.17	0.32
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		0.45	0.4	0.42
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	0.6	ND
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		ND	1.06	2.16	0.71
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		ND	0.91	0.78	0.31
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	(0.1)		(0.6)	2.8	2.65	1.35
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
WALLIS	DOUBLE-	N	1			0		
ROCKS	CRESTED	MEAN	ND					
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234678-HEPTACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			(0.4)			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		ND	1.19	ND	0.73
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	ND	ND		0.81	0.5	0.21
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	(1.6)	0.75		0.8		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	ND	ND		0.86	ND	(0.17)
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		ND	1.49	0.48	0.48
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	ND	ND	1.04		0.84
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.83	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234689-HEPTACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	0	0			
		MEAN					
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	0				
		MEAN					
		STD					
LESLIE STREET SPIT	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	0.22	ND
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234689-HEPTACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT COLBORNE LIGHTHOUSE	HERRING GULL	N	0		1	1	1
		MEAN			ND	ND	ND
		STD					
MIDDLE ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
EAST SISTER ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
MIDDLE SISTER ISLAND	HERRING GULL	N		0			
		MEAN					
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING ISLAND	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				ND	ND	ND
		STD						
MAIDEN ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
CHANNEL SHELTER ISLAND	HERRING GULL	N	0		0	1	1	1
		MEAN				ND	ND	ND
		STD						
DUCK ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
GULL ISLAND	HERRING GULL	N	0					
		MEAN						
		STD						
WALLIS ROCKS	DOUBLE-CRESTED CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234689-HEPTACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			0			
		MEAN						
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			0			
		MEAN						
		STD						
DOUBLE ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				ND	ND	ND
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	0	0	0	1	1	1
		MEAN				ND	ND	ND
		STD						
GARY, INDIANA	HERRING GULL	N	0					
		MEAN						
		STD						
EAST CHICAGO	HERRING GULL	N	0	1		1		
		MEAN		ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	0	0		1	1	1
		MEAN				ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	0	1	1	1
		MEAN			ND	ND	ND
		STD					
GRANITE ISLAND	HERRING GULL	N	0	0	1		1
		MEAN			ND		ND
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234789-HEPTACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	0.19	(0.09)
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	ND	0.1
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	0.22	0.22	0.22
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		(0.2)	ND	0.22	0.2
		STD					
	RING-BILLED GULL	N		1		0	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234789-HEPTACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	(0.24)	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	ND
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		ND	ND	0.4	(0.14)
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		ND	ND	ND	(0.1)
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	ND		(0.6)	ND	0.18	0.17
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	0.1					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	STD						

* All units measured on a wet weight basis. Dioxins and furans measured in ρg/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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
1234789-HEPTACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		ND	ND	ND	0.11
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	ND	ND		ND	0.14	(0.03)
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	ND					
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	ND	ND		(0.4)	ND	ND
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N	0	1	1	1	1
		MEAN		ND	0.9	0.12	ND
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	ND	ND	ND		(0.1)
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.18	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OCTACHLORODIBENZOFURAN

ST. LAWRENCE RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STRACHAN ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	(0.6)	ND	0.51	ND
		STD					
	RING-BILLED GULL	N		0		0	
		MEAN					
		STD					

LAKE ONTARIO			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
SNAKE ISLAND	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	ND	1.07	ND
		STD					
PIGEON ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	(0.1)			
		STD					
LITTLE GALLOO ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	GREAT BLACK-BACKED GULL	N	0	0			
		MEAN					
		STD					
	HERRING GULL	N	1	1			
		MEAN	ND	ND			
		STD					
GULL ISLAND, PRESQU'ILE PROVINCIAL PARK	GREAT BLACK-BACKED GULL	N	0				
		MEAN					
		STD					
	HERRING GULL	N	1				
		MEAN	ND				
		STD					
LESLIE STREET SPIT	HERRING GULL	N	1	1	1	1	1
		MEAN	ND	ND	0.97	0.44	0.77
		STD					
HAMILTON HARBOUR	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
	HERRING GULL	N	0	1	1	1	1
		MEAN		(0.7)	ND	0.56	ND
		STD					
	RING-BILLED GULL	N		1		0	
		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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OCTACHLORODIBENZOFURAN

NIAGARA RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
NIAGARA RIVER	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	0.48	ND	ND
		STD					

LAKE ERIE			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
PORT	HERRING	N	1		1	1	1
COLBORNE	GULL	MEAN	ND		ND	ND	ND
LIGHTHOUSE		STD					
MIDDLE ISLAND	HERRING	N	1	1	1	1	1
	GULL	MEAN	ND	ND	ND	ND	ND
		STD					
EAST SISTER	DOUBLE-	N			0		
ISLAND	CRESTED	MEAN					
	CORMORANT	STD					
MIDDLE SISTER	HERRING	N		1			
ISLAND	GULL	MEAN		ND			
		STD					

DETROIT RIVER			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
FIGHTING	HERRING	N	0	1	1	1	1
ISLAND	GULL	MEAN		ND	0.65	0.98	0.56
		STD					
	RING-BILLED	N				0	
	GULL	MEAN					
		STD					

LAKE HURON			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
CHANTRY	HERRING	N	1	0	1	1	1	1
ISLAND	GULL	MEAN	ND		ND	0.44	1.33	0.61
		STD						
MAIDEN ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
CHANNEL	HERRING	N	1		1	1	1	1
SHELTER	GULL	MEAN	ND		ND	0.31	0.54	ND
ISLAND		STD						
DUCK ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
GULL ISLAND	HERRING	N	1					
	GULL	MEAN	ND					
		STD						
WALLIS	DOUBLE-	N				0		
ROCKS	CRESTED	MEAN						
	CORMORANT	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 11. CONTAMINANT DATA SUMMARIZED BY COMPOUND ANALYZED*
OCTACHLORODIBENZOFURAN

LAKE HURON (CONT.)			YEAR					
			93	93	94	95	96	97
COLONY	SPECIES							
HALFMOON ISLAND	GREAT BLACK-BACKED GULL	N			0			
		MEAN						
		STD						
	HERRING GULL	N			0			
		MEAN						
		STD						
MOUSE ISLAND	HERRING GULL	N			1			
		MEAN			ND			
		STD						
GERTRUDE ISLAND	RING-BILLED GULL	N			1			
		MEAN			ND			
		STD						
DOUBLE ISLAND	HERRING GULL	N	1	0	1	1	1	1
		MEAN	ND		ND	0.23	0.22	ND
		STD						
AFRICA ROCK	DOUBLE-CRESTED CORMORANT	N				0		
		MEAN						
		STD						

LAKE MICHIGAN			YEAR					
			93	94	94	95	96	97
COLONY	SPECIES							
GULL ISLAND	HERRING GULL	N	1	1	0	1	1	1
		MEAN	ND	ND		ND	ND	ND
		STD						
GARY, INDIANA	HERRING GULL	N	1					
		MEAN	(0.2)					
		STD						
EAST CHICAGO	HERRING GULL	N	1	1		1		
		MEAN	ND	ND		ND		
		STD						
BIG SISTER ISLAND	HERRING GULL	N	1	1		1	1	1
		MEAN	ND	ND		ND	ND	ND
		STD						

LAKE SUPERIOR			YEAR				
			93	94	95	96	97
COLONY	SPECIES						
STEAMBOAT ISLAND	DOUBLE-CRESTED CORMORANT	N			0		
		MEAN					
		STD					
AGAWA ROCK	HERRING GULL	N		1	1	1	1
		MEAN	0	ND	3.57	0.38	ND
		STD					
GRANITE ISLAND	HERRING GULL	N	1	1	1		1
		MEAN	ND	(0.1)	(0.56)		ND
		STD					
	RING-BILLED GULL	N				0	
		MEAN					
		STD					
SILVER ISLET	HERRING GULL	N				1	
		MEAN				0.48	
		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.

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