T. W. BEAK CONSULTANTS LIMITED

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BIOLOGICAL SURVEY

OF THE ST. LAWRENCE RIVER

1972

VOLUME 2

A Report For

ENVIRONMENT CANADA

OTTAWA, ONTARIO

DREI

AUGUST, 1973

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

BIOLOGICAL SURVEY OF THE
ST. LAWRENCE RIVER - 1972

VOLUME 2

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SUMMARY

The Montreal Urban Community is planning the construction of sewage treatment facilities to serve Montreal Island. The design criteria for these facilities will depend on the present quality of the receiving waters rather than on effluent discharge standards.

T. W. Beak Consultants Limited was retained to investigate present water quality in the vicinity of Montreal and downstream on the St. Lawrence River to Lake St. Peter. In this investigation, analyses were conducted of bottom sediment (benthic) invertebrate animal communities, water chemistry, sediment chemistry, fecal coliform and streptococcus bacteria, rooted aquatic plants, and attached algal growths. A previous report, Volume 1 (29 May 1973), has presented the principal findings of this study together with relevant supportive data. The present report, Volume 2, includes detailed biological analyses, and analyses of rooted aquatic plants and attached algae.

Consideration of this data has supported and detailed the conclusions and recommendations of the study as presented in Volume 1. The data of this study will remain as a baseline documentation of environmental conditions against which future studies may evaluate changes.

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ST. LAWRENCE RIVER - 1972

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VOLUME 2

INTRODUCTION

The Montreal Urban Community is planning the construction of sewage treatment plants to alleviate the discharge of raw and partially-treated sewage into the waters surrounding the city and its suburbs. The degree of sewage treatment deemed necessary will be based on the present water quality of the receiving waters, and not on arbitrary levels of effluent quality.

T. W. Beak Consultants Limited was retained to furnish precise information on the present quality of water in the St. Lawrence River and its tributaries in the region of Montreal, and downstream to a point where recovery from the effects of Montreal area discharges might have occurred. BEAK's approach used the assessment of the benthic (bottom substrate) invertebrate animal fauna as the basis of determination. This evaluation is supported and strengthened by consideration of water chemistry characteristics, sediment chemistry characteristics, study of growths of attached algae and rooted aquatic plants, and documentation of fecal coliform and fecal streptococcus bacteria densities.

Literature pertinent to the study was sought out and consulted, and previous surveys conducted by BEAK for the Department of the Environment were also considered. (See Appendix 2A - References).

This report has been prepared in two volumes. Volume 1, May 31 1972, contained

a summary of general biological results, and all water chemistry results, sediment chemistry results, and bacteriological results. Volume 2 (the present report) contains the complete general and detailed benthological results, plus data on attached algae, and rooted aquatic plants. This division has been made to produce a basic report more comprehensible to the non-specialist (Volume 1). Major conclusions arrived at in Volume 1 are amplified and detailed by the information available in Volume 2.

DISCUSSION OF RESULTS

General

The results have been presented in the following format:

Station Locations: Table 1 (except periphyton); Table 5 (periphyton); Figure 1, a map showing all locations.

Benthos Results: Table 2: general results, plus density data.
Table 3: detailed identification of macroinvertebrates.

Macrophytes: Table 4.

Periphyton: Table 6.

Water Chemistry, Sediment Chemistry and Bacteriology data appeared in Volume 1 of this report, together with summary tables of general biological results. Because discussion of the data of this report has been minimal, and because the detailed identifications cover only 15 of the forty regular sampling stations, the stations are presented in the tables in true numerical order, and not by water mass association as in Volume 1. A complete account of field and laboratory procedures appears in Appendix 1. All the references, both to available literature and to taxonomic work, appear in Appendix 2.

Benthos Results - Detailed Identification

Detailed identification procedures were conducted on samples from 15 of the 40 stations sampled. The station selection was based on the following rationale: All stations considered to be control locations were chosen to provide baseline data on upstream community types for each of the water masses. This category of location includes Station 1 (St. Lawrence River flow), Station 2 (Ottawa River flow), Station 15 (Riviere des Mille-Iles), Station 19 (Riviere des Prairies), and Station 36 (upstream end of Lake St. Peter). Locations which were

obviously degraded were deliberately not selected because it was felt that elucidation of their drastically altered faunas would not add significant new insights. Stations considered to be in recovery zones downstream of pollution or in mildly polluted situations were chosen to give some insight into the re-establishment of control type faunas. Stations 13, 14 and 24 (St. Lawrence River), Station 18 (Riviere des Mille-Iles), Station 21 and 23 (R. des Prairies), and Stations 38 (Lake St. Peter downstream) and Station 39 (St. Lawrence R. downstream) were chosen for these reasons. Some stations which were in mixing zones of different water masses, were considered important in light of the possibility of different community types being found in the two main water types (St. Lawrence River vs. Ottawa River); these were Stations 3' (Lake St.-Louis) and, Station 24 (downstream of Montreal Island). Station 27 was included as an example of a possibly physically limiting environment.

Selection of the three samples per station was based on the highest, lowest, and a median abundance. Numbers (except for oligochaetes) were not extrapolated. The figures appearing in Table 3 are the actual counts of organisms keyed out.

(a) Riviere des Mille-Iles; Riviere des Prairies.

Station 2, in Lac des Deux-Montagnes served as a basic control for the Ottawa River water mass. Biological conditions here had also been assessed in July 1972, both for the current year, and in consideration of previous work (T. W. Beak Consultants Limited, 1968, 1973b). Both the previous reports and the present study outlined a benthic fauna typical of eutrophic situations (T. W. Beak Consultants Limited, 1973b). This was characterized by low numbers of sensitive taxa such as the mayfly Hexagenia and Trichoptera Oecetis and Polycentropus. Chironomid species included Polypedilum, Ablabesmyia

and Coelotanypus, an association which in the Great Lakes has been characterized as tolerant or moderately tolerant (Brinkhurst, Hamilton and Herrington, 1968). The oligochaete association was composed almost entirely of immature non-capilliform species, which, judging from previous results were possibly Limnodrilus hoffmeisteri, a cosmopolitan, but pollution tolerant form. Stations 15 and 19 served as controls for the R. des Mille-Iles and R. des Prairies, respectively. Station 15 was characterized from the general results (Volume 1), as being slightly degraded, possibly from the Laval-Ouest area. The detailed identifications bore these conclusions out, with a basically similar fauna to Station 2, but fewer sensitive forms, and more tolerant genera. The chironomid fauna was especially different. Station 18, downstream in R. des Mille-Iles at Terrebonne revealed a dramatically altered situation, with many more sensitive forms, and an expanded chironomid fauna, including many species only moderately pollution tolerant. The oligochaete fauna, as at other locations was mainly composed of immature forms, and could not be characterized with regard to pollution.

Station 19, at the source of R. des Prairies, revealed better conditions than those recorded from Station 15. The fauna was diverse, and contained many pollution sensitive forms, both among the Ephemeroptera and Trichoptera, and among the Chironomidae. Station 21, at Chomedy (Cartierville Bridge), was at a location characterized as slightly degraded from upstream conditions. The detailed identifications revealed that these differences were manifested mainly in the density of the fauna, and not especially

in the lack of forms recorded from Station 19 upstream. This may indicate that organic enrichment, and not toxic effects are causing many of the observed faunal shifts.

Station 23, downstream of the confluence of the R. des Mille-Iles, and R. des Prairies, has been characterized as degraded by the effects of organic pollution so obvious at Station 22 near Montreal-Nord. No sensitive taxa were recovered. The fauna was similar to that recorded at Station 21, but without the sensitive forms, and with few or none of many groups more common in the upstream location, especially among the Chironomidae. The Oligochaeta were more diverse, and forms such as Ilyodrilus templetoni, Limnodrilus hoffmeisteri, and Peloscolex sp. were identified along with large numbers of immatures.

(b) St. Lawrence River.

Station 1 served as a control point for the St. Lawrence River water mass. As discussed in Volume 1, the biological conditions were assessed as clean, but eutrophic. Detailed identifications supported this conclusion, revealing several species of Trichoptera, and a reasonably diverse chironomid assemblage of the tolerant/ moderately tolerant type. Abundant snails and amphipods were associated with the rooted aquatic vegetation at the sampling site.

Station 3' in Lac St -Louis has been characterized as eutrophic, under the influence of drainage from the north shore suburbs of Montreal (T. W. Beak Consultants Limited, 1973b). Few tolerant

forms were found, fewer genera were recorded, and the chironomid assemblage was less diverse and considered to be more tolerant than that at Station 1. The oligochaete assemblage was judged to be tolerant, but not characteristic of gross pollution, with forms such as Aulodrilus americanus and A. pigueti associated with Limnodrilus hoffmeisteri.

Station 13 was located downstream of the grossly organically polluted area adjacent to Longueuil. Sensitive forms were weakly represented. The chironomid fauna was considered tolerant, as was the assemblage of oligochaetes. This indicated a degree of recovery at this location, and the fauna was similar to that found at Station 1.

Station 14 had not recovered to the degree that Station 13 had. No sensitive forms were recovered, and few of the other groups were present. Whereas 16-29 genera had been identified at Station 13, only 4-6 were found at Station 14. Oligochaete worms were predominant numerically, but the large number of immatures prevented a characterization of the association.

Station 24, downstream of the confluence of the "back" rivers revealed a much improved condition from Station 13 or Station 23, and many of the forms absent at Station 14 had returned to the fauna. The abundance of the fauna indicated the possibility of enrichment effects as a carryover of the organic pollution noted at upstream locations, both in R. des Prairies and in the St. Lawrence River. Both the fingernail clams (Sphaeriidae) and

and the oligochaete worms were very abundant.

Station 27 was at a location in the river considered to be physically limiting to benthic invertebrates because of the strong current and erosional nature of the bottom. In fact, a reasonably diverse fauna was found in detailed examination, but composed of forms which are generally well adapted to the prevailing conditions. Sphaeriid clams and burrowing chironomids were abundant, and the diversity of the chironomid fauna indicated that water quality was probably good.

Station 36, near the upstream end of Lake St. Peter, revealed a seemingly unbalanced benthic community. The fauna was composed almost entirely of sphaeriid clams, and neither chironomid larvae, nor oligochaete worms were abundant. This result was largely attributable to a preponderance of immature sphaeriid clams, which may have been recently bred by these live-bearing forms. Otherwise, the fauna indicated a lack of sensitive forms, and a lack of diversity among the forms present. Water quality was characterized as eutrophic, but not grossly polluted.

Station 38, at the downstream end of Lake St. Peter, was limiting to benthic invertebrates via the sandy substrate. Community structure was similar to that recorded at Station 36 at the upstream end of the lake, but the fauna was less diverse. This may be a further illustration of the enrichment effects of the delta area where the St. Lawrence River enters Lake St. Peter.

At Station 40, downstream of Lake St. Peter, the benthic macroinvertebrate community was comparable in structure to control Station 1, but indicated some deterioration of water quality. Sensitive taxa were less abundant. The chironomid fauna, while containing many of the same forms, was lacking many others, and the total fauna was less diverse. Although the comparison may be tenuous over so long a distance, and based on few samples, yet the indications are that the effects of human activity on the St. Lawrence River do cause a net degradation of water quality in the Montreal and immediate downstream areas.

Macrophytes

The dominant macrophyte in the collections and observations of this survey was Vallisneria americana. This species was found at a majority of the locations sampled. Dansereau (1959) considers the association of plants which Vallisneria dominates to be typical of eutrophic conditions. Vallisneria has been noted by other workers to be the dominant species in a complex association in Lac St-Louis (Pageau, Gravel, and Levesque, 1971). They have also noted this to be a pollution resistant species.

Other common vascular plants recovered were Myriophyllum sp., Typha sp., Scirpus sp., and Sagittaria latifolia. These have all been recorded commonly throughout the study area by previous studies (Dansereau, 1959). Station 35, in Lake St. Peter, had the most diverse flora collected, indicative of this rich delta region.

Some filamentous algae were collected with the rooted plant collections. Oedogonium sp., Lyngbya sp., and Cladophora sp. were all reasonably widespread. Spirogyra sp. and Hydrodictyon sp. were much less common. Cladophora sp. and Spirogyra sp. have been noted in other studies to form dense mats, especially in association with rooted aquatic plants (Pageau, Gravel and Levesque, 1971).

Periphyton

The qualitative periphyton sampling programme has revealed a relatively diverse flora throughout the study area. All stations but one (P-6, Lavaltrie) had in excess of 12 genera identified, with 16 genera recorded for Stations P-3 (Pointe-aux-Trembles) and P-4 (Boucherville). The diatoms were apparently dominant, and among these forms, Navicula sp. was considered to be numerically dominant and was found at all seven locations. The stations recording the fewest forms were those downstream of Montreal Island, specifically P-6 and P-7, at Lavaltrie and Contrecoeur.

Most of the genera identified were those generally associated with relatively clean (ie., not grossly polluted) environments, and included Navicula, Cocconeis, Surirella, Cyclotella, and Pinnularia. However, some forms such as Stigeoclonium, Gomphonema, Merismopedium and Lyngbya, were noted to be associated in the literature with polluted water situations (Palmer, 1962). None of the periphyton collection locations were situated in areas considered from other survey data to be heavily polluted. Field observations of density of growth revealed that the areas at the downstream end of Montreal Island (Stations P-3, P-4, P-5) were the most productive. Stations P-6 and P-7, further downstream yielded very sparse floras.

CONCLUSIONS

The data presented in this report have detailed and enlarged upon the conclusions arrived at in Volume 1. Information included in Volume 1, plus the detailed identification of macroinvertebrates and the macrophyte and periphyton collections from Volume 2 will form a baseline of information for use in future studies of this area, and will allow an evaluation to be made of change in the system.

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D. G. Langley, Vice-President,
Environmental Services.

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TABLE 1

LOCATIONS OF SAMPLING STATIONS (EXCEPT PERIPHYTON)
ST. LAWRENCE RIVER SYSTEM
SEPT.-OCT. 1972

STATION	LATITUDE LONGITUDE	MAP		LOCATION
		HYDRO.	TOPO.	
1	45°21.05' 73°50.05'	1410	31H/5	Lac des Deux-Montagnes, off Ile Cadieux.
2	45°26.05' 73°59.85'	1540	31G/8E AND 31H/5	St. Lawrence River above Lac St- Louis.
3	45°25.38' 73°43.6'	1410 AND/OR 1409	31H/5	St. Lawrence River above Lachine Rapids.
3°	45°26.12' 73°43.5'	1410 AND/OR 1409	31H/5	Mouth of Ruisseau Bouchard - Dorval.
3'	45°24.9' 73°49.3'	1410	31H/5	Lac St- Louis, off Pointe Claire.
4	45°22.95' 73°45.05'	1410	31H/5	Riviere Chateauguay, at Chateauguay.
5	45°27.07' 73°32.58'	1409	31H/5	St. Lawrence River - Verdun transect, north shore.
6	45°26.8' 73°31.94'	1409	31H/5	Verdun transect, mid-river.
7	45°25.96' 73°30.42'	1409	31H/5	Verdun transect, south shore.
8	45°33.58' 73°31.18'	1340	31H/12	St. Lawrence River - Longueuil transect, north shore.
9	45°33.17' 73°30.62'	1340	31H/12	Longueuil transect, south shore.
10	45°37.41' 73°29.26'	1340	31H/12 AND 31H/11W	St. Lawrence River, off Ile de Boucherville, near Island.

TABLE 1 (continued)

STATION	LATITUDE LONGITUDE	MAP		LOCATION
		HYDRO.	TOPO.	
11	45°37.52' 73°29.86'	1352	31H/12 AND 31H/11W	North channel, Ile de Boucherville, at Montreal-Est.
12	45°37.04' 73°27.46'	1352	31H/11W	South channel, Ile de Boucherville at Boucherville.
13	45°40.57' 73°26.64'	1352 AND 1339	31H/11W	South channel, Ile Ste-Therese at Varennes.
14	45°40.61' 73°29.38'	1352 AND 1339	31H/11W	North channel, Ile Ste.-Therese, near Bout-de-L'Ile
15	45°32.71' 73°52.95'	1540	31H/12	R. des Mille-Iles at Laval Ouest.
16	45°37.0' 73°47.6'	-	31H/12	R. des Mille-Iles at Ste-Rose.
17	45°39.7 73°45.4'	-	31H/12	R. des Mille-Iles at Bois-des-Filion.
18	45°41.6' 73°34.9'	-	31H/12	R. des Mille-Iles, down-stream of Terrebonne.
19	45°28.15' 73°54.9'	1540	31H/5	R. des Prairies, Pierrefonds.
20	45°31.23' 73°50.6'	1540	31H/12	R. des Prairies, at Ile Laval
21	45°32.0' 73°43.8'	-	31H/12	R. des Prairies at Chomedy (Cartierville Bridge).
22	45°37.9' 73°36.8'	-	31H/12	R. des Prairies at Montreal - Nord.
23	45°42.04' 73°29.65'	1339	31H/11W	R. des Prairies, at Charlemagne.
24	45°44.96' 73°25.7'	1339	31H/11W	St. Lawrence River, at Repentigny, north shore.

TABLE 1 (continued)

STATION	LATITUDE LONGITUDE	MAP		LOCATION
		HYDRO	TOPO.	
25	45°45.33' 73°23.3'	1339	31H/11W	Repentigny, south shore.
26	45°52.23' 73°17.0'	1339 AND 1338	31H/14	St. Lawrence River, Lavaltrie-Contrecoeur transect, north shore.
27	45°50.98' 73°16.88'	1339 AND 1338	31H/14	Lavaltrie - Contrecoeur, mid-channel.
28	45°51.56' 73°14.44'	1339 AND 1338	31H/14	Lavaltrie - Contrecoeur, south shore.
29	45°57.34' 73°13.24'	1338	31H/14	St. Lawrence River - Lanoraie transect, north shore.
30	45°57.58' 73°11.98'	1338	31H/14	Lanoraie transect, south shore.
31	46°02.8' 73°13.5'	1338	31I/3	St. Lawrence River - Sorel transect, north shore.
32	46°03.38' 73°08.38'	1338	31 /3	Berthierville - Sorel transect (Alencon).
33	46°02.25' 73°09.15'	1338	31I/3	Berthierville - Sorel transect, south shore.
34	46°01.74' 73°07.82'	1338	31I/3	R. Richelieu near mouth.
35	46°07.47' 72°55.65'	1337	31H/2W	Baie St.-Francois
36	46°08.30' 72°58.10'	1337	31H/2W	Upstream end of Lake St. Peter.
38	46°16.12' 72°43.35'	1337	31I/2E	Lake St. Peter transect, north shore.
39	46°17.10' 72°37.20'	1336	31I/7	Downstream of Lake St. Peter near Pointe-du-Lac.
40	46°16.38' 72°37.10'	1337 AND 1336	31I/7	Downstream of Lake St. Peter at Port-St-Francois.

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ENVIRONMENT CANADA
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TABLE 2

BIOLOGICAL RESULTS
ST. LAWRENCE RIVER SYSTEM
SEPT. - OCT. 1972

STATION: 1

SEDIMENT TYPE: Sandy silt over sandy clay. Weeds.

WATER DEPTH (ft.): 7

		d		d		d	Avg/ ft.2
GROUP 3 ORGANISMS							
Ephemeroptera	1	2	1	1	-	2	2.2
Trichoptera	4	7	1	9*	2	6*	9.0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	1	0.3
Hemiptera	-	-	-	-	-	-	0
Chironomidae	8	24	15	28	61	38	53.7
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	11	11	6	6	9	7	15.4
Gastropoda	25	89	137	120	74	50	152.8
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	33	61	66	42	33	35	83.3
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	2	-	-	-	-	0.6
Turbellaria	1	3	5	2	3	2	4.9
Hirudinea	-	-	-	1	-	-	0.3
Nemata	-	-	-	1	1	1	0.9
Porifera	-	-	-	-	-	-	0
Coelenterata	-	3	-	-	-	-	0.9
Bryozoa (statoblast)	-	-	1	1	-	-	0.6
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	33	35	34	31	13	25	52.8
TOTAL	116	237	266	241	196	167	377.7
NO. OF TAXA	8	10	9	9	8	10	14

d - Sample chosen for detailed identification.
* - Plus empty cases.

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TABLE 2 (continued)

STATION: 2

SEDIMENT TYPE: Mud - muddy clay.

WATER DEPTH (ft.): 12

			d		d	d	Avg/ ft.2
GROUP 3 ORGANISMS							
Ephemeroptera	1*	1	5	5	7	5	7.5
Trichoptera	-	3**	1**	-**	2**	3**	2.8
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	9	14	9	6	4	16	17.9
Other Diptera	-	-	-	-	1	-	0.3
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	41	24	36	57	19	35	65.4
Gastropoda	-	-	1	1	-	1	0.9
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	-	-	2	2	-	1.2
Isopoda	4	4	1	18	6	7	12.3
Decapoda	-	-	-	-	-	-	0
Nemertea							
Turbellaria	-	-	-	2	-	1	0.9
Hirudinea	3	1	4	1	2	4	4.6
Nemata	1	-	3	-	2	1	2.2
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	2	0.6
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	1	-	-	-	-	-	0.3
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	18	22	24	36	36	28	50.7
TOTAL	78	69	84	128	81	103	167.6
NO. OF TAXA	8	7	9	9	10	11	14

d - Sample chosen for detailed identification.
* - Plus pieces
** - Plus empty cases.

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TABLE 2 (continued)

STATION: 3'

SEDIMENT TYPE: Brown silt over grey clay.

WATER DEPTH (ft.): 22

	d	d	e	d			Avg/ ft.2
GROUP 3 ORGANISMS							
Ephemeroptera	-	1	-	-	-	-	0.3
Trichoptera	-	2*	-	2*	3*	1*	2.5
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	1	-	-	-	-	-	0.3
Hemiptera	-	-	-	-	-	-	0
Chironomidae	5	17	20	16	10	8	23.5
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	296	343	354	307	335	463	647.5
Gastropoda	23	10	28	18	16	16	34.3
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	4	-	2	-	-	-	1.9
Isopoda	41	5	4	15	1	3	21.3
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	11	-	-	-	1	-	3.7
Hirudinea	9	11	10	3	4	6	13.3
Nemata	1	1	-	1	-	1	1.2
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	15	47	44	81	56	45	88.9
TOTAL	406	437	462	443	426	543	838.7
NO. OF TAXA	11	8	7	8	8	8	12

d - Sample chosen for detailed identification.
e - Extrapolated count from measured subsample.
* - Plus empty cases.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 3o

SEDIMENT TYPE: Soft brown mud, organic debris.

WATER DEPTH (ft.): 6

		e	e	e	e	e	Avg/ ft.2
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-*	-*	-	-*	-*	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	2	24	16	-	8	8	17.9
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	5	48	56	24	16	16	50.9
Gastropoda	51	336	232	152	280	120	361.4
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	3	152	208	8	32	48	139.2
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	1	88	152	8	80	88	128.7
Hirudinea	1	-	-	-	-	-	0.3
Nemata	-	-	-	-	-	-	0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	919	1,632	1,424	384	616	1,320	1,942.9
TOTAL	982	2,280	2,088	576	1,032	1,600	2,641.3
NO. OF TAXA	7	6	6	5	6	6	7

e - Extrapolated count from measured subsample.
* - Plus empty cases.

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OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 4

SEDIMENT TYPE: Sandy black ooze.

WATER DEPTH (ft.): 8

		e	e	e	e	e	Avg/ ft.2
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	4	-	-	-	1.2
Trichoptera	7	4	44*	4	8*	40	33.0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	2	4	28	4	24	16	24.1
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	20	32	36	36	288	96	156.8
Other Diptera	1	-	-	8	16	-	7.7
Lepidoptera	-	-	-	-	-	8	2.5
Pelecypoda	141	160	308	32	200	16	264.5
Gastropoda	101	64	888	140	544	312	632.4
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	66	16	136	60	264	192	226.5
Isopoda	9	4	200	24	96	48	117.6
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	6	8	44	8	16	8	27.8
Hirudinea	7	-	32	4	16	8	20.7
Nemata	-	4	12	-	-	8	7.4
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	4	FEW	FEW	-	0
Acari	-	-	-	-	8	-	2.5
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	36	44	120	44	96	88	132.1
TOTAL	396	340	1,856	364	1,576	840	1,656.8
NO. OF TAXA	11	10	13	12	13	12	15

e - Extrapolated count from measured subsample.
* - Plus empty cases.

TABLE 2 (continued)

STATION: 5

SEDIMENT TYPE: Boulders and rocks. Silt in interstices.

WATER DEPTH (ft.): 6

							Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	5*	-	-	-	-	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	-	-	-	-	0
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	8	-	-	-	-	-	0
Gastropoda	78	-	-	-	-	-	0
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	7	-	-	-	-	-	0
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	-	-	-	-	-	-	0
Hirudinea	1	-	-	-	-	-	0
Nemata	-	-	-	-	-	-	0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	4	-	-	-	-	-	0
TOTAL	103	-	-	-	-	-	0
NO. OF TAXA	6	-	-	-	-	-	0

* - Plus few empty cases.
N.B. - Qualative sample composite of 4 core sample.

TABLE 2 (continued)

STATION: 7

SEDIMENT TYPE: Mud from plant roots.

WATER DEPTH (ft.): 7

							Avg/ ft.2
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	186	81*	1*	7	121*	31*	131.8
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	37	27	-	1	176	14	78.7
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	47	24	4	23	-	1	30.6
Gastropoda	94	471	22	237	3	16	260.2
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	5	25	3	12	5	2	16.0
Isopoda	10	25	6	34	2	2	24.4
Decapoda	-	-	-	-	-	-	0
Nemertea	1	-	-	-	-	-	0.3
Turbellaria	4	26	4	10	-	2	14.2
Hirudinea	2	1	1	1	-	1	1.9
Nemata	-	-	-	1	-	-	0.3
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	3	-	-	-	0.9
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	24	28	6	29	102	6	60.2
TOTAL	410	708	50	355	409	75	619.5
NO. OF TAXA	10	9	9	10	6	9	12

* - Plus empty cases.

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OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 8

SEDIMENT TYPE: Black ooze, white speckled surface.

WATER DEPTH (ft.): 40

	e	e	e	e	e	e	Avg./ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	-	-	-	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	-	-	-	-	0
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	16	128	256	-	-	-	123.5
Gastropoda	-	64	-	-	-	-	19.8
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	-	-	-	-	-	0
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	-	-	-	64	-	-	19.8
Hirudinea	8	-	-	-	-	-	2.5
Nemata	-	-	-	-	-	-	0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	8	-	-	-	-	-	2.5
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	33,808	61,952	95,744	44,736	54,592	85,056	116,014.8
TOTAL	33,840	62,144	96,000	44,800	54,592	85,056	116,182.9
NO. OF TAXA	4	3	2	2	1	1	6

e - Extrapolated count from measured subsample.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 9

SEDIMENT TYPE: Black silty organic detritus. Sludge balls. Domestic garbage. Gasification.

WATER DEPTH (ft.): 6

	e	e	e	e	e	e	Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	-	-	-	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	4	-	-	-	-	-	1.2
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	4	-	-	-	-	-	1.2
Gastropoda	8	-	-	-	-	-	2.5
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	-	-	-	-	-	0
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	-	-	-	-	-	-	0
Hirudinea	-	-	-	-	-	-	0
Nemata	-	-	-	-	-	-	0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	164	272	336	96	176	544	490.1
TOTAL	180	272	336	96	176	544	495.0
NO. OF TAXA	4	1	1	1	1	1	4

e - Extrapolated count from measured subsample.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 10

SEDIMENT TYPE: Sandy silt on clay. Fingernail clamshells.

WATER DEPTH (ft.): 12

		e	e			e	Avg./ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	2	-	4	-*	-	-	1.9
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	7	4	-	3	2	4	6.2
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	63	214	192	119	177	220	304.0
Gastropoda	2	16	26	2	10	20	23.5
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	2	-	-	2	2	1.9
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	2	-	-	1	1	-	1.2
Turbellaria	-	-	-	-	3	-	0.9
Hirudinea	1	2	-	-	-	2	1.5
Nemata	1	-	-	3	2	2	2.5
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	FEW	-	-	1	ABUNDANT	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	24	-	-	-	-	-	7.4
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	323	430	478	127	392	586	721.0
TOTAL	425	668	700	256	589	836	1,072.0
NO. OF TAXA	10	6	4	7	9	7	11

e - Extrapolated count from measured subsample.
* - One empty case.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 11

SEDIMENT TYPE: Black ooze, oily detritus (water oily). Brown and Black scum.

WATER DEPTH (ft.): 30

	e	e	e	e	e	e	Avg/ ft.2
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	-	-	-	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	-	-	-	-	0
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	44	128	96	256	256	64	260.5
Gastropoda	72	128	512	256	320	96	427.2
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	-	-	-	-	-	0
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	-	-	32	-	-	32	19.8
Hirudinea	-	-	32	64	64	64	69.1
Nemata	-	-	-	-	-	-	0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	12,784	5,920	7,776	18,496	31,872	28,960	32,656.8
TOTAL	12,900	6,176	8,448	19,072	32,512	29,216	33,433.4
NO. OF TAXA	3	3	5	4	4	5	5

e - Extrapolated count from measured subsample.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 12

SEDIMENT TYPE: Ooze. Brown surface, black beneath. Shells.

WATER DEPTH (ft.): 6

	e	e	e	e	e	e	Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	-	-	-	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	-	-	-	-	0
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	164	288	1,472	464	448	704	1,092.6
Gastropoda	60	288	768	1,104	416	672	1,021.0
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	28	32	32	48	32	-	53.1
Isopoda	12	24	128	64	32	-	80.2
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	16	-	128	48	-	64	79.0
Hirudinea	8	8	-	16	32	32	29.6
Nemata	8	-	-	-	-	-	2.5
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	1,936	1,432	5,728	2,560	3,072	3,904	5,750.6
TOTAL	2,232	2,072	8,128	4,304	4,032	5,376	8,108.6
NO. OF TAXA	8	6	6	7	6	5	8

e - Extrapolated count from measured subsample.
* - One empty case.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 13

SEDIMENT TYPE: Sandy silt over clay, some rocks. Weeds.

WATER DEPTH (ft.): 6

		d		d		d	Avg/ ft.2
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	1	0.3
Trichoptera	4*	2*	2*	2*	1*	8	5.9
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	42	15	20	52	56	3	58.0
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	56	38	61	62	104	39	111.1
Gastropoda	253	165	131	209	174	47	302.2
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	4	23	6	22	25	11	28.1
Isopoda	-	-	-	3	1	-	1.2
Decapoda	-	-	-	-	-	-	0
Nemertea	-	4	5	9	2	-	6.2
Turbellaria	-	3	3	1	2	-	2.8
Hirudinea	1	1	4	4	4	1	4.6
Nemata	-	1	-	4	3	-	2.5
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	68	74	70	120	33	8	115.1
TOTAL	428	326	302	488	405	118	637.8
NO. OF TAXA	7	10	9	11	11	8	11

d - Sample chosen for detailed identification.
* - Plus empty cases.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 14

SEDIMENT TYPE: Black oily sandy silt. Oily odour.

WATER DEPTH (ft.): 12

	d		d		d		Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	-	-	-	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	-	2	2	-	1.2
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	1	-	-	0.3
Pelecypoda	-	7	3	1	2	5	5.6
Gastropoda	6	2	8	10	2	5	10.2
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	-	-	-	-	-	0
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	-	-	-	-	-	-	0
Hirudinea	-	3	-	1	-	2	1.9
Nemata	-	-	-	1	-	-	0.3
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	1	-	-	-	0.3
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	692	995	415	908	1,371	454	1,492.3
TOTAL	698	1,007	427	924	1,377	466	1,512.1
NO. OF TAXA	2	4	4	7	4	4	8

d - Sample chosen for detailed identification.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 15

SEDIMENT TYPE: Silt over grey clay.

WATER DEPTH (ft.): 12

	d			d	d		Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	2	-	-	1	-	1	1.2
Trichoptera	-*	2*	2*	-*	-*	2*	1.9
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	5	4	2	1	1	2	4.6
Other Diptera	-	1	-	1	-	-	0.6
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	14	11	7	4	7	14	17.6
Gastropoda	-	2	3	2	1	1	2.8
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	-	1	-	-	1	0.6
Isopoda	-	3	-	-	1	2	1.9
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	2	-	-	2	1.2
Turbellaria	4	3	1	-	2	5	4.6
Hirudinea	-	-	-	-	-	1	0.3
Nemata	-	-	-	2	2	-	1.2
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	ABUNDANT	MANY	MANY	MANY	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	66	76	75	29	23	101	114.2
TOTAL	91	102	93	40	37	132	152.4
NO. OF TAXA	6	9	9	8	8	11	13

d - Sample chosen for detailed identification.
* - Plus empty cases.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 16

SEDIMENT TYPE: Silt over grey clay.

WATER DEPTH (ft.): 15

							Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-*	-*	-	-*	-	1*	0.3
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	-	1	-	-	0.3
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	35	29	36	14	30	52	60.5
Gastropoda	1	-	-	1	-	-	0.6
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	-	-	-	-	-	0
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	5	2	2	5	6	3	7.1
Turbellaria	1	1	1	-	-	-	0.9
Hirudinea	-	-	-	-	-	-	0
Nemata	2	4	3	7	5	3	7.4
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	ABUNDANT	FEW	FEW	1	FEW	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	17	14	6	16	3	15	21.9
TOTAL	61	50	48	45	44	74	99.0
NO. OF TAXA	7	6	6	7	5	5	8

* - Plus empty cases.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 17

SEDIMENT TYPE: Silt over grey sandy clay. Green alga on surface.

WATER DEPTH (ft.): 7

							Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-*	-	-*	-	-*	-*	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	1	-	-	-	0.3
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	90	66	58	68	35	85	124.1
Gastropoda	47	27	21	11	15	40	49.7
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	-	-	-	-	1	0.3
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	14	-	11	8	10	13	17.3
Turbellaria	1	-	1	4	-	-	1.9
Hirudinea	-	-	-	-	1	-	0.3
Nemata	-	14	8	-	11	4	37.0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	6	-	FEW	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	1	1	-	-	1	-	0.9
Indeterminate	-	-	2	-	-	-	0.6
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	32	20	26	8	19	22	39.2
TOTAL	185	128	134	99	92	165	271.6
NO. OF TAXA	6	5	9	5	8	6	11

* - Empty cases.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 18

SEDIMENT TYPE: Fine silt and sand over grey-blue clay. Some algae.

WATER DEPTH (ft.): 6

	d		d			d	Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	45	-	14	2	-	2	19.4
Trichoptera	4	-*	-	-*	-*	-*	1.2
Plecoptera	1	-	-	-	-	-	0.3
Coleoptera	2	-	4	-	-	3	2.8
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	1	-	-	-	0.3
Chironomidae	19	-	16	24	1	16	23.5
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	1	-	-	-	-	-	0
Pelecypoda	14	27	5	13	8	84	46.6
Gastropoda	8	8	16	7	6	23	21.0
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	362	-	-	9	-	4	115.7
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	1	2	-	-	-	0.9
Turbellaria	3	1	11	-	-	-	4.6
Hirudinea	-	-	-	-	-	-	0
Nemata	1	-	-	-	-	-	0.3
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	1	-	-	-	0.3
Polychaeta	-	-	4	-	-	-	1.2
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	1	0.3
GROUP 1 ORGANISMS							
Oligochaeta	26	7	3	12	19	18	26.9
TOTAL	486	44	7	67	34	151	265.3
NO. OF TAXA	11	5	10	6	4	8	15

d - Sample chosen for detailed identification.
* - Empty cases.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 19

SEDIMENT TYPE: Grey sandy silt, weeds.

WATER DEPTH (ft.): 3

	d,e	e	d,e	e	d,e	e	Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	2	-	-	-	-	-	0.6
Trichoptera	30*	56*	40*	72*	56*	48*	93.2
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	108	128	112	104	64	120	196.3
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	16	104	24	112	24	104	118.5
Gastropoda	2	104	-	8	24	-	42.6
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	8	-	8	4.9
Amphipoda	14	120	56	96	32	80	122.8
Isopoda	48	8	16	16	16	-	32.1
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	4	-	-	-	16	8	8.6
Hirudinea	-	16	-	8	-	-	7.4
Nemata	-	-	-	-	-	-	0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	8	-	-	8	-	4.9
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	37	64	64	64	57	36	99.3
TOTAL	261	608	312	488	297	404	731.2
NO. OF TAXA	9	9	6	9	9	7	12

d - Sample chosen for detailed identification.
e - Extrapolated count from measured subsample.
* - Plus empty cases.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 20

SEDIMENT TYPE: Sandy silt on gravel. Weeds.

WATER DEPTH (ft.): 2

		e		e	e	e	Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	2	-	-	8	3.1
Trichoptera	6*	4*	4*	-*	4*	-*	5.6
Plecoptera	-	-	-	-	-	-	0
Coleoptera	1	-	5	-	8	-	4.3
Odonata	-	-	1	-	-	-	0.3
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	44	68	195	200	184	424	344.1
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	-	-	10	12	16	40	24.1
Gastropoda	3	-	12	28	-	32	23.1
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	14	24	43	32	8	456	178.1
Isopoda	36	28	6	16	4	-	27.8
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	1	-	-	-	0.3
Turbellaria	-	-	9	-	4	32	13.9
Hirudinea	1	-	1	-	-	-	0.6
Nemata	1	4	2	4	-	-	3.4
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	27	32	79	112	40	112	124.1
TOTAL	133	160	370	404	268	1,104	752.8
NO. OF TAXA	9	6	14	7	8	7	14

e - Extrapolated count from measured subsample.
* - Plus empty cases.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 21

SEDIMENT TYPE: Silt over sand and gravel.

WATER DEPTH (ft.): 4

	d		d	d		e	Avg/ ft.2
GROUP 3 ORGANISMS							
Ephemeroptera	-	3	-	1	-	2	1.9
Trichoptera	8*	1*	16	6	4*	22*	17.6
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	35	40	65	23	60	84	94.8
Other Diptera	1	2	-	-	-	2	1.5
Lepidoptera	-	-	1	-	-	-	0.3
Pelecypoda	77	150	258	182	151	360	363.6
Gastropoda	12	39	21	25	11	28	42.0
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	-	1	-	-	-	0.3
Isopoda	-	1	5	1	3	4	4.3
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	2	0.6
Turbellaria	-	8	5	3	2	10	8.6
Hirudinea	2	1	1	-	4	4	3.7
Nemata	1	1	1	1	2	4	3.1
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	1	-	-	0.3
Acari	-	-	-	-	-	-	0
Polychaeta	1	-	-	-	-	-	0.3
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	155	165	434	131	111	193	367.0
TOTAL	292	411	808	374	348	715	909.9
NO. OF TAXA	9	11	10	10	9	12	15

d - Sample chosen for detailed identification.
e - Extrapolated count from measured subsample.
* - Plus empty cases.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 22

SEDIMENT TYPE: Black organic detritus and sandy-silt over clay. Gasification.

WATER DEPTH (ft.): 6

	e	e	e	e	e	e	Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	-	-	-	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	-	-	-	-	0
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	-	64	64	-	192	64	118.5
Gastropoda	64	32	128	-	192	64	148.1
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	-	-	-	-	-	0
Isopoda	-	-	-	-	-	64	19.8
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	-	-	-	-	-	-	0
Hirudinea	64	-	-	128	64	256	158.0
Nemata	-	-	-	-	-	-	0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	15,488	15,840	9,152	15,168	21,056	20,032	29,858.0
TOTAL	15,616	15,936	9,344	15,296	21,504	20,480	30,302.4
NO. OF TAXA	3	3	3	2	4	5	5

e - Extrapolated count from measured subsample.

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ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 23

SEDIMENT TYPE: Sandy silt and organic debris over clay.

WATER DEPTH (ft.): 7

	d	d,e	d,e	e	e	e	Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-*	-	-	-	-	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	1	-	-	-	-	-	0.3
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	22	128	112	192	56	104	189.5
Gastropoda	15	200	72	528	96	272	365.1
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	72	8	144	40	16	86.4
Isopoda	-	-	16	16	-	16	14.8
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	2	192	8	352	64	48	205.6
Hirudinea	1	-	-	-	8	16	7.7
Nemata	-	-	-	-	-	-	0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	884	2,607	1,277	2,755	1,270	1,962	3,319.4
TOTAL	925	3,199	1,493	3,987	1,534	2,434	4,188.8
NO. OF TAXA	6	5	6	6	6	7	8

d - Sample chosen for detailed identification.
e - Extrapolated count from measured subsamples.
* - Empty cases.

TABLE 2 (continued)

STATION: 24

SEDIMENT TYPE: Silty sand. Decaying weeds.

WATER DEPTH (ft.): 4

	d	e	d,e	e	d,e	e	Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	4	-	-	1.2
Trichoptera	2*	-	4*	-*	-*	32	11.7
Plecoptera	-	-	-	-	-	-	0
Coleoptera	1	-	4	12	8	-	7.7
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	38	112	72	184	184	256	261.1
Other Diptera	1	-	-	-	-	-	0.3
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	538	1,668	1,076	1,584	2,072	2,120	2,795.7
Gastropoda	86	240	160	384	184	200	387.0
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	28	100	64	108	64	32	122.2
Isopoda	12	8	12	40	-	8	24.7
Decapoda	-	-	-	-	-	-	0
Nemertea	1	-	4	-	-	-	1.2
Turbellaria	37	144	124	172	112	128	221.3
Hirudinea	10	32	12	40	24	24	43.8
Nemata	4	-	8	8	-	-	6.2
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	4	-	-	-	1.2
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	1,571	2,424	2,132	2,455	2,896	4,150	4,823.5
TOTAL	2,329	4,728	3,676	4,991	5,544	6,950	8,708.8
NO. OF TAXA	12	8	13	11	8	9	15

d - Sample chosen for detailed identification.
e - Extrapolated count from measured subsample.
* - Plus empty cases.

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TABLE 2 (continued)

STATION: 25

SEDIMENT TYPE: Sand (little silt) over clay.

WATER DEPTH (ft.): 4

							Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	-	-	-	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	1	-	-	0.3
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	2	-	19	2	7.1
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	-	-	-	1	-	2	0.9
Gastropoda	-	-	-	-	1	-	0.3
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-*	-	7	-	5	4	4.9
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	-	-	-	-	-	-	0
Hirudinea	-	-	-	-	-	-	0
Nemata	-	-	1	-	-	-	0.3
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	1	-	-	-	-	0.3
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	-	1	1	2	10	9	7.1
TOTAL	0	2	11	4	35	17	21.2
NO. OF TAXA	0	2	4	3	4	4	8

* - Two pcs.

TABLE 2 (continued)

STATION: 26

SEDIMENT TYPE: Silty sand, organic debris, wood chips.

WATER DEPTH (ft.): 16

	e	e	e	e	e	e	Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	4*	16	-	-	6.2
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	12	24	20	16	40	8	37.0
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	1,196	264	412	1,296	480	320	1,224.7
Gastropoda	12	24	4	16	12	4	22.2
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	40	8	8	48	12	4	37.0
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	60	72	44	80	12	28	91.4
Hirudinea	-	-	-	-	-	-	0
Nemata	-	-	4	-	-	-	1.2
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	1,780	1,256	1,324	2,304	1,640	980	2,865.4
TOTAL	3,100	1,648	1,820	3,776	2,196	1,344	4,285.1
NO. OF TAXA	6	6	8	7	6	6	8

e - Extrapolated count from measured subsample.
* - Plus empty cases.

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TABLE 2 (continued)

STATION: 27

SEDIMENT TYPE: Sand on clay. Weeds.

WATER DEPTH (ft.): 4

		d		d	d	e	Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	-	1*	-	-	0.3
Plecoptera	-	-	-	-	-	-	0
Coleoptera	1	-	1	-	-	-	0.6
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	1	-	-	0.3
Hemiptera	-	-	-	-	-	-	0
Chironomidae	34	113	15	25	50	-	73.1
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	50	22	80	114	33	288	181.2
Gastropoda	10	14	18	14	12	200	82.7
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	20	165	104	130	317	256	306.2
Isopoda	-	-	-	-	-	4	1.2
Decapoda	-	-	-	-	-	-	0
Nemertea	-	1	3	2	1	-	2.2
Turbellaria	-	1	3	3	8	-	4.6
Hirudinea	-	-	-	-	-	4	1.2
Nemata	-	14	4	-	3	-	6.5
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	4	-	-	1.2
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	1	3	1	2	2	4	4.0
TOTAL	116	323	229	296	426	756	665.3
NO. OF TAXA	6	8	9	9	8	6	13

d - Sample chosen for detailed identification.
e - Extrapolated count from measured subsample.
* - Plus empty case.

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TABLE 2 (continued)

STATION: 28

SEDIMENT TYPE: Thin silty-sand layer on clay. Shells.

WATER DEPTH (ft.): 18

							Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	1	-	-	-	0.3
Trichoptera	-*	1	3	2*	-	1	2.2
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	1	-	-	-	0.3
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	1	0.3
Pelecypoda	76	11	42	34	74	103	104.9
Gastropoda	-	-	3	1	-	1	1.5
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	14	17	84	75	3	203	122.2
Isopoda	-	-	-	-	-	3	0.9
Decapoda	-	-	-	-	-	2	0.6
Nemertea	-	2	2	3	2	2	3.4
Turbellaria	-	1	3	5	-	5	4.3
Hirudinea	-	-	-	-	-	-	0
Nemata	1	-	-	-	-	1	0.6
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	3	-	-	FEW	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	41	12	23	24	15	73	58.0
TOTAL	132	44	165	144	94	395	299.5
NO. OF TAXA	4	6	10	7	4	12	13

* - Plus empty cases.

TABLE 2 (continued)

STATION: 29

SEDIMENT TYPE: Firm sand, some silt pockets.

WATER DEPTH (ft.): 6

							Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	-	-	-	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	1	7	1	1	6	9	7.7
Other Diptera	-	1	-	-	1	-	0.6
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	5	3	1	2	13	5	9.0
Gastropoda	-	-	-	-	-	-	0
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	4	-	-	-	1	1	1.9
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	1	-	-	-	-	-	0.3
Hirudinea	-	-	-	-	-	1	0.3
Nemata	-	-	-	-	-	-	0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	1	0.3
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	18	27	19	17	82	53	66.7
TOTAL	29	38	21	20	103	70	86.8
NO. OF TAXA	5	4	3	3	5	6	7

TABLE 2 (continued)

STATION: 30

SEDIMENT TYPE: Silty sand on rocks.

WATER DEPTH (ft.): 4

							Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-	-	-	-	-*	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	12	26	18	10	19	7	28.4
Other Diptera	5	6	8	12	8	2	12.7
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	46	33	40	46	46	42	78.1
Gastropoda	-	-	-	-	-	-	0
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	8	52	44	33	104	53	90.7
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	1	1	-	0.6
Turbellaria	-	1	-	2	-	-	0.9
Hirudinea	-	-	-	-	-	-	0
Nemata	-	-	-	-	-	-	0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	36	72	50	61	62	44	100.3
TOTAL	107	190	160	165	240	148	311.7
NO. OF TAXA	5	6	5	7	6	5	7

* - Empty case.

TABLE 2 (continued)

STATION: 31

SEDIMENT TYPE: Silty sand, silt, organic debris.

WATER DEPTH (ft.): 15

	e	e	e	e	e	e	Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-*	-	-*	-	-*	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	-	-	-	-	-	-	0
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	576	752	2,496	1,632	2,176	1,728	2,888.9
Gastropoda	164	224	320	112	960	1,120	895.1
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	480	336	1,360	400	384	784	1,155.6
Isopoda	-	-	32	-	-	32	19.8
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	24	-	-	32	64	224	106.2
Hirudinea	20	16	64	16	64	-	55.6
Nemata	-	-	-	16	-	-	4.9
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	64	1,184	240	416	768	824.7
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	608	544	2,816	1,088	1,888	2,688	2,972.8
TOTAL	1,872	1,936	8,272	3,536	5,952	7,344	8,923.6
NO. OF TAXA	6	6	7	8	7	7	9

e - Extrapolated count from measured subsample.
* - Empty cases.

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TABLE 2 (continued)

STATION: 32

SEDIMENT TYPE: Sand. Isoetes sp.

WATER DEPTH (ft.): 3

							Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	1	-*	-*	-	-*	-*	0.3
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	4	6	3	8	7	4	9.9
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	230	265	202	237	104	65	340.4
Gastropoda	22	44	40	19	12	17	47.5
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	28	53	56	20	35	23	66.4
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	6	23	23	7	11	2	22.2
Turbellaria	2	2	3	2	-	2	3.4
Hirudinea	-	-	1	-	1	1	0.9
Nemata	1	-	1	1	1	-	1.2
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	1	-	0.3
Polychaeta	-	-	-	3	-	-	0.9
Indeterminate	-	-	-	-	1	-	0.3
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	100	55	57	26	43	43	100.0
TOTAL	394	448	386	323	216	157	593.7
NO. OF TAXA	9	7	9	9	-	-	13

* - Empty cases.

TABLE 2 (continued)

STATION: 33

SEDIMENT TYPE: Sandy silt on sandy clay.

WATER DEPTH (ft.): 3

						e	Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	1	-	-	-	-	0.3
Trichoptera	-*	1	-	-	-	-	0.3
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	8	9	1	5	3	10	11.1
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	144	83	50	121	84	72	171.0
Gastropoda	3	4	2	4	6	-	5.9
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	36	75	185	100	220	134	231.5
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	-	-	1	1	3	-	1.5
Hirudinea	5	-	2	-	-	-	2.2
Nemata	-	-	1	-	-	-	0.3
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	1	-	-	-	-	0.3
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	974	409	120	550	114	174	722.5
TOTAL	1,170	583	362	781	430	390	1,146.9
NO. OF TAXA	6	8	8	6	6	4	11

e - Extrapolated count from measured subsample.
* - Empty case.

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TABLE 2 (continued)

STATION: 34

SEDIMENT TYPE: Silty-sand. Weeds.

WATER DEPTH (ft.): 4

							Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	14	48	15	43	46	35	62.0
Trichoptera	6	18	11	15*	15*	13	24.1
Plecoptera	-	-	-	-	-	-	0
Coleoptera	11	12	3	9	20	12	20.7
Odonata	-	-	-	-	1	-	0.3
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	90	159	66	196	152	215	271.0
Other Diptera	5	7	4	20	5	6	14.5
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	9	9	5	3	20	5	15.7
Gastropoda	29	13	23	18	32	15	40.1
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	255	76	100	95	173	143	259.9
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	3	4	3	3.1
Turbellaria	15	3	4	17	17	9	20.1
Hirudinea	3	3	4	1	1	3	4.6
Nemata	6	11	7	33	7	27	28.1
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	FEW	-	FEW	FEW	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	116	105	40	132	73	90	171.6
TOTAL	559	465	282	587	567	576	937.0
NO. OF TAXA	12	13	13	14	16	14	15

* - Plus empty cases.

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OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 35

SEDIMENT TYPE: Silt, mud, weeds, shells.

WATER DEPTH (ft.): 8

		e	e	e	e	e	Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	16	4.9
Trichoptera	3	4*	32	128*	192*	528*	273.8
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	47	32	76	72	264	544	319.4
Other Diptera	2	4	12	8	-	48	22.8
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	677	1,908	2,200	1,856	1,336	1,440	2,906.5
Gastropoda	22	32	8	48	416	64	182.1
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	38	80	28	216	64	336	235.2
Isopoda	3	4	20	32	48	224	102.2
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	16	28	8	24	80	96	77.8
Hirudinea	5	28	8	16	24	128	64.5
Nemata	-	4	-	-	-	64	21.0
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	4	-	-	-	-	-	1.2
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	972	340	204	832	408	2,048	1,482.7
TOTAL	1,789	2,464	2,596	3,232	2,832	5,536	5,694.1
NO. OF TAXA	11	11	10	10	9	12	13

e - Extrapolated count from measured subsample.
* - Plus empty cases.

PROJECT: A-1155

ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 36

SEDIMENT TYPE: Mud, silt-sand. Clamshells.

WATER DEPTH (ft.): 12

	d	d	e	e	d,e	e	Avg/ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	1*	4*	8	4*	-*	-	5.3
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	2	-	0.6
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	4	3	2	4	8	8	9.0
Other Diptera	-	-	-	-	-	-	0
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	1,197	1,082	980	1,094	874	2,052	2,246.6
Gastropoda	9	16	22	12	2	4	20.0
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	26	14	28	22	32	44	51.2
Isopoda	1	-	2	-	-	-	0.9
Decapoda	-	-	-	-	-	-	0
Nemertea	-	4	-	-	6	-	3.1
Turbellaria	5	1	6	-	-	8	6.2
Hirudinea	9	9	20	14	12	48	34.6
Nemata	1	10	14	18	12	8	19.4
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	18	-	5.6
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	6	42	-	4	16.0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	63	364	306	224	475	783	683.6
TOTAL	1,316	1,507	1,394	1,434	1,441	2,959	3,102.1
NO. OF TAXA	10	10	11	9	10	9	14

d - Sample chosen for detailed identification.
e - Extrapolated count from measured subsample.
* - Plus empty cases.

PROJECT: A-1155

ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 38

SEDIMENT TYPE: Sand on clay.

WATER DEPTH (ft.): 9

	d		d	d			Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-	-*	-	-	-*	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	-	-	-	-	0
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	2	2	3	7	-	-	4.3
Other Diptera	-	-	1	-	-	-	0.3
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	26	4	20	25	22	16	34.9
Gastropoda	3	1	1	-	-	-	1.5
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	2	1	2	1	1	2	2.8
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	-	-	0
Turbellaria	-	-	-	1	-	2	0.9
Hirudinea	-	-	-	-	-	-	0
Nemata	-	1	1	4	-	-	1.9
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	36	24	20	59	16	21	54.3
TOTAL	69	33	48	97	39	41	101.0
NO. OF TAXA	5	6	7	6	3	4	8

d - Sample chosen for detailed identification.
* - Empty cases.

PROJECT: A-1155

ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 39

SEDIMENT TYPE: Sand-silty sand, sandy clay.

WATER DEPTH (ft.): 6

	d,e	e	e	e	d,e	d,e	Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	2	16	-	2	6.2
Trichoptera	-	-*	-	-*	-*	-	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	2	-	-	-	0.6
Odonata	2	-	-	4	-	-	1.9
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	48	44	16	36	36	72	77.8
Other Diptera	2	2	-	4	-	2	3.1
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	132	80	74	120	98	56	172.8
Gastropoda	-	-	2	-	-	-	0.6
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	2	10	6	20	2	18	17.9
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	-	-	-	-	4	-	1.2
Turbellaria	-	2	-	-	6	-	2.5
Hirudinea	2	-	-	-	-	2	1.2
Nemata	2	4	-	4	-	2	3.7
Porifera	-	-	-	-	-	-	0
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	2	-	-	-	-	0.6
Acari	-	-	-	-	-	-	0
Polychaeta	-	-	-	-	-	-	0
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	482	301	465	815	335	924	1,025.3
TOTAL	672	445	567	1,019	481	1,078	1,315.3
NO. OF TAXA	8	8	7	8	6	8	14

d - Sample chosen for detailed identification.
e - Extrapolated count from measured subsample.
* - Empty cases.

PROJECT: A-1155

ENVIRONMENT CANADA
OTTAWA, ONTARIO

TABLE 2 (continued)

STATION: 40

SEDIMENT TYPE: Sand, silty-sand. Some weeds.

WATER DEPTH (ft.): 3

							Avg/ ft.^{2}
GROUP 3 ORGANISMS							
Ephemeroptera	-	-	-	-	-	-	0
Trichoptera	-*	-*	-	-	-*	-*	0
Plecoptera	-	-	-	-	-	-	0
Coleoptera	-	-	1	-	-	1	0.6
Odonata	-	-	-	-	-	-	0
GROUP 2 ORGANISMS							
Insecta (adult)	-	-	-	-	-	-	0
Hemiptera	-	-	-	-	-	-	0
Chironomidae	6	9	8	5	15	6	15.1
Other Diptera	-	-	-	-	1	-	0.3
Lepidoptera	-	-	-	-	-	-	0
Pelecypoda	188	148	68	203	80	157	260.5
Gastropoda	13	2	7	13	4	7	14.2
Copepoda	-	-	-	-	-	-	0
Cladocera	-	-	-	-	-	-	0
Amphipoda	-	2	-	3	-	-	1.5
Isopoda	-	-	-	-	-	-	0
Decapoda	-	-	-	-	-	-	0
Nemertea	13	1	-	8	3	2	8.3
Turbellaria	5	2	5	11	7	6	11.1
Hirudinea	14	-	2	3	7	2	8.6
Nemata	1	5	-	2	3	-	3.4
Porifera	-	-	-	-	-	2	0.6
Coelenterata	-	-	-	-	-	-	0
Bryozoa (statoblast)	-	-	-	-	-	-	0
Acari	-	-	-	-	-	-	0
Polychaeta	-	8	-	-	-	2	3.1
Indeterminate	-	-	-	-	-	-	0
Pisces (Agnatha)	-	-	-	-	-	-	0
GROUP 1 ORGANISMS							
Oligochaeta	78	11	18	28	32	16	56.5
TOTAL	318	188	109	276	152	201	384.1
NO. OF TAXA	8	9	7	9	9	10	13

* - Empty cases.

TABLE 3

DETAILED IDENTIFICATION OF MACROINVERTEBRATES, ST. LAWRENCE RIVER SYSTEM, SEPT. - OCT. 1972.

STATION 1			
SAMPLE REF.	V-188	B542	V-188
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.	2	1	2
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.			
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.	-	1	-
B. lateralis	-	2	-
F. Hydropsychidae			
Hydropsyche sp.			
F. Lepidostomatidae			
Sp. indet			
F. Leptoceridae			
Oecetis sp.	6	6	6
Sp. indet			
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.			
Polycentropus sp.	1	-	-
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.			
ODONATA			
F. Gomphidae			
Gomphus sp.			
Sp. indet.			

TABLE 3 (continued)

STATION 1			
SAMPLE REF.	V-188	B-542	B-188
GROUP 2 ORGANISMS			
INSECTA (adult)			
Sp. indet.	-	-	1
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.	1	-	-
Demicryptochironomus sp.		2	2
Dicrotendipes sp.			
Microtendipes sp.	1	-	1
Polypedilum sp.	-	-	6
Stenochironomus sp.			
Tribelos/ Endochironomus sp.			
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.	-	1	-
Tanytarsus sp.			
Sp. indet.	1	-	-
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.	17	19	23
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.	-	1	1
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 1			
SAMPLE REF.	V-188	B-542	B-188
Procladius sp.	2	2	3
Sp. indet			
Chironomidae pupae indet	2	3	2
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	9	5	7
Sphaerium sp.			
Sp. indet (juvenile)			
Sp. indet	2	-	-
F. Unionidae			
Ligumia sp.			
Sp. indet.	-	1	-
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	52	41	32
Somatogyrus sp.			
Sp. indet.			
F. Ancylidae			
Ferrisia sp.	-	2	2
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.	-	-	2
F. Planorbidae			
Heliosoma sp.			
Sp. indet.	-	-	2
F. Valvatidae			
Valvata sp.	-	1	3
V. sincera			
V. tricarinata			
F. Viviparidae			
Campeloma sp.			
Viviparus sp.	36	76	9
Sp. indet.	1	-	-
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	20	17	14
Gammarus sp. (Juvenile)	41	25	21

TABLE 3 (continued)

STATION 1			
SAMPLE REF.	V-188	B-542	B-188
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.			
NEMERTEA			
Sp. indet.	2	-	-
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	3	2	2
F. Planariidae			
Sp. indet.			
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.			
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.	-	1	-
Sp. indet.			
NEMATA			
Sp. indet.	-	1	1
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.	3	-	-
ACARI			
Sp. indet.			
BRYOZOA (statoblast)			
Sp. indet.	-	1	-

TABLE 3 (continued)

STATION 1			
SAMPLE REF.	V-188	B-542	B-188
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.	-	4	3
F. Naididae			
Nais sp.			
Stylaria lacustris	1	-	2
Sp. indet.	5	1	-
F. Tubificidae			
Aulodrilus americanus	1	-	-
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri			
L. udekemianus	-	-	3
Peloscolex sp.	19	26	14
Immature Capilliform sp. indet.	-	-	1
Immature Non-capilliform Sp. indet.	9	-	2
TOTAL	237	241	167
NO. OF TAXA	22	23	25

TABLE 3 (continued)

STATION 2			
SAMPLE REF.	B-296	B-40	V-192
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.	5	7	5
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.			
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.			
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.			
F. Lepidostomatidae			
Sp. indet			
F. Leptoceridae			
Oecetis sp.	-	1	1
Sp. indet			
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.	1	1	2
Polycentropus sp.			
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.			
ODONATA			
F. Gomphidae			
Gomphus sp.			
Sp. indet.			

TABLE 3 (continued)

STATION 2			
SAMPLE REF.	B-296	B-40	V-192
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.			
Demicryptochironomus sp.			
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.	-	-	2
Stenochironomus sp.			
Tribelos/ Endochironomus sp.			
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.	1	-	-
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.	-	-	1
Epoicocladius sp.	-	-	1
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.	1	1	-
Clinotanypus sp.			
Coelotanypus sp.	5	3	12
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 2			
SAMPLE REF.	B-296	B-40	V-192
Procladius sp.	2	-	-
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.	-	1	-
Sp. indet.			
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	6	8	17
Sphaerium sp.	5	5	13
Sp. indet (juvenile)	18	2	-
Sp. indet			
F. Unionidae			
Ligumia sp.	7	4	5
Sp. indet.			
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	-	-	1
Somatogyrus sp.			
Sp. indet.			
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.	1	-	-
F. Planorbidae			
Heliosoma sp.			
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera			
V. tricarinata			
F. Viviparidae			
Campeloma sp.			
Viviparus sp.			
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	-	1	-
Gammarus sp. (Juvenile)	-	1	-

TABLE 3 (continued)

STATION 2			
SAMPLE REF.	B-296	B-40	V-192
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.	1	6	7
NEMERTEA			
Sp. indet.			
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet			
F. Planariidae			
Sp. indet.	-	-	1
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.	4	2	2
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.	-	-	1
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.			
Sp. indet.	-	-	1
NEMATA			
Sp. indet.	3	2	1
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
BRYOZOA (statoblast)			
Sp. indet.	-	-	2

TABLE 3 (continued)

STATION 2			
SAMPLE REF.	B-296	B-40	V-192
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.	1	-	-
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.			
F. Naididae			
Nais sp.			
Stylaria lacustris			
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus			
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri	1	-	2
L. udekemianus			
Peloscolex sp.			
Immature Capilliform sp. indet.			
Immature Non-capilliform Sp. indet.	22	36	26
TOTAL	84	81	103
NO. OF TAXA	17	16	19

TABLE 3 (continued)

STATION 3'			
SAMPLE REF.	X-045	X-024	X-029
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.	-	1	-
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.			
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.			
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.			
F. Lepidostomatidae			
Sp. indet			
F. Leptoceridae			
Oecetis sp.	-	2	1
Sp. indet			
F. Molannidae			
Molanna sp.	-	-	1
F. Psychomyiidae			
Phylocentropus sp.			
Polycentropus sp.			
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.			
ODONATA			
F. Gomphidae			
Gomphus sp.			
Sp. indet.			

TABLE 3 (continued)

STATION 3'			
SAMPLE REF.	X-045	X-024	X-029
GROUP 2 ORGANISMS			
INSECTA (adult)			
Sp. indet.	1	-	-
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.	-	2	-
Demicryptochironomus sp.			
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.			
Stenochironomus sp.			
Tribelos/ Endochironomus sp.	-	10	11
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.			
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.	-	1	-
Clinotanypus sp.			
Coelotanypus sp.	5	2	5
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 3'			
SAMPLE REF.	X-045	X-024	X-029
Procladius sp.	-	2	
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.			
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.			
Sphaerium sp.	293	342	305
Sp. indet (juvenile)			
Sp. indet			
F. Unionidae			
Ligumia sp.	3	1	2
Sp. indet.			
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	2	-	1
Somatogyrus sp.			
Sp. indet.			
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.			
F. Planorbidae			
Heliosoma sp.	1	-	-
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera			
V. tricarinata			
F. Viviparidae			
Campeloma sp.	-	-	2
Viviparus sp.	20	10	15
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	1	-	-
Gammarus sp. (Juvenile)	3	-	-

TABLE 3 (continued)

STATION 3'			
SAMPLE REF.	X-045	X-024	X-029
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.	41	5	15
NEMERTEA			
Sp. indet.			
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet			
F. Planariidae			-
Sp. indet.	11	-	
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.	1	8	2
F. Glossiphoniidae			
Glossiphonia sp.	6	2	1
G. heteroclita			
Helobdella sp.	1	-	-
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.			-
Sp. indet.	1	1	-
NEMATA			
Sp. indet.	1	1	1
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
POLYCHAETA			
F. Sabellidae			
Manayunkia sp.			

TABLE 3 (continued)

STATION 3'			
SAMPLE REF.	X-045	X-024	X-029
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.			
F. Naididae			
Nais sp.			
Stylaria lacustris			
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus	3	2	4
Aulodrilus pigueti	1	-	-
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri	3	8	28
L. udekemianus			
Peloscolex sp.			
Immature Capilliform sp. indet.			
Immature Non-capilliform Sp. indet.	8	37	49
TOTAL	406	437	443
NO. OF TAXA	19	18	16

TABLE 3 (continued)

STATION 13			
SAMPLE REF.	X-068	X-090	V-173 X-017
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.			
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.	-	-	1
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.	1	2	7
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.	-	-	1
F. Lepidostomatidae			
Sp. indet			
F. Leptoceridae			
Oecetis sp.			
Sp. indet			
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.	1	-	-
Polycentropus sp.			
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.			
ODONATA			
F. Gomphidae			
Gomphus sp.			
Sp. indet.			

TABLE 3 (continued)

STATION 13			
SAMPLE REF.	X-068	X-090	V-173 X-017
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.	-	1	-
Cryptochironomus sp.			
Demicryptochironomus sp.			
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.	1	-	-
Stenochironomus sp.			
Tribelos/ Endochironomus sp.	1	-	-
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.	10	28	3
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.			
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 13			
SAMPLE REF.	X-068	X-090	V-173 X-017
Procladius sp.	3	19	-
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.			
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	35	58	24
Sphaerium sp.	3	4	10
Sp. indet (juvenile)			
Sp. indet	-	-	5
F. Unionidae			
Ligumia sp.			
Sp. indet.			
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	8	24	4
Somatogyrus sp.			
Sp. indet.			
F. Ancylidae			
Ferrisia sp.	3	4	2
F. Lymnaeidae			
Lymnaea sp.	1	1	-
F. Physidae			
Physa sp.	8	24	1
F. Planorbidae			
Heliosoma sp.	-	1	-
Sp. indet.	1	-	-
F. Valvatidae			
Valvata sp.	-	6	-
V. sincera	6	38	-
V. tricarinata	1	15	-
F. Viviparidae			
Campeloma sp.			
Viviparus sp.	137	96	40
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	19	16	11
Gammarus sp. (Juvenile)	4	4	-

TABLE 3 (continued)

STATION 13			
SAMPLE REF.	X-068	X-090	V-173 X-017
Sp. indet.	-	2	-
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.	-	3	-
NEMERTEA			
Sp. indet.	4	9	-
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	3	1	-
F. Planariidae			
Sp. indet.			
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.	-	2	-
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita	-	2	-
Helobdella sp.	1	-	-
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.	-	-	1
Sp. indet.			
NEMATA			
Sp. indet.	1	4	-
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
POLYCHAETA			
F. Sabellidae			
Manayunkia sp.			

TABLE 3 (continued)

STATION 13			
SAMPLE REF.	X-068	X-090	V-173 X-017
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.	-	13	-
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.	26	45	3
F. Naididae			
Nais sp.			
Stylaria lacustris	-	4	-
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus	3	-	-
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri			
L. udekemianus	6	-	-
Peloscolex sp.	23	36	2
Immature Capilliform sp. indet.	-	9	-
Immature Non-capilliform Sp. indet.	16	13	3
TOTAL	326	488	118
NO. OF TAXA	27	29	16

TABLE 3 (continued)

STATION 14			
SAMPLE REF.	V-145	B-648	B-69
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.			
Demicryptochironomus sp.			
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.			
Stenochironomus sp.			
Tribelos/ Endochironomus sp.			
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.	-	-	2
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.			
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 14			
SAMPLE REF.	V-145	B-648	B-69
Procladius sp.			
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.			
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	-	3	2
Sphaerium sp.			
Sp. indet (juvenile)			
Sp. indet			
F. Unionidae			
Ligumia sp.			
Sp. indet.			
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.			
Somatogyrus sp.			
Sp. indet.			
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.	2	1	-
F. Planorbidae			
Heliosoma sp.			
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera	4	6	2
V. tricarinata			
F. Viviparidae			
Campeloma sp.			
Viviparus sp.	-	1	-
Sp. indet.			
BRYOZOA (statoblast)			
Sp. indet.	-	1	-

TABLE 3 (continued)

STATION 14			
SAMPLE REF.	V-145	B-648	B-69
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.			
F. Naididae			
Nais sp.			
Stylaria lacustris	-	17	-
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus			
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri			
L. udekemianus	111	-	-
Peloscolex sp.			
Immature Capilliform sp. indet.			
Immature Non-capilliform Sp. indet.	581	398	1,371
TOTAL	698	427	1,377
NO. OF TAXA	4	6	4

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TABLE 3 (continued)

STATION 15			
SAMPLE REF.	X-009	X-108	X-030
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.	2	-	1
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.			
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.			
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.			
F. Lepidostomatidae			
Sp. indet			
F. Leptoceridae			
Oecetis sp.			
Sp. indet			
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.	-	-	2
Polycentropus sp.			
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.			
ODONATA			
F. Gomphidae			
Gomphus sp.			
Sp. indet.			

TABLE 3 (continued)

STATION 15			
SAMPLE REF.	X-009	X-108	X-030
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.			
Demicryptochironomus sp.			
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.			
Stenochironomus sp.			
Tribelos/ Endochironomus sp.	-	1	-
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.			
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.	5	-	1
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 15			
SAMPLE REF.	X-009	X-108	X-030
Procladius sp.	-	-	1
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.			
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	13	6	14
Sphaerium sp.			
Sp. indet (juvenile)			
Sp. indet			
F. Unionidae			
Ligumia sp.	1	1	-
Sp. indet.			
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	-	1	1
Somatogyrus sp.			
Sp. indet.			
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.			
F. Planorbidae			
Heliosoma sp.			
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera			
V. tricarinata			
F. Viviparidae			
Campeloma sp.			
Viviparus sp.			
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	-	-	1
Gammarus sp. (Juvenile)			

TABLE 3 (continued)

STATION 15			
SAMPLE REF.	X-009	X-108	X-030
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.	-	1	2
NEMERTEA			
Sp. indet.	-	-	2
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	1	2	5
F. Planariidae			
Sp. indet.	3	-	-
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.	-	-	1
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.			
Sp. indet.			
NEMATA			
Sp. indet.	-	2	-
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
POLYCHAETA			
F. Sabellidae			
Manayunkia sp.			

TABLE 3 (continued)

STATION 15			
SAMPLE REF.	X-009	X-108	X-030
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.	3	5	-
F. Naididae			
Nais sp.			
Stylaria lacustris	3	-	-
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus			
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.	-	1	-
L. hoffmeisteri	9	-	29
L. udekemianus			
Peloscolex sp.			
Immature Capilliform sp. indet.			
Immature Non-capilliform Sp. indet.	51	17	72
TOTAL	91	37	132
NO. OF TAXA	9	10	13

TABLE 3 (continued)

STATION 18			
SAMPLE REF.	X-092	X-103	X-063
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.	-	-	1
Pseudocloeon sp.	6	-	-
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.			
F. Ephemerellidae			
Ephemerella sp.	32	1	-
F. Heptageniidae			
Stenonema sp.	-	12	-
F. Tricorythidae			
Tricorythodes sp.	7	1	1
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.			
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.	2	-	-
F. Lepidostomatidae			
Sp. indet	1	-	-
F. Leptoceridae			
Oecetis sp.			
Sp. indet	1	-	-
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.			
Polycentropus sp.			
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.	-	1	3
Ordobrevia sp.	2	1	-
Adult indet.	-	2	-

TABLE 3 (continued)

STATION 18			
SAMPLE REF.	X-092	X-103	X-063
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.	-	1	-
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.	1	-	-
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.			
Demicryptochironomus sp.			
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.			
Stenochironomus sp.	-	1	-
Tribelos/ Endochironomus sp.			
Xenochironomus sp. No. 1	-	7	-
Xenochironomus sp. No. 2	-	1	-
Xenochironomus sp. No. 3	-	6	-
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.	8	-	-
Cricotopus sp.	9	-	2
Epoicocladius sp.			
Eukiefferiella sp.	1	-	-
Orthocladius sp.	-	-	12
Psectrocladius sp.			
Sp. indet.	1	-	-
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.		-	
Conchapelopia/ Arctopelopia sp.	-	1	-

TABLE 3 (continued)

STATION 18			
SAMPLE REF.	X-092	X-103	X-063
Procladius sp.			
Sp. indet			
Chironomidae pupae indet.	-	-	2
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	14	5	84
Sphaerium sp.			
Sp. indet (juvenile)			
Sp. indet			
F. Unionidae			
Ligumia sp.			
Sp. indet.			
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	3	13	9
Somatogyrus sp.	2	1	14
Sp. indet.	-	1	-
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.	3	1	-
F. Planorbidae			
Heliosoma sp.			
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera			
V. tricarinata			
F. Viviparidae			
Campeloma sp.			
Viviparus sp.			
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	357	-	-
Gammarus sp. (Juvenile)	5	-	4

TABLE 3 (continued)

STATION 18			
SAMPLE REF.	X-092	X-103	X-063
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.			
NEMERTEA			
Sp. indet.	-	2	-
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet			
F. Planariidae			
Sp. indet.	3	11	-
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.			
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.	1	-	-
Sp. indet.			
NEMATA			
Sp. indet.	1	-	-
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.	-	1	-
POLYCHAETA			
F. Sabellidae			
Manayunkia sp.	-	4	-

TABLE 3 (continued)

STATION 18			
SAMPLE REF.	X-092	X-103	X-063
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.			
F. Naididae			
Nais sp.	1	-	-
Stylaria lacustris	20	-	-
Sp. indet.	1	-	-
F. Tubificidae			
Aulodrilus americanus			
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.	-	-	1
L. hoffmeisteri			
L. udekemianus			
Peloscolex sp.	-	2	5
Immature Capilliform sp. indet.			
Immature Non-capilliform Sp. indet.	4	1	12
TOTAL	486	77	151
NO. OF TAXA	25	22	13

TABLE 3 (continued)

STATION 19			
SAMPLE REF.	X-124	X-072	X-181
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.	2	-	-
F. Ephemeridae			
Hexagenia sp.			
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.			
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.			
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.			
F. Lepidostomatidae			
Sp. indet	-	-	8
F. Leptoceridae			
Oecetis sp.			
Sp. indet			
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.	24	32	24
Polycentropus sp.	6	8	24
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.			
ODONATA			
F. Gomphidae			
Gomphus sp.			
Sp. indet.			

TABLE 3 (continued)

STATION 19			
SAMPLE REF.	X-124	X-072	X-181
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.	-	-	8
Cryptochironomus sp.			
Demicryptochironomus sp.			
Dicrotendipes sp.	48	8	-
Microtendipes sp.	10	80	-
Polypedilum sp.			
Stenochironomus sp.			
Tribelos/ Endochironomus sp.	30	16	40
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.	2	-	-
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.	-	-	8
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.	2	-	-
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.	4	8	-
Coelotanypus sp.	6	-	-
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 19			
SAMPLE REF.	X-124	X-072	B-181
Procladius sp.	6	-	-
Sp. indet	-	-	8
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.			
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	8	24	-
Sphaerium sp.			
Sp. indet (juvenile)			
Sp. indet	-	-	24
F. Unionidae			
Ligumia sp.			
Sp. indet.			
Sp. indet.	8	-	-
GASTROPODA			
F. Amnicolidae			
Amnicola sp.			
Somatogyrus sp.			
Sp. indet.	2	-	-
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.	-	-	16
F. Planorbidae			
Heliosoma sp.			
Sp. indet.	-	-	8
F. Valvatidae			
Valvata sp.			
V. sincera			
V. tricarinata			
F. Viviparidae			
Campeloma sp.			
Viviparus sp.			
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	2	8	16
Gammarus sp. (Juvenile)	6	24	8

TABLE 3 (continued)

STATION 19			
SAMPLE REF.	X-124	X-072	B-181
Sp. indet.			
F. Talitridae			
Hyalella azteca	6	24	8
ISOPODA			
F. Asellidae			
Asellus sp.	48	16	16
NEMERTEA			
Sp. indet.			
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	2	-	16
F. Planariidae			
Sp. indet.	2	-	-
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.			
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.			
Sp. indet.			
NEMATA			
Sp. indet.			
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
BRYOZOA (statoblast)			
Sp. indet.	-	-	8

TABLE 3 (continued)

STATION 19			
SAMPLE REF.	X-124	X-072	B-181
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.			
F. Naididae			
Nais sp.			
Stylaria lacustris	-	-	29
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus			
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.	4	-	-
L. hoffmeisteri	8	18	7
L. udekemianus			
Peloscolex sp.			
Immature Capilliform sp. indet.	-	9	-
Immature Non-capilliform Sp. indet.	25	37	21
TOTAL	261	312	297
NO. OF TAXA	23	14	17

TABLE 3 (continued)

STATION 21			
SAMPLE REF.	X-032	X-053	X-042
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.	-	-	1
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.			
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.			
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.			
F. Lepidostomatidae			
Sp. indet			
F. Leptoceridae			
Oecetis sp.			
Sp. indet			
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.	7	14	6
Polycentropus sp.	1	2	-
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.			
ODONATA			
F. Gomphidae			
Gomphus sp.			
Sp. indet.			

TABLE 3 (continued)

STATION 21			
SAMPLE REF.	X-032	X-053	X-042
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
Sp. indet	-	1	-
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.	-	1	-
Demicryptochironomus sp.	-	20	5
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.	22	3	1
Stenochironomus sp.			
Tribelos/			
Endochironomus sp.	12	28	9
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.	-	-	1
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.			
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.	-	1	-
Clinotanypus sp.			
Coelotanypus sp.	-	3	-
Conchapelopia/			
Arctopelopia sp.			

TABLE 3 (continued)

STATION 21			
SAMPLE REF.	X-032	X-053	X-042
Procladius sp.	1	9	7
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.	1	-	-
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	71	257	180
Sphaerium sp.	4	1	2
Sp. indet (juvenile)			
Sp. indet			
F. Unionidae			
Ligumia sp.			
Sp. indet.	2	-	-
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	2	4	3
Somatogyrus sp.	9	13	21
Sp. indet.			
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.	-	1	-
F. Planorbidae			
Heliosoma sp.			
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera			
V. tricarinata	1	2	1
F. Viviparidae			
Campeloma sp.	-	1	-
Viviparus sp.			
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	-	-	-
Gammarus sp. (Juvenile)	-	1	-

TABLE 3 (continued)

STATION 21			
SAMPLE REF.	X-032	X-053	X-042
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.	-	5	1
NEMERTEA			
Sp. indet.			
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	-	4	3
F. Planariidae			
Sp. indet.	-	1	-
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.	2	1	-
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.			
Sp. indet.			
NEMATA			
Sp. indet.	1	1	1
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
BRYOZOA (statoblast)			
Sp. indet.	-	-	1
POLYCHAETA			
F. Sabellidae			
Manayunkia sp.	1	-	-

TABLE 3 (continued)

STATION 21			
SAMPLE REF.	X-032	X-053	X-042
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.			
F. Naididae			
Nais sp.			
Stylaria lacustris			
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus			
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri	-	127	24
L. udekemianus			
Peloscolex sp.			
Immature Capilliform sp. indet.			
Immature Non-capilliform Sp. indet.	155	307	107
TOTAL	292	808	374
NO. OF TAXA	16	25	17

TABLE 3 (continued)

STATION 23			
SAMPLE REF.	X-006	V-115	X-054
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.			
Demicryptochironomus sp.			
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.			
Stenochironomus sp.			
Tribelos/ Endochironomus sp.			
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.	1	-	-
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.			
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 23			
SAMPLE REF.	X-006	V-115	X-054
Procladius sp.			
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.			
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	22	128	104
Sphaerium sp.	-	-	8
Sp. indet (juvenile)			
Sp. indet			
F. Unionidae			
Ligumia sp.			
Sp. indet.			
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	1	16	-
Somatogyrus sp.	3	40	56
Sp. indet.			
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.	-	8	-
F. Planorbidae			
Heliosoma sp.	1	-	-
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera	6	96	16
V. tricarinata	2	16	-
F. Viviparidae			
Campeloma sp.			
Viviparus sp.	2	16	-
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	-	48	8
Gammarus sp. (Juvenile)	-	24	8

TABLE 3 (continued)

STATION 23			
SAMPLE REF.	X-006	V-115	X-054
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.	-	-	16
NEMERTEA			
Sp. indet.			
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	2	192	8
F. Planariidae			
Sp. indet.			
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.	1	-	-
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.			
Sp. indet.			
NEMATA			
Sp. indet.			
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
POLYCHAETA			
F. Sabellidae			
Manayunkia sp.			

TABLE 3 (continued)

STATION 23			
SAMPLE REF.	X-006	V-115	X-054
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.	-	119	-
F. Naididae			
Nais sp.			
Stylaria lacustris			
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus			
Aulodrilus pigueti			
Ilyodrilus templetoni	35	-	-
Limnodrilus sp.			
L. hoffmeisteri	-	119	153
L. udekemianus			
Peloscolex sp.	35	-	102
Immature Capilliform sp. indet.	177	119	-
Immature Non-capilliform Sp. indet.	637	2,250	1,022
TOTAL	925	3,199	1,493
NO. OF TAXA	14	14	11

TABLE 3 (continued)

STATION 24			
SAMPLE REF.	B-134	B-353	B-859
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.			
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.			
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.			
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.			
F. Lepidostomatidae			
Sp. indet			
F. Leptoceridae			
Oecetis sp.			
Sp. indet			
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.	2	4	-
Polycentropus sp.			
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.	1	4	8
ODONATA			
F. Gomphidae			
Gomphus sp.			
Sp. indet.			

TABLE 3 (continued)

STATION 24			
SAMPLE REF.	B-134	B-353	B-859
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.	-	-	8
Cryptochironomus sp.			
Demicryptochironomus sp.			
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.	5	8	-
Stenochironomus sp.			
Tribelos/ Endochironomus sp.			
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.	-	16	8
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.			
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 24			
SAMPLE REF.	B-134	B-353	B-859
Procladius sp.	33	48	168
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.			
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	530	1,064	2,008
Sphaerium sp.	8	8	56
Sp. indet (juvenile)			
Sp. indet			
F. Unionidae			
Ligumia sp.			
Sp. indet.	-	4	8
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	31	68	48
Somatogyrus sp.	-	-	8
Sp. indet.			
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.	3	-	-
F. Physidae			
Physa sp.	2	-	8
F. Planorbidae			
Heliosoma sp.			
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera	15	20	88
V. tricarinata	2	4	8
F. Viviparidae			
Campeloma sp.			
Viviparus sp.	33	68	24
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	14	28	8
Gammarus sp. (Juvenile)	14	36	56

TABLE 3 (continued)

STATION 24			
SAMPLE REF.	B-134	B-353	B-859
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.	12	12	-
NEMERTEA			
Sp. indet.	1	4	-
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	34	124	112
F. Planariidae			
Sp. indet.	3	-	-
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.	8	8	24
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata			
H. stagnalis			
Placobdella ornata	2	-	-
Placobdella sp.			
Sp. indet.	-	4	-
NEMATA			
Sp. indet.	4	8	-
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
BRYOZOA (statoblast)			
Sp. indet.	-	4	-

TABLE 3 (continued)

STATION 24			
SAMPLE REF.	B-134	B-353	B-859
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.	-	76	100
F. Naididae			
Nais sp.			
Stylaria lacustris			
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus			
Aulodrilus pigueti	-	-	200
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri	68	76	100
L. udekemianus			
Peloscolex sp.	-	76	-
Immature Capilliform sp. indet.	-	381	-
Immature Non-capilliform Sp. indet.	1,503	1,523	2,496
TOTAL	2,329	3,676	5,544
NO. OF TAXA	23	25	21

TABLE 3 (continued)

STATION 27			
SAMPLE REF.	B-165	B-912	B-362
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.			
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.			
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.			
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.			
F. Lepidostomatidae			
Sp. indet			
F. Leptoceridae			
Oecetis sp.			
Sp. indet			
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.			
Polycentropus sp.			
Sp. indet.	-	1	-
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.			
ODONATA			
F. Gomphidae			
Gomphus sp.			
Sp. indet.			

TABLE 3 (continued)

STATION 27			
SAMPLE REF.	B-165	B-912	B-362
GROUP 2 ORGANISMS			
INSECTA			
Adult indet.	-	1	-
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.	-	4	-
Cryptochironomus sp.	-	1	-
Demicryptochironomus sp.			
Dicrotendipes sp.	4	1	1
Microtendipes sp.			
Polypedilum sp.			
Stenochironomus sp.			
Tribelos/ Endochironomus sp.			
Xenochironomus sp. No. 1	85	-	34
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.	-	1	-
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.	18	3	12
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.	-	12	-
Psectrocladius sp.	3	-	1
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.			
Conchapelopia/ Arctopelopia sp.	2	-	-

TABLE 3 (continued)

STATION 27			
SAMPLE REF.	B-165	B-912	B-362
Procladius sp.			
Sp. indet			
Chironomidae			
pupae indet.	1	3	2
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	13	26	2
Sphaerium sp.	7	67	19
Sp. indet (juvenile)	2	21	12
Sp. indet			
F. Unionidae			
Ligumia sp.			
Sp. indet.			
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	1	5	2
Somatogyrus sp.			
Sp. indet.			
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.	-	1	-
F. Planorbidae			
Heliosoma sp.			
Sp. indet.	-	1	-
F. Valvatidae			
Valvata sp.	1	-	-
V. sincera	-	1	3
V. tricarinata			
F. Viviparidae			
Campeloma sp.			
Viviparus sp.	12	6	7
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	93	41	143
Gammarus sp. (Juvenile)	72	89	174

TABLE 3 (continued)

STATION 27			
SAMPLE REF.	B-165	B-912	B-362
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA	-		
F. Asellidae			
Asellus sp.			
NEMERTEA			
Sp. indet.	1	2	1
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	1	3	2
F. Planariidae			
Sp. indet.	-	-	6
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.			
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.			
Sp. indet.			
NEMATA			
Sp. indet.	14	-	3
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
BRYOZOA (statoblast)			
Sp. indet.	-	4	-

TABLE 3 (continued)

STATION 27			
SAMPLE REF.	B-165	B-912	B-362
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.			
F. Naididae			
Nais sp.			
Stylaria lacustris			
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus			
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri			
L. udekemianus			
Peloscolex sp.			
Immature Capilliform sp. indet.			
Immature Non-capilliform Sp. indet.	3	2	2
TOTAL	333	296	426
NO. OF TAXA	17	20	17

TABLE 3 (continued)

STATION 36			
SAMPLE REF.	B-607	B-34	V-169
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.			
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.			
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.			
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.			
F. Lepidostomatidae			
Sp. indet			
F. Leptoceridae			
Oecetis sp.			
Sp. indet			
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.			
Polycentropus sp.	1	4	-
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.			
ODONATA			
F. Gomphidae			
Gomphus sp.			
Sp. indet.	-	-	2

TABLE 3 (continued)

STATION 36			
SAMPLE REF.	B-607	B-34	V-169
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.			
Demicryptochironomus sp.	3	3	8
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.			
Stenochironomus sp.			
Tribelos/ Endochironomus sp.			
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.			
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.			
Conchapelopia/ Arctopelopia sp.	1	-	-

TABLE 3 (continued)

STATION 36			
SAMPLE REF.	B-607	B-34	V-169
Procladius sp.			
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.			
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	6	2	4
Sphaerium sp.	353	147	138
Sp. indet (juvenile)	838	933	730
Sp. indet			
F. Unionidae			
Ligumia sp.			
Sp. indet.	-	-	2
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	3	-	-
Somatogyrus sp.	2	-	-
Sp. indet.	-	16	-
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.			
F. Planorbidae			
Heliosoma sp.			
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera	1	-	-
V. tricarinata			
F. Viviparidae			
Campeloma sp.			
Viviparus sp.	3	-	-
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	17	8	8
Gammarus sp. (Juvenile)	9	6	24

TABLE 3 (continued)

STATION 36			
SAMPLE REF.	B-607	B-34	V-169
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.	1	-	-
NEMERTEA			
Sp. indet.	-	4	3
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	4	1	-
F. Planariidae			
Sp. indet.	1	-	-
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.	7	9	4
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata	-	-	4
H. stagnalis	2	-	-
Placobdella ornata			
Placobdella sp.			
Sp. indet.			
NEMATA			
Sp. indet.	1	10	12
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
BRYOZOA (statoblast)			
Sp. indet.	-	-	18

TABLE 3 (continued)

STATION 36			
SAMPLE REF.	B-607	B-34	V-169
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.			
F. Naididae			
Nais sp.			
Stylaria lacustris			
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus	-	-	24
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri			
L. udekemianus			
Peloscolex sp.	8	87	119
Immature Capilliform sp. indet.			
Immature Non-capilliform Sp. indet.	55	277	332
TOTAL	1,316	1,507	1,441
NO. OF TAXA	20	14	15

TABLE 3 (continued)

STATION 38			
SAMPLE REF.	B-799	V-126	B-157
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.	-	-	4
Demicryptochironomus sp.	1	3	-
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.	1	-	3
Stenochironomus sp.			
Tribelos/ Endochironomus sp.			
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.			
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.			
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 38			
SAMPLE REF.	B-799	V-126	V-157
Procladius sp.			
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.	-	1	-
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	6	3	-
Sphaerium sp.	5	-	2
Sp. indet (juvenile)			
Sp. indet	15	17	22
F. Unionidae			
Ligumia sp.			
Sp. indet.	-	-	1
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.	-	1	-
Somatogyrus sp.	-	-	-
Sp. indet.	2	-	-
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.	1	-	-
F. Planorbidae			
Heliosoma sp.			
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera			
V. tricarinata			
F. Viviparidae			
Campeloma sp.			
Viviparus sp.			
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	2	1	-
Gammarus sp. (Juvenile)	-	1	1

TABLE 3 (continued)

STATION 38			
SAMPLE REF.	B-799	V-126	V-157
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.			
NEMERTEA			
Sp. indet.			
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	-	-	1
F. Planariidae			
Sp. indet.			
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.			
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata			
H. stagnalis			
Placobdella ornata			
Placobdella sp.			
Sp. indet.			
NEMATA			
Sp. indet.	-	1	4
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
POLYCHAETA			
F. Sabellidae			
Manayunkia sp.			

TABLE 3 (continued)

STATION 38			
SAMPLE REF.	B-799	V-126	V-157
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.			
F. Lumbriculidae			
Stylodrilus heringianus	1	-	-
Sp. indet.			
F. Naididae			
Nais sp.			
Stylaria lacustris			
Sp. indet.	-	5	4
F. Tubificidae			
Aulodrilus americanus			
Aulodrilus pigueti			
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri	-	-	2
L. udekemianus			
Peloscolex sp.	5	5	15
Immature Capilliform sp. indet.	-	1	-
Immature Non-capilliform Sp. indet.	30	9	38
TOTAL	69	48	97
NO. OF TAXA	11	11	11

TABLE 3 (continued)

STATION 39			
SAMPLE REF.	V-189	B-332	B-57
GROUP 3 ORGANISMS			
EPHEMEROPTERA			
F. Baetidae			
Baetis sp.			
Pseudocloeon sp.			
F. Caenidae			
Caenis sp.			
F. Ephemeridae			
Hexagenia sp.	-	-	1
F. Ephemerellidae			
Ephemerella sp.			
F. Heptageniidae			
Stenonema sp.			
F. Tricorythidae			
Tricorythodes sp.			
Sp. indet.			
TRICHOPTERA			
F. Brachycentridae			
Brachycentrus sp.			
B. lateralis			
F. Hydropsychidae			
Hydropsyche sp.			
F. Lepidostomatidae			
Sp. indet			
F. Leptoceridae			
Oecetis sp.			
Sp. indet			
F. Molannidae			
Molanna sp.			
F. Psychomyiidae			
Phylocentropus sp.			
Polycentropus sp.			
Sp. indet.			
COLEOPTERA			
F. Elmidae			
Dubiraphia sp.			
Ordobrevia sp.			
ODONATA			
F. Gomphidae			
Gomphus sp.	1	-	-
Sp. indet.			

TABLE 3 (continued)

STATION 39			
SAMPLE REF.	V-189	B-332	B-57
GROUP 2 ORGANISMS			
HEMIPTERA			
Sp. indet.			
LEPIDOPTERA			
F. Pyralidae			
Paraponyx sp.			
DIPTERA			
F. Chironomidae			
S.F. Chironominae			
Tribe Chironomini			
Chironomus sp.			
Cryptochironomus sp.	-	-	2
Demicryptochironomus sp.	3	2	3
Dicrotendipes sp.			
Microtendipes sp.			
Polypedilum sp.	19	16	28
Stenochironomus sp.			
Tribelos/ Endochironomus sp.	1	-	2
Xenochironomus sp. No. 1			
Xenochironomus sp. No. 2			
Xenochironomus sp. No. 3			
Sp. indet.			
Tribe Tanytarsini			
Rheotanytarsus sp.			
Tanytarsus sp.			
Sp. indet.			
S.F. Orthocladiinae			
Corynoneura sp.			
Cricotopus sp.	-	-	1
Epoicocladius sp.			
Eukiefferiella sp.			
Orthocladius sp.			
Psectrocladius sp.			
Sp. indet.			
S.F. Tanypodinae			
Ablabesmyia sp.			
Clinotanypus sp.			
Coelotanypus sp.			
Conchapelopia/ Arctopelopia sp.			

TABLE 3 (continued)

STATION 39			
SAMPLE REF.	V-189	B-332	B-57
Procladius sp.	1	-	-
Sp. indet			
F. Ceratopogonidae			
Bezzia sp.			
Sp. indet.	1	-	1
PELECYPODA			
F. Sphaeriidae			
Pisidium sp.	16	8	7
Sphaerium sp.	2	4	3
Sp. indet (juvenile)	48	37	18
Sp. indet			
F. Unionidae			
Ligumia sp.			
Sp. indet.			
Sp. indet.			
GASTROPODA			
F. Amnicolidae			
Amnicola sp.			
Somatogyrus sp.			
Sp. indet.			
F. Ancylidae			
Ferrisia sp.			
F. Lymnaeidae			
Lymnaea sp.			
F. Physidae			
Physa sp.			
F. Planorbidae			
Heliosoma sp.			
Sp. indet.			
F. Valvatidae			
Valvata sp.			
V. sincera			
V. tricarinata			
F. Viviparidae			
Campeloma sp.			
Viviparus sp.			
Sp. indet.			
AMPHIPODA			
F. Gammaridae			
Gammarus sp.	1	1	1
Gammarus sp. (Juvenile)	-	-	7

TABLE 3 (continued)

STATION 39			
SAMPLE REF.	V-189	B-332	B-57
Sp. indet.			
F. Talitridae			
Hyalella azteca			
ISOPODA			
F. Asellidae			
Asellus sp.			
NEMERTEA			
Sp. indet.	-	2	-
TURBELLARIA			
S.O. Neorhabdocoela			
Sp. indet	-	3	-
F. Planariidae			
Sp. indet.			
HIRUDINEA			
F. Erpobdellidae			
Sp. indet.	1	-	-
F. Glossiphoniidae			
Glossiphonia sp.			
G. heteroclita			
Helobdella sp.			
H. elongata			
H. stagnalis	-	-	1
Placobdella ornata			
Placobdella sp.			
Sp. indet.			
NEMATA			
Sp. indet.	1	-	2
COELENTERATA			
Cl. Hydrozoa			
Sp. indet.			
ACARI			
Sp. indet.			
POLYCHAETA			
F. Sabellidae			
Manayunkia sp.			

TABLE 3 (continued)

STATION 39			
SAMPLE REF.	V-189	B-332	B-57
GROUP 1 ORGANISMS			
OLIGOCHAETA			
F. Lumbricidae			
Sp. indet.	1	-	-
F. Lumbriculidae			
Stylodrilus heringianus			
Sp. indet.	1	1	-
F. Naididae			
Nais sp.			
Stylaria lacustris			
Sp. indet.			
F. Tubificidae			
Aulodrilus americanus	2	-	3
Aulodrilus pigueti	-	2	-
Ilyodrilus templetoni			
Limnodrilus sp.			
L. hoffmeisteri			
L. udekemianus			
Peloscolex sp.	9	6	3
Immature Capilliform sp. indet.	-	2	2
Immature Non-capilliform Sp. indet.	8	14	13
TOTAL	116	98	100
NO. OF TAXA	17	13	18

TABLE 4

QUALITATIVE MACROPHYTE COLLECTIONS
ST. LAWRENCE RIVER, SEPT.- OCT., 1972

STATION:	1	4	5	7	9	12	13	14
I. ALGAE								
PHYLUM CHLOROPHYTA								
ORDER Chlorococcales								
Hydrodictyon sp.	-	-	-	-	-	-	-	-
ORDER Oedogoniales								
Oedogonium sp.	-	-	-	-	-	-	-	-
ORDER Siphonocladales (Cladophorales)								
Cladophora sp.	x	-	-	-	-	-	-	-
ORDER Zygnematales								
Spirogyra sp.	-	-	-	-	-	-	-	-
PHYLUM CHRYSOPHYTA								
ORDER Vaucheriales								
Vaucheria sp.	-	-	-	-	-	-	-	-
PHYLUM CYANOPHYTA								
ORDER Oscillatoriales								
Lyngbya sp.	x	-	x	-	-	-	-	-
II. BRYOPHYTA								
CLASS Hepaticae								
Jungermannia sp.	-	-	-	-	-	-	-	-
CLASS Musci								
Fontinalis sp.	-	-	-	-	-	-	-	-
Leptodictyum sp.	-	-	-	-	-	-	-	-

x - Denotes presence.
- - Denotes absence.

TABLE 4 (continued)

STATION:	1	4	5	7	9	12	13	14
III. TRACHEOPHYTA								
CLASS Angiospermae								
Family Typhaceae								
Typha sp.	-	-	-	-	x	-	x	x
Family Potamogetonaceae								
Potamogeton sp.	-	-	x	-	-	-	-	-
Family Alismaceae								
Sagittaria latifolia	-	-	-	-	-	-	-	-
Family Hydrocharitaceae								
Anacharis (Elodea) sp.	-	x	-	-	-	-	-	-
Vallisneria americana	x	x	x	x	x	x	x	-
Family Gramineae								
Phragmites sp.	-	-	-	-	-	-	-	-
Family Cyperaceae								
Scirpus sp.	-	-	-	-	x	-	x	x
Family Lemnaceae								
Lemna minor	-	-	-	-	-	-	-	-
Spirodela polyrhiza	-	-	-	-	-	-	-	-
Family Juncaceae								
Juncus sp.	-	-	-	-	-	-	-	-
Family Ceratophyllaceae								
Ceratophyllum demersum	-	x	-	-	-	-	-	-
Family Nymphaeaceae								
Nymphaea sp.	-	-	-	-	-	-	-	-
Family Haloragidaceae								
Myriophyllum sp.	x	x	x	x	-	-	-	-
Family Isoetaceae								
Isoetes sp.	-	-	-	-	-	-	-	-

TABLE 4 (continued)

STATION:	15	16	17	18	19	20	21	22
I. ALGAE								
PHYLUM CHLOROPHYTA								
ORDER Chlorococcales								
Hydrodictyon sp.	-	-	-	-	-	-	-	-
ORDER Oedogoniales								
Oedogonium sp.	-	-	-	-	-	x	x	-
ORDER Siphonocladales (Cladophorales)								
Cladophora sp.	-	-	-	-	-	x	-	-
ORDER Zygnematales								
Spirogyra sp.	-	-	-	-	-	x	-	-
PHYLUM CHRYSOPHYTA								
ORDER Vaucheriales								
Vaucheria sp.	-	-	-	-	-	x	-	-
PHYLUM CYANOPHYTA								
ORDER Oscillatoriales								
Lyngbya sp.	-	-	-	-	-	-	-	-
II. BRYOPHYTA								
CLASS Hepaticae								
Jungermannia sp.	-	-	-	-	-	x	-	-
CLASS Musci								
Fontinalis sp.	-	-	-	x	-	x	-	-
Leptodictyum sp.	-	-	-	x	-	x	-	-

TABLE 4 (continued)

STATION:	15	16	17	18	19	20	21	22
III. TRACHEOPHYTA								
CLASS Angiospermae								
Family Typhaceae								
Typha sp.	-	-	x	-	-	-	-	-
Family Potamogetonaceae								
Potamogeton sp.	-	-	-	-	x	-	-	-
Family Alismaceae								
Sagittaria latifolia	-	x	x	-	-	-	-	x
Family Hydrocharitaceae								
Anacharis (Elodea) sp.	-	-	-	x	-	x	-	-
Vallisneria americana	x	-	-	x	x	x	x	-
Family Gramineae								
Phragmites sp.	-	-	-	-	-	-	x	-
Family Cyperaceae								
Scirpus sp.	-	x	-	x	-	-	-	x
Family Lemnaceae								
Lemna minor	-	-	-	-	-	-	-	-
Spirodela polyrhiza	-	-	-	-	-	-	-	-
Family Juncaceae								
Juncus sp.	-	-	-	-	-	-	-	-
Family Ceratophyllaceae								
Ceratophyllum demersum	x	-	-	-	x	-	-	-
Family Nymphaeaceae								
Nymphaea sp.	-	-	-	-	x	-	x	-
Family Haloragidaceae								
Myriophyllum sp.	-	-	-	-	-	-	-	-
Family Isoetaceae								
Isoetes sp.	-	-	-	-	-	-	-	-

TABLE 4 (continued)

STATION:	23	24	25	26	27	28	31	32
I. ALGAE								
PHYLUM CHLOROPHYTA								
ORDER Chlorococcales								
Hydrodictyon sp.	-	-	-	-	-	-	-	-
ORDER Oedogoniales								
Oedogonium sp.	-	x	-	-	-	-	x	-
ORDER Siphonocladales (Cladophorales)								
Cladophora sp.	-	x	-	-	-	-	-	-
ORDER Zygnematales								
Spirogyra sp.	-	-	-	-	-	-	-	-
PHYLUM CHRYSOPHYTA								
ORDER Vaucheriales								
Vaucheria sp.	-	-	-	-	-	-	-	-
PHYLUM CYANOPHYTA								
ORDER Oscillatoriales								
Lyngbya sp.	-	-	-	-	-	-	-	-
II. BRYOPHYTA								
CLASS Hepaticae								
Jungermannia sp.	-	-	-	-	-	-	-	-
CLASS Musci								
Fontinalis sp.	-	-	-	-	-	-	-	-
Leptodictyum sp.	-	-	-	-	-	-	-	-

TABLE 4 (continued)

STATION:	23	24	25	26	27	28	31	32
III. TRACHEOPHYTA								
CLASS Angiospermae								
Family Typhaceae								
Typha sp.	x	-	x	-	-	-	-	-
Family Potamogetonaceae								
Potamogeton sp.	-	-	-	-	-	-	-	-
Family Alismaceae								
Sagittaria latifolia	x	x	-	x	-	-	-	-
Family Hydrocharitaceae								
Anacharis (Elodea) sp.								
Vallisneria americana	-	x	-	-	x	-	-	-
Family Gramineae								
Phragmites sp.	-	-	-	-	-	-	-	-
Family Cyperaceae								
Scirpus sp.	x	x	x	x	-	x	x	-
Family Lemnaceae								
Lemna minor	x	-	-	-	-	-	-	-
Spirodela polyrhiza	-	-	-	x	-	-	-	-
Family Juncaceae								
Juncus sp.	-	-	-	-	-	-	x	-
Family Ceratophyllaceae								
Ceratophyllum demersum	-	-	-	-	-	-	-	-
Family Nymphaeaceae								
Nymphaea sp.	-	-	-	-	-	-	-	-
Family Haloragidaceae								
Myriophyllum sp.	-	-	-	x	-	-	-	-
Family Isoetaceae								
Isoetes sp.	-	-	-	-	-	-	-	x

TABLE 4 (continued)

STATION:	34	35	40
I. ALGAE			
PHYLUM CHLOROPHYTA			
ORDER Chlorococcales			
Hydrodictyon sp.	-	-	-
ORDER Oedogoniales			
Oedogonium sp.	-	-	-
ORDER Siphonocladales (Cladophorales)			
Cladophora sp.	-	-	-
ORDER Zygnematales			
Spirogyra sp.	-	-	-
PHYLUM CHRYSOPHYTA			
ORDER Vaucheriales			
Vaucheria sp.	-	-	-
PHYLUM CYANOPHYTA			
ORDER Oscillatoriales			
Lyngbya sp.	-	-	-
II. BRYOPHYTA			
CLASS Hepaticae			
Jungermannia sp.	-	-	-
CLASS Musci			
Fontinalis sp.	-	-	-
Leptodictyum sp.	-	-	-

TABLE 4 (continued)

STATION:	34	35	40
III. TRACHEOPHYTA			
CLASS Angiospermae			
Family Typhaceae			
Typha sp.	-	-	-
Family Potamogetonaceae			
Potamogeton sp.	-	x	-
Family Alismaceae			
Sagittaria latifolia	-	x	-
Family Hydrocharitaceae			
Anacharis (Elodea) sp.	-	x	-
Vallisneria americana	-	-	-
Family Gramineae			
Phragmites sp.	-	-	-
Family Cyperaceae			
Scirpus sp.	x	x	x
Family Lemnaceae			
Lemna minor	-	x	-
Spirodela polyrhiza	-	-	-
Family Juncaceae			
Juncus sp.	-	x	-
Family Ceratophyllaceae			
Ceratophyllum demersum	-	x	-
Family Nymphaeaceae			
Nymphaea sp.	-	-	-
Family Haloragidaceae			
Myriophyllum sp.	-	x	-
Family Isoetaceae			
Isoetes sp.	-	-	-

TABLE 5

LOCATION AND DESCRIPTION OF
PERIPHYTON SAMPLING STATIONS
ST. LAWRENCE RIVER, OCTOBER 1972

STATION	COLLECTION DATE	LOCATION	REMARKS
P - 1	16 October	Lac des Deux-Montagnes, Ile-Cadieux, near north-east corner of bridge from mainland. Lat. 45°25.68' Long. 74°01.80'	Fine brown growth covering substrate. Various sized cobbles.
P - 2	13 October	Pointe Claire, just west of public boat ramp on Lac. St - Louis. Lat. 45°25.68' Long. 73°49.38'	Green filamentous growth on exposed surfaces. Brown growth on shaded sides. Various sized cobbles and boulders.
P - 3	13 October	St. Lawrence River at Pointe-aux-Trembles, at foot of 67th Avenue. Lat. 45°40.62' Long. 73°29.44'	Brown growth generally on rocks. Some large green filamentous clumps, and loose flocs of green filaments. Cobbles and pebbles.
P - 4	16 October	St. Lawrence River at Boucherville. Across road from church. Lat. 45°36.76' Long. 73°27.45'	Grey-brown muddy scum and snails on large boulders.
P - 5	13 October	Riviere des Prairies at Bout-de-l'Ile. Boul. Gouin across from Ile aux Foins (benthos Station 23) Lat. 45°41.77' Long. 73°29.78'	Brown growth. Green algae, filamentous attached and free. Duckweed (Lemna sp.) free-floating. Amphipods and snails. Cobbles-pebbles.
P - 6	13 October	St. Lawrence River at Lavaltrie. Beach shore around public wharf. Lat. 45°52.98' Long. 73°16.48'	No apparent growth, except very fine brownish layer on larger rocks. Cobbles, boulders.
P - 7	16 October	St. Lawrence River at Contrecoeur. Shore behind water plant. Lat. 45°51.44' Long. 73°14.45'	Clay shore, few rocks. Very little growth. Amphipods and snails. Cobble-pebble.

TABLE 6

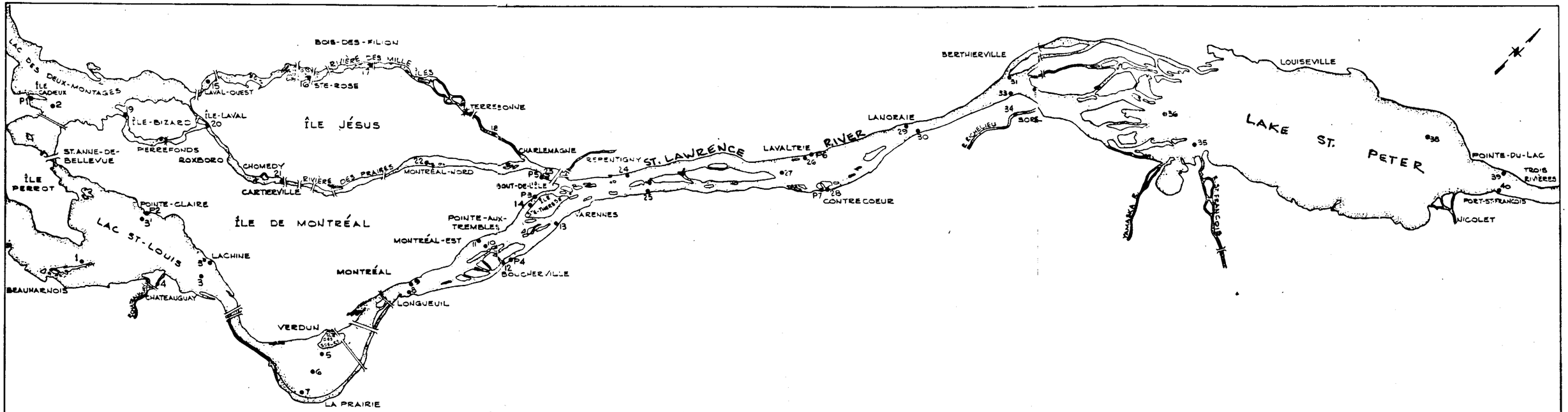
QUALITATIVE PERIPHYTON SAMPLING RESULTS
ST. LAWRENCE RIVER, SEPT.-OCT.
1972

STATION	P-1	P-2	P-3	P-4	P-5	P-6	P-7
PHYLUM CHLOROPHYTA							
SUB-PHYLUM CHLOROPHYCEAE							
ORDER TETRASPORALES							
Family Chlorangiellaceae (Chlorangiaceae)							
Chlorangiella (Chlorangium) sp.	-	-	x	-	x	-	-
ORDER CHLOROCOCCALES (CHLOROSPHAERALES, CHLOROSPHAERACEAE)							
Family Oocystaceae							
Cerasterias sp.	-	-	x	x	-	-	-
Family Scenedesmaceae							
Actinastrum sp.	x	-	-	-	-	-	-
Scenedesmus sp.	x	x	-	x	x	x	x
Family Hydrodictyaceae							
Pediastrum sp.	-	-	-	x	-	-	x
ORDER CHAETOPHORALES							
Family Chaetophoraceae							
Stigeoclonium sp.	-	x	x	-	x	-	x
ORDER OEDOGONIALES							
Family Oedogoniaceae							
Oedogonium sp.	x	-	x	-	-	-	-
ORDER SIPHONOCLADALES (CLADOPHORALES)							
Family Cladophoraceae							
Cladophora sp.	x	x	x	-	-	-	-
ORDER ZYGNEMATALES							
Family Desmidaceae							
Cosmarium sp.	x	x	x	x	-	-	-
PHYLUM EUGLENOPHYTA							
ORDER COLACIALES							
Colacium sp.	-	-	x	-	-	-	-
PHYLUM CHRYSOPHYTA							
SUB-PHYLUM XANTHOPHYCEAE (HETEROKONTAE)							
ORDER VAUCHERIALES							
Family Vaucheriaceae							
Vaucheria sp.	-	-	-	-	x	-	-

x - Denotes presence
- - Denotes absence

TABLE 6 (continued)

STATION	P-1	P-2	P-3	P-4	P-5	P-6	P-7
SUB-PHYLUM BACILLARIOPHYCEAE (DIATOMACEAE)							
ORDER CENTRALES							
Family Coscinodiscaceae							
Melosira sp.	x	x	x	x	x	x	-
Cyclotella/Stephanodiscus sp.	x	-	-	x	-	-	x
ORDER PENNALES							
Family Fragilariaceae							
Asterionella sp.	-	-	x	-	-	-	-
Diatoma sp.	-	x	x	x	-	x	-
Fragilaria sp.	-	x	-	x	-	-	x
Synedra sp.	x	x	-	x	x	x	x
Tabellaria sp.	-	x	x	-	-	-	-
Family Achnanthaceae							
Cocconeis sp.	x	x	x	x	x	x	x
Family Naviculaceae							
Gyrosigma sp.	x	x	-	x	x	x	x
Navicula sp.	x	x	x	x	x	x	x
Pinnularia sp.	-	-	-	-	-	-	x
Family Gomphonemaceae							
Gomphonema sp.	x	x	x	x	x	x	-
Family Cymbellaceae							
Cymbella sp.	x	x	-	x	x	-	x
Family Surirellaceae							
Surirella	-	-	x	x	x	-	x
PHYLUM CYANOPHYTA							
ORDER CHROOCOCCALES							
Family Chroococcaceae							
Merismopedium (Agmenellum) sp.	x	-	x	-	-	-	-
ORDER OSCILLATORIALES							
Family Oscillatoriaceae							
Lyngbya sp.	x	x	-	x	x	-	-



LOCATION OF SAMPLING STATIONS
ST. LAWRENCE RIVER SYSTEM
SEPT.-OCT. 1972

ENVIRONMENT CANADA — OTTAWA — ONTARIO	BEAK
DATE	13-8-73
PROJECT	A1155
DWG NO.	S1155-15

PROJECT: A-1155

ENVIRONMENT CANADA
OTTAWA, ONTARIO

BIOLOGICAL SURVEY OF THE
ST. LAWRENCE RIVER - 1972

VOLUME 2

DATE: 17 AUGUST 1973

APPENDIX 1

FIELD AND LABORATORY PROCEDURES

BIOLOGICAL SURVEY OF THE
ST. LAWRENCE RIVER - 1972

APPENDIX 1

DATE: 17 AUGUST 1973

FIELD AND LABORATORY PROCEDURES

FIELD PROCEDURES

The present study of the St. Lawrence River drainage in the Montreal area was conducted from 25 September to 16 October 1972. Field work was conducted by BEAK employees A. G. Appleby, Biologist, and C. Hade, Technologist. Water transportation was provided via the BEAK company boat, which was trailered and launched at convenient points in the waters surveyed. All field equipment was supplied by BEAK.

Sampling was conducted at 40 stations. The location of these stations is presented in Table 1, and in Drawing S-1155 - 17 on a map of the study area. The stations were chosen to give generally complete coverage of the Montreal urban area, and the St. Lawrence River both immediately upstream from Lac St-Louis and downstream from the outflow of Lake St. Peter. Sampling was also conducted in other areas of major interest: The Ottawa River (Lac des Deux-Montagnes); Riviere des Prairies; Riviere des Mille-Iles; Riviere Chateauguay; Riviere Richelieu, and Riviere St-Francois.

Samples were obtained of the following: benthos (bottom invertebrate animals); water; sediments; macrophytes (rooted aquatic plants); periphyton (attached algae). Collection methods are detailed in the following sections.

Benthos

Six samples of bottom material were obtained at each location by means of a Ponar grab. This clam-shell type sampling device procures a sample of 0.5 square foot of bottom material to a depth of penetration of 2 to 6 inches, depending on substrate type. Samples were placed in a sieve and screened through a No. 30 mesh (0.5mm) wire cloth to remove silt and sand. The sample residue, consisting of animals and coarse debris retained by the sieve, was placed in a labelled carton and preserved in 5% buffered formalin solution for forwarding to the laboratory. Notes were made at each location of the bottom sediment type, the depth (checked by sounder or hand line), current and vegetation.

At several locations it was not possible to obtain grab samples of bottom material because of unsuitable substrate. At Station 5, a composite qualitative sample was obtained by combining four core samples taken from between large rocks. At Station 6, no samples could be obtained by any means available. No samples were obtained at Station 37 because of three days of continuous rough weather.

Water

Water samples and associated physical/chemical measurements were taken at all sampling locations for surface waters. At stations where water depth exceeded 12 feet, bottom water samples were also obtained. Water samples were collected in a horizontal Van Dorn-style water sampler. Surface samples were taken from one foot under the surface, and bottom samples from approximately one foot over the bottom.

Secchi disc transparency was determined at each location using a 20 cm white disc. In situ measurements were made in the water sampler for: temperature; dissolved oxygen; pH; and conductivity. Temperature and dissolved oxygen were determined via an E.I.L. Model 15A Meter. The pH was determined with an E.I.L. Model 30C Meter equipped with a SCDN33C probe. Conductivity was determined using a portable conductivity meter developed by the Fisheries Research Board of Canada (Hoy, 1959), and a Y.S.I. 3400 cell.

Samples of water for laboratory analysis were placed in one-litre plastic bottles, iced in picnic coolers, and forwarded to the laboratory by Air Express or courier at the end of each day. Three litres were collected from each station and depth.

Surface samples were taken directly in 250 ml. glass bottles, chilled, and forwarded to the laboratory for fecal coliform and fecal streptococcus bacteria analysis.

Sediment

Samples of bottom material were obtained at each location using a Phleger-type core sampler. The cores were extruded and the top two inches placed in a plastic bag, labelled, and returned to the laboratory.

Macrophytes

Communities of macrophytes (rooted aquatic plants) were briefly examined at each of the forty regular sampling locations where they occurred. Plant growths both submergent and emergent were observed on-site and at the nearest shore location, if this was not an undue distance from the station. Field

notes were made on the extent of weed beds, and on apparent plant types. Samples were collected and preserved in formalin for laboratory analysis. All plants and plant fragments which were found during the benthic sorting were kept for further identification.

Periphyton

Samples of attached algae growths (periphyton) were collected at seven shoreline stations throughout the study area. These locations are described in Table 5. While the locations utilized were generally in proximity to a station sampled for other parameters, a separate numbering system (P-1 to P-7) has been employed to prevent confusion. At each location, bottom materials, generally rocks, were examined for attached growth. Due to the differing sizes and irregular shapes and textures of the surfaces, no attempt was made to collect quantitative samples. A wide range of apparent growth types and habitats was sampled to assure a good qualitative record. Sampling techniques consisted of scraping with a putty knife, and brushing with a small hand brush. Collected material was placed in 4 oz. brown glass jars, with 2-4% formalin solution, and forwarded to the laboratory.

LABORATORY PROCEDURES

Benthos

All benthic macroinvertebrate animals were picked manually from the sieved sample residue, sorted into major taxonomic groups (biological classifications), and counted. The tabulated results of this analysis are presented in Table 2 of this report. In addition, the number of taxa (taxonomic groupings) and the density (per square foot) for each animal group was calculated and this data also appears in Table 2.

Three samples from each of fifteen sampling stations were chosen for detailed biological analysis and identification to species. The three samples chosen for each set of six were those with the highest, lowest, and a median abundance, in order to cover the range of variability at each location.

This analysis utilized special techniques such as detailed examination of fine structures under a binocular microscope, and dissection and slide-mounting of certain parts of some specimens for examination with a compound microscope. Chironomidae larvae were sorted into apparent genus groups by binocular microscope, and representatives of each genus were specially mounted for examination. This procedure involved dissecting off the midge head and slide-mounting it, ventral side up, in Turtox CMC-10 medium. The body was mounted on the same slide, in a lateral position.

Oligochaete worms were specially treated. Preserved oligochaetes may fragment, so heads were separated from pieces in each sample. Where the sample contained 100 or less animals, the whole sample was sorted. Where the sample contained more than 100 animals, a subsample of approximately 100 was sorted. A correction factor was then calculated and applied to the data. At least one sample per station was treated in this manner. These organisms are not easily separated into species groups without examination by a compound microscope. Where samples of oligochates numbered 25 or less, the whole sample was slide-mounted in Turtox CMC-10 medium. Where a sample (or samples) contained more than 25 individuals, subsamples of approximately 25 were obtained, and mounted. The results of these identifications were used to extrapolate the figures in the whole sample, for each species. These special methods have been designed to prevent gross overestimation of oligochaete numbers, where each worm may

break into several pieces. Also, this method allows quantitative estimates to be made of the abundance of different oligochaete species.

The reference list in Appendix 2B details all the keys used in the taxonomic determinations. The data is presented in Table 3.

Water

Chilled water samples in one-litre plastic bottles were received in the laboratory within 24 hours of sampling. These samples were analyzed immediately for: BOD_5; total solids plus ash; suspended solids plus ash; ortho-phosphate; and nitrate. From the above analyses, levels of dissolved solids and dissolved solids ash, and volatile suspended, dissolved and total solids, were calculated. This data all appeared in Volume 1, Table 3.

The following is a brief description of the analytical methods used by Beak Consultants Limited, Chemistry Laboratory in performing chemical and physical analysis of fresh water:

Biochemical Oxygen Demand (BOD_5)

The sample was analyzed for biochemical oxygen demand by the dilution technique with incubation for a required number of days (5) at 20°C in the dark. The reduction in dissolved oxygen concentration during the incubation period gives a measure of the biochemical oxygen demand. Dissolved oxygen concentration (initial and final) is measured by use of a dissolved oxygen meter equipped with a BOD probe. Receiving waters were incubated, undiluted. (A.P.H.A., 1971; U.S.E.P.A., 1971).

Nitrate Nitrogen

The nitrate nitrogen concentration of the water samples was determined by the reaction of nitrate ion with brucine sulphate in a sulphuric acid solution at a temperature of 100°C. The coloured complex is measured with a spectrophotometer at a wave length of 410 nm. (A.P.H.A., 1971, U.S.E.P.A., 1971).

Phosphate (Ortho)

The method used by BEAK for determining the concentrations of ortho-phosphate consisted of the formation of molybdophosphoric acid, which is reduced to the coloured complex, molybdenum blue, by stannous chloride. The complex was extracted into benzeneisobutanol with spectrophotometer measurement made at 625 nm. (A.P.H.A., 1971).

Residue

Suspended Solids (105°C)

The concentration of suspended solids (105°C) was determined by filtering the sample or an aliquot through a glass fiber filter and drying to constant weight at 105°C.

Suspended Solids (550°C)

The suspended solids (550°C) was analyzed by filtering the sample or an aliquot, dried at 105°C, through a glass fiber filter and ashing to a constant weight at 550°C.

Total Solids (105°C)

This was determined by quantitatively transferring a well-mixed aliquot of the sample to a pre-weighed evaporating dish and evaporating to dryness at 105°C to a constant weight.

Total Solids (550°C)

This analysis was made by ashing the dried sample used in the total solids determination (105°C) at 550°C to a constant weight.

Dissolved Solids (105°C)

The dissolved solids at 105°C was obtained by the difference between the total and suspended solids results obtained at 105°C.

Dissolved Solids (550°C)

The dissolved solids at 550°C was obtained by the difference between the total suspended solids results obtained at 550°C. (Reference for all residues - A.P.H.A., 1971).

Microbiology

Surface samples in the sterilized bottles were analyzed for fecal coliform and fecal streptococcus bacteria. Analyses were made in accordance with Standard Methods (A.P.H.A., 1971, and Millipore Corp., 1972). Results of the bacteriological analyses plus the calculated fecal coliform: fecal streptococcus ratio were presented in Volume 1, Table 5.

Sediments

The following is a brief description of the analytical methods used by T. W. Beak Consultants Limited, Chemistry Laboratory in performing chemical and physical analysis of sediments.

Kjeldahl Nitrogen

BEAK's procedure consisted of a micro Kjeldahl method for the determination of the Kjeldahl nitrogen content of the sediment samples. The sample was

digested with the catalyst mixture of potassium sulphate/mercuric oxide/ sulphuric acid until a clear digest was obtained. The sample digest was distilled into a boric acid-indicator solution. The ammonia nitrogen was determined by titrating the distillate with standard hydrochloric acid (0.01 N). (A.P.H.A., 1971; American Society of Agronomy, 1965.)

Organic Carbon

The analysis of organic carbon in sediment was made by the reaction of the sample with a known volume of standard potassium di-chromate and sulphuric acid/silver sulphate mixture under reflux conditions, for a period of approximately two hours. The excess potassium di-chromate was determined by titration with standard ferrous ammonium sulphate using ortho-phenanthroline as an indicator. The quantity of substances oxidized is calculated from the amount of di-chromate reduced. (A.P.H.A., 1971; American Society of Agronomy, 1965).

O.S.I.

The product of the percent organic carbon and percent organic nitrogen is termed the "Organic Sediment Index" (O.S.I.) and is calculated from the organic carbon and yielded nitrogen values (%) as per Ballinger and McKee (1971).

Macrophytes

Collections of aquatic macrophytes were examined and identified as far as was feasible for the condition and state of maturity of the collected specimens. The field programme was conducted in late September through mid-October, and most of the species collected were at that time past the season of sexual maturity. Few mature or whole specimens were found, and the taxonomic

investigation was, therefore, generally limited to a generic determination. Identifications were conducted using standard references (see Appendix 2C) by spreading the specimens out in fresh water in large white enamel pans. Microscopic examinations were made of certain structures as necessitated by the keys. Obvious flocs of filamentous algae were collected, preserved and identified. Material retained from sorted benthos samples was also examined, but was often of a fragmentary nature. Field observations are incorporated with the data of the above analysis in Table 4.

Periphyton

Each periphyton sample was examined by standard microscopical techniques (Welch, 1948; A.P.H.A., 1971). Usually, the whole sample was resuspended in the 4 oz. jar by gentle agitation, and aliquots of 0.1 ml. were removed and introduced into a Palmer Cell. Three such subsamples were examined for each field sample. In addition, slide mounts, in some cases permanent, were made for samples where there was difficulty in confirming identities, especially of diatoms. Flocs of filamentous algae were teased apart on standard slides, and temporary mounts made for identification. Growth attached to filaments was also examined. Where periphyton samples contained large amounts of silt and inorganic debris, the samples were cleaned by the method of Slack et al, 1973. Results, expressed in qualitative terms for each station are presented in Table 5.

PROJECT: A-1155

ENVIRONMENT CANADA
OTTAWA, ONTARIO

BIOLOGICAL SURVEY OF THE
ST. LAWRENCE RIVER - 1972

DATE: AUGUST 1973

VOLUME 2

APPENDIX 2

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