P-04-252

Oskarshamn site investigation

Benthic macro invertebrates

Results from sampling in the Simpevarp area 2004

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September 2004

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ISSN 1651-4416
SKB P-04-252

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Keywords: Benthic invertebrates, Abundance, Biomass, Species composition.

Abstract

Benthic fauna was sampled from two streams and four lakes within the site investigation area of Simpevarp in April 2004. The two streams were sampled at three different locations. In the lakes samples were taken from different depth zones. The investigations aimed primarily to describe the composition of the benthic fauna and to provide measurements on abundance and biomass from different parts of the ecosystems.

In the streams and in the lake littorals the samples were taken with kick sampling technique. In the deeper parts of the lakes the samples were taken with an Ekman grabber. Later the samples were analysed at the laboratory. The work was carried out in accordance with activity plan AP PS 400-02-020 (an internal SKB document) and there were no significant nonconformities. The sampling and analysis procedures also followed the guidelines from SEPA (Swedish Environmental Protection Agency) in the "Handboken för miljöövervakning". All data generated from the activity has been sent to SKB for storage in the database SICADA.

The streams and lake littorals had moderately high numbers of taxa and at most sites the abundance was moderately high. At the stream site downstream from Lake Frisksjön the abundance was notably higher. The site also had a higher biomass than the other sites. High abundance and high biomass is a normal trait at stream sites close to lake outlets. The reason is the export of plankton from the lake providing filter feeders with a lot of food. Filter feeders also largely dominated the species composition at the site downstream from Lake Frisksjön.

The number of taxa found in the sublittorals varied between the lakes and so did abundances and biomass. The most important reasons for the differences are probably that the sampling depth and substrate quality varied between the lakes. The sampling was also performed at a lesser depth in Lake Frisksjön which had the highest number of taxa. In the sublittoral of Lake Jämsen which had the lowest biomass the sediment quality was probably poorer because it contained sand. The estimations of biomass in the littoral and sublittoral of the lakes must be considered uncertain. The reason for this is that large mussels (Anodonta sp.) probably exist in several of the lakes. In Lake Frisksjön one specimen was caught in one of the samples which led to a comparably high estimation of the biomass in the sublittoral of this lake. These mussels live scattered in the littoral and sublittoral of lakes and it is a low probability event to catch one in a sample with an Ekman grabber. The Anodonta mussel has a considerably higher biomass than the other species found and by not catching them we might have underestimated the biomass. In Lake Frisksjön the chance event of catching one might instead have led to an overestimation of the biomass.

The results from the profundal zones of the different lakes were similar. The number of species found was generally low but the abundance and biomass was rather high. The most important reason for the low number of taxa is that all lakes periodically have a low concentration of oxygen below the thermal layer. This excludes more sensitive species from large areas of the lakes. The most abundant species which also was most important to the total biomass was the phantom midge. This species is not truly benthic but migrates up through the water column to feed on zoo plankton during the night.

Sammanfattning

En undersökning av bottenfaunan genomfördes under april 2004 i två vattendrag och fyra sjöar inom undersökningsområdet i Simpevarp. I vattendragen undersöktes tre lokaler och i sjöarna gjordes undersökningar i olika djupzoner. Undersökningarna syftade främst till att beskriva bottenfaunans sammansättning och att ge värden på individtäthet och biomassa i olika delar av ekosystemet.

I vattendragen och i sjöarnas litoraler togs proverna med sparkmetoden. I de djupare delarna av sjöarna togs proverna med Ekmanhuggare. Proverna analyserades senare på laboratorium. Arbetet utfördes enligt aktivitetsplanen AP PS 400-02-020 (intern SKB dokument) och inga avvikelser förekom. Provtagningen och analyserna av proverna följde också rekommendationerna i Naturvårdsverkets Handbok för Miljöövervakning. Alla data som genererades skickades till SKB för att lagras i databasen SICADA.

I vattendragen och sjöarnas litoraler var antalet arter måttligt högt och vid de flesta lokalerna var individtätheten måttligt hög. Vid lokalen i vattendraget som avvattnar Frisksjön var individtätheten betydligt högre. Även biomassan var högre än vid övriga lokaler. Höga individtätheter och hög biomassa är normalt i vattendrag nära sjöutlopp. Orsaken är att den export av plankton som sker från sjön göder filtrerare. Filtrerare dominerade också artsammansättningen vid lokalen nedströms Frisksjön.

Artantalet, individtätheten och biomassan varierade mellan sjöarnas sublitoral. De viktigaste orsakerna till skillnaderna är troligen att provdjupet och substratets kvalitet varierade i de olika sjöarnas sublitoral. Provtagningen genomfördes också grundare i Frisksjön som hade det högsta artantalet. I Jämsen som hade den lägsta biomassan bedömdes substratkvaliteten i sublitoralen som sämre på grund av sandinslag. Måtten på biomassa i sjöarnas litoraler och sublitoraler måste betraktas som mer osäkra. Orsaken är att stormusslor av släktet Anodonta troligen förekommer i flera av sjöarna. I Frisksjöns sublitoral fångades en individ i ett av proverna vilket ledde till en förhållandevis hög uppskattning av biomassan. Dessa musslor lever spridda i sjöars litoral och sublitoral och det är liten sannolikhet att få någon i ett prov med en Ekmanhuggare. Dessa stormusslor har en väldigt hög biomassa jämfört med andra arter och frånvaron av dem i proverna kan ha lett till en underskattning av biomassan i flera av sjöarnas litoral eller sublitoral. Slumphändelsen som ledde till att en mussla fångades i Frisksjön kan å andra sidan ha lett till en överskattning av biomassan.

Resultaten från de olika sjöarnas profundalzoner var likartade. Artantalet var lågt men individtätheten och biomassan var relativt hög. Den huvudsakliga orsaken till det låga artantalet är att syrebrist periodvis råder under sjöarnas språngskikt. Detta gör att syrekrävande arter hindras från att kolonisera djupområdena. Den dominerande arten som också stod för den största delen av biomassan var en planktonmygglarv. Denna art är inte bunden till botten utan vandrar upp genom vattenmassan under dygnets mörka timmar för att äta djurplankton. Genom att gömma sig i sjöarnas syrefattiga och mörka djupområden kan mygglarverna undkomma predation från fisk.

Contents

1 Introduction

This document reports the results gained from the study of benthic fauna in the lakes and streams, which is one of the activities performed within the site investigation at Oskarshamn. The work was carried out in accordance with activity plan AP PS 400-02-020. In Table 1-1 controlling documents for performing this activity are listed. The activity plan is an SKB's internal controlling document.

Table 1-1. Controlling documents for the performance of the activity.

Activity plan	Number	Version
Undersökningar I Simpevarpsområdet: Undersökningar av bottenfauna I sjöar och vattendrag	AP PS 400-02-020	1.0

The aim of the activity was to investigate the composition of benthic invertebrates in the aquatic ecosystems. These data will be a part of the data needed to describe the function of the ecosystems in the investigation area. The sampling was performed during April 2004 in four lakes and two streams (Figure 1-1). All data generated was stored in the database SICADAaccording to Table 1-2.

Table 1-2. Data references.

Subactivity	Database	Identity number
Results from bottom fauna investigation	SICADA	Field note no Simpevarp 478
Name	GIS	

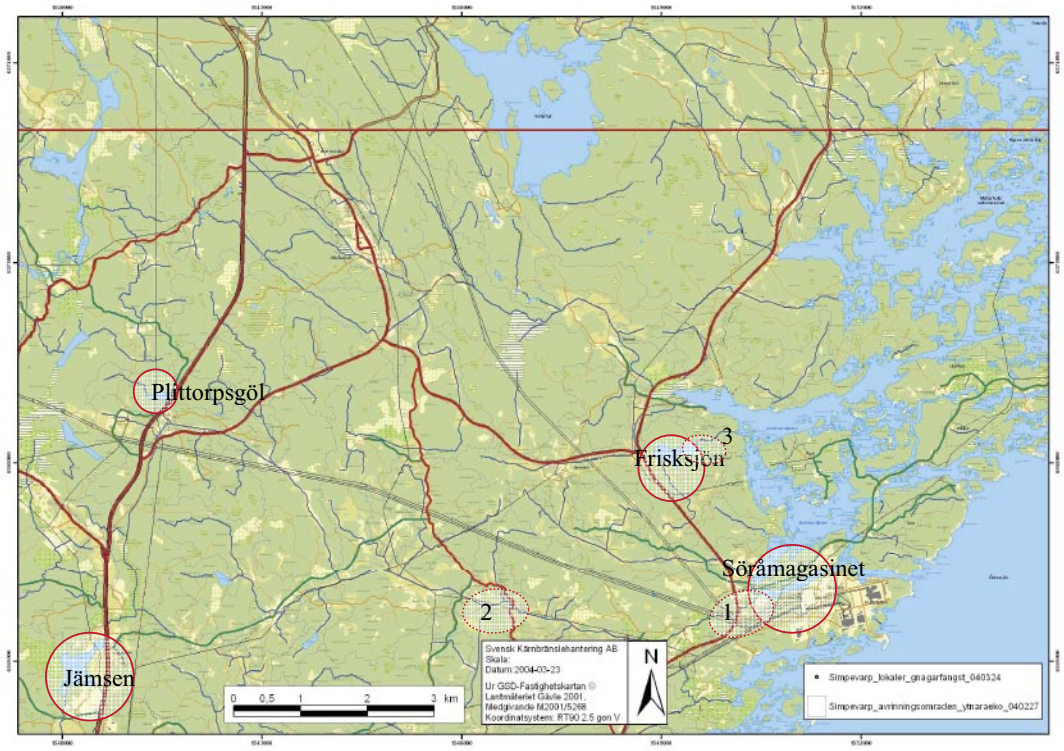


Figure 1-1. *Location of investigated lakes (circles) and streams (ovals).*

2 Objective and scope

The purpose of this activity was to investigate and describe the composition of benthic invertebrates in the lakes and streams within the investigation area. Samples of benthic fauna were taken from three different localities in the streams and from different depth zones in the four investigated lakes. The analysis of the samples gave information on species composition, abundance and biomasses in different parts of the aquatic ecosystems.

3 Equipment

3.1 Description of equipment/interpretation tools

For sampling in the deeper areas of the lakes an Ekman grabber with the size of 0.0215 m^2 was used (Figure 3-1). For sampling in the littoral zone of the lakes and in the streams a handnet was used (Figure 3-1). The hand net had an opening of 25×25 cm and a mesh size of 0.5×0.5 mm. The samples were sifted in the field trough a sieve with a mesh size of 0.5×0.5 mm (Figure 3-1). The samples were then preserved in 70% etanol.

In the laboratory the animals were sorted out from the material using a magnifying glass and a stereo microscope. Identification was performed in a stereomicroscope (5–50X). For some species a light microscope with 400X magnification was used. The biomass was measured on an analytical balance with an accuracy of 0.1 mg.

Figure 3-1. *The hand net and sieve used in the littoral zone of the lakes and in the streams and the Ekman grabber used in the deeper parts of the lakes.*

4 Execution

4.1 General

Samples were taken in four lakes and in two streams (Appendix 1 and 2). In the lakes samples were taken in three depth zones; the littoral, the sublittoral and the profundal. The number of sites in the streams and in each lake and the average sample depth are presented in Appendix 1. Five samples were taken at each site in the streams, in the littoral and in the sublittoral. The profundal zone was sampled at five sites in each lake but with only one sample at each site. In Lake Jämsen an additional profundal site was sampled with three samples.

The sampling of the four lakes and the two streams was performed 2004-04-13 to 2004-04-15. Two methods were used. In the shallow areas of the lake littorals kick sampling was performed according to the Swedish and European industrial standard SS EN 27 828. In the deeper part of the lakes the sampling was performed with an Ekman grabber according to the Swedish industrial standard SS 02 81 90. In addition the guidelines from SEPA (Swedish Environmental Protection Agency) in the "Handboken för miljöövervakning" were followed for both methods.

The samples were preserved in 70% ethanol and transported to the laboratory. The animals were sorted out from the material, counted and identified using a stereo microscope. The identification (if possible) was driven to species level. In the lake littorals and in the streams the identification of dipterans was performed only to family level.

While sampling, field notes were taken at each sample site in accordance with the guidelines from SEPA in the "Handboken för miljöövervakning". The field notes are presented in Appendix 3.

4.2 Execution of field work

In the streams each sample was taken by disturbing an area of 0.25 m^2 with the foot. Animals drifting from the disturbed area were gathered with the hand net which was held just downstream from the foot. In the lake littorals the same technique was used but the net was slowly swept as the 0.25 m^2 were disturbed. Five replicates were taken at each sample station, a stretch of 10 m along the stream or along the lake shore. The samples were individually marked and preserved.

At each station in the streams and in the lake littorals an additional qualitative sample was taken. For this sample animals were gathered with about 30 small efforts from the vegetation, from stones which were picked up and from the bottom using kick technique and the hand net. This was done to minimise the risk of missing rare species or important indicator species at the investigated sites.

At the sites in the deeper parts of the lakes (sublittoral and profundal) the samples were taken from a boat with an Ekman grabber. Each sample was sifted through a sieve before it was individually marked and preserved.

4.3 Data handling

The data obtained from the activity was reported digitally to SKB and stored in the database SICADA. These data will later be used for further interpretation and modelling.

4.4 Analyses and interpretations

The samples were analysed at the accredited analysing laboratory Medins Sjö- och Åbiologi AB. From each sample the animals were sorted out from the material and counted. If possible the animals were determined to species levels using stereo and light microscopes. The animals were also sorted after functional groups for determination of biomass. The biomass was then measured as wet weight on an analytical balance after a short period of drying on a filter paper.

After the analysis several indexes were calculated. Diversity index, ASPT-index, Danish Stream Fauna Index, Acidity index, Benthic Quality Index and O/C-index was calculated according to guidelines from SEPA /Wiederholm (ed), 1999/. Total number of taxa was calculated as the number of different species found at the site. Average number of taxa was calculated as the average number of different species found in the samples at a site. Abundance was calculated as the average number of individuals found per m^2 at the site. EPT-index was calculated as the total number of different species of the insect orders Ephemeroptera, Plecoptera and Trichoptera at the site.

4.5 Nonconformities

There were no significant nonconformities that affect the results or nonconformities with respect to activity plan or method descriptions.

5 Results

All primary data obtained is shown in the appendices. Field notes are shown in Appendix 3, species lists in Appendix 5 and biomasses in Appendix 6. In appendix 4 calculated indices is classified for each investigated site. Appendix 4 also shows abundance and biomass of different functional groups in pie charts.

5.1 Streams

5.1.1 Stream from Frisksjön

The samples were taken approximately 50 m downstream from the outlet of Lake Frisksjön. The substrate was dominated by sand and there was only little vegetation (Appendix 3). Twenty six different taxa were found and the abundance was 3062 individuals per square meter (Table 5-1). Filter feeders and detritus feeders dominated the species composition, both the abundance and the biomass (Table 5-2 and Appendix 4). A dominance of filter feeders is normal close to lake outlets.

Table 5-1. Number of different taxa, abundance and biomass at the site in the stream from Frisksjön.

Station number	Station name	Taxa	Abundance (number/m²)	Biomass (gWW/m²)
LSM000274	Stream from Frisksjön	26	3,062.4	7.37

Table 5-2. Abundance and biomass of different functional groups at the site in the stream from Frisksjön.

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filter feeders	1,732.0	56.6	4.072	55.2
Detritus feeders	802.4	26.2	1.759	23.9
Predators	103.2	3.4	0.353	4.8
Scrapers	172.8	5.6	0.077	1.0
Shredders	168.8	5.5	0.913	12.4
Other/unknown	83.2	2.7	0.195	2.7
Sum:	**3,062.4**	**100**	**7.370**	**100**

5.1.2 Laxemarsån

At the downstream site the substrate was dominated by stones and gravel and there was no vegetation (Appendix 3). Thirty one different taxa were found and the abundance was 773 individuals per square meter (Table 5-3). Detritus feeders and shredders were most abundant (Table 5-4 and Appendix 4). The biomass was dominated by detritus feeders, predators and shredders.

At the upstream site the substrate was a mixture of gravel, stones and boulders and there was no vegetation (Appendix 3). Twenty two different taxa were found and the abundance was 1908 individuals per square meter (Table 5-3). The fauna abundance and biomass was largely dominated by shredders (Table 5-5 and Appendix 4).

Table 5-3. Number of different taxa, abundance and biomass at the sites in Laxemarsån.

Station number	Station name	Taxa	Abundance (number/m²)	Biomass (gWW/m²)
LSM000272	Laxemarsån, downstream	31	772.8	2.57
LSM000273	Laxemarsån, upstream	22	1,908.0	2.89

Table 5-4. Abundance and biomass of different functional groups at the site LSM00272 in Laxemarsån.

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filter feeders	116.8	15.1	0.265	10.3
Detritus feeders	236.0	30.5	1.186	46.1
Predators	47.2	6.1	0.506	19.7
Scrapers	32.0	4.1	0.056	2.2
Shredders	228.0	29.5	0.476	18.5
Other/unknown	112.8	14.6	0.086	3.3
Sum:	**772.8**	**100**	**2.575**	**100**

Table 5-5. Abundance and biomass of different functional groups at the site LSM00273 in Laxemarsån.

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filter feeders	123.2	6.5	0.392	13.6
Detritus feeders	156.0	8.2	0.546	18.9
Predators	52.0	2.7	0.700	24.2
Scrapers	7.2	0.4	0.002	0.1
Shredders	1,513.6	79.3	1.222	42.3
Other/unknown	56.0	2.9	0.027	0.9
Sum:	**1,908.0**	**100**	**2.888**	**100**

5.2 Lakes

5.2.1 Jämsen

In the upper littoral the substrate was dominated by detritus (Appendix 3). The site had a rich vegetation of above surface plants. Twenty nine different taxa were found and the abundance was 802 individuals per square meter (Table 5-6). One of the taxa found, Marstoniopsis scholtzi, is quite unusual in Swedish lakes. Detritus feeders and predators were most abundant but shredders and predators were the most dominant groups in relation to biomass (Table 5-7 and Appendix 4).

In the lower littoral the substrate was dominated of detritus and there was no vegetation (Appendix 3). Six different taxa were found and the abundance was 679 individuals per square meter (Table 5-6). Predators and detritus feeders were the only functional groups present (Table 5-8 and Appendix 4). The site which was meant to represent a low littoral had more resemblance to a sublittoral.

In the sublittoral the substrate was dominated by detritus with some sand. (Appendix 3). Eleven different taxa were found and the abundance was 670 individuals per square meter (Table 5-6). Detritus feeders were most abundant and they also dominated the biomass (Table 5-9 and Appendix 4).

In the profundal an average of 2.8 different taxa was found at the sites and the average abundance was 5664 individuals per square meter (Table 5-6). Predators were most abundant and they also dominated the biomass (Table 5-10 and Appendix 4).

Table 5-6. Number of different taxa, abundance and biomass in different depth zones in Lake Jämsen.

Station number	Station name	Taxa	Abundance (number/m²)	Biomass (gWW/m²)
PSM003718	upper littoral	29	320.8	0.94
PSM003719	lower littoral	6	679.1	2.60
PSM003720	sublittoral	11	669.8	1.08
PSM003721–PSM003726	profundal (average)	2.83	5,664.1	11.73

Table 5-7. Abundance and biomass of different functional groups in the upper littoral zone of Jämsen (PSM003718).

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	0	0	0	0
Detritus feeders	174.4	54.4	0.351	37.4
Predators	72.8	22.7	0.118	12.5
Scrapers	13.6	4.2	0.051	5
Shredders	3.2	1.0	0.325	35
Other/unknown	56.8	17.7	0.094	10
Sum:	**320.8**	**100**	**0.938**	**100**

Table 5-8. Abundance and biomass of different functional groups in the lower littoral zone of Jämsen (PSM003719).

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	0	0	0	0
Detritus feeders	344.2	50.7	1.558	60.0
Predators	334.9	49.3	1.037	40.0
Scrapers	0	0	0	0
Shredders	0	0	0	0
Other/unknown	0	0	0	0
Sum:	**679.1**	**100**	**2.595**	**100**

Table 5-9. Abundance and biomass of different functional groups in the sublittoral zone of Jämsen (PSM003720).

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	0	0	0	0
Detritus feeders	586.0	87.5	0.997	92.0
Predators	55.8	8.3	0.084	7.7
Scrapers	0	0	0	0
Shredders	0	0	0	0
Other/unknown	27.9	4.2	0.0028	0
Sum:	**669.8**	**100**	**1.084**	**100**

Table 5-10. Abundance and biomass of different functional groups in the profundal zone of Jämsen (PSM003721 – PSM003726). Averages from six sites.

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	0	0	0	0
Detritus feeders	881.1	24.6	1.758	15.0
Predators	4,775.2	75.2	9.868	84.1
Scrapers	0	0	0	0
Shredders	0	0	0	0
Other/unknown	7.8	0.2	0.102	0.9
Sum:	**5,664.1**	**100**	**11.728**	**100**

In Lake Jämsen there seemed to be a relationship between the number of taxa and the sample depth (Figure 5-1). A similar relationship existed with respect to diversity. Abundance and biomass seemed also to have a relationship to sample depth with greater abundance and biomass in the deeper part of the lake (Figure 5-1).

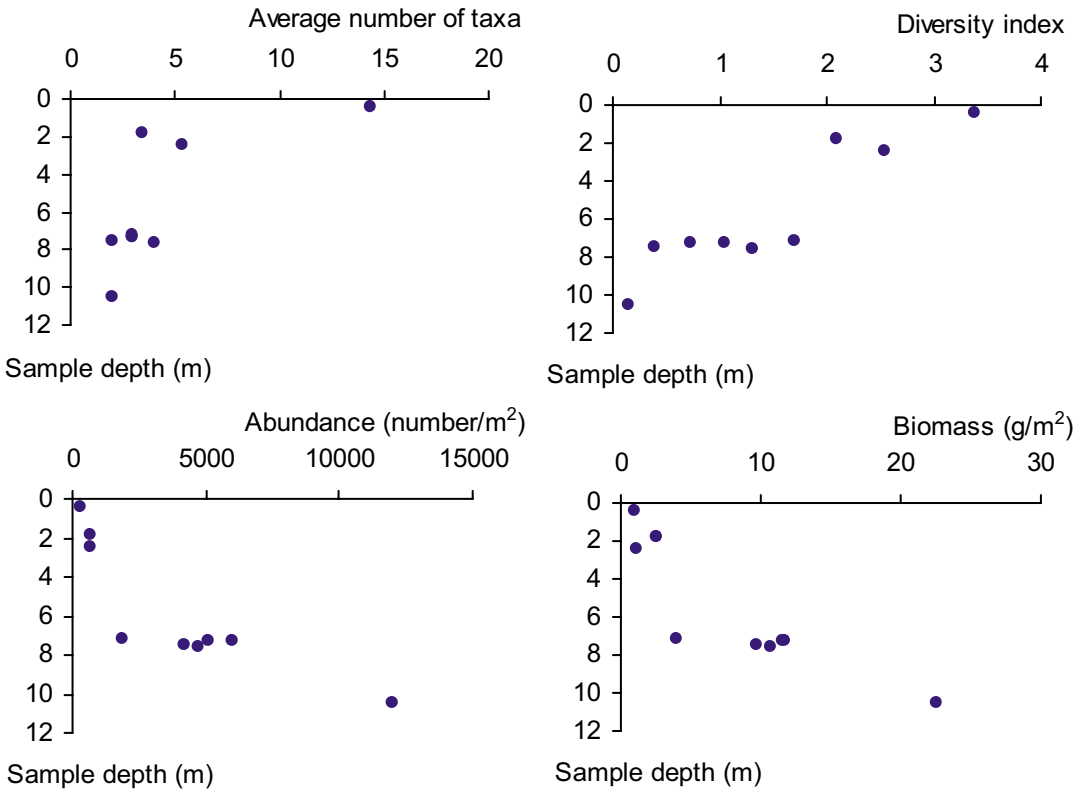


Figure 5-1. *Average number of taxa, diversity index, abundance and biomass in relation to sample depth in Lake Jämsen.*

5.2.2 Frisksjön

In the littoral the substrate was dominated by detritus and there was only little vegetation (Appendix 3). Thirty four different taxa were found and the abundance was 287 individuals per square meter (Table 5-11). Detritus feeders and predators were most abundant but also shredders were among the dominant groups in relation to biomass (Table 5-12 and Appendix 4).

In the sublittoral the substrate was dominated by detritus and there was no vegetation (Appendix 3). Twenty one different taxa were found and the abundance was 1,842 individuals per square meter (Table 5-11). Detritus feeders were most abundant but the biomass was totally dominated by filter feeders (Table 5-13 and Appendix 4). The reason for the domination of filter feeders was the single find of one large mussel, Anodonta anatina, in sample number two. If that mussel hadn't been in the sample the biomass would have been dominated by predators.

In the profundal an average of 2.6 different taxa was found at the sites and the average abundance was 2474 individuals per square meter (Table 5-11). Predators were most abundant and they also dominated the biomass (Table 5-14 and Appendix 4).

Table 5-11. Number of different taxa, abundance and biomass in different depth zones in Lake Frisksjön.

Station number	Station name	Taxa	Abundance (number/m²)	Biomass (gWW/m²)
PSM003727	littoral	34	287.2	1.66
PSM003728	sublittoral	21	1,841.9	184.87
PSM003729–PSM003733	profundal (average)	2.6	2,474.4	7.05

Table 5-12. Abundance and biomass of different functional groups in the littoral zone of Frisksjön (PSM003727).

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	16.0	5.6	0.034	2.1
Detritus feeders	114.4	39.9	0.481	28.9
Predators	48.8	17.0	0.734	44.1
Scrapers	16.8	5.9	0.036	2.2
Shredders	8.8	3.1	0.338	20.3
Other/unknown	81.6	28.5	0.040	2.4
Sum:	**286.4**	**100**	**1.663**	**100**

Table 5-13. Abundance and biomass of different functional groups in the sublittoral zone of Frisksjön (PSM003728).

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	27.9	1.5	179.86	97.3
Detritus feeders	1,534.9	83.3	1.37	0.7
Predators	260.5	14.1	3.64	2.0
Scrapers	0	0	0	0
Shredders	0	0	0	0
Other/unknown	18.6	1.0	0.0019	0.0010
Sum:	**1,841.9**	**100**	**184.87**	**100**

Table 5-14. Abundance and biomass of different functional groups in the profundal zone of Frisksjön (PSM003729 – PSM003733). Averages from five sites.

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	0	0	0	0
Detritus feeders	18.6	0.6	0.38	5.4
Predators	2,455.8	99.4	6.67	94.6
Scrapers	0	0	0	0
Shredders	0	0	0	0
Other/unknown	0	0	0	0
Sum:	**2,474.4**	**100**	**7.05**	**100**

In Lake Frisksjön there seemed to be a relationship between the number of taxa and the sample depth (Figure 5-2). A similar relationship existed with respect to diversity. Abundance and biomass seemed to have a weaker or a non existent relation to sample depth (Figure 5-2).

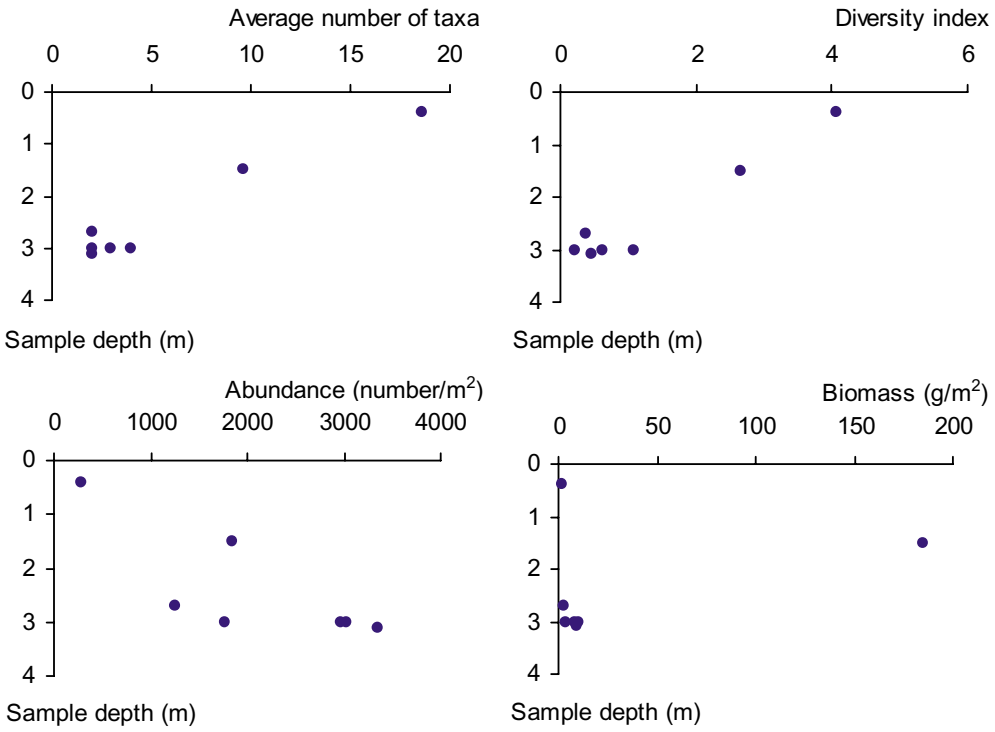


Figure 5-2. *Average number of taxa, diversity index, abundance and biomass in relation to sample depth in Lake Frisksjön.*

5.2.3 Söråmagasinet

In the littoral the substrate was dominated by detritus but some stones and boulders were present (Appendix 3). The site had some above surface plants. Twenty five different taxa were found and the abundance was 802 individuals per square meter (Table 5-15). Detritus feeders and predators were most abundant but also scrapers were among the dominant groups in relation to biomass (Table 5-16 and Appendix 4).

In the sublittoral the substrate was dominated by detritus and there was no vegetation (Appendix 3). Nine different taxa were found and the abundance was 1581 individuals per square meter (Table 5-15). Predators were most abundant but also detritus feeders were an important group (Table 5-17 and Appendix 4).

In the profundal an average of 4.6 different taxa was found at the sites and the average abundance was 1172 individuals per square meter (Table 5-15). Predators were most abundant and they also dominated the biomass (Table 5-18 and Appendix 4).

Table 5-15. Number of different taxa, abundance and biomass in different depth zones in Lake Söråmagasinet

Station number	Station name	Taxa	Abundance (number/m²)	Biomass (gWW/m²)
PSM003734	littoral	25	801.6	2.18
PSM003735	sublittoral	9	1,581.4	3.56
PSM003736–PSM003740	profundal (average)	4.6	1,172.1	2.77

Table 5-16. Abundance and biomass of different functional groups in the littoral zone of Söråmagasinet (PSM003734).

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	4.8	0.6	0.134	6.1
Detritus feeders	280.8	35.0	0.791	36.2
Predators	235.2	29.3	0.885	40.5
Scrapers	166.4	20.8	0.320	14.6
Shredders	2.4	0.3	0.010	0.4
Other/unknown	112	14.0	0.045	2.1
Sum:	**801.6**	**100**	**2.184**	**100**

Table 5-17. Abundance and biomass of different functional groups in the sublittoral zone of Söråmagasinet (PSM003735).

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	0	0	0	0
Detritus feeders	353.5	22.4	0.69	19.3
Predators	1,227.9	77.6	2.87	80.7
Scrapers	0	0	0	0
Shredders	0	0	0	0
Other/unknown	0	0	0	0
Sum:	**1,581.4**	**100**	**3.56**	**100**

Table 5-18. Abundance and biomass of different functional groups in the profundal zone of Söråmagasinet (PSM003736 – PSM003740). Averages from five sites.

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	0	0	0	0
Detritus feeders	279.1	23.7	0.16	5.6
Predators	893.0	76.3	2.62	94.4
Scrapers	0	0	0	0
Shredders	0	0	0	0
Other/unknown	0	0	0	0
Sum:	**1,172.1**	**100**	**2.77**	**100**

In Lake Söråmagasinet there seemed to be a relationship between the number of taxa and the sample depth (Figure 5-3). A similar relationship existed with respect to diversity. Abundance and biomass seemed to have a weaker or a non existent relation to sample depth (Figure 5-3).

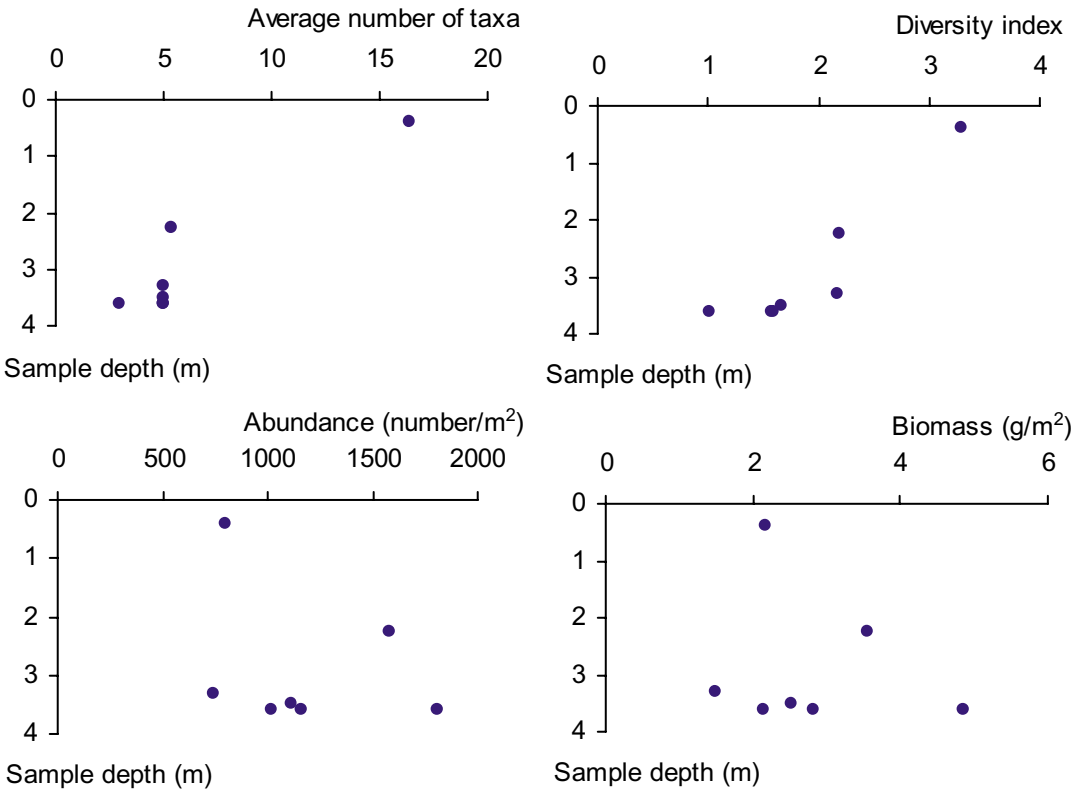


Figure 5-3. *Average number of taxa, diversity index, abundance and biomass in relation to sample depth in Lake Söråmagasinet.*

5.2.4 Plittorpsgöl

In the littoral the substrate was dominated by detritus (Appendix 3). The site had some vegetation of above surface plants. Twenty one different taxa were found and the abundance was 542 individuals per square meter (Table 5-19). Detritus feeders and predators were most abundant and dominated the biomass (Table 5-20 and Appendix 4).

In the sublittoral the substrate was dominated by detritus (Appendix 3). Nine different taxa were found and the abundance was 3005 individuals per square meter (Table 5-19). Predators and detritus feeders were most abundant and they also dominated the biomass (Table 5-21 and Appendix 4).

In the profundal an average of 3.4 different taxa was found at the sites and the average abundance was 2484 individuals per square meter (Table 5-19). Predators were most abundant and they also dominated the biomass (Table 5-22 and Appendix 4).

Table 5-19. Number of different taxa, abundance and biomass in different depth zones in Lake Plittorpsgöl.

Station number	Station name	Taxa	Abundance (number/m²)	Biomass (gWW/m²)
PSM003741	littoral	21	542.4	2.68
PSM003742	sublitoral	9	3,004.7	8.84
PSM003743–PSM003747	profundal (average)	3.4	2,483.7	8.60

Table 5-20. Abundance and biomass of different functional groups in the littoral zone of Plittorpsgöl (PSM003741).

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	38.4	7.1	0.078	2.9
Detritus feeders	312	57.5	1.764	65.9
Predators	59.2	10.9	0.636	23.7
Scrapers	40.0	7.4	0.030	1.1
Shredders	1.6	0.3	0.113	4.2
Other/unknown	91.2	16.8	0.056	2.1
Sum:	**542.4**	**100**	**2.677**	**100**

Table 5-21. Abundance and biomass of different functional groups in the sublittoral zone of Plittorpsgöl (PSM003742).

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	18.6	0.6	0.142	1.6
Detritus feeders	1,162.8	38.7	3.676	41.6
Predators	1,665.1	55.4	5.014	56.7
Scrapers	0	0	0	0
Shredders	0	0	0	0
Other/unknown	158.1	5.3	0.0065	0.1
Sum:	**3,004.7**	**100**	**8.839**	**100**

Table 5-22. Abundance and biomass of different functional groups in the profundal zone of Plittorpsgöl (PSM003743 – PSM003747). Averages from five sites.

Functional groups	Abundance (number/m²)	Abundance (%)	Biomass (gWW/m²)	Biomass (%)
Filterfeeders	0	0	0	0
Detritus feeders	288.4	13.4	0.622	7.2
Predators	2,195.3	86.6	7.977	92.8
Scrapers	0	0	0	0
Shredders	0	0	0	0
Other/unknown	0	0	0	0
Sum:	**2,483.7**	**100**	**8.599**	**100**

In Lake Plittorpsgöl the number of taxa decreased with increased sample depth (Figure 5-3). A similar relationship existed with respect to diversity. Abundance and biomass seemed however to have a weaker relationship to sample depth (Figure 5-4).

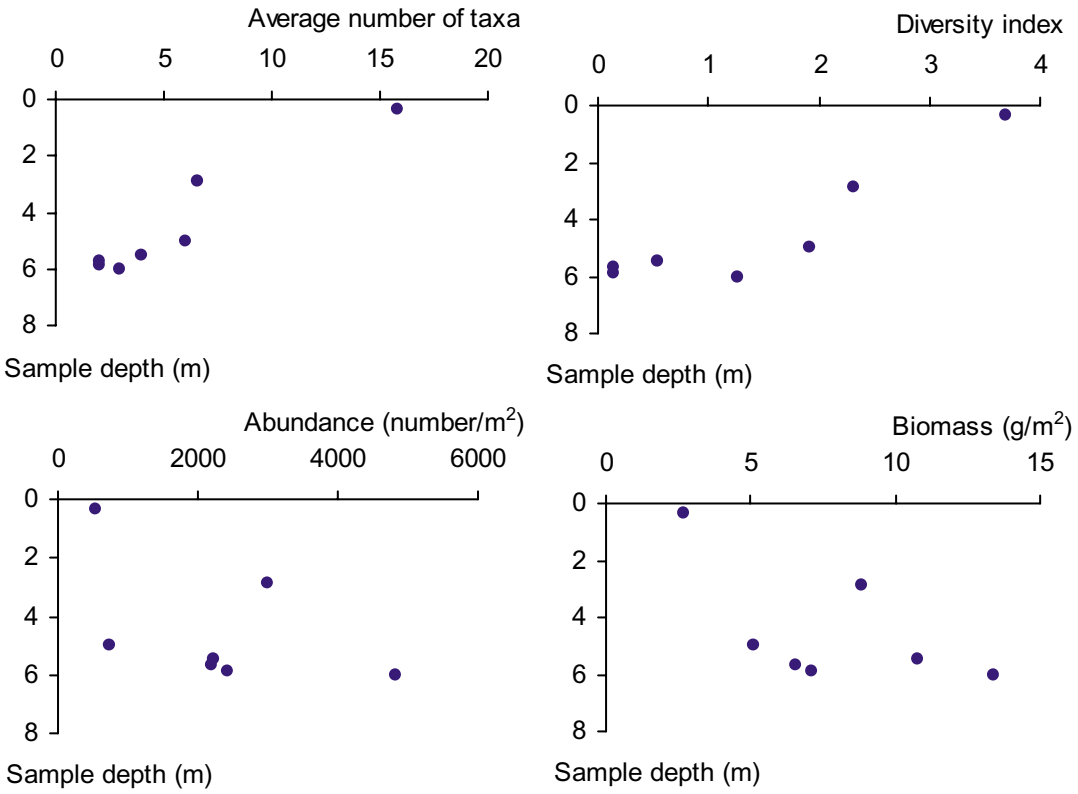


Figure 5-4. *Average number of taxa, diversity index, abundance and biomass in relation to sample depth in Lake Plittorpsgöl.*

6 Summary and discussions

The site downstream from Lake Frisksjön (LSM00274) had a much larger biomass than the two sites in Laxemarsån as well as a much larger proportion of filter feeders (Figure 6-1). The difference is probably due to the proximity to Lake Frisksjön and to the influx of plankton from the lake. Dominance of filter feeders, higher abundance and higher biomass is a normal trait at stream sites close to lake outlets. The total number of taxa found differed between the sites with the highest number at the downstream site in Laxemarsån (Table 6-1). However, the differences in average number of taxa per sample were not statistical significant (Mann Whitney U-test). The diversity was lower at the upstream site in Laxemarsån and at the site downstream from Frisksjön (Table 6-1), perhaps as a consequence of the extensive ditching at the sites.

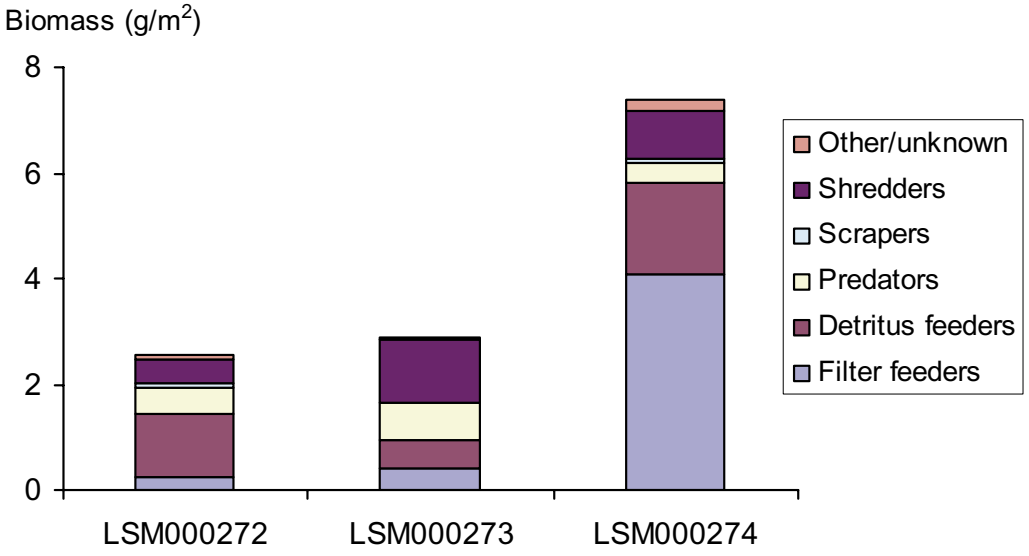


Figure 6-1. *Biomass in relation to functional groups in Laxemarsån (LSM00272 and LSM00273) and Stream from Frisksjön (LSM00274).*

Table 6-1. Total number of taxa, diversity, abundance and biomass at the investigated stream sites.

Station number	Stream	Taxa	Diversity-index	Abundance (number/m²)	Biomass (g/m²)
LSM000272	Laxemarsån	31	3.33	773	2.6
LSM000273	Laxemarsån	22	1.79	1,908	2.9
LSM000274	Stream from Frisksjön	26	2.93	3,062	7.4

All investigated lakes had a similar species composition. In the upper littorals the diversity was moderately high or high, and many species groups were present (Table 6-2 and Appendix 5). In most lakes detritus feeders were the dominant functional group in the littoral, but most functional groups were present. The number of taxa found in the littorals differed between the lakes, possibly to some extent due to differences in substrate quality and substrate heterogeneity at the sites. The values for abundance and biomass were similar in the different lake littorals (Table 6-2).

The number of taxa found in the sublittoral of the lakes differed with considerably more taxa in Lake Frisksjön (Table 6-3). The reason for this is probably that the samples in Lake Frisksön were taken at a depth of 1.5 m (appendix 3). In the other lakes the samples from the sublittoral were taken at a depth of 2–3 m. The abundance was lower in Lake Jämsen than in the other lakes. One explanation might be a poorer sediment quality for detritus feeders. In Lake Jämsen the substrate in the sublittoral was a mixture of sand and detritus whereas the other lakes had only detritus in the sublittoral sediments. This might also be an explanation for the lower biomass in the sublittoral of Lake Jämsen. Lake Frisksjön had a very high biomass in its sublittoral compared to the other lakes (Table 6-3). The reason for this is the single find of one large mussel in one of the samples, Anodonta anatina. If that mussel was to be omitted from the estimation, the biomass would have been approximately 5 g/m^2. Large mussels might also exist in the other lakes. These mussels live scattered in the littoral and sublittoral of lakes and it is a low probability event to catch one in a sample with an Ekman grabber. Therefore the estimations of the biomass in the littoral and sublittoral of the lakes must be considered uncertain.

Table 6-2. Total number of taxa, diversity, abundance and biomass at the investigated sites in the littoral of the lakes.

Station number	Lake	Taxa	Diversity-index	Abundance (number/m^2)	Biomass (gWW/m^2)
PSM003718	Jämsen	29	3.38	320.8	0.94
PSM003727	Frisksjön	34	4.08	287.2	1.66
PSM003734	Söråmagasinet	25	3.29	801.6	2.18
PSM003741	Plittorpsgöl	21	3.70	542.4	2.68

Table 6-3. Total number of taxa, abundance and biomass at the investigated sites in the sublittoral of the lakes.

Station number	Lake	Taxa	Abundance (number/m^2)	Biomass (gWW/m^2)
PSM003720	Jämsen	11	670	1.1
PSM003728	Frisksjön	21	1,842	184.9
PSM003735	Söråmagasinet	9	1,581	3.6
PSM003742	Plittorpsgöl	9	3,005	8.8

The species richness was low in the profundals of the investigated lakes (Table 6-4). Most certainly this was an effect of low concentration of oxygen in the water below the thermal layer in the lakes. The only species found was also tolerant against low concentrations of oxygen. The profundal in all lakes was largely dominated by the phantom midge Chaoborus flavicans. This species is not truly benthic and therefore the abundance and biomass is greatly exaggerated if the measurement is intended for only true benthic species. The phantom midge migrates up through the water column during the night to feed on zooplankton, but during the day it stays close to the sediment to avoid predation from fish. The phantom midge is commonly abundant in lakes with low concentrations of oxygen in the profundal zone. The reason might be that its strategy is more favourable in these kinds of lakes.

Table 6-4. Total number of taxa, abundance and biomass at the investigated sites in the profundal of the lakes.

Station number	Lake	Taxa	Abundance (number/m^2)	Biomass (gWW/m^2)
PSM003721–PSM003726	Jämsen	2.8	5,664	11.7
PSM003729–PSM003733	Frisksjön	2.6	2,474	7.0
PSM003736–PSM003740	Söråmagasinet	4.6	1,172	2.8
PSM003743–PSM003747	Plittorpsgöl	3.4	2,484	8.6

References

Wiederholm T, (ed) 1999. Bedömningsgrunder för miljökvalitet. Sjöar och vattendrag. Naturvårdsverket, rapport 4913.

Brunberg A-K, Carlsson T, Brydsten L, Strömgren M, 2004. Identification of catchments, lake-related drainage parameters and lake habitats. SKB P-04-242. Svensk Kärnbränslehantering AB.

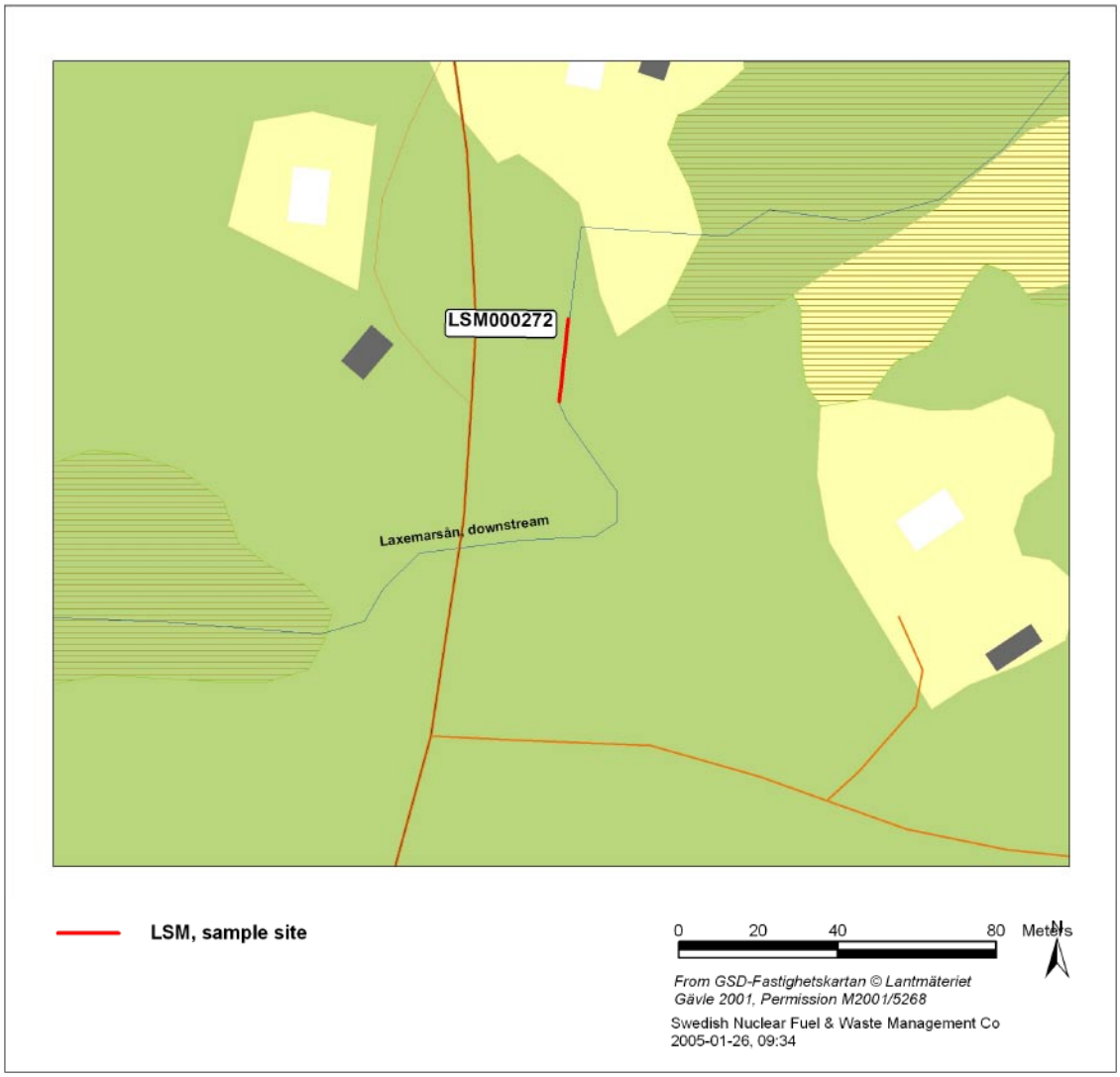
Investigated sites

Appendix 1

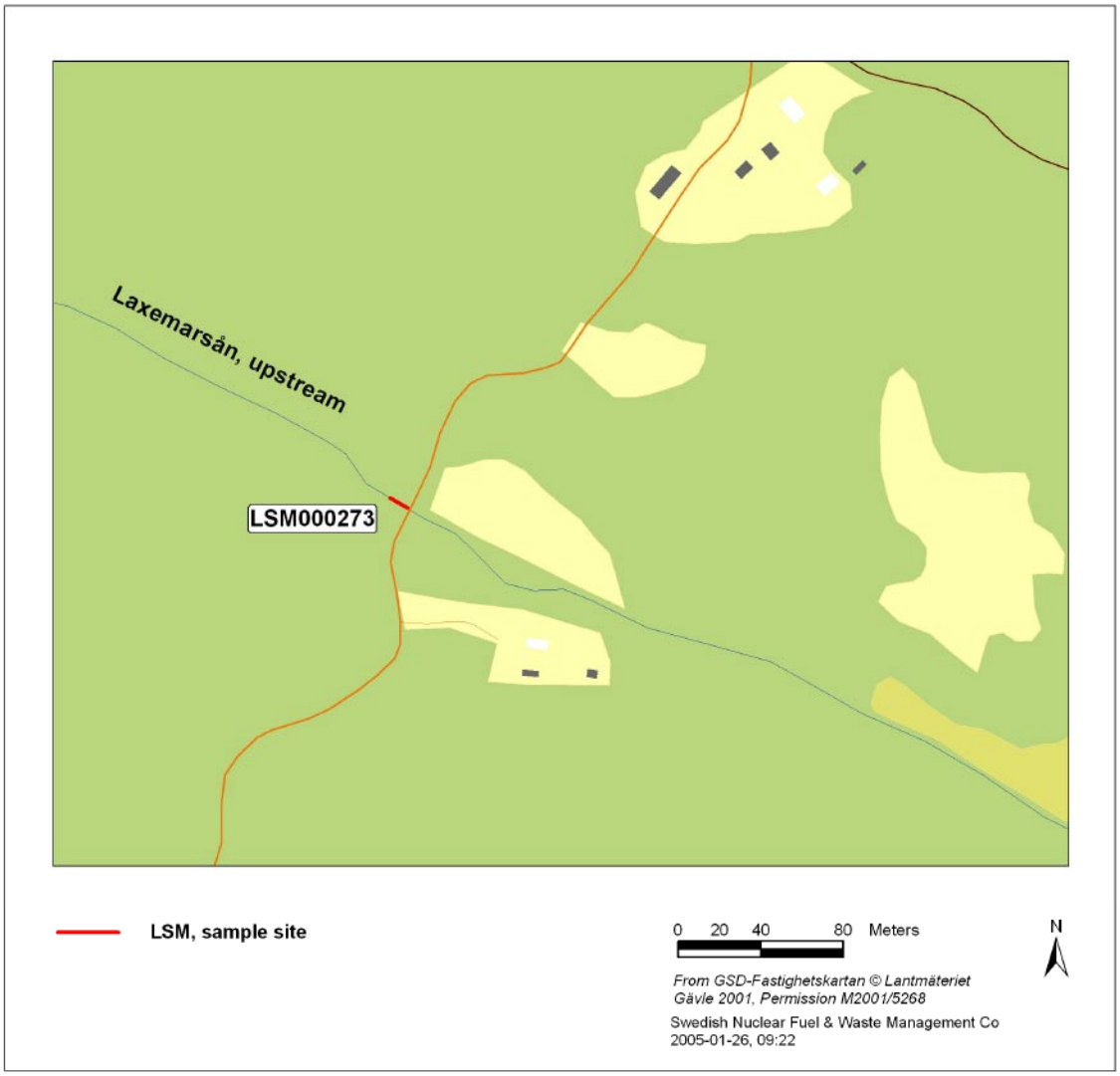
Station number	Lake/watershed	Station name	Co-ordinate (x)	Co-ordinate (y)	2nd Co-ordinate (x)	2nd Co-ordinate (y)	Date	No of samples	Average sample depth (m)	Sample size (m^2)
LSM000272	Laxemarsån	downstream	155017	636576	155017	636575	2004-04-14	5	0.40	0.25
LSM000273	Laxemarsån	upstream	154597	636600	154596	636600	2004-04-14	5	0.40	0.25
LSM000274	Stream from Frisksjön	downstream from Frisksjön	154954	636831	154953	636830	2004-04-15	5	0.20	0.25
PSM003718	Jämsen	littoral	636463	154040			2004-04-13	5	0.40	0.25
PSM003719	Jämsen	littoral	636524	154053			2004-04-13	5	1.7–1.9	0.0215
PSM003720	Jämsen	sublittoral	636471	154039			2004-04-13	5	2.3–2.6	0.0215
PSM003721	Jämsen	profundal	636486	154026			2004-04-13	1	7.2	0.0215
PSM003722	Jämsen	profundal	636504	154026			2004-04-13	1	7.3	0.0215
PSM003723	Jämsen	profundal	636498	154017			2004-04-13	1	7.5	0.0215
PSM003724	Jämsen	profundal	636489	154009			2004-04-13	1	7.3	0.0215
PSM003725	Jämsen	profundal	636479	154015			2004-04-13	1	7.6	0.0215
PSM003726	Jämsen	profundal	636488	154017			2004-04-13	3	10.5	0.0215
PSM003727	Frisksjön	littoral	636829	154948			2004-04-15	5	0.40	0.25
PSM003728	Frisksjön	sublittoral	636795	154922			2004-04-15	5	1.5	0.0215
PSM003729	Frisksjön	profundal	636807	154911			2004-04-15	1	3.0	0.0215
PSM003730	Frisksjön	profundal	636809	154905			2004-04-15	1	3.0	0.0215
PSM003731	Frisksjön	profundal	636815	154902			2004-04-15	1	3.1	0.0215
PSM003732	Frisksjön	profundal	636817	154918			2004-04-15	1	2.7	0.0215
PSM003733	Frisksjön	profundal	636820	154933			2004-04-15	1	3.0	0.0215
PSM003734	Söråmagasinet	littoral	636627	155125			2004-04-14	5	0.40	0.25
PSM003735	Söråmagasinet	sublittoral	636600	155058			2004-04-13	5	2.0–2.5	0.0215
PSM003736	Söråmagasinet	profundal	636613	155104			2004-04-14	1	3.3	0.0215
PSM003737	Söråmagasinet	profundal	636614	155111			2004-04-14	1	3.5	0.0215
PSM003738	Söråmagasinet	profundal	636623	155120			2004-04-14	1	3.6	0.0215
PSM003739	Söråmagasinet	profundal	636628	155130			2004-04-14	1	3.6	0.0215
PSM003740	Söråmagasinet	profundal	636633	155137			2004-04-14	1	3.6	0.0215
PSM003741	Plittorpsgöl	littoral	636903	154159			2004-04-14	5	0.35	0.25
PSM003742	Plittorpsgöl	sublittoral	636896	154155			2004-04-14	5	2.8–3.0	0.0215
PSM003743	Plittorpsgöl	profundal	636897	154146			2004-04-14	1	5.0	0.0215
PSM003744	Plittorpsgöl	profundal	636897	154142			2004-04-14	1	5.5	0.0215
PSM003745	Plittorpsgöl	profundal	636902	154138			2004-04-14	1	5.9	0.0215
PSM003746	Plittorpsgöl	profundal	636904	154148			2004-04-14	1	5.7	0.0215
PSM003747	Plittorpsgöl	profundal	636901	154152			2004-04-14	1	6.0	0.0215

Appendix 2

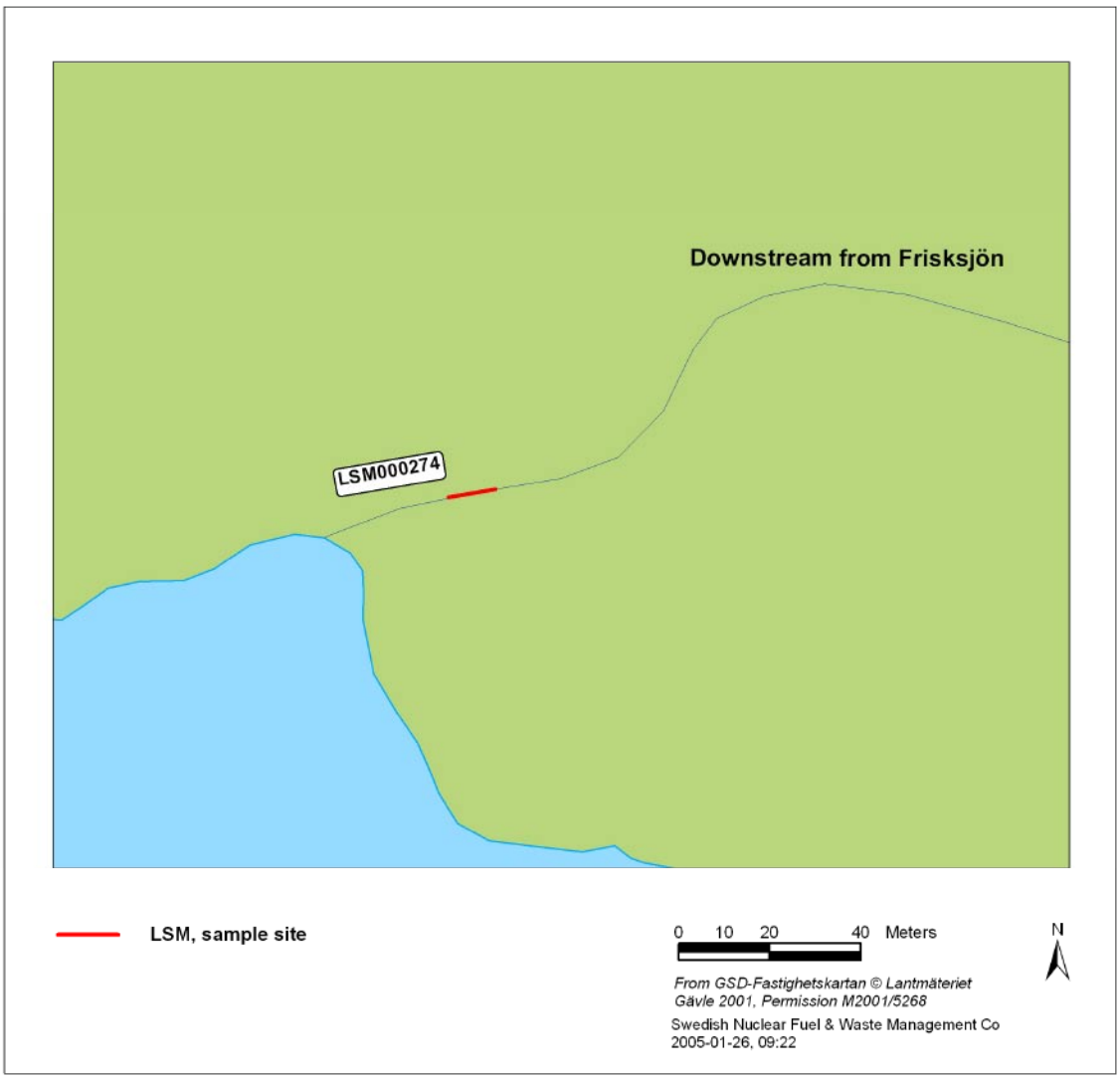
Maps with the location of sampled sites in the lakes and streams



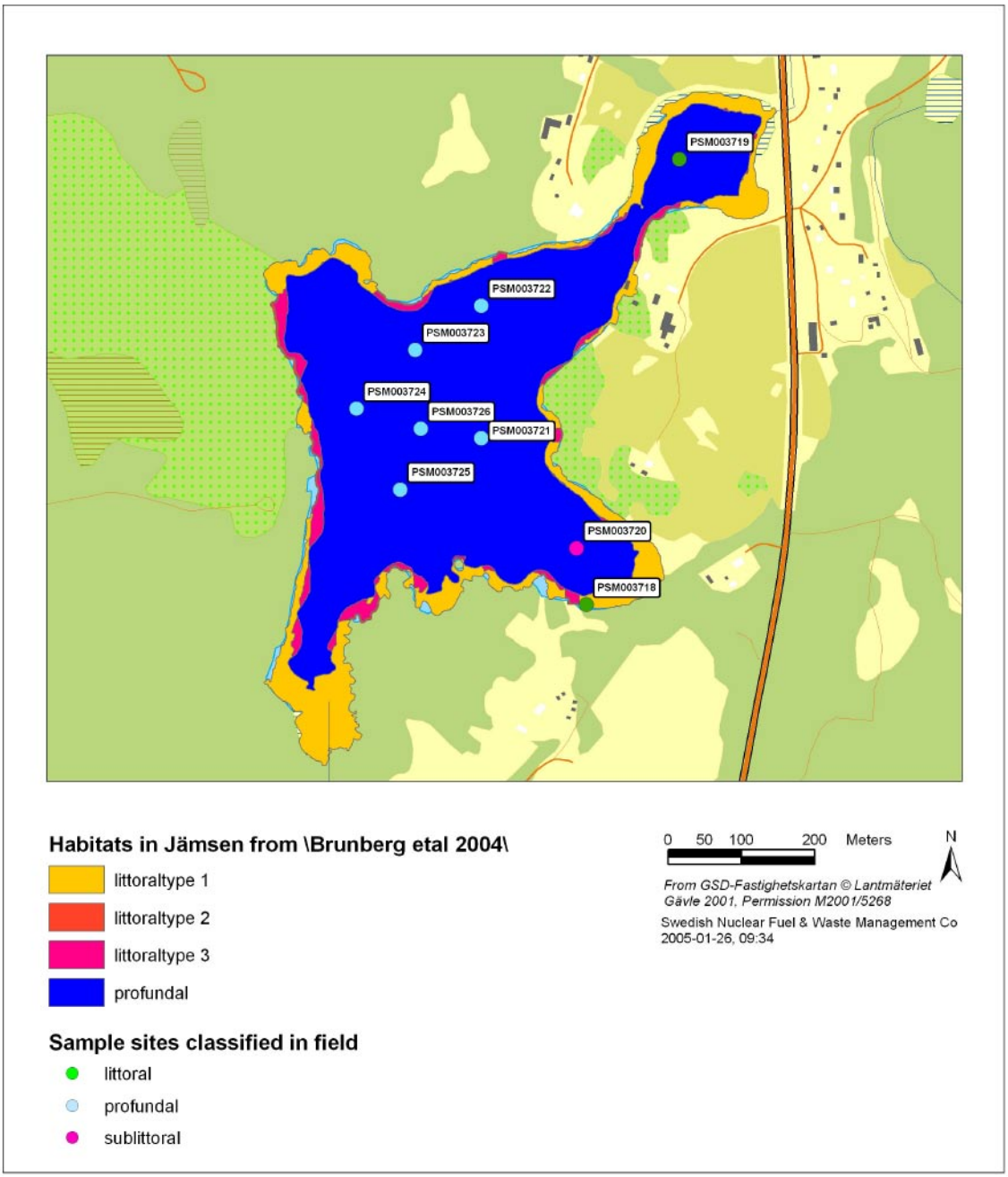
Laxemarsån downstream



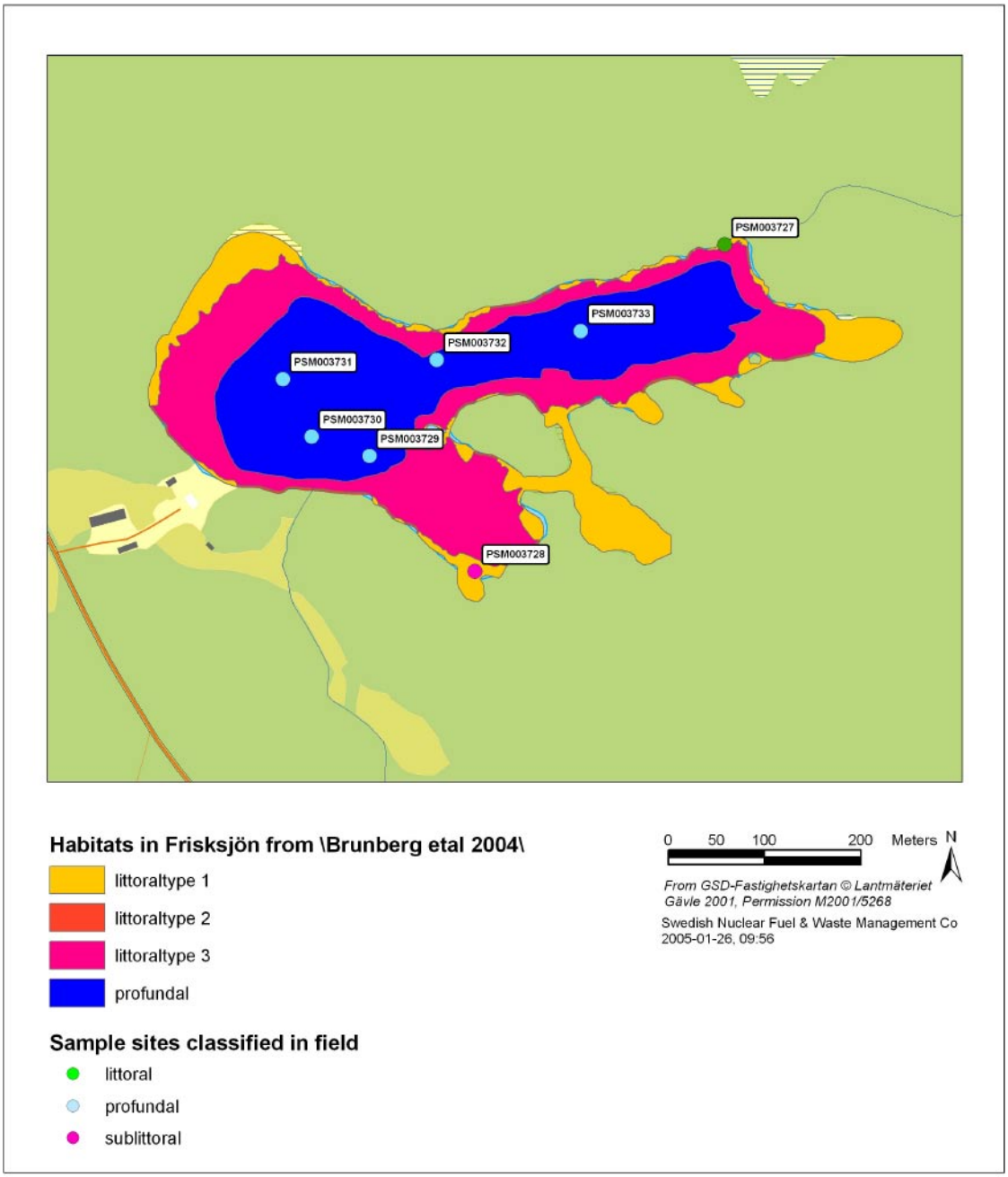
Laxemarsån upstream



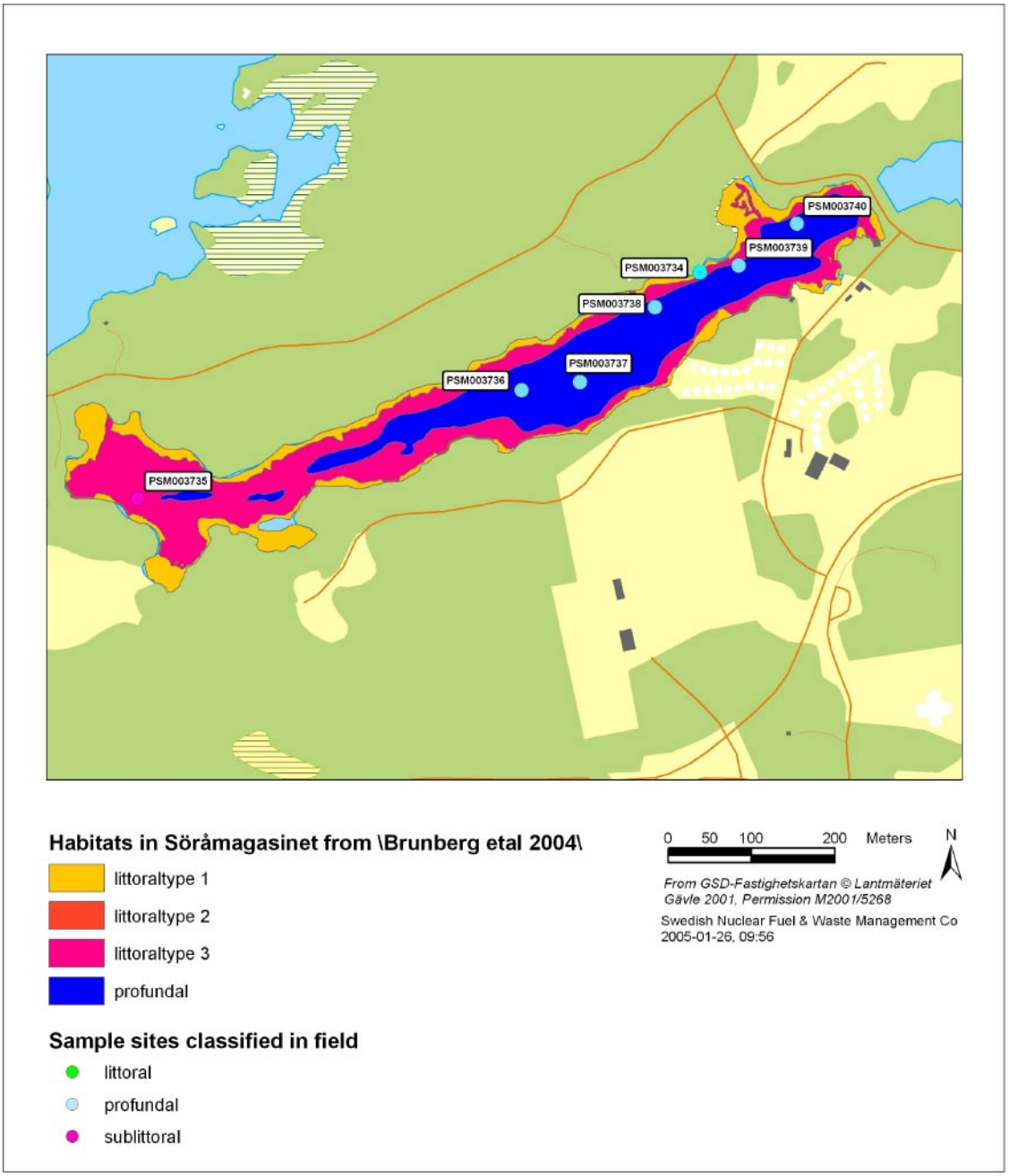
Stream, downstream from Frisksjön


PSM003719
PSM003722
PSM003723
PSM003724
PSM003726
PSM003721
PSM003725
PSM003720
PSM003718
Habitats in Jämsen from \Brunberg etal 2004\
littoraltype 1
littoraltype 2
littoraltype 3
profundal
Sample sites classified in field
littoral
profundal
sublittoral
0 50 100 200 Meters
N
From GSD-Fastighetskartan © Lantmäteriet Gävle 2001, Permission M2001/5268
Swedish Nuclear Fuel & Waste Management Co
2005-01-26, 09:34

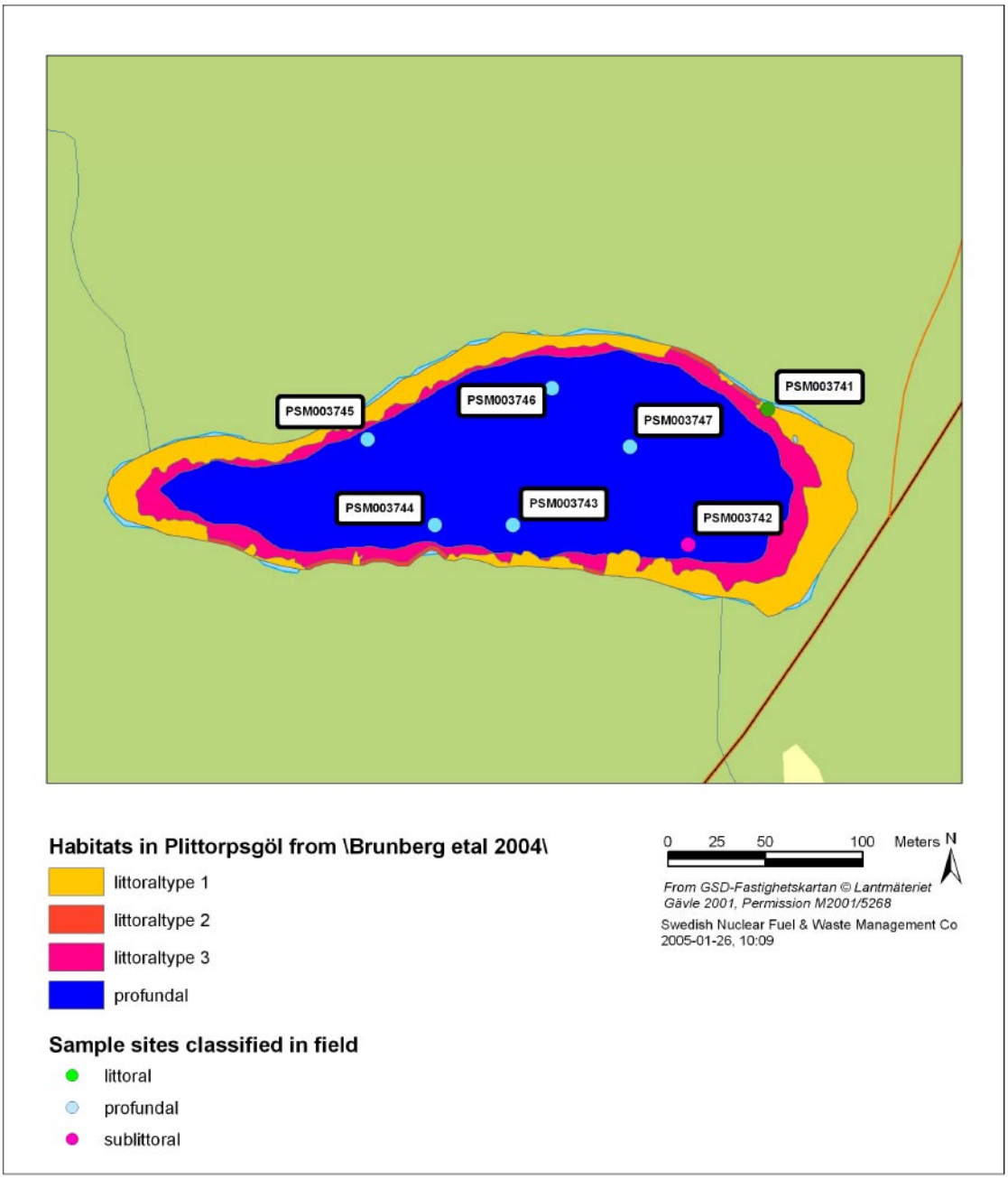
Lake Jämsen



Lake Frisksjön



Lake Söråmagasinet



Lake Plittorpsgöl

Appendix 3

Field notes

PSM003718. Jämsen, littoral

Water area

Lake/watershed:	Jämsen	County:	Kalmar
Station number:	PSM003718	Municipality:	Oskarshamn
Station name:	littoral	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636463 / 154040

Sampling

Date:	2004-04-13	Method:	SS EN 27 828
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,25
Organization:	Medins	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Length:	10 m	Water velocity:	-
Width (wet surface):	5 m	Turbidity:	clear
Width (normal surface):	-	Colour:	strongly coloured
Water level:	high	Water temp:	8,8 °C
Average depth:	0,4 m	Trophic level:	mesotrophic
Maximum depth:	0,7 m		
Site description:	40 m east of the bridge		

Substrate and water vegetation (dominating type and grade of coverage)

Inorganic mtrl, dom. 1:	sand	Vegetation type, dom. 1:	above surf. plants
Inorganic mtrl, dom. 2:	-	Vegetation type, dom. 2:	-
Inorganic mtrl, dom. 3:	-	Vegetation type, dom. 3:	-

Clay:	missing	Above surf. plants:	> 50%	Fine detritus:	5-50%
Sand:	<5%	Float. leaf plants:	missing	Large detritus:	>50%
Gravel:	missing	Long shoot plants:	missing	Fine dead wood:	5-50%
Small stones:	missing	Rosette plants:	missing	Large dead wood:	<5%
Large stones:	missing	Mosses:	missing		
Small boulders:	missing	Periphyton:	missing		
Large boulders:	missing				
Flat rock:	missing				

Immediate surroundings 0-30 m (Dominating types)

Dominating 1:	deciduous forest	Dominating 2:	-	Dominating 3:	-

Brink description 0-5 m	Vegetation type	Dom. species:	Sub.dom. species:
Dominating 1:	trees	alder	birch
Dominating 2:	shrubs	alder	-
Dominating 3:	grass	Deschampsia	-
Shading:	5-50%		

Impact	Type:	Strength:
A:	-	missing
B:	-	-
C:	-	-

Miscellaneous

Sampling was supplemented with a qualitative sample.

PSM003719. Jämsen, littoral

Water area

Lake/watershed:	Jämsen	County:	Kalmar
Station number:	PSM003719	Municipality:	Oskarshamn
Station name:	littoral	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636524 / 154053

Sampling

Date:	2004-04-13	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	1,7-1,9 m	Turbidity:	clear
Surface water temperature:	10,2°C	Colour:	strongly coloured
Secchi disk transparency:	1,2 m	Trophic level:	mesotrophic

Substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Impact

-	strength	missing	-	strength	-	-	strength	-

Miscellaneous

-

PSM003720. Jämsen, sublittoral

Water area

Lake/watershed:	Jämsen	County:	Kalmar
Station number:	PSM003720	Municipality:	Oskarshamn
Station name:	sublittoral	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636471 / 154039

Sampling

Date:	2004-04-13	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	2,3-2,6 m	Turbidity:	clear
Surface water temperature:	10,1°C	Colour:	strongly coloured
Secchi disk transparency:	1,2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	yes	Sediment colour:	brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

-

PSM003721. Jämsen, profundal

Water area

Lake/watershed:	Jämsen	County:	Kalmar
Station number:	PSM003721	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636486 / 154026

Sampling

Date:	2004-04-13	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	7,2 m	Turbidity:	clear
Surface water temperature:	10,1°C	Colour:	strongly coloured
Secchi disk transparency:	1,2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

-

PSM003722. Jämsen, profundal

Water area

Lake/watershed:	Jämsen	County:	Kalmar
Station number:	PSM003722	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636504 / 154026

Sampling

Date:	2004-04-13	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	7,3 m	Turbidity:	clear
Surface water temperature:	10°C	Colour:	strongly coloured
Secchi disk transparency:	1,2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Influence

-	strength	missing	-	strength	-	-	strength	-

Miscellaneous

-

PSM003723. Jämsen, profundal

Water area

Lake/watershed:	Jämsen	County:	Kalmar
Station number:	PSM003723	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636498 / 154017

Sampling

Date:	2004-04-13	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	7,5 m	Turbidity:	clear
Surface water temperature:	9,9°C	Colour:	strongly coloured
Secchi disk transparency:	1,2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Influence

-	strength	missing	-	strength	-	-	strength	-

Miscellaneous

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PSM003724. Jämsen, profundal

Water area

Lake/watershed:	Jämsen	County:	Kalmar
Station number:	PSM003724	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636489 / 154009

Sampling

Date:	2004-04-13	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	7,3 m	Turbidity:	clear
Surface water temperature:	9,2°C	Colour:	strongly coloured
Secchi disk transparency:	1,2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Influence

-	strength	missing	-	strength	-	-	strength	-

Miscellaneous

-

PSM003725. Jämsen, profundal

Water area

Lake/watershed:	Jämsen	County:	Kalmar
Station number:	PSM003725	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636479 / 154015

Sampling

Date:	2004-04-13	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	7,6 m	Turbidity:	clear
Surface water temperature:	8,9°C	Colour:	strongly coloured
Secchi disk transparency:	1,2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

-

PSM003726. Jämsen, profundal

Water area

Lake/watershed:	Jämsen	County:	Kalmar
Station number:	PSM003726	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636488 / 154017

Sampling

Date:	2004-04-13	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	3
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	10,5 m	Turbidity:	clear
Surface water temperature:	8,9°C	Colour:	strongly coloured
Secchi disk transparency:	1,2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	yes	Sediment colour:	black

Influence

-	strength	missing	-	strength	-	-	strength	-

Miscellaneous

-

PSM003727. Frisksjön, littoral

Water area

Lake/watershed:	Frisksjön	County:	Kalmar
Station number:	PSM003727	Municipality:	Oskarshamn
Station name:	littoral	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636829 / 154948

Sampling

Date:	2004-04-15	Method:	SS EN 27 828
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,25
Organization:	Medins	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Length:	10 m	Water velocity:	-
Width (wet surface):	2,5 m	Turbidity:	clear
Width (normal surface):	-	Colour:	strongly coloured
Water level:	high	Water temp:	8,5 °C
Average depth:	0,4 m	Trophic level:	mesotrophic
Maximum depth:	0,8 m		
Site description:	10-20 m west of the outflow, on the north side		

Substrate and water vegetation (dominating type and grade of coverage)

Inorganic mtrl, dom. 1:	large boulders	Vegetation type, dom. 1:	above surf. plants
Inorganic mtrl, dom. 2:	-	Vegetation type, dom. 2:	-
Inorganic mtrl, dom. 3:	-	Vegetation type, dom. 3:	-

Clay:	missing	Above surf. plants:	5-50%	Fine detritus:	<5%
Sand:	missing	Float. leaf plants:	missing	Large detritus:	>50%
Gravel:	missing	Long shoot plants:	missing	Fine dead wood:	<5%
Small stones:	missing	Rosette plants:	missing	Large dead wood:	<5%
Large stones:	missing	Mosses:	missing		
Small boulders:	missing	Periphyton:	missing		
Large boulders:	<5%				
Flat rock:	missing				

Immediate surroundings 0-30 m (Dominating types)

Dominating 1:	mixed forest	Dominating 2:	-	Dominating 3:	-

Brink description 0-5 m	Vegetation type	Dom. species:	Sub.dom. species:
Dominating 1:	trees	alder	birch
Dominating 2:	grass	-	-
Dominating 3:	-	-	-
Shading:	<5%		

Impact	Type:	Strength:
A:	-	missing
B:	-	-
C:	-	-

Miscellaneous

Sampling was supplemented with a qualitative sample.

PSM003728. Frisksjön, sublittoral

Water area

Lake/watershed:	Frisksjön	County:	Kalmar
Station number:	PSM003728	Municipality:	Oskarshamn
Station name:	sublittoral	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636795 / 154922

Sampling

Date:	2004-04-15	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	1,5 m	Turbidity:	clear
Surface water temperature:	8,5°C	Colour:	strongly coloured
Secchi disk transparency:	1,8 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	yes	Sediment colour:	grey brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

-

PSM003729. Frisksjön, profundal

Water area

Lake/watershed:	Frisksjön	County:	Kalmar
Station number:	PSM003729	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636807 / 154911

Sampling

Date:	2004-04-15	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	3 m	Turbidity:	clear
Surface water temperature:	8,5°C	Colour:	strongly coloured
Secchi disk transparency:	1,8 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

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PSM003730. Frisksjön, profundal

Water area

Lake/watershed:	Frisksjön	County:	Kalmar
Station number:	PSM003730	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636809 / 154905

Sampling

Date:	2004-04-15	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	3 m	Turbidity:	clear
Surface water temperature:	8,5°C	Colour:	strongly coloured
Secchi disk transparency:	1,8 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

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PSM003731. Frisksjön, profundal

Water area

Lake/watershed:	Frisksjön	County:	Kalmar
Station number:	PSM003731	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636815 / 154902

Sampling

Date:	2004-04-15	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	3,1 m	Turbidity:	clear
Surface water temperature:	8,5°C	Colour:	strongly coloured
Secchi disk transparency:	1,8 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

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PSM003732. Frisksjön, profundal

Water area

Lake/watershed:	Frisksjön	County:	Kalmar
Station number:	PSM003732	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636817 / 154918

Sampling

Date:	2004-04-15	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	2,7 m	Turbidity:	clear
Surface water temperature:	8,5°C	Colour:	strongly coloured
Secchi disk transparency:	1,8 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

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PSM003733. Frisksjön, profundal

Water area

Lake/watershed:	Frisksjön	County:	Kalmar
Station number:	PSM003733	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636820 / 154933

Sampling

Date:	2004-04-15	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	3 m	Turbidity:	clear
Surface water temperature:	8,5°C	Colour:	strongly coloured
Secchi disk transparency:	1,8 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	dark brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

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PSM003734. Söråmagasinet, littoral

Water area

Lake/watershed:	Söråmagasinet	County:	Kalmar
Station number:	PSM003734	Municipality:	Oskarshamn
Station name:	littoral	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636627 / 155125

Sampling

Date:	2004-04-14	Method:	SS EN 27 828
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,25
Organization:	Medins	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Length:	10 m	Water velocity:	-
Width (wet surface):	3 m	Turbidity:	klart
Width (normal surface):	-	Colour:	färgat
Water level:	moderately high	Water temp:	9,1 °C
Average depth:	0,4 m	Trophic level:	mesotrof
Maximum depth:	0,9 m		
Site description:	small bay opposite Söråbyn		

Substrate and water vegetation (dominating type and grade of coverage)

Inorganic mtrl, dom. 1:	small boulders	Vegetation type, dom. 1:	above surf. plants
Inorganic mtrl, dom. 2:	large stones	Vegetation type, dom. 2:	rosette plants
Inorganic mtrl, dom. 3:	large boulders	Vegetation type, dom. 3:	-

Clay:	missing	Above surf. plants:	5-50%	Fine detritus:	5-50%
Sand:	missing	Float. leaf plants:	missing	Large detritus:	5-50%
Gravel:	missing	Long shoot plants:	missing	Fine dead wood:	<5%
Small stones:	missing	Rosette plants:	<5 %	Large dead wood:	missing
Large stones:	<5%	Mosses:	missing		
Small boulders:	<5%	Periphyton:	<5 %		
Large boulders:	<5%				
Flat rock:	missing				

Immediate surroundings 0-30 m (Dominating types)

Dominating 1:	coniferous forest	Dominating 2:	-	Dominating 3:	-

Brink description 0-5 m	Vegetation type	Dom. species:	Sub.dom. species:
Dominating 1:	trees	pine	salix
Dominating 2:	-	-	-
Dominating 3:	-	-	-
Shading:	<5%		

Impact	Type:	Strength:
A:	-	missing
B:	-	-
C:	-	-

Miscellaneous

Sampling was supplemented with a qualitative sample.

PSM003735. Söråmagasinet, sublittoral

Water area

Lake/watershed:	Söråmagasinet	County:	Kalmar
Station number:	PSM003735	Municipality:	Oskarshamn
Station name:	sublittoral	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636600 / 155058

Sampling

Date:	2004-04-13	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	2,0-2,5 m	Turbidity:	klart
Surface water temperature:	9,1°C	Colour:	färgat
Secchi disk transparency:	2,5 m	Trophic level:	mesotrof

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown

Influence

-	strength	saknas	-	strength	-	-	strength	-

Miscellaneous

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PSM003736. Söråmagasinet, profundal

Water area

Lake/watershed:	Söråmagasinet	County:	Kalmar
Station number:	PSM003736	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636613 / 155104

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	3,3 m	Turbidity:	clear
Surface water temperature:	8,7°C	Colour:	coloured
Secchi disk transparency:	2,5 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

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PSM003737. Söråmagasinet, profundal

Water area

Lake/watershed:	Söråmagasinet	County:	Kalmar
Station number:	PSM003737	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636614 / 155111

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	3,5 m	Turbidity:	clear
Surface water temperature:	8,7°C	Colour:	coloured
Secchi disk transparency:	2,5 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

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PSM003738. Söråmagasinet, profundal

Water area

Lake/watershed:	Söråmagasinet	County:	Kalmar
Station number:	PSM003738	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636623 / 155120

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	3,6 m	Turbidity:	clear
Surface water temperature:	8,8°C	Colour:	coloured
Secchi disk transparency:	2,5 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

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PSM003739. Söråmagasinet, profundal

Water area

Lake/watershed:	Söråmagasinet	County:	Kalmar
Station number:	PSM003739	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636628 / 155130

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	3,6 m	Turbidity:	clear
Surface water temperature:	9°C	Colour:	coloured
Secchi disk transparency:	2,5 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

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PSM003740. Söråmagasinet, profundal

Water area

Lake/watershed:	Söråmagasinet	County:	Kalmar
Station number:	PSM003740	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636633 / 155137

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	3,6 m	Turbidity:	clear
Surface water temperature:	9,1°C	Colour:	coloured
Secchi disk transparency:	2,5 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown

Influence

-	strength	missing	-	strength	-	-	strength	-

Miscellaneous

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PSM003741. Plittorpsgöl, littoral

Water area

Lake/watershed:	Plittorpsgöl	County:	Kalmar
Station number:	PSM003741	Municipality:	Oskarshamn
Station name:	littoral	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636903 / 154159

Sampling

Date:	2004-04-14	Method:	SS EN 27 828
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,25
Organization:	Medins	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Length:	10 m	Water velocity:	-
Width (wet surface):	4 m	Turbidity:	clear
Width (normal surface):	-	Colour:	strongly coloured
Water level:	high	Water temp:	6,6 °C
Average depth:	0,35 m	Trophic level:	mesotrophic
Maximum depth:	0,9 m		
Site description:	0-10 m west of small "island", at the north side of the lake		

Substrate and water vegetation (dominating type and grade of coverage)

Inorganic mtrl, dom. 1:	large boulders	Vegetation type, dom. 1:	above surf. plants
Inorganic mtrl, dom. 2:	-	Vegetation type, dom. 2:	-
Inorganic mtrl, dom. 3:	-	Vegetation type, dom. 3:	-

Clay:	missing	Above surf. plants:	5-50%	Fine detritus:	5-50%
Sand:	missing	Float. leaf plants:	missing	Large detritus:	5-50%
Gravel:	missing	Long shoot plants:	missing	Fine dead wood:	<5%
Small stones:	missing	Rosette plants:	missing	Large dead wood:	<5%
Large stones:	missing	Mosses:	missing		
Small boulders:	missing	Periphyton:	missing		
Large boulders:	<5%				
Flat rock:	missing				

Immediate surroundings 0-30 m (Dominating types)

Dominating 1:	coniferous forest	Dominating 2:	-	Dominating 3:	-

Brink description 0-5 m	Vegetation type	Dom. species:	Sub.dom. species:
Dominating 1:	trees	pine	birch
Dominating 2:	-	-	-
Dominating 3:	-	-	-
Shading:	<5%		

Impact	Type:	Strength:
A:	-	missing
B:	-	-
C:	-	-

Miscellaneous

Sampling was supplemented with a qualitative sample.

PSM003742. Plittorpsgöl, sublittoral

Water area

Lake/watershed:	Plittorpsgöl	County:	Kalmar
Station number:	PSM003742	Municipality:	Oskarshamn
Station name:	sublittoral	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636896 / 154155

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	2,8-3,0 m	Turbidity:	clear
Surface water temperature:	6,5°C	Colour:	strongly coloured
Secchi disk transparency:	2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown/black

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

-

PSM003743. Plittorpsgöl, profundal

Water area

Lake/watershed:	Plittorpsgöl	County:	Kalmar
Station number:	PSM003743	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636897 / 154146

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	5 m	Turbidity:	clear
Surface water temperature:	6,5°C	Colour:	strongly coloured
Secchi disk transparency:	2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown/black

Influence

-	strength	saknas	-	strength	-	-	strength -

Miscellaneous

-

PSM003744. Plittorpsgöl, profundal

Water area

Lake/watershed:	Plittorpsgöl	County:	Kalmar
Station number:	PSM003744	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636897 / 154142

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	5,5 m	Turbidity:	clear
Surface water temperature:	6,6°C	Colour:	strongly coloured
Secchi disk transparency:	2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown/black

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

-

PSM003745. Plittorpsgöl, profundal

Water area

Lake/watershed:	Plittorpsgöl	County:	Kalmar
Station number:	PSM003745	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636902 / 154138

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	5,9 m	Turbidity:	clear
Surface water temperature:	6,6°C	Colour:	strongly coloured
Secchi disk transparency:	2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown/black

Influence

-	strength	missing	-	strength	-	-	strength	-

Miscellaneous

-

PSM003746. Plittorpsgöl, profundal

Water area

Lake/watershed:	Plittorpsgöl	County:	Kalmar
Station number:	PSM003746	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636904 / 154148

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	5,7 m	Turbidity:	clear
Surface water temperature:	6,7°C	Colour:	strongly coloured
Secchi disk transparency:	2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown/black

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

-

PSM003747. Plittorpsgöl, profundal

Water area

Lake/watershed:	Plittorpsgöl	County:	Kalmar
Station number:	PSM003747	Municipality:	Oskarshamn
Station name:	profundal	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	636901 / 154152

Sampling

Date:	2004-04-14	Method:	SS028190
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,0215
Organization:	Medins Sjö- och Åbiologi AB	No. of samples:	1
Purpose:	inventory	Chem. sampl:	no

Station

Sample depth:	6 m	Turbidity:	clear
Surface water temperature:	6,8°C	Colour:	strongly coloured
Secchi disk transparency:	2 m	Trophic level:	mesotrophic

Bottom substrate

Mud (allochthonous):	yes	Bog ore:	no
Mud (autochthonous):	yes	Vegetation:	no
Clay:	no	Hydrogen sulphide:	no
Sand:	no	Sediment colour:	brown/black

Influence

-	strength	missing	-	strength	-	-	strength -

Miscellaneous

-

LSM000272. Laxemarsån, downstream

Water area

Lake/watershed:	Laxemarsån	County:	Kalmar
Station number:	LSM000272	Municipality:	Oskarshamn
Station name:	downstream	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	From: 636576 / 155017
			To: 636575/155017

Sampling

Date:	2004-04-14	Method:	SS EN 27 828
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,25
Organization:	Medins	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Length:	10 m	Water velocity:	mod. high (0,2 - 0,7 m/s)
Width (wet surface):	4 m	Turbidity:	turbid
Width (normal surface):	4 m	Colour:	strongly coloured
Water level:	high	Water temp:	9,5 °C
Average depth:	0,4 m	Trophic level:	mesotrophic
Maximum depth:	0,6 m		
Site description:	0-10 m downstream the sharp bend		

Substrate and water vegetation (dominating type and grade of coverage)

Inorganic mtrl, dom. 1:	small stones	Vegetation type, dom. 1:	-
Inorganic mtrl, dom. 2:	gravel	Vegetation type, dom. 2:	-
Inorganic mtrl, dom. 3:	large stones	Vegetation type, dom. 3:	-

Clay:	missing	Above surf. plants:	missing	Fine detritus:	missing
Sand:	missing	Float. leaf plants:	missing	Large detritus:	<5%
Gravel:	5-50%	Long shoot plants:	missing	Fine dead wood:	<5%
Small stones:	>50%	Rosette plants:	missing	Large dead wood:	<5%
Large stones:	5-50%	Mosses:	missing		
Small boulders:	<5%	Periphyton:	missing		
Large boulders:	<5%				
Flat rock:	saknas				

Immediate surroundings 0-30 m (Dominating types)

Dominating 1:	deciduous forest	Dominating 2:	-	Dominating 3:	-

Brink description 0-5 m	Vegetation type	Dom. species:	Sub.dom. species:
Dominating 1:	trees	alder	fir
Dominating 2:	grass	Deschampsia cespitosa	-
Dominating 3:	-	-	-
Shading:	>50%		

Impact	Type:	Strength:
A:	-	missing
B:	-	-
C:	-	-

Miscellaneous

Sampling was supplemented with a qualitative sample.

LSM000273. Laxemarsån, upstream

Water area

Lake/watershed:	Laxemarsån	County:	Kalmar
Station number:	LSM000273	Municipality:	Oskarshamn
Station name:	upstream	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	From: 636600 / 154597
			To: 636600/154596

Sampling

Date:	2004-04-14	Method:	SS EN 27 828
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,25
Organization:	Medins	No. of samples:	5
Purpose:	Inventory	Chem. sampl:	no

Station

Length:	10 m	Water velocity:	mod. high (0,2 - 0,7 m/s)
Width (wet surface):	2,9 m	Turbidity:	turbid
Width (normal surface):	2,9 m	Colour:	strongly coloured
Water level:	moderately high	Water temp:	9,5 °C
Average depth:	0,4 m	Trophic level:	mesotrophic
Maximum depth:	0,6 m		
Site description:	5-15 m upstream the bridge		

Substrate and water vegetation (dominating type and grade of coverage)

Inorganic mtrl, dom. 1:	gravel	Vegetation type, dom. 1:	-
Inorganic mtrl, dom. 2:	large stones	Vegetation type, dom. 2:	-
Inorganic mtrl, dom. 3:	small boulders	Vegetation type, dom. 3:	-

Clay:	missing	Above surf. plants:	missing	Fine detritus:	<5%
Sand:	<5%	Float. leaf plants:	missing	Large detritus:	<5%
Gravel:	5-50%	Long shoot plants:	missing	Fine dead wood:	<5%
Small stones:	5-50%	Rosette plants:	missing	Large dead wood:	missing
Large stones:	5-50%	Mosses:	missing		
Small boulders:	5-50%	Periphyton:	missing		
Large boulders:	5-50%				
Flat rock:	missing				

Immediate surroundings 0-30 m (Dominating types)

Dominating 1:	mixed forest	Dominating 2:	-	Dominating 3:	-

Brink description 0-5 m	Vegetation type	Dom. species:	Sub.dom. species:
Dominating 1:	trees	fir	hazel
Dominating 2:	grass	-	-
Dominating 3:	-	-	-
Shading:	>50%		

Impact	Type:	Strength:
A:	ditching	high
B:	-	-
C:	-	-

Miscellaneous

Sampling was supplemented with a qualitative sample.

LSM000274 Stream from lake Frisksjön

Water area

Lake/watershed:	Stream from lake Frisksjön	County:	Kalmar
Station number:	LSM000274	Municipality:	Oskarshamn
Station name:	Downstream lake Frisksjön	Map number:	6G SO
Main catch. area:	72 Marströmmen/73 Virån	Co-ordinates:	From: 636831 / 154954
			To: 636830/154953

Sampling

Date:	2004-04-15	Method:	SS EN 27 828
Name:	A. Engdahl/U. Ericsson	Sample size (m^2):	0,25
Organization:	Medins	No. of samples:	5
Purpose:	inventory	Chem. sampl:	no

Station

Length:	10 m	Water velocity:	mod. high (0,2 - 0,7 m/s)
Width (wet surface):	1,2 m	Turbidity:	clear
Width (normal surface):	1,2 m	Colour:	coloured
Water level:	moderately high	Water temp:	8,4 °C
Average depth:	0,2 m	Trophic level:	mesotrophic
Maximum depth:	0,3 m		
Site description:	approximately 50 m downstrean the outflow of lake Frisksjön		

Substrate and water vegetation (dominating type and grade of coverage)

Inorganic mtrl, dom. 1:	sand	Vegetation type, dom. 1:	above surf. Plants
Inorganic mtrl, dom. 2:	small boulders	Vegetation type, dom. 2:	mosses
Inorganic mtrl, dom. 3:	large boulders	Vegetation type, dom. 3:	-

Clay:	<5%	Above surf. plants:	<5 %	Fine detritus:	<5%
Sand:	>50%	Float. leaf plants:	missing	Large detritus:	5-50%
Gravel:	<5%	Long shoot plants:	missing	Fine dead wood:	5-50%
Small stones:	<5%	Rosette plants:	missing	Large dead wood:	5-50%
Large stones:	<5%	Mosses:	<5 %		
Small boulders:	<5%	Periphyton:	missing		
Large boulders:	<5%				
Flat rock:	missing				

Immediate surroundings 0-30 m (Dominating types)

Dominating 1:	mixed forest	Dominating 2:	-	Dominating 3:	-

Brink description 0-5 m	Vegetation type	Dom. species:	Sub.dom. species:
Dominating 1:	trees	fir	deciduous trees
Dominating 2:	grass	-	-
Dominating 3:	-	-	-
Shading:	>50%		

Impact	Type:	Strength:
A:	ditching	high
B:	-	-
C:	-	-

Miscellaneous

Sampling was supplemented with a qualitative sample.

Appendix 4

Results and classification at each site

PSM003718. Jämsen, littoral

Main catch area: 72 Marströmmen/73 Virån

Date: 2004-04-13

Co-ordinate: 636463/154040

40 m east of the bridge

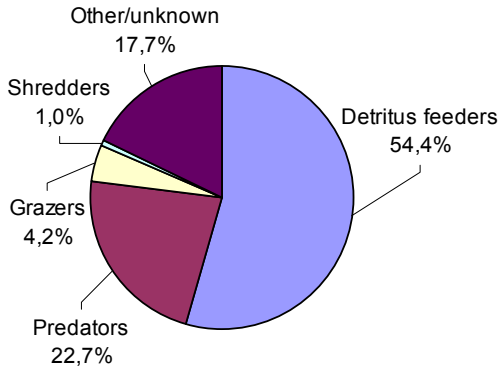
Classification

Total number of taxa	29	moderately high	Diversity index:	3,38	moderately high
Aver. no. of taxa/sample	14,4	moderately high	ASPT index:	5,8	high
Abundance/sqm.	321	moderately high	DSFI	4	moderately high
Biomass (g/sqm)	0,94		Acidity index	6	high
EPT index:	12	moderately high	BottenpHauna index:	10	

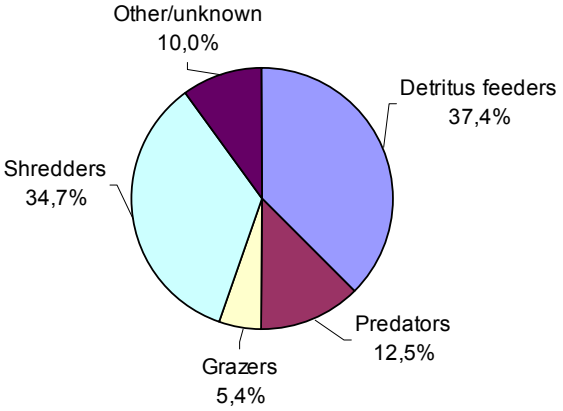
Classification of deviation from comparative value

Diversity index:	no or small	DSFI	no or small
ASPT index:	no or small	Acidity index	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Filter feeders	Detritus feeders	Predators	Grazers	Shredders	Other/unknown
Abundance	0,0	174,4	72,8	13,6	3,2	56,8
Biomass (g)	0,00	0,35	0,12	0,05	0,33	0,09

PSM003719. Jämsen, littoral

Date: 2004-04-13

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636524/154053

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	1,7-1,9

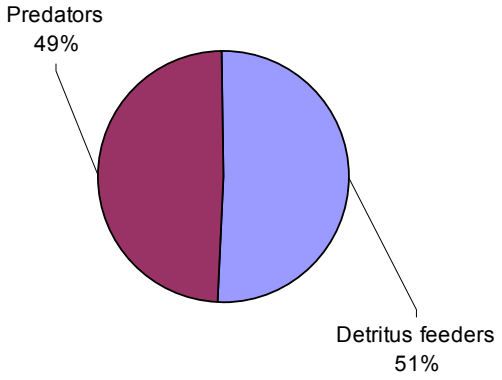
Classification

Total number of taxa:	6	moderately high	BQI:	1,00	very low
Aver. no. of taxa/sample:	3,4		O/C index:	52,55	very high
Abundance/sqm:	679	moderately high	Diversity index:	2,09	moderately high
Biomass (g/sqm):	2,60				

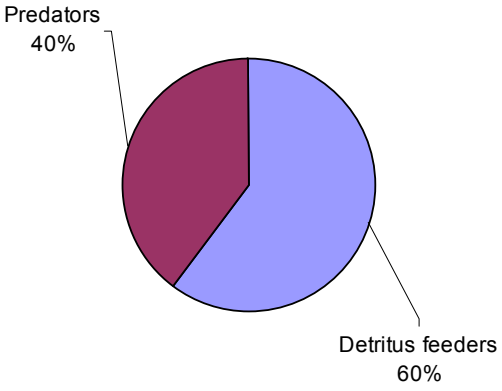
Classification of deviation from comparative value

BQI:	high	O/C index:	very high

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	344,2	334,9
Biomass (g)	1,56	1,04

PSM003720. Jämsen, sublittoral

Date: 2004-04-13

River system: 72 Marströmmen/73 Virån

Co-ordinate: 636471/154039

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	5	Sample depth (m):	2,3-2,6

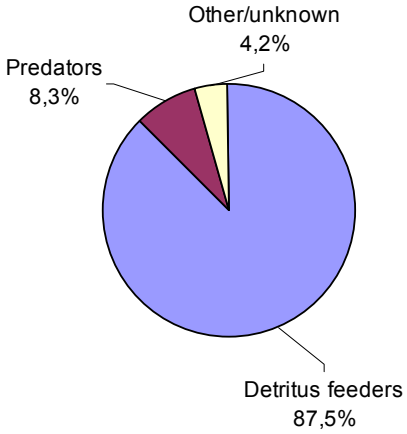
Classification

Total number of taxa:	11	low	BQI:	3,25	high
Aver. no. of taxa/sample:	5,4		O/C index:	31,75	very high
Abundance/sqm:	670	moderately high	Diversity index:	2,54	moderately high
Biomass (g/sqm):	1,08				

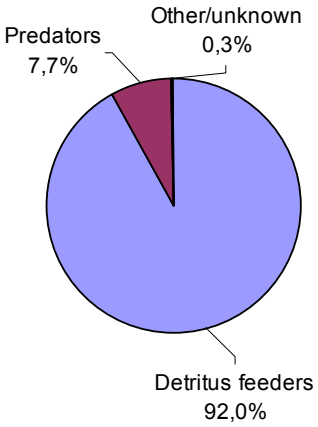
Classification of deviation from comparative value

BQI:	no or small	O/C index:	very high

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators	Other/unknown
Abundance	586,0	55,8	27,9
Biomass (g)	1,00	0,08	0,003

PSM003721. Jämsen, profundal

Date: 2004-04-13

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636486/154026

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	7,2

Classification

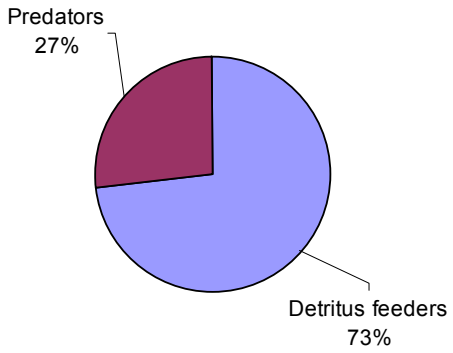
Total number of taxa:	3	low	BQI:	2,00	low
Aver. no. of taxa/sample:	0,6		O/C index:	12,04	high
Abundance/sqm:	1 907	moderately high	Diversity index:	1,70	moderately high
Biomass (g/sqm):	3,99				

Classification of deviation from comparative value

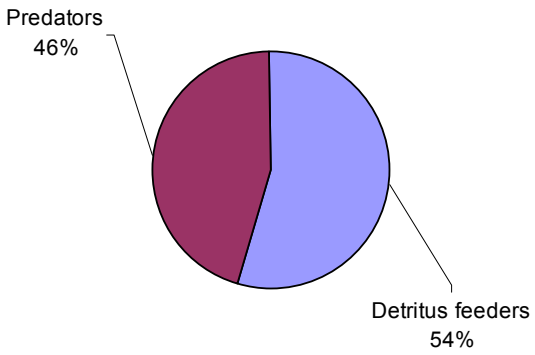
BQI: no or small

O/C index: evident

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	1395,3	511,6
Biomass (g)	2,16	1,83

PSM003722. Jämsen, profundal

Date: 2004-04-13

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636504/154026

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	7,3

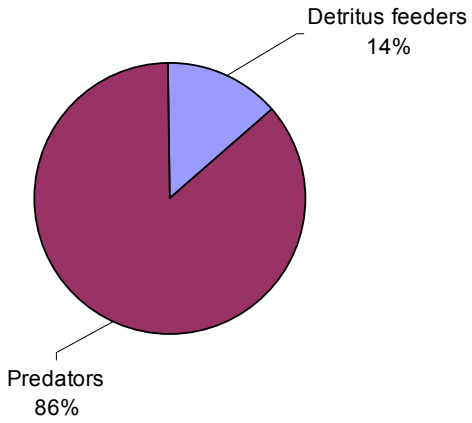
Classification

Total number of taxa:	3	low	BQI:	2,00	low
Aver. no. of taxa/sample:	0,6		O/C index:	12,94	high
Abundance/sqm:	6 000	very high	Diversity index:	0,73	low
Biomass (g/sqm):	11,75				

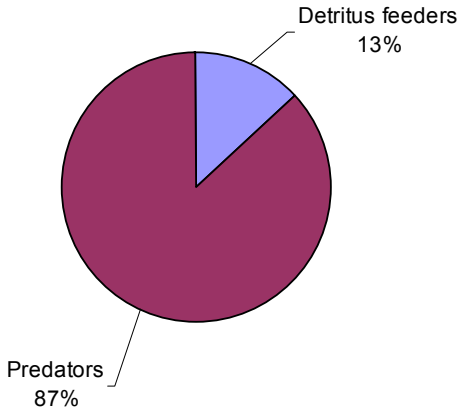
Classification of deviation from comparative value

BQI:	no or small	O/C index:	evident

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	837,2	5162,8
Biomass (g)	1,58	10,17

PSM003723. Jämsen, profundal

Date: 2004-04-13

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636498/154017

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	7,5

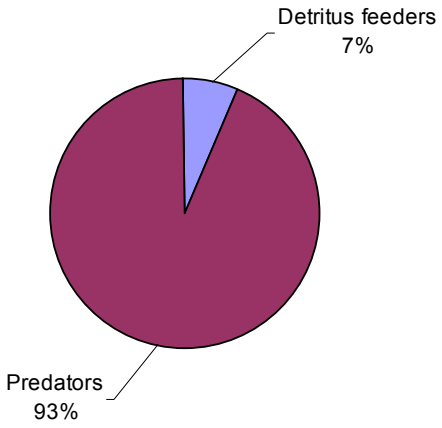
Classification

Total number of taxa:	2	very low	BQI:	0,00	very low
Aver. no. of taxa/sample:	0,4		O/C index:	13,33	very high
Abundance/sqm:	4 233	very high	Diversity index:	0,39	very low
Biomass (g/sqm):	9,68				

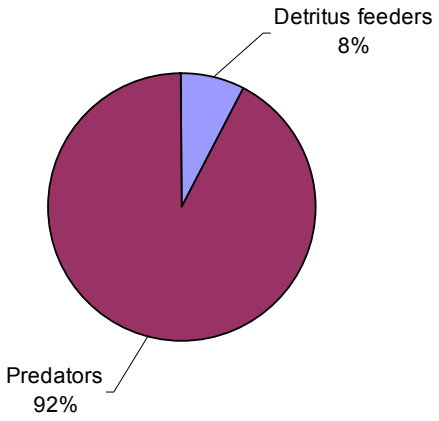
Classification of deviation from comparative value

BQI:	very high	O/C index:	evident

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	279,1	3953,5
Biomass (g)	0,75	8,93

PSM003724. Jämsen, profundal

Date: 2004-04-13

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636490/154009

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	7,3

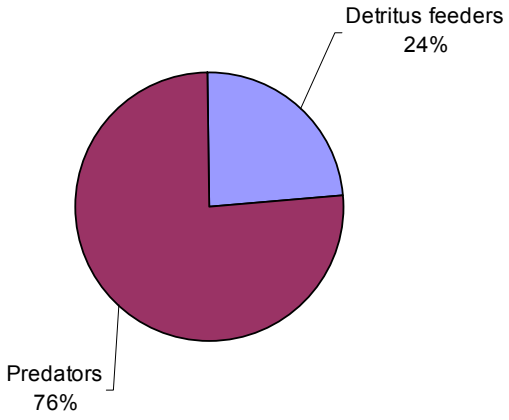
Classification

Total number of taxa:	3	low	BQI:	2,00	low
Aver. no. of taxa/sample:	0,6		O/C index:	13,17	very high
Abundance/sqm:	5 070	very high	Diversity index:	1,04	low
Biomass (g/sqm):	11,55				

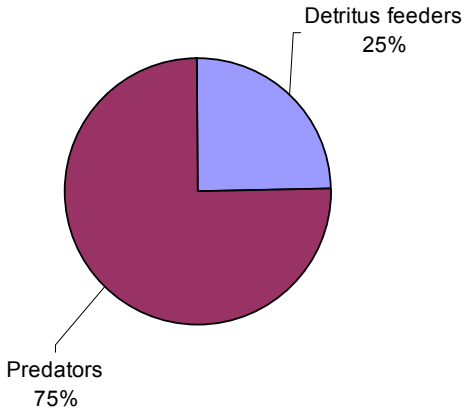
Classification of deviation from comparative value

BQI:	no or small	O/C index:	evident

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	1209,3	3860,5
Biomass (g)	2,84	8,71

PSM003725. Jämsen, profundal

Date: 2004-04-13

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636479/154015

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	7,6

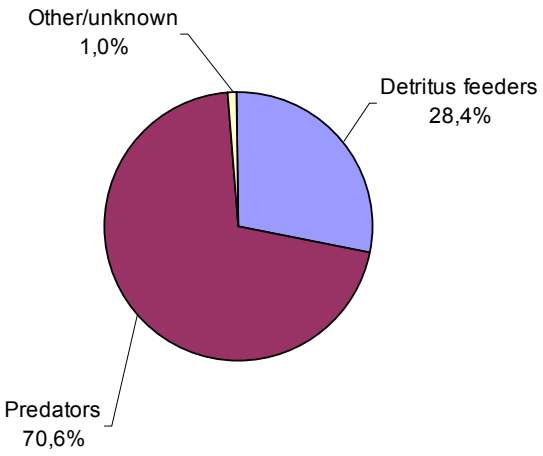
Classification

Total number of taxa:	4	low	BQI:	2,00	low
Aver. no. of taxa/sample:	0,8		O/C index:	10,96	high
Abundance/sqm:	4 744	very high	Diversity index:	1,30	low
Biomass (g/sqm):	10,78				

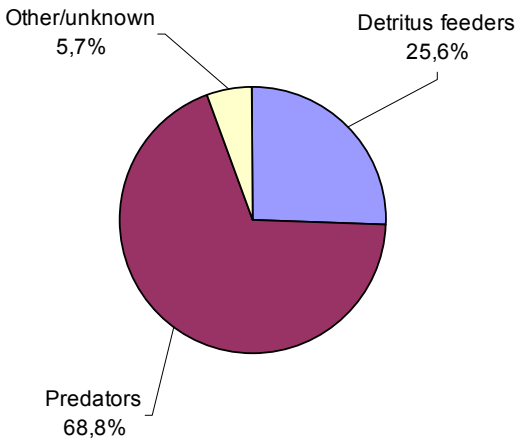
Classification of deviation from comparative value

BQI:	no or small	O/C index:	evident

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators	Other/unknown
Abundance	1348,8	3348,8	46,5
Biomass (g)	2,76	7,41	0,609

PSM003726. Jämsen, profundal

Date: 2004-04-13

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636488/154070

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	3	Sample depth (m):	10,5

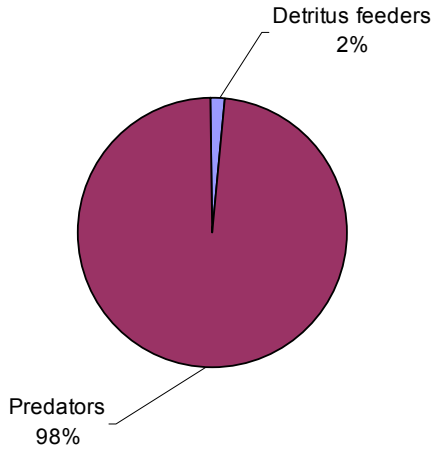
Classification

Total number of taxa:	2	very low	BQI:	0,00	very low
Aver. no. of taxa/sample:	2,0		O/C index:	9,52	high
Abundance/sqm:	12 031	very high	Diversity index:	0,15	very low
Biomass (g/sqm):	22,62				

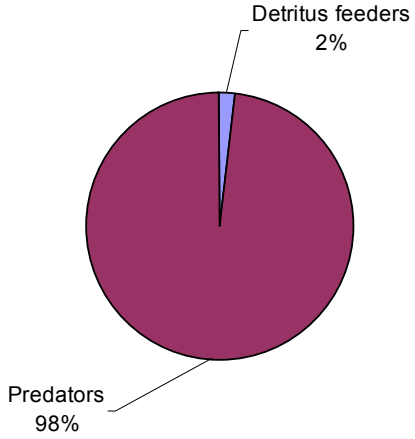
Classification of deviation from comparative value

BQI:	very high	O/C index:	moderate

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	217,1	11814,0
Biomass (g)	0,45	22,17

PSM003727. Frisksjön, littoral

Main catch area: 72 Marströmmen/73 Virån

Date: 2004-04-15

Co-ordinate: 636829/154948

10-20 m west of the outflow, on the north side

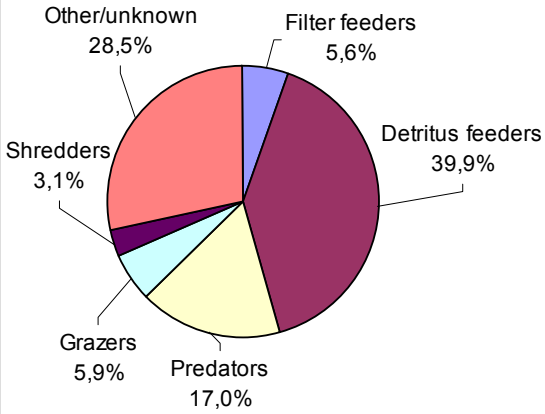
Classification

Total number of taxa	34	high	Diversity index:	4,08	very high
Aver. no. of taxa/sample	18,6	very high	ASPT index:	5,3	moderately high
Abundance/sqm.	287	low	DSFI	4	moderately high
Biomass (g/sqm)	1,66		Acidity index	8	high
EPT index:	15	high	BottenpHauna index:	10	

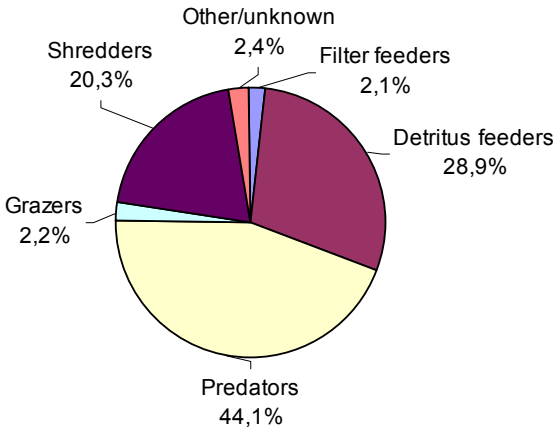
Classification of deviation from comparative value

Diversity index:	no or small	DSFI	no or small
ASPT index:	no or small	Acidity index	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Filter feeders	Detritus feeders	Predators	Grazers	Shredders	Other/unknown
Abundance	16,0	114,4	48,8	16,8	8,8	81,6
Biomass (g)	0,03	0,48	0,73	0,04	0,34	0,04

PSM003728. Frisksjön, sublittoral

Date: 2004-04-15

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636795/154922

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	1,5

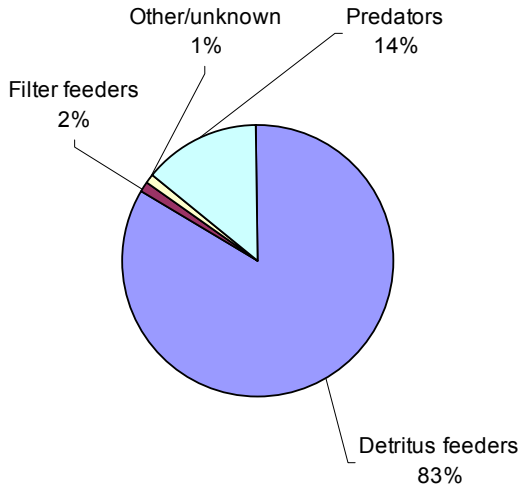
Classification

Total number of taxa:	21	moderately high	BQI:	3,00	moderately high
Aver. no. of taxa/sample:	9,6		O/C index:	5,25	moderately high
Abundance/sqm:	1 842	moderately high	Diversity index:	2,67	moderately high
Biomass (g/sqm):	184,87				

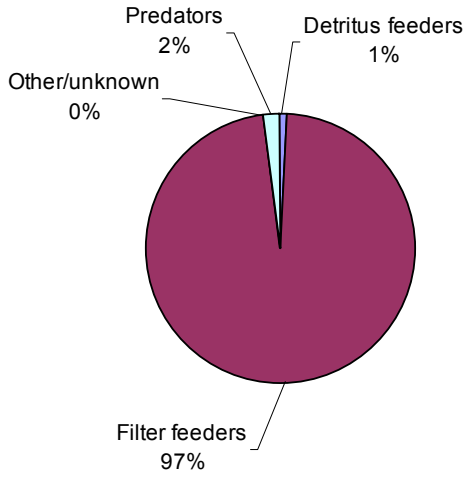
Classification of deviation from comparative value

BQI:	no or small	O/C index:	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Filter feeders	Detritus feeders	Predators	Other/unknown
Abundance	27,9	1534,9	260,5	18,6
Biomass (g)	179,86	1,37	3,64	0,002

PSM003729. Frisksjön, profundal

Date: 2004-04-15

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636807/154911

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	3

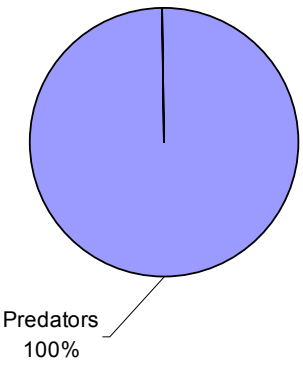
Classification

Total number of taxa:	3	low	BQI:	0,00	very low
Aver. no. of taxa/sample:	-		O/C index:	-	-
Abundance/sqm:	3 023	very high	Diversity index:	0,23	very low
Biomass (g/sqm):	8,76				

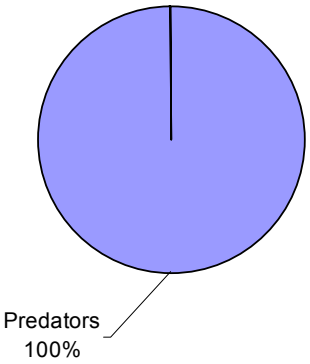
Classification of deviation from comparative value

BQI:	very high	O/C index:	-

Abundance



Biomass



Abundance and biomass/sqm

	Predators
Abundance	3023,3
Biomass (g)	8,76

PSM003730. Frisksjön, profundal

Date: 2004-04-15

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636809/154905

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	3

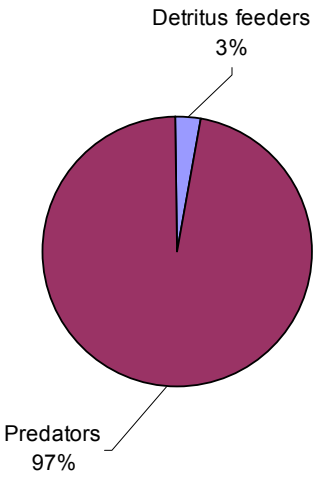
Classification

Total number of taxa:	4	low	BQI:	1,00	very low
Aver. no. of taxa/sample:	0,8		O/C index:	16,67	very high
Abundance/sqm:	2 977	high	Diversity index:	1,09	low
Biomass (g/sqm):	10,11				

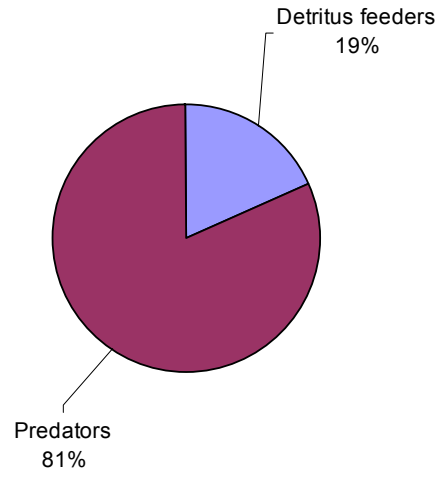
Classification of deviation from comparative value

BQI:	high	O/C index:	high

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	93,0	2883,7
Biomass (g)	1,89	8,21

PSM003731. Frisksjön, profundal

Date: 2004-04-15

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636815/154902

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	3,1

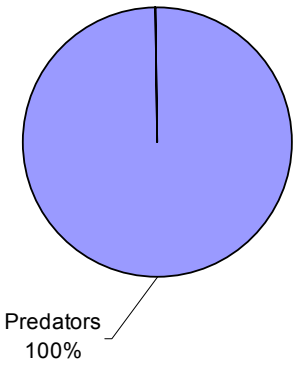
Classification

Total number of taxa:	2	very low	BQI:	0,00	very low
Aver. no. of taxa/sample:	0,4		O/C index:	-	-
Abundance/sqm:	3 349	very high	Diversity index:	0,46	very low
Biomass (g/sqm):	9,21				

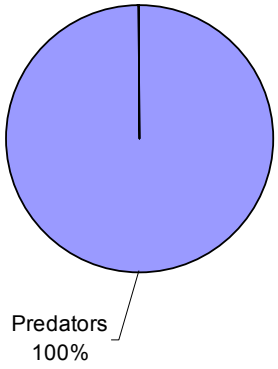
Classification of deviation from comparative value

BQI:	very high	O/C index:	-

Abundance



Biomass



Abundance and biomass/sqm

	Predators
Abundance	3348,8
Biomass (g)	9,21

PSM003732. Frisksjön, profundal

Date: 2004-04-15

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636817/154918

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	2,7

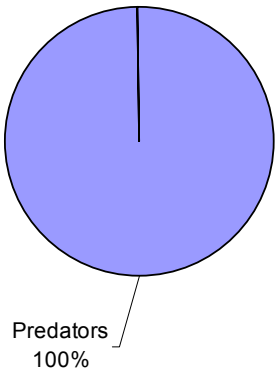
Classification

Total number of taxa:	2	very low	BQI:	0,00	very low
Aver. no. of taxa/sample:	0,4		O/C index:	-	very high
Abundance/sqm:	1 256	moderately high	Diversity index:	0,38	very low
Biomass (g/sqm):	3,00				

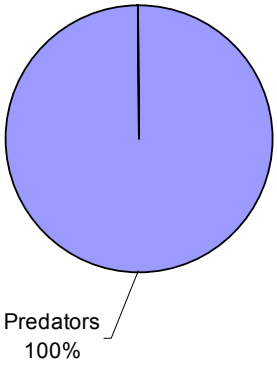
Classification of deviation from comparative value

BQI:	very high	O/C index:	-

Abundance



Biomass



Abundance and biomass/sqm

	Predators
Abundance	1255,8
Biomass (g)	3,00

PSM003733. Frisksjön, profundal

Date: 2004-04-15

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636820/154933

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	3

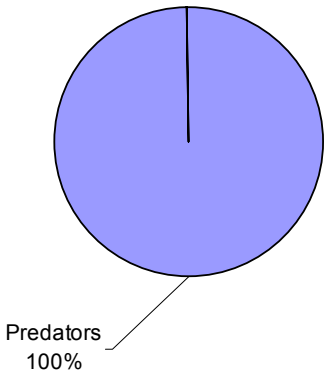
Classification

Total number of taxa:	2	very low	BQI:	0,00	very low
Aver. no. of taxa/sample:	0,4		O/C index:	-	-
Abundance/sqm:	1 767	moderately high	Diversity index:	0,63	very low
Biomass (g/sqm):	4,16				

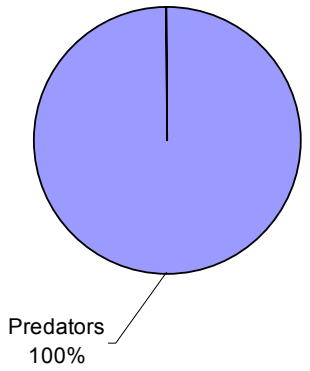
Classification of deviation from comparative value

BQI:	very high	O/C index:	-

Abundance



Biomass



Abundance and biomass/sqm

	Predators
Abundance	1767,4
Biomass (g)	4,16

PSM003734. Söråmagasinet, littoral

Main catch area: 72 Marströmmen/73 Virån

Date: 2004-04-14

Co-ordinate: 636627/155125

small bay opposite Söråbyn

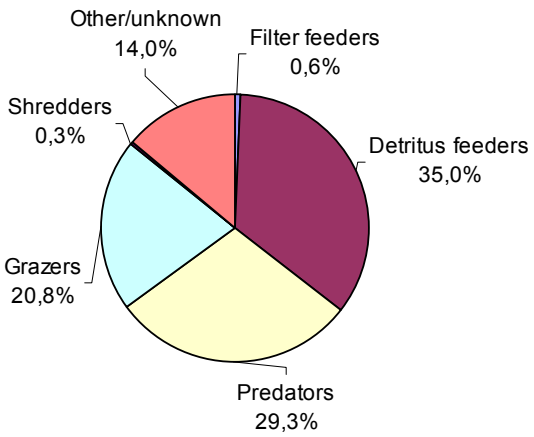
Classification

Total number of taxa	25	moderately high	Diversity index:	3,29	moderately high
Aver. no. of taxa/sample	16,4	high	ASPT index:	5,2	low
Abundance/sqm.	802	high	DSFI	3	low
Biomass (g/sqm)	2,18		Acidity index	6	high
EPT index:	9	low	BottenpHauna index:	10	

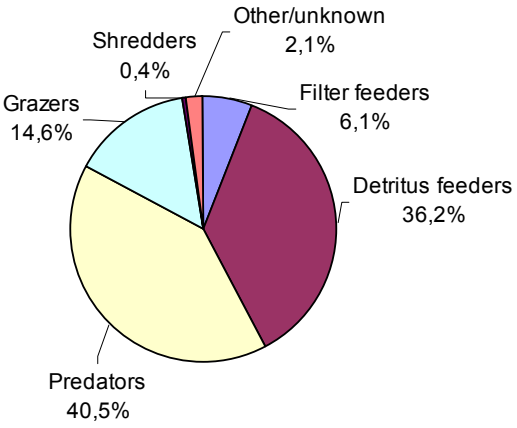
Classification of deviation from comparative value

Diversity index:	no or small	DSFI	evident
ASPT index:	no or small	Acidity index	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Filter feeders	Detritus feeders	Predators	Grazers	Shredders	Other/unknown
Abundance	4,8	280,8	235,2	166,4	2,4	112,0
Biomass (g)	0,13	0,79	0,89	0,32	0,01	0,04

PSM003735. Söråmagasinet, sublittoral

Date: 2004-04-13

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636600/155058

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	5	Sample depth (m):	2,0-2,5

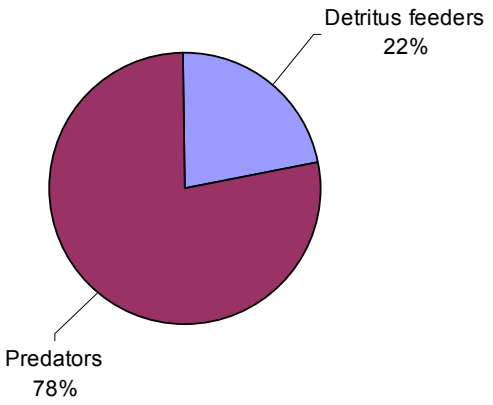
Classification

Total number of taxa:	9	very low	BQI:	1,00	very low
Aver. no. of taxa/sample:	5,4		O/C index:	3,51	low
Abundance/sqm:	1 581	moderately high	Diversity index:	2,18	low
Biomass (g/sqm):	3,56				

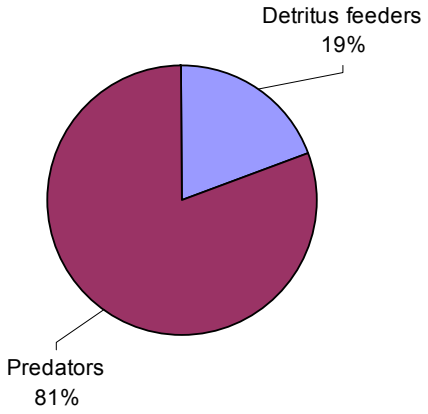
Classification of deviation from comparative value

BQI:	high	O/C index:	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	353,5	1227,9
Biomass (g)	0,69	2,87

PSM003736. Söråmagasinet, profundal

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636613/155104

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	3,3

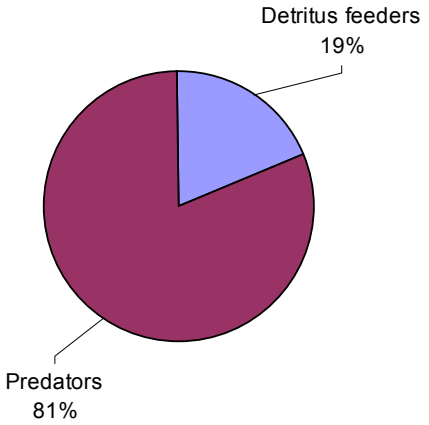
Classification

Total number of taxa:	5	low	BQI:	0,00	very low
Aver. no. of taxa/sample:	1,0		O/C index:	0,00	very low
Abundance/sqm:	744	moderately high	Diversity index:	2,18	moderately high
Biomass (g/sqm):	1,49				

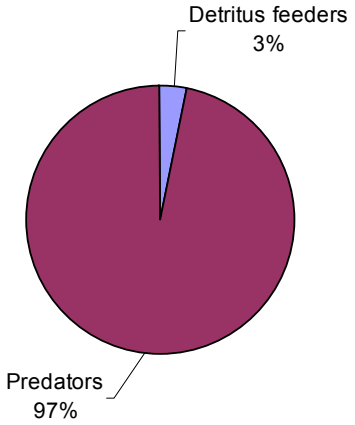
Classification of deviation from comparative value

BQI:	very high	O/C index:	-

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	139,5	604,7
Biomass (g)	0,05	1,44

PSM003737. Söråmagasinet, profundal

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636614/155111

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	3,5

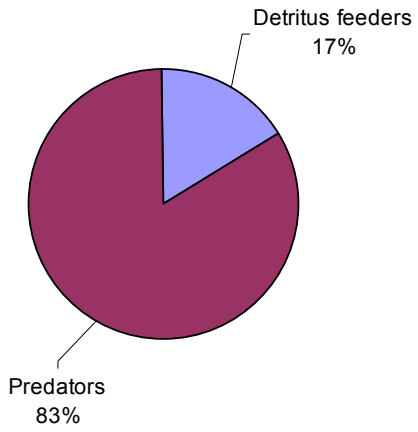
Classification

Total number of taxa:	5	low	BQI:	2,00	low
Aver. no. of taxa/sample:	1,0		O/C index:	0,00	very low
Abundance/sqm:	1 116	moderately high	Diversity index:	1,66	moderately high
Biomass (g/sqm):	2,53				

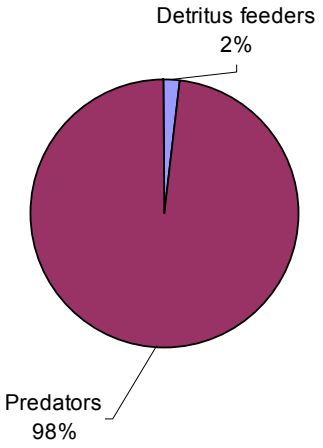
Classification of deviation from comparative value

BQI:	no or small	O/C index:	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	186,0	930,2
Biomass (g)	0,05	2,49

PSM003738. Söråmagasinet, profundal

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636623/155120

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	3,6

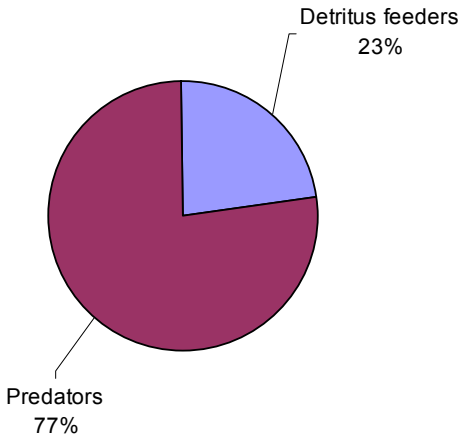
Classification

Total number of taxa:	5	low	BQI:	2,00	low
Aver. no. of taxa/sample:	1,0		O/C index:	0,00	very low
Abundance/sqm:	1 814	moderately high	Diversity index:	1,58	low
Biomass (g/sqm):	4,86				

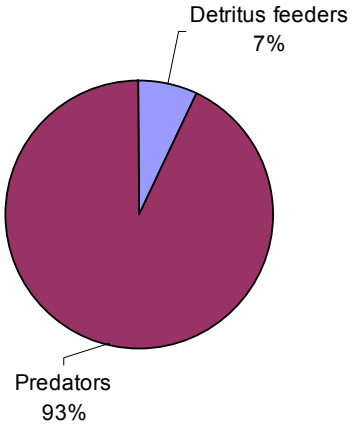
Classification of deviation from comparative value

BQI:	no or small	O/C index:	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	418,6	1395,3
Biomass (g)	0,35	4,51

PSM003739. Söråmagasinet, profundal

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636628/155130

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	3,6

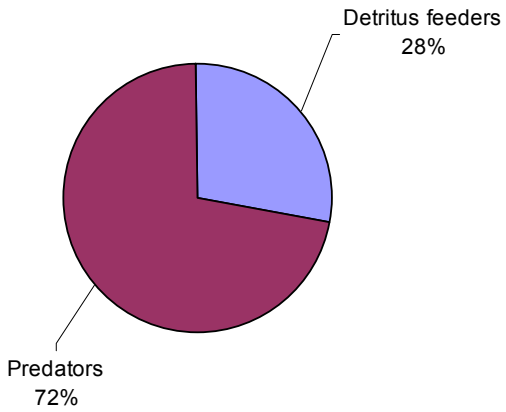
Classification

Total number of taxa:	3	low	BQI:	2,00	low
Aver. no. of taxa/sample:	-		O/C index:	0,00	very low
Abundance/sqm:	1 163	moderately high	Diversity index:	1,02	low
Biomass (g/sqm):	2,83				

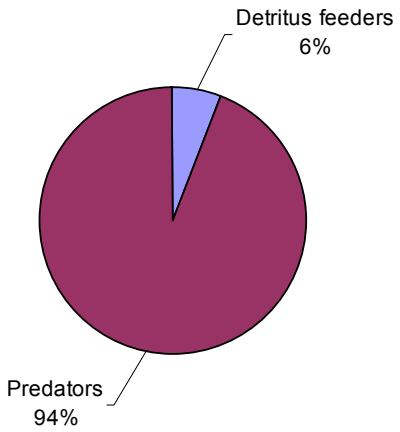
Classification of deviation from comparative value

BQI:	no or small	O/C index:	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	325,6	837,2
Biomass (g)	0,17	2,66

PSM003740. Söråmagasinet, profundal

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636633/155137

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	3,6

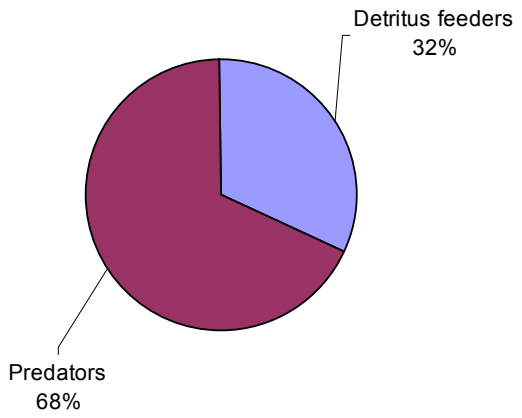
Classification

Total number of taxa:	5	low	BQI:	2,00	low
Aver. no. of taxa/sample:	1,0		O/C index:	0,00	very low
Abundance/sqm:	1 023	moderately high	Diversity index:	1,58	low
Biomass (g/sqm):	2,15				

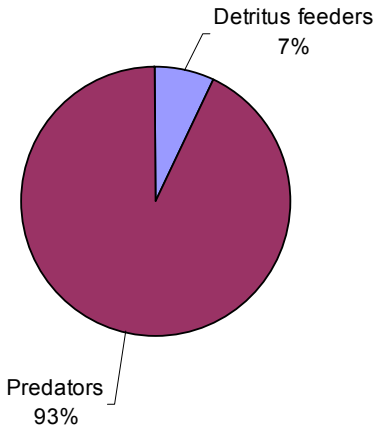
Classification of deviation from comparative value

BQI:	no or small	O/C index:	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	325,6	697,7
Biomass (g)	0,16	1,99

PSM003741. Plittorpsgöl, littoral

Date: 2004-04-14

Main catch area: 72 Marströmmen/73 Virån

Co-ordinate: 636903/154159

0-10 m west of small "island", at the north side of the lake

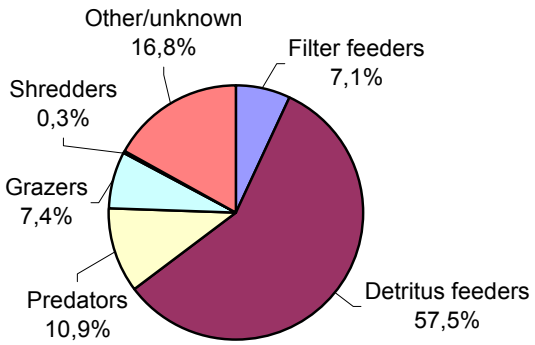
Classification

Total number of taxa	21	moderately high	Diversity index:	3,70	moderately high
Aver. no. of taxa/sampl	15,8	moderately high	ASPT index:	5,6	moderately high
Abundance/sqm.	542	moderately high	DSFI	4	moderately high
Biomass (g/sqm)	2,68		Acidity index	4	moderately high
EPT index:	9	low	BottenpHauna index:	10	

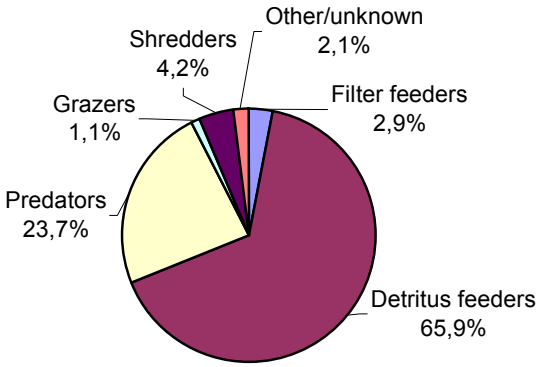
Classification of deviation from comparative value

Diversity index:	no or small	DSFI	no or small
ASPT index:	no or small	Acidity index	evident

Abundance



Biomass



Abundance (average number of individuals/sample) and **biomass** (average weight/sample)

	Filter feeders	Detritus feeders	Predators	Grazers	Shredders	Other/unknown
Abundance	38,4	312,0	59,2	40,0	1,6	91,2
Biomass (g)	0,08	1,76	0,64	0,03	0,11	0,06

PSM003742. Plittorpsgöl, sublittoral

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636896/154155

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	2,8-3,0

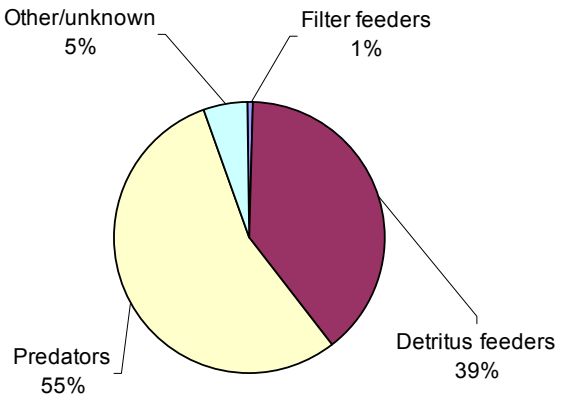
Classification

Total number of taxa:	9	moderately high	BQI:	2,39	moderately high
Aver. no. of taxa/sample:	6,6		O/C index:	9,30	high
Abundance/sqm:	3 005	very high	Diversity index:	2,31	high
Biomass (g/sqm):	8,84				

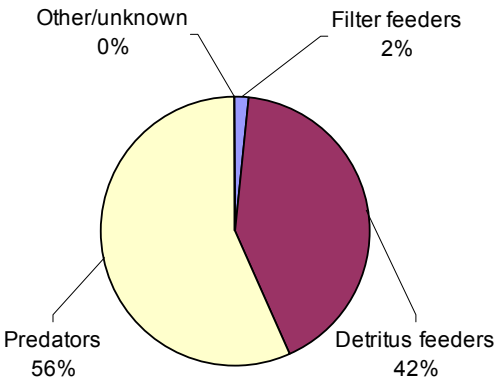
Classification of deviation from comparative value

BQI:	no or small	O/C index:	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Filter feeders	Detritus feeders	Predators	Other/unknown
Abundance	1162,8	18,6	158,1	1665,1
Biomass (g)	3,68	0,14	0,01	5,014

PSM003743. Plittorpsgöl, profundal

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636897/154146

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	5

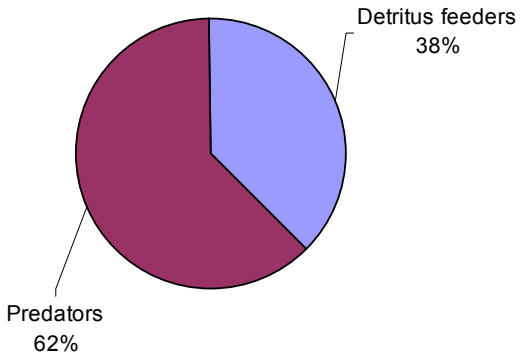
Classification

Total number of taxa:	6	moderately high	BQI:	2,75	moderately high
Aver. no. of taxa/sample:	-		O/C index:	3,33	low
Abundance/sqm:	744	moderately high	Diversity index:	1,92	moderately high
Biomass (g/sqm):	5,09				

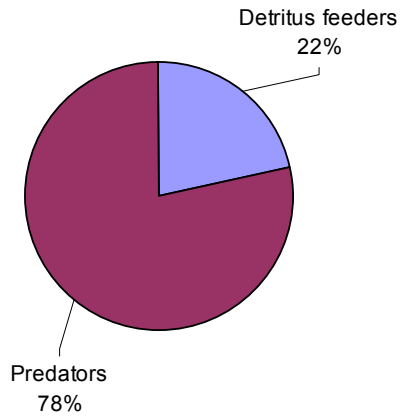
Classification of deviation from comparative value

BQI:	no or small	O/C index:	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	279,1	465,1
Biomass (g)	1,11	3,98

PSM003744. Plittorpsgöl, profundal

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636897/154142

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	5,5

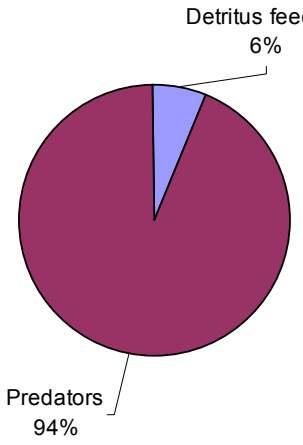
Classification

Total number of taxa:	4	low	BQI:	2,00	low
Aver. no. of taxa/sample:	-		O/C index:	12,12	high
Abundance/sqm:	2 233	high	Diversity index:	0,54	very low
Biomass (g/sqm):	10,76				

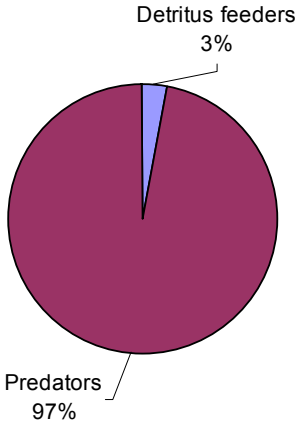
Classification of deviation from comparative value

BQI:	no or small	O/C index:	evident

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	139,5	2093,0
Biomass (g)	0,33	10,43

PSM003745. Plittorpsgöl, profundal

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636902/154138

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	5,9

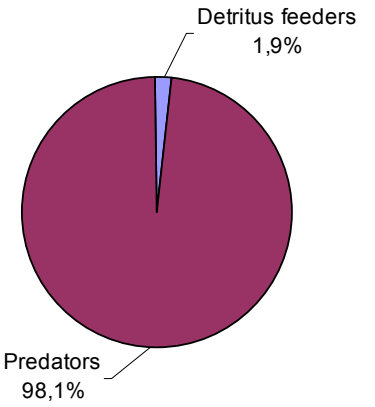
Classification

Total number of taxa:	2	very low	BQI:	0,00	very low
Aver. no. of taxa/sample:	0,4		O/C index:	16,95	very high
Abundance/sqm:	2 419	high	Diversity index:	0,14	very low
Biomass (g/sqm):	7,12				

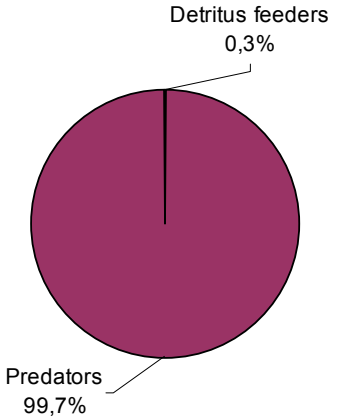
Classification of deviation from comparative value

BQI:	very high	O/C index:	high

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	46,5	2372,1
Biomass (g)	0,02	7,10

PSM003746. Plittorpsgöl, profundal

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636904/154148

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	5,7

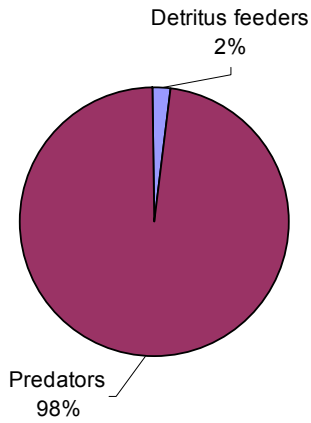
Classification

Total number of taxa:	2	very low	BQI:	0,00	very low
Aver. no. of taxa/sample:	0,4		O/C index:	17,54	very high
Abundance/sqm:	2 186	high	Diversity index:	0,15	very low
Biomass (g/sqm):	6,60				

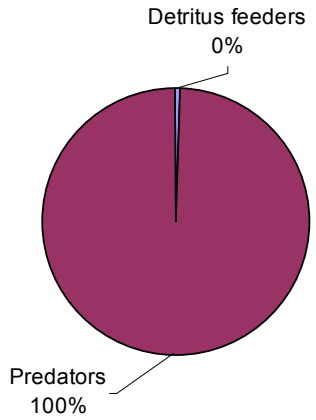
Classification of deviation from comparative value

BQI:	very high	O/C index:	high

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	46,5	2139,5
Biomass (g)	0,03	6,57

PSM003747. Plittorpsgöl, profundal

Date: 2004-04-14

Main catch. area: 72 Marströmmen/73 Virån

Co-ordinate: 636901/154152

Sampling information

Method:	SS028190	Sample size (m^2):	0,0215
No. of samples:	1	Sample depth (m):	6

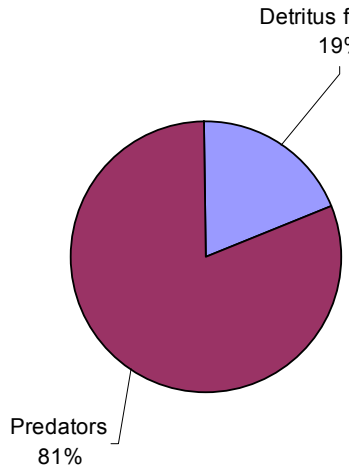
Classification

Total number of taxa:	3	low	BQI:	2,00	low
Aver. no. of taxa/sample:	0,6		O/C index:	15,83	very high
Abundance/sqm:	4 837	very high	Diversity index:	1,28	low
Biomass (g/sqm):	13,43				

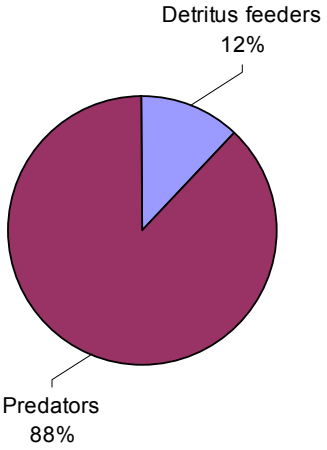
Classification of deviation from comparative value

BQI:	no or small	O/C index:	high

Abundance



Biomass



Abundance and biomass/sqm

	Detritus feeders	Predators
Abundance	930,2	3907,0
Biomass (g)	1,62	11,80

LSM000272. Laxemarsån, downstream

Date: 2004-04-14

Main catch area: 72 Marströmmen/73 Virån

Co-ordinate: 636576/155017

0-10 m downstream the sharp bend

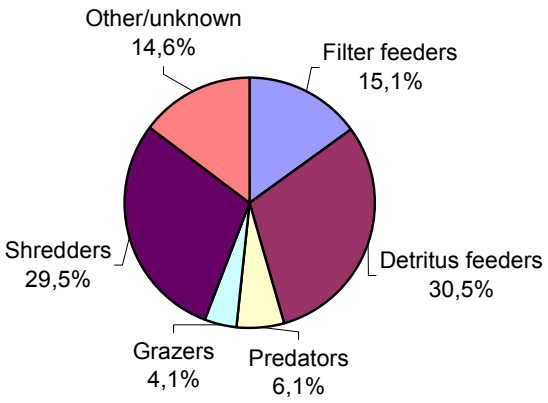
Classification

Total number of taxa	31	moderately high	Diversity index:	3,33	moderately high
Aver. no. of taxa/sampl	15,6	moderately high	ASPT index:	4,8	low
Abundance/sqm.	773	moderately high	DSFI	3	very low
Biomass (g/sqm)	2,57		Acidity index	6	moderately high
EPT index:	9	low	BottenpHauna index:	10	

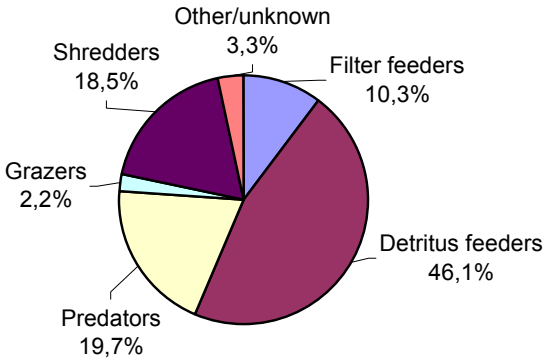
Classification of deviation from comparative value

Diversity index:	no or small	DSFI	high
ASPT index:	moderately high	Acidity index	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Filter feeders	Detritus feeders	Predators	Grazers	Shredders	Other/unknown
Abundance	116,8	236,0	47,2	32,0	228,0	112,8
Biomass (g)	0,26	1,19	0,51	0,06	0,48	0,09

LSM000273. Laxemarsån, upstream

Date: 2004-04-14

Main catch area: 72 Marströmmen/73 Virån

Co-ordinate: 636600/154597

5-15 m upstream the bridge

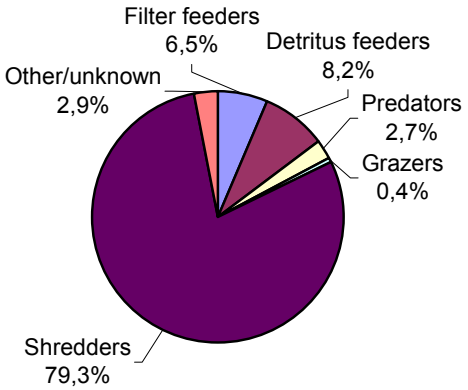
Classification

Total number of taxa	22	low	Diversity index:	1,79	very low
Aver. no. of taxa/sampl	13,0	low	ASPT index:	4,6	low
Abundance/sqm.	1 908	high	DSFI	3	very low
Biomass (g/sqm)	2,89		Acidity index	3	low
EPT index:	5	very low	BottenpHauna index:	6	

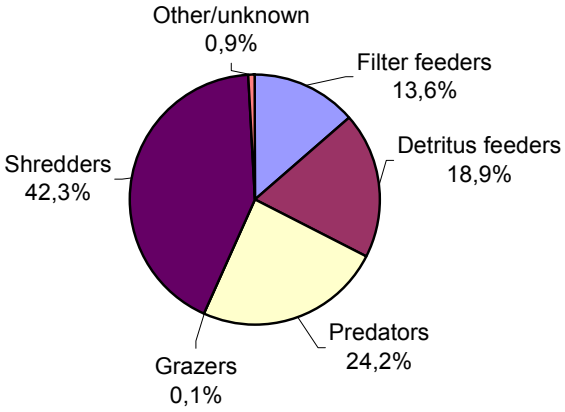
Classification of deviation from comparative value

Diversity index:	evident	DSFI	high
ASPT index:	evident	Acidity index	high

Abundance



Biomass



Abundance and biomass/sqm

	Filter feeders	Detritus feeders	Predators	Grazers	Shredders	Other/unknown
Abundance	123,2	156,0	52,0	7,2	1513,6	56,0
Biomass (g)	0,39	0,55	0,70	0,002	1,22	0,03

LSM000274. Bäck från Frisksjön, nedströn Date: 2004-04-15

Main catch area: 72 Marströmmen/73 Virån **Co-ordinate: 636831/154954**

approxymately 50 m downstreams from the outlet

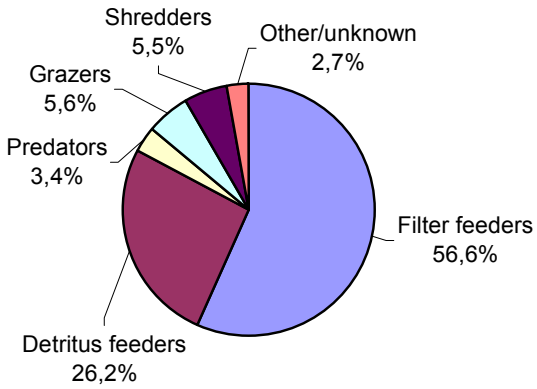
Classification

Total number of taxa	26	moderately high	Diversity index:	2,93	low
Aver. no. of taxa/sampl	16,8	moderately high	ASPT index:	4,6	low
Abundance/sqm.	3 062	very high	DSFI	3	very low
Biomass (g/sqm)	7,37		Acidity index	7	high
EPT index:	8	low	BottenpHauna index:	10	

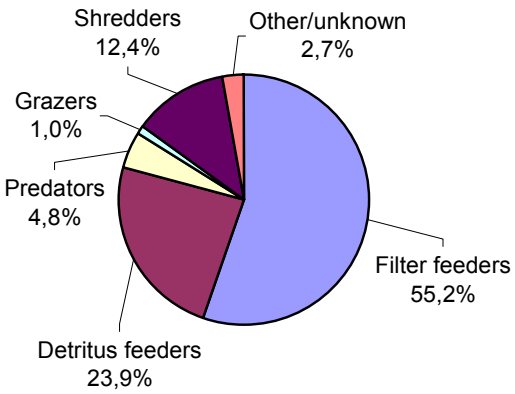
Classification of deviation from comparative value

Diversity index:	no or small	DSFI	high
ASPT index:	evident	Acidity index	no or small

Abundance



Biomass



Abundance and biomass/sqm

	Filter feeders	Detritus feeders	Predators	Grazers	Shredders	Other/unknown
Abundance	1732,0	802,4	103,2	172,8	168,8	83,2
Biomass (g)	4,07	1,76	0,35	0,08	0,91	0,20

Appendix 5

Species lists

Explanation to the species lists

Det. = The person who has performed the analysis.

Fk (sensitivity to low pH): 0 = sensitivity not known, 1 = can withstand pH < 4.5, 2 = pH 4.5 – 4.9, 3 = pH 5.0 – 5.4, 4 ≥ 5.5.

Fg (functional group): 0 = not known, 1 = filter feeder, 2 = detritus feeder, 3 = predator, 4 = scraper, 5 shredder.

Eg (ecological group, tolerance to organic pollution): 0 = not known, 1 = very high tolerance, 2 = high tolerance, 3 = moderately tolerance, 4 = low tolerance, 5 = very low tolerance.

M = average.

% = proportion.

* = taxa was only found in the qualitative sample.

PSM003718. Jämsen, littoral

2004-04-13

Det. Alf Engdahl, Medins Sjö- och Åbiologi AB

Method: SS EN 27 828 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Fk	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
TURBELLARIA, virvelmaskar										
Dendrocoelum lacteum - (O. F. Müller, 1774)	3	3	0				2		0,4	0,5
Planaridae(Planaria /Dugesia-gruppen)	3	3	0	4		1	3	1	1,8	2,2
Polycelis sp.	1	3	0				1		0,2	0,2
OLIGOCHAETA, fåborstmaskar										
Oligochaeta, oidentifierad	0	2	0	6	9	5	4	6	6,0	7,5
HIRUDINEA, iglar										
Erpobdella octoculata - (Linné, 1758)	3	3	2	1			1		0,4	0,5
Erpobdella sp.	0	3	2		1				0,2	0,2
ISOPODA, gråsuggor										
Asellus aquaticus - (Linné, 1758)	1	2	2	50	7	5	41	9	22,4	27,9
HYDRACARINA, sötvattenskvalster										
Hydracarina, oidentifierad	0	3	0	3	2	8	10	2	5,0	6,2
ODONATA, trollsländor										
Coenagrion sp.	0	3	3			1			0,2	0,2
Platycnemis pennipes - (Pallas, 1771)	2	3	3				1		0,2	0,2
EPHEMEROPTERA, dagsländor										
Caenis horaria - (Linné, 1758)	3	2	3	5	9	5	12	5	7,2	9,0
Cloeon sp.	0	4	3		1	2	4	1	1,6	2,0
Heptagenia fuscogrisea - (Retzius, 1783)	1	4	3			1	2		0,6	0,7
Leptophlebia vespertina - (Linné, 1758)	1	2	3			1			0,2	0,2
Leptophlebia sp.	1	2	3		1	1	2		0,8	1,0
PLECOPTERA, bäcksländor										
Nemoura sp.	0	5	0			2			0,4	0,5
TRICHOPTERA, nattsländor										
Cyrnus flavidus - McLachlan, 1864	2	3	3					1	0,2	0,2
Cyrnus sp	0	3	0				1		0,2	0,2
Ecnomus tenellus - (Rambur, 1842)	2	3	2				1	1	0,4	0,5
Glyphotaelius pellucidus - (Retzius, 1783)	1	5	2	1					0,2	0,2
Limnephilidae	0	0	0			1			0,2	0,2
Limnephilus sp. (marmoratus-typ)	0	5	0	1					0,2	0,2
Lype phaeopa - (Stephens, 1836)	4	4	4		1				0,2	0,2
Mystacides azurea - (Linné, 1761)	3	2	3			1			0,2	0,2
Phryganea bipunctata - Retzius, 1783*	0	3	0							
COLEOPTERA, skalbaggar										
Gyrinus sp.	0	3	0		1				0,2	0,2
DIPTERA, tvåvingar										
Ceratopogonidae	1	3	0		1			3	0,8	1,0
Chironomidae (other/unknown)	0	0	0	24	8	8	25	5	14,0	17,5
Chironomidae (predators)	0	3	0	20	3	6	7	4	8,0	10,0
Chironomidae (detritus feeders)	0	2	0	12	11	3	5	3	6,8	8,5
GASTROPODA, snäckor										
Acroloxus lacustris - (Linné, 1758)	4	4	2		1				0,2	0,2
Hippeutis complanatus - (Linné, 1758)	4	4	3				1		0,2	0,2
Marstoniopsis scholtzi - (A. Schmidt, 1856)	0	4	0				2	1	0,6	0,7
SUM (number of individuals):				127	56	51	125	42	80,2	100
SUM (number of taxa):				11	14	15	19	13	14,4	

Total number of taxa	29	Diversity index	3,38	Acidity index	6
Aver. numb. of taxa/sample	14,4	ASPT index	5,8	EPT index	12
Abundance/sqm.	321	DSFI	4		

PSM003719. Jämsen, littoral

2004-04-13

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
OLIGOCHAETA, fåborstmaskar										
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2	1	2		4	2	1,8	12,3
Tubificidae (m. hårborst)	0	2	0	6	5	6	4	5	5,2	35,6
DIPTERA, tvåvingar										
Ceratopogonidae	2	3	0			1	2		0,6	4,1
Chaoborus flavicans - (Meigen, 1830)	1	3	1	6	6	3	7	5	5,4	37,0
Chironomus sp. (plumosus-typ)	1	2	1			1			0,2	1,4
Cladopelma sp. (lateralis gr.)	2	2	0			1			0,2	1,4
Procladius sp.	1	3	0		2		2	2	1,2	8,2
SUM (number of individuals):				13	15	12	19	14	14,6	100
SUM (number of taxa):				2	3	5	4	3	3,4	

Total number of taxa	6	BQI	1,00
Aver. numb. of taxa/sample	3,4	O/C index	52,55
Abundance/sqm.	679	Diversity index	2,09

PSM003720. Jämsen, sublittoral

2004-04-13

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
NEMATODA										
Nematoda	2	0	0	1	1			1	0,6	4,2
OLIGOCHAETA										
Limnodrilus sp.	0	2	1		1				0,2	1,4
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2		2		6	1	1,8	12,5
Tubifex tubifex - (Müller, 1774)	1	2	1	2			1		0,6	4,2
Tubificidae (m. hårborst)	0	2	0	10	14	2	4	6	7,2	50,0
DIPTERA										
Chaoborus flavicans - (Meigen, 1830)	1	3	1			1	1	1	0,6	4,2
Cladopelma sp. (lateralis gr.)	2	2	0				2		0,4	2,8
Heterotanytarsus apicalis - (Kieffer, 1921)	3	2	4				1		0,2	1,4
Polypedilum sp.	2	2	0			1	1	6	1,6	11,1
Procladius sp.	1	3	0			2		1	0,6	4,2
Sergentia sp.	2	2	3		1				0,2	1,4
Tanytarsus sp.	2	2	3		1		1		0,4	2,8
SUM (number of individuals):				13	20	6	17	16	14,4	100
SUM (number of taxa):				3	6	4	8	6	5,4	

Total number of taxa	11	BQI	3,25
Aver. numb. of taxa/sample	5,4	O/C index	31,75
Abundance/sqm.	670	Diversity index	2,54

PSM003721. Jämsen, profundal

2004-04-13

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2	5	5,0	12,2
Tubificidae (m. hårborst)	0	2	0	21	21,0	51,2
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	11	11,0	26,8
Chironomus sp. (anthracinus-typ)	1	2	2	4	4,0	9,8
SUM (number of individuals):				41	41,0	100
SUM (number of taxa):				3		

Total number of taxa	3	BQI	2,00
Aver. numb. of taxa/sample	0,6	O/C index	12,04
Abundance/sqm.	1 907	Diversity index	1,70

PSM003722. Jämsen, profundal

2004-04-13

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2	4	4,0	3,1
Tubificidae (m. hårborst)	0	2	0	13	13,0	10,1
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	111	111,0	86,0
Chironomus sp. (anthracinus-typ)	1	2	2	1	1,0	0,8
SUM (number of individuals):				129	129,0	100
SUM (number of taxa):				3		

Total number of taxa	3	BQI	2,00
Aver. numb. of taxa/sample	0,6	O/C index	12,94
Abundance/sqm.	6 000	Diversity index	0,73

Laboratorium ackrediteras av Styrelsen för ackreditering och teknisk kontroll (SWEDAC) enligt svensk lag. Den ackrediterade verksamheten vid laboratorierna uppfyller kraven i SS-EN ISO/IEC 17025 (2000). Denna rapport får endast återges i sin helhet, om inte utfärdande laboratorium i förväg godkänt annat.

PSM003723. Jämsen, profundal

2004-04-13

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2	1	1,0	1,1
Tubificidae (m. hårborst)	0	2	0	5	5,0	5,5
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	85	85,0	93,4
SUM (number of individuals):				91	91,0	100
SUM (number of taxa):				2		

Total number of taxa	2	BQI	0,00
Aver. numb. of taxa/sample	0,4	O/C index	13,33
Abundance/sqm.	4 233	Diversity index	0,39

Laboratorium ackrediteras av Styrelsen för ackreditering och teknisk kontroll (SWEDAC) enligt svensk lag. Den ackrediterade verksamheten vid laboratorierna uppfyller kraven i SS-EN ISO/IEC 17025 (2000). Denna rapport får endast återges i sin helhet, om inte utfärdande laboratorium i förväg godkänt annat.

PSM003724. Jämsen, profundal

2004-04-13

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2	7	7,0	6,4
Tubificidae (m. hårborst)	0	2	0	18	18,0	16,5
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	83	83,0	76,1
Chironomus sp. (anthracinus-typ)	1	2	2	1	1,0	0,9
SUM (number of individuals):				109	109,0	100
SUM (number of taxa):				3		

Total number of taxa	3	BQI	2,00
Aver. numb. of taxa/sample	0,6	O/C index	13,17
Abundance/sqm.	5 070	Diversity index	1,04

PSM003725. Jämsen, profundal

2004-04-13

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2	3	3,0	2,9
Tubificidae (m. hårborst)	0	2	0	22	22,0	21,6
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	71	71,0	69,6
Chironomidae	0	0	0	1	1,0	1,0
Chironomus sp. (anthracinus-typ)	1	2	2	4	4,0	3,9
Procladius sp.	1	3	0	1	1,0	1,0
SUM (number of individuals):				102	102,0	100
SUM (number of taxa):				4		

Total number of taxa	4	BQI	2,00
Aver. numb. of taxa/sample	0,8	O/C index	10,96
Abundance/sqm.	4 744	Diversity index	1,30

PSM003726. Jämsen, profundal

2004-04-13

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	2	3	Aver.	%
OLIGOCHAETA, fåborstmaskar								
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2	1	1	3	1,7	0,6
Tubificidae (m. hårborst)	0	2	0	2	1	6	3,0	1,2
DIPTERA, tvåvingar								
Chaoborus flavicans - (Meigen, 1830)	1	3	1	296	209	257	254,0	98,2
SUM (number of individuals):				299	211	266	258,7	100
SUM (number of taxa):				2	2	2	2,0	

Total number of taxa	2	BQI	0,00
Aver. numb. of taxa/sample	2,0	O/C index	9,52
Abundance/sqm.	12 031	Diversity index	0,15

PSM003727. Frisksjön, littoral

2004-04-15

Det. Alf Engdahl, Medins Sjö- och Åbiologi AB

Method: SS EN 27 828 + NV:s handbok för miljöövervakning

REPORT

utfärdad av ackrediterat laboratorium

REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Fk	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
TURBELLARIA, virvelmaskar										
Dendrocoelum lacteum - (O. F. Müller, 1774)	3	3	0	1					0,2	0,3
OLIGOCHAETA, fåborstmaskar										
Oligochaeta, oidentifierad	0	2	0	1	2	1		1	1,0	1,4
HIRUDINEA, iglar										
Erpobdella octoculata - (Linné, 1758)	3	3	2		2				0,4	0,6
Erpobdella sp.	0	3	2			1	1	1	0,6	0,8
Glossiphonia sp.	0	3	2			1		1	0,4	0,6
ISOPODA, gråsuggor										
Asellus aquaticus - (Linné, 1758)	1	2	2	14	5	8	3	5	7,0	9,7
HYDRACARINA, sötvattenskvalster										
Hydracarina, oidentifierad	0	3	0		4	3	3		2,0	2,8
ODONATA, trollsländor										
Aeshna grandis - (Linné, 1758)	0	3	3					1	0,2	0,3
Anisoptera	0	3	0	1					0,2	0,3
Erythromma najas - (Hansemann, 1823)	1	3	3	1	1		1	1	0,8	1,1
Platycnemis pennipes - (Pallas, 1771)	2	3	3					1	0,2	0,3
EPHEMEROPTERA, dagsländor										
Caenis horaria - (Linné, 1758)	3	2	3	10	15	6	10	12	10,6	14,8
Centroptilum luteolum - (Müller, 1776)	2	4	3		1		1	1	0,6	0,8
Cloeon sp. (dipterum gr.)	0	4	3	3		7			2,0	2,8
Cloeon sp.	0	4	3		2	1			0,4	0,6
Leptophlebia marginata - (Linné, 1767)	1	2	3	1	1		2		0,8	1,1
Leptophlebia vespertina - (Linné, 1758)	1	2	3	5		3	2	8	3,6	5,0
Leptophlebia sp.	1	2	3	2				1	0,6	0,8
PLECOPTERA, bäcksländor										
Nemoura sp.	0	5	0	1	3	1			1,0	1,4
MEGALOPTERA, sävsländor										
Sialis sp. (lutaria gr.)	1	3	2	1					0,2	0,3
TRICHOPTERA, nattsländor										
Anabolia sp.	0	5	3	2					0,4	0,6
Cyrnus flavidus - McLachlan, 1864	2	3	3				1		0,2	0,3
Ecnomus tenellus - (Rambur, 1842)	2	3	2	1				1	0,4	0,6
Limnephilidae	0	0	0	15	6	4	7	9	8,2	11,4
Limnephilus sp. (flavicornis-typ)	0	5	0	1					0,2	0,3
Limnephilus sp. (rombicus-typ)	0	5	3	2		1			0,6	0,8
Lype phaeopa - (Stephens, 1836)	4	4	4	1				1	0,4	0,6
Mystacides sp.	0	2	3			1			0,2	0,3
Oxyethira sp.	2	0	0		1		2	1	0,8	1,1
Ylodes sp.	0	0	0		2				0,4	0,6
HEMIPTERA, skinnbaggar										
Gerris lacustris - (Linné, 1758)	1	3	0			1			0,2	0,3
Nepa cinerea - Linné, 1758	2	3	0	1					0,2	0,3
DIPTERA, tvåvingar										
Chironomidae (other/unknown)	0	0	0	8	18	9	4	16	11,0	15,3
Chironomidae (predators)	0	3	0	6	2	6	7	9	6,0	8,4
Chironomidae (detritus feeders)	0	2	0	1	9	6	3	5	4,8	6,7
Simuliidae	1	1	0	3	1		1		1,0	1,4
GASTROPODA, snäckor										
Acroloxus lacustris - (Linné, 1758)	4	4	2	1		1	1		0,6	0,8
Gyraulus sp. (albus-typ)	4	4	3	1					0,2	0,3
BIVALVIA, musslor										
Pisidium sp.	1	1	0	4		6	1	4	3,0	4,2
SUM (number of individuals):				88	75	67	50	79	71,8	100
SUM (number of taxa):				24	17	17	17	18	18,6	

Total number of taxa	34	Diversity index	4,08	Acidity index	8
Aver. numb. of taxa/sample	18,6	ASPT index	5,3	EPT index	15
Abundance/sqm.	287	DSFI	4		

PSM003728. Frisksjön, sublittoral

2004-04-15

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
OLIGOCHAETA, fåborstmaskar										
Limnodrilus sp.	0	2	1	2	1	1	5		1,8	4,5
Ripistes parasita - (Schmidt, 1847)	0	0	0		1				0,2	0,5
Tubificidae (m. hårborst)	0	2	0	1	1			1	0,6	1,5
HYDRACARINA, sötvattenskvalster										
Hydracarina, oidentifierad	2	3	0	1	2	2	1	1	1,4	3,5
ODONATA, trollsländor										
Cordulidae	0	3	0					1	0,2	0,5
EPHEMEROPTERA, dagsländor										
Caenis horaria - (Linné, 1758)	2	2	3		1			1	0,4	1,0
MEGALOPTERA, sävsländor										
Sialis lutaria - (Linné, 1758)	2	3	2	1			1		0,4	1,0
TRICHOPTERA, nattsländor										
Ecnomus tenellus - (Rambur, 1842)	2	3	2	1					0,2	0,5
Oecetis ochracea - (Curtis, 1825)	2	3	3			1			0,2	0,5
DIPTERA, tvåvingar										
Chaoborus flavicans - (Meigen, 1830)	1	3	1	3		5	2	5	3,0	7,6
Cladopelma sp. (lateralis gr.)	2	2	0	12	16	28	8	10	14,8	37,4
Cladotanytarsus sp. (mancus gr.)	3	2	0	6	13	14	26	5	12,8	32,3
Parachironomus sp. (arcuatus gr.)	0	0	0				1		0,2	0,5
Parakiefferiella sp.	2	2	3		1		1		0,4	1,0
Phaenopsectra sp.	2	2	0				1		0,2	0,5
Polypedilum sp. (nubeculosum-typ)	2	2	0		1			3	0,8	2,0
Procladius sp.	1	3	0	1					0,2	0,5
Sergentia sp.	2	2	3	1	2		2		1,0	2,5
Tanytarsus sp.	2	2	3				1		0,2	0,5
BIVALVIA, musslor										
Anodonta anatina - (Linné, 1758)	2	1	2		1				0,2	0,5
Pisidium sp.	2	1	0		1		1		0,4	1,0
SUM (number of individuals):				29	41	51	50	27	39,6	100
SUM (number of taxa):				10	12	6	12	8	9,6	

Total number of taxa	21	BQI	3,00
Aver. numb. of taxa/sample	9,6	O/C index	5,25
Abundance/sqm.	1 842	Diversity index	2,67

PSM003729. Frisksjön, profundal

2004-04-15

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
DIPTERA, tvåvingar						
Ceratopogonidae	2	3	0	1	1,0	1,5
Chaoborus flavicans - (Meigen, 1830)	1	3	1	63	63,0	96,9
Procladius sp.	1	3	0	1	1,0	1,5
SUM (number of individuals):				65	65,0	100
SUM (number of taxa):				3		

Total number of taxa	3	BQI	0,00
Aver. numb. of taxa/sample	-	O/C index	-
Abundance/sqm.	3 023	Diversity index	0,23

Laboratorium ackrediteras av Styrelsen för ackreditering och teknisk kontroll (SWEDAC) enligt svensk lag. Den ackrediterade verksamheten vid laboratorierna uppfyller kraven i SS-EN ISO/IEC 17025 (2000). Denna rapport får endast återges i sin helhet, om inte utfärdande laboratorium i förväg godkänt annat.

PSM003730. Frisksjön, profundal

2004-04-15

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2	1	1,0	1,6
DIPTERA, tvåvingar						
Ceratopogonidae	2	3	0	19	19,0	29,7
Chaoborus flavicans - (Meigen, 1830)	1	3	1	43	43,0	67,2
Chironomus sp. (plumosus-typ)	1	2	1	1	1,0	1,6
SUM (number of individuals):				64	64,0	100
SUM (number of taxa):				4		

Total number of taxa	4	BQI	1,00
Aver. numb. of taxa/sample	0,8	O/C index	16,67
Abundance/sqm.	2 977	Diversity index	1,09

Laboratorium ackrediteras av Styrelsen för ackreditering och teknisk kontroll (SWEDAC) enligt svensk lag. Den ackrediterade verksamheten vid laboratorierna uppfyller kraven i SS-EN ISO/IEC 17025 (2000). Denna rapport får endast återges i sin helhet, om inte utfärdande laboratorium i förväg godkänt annat.

PSM003731. Frisksjön, profundal

2004-04-15

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
DIPTERA, tvåvingar						
Ceratopogonidae	2	3	0	7	7,0	9,7
Chaoborus flavicans - (Meigen, 1830)	1	3	1	65	65,0	90,3
SUM (number of individuals):				72	72,0	100
SUM (number of taxa):				2		

Total number of taxa	2	BQI	0,00
Aver. numb. of taxa/sample	0,4	O/C index	-
Abundance/sqm.	3 349	Diversity index	0,46

PSM003732. Frisksjön, profundal

2004-04-15

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	25	25,0	92,6
Procladius sp.	1	3	0	2	2,0	7,4
SUM (number of individuals):				27	27,0	100
SUM (number of taxa):				2		

Total number of taxa	2	BQI	0,00
Aver. numb. of taxa/sample	0,4	O/C index	-
Abundance/sqm.	1 256	Diversity index	0,38

Laboratorium ackrediteras av Styrelsen för ackreditering och teknisk kontroll (SWEDAC) enligt svensk lag. Den ackrediterade verksamheten vid laboratorierna uppfyller kraven i SS-EN ISO/IEC 17025 (2000). Denna rapport får endast återges i sin helhet, om inte utfärdande laboratorium i förväg godkänt annat.

PSM003733. Frisksjön, profundal

2004-04-15

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
DIPTERA, tvåvingar						
Ceratopogonidae	2	3	0	6	6,0	15,8
Chaoborus flavicans - (Meigen, 1830)	1	3	1	32	32,0	84,2
SUM (number of individuals):				38	38,0	100
SUM (number of taxa):				2		

Total number of taxa	2	BQI	0,00
Aver. numb. of taxa/sample	0,4	O/C index	-
Abundance/sqm.	1 767	Diversity index	0,63

PSM003734. Söråmagasinet, littoral

2004-04-14

Det. Alf Engdahl, Medins Sjö- och Åbiologi AB

Method: SS EN 27 828 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Fk	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
HYDROZOA, hydror										
Hydridae	4	1	0	1	1				0,4	0,2
OLIGOCHAETA, fåborstmaskar										
Oligochaeta, oidentifierad	0	2	0	3	3	1	2	3	2,4	1,2
HIRUDINEA, iglar										
Erpobdella octoculata - (Linné, 1758)	3	3	2	1					0,2	0,1
Erpobdella sp.	0	3	2		1				0,2	0,1
ISOPODA, gråsuggor										
Asellus aquaticus - (Linné, 1758)	1	2	2	3	6	3	20	3	7,0	3,5
HYDRACARINA, sötvattenskvalster										
Hydracarina, oidentifierad	0	3	0	3	3	5	4	3	3,6	1,8
ODONATA, trollsländor										
Aeshna sp.	1	3	3		1		1		0,4	0,2
Coenagrionidae	0	3	0	1	3		10		2,8	1,4
Cordulia aenae - (Linné, 1758)	2	3	0	2		1	4		1,4	0,7
Erythromma najas - (Hansemann, 1823)	1	3	3		1	4			1,0	0,5
Zygoptera	0	3	0		1	1		1	0,6	0,3
EPHEMEROPTERA, dagsländor										
Caenis horaria - (Linné, 1758)	3	2	3	43	40	30	36	36	37,0	18,5
Centroptilum luteolum - (Müller, 1776)	2	4	3	1					0,2	0,1
Cloeon sp. (dipterum gr.)	0	4	3		34	6	12	27	15,8	7,9
Cloeon sp.	0	4	3	3	21		39	59	24,4	12,2
TRICHOPTERA, nattsländor										
Cyrnus flavidus - McLachlan, 1864	2	3	3	2	1	1	4		1,6	0,8
Ecnomus tenellus - (Rambur, 1842)	2	3	2		1				0,2	0,1
Limnephilidae	0	0	0	1	1		1	1	0,8	0,4
Limnephilus sp. (flavicornis-typ)	0	5	0				1		0,2	0,1
Mystacides azurea - (Linné, 1761)	3	2	3			1			0,2	0,1
Mystacides sp.	0	2	0	1			1		0,4	0,2
Oxyethira sp.	2	0	0	6	4	3		1	2,8	1,4
Trianodes sp.	3	5	0	1				1	0,4	0,2
DIPTERA, tvåvingar										
Ceratopogonidae	1	3	0		2				0,4	0,2
Chironomidae (other/unknown)	0	0	0	9	14	26	55	16	24,0	12,0
Chironomidae (predators)	0	3	0	10	48	34	110	30	46,4	23,2
Chironomidae (detritus feeders)	0	2	0	12	22	26	40	16	23,2	11,6
Limoniidae	0	0	0		1			1	0,4	0,2
GASTROPODA, snäckor										
Acroloxus lacustris - (Linné, 1758)	4	4	2	2	4				1,2	0,6
Bithynia tentaculata - (Linné, 1758)	4	1	2				1	1	0,4	0,2
BIVALVIA, musslor										
Pisidium sp.	1	1	0		1			1	0,4	0,2
SUM (number of individuals):				105	214	142	341	200	200,4	100
SUM (number of taxa):				19	20	13	15	15	16,4	

Total number of taxa	25	Diversity index	3,29	Acidity index	6
Aver. numb. of taxa/sample	16,4	ASPT index	5,2	EPT index	9
Abundance/sqm.	802	DSFI	3		

PSM003735. Söråmagasinet, sublittoral

2004-04-13

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
OLIGOCHAETA, fåborstmaskar										
Limnodrilus sp.	0	2	1		1				0,2	0,6
Tubificidae (m. hårborst)	0	2	0	1				1	0,4	1,2
HYDRACARINA, sötvattenskvalster										
Hydracarina, oidentifierad	2	3	0	2			1		0,6	1,8
DIPTERA, tvåvingar										
Ceratopogonidae	2	3	0	10	10	9	23	9	12,2	35,9
Chaoborus flavicans - (Meigen, 1830)	1	3	1	14	8	4	10	11	9,4	27,6
Chironomus sp. (plumosus-typ)	1	2	1			1			0,2	0,6
Chironomus sp.	1	2	0	1					0,2	0,6
Cladopelma sp. (lateralis gr.)	2	2	0	6	1	11	4	11	6,6	19,4
Procladius sp.	1	3	0	1	1	9	8	2	4,2	12,4
SUM (number of individuals):				35	21	34	46	34	34,0	100
SUM (number of taxa):				7	5	5	5	5	5,4	

Total number of taxa	9	BQI	1,00
Aver. numb. of taxa/sample	5,4	O/C index	3,51
Abundance/sqm.	1 581	Diversity index	2,18

PSM003736. Söråmagasinet, profundal

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
DIPTERA, tvåvingar						
Ceratopogonidae	2	3	0	4	4,0	25,0
Chaoborus flavicans - (Meigen, 1830)	1	3	1	5	5,0	31,3
Cladopelma sp. (lateralis gr.)	2	2	0	3	3,0	18,8
Pentaneurini	2	3	0	1	1,0	6,3
Procladius sp.	1	3	0	3	3,0	18,8
SUM (number of individuals):				16	16,0	100
SUM (number of taxa):				5		

Total number of taxa	5	BQI	0,00
Aver. numb. of taxa/sample	1,0	O/C index	0,00
Abundance/sqm.	744	Diversity index	2,18

PSM003737. Söråmagasinet, profundal

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
DIPTERA, tvåvingar						
Ceratopogonidae	2	3	0	3	3,0	12,5
Chaoborus flavicans - (Meigen, 1830)	1	3	1	15	15,0	62,5
Chironomus sp. (anthracinus-typ)	1	2	2	1	1,0	4,2
Cladopelma sp. (lateralis gr.)	2	2	0	3	3,0	12,5
Procladius sp.	1	3	0	2	2,0	8,3
SUM (number of individuals):				24	24,0	100
SUM (number of taxa):				5		

Total number of taxa	5	BQI	2,00
Aver. numb. of taxa/sample	1,0	O/C index	0,00
Abundance/sqm.	1 116	Diversity index	1,66

PSM003738. Söråmagasinet, profundal

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
DIPTERA, tvåvingar						
Ceratopogonidae	2	3	0	4	4,0	10,3
Chaoborus flavicans - (Meigen, 1830)	1	3	1	25	25,0	64,1
Chironomus sp. (anthracinus-typ)	1	2	2	3	3,0	7,7
Cladopelma sp. (lateralis gr.)	2	2	0	6	6,0	15,4
Procladius sp.	1	3	0	1	1,0	2,6
SUM (number of individuals):				39	39,0	100
SUM (number of taxa):				5		

Total number of taxa	5	BQI	2,00
Aver. numb. of taxa/sample	1,0	O/C index	0,00
Abundance/sqm.	1 814	Diversity index	1,58

PSM003739. Söråmagasinet, profundal

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	18	18,0	72,0
Chironomus sp. (anthracinus-typ)	1	2	2	1	1,0	4,0
Cladopelma sp. (lateralis gr.)	2	2	0	6	6,0	24,0
SUM (number of individuals):				25	25,0	100
SUM (number of taxa):				3		

Total number of taxa	3	BQI	2,00
Aver. numb. of taxa/sample	-	O/C index	0,00
Abundance/sqm.	1 163	Diversity index	1,02

PSM003740. Söråmagasinet, profundal

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
EPHEMEROPTERA, dagsländor						
Caenis horaria - (Linné, 1758)	2	2	3	1	1,0	4,5
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	14	14,0	63,6
Chironomus sp. (anthracinus-typ)	1	2	2	2	2,0	9,1
Cladopelma sp. (lateralis gr.)	2	2	0	4	4,0	18,2
Procladius sp.	1	3	0	1	1,0	4,5
SUM (number of individuals):				22	22,0	100
SUM (number of taxa):				5		

Total number of taxa	5	BQI	2,00
Aver. numb. of taxa/sample	1,0	O/C index	0,00
Abundance/sqm.	1 023	Diversity index	1,58

PSM003741. Plittorpsgöl, littoral

2004-04-14

Det. Alf Engdahl, Medins Sjö- och Åbiologi AB

Method: SS EN 27 828 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Fk	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
OLIGOCHAETA, fåborstmaskar										
Oligochaeta, oidentifierad	0	2	0	2	2	5	1	3	2,6	1,9
ISOPODA, gråsuggor										
Asellus aquaticus - (Linné, 1758)	1	2	2	18	32	18	13	27	21,6	15,9
HYDRACARINA, sötvattenskvalster										
Hydracarina, oidentifierad	0	3	0	2	4	5		1	2,4	1,8
ARANEA, spindlar										
Argyroneta aquatica - (Clerck, 1757)	0	3	0	1					0,2	0,1
ODONATA, trollsländor										
Coenagrionidae	0	3	0	1	4	2	2		1,8	1,3
Cordulia aenae - (Linné, 1758)	2	3	0	2	4	2	2		2,0	1,5
Erythromma najas - (Hansemann, 1823)	1	3	3	1			1	1	0,6	0,4
Zygoptera	0	3	0					1	0,2	0,1
EPHEMEROPTERA, dagsländor										
Caenis horaria - (Linné, 1758)	3	2	3	1	2	2	3		1,6	1,2
Cloeon sp. (dipterum gr.)	0	4	3	1			1		0,4	0,3
Cloeon sp.	0	4	3	9	3	7	12	17	9,6	7,1
Leptophlebia marginata - (Linné, 1767)	1	2	3	4	11	4	4	4	5,4	4,0
Leptophlebia vespertina - (Linné, 1758)	1	2	3	9	25	16	12	39	20,2	14,9
Leptophlebia sp.	1	2	3	2	6	9	6	10	6,6	4,9
MEGALOPTERA, sävsländor										
Sialis sp. (lutaria gr.)*	1	3	2							
TRICHOPTERA, nattsländor										
Cyrnus flavidus - McLachlan, 1864	2	3	3					1	0,2	0,1
Cyrnus sp.	0	3	0		3	1		1	1,0	0,7
Ecnomus tenellus - (Rambur, 1842)	2	3	2			1			0,2	0,1
Limnephilidae	0	0	0	1	1	1	2	4	1,8	1,3
Limnephilus sp. (rombicus-typ)	0	5	3		1				0,2	0,1
Oxyethira sp.	2	0	0	11	11	8	8	10	9,6	7,1
Trianodes sp.	3	5	0	1					0,2	0,1
DIPTERA, tvåvingar										
Ceratopogonidae	1	3	0		1				0,2	0,1
Chironomidae (other/unknown)	0	0	0	7	24	9	7	10	11,4	8,4
Chironomidae (predators)	0	3	0	4	8	3	5	10	6,0	4,4
Chironomidae (detritus feeders)	0	2	0	8	60	11	7	14	20,0	14,7
BIVALVIA, musslor										
Pisidium sp.	1	1	0	5	8	4	18	13	9,6	7,1
SUM (number of individuals):				90	210	108	104	166	135,6	100
SUM (number of taxa):				17	17	17	14	14	15,8	

Total number of taxa	21	Diversity index	3,70	Acidity index	4
Aver. numb. of taxa/sample	15,8	ASPT index	5,6	EPT index	9
Abundance/sqm.	542	DSFI	4		

PSM003742. Plittorpsgöl, sublittoral

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
NEMATODA, rundmaskar										
Nematoda, oidentifierad	2	0	0		10	1	5		3,2	5,0
OLIGOCHAETA, fåborstmaskar										
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2		1			1	0,4	0,6
Tubificidae (m. hårborst)	0	2	0	6	10	3	4	9	6,4	9,9
DIPTERA, tvåvingar										
Chaoborus flavicans - (Meigen, 1830)	1	3	1	34	31	34	40	23	32,4	50,2
Chironomidae	0	0	0			1			0,2	0,3
Chironomus sp. (anthracinus-typ)	1	2	2	15	4	3	8	3	6,6	10,2
Chironomus sp. (plumosus-typ)	1	2	1			1	9	1	2,2	3,4
Cladopelma sp. (lateralis gr.)	2	2	0			1			0,2	0,3
Procladius sp.	1	3	0	5	2	1	3	6	3,4	5,3
Tanytarsus sp.	2	2	3	6	7	14	1	18	9,2	14,2
BIVALVIA, musslor										
Pisidium sp.	2	1	0					2	0,4	0,6
SUM (number of individuals):				66	65	59	70	63	64,6	100
SUM (number of taxa):				5	6	8	7	7	6,6	

Total number of taxa	9	BQI	2,39
Aver. numb. of taxa/sample	6,6	O/C index	9,30
Abundance/sqm.	3 005	Diversity index	2,31

PSM003743. Plittorpsgöl, profundal

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Tubificidae (m. hårborst)	0	2	0	1	1,0	6,3
MEGALOPTERA, sävsländor						
Sialis lutaria - (Linné, 1758)	2	3	2	1	1,0	6,3
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	9	9,0	56,3
Chironomus sp. (anthracinus-typ)	1	2	2	1	1,0	6,3
Chironomus sp. (salinarius-typ)	1	2	0	1	1,0	6,3
Sergentia sp.	2	2	3	3	3,0	18,8
SUM (number of individuals):				16	16,0	100
SUM (number of taxa):				6		

Total number of taxa	6	BQI	2,75
Aver. numb. of taxa/sample	1,2	O/C index	3,33
Abundance/sqm.	744	Diversity index	1,92

PSM003744. Plittorpsgöl, profundal

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Tubificidae (m. hårborst)	0	2	0	2	2,0	4,2
MEGALOPTERA, sävsländor						
Sialis lutaria - (Linné, 1758)	2	3	2	1	1,0	2,1
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	44	44,0	91,7
Chironomus sp. (anthracinus-typ)	1	2	2	1	1,0	2,1
SUM (number of individuals):				48	48,0	100
SUM (number of taxa):				4		

Total number of taxa	4	BQI	2,00
Aver. numb. of taxa/sample	0,8	O/C index	12,12
Abundance/sqm.	2 233	Diversity index	0,54

PSM003745. Plittorpsgöl, profundal

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Tubificidae (m. hårborst)	0	2	0	1	1,0	1,9
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	51	51,0	98,1
SUM (number of individuals):				52	52,0	100
SUM (number of taxa):				2		

Total number of taxa	2	BQI	0,00
Aver. numb. of taxa/sample	0,4	O/C index	16,95
Abundance/sqm.	2 419	Diversity index	0,14

PSM003746. Plittorpsgöl, profundal

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2	1	1,0	2,1
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	46	46,0	97,9
SUM (number of individuals):				47	47,0	100
SUM (number of taxa):				2		

Total number of taxa	2	BQI	0,00
Aver. numb. of taxa/sample	0,4	O/C index	17,54
Abundance/sqm.	2 186	Diversity index	0,15

PSM003747. Plittorpsgöl, profundal

2004-04-14

Det. Ulf Ericsson, Medins Sjö- och Åbiologi AB

Method: SS028190 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Sy	Fg	Eg	Sample 1	Aver.	%
OLIGOCHAETA, fåborstmaskar						
Potamotrix hammoniensis - (Michaelsen, 1901)	1	2	2	6	6,0	5,8
Tubificidae (m. hårborst)	0	2	0	13	13,0	12,5
DIPTERA, tvåvingar						
Chaoborus flavicans - (Meigen, 1830)	1	3	1	84	84,0	80,8
Chironomus sp. (anthracinus-typ)	1	2	2	1	1,0	1,0
SUM (number of individuals):				104	104,0	100
SUM (number of taxa):				3		

Total number of taxa	3	BQI	2,00
Aver. numb. of taxa/sample	0,6	O/C index	15,83
Abundance/sqm.	4 837	Diversity index	1,28

LSM000272. Laxemarsån, downstream

2004-04-14

Det. Alf Engdahl, Medins Sjö- och Åbiologi AB

Method: SS EN 27 828 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Fk	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
TURBELLARIA, virvelmaskar										
Dendrocoelum lacteum - (O. F. Müller, 1774)	3	3	0		1				0,2	0,1
OLIGOCHAETA, fåborstmaskar										
Oligochaeta, oidentifierad	0	2	0	18	62	7	46	22	31,0	16,0
HIRUDINEA, iglar										
Erpobdella octoculata - (Linné, 1758)	3	3	2	1				1	0,4	0,2
Erpobdella sp.	0	3	2		3	2	7	4	3,2	1,7
ISOPODA, gråsuggor										
Asellus aquaticus - (Linné, 1758)	1	2	2	9	14	12	19	34	17,6	9,1
HYDRACARINA, sötvattenskvalster										
Hydracarina, oidentifierad	0	3	0		2				0,4	0,2
ARANEA, spindlar										
Argyroneta aquatica - (Clerck, 1757)	0	3	0					1	0,2	0,1
ODONATA, trollsländor										
Platycnemis pennipes - (Pallas, 1771)	2	3	3				1		0,2	0,1
Somatochlora metallica - (Vander Linden, 1825)*	2	3	3							
EPHEMEROPTERA, dagsländor										
Caenis horaria - (Linné, 1758)	3	2	3			1			0,2	0,1
Cloeon sp. (dipterum gr.)	0	4	3	1					0,2	0,1
PLECOPTERA, bäcksländor										
Amphinemura sulcicollis - (Stephens, 1836)	1	4	4		1				0,2	0,1
Amphinemura sp.	0	4	4				3		0,6	0,3
Nemoura cinerea - (Retzius, 1783)	1	5	3		8		9		3,4	1,8
Nemoura sp.	0	5	0	7	78	78	81	20	52,8	27,3
MEGALOPTERA, sävsländor										
Sialis sp. (lutaria gr.)	1	3	2					5	1,0	0,5
TRICHOPTERA, nattsländor										
Glyphotaelius pellucidus - (Retzius, 1783)*	1	5	2							
Halesus sp.	0	5	0	2			1		0,6	0,3
Hydropsyche angustipennis - (Curtis, 1834)	1	1	3		5		2		1,4	0,7
Limnephilidae	0	0	0	3	2	2	5	11	4,6	2,4
Limnephilus sp. (rhombicus-typ)*	0	5	3							
Polycentropodidae	0	3	0	1	1				0,4	0,2
Polycentropus flavomaculatus - (Pictet, 1834)	1	3	3			1	1		0,4	0,2
HEMIPTERA, skinnbaggar										
Notonecta glauca - Linné, 1758*	2	3	0							
COLEOPTERA, skalbaggar										
Oulimnius tuberculatus - (Müller, 1806)	2	4	3		6	6	1		2,6	1,3
Oulimnius sp.	0	4	3	2	9	4	1	6	4,4	2,3
DIPTERA, tvåvingar										
Ceratopogonidae	1	3	0	1	1			5	1,4	0,7
Chaoborus sp.	0	3	0		1			1	0,4	0,2
Chironomidae (other/unknown)	0	0	0	11	34	16	26	24	22,2	11,5
Chironomidae (predators)	0	3	0				2	8	2,0	1,0
Chironomidae (detritus feeders)	0	2	0	1	4	26	14	6	10,2	5,3
Culicidae	0	0	0	1	1				0,4	0,2
Limoniidae	0	0	0		3		1	1	1,0	0,5
Pediciidae	0	3	0	1	3		1	3	1,6	0,8
Simuliidae	1	1	0		16	90	26	5	27,4	14,2
Tipulidae	0	5	0					1	0,2	0,1
BIVALVIA, musslor										
Pisidium sp.	1	1	0	1			1		0,4	0,2
SUM (number of individuals):				60	255	245	248	158	193,2	100
SUM (number of taxa):				14	19	11	17	17	15,6	

Total number of taxa	31	Diversity index	3,33	Acidity index	6
Aver. numb. of taxa/sample	15,6	ASPT index	4,8	EPT index	9
Abundance/sqm.	773	DSFI	3		

LSM000273. Laxemarsån, upstream

2004-04-14

Det. Alf Engdahl, Medins Sjö- och Åbiologi AB

Method: SS EN 27 828 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Fk	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
OLIGOCHAETA, fåborstmaskar										
Oligochaeta, oidentifierad	0	2	0	54	7	6	46	10	24,6	5,2
HIRUDINEA, iglar										
Erpobdella octoculata - (Linné, 1758)	3	3	2	1			3		0,8	0,2
Erpobdella sp.	0	3	2	7	2	6	9	1	5,0	1,0
Glossiphonia sp.	0	3	2	1					0,2	0,0
ISOPODA, gråsuggor										
Asellus aquaticus - (Linné, 1758)	1	2	2	11	4	9	11	8	8,6	1,8
HYDRACARINA, sötvattenskvalster										
Hydracarina, oidentifierad	0	3	0					1	0,2	0,0
ODONATA, trollsländor										
Somatochlora metallica - (Vander Linden, 1825)	2	3	3			1			0,2	0,0
PLECOPTERA, bäcksländor										
Nemoura cinerea - (Retzius, 1783)	1	5	3	12	9	15	150	1	37,4	7,8
Nemoura sp.	0	5	0	138	105	160	1230	69	340,4	71,4
MEGALOPTERA, sävsländor										
Sialis sp. (lutaria gr.)	1	3	2			1	1	1	0,6	0,1
TRICHOPTERA, nattsländor										
Hydropsyche angustipennis - (Curtis, 1834)	1	1	3			1	18	1	4,0	0,8
Limnephilidae	0	0	0			1	3	2	1,2	0,3
Limnephilus sp. (rhombicus-typ)	0	5	3			2			0,4	0,1
Polycentropus irroratus - (Curtis, 1835)	1	3	3			1			0,2	0,0
Potamophylax cingulatus - (Stephens, 1837)	0	5	4	1					0,2	0,0
HEMIPTERA, skinnbaggar										
Gerris lacustris - (Linné, 1758)*	1	3	0							
Sigara fossarum - (Leach, 1817)*	2	2	0							
COLEOPTERA, skalbaggar										
Oulimnius sp.	0	4	3		3	1	5		1,8	0,4
DIPTERA, tvåvingar										
Chironomidae (other/unknown)	0	0	0	7	8	7	39	2	12,6	2,6
Chironomidae (predators)	0	3	0	4	5	1	12	3	5,0	1,0
Chironomidae (detritus feeders)	0	2	0	3	8	2	12	4	5,8	1,2
Limoniidae	0	0	0			1			0,2	0,0
Pediciidae	0	3	0			2	1	1	0,8	0,2
Simuliidae	1	1	0		1	17	60	12	18,0	3,8
BIVALVIA, musslor										
Pisidium sp.	1	1	0	14	19	1	1	9	8,8	1,8
SUM (number of individuals):				253	171	235	1601	125	477,0	100
SUM (number of taxa):				10	10	17	14	14	13,0	

Total number of taxa	22	Diversity index	1,79	Acidity index	3
Aver. numb. of taxa/sample	13,0	ASPT index	4,6	EPT index	5
Abundance/sqm.	1 908	DSFI	3		

LSM000274 Stream from lake Frisksjön

2004-04-15

Det. Alf Engdahl, Medins Sjö- och Åbiologi AB

Method: SS EN 27 828 + NV:s handbok för miljöövervakning

REPORT
utfärdad av ackrediterat laboratorium
REPORT issued by an Accredited Laboratory

SPECIES/TAXA	CATEGORY Fk	Fg	Eg	Sample 1	2	3	4	5	Aver.	%
TURBELLARIA, virvelmaskar										
Dendrocoelum lacteum - (O. F. Müller, 1774)	3	3	0				1		0,2	0,0
Polycelis sp.	1	3	0	1	2	1	1		1,0	0,1
OLIGOCHAETA, fåborstmaskar										
Oligochaeta, oidentifierad	0	2	0	25	32	60	46	22	37,0	4,8
HIRUDINEA, iglar										
Erpobdella octoculata - (Linné, 1758)	3	3	2	2	8	8	3	1	4,4	0,6
Erpobdella sp.	0	3	2		4	1	3		1,6	0,2
Helobdella stagnalis - (Linné, 1761)	3	3	2	4	17	9	11		8,2	1,1
ISOPODA, gråsuggor										
Asellus aquaticus - (Linné, 1758)	1	2	2	76	110	210	96	21	102,6	13,4
EPHEMEROPTERA, dagsländor										
Caenis horaria - (Linné, 1758)	3	2	3	1	3	14			3,6	0,5
Cloeon sp. (dipterum gr.)	0	4	3					1	0,2	0,0
Leptophlebia marginata - (Linné, 1767)	1	2	3	1		4			1,0	0,1
Leptophlebia sp.	1	2	3			3			0,6	0,1
PLECOPTERA, bäcksländor										
Nemoura cinerea - (Retzius, 1783)	1	5	3	20	6	2	18	2	9,6	1,3
Nemoura sp.	0	5	0	32	18	15	50	13	25,6	3,3
MEGALOPTERA, sävsländor										
Sialis sp. (lutaria gr.)	1	3	2		1		1		0,4	0,1
TRICHOPTERA, nattsländor										
Glyphotaelius pellucidus - (Retzius, 1783)	1	5	2	1					0,2	0,0
Hydropsyche angustipennis - (Curtis, 1834)	1	1	3				2		0,4	0,1
Limnephilidae	0	0	0		4	5	1		2,0	0,3
Limnephilus sp. (flavicornis-typ)	0	5	0	4	3	19	6	1	6,6	0,9
Limnephilus sp. (rhombicus-typ)	0	5	3				1		0,2	0,0
COLEOPTERA, skalbaggar										
Oulimnius tuberculatus - (Müller, 1806)	2	4	3		1	2	1	1	1,0	0,1
Oulimnius sp.	0	4	3	2	125	26	51	2	41,2	5,4
DIPTERA, tvåvingar										
Ceratopogonidae	1	0	0		1		1		0,4	0,1
Chaoborus sp.	0	3	0		1			3	0,8	0,1
Chironomidae (other/unknown)	0	0	0	20	35	18	8	2	16,6	2,2
Chironomidae (predators)	0	3	0	30		6	8	2	9,2	1,2
Chironomidae (detritus feeders)	0	2	0	110	95	42	16	16	55,8	7,3
Limoniidae	0	0	0	4	4		1		1,8	0,2
Simuliidae	1	1	0	63	56	5	102	990	243,2	31,8
GASTROPODA, snäckor										
Acroloxus lacustris - (Linné, 1758)	4	4	2	2	1				0,6	0,1
Physa fontinalis - (Linné, 1758)	4	4	3	1					0,2	0,0
BIVALVIA, musslor										
Pisidium sp.	1	1	0	102	380	216	210	39	189,4	24,7
SUM (number of individuals):				501	907	666	638	1116	765,6	100
SUM (number of taxa):				19	18	15	19	13	16,8	

Total number of taxa	26	Diversity index	2,93	Acidity index	7
Aver. numb. of taxa/sample	16,8	ASPT index	4,6	EPT index	8
Abundance/sqm.	3 062	DSFI	3		

Appendix 6

Biomasses

PSM003718

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Filter feeders	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.000	0.00	0.0
Detritus feeders	0.1268	0.0481	0.0378	0.1821	0.0439	0.088	0.064	0.35	37.4
Predators	0.0284	0.0302	0.0229	0.0460	0.0194	0.029	0.010	0.12	12.5
Grazers	0.0000	0.0087	0.0110	0.0418	0.0019	0.013	0.017	0.05	5.4
Shredders	0.4057	0.0000	0.0010	0.0000	0.0000	0.081	0.181	0.33	34.7
Other/unknown	0.0880	0.0059	0.0050	0.0133	0.0051	0.023	0.036	0.09	10.0
Sum:	**0.649**	**0.093**	**0.078**	**0.283**	**0.070**	**0.235**		**0.94**	**100.00**

PSM003719

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0135	0.0186	0.0500	0.0626	0.0228	0.034	0.022	1.56	60.0
Predators	0.0213	0.0231	0.0145	0.0336	0.0190	0.022	0.007	1.04	40.0
Sum:	**0.035**	**0.042**	**0.065**	**0.096**	**0.042**	**0.056**		**2.60**	**100.00**

PSM003720

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0313	0.0231	0.0028	0.0360	0.0140	0.0214	0.0134	0.997	92.0
Predators	0.0000	0.0000	0.0038	0.0025	0.0027	0.0018	0.0017	0.084	7.7
Other/unknown	0.0001	0.0001	0.0000	0.0000	0.0001	0.0001	0.0001	0.003	0.3
Sum:	**0.0314**	**0.0232**	**0.0066**	**0.0385**	**0.0168**	**0.0233**		**1.084**	**100**

PSM003721

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0465					0.047		2.16	54.2
Predators	0.0393					0.039		1.83	45.8
Sum:	**0.0858**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0858**		**3.99**	**100.00**

PSM003722

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0340					0.034		1.58	13.5
Predators	0.2186					0.219		10.17	86.5
Sum:	**0.2526**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.2526**		**11.75**	**100.00**

PSM003723

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0162					0.0162		0.75	7.8
Predators	0.1919					0.1919		8.93	92.2
Sum:	**0.2081**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.2081**		**9.68**	**100.00**

PSM003724

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0611					0.061		2.84	24.6
Predators	0.1873					0.187		8.71	75.4
Sum:	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**		**11.55**	**100.00**

PSM003725

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0593					0.059		2.76	25.6
Predators	0.1593					0.159		7.41	68.8
Other/unknown	0.0131					0.013		0.61	5.7
Sum:	**0.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.23**		**10.78**	**100.00**

PSM003726

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0035	0.0039	0.0217			0.010	0.010	0.45	2.0
Predators	0.5938	0.3912	0.4449			0.477	0.105	22.17	98.0
Sum:	**0.60**	**0.40**	**0.47**	**0.00**	**0.00**	**0.49**		**22.62**	**100.00**

PSM003727

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Filter feeders	0.0102	0.0005	0.0186	0.0039	0.0096	0.009	0.007	0.03	2.1
Detritus feeders	0.1593	0.1209	0.1861	0.0475	0.0872	0.120	0.055	0.48	28.9
Predators	0.3587	0.1015	0.0398	0.0503	0.3667	0.183	0.165	0.73	44.1
Grazers	0.0102	0.0014	0.0182	0.0121	0.0032	0.009	0.007	0.04	2.2
Shredders	0.1430	0.0146	0.2652	0.0000	0.0000	0.085	0.118	0.34	20.3
Other/unknown	0.0152	0.0113	0.0075	0.0071	0.0091	0.010	0.003	0.04	2.4
Sum:	**0.70**	**0.25**	**0.54**	**0.12**	**0.48**	**0.42**		**1.66**	**100.00**

PSM003728

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Filter feeders	0.00001	9.3034	0.0000	0.0320	0.0000	3.867	8.629	179.86	97.3
Detritus feeders	0.0052	0.0097	0.0156	0.0163	0.1000	0.029	0.040	1.37	0.7
Predators	0.3140	0.0067	0.0260	0.0142	0.0305	0.078	0.132	3.64	2.0
Other/unknown	0.0000	0.0001	0.0000	0.0001	0.0000	0.000	0.000	0.00	0.0
Sum:	**0.32**	**19.32**	**0.04**	**0.06**	**0.13**	**3.97**		**184.87**	**100.00**

PSM003729

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Predators	0.1883					0.188		8.76	100.0
Sum:	**0.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.19**		**8.76**	**100.00**

PSM003730

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0407					0.041		1.89	18.7
Predators	0.1766					0.177		8.21	81.3
Sum:	**0.22**	**0.00**	**0.00**	**0.00**	**0.00**	**0.22**		**10.11**	**100.00**

PSM003731

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Predators	0.1980					0.198		9.21	100.0
Sum:	**0.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.20**		**9.21**	**100.00**

PSM003732

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Predators	0.0644					0.064		3.00	100.00
Sum:	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**		**3.00**	**100.00**

PSM003733

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Predators	0.0895					0.090		4.16	100.0
Sum:	**0.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.09**		**4.16**	**100.00**

PSM003734

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Filter feeders	0.0001	0.0007	0.0000	0.1665	0.0004	0.034	0.074	0.13	6.1
Detritus feeders	0.1104	0.1644	0.1277	0.4473	0.1390	0.198	0.141	0.79	36.2
Predators	0.1529	0.1695	0.1716	0.5920	0.0203	0.221	0.217	0.89	40.5
Grazers	0.0090	0.0830	0.0084	0.0779	0.2213	0.080	0.087	0.32	14.6
Shredders	0.0003	0.0000	0.0000	0.0115	0.0003	0.002	0.005	0.01	0.4
Other/unknown	0.0104	0.0138	0.0107	0.0096	0.0115	0.011	0.002	0.04	2.1
Sum:	**0.28**	**0.43**	**0.32**	**1.30**	**0.39**	**0.55**		**2.18**	**100.00**

PSM003735

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0034	0.0065	0.0556	0.0013	0.0072	0.015	0.023	0.69	19.3
Predators	0.0559	0.0623	0.0436	0.0820	0.0650	0.062	0.014	2.87	80.7
Sum:	**0.06**	**0.07**	**0.10**	**0.08**	**0.07**	**0.08**		**3.56**	**100.00**

PSM003736

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0011					0.001		0.05	3.4
Predators	0.0309					0.031		1.44	96.6
Sum:	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**		**1.49**	**100.00**

PSM003737

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0010					0.001		0.05	1.8
Predators	0.0535					0.054		2.49	98.2
Sum:	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.05**		**2.53**	**100.00**

PSM003738

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0076					0.008		0.35	7.3
Predators	0.0969					0.097		4.51	92.7
Sum:	**0.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.10**		**4.86**	**100.00**

PSM003739

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0037					0.004		0.17	6.1
Predators	0.0571					0.057		2.66	93.9
Sum:	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**		**2.83**	**100.00**

PSM003740

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0034					0.003		0.16	7.4
Predators	0.0428					0.043		1.99	92.6
Sum:	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.05**		**2.15**	**100.00**

PSM003741

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Filter feeders	0.0111	0.0221	0.0072	0.0281	0.0295	0.020	0.010	0.08	2.9
Detritus feeders	0.3479	0.6063	0.3553	0.3264	0.5694	0.441	0.135	1.76	65.9
Predators	0.5272	0.0738	0.0355	0.1180	0.0402	0.159	0.208	0.64	23.7
Grazers	0.0080	0.0012	0.0063	0.0111	0.0114	0.008	0.004	0.03	1.1
Shredders	0.0002	0.1407	0.0000	0.0000	0.0000	0.028	0.063	0.11	4.2
Other/unknown	0.0090	0.0281	0.0098	0.0089	0.0137	0.014	0.008	0.06	2.1
Sum:	**0.90**	**0.87**	**0.41**	**0.49**	**0.66**	**0.67**		**2.68**	**100.00**

PSM003742

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Filter feeders	0.0000	0.0000	0.0000	0.0000	0.0153	0.003	0.007	0.14	1.6
Detritus feeders	0.1667	0.0225	0.0385	0.1247	0.0428	0.079	0.063	3.68	41.6
Predators	0.1184	0.1046	0.0982	0.1199	0.0979	0.108	0.011	5.01	56.7
Other/unknown	0.0000	0.0000	0.0007	0.0000	0.0000	0.000	0.000	0.01	0.1
Sum:	**0.29**	**0.13**	**0.14**	**0.24**	**0.16**	**0.19**		**8.84**	**100.00**

PSM003743

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0238					0.024		1.11	21.8
Predators	0.0856					0.086		3.98	78.2
Sum:	**0.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.11**		**5.09**	**100.00**

PSM003744

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0071					0.007		0.33	3.1
Predators	0.2243					0.224		10.43	96.9
Sum:	**0.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.23**		**10.76**	**100.00**

PSM003745

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0004					0.000		0.02	0.3
Predators	0.1526					0.153		7.10	99.7
Sum:	**0.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.15**		**7.12**	**100.00**

PSM003746

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0007					0.001		0.03	0.5
Predators	0.1412					0.141		6.57	99.5
Sum:	**0.14**	**0.00**	**0.00**	**0.00**	**0.00**	**0.14**		**6.60**	**100.00**

PSM003747

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Detritus feeders	0.0349					0.035		1.62	12.1
Predators	0.2538					0.254		11.80	87.9
Sum:	**0.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.29**		**13.43**	**100.00**

LSM000272

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Filter feeders	0.0001	0.0951	0.1728	0.0566	0.0064	0.066	0.071	0.26	10.3
Detritus feeders	0.2219	0.3846	0.1061	0.2904	0.4801	0.297	0.144	1.19	46.1
Predators	0.1885	0.0591	0.0269	0.0432	0.3151	0.127	0.123	0.51	19.7
Grazers	0.0020	0.0601	0.0038	0.0009	0.0029	0.014	0.026	0.06	2.2
Shredders	0.1167	0.1202	0.0492	0.1715	0.1371	0.119	0.045	0.48	18.5
Other/unknown	0.0104	0.0311	0.0057	0.0463	0.0135	0.021	0.017	0.09	3.3
Sum:	**0.54**	**0.75**	**0.36**	**0.61**	**0.96**	**0.64**	**0.22**	**2.57**	**100.00**

LSM000273

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Filter feeders	0.0181	0.0160	0.0464	0.3897	0.0196	0.098	0.164	0.39	13.6
Detritus feeders	0.0791	0.0204	0.1021	0.4294	0.0516	0.137	0.167	0.55	18.9
Predators	0.0585	0.0136	0.6669	0.0950	0.0408	0.175	0.277	0.70	24.2
Grazers	0.0000	0.0008	0.0001	0.0019	0.0000	0.001	0.001	0.00	0.1
Shredders	0.1215	0.0558	0.3609	0.9000	0.0891	0.305	0.353	1.22	42.3
Other/unknown	0.0015	0.0022	0.0050	0.0199	0.0046	0.007	0.008	0.03	0.9
Sum:	**0.279**	**0.109**	**1.181**	**1.836**	**0.206**	**0.722**	**0.757**	**2.89**	**100.00**

LSM000274

Functional group	Biomass in sample (g) 1	2	3	4	5	Average	Standard-deviation	Biomass/ sqm (g)	Proportion %
Filter feeders	0.2979	1.1360	0.3156	0.5686	2.7716	1.018	1.037	4.07	55.2
Detritus feeders	0.2242	0.3237	1.0806	0.4390	0.1320	0.440	0.376	1.76	23.9
Predators	0.0555	0.1438	0.1245	0.0916	0.0262	0.088	0.048	0.35	4.8
Grazers	0.0076	0.0500	0.0200	0.0165	0.0017	0.019	0.019	0.08	1.0
Shredders	0.3031	0.0836	0.2897	0.4080	0.0572	0.228	0.152	0.91	12.4
Other/unknown	0.0638	0.1288	0.0393	0.0101	0.0022	0.049	0.051	0.20	2.7
Sum:	**0.95**	**1.87**	**1.87**	**1.53**	**2.99**	**1.84**		**7.37**	**100.00**