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# **SPATIAL DISTRIBUTION OF MACROBENTHIC INFAUNA IN BURRARD INLET: NOVEMBER, 1989**

by

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## **CANADIAN DATA REPORT OF HYDROGRAPHY AND OCEAN SCIENCES NO. 92**



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Canadian Data Report of  
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ABSTRACT

Cross, S.F. and R.O. Brinkhurst. 1991. Spatial Distribution of Macrobenthic Infauna in Burrard Inlet: November, 1989. Can. Data Rep. Hydrogr. Ocean Sci. No. 92, 35 pp.

In November 1989, a benthic invertebrate faunal survey was conducted in Burrard Inlet (Vancouver Harbour), British Columbia. This data report presents the results of this survey, including the species composition and respective species abundances for the 20 stations sampled.

Key Words: Benthic Infauna, Burrard Inlet, Vancouver Harbour

RESUME

Cross, S.F. and R.O. Brinkhurst. 1991. Spatial Distribution of Macrobenthic Infauna in Burrard Inlet: November, 1989. Can. Data Rep. Hydrogr. Ocean Sci. No. 92, 35 pp.

En Novembre 1989 un relevé de la faune benthique des invertébrés a été réalisé dans l'inlet Burrard et port de Vancouver, Colombie-Britannique. Ce compte des données présente les résultats de cette enquête, y compris le mélange des espèces et leurs abondances respectives pour les vingt points de prise d'échantillons.

Mots clés: faune benthique, l'inlet Burrard, port de Vancouver

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## INTRODUCTION

This report presents the macroinvertebrate community structural data compiled following a benthic survey of Burrard Inlet in November of 1989. The field sampling program was conducted by Institute of Ocean Sciences (Ocean Ecology Division) and Environment Canada (Environmental Protection) personnel, and represents a repeated survey to that performed in October of 1987 (Burd and Brinkhurst, 1990).

## SAMPLING AND ANALYTICAL METHODS

### 1. Field sampling protocol

A total of 20 stations were sampled within Burrard Inlet, including Vancouver Harbour, during early November 1989. Figure 1 indicates the relative position of these stations within the inlet system.

At each sampling station, three replicate sediment samples were obtained using a 0.05 m.sq. Ponar grab. Sampling quality assurance and quality control (QA/QC) ensured that retained grabs contained sediments in excess of 90% of capacity. Debris and organisms retained on a 0.3 mm screen were fixed in 7% buffered formalin tinted with Rose Bengal histological stain to facilitate the subsequent sorting procedure.

### 2. Sample analysis

Organisms were sorted into major taxonomic groups and then identified to species (or lowest possible taxon given specimen condition and/or life history stage) and enumerated. Abundances for each taxon were standardized to numbers per grab sampling area (0.05 m.sq.).

QA/QC protocols for the benthos analytical procedures consisted of a complete re-sort of 10% of the samples (6/60) selected at random. A discrepancy of 5% (maximum) of the total number of organisms found in the original sample was used as the criterion requiring re-examination of all samples. Accuracy in species identifications was assured through specimen identification by recognized taxonomic authorities (see Acknowledgements).

## REFERENCES

Burd, B.J. and R.O. Brinkhurst. 1990. Vancouver Harbour benthic infaunal sampling program, October 1987. Can. Tech. Rep. Hydrogr. Ocean. Sci. 122:49p.

**FIGURE 1**

Location of 1989 benthic sampling stations within Burrard Inlet.



## DATA SECTION

1. Species/abundance summary by station and replicate
2. 1989 Burrard Inlet benthos taxa: classification
3. 1989 Burrard Inlet benthos data  
(species abundances per 0.05 m.sq.)

TOTAL NUMBER OF SPECIES AND NUMBER OF INDIVIDUALS  
IN SAMPLES COLLECTED FROM BURRARD INLET - 1989.

Data presented as number of species and total abundances per 0.05 m.sq.

STATION	STATION REPLICATE	S *	TOTAL ABUNDANCE	STATION	STATION REPLICATE	S *	TOTAL ABUNDANCE
1	A	10	980.	11	A	35	765.
	B	14	1788.		B	37	456.
	C	17	1800.		C	32	590.
2	A	44	1662.	12	A	24	229.
	B	49	2132.		B	30	186.
	C	48	1488.		C	32	348.
3	A	48	509.	13	A	38	507.
	B	48	831.		B	31	535.
	C	51	752.		C	33	447.
4	A	48	358.	14	A	33	516.
	B	31	869.		B	36	605.
	C	47	1972.		C	34	358.
5	A	54	906.	15	A	18	195.
	B	51	1206.		B	16	143.
	C	53	850.		C	20	529.
6	A	32	3664.	16	A	29	717.
	B	14	1936.		B	22	238.
	C	20	1588.		C	20	239.
7	A	57	858.	17	A	13	156.
	B	56	714.		B	17	141.
	C	38	902.		C	13	110.
8	A	66	750.	18	A	26	959.
	B	57	1032.		B	20	223.
	C	45	687.		C	17	773.
9	A	39	2053.	19	A	10	107.
	B	38	1902.		B	11	54.
	C	29	1212.		C	14	189.
10	A	28	1261.	20	A	18	190.
	B	28	2032.		B	17	111.
	C	33	1372.		C	14	118.

\* S = total number of taxa found in the sample

## 1989 BURRARD INLET BENTHOS TAXA: Classification

\* Numeric Code Reference in Subsequent Data Tables

	NUMERIC * REFERENCE
ANNELIDA	
POLYCHAETA	
Ampharetidae	
Amage anops	1
Ampharete acutifrons	2
Ampharete labrops	3
Ampharete finmarchica	4
Ampharetidae sp. indet./juv	5
Amphicteis glabra	6
Amphicteis scaphobranchiata	7
Capitellidae	
Barantolla americana	14
Capitella capitata complex	15
Heteromastus filobranchus	44
Mediomastus californiensis	54
Chrysopetalidae	
Paleonotus bellis	64
Cirratulidae	
Chaetozone spinosa	16
Cirratulidae sp. Indet.	18
Cirratulus cirratus	19
Tharyx multifilis	107
Tharyx secundus	108
Cossuridae	
Cossura longocirrata	20
Dorvillidae	
Dorvillea rudolphi	21
Dorvilleidae sp. Indet.	22
Pettibonia sp. A	69
Protodorvillea gracilis	87
Flabelligeridae	
Flabelligeridae sp.	32
Glyceridae	
Glycera capitata	35
Goniadidae	
Glycinde armigera	36
Glycinde picta	37
Goniada annulata	38
Micropodarke dubia	55
Hesionidae	
Gyptis brevipalpa	39
Hesionidae sp. indet.	43
Ophiodromus pugettensis	63
Lumbrineridae	
Lumbrineris bicirrata	50
Lumbrineris luti	51
Lumbrineris sp. Indet.	52

## Taxa Classification Continued

Maldanidae	
Euclymeninae sp. Indet.	25
Euclymene zonalis	27
Maldanidae sp. Indet.	53
Nereidae	
Nereis brandti	59
Nereis zonata	60
Platynereis bicanaliculata	78
Nephtyidae	
Nephtys cornuta franciscanum	57
Nephtys ferruginea	58
Opheliidae	
Armandia brevis	12
Ophelina acuminata	62
Orbiniidae	
Leitoscoloplos pugettensis	48
Naineris quadricuspida	56
Scoloplos acmeceps	93
Oweniidae	
Galathowenia oculata	33
Paraonidae	
Aricidea lopezi	10
Aricidea sp. indet.	11
Pectinariidae	
Amphictene moorei	8
Pectinaria californiensis	67
Pectinaria granulata	68
Pholoididae	
Pholoides aspera	71
Phyllodoceidae	
Eteone longa	23
Eteone sp. Indet./juv	24
Eulalia bilineata	28
Eulalia viridis	29
Eumida sanguinea	30
Phyllodoce groenlandica	72
Phyllodoce hartmanae	73
Phyllodoce papillosa	74
Phyllodoce sp.	75
Pilargiidae	
Parandalia fauveli	65
Polynoidae	
Arcteobea spnelytris	9
Gattyana treadwelli	34
Harmothoe imbricata	40
Harmothoe lunulata	41
Harmothoe sp. indet.	42
Lepidonotus squamatus	49
Polynoidae sp. Indet.	84
Tenonia priops	104

## Taxa Classification Continued

Sabellidae	
Chone dunneri	17
Euchone incolor	26
Idanthyrus ornamentatus	45
Sabellaria cementarium	90
Sabellidae sp. indet.	91
Serpulidae	
Pseudochitinopoma occidentalis	88
Serpulidae sp. indet.	94
Sigalionidae	
Pholoe minuta	70
Sphaerodoridae	
Sphaerodoropsis sphaerulifer	95
Spionidae	
Laonice cirrata	47
Paraprionospio pinnata	66
Polydora brachycephala	80
Polydora cardalia	81
Polydora giardia	82
Polydora socialis	83
Prionospio lighti	85
Prionospio steenstrupi	86
Pygospio elegans	89
Spio cirrifera	97
Spionidae sp. Juv.	98
Spiophanes berkeleyorum	99
Trochochaeta multisetosa	109
Sternaspidae	
Sternaspis scutata	100
Syllidae	
Autolytus sp. Indet.	13
Exogone sp. Indet.	31
Pionosyllis uraga	76
Sphaerosyllis brandhorsti	96
Syllidae sp. Indet.	101
Syllis elongata	102
Syllis heterochaeta	103
Terebellidae	
Lanassa venusta venusta	46
Nicolea zostericola	61
Pista moori	77
Polycirrus sp. complex	79
Scionella estevanica	92
Terebellides stroemi	105
Terebellidae sp. indet.	106
OLIGOCHAETA	111
NEMERTEA	110
HIRUDINEA	112
Piscicolidae indet.	205

## Taxa Classification Continued

## MOLLUSCA

## BIVALVIA

## Nuculidae

<i>Acila castrensis</i>	113
<i>Nucula tenuis</i>	114

## Nuculanidae

<i>Nuculana fossa</i>	115
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## Yoldiidae

<i>Yoldia martyria</i>	116
<i>Yoldia scissurata</i>	117

## Lucinidae

<i>Lucinoma annulata</i>	118
<i>Parvilucina tenuisculpta</i>	119

## Thyasiridae

<i>Axinopsida serricata</i>	120
<i>Thyasira gouldi</i>	121

## Mytilidae

<i>Modiolus rectus</i>	122
<i>Mytilus edulis</i>	123

## Pectinidae

<i>Chlamys hastata</i>	124
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## Kelliidae

<i>Mysella tumida</i>	126
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## Anomiidae

<i>Pododesmus macrochisma</i>	125
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## Cardiidae

<i>Clinocardium ciliatum</i>	127
<i>Clinocardium nuttallii</i>	128

## Tellinidae

<i>Macoma brota</i>	129
<i>Macoma calcarea</i>	130
<i>Macoma carlottensis</i>	131
<i>Macoma elimata</i>	132
<i>Tellina carpenteri</i>	133
<i>Tellina nuculoides</i>	134

## Veneridae

<i>Compsomyax subdiaphana</i>	135
<i>Psephidia lordi</i>	136
<i>Protothaca staminea</i>	137

## Myidae

<i>Mya arenaria</i>	138
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## Hiatellidae

<i>Hiatella arctica</i>	139
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## Pandoridae

<i>Pandora filosa</i>	140
<i>Lyonsia californica</i>	141

## GASTROPODA

## Crepidulidae

<i>Crepidula adunca</i>	142
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## Trochidae

<i>Solariella obsura</i>	143
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## Taxa Classification Continued

Rissoiidae		
	<i>Alvania compacta</i>	144
Columbellidae		
	<i>Mitrella gausapata</i>	145
	<i>Mitrella tuberosa</i>	146
Lacunidae		
	<i>Lacuna carinata</i>	147
Cerithiidae		
	<i>Bittium munitum</i>	148
Nassaridae		
	<i>Nassarius mendicus</i>	149
Muricidae		
	<i>Trophonopsis orpheus</i>	150
Buccinidae		
	<i>Amphissa versicolor</i>	151
Pyramidellidae		
	<i>Odostomia columbiana</i>	152
	<i>Odostomia quadrae</i>	153
	<i>Odostomia vancouverensis</i>	154
	<i>Turbonilla lyalli</i>	155
	<i>Turbonilla vancouverensis</i>	156
Actaeonidae		
	<i>Rictaxis punctocaelatus</i>	157
Philineidae		
	<i>Philine polaris</i>	158
CRUSTACEA		
AMPHIPODA		
	indet. amphipoda	196
Pontogeneiidae		
	<i>Accedomoera vagor</i>	159
Ampeliscidae		
	<i>Ampelisca brevisimulata</i>	160
	<i>Byblis millsii</i>	164
Aoridae		
	<i>Aoroides ?inermis</i>	161
	<i>Aoroides columbiae</i>	162
	<i>Aoroides sp. indet./juvenile</i>	163
Photidae		
	<i>Cheirimeideia sp.</i>	165
	<i>Cheirimeideia zotea</i>	166
	<i>Cheirimeideia/Protomeideia sp. (juv)</i>	167
	<i>Photis ?californica</i>	187
	<i>Photis sp. (juv)</i>	188
	<i>Protomeideia prudens</i>	190
	<i>Protomeideia sp.</i>	191
Corophiidae		
	<i>Corophium acherusicum</i>	168
	<i>Corophium sp. (juv or damaged)</i>	169
Podoceridae		
	<i>Dyopodos ?monacanthus</i>	170
	<i>Dyopodos sp.</i>	171

## Taxa Classification Continued

Phoxocephalidae		
Heterophoxus oculatus		175
Ischyroceridae		
Ischyrocerus anguipes		178
Microjassa sp.		182
Oedicerotidae		
Oedicerotidae (?Westwoodilla juv)		183
Rhepoxynius variatus		192
Westwoodilla caecula		197
Synchelidium rectipalmum		194
Pleustidae		
Pleustidae juv		189
Aeginellidae		
Mayerella banksia		180
Tritella pilimana		195
Stenothoidae		
Stenothoidae (?Metopella)		193
Uristidae		
Orchomene pinguis		184
Pachynus cf. barnardi		185
Melitidae		
Melita desdichada		181
Hyperiidea		
Hyperia spinigera		176
Hyperia? sp. (juv)		177
Parathemisto? pacifica		186
ISOPODA		
Munnidae		
Pleurogonium sp.		217
TANAIDACEA		
Leptocheilia? savignyi		179
CUMACEA		
Leuconidae		
Eudorella pacifica		198
Leucon sp.		221
Diastylidae		
Diastylus alaskensis		209
Nannastacidae		
Campylaspis sp.		211
MYSIDACEA		
Mysidae		
Neomysis kadiaskensis		216
COPEPODA		
Harpacticoidea		
Harpacticoid copepod		174
OSTRACODA		
Philomedidae		
Euphilomedes carcharodonta		199
Philomedidae juveniles		200
Philomedes producta		201

## Taxa Classification Continued

Cylindroleberididae	
Diasterope pilosa	214
CIRRIPIEDIA	
Balanidae	
Balanus crenatus	210
LEPTOSTRACA	
Nebaliidae	
Nebalia sp.	213
DECAPODA	
Pinnotheridae	
Pinnixa schmitti	203
Crangonidae	
Crangon alaskensis	207
HOLOTHUROIDEA	
Phyllophoridae	
Pentamera sp.	208
OPHIUROIDEA	
Amphiuridae	
Amphipholis squamata	202
Amphiuridae juvenile	212
Amphiodia urtica	206
ECTOPROCTA	
Barentsiidae	
Barentsia sp.	215
SIPUNCULA	
Golfingia	
Nephosoma sp.	220
NEMERTEA	
Cerebratulidae	
Cerebratulus sp.	219
TURBELLARIA	
POLYCLADIDA	204
ACARINA	
Halicaridae indet.	218

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## 1989 BURRARD INLET BENTHOS DATA

## Stations EP-01, EP-02, EP-03, EP-04, EP-05

REF.	TAXON	STATION: EP-01			EP-02			EP-03			EP-04			EP-05		
		REPLICATE: A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1	Amage anops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Ampharete acutifrons	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Ampharete labrops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Ampharete finmarchica	0	0	0	0	2	0	0	1	0	0	0	0	0	0	
5	Ampharetidae sp. indet./juv	0	0	0	2	0	1	66	40	54	0	0	0	0	0	
6	Amphicteis glabra	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	Amphicteis scaphobranchiata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	Amphictene moori	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	Arcteobea spnelytris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	Aricidea lopezi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	Aricidea sp. indet.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Armandia brevis	4	2	14	42	59	21	3	3	4	33	10	12	33	11	27
13	Autolytus sp. Indet.	0	0	0	0	0	1	3	3	9	0	0	0	0	0	0
14	Barantolla americana	0	0	0	1	0	0	12	3	10	0	0	0	0	0	0
15	Capitella capitata complex	226	429	394	2	7	0	3	1	0	0	3	0	2	2	0
16	Chaetozone spinosa	0	0	0	3	12	8	0	0	1	1	2	5	3	9	4
17	Chone dunneri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Cirratulidae sp. Indet.	0	0	0	1	0	3	0	0	1	4	6	3	3	0	0
19	Cirratulus cirratus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Cossura longocirrata	0	0	0	0	8	7	8	17	9	27	22	43	28	34	20
21	Dorvillea rudolphi	3	3	4	0	0	2	0	1	0	3	1	3	0	1	0
22	Dorvilleidae sp. Indet.	0	0	0	1	0	0	0	0	3	0	0	0	0	0	0
23	Eteone longa	0	1	1	0	4	2	4	1	10	2	1	4	3	7	3
24	Eteone sp. Indet./juv	0	1	0	0	0	1	0	0	1	1	0	0	1	0	2
25	Euclymeninae sp. Indet.	0	0	0	0	1	0	4	4	2	0	0	0	0	2	0
26	Euchone incolor	0	0	0	8	6	5	0	0	1	4	6	40	14	10	12
27	Euclymene zonalis	0	0	0	0	0	1	0	1	0	1	0	0	0	0	1
28	Eulalia bilineata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Eulalia viridis	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
30	Eumida sanguinea	0	0	0	2	2	0	0	0	1	0	0	0	0	3	0
31	Exogone sp. Indet.	0	0	0	6	6	3	1	0	0	9	3	16	5	12	13
32	Flabelligeridae sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Galathowenia oculata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Gattyana treadwelli	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	Glycera capitata	0	0	0	1	1	1	1	0	0	1	0	1	1	4	5
36	Glycinde armigera	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
37	Glycinde picta	0	0	0	0	0	1	6	1	0	0	0	0	0	0	0
38	Goniada annulata	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
39	Gyptis brevipalpa	0	0	3	0	2	0	5	4	8	0	0	0	0	0	0
40	Harmothoe imbricata	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
41	Harmothoe lunulata	0	0	0	0	1	0	1	2	1	0	0	1	0	0	1
42	Harmothoe sp. indet.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	Hessionidae sp.	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
44	Heteromastus filobranchus	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1

## 1989 BURRARD INLET BENTHOS DATA

Stations EP-01, EP-02, EP-03, EP-04, EP-05

Continued

REF.	TAXON	STATION: EP-01			EP-02			EP-03			EP-04			EP-05		
		REPLICATE: A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
45	<i>Idanthysus ornamentatus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	<i>Lanassa venusta venusta</i>	0	0	0	0	0	1	1	1	0	0	1	2	0	0	
47	<i>Laonice cirrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	2	1	
48	<i>Leitoscoloplos pugettensis</i>	0	0	0	0	0	1	1	0	0	3	0	1	0	0	
49	<i>Lepidonotus squamatus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	<i>Lumbrineris bicirrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	<i>Lumbrineris luti</i>	0	0	0	1	4	0	45	55	32	0	0	0	8	6	
52	<i>Lumbrineris sp. Indet.</i>	0	0	0	1	2	0	0	1	2	2	1	3	9	3	
53	<i>Maldanidae sp. Indet.</i>	0	0	0	0	0	1	2	0	3	1	0	0	3	0	
54	<i>Mediomastus californiensis</i>	0	0	0	4	3	5	0	0	2	0	1	0	4	2	
55	<i>Micropodarke dubia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
56	<i>Naineris quadricuspida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
57	<i>Nephtys cornuta franciscanum</i>	0	1	0	20	30	47	8	7	9	83	47	64	42	42	
58	<i>Nephtys ferruginea</i>	0	0	0	0	0	1	1	3	0	0	0	0	0	0	
59	<i>Nereis brandti</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
60	<i>Nereis zonata</i>	1	0	1	0	1	0	5	5	2	2	0	0	0	0	
61	<i>Nicolea zostericola</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
62	<i>Ophelina acuminata</i>	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
63	<i>Ophiodromus pugettensis</i>	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
64	<i>Paleonotus bellis</i>	0	0	0	1	1	0	1	0	0	0	0	0	0	1	
65	<i>Parandalia fauveli</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
66	<i>Paraprionospio pinnata</i>	0	0	0	0	0	0	0	0	0	1	0	1	1	0	
67	<i>Pectinaria californiensis</i>	0	1	0	4	4	3	0	0	2	0	1	2	3	5	
68	<i>Pectinaria granulata</i>	0	0	1	0	1	0	1	0	0	2	0	0	0	0	
69	<i>Pettibonia sp. A</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
70	<i>Pholoe minuta</i>	1	0	0	0	3	2	1	0	5	2	0	1	3	4	
71	<i>Pholoides aspera</i>	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
72	<i>Phyllodoce groenlandica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
73	<i>Phyllodoce hartmanae</i>	0	0	0	0	0	1	0	0	1	0	0	0	0	0	
74	<i>Phyllodoce papillosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
75	<i>Phyllodoce sp.</i>	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
76	<i>Pionosyllis uraga</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
77	<i>Pista moori</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
78	<i>Platynereis bicanaliculata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
79	<i>Polycirrus sp. complex</i>	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
80	<i>Polydora brachycephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
81	<i>Polydora cardalia</i>	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
82	<i>Polydora giardia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
83	<i>Polydora socialis</i>	0	0	1	1	3	1	0	1	2	1	0	4	0	0	
84	<i>Polynoidae sp. Indet.</i>	0	0	0	1	2	0	6	3	3	1	0	0	0	2	
85	<i>Prionospio lighti</i>	0	0	0	5	7	2	2	1	3	5	2	2	5	12	
86	<i>Prionospio steenstrupi</i>	0	0	0	5	7	7	0	3	1	5	3	4	6	3	
87	<i>Protodorvillea gracilis</i>	0	0	0	1	0	0	0	3	0	0	0	0	0	0	











## 1989 BURRARD INLET BENTHOS DATA

## Stations EP-06, EP-07, EP-08, EP-09, EP-10

REF.	TAXON	STATION: EP-06			EP-07			EP-08			EP-09			EP-10		
		REPLICATE: A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1	Amage anops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Ampharete acutifrons	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
3	Ampharete labrops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Ampharete finmarchica	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
5	Ampharetidae sp. indet./juv	0	0	0	1	0	0	1	0	1	0	0	0	0	0	
6	Amphicteis glabra	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	Amphicteis scaphobranchiata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	Amphictene moori	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	Arcteobea spnelytris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	Aricidea lopezi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	Aricidea sp. indet.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Armandia brevis	97	53	87	39	41	27	107	111	108	30	6	18	7	6	
13	Autolytus sp. Indet.	0	0	0	1	0	0	2	0	1	0	0	0	0	0	
14	Barantolla americana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	Capitella capitata complex	156	171	267	4	5	1	23	14	22	1	0	0	1	0	
16	Chaetozone spinosa	2	0	0	6	5	4	1	1	1	1	3	6	1	2	
17	Chone dunneri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	Cirratulidae sp. Indet.	11	0	7	2	2	4	5	23	11	0	0	0	1	0	
19	Cirratulus cirratus	0	0	0	0	0	0	0	3	0	1	0	0	0	1	
20	Cossura longocirrata	7	0	0	15	9	5	13	13	7	17	10	10	9	5	
21	Dorvillea rudolphi	0	0	0	1	2	2	10	5	3	0	1	0	0	0	
22	Dorvilleidae sp. Indet.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	Eteone longa	0	0	0	0	0	0	3	2	2	1	0	0	2	0	
24	Eteone sp. Indet./juv	2	1	1	0	1	1	2	1	0	1	0	0	0	1	
25	Euclymeninae sp. Indet.	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
26	Euchone incolor	2	0	0	8	11	8	5	5	6	0	0	0	0	1	
27	Euclymene zonalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	Eulalia bilineata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	Eulalia viridis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	Eumida sanguinea	0	0	0	0	1	0	3	13	0	0	1	0	0	0	
31	Exogone sp. Indet.	0	1	0	10	13	11	22	5	3	0	0	0	0	0	
32	Flabelligeridae sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	Galathowenia oculata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	Gattyana treadwelli	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	Glycera capitata	0	0	0	7	9	4	1	0	0	0	1	0	0	0	
36	Glycinde armigera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	Glycinde picta	1	0	0	1	1	0	5	8	1	1	0	0	0	0	
38	Goniada annulata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	Gyptis brevipalpa	3	0	0	0	0	0	6	0	1	0	1	0	0	1	
40	Harmothoe imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	Harmothoe lunulata	0	0	0	1	1	0	0	0	0	0	0	0	0	2	
42	Harmothoe sp. indet.	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
43	Hessionidae sp.	0	1	0	0	0	0	1	10	0	0	0	0	0	0	
44	Heteromastus filobranthus	0	0	0	0	0	0	0	2	0	0	0	0	0	0	







## 1989 BURRARD INLET BENTHOS DATA

Stations EP-06, EP-07, EP-08, EP-09, EP-10

Continued

REF.	TAXON	STATION: EP-06			EP-07			EP-08			EP-09			EP-10		
		REPLICATE: A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
174	Harpacticoid copepod	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0
175	Heterophoxus oculatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	Hyperia spinigera	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
177	Hyperia? sp. (juv)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
178	Ischyrocerus anguipes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	Leptochelia? savignyi	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
180	Mayerella banksia	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
181	Melita desdichada	0	0	0	1	0	0	3	2	0	0	0	0	0	0	0
182	Microjassa sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183	Oedicerotidae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
184	Orchomene pinguis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
185	Pachynus cf. barnardi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
186	Parathemisto? pacifica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
187	Photis ?californica	0	0	0	0	0	0	11	6	3	2	0	2	0	0	0
188	Photis sp. (juv)	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
189	Pleustidae juv	0	0	0	0	0	0	0	0	0	35	37	51	0	0	0
190	Protomedeia prudens	0	0	0	0	0	0	0	0	0	62	49	51	29	49	72
191	Protomedeia sp.	0	0	0	0	0	0	0	0	1	0	0	0	33	43	91
192	Rhepoxynius variatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193	Stenothoidae (?Metopella)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
194	Synchelidium rectipalmum	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
195	Tritella pilimana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196	indet. amphipoda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197	Westwoodilla caecula	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
198	Eudorella pacifica	0	0	0	0	0	0	0	0	0	122	85	103	98	106	126
199	Euphilomedes carcharodonta	0	1	0	4	2	0	5	4	2	234	133	157	133	112	160
200	Philomedidae juveniles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
201	Philomedes producta	0	0	0	7	0	18	1	0	0	30	25	37	10	14	0
202	Amphipholis squamata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
203	Pinnixa schmitti	0	0	0	0	0	0	1	1	0	2	3	0	6	2	0
204	Polycladida indet.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
205	Piscicolidae indet.	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
206	Amphiodia urtica	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0
207	Crangon alaskensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208	Pentamera sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209	Diastylus alaskensis	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
210	Balanus crenatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211	Campylaspis sp.	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
212	Amphiuridae juvenile	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
213	Nebalia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
214	Diasterope pilosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
215	Barentsia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216	Neomysis kadiaskensis	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0









## 1989 BURRARD INLET BENTHOS DATA

Stations EP-11, EP-12, EP-13, EP-14, EP-15

Continued

REF.	TAXON	STATION: EP-11			EP-12			EP-13			EP-14			EP-15		
		REPLICATE: A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
88	<i>Pseudochitinopoma occidentalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
89	<i>Pygospio elegans</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
90	<i>Sabellaria cementarium</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
91	<i>Sabellidae</i> sp. indet.	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
92	<i>Scionella estevanica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
93	<i>Scoloplos acmeceps</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
94	<i>Serpulidae</i> sp. indet.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
95	<i>Sphaerodoropsis sphaerulifer</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
96	<i>Sphaerosyllis brandhorsti</i>	0	0	0	0	1	0	0	0	1	0	0	0	0	0	
97	<i>Spio cirrifera</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
98	<i>Spionidae</i> sp. Juv.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
99	<i>Spiophanes berkeleyorum</i>	2	2	5	5	2	4	2	5	0	4	3	3	0	0	
100	<i>Sternaspis scutata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
101	<i>Syllidae</i> sp. Indet.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
102	<i>Syllis elongata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
103	<i>Syllis heterochaeta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
104	<i>Tenonia priops</i>	0	0	0	1	1	0	5	2	2	0	2	2	0	1	
105	<i>Terebellides stroemi</i>	0	0	0	0	0	0	0	1	3	0	0	0	0	0	
106	<i>Terebellidae</i> sp. indet.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
107	<i>Tharyx multifilis</i>	0	0	0	45	11	64	28	55	36	45	49	35	25	5	
108	<i>Tharyx secundus</i>	0	0	0	0	0	0	1	0	0	1	0	0	0	0	
109	<i>Trochochaeta multisetosa</i>	32	50	45	0	0	0	0	0	0	1	0	0	0	0	
110	NEMERTEA	0	0	1	0	0	0	3	0	0	0	0	0	0	1	
111	OLOGOCHAETA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
112	HIRUDINEA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
113	<i>Acila castrensis</i>	2	1	0	0	0	0	0	1	0	1	2	0	0	1	
114	<i>Nucula tenuis</i>	4	1	2	3	1	10	3	2	3	8	6	3	0	1	
115	<i>Nuculana fossa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
116	<i>Yoldia martyria</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
117	<i>Yoldia scissurata</i>	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
118	<i>Lucinoma annulata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
119	<i>Parvilucina tenuisculpta</i>	3	1	0	1	1	2	3	0	2	1	1	4	0	1	
120	<i>Axinopsida serricata</i>	87	54	31	49	20	46	18	50	30	39	39	108	4	60	
121	<i>Thyasira gouldi</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
122	<i>Modiolus rectus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
123	<i>Mytilus edulis</i>	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
124	<i>Chlamys hastata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
125	<i>Pododesmus macrochisma</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
126	<i>Mysella tumida</i>	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
127	<i>Clinocardium ciliatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
128	<i>Clinocardium nuttallii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
129	<i>Macoma brota</i>	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
130	<i>Macoma calcarea</i>	0	0	0	0	0	0	0	0	0	3	0	0	0	0	



















