

# Spatial and temporal structure of the meroplankton community in a sub-Arctic shelf system

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## SUPPLEMENTS

### Supplement 1. Compiled list of sampled taxa

#### Crustacea:

##### Decapoda:

- *Galathea* sp.
- *Munida* sp.
- *Philocheras bispinosus bispinosus*
- *Carcinus maenas*
- *Cancer pagurus*
- *Caridion gordonii*
- *Eualus pusiolus*
- *Lebbeus* sp.
- Polybiidae
- *Hyas* sp.
- *Pandalus montagui*
- *Atlantopandalus propinquus*
- *Pagurus bernhardus*
- *Pagurus pubescens*
- *Anapagurus* sp.
- *Anapagurus laevis*

##### Cirripedia:

- *Verruca stroemia*
- *Balanus balanus*
- *Semibalanus balanoides*
- *Balanus crenatus*
- Lepadidae

#### Bryozoa:

- *Membranipora membranacea*
- *Electra pilosa*

#### Polychaeta:

- Amphinomidae
- Chaetopteridae
- Spionidae
- Phyllodocidae

- Pectinariidae
- Nephtyidae
- Polynoidae
- Aphroditidae
- Arenicolidae
- Trochophora (unknown)
- Syllidae

**Mollusca:**

Bivalvia:

- *Hiatella* – Type
- *Mya* – Type
- Mytilidae – Type
- Cardiidae – Type
- Anomiidae – Type

Gastropoda:

- *Velutina velutina*
- *Lamellaria latens*
- *Lamellaria perspicua*
- *Trivia arctica*
- Littorinimorpha – Type
- *Raphitoma linearis*
- *Mangelia attenuata*
- *Turritella communis*
- *Melanella* sp.
- Nudibranchia
- Pleurobranchomorpha
- Cephalaspidea & Sacoglossa
- Pyramidellidae

**Echinodermata:**

- Ophiuroidea
- Echinoidea
- Asteroidea
- Holothuroidea

**Various:**

- Nemertea
- Enteropneusta
- Phoronida
- Sipuncula
- Platyhelminthes
- Hydrozoa (Actinula)
- Anthozoa Planula
- Ascidiacea
- Unidentified Planula

**Supplement 2.** Forward selection (CCA) for each of the four sets of explanatory matrices (Season, Sampling date, Spatial variables, Environmental variables) for log transformed meroplankton data. Total inertia of the meroplakton data was 2.1722. P-value of variables with significant explanatory power ( $p < 0.01$ ) in each selection round are shown in bold.

a) Season

Selection round		Season
1	Constrained inertia	0.4422
	p-value	<b>0.001</b>
	Selected variable	<b>Season</b>

b) Sampling date

Selection round		Sampling date
1	Constrained inertia	0.2700
	p-value	<b>0.001</b>
	Selected variable	<b>Sampling date</b>

c) Spatial variables

Selection round		x	y	$x^2$	xy	$y^2$	$x^3$	$x^2y$	$xy^2$	$y^3$
1	Constrained inertia	0.0682	0.0355	0.0684	0.0551	0.0350	0.0686	0.0641	0.0439	0.0345
	p-value	0.095	0.857	0.096	0.230	0.880	0.081	0.121	0.570	0.901
	Selected variable									

d) Environmental variables

Selection round		MarLan	DisCo	Dep	SurCT	SurSA	BotCT	BotSA	meanF	F <sub>max</sub>	F <sub>max</sub> Dep	MLD
1	Constrained inertia	0.1064	0.0616	0.0603	0.2813	0.1467	0.1939	0.0924	0.0750	0.0712	0.0501	0.1456
	p-value	0.276	0.159	0.167	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	0.013	0.081	0.077	0.375	<b>0.001</b>
	Selected variable				<b>SurCT</b>							
2	Constrained inertia	0.1066	0.0629	0.0598		0.0672	0.1045	0.0901	0.0733	0.0717	0.0412	0.0535
	p-value	0.062	0.024	0.043		0.014	<b>0.001</b>	<b>0.001</b>	0.017	0.010	0.404	0.161
	Selected variable						<b>BotCT</b>					
3	Constrained inertia	0.0949	0.0502	0.0548		0.0309		0.0663	0.0664	0.0740	0.0414	0.0504
	p-value	0.088	0.096	0.042		0.832		<b>0.002</b>	<b>0.009</b>	<b>0.003</b>	0.37	0.155
	Selected variable									<b>F<sub>max</sub></b>		
4	Constrained inertia	0.0952	0.0506	0.0548		0.0309		0.0664	0.0603		0.0424	0.0455
	p-value	0.045	0.068	0.033		0.796		<b>0.001</b>	0.021		0.336	0.226
	Selected variable							<b>BotSA</b>				
5	Constrained inertia	0.0825	0.0371	0.0426		0.0266			0.0400		0.0453	0.0450
	p-value	0.284	0.467	0.264		0.91			0.358		0.245	0.240
	Selected variable											