

The following supplement accompanies the article

Antarctic harpacticoids exploit different trophic niches: a summer snapshot using fatty acid trophic markers (Potter Cove, King George Island)

Eva Werbrouck*, Ann Vanreusel, Dolores Deregibus, Dirk Van Gansbeke, Marleen De Troch

*Corresponding author: eva.werbrouck@ugent.be

Marine Ecology Progress Series 568: 59–71 (2017)

Table S1 Natural membrane and storage FA composition (% \pm SD) of Antarctic harpacticoids and macroalgal epibiota (full FA profile). Endobenthic, pooled sample of endobenthic harpacticoid copepods.

	Membrane lipids				Storage lipids					
	<i>Harpacticus</i> sp.	<i>A. potter</i>	<i>Alteutha</i> sp.	endobenthic	<i>Harpacticus</i> sp.	<i>A. potter</i>	<i>Alteutha</i> sp.	endobenthic	epibiota	
12:0	-	-	-	-	12:0	-	0.1 \pm 0.1	0.2 \pm 0.2	-	0.3 \pm 0.1
14:0	0.4 \pm 0.1	0.4 \pm 0.2	0.4 \pm 0.02	0.6	14:0	3.3 \pm 0.5	1.6 \pm 0.3	2.1 \pm 0.4	1.6	8.6 \pm 0.5
14:1ω5	-	-	-	-	14:1ω5	0.3 \pm 0.05	-	-	-	-
i-15:0	0.1 \pm 0.01	-	-	-	i-15:0	0.6 \pm 0.1	-	-	0.5	1.3 \pm 0.2
a-15:0	-	-	-	-	a-15:0	0.1 \pm 0.05	-	-	0.2	0.6 \pm 0.1
15:0	0.1 \pm 0.01	-	-	-	15:0	0.3 \pm 0.1	0.1 \pm 0.01	0.1 \pm 0.03	0.5	0.6 \pm 0.1
i-16:0	0.3 \pm 0.01	-	-	-	i-16:0	0.5 \pm 0.03	-	-	0.2	0.4 \pm 0.1
16:0	11.9 \pm 0.1	10.3 \pm 1.1	8.5 \pm 0.3	11.5	16:0	12.7 \pm 0.1	7.8 \pm 0.3	10.3 \pm 0.1	25.2	13.9 \pm 1.1
16:1ω5	-	-	-	-	16:1ω5	0.2 \pm 0.03	0.1 \pm 0.02	0.1 \pm 0.002	0.4	0.4 \pm 0.04
16:1ω7	1.3 \pm 0.04	0.1 \pm 0.02	0.2 \pm 0.04	2.2	16:1ω7	11.3 \pm 0.6	0.6 \pm 0.04	0.5 \pm 0.03	8.0	14.9 \pm 2.3
16:1ω9	-	0.1 \pm 0.01	-	-	16:1ω9	0.4 \pm 0.1	0.2 \pm 0.02	0.2 \pm 0.1	0.3	1.4 \pm 0.3
16:2	0.2 \pm 0.01	-	-	-	16:2	2.7 \pm 0.1	-	-	0.8	1.7 \pm 0.1
16:3ω4	-	-	-	-	16:3ω4	2.2 \pm 0.1	-	-	1.0	1.3 \pm 0.1
16:4ω4	-	-	-	-	16:4ω4	4.9 \pm 0.1	-	-	1.0	6.1 \pm 0.2
i-17:0	0.2 \pm 0.01	-	-	-	i-17:0	0.5 \pm 0.01	-	-	0.4	-
17:0	0.4 \pm 0.02	0.1 \pm 0.01	0.1 \pm 0.01	1.1	17:0	0.2 \pm 0.04	-	0.1 \pm 0.02	0.5	0.2 \pm 0.01
18:0	3.8 \pm 0.1	7.0 \pm 0.1	7.1 \pm 0.3	2.8	18:0	3.6 \pm 0.3	1.3 \pm 0.1	3.1 \pm 0.7	19.9	2.0 \pm 0.4

18:1	-	0.2±0.004	0.2±0.01	-	18:1	-	0.1±0.01	0.1±0.02	0.4	-
18:1ω7c	3.1±0.1	0.7±0.04	1.1±0.1	5.2	18:1ω7c	6.0±0.2	1.0±0.03	1.9±0.3	5.4	3.1±0.6
18:1ω9t	-	-	-	-	18:1ω9t	-	-	-	0.3	-
18:1ω9c	0.1±0.01	2.1±0.1	2.8±0.3	1.2	18:1ω9c	0.7±0.2	4.6±0.2	8.7±0.7	2.3	2.3±0.2
18:1ω12	0.1±0.04	-	-	-	18:1ω12	0.1±0.02	-	-	-	-
18:2	0.3±0.01	-	-	-	18:2	0.5±0.1	0.1±0.002	0.05±0.1	0.3	0.9±0.1
18:2ω6c	0.2±0.008	1.1±0.02	1.2±0.04	-	18:2ω6c	0.8±0.1	2.2±0.1	1.4±0.1	0.4	1.8±0.2
18:3ω3	0.1±0.1	1.1±0.04	0.9±0.004	-	18:3ω3	0.4±0.05	11.2±0.1	7.7±0.3	0.5	3.0±0.8
18:3ω6	-	-	-	-	18:3ω6	0.4±0.01	0.3±0.03	0.2±0.03	-	-
18:4	0.3±0.02	-	-	-	18:4	1.1±0.05	-	-	0.4	-
18:4ω3	0.4±0.03	0.7±0.1	0.5±0.002	-	18:4ω3	5.7±0.2	21.9±0.2	14.0±0.5	1.6	9.3±2.0
20:0	-	0.2±0.01	0.2±0.0001	-	20:0	0.1±0.02	0.1±0.03	0.1±0.1	-	0.2±0.03
20:1ω7	1.9±0.1	0.1±0.0004	0.1±0.1	0.8	20:1ω7	1.5±0.03	-	0.1±0.01	0.9	0.3±0.01
20:1ω9	0.3±0.02	2.2±0.1	2.6±0.1	-	20:1ω9	0.4±0.03	1.7±0.02	3.1±0.3	0.2	-
20:2ω6	-	1.6±0.04	1.7±0.1	-	20:2ω6	-	2.3±0.02	2.3±0.01	-	-
20:3ω3	-	1.2±0.1	1.2±0.02	-	20:3ω3	-	3.1±0.1	3.7±0.1	-	-
20:3ω6	0.2±0.006	0.2±0.01	0.3±0.003	-	20:3ω6	-	0.4±0.005	0.4±0.1	-	-
20:4	0.5±0.02	0.1±0.02	-	-	20:4	0.6±0.1	0.1±0.01	0.1±0.004	0.3	-
20:4ω3	2.1±0.1	1.3±0.1	1.8±0.1	2.2	20:4ω3	2.3±0.1	6.6±0.2	9.7±0.6	1.1	0.6±0.1
20:4ω6	0.5±0.001	6.8±0.2	8.3±0.2	1.2	20:4ω6	-	3.4±0.4	4.8±0.1	0.8	1.4±0.1
20:5ω3	26.5±0.3	34.0±0.8	35.0±0.1	30.3	20:5ω3	23.0±1.2	23.0±0.8	19.6±0.1	15.7	22.1±2.0
21:5ω3	-	0.5±0.1	0.6±0.1	-	21:5ω3	-	1.0±0.04	0.9±0.01	0.5	-
22:1ω7	0.7±0.04	0.04±0.1	-	-	22:1ω7	0.6±0.04	-	-	0.5	0.3±0.03
22:1ω9	0.1±0.005	2.2±0.2	2.1±0.2	0.3	22:1ω9	-	0.4±0.1	-	0.3	-
22:2ω6	-	0.2±0.02	0.2±0.01	-	22:2ω6	-	0.1±0.003	0.1±0.1	-	-
22:5ω3	2±0.05	1.0±0.04	1.5±0.02	2.4	22:5ω3	1.5±0.1	1.7±0.1	1.9±0.1	1.2	-
22:5ω6	-	0.2±0.04	0.4±0.2	-	22:5ω6	-	-	0.1±0.2	-	-
22:6ω3	41.2±0.7	23.0±0.7	20.0±0.9	38.3	22:6ω3	8.8±0.6	2.1±0.2	1.6±0.1	5.5	1.2±0.02
24:1ω7	-	-	-	-	24:1ω7	0.8±0.1	-	-	0.5	-
24:1ω9	-	1.1±0.1	1.0±0.1	-	24:1ω9	0.5±0.1	0.5±0.02	0.5±0.04	0.3	-
24:5ω3	0.7±0.02	-	-	-	24:5ω3	0.5±0.4	-	-	-	-

Table S2 Relative FA composition (% \pm SD) of *Navicula*, *Nitzschia*, *Cylindrotheca* after ^{13}C labeling and freeze-drying

	<i>Navicula</i>	<i>Nitzschia</i>	<i>Cylindrotheca</i>
14:0	6.2 \pm 0.1	8.9 \pm 0.1	10.7 \pm 0.1
14:1ω5	0.1 \pm 0.1	-	-
i-15:0	0.2 \pm 0.005	-	-
15:0	1.0 \pm 0.005	0.6 \pm 0.01	0.6 \pm 0.009
16:0	20.5 \pm 0.6	18.4 \pm 0.1	18.4 \pm 0.1
16:1ω5	0.4 \pm 0.04	1.0 \pm 0.04	0.7 \pm 0.0007
16:1ω7	28.3 \pm 0.3	30.0 \pm 0.3	28.1 \pm 0.1
16:1ω9	0.2 \pm 0.02	0.2 \pm 0.008	0.2 \pm 0.001
16:2	4.4 \pm 0.1	2.6 \pm 0.02	2.1 \pm 0.0009
16:3	-	-	-
16:3ω4	2.1 \pm 0.1	2.7 \pm 0.04	1.8 \pm 0.02
16:4	-	-	-
16:4ω4	3.2 \pm 0.2	1.4 \pm 0.03	2.3 \pm 0.03
18:0	1.3 \pm 0.2	0.5 \pm 0.1	0.5 \pm 0.1
18:1ω7c	1.2 \pm 0.1	0.9 \pm 0.01	0.5 \pm 0.02
18:1ω9c	0.3 \pm 0.02	1.0 \pm 0.02	1.2 \pm 0.04
18:2	0.04 \pm 0.07	-	-
18:2ω6c	-	1.9 \pm 0.02	2.0 \pm 0.1
18:3ω3	0.2 \pm 0.008	-	-
18:3ω6	-	1.3 \pm 0.02	1.3 \pm 0.03
18:4ω3	3.1 \pm 0.1	0.8 \pm 0.01	0.8 \pm 0.02
20:3ω6	-	0.4 \pm 0.008	0.4 \pm 0.002
20:4ω6	-	6.8 \pm 0.1	6.8 \pm 0.1
20:5ω3	23.7 \pm 0.4	17.7 \pm 0.2	19.8 \pm 0.1
21:5ω3	0.2 \pm 0.03	-	-
22:5ω3	0.2 \pm 0.1	0.3 \pm 0.03	-
22:5ω6	-	1.5 \pm 0.07	0.9 \pm 0.005
22:6ω3	3.3 \pm 0.1	1.0 \pm 0.02	0.8 \pm 0.02
24:0	-	0.2 \pm 0.007	0.1 \pm 0.02

Table S3 Relative FA composition (% \pm SD) of membrane and storage lipids of *A. potter* after incubation with different diatom species at 1 °C and 3 °C. Nav - *Navicula*, Nit – *Nitzschia*, Cyl – *Cylindrotheca*, mixed – combination of the three diatom species

Membrane lipids										
		1 °C				3 °C				
	field	Nav	Nit	Cyl	mixed		Nav	Nit	Cyl	mixed
12:0	-	-	-	-	-	12:0	-	-	0.03 \pm 0.1	-
14:0	0.4 \pm 0.2	0.3 \pm 0.1	0.2 \pm 0.1	0.4 \pm 0.1	0.4 \pm 0.1	14:0	0.2 \pm 0.03	0.4 \pm 0.1	0.9 \pm 1.2	0.1 \pm 0.02
15:0	-	-	-	0.1 \pm 0.01	-	15:0	-	-	-	-
16:0	10.3 \pm 1.1	8.0 \pm 0.4	6.2 \pm 0.8	9.3 \pm 0.9	8.5 \pm 0.1	16:0	7.6 \pm 0.6	8.3 \pm 0.6	7.3 \pm 0.5	6.4 \pm 0.5
16:1ω5	-	-	-	-	-	16:1ω5	-	-	0.03 \pm 0.1	-
16:1ω7	0.1 \pm 0.02	0.2 \pm 0.04	0.1 \pm 0.05	0.2 \pm 0.1	0.2 \pm 0.02	16:1ω7	0.2 \pm 0.1	0.3 \pm 0.1	0.3 \pm 0.3	0.1 \pm 0.03
16:1ω9	0.1 \pm 0.005	-	-	-	-	16:1ω9	-	-	0.1 \pm 0.1	-
17:0	0.1 \pm 0.005	0.2 \pm 0.01	0.2 \pm 0.1	0.2 \pm 0.007	0.2 \pm 0.002	17:0	0.2 \pm 0.02	0.2 \pm 0.01	0.1 \pm 0.1	0.2 \pm 0.02
18:0	7.0 \pm 0.1	9.6 \pm 1.0	8.4 \pm 0.2	10.2 \pm 1.7	9.0 \pm 1.4	18:0	11.1 \pm 1.7	11.4 \pm 1.3	7.3 \pm 5.3	10.1 \pm 1.3
18:1	0.2 \pm 0.004	0.2 \pm 0.01	0.3 \pm 0.02	0.3 \pm 0.01	0.3 \pm 0.01	18:1	0.2 \pm 0.005	0.3 \pm 0.04	0.2 \pm 0.05	0.2 \pm 0.03
18:1ω7c	0.7 \pm 0.04	0.9 \pm 0.1	0.9 \pm 0.1	0.8 \pm 0.03	0.9 \pm 0.009	18:1ω7c	0.9 \pm 0.01	0.9 \pm 0.1	0.9 \pm 0.3	0.8 \pm 0.1
18:1ω9c	2.1 \pm 0.1	2.6 \pm 0.1	2.6 \pm 0.1	2.8 \pm 0.02	2.7 \pm 0.1	18:1ω9c	2.6 \pm 0.1	2.9 \pm 0.2	3.7 \pm 1.9	2.5 \pm 0.1
18:2ω6c	1.1 \pm 0.02	0.8 \pm 0.1	0.8 \pm 0.1	0.9 \pm 0.03	0.9 \pm 0.03	18:2ω6c	0.8 \pm 0.03	0.9 \pm 0.004	1.1 \pm 0.6	0.8 \pm 0.1
18:3ω3	1.1 \pm 0.04	0.6 \pm 0.1	0.6 \pm 0.01	0.7 \pm 0.03	0.7 \pm 0.03	18:3ω3	0.6 \pm 0.05	0.6 \pm 0.03	3.5 \pm 5.3	0.5 \pm 0.04
18:4ω3	0.7 \pm 0.1	0.2 \pm 0.05	-	0.3 \pm 0.02	0.3 \pm 0.02	18:4ω3	0.2 \pm 0.04	0.2 \pm 0.01	5.4 \pm 9.1	0.2 \pm 0.04
20:0	0.2 \pm 0.009	0.2 \pm 0.007	0.2 \pm 0.04	0.2 \pm 0.02	0.2 \pm 0.01	20:0	0.2 \pm 0.01	0.2 \pm 0.009	0.1 \pm 0.04	0.2 \pm 0.02
20:1ω7	0.1 \pm 0.0005	-	-	0.1 \pm 0.001	-	20:1ω7	-	-	-	-
20:1ω9	2.2 \pm 0.1	2.3 \pm 0.1	2.5 \pm 0.01	2.4 \pm 0.1	2.3 \pm 0.03	20:1ω9	2.1 \pm 0.04	2.2 \pm 0.1	2.3 \pm 0.2	2.1 \pm 0.2
20:2ω6	1.6 \pm 0.04	1.4 \pm 0.1	1.5 \pm 0.04	1.5 \pm 0.005	1.5 \pm 0.1	20:2ω6	1.4 \pm 0.02	1.4 \pm 0.04	1.9 \pm 0.8	1.4 \pm 0.1
20:3ω3	1.2 \pm 0.1	0.7 \pm 0.1	0.7 \pm 0.04	0.8 \pm 0.04	0.8 \pm 0.1	20:3ω3	0.7 \pm 0.05	0.7 \pm 0.02	1.6 \pm 1.6	0.7 \pm 0.1
20:3ω6	0.2 \pm 0.005	0.2 \pm 0.03	0.2 \pm 0.1	0.2 \pm 0.01	0.2 \pm 0.04	20:3ω6	0.2 \pm 0.01	0.3 \pm 0.04	0.3 \pm 0.1	0.2 \pm 0.03
20:4	0.1 \pm 0.02	-	-	-	-	20:4	-	-	-	-
20:4ω3	1.3 \pm 0.1	0.9 \pm 0.1	0.9 \pm 0.1	0.9 \pm 0.03	0.9 \pm 0.1	20:4ω3	1.0 \pm 0.1	1.0 \pm 0.1	3.3 \pm 4.0	1.1 \pm 0.4
20:4ω6	6.8 \pm 0.2	6.1 \pm 0.6	7.1 \pm 0.5	6.6 \pm 0.5	6.6 \pm 0.6	20:4ω6	6.2 \pm 0.2	5.9 \pm 0.5	5.8 \pm 1.9	6.5 \pm 1.1
20:5ω3	34.0 \pm 0.8	28.5 \pm 0.5	28.9 \pm 0.6	27.2 \pm 0.8	28.4 \pm 0.6	20:5ω3	26.8 \pm 0.8	25.6 \pm 0.8	26.5 \pm 1.8	27.3 \pm 0.2
21:5ω3	0.5 \pm 0.1	0.5 \pm 0.1	0.7 \pm 0.7	0.7 \pm 0.5	0.5 \pm 0.01	21:5ω3	0.5 \pm 0.1	0.4 \pm 0.1	0.6 \pm 0.3	0.4 \pm 0.04
22:1ω7	0.04 \pm 0.1	-	-	-	-	22:1ω7	2.5 \pm 0.2	2.6 \pm 0.3	0.1 \pm 0.2	-
22:1ω9	2.2 \pm 0.2	2.8 \pm 0.04	2.9 \pm 0.2	2.6 \pm 0.2	2.5 \pm 0.1	22:1ω9	-	-	1.7 \pm 1.0	2.6 \pm 0.3
22:2ω6	0.2 \pm 0.02	0.2 \pm 0	-	0.2 \pm 0.003	0.2 \pm 0.01	22:2ω6	0.2 \pm 0.02	0.2 \pm 0.04	0.2 \pm 0.1	0.3 \pm 0.02
22:5ω3	1.0 \pm 0.04	0.8 \pm 0.1	0.8 \pm 0.1	0.7 \pm 0.006	0.7 \pm 0.1	22:5ω3	0.8 \pm 0.1	0.9 \pm 0.02	1.1 \pm 0.4	0.8 \pm 0.1
22:5ω6	0.2 \pm 0.04	0.4 \pm 0.04	0.1 \pm 0.2	0.4 \pm 0.1	0.4 \pm 0.04	22:5ω6	0.4 \pm 0.1	0.4 \pm 0.1	0.3 \pm 0.1	0.5 \pm 0.2
22:6ω3	23.0 \pm 0.7	29.9 \pm 1.4	31.6 \pm 1.5	28.1 \pm 0.3	29.5 \pm 0.4	22:6ω3	31.1 \pm 1.7	30.4 \pm 0.03	22.0 \pm 16.6	32.6 \pm 0.7
24:1ω9	1.1 \pm 0.1	1.3 \pm 0.01	1.6 \pm 0.1	1.4 \pm 0.03	1.4 \pm 0.1	24:1ω9	1.5 \pm 0.03	1.4 \pm 0.1	1.1 \pm 0.3	1.4 \pm 0.1
SFA	18.2 \pm 1.2	18.2 \pm 1.5	15.2 \pm 0.8	20.3 \pm 1.3	18.3 \pm 1.4	SFA	19.2 \pm 2.3	20.5 \pm 0.6	15.9 \pm 3.7	17.0 \pm 1.6
MUFA	8.7 \pm 0.4	10.4 \pm 0.4	10.8 \pm 0.3	10.5 \pm 0.2	10.3 \pm 0.1	MUFA	9.9 \pm 0.1	10.7 \pm 0.9	10.4 \pm 1.4	9.8 \pm 0.3
PUFA	73.1 \pm 1.0	71.4 \pm 1.2	74.0 \pm 0.6	69.2 \pm 1.5	71.4 \pm 1.4	PUFA	70.9 \pm 2.2	68.8 \pm 0.3	73.7 \pm 2.5	73.2 \pm 1.6
HUFA	68.4 \pm 1.0	68.1 \pm 1.2	71.1 \pm 0.5	65.7 \pm 1.4	67.9 \pm 1.3	HUFA	67.6 \pm 2.3	65.5 \pm 0.3	61.5 \pm 13.8	70.1 \pm 1.5
DHA/EPA	0.7 \pm 0.03	1.0 \pm 0.1	1.1 \pm 0.03	1.0 \pm 0.04	1.0 \pm 0.03	DHA/EPA	1.2 \pm 0.03	1.2 \pm 0.04	0.8 \pm 0.6	1.2 \pm 0.02

Storage lipids

	1 °C					3 °C				
	field	Nav	Nit	Cyl	mixed	Nav	Nit	Cyl	mixed	
12:0	0.1±0.1	0.2±0.1	0.2±0.1	0.1±0.04	0.1±0.004	12:0	0.2±0.05	0.1±0.1	0.1±0.03	0.1±0.1
14:0	1.6±0.3	2.2±0.02	2.6±0.5	2.0±0.2	2.1±0.1	14:0	2.4±0.1	2.3±0.3	2.1±0.2	2.2±0.1
15:0	0.1±0.01	0.1±0.02	0.2±0.1	0.1±0.02	0.1±0.01	15:0	0.1±0.01	0.2±0.1	0.1±0.002	0.1±0.02
16:0	7.8±0.3	8.3±0.5	9.0±0.8	8.2±0.3	8.2±0.3	16:0	8.3±0.2	12.6±6.9	8.3±0.4	8.6±0.3
16:1ω5	0.1±0.02	0.1±0.01	-	-	0.1±0.02	16:1ω5	0.1±0.1	-	0.1±0.02	0.1±0.02
16:1ω7	0.6±0.04	0.7±0.04	0.7±0.02	0.6±0.02	0.7±0.03	16:1ω7	0.7±0.02	0.7±0.1	0.6±0.1	0.7±0.05
16:1ω9	0.2±0.02	0.1±0.01	1.0±0.9	0.1±0.05	0.2±0.1	16:1ω9	0.2±0.1	0.3±0.2	0.2±0.1	0.1±0.02
17:0	-	0.1±0.001	0.1±0.02	-	-	17:0	-	0.1±0.1	-	0.1±0.01
18:0	1.3±0.1	2.4±1.6	1.8±0.04	1.8±0.5	1.7±0.1	18:0	1.9±0.5	6.9±8.5	1.7±0.3	2.0±0.5
18:1	0.1±0.01	0.2±0.01	0.1±0.1	0.1±0.1	0.1±0.04	18:1	0.2±0.02	-	0.1±0.03	0.1±0.02
18:1ω7c	1.0±0.03	1.2±0.1	1.2±0.2	1.1±0.02	1.2±0.1	18:1ω7c	1.2±0.1	1.1±0.2	1.1±0.1	1.1±0.04
18:1ω9c	4.6±0.2	5.6±0.2	5.9±0.4	5.4±0.2	5.4±0.3	18:1ω9c	5.6±0.1	5.2±0.9	5.6±0.3	5.7±0.1
18:2	0.1±0.002	-	-	-	-	18:2	-	-	-	-
18:2ω6c	2.2±0.1	1.7±0.1	1.7±0.2	1.8±0.1	1.8±0.1	18:2ω6c	1.8±0.1	1.5±0.3	1.7±0.1	1.8±0.1
18:3ω3	11.2±0.1	9.4±0.5	8.9±0.8	10.0±0.2	9.5±0.5	18:3ω3	9.6±0.5	7.9±2.0	9.5±0.2	10.0±0.5
18:3ω6	0.3±0.03	0.2±0.02	0.2±0.04	0.2±0.03	0.2±0.03	18:3ω6	0.2±0.02	0.2±0.04	0.2±0.02	0.2±0.04
18:4ω3	21.9±0.2	15.9±1.1	14.2±1.6	17.1±0.8	15.7±1.4	18:4ω3	16.0±0.9	13.1±3.6	16.1±0.3	17.0±1.1
20:0	0.1±0.03	-	-	-	-	20:0	0.1±0.1	-	-	-
20:1ω9	1.7±0.02	2.3±0.03	2.5±0.3	2.3±0.2	2.4±0.2	20:1ω9	2.3±0.1	2.2±0.6	2.4±0.2	2.1±0.1
20:2ω6	2.3±0.02	2.6±0.1	2.7±0.2	2.6±0.2	2.7±0.03	20:2ω6	2.6±0.1	2.3±0.6	2.6±0.2	2.5±0.04
20:3ω3	3.1±0.1	3.2±0.2	3.3±0.5	3.2±0.2	3.2±0.1	20:3ω3	3.1±0.1	2.7±0.8	3.2±0.2	2.9±0.1
20:3ω6	0.4±0.005	0.4±0.02	0.4±0.1	0.4±0.1	0.4±0.05	20:3ω6	0.4±0.02	0.3±0.2	0.4±0.04	0.3±0.05
20:4	0.1±0.01	-	-	-	-	20:4	-	-	-	-
20:4ω3	6.6±0.2	7.2±0.8	7.4±1.3	7.2±0.6	7.1±0.3	20:4ω3	7.2±0.2	6.6±1.5	7.7±0.7	7.0±1.2
20:4ω6	3.4±0.4	3.9±0.6	4.7±0.3	3.2±0.5	4.4±0.8	20:4ω6	3.5±0.5	3.7±1.0	3.6±0.8	3.1±0.2
20:5ω3	23.0±0.8	24.4±0.1	24.4±0.8	25.2±0.9	25.2±0.5	20:5ω3	25.0±0.8	23.0±5.6	25.3±0.6	25.4±1.0
21:5ω3	1.0±0.04	1.0±0.1	1.0±0.03	1.0±0.1	1.0±0.03	21:5ω3	1.0±0.1	0.9±0.1	0.9±0.03	0.9±0.2
22:1ω7	-	1.0±0.3	0.8±0.1	-	1.0±0.4	22:1ω7	-	0.9±0.1	1.2±0.3	0.9±0.3
22:1ω9	0.4±0.1	-	-	1.3±0.3	-	22:1ω9	0.7±0.1	-	-	-
22:2ω6	0.1±0.003	0.1±0.02	-	-	0.04±0.1	22:2ω6	0.3±0.5	-	0.1±0.1	-
22:5ω3	1.7±0.1	1.7±0.2	1.4±0.3	1.5±0.1	1.5±0.1	22:5ω3	1.6±0.1	1.3±0.3	1.6±0.1	1.5±0.2
22:5ω6	-	-	-	-	-	22:5ω6	-	-	0.1±0.1	-
22:6ω3	2.1±0.2	3.0±0.3	2.9±0.1	2.8±0.2	3.0±0.1	22:6ω3	3.0±0.2	3.1±0.1	2.9±0.1	3.0±0.5
24:1ω9	0.5±0.02	0.7±0.1	0.7±0.05	0.5±0.2	0.8±0.1	24:1ω9	0.7±0.01	0.6±0.2	0.6±0.1	0.5±0.05
SFA	11.0±0.7	13.3±2.1	13.9±1.5	12.3±0.8	12.2±0.4	SFA	13.0±0.7	22.2±15.4	12.3±0.7	12.9±0.7
MUFA	9.3±0.3	12.0±0.5	12.9±1.4	11.4±0.4	11.9±0.3	MUFA	11.7±0.4	11.0±1.4	11.9±0.5	11.4±0.3
PUFA	79.6±1.0	74.8±2.2	73.2±2.8	76.3±0.4	75.9±0.6	PUFA	75.4±1.0	66.7±14	75.8±0.3	75.7±0.7
HUFA	41.5±1.0	44.9±0.6	45.4±1.9	44.5±0.9	45.9±1.3	HUFA	44.8±1.1	41.7±7.5	45.6±0.2	44.1±1.1
DHA/EPA	0.1±0.004	0.1±0.01	0.1±0.004	0.1±0.01	0.1±0.004	DHA/EPA	0.1±0.006	0.1±0.04	0.1±0.002	0.1±0.02

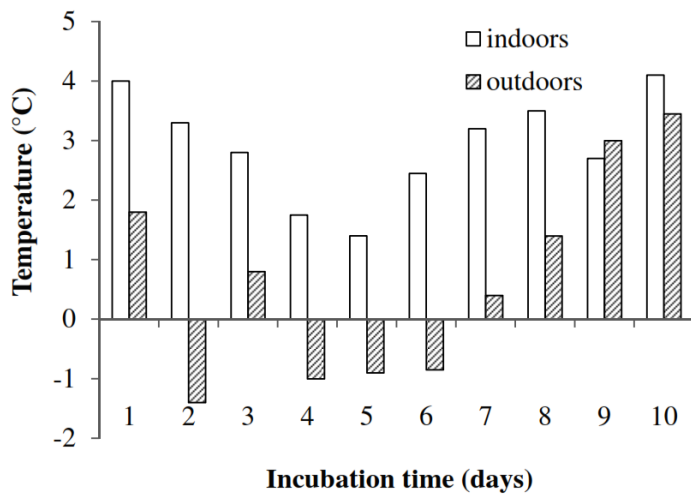


Figure S1 Daily midday temperature recordings (°C) of the in- and outdoor water tanks.

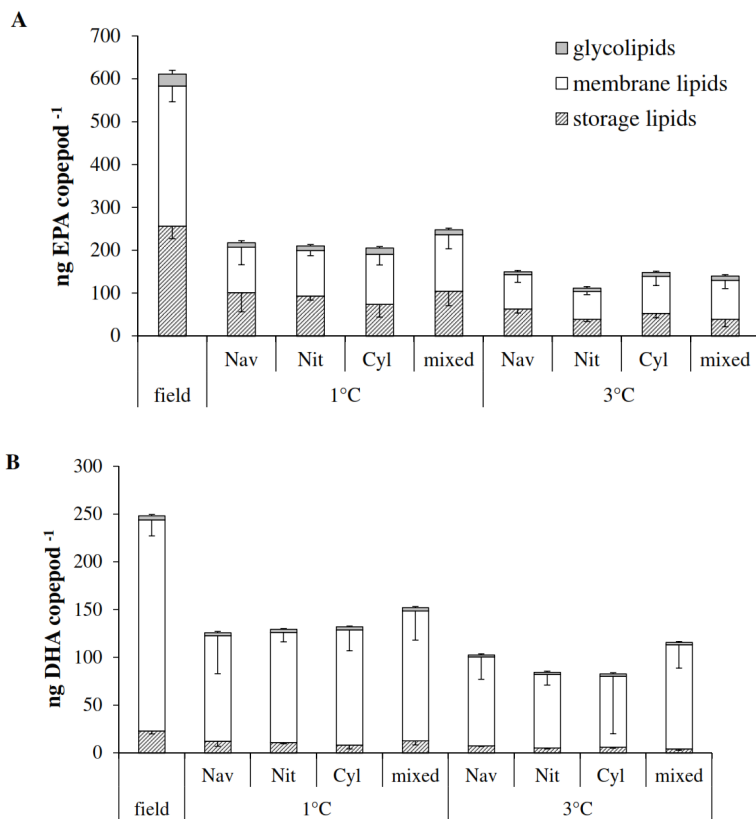


Figure S2 A EPA and **B** DHA (ng copepod⁻¹) associated with glycolipids (+ 1 SD), membrane and storage lipids (- 1 SD) in *A. potter* after incubation with different diatom species at 1 °C and 3 °C. Nav - *Navicula*, Nit - *Nitzschia*, Cyl - *Cylindrotheca*, mixed - combination of the three diatom species