Supplement of

Latitudinal distribution of biomarkers across the western Arctic Ocean and the Bering Sea: an approach to assess sympagic and pelagic algal production

5   **Youcheng Bai et al.**

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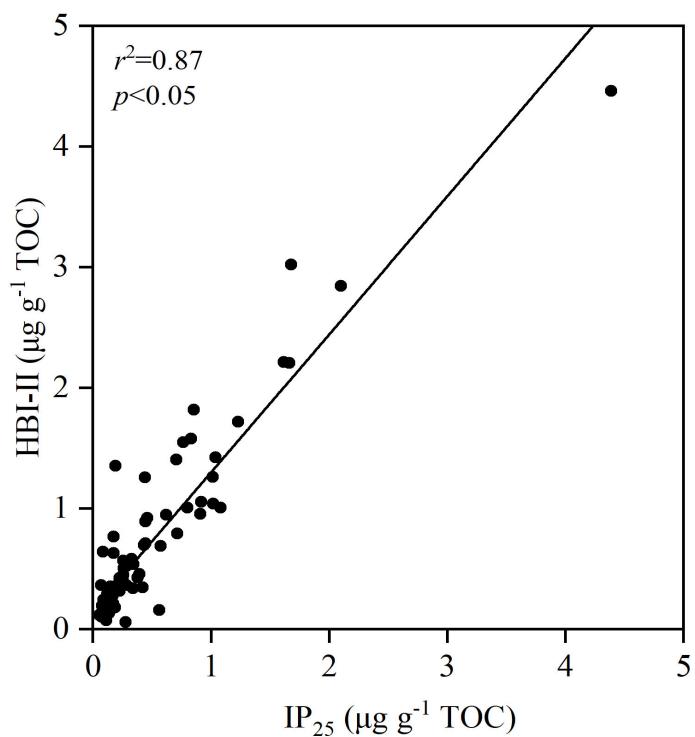
Figure S1. Cross-plot and correlations calculated between the concentrations of IP_{25} and HBI-II in surface sediments (n=88).
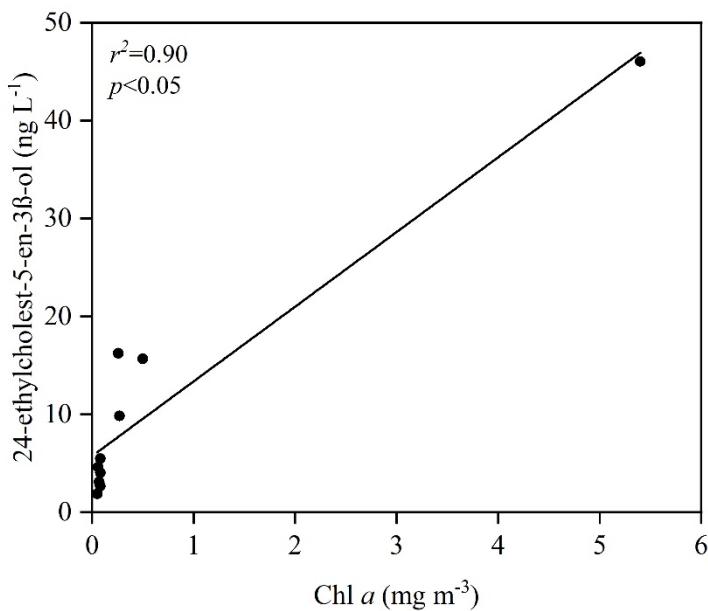
Figure S2. Cross-plots and correlation calculated between 24-ethylcholest-5-en-3ß-ol and Chl *a* in SPM from the Chukchi Sea.
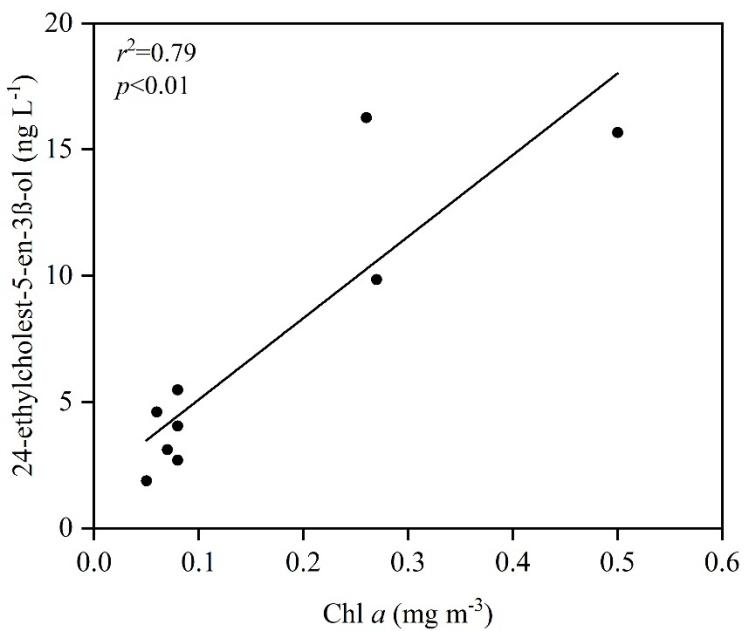
Figure S3. Cross-plot and correlation calculated between 24-ethylcholest-5-en-3ß-ol and Chl *a* in SPM after removing the highest value.
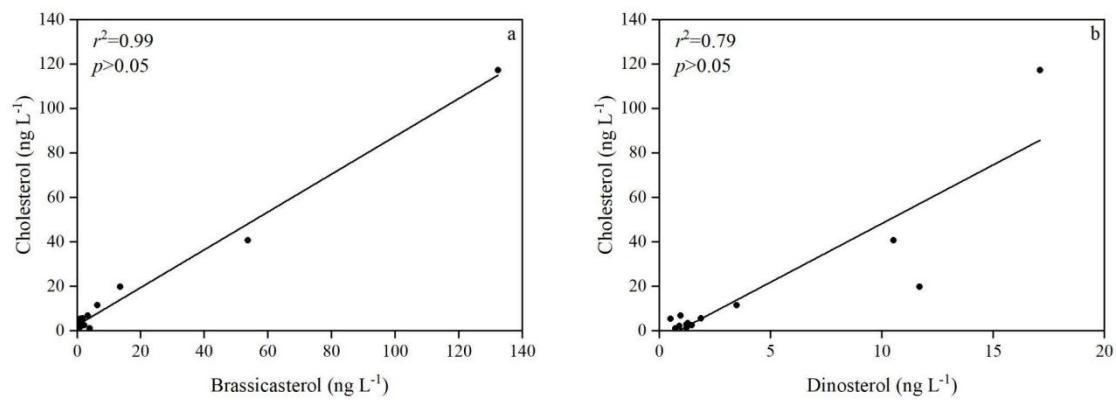
Figure S4. Cross-plots and correlation calculated between (a) cholesterol and brassicasterol and between (b) cholesterol and dinosterol in SPM.
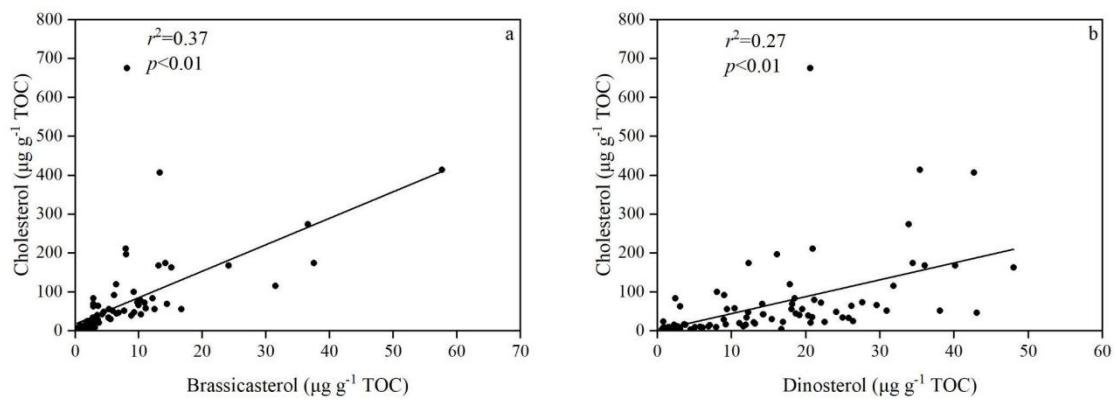
Figure S5. Cross-plots and correlation calculated between (a) cholesterol and brassicasterol, and between (b) cholesterol and dinosterol in the surface sediments of the compiled dataset (n=88)

Table S1. List of sample locations where surface sediments and suspended particulate matter (SPM) were collected. Bulk parameters of sediments and Chlorophyll a of SPM are also indicated.

Nr.	Cruise	Sample name	Lati.	Long.	Water Depth (m)	TOC (%)	TN (%)	Chlorophyll a (mg m^{-3})	Pigment fucoxanthin (ng L^{-1})[a]	Reference
1	ARC04	10B04	54.59	171.40	3873	0.53	0.09	—	—	This study
2	ARC04	10B06	57.01	174.49	3780	1.92	0.23	—	—	This study
3	ARC03	08BR07	60.08	180.01	2571	1.49	0.20	—	—	This study
4	ARC06	14NB02	60.87	184.47	107	1.82	0.23	—	—	This study
5	ARC04	10NB01	61.23	184.92	92	1.70	0.24	—	—	This study
6	ARC04	10BB01	61.29	182.52	130	0.85	0.12	—	—	This study
7	ARC04	10NB02	61.38	186.31	76	1.40	0.18	—	—	This study
8	ARC03	08NB19	61.50	191.99	23	0.23	0.03	—	—	This study
9	ARC04	10NB03	61.51	187.80	61	1.22	0.18	—	—	This study
10	ARC03	08BR14	61.70	184.30	90	2.01	0.29	—	—	This study
11	ARC03	08NB17	61.83	190.00	36	0.43	0.06	—	—	This study
12	ARC06	14B14	61.93	183.60	101	1.27	0.18	—	—	This study
13	ARC03	08NB28	62.02	191.97	27	0.10	0.01	—	—	This study
14	ARC03	08NB26	62.43	189.90	34	0.23	0.03	—	—	This study
15	ARC06	14B15	62.54	184.69	79	1.26	0.16	—	—	This study
16	ARC04	10BB05	62.54	184.67	79	1.47	0.20	—	—	This study
17	ARC03	08NB13	62.57	186.43	60	1.64	0.18	—	—	This study
18	ARC04	10NB08	62.66	192.66	35	0.47	0.06	—	—	This study
19	ARC05	12BM04	62.70	186.08	63	1.02	0.15	—	—	This study

 Table S1 (continued)

Nr.	Cruise	Sample name	Lati.	Long.	Water Depth (m)	TOC (%)	TN (%)	Chlorophyll a (mg m^{-3})	Pigment fucoxanthin (ng L^{-1})[a]	Reference
20	ARC03	08NB11	62.88	185.47	69	1.59	0.23	—	—	This study
21	ARC03	08NB22	63.11	186.88	63	1.23	0.17	—	—	This study
22	ARC03	08NB21	63.94	187.59	50	0.57	0.08	—	—	This study
23	ARC03	08BS07	64.33	191.50	33	0.18	0.02	—	—	This study
24	ARC04	10SR01	67.00	191.03	49	0.43	0.06	—	—	This study
25	ARC04	10SR05	69.00	191.00	54	1.98	0.22	—	—	This study
26	ARC04	10R06	69.50	191.02	52	1.33	0.17	—	—	This study
27	ARC03	08C23	70.50	194.00	39	0.70	0.09	—	—	This study
28	ARC03	08C25	70.50	195.97	37	0.47	0.06	—	—	This study
29	ARC06	14C05	70.76	195.27	33	0.10	n.a.	—	—	This study
30	ARC04	10R08	71.00	191.02	44	1.32	0.17	—	—	This study
31	ARC04	10C04	71.01	192.97	46	0.96	0.12	—	—	This study
32	ARC04	10S21	71.62	205.28	46	1.58	0.16	—	—	This study
33	ARC04	10C09	71.81	200.29	50	1.54	0.20	—	—	This study
34	ARC04	10S23	71.93	206.24	338	1.91	0.20	—	—	This study
35	ARC04	10R09	71.96	191.06	51	1.40	0.19	—	—	This study
36	ARC04	10S25	72.34	207.50	2830	2.19	0.21	—	—	This study
37	ARC04	10C07	72.54	194.67	51	1.74	0.24	—	—	This study
38	ARC04	10S26	72.70	206.45	3521	1.17	0.16	—	—	This study
39	ARC04	10SR10	73.00	191.00	77	2.02	0.29	—	—	This study
40	ARC04	10MS01	73.17	205.29	3814	0.97	0.14	—	—	This study

 Table S1 (continued)

Nr.	Cruise	Sample name	Lati.	Long.	Water Depth (m)	TOC (%)	TN (%)	Chlorophyll a (mg m^{-3})	Pigment fucoxanthin (ng L^{-1})[a]	Reference
41	ARC04	10SR12	74.50	191.00	187	1.83	0.20	—	—	This study
42	ARC03	08B12	75.01	197.97	2013	0.56	0.15	—	—	This study
43	ARC03	08P31	78.00	191.99	434	0.18	0.07	—	—	This study
44	ARC04	10BN03	78.50	201.10	2790	0.47	0.06	—	—	This study
45	ARC04	10BN04	79.47	200.96	3476	0.53	0.11	—	—	This study
46	ARC03	08N01	79.83	190.00	3341	0.32	0.09	—	—	This study
47	ARC06	14SIC03	81.08	202.34	3634	0.53	n.a.	—	—	This study
48	ARC04	10BN06	81.46	195.06	3566	0.47	0.09	—	—	This study
49	ARC03	08B82	81.98	212.73	3387	0.38	n.a.	—	—	This study
50	ARC04	10BN07	82.48	193.53	3627	1.08	0.13	—	—	This study
51	ARC03	08B85B	85.13	212.94	2079	0.22	0.05	—	—	This study
52	ARC03	08B86	85.40	212.51	2376	0.28	0.07	—	—	This study
53	ARC03	08R01	67.00	191.00	42	0.73	0.10	—	—	Bai et al. (2019)
54	ARC06	14CC2	67.90	191.76	58	0.53	n.a.	—	—	Bai et al. (2019)
55	ARC03	08R03	68.00	190.98	51	1.68	0.25	—	—	Bai et al. (2019)
56	ARC06	14CC3	68.10	192.10	53	0.38	n.a.	—	—	Bai et al. (2019)
57	ARC06	14CC4	68.13	192.49	49	0.58	n.a.	—	—	Bai et al. (2019)
58	ARC05	12CC6	68.19	192.69	36	1.58	0.13	—	—	Bai et al. (2019)
59	ARC06	14CC6	68.24	192.87	42	0.60	n.a.	—	—	Bai et al. (2019)
60	ARC06	14R03	68.62	191.00	54	1.11	n.a.	—	—	Bai et al. (2019)
61	ARC03	08C35	68.92	193.49	28	1.55	0.16	—	—	Bai et al. (2019)

 Table S1 (continued)

Nr.	Cruise	Sample name	Lati.	Long.	Water Depth (m)	TOC (%)	TN (%)	Chlorophyll a (mg m^{-3})	Pigment fucoxanthin (ng L^{-1})[a]	Reference
62	ARC03	08C33	68.92	192.49	41	1.17	0.14	—	—	Bai et al. (2019)
63	ARC06	14C03	69.03	193.52	33	1.06	n.a.	—	—	Bai et al. (2019)
64	ARC06	14C01	69.22	191.86	50	0.89	n.a.	—	—	Bai et al. (2019)
65	ARC03	08R09	70.99	191.03	37	1.33	0.17	—	—	Bai et al. (2019)
66	ARC06	14C04	71.01	193.01	45	1.28	n.a.	—	—	Bai et al. (2019)
67	ARC03	08C19	71.45	200.02	42	1.19	0.16	—	—	Bai et al. (2019)
68	ARC03	08C17	71.49	198.02	41	1.49	0.19	—	—	Bai et al. (2019)
69	ARC06	14S01	71.62	202.07	63	1.07	n.a.	—	—	Bai et al. (2019)
70	ARC03	08C13	71.80	193.25	38	1.45	0.19	—	—	Bai et al. (2019)
71	ARC06	14S02	71.92	202.54	73	1.72	n.a.	—	—	Bai et al. (2019)
72	ARC03	08R11	72.00	191.02	47	1.71	0.24	—	—	Bai et al. (2019)
73	ARC06	14S03	72.24	202.92	169	1.75	n.a.	—	—	Bai et al. (2019)
74	ARC03	08S13	72.94	201.68	1430	1.08	0.15	—	—	Bai et al. (2019)
75	ARC06	14R07	73.00	191.03	73	1.47	n.a.	—	—	Bai et al. (2019)
76	ARC03	08S14	73.17	202.08	2517	1.27	0.19	—	—	Bai et al. (2019)
77	ARC03	08R15	73.99	190.99	173	1.73	n.a.	—	—	Bai et al. (2019)
78	ARC05	12SR12	74.00	190.98	175	0.74	0.12	—	—	Bai et al. (2019)
79	ARC06	14R08	74.00	191.00	83	1.27	n.a.	—	—	Bai et al. (2019)
80	ARC06	14R09	74.61	190.97	190	0.86	n.a.	—	—	Bai et al. (2019)
81	ARC03	08B11	75.00	194.97	552	1.18	0.18	—	—	Bai et al. (2019)
82	ARC03	08M07	75.01	188.01	394	1.11	0.19	—	—	Bai et al. (2019)

29 **Table S1 (continued)**

Nr.	Cruise	Sample name	Lati.	Long.	Water Depth (m)	TOC (%)	TN (%)	Chlorophyll a (mg m^{-3})	Pigment fucoxanthin (ng L^{-1})[a]	Reference
83	ARC06	14C13-5	75.20	200.82	942	0.75	n.a.	—	—	Bai et al. (2019)
84	ARC06	14R10	75.43	192.10	164	0.56	n.a.	—	—	Bai et al. (2019)
85	ARC06	14R11	76.15	193.80	352	0.79	n.a.	—	—	Bai et al. (2019)
86	ARC06	14R12	77.00	196.11	439	0.50	n.a.	—	—	Bai et al. (2019)
87	ARC06	14R14	78.63	199.57	761	0.45	n.a.	—	—	Bai et al. (2019)
88	ARC06	14SIC06	79.98	207.37	3763	0.86	n.a.	—	—	Bai et al. (2019)
89	ARC06	SPM 14R03	68.62	191.00	54	—	—	0.50	76.60	This study
90	ARC06	SPM 14R05	71.00	191.00	44	—	—	0.27	103.98	This study
91	ARC06	SPM 14R07	73.00	191.03	73	—	—	5.40	1380.75	This study
92	ARC06	SPM 14R09	74.61	190.97	190	—	—	0.26	57.63	This study
93	ARC06	SPM 14C11	74.78	204.74	3911	—	—	n.a.	2.98	This study
94	ARC06	SPM 14C13	75.20	200.82	942	—	—	n.a.	3.43	This study
95	ARC06	SPM 14R10	75.43	192.10	164	—	—	0.08	12.62	This study
96	ARC06	SPM 14R11	76.15	193.80	352	—	—	0.07	4.85	This study
97	ARC06	SPM 14C25	76.40	210.68	3774	—	—	n.a.	5.60	This study
98	ARC06	SPM 14R12	77.00	196.11	439	—	—	0.05	3.16	This study
99	ARC06	SPM 14R13	77.80	198.00	2668	—	—	0.06	4.24	This study
100	ARC06	SPM 14R14	78.63	199.57	761	—	—	0.08	6.11	This study
101	ARC06	SPM 14R15	79.38	200.93	3284	—	—	0.08	9.68	This study

30 Note: n.a., not analysed.
31 [a] Pigments data courtesy of Chinese National Arctic & Antarctic Data Center (CN-NADC).
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33 **Table S2.** Summary of biomarker data in surface sediment across the Bering and Chukchi Sea.

Nr.	Station	IP_{25} Relative abundance ($\mu g\ g^{-1}$ TOC)	HBI-II Relative abundance ($\mu g\ g^{-1}$ TOC)	HBI-III Relative abundance ($\mu g\ g^{-1}$ TOC)	Brassicasterol ($\mu g\ g^{-1}$ TOC)	Dinosterol ($\mu g\ g^{-1}$ TOC)	Campesterol ($\mu g\ g^{-1}$ TOC)	24-ethylcholest-5-en-3ß-ol ($\mu g\ g^{-1}$ TOC)	Cholesterol ($\mu g\ g^{-1}$ TOC)	$C_{27}+C_{29}+C_{31}$ ($\mu g\ g^{-1}$ TOC)	H-Print (%)
1	10B04	n.d.	n.d.	0.34	1.04	2.78	5.25	4.69	12.08	43.56	100.00
2	10B06	0.08	0.20	0.03	1.06	16.73	10.30	6.61	4.50	86.09	9.44
3	08BR07	0.14	0.31	0.54	1.88	11.91	18.79	16.00	15.61	91.07	54.47
4	14NB02	0.08	0.15	0.14	8.18	20.61	104.32	152.35	674.82	45.31	37.15
5	10NB01	0.05	0.12	0.11	2.80	13.20	20.12	18.14	18.78	49.59	37.89
6	10BB01	0.34	0.34	0.89	8.02	16.13	44.20	55.41	196.62	63.80	56.58
7	10NB02	0.15	0.35	0.13	10.25	21.17	48.79	132.86	79.82	102.33	20.95
8	08NB19	0.08	0.64	0.27	7.97	20.93	36.63	69.55	210.91	109.96	26.83
9	10NB03	0.09	0.24	0.17	9.77	27.61	38.25	52.49	73.01	87.70	34.12
10	08BR14	0.09	0.13	0.04	2.58	11.63	13.05	14.08	11.72	92.01	16.06
11	08NB17	0.12	0.17	0.02	1.74	9.23	6.18	8.19	16.39	211.86	4.92
12	14B14	0.11	0.07	0.04	3.74	20.67	22.41	17.58	21.34	28.49	18.34
13	08NB28	0.19	1.35	0.71	13.11	36.06	37.13	104.15	168.00	209.31	31.37
14	08NB26	0.07	0.37	0.05	14.20	12.29	22.54	58.93	174.22	106.50	9.63
15	14B15	0.15	0.17	0.04	12.19	18.53	45.73	39.63	84.05	43.18	12.04
16	10BB05	0.16	0.35	0.15	10.91	22.07	85.63	44.12	72.73	66.30	22.29
17	08NB13	0.07	0.10	0.03	2.07	11.06	18.26	13.20	20.07	74.42	12.58
18	10NB08	0.18	0.77	0.32	31.49	31.83	74.75	121.78	114.99	119.20	25.51
19	12BM04	0.09	0.20	0.05	4.54	24.12	29.46	27.25	49.00	85.47	14.51

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Nr.	Station	IP$_{25}$ Relative abundance (µg g^{-1} TOC)	HBI-II Relative abundance (µg g^{-1} TOC)	HBI-III Relative abundance (µg g^{-1} TOC)	Brassicasterol (µg g^{-1} TOC)	Dinosterol (µg g^{-1} TOC)	Campesterol (µg g^{-1} TOC)	24-ethylcholest-5-en-3ß-ol (µg g^{-1} TOC)	Cholesterol (µg g^{-1} TOC)	C$_{27}$+C$_{29}$+C$_{31}$ (µg g^{-1} TOC)	H-Print (%)
20	08NB11	0.14	0.20	0.03	3.59	8.96	23.05	18.39	29.49	117.21	8.61
21	08NB22	0.28	0.52	0.12	5.59	15.44	27.58	19.04	29.91	102.86	13.12
22	08NB21	0.23	0.43	0.26	9.26	8.07	24.56	28.90	99.76	124.83	28.66
23	08BS07	0.16	0.26	0.05	57.67	35.37	123.41	111.54	413.66	128.73	11.19
24	10SR01	0.12	0.29	0.08	37.56	34.41	114.11	105.54	173.81	145.24	17.00
25	10SR05	0.26	0.57	0.15	7.74	38.10	48.92	62.79	51.49	127.27	15.15
26	10R06	0.33	0.58	0.18	6.82	43.04	33.83	49.39	46.18	79.88	16.20
27	08C23	0.43	0.70	0.09	5.28	25.81	20.43	26.09	32.79	178.35	7.19
28	08C25	0.80	1.01	0.07	3.64	26.15	24.80	44.16	63.80	198.43	3.55
29	14C05	1.23	1.72	0.94	36.58	33.87	113.39	130.21	273.99	118.70	24.24
30	10R08	1.04	1.42	0.26	5.36	19.56	24.24	30.86	55.56	98.83	9.70
31	10C04	0.71	0.79	0.09	5.87	30.90	32.47	46.97	51.23	146.47	5.62
32	10S21	0.85	1.82	0.05	11.12	10.43	39.37	125.79	57.79	68.61	1.82
33	10C09	1.02	1.04	0.04	9.27	12.27	54.46	34.81	47.16	90.36	2.09
34	10S23	0.76	1.55	0.05	6.17	9.00	52.25	90.63	91.38	72.01	2.13
35	10R09	1.68	3.02	0.52	8.83	20.35	33.16	25.45	39.80	60.50	9.90
36	10S25	0.34	0.54	0.02	0.79	4.52	12.71	9.97	3.54	26.68	2.45
37	10C07	0.62	0.95	0.13	2.12	5.80	9.31	7.62	10.93	31.83	7.81
38	10S26	0.44	0.89	0.09	2.25	3.81	5.24	10.13	15.42	80.65	6.49

Nr.	Station	IP$_{25}$ Relative abundance (µg g^{-1} TOC)	HBI-II Relative abundance (µg g^{-1} TOC)	HBI-III Relative abundance (µg g^{-1} TOC)	Brassicasterol (µg g^{-1} TOC)	Dinosterol (µg g^{-1} TOC)	Campesterol (µg g^{-1} TOC)	24-ethylcholest-5-en-3ß-ol (µg g^{-1} TOC)	Cholesterol (µg g^{-1} TOC)	C$_{27}$+C$_{29}$+C$_{31}$ (µg g^{-1} TOC)	H-Print (%)
39	10SR10	1.66	2.21	0.09	10.34	14.27	46.48	33.88	42.85	64.90	2.32
40	10MS01	0.44	0.71	0.01	0.72	0.61	1.71	3.01	2.94	n.d.	1.21
41	10SR12	0.92	1.06	0.16	1.78	3.64	6.71	9.33	17.13	36.20	7.55
42	08B12	0.08	0.10	0.01	2.34	2.44	2.37	2.87	11.39	127.81	4.97
43	08P31	n.d.	0.07	n.d.	2.09	2.32	n.d.	n.d.	2.16	121.41	—
44	10BN03	0.26	0.45	n.d.	2.77	1.42	2.08	5.46	8.32	50.43	—
45	10BN04	0.56	0.16	0.07	2.01	0.64	3.52	10.10	0.58	48.26	8.63
46	08N01	n.d.	n.d.	n.d.	2.83	2.43	0.84	1.32	11.17	113.76	—
47	14SIC03	0.11	0.18	0.03	1.64	1.56	1.99	6.37	9.95	46.25	8.75
48	10BN06	n.d.	0.11	n.d.	2.98	5.10	1.51	1.13	9.43	n.d.	—
49	08B82	n.d.	n.d.	n.d.	2.20	0.80	1.74	0.95	24.23	57.69	—
50	10BN07	0.28	0.06	0.09	1.34	0.89	0.47	0.67	5.29	38.33	21.04
51	08B85B	0.13	0.13	n.d.	2.89	3.09	2.64	2.30	62.52	114.77	—
52	08B86	0.19	0.18	n.d.	2.89	2.42	3.98	2.61	83.80	105.05	—
53	08R01[*]	0.10	0.23	0.07	6.49	17.87	44.92	33.73	119.46	123.14	17.86
54	14CC2[*]	0.14	0.24	0.07	14.46	14.16	52.16	32.78	68.93	72.46	15.37
55	08R03[*]	0.17	0.28	0.10	6.53	18.70	97.65	44.03	44.09	111.70	17.66
56	14CC3[*]	0.23	0.40	0.09	10.01	29.58	38.45	40.67	65.96	131.46	12.59
57	14CC4[*]	0.46	0.92	0.33	13.31	42.68	68.52	96.09	407.12	102.60	19.25

 Table S2 (continued)

Nr.	Station	IP$_{25}$ Relative abundance (µg g^{-1} TOC)	HBI-II Relative abundance (µg g^{-1} TOC)	HBI-III Relative abundance (µg g^{-1} TOC)	Brassicasterol (µg g^{-1} TOC)	Dinosterol (µg g^{-1} TOC)	Campesterol (µg g^{-1} TOC)	24-ethylcholest-5-en-3ß-ol (µg g^{-1} TOC)	Cholesterol (µg g^{-1} TOC)	C$_{27}$+C$_{29}$+C$_{31}$ (µg g^{-1} TOC)	H-Print (%)
58	12CC6*	0.26	0.51	0.03	5.26	24.96	12.01	55.64	33.84	81.44	4.28
59	14CC6*	0.83	1.58	0.54	15.17	48.00	36.70	82.20	162.39	138.54	18.21
60	14R03*	0.11	0.15	0.04	3.37	20.90	43.68	37.38	35.10	59.74	12.30
61	08C35*	0.71	1.41	0.08	2.88	18.20	13.45	48.16	69.54	53.97	3.57
62	08C33*	0.09	0.15	0.01	2.21	7.92	4.93	9.20	9.65	100.61	5.24
63	14C03*	0.25	0.42	0.02	4.25	14.32	11.41	41.33	42.95	47.48	2.54
64	14C01*	0.20	0.36	0.07	3.21	16.93	13.71	25.39	23.21	65.84	10.98
65	08R09*	0.38	0.43	0.06	1.91	26.39	21.95	14.69	24.72	130.85	6.90
66	14C04*	0.42	0.35	0.04	16.71	18.08	23.13	29.18	56.09	53.98	4.47
67	08C19*	0.91	0.96	0.04	3.22	13.02	19.94	17.41	22.22	126.21	2.34
68	08C17*	1.01	1.26	0.06	2.79	12.04	14.88	12.14	34.01	124.11	2.52
69	14S01*	4.39	4.46	0.15	24.17	40.13	77.68	75.31	168.08	82.21	1.68
70	08C13*	2.10	2.85	0.31	3.48	19.17	33.44	32.01	40.10	127.18	5.97
71	14S02*	0.28	0.37	0.12	0.28	1.11	4.48	3.28	3.84	11.67	15.93
72	08R11*	0.57	0.69	n.d.	1.77	22.54	21.27	15.77	22.64	115.84	—
73	14S03*	1.61	2.21	0.91	1.97	7.08	13.72	15.68	14.90	34.66	19.12
74	08S13*	0.14	0.25	n.d.	2.87	6.91	4.20	6.35	11.33	55.91	—
75	14R07*	1.08	1.01	0.05	12.53	9.38	38.80	22.16	55.83	54.46	2.11
76	08S14*	0.09	0.13	n.d.	0.92	2.36	0.94	1.20	9.53	67.58	—

Nr.	Station	IP_{25} Relative abundance ($\mu g\ g^{-1}$ TOC)	HBI-II Relative abundance ($\mu g\ g^{-1}$ TOC)	HBI-III Relative abundance ($\mu g\ g^{-1}$ TOC)	Brassicasterol ($\mu g\ g^{-1}$ TOC)	Dinosterol ($\mu g\ g^{-1}$ TOC)	Campesterol ($\mu g\ g^{-1}$ TOC)	24-ethylcholest-5-en-3ß-ol ($\mu g\ g^{-1}$ TOC)	Cholesterol ($\mu g\ g^{-1}$ TOC)	$C_{27}+C_{29}+C_{31}$ ($\mu g\ g^{-1}$ TOC)	H-Print (%)
77	08R15[*]	0.18	0.63	n.d.	0.94	2.60	2.92	2.26	8.01	14.90	—
78	12SR12[*]	0.44	1.26	0.10	2.24	6.09	5.15	9.09	8.05	82.31	5.66
79	14R08[*]	0.39	0.46	0.04	0.40	2.09	6.00	4.52	6.60	13.31	4.92
80	14R09[*]	0.22	0.32	0.04	0.74	2.30	2.70	4.98	15.78	35.60	6.52
81	08B11[*]	0.09	0.12	n.d.	0.67	1.30	0.99	1.59	5.54	52.33	—
82	08M07[*]	0.17	0.22	n.d.	1.36	1.79	0.98	1.92	7.23	43.09	—
83	14C13-5[*]	0.12	0.30	n.d.	1.12	0.90	1.34	2.22	9.30	22.35	—
84	14R10[*]	0.14	0.20	n.d.	1.36	3.10	2.62	4.33	5.13	37.02	—
85	14R11[*]	0.09	0.17	n.d.	1.07	1.14	1.05	2.06	4.69	34.85	—
86	14R12[*]	0.09	0.12	n.d.	3.10	1.37	1.74	4.63	8.92	78.52	—
87	14R14[*]	0.14	0.27	n.d.	2.71	2.45	1.47	2.61	5.98	41.13	—
88	14SIC06[*]	0.14	0.24	n.d.	0.87	0.99	1.30	3.00	3.79	70.64	—

Note: n. d., not detected; [*] HBIs data from Bai et al. (2019).

42   **Table S3.** Summary of biomarker data in SPM from the Chukchi Sea.

Nr.	Station	Brassicasterol (ng L^{-1})	Dinosterol (ng L^{-1})	24-ethylcholest-5-en-3ß-ol (ng L^{-1})	Cholesterol (ng L^{-1})
1	SPM 14R03	53.65	10.51	15.67	40.72
2	SPM 14R05	13.57	11.69	9.84	19.87
3	SPM 14R07	132.31	17.11	46.04	117.29
4	SPM 14R09	6.38	3.47	16.25	11.52
5	SPM 14C11	1.55	1.23	4.26	3.00
6	SPM 14C13	4.05	0.72	1.98	1.20
7	SPM 14R10	0.92	0.91	2.69	2.17
8	SPM 14R11	1.67	1.88	3.11	5.57
9	SPM 14C25	0.97	1.27	2.53	3.54
10	SPM 14R12	0.80	1.23	1.88	1.47
11	SPM 14R13	2.26	1.46	4.61	2.63
12	SPM 14R14	3.36	0.96	5.47	6.93
13	SPM 14R15	1.00	0.51	4.05	5.39

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