



*Supplement of*

## **Environmental drivers of circum-Antarctic glacier and ice shelf front retreat over the last two decades**

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## 1 Absolute values for zonal wind, sea surface temperature and sea ice days

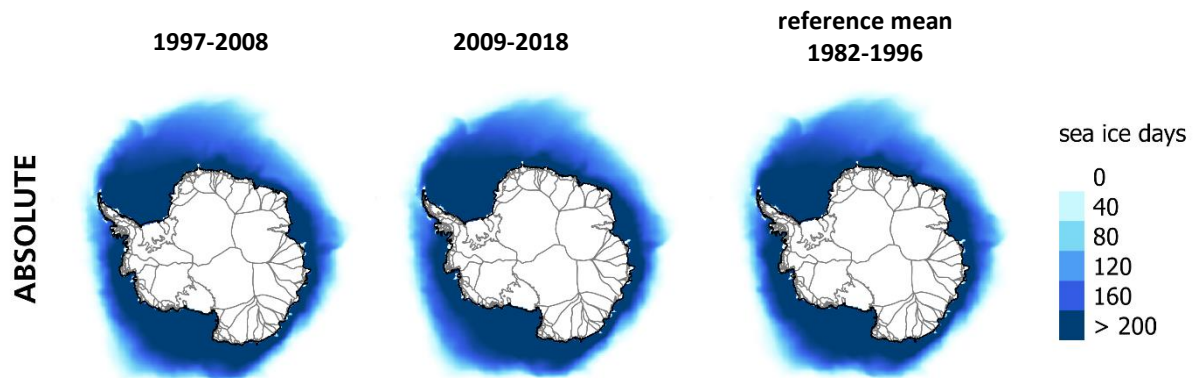


Figure S 1 Absolute sea ice days for the first (1997-2008) and second (2009-2018) decade as well as the reference period (1982-1996).

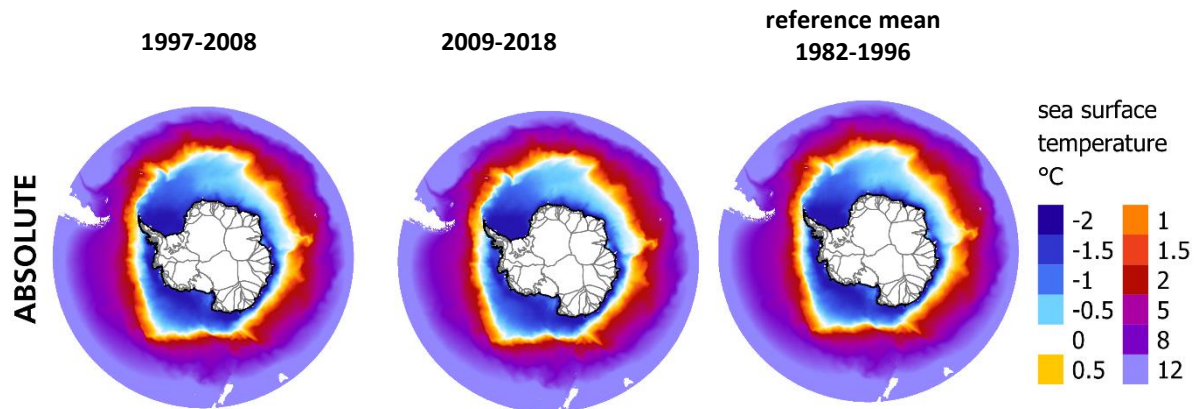


Figure S 2 Absolute values of the sea surface temperature for the first (1997-2008) and second (2009-2018) decade as well as the reference period (1982-1996).

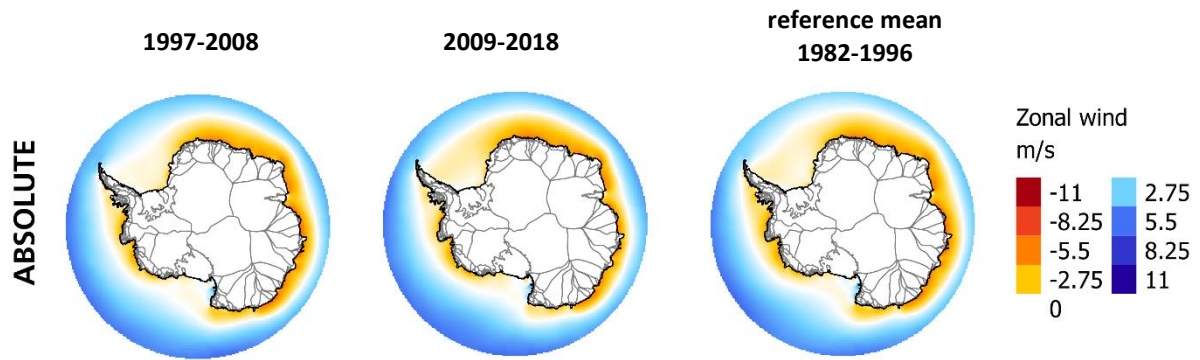


Figure S 3: Absolute values for zonal wind for the first (1997-2008) and second (2009-2018) decade as well as the reference period (1982-1996). Negative values indicate easterly winds, positive values indicate westerly winds.

## 2 Measured calving front changes

This table contains area and distance changes for each assessed calving front. The columns of the table contain the following information:

- Region: East Antarctica, West Antarctica or Antarctic Peninsula
- Basin: Basin defined after Rignot et al. 2011
- Associated Ice Shelf: Ice Shelf associated with the front
- x & y: Center coordinates of measured front (EPSG: 3031)
- width\_m: Approximate width of the measured calving front
- a\_9709: advance between 1997 and 2008/2009
- r\_9709: retreat between 1997 and 2008/2009
- a\_0918: advance between 2008/2009 and 2018
- r\_0918: retreat between 2008/2009 and 2018
- a\_9718: advance between 1997 and 2018
- r\_9718: retreat between 1997 and 2018

Advance/retreat distances are calculated as the observed advanced/retreated areas divided by the widths and are only approximations.

**Table S 1 Calving front changes for the first (1997-2008) and second decade (2009-2018) for individual measured glacier and ice shelf fronts.**

Basin	Associated_Shelf	x	y	width_m	a_9709		r_9709		a_0918		r_0918		a_9718		r_9718	
					km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr
A-Ap	Baudouin	1092361	1932288	347119	44.25	127.47	13.49	38.86	45.10	129.93	50.41	145.22	29.66	85.44	15.82	45.58
A-Ap	Borchgrevink	727963	2050829	286196	50.20	175.39	91.29	318.98	89.12	311.39	16.73	58.47	45.48	158.91	35.98	125.73
A-Ap	Lazarev	535120	2164730	100836	25.85	256.36	5.03	49.90	25.99	257.79	12.99	128.81	20.75	205.76	4.27	42.33
A-Ap	Nivl	403417	2163173	113816	6.85	60.21	1.64	14.44	9.44	82.93	3.49	30.64	6.57	57.70	1.29	11.32
A-Ap	Vigrid	318515	2159693	37884	2.26	59.72	29.36	774.97	10.33	272.61	1.36	35.98	1.53	40.42	11.88	313.66
A-Ap	Fimbul	38841	2213132	386121	78.49	203.28	23.23	60.15	85.90	222.47	32.95	85.34	64.99	168.31	13.35	34.57
A-Ap	Jelbart	-186960	2143619	91949	41.28	448.94	0.30	3.27	45.04	489.81	0.61	6.62	40.52	440.69	0.02	0.17
Ap-B	Edward_VIII	2127401	1386602	19061	1.18	61.75	3.47	182.26	14.09	739.33	0.63	32.88	4.81	252.34	0.24	12.70
Ap-B	Edward_VIII	2137991	1403253	10114	1.37	135.60	0.11	11.19	0.14	14.10	2.42	239.49	0.04	4.39	0.36	35.82
Ap-B	Zubchatyy/Porter/Myers	1882055	1646456	9215	0.19	20.80	0.30	32.71	0.39	42.75	0.86	93.57	0.13	13.75	0.38	41.76
Ap-B	Rayner_Thyer	1836028	1642512	18821	6.55	347.93	0.06	3.32	1.20	63.84	4.08	216.96	2.43	129.26	0.27	14.37
Ap-B	Hannan/Telen/Skallen	1824740	1678621	13727	0.18	12.85	0.18	12.99	0.30	21.73	0.16	11.79	0.15	11.21	0.10	7.02
Ap-B	Shirase	1379795	1728160	8369	7.98	954.05	3.43	409.34	8.55	1021.36	7.04	841.28	4.83	577.39	1.80	214.89
Ap-B	Prince_Harald	1322045	1859925	149924	39.77	265.25	77.70	518.26	50.45	336.53	38.24	255.07	16.58	110.61	31.22	208.23
Ap-B	Utsikkar/Mulebreen/Cirque_Fjord/Hoseason/Rund_Bay	2167977	1209511	3732	0.03	7.95	0.26	69.26	0.35	92.65	0.00	0.81	0.05	12.41	0.02	5.17
Ap-B	Utsikkar/Mulebreen/Cirque_Fjord/Hoseason/Rund_Bay	2137979	1274250	12881	2.26	175.21	0.11	8.19	2.79	216.96	0.73	56.78	2.01	156.37	0.00	0.24
Ap-B	Utsikkar/Mulebreen/Cirque_Fjord/Hoseason/Rund_Bay	2143865	1330558	10281	0.23	22.45	0.70	68.31	0.88	85.44	0.11	10.50	0.15	14.39	0.06	6.29
Ap-B	Zubchatyy/Porter/Myers	1950468	1608479	8244	0.36	43.83	0.38	45.63	0.45	55.08	0.67	80.82	0.09	11.40	0.19	23.37
Ap-B	Zubchatyy/Porter/Myers	1925593	1620410	6327	0.10	16.44	0.15	23.73	0.72	113.26	0.01	0.87	0.28	44.35	0.00	0.00
Ap-B	Zubchatyy/Porter/Myers	1923293	1649955	8675	0.36	41.68	0.01	1.56	0.03	3.96	0.23	26.93	0.10	11.99	0.01	0.82
Ap-B	Hannan/Telen/Skallen	1828049	1649826	5182	0.28	53.56	0.00	0.00	0.96	185.46	0.00	0.96	0.56	107.13	0.00	0.00
Ap-B	Hannan/Telen/Skallen	1778245	1702154	11338	0.08	7.48	0.34	29.99	0.87	77.10	0.30	26.44	0.26	22.82	0.15	12.90
Ap-B	Hannan/Telen/Skallen	1750939	1709912	6838	0.20	29.12	0.13	19.51	0.42	62.14	0.01	0.78	0.22	31.74	0.00	0.41
Ap-B	Hannan/Telen/Skallen	1704985	1734045	8359	0.46	54.52	0.03	3.50	0.09	11.19	0.29	34.67	0.17	20.69	0.03	4.03
Ap-B	Hannan/Telen/Skallen	1674007	1743208	6222	0.10	15.97	0.22	34.97	0.32	51.23	0.08	13.09	0.08	13.15	0.04	6.76
Ap-B	Hannan/Telen/Skallen	1659226	1753517	11305	0.05	4.62	0.26	23.16	1.17	103.80	0.00	0.09	0.41	36.45	0.02	1.71
Ap-B	Hannan/Telen/Skallen	1636730	1766353	5091	0.09	18.17	0.53	104.71	0.44	87.13	0.22	43.09	0.06	11.30	0.19	37.76
Ap-B	Hannan/Telen/Skallen	1602986	1759955	7789	0.18	23.74	0.25	31.71	0.12	14.97	0.09	11.39	0.14	18.25	0.16	20.89
B-C	Amery	2192601	723101	179998	186.61	1036.75	4.02	22.33	196.48	1091.57	21.07	117.08	174.43	969.09	3.62	20.09
C-Cp	Conger_Glenzer	2588865	-627819	25510	25.04	981.75	0.56	21.90	8.77	343.67	14.76	578.66	11.22	439.82	0.96	37.76

Basin	Associated_Shelf	x	y	width_m	a_9709		r_9709		a_0918		r_0918		a_9718		r_9718	
					km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr
C-Cp	Conger_Glenzer	2610426	-605050	26132	0.05	1.80	25.79	986.98	0.07	2.51	25.13	961.78	0.01	0.39	24.24	927.55
C-Cp	Shackleton	2646213	-328460	244254	146.02	597.83	87.41	357.86	220.41	902.39	23.00	94.16	158.89	650.51	43.58	178.42
C-Cp	West	2535712	185784	306614	187.28	610.80	12.83	41.85	133.39	435.05	87.11	284.10	130.33	425.05	19.11	62.34
C-Cp	Publications	2155736	578560	36959	12.46	337.07	11.48	310.69	16.87	456.47	3.27	88.59	11.16	301.83	4.82	130.35
C-Cp	Shackleton	2601959	-569883	22228	0.00	0.00	25.96	1167.84	2.58	116.29	2.19	98.63	0.00	0.00	13.43	604.16
C-Cp	Helen	2570111	-173934	22432	8.56	381.45	0.01	0.56	0.16	7.19	3.01	134.30	3.35	149.15	0.09	4.12
C-Cp	Helen	2571833	-114969	20243	0.00	0.14	1.23	60.52	1.31	64.69	0.00	0.00	0.12	5.91	0.20	9.82
C-Cp	Helen	2565473	-31308	3430	0.00	0.13	0.27	79.17	0.00	0.00	0.16	47.63	0.00	0.00	0.21	61.82
C-Cp	Helen	2567912	-26725	4374	0.00	0.53	0.39	89.55	0.02	4.63	0.26	59.10	0.00	0.59	0.31	70.56
C-Cp	Helen	2559706	-16086	12290	0.58	47.35	0.65	53.02	0.03	2.82	2.28	185.49	0.00	0.00	1.00	81.26
Cp-D	Frost	1982040	-1577938	57745	3.59	62.24	10.24	177.34	3.09	53.47	8.46	146.53	0.27	4.59	6.05	104.77
Cp-D	Holmes	2047067	-1561383	68843	9.81	142.57	5.83	84.75	0.53	7.67	34.41	499.78	0.90	13.13	13.34	193.74
Cp-D	Moscow	2167666	-1369827	37465	6.15	164.17	0.74	19.86	2.43	64.79	2.47	65.87	3.59	95.76	0.77	20.64
Cp-D	Totten	2279231	-1134595	71719	11.24	156.67	3.94	54.92	9.36	130.46	23.86	332.69	5.37	74.81	7.76	108.18
Cp-D	Vincennes_Bay/Underwood	2420524	-898177	13312	0.65	49.06	0.75	56.70	0.37	27.64	3.65	273.85	0.19	14.33	1.65	123.85
Cp-D	Vincennes_Bay/Underwood	2415180	-865494	33209	0.93	28.01	1.88	56.58	1.96	58.99	0.94	28.35	0.43	12.99	0.49	14.82
Cp-D	May_Glacier/Morse/Sandford	2000326	-1701313	10418	0.23	21.65	2.18	208.84	5.30	508.85	0.82	78.51	1.89	181.49	0.99	95.11
Cp-D	May_Glacier/Morse/Sandford	1999377	-1676786	5219	0.14	27.09	0.38	73.22	0.55	104.78	0.05	9.67	0.16	30.95	0.07	14.35
Cp-D	Holmes	2104129	-1544367	21881	3.60	164.47	0.62	28.42	0.69	31.67	3.25	148.66	0.73	33.17	0.26	12.04
Cp-D	Voyeykov	2120463	-1478955	32699	2.31	70.60	12.38	378.47	1.12	34.22	9.54	291.90	0.89	27.07	9.77	298.76
Cp-D	Moscow	2191460	-1328705	19040	2.42	127.01	1.12	58.64	1.42	74.46	1.81	95.14	0.82	42.82	0.30	15.87
Cp-D	Moscow	2196633	-1285899	13690	0.01	0.70	0.92	67.55	1.48	108.15	0.16	11.80	0.27	19.81	0.19	13.54
Cp-D	Moscow	2232117	-1199499	84935	2.23	26.24	7.93	93.37	1.94	22.86	6.65	78.27	0.50	5.90	5.50	64.81
Cp-D	Williamson/Whittle/Fox	2356557	-1086022	9356	2.43	260.20	7.35	785.49	10.69	1142.56	1.99	212.93	2.30	246.23	1.15	122.97
Cp-D	Williamson/Whittle/Fox	2379670	-1081216	19749	1.23	62.15	1.41	71.38	0.71	35.85	3.91	197.80	0.12	6.13	1.59	80.37
Cp-D	Williamson/Whittle/Fox	2401440	-1079378	9422	0.67	70.75	0.10	10.76	0.13	14.26	0.42	44.06	0.21	21.93	0.03	3.28
Cp-D	Vincennes_Bay/Underwood	2453187	-795599	19546	1.86	95.02	0.10	5.25	6.14	314.11	0.42	21.48	3.52	179.88	0.15	7.45
D-Dp	Cook	1096788	-2104012	98600	55.15	559.37	0.53	5.34	60.51	613.72	6.88	69.73	52.67	534.15	1.07	10.80
D-Dp	Ninnis	1272313	-2030951	80195	43.72	545.17	50.04	623.92	52.29	652.03	69.94	872.13	6.61	82.40	17.48	217.98
D-Dp	Mertz	1414086	-2084013	35000	45.10	1288.52	10.51	300.27	7.84	224.00	249.81	7137.51	3.06	87.45	88.65	2532.73
D-Dp	Dibble	1874214	-1866614	57647	2.11	36.67	0.91	15.71	21.12	366.43	0.16	2.70	9.68	167.99	0.07	1.13

Basin	Associated_Shelf	x	y	width_m	a_9709		r_9709		a_0918		r_0918		a_9718		r_9718	
					km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr
D-Dp	Deakin/HornBluff	1204688	-2051556	11014	3.43	311.72	0.04	3.49	0.20	18.16	5.91	536.14	0.34	30.80	1.01	91.33
D-Dp	Ainsworth/Fisher	1335731	-2028767	13713	1.72	125.34	0.08	5.54	0.35	25.53	1.56	113.40	0.35	25.21	0.00	0.11
D-Dp	WattBay/Zelee/Astrolabe/Liotard/Francais/Marret/Commandant_Charcot/PourquoiPas	1646775	-1967914	7840	0.35	44.49	0.44	55.79	1.73	220.88	0.02	3.15	0.70	88.94	0.01	1.55
D-Dp	WattBay/Zelee/Astrolabe/Liotard/Francais/Marret/Commandant_Charcot/PourquoiPas	1719336	-1930282	9256	0.70	75.21	0.59	63.47	4.04	436.70	0.00	0.08	1.80	193.96	0.01	0.68
D-Dp	WattBay/Zelee/Astrolabe/Liotard/Francais/Marret/Commandant_Charcot/PourquoiPas	1745588	-1925678	12246	0.13	10.95	0.33	26.56	1.95	159.14	0.01	1.15	0.73	59.54	0.00	0.00
D-Dp	WattBay/Zelee/Astrolabe/Liotard/Francais/Marret/Commandant_Charcot/PourquoiPas	1789581	-1888948	10357	0.56	54.17	0.68	66.13	9.60	926.91	0.00	0.00	4.05	390.98	0.00	0.00
D-Dp	WattBay/Zelee/Astrolabe/Liotard/Francais/Marret/Commandant_Charcot/PourquoiPas	1833911	-1878897	12147	1.46	120.00	0.22	18.12	5.55	457.16	0.13	10.46	2.97	244.80	0.00	0.00
Dp-E	Drygalski	441849	-1530341	23976	7.58	316.06	15.65	652.63	18.53	773.00	8.16	340.42	5.29	220.46	5.07	211.37
Dp-E	Nansen	459550	-1574670	62532	4.87	77.85	6.10	97.60	7.28	116.41	14.25	227.81	0.20	3.25	3.84	61.33
Dp-E	Aviator	432185	-1694807	13427	2.13	158.43	1.26	94.19	1.19	88.60	4.07	303.22	0.68	50.92	1.47	109.25
Dp-E	Mariner	351595	-1771928	33262	8.01	240.87	2.62	78.71	6.96	209.24	3.30	99.34	6.09	183.10	1.70	51.06
Dp-E	Lillie	597204	-2047622	12801	3.95	308.73	1.36	106.29	0.28	21.93	13.64	1065.42	0.05	4.13	4.42	345.30
Dp-E	Rennick	667234	-2016988	28519	7.52	263.69	0.86	30.26	5.87	205.92	3.31	115.90	5.58	195.52	0.99	34.66
Dp-E	Suvorov/Gillet/Noll/Paternostro/McLeod	777456	-2099918	22091	3.25	147.15	0.03	1.22	0.01	0.66	4.74	214.47	0.14	6.41	0.48	21.60
Dp-E	Matusevitch	883401	-2112766	9884	0.32	32.63	10.34	1045.77	9.74	985.10	0.35	35.04	0.65	66.14	1.87	189.67
Dp-E	Lauritzen	929310	-2114232	26535	6.05	228.08	2.01	75.82	4.15	156.31	5.68	213.90	2.10	79.25	0.64	24.18
Dp-E	Andreyev/Slava	989492	-2107251	31084	1.69	54.38	4.40	141.51	3.19	102.52	2.99	96.09	0.39	12.55	1.72	55.43
Dp-E	Campbell/CapeWashington/Tinker	431460	-1647351	33862	2.12	62.74	1.29	37.97	1.75	51.69	2.90	85.77	0.85	25.02	0.90	26.65
Dp-E	Parker/Falkner/Fitzgerald/Wyde/Suter	406631	-1740289	61551	3.87	62.83	5.36	87.08	4.61	74.87	8.51	138.21	1.50	24.42	3.96	64.26
Dp-E	Arneb/Manhaul/Ironside/Quatermain_Point/Moubray/Dennistoun/SmithInlet/Kirkby	333415	-1940837	18187	1.42	77.89	0.27	14.98	1.62	89.31	0.98	53.65	1.02	56.20	0.14	7.96
Dp-E	Arneb/Manhaul/Ironside/Quatermain_Point/Moubray/Dennistoun/SmithInlet/Kirkby	348502	-1984187	9178	0.09	10.05	0.83	90.52	0.97	106.13	0.02	1.84	0.11	11.62	0.08	9.08
Dp-E	Arneb/Manhaul/Ironside/Quatermain_Point/Moubray/Dennistoun/SmithInlet/Kirkby	368085	-1991522	3000	0.15	51.39	0.01	1.84	0.20	67.50	0.01	2.61	0.16	53.94	0.00	0.18
Dp-E	Arneb/Manhaul/Ironside/Quatermain_Point/Moubray/Dennistoun/SmithInlet/Kirkby	374813	-1998967	7452	0.21	28.42	0.19	25.34	0.90	120.62	0.02	3.32	0.39	52.81	0.01	0.92
Dp-E	Arneb/Manhaul/Ironside/Quatermain_Point/Moubray/Dennistoun/SmithInlet/Kirkby	422853	-2020987	7739	0.59	76.65	0.04	5.60	0.06	8.25	0.42	54.40	0.14	17.47	0.00	0.04
Dp-E	Arneb/Manhaul/Ironside/Quatermain_Point/Moubray/Dennistoun/SmithInlet/Kirkby	439646	-2037680	6029	0.35	58.82	0.06	10.49	0.57	95.36	0.04	6.84	0.38	63.52	0.00	0.27
Dp-E	Arneb/Manhaul/Ironside/Quatermain_Point/Moubray/Dennistoun/SmithInlet/Kirkby	478726	-2051854	3609	0.18	50.18	0.00	0.00	0.01	2.56	0.15	40.29	0.04	11.46	0.00	1.35
Dp-E	Arneb/Manhaul/Ironside/Quatermain_Point/Moubray/Dennistoun/SmithInlet/Kirkby	485515	-2049741	5512	0.63	114.18	0.00	0.03	0.51	92.92	0.03	4.77	0.54	98.14	0.00	0.57
Dp-E	Arneb/Manhaul/Ironside/Quatermain_Point/Moubray/Dennistoun/SmithInlet/Kirkby	513568	-2056654	4410	0.34	77.94	0.02	5.38	0.02	5.32	0.41	93.48	0.05	11.40	0.05	11.18
Dp-E	Arneb/Manhaul/Ironside/Quatermain_Point/Moubray/Dennistoun/SmithInlet/Kirkby	519016	-2049712	3443	0.25	72.79	0.00	0.00	0.00	0.26	0.19	56.02	0.06	16.02	0.01	1.79
Dp-E	Chugunov/Barber/Gannutz	605963	-2032531	17954	1.33	74.10	0.01	0.66	0.03	1.43	1.14	63.76	0.22	12.11	0.01	0.36
Dp-E	Chugunov/Barber/Gannutz	630322	-2048413	13862	1.02	73.46	0.07	4.81	0.36	26.06	1.60	115.14	0.19	13.94	0.22	16.15

Basin	Associated_Shelf	x	y	width_m	a_9709		r_9709		a_0918		r_0918		a_9718		r_9718	
					km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr
Dp-E	Chugunov/Barber/Gannutz	660916	-2053528	6360	0.51	80.82	0.04	6.17	0.34	53.11	0.23	35.61	0.34	53.24	0.04	6.64
Dp-E	Suvorov/Gillet/Noll/Paternostro/McLeod	738014	-2074896	16724	3.18	190.19	1.49	88.95	0.14	8.63	4.17	249.16	0.67	40.30	1.51	90.36
Dp-E	Suvorov/Gillet/Noll/Paternostro/McLeod	807102	-2114849	10941	1.02	92.98	0.68	62.44	0.13	11.99	1.51	138.29	0.23	21.20	0.65	59.34
Dp-E	Suvorov/Gillet/Noll/Paternostro/McLeod	827283	-2110814	9558	0.18	18.55	0.53	55.41	1.64	171.92	0.03	3.01	0.55	57.16	0.04	4.08
Dp-E	Matusevitch	897601	-2106676	6395	0.66	102.88	0.35	54.43	1.00	155.73	0.31	49.23	0.60	93.54	0.14	22.52
Dp-E	Andreyev/Slava	959129	-2102593	8066	0.04	5.41	1.01	125.78	0.24	30.31	0.19	23.19	0.01	1.32	0.49	61.32
Dp-E	Andreyev/Slava	1024089	-2135975	5890	0.38	64.87	0.00	0.00	0.00	0.00	0.93	158.10	0.00	0.13	0.20	33.90
Dp-E	Nordenskjold/Marin/HarbordGlacier/Cheetham/Geikielnet	380070	-1286603	6650	0.25	37.69	0.01	1.62	1.52	228.52	0.00	0.72	0.78	116.54	0.00	0.02
Dp-E	Nordenskjold/Marin/HarbordGlacier/Cheetham/Geikielnet	383594	-1300081	3435	0.06	16.98	0.01	1.69	0.53	154.28	0.00	0.00	0.25	74.13	0.00	0.00
Dp-E	Nordenskjold/Marin/HarbordGlacier/Cheetham/Geikielnet	404212	-1344573	5630	0.00	0.00	0.54	96.63	0.09	15.19	0.00	0.25	0.00	0.64	0.25	44.85
Dp-E	Nordenskjold/Marin/HarbordGlacier/Cheetham/Geikielnet	429947	-1355751	3712	0.56	150.12	0.00	0.82	0.34	91.38	0.29	77.35	0.34	92.18	0.03	7.96
Dp-E	Nordenskjold/Marin/HarbordGlacier/Cheetham/Geikielnet	434130	-1399086	6263	0.09	14.49	0.08	13.42	0.30	47.43	0.08	12.94	0.13	20.32	0.03	4.98
Dp-E	Nordenskjold/Marin/HarbordGlacier/Cheetham/Geikielnet	444239	-1441472	9188	2.71	295.29	0.06	6.51	1.32	143.51	0.64	69.31	1.77	192.93	0.09	9.86
Dp-E	Nordenskjold/Marin/HarbordGlacier/Cheetham/Geikielnet	456413	-1446130	3094	0.07	23.93	0.18	59.56	0.42	136.41	0.03	11.20	0.13	42.58	0.02	7.58
Dp-E	Nordenskjold/Marin/HarbordGlacier/Cheetham/Geikielnet	449486	-1467754	3189	0.22	68.42	0.00	0.50	0.07	21.91	0.15	48.39	0.09	26.76	0.01	2.53
Dp-E	Nordenskjold/Marin/HarbordGlacier/Cheetham/Geikielnet	459350	-1488635	6598	0.27	41.47	0.10	15.50	0.27	41.57	0.43	65.42	0.12	18.14	0.10	14.76
Dp-E	Tucker	326579	-1866197	9500	0.16	16.83	0.25	26.06	1.04	109.57	0.02	1.85	0.40	41.88	0.01	0.55
E-Ep	Ross_East	132325	-1338344	204301	5.12	25.07	410.77	2010.59	164.04	802.93	0.86	4.19	4.67	22.88	147.22	720.59
E-Ep	Ross_East	320089	-1284184	27478	0.93	33.96	0.09	3.29	0.13	4.63	7.72	280.92	0.26	9.42	3.07	111.77
Ep-F	Sulzberger	-701659	-1245289	105565	14.21	134.61	8.09	76.63	12.39	117.40	19.32	183.00	7.04	66.66	6.80	64.40
Ep-F	Swinburne	-626152	-1239115	42810	10.02	233.94	3.33	77.74	0.46	10.64	22.38	522.72	0.19	4.44	6.08	142.08
Ep-F	Withrow	-548006	-1294557	16673	11.85	710.67	1.81	108.40	3.40	203.82	8.72	522.92	4.53	271.46	1.55	92.74
Ep-F	Richter	-586217	-1280852	6147	1.61	261.54	0.61	99.86	1.03	168.15	1.27	206.21	0.90	146.89	0.48	78.51
Ep-F	Ross_West	-213693	-1244206	551308	121.91	221.12	853.98	1549.00	459.31	833.13	25.94	47.05	120.14	217.91	317.87	576.57
F-G	Land	-993151	-1267699	15689	3.12	198.57	61.09	3893.53	17.38	1107.47	2.59	165.25	1.38	87.85	25.41	1619.49
F-G	Nickerson	-895180	-1291639	148389	26.23	176.77	8.05	54.22	21.70	146.22	12.62	85.05	17.93	120.81	4.51	30.41
F-G	Hull	-1125510	-1203868	24531	2.36	96.18	1.15	47.04	2.84	115.57	6.84	278.77	1.08	44.05	2.16	88.25
F-G	Lord	-1030388	-1231216	47183	5.46	115.72	3.44	72.83	4.48	94.97	4.99	105.85	3.25	68.91	2.41	51.11
F-G	Getz	-1568103	-752709	37067	0.00	0.07	12.35	333.24	0.06	1.53	13.48	363.76	0.01	0.40	12.24	330.16
F-G	Getz	-1550600	-817358	49005	1.42	28.89	0.60	12.34	0.56	11.39	6.02	122.80	0.26	5.25	2.17	44.32
F-G	Getz	-1530023	-886685	13946	0.01	0.92	0.45	32.50	0.00	0.00	2.46	176.68	0.00	0.00	1.29	92.26

Basin	Associated_Shelf	x	y	width_m	a_9709		r_9709		a_0918		r_0918		a_9718		r_9718	
					km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr
F-G	Getz	-1473383	-975966	25197	0.20	7.98	1.10	43.48	0.54	21.44	0.64	25.22	0.02	0.84	0.53	21.05
F-G	Getz	-1463926	-995571	14749	0.67	45.38	0.20	13.81	0.00	0.34	3.34	226.67	0.00	0.00	1.19	80.46
F-G	Getz	-1467948	-1019474	22161	3.17	142.82	0.11	4.89	0.00	0.00	5.27	237.70	0.06	2.74	0.72	32.36
F-G	Getz	-1389764	-1067572	68994	2.34	33.91	8.42	122.01	0.18	2.59	19.85	287.73	0.00	0.00	11.61	168.34
F-G	Getz	-1319783	-1080109	83829	44.37	529.30	2.47	29.44	26.45	315.56	27.04	322.54	26.59	317.17	4.89	58.33
F-G	Getz	-1225452	-1166893	55520	11.64	209.62	0.07	1.25	3.09	55.74	1.46	26.23	6.80	122.41	0.03	0.61
F-G	Hull	-1165472	-1199407	8202	1.48	180.28	0.00	0.02	0.03	3.47	1.23	150.53	0.26	32.26	0.01	0.86
F-G	Lord	-1073700	-1220881	30187	0.85	28.15	1.12	37.01	0.00	0.16	3.65	120.85	0.01	0.35	1.71	56.72
G-H	Cosgrove	-1776447	-362978	41213	0.89	21.54	0.30	7.18	0.60	14.53	1.66	40.38	0.34	8.29	0.49	11.84
G-H	Pine_Island	-1595851	-288691	47806	0.69	14.34	21.32	445.93	0.28	5.92	73.38	1534.94	0.08	1.61	42.21	882.97
G-H	Thwaites	-1571898	-474578	136548	35.88	262.79	318.25	2330.71	0.45	3.27	310.95	2277.25	1.58	11.59	282.57	2069.35
G-H	Crosson	-1549740	-558591	51327	2.58	50.31	22.43	437.06	44.66	870.18	3.60	70.19	11.27	219.50	4.07	79.24
G-H	Dotson	-1559641	-650516	45780	0.13	2.94	9.19	200.70	6.02	131.43	0.26	5.63	0.15	3.23	2.42	52.90
H-Hp	Ferrigno	-1775834	196876	21147	0.99	46.72	3.80	179.63	1.14	53.91	2.47	116.65	0.85	40.19	2.89	136.70
H-Hp	Fox	-1794447	160774	75439	0.56	7.44	7.54	99.90	0.34	4.48	8.28	109.81	0.09	1.16	7.15	94.73
H-Hp	Venable	-1837879	100223	79532	5.65	71.03	2.67	33.62	0.87	10.97	9.22	115.92	0.53	6.62	2.55	32.00
H-Hp	Alison/Eltanin_Bay	-1754669	254379	27219	0.08	2.99	4.18	153.41	0.71	26.20	2.31	84.97	0.01	0.38	2.84	104.36
H-Hp	Abbot	-1906432	3131	40796	2.09	51.14	3.37	82.55	0.23	5.56	13.55	332.19	0.17	4.13	6.55	160.56
H-Hp	Abbot	-1902545	-74985	48426	1.85	38.27	2.71	55.90	0.22	4.60	10.26	211.96	0.14	2.80	4.89	100.90
H-Hp	Abbot	-1905193	-125195	33013	2.86	86.53	0.28	8.45	0.04	1.16	8.81	266.73	0.06	1.84	2.47	74.75
H-Hp	Abbot	-1905213	-178853	13519	0.06	4.43	1.42	105.01	0.64	47.34	0.07	5.30	0.10	7.23	0.57	41.90
H-Hp	Abbot	-1936676	-186060	17224	1.62	93.78	0.44	25.63	0.00	0.00	2.81	162.93	0.09	5.13	0.68	39.26
H-Hp	Abbot	-1960766	-204040	13976	1.65	117.83	0.05	3.35	0.00	0.00	3.79	271.50	0.01	0.48	0.79	56.87
H-Hp	Abbot	-1972178	-230147	4929	0.18	36.95	0.00	0.00	0.00	0.00	0.39	78.12	0.00	0.66	0.07	14.79
H-Hp	Abbot	-1968988	-250219	15001	0.38	25.05	0.24	15.79	0.03	2.17	1.15	76.68	0.05	3.52	0.46	30.61
H-Hp	Abbot	-1969053	-280591	5380	0.27	49.29	0.00	0.00	0.00	0.00	0.69	127.42	0.00	0.00	0.15	28.79
H-Hp	Abbot	-1973062	-291192	8099	0.51	62.98	0.00	0.00	0.00	0.00	1.23	151.74	0.00	0.00	0.26	32.04
H-Hp	Abbot	-1954253	-319193	11284	0.17	15.13	2.06	182.46	0.00	0.00	4.97	440.16	0.00	0.09	3.12	276.38
H-Hp	Abbot	-1952675	-334473	10928	0.19	17.37	2.03	185.96	0.00	0.00	5.90	539.94	0.00	0.00	3.49	319.71
H-Hp	Abbot	-1948182	-367769	7570	0.24	31.92	0.01	1.06	0.00	0.00	0.65	85.23	0.01	1.37	0.16	21.73
H-Hp	Abbot	-1947140	-381953	7934	0.13	16.92	0.15	18.41	0.00	0.38	0.68	85.21	0.00	0.46	0.30	37.60



Basin	Associated_Shelf	x	y	width_m	a_9709		r_9709		a_0918		r_0918		a_9718		r_9718	
					km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr
H-Hp	Abbot	-1888808	-424705	65797	6.49	98.65	4.45	67.62	1.68	25.57	24.99	379.76	1.06	16.16	9.98	151.70
Hp-l	George_VI	-2033481	793604	26657	0.18	6.77	16.17	606.69	2.23	83.53	7.09	265.83	0.12	4.44	10.58	396.81
Hp-l	Wilkins	-2048543	627178	194625	0.23	1.16	266.03	1366.88	15.15	77.86	210.30	1080.56	1.67	8.58	224.54	1153.68
Hp-l	Wilkins	-1955711	571490	15352	0.00	0.03	1.04	67.93	0.03	1.63	1.11	72.28	0.00	0.20	1.01	66.05
Hp-l	Wilkins	-1940016	539670	14169	0.02	1.61	4.32	304.98	0.05	3.27	2.92	205.86	0.00	0.28	3.49	246.01
Hp-l	Bach	-1875852	570627	38702	0.04	1.08	9.91	256.00	0.16	4.18	13.07	337.72	0.02	0.65	10.73	277.12
Hp-l	George_VI	-1770511	581384	53530	6.12	114.37	19.49	364.13	3.22	60.21	57.42	1072.65	3.21	60.05	33.44	624.77
Hp-l	Stange	-1789069	431897	132791	12.97	97.67	11.38	85.67	5.53	41.68	29.97	225.71	5.26	39.63	14.90	112.21
l-lpp	LarsenC	-2217805	1194451	290527	84.12	289.54	113.31	390.03	27.35	94.13	592.19	2038.33	11.26	38.75	268.63	924.62
l-lpp	LarsenB	-2357924	1326679	89971	0.00	0.02	694.59	7720.12	30.01	333.54	10.93	121.52	0.01	0.07	355.66	3953.06
l-lpp	LarsenA	-2428394	1393834	57027	2.98	52.20	28.07	492.28	2.96	51.94	7.12	124.84	0.48	8.49	15.41	270.25
l-lpp	Wordie	-2100978	891295	69389	0.13	1.84	92.29	1330.06	0.77	11.05	13.16	189.58	0.07	0.94	53.65	773.18
l-lpp	PeninsulaEast	-2422728	1462593	7886	0.00	0.02	2.81	356.68	0.31	39.23	0.35	44.48	0.00	0.01	1.49	189.08
l-lpp	PeninsulaEast	-2441428	1466122	5838	0.00	0.32	5.81	995.81	0.79	136.12	0.87	149.21	0.00	0.00	3.08	527.06
l-lpp	PeninsulaEast	-2468676	1557977	3001	0.01	2.86	0.22	73.09	0.03	8.59	0.10	32.23	0.00	0.63	0.14	47.55
l-lpp	PeninsulaEast	-2474737	1579971	4665	0.01	2.37	0.24	51.63	0.00	0.38	0.15	32.74	0.00	0.18	0.19	39.85
l-lpp	PeninsulaEast	-2457404	1496803	3485	0.01	1.54	0.03	7.72	0.05	15.20	0.00	0.71	0.01	3.67	0.00	0.70
lpp-J	LarsenF	-1517955	843763	12993	2.26	173.86	10.54	811.04	7.70	592.80	0.80	61.91	1.95	150.25	3.33	256.50
lpp-J	LarsenE	-1569779	895045	33815	2.89	85.33	19.36	572.39	9.07	268.29	5.72	169.15	1.97	58.24	9.16	270.88
lpp-J	LarsenD	-1970426	1089909	187709	63.02	335.71	18.33	97.63	46.34	246.87	69.33	369.33	35.71	190.23	22.15	118.01
lpp-J	LarsenG	-1479237	799082	29295	7.61	259.75	3.17	108.10	2.88	98.36	2.71	92.39	4.05	138.27	1.65	56.28
lpp-J	LarsenD	-1835727	1032220	21145	0.36	17.22	1.85	87.31	5.17	244.46	0.00	0.00	1.64	77.35	0.20	9.30
lpp-J	LarsenD	-1770407	1007542	101375	12.95	127.69	5.56	54.83	35.54	350.62	0.08	0.75	19.09	188.35	0.02	0.24
lpp-J	LarsenD	-1646066	952439	69339	2.12	30.50	8.04	115.92	18.00	259.59	0.15	2.15	5.33	76.82	0.78	11.24
J-Jpp	Ronne_Ice	-1148130	835101	483761	29.34	60.64	1127.00	2329.67	678.38	1402.29	27.89	57.66	12.85	26.57	309.04	638.84
Jpp-K	Filchner	-837140	994930	178005	159.25	894.62	0.17	0.93	259.35	1456.97	0.29	1.61	194.45	1092.37	0.09	0.52
Jpp-K	Filchner	-769477	1095443	11917	2.48	208.01	0.04	3.00	1.83	153.16	0.54	45.05	1.94	162.70	0.11	8.98
Jpp-K	Filchner	-764164	1160193	9341	1.34	143.29	0.00	0.19	0.00	0.02	1.79	191.92	0.16	17.53	0.23	24.81
Jpp-K	Filchner	-744664	1187842	7326	0.03	3.63	0.13	17.37	2.09	285.74	0.00	0.15	0.85	115.52	0.00	0.32
Jpp-K	Filchner	-702939	1328650	8458	0.00	0.17	1.20	141.89	0.87	102.70	0.00	0.29	0.01	1.10	0.27	31.45
Jpp-K	Filchner	-683863	1353186	6353	0.27	43.04	0.21	32.90	2.16	340.39	0.01	2.15	0.96	150.46	0.00	0.19

Basin	Associated_Shelf	x	y	width_m	a_9709		r_9709		a_0918		r_0918		a_9718		r_9718	
					km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr	km2/yr	m/yr
K-A	Ekstrom	-345773	2091185	77183	13.26	171.76	0.30	3.83	15.86	205.46	4.47	57.94	12.88	166.83	1.21	15.64
K-A	Quar	-395368	2031973	39374	2.56	65.04	4.68	118.97	6.10	154.87	1.19	30.31	2.37	60.21	1.38	35.07
K-A	Riiser-Larsen	-538777	1864722	351276	54.94	156.41	4.08	11.62	70.96	202.01	17.56	49.99	54.83	156.10	5.31	15.11
K-A	Brunt_Stancomb	-686069	1519394	230201	228.04	990.61	12.32	53.52	206.09	895.26	47.35	205.69	191.45	831.68	10.43	45.29
K-A	Atka	-268513	2127580	45156	7.68	169.97	1.96	43.44	2.28	50.42	15.96	353.36	1.82	40.34	4.69	103.90