

Supplementary Table 1. Acquisition dates and time intervals of the Sentinel-1 images considered for the different study regions and degree of coherence of the interferograms.

Study Region	Acquisition Date 1	Acquisition Date 2	Time Interval	Degree of Coherence
Ilulissat (Greenland)	26/07/2015	07/08/2015	12 days	0.48
	07/08/2015	19/08/2015	12 days	0.70
	19/08/2015	31/08/2015	12 days	0.36
	31/08/2015	12/09/2015	12 days	0.46
	12/09/2015	24/09/2015	12 days	0.54
	12/09/2015	25/08/2016	348 days	0.46
	12/09/2015	06/09/2016	348 days	0.53
	24/09/2015	25/08/2016	348 days	0.42
	24/09/2015	06/09/2016	348 days	0.45
	02/06/2016	14/06/2016	12 days	0.45
	14/06/2016	08/07/2016	24 days	0.51
	08/07/2016	20/07/2016	12 days	0.56
	20/07/2016	01/08/2016	12 days	0.57
	01/08/2016	13/08/2016	12 days	0.77
	13/08/2016	25/08/2016	12 days	0.71
	25/08/2016	06/09/2016	12 days	0.52
	06/09/2016	18/09/2016	12 days	0.66
	18/09/2016	30/09/2016	12 days	0.28
	30/09/2016	06/10/2016	6 days	0.31
	06/10/2016	12/10/2016	6 days	0.42
	12/10/2016	18/10/2016	6 days	0.49
	18/10/2016	24/10/2016	6 days	0.47
	24/10/2016	30/10/2016	6 days	0.46
	25/08/2016	20/08/2017	360 days	0.34
	25/08/2016	26/08/2017	354 days	0.46
	06/09/2016	20/08/2017	360 days	0.45
	06/09/2016	26/08/2017	354 days	0.55
	03/06/2017	09/06/2017	6 days	0.51
	09/06/2017	15/06/2017	6 days	0.51
	15/06/2017	21/06/2017	6 days	0.61
	21/06/2017	27/06/2017	6 days	0.59
	27/06/2017	03/07/2017	6 days	0.46
	03/07/2017	09/07/2017	6 days	0.57
09/07/2017	15/07/2017	6 days	0.50	
15/07/2017	27/07/2017	12 days	0.70	
27/07/2017	02/08/2017	6 days	0.76	
02/08/2017	08/08/2017	6 days	0.80	
08/08/2017	14/08/2017	6 days	0.78	
14/08/2017	20/08/2017	6 days	0.38	
20/08/2017	26/08/2017	6 days	0.49	
26/08/2017	01/09/2017	6 days	0.43	
01/09/2017	07/09/2017	6 days	0.38	
07/09/2017	13/09/2017	6 days	0.32	
13/09/2017	19/09/2017	6 days	0.38	
19/09/2017	25/09/2017	6 days	0.52	
25/09/2017	01/10/2017	6 days	0.47	
01/10/2017	07/10/2017	6 days	0.39	
07/10/2017	13/10/2017	6 days	0.38	
13/10/2017	19/10/2017	6 days	0.56	
19/10/2017	25/10/2017	6 days	0.47	

Study Region	Acquisition Date 1	Acquisition Date 2	Time Interval	Degree of Coherence	
Lena River Delta (Russia)	22/07/2016	03/08/2016	12 days	0.36	
	03/08/2016	15/08/2016	12 days	0.53	
	15/08/2016	27/08/2016	12 days	0.43	
	27/08/2016	08/09/2016	12 days	0.52	
	08/09/2016	26/09/2016	18 days	0.20	
	27/08/2016	28/08/2017	366 days	0.23	
	08/09/2016	09/09/2017	366 days	0.25	
	26/09/2016	21/09/2017	360 days	0.20	
	29/06/2017	11/07/2017	12 days	0.39	
	11/07/2017	23/07/2017	12 days	0.42	
	23/07/2017	04/08/2017	12 days	0.59	
	04/08/2017	16/08/2017	12 days	0.53	
	16/08/2017	28/08/2017	12 days	0.53	
	28/08/2017	09/09/2017	12 days	0.58	
	09/09/2017	21/09/2017	12 days	0.28	
	21/09/2017	03/10/2017	12 days	0.21	
	03/10/2017	15/10/2017	12 days	0.21	
	South Shetlands Islands (Antarctica)	30/12/2016	11/01/2017	12 days	0.35
		11/01/2017	23/01/2017	12 days	0.51
		23/01/2017	04/02/2017	12 days	0.54
04/02/2017		16/02/2017	12 days	0.54	
16/02/2017		28/02/2017	12 days	0.42	
28/02/2017		12/03/2017	12 days	0.43	
12/03/2017		24/03/2017	12 days	0.66	
24/03/2017		05/04/2017	12 days	0.45	
05/04/2017		17/04/2017	12 days	0.45	
11/01/2017		06/01/2018	360 days	0.19	
23/01/2017		18/01/2018	360 days	0.21	
04/02/2017		30/01/2018	360 days	0.24	
16/02/2017		11/02/2018	360 days	0.26	
28/02/2017		23/02/2018	360 days	0.22	
12/03/2017		07/03/2018	360 days	0.20	
05/04/2017		31/03/2018	360 days	0.19	
25/12/2017		06/01/2018	12 days	0.30	
06/01/2018		18/01/2018	12 days	0.39	
18/01/2018		30/01/2018	12 days	0.53	
30/01/2018		11/02/2018	12 days	0.58	
11/02/2018	23/02/2018	12 days	0.62		
23/02/2018	07/03/2018	12 days	0.39		
07/03/2018	19/03/2018	12 days	0.26		
19/03/2018	31/03/2018	12 days	0.19		
31/03/2018	12/04/2018	12 days	0.15		
Teshekpuk Lake (Alaska)	07/07/2016	19/07/2016	12 days	0.30	
	19/07/2016	31/07/2016	12 days	0.41	
	31/07/2016	12/08/2016	12 days	0.45	
	12/08/2016	24/08/2016	12 days	0.34	
	24/08/2016	05/09/2016	12 days	0.40	
	24/08/2016	25/08/2017	366 days	0.18	
	05/09/2016	06/09/2017	366 days	0.21	
	14/06/2017	26/06/2017	12 days	0.24	
	26/06/2017	08/07/2017	12 days	0.22	
	08/07/2017	20/07/2017	12 days	0.26	
	20/07/2017	01/08/2017	12 days	0.39	
	01/08/2017	13/08/2017	12 days	0.24	
	13/08/2017	25/08/2017	12 days	0.40	
	25/08/2017	06/09/2017	12 days	0.43	
	06/09/2017	30/09/2017	24 days	0.30	