Sea-ice area (10^6 km^2) between 1979-2000		Northern Hemisphere			Greenland		
		Minimum area	Annual average area	Maximum area	Minimum area	Annual average area	Maximum area
CESM1	Summer	4.8	6.0	6.6	0.9	1.2	1.5
	Winter	15.0	15.6	16.2	4.1	4.3	4.5
MPI-ESM	Summer	3.6	4.2	4.8	0.4	0.6	0.8
	Winter	14.1	14.6	15.1	3.5	3.8	4.0
Satellite data	Summer	6.2	7.1	8.0	1.7	2.3	2.6
	Winter	15.7	16.2	16.9	6.7	7.3	7.7

Table S2. Comparison between simulated sea-ice areas (in million km^2) between the two models (CESM1 and MPI-ESM) and sea-ice extent (in million km^2) from satellite data (obtained from the National Snow & Ice Data Center website) for the Northern Hemisphere and for around Greenland (see mask in Figure 1) for annual, summer and winter areas, over the period between 1979 – 2000 CE.