

S3 Table. Sea ice breakup date changepoint analysis.

DBO1	Mean DOY	Mean DOY	
Station	Pre Changepoint	Post Changepoint	DOY Threshold
SLIP1/2	134.5	85	109.75
SLIP3	131.5	101.8	116.65
SLIP4	163	103.5	133.25
SLIP5	159	103.3	131.15
DBO2			
BCL-6A	153	110.4	131.7
BCL-6C	131.25	104.3	117.775
UTBS-5	132.75	107.66	120.205
UTBS-4	132.75	105	118.875
UTBS-2	146	117.6	131.8
UTBS-2A	143.66	110.75	127.205
UTBS-1	146.5	122.2	134.35
DBO2.7	146.5	118.8	132.65

The sea ice breakup dates changepoint analysis results to determine the day of year (DOY) threshold to distinguish high versus low sea ice years within our study duration per station. These were derived using the methodology described in S1 Appendix.