Improving ecological insights from dendroecological studies of Arctic shrub dynamics: research gaps and potential solutions

APPENDIX C: Examples of gridded global datasets

Table S1: Examples of gridded global datasets that include remote sensing data and allow for measuring some component of the key variables identified in the review. This table forms the base of the data visualised in Figure 3. In addition to each starting year, example citations or well-known dataset names are provided. We highlight that this table is intended to only provide an example for what data might be available and from when, solely based on the best knowledge of the authors. It does not provide information based on an exhaustive literature and therefore likely does not cover all available datasets and their applications.

Variable	Start of time series (year) with example reference or well-known dataset		
	Coarse (> 1 km)	Medium (10 m - 1 km)	Fine (<= 10 m)
Temperature	1701 (A. Muller et al. 2013)	1979 CHELSA (Karger et al. 2017)	*not available*
Precipitation	1871 (Sun et al. 2018)	1979 CHELSA (Karger et al. 2017)	*not available*
Geophysical Factors	*not available*	1979 Landsat Imagery	2015 Sentiel-2 imagery
Ice	1978 NSIDC CDR Sea Ice*	2000 (Cooley et al. 2020)	*not relevant*
Biotic Factors	1978 *GIMMS3g* (Guay et al. 2014)	1978 Landsat Imagery	2015 Sentiel-2 imagery
Climate System	1871 (Compo et al. 2011)	*not relevant*	*not relevant*
Growing Season	1978 (Zeng et al. 2011)	2000 (Zeng et al. 2011)	2016 Sentinel-2 imagery
Snow	1966 (Robinson et al. 2012)	2000 MODIS (Hall et al. 2004)	*not available*

*(http://psc.apl.washington.edu/zhang/Global_seaice/)

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