



*Supplement of*

**Sentinel-1 time series for mapping snow cover depletion and timing of snowmelt in Arctic periglacial environments: case study from Zackenberg and Kobbefjord, Greenland**

**Sebastian Buchelt et al.**

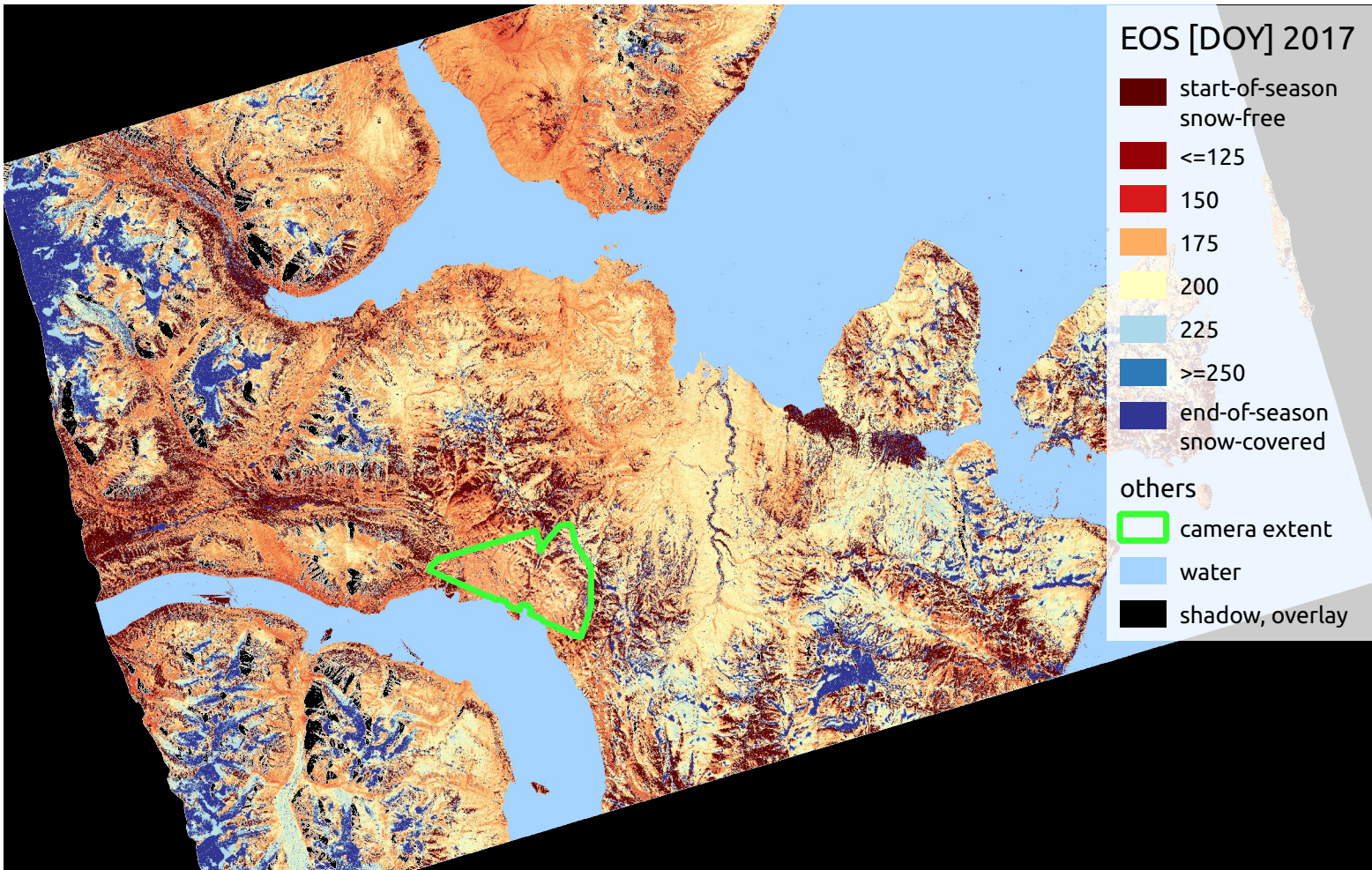
*Correspondence to:* Sebastian Buchelt ([sebastian.buchelt@uni-wuerzburg.de](mailto:sebastian.buchelt@uni-wuerzburg.de))

The copyright of individual parts of the supplement might differ from the article licence.

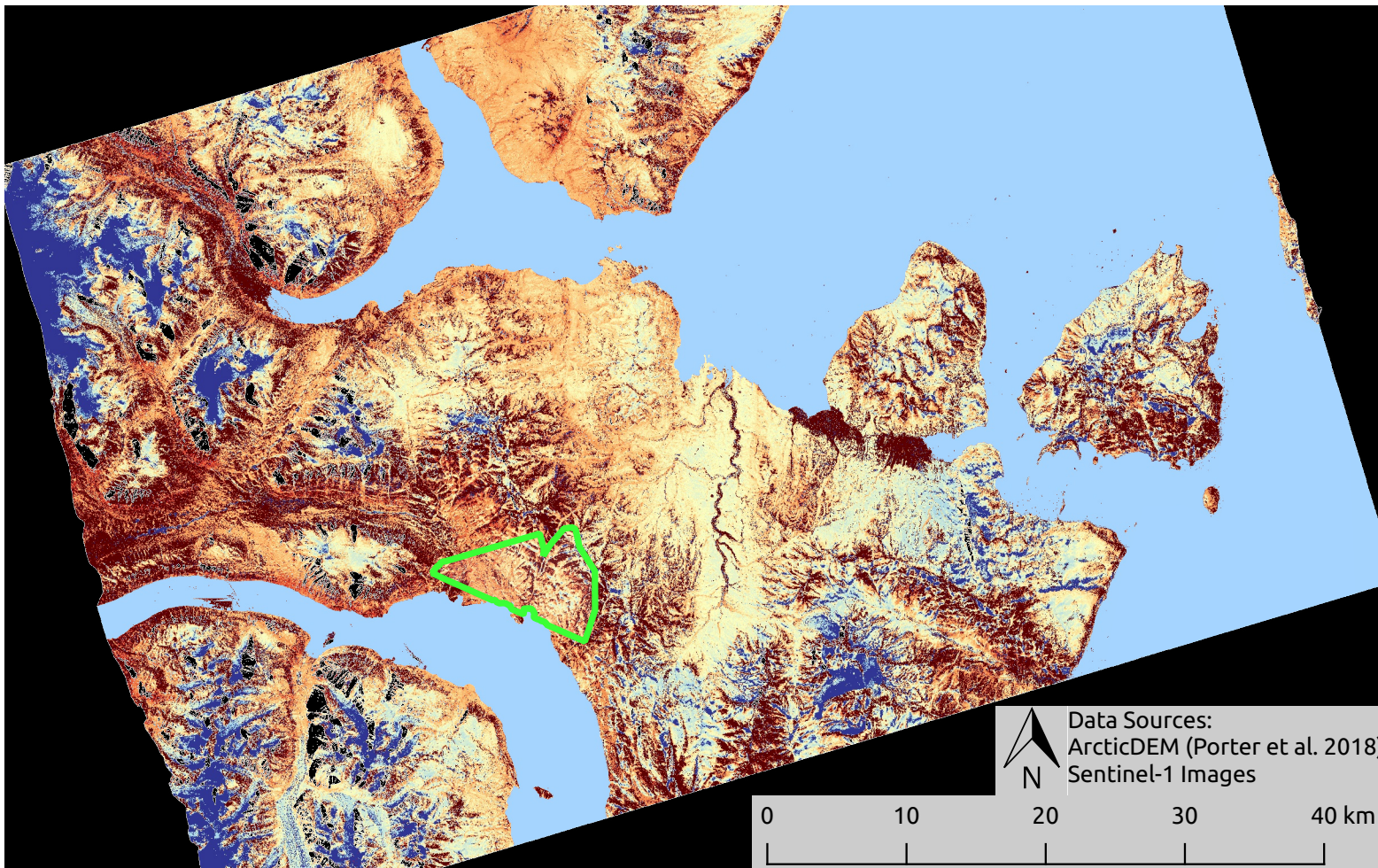


# Zackenbergl Sentinel-1 2017

Threshold HV 4 dB



Derivative HV





# Zackenbergl Sentinel-1 2018

Threshold HV 4 dB

EOS [DOY] 2018

- start-of-season snow-free
- $\leq 125$
- 150
- 175
- 200
- 225
- $\geq 250$
- end-of-season snow-covered

others

- camera extent
- water
- shadow, overlay

Derivative HV



Data Sources:  
ArcticDEM (Porter et al. 2018)  
Sentinel-1 Images

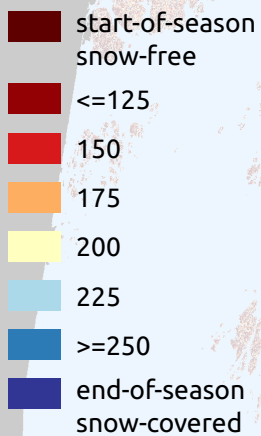
0 10 20 30 40 km



# Kobbefjord Sentinel-1 2017

Threshold HV 4 dB

EOS [DOY] 2017



others

extent\_cam

water

shadow, overlay

Derivative HV

Data Sources:  
ArcticDEM (Porter et al. 2018)  
Sentinel-1 Images

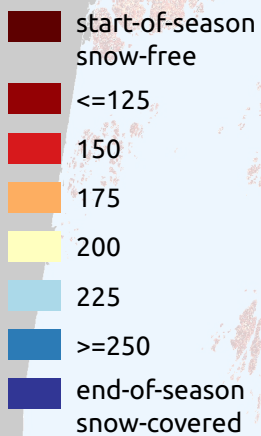
0 10 20 30 40 km



# Kobbefjord Sentinel-1 2018

Threshold HV 4 dB

EOS [DOY] 2018



others

extent\_cam

water

shadow, overlay

Derivative HV

Data Sources:  
ArcticDEM (Porter et al. 2018)  
Sentinel-1 Images

0 10 20 30 40 km