Name: Bohemian Stream Catchment

Study sites codes: BS1, BS2, BS3, BS4, BS5

Coordinates: 63.80009° S, 57.88096° W (Outlet)

Altitude: 132 m a.s.l (mean)

Site description:

* Catchment, situated in the northern tip of Ulu Peninsula, James Ross Island, Antarctica, is drained by two streams (Bohemian and Dirty), which are fed by small hanging glaciers and snow patches. Catchment area is 6.47 km2, 6% is glacierized, Bohemian Stream length is 3.26 km.

Measured parameters:

* Q\_BS1: discharge at BS1 site (outlet)
* SSC\_BS1: suspended sediment concentrations at BS1
* XRF\_BS1: elemental composition of suspended sediment at BS1
* WCC\_BS1: cations concentration in water at BS1
* WAC\_BS1: anions concentration in water at BS1
* WT\_BS1: water temperature at BS1
* WT\_BS2: water temperature at BS2
* WT\_BS3: water temperature at BS3
* WT\_BS4: water temperature at BS4
* WT\_BS5: water temperature at BS5
* WT\_BS6: water temperature at BS6

Device information:

* Q\_BS1:
  + Water stage (h): DipperLog F100/M30
  + Discharge (Q): Flowtracker Handheld Acoustic Doppler Velocimeter
* SSC\_BS1: Manual sampling in 220 ml bottles
* XRF\_BS1: XXX
* WCC\_BS1: sampled manually, 100 ml of water was immediately filtered through 0.45 µm and let freeze.
* WAC\_BS1: sampled manually, 100 ml of water was immediately filtered through 0.45 µm and let freeze.
* WT\_BS1: DipperLog F100/M30
* WT\_(BS2-BS6): Minikin Tie (EMS Brno)

Interval of measurement:

* Q\_BS1: 1h
* SSC\_BS1:
  + Sampling:
    - 2015: opportunistically in Jan and Feb
    - 2016: regularly twice a day (low and high discharge) in Jan and Feb
* XRF\_BS1:
  + 2015: opportunistically in Jan and Feb
  + 2016: regularly twice a day (morning (low) and afternoon (high discharges)) in Jan and Feb
* WCC\_BS1:
  + 2016: once in a day in the afternoon (high discharges)
* WAC\_BS1:
  + 2016: once in a day in the afternoon (high discharges)
* WT (BS1–BS6): 1h

Period:

* Q\_BS1: 8 Jan, 2015 – present (continuously)
* SSC\_BS1: 8 Jan, 2015 – present (continuously)
* XRF\_BS1:
  + 2015: 8 Jan – 18 Feb
  + 2016: 9 Jan – 8 Feb
* WCC\_BS1:
  + 2016: 9 Jan – 8 Feb
* WAC\_BS1:
  + 2016: 9 Jan – 8 Feb
* WT\_BS1: 8 Jan, 2015 – present (continuously)
* WT\_(BS2–BS6): 15 Jan 2016 – 7 Feb 2016

Notes

* Q\_BS1: rating curve done in 2015, equation: Q = 9.127h2.142 (r2 = .906), n=11
* SSC\_BS1:
  + Rating curve in 2015, equation: logSSC = 4.121\*e0.822logQ (r2 = .62), n=59
  + Rating curve in 2015, equation:

Published data

* Q\_BS1, SSC\_BS1, XRF\_BS1:
  + Period: 8 Jan, 2015 to 18 Feb, 2015
  + To cite: Jan Kavan, Jakub Ondruch, Daniel Nývlt, Filip Hrbáček, Jonathan L. Carrivick & Kamil Láska (2016): Seasonal hydrological and suspended sediment transport dynamics in proglacial streams, James Ross Island, Antarctica, Geografiska Annaler: Series A, Physical Geography, DOI: 10.1080/04353676.2016.1257914.

Data files: