

Plates (photographs) of the most abundant fossil diatoms found in a 109-cm long sediment core collected in June 2015 in Gull Lake, Bylot Island, Nunavut, Canada.

5 Methods

Fossil diatom analysis was conducted on 60 subsamples at varying interval: each cm for the top 12 cm, then each 2 cm towards core bottom. Diatoms slides were prepared and analyzed following Battarbee et al. (2001) and Bouchard et al. (2013). When possible, an average of 400 diatom valves were counted along transects using a Leica DMRX light microscope. Identification was carried out to the lowest taxonomic level possible (i.e., species or variety/morphotype) at a 1000 × magnification. Taxa names are given as they appeared originally in consulted floras. Photos of most of these taxa were taken with a Leica DFC490 camera (mounted on the microscope) and were used to prepare plates of the representative taxa (Fig. S3 below).

References

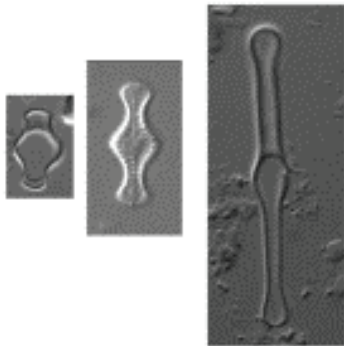
- Battarbee, R., Jones, V., Flower, R., Cameron, N., Bennion, H., Carvalho, L., and Juggins, S.: Diatoms, in: Tracking Environmental Change Using Lake Sediments. Volume 3: Terrestrial, Algal, and Siliceous Indicators, edited by: Smol, J., Birks, J., Last, W., Bradley, R., and Alverson, K., Developments in Paleoenviromental Research, 3, Springer Netherlands, 155-202, 2001.
- Bouchard, F., Pienitz, R., Ortiz, J. D., Francus, P., and Laurion, I.: Palaeolimnological conditions inferred from fossil diatom assemblages and derivative spectral properties of sediments in thermokarst ponds of subarctic Quebec, Canada, Boreas, 42, 575-595, doi: 10.1111/bor.12000, 2013.

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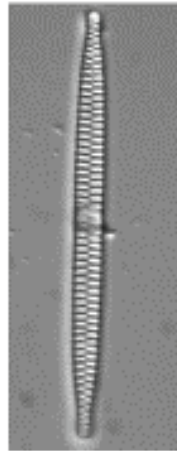
Figure S3: Plates or photographs (1 to 4) of dominant diatom species found in sediments of Gull Lake, Bylot Island, Nunavut, Canada (1 plate/page).

Plate 1

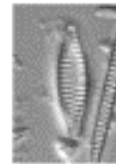
Tabellaria flocculosa



Fragilaria capucina



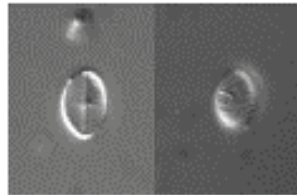
Fragilaria perminuta



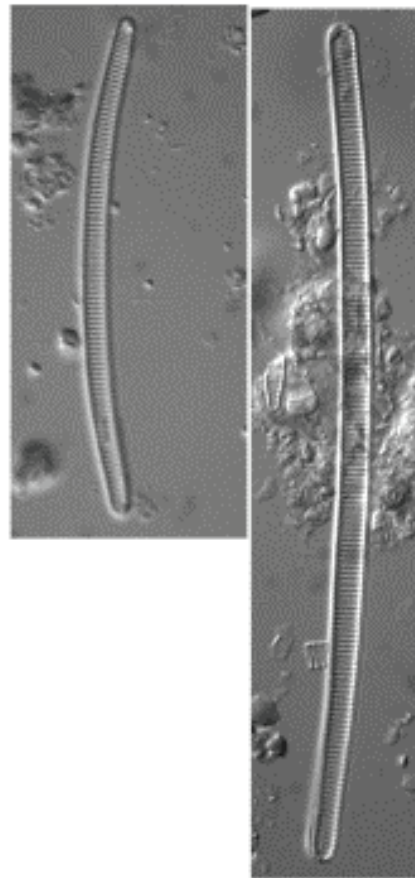
Achnanthisdium minutissimum



Planothidium oestrupii



Eunotia bilunaria



Psammothidium
cf. *seminulum*

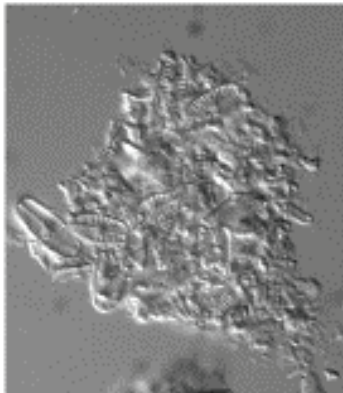
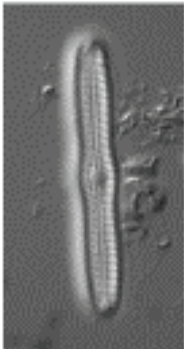
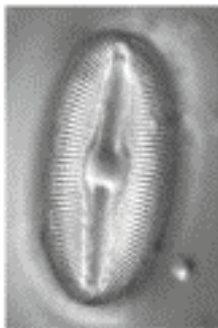


Plate 2

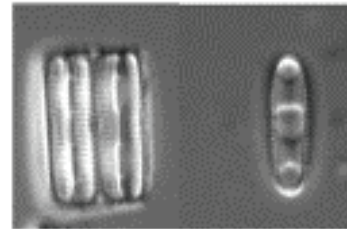
Caloneis fusus



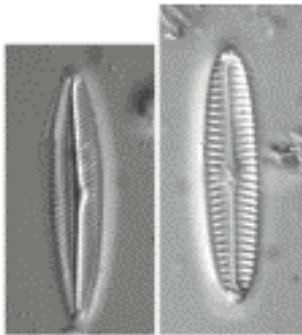
Diploneis krameri



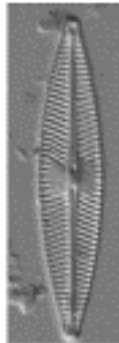
Diatomella balfouriana



Navicula cincta



Navicula cryptocephala



Geissleria schoenfeldii



Decussata placentula

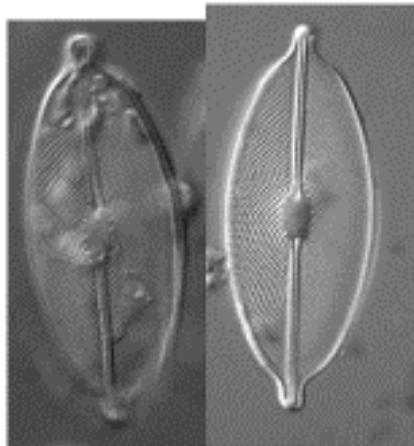
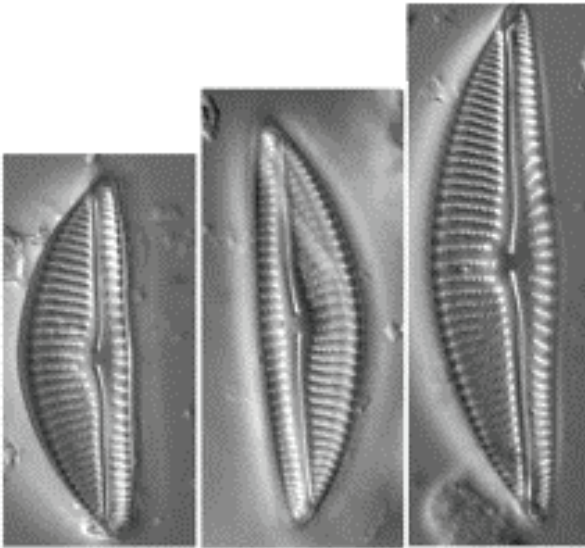
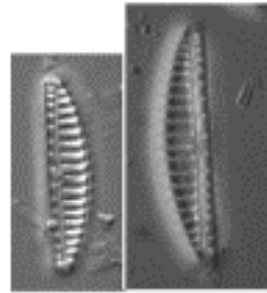


Plate 3

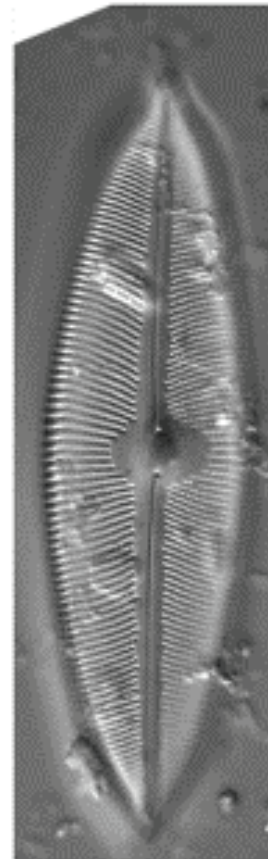
Encyonema elginense



Encyonema paucistriacum



Cymboplectura tynii



Cymboplectura amphicephala

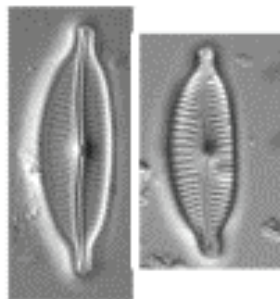
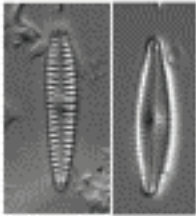
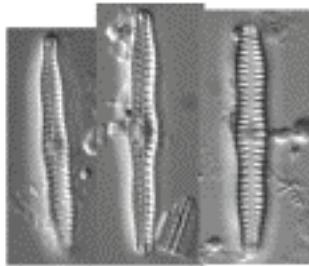


Plate 4

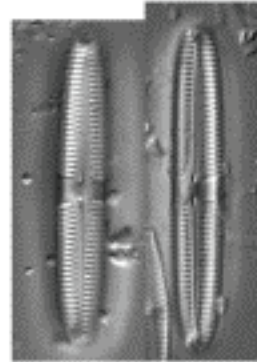
Gomphonema augustatum



Gomphonema distans



Pinnularia sinistra



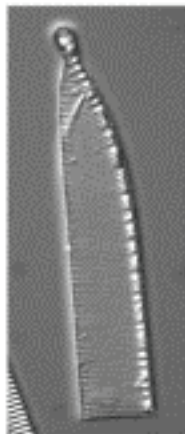
Chameapinnularia sohenrensis



Nitzschia dissipata



Nitzschia vitrea



Nitzschia perminuta

