

Nano and microplankton community from superficial waters of Bransfield and Gerlache Straits, during austral summer (2002/03 – 2003/04)

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Data were obtained from XXI and XXII Brazilian Antarctic cruises (GOAL, PROANTAR) in the Straits of Bransfield (25 samples) and Gerlache (16 samples). Surface waters were preserved in 4% formalin and either 50 or 100mL analyzed by the Utermöhl method. Nano and microplankton observed at different magnifications, 400 and 200x, were identified to species level whenever possible. Phytoplankton density ( $9.0 \pm 7.7 \times 10^4$  cells.L<sup>-1</sup>) presented nanoplankton as dominant size class (>90% of total cells) where cryptophytes were most numerous (>92%). In microplankton, diatoms prevailed (>94%). This taxonomic group summed with dinoflagellates (total taxa) ranged from 31 to 41 taxa ( $36 \pm 5$  taxa). Dinoflagellates, coccolithophorids, cyanobacteria and prasinophytes presented lower densities and numbers of identified taxa.

Total densities and number of taxa were similar between years and areas; however differences in the microplankton concentrations could be reported. During the summer of 2002/03, microplankton concentrations were five times higher than 2003/04 ( $7.8 \times 10^3 \pm 2.3 \times 10^4$  cells.L<sup>-1</sup>), and seven times higher in Bransfield ( $6.8 \times 10^3 \pm 2.0 \times 10^4$  cells.L<sup>-1</sup>).

Our data demonstrate an homogeneity between the years and sampling areas although differences in relation to dominance of microplanctonic diatoms species have been registered: *Corethron pennatum* was dominant in 2002/2003 (> 68%), *Thalassiosira* cf. *gravida* (66% Bransfield) and *Eucampia antarctica* (29% Gerlache) dominated in 2003/2004.