

A Southern Ocean dietary database

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Abstract. Knowledge of the trophic functioning of Southern Ocean ecosystems is critical to their understanding and management. Marine ecosystem models, often used to explore the potential impacts of human disturbance and climate change, and for fisheries stock assessments, generally rely on suitable data to underpin the parameterization of taxon attributes and diets. Diet-related data from published and unpublished data sets and studies were collated into a single consistent data set, circum-Antarctic in scope, with two principal tables. The first table relates to direct sampling methods of dietary assessment, including gut, scat, and bolus content analyses, stomach flushing, and observed feeding. It currently comprises ~25 000 records from 300 studies and includes information on >1000 taxa. The second table is a compilation of stable isotope values (currently 1500 records from 20 studies, covering 200 taxa). Each record in these two tables includes details such as the location and date of sampling, predator size and mass, prey size and mass, and estimates of dietary importance.

We envisage that these data will be of interest to research groups specializing in Antarctic and Southern Ocean studies, as well as those interested in general marine trophic ecology and food web analyses.

Key words: *Antarctica; diet; predator; prey; Southern Ocean; stable isotope; trophic functioning.*

The complete data sets corresponding to abstracts published in the Data Papers section of the journal are published electronically in *Ecological Archives* at (<http://esapubs.org/archive>). (The accession number for each Data Paper is given directly beneath the title.)