**Notes on food web modifications**

This document contains notes on the modifications to the food webs, the name of modified food webs needs to be included, as well as the date of the changes and by whom they were made. This is to keep track of the changes along the way and to not forget what we did and why we did it.

**Southern Scotia food web**

name of file: Southern\_Scotia\_collapsed\_basal\_top.csv

date: 07.06.2023

who: Susanne and Tomas

We added 28 sea birds and 18 marine mammals. The references are included in the excel sheet. In total 500 new interactions where added. These were sampled from the Southern Ocean dietary database (Raymond et al. 2011)

Oncaea parila, a maxillopoda, was missing resource items. We included new interactions by assuming that eat feeds on the same resources as other members of its genus. These were sampled from the Scotia Sea meta web.

We also collapsed the basal species, no prey items into: Bacillariophyceae (Diatoms), Bacteria Detritus, Dinophyceae, Phytoplankton\_other. The species included in these groups can be found in the ppt file prepared by Tomas for June 7th (2023) meeting.

**Northern Scotia food web**

name of file: Northern\_Scotia\_collapsed\_basal\_top.csv

date: 07.06.2023

who: Susanne and Tomas

We added 28 sea birds and 18 marine mammals. The references are included in the excel sheet. In total 500 new interactions where added. These were sampled from the Southern Ocean dietary database (Raymond et al. 2011)

Oncaea parila, a maxillopoda, was missing resource items. We included new interactions by assuming that eat feeds on the same resources as other members of its genus. These were sampled from the Scotia Sea meta web.

We also collapsed the basal species, no prey items into: Bacillariophyceae (Diatoms), Bacteria Detritus, Dinophyceae, Phytoplankton\_other. The species included in these groups can be found in the ppt file prepared by Tomas for June 7th (2023) meeting.

**Main refs for the Southern and Northern Scotia Sea food web modifications**

08.06.2023 (Susanne)

*Sea birds*

Ainley, D. G., Ribic, C. A., & Fraser, W. R. (1994). Ecological Structure among Migrant and Resident Seabirds of the Scotia--Weddell Confluence Region. Journal of Animal Ecology, 63(2), 347–364. <https://doi.org/10.2307/5553>

*Marine Mammals*

IUCN-Marine Mammal Protected Areas Task Force, 2021. Scotia Arc IMMA Factsheet. https://www.marinemammalhabitat.org/wp-content/ uploads/ imma-factsheets/ExtendedSouthernOcean/ scotia- arcExtendedSouthernOcean.pdf

*Species interactions*

Raymond et al. 2011: <https://esajournals.onlinelibrary.wiley.com/doi/10.1890/10-1907.1>

**Weddell Sea**

name of file: Weddell\_collapsed\_links.csv

date 05.06.2023

who: Leo

Only diatoms were collapsed into Bacillariophyceae. The other basal group were not aggregated.

name of file: Weddell\_collapsed\_links\_2.csv

date 07.06.2023

who: Susanne

Diatoms, where collapsed into Bacillariophyceae. Phaeocystis, Silicioflagellata etc. were collapsed into a group called phytoplankton\_other.

*Alcyonium antarcticum* (a sea anemone) did not contain any prey items, one resource link “Phytodetritus” was added to this species