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Food web including metazoan parasites for an intertidal ecosystem in New Zealand

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Abstract. This data set presents a food web for Otago Harbour, an intertidal mudflat ecosystem in New Zealand. The harbor consists of a series of mudflats exposed at low tide, each separated from its closest neighbor by 200–400 m. This food web has three noteworthy attributes: (1) high resolution of free-living organisms, (2) inclusion of metazoan parasites and other infectious agents, and (3) inclusion of ontogenetic stages of parasites with complex life cycles. The food web contains 180 nodes, 142 species/assemblages, and 1924 links. Of the 142 species/assemblages, 3 are basal, 123 are free-living, and 19 are infectious. Data on the free-living assemblages and parasitism were gathered during original field sampling and supplemented with information from additional published sources and local expert knowledge. Taxonomic resolution is high, although a few functional or taxonomic groups (e.g., phytoplankton, macroalgae) are lumped into single nodes. Each ontogenetic stage of parasites with complex life cycles is treated separately and coded accordingly. For each node, we have included additional information such as taxonomy, life history, residency, and mobility. Further, for each link, we define a specific interaction type. We present the data and metadata in the system-neutral format standardized by R. F. Hechinger and colleagues, and thus we recognize variables that are not represented in our data set but may be added by further study.

Key words: benthos; complex life cycles; consumer–resource; food webs; infectious agents; intertidal mudflat; Otago Harbour; parasites; trematodes; trophic interactions.

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