

## PREDATOR AND PREY BODY SIZES IN MARINE FOOD WEBS

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**Abstract.** Knowledge of relationships between predator size and prey size are needed to describe interactions of species and size classes in food webs. Most estimates of predator and prey sizes have been based on dietary studies and apply to small numbers of species in a relatively narrow size range. These estimates may or may not be representative of values for other groups of species and body sizes or for other locations. Marine predator and prey size data associated with published literature were identified and collated to produce a single data set. If predator or prey length of mass were not measured in the original study, the length or mass was calculated using length-mass relationships. The data set consists of 34 931 records from 27 locations covering a wide range of environmental conditions from the tropics to the poles and for 93 types of predator with sizes ranging from 0.1 mg to over 415 kg and 174 prey types with sizes from 75 pg to over 4.5 kg. Each record includes: predator and prey scientific names, common names, taxa, life stages and sizes (length and mass with conversion details), plus the type of feeding interaction, geographic location (with habitat description, latitude, longitude) and mean annual environmental data (sea surface temperature and primary productivity).

**Key words:** body size; consumer resource; energy transfer; food web; marine; transfer efficiency.

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.)

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