

**CCAMLR GLOSSARY OF TERMS**

## CCAMLR GLOSSARY OF TERMS

Abundance:	Number of animals in a given geographical area, usually expressed as an index of abundance, e.g., as a catch-per-unit time, numbers or weight-per-unit volume.
Age at recruitment, age at first capture:	The age at which fish are first caught in the fishery.
Age/length key:	A table relating age of fish to their length, used to construct catch-at-age data from length frequencies derived from the fishery.
Age groups:	Animals of the same age in a stock.
Benthic:	Associated with the sea floor on or in the sub-stratum.
Biological data:	Data on individual fish sampled from a catch or research trawl, e.g., length, weight, sexual maturity and age.
Biomass, standing stock:	The weight of living matter present, usually expressed in terms of a given area or volume of the habitat.
By-catch:	The catch in numbers or in weight of non-target species taken in a directed fishery.
Catch:	The quantity by weight or number of fish taken in a specific period.
Catchability ( $q$ ):	The fraction of a fish stock which is caught by a defined unit of fishing effort.
Catch-at-age data:	Numbers or weight of fish of each year-class in a catch.
Catch/effort, catch-per-unit-effort (CPUE):	The catch of fish in numbers or in weight taken by a defined unit of fishing effort.
Codend:	The part of the trawl net which contains the catch.
Coefficient of variance (CV):	The ratio of the standard deviation of a distribution to its arithmetic mean.
Cohort:	Animals of the same age in a stock.

Cohort analysis, virtual population analysis (VPA):	Age-based analytical technique that estimates retrospective stock size from catch and other data.
Demersal:	Living at or near the bottom of the sea.
Directed fishery: Fine-scale data:	A fishery aimed at catching a single species. Catch and effort data submitted to CCAMLR each year. The data is submitted for particular fisheries agreed by the commission and is presented as aggregated summaries for areas 1° longitude by 0.5° latitude (approx. 30 miles square) and 10-day periods.
Fishery:	A comprehensive term to include all aspects of harvesting a particular species or group of species, e.g., as in “the krill fishery around South Georgia”.
Fishing - Trawl:	A fishery using towed nets.
Longline:	A fishery using longlines with baited hooks.
Mixed:	A fishery aimed at catching several species occurring in the same area
Fishing effort:	A unit of effort expended in obtaining a catch, e.g., days fished by a standard vessel using a standard net or number of hooks of a standard type set on a longline.
Growth overfishing:	Occurs when, although increased fishing increases the number of fish caught, the average weight of individual fish in the catch is steadily decreasing and so ultimately is the total weight of the catch, because the fish are caught before they reach near full size. In growth overfishing the number of older fish in the stock is decreasing, thereby increasing the chance of recruitment failure.
Growth curve:	An equation describing the average length of fish for a given age.
Haul-by-haul data:	Data pertaining to individual hauls of either nets or longlines. A haul is a single setting and retrieval of a net or line.
Knife-edge recruitment:	An approximation which assumes that fish are all recruited to the fishery when they reach a certain age c.f. partial recruitment.

Krill escapement:	In a fisheries management context, escapement is the average level of biomass of the exploited stock for a given level of fishing. Proportional escapement is the ratio of this exploited biomass to the average biomass of the stock before the start of the fishery (pristine biomass).
Lengths-at-age:	The distribution of lengths of fish of the same age.
Length-at-age:	Average of lengths-at-age.
Length frequency, length distribution:	The numbers of fish in selected length ranges in a sample.
Length composition:	An estimate of the distribution of lengths of fish in a catch based on a number of samples.
Length-weight relationship:	An equation describing the average weight of fish of a given length.
Maximum sustainable yield:	The maximum catch which can be taken indefinitely.
Mesh size:	The diagonal dimension of the mesh in a net.
Mortality - Natural mortality ( <b>M</b> ):	Death rate in a population attributable to all causes except fishing.
Fishing mortality ( <b>F</b> ):	Death rate in a population attributable to fishing.
$F_{max}$ :	The value of fishing mortality corresponding to the maximum yield per recruit.
$F_{0.1}$ :	The value of fishing mortality at which the marginal yield per recruit from an additional unit of effort is 0.1 the marginal yield per recruit at very low levels of fishing (a point at which there is little reward for increased fishing effort).
Total mortality ( <b>Z</b> ):	An index representing all deaths in a population, usually expressed per year.
Parameter:	A measurable or quantifiable characteristic or feature.
Partial Recruitment:	When only part of a particular year-class enters the fishery.
Pelagic:	Pertaining to the open ocean, living in the water-column seaward of the shelf/slope break.

Population:	A group of animals of one species occupying a geographical area.
Potential yield:	The yield that may be sustainable from a stock that is not yet fully exploited.
Pre-recruits:	Juvenile animals that have yet to recruit to the fishery.
Proportional escapement:	The proportion of a stock that escapes capture.
Recruitment:	The addition of new fish to the exploitable part of the population by growth from among smaller size categories.
Recruitment failure:	Occurs when the normal pattern of recruitment fails to produce the expected addition of recruits to the stock in a given year.
Recruitment overfishing:	Occurs when as a result of heavy fishing the spawning stock is reduced to too low a level to ensure adequate production of young fish.
Season, fishing season:	Unless defined otherwise in a particular context (e.g., in the text of a conservation measure) a CCAMLR season is the split-year, the period from 1 July in any year to 30 June of the following year.
Shelf break:	Diagram.
Spawning stock, spawning biomass:	The biomass of sexually mature fish in a stock.
Split-year:	The period from 1 July to 30 June of the following year.
STATLANT data:	Data from all fisheries submitted each year in a format designed at FAO. The data includes catch and catch and effort by species and is presented as aggregated summaries for specified statistical areas for each month of the year.
Stock:	The part of a population under consideration for actual or potential harvesting.
Stock assessment:	An estimate of the status of a stock with respect to management objectives.

Stratification:	The analysis of data to allow for known variations in an environmental parameter affecting fish concentration, e.g., strata may be different depth ranges within an area being surveyed.
Trawl:	A net towed through the water away from the bottom.
Trawl - Pelagic trawl, Midwater trawl:	Fishing with a trawl net.
Bottom trawl:	Fishing with a trawl net on the bottom
Semi-pelagic trawl, Off-bottom trawl:	Fishing with a net in the near bottom layer.
Unexploited biomass, pristine biomass, unexploited stock:	Biomass which occurs without exploitation - usually synonymous with longterm biomass.
VPA, virtual population analysis, cohort analysis:	An analytical technique that calculates the stock size required to yield the observed catches based on age structure of those catches.
Weights-at-age:	The distribution of weights of fish in each year-class in a stock.
Weight-at-age:	Average of weights-at-age.
Year-class, cohort:	Animals born, spawned or hatched in a given year.
Year-class strength:	Numbers of animals in a year-class or cohort.
Yield-per-recruit:	The potential catch from the age-class most recently recruited to the stock. It is normally expressed as a function of fishing mortality (F) keeping the age at first capture constant or as a function of size at first capture for various values of fishing mortality.