

Fisheries Management Dictionary for DEC Bureau of Fisheries Reports



Department of
Environmental
Conservation

This dictionary defines commonly used terms in NYSDEC [Bureau of Fisheries Management and Research Reports](#).

Age frequency distribution: A graphical representation of the range and frequency of ages of fish in a survey collection.

Black bass: Bass species in the Centrarchidae (sunfish) family. Largemouth bass and smallmouth bass are the two native black basses in New York.

Catch rate/CPUE: Catch rate is an index of fish abundance and is expressed as number of fish caught per unit of effort (e.g., hour of electrofishing or number of net nights). Catch rate is often referred to as CPUE (catch per unit effort).

Catch Rate Oriented Trout Survey (CROTS): A stream survey protocol designed to assess trout populations and stream habitat quality. Survey results are used to inform management of wild and stocked trout stream reaches.

Centrarchidae: The sunfish family including the following species, black bass (largemouth and smallmouth), bluegill, crappie, and pumpkinseed.

Coldwater fisheries management: Management of sportfish that depend on lake and stream habitats where summer water temperatures seldom exceed 70 degrees for extended periods. The best-known coldwater sportfish species are trout, salmon and charr.

Creel survey: An angler use survey in which anglers are counted and interviewed while participating in a particular fishery. The resulting data are used to estimate descriptive fishery statistics such as fishing pressure, catch, and harvest. Specific surveys are custom designed to obtain the information needed to sustainably manage the species of concern.

Growth rate: The rate of increase in the length of a fish over time.

Length frequency distribution: A graphical representation of the range and frequency of lengths of fish in a survey collection.

Panfish: Typically refers to smaller species of fish that are popular with anglers because they are good to eat (e.g., sunfish and perch).

Relative weight (W_r): An index used to determine fish condition. This index compares the observed weight of a fish with a standard weight for a fish of the same length. A value of 100 indicates that the observed weight equals the standard weight. Values from 95 - 100 are typically indicative of fish in good condition.

Salmonidae: Family of trout and salmon species, including rainbow, brook, brown, and lake trout; and, coho, chinook, and landlocked Atlantic salmon.

Sportfish: Fish that are sought after by anglers for their recreational value.

Stock size: The size at or near which fish reach maturity as well as a size normally available to gear traditionally used by biologists to sample the species.

Quality size: The size of fish that anglers like to catch.

Preferred size: The size of fish that anglers prefer to catch.

Memorable size: The size of fish that most anglers would remember catching.

Trophy size: The size of fish worthy of acknowledgement.

Size structure indices: Indices that allow for standardized comparisons of size classes of fish and provide measures of fish population balance. Includes PSD (Proportional Stock Density) and RSD (Relative Stock Density). [Table 1](#) includes size structure length categories of various fish species.

Proportional Stock Density (PSD): The percent of the stock sized population of fish that are quality size.

Relative Stock Density (RSD): The percent of the stock sized population of fish that are preferred (RSD_p), memorable (RSD_m), or trophy size (RSD_t).

Population balance: Typically used to describe the quality of a fishery from the size structure indices of predator and prey fish. Populations of bass that are well-balanced (i.e., have good size distributions) have PSD_s of 40-70 and RSD_p_s of 10-25. Balanced panfish populations have PSD_s of 30-60 and RSD_{PS} of 8-15.

Warmwater fisheries Management: Management of sportfish adapted to lake and stream habitats where summer water temperatures commonly exceed 70 degrees for extended periods. Black bass (largemouth and smallmouth), sunfish, crappie, catfish, and perch thrive in such warmth. Optimal temperatures for walleye, pike, pickerel, sauger, and muskellunge are somewhat cooler but still warm relative to temperature requirements of trout and salmon

Young of the year (YOY): Fish that are less than one year old. Typically refers to fish that were observed or collected the same year they were hatched.

Table 1. Length categories for size structure calculations of various fish species. Measurements are total lengths in inches.

Species	Stock	Quality	Preferred	Memorable	Trophy
Black bullhead	6	9	12	15	18
Black crappie	5	8	10	12	15
Bluegill	3	6	8	10	12
Brown bullhead	5	8	11	14	17
Burbot	8	15	21	26	32
Chain pickerel	10	15	20	25	30
Channel catfish	11	16	24	28	36
Common carp	11	16	21	26	33
Freshwater drum	8	12	15	20	25
Gizzard shad	7	11			
Green sunfish	3	6	8	10	12
Largemouth bass	8	12	15	20	25
Longnose gar	16	27	36	45	55
Muskellunge	20	30	38	42	50
Northern pike	14	21	28	34	44
Pumpkinseed	3	6	8	10	12
Redear sunfish	4	7	9	11	13
Rock bass	4	7	9	11	13
Sauger	8	12	15	20	25
Shorthead redhorse	6	10	13	16	20
Smallmouth bass	7	11	14	17	20
Walleye	10	15	20	25	30
White bass	6	9	12	15	15
White bass x striped bass	8	12	15	20	25
White crappie	5	8	10	12	15
White perch	5	8	10	12	35
White sucker	6	10	13	16	20
Yellow perch	5	8	10	12	15
Yellow bullhead	4	7	9	11	14