

Catch per unit effort (CPUE) refers to the number of fish captured per a defined unit of effort (i.e, number of fish captured per net-night or number of fish captured per hour electrofishing).

Catch per unit effort (CPUE) =

$$\frac{\text{Number of fish}}{\text{Defined unit of effort}}$$

Population size structure indices [e.g., **proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish**; Guy et al. 2007] are utilized to quantify length-frequency data.

Proportional size distribution of quality-length fish (PSD) =

$$\frac{\text{Number of fish} \geq \text{quality-length}}{\text{Number of fish} \geq \text{stock-length}} \times 100$$

The objective range for PSD values is typically 30-60, and indicates a fish population comprised of an acceptable mix of all fish lengths. Values below the objective range indicate a population dominated by smaller fish; while values above the objective range indicate a population dominated by larger fish.

Proportional size distribution of preferred-length fish (PSD-P) =

$$\frac{\text{Number of fish} \geq \text{preferred-length}}{\text{Number of fish} \geq \text{stock-length}} \times 100$$

The objective range for PSD-P values is typically 5-10. Values less than the objective range indicate a smaller than desired proportion of preferred-length fish in the population; while values greater than the objective indicate a population with a higher than desired proportion of preferred-length fish.

Relative weight (Wr; Wege and Anderson 1978) is an index utilized to gauge the general condition of the fish (i.e., how much does a fish weigh for its length). Wr values of 95-105 are commonly cited optimum values. Wr values as low as 80 are commonly viewed as acceptable in freshwater fisheries management.

Relative Weight (Wr)=

$$\frac{W \text{ (weight of fish)}}{Ws \text{ (standard weight)}} \times 100$$

Common names, scientific names and abbreviations of fish species; common and scientific names of aquatic vegetation mentioned in this report.

Common Name	Scientific Name	Abbreviation
<i>Fish Species</i>		
Bigmouth Buffalo	<i>Ictiobus cyprinellus</i>	BIB
Black Bullhead	<i>Ameiurus melas</i>	BLB
Black Crappie	<i>Pomoxis nigromaculatus</i>	BLC
Bluegill	<i>Lepomis macrochirus</i>	BLG
Channel Catfish	<i>Ictalurus punctatus</i>	CCF
Common Carp	<i>Cyprinus carpio</i>	COC
Common Shiner	<i>Luxilus cornutus</i>	COS
Emerald Shiner	<i>Notropis atherinoides</i>	EMS
Freshwater Drum	<i>Aplodinotus grunniens</i>	FRD
Golden Shiner	<i>Notemigonus crysoleucas</i>	GOS
Green Sunfish	<i>Lepomis cyanellus</i>	GSF
Lake Herring	<i>Coregonus artedi</i>	LAH
Largemouth Bass	<i>Micropterus salmoides</i>	LMB
Muskellunge	<i>Esox masquinongy</i>	MUE
Northern Pike	<i>Esox lucius</i>	NOP
Orangespotted Sunfish	<i>Lepomis humilis</i>	OSF
Pumpkinseed	<i>Lepomis gibbosus</i>	PUS
Rock Bass	<i>Ambloplites rupestris</i>	ROB
Rudd	<i>Scardinius erythrophthalmus</i>	
Shortnose Gar	<i>Lepisosteus platostomus</i>	SHG
Shorthead Redhorse	<i>Moxostoma macrolepidotum</i>	SHR
Smallmouth Bass	<i>Micropterus dolomieu</i>	SMB
Spottail Shiner	<i>Notropis hudsonius</i>	SPS
Sunfish ¹	<i>Lepomis spp.</i>	SUN
Walleye	<i>Sander vitreus</i>	WAE
White Bass	<i>Morone chrysops</i>	WHB
White Crappie	<i>Pomoxis annularis</i>	WHC
White Sucker	<i>Catostomus commersoni</i>	WHS
Yellow Bullhead	<i>Ameiurus natalis</i>	YEB
Yellow Perch	<i>Perca flavescens</i>	YEP
<i>Aquatic Plants</i>		
Bulrush	<i>Scirpus spp.</i>	
Cattail	<i>Typha spp.</i>	
Chara (<i>macro algae</i>)	<i>Chara spp.</i>	
Common Duckweed	<i>Lemna minor</i>	
Coontail	<i>Ceratophyllum demersum</i>	
Eel Grass	<i>Vallisneria americana</i>	
Horned Pondweed	<i>Zannichella palustris</i>	
Richardson's Pondweed	<i>Potamogeton richardsonii</i>	
Sago Pondweed	<i>Potamogeton pectinatus</i>	
Widgeon Grass	<i>Ruppia maritima</i>	

¹ sunfish including bluegill, bluegill hybrids, and green sunfish.

Length categories that have been proposed for fish species mentioned in this report. Measurements are minimum total lengths for each category and are reported in centimeters (cm) and inches (in).

Species	Length Categories										Source
	Stock		Quality		Preferred		Memorable		Trophy		
	(in)	(cm)	(in)	(cm)	(in)	(cm)	(in)	(cm)	(in)	(cm)	
Bigmouth Buffalo	11	28	18	46	24	61	30	76	37	94	Bister et al. 2000
Black Bullhead	6	15	9	23	12	30	15	38	18	46	Gabelhouse 1984
Black Crappie	5	13	8	20	10	25	12	30	15	38	Gabelhouse 1984
Bluegill	3	8	6	15	8	20	10	25	12	30	Gabelhouse 1984
Channel Catfish	11	28	16	41	24	61	28	71	36	91	Gabelhouse 1984
Common Carp	11	28	16	41	21	53	26	66	33	84	Gabelhouse 1984
Freshwater Drum	8	20	12	30	15	38	20	51	25	63	Gabelhouse 1984
Green Sunfish	3	8	6	15	8	20	10	25	12	30	Gabelhouse 1984
Lake Herring	5	13	8	20	11	28	14	35	17	43	Fisher and Fielder 1998
Largemouth Bass	8	20	12	30	15	38	20	51	25	63	Gabelhouse 1984
Muskellunge	20	51	30	76	38	97	42	107	50	127	Gabelhouse 1984
Northern Pike	14	35	21	53	28	71	34	86	44	112	Gabelhouse 1984
Pumpkinseed	3	8	6	15	8	20	10	25	12	30	Gabelhouse 1984
Rock Bass	4	10	7	18	9	23	11	28	13	33	Gabelhouse 1984
European Rudd	6	15	10	25	12	30	15	38	19	48	Blackwell et al. 2009
Shorthead Redhorse	6	15	10	25	13	33	16	41	20	51	Bister et al. 2000
Smallmouth Bass	7	18	11	28	14	35	17	43	20	51	Gabelhouse 1984
Walleye	10	25	15	38	20	51	25	63	30	76	Gabelhouse 1984
White Bass	6	15	9	23	12	30	15	38	18	46	Gabelhouse 1984
White Crappie	5	13	8	20	10	25	12	30	15	38	Gabelhouse 1984
White Sucker	6	15	10	25	13	33	16	41	20	51	Bister et al. 2000
Yellow Bullhead	4	10	7	18	9	23	11	28	14	36	Bister et al. 2000
Yellow Perch	5	13	8	20	10	25	12	30	15	38	Gabelhouse 1984