

Identification of Montana's Most Common Game and Sport Fishes

compiled by George D. Holton
paintings by Glenn West

The following is a guide to help you identify the most common Montana game and sport fishes. Families are arranged in a natural sequence, from primitive to most specialized. Within families, look-alike fishes are grouped together to make comparisons easier. Also, where practical, the most widespread fishes are listed first.

The information on the characteristics and habitat of each species is a combination of gleanings from many publications, plus numerous suggestions from field biologists of the Department of Fish, Wildlife and Parks and other agencies.

Designation of each species as native or introduced is largely based on information from C.J.D. Brown's "Fishes of Montana" (Big Sky Books, Montana State University; Bozeman, MT 59717, 1971). The range maps were prepared using maps in "Fishes of Montana" as a starting point; these were updated with information from field personnel. Distribution of a species is indicated in color (magenta). When large

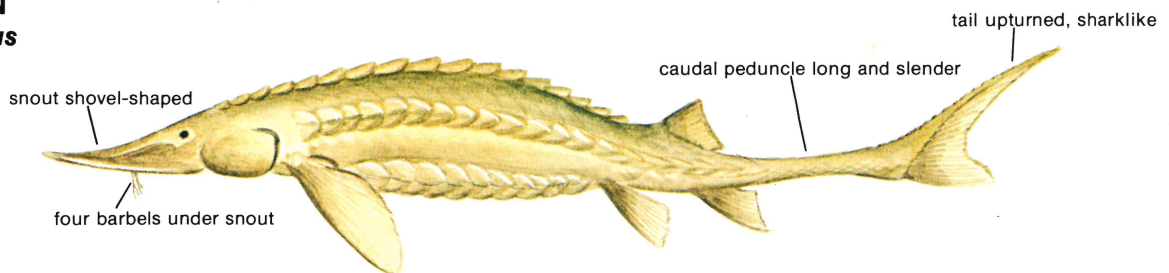
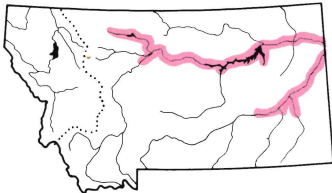
areas are indicated, there may be population gaps and sparse populations within them resulting from lack of suitable streams and lakes, or from the fact the species has not reached local areas through natural migration or introduction by man. (Due to the potential damage from ill-advised planting, planting of fish or fish eggs in waters of the state is unlawful unless authorized by the DFWP.)

Two lengths are given, for example: 12" (24"). The first number, 12", is a *typical* size. The 24" in parentheses is the usual Montana *maximum* for the species (measured from the tip of the snout to the end of the tail); this length is not necessarily the record, but a length seldom exceeded.

The common and scientific names are those recommended by the American Fisheries Society. "Other Names" are local names. They are listed so the reader can associate the recommended common name with one that may be more familiar.

These pictures, maps and identification clues are a condensation of the game and sport fishes portion of a forthcoming "Field Guide to Montana Fishes" to be published by the Department of Fish, Wildlife and Parks. Scheduled for publication in about one year, the guide will cover all of the fishes in the state.■

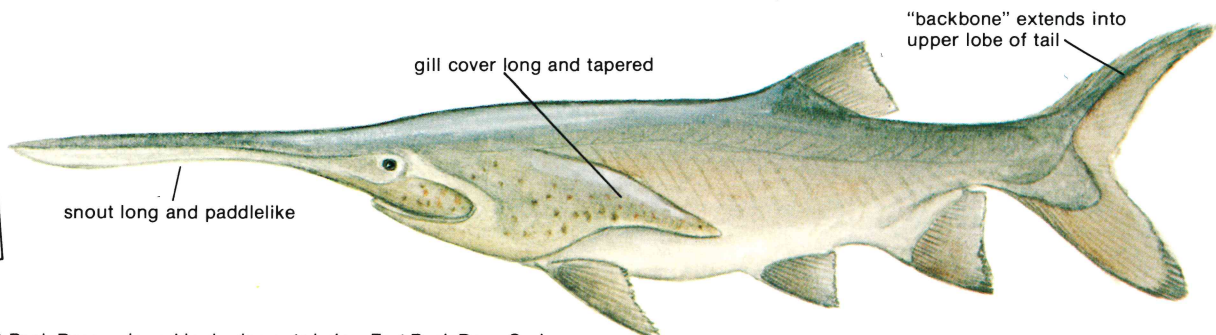
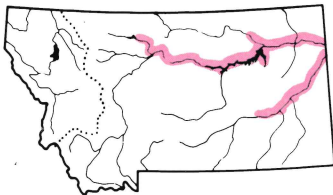
SHOVELNOSE STURGEON *Scaphirhynchus platyrhynchus*



Native. **OTHER NAME:** Hackleback. **HABITAT:** Large rivers and reservoirs. Tolerates high turbidity. **OTHER CHARACTERISTIC:** Maximum weight for Montana is 15-¼ pounds. **SIMILAR SPECIES:** (1) Pallid Sturgeon (not shown), a larger species in Missouri and Yellowstone rivers drainages (reaches 5 feet or longer), is so rare that sturgeon over 16 pounds can be assumed to be Pallid; those under 16 pounds, Shovelnose. (2) White Sturgeon (not shown) has a shorter, thicker caudal peduncle. It is the only sturgeon in Kootenai River (northwestern Montana) where it is rare.

32" (41")

PADDLEFISH *Polyodon spathula*



Native. Year-round population in Fort Peck Reservoir and in dredge cuts below Fort Peck Dam. Spring spawning run from North Dakota up Missouri River into Montana. Part of run branches off into Yellowstone River, while remainder continues up Missouri River to Fort Peck Dam. Also, spawning run from Fort Peck Reservoir into Missouri River. **OTHER NAME:** Spoonbill cat. **HABITAT:** Slow or quiet waters of large rivers or impoundments. Spawns on gravel bars of large rivers during spring high water. **OTHER CHARACTERISTIC:** Body naked except for scales on upper lobe of tail.

60" (72")

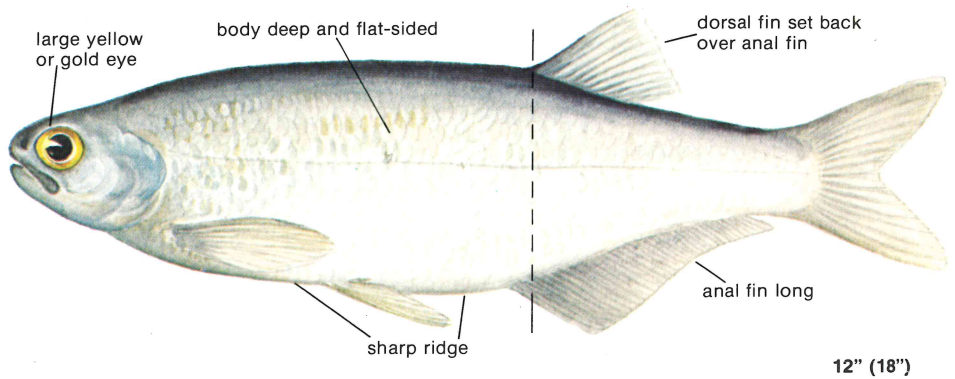
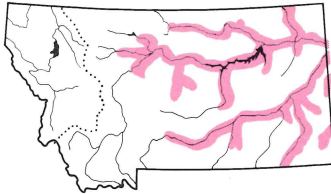
GOLDEYE *Hiodon alosoides*

Native.

OTHER

NAMES: Skipjack, shiner, shad. **HABITAT:** Large rivers, their tributaries, reservoirs. Adapted to turbid water.

OTHER CHARACTERISTICS: Large scales. Female has sickle-shaped anal fin (see illustration); on mature male, front rays of anal fin are longer, forming a conspicuous rounded lobe.



12" (18")

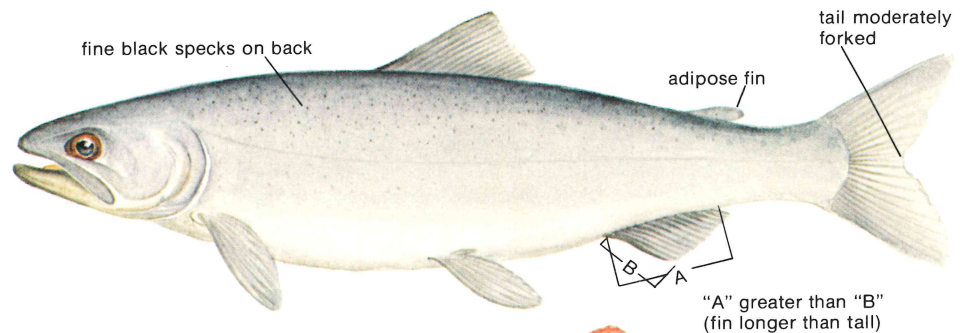
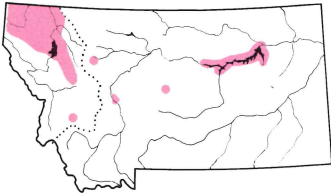
TROUT FAMILY

Montana members of this family are Kokanee (salmon), trouts (including chars), whitefishes and Arctic Grayling. All have an adipose fin; trouts and Kokanee have smaller scales than whitefishes and grayling. Young usually have parr marks (see Golden Trout). Colors vary with habitat, season and sex; for example, trouts living in turbid water or under ice acquire a silvery iridescence that covers spots and other colors making identification difficult.

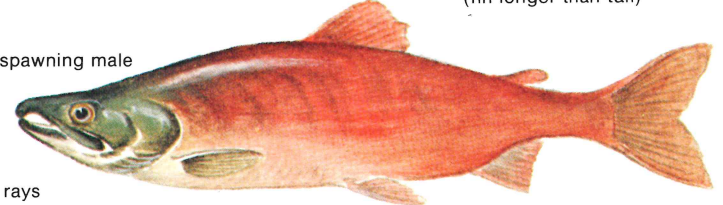
KOKANEE *Oncorhynchus nerka*

Kokanee is a landlocked sockeye salmon, a Pacific salmon. It is the only salmon presently in Montana waters. Introduced. **OTHER NAMES:** Silver, kokanee salmon. **HABITAT:** Cold, clear lakes and reservoirs. Generally ascends streams to spawn.

OTHER CHARACTERISTIC: Spawning female varies from red to dark green and may have yellow blotches. **SIMILAR SPECIES:** Silver-colored Rainbow Trout are often mislabeled Kokanee. Trouts have 12 or fewer rays in anal fin (fin is taller than it is long); Kokanee has 13 or more (see diagram). Trouts have 26 or fewer gill rakers (including rudiments) on the first arch (see Pumpkinseed for diagram); Kokanee has 30 or more and these are longer.

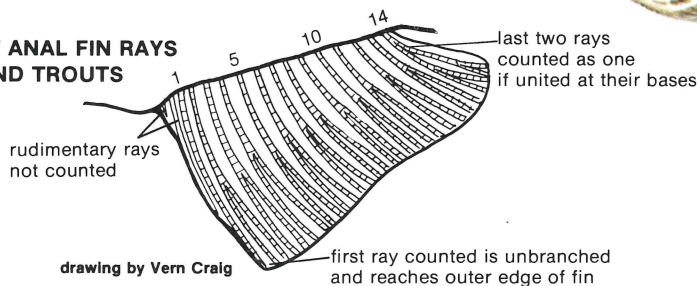


spawning male



11" (18")

HOW TO COUNT ANAL FIN RAYS ON KOKANEE AND TROUTS



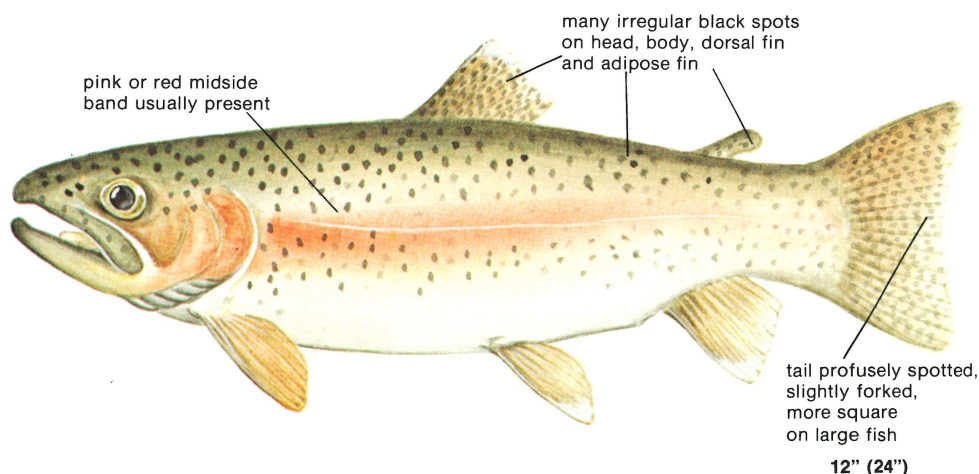
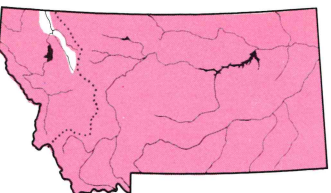
drawing by Vern Craig

RAINBOW TROUT *Salmo gairdneri*

Native to Kootenai River drainage (northwestern Montana).

OTHER NAME: Silver (a Rainbow Trout with silvery iridescence is often mislabeled a silver salmon). **HABITAT:** Cool, clean streams and lakes.

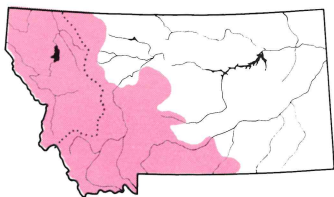
SIMILAR SPECIES: (1) Brown Trout has halos around spots and may have red spots; tail has few or no spots. See (2) Cutthroat Trout, (3) Golden Trout and (4) Kokanee.



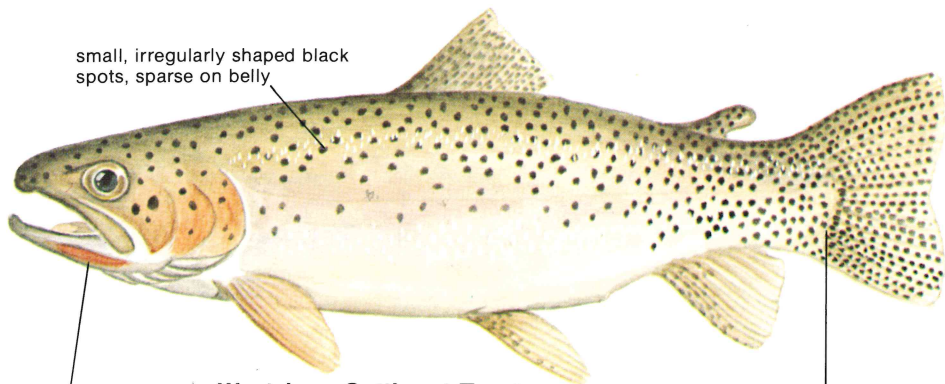
12" (24")

CUTTHROAT TROUT MONTANA STATE FISH (Two subspecies)

Native. Gone from much of original range. Westslope Cutthroat is native west of Continental Divide and in some drainages east of divide where it is referred to as upper Missouri Cutthroat Trout. Yellowstone Cutthroat is native in Yellowstone River drainage.



OTHER NAMES: Black-spotted trout, blackspotted cutthroat trout, red-belly, native, flat. **HABITAT:** Cool, clear mountain streams and lakes. **OTHER CHARACTERISTICS:** Usually has small teeth on base of "tongue" that are difficult to see, but may be felt with finger. Typically does not have spots on lower fins. Spots on head, if any, are generally above eye. Usually has two dusky blotches on cheek. During spawning season, lower side of Westslope may be red and Yellowstone may have reddish cheek. Variations in color and spotting make identification difficult. **SIMILAR SPECIES:** (1) Rainbow Trout does not have teeth on base of "tongue" or distinct red "cutthroat slashes," although some may have faint slashes. It usually has a broad pink or red midside "rainbow band." See (2) Golden Trout and (3) Brown Trout. Crosses between the cutthroat subspecies are common as are crosses between Cutthroat and Rainbow trouts; crosses are difficult to identify.



Westslope Cutthroat Trout
Salmo clarki lewisi 10" (18")

cutthroat slash—
one on each side
(weak on juveniles)

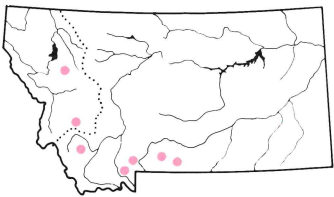


Yellowstone Cutthroat Trout
Salmo clarki bouvieri 10" (18")

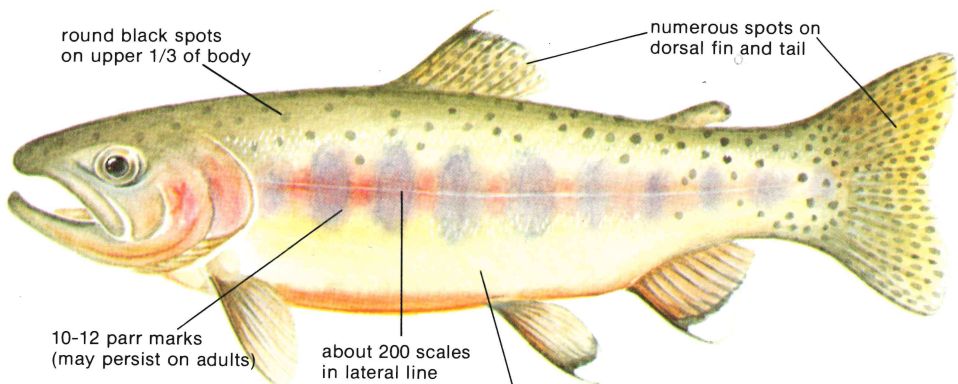
spots more dense
toward rear of fish

GOLDEN TROUT *Salmo aguabonita*

Introduced. Ten Montana lakes or lake chains in areas designated on map have pure strain Golden Trout. Numerous lakes have a Golden Trout-Rainbow Trout hybrid or Golden Trout-Cutthroat Trout hybrid.



HABITAT: Does well in harsh conditions of alpine lakes and streams. Also successful in clear, cold lakes at lower elevations. **OTHER CHARACTERISTIC:** White tip on dorsal, anal and pelvic fins not always set off by black line. **SIMILAR SPECIES:** (1) Rainbow Trout is densely covered with irregularly shaped dark spots and has 160 or fewer scales in lateral line (these are the pored scales along the midside; they are counted from the gill opening to the tail, excluding the last small scales at base of tail fin). (2) Cutthroat Trout has cutthroat slashes; usually has teeth on base of tongue; pelvic and anal fins do not have white tips.



round black spots
on upper 1/3 of body

numerous spots on
dorsal fin and tail

10-12 parr marks
(may persist on adults)

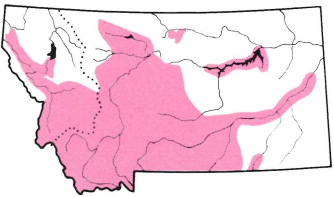
about 200 scales
in lateral line

lower side yellow to golden

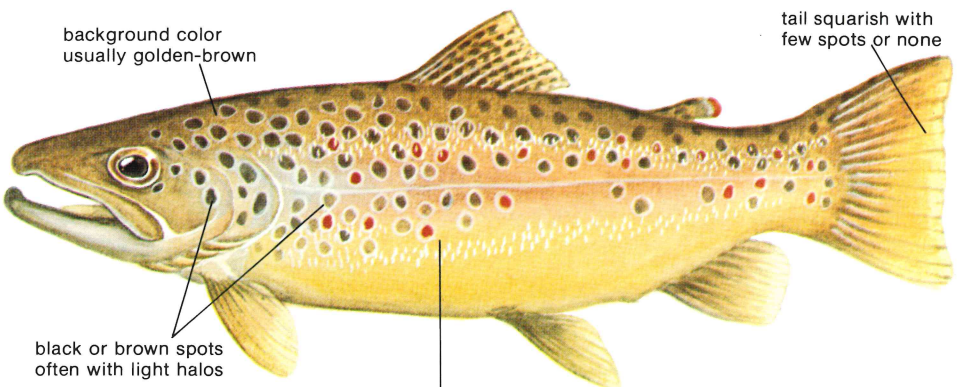
10" (18")

BROWN TROUT *Salmo trutta*

Introduced. **OTHER NAMES:** German brown (Von Behr), Loch Leven (these were the original strains that are now mixed and indistinguishable). **HABITAT:** Lower reaches of large streams. Reservoirs and lakes with suitable spawning tributaries.



OTHER CHARACTERISTICS: May lack red spots. Black (or brown) spots may be irregularly shaped or rounded. **SIMILAR SPECIES:** (1) Cutthroat Trout has cutthroat slashes and only black spots. (2) Young Brook Trout could be mistaken for young Brown Trout, but has intense white edge on anal and paired fins. (3) See Rainbow Trout.



background color
usually golden-brown

tail squarish with
few spots or none

black or brown spots
often with light halos

red spots on sides with light halos

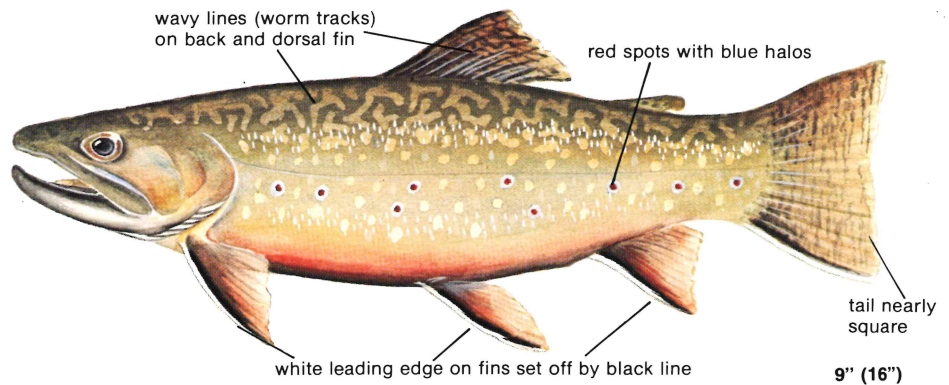
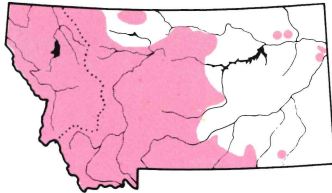
13" (24")

BROOK TROUT *Salvelinus fontinalis*

Introduced. **OTHER**

NAMES: Eastern brook trout, brookie. **HABITAT:** Prefers small spring-fed streams and ponds. Has become widespread in clear, cold lakes and streams.

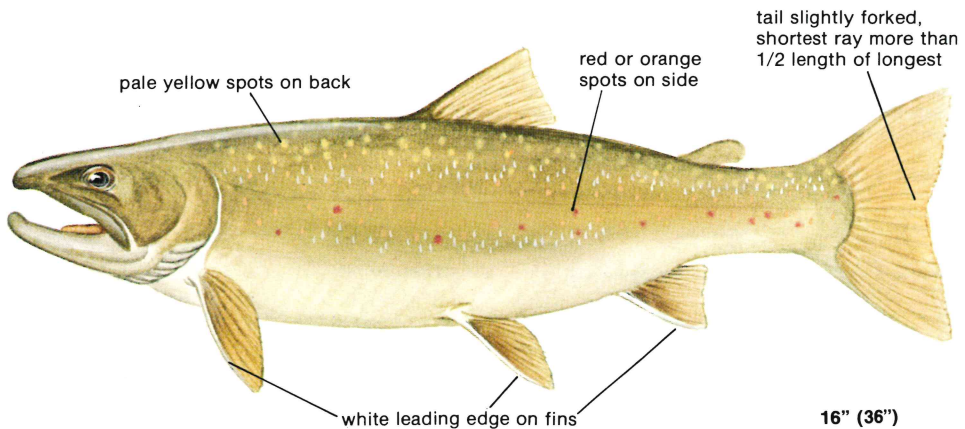
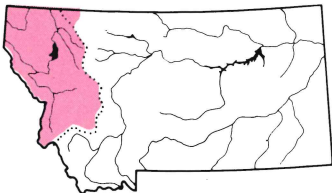
SIMILAR SPECIES: (1) Bull Trout does not have spots with blue halos or wavy lines on back. (2) Lake Trout has deeply forked tail and no red spots or halos around spots. (3) See Brown Trout. Brook, Bull and Lake trouts (all in genus *Salvelinus*) are chars. They have light spots on a dark background, whereas true trouts (genus *Salmo*) have dark spots on a light background.



BULL TROUT *Salvelinus confluentus*

Native. **OTHER**

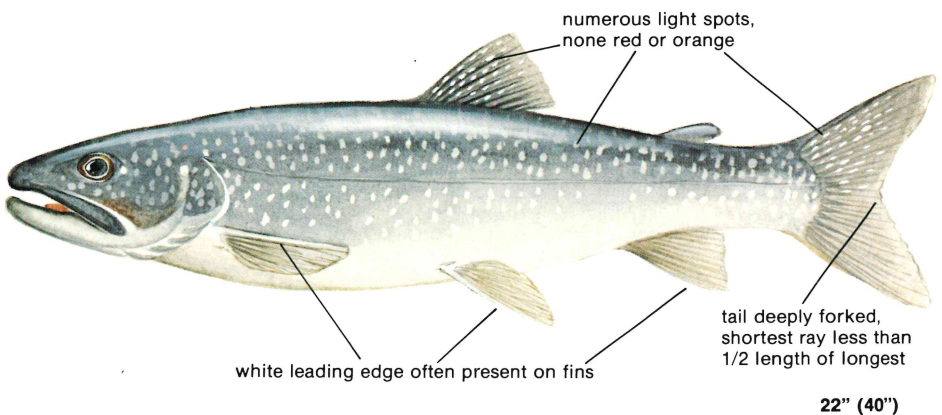
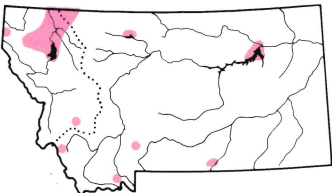
NAMES: Called Dolly Varden until 1978 when the primarily inland form of the Dolly Varden was designated a separate species, Bull Trout. **HABITAT:** Does best in large cold-water streams and lakes, but also found in smaller bodies of water. Lake dwellers ascend streams to spawn. **OTHER CHARACTERISTIC:** Dorsal fin and tail sometimes have a few pale spots. **SIMILAR SPECIES:** See (1) Lake Trout and (2) Brook Trout.



LAKE TROUT *Salvelinus namaycush*

Native in Elk, Twin, St. Mary and Waterton lakes. **OTHER NAMES:**

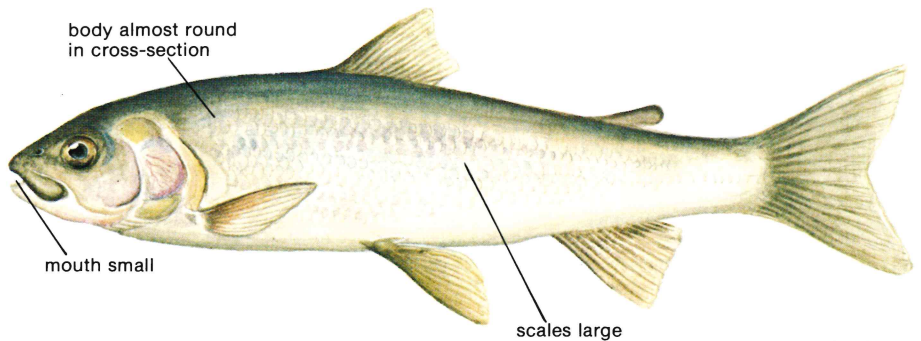
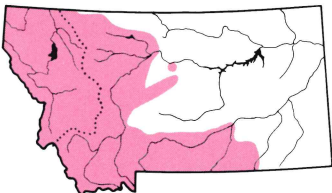
Mackinaw trout, mackinaw. **HABITAT:** Deep, cold lakes and reservoirs. **OTHER CHARACTERISTICS:** May have wavy lines on back. Fins may have traces of orange. **SIMILAR SPECIES:** (1) Bull Trout has many fewer spots and some that are orange and red; tail not as deeply forked; dark background color does not extend as far down side. (2) See Brook Trout.



MOUNTAIN WHITEFISH *Prosopium williamsoni*

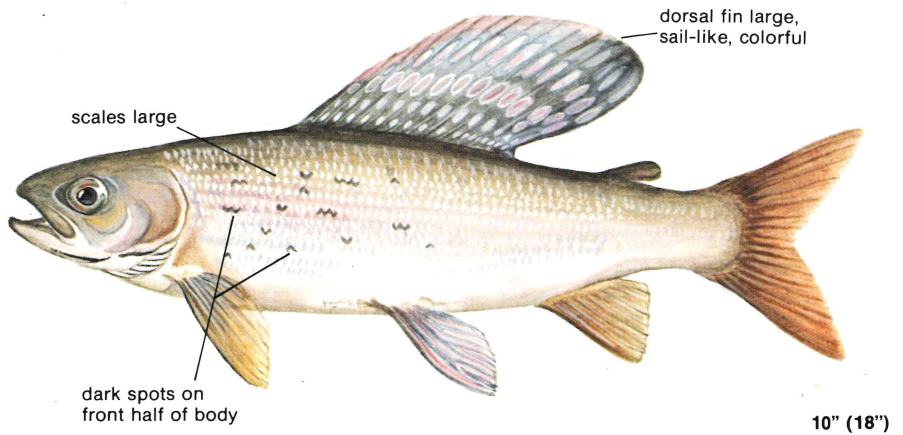
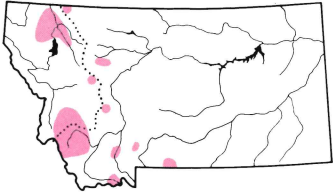
Native. **OTHER NAME:**

Rocky Mountain whitefish. **HABITAT:** Common in medium-sized and large, clear, cold rivers. Also found in some lakes and reservoirs. **OTHER CHARACTERISTIC:** Teeth few, small; hardly discernible. **SIMILAR SPECIES:** (1) Lake Whitefish (deep and slab-sided) and (2) Pygmy Whitefish (only reaches 7 inches) are found in a few Montana lakes (neither fish shown). (3) Trouts and (4) Kokanee have larger mouths and smaller scales. (5) A minnow or sucker (neither shown) does not have an adipose fin. (6) See Arctic Grayling.



ARCTIC GRAYLING *Thymallus arcticus*

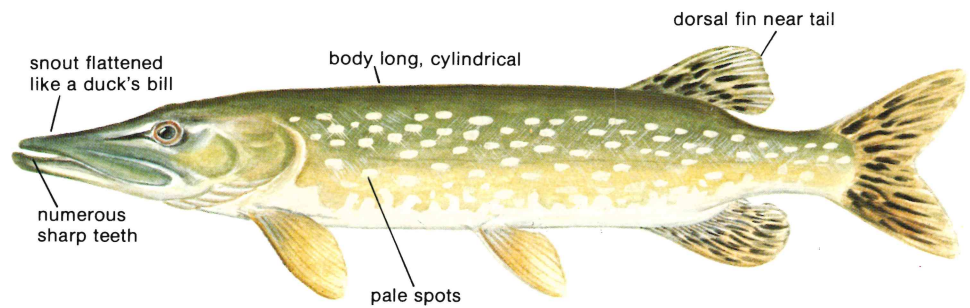
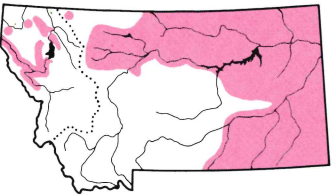
Native. **OTHER NAME:** Montana grayling.
HABITAT: Historically a stream fish. Now mostly in mountain lakes where introductory plants have been made. Spawns in streams or sometimes in lakes. **SIMILAR SPECIES:** (1) Whitefishes and (2) trouts do not have sail-like dorsal fin.



10" (18")

NORTHERN PIKE *Esox lucius*

Native in St. Mary River drainage. **OTHER NAMES:** Pike, northern, pickerel, jack, hammer-handle, slimer. **HABITAT:** Lakes, reservoirs and large streams; avoids strong currents. Spawns in areas with dense vegetation.



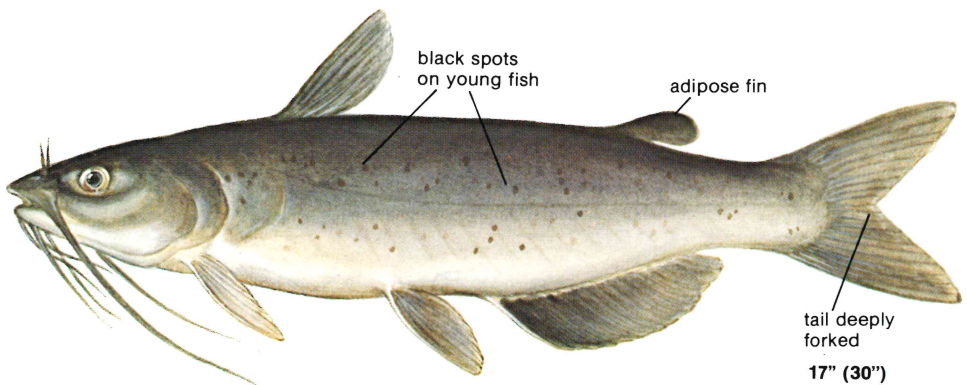
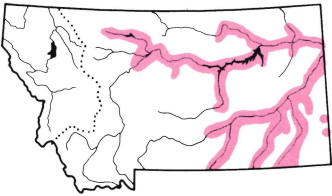
20" (45")

CATFISH FAMILY

This family is characterized by scaleless fishes with long "cat's whiskers" (barbels) and an adipose fin.

CHANNEL CATFISH *Ictalurus punctatus*

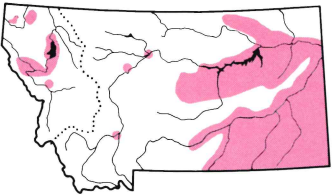
Native. **HABITAT:** Prefers large rivers and lowland lakes. Tolerates turbid water. **SIMILAR SPECIES:** (1) Other Montana members of the catfish family do not have a deeply forked tail. (2) See Burbot.



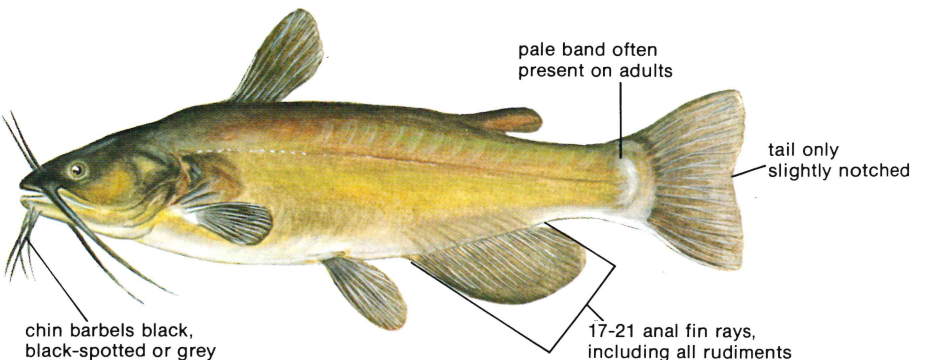
17" (30")

BLACK BULLHEAD *Ictalurus melas*

Introduced. **HABITAT:** Mud-bottomed lakes and ponds; pools and backwaters of streams. Tolerates turbidity, warm temperatures and low levels of dissolved oxygen.



OTHER CHARACTERISTIC: Membranes between fin rays much darker than rays. **SIMILAR SPECIES:** (1) Yellow Bullhead (not shown) found in a few Montana waters; has white, yellow or pink chin barbels (no black pigment) and 24 or more rays in anal fin. (2) Stonecat (not shown) is small (typical length, 6"; usual maximum, 9") and slender, with square or rounded tail. Distinguished from other family members by its adipose fin which, rather than flap-like, is attached to the body along its entire length and is separated from the tail by a notch. See (3) Channel Catfish and (4) Burbot.

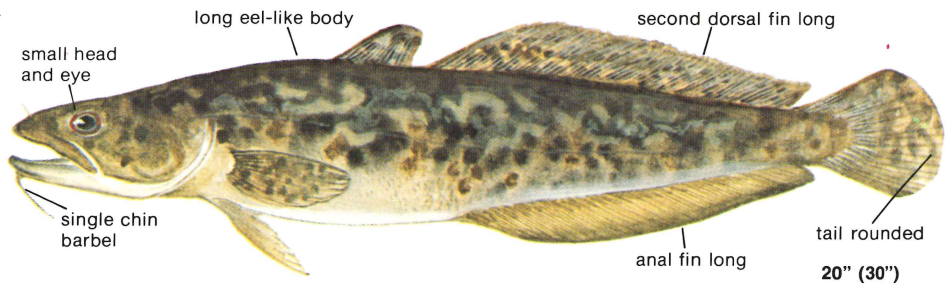
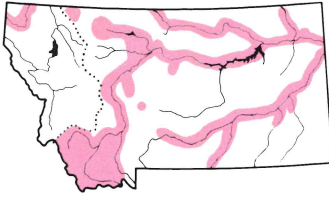


7" (12")

BURBOT

Lota lota

Native. **OTHER NAME:** Ling. **HABITAT:** Large rivers; cold, deep lakes and reservoirs. **OTHER CHARACTERISTIC:** Skin appears smooth, but tiny embedded scales are visible under magnification. **SIMILAR SPECIES:** Told from (1) catfishes and (2) bullheads by single barbel, round tail and very long dorsal and anal fins.



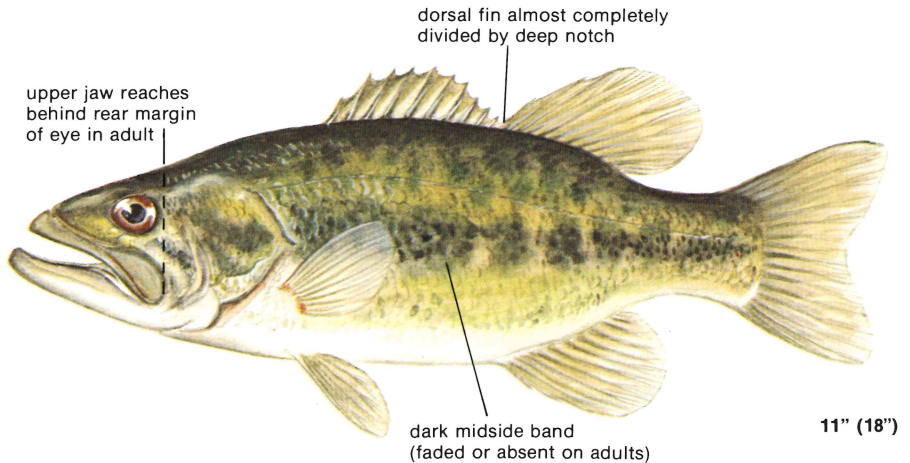
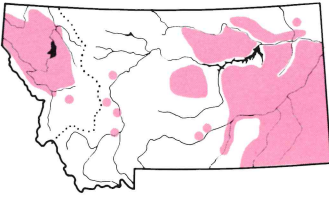
SUNFISH FAMILY

This is a family of spiny-rayed fishes—black basses, sunfishes, rock bass and crappies. The dorsal fin has a spiny front portion and a soft-rayed rear portion which are broadly (or, in the black basses, narrowly) joined into a single fin. The paired fins are nearly one above the other.

LARGEMOUTH BASS

Micropterus salmoides

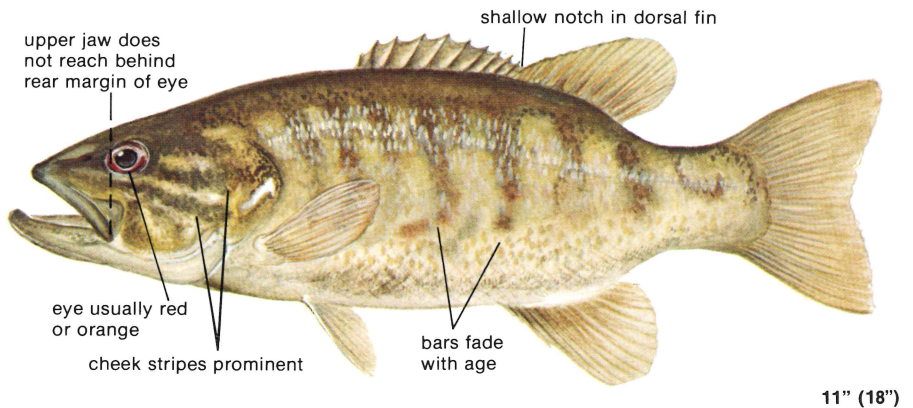
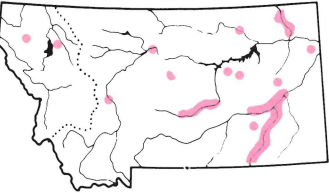
Introduced. **OTHER NAME:** Largemouth black bass. **HABITAT:** Clear, mud-bottomed lakes and stream backwaters. Seeks areas with comparatively warm summer water temperatures and ample aquatic vegetation. **OTHER CHARACTERISTIC:** Length of longest dorsal spine at least twice the length of shortest dorsal spine at notch. **SIMILAR SPECIES:** Smallmouth Bass has smaller mouth, broader connection between spiny and soft-rayed portion of dorsal fin, is more streamlined, tends to brownish hue (Largemouth to blackish) and has a different color pattern.



SMALLMOUTH BASS

Micropterus dolomieu

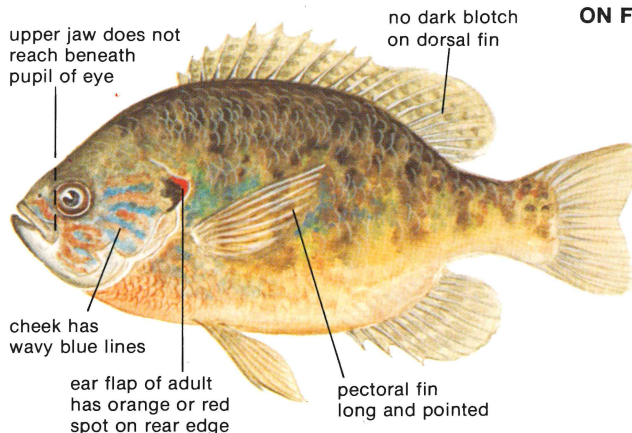
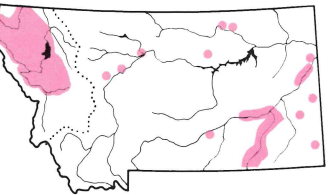
Introduced. **OTHER NAMES:** Northern smallmouth bass, smallmouth black bass, bronze-back. **HABITAT:** Over boulders and to lesser extent over gravel in cool, clear rivers and lakes. **OTHER CHARACTERISTICS:** Length of longest dorsal spine is less than twice the length of shortest dorsal spine at notch. Young have tri-colored tail with yellow or orange base, dark vertical bar in center and white outer edge. **SIMILAR SPECIES:** See Largemouth Bass.



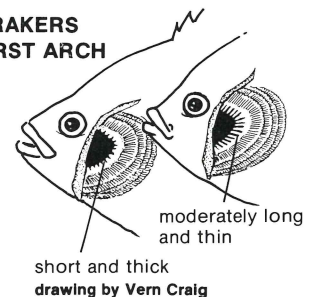
PUMPKINSEED

Lepomis gibbosus

Introduced. **OTHER NAMES:** Pumpkinseed sunfish, common sunfish. **HABITAT:** Ponds, small lakes, margins of large lakes and slow streams. Prefers areas with aquatic vegetation and submerged brush. **OTHER CHARACTERISTIC:** Gill rakers short and thick (see diagram). **SIMILAR SPECIES:** (1) Bluegill has completely black ear flap, longer gill rakers and black blotch on rear of dorsal fin. Bluegills and Pumpkinseeds readily hybridize; hybrids have intermediate characteristics. See (2) Green Sunfish and (3) Rock Bass.



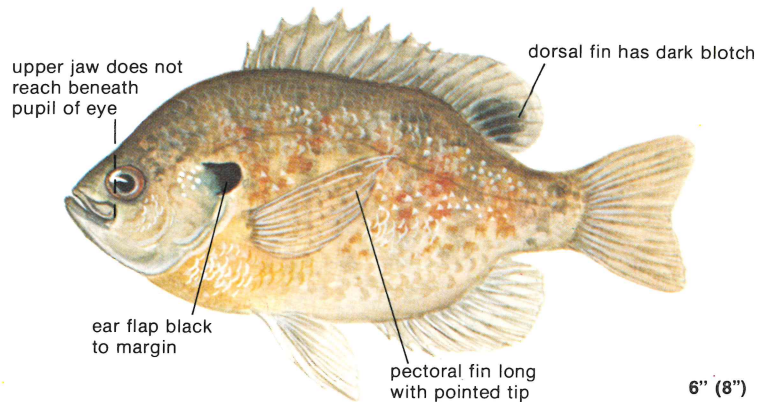
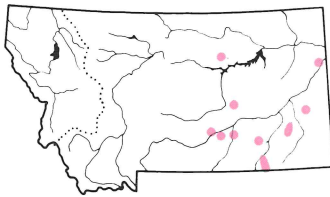
GILL RAKERS ON FIRST ARCH



6" (8")

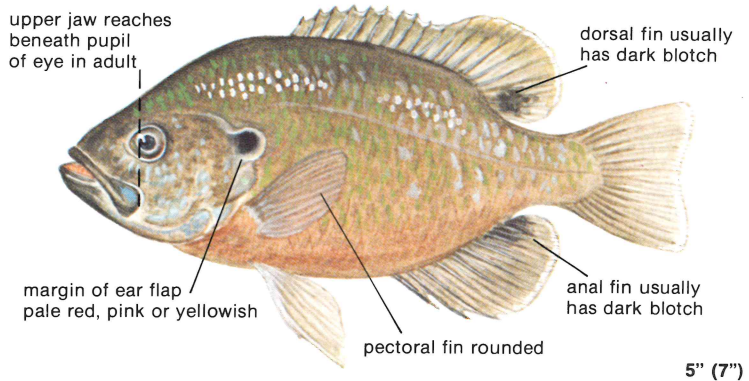
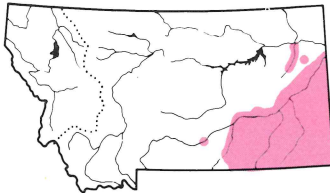
BLUEGILL *Lepomis macrochirus*

Introduced. **OTHER NAME:** Bluegill sunfish. **HABITAT:** Areas of aquatic vegetation in comparatively warm ponds and lakes; slow, weedy streams. **OTHER CHARACTERISTICS:** Gill rakers moderately long and slender (see Pumpkinseed for diagram). Ear flap smaller on females and young males than on adult males. **SIMILAR SPECIES:** See (1) Pumpkinseed, (2) Green Sunfish and (3) Rock Bass.



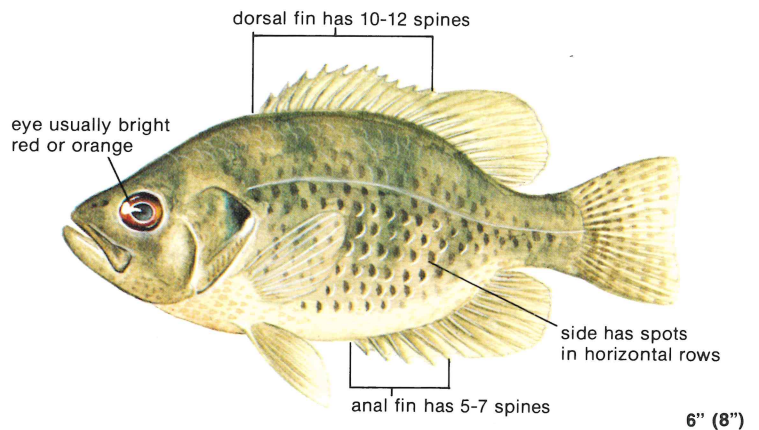
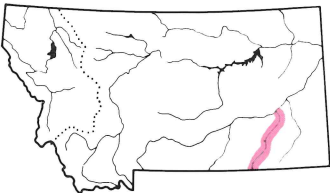
GREEN SUNFISH *Lepomis cyanellus*

Introduced. **HABITAT:** Slow-moving streams at lower elevations and shallows of lakes. Tolerance of high turbidity, low levels of dissolved oxygen and a wide range of temperatures allow it to survive in isolated pools of streams which cease to flow in dry weather. **OTHER CHARACTERISTICS:** Comparatively thick-bodied. Gill rakers long and slender (see Pumpkinseed for diagram). Breeding males have light-colored fringe on dorsal, anal and tail fins as in picture. **SIMILAR SPECIES:** (1) Bluegill and (2) Pumpkinseed have smaller mouth and pointed, usually longer, pectoral fins. Bluegill has completely black ear flap; Pumpkinseed has short, thick gill rakers; both are usually deeper-bodied than Green Sunfish. (3) See Rock Bass.



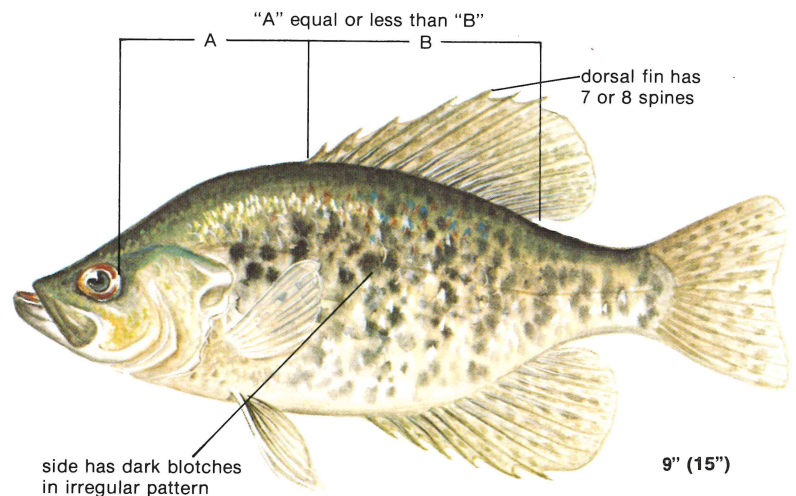
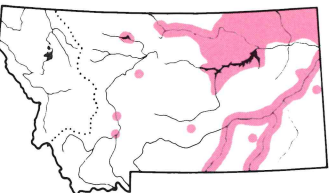
ROCK BASS *Ambloplites rupestris*

Introduced into Wyoming portion of Tongue River and moved downstream into Montana. **OTHER NAMES:** Northern rock bass, redeye, goggle eye. **HABITAT:** Rocky-bottomed, clear, comparatively warm streams. **OTHER CHARACTERISTIC:** Body robust. **SIMILAR SPECIES:** (1) Sunfishes and (2) crappies are not as thick and heavy and lack the red eye. Sunfishes have only 3 spines in the anal fin; crappies have 8 or fewer spines in the dorsal fin and the anal fin is about as long as the dorsal.



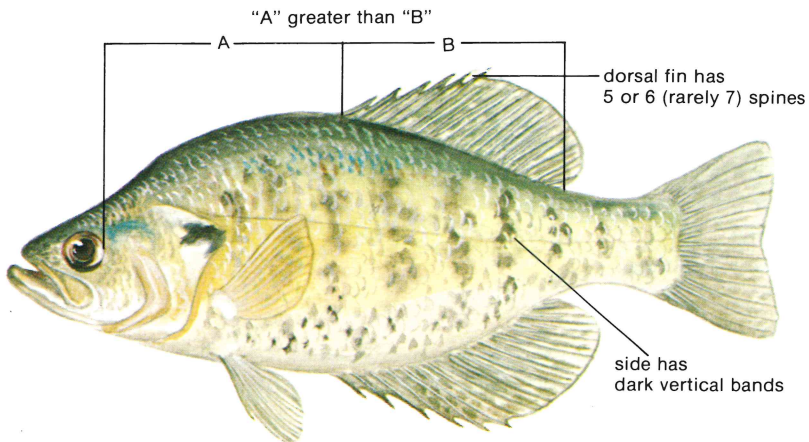
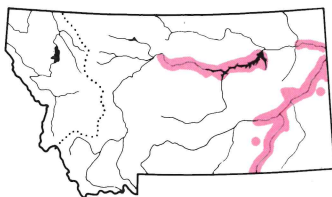
BLACK CRAPPIE *Pomoxis nigromaculatus*

Introduced. **HABITAT:** Lakes, reservoirs and slow portions of streams in areas with sandy to mucky bottoms and aquatic vegetation. **OTHER CHARACTERISTICS:** Anal fin base about as long as dorsal fin base. Fish from turbid water may be lighter colored. **SIMILAR SPECIES:** White Crappie's dorsal fin is shorter, set farther back and has 5 or 6 spines (rarely 7), compared with the Black Crappie's 7 or 8. White Crappie has vertical bars on side.



WHITE CRAPPIE *Pomoxis annularis*

Introduced. **HABITAT:** Lakes and reservoirs and slow portions of streams. More tolerant of turbidity than Black Crappie. **OTHER CHARACTERISTIC:** Anal fin base usually longer than dorsal fin base. **SIMILAR SPECIES:** See Black Crappie.



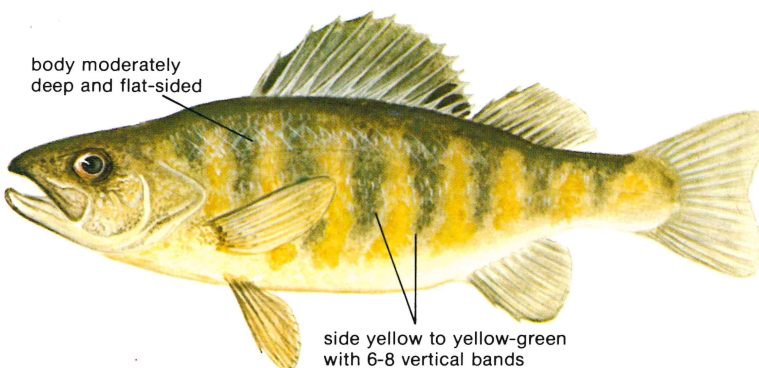
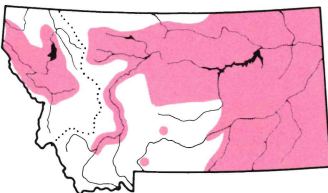
9" (15")

PERCH FAMILY

These spiny-rayed fishes have two separate dorsal fins—the front one with spines, the rear one with all or mostly soft rays. The paired fins are nearly one above the other.

YELLOW PERCH *Perca flavescens*

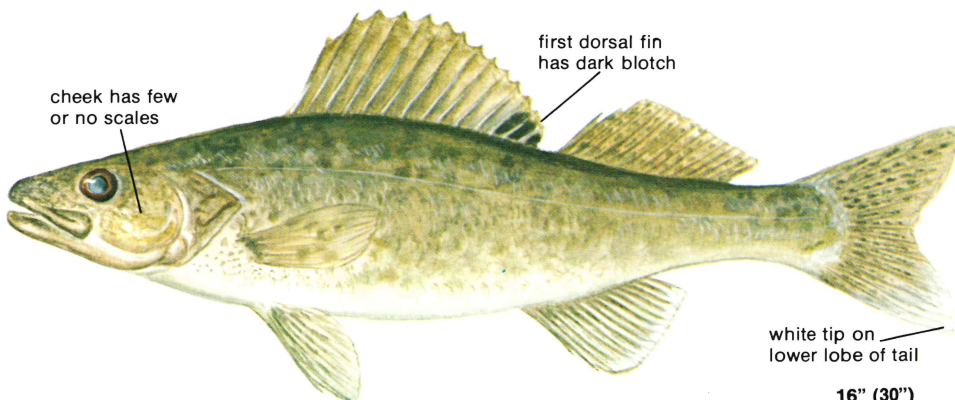
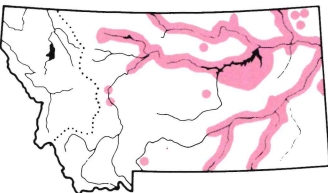
Introduced. **OTHER NAME:** Perch. **HABITAT:** Warm to cool, clear lakes with moderate vegetation and, to a lesser extent, slow, weedy streams. **OTHER CHARACTERISTICS:** Many small teeth but no long ("canine") teeth. Anal fin has 2 spines and 6-8 soft rays. **SIMILAR SPECIES:** Small Yellow Perch might be mistaken for young Walleye or Sauger. The latter two have large "canine" or tearing teeth and 11-14 soft rays in the anal fin.



8" (12")

WALLEYE *Stizostedion vitreum*

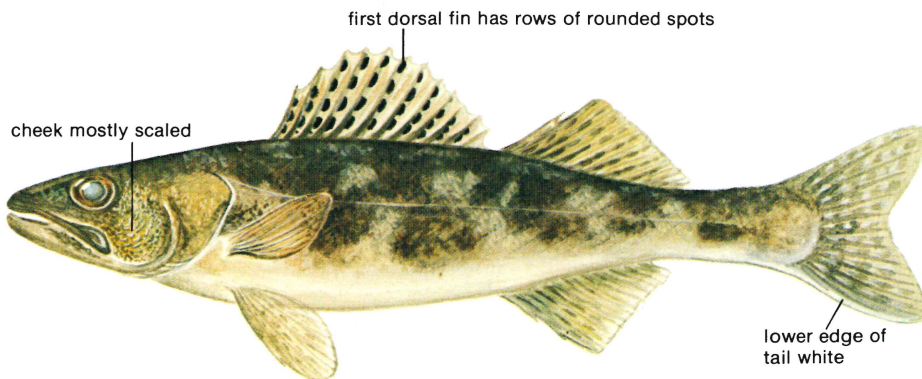
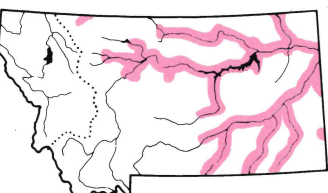
Introduced. **OTHER NAME:** Wall-eyed pike. **HABITAT:** Primarily large lakes and reservoirs; to a lesser extent, rivers. **OTHER CHARACTERISTICS:** Often has golden hue. Jaws and roof of mouth have long ("canine") teeth. Anal fin has 2 spines and 11-14 soft rays. **SIMILAR SPECIES:** See (1) Sauger and (2) Yellow Perch.



16" (30")

SAUGER *Stizostedion canadense*

Native. **OTHER NAME:** Sand pike. **HABITAT:** Rivers, shallows of lakes and reservoirs. Prefers turbid water. **OTHER CHARACTERISTICS:** Often has greyish hue with dark blotches. Jaws and roof of mouth have long ("canine") teeth. Body almost round. Anal fin has 2 spines and 11-14 soft rays. **SIMILAR SPECIES:** (1) Walleye has large, dark spot at rear of first dorsal fin; tip of lower lobe of tail is white; cheeks have few scales, if any. (2) See Yellow Perch.



13" (24")