

PROMINENT FISHES OF WEST VIRGINIA

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Conservation Commission of West Virginia

This publication is designed primarily for the angler and school classes. It provides a means for identifying some of the more prominent fishes of the state. A total of 50 species are represented -- grouped under the family to which each belongs and accompanied by a brief **discussion**. We have kept **it** simple for obvious reasons.

It should be **remembered** that **less** than a third of the number of fishes have been included of **those** found in **West Virginia** waters.

CONSERVATION COMMISSION OF WEST VIRGINIA
Carl J. Johnson, Director

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IMPOUNDMENTS AND THE FUTURE OF FISHING IN WEST VIRGINIA

Most sportsmen think of West Virginia in terms of a "stream fishing" state. While true to a large extent, great strides **are** being made in our **lake** construction program.

Within the last decade, numerous impoundments have *been* built, including the forty-two acre Summit Lake near Richwood, the twenty-six acre Spruce Knob Lake, a six-acre Coopers Rock State Forest Lake, and another eighteen acres of fishing water at the Bear Rock Lakes Area near Wheeling. Also, there **are** many other state-owned impoundments in addition to several **sizeable** community lakes and federal reservoirs offering public fishing.

Nor should one **overlook** the small farm ponds which **are** steadily growing in numbers. Today it is estimated that we have somewhere between 5,000 and 8,000 in West Virginia **alone**. This does not include various sportsmen clubs ponds, city reservoirs, or **commerical** ponds which are also on the increase.

Where does this lead us and how far can we go? Time will only tell. **We** fully recognize the need of additional fishing waters when faced with a steadily increased **fishing** pressure each year. Unfortunately, pollution from one source or other has taken its toll in some of our larger streams. Then, too, as our state becomes more and more **industrialized**, the over all "stream" picture of the future is not too encouraging. The most logical solution today and in the future lies in impoundments.

In other words, West Virginia is slowly but surely turning into a "lake fishing" state. While perhaps not as alluring to the more ardent anglers, there are certain advantages to be noted. Impoundments can withstand a much heavier concentration of fishing pressure and is usually far more productive in **fishl** life. Lakes **can** also be easily managed and rehabilitated from time to time; creel returns are greater and a larger percentage of the **fishing** public are more successful than when stream fishing. **Last** but not least, the impoundments offer family groups and the elders an opportunity to enjoy **relaxation** in this outdoor recreation otherwise lost.

The prospects in the **future** appear encouraging. Several proposed federal reservoirs are now in the planning stage. Your Conservation Commission is also forging ahead with preliminary surveys and blueprints for additional **lakes** in **all** areas as monies become available. Sportsmen clubs and private organizations also are either constructing **lakes** or planning accordingly. From all aspects, the outlook is good. A change in the type of fishing for many, yes, but recreation is being assured.

PROMINENT FISHES OF WEST VIRGINIA

LAMPREY FAMILY

These eel-like creatures are easily distinguished from the true fishes by their funnel-shaped mouths and small external gill openings. Various species of lampreys exist, both parasitic and nonparasitic, on other fishes. In general, both types have much in common. That is, all lampreys after spending several years as larvae burrowed in muddy or sandy stream banks emerge in spring to become active. After reaching sexual maturity (one or more years, depending on the species) they spawn but once and die.

Figure 1 - Ohio crook Lamprey

This nonparasitic lamprey has little value other than for bait. Anglers find it excellent for walleye and bass fishing. Adults are taken to eight inches in length, appearing bluish to gray in color. They may be observed in the spring migrating upstream to spawn. The number of muscle segments (54-60) and two dorsal fins distinguish this lamprey from other related species. It is common in the smaller tributaries of the Ohio River drainage.

PADDLEFISH FAMILY

Figure 2 - Paddlefish

It is the sole representative of the family in this country. The paddlefish should not be mistaken for other fish as it is the only one having a long paddle-shaped snout. The long tapered opercular flap and upturned tail provides further identification if necessary. This fish has been taken in the Ohio and Kanowha River areas but is not believed to be very abundant at the present time. Specimens have been recorded to six feet in length. Their body is dull gray in color. The flesh is highly valued for its eating quality. Since the diet of the paddlefish consists principally of small microscopic organisms it is seldom taken by the angler.

STURGEON FAMILY

Figure 3 - Lake Sturgeon

This fish is the only likely one of the family ever to be encountered in this area. Chiefly an inhabitant of our larger and muddy streams, it feeds almost entirely on bottom material. Maximum length is 10 feet and a weight of 200 pounds. Although reaching large sizes, the rate of growth is very slow. It is said that they do not reach sexual maturity until around the twentieth year of life. The five rows of bony plates, conical snout, and ventral mouth with barbels identify it from other fishes. Coloration is dark olive above to gray and brown on the sides. Its flesh demands a high price on the market, as does its roe. These fish, once common in this area, are rather rare at the present time. Sturgeon are occasionally taken from the Ohio River.

The trout — brook, brown, and rainbow -- are representatives of this family in West Virginia. Though natural reproduction still occurs in some of our streams (principally for brook trout only) the annual stocking of hatchery reared trout is absolutely necessary to meet the demand of anglers. All three species of trout provide much sport and are excellent in flavor. The temperature factor limits their existence to cold-water streams.

Figure 8 - Rainbow Trout

The rainbow trout is easily recognized by the small, sharp spots on its body which are continued on the tail. The dark margin of the adipose fin and broad, pink lateral band are additional marks of identification. A year old hatchery reared rainbow may average seven to nine inches in length. It is considered the most migratory of trout.

Figure 9 - Brown Trout

Brown trout reach adult size (7") sometime during their second year of life. They hold over well from season to season, weights of three and four pounds being reported by many anglers of the state. This fish can withstand higher water temperatures than the other trout. It is the most difficult to catch of the three species.

Figure 10 - Eastern Brook Trout

The brook trout, a native of our waters, is perhaps the most sought after trout. It puts up an excellent fight for its size. Not being able to withstand high temperatures, it does best in small, cold, spring-fed streams. The brook trout is easily identified by the light colored edges of the lower fins. Its hatchery growth averages six to eight inches in length soon after the first year of life.

SUCKER FAMILY

This is a rather large family represented in this bulletin by the buffalofish, quillback, and various species of suckers. All of these fish are characterized by the lack of spines on the fins. None of the members are as highly regarded in food value (quite bony) as are the common game fishes of our streams. However, they provide much sport for the fisherman and do have considerable commercial value on the market. The suckers as a group are generally accepted as the most common of fishes in the state. Few of them are readily caught by hook and line except during early spring when they are migrating upstream to spawn. Their diet consists mainly of vegetation, insects and larvae.

Figure 11 - Smallmouth Buffalo

The smallmouth buffalo is found only in the Ohio River and its larger tributaries. Though often mistaken for carp the buffalo has neither a stiff spine at the base of the dorsal fin nor barbels. It is a large and coarse fish sometimes reaching twenty pounds in weight. The color is bluish to copper dorsally with a pale greenish to yellow cast below. It shows a preference for the deep and more sluggish areas, feeding on mollusks and insects.

Figure 12 - Quillback

It is a very deep-bodied fish with silvery sides, often with a yellowish cast. The first few anterior rays of the dorsal fin are greatly elongated. Though reaching lengths of 10 to 12 inches its flesh, being of muddy flavor and quite bony, is not highly desired. This fish is taken from the Ohio River and tributaries where it is fairly common.

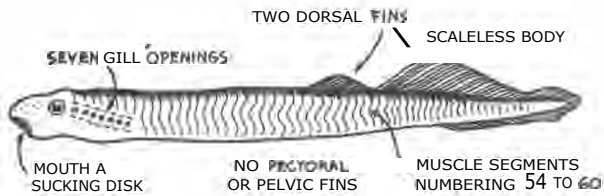


FIG. 1- OHIO BROOK LAMPREY

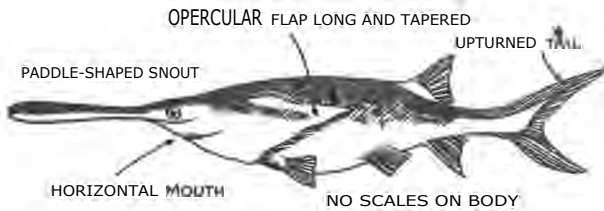


FIG. 2 - PADDLEFISH

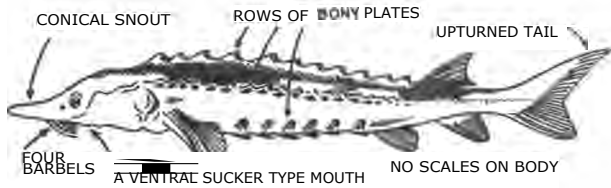


FIG. 3 - LAKE STURGEON



FIG. 4- LONGNOSE GAR

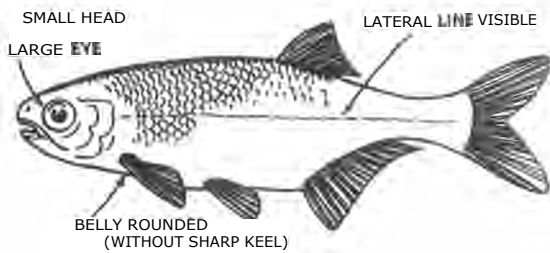


FIG. 5- MOONEYE

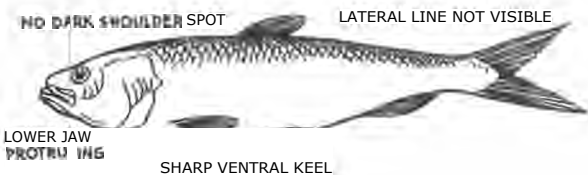


FIG. 6-SKIPJACK

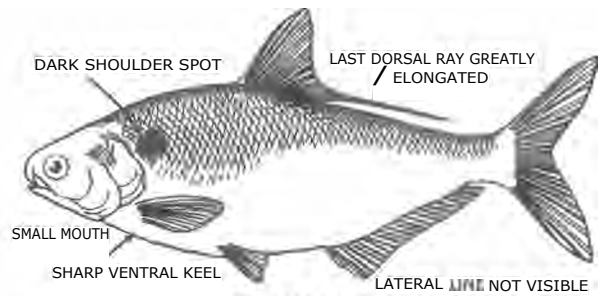


FIG. 7- GIZZARD SHAD

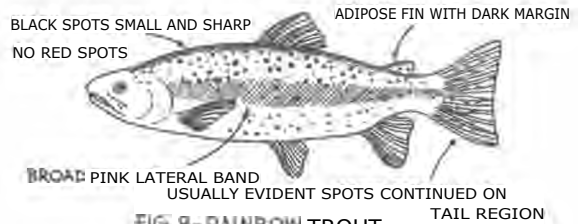


FIG. 8- RAINBOW TROUT

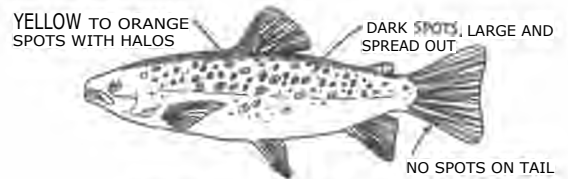


FIG. 9- BROWN TROUT

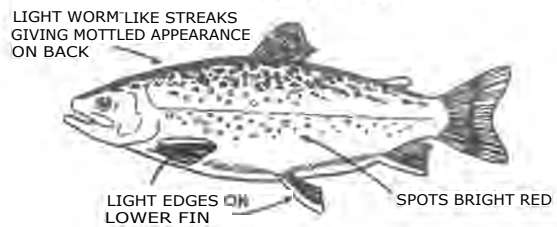


FIG. 10- EASTERN BROOK TROUT

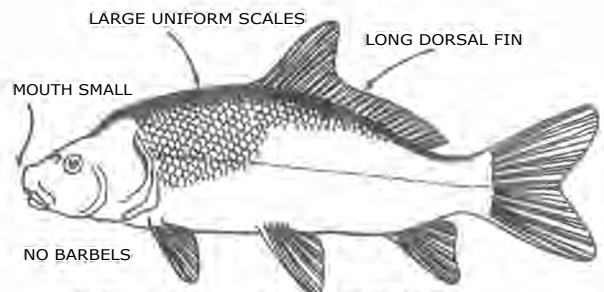


FIG. II- SMALLMOUTH BUFFALO

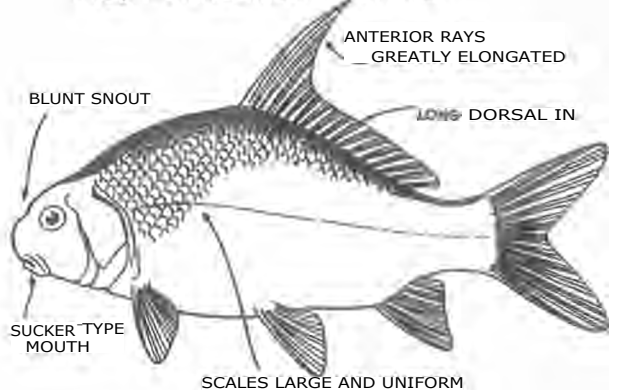


FIG. 12- QUILLBACK

SUCKER FAMILY (Continued)

Figure 13 - Golden Redhorse

It is just one of five **species** of redhorse suckers known to be in West Virginia streams. However, for **all** practical purposes the differences in appearance are so slight that to **separate one** from **another** is of scientific interest only. Bright coloration of the lower fins *and* large uniform scales throughout the body are the striking features of the redhorses. The weight of the golden **redhorse** averages well up to three pounds. Other species **are** much larger. These fish, in general, are widely distributed throughout the Ohio River drainage.

Figure 14 - White Sucker

This species is distinguished from the **redhorse** by the scales along its body which become much smaller and quite crowded toward the head region. The color of the body appears as dark above, yellow on the sides, and white beneath. This coloration varies somewhat, sepecially so during the early spawning season when it becomes quite darkened. The white sucker is taken up to six pounds in weight in our larger streams, It has quite a wide distribution throughout West Virginia. The diet of this fish is primarily vegetation and small aquatic insects.

Figure 15 - Hog Sucker

The hog sucker, once observed, is hard to forget. The eye is set far back on the large head. The four dark crossbars which **are** quite evident in the young tend to fade out on the older fish. The "hog type" mouth explains the origin of **its** name. It is probably the least favored in food quality of all suckers. Preferring the swift and shallow areas of streams, the hog sucker feeds upon various aquatic insect larvae. It is present in all of our major stream systems. Maximum length of the fish is two feet.

MINNOW FAMILY

This, the largest of fish families, contains far more species than any other two families combined in West Virginia waters. Though referred to as the minnow family this holds no relation toward the size of the fish. A few of its members grow to several feet in length. Generally speaking, the majority of its members **are** the small "bait fishes" that are seined from our **streams**.

Figure 16 - Carp

The carp is recognized by the stiff spinous anterior ray of the dorsal **fin** and presence of barbels on the upper jaw. The flesh is edible but is seldom praised for its quality. **This** species, a dweller of large and sluggish streams, attains weights up to 30 pounds. As a result of early domestication several varieties of this fish occur. The ordinary scale carp is by far the most common. In addition there is the mirror carp with only a few large scales on its body and the leather carp which is entirely devoid of scales.

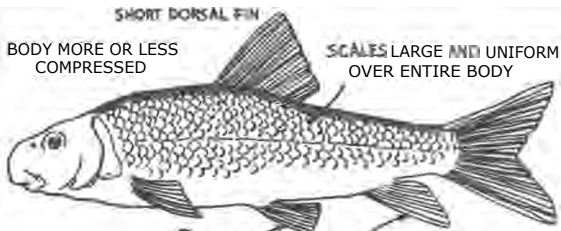
Figure 17 - Goldfish

This is the common goldfish that is such a favorite in the **household**. In its natural state the **gol dfish** is olive green to dusky in color and may grow to **a foot** or so in length. The absence of barbels distinguishes it **from** the carp. This **fish** is known to be in the Ohio River system and is possibly present in the Potomac River drainage as well.

MINNOW FAMILY (Continued)

Figure 23 - Stoneroller

Largely a bottom feeder on plant material, the stoneroller averages less than six inches in length, with eight inches being its maximum. It is distinguished by a dark band on the dorsal fin and scattered darkened scales on the body giving it a dusky appearance. This fish is a good example of one that develops the nuptial tubercles on the head and body. These wart-like swellings which occur only during the spawning season are present on the males and serve a variety of purposes. For positive identification of the stoneroller one should rely on the single internal feature: the intestine of the stoneroller is spirally wound many times about the air bladder. Like the above species, this fish also has a wide distribution, showing a preference toward small, clear, swift-moving streams.



LOWER FINS ORANGE TO RED IN COLOR
FIG. 13 - GOLDEN REDHORSE

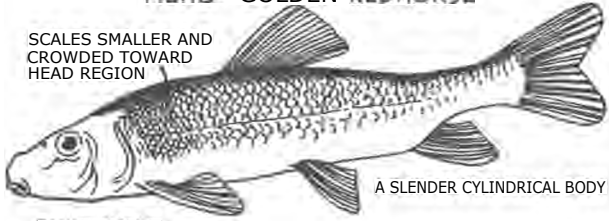


FIG. 14 - SUCKER.

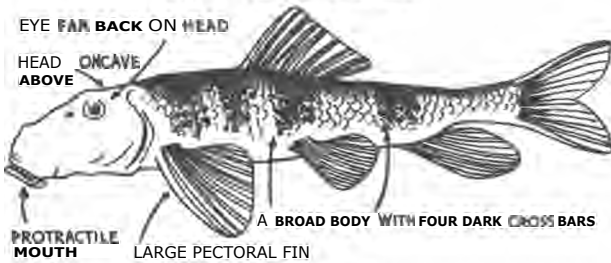


FIG. 15 - HOG SUCKER.

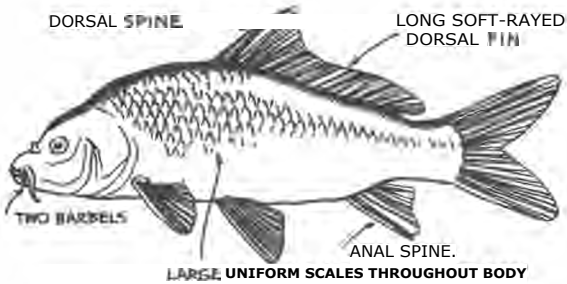


FIG. 16 - CARP

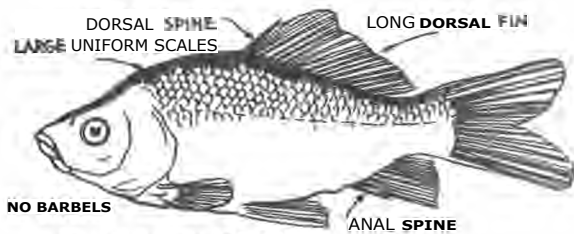


FIG. 17 - GOLD FISH

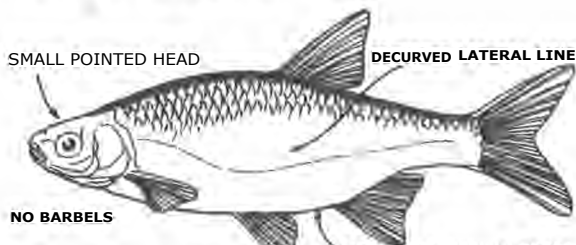


FIG. 18 - GOLDEN SHINER



FIG. 19 - COMMON SHINER

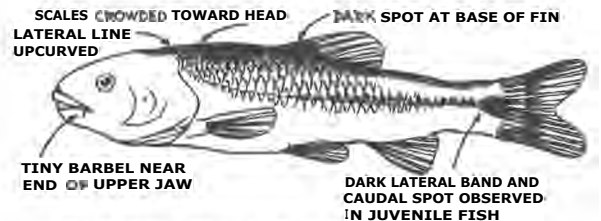


FIG. 20 - CREEK CHUB

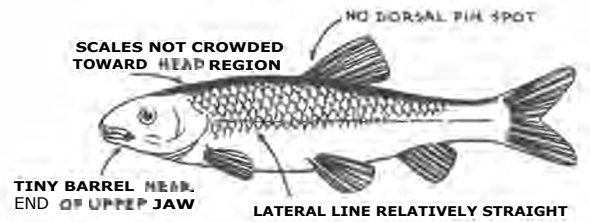


FIG. 21 - FALLFISH

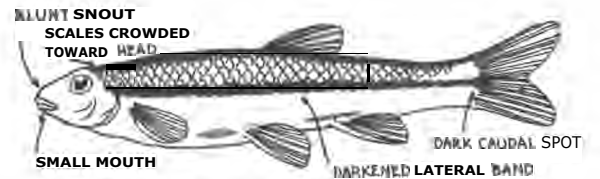


FIG. 22 - BLUNTNOSE MINNOW

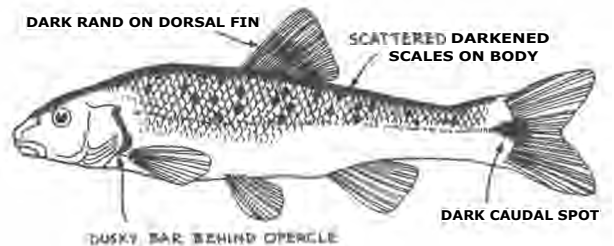


FIG. 23 - STONEROLLER

CATFISH FAMILY

Distinguishing features of this family are the presence of sharp spines, several pairs of barbels, adipose fin, and a scaleless body. The family includes specks of bullheads, madtoms, flatheads, and channel catfishes. All of its members are noted for their poor eyesight, depending largely on the sensitive barbels to locate their food. Much of their feeding takes place at night, thus they become easy victims of the trot line fisherman. Excellent in flavor, many of these fish have commercial value.

Figure 24 - Black Bullhead

The bullheads are able to withstand polluted waters better than most other fish. They desire slow-moving areas of our warmer waters. Their maximum length is 16 inches though they seldom exceed 12 inches in West Virginia streams. The black bullhead is recognized by the lower chin barbels which are always dark in color. The body, too, is quite dark with exception of a light colored bar just anterior to the caudal fin.

Figure 25 - Yellow Bullhead

The light colored chin barbels separate the yellow bullhead from the other species. Its body is lighter in color and the caudal fin is more or less rounded. Seldom is it taken over 12 inches in length. Like the other bullheads it is fond of muddy streams and is classed as a scavenger, feeding on almost any kind of aquatic life.

Figure 26 - Brown Bullhead

Though not as common as the other two species, it has a wide distribution. The brown bullhead may reach a slightly larger size than the two preceding bullheads. Its body is much darkened and blotched, giving a mottled appearance. It is the only one that has a sharp, saw-tooth margin on the pectoral spine.

Figure 27 - Channel Catfish

This species has a decided preference for the larger streams and lakes. It is fast becoming a favorite among persons fishing in large impoundments. Smaller specimens are easily identified by the scattered and darkened flecks on its long, slender body. However, as the fish puts on weight these characteristics are changeable. As a result it is often mistaken for another species, the blue catfish. The latter, however, is rare in this area. The channel catfish attains a maximum weight of 40 pounds.

Figure 28 - Flathead Catfish

It is one of the largest of freshwater fishes, reaching 100 pounds in weight. The large, flattened head, square-shaped tail, and short barbels are its main characteristics. The body is rather dark and mottled in appearance. In other states this fish has some commercial value. It is a bottom feeder of our larger streams, in particular the Ohio River and its tributaries.

BASS FAMILY

Figure 33 - White Bass

Though seldom fished for, the white bass is present in the Ohio River area. It has been caught in the Little Kanawha ranging up to several pounds in weight. This is a deeply compressed fish with dark, narrow bands running lengthwise on its silvery body. Its diet consists of insects and forage fish. In some of the central states it offers much sport -- being taken at night on minnows by fishermen using lanterns as a source of attraction. Its flesh is excellent in flavor.

PERCH FAMILY

This family is represented by the yellow perch, pikeperch, and darters. These fish all possess two dorsal fins -- the anterior dorsal being spinous and the posterior dorsal soft-rayed. Lengths of these fish vary greatly depending on the species.

Figure 34 - Yellow Perch

This fish has been reported in scattered sections throughout the state. It is easily identified by the broad and dark crossbars on its yellow colored body. The yellow perch becomes quite stunted in overpopulated waters though lengths up to ten inches are not uncommon. They bite readily on all types of bait. They are of some importance commercially as a food fish.

Figure 35 - Yellow Pikeperch

A very desirable food fish in the state is the yellow pikeperch (also referred to as walleye). The New River is an exceedingly popular fishing stream for this species. Individuals range up to 12 pounds in weight. A prominent characteristic of this fish is the dark blotch at the base of the spinous dorsal fin. A closely related species, the eastern sauger is also present in our streams, but is much the scarcer of the two. It does not have the darkened blotch on the dorsal fin.

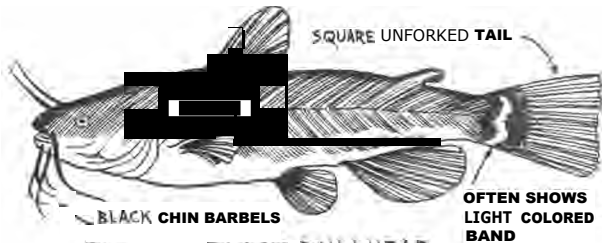


FIG. 24 - BLACK BULLHEAD

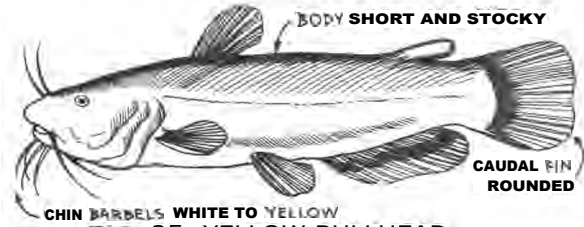


FIG. 25 - YELLOW BULLHEAD

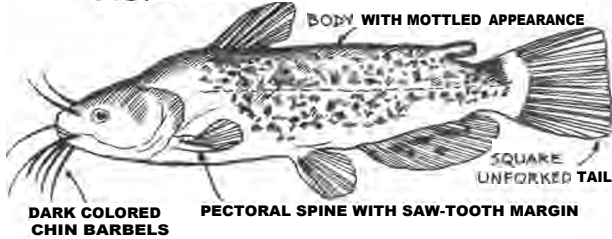


FIG. 26 - BROWN BULLHEAD

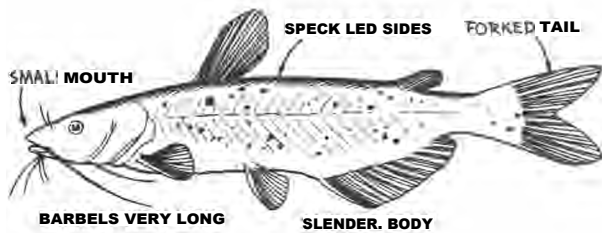


FIG. 27 - CHANNEL CATFISH

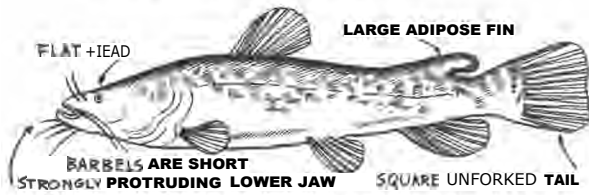


FIG. 28 - FLATHEAD CATFISH

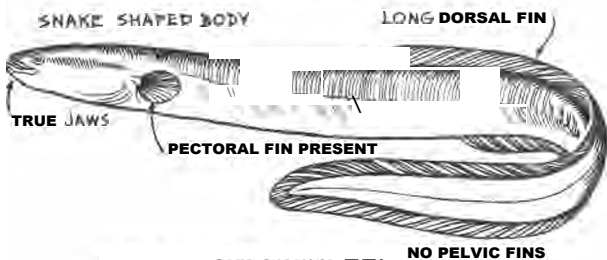


FIG. 29 - AMERICAN EEL

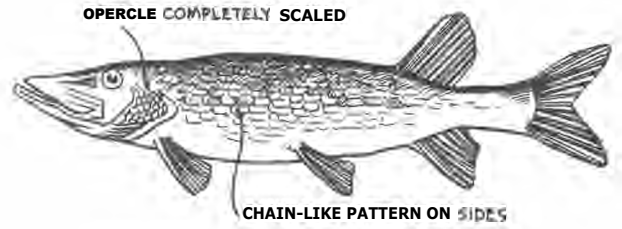


FIG. 30 - CHAIN PICKEREL

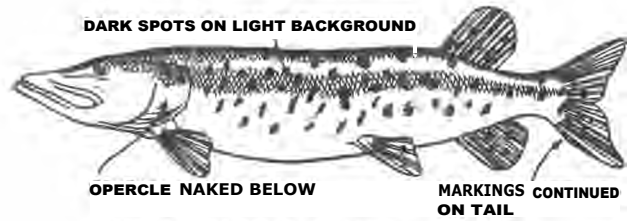


FIG. 31 - MUSKELLUNGE

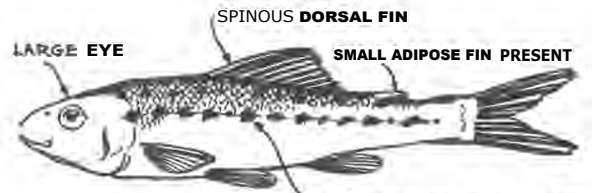


FIG. 32 - TROUT PERCH

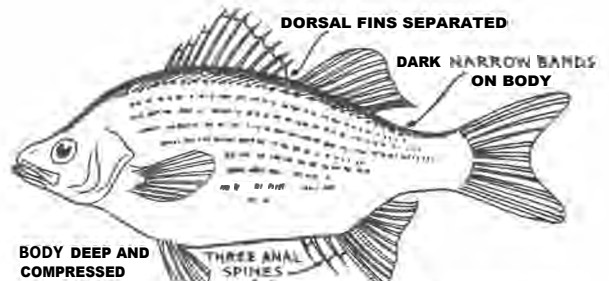


FIG. 33 - WHITE BASS

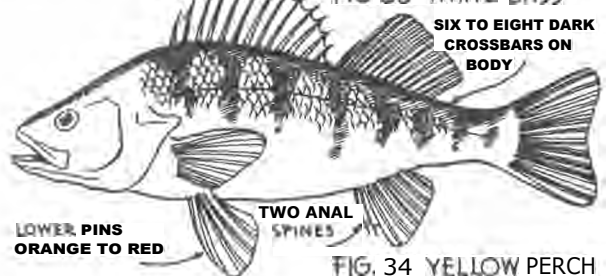


FIG. 34 - YELLOW PERCH

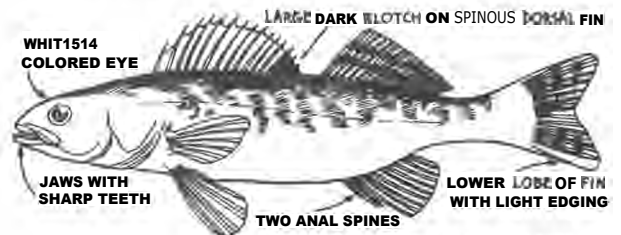


FIG. 35 - YELLOW PIKE PERCH

All of the below named specks are called **darters**. These fish are so named because of their habit of darting quickly under stones or other protected areas when disturbed. Generally speaking, they **prefer** shallow riffles of our clear and **s** **ft-moving** streams. The dull colors of these fish make them well camouflaged except during the breeding *season* when the males become brilliant in **coloration**. The darters have little forage value and are seldom *used* as bait. Average lengths of darters are slightly under two inches. They feed almost *entirely* on *small* insects and larvae.

Figure 36 - Johnny Darter

The Johnny darter is an interesting little **fish** seldom over two inches in length. It is widespread in distribution, preferring the shallow, sandy areas of streams. The small blunt snout and **W-shaped** markings on its body identifies it from **others**. It is perhaps the most common of **darters**.

Figure 37 - Rainbow Darter

This **fish** is the most colorful of darters. Twelve dark vertical bars on the body and the large head **are** its major **characteristics** for identification. Assorted colors including orange, olive-green, black and blue of various shades may be observed on the male at spawning time -- hence the name rainbow. A length of two and one-half inches is its maximum.

Figure 38 - Fantail Darter

It has a wide distribution over the entire state. Like the above named species this darter has a maximum length of two and one-half inches. It is identified *by* the long, pointed head and the darkened, broad cross-bars on the fusiform body. Spines of the **first** dorsal fin are short and blunt. The body of this fish is not as brightly colored as the other species of darters.

SUNFISH FAMILY

This family is represented by the black basses, crappies, and sunfishes. These fish all possess a single dorsal fin, the anterior portion of which is spinous and the latter part consisting entirely of soft-rays. Excepting a few small **sun-fishes**, all members of this family are good food fishes.

Figure 39 - Smallmouth Black Bass

This fish is **rated** the highest **among** black basses as a gamey fish by most anglers. **In** general, adults average two and three pounds **in** weight. The **smallmouth** bass shows a *preference* for the clear and relatively cool streams for its **habitat**. Its distribution is widespread in West Virginia. Prominent characteristics of this species are (1) the upper jaw not extending past the middle of the eye and (2) the dorsal fin being only slightly **notched**. **Coloration is** usually of greenish cast with faded vertical bars **on** its body.

Figure 40 - Largemouth Black Bass

Though better considered as a lake or pond fish, the **largemouth** bass finds its place in our larger streams as well. The diet is largely made **up** of smaller fishes though insects, crayfish, and frogs are also eaten. This fish is distinguished from other basses by the *deeply* notched dorsal fin and upper jaw extending back far beyond the eye. A broad lateral band **is** quite evident in the young but tends to fade out with **growth**. The largemouth bass reaches a larger size than either **of** **the** other two species. Weights of four pounds are often reported throughout the state.

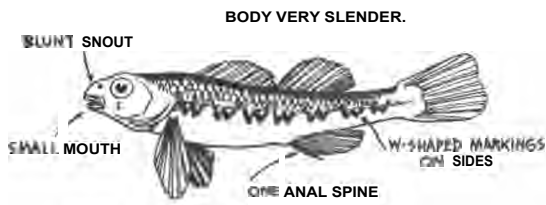


FIG. 36 -JOHNNY DARTER

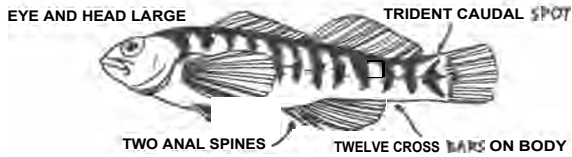


FIG. 37- RAINBOW DARTER

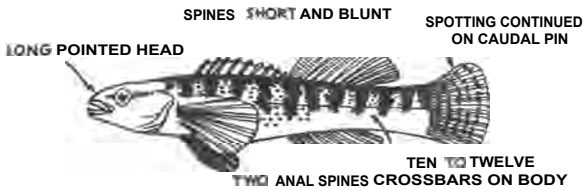


FIG.38 FANTAIL DARTER

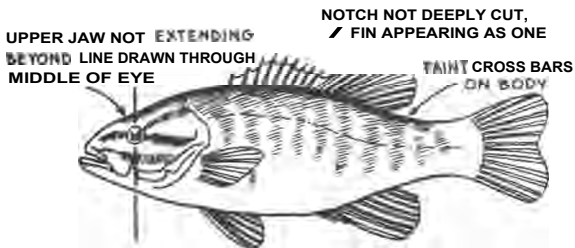


FIG. 39- SMALL MOUTH BLACK BASS

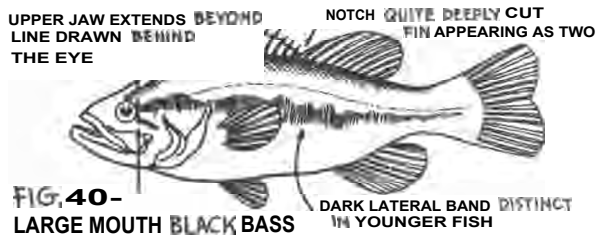


FIG.40- LARGE MOUTH BLACK BASS

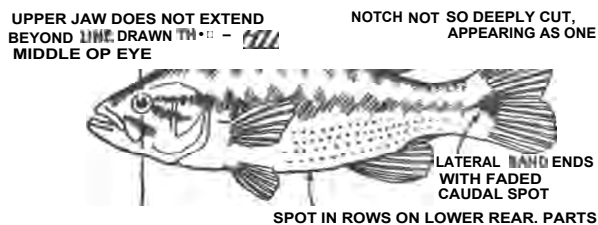


FIG.41- SPOTTED BLACK BASS

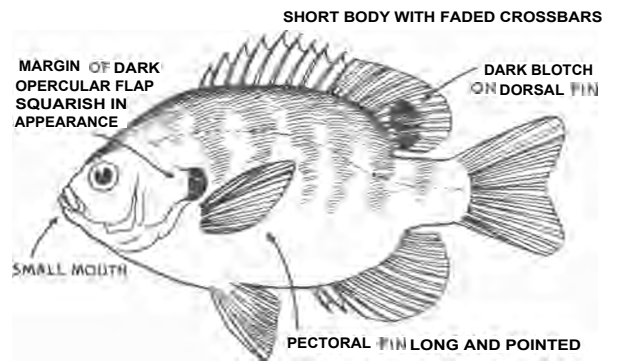


FIG.42-BLUEGILL

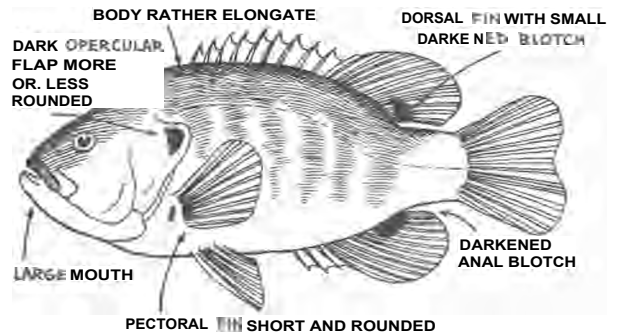


FIG. 43- GREEN SUNFISH

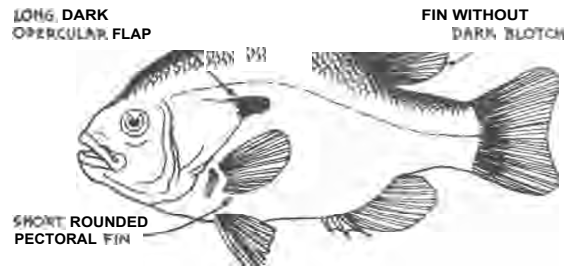


FIG.44- YELLOWBELLY SUNFISH

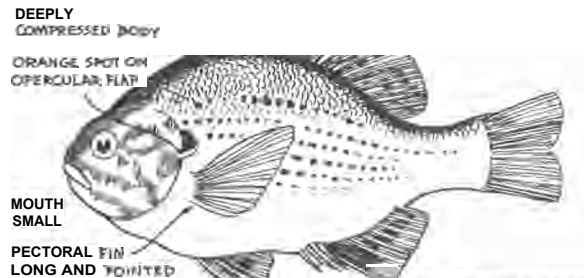


FIG.45-PUMPKINSEED

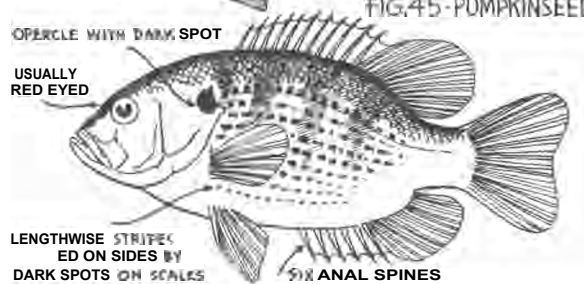


FIG.46-ROCK BASS

There are two species of **crappies**, both found in West Virginia waters. Though not as abundant as some other members of the sunfish family they do offer considerable sport where present. Their flesh is very good -- being firm, white and sweet in flavor. Many local names have been given to each species. However, the accepted names are black crappie and white crappie.

Figure 47 - Black Crappie

This fish averaging well up to 10 inches has a maximum length of 12 inches. It has a preference for the deep and quiet areas of larger waters and impoundments. It cannot withstand muddy streams as well as the white crappie. The principal characteristics for identifying the black crappie are the heavily speckled body and the number of spines (7 or 8) in the dorsal **fin**. They are most often taken on hook and line by fishermen using live minnows as bait.

Figure 48 - White Crappie

The white crappie will probably average slightly larger in size than its related species. Maximum length is 17 inches though it seldom is taken over 12 inches. The white crappie is quite common in both warm streams and impoundments. To identify this fish one need only count the dorsal fin spines (**six** in number). Its silvery body is only moderately speckled, patterned as faded cross-bars. The white crappie is the more abundant of the two species in West Virginia.

DRUM FAMILY

Figure 49 - Freshwater Drum

The freshwater drum is the sole representative of this family in West Virginia, being present in the Ohio River and tributaries. It is a rather deep-bodied fish of silvery color. The lateral line extends to the very end of the caudal fin. This fish, known to exceed fifty pounds, is rarely taken over five pounds in weight in our own waters. It is called the drum because of the peculiar noise it makes. Many anglers mistakenly believe that this drumming is caused by the "**lucky bones**" of the ear. Actually, the sound is produced by the vibration of a muscle attached to the air bladder. This fish is not usually taken hook and line since **it** feeds largely on mollusks and insects. The flesh has **some** commercial value.

SCULPIN FAMILY

Figure 50 - Northern Muddler

This fish seldom exceeds five inches in length. Its body is yellow to brown in color and is lacking in scales. The head is quite large and flattened. A large pectoral fin is also noted. These fresh-water sculpins **are** commonly found in small, clear streams throughout the state. When disturbed while resting in shallow riffles **it** quickly darts under stones or other protected areas. Though hard to seine, they may be used as bait by trout fishermen. These fish **are** frequently confused with the smaller catfishes which are occasionally sold by bait dealers. However, none of the members of the sculpin family possess barbels or an adipose fin, as do the catfishes.

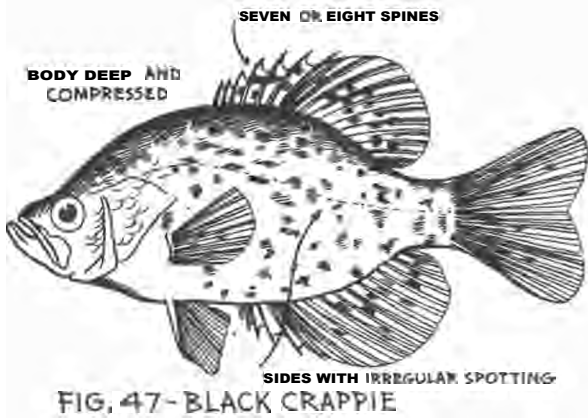


FIG. 47- BLACK CRAPPIE

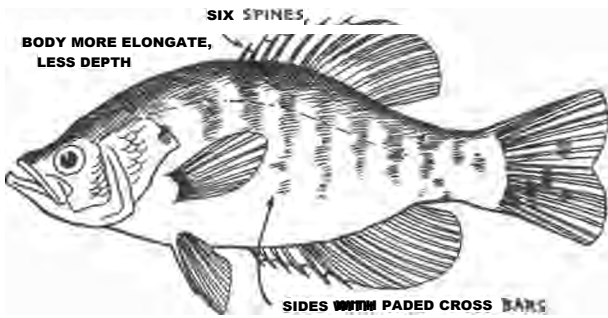


FIG. 48- WHITE CRAPPIE

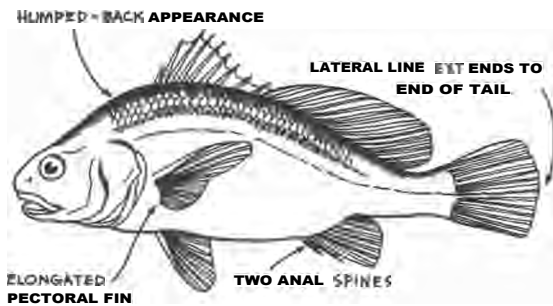


FIG. 49- FRESH WATER DRUM

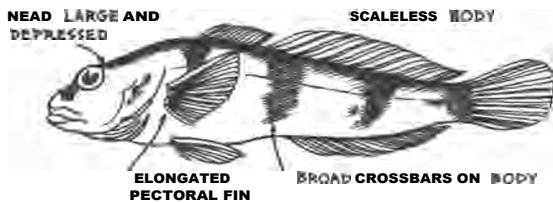
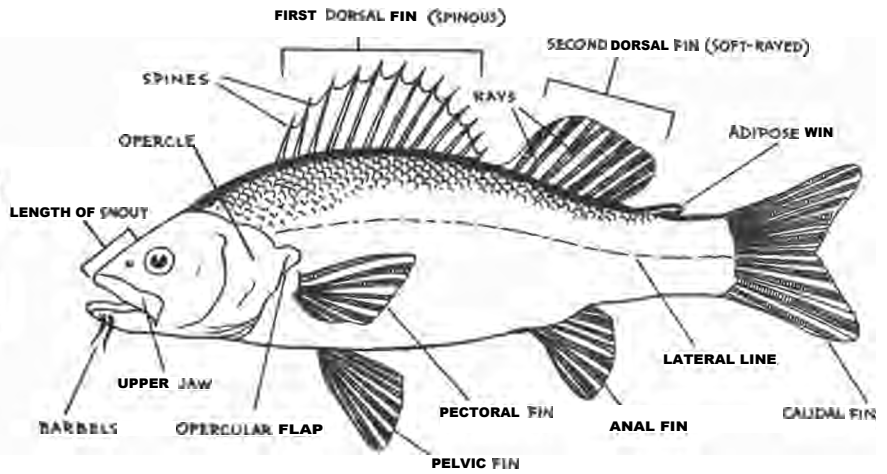


FIG. 50- NORTHERN MUDDLER

A total of eighteen families are herein represented. Several families that are also present in West Virginia waters have been omitted—these being the Bowfin (Amiidae), Mudminnow (Umbridae), Topminnow (Cyprinodontidae), Silverside (Atherinidae), and Stickleback (*Gasterosteidae*) families.



SKETCH OF A HYPOTHETICAL FISH



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