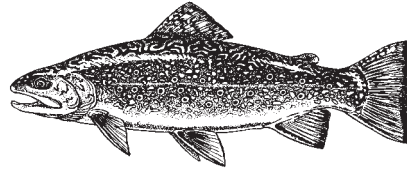


Illustration by Duane Raver



BROOK TROUT

Salvelinus fontinalis

Also called “squaretail” or “speckled trout,” the brook trout requires well-oxygenated cold water, 68 degrees or less. It can be found in meadow brooks, rivers, streams and ponds. Native to eastern North America, the brookie is New Hampshire’s official state fish and favorite game fish. It is easily caught with flies or small spinners. Earthworms are the most effective live bait.

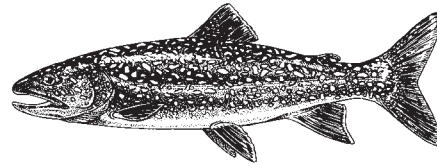
In the wild, brook trout spawn in the fall. They head up streams and seek gravel-bottom sections, where the female digs small spawning pits by lying on her side and vibrating her tail rapidly. Meanwhile, the males court the female by approaching and touching her side. When ready, the female drops to the deepest part of the pit (called a redd) and spawns with a male, depositing 40 to 80 eggs. Both partners spawn repeatedly during a season. In hatcheries, spawning times can be manipulated by temperature, day length and hormone injections.

Brook trout are voracious carnivores, feeding on all sorts of aquatic insects and other invertebrates. As stream-dwellers, they eat many terrestrial insects that fall into the water. Brook trout also occasionally eat fish and other vertebrates, such as salamanders, tadpoles, snakes and other small animals.

Brook trout account for approximately 50 percent of all yearling trout stocked each year in the state’s water bodies. Wild populations of brook trout can be found in many northern and mountain streams. Due to the low levels of nutrients in these streams, the trout are short-lived and rarely exceed 6 inches in length. An 8- or 9-inch brookie in these streams is a real trophy!



Illustration by Ellen Edmonson



LAKE TROUT

Salvelinus namaycush

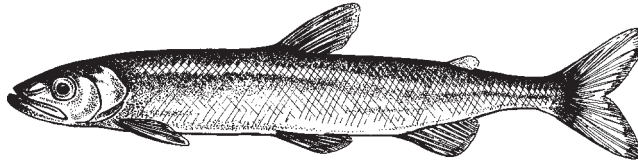
The lake trout is native to several of our deep, cold water lakes. Through past hatchery stocking, the range of the “laker” or “togue” has been expanded to several other lakes. Today, they are managed as a self-sustaining fishery. The ideal temperature for lake trout is near 50 degrees. That means they will often be found on or near the bottom of a water body.

The lake trout is prized as a game fish mainly because of its size and power. Fish weighing between 3 and 6 pounds are caught regularly and individuals as large as 10 pounds are not uncommon. In early spring, just after “ice out,” it is generally taken by trolling near the surface with spoons or wobblers and natural bait, such as shiners or suckers. In summer, troll deep with wire or lead core lines or downriggers, with sewn-on bait or spoons. The key word in trolling for lake trout is slow.

Winter ice fishing in New Hampshire on the big lakes centers around bob-house colonies. Jigging with lures or cut sucker bait are effective ways of catching lakers through the ice.



Illustration by Ellen Edmonson



RAINBOW SMELT

Osmerus mordax

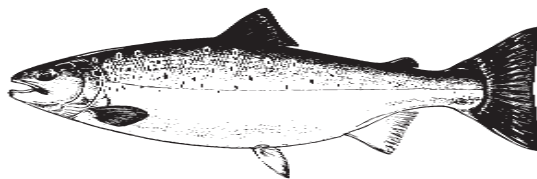
The rainbow smelt is an anadromous species living in saltwater for part of its life and reproducing in freshwater. In New Hampshire, smelt can also be found landlocked in larger freshwater lakes. The smelt is a slender, elongated fish with a bright silvery stripe along the side of its body, presence of an adipose fin, deeply forked tail and teeth. Upon removal from the water smelt give off a very cucumber-like odor. Rainbow smelt are sometimes called icefish or frostfish.

Smelt are an essential forage fish for landlocked salmon, lake trout and other game fish, as well as being an important species for commercial fishermen in Great Bay. Smelt are taken by commercial fishermen by netting under the ice. Anglers take smelt through the ice with hook and line and by dip netting during the spawning run. Smelt are also the preferred bait when ice fishing for lake trout.

Rainbow smelt feed on a freshwater shrimp called *mysis*, small crustaceans, small fish and the eggs of other fish.



Illustration by Ellen Edmonson



LANDLOCKED SALMON

Salmo salar

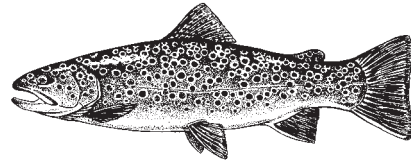
The landlocked salmon was originally an ocean fish (Atlantic salmon) that became trapped in inland lakes. They are stocked in larger lakes, and prefer water temperatures in the mid-50s. During summer, landlocked salmon are found below the thermocline — the area of water where temperatures drop rapidly — usually 30 feet below the surface.

Early spring and the end of September are the best times to catch salmon. In the spring, they follow smelt when these bait fish spawn. During the day, salmon cruise the shallow water of lakes near stream mouths. Salmon can be caught on streamer flies trolled close behind a boat at a rapid pace. Trolled spoons, wobblers and sewn-on bait are also excellent.

In the fall, salmon swim upstream to spawn.



Illustration by Duane Raver



BROWN TROUT

Salmo trutta

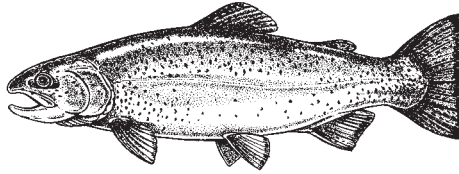
A native of western Europe and the British Isles, the brown trout was first introduced in New Hampshire in 1885. Like the rainbow trout, it adapts more easily to warm water than the brook trout. Temperatures between 65 and 75 degrees are best for the brown trout. Although it does well in turbulent, fast-flowing streams, the brown trout is characteristically found in deep, quiet pools or in the lower sections of streams that are slower moving and usually warmer.

Brown trout are hard to catch and, therefore, are difficult to “fish out.” They are able to withstand heavy fishing pressure. After reaching about 12 inches, they feed almost solely on baitfish during twilight and nighttime hours. Live bait, spinners and flies fished at dusk are equally effective on brown trout.

The brown trout caught in New Hampshire water bodies range between 7 and 14 inches in length and usually weigh less than a pound. However, 2- to 4-pound fish are not uncommon, particularly in larger water bodies.



Illustration by Duane Raver



RAINBOW TROUT

Oncorhynchus mykiss

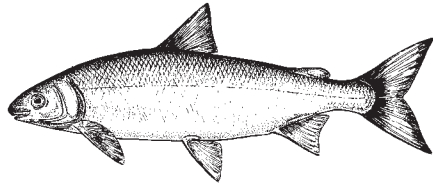
The rainbow trout thrives best in cold water, but it can withstand temperatures up to 77 degrees if the water is well aerated. This species is well adapted to lakes and streams.

Introduced to New Hampshire in 1878 from California, the rainbow is a popular sport fish among many anglers. When hooked, it will jump repeatedly out of the water before coming to the net. Any trout fishing method can be used to catch rainbows. Spinners, flies, small spoons and bait are effective.

Natural reproduction is minimal in New Hampshire; therefore, the rainbow trout fishery is maintained primarily by hatchery production. They are stocked annually by the Fish and Game Department in many suitable water bodies throughout the state.

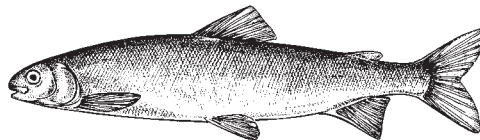
The usual size of rainbows found in streams and ponds is between 6 and 12 inches and less than 1 pound. In larger lakes, however, 3- to 5-pound rainbows can be caught.





LAKE WHITEFISH

Coregonus clupeaformis



ROUND WHITEFISH

Prosopium cylindraceum

There are two species of whitefish, or shad, in a few New Hampshire lakes, the lake whitefish and round whitefish. Neither species is generally sought by anglers. The lake whitefish typically inhabits deep, clear, cold lakes. The round whitefish does well in cold lakes, but in shallower water.

Lake whitefish can be taken almost any time of year, though most fishing is done through the ice. Summer or winter, the usual method is baiting the location with chum (cut-up fish) several days before fishing, then bobbing a light sinker and small hook baited with a piece of cut-up fish near the bottom. During ice out, lake whitefish may be taken with flies at the surface. These fish put up a strong fight. Both species are superb table fare.

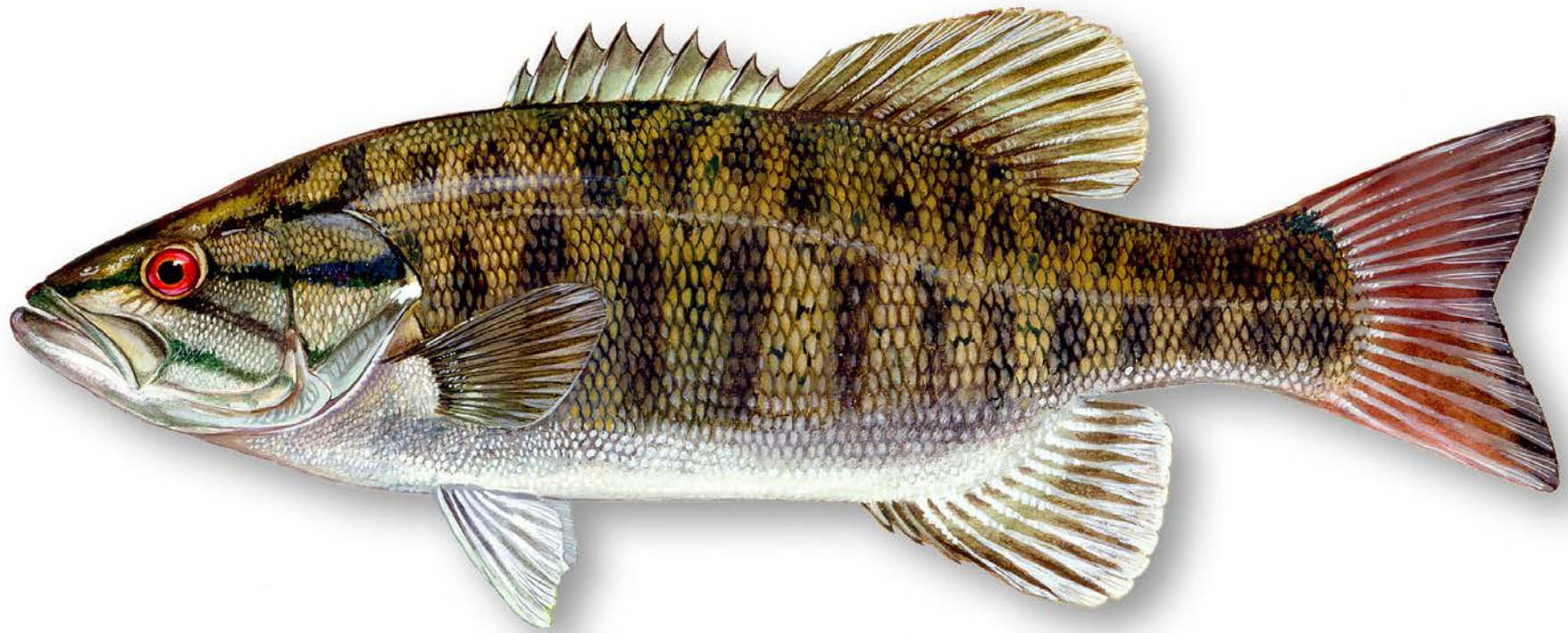
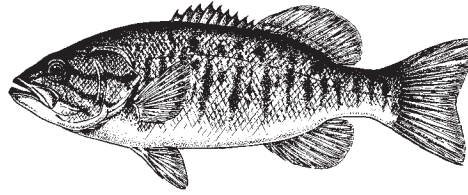


Illustration by Duane Raver



SMALLMOUTH BASS

Micropterus dolomieu

The smallmouth bass is a member of the black bass family. It prefers lakes and streams with cool, clear water, a gravelly or rocky bottom, and scant vegetation. One might expect to find this fish in lakes near submerged reefs or ledges in water 3 to 20 feet deep.

All bass are spring spawners, with nest building occurring in mid-May when water temperatures are in high 50s and low 60s. Spawning smallmouths are found in areas with gravel and boulder bottoms. In the summer, they will stay in deeper water than largemouths because they like the cooler temperatures. Look for smallmouths along rocks near drop-offs. On summer nights, smallmouths will head to shallow water looking for crayfish.

Several methods may be used to take smallmouths, including fly casting with floating bugs, and trolling or casting with a plug or spinner. The most common and successful method is still fishing with live bait such as worms, minnows, hellgrammites and crayfish. Fall brings them back into shallower water, which awakens a drive to eat and put on weight for the winter.

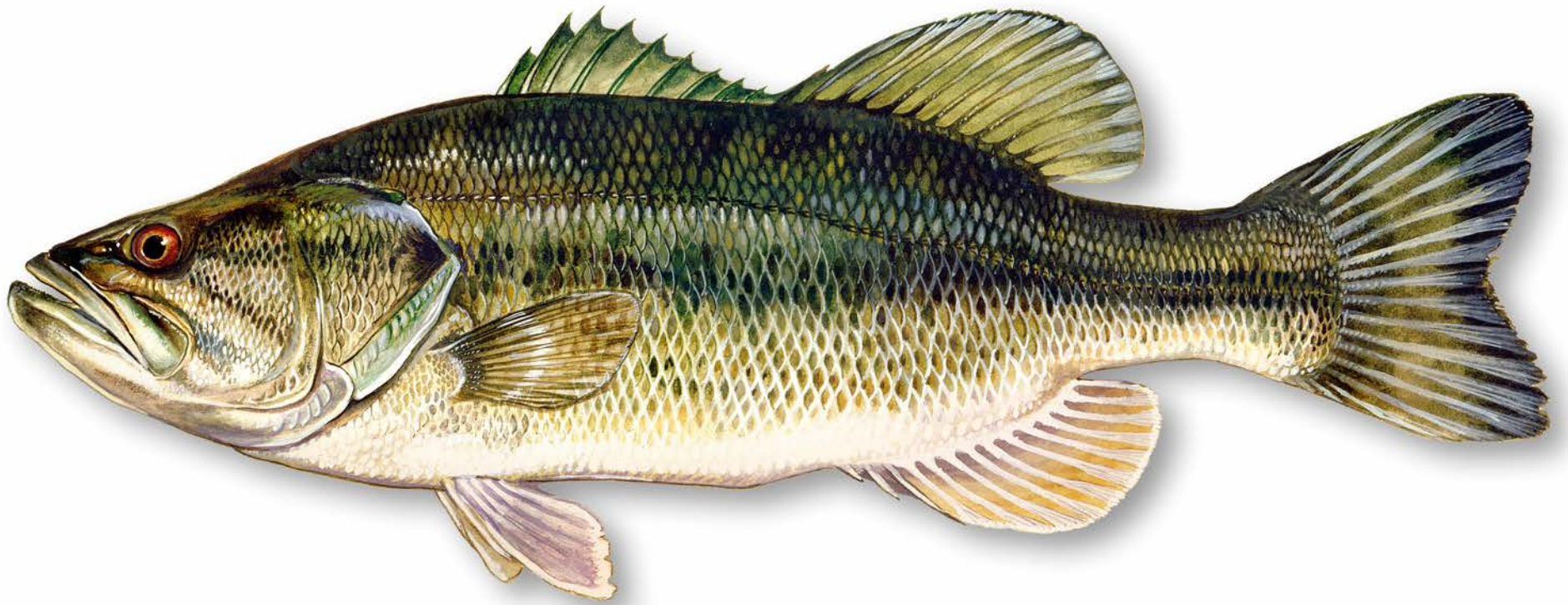
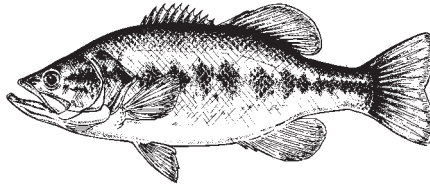


Illustration by Duane Raver



LARGEMOUTH BASS

Micropterus salmoides

The largemouth bass closely resembles the smallmouth in general appearance. The jaw of the largemouth, when the mouth is closed, extends well beyond the eye. The largemouth also exhibits a horizontal dark band or stripe along its side.

In contrast to the smallmouth bass, the largemouth thrives best in warm, shallow, mud-bottomed lakes, ponds or streams with plenty of weeds. It is a solitary fish. Most of its time is spent lurking among aquatic vegetation, beneath an overhanging branch or under a brush-covered bank, waiting for prey to swim by. Its diet consists of frogs and bait fish, though almost anything can become a meal: snakes, mice, snails and worms.

Though not as spectacular a fighter as the smallmouth, the largemouth is best caught by fishing the open places among lily pads, around sunken logs or stumps or along a stream bank. Surface poppers and plastic worm lures probably take most bass, but live minnows and crayfish, artificial flies and streamers, and trolled lures will all work.

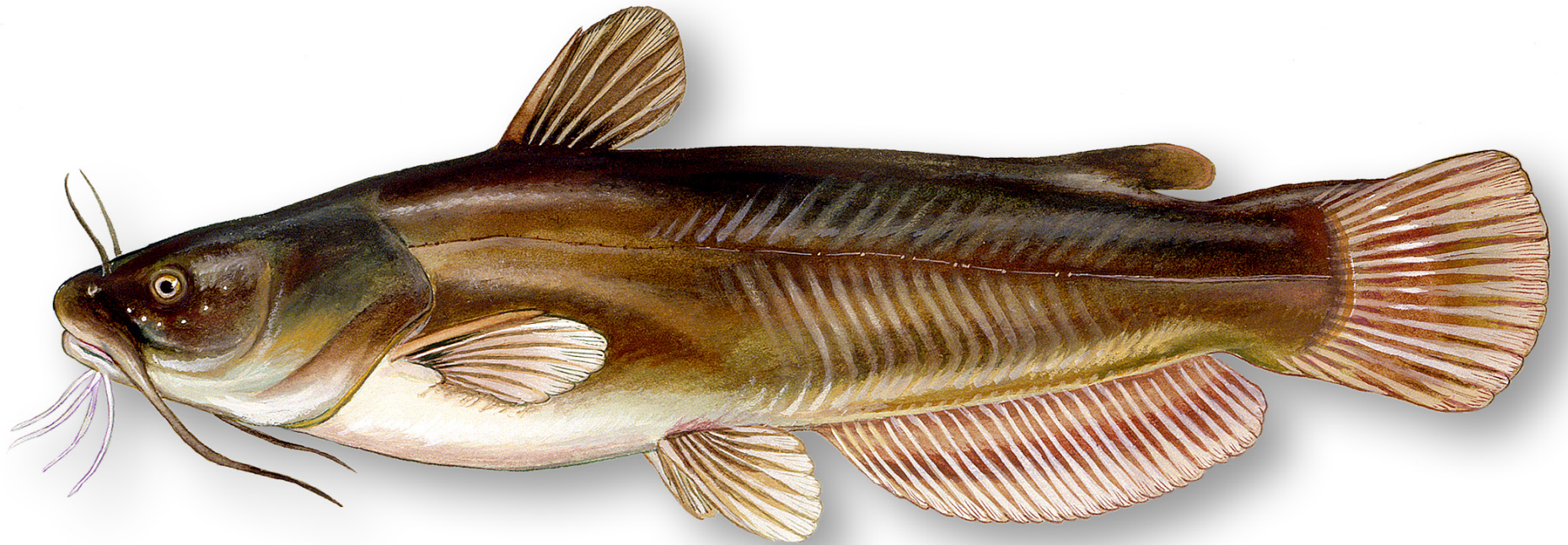
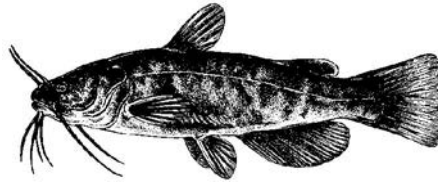


Illustration by Duane Raver



BROWN BULLHEAD

Ameiurus nebulosus

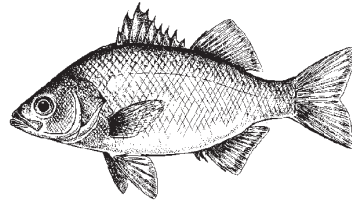
The brown bullhead, also known as “horned pout,” is found chiefly in small lakes, ponds and the sluggish parts of streams and rivers. It also inhabits large lakes where it is most abundant in sheltered bays.

A brown bullhead prefers a mud bottom, but does well with or without vegetative growth. It is a hardy fish and can survive extreme conditions that cause other fish to perish, such as water temperatures of 90 degrees and oxygen levels as low as one part per million.

The brown bullhead is a favorite among New Hampshire anglers. It can be caught by any angler skilled or unskilled, using most any type of tackle. Earthworms are probably the most common bait. Yet live minnows, crayfish, corn kernels, hellgrammites and dough balls are also good, if fished near the bottom. Fishing in the evening, at night or early morning hours is usually best. The brown bullhead, many claim, is the best eating fish found anywhere.



Illustration by Duane Raver



WHITE PERCH

Morone americana

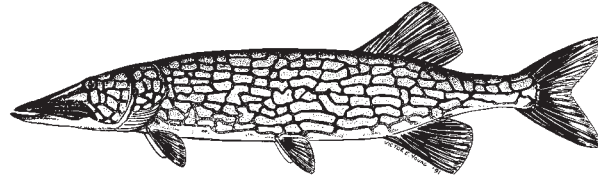
Although superficially resembling both the yellow perch and black basses of the sunfish family, this species is more closely related to the sea basses. It is typically a silvery to silvery-green fish, dark green on top and light underneath. The spines on the back are sharp, and these fish should be handled with care.

White perch originally ranged in coastal waters from South Carolina to Nova Scotia. It has been successfully introduced into many New Hampshire inland waters.

The white perch is a determined fighter when hooked and one of our tastier and more popular panfishes. It is an easy fish to catch and will accept most any kind of bait: worms, live minnows, pork rind, artificial flies, and spoons. White perch fishing is best at dusk, when schools of feeding fish tend to move into shallows near shore. This fish, unfortunately, often becomes overcrowded and stunted in fresh water.



Illustration by Duane Raver



CHAIN PICKEREL

Esox niger

Like other members of the pike family, the chain pickerel (also called Eastern pickerel), has a slender, elongated body, large mouth with formidable teeth, and dorsal and anal fins placed far back near the tail. A characteristic pattern of dark, chain-like markings on the sides distinguishes it from other members of the pike family.

Any quiet, shallow water with a mud bottom, an abundance of aquatic vegetation and food fishes is ideal habitat for the chain pickerel. Their optimum water temperature is apparently 80 to 90 degrees. Pickerel like to hide in weeds waiting for a meal to swim by.

The chain pickerel is a voracious carnivore. Its diet includes golden shiners, brown bullheads, yellow perch and sunfish. The pickerel's popularity peaks during the winter, when considerable numbers are taken with ease through the ice. The usual method is fishing with a "tip-up" device, using a live minnow. Pickerel fishing in open water is also profitable. Trolling, still fishing with a live minnow or frog, or spincasting with plugs, spinners or spoons all produce good results.

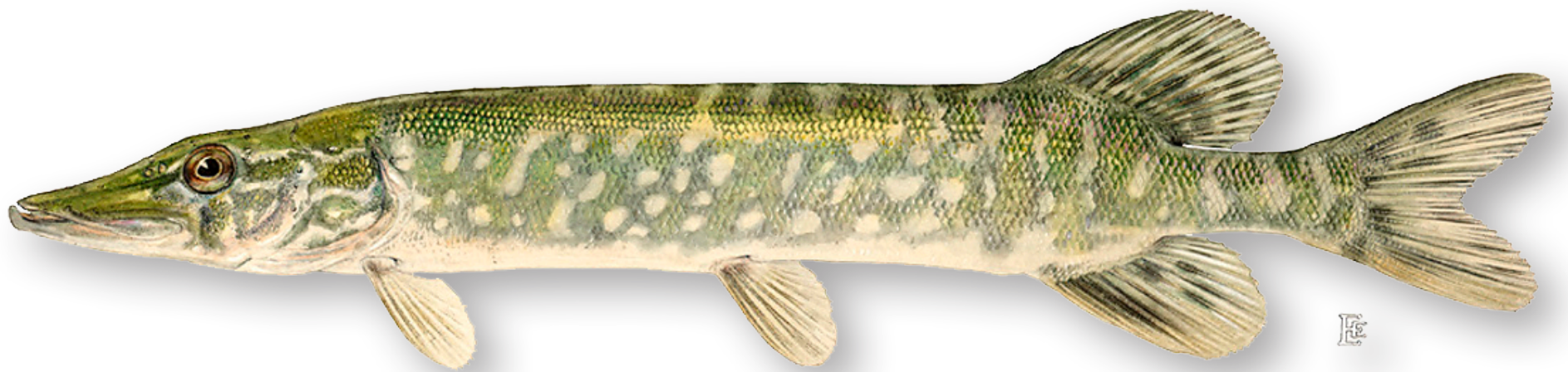
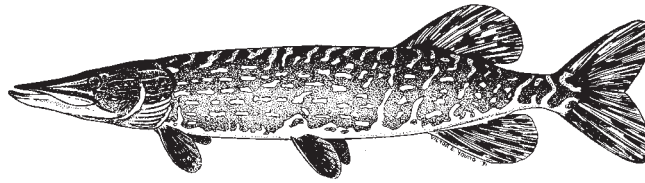


Illustration by Ellen Edmonson



NORTHERN PIKE

Esox lucius

The northern pike is a fast-growing, voracious predator that is highly prized as a sport fish. It is gaining popularity among anglers in New Hampshire, particularly those who want to catch a trophy-sized fish through the ice. Northern pike can only be found in a few select water bodies in the state.

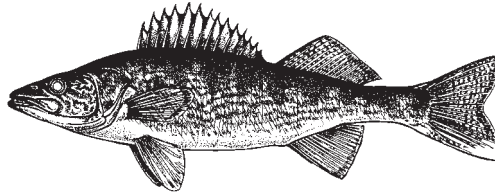
Northern pike may be distinguished from chain pickerel by the scaleless lower halves of the gill plates and the yellowish bean-shaped marks on its sides. Northerns can grow much larger than pickerel.

A northern pike, like a pickerel, eats other fish. As the pike gets bigger, other animals such as frogs, ducklings, and even small muskrats are also consumed. Although the northern pike prefers cooler waters than the pickerel, both fish are usually found in quiet, shallow, weedy areas.

Northern pike are generally fished in the same manner as chain pickerel.



Illustration by Ellen Edmonson



WALLEYE

Sander vitreus

A member of the perch, not the pike, family, the walleye is sometimes mistakenly called “walleyed pike.” Not native to New Hampshire, this fish occurs in the Connecticut, Merrimack and Contoocook rivers.

The walleye has a long cylindrical body, elongated conical head, large mouth with sharp canine teeth, large milky eyes and two well-separated dorsal fins — one with sharp spines, the other soft-rayed.

Both lakes and large streams serve as walleye habitat.

It thrives best in clean water and prefers areas with a firm bottom, such as gravel or bedrock. It is a nocturnal fish, moving onto sandbars or rocky shoals at night to feed and remaining in deeper water during the day.

The fish is prized by sports fishermen throughout its range. Angling methods include still fishing with live minnows or by trolling or casting almost any artificial lure, spoon, spinner or minnow and spinner combination. The most productive fishing is generally in the evening and early morning. Spring fishing below dams and at the mouths of tributaries can also be productive.

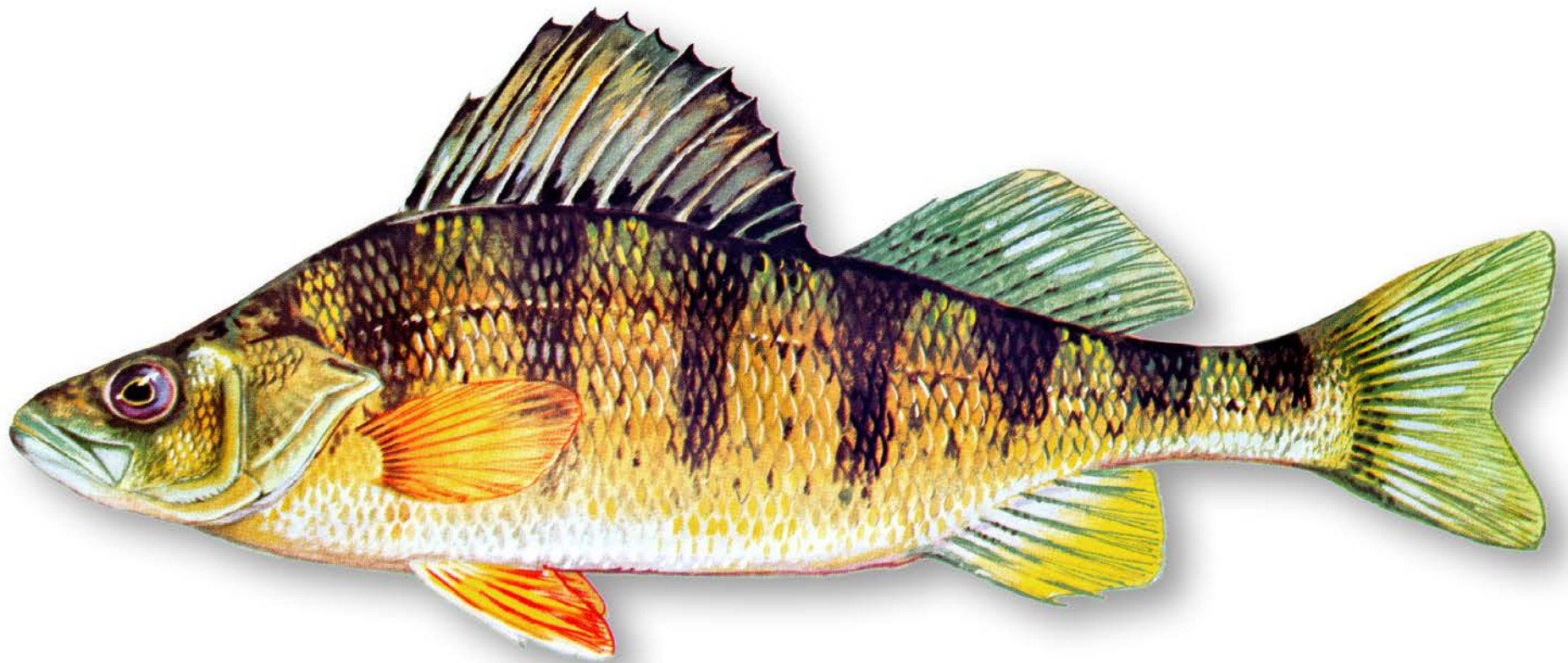
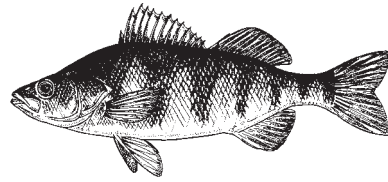


Illustration by Duane Raver



YELLOW PERCH

Perca flavescens

The yellow perch is easily recognized by its golden-yellow colored body crossed by six to eight broad dark vertical bands. In New Hampshire, it occurs in any warm-water environment. As a rule, they do not occur where there is a strong current.

Yellow perch are a schooling fish and can be located in relatively shallow weedy water. They spawn in April or early May in sheltered coves and backwaters. These fish feed mainly on small aquatic insects, crustaceans and small fishes.

Yellow perch appeal to young and old anglers. They are not difficult to catch and can be taken year round. In the summer, an artificial fly, spinning lure, trolling spoon and live minnow work well. In winter, the tip-up or handline with live minnows are good methods for catching yellow perch. The white meat is firm, very good and fillets nicely. Fishing for yellow perch is fun and encouraged. They often compete with game fish for habitat and need to be harvested to keep numbers manageable.

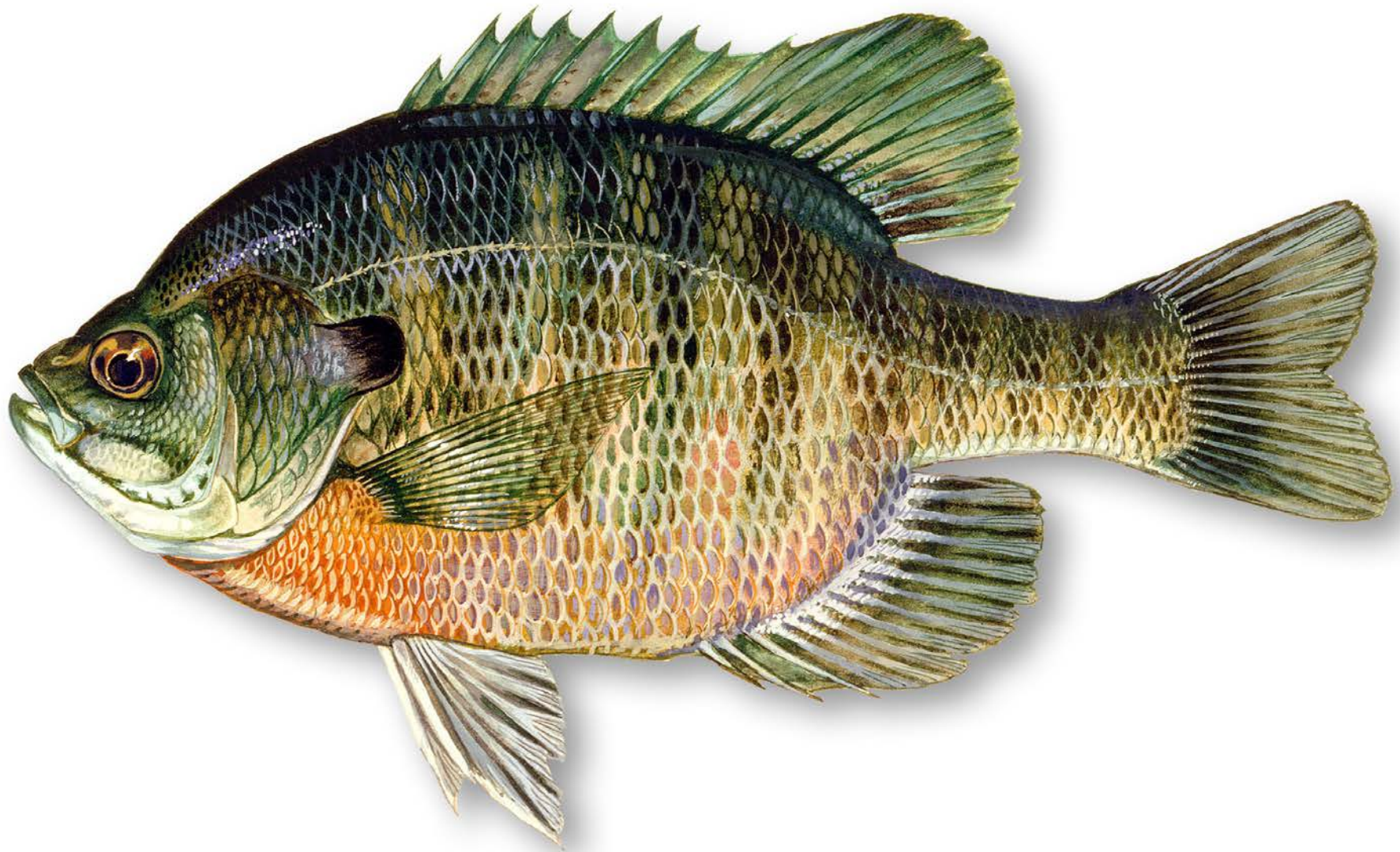
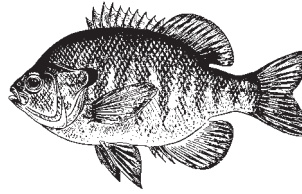


Illustration by Duane Raver



BLUEGILL

Lepomis macrochirus

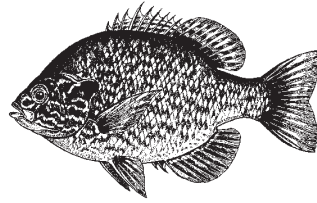
The bluegill's distinguishing characteristics are the conspicuous dark blotches at the back of the soft-rayed portion of the dorsal fin; the large, square-shaped, blue-black flap behind the eye; and the slate-blue lower jaw and cheek.

Not a New Hampshire native, the bluegill, sometimes called "Kibbee," has extended its range into the Granite State. The bluegill is at home in quiet, warm, weedy waters similar to those inhabited by other sunfish, such as the pumpkinseed.

This is a much esteemed and highly valued panfish throughout much of its range. Like other sunfish, the bluegill is easily caught with simple tackle. Small flies and panfish poppers and live bait such as grubs and worms all work well.



Illustration by Duane Raver



PUMPKINSEED

Lepomis gibbosus

Like the bluegill, the pumpkinseed lives in many of New Hampshire's lakes, ponds and streams. The pumpkinseed can be distinguished from the bluegill by the bright orange spot at the tip of the ear flap and lack of dark spot on the soft portion of the dorsal fin. Breeding males are especially colorful with iridescent blue radiating lines on their cheeks and gill covers.

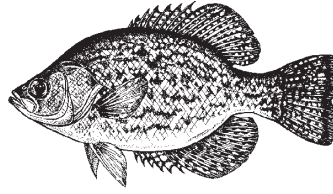
The preferred habitat of the pumpkinseed is slow-moving water and protected coves with a mucky or sandy substrate and beds of submerged aquatic vegetation.

Pumpkinseeds spawn from May into August, frequently nesting in groups of bluegill colonies, which can be seen close to shore. The male guards the nest and the newly hatched fry for a week.

The preferred food of the pumpkinseed is aquatic insects, snails, small fish and fish eggs.



Illustration by Duane Raver



BLACK CRAPPIE

Pomoxis nigromaculatus

The body of the black crappie, or “calico bass,” is deep and thick. The forehead is depressed, resulting in a noticeably turned-up snout. Crappies are an attractive silvery fish with numerous black or black-green mottlings scattered over its body and fins.

Introduced to New Hampshire waters, crappies are now commonly found from the central lakes region east to the Maine border, west to the Connecticut River, and south to the Massachusetts border. As its range has expanded, the black crappie has become a favorite of New Hampshire anglers.

It inhabits the quiet, weedy waters of lakes, ponds and rivers. Small jigs or minnows fished in open water or through the ice, are successful tactics to catch crappies. Crappies are low-light feeders, try late afternoon to dark and early morning for the best action. One- to two-pound black crappies are common in many New Hampshire waters.

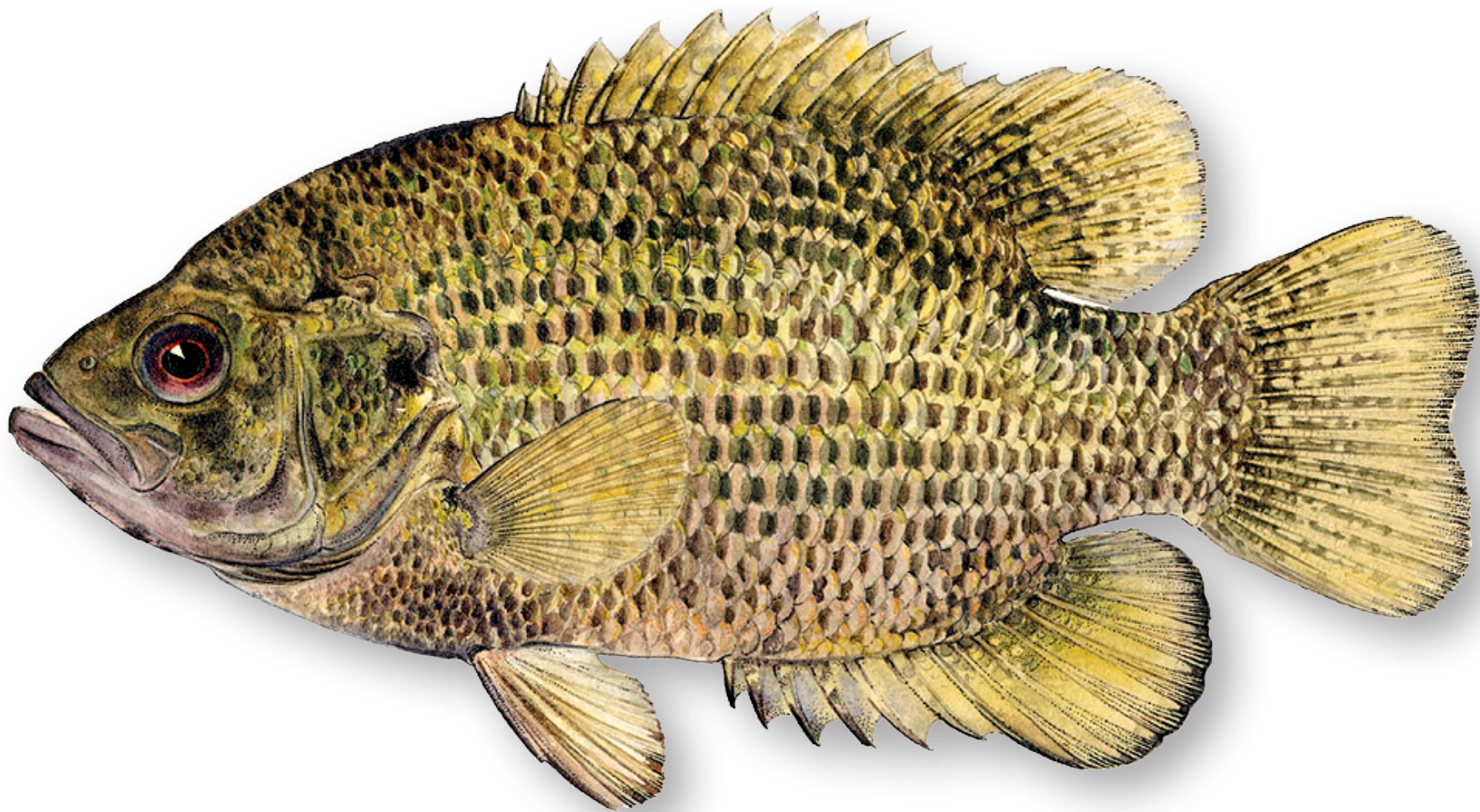
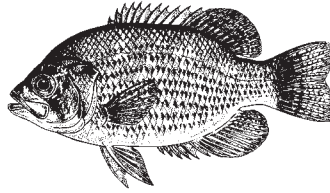


Illustration by Ellen Edmonson



ROCK BASS

Ambloplites rupestris

The rock bass is originally a resident of the Mississippi Valley, Great Lakes and Lake Champlain. Its range has expanded into New Hampshire waters. Rock bass can be found along rocky shores in lakes and rocky streams — some of the same habitat of the smallmouth bass — and can compete heavily with the smallie for food.

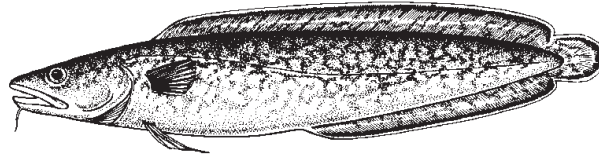
The rock bass is a member of the sunfish family, but is easily distinguished from its smaller cousin by the horizontal stripes on its side and large blood red eye.

Rock bass can be caught with a variety of tackle. Small lures, flies and jigs work well. Small bass lures are also effective. The rock bass is a strong and determined fighter when hooked.

Rock bass rarely exceed 12 inches and the average weight is about a half pound.



Illustration by Ellen Edmonson



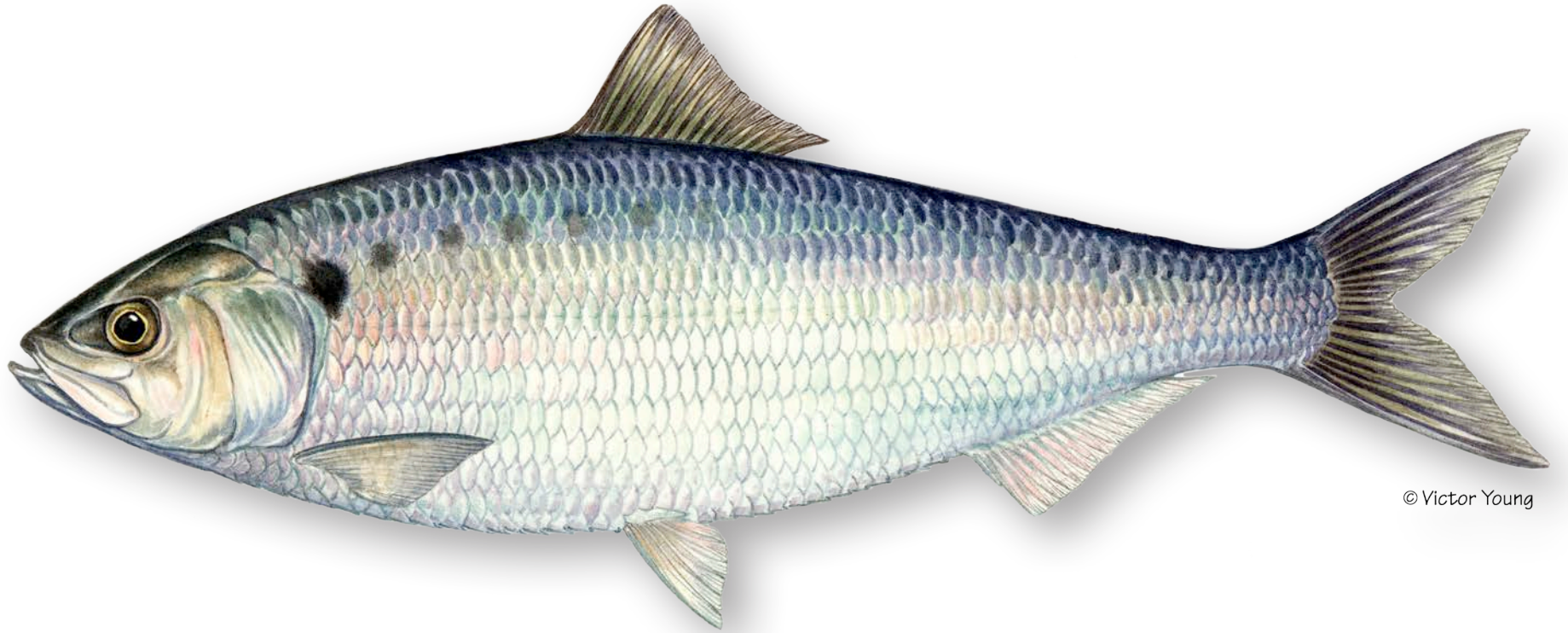
BURBOT (CUSK)

Lota lota

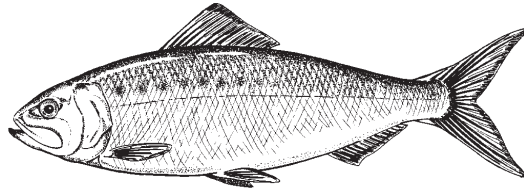
Burbot, known by a variety of names including ling, cusk, lawyer and eelpout, are the sole freshwater representative of the cod family. The almost eel-shaped burbot has a broad flattened head with a large mouth and single barbell beneath the lower lip.

Burbot can be found in large, cold, deep lakes. They go into semi-hibernation during the hot summer months.

Burbot are particularly lively when the ice cover forms. Ice anglers have long sought burbot for its firm, white flesh sometimes referred to as “poor man’s lobster”. The usual method of fishing for it is through the ice with a baited set line. The usual bait is a minnow or cut-bait that is fished on the bottom. Since burbot feed actively after dark, lines are generally left unattended through the night.



© Victor Young



AMERICAN SHAD

Alosa sapidissima

American shad is an anadromous fish belonging to the herring family. Shad spend much of their lives in the ocean, but migrate to freshwater to spawn. They are native to our coastal rivers and the Merrimack and Connecticut Rivers, where efforts are underway to restore and enhance its populations, with support from the Federal Aid in Sport Fish Restoration Program.

Restoration of American shad to our river systems is occurring in the Exeter/Squamscott, Merrimack and Connecticut rivers. Residual populations exist in the Cocheco, Salmon Falls and Lamprey rivers. Cooperative efforts between neighboring states and the U.S. Fish and Wildlife Service have produced healthy expanding populations in the Merrimack and Connecticut rivers.

Shad start their spawning migration from the ocean into freshwater from May through July. The adults spawn then return to the ocean quickly, whereas the young will migrate out later in the fall. Adult shad usually mature to spawn in 4-5 years for males and 5-6 years for females. The males are smaller (3-4 pounds) than the females (4-7 pounds). Many older shad are repeat spawners, returning to their natal rivers to spawn more than once in their lives.

Shad are an exciting sport fish providing lots of action at the end of a line and can be caught using shad darts (small weighted bucktails) and flies. Try fishing below dams or natural obstacles.



Illustration by Duane Raver



GOLDEN SHINER

Notemigonus crysoleucas

The Golden Shiner is a valuable forage fish for the black basses, chain pickerel and other game fishes.

Golden shiners average 5-6 inches in length. Reproduction is in late spring into summer among aquatic vegetation. The female can lay as many as 200,000 eggs.

Their diet consists of plant material, water fleas, insect larva, snails and small fish.