

Getting to know your catch

Lake Erie Salmonid identification

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Sea Grant forms a unique partnership with public and private sectors to combine research, education, and technology transfer for service to the public. Sea Grant provides a national network for universities to meet changing environmental and economic needs in our coastal, ocean, and Great Lakes regions.

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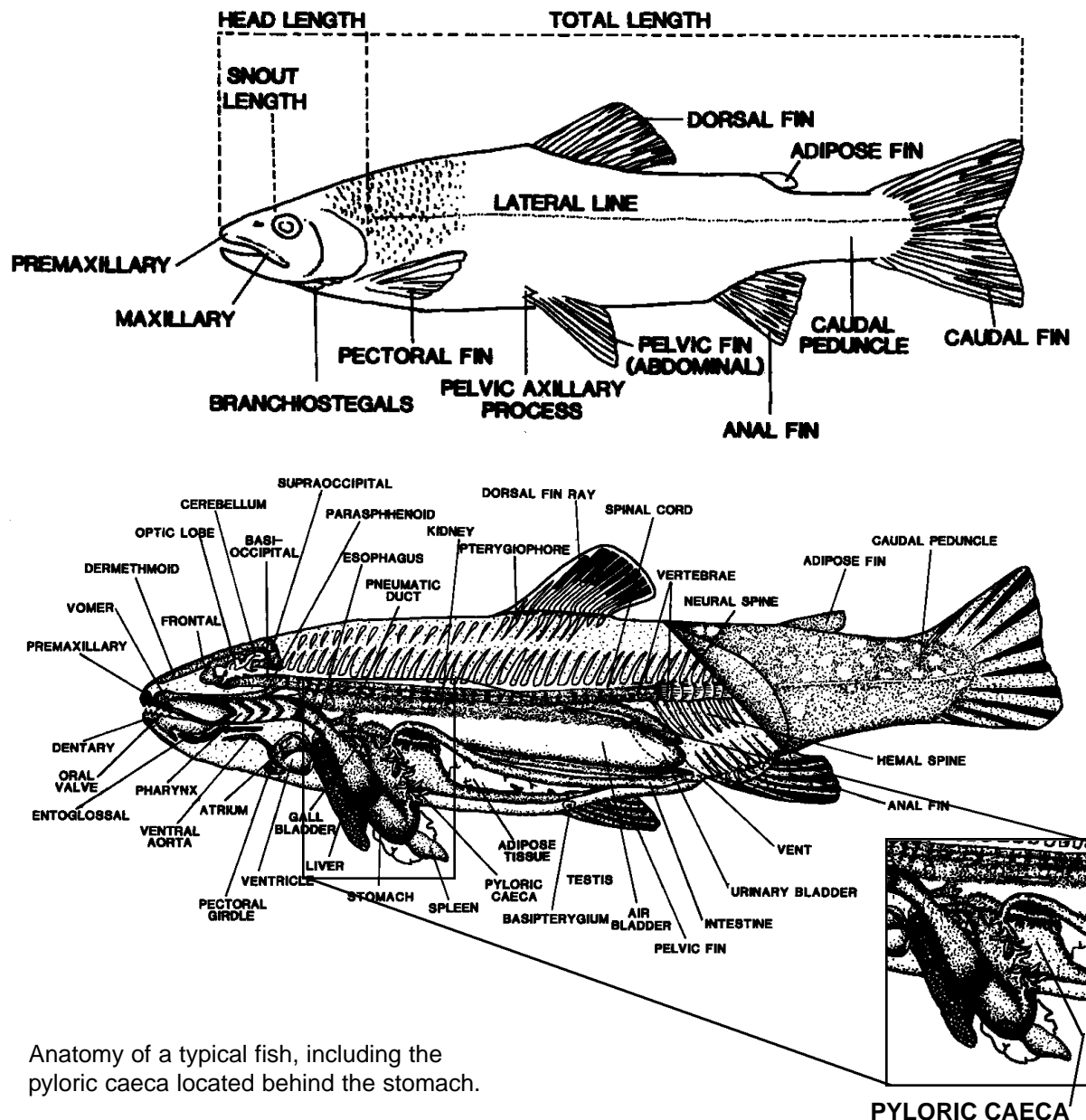
In Lake Erie, six members of the Salmonidae (trout and salmon) family are present in sufficient numbers to warrant a sportfishery. They include the coho salmon (*Oncorhynchus kisutch*), chinook salmon (*Oncorhynchus tshawytscha*), pink salmon (*Oncorhynchus gorbuscha*), steelhead (rainbow) trout (*Salmo gairdneri*), brown trout (*Salmo trutta*), and lake trout (*Salvelinus namaycush*).

Identification of these species from Lake Erie is difficult. The main reason is color. When coho, chinook, pink salmon, and steelhead trout spend part of their lives in salt water, distinct coloration occurs. Stream-run browns and small lake trout are also distinctively marked. However, when the habitat is confined to strictly

freshwater large lakes, such as Lake Erie, all species exhibit a silver coloration which tends to mask distinct color identification markings. Large lake trout may also exhibit similar characteristics.

The illustrations and descriptions in this fact sheet will make it easier for you to identify your Lake Erie trout or salmon. Keep in mind that identification characteristics can vary with sex, age, time of year, and the quantity and quality of food consumed. Use a combination of identification characteristics when in doubt.

Although not generally used by the sport angler for identification, the counting of pyloric caeca is yet another means of identification. Pyloric caeca are finger-like projections of the small intestine and can be found by opening the fish.



Anatomy of a typical fish, including the pyloric caeca located behind the stomach.

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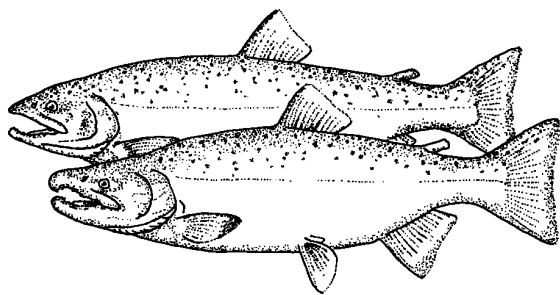
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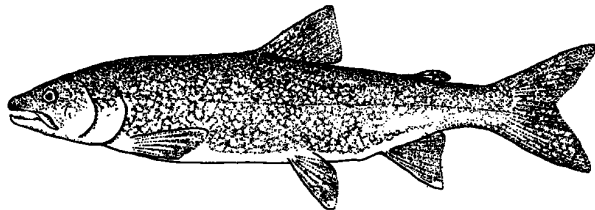
Coho Salmon *Oncorhynchus kisutch*

Color: Steel-blue to light green on back, silver sides, white belly and small black spots above lateral line on lower dorsal and generally upper tail fin.

Mouth: White or gray inside with lower gum line gray or black.

Anal Fin: 12 to 15 rays. When depressed, first rays of anal fin will reach more than 2/3 of the way to the end of the fin.

Pyloric Caeca Count: 45 to 114



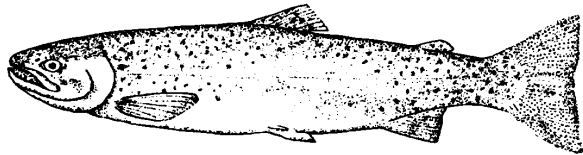
Lake Trout *Salvelinus namaycush*

Color: Light green to greenish brown body, sometimes with silvery hue to an overall silvery color. Head, back, sides, dorsal, adipose and tail fins covered with white spots. Cheeks have "wormy" shaped white spots. White borders usually present on anal, pelvic, and pectoral fins. Belly white. Tail fin deeply forked.

Mouth: Teeth on head and shaft of tongue. Inside mouth whitish in color.

Anal Fin: 8 to 10 rays

Pyloric Caeca Count: 120 to 180



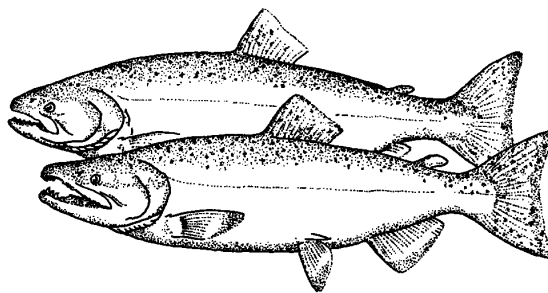
Steelhead (Rainbow) Trout *Salmo gairdneri*

Color: Back and upper sides can be green, blue-green, steel blue with a silvery hue. (Some may be totally silver in color.) Sides silvery, with some exhibiting a pink or rose colored band from head to tail. Belly white to white-silver. Small black spots above lateral line, on dorsal and adipose fins and tail fin. Spots on the tail radiate along the rays of the entire fin in straight lines.

Mouth: Inside of mouth and gums white.

Anal Fin: 9 to 12 rays

Pyloric Caeca Count: 27 to 80



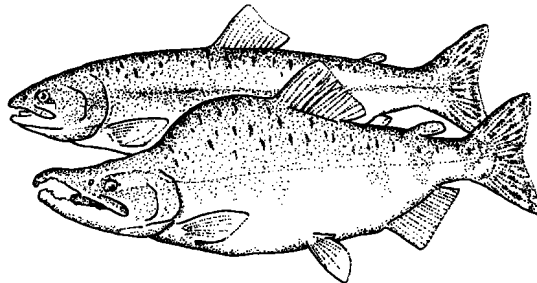
Chinook Salmon *Oncorhynchus tshawytscha*

Color: Back and above lateral line green to blue-green. Sides silvery. Belly white to silvery. Black spots on head, top of back, entire dorsal and tail fin. Breeding fish may have a purplish-brown color.

Mouth: Inside of mouth and gums are dark gray to black.

Anal Fin: 14 to 19 rays. When depressed, first ray of anal fin will reach less than 2/3 of the way to the end of anal fin.

Pyloric Caeca Count: 90 to 240

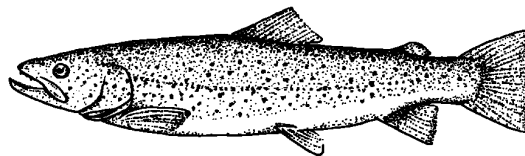


Pink Salmon *Oncorhynchus gorbuscha*

Color: Dull steel-blue to blue-green on back, silver sides, and white belly. Large black spots on back, sides above lateral line, and entire tail fin. Some spots as large as the eye. Breeding males may exhibit dark hue to back and red brown-green blotches on sides, and humped back. Rare in Lake Erie.

Anal Fin: 13 to 19 rays

Pyloric Caeca Count: 165 to 195



Brown Trout *Salmo trutta*

Color: Stream-run browns are overall brown in color with silvery sides. Black spots with white halos on back sides. Dorsal, adipose and tail fins lightly spotted. Rusty-red spots also on sides. Adipose fin has orange to orange-red coloration. Lake run browns exhibit an overall silvery color tending to hide most of the distinguishing marks. Black spots will still be visible and adipose fin maintains its orange to orange-red hue. Small "X" marks are present on the body of lake run browns, and some halo spotting may also appear. Tail fin is square with generally no spots or markings.

Mouth: Has square-shaped tongue with 5 or 6 strong teeth each side. Mouth color is pinkish-white.

Anal Fin: 9 to 12 rays

Pyloric Caeca Count: 30 to 60