



<b>Common Name</b>	ruffe
<b>Genus &amp; Species</b>	<i>Gymnocephalus cernuus</i>
<b>Family</b>	Percidae (perch)
<b>Order</b>	Perciformes (perches)
<b>Class</b>	Actinopterygii (ray-finned fishes)

**Diagnosis:** The ruffe is a European member of the Percidae (perch) family and is closely related to the native yellow perch *Perca flavescens*. This fish may be distinguished from the yellow perch by having small black dots, no dorsal saddle bars, a small down turned mouth and many spines on the opercle cover. Small individuals may be confused with the native trout perch *Percopsis omiscomaycus* but may be distinguished by not having an adipose fin nor the pearl organ apparatus on the mandible.



**Ecology:** The ruffe can tolerate some degradation of the environment. The membranous external walls of the head canals of this species provide high directional sensitivity; can feed at night in the dark using the lateral line system; feeds on zooplankton, chironomids, oligochaetes and amphipods. Ruffe spawn on a variety of substrates at depths of about 3 m or less. White to yellow eggs in sticky strands are found on rocks and weed in shallow water. Females live up to 10 year while males up to 7 years.

**Habitat & Distribution:** The ruffe prefers deep water of lakes and still pools of streams usually over sand and gravel. The ruffe is native to Northern Europe and Asia, but more specifically France to eastern Siberia and to the Kolyma River. Confirmed records of the ruffe within the USA include WI, MN, and MI within Lakes Michigan, Superior and Huron. The means of introduction was transoceanic ballast water release somewhere between 1982 and 1983. Recent genetic studies have indicated that the source population of ruffe introduced to the Great Lakes was probably from southern Europe.

**Status:** This species' presence in Lake Michigan makes it a high risk for invasion to the Mississippi Basin. The ruffe has affected fish populations in other areas where introduced. In Scotland, native perch populations declined, and in Russia whitefish numbers have declined because of egg predation by ruffe. Ruffe exhibit rapid growth and high reproductive output, and adapt to a wide range of habitat types; therefore the species may pose a threat to native North American fish. Yellow perch, emerald shiners, and trout-perch have all declined since the introduction of this fish, although the association is not clear. There is much concern that ruffe may have a detrimental effect on more desirable species in Lake Superior, such as yellow perch and walleye, by feeding on the young of these species, or by competing for food. Similarities in dietary preferences and in feeding rates of ruffe and yellow perch suggest a strong possibility for interspecific competition. Ruffe hold an advantage over native perch in their ability to better select moving objects under relatively dim light conditions or at high turbidity. Ruffe have a very sensitive lateral line system and night adapted vision, and are more adapted to foraging under poor light conditions than yellow perch.

**USGS Fact Sheets:** <http://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=7>