

Orfe

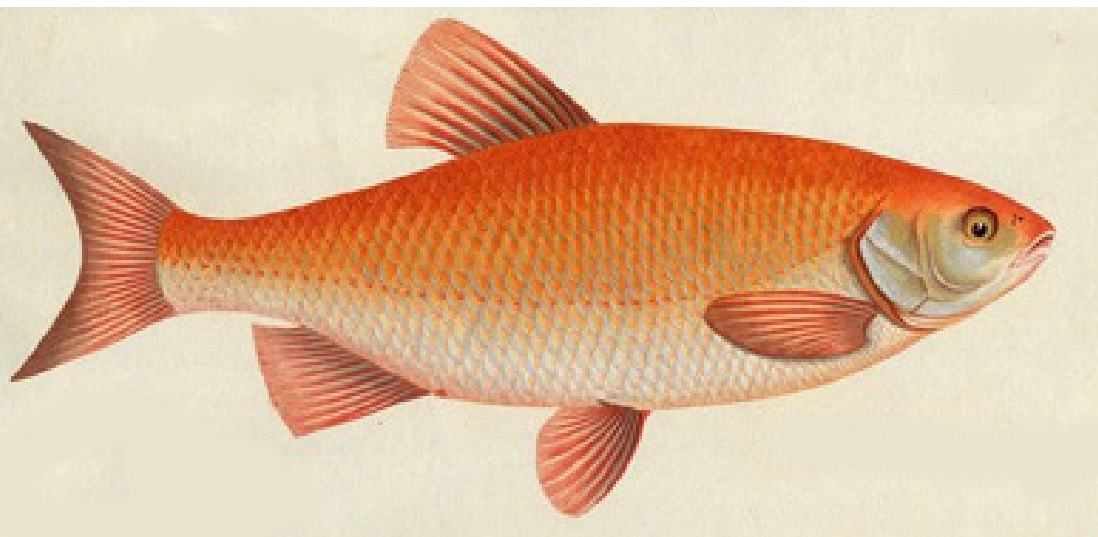
Leuciscus idus (Linnaeus, 1758)

syn. *Leuciscus idus idus*, *Cyprinus idbarus*, *C. idus*, *Idus idus*



ALBERTA REGULATION:
FISHERIES ACT

Last Updated: February 2018



kalapeedia.ee



ittiofauna.org

Overview:

The orfe is a freshwater ray-finned fish of the carp family, native to most of mainland Europe and Western Asia.¹ It is a large-bodied fish valued for sportfishing and as an ornamental pond fish. There are two colour morphs - 'silver orfe' and 'golden orfe' - but the ornamental golden orfe can revert to wild coloration with time.¹

The orfe was imported to the U.S. in the late 1800s and cultured by the government. It has subsequently escaped from both public and commercial culture operations, particularly during floods.¹

L. idus can also occupy the brackish waters of estuaries. It has a higher tolerance for salinity compared to other carp species.¹ There is a lack of information on the impact orfe could have on habitats or biodiversity.

However, risk factors include, broad native range, adaptable to different environments, a habitat generalist, and long lived. It is a member of the carp family, where several introduced carp species have proven to be very invasive.¹ Additionally, *L. idus* is capable of hybridizing with other introduced cyprinids, such as common carp and rudd. It has no known hybrids with native North American fish.¹

L. idus is similar looking to another non-native, invasive fish: rudd (*Scardinius erythrophthalmus*). Both have orange-red coloured fins, but *L. idus* has much smaller scales.¹ It is also superficially similar to many native cyprinids but can be distinguished by no barbels, lateral line scales 55-63, and usually 8 branched dorsal rays.¹

As of January 1, 2016, the possession, sale, or transport of this species in

Alberta is illegal under the Fisheries Act.

Habitat:

Clear pools of medium to large rivers, lakes and ponds.¹ It retreats into deep holes during winter.² Low oxygen concentrations (<2 mg/l) result in larval and juvenile mortalities.¹ Preferred water temperature range of 4-20°C. Tolerates brackish water.¹

Identification:

L. idus have a thick, minnow-shaped body with light or silvery lower sides, which darken on both the back and sides, above the lateral line, as they age into adults; adults also have a raised humped back.¹ The wild form is greyish-olive colour on the back, paling to silvery-white on the belly and all fins except the dorsal fin have a reddish tinge. The ornamental varieties have



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bright orange backs, silvery-orange sides and belly, and bright orange tail and dorsal fins.¹

The snout is blunt and the mouth small and oblique. The lateral line has 55-63 small scales. Gill rakers are short and widely spaced with 10-14 on the first arch.¹ The pharyngeal teeth (throat teeth) are conic, not serrated, and arranged in two rows. The dorsal fin has 3 spines, 8-11 soft rays; the anal fin 3 spines and 8-11 soft rays, and the caudal fin has 19 rays.¹

Average weight is 680 g¹ and the maximum reported weight is 4 kg.³

Ecology:

Orfe move to shallower waters for spawning when water temperatures are 7-14°C.¹ Adults spawn in schools over weed beds or gravel. Females spawn once per year³ and produce anywhere from 15,000 to 125,000 eggs.¹ Eggs are pale yellow, about 2 mm in diameter, and attach to stones or vegetation.¹ Hatching occurs in

1-2 weeks, depending on water temperature. Newly hatched fish are 8-10 mm long.¹

L. idus are sexually mature by ages 3-5 years. Total body length varies from 22-43 cm and males may be smaller than females.¹ The maximum reported age is 18 years.³

They feed on crustaceans, insect larvae, worms, snails and some vegetation. Adult fish are predatory to other fish species.¹

Economic Impacts:

The orfe diet competes directly with native fish for food.¹ The consumption of other fish species negatively impacts the populations of native fishes.¹ The decline of native sportfish populations could have impacts on recreation and tourism.

Environmental Impacts:

Orfe are able to adapt to many different environments, causing direct

competition with native fish for habitat.¹ Competition for food resources and consumption of other fish species negatively impacts the populations of native fishes.¹

Sociological Impacts:

The transformation of native aquatic communities results in the intrinsic loss of natural capital and enjoyment of natural areas.

Prevention:

Learn how to identify orfe and how to prevent spread. Do not purchase or keep ornamental orfe. Never empty your aquarium into natural water bodies.

Control:

There are currently no established control measures for orfe; however, practices used on other carp species may be effective.¹ If caught, orfe should be killed and not released.



Viridiflavus.commonswiki



Orfe

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2. Global Invasive Species Database (GISD) 2015. Species profile *Leuciscus idus*. Available from: <http://www.iucngisd.org/gisd/species.php?sc=613> Accessed: December 9, 2016.
3. *Leuciscus idus* (Linnaeus, 1758) Ide. <http://www.fishbase.ca/summary/Leuciscus-idus.html> Accessed: December 18, 2016.