

Neogobius melanostomus



Taxon	Family / Order / Class / Phylum
<i>Neogobius melanostomus</i> (Pallas, 1814)	Gobiidae / Perciformes / Osteichthyes / Chordata

COMMON NAMES (English only)

Round goby

SYNONYMS

Gobius melanostomus Pallas, 1814

Apollonia melanostoma Iljin, 1927

SHORT DESCRIPTION

It is a small, soft-bodied fish, with a fused pelvic fin that forms a suction disk on the ventral surface. The body is brownish grey with dark brown lateral spots. Mature males are completely black during spawning and nest guarding, with yellowish spots on the body and median fins fringed yellow or white. A large black spot is usually present at the end of the first dorsal fin, beginning at the fifth ray.



Close-up of *Neogobius melanostomus*

Photo: G.C.W. van Beek

BIOLOGY/ECOLOGY

Trophic level

It is a benthic feeder. Its diet composes of crustaceans and molluscs, including zebra mussels (*Dreissena polymorpha*), polychaetes, small fish, goby eggs and chironomid larvae.

Dispersal mechanisms

Through ships' ballast water.

Reproduction

Females spawn repeatedly (approximately every 20 days) from April until September. Five hundred to three thousand eggs are deposited by the female on a hard substrate and are then guarded by the male until hatching. Females mature at the age of 2 years, males at the age of 3 years.

Known predators/herbivores

It is eaten by larger fishes.

Resistant stages (seeds, spores etc.)

Unknown.

HABITAT

Native (EUNIS code)

C3: Littoral zone of inland surface waterbodies. It is a bottom dweller in the nearshore region of lakes and in rivers, and prefers rocky habitats that provide lots of hiding opportunities. Although juvenile and adult round gobies prefer rocky substrates, the fish also is found in fine gravel and sandy substrates in which they may burrow. It is found in slowly flowing rivers, lagoons, and brackish coastal water to 20 m, but it migrates to deeper water (50-60 m) in winter.

Habitat occupied in invaded range (EUNIS code)

C3: Littoral zone of inland surface waterbodies.

Habitat requirements

It is a euryhaline and eurythermic species. It has been found in Kaidak and Mertvyi Kultuk bays at salinity 20.0-36.9‰. The water temperature varies from -1°C to +30°C, although the fish is less active at temperatures below 6°C.

DISTRIBUTION

Native Range

Basins of the Caspian, Black and Azov Seas.

Known Introduced Range

Baltic and North Sea basins, Great Lakes of North America.




Trend

It is increasing in the Baltic Sea area.

MAP (European distribution)



Legend

	Known in country		Known in CGRS square		Known in sea
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INTRODUCTION PATHWAY

It has been introduced by ballast water of ships.

IMPACT

Ecosystem Impact

Species richness of native fish has declined in areas where the round goby has become abundant. This species has been found to prey on darters, other small fish, and lake trout eggs and fry in laboratory experiments. They also may feed on eggs and fry of sculpins, darters and logperch. Adults aggressively defend spawning sites and may occupy prime spawning areas, keeping natives out.

Health and Social Impact

It often eats bivalves that filter the water, and is a vector for bioaccumulation of many contaminants. The contaminants that build up are passed on to larger game fish that prey on this species and then possibly on to humans.

Economic Impact

Unknown.

MANAGEMENT

Prevention

Management of ballast water

Mechanical

The use of electrical barriers can be successful.

Chemical

Unknown.

Biological

Unknown.

REFERENCES

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