

THREATENED FISHES OF THE WORLD: *Squalius castellanus* Doadrio, Perea and Alonso, 2007 (Cyprinidae)

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ABSTRACT

Squalius castellanus is an endemic cyprinid fish from the Iberian Peninsula, with a distribution area restricted to the River Tagus (Gallo sub-basin). This species is critically endangered mainly due to pollution and fluctuations of the water regime.

COMMON NAME

Bordallo del Tajo (Spanish) – Figure 1.



Fig 1. *Squalius castellanus* (Photo credit: Ignacio Doadrio)

CONSERVATION STATUS

Critically Endangered according to the IUCN guidelines (Doadrio et al., 2011).

IDENTIFICATION

This species has a silvery yellowish body with up to 200 mm TL, presents 39-42 scales in the lateral line, 7 scales above the lateral line and 3 scales below the lateral line (Doadrio et al., 2007). Contrasting to the remaining *Squalius* species,

S. castellanus has eight branched rays in the dorsal and anal fins, a wide third infraorbital bone and a pharyngeal teeth formula of 5+2/5+2 (Doadrio et al., 2007). *S. castellanus* diverged from its sister species *Squalius carolitertii* in the Pliocene, about 3.8 My ago (Doadrio et al., 2007).

DISTRIBUTION

This species is endemic to Spain and occurs in the Upper Tagus, namely in the River Gallo and its tributaries.

ABUNDANCE

During monitoring actions performed during 2009 and 2011, only one specimen was captured, indicating that this species may be close to extinction (Doadrio et al., 2011).

HABITAT AND ECOLOGY

Typically occurs in deep, cold water habitats with sparse aquatic vegetation.

REPRODUCTION

Males show nuptial tubercles during the reproductive sea-

son which occurs between April and June (Doadrio et al., 2011).

THREATS

S. castellanus is mostly endangered by pollution and fluctuations of the water regime. Restocking of salmonid populations may also have a negative impact in the River Gallo where a fish farm of *Oncorhynchus mykiss* contaminates the river with organic and chemical wastes. Fish escapes to the wild may also negatively impact *S. castellanus* since adult salmonids may prey juveniles and compete for space and food.

CONSERVATION RECOMMENDATIONS

An *ex-situ* conservation program should be implemented to prevent extinction, together with *in-situ* measures aiming for habitat conservation, improvement of water quality and availability, and regulation of the salmonid restocking actions.

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Sažetak

UGROŽENE VRSTE RIBA U SVIJETU: *Squalius castellanus* Doadrio, Perea i Alonso, 2007 (Cyprinidae)

Squalius castellanus je endemska ciprinidna vrsta ribe s Iberijskog poluotoka, s distribucijskim područjem ograničenim na rijeku Tagus (podsliv rijeke Gallo). Ova je vrsta kritično ugrožena uglavnom zbog zagađenja i fluktuacija vodnog režima.

Ključne riječi: *Squalius castellanus*, endemska vrsta, kritično ugrožena riba

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