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Threatened fishes of the world: *Squalius aradensis* (Coelho, Bogutskaya, Rodrigues & Collares-Pereira, 1998) (Cyprinidae)

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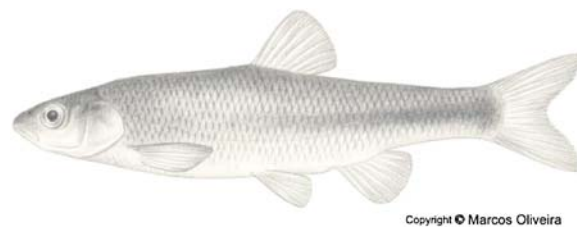
Common name: Escalo do Arade (Portuguese). *Conservation status*: Critically Endangered according to the Portuguese Red Data Book (Cabral et al. 2005). *Identification*: Small cyprinid with 131mm of maximum standard length and 35–42 canaliculate scales on the lateral line, 7–8.5 scales above the lateral line, 2.5–3 scales below the lateral line, 8 dorsal and 7–8 anal fin rays. Pharyngeal teeth are two-rowed (2.5–5.2); vertebral formulae are 21+17 or 21+16; preopercular–mandibular cephalic sensory canal communicates with infraorbital canal; and fourth and fifth infraorbitals are large and completely fused (Coelho et al. 1998). Illustration: Marcos Oliveira. *Distribution*: This species is endemic to Portugal and occurs in the rivers Arade, Seixe, Algibre, Bordeira, Aljezur, Alvor and Quarteira. It was isolated from its sister species, *Squalius torgalensis*, around 5.13 MY ago due the uplift of the Caldeirão Mountains (Sousa-Santos et al. 2007). *Abundance*: It is estimated that the number of mature individuals is higher than 10.000 but strong seasonal



fluctuations may occur (Cabral et al. 2005). *Habitat and ecology*: Generalist species, inhabiting a broad range of habitats outside the reproductive season—in spring migrations towards higher velocity areas with coarse substrata seem to occur (Santos and Ferreira 2008). *Reproduction*: Breeding season is expected to be similar to that of *S. torgalensis*: March to June. Extensive hybridization with *Squalius alburnoides* occurs in the Quarteira River (Sousa-Santos et al. 2006). *Threats*: Dams, proliferation of introduced exotic species, water scarcity, habitat degradation and loss of water quality. *Conservation*: Some efforts are being conducted to the ex situ reproduction of this species. *Conservation recommendations*: Habitat restoration of some stretches followed by restocking with fish produced in ex-situ breeding programmes. Mesquita et al. (2005) suggested that conservation efforts should pay particular attention to isolated populations and smaller drainages, where low levels of genetic diversity were found (as a

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result of higher mortality rates during summer droughts and inbreeding).

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