

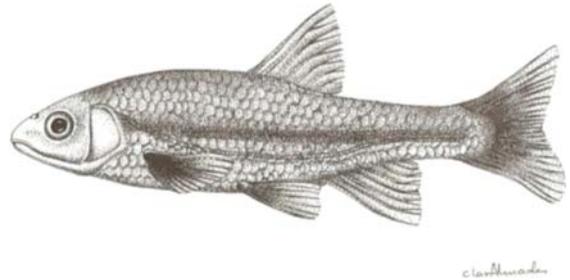
## Threatened fishes of the world: *Iberochondrostoma lusitanicum* Collares-Pereira, 1980 (Cyprinidae)

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**Keywords** *Iberochondrostoma* · Critically endangered · Portuguese endemism

**Common name:** Boga-portuguesa (Portuguese). **Conservation status:** Critically Endangered (Portuguese Red Data Book; Cabral et al. 2005). **Identification:** This small cyprinid (145 mm TL maximum) presents 43–53 canaliculate scales on the lateral line, 9.5–12 scales above the lateral line, 3.5–5 scales below the lateral line and 6–8 dorsal and anal fin rays (Collares-Pereira 1983). **Distribution:** This species is endemic to a small area of west central Portugal, mainly in the lower Tagus and Sado rivers and small coastal streams around these basins. **Abundance:** The populations of this species are highly fragmented and suffered recently drastic reductions in their population sizes, being extinct or almost extinct in many small coastal streams (Cabral et al. 2005). **Habitat and ecology:** This fish lives mostly in small or medium slow water Mediterranean type streams, surviving the summer in small pools under the shade of vegetation. **Reproduction:** *I. lusitanicum* breeds in late April and May, forming spawning aggregations and releasing adhesive



eggs over stones and vegetation. Reproduction and rearing of the juveniles was already performed successfully in captivity (Carvalho et al. 2003). **Threats:** Sewage from pig farms, distilleries, water abstraction, agricultural and urban pollution affect fish directly and lead to severe habitat destruction. **Conservation:** No conservation measures are known. **Conservation recommendations:** River restoration measures should be seriously considered, particularly in small streams, namely eradication of sources of pollution and riparian habitat recovery and digging of pools where the fish can survive extreme summer droughts. **Ex situ** reproduction may be necessary until the rivers are restored. Recent molecular studies showed that the fish from Tagus and adjacent streams are genetically different from those of Sado basin (the origin of the species holotype) and probably must be recognized as a new species which would make the distribution area of *I. lusitanicum* even more restricted (Robalo et al. 2007).

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## References

- Cabral MJ, Almeida J, Almeida PR et al (2005) (Eds.) Livro Vermelho dos Vertebrados de Portugal. Instituto de Conservação da Natureza. Lisboa
- Carvalho V, Robalo JI, Almada VC (2003) A description of the reproductive behaviour of the endangered Iberian cyprinid *Chondrostoma lusitanicum* Collares-Pereira 1980 in captivity. *Etología* 10:23–25
- Collares-Pereira MJ, 1980. Les *Chondrostome* à bouche arquée de la Peninsule Ibérique (avec la description de *Ch. lusitanicum* nov.sp.) (Poisson, Cyprinidae). *C.R.Acad.Sc. Paris t.291(Série D): 275–278*
- Collares-Pereira MJ, 1983. Estudo sistemático e citogenético dos pequenos ciprinídeos ibéricos pertencentes aos géneros *Chondrostoma* Agassiz 1835, *Rutilus* Rafinesque, 1820 e *Anaecypris* Collares-Pereira, 1893. Ph.D. Thesis, Universidade de Lisboa
- Robalo JI, Doadrio I, Valente A et al (2007) Identification of ESUs in the Critically Endangered Portuguese minnow *Chondrostoma lusitanicum* Collares-Pereira 1980, based on a phylogeographical analysis. *Conserv. Genet.* 8(5):1225–1229