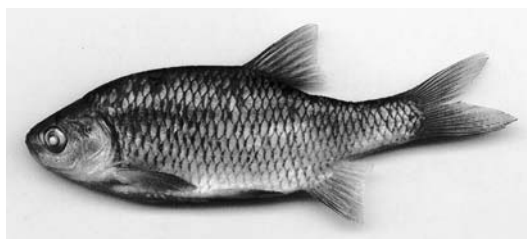


Threatened fishes of the world: *Scardinius scardafa* (Bonaparte, 1837) (Cyprinidae)

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Common name: Scardola del Tevere (Italian). Tiber rudd (E). **Conservation status:** The valid name for this species is *Scardinius scardafa* according to morphological (Bianco 1994) and genetic analyses (Bianco et al. 2001; Ketmaier et al. 2003). Originally this species was common in the Tuscany–Latium district but now survives in a single locality, Lake Scanno in Abruzzo Region, central Italy (Bianco 1994; Bianco & Ketmaier 2001). According to IUCN (1996) categories of threatened species, *S. scardafa* should be considered as ‘endangered’ according to paragraph B and point 1 of the criteria: ‘Severely fragmented distribution or known to exist at only a single location.’ **Identification and origins:** D III 8; A III 9; LL 37–41; circumpeduncular scales, 14; total gill rakers, 12–14. Pharyngeal tooth formula, 5,3-3,5. Body silvery; fins greyish, the basal part tinged reddish during the spawning season. Iris brilliant red. In Lake Scanno the species may reach about 350 mm SL and a weight of 0.6–0.7 kg. *S. scardafa* has modally 9 branched rays in the anal fin as compared to 10–12 in *S. erythrophthalmus* from northern Italy and the Danubian district. The genetic Nei distance between *S. scardafa* and *S. erythrophthalmus* (L.) is low, about 0.04, but similar to that found between *Leusciscus lucumonis* Bianco, 1982, and *L. cephalus* (L.) which is between 0.03 and 0.05. This suggests that *S. scardafa* originated in quite recent time from *S. erythrophthalmus* by a vicariant event about 0.5 MYA. **Distribution:** *S. scardafa* was endemic in the main rivers and lakes of Tuscany–Latium ichthyogeographic district in central Italy. Now the species survives only in Lake Scanno where it is not native, but originated from an introduced stock from Lake Fucino, which was drained for agricultural purposes at the end of the 19th Century. **Abundance:** At present it is the dominant species in Lake Scanno. **Habitat and ecology:** *S. scardafa* is a primary, warm-water adapted, mainly lacustrine freshwater species. It lives near or in the aquatic vegetation. **Reproduction:** Spawns from April till June. **Threats:** The Tiber rudd is a very resistant species which can survive low oxygen levels and pollution. Its disappearance is due mainly to the introduction of *S. erythrophthalmus* stocked as ‘white fishes’ from northern Italy to all the main basins of central Italy to increase the fish and species diversity for sport fishing. This happened in the Tiber River and Lake Trasimeno where *S. scardafa* was very common about 100 years ago. The extinction was probably due to other lacustrine species such as *S. erythrophthalmus* and the bleak *Alburnus arborella* (Bonaparte 1841). **Conservation action:** Lake Scanno is a moderately cold-water lake so local authorities plan to introduce trout and other game fish. Conservation action needed is to avoid any kind of fish introductions in this lake until the potential interactions between *S. scardafa* and introduced species are evaluated. The tentative reintroduction of this species in lakes or reservoirs in central Italy where *S. erythrophthalmus* is absent, is recommended. **Conservation recommendation:** Avoid stocking alien fishes in Lake Scanno. **Remarks:** The mtDNA analyses performed on tissue fragments of one syntype (ANSP 6211-6270, collected by Bonaparte between 1820 and 1830) show that the sequence of cytochrome *b* gene is identical with that of present day specimens from Lake Scanno.



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