

Threatened fishes of the world: *Barbus caninus* Bonaparte, 1839 (Cyprinidae)

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Common name: Barbo di ruscello (Italian). Brook barbel (English). **Conservation status:**

This species has been recently rehabilitated according to morphological (Bianco 1995; 1998) and genetic analyses (Berrebi 1995; Tsigenopoulos et al. 2002). In the past this species was common in most brooks and streams of Alpine tributaries of the Po River drainage (Delmastro 1989), but is now restricted to about 20–25 reproductive populations (Bianco 2003a; Salviati et al. 2004; Giovanni Delmastro pers. observ.). According to IUCN (1996) categories of threatened species, *B. caninus* should be considered as endangered as it fits in paragraph B and point 1 of the criteria: 'Severely fragmented distribution.' There have been local transfers of this species in central Italy (Bianco 1994), but there are no documented cases of successful recruitment in these populations. **Identification:** Dorsal fin four unbranched and usually seven branched rays; pharyngeal tooth formula: 5,3,2-2,3,5, lateral line 39–51 (usually 41–48); circumpeduncular scales 22–26 (usually 24); total gill rakers 6–12 (usually 7–10). Body with brown or black patches. Peritoneal membrane black, fins greyish or yellowish, the paired fins sometimes red tinged. *B. caninus* rarely reaches 200–220 mm TL. This species was often confused with populations of *B. tyberinus* Bonaparte, 1939 which tends to retain the juvenile pigmentation with large black spots as shown in *B. caninus* or in the 'meridionalis' group of strongly riverine species (Bianco 2003b). The population now living in the River Isonzo, in north eastern Italy, did not belong to *B. caninus* but represents an established population of *B. petenyi* Heckel, 1848, introduced long ago into the River Soce, the upper Slovenian stretch of the Isonzo River (Bianco 2003a). Drawing by Mariano Caminoli from a specimen 129 mm SL of River Chisone (River Po drainage), Naples University (Cat. No.: IZA 8485). **Distribution:** *B. caninus* is the biogeographic indicator of the Padany-Venetian ichthyogeographic district of Northern Italy and Slovenia which includes all tributaries of upper Adriatic drainages, from the River Isonzo in the north, to the River Marecchia in the south. **Abundance:** Now very localised but there are good populations at a few localities. **Habitat and ecology:** *B. caninus* is primary freshwater fish, moderately cold water adapted and obligate inhabitants of rapids. It undertakes upstream migrations during spring and summer, and downstream during the cold season. **Reproduction:** April till June. **Threats:** **Conservation action:** A survey of all existing populations as well as a population dynamic studies is urgently required for this unique Italian endemic species. **Conservation recommendation:** Avoid introductions of alien *Barbus*, especially the obligate rapid dwellers which can compete or eliminate local populations as has already happened in River Isonzo where *B. caninus* has been replaced by the introduced *B. petenyi* (Bianco & Ketmaier 2001; Bianco 2003a).



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