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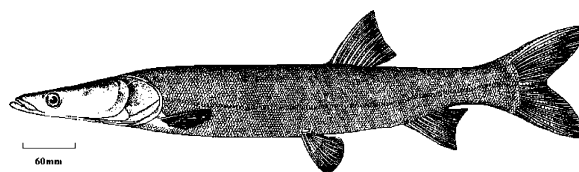
Threatened fishes of the world: *Luciobrama macrocephalus* (cyprinidae)

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Common name: Long spiky-head carp. **Conservation status:** Vulnerable, China Red Data Book of Endangered Animals (Yue and Chen 1998) and China Species Red List (Wang and Xie 2004). **Identification:** Slender body; pointed and long head; pipe-shaped snout; large and superior mouth; small eye; D iii-8, A iii-10-11, P i-14-16, V i-8-9, lateral-line scales 134–152. Body color dark gray on back, silvery white on lateral and belly, red on pectoral fin. Illustration from Fauna Sinica (Osteichthyes: Cypriniformes II) (Chen 1998). Larvae are identified by the number of somites and the proportion of diameter of eye to optic



capsule (Liang et al. 2003). **Distribution:** Throughout the Yangtze River and Pearl River Basins in China and Vietnam (Yue and Chen 1998; Yen 1985). **Abundance:** Low to moderate vulnerability. **Habitat and ecology:** Juveniles (<30 cm TL) generally live in upper and middle layers and those larger live in middle and lower layers of water (Yue and Chen 1998). The matured fishes migrate upstream to spawn in April and May. **Reproduction:** Spawning in the areas with turbulent and circular current. Embryos are hatched about 35 h after fertilization (Zhou et al. 1980; Liang et al. 2003). **Threats:** Degradation or loss of the habitats results in the difficulty for the species to enter nursery lakes (Jiang and He 2008). Overfishing and food shortage are other major causes of population declination (Wang and Xie 2004). **Conservation action:** Forbidden fishing in spring in the Yangtze River and Pearl River has been enforcing. **Conservation recommendation:** Habitats should be protected and rehabilitated, and non-fishing areas and periods strictly enforced. The blocking of the water connection between rivers and lakes should be avoided.

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References

- Chen YY (1998) Fauna Sinica (Osteichthyes: Cypriniformes II). Science Press, Beijing, pp 109–110, in Chinese
- Jiang GF, He XF (2008) Status of fish resources in the lower reaches of the Jialing River. *Freshwater Fish* 38:3–7, in Chinese with English abstract
- Liang ZS, Yi BL, Yu ZT, Wang N (2003) Spawning areas and early development of long spiky-head carp (*Luciobrama macrocephalus*) in the Yangtze River and Pearl River, China. *Hydrobiologia* 490:169–179
- Wang S, Xie Y (2004) China species red list, vol. 1. Higher Education Press, Beijing, pp 159, in Chinese with English abstract
- Yen MD (1985) Species composition and distribution of the freshwater fish fauna of the North of Vietnam. *Hydrobiologia* 121:281–286
- Yue PY, Chen YY (1998) China red data book of endangered animals: pisces. Science Press, Beijing, pp 76–78, in Chinese with English translation
- Zhou CS, Liang ZX, Huang HN (1980) Ecological features of the spawning of certain fishes in the Hanjiang River after the construction of dams. *Acta Hydrobiol Sin* 7:175–188, in Chinese with English abstract