Family Loricariidae

Suckermouth catfishes

Sucker-mouth catfish, armored catfish, and plecos represent the largest catfish family, with approximately 110 genera and over 1000 species, many of which remain undescribed. These peculiar fishes are native to South and Central America and exhibit an astonishing diversity of body shapes, colours, sizes, and adaptations. They are distinguished by several characteristics, including a scale-less body covered with bony plates on the back and flank, a sucker-like mouth (often with highly specialised teeth), and papillate lips. In all species, the males perform parental care until the young have resorbed their yolk-sack. Most species can gulp air and have many other special morphological and ecological adaptations. In West Asia, one species has been released into a limited number of water bodies, where it has become established. However, individuals might be found in virtually all locations, particularly in or around cities. Suckermouth catfishes cannot survive temperatures below 15°C for longer than a few days, which limits their distribution to warm springs in many regions. As several species of suckermouth catfish are kept in aquaria, the possibility of the release and subsequent establishment of other species cannot be ruled out. Specialist aquarium literature is likely to be of assistance in identifying these. **Further reading.** Isbrücker 1980 (diversity); Nelson et al. 2016 (diversity).

Pterygoplichthys disjunctivus* × *Pterygoplichthys pardalis

Common name. Hybrid sailfin catfish.

Diagnosis. Unmistakeable. Flank and back covered with large shields, sucker-like mouth, and short barbels. Size up to 490 mm SL.

Distribution. Israel: Lake Kinneret (Sea of Galilee) and Nahal Amal; Türkiye: Pınarbaşı near İnönü, possibly also in Orontes. Saudi Arabia: Wadi Haneefah in Riyadh, Al-Kharj south of Riyadh and Al-Ahsa oasis. Both parental species of *Pterygoplichthys* are native to Amazon drainage of South America.

Habitat. Tropical, inhabiting a wide range of stagnant or slow-flowing waters, often colonising reservoirs, urban and artificial water bodies, hot water springs, lakes, or water storage areas.

Biology. Usually, begins spawning when larger than 260 mm SL, often at about 300 mm SL. Spawns throughout year frequently interrupted by low availability of nesting sites at low water levels. Males are territorial at nest site, dig burrows (usually in banks or under stones), and guard eggs until fry has resorbed their yolk sac. Stomach enlarged, highly vascularised, acting as an accessory respiratory organ, allowing high tolerance to low oxygen concentrations and desiccation (up to 20 hours). Tolerant to salinity up to 10 ‰, but low tolerance to water temperatures below 15°C. Herbivorous, feeding mainly on periphyton and detritus, grazing on hard structures and surface of fine sediments. Large individuals also eat plants.

Conservation status. Non-native; kept in aquaria worldwide, from which it is released. An important non-native and invasive species.

Pterygoplichthys disjunctivus × *P. pardalis*; Fossa Calda, Italy; ca.180 mm SL.

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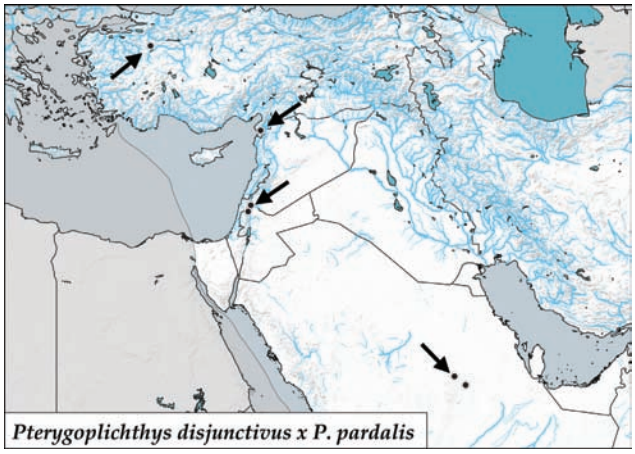
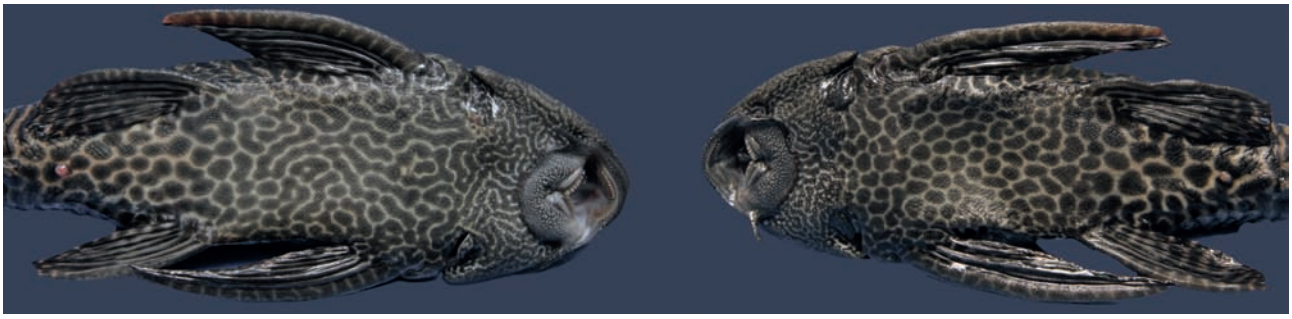
Remarks. Released from aquaria into the wild since early 1950s, with established non-native, often invasive, populations reported from many tropical and subtropical countries, including Australia, Bangladesh, India, Mexico, USA, Puerto Rico, Taiwan, Philippines, Vietnam, and Java. It has also been released in warm springs in temperate regions such as Poland and Italy. Still, it is not invasive there because it cannot escape warm water habitats and survive winters in natural waters in these countries. Because of its hardiness and high fecundity, this catfish is produced in very large numbers for the aquarium trade in Southeast Asia and perhaps elsewhere. It is commonly used as a cleaner fish in aquariums and is often released when it grows too large. A major global invasive species of management concern, particularly where they occupy sensitive habitats such as springs. They often reach very high densities, and their spawning burrows in stream banks increase erosion. It is considered a pest in fisheries because of its abundance, poor taste, and physical characteristics, including hard bony plates on its body and strong spines that make it difficult to handle in nets.

Species identification of *Pterygoplichthys* is most easily based on the colour pattern of abdomen. Most non-native populations were initially identified as *P. disjunctivus* and/or *P. pardalis* or sometimes placed in the genus *Liposarcus*, a synonym of *Pterygoplichthys*. Early studies from several introductions suggested that more than one, and perhaps even more than four, species of suckermouth catfish had been introduced in a single area. Still, more recent studies indicate that the globally invasive suckermouth catfish is a hybrid between *P. disjunctivus* and *P. pardalis*. This explains the high variability in characters resembling parental species in non-native populations. As these hybrids are very common and their introduction has been documented for decades, the initial hybridisation occurred very early in history of *Pterygoplichthys* culture for the aquarium trade.

Further reading. Armbruster & Page 2006 (identification); Özdilek 2007 (Orontes); Gibbs et al. 2008 (biology); AlKahem et al. 2008 (Saudi Arabia); Wu et al. 2011 (hybridisation); Rueda-Jasso et al. 2013 (biology, global invasion); Golani & Snovsky 2013 (Israel); Emiroğlu et al. 2016 (Sakarya).





Pterygoplichthys disjunctivus x P. pardalis; Sakarya, Türkiye; ~180 mm SL, two colour patterns of belly often identified as two species.