

Badis singenensis, the most unique badid gets a name – or does it?

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Prelude: 20 December 2011—recently an article by me was published in a German hobbyist magazine and was without notification altered to such extent that it no longer represented my view from the written and submitted version. What follows here is the original, unaltered version, with only the acknowledgements chapter added.

Introduction. New species belonging to both *Badis* and *Dario* (family Badidae) are discovered frequently with more collections being made by (native) hobbyists and ichthyologists alike. A new species of the Indo-Burmese genus *Badis* is described late 2011 from the Singen River, Brahmaputra basin in Arunachal Pradesh, India, raising the number of formally described species to sixteen. Within its genus *B. singenensis* represents the most unique species to date – that is, unless *B. sp.* ‘Buxar’ with which it is most likely conspecific, proves to be a separate species. In that case both the aforementioned species are equally unique. Why they are so exceptional will be explained in this summary of the new species description, along with notes on care in captivity. With all evidence pointing towards the two badids being the same entity, the species from Buxar will herein be treated as *B. singenensis*. The only thing that casts a little doubt upon this is the distribution of both – which does not mean the newly described species cannot have a wider distribution than initially presumed.

Differential. *Badis singenensis* can be differentiated from all other known species of *Badis* by having: (1) a black blotch posterodorsally on its opercle; (2) three distinct dark blotches at the dorsal fin base, the first blotch behind the third spine, the second behind the sixth dorsal fin spine, the third behind the fifth and sixth soft dorsal fin ray; another distinct dark blotch at the anal fin base behind the fifth soft anal fin ray. Other differences fall in morphometrics and meristics and are best taken by reading the original PDF description.

Etymology. *Badis singenensis* is named the type locality: the Singen River in Arunachal Pradesh.

Distribution. The type series was collected from the Singen River, Saku-Kadu Village, East Siang District, Arunachal Brahmaputra drainage, north-eastern India. Material labelled ‘Buxar’ was collected from Buxar, (Bihar, India) Shipra, a buffer zone of the Buxa Tiger Reserve at the Jalpaiguri District, West Bengal by Andrew Rao (Malabar Tropicals) in 2006. All data surrounding care, breeding and photographs are based on the latter material.

Sexual dimorphism. Males are brighter in colour. The description furthermore mentions that during the breeding season (running from April to June) males develop a red mark on their dorsal and anal fin lappets and that in a few female specimens red coloured marks were observed in lateral scales. Females also have a larger body depth and are smaller in size (about 45 mm TL in males and about 40 mm TL in females in).

Husbandry. The bottom should consist of gravel, sand or a mix of both – *Badis singenensis* is a bottom dweller. Stones, pebbles and wood can be used to provide natural cover along with e.g. coconut shells scattered around for the males so they can form territories and breeding sites. Keeping a neutral a pH (around 7.5), a hardness of 7 °dH and a water temperature around 22-23 degrees Celsius one can choose from a wide variety of aquatic plants. In nature the water temperature can drop well below 20 degrees Celsius to around 15 °C so in captivity a colder period might actually be welcomed by the fish.

Live and frozen foods are consumed with great enthusiasm. Glass worms [Weiße Mückenlarven], adult *Artemia* and *Mysis* are among their favourites. Also live *Daphnia* will be taken readily, however avoid the frozen variety. During spring and summer one could collect live mosquito larvae [Schwarze Mückenlarven].

Reproduction. *Badis singenensis* is a cave breeder where the male protects the lot. After circa three days the eggs hatch but fry remain in the cave while they feed on their yolk sacs. Another three days later they have depleted their sacs but still remain in the cave. Soon they have become free swimming and will move out. The male and all other inhabitants now consider them food.

The young accept live baby brine shrimp immediately. It is best to feed them twice a day. Regular water changes with water possessing the same characteristics as that of their parents will provide a healthy situation. A rearing tank requires much more maintenance so keep it clean on a daily basis. Switch to larger foods as they grow.

Note: Whether or not *Badis* sp. 'Buxar' proves to be truly conspecific with *B. singenensis* needs to be studied, by examining and comparing the former to the latter.

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References

K. Geetakumari & Kento Kadu. 2011. *Badis singenensis*, a new fish species (Teleostei: Badidae) from Singen River, Arunachal Pradesh, northeastern India. *Journal of Threatened Taxa*, SEPTEMBER 2011, Vol. 3, No. 9.