Location where *Melanotaenia affinis* "Bonggo" was found G.L.

Two New Rainbowfishes

(*Melanotaenia affinis* "Bonggo" and *Melanotaenia* sp. "Suswa Village")

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New Guinea is still an island with lots of undiscovered freshwater fishes, but it rarely happens that new fishes become available to the European hobby. But every now and then it does, as in the two cases described here.

Melanotaenia affinis is widespread in the New Guinea river systems on the northern side of the central mountain range. On the southern side its counterpart *Melanotaenia goldiei* is equally abundant in the many river systems. In Australia, which is divided from that area since the last ice age, *Melanotaenia trifasciata* takes over the same role.

Melanotaenia affinis lives in flowing waters of all kinds and can be found at many places. Several local varieties have been found over the years. *M. affinis* "Pagwi" from the Sepik River drainage may be the most common form in the hobby, as it looks very colourful with its flashing red longitudinal stripes. Other well-known forms are "Bluewater Creek" found close to Madang in Papua New Guinea, and "Lae", the beautiful nominal form found close to Lae, a larger city in eastern Papua New Guinea.

No interesting forms of *Melanotaenia affinis* had been found in the Indonesian western part of New Guinea until now, and most forms known from these regions look quite dull and are not very attractive ... but the exception proves the rule!

Human settlement and activities in New Guinea are growing and gaining more and more ground. Vast areas of tropical rainforest are being cleared to establish giant plantations of oil palms to serve the world-wide demand for vegetable oils and "bio-fuel". In order to transport the palm fruit for processing, many roads are built. Additionally, many Papuan people migrate from the highlands to the lowland because of the ongoing battles and civil unrest in these

areas. Thus, more and more "transmigrant villages" are being built, which also become home to lots of people who settle over from Java. But on the other hand, all these developments make more regions in Papua accessible.

As a direct consequence, there are now some roads from Jayapura heading west along the coast or into the country. The transmigrant village called "Bonggo" is situated several hours by car west of Jayapura; close to this village, one can find a little river that flows through a bed of limestone which is unusual in this area, as most rivers have a bed that is clay-based. This unusual situation obviously led to an exceptional form of *Melanotaenia affinis*.

This form called "Bonggo" has strong contrasting colouring of black and blue elements on the body, and unique are the pink fins. This fin colouration is not known in *Melanotaenia affinis*. Genetic evidence suggests they may be sufficiently different to be a separate species from *M. affinis* in Papua New Guinea (P. Unmack pers. comm.).

Melanotaenia affinis "Bonggo" travelled a long way to reach European aquariums. In 2006, a few specimens came to the USA where they were bred. In 2007 Gary Lange from the USA visited the IRG convention in the Czech Republic, and I was more than happy to get several 10 mm youngsters. It took some time to raise and breed them, but it was with success. I was able to give young fish to other rainbowfish friends, and so I hope that this beautiful form will soon be established in the rainbowfish hobby.

Keeping this fish is easy, provided a tank of at least 80 cm length is available, as they will reach an end size of 8–9 cm TL. Plants are not necessary if one wishes to reproduce the natural habitat, but it creates a beautiful setting and increases the attractiveness of the fishes. Enough free space for swimming and a strong current flowing along the front of the aquarium will make the fishes present themselves in the best way. Water factors are not critical, of course lowest values of pollutants like nitrite or ammonium must be kept. Temperature can vary, and they feel comfortable in a range from 22 to 26°C. ...

Melanotaenia affinis "Bonggo" already shows attractive colours at relatively small size. J.G.

Adult male *Melanotaenia affinis* "Bonggo". G.L.

The other rainbowfish I'd like to present here comes from a very different area in New Guinea. The Vogelkop Peninsula has produced a number of surprises regarding rainbowfishes in recent times. E.g. *Melanotaenia* species like *M. arfakensis*, *M. boesemani*, *M. irianjaya* and *M. fredericki* come from there. The isthmus between the Vogelkop and the main island of New Guinea is the home for some others: *M. angfa* and *M. parva*. Also known from the Vogelkop, but not yet available for the hobby are *M. ajamaruensis*, *M. ammeri* and *M. kokasensis*.

It is known from hearsay that some more rainbowfishes are living in the Vogelkop Peninsula. Sadly it is more than difficult to access this area. So it was a lucky chance when a "bush pilot" got some fish of an unknown species from local villagers in Suswa, located at the western end of the Vogelkop, and took them home where he kept them. Some of those fishes also found their way to the tanks of aquarists outside New Guinea, and finally came to Europe in 2007.

Melanotaenia sp. "Suswa Village" is in all likelihood an unknown and undescribed species. There is an obvious visual relationship to *M. irianjaya* (apart from the fin shape), *M. fredericki* from Sorong, and *M. misoolensis* from Misool Island. In my view, there are enough characteristics regarding colouring and fin shape to justify a status as a distinct species. Interestingly, genetic data suggests they are most closely related to *M. boesemani* (P. Unmack pers. comm.).

Very remarkable for *Melanotaenia* sp. "Suswa Village" are the two dark blotches at the body sides. Those blotches are visible from a size of approx. 3 cm and increasing with age and size. The lilac-pink (mauve) base colour and the black and white seam of the second dorsal fin are concise characteristics that don't occur on any other rainbowfish species in this combination. I am pretty sure that *Melanotaenia* sp."Suswa Village" is identical with a rainbowfish called "Sorong Selatan", of which pictures have strayed around in the Internet for the past few months.

Young male *Melanotaenia* sp. "Suswa Village". J.G.

Spawning pair *Melanotaenia* sp. "Suswa Village". J.G.

As for the species mentioned above, keeping *Melanotaenia* sp. "Suswa Village" is quite easy. Both can be held with other species of rainbowfish without any problems. But one must never (NEVER!) do any breeding attempts in a tank with mixed species, because of hybridisation possibilities.

Large adult *Melanotaenia* sp. "Suswa Village". G.L.

Both species can be bred without difficulties. To keep a wide genetic pool it is advisable to breed with a group instead of a pair. Spawning takes place in the usual way using a wool mop or plants like Java moss as a spawning substrate. Fry hatch after 8–10 days and should be fed with infusoria and/or algae cultures to give them a good start. Industrial food with a particle size of 50µm may be used as well. This kind of food should be stored in the refrigerator to prevent oxidizing of fatty acids which can lead to missing or defective fins.

It is optimal to feed 2–3 times a day with small amounts or by draining the infusoria by a thin pipe. Feeding only once or twice a day is possible as well, but fry grow a little slower then. About 10 days later feeding of *Artemia nauplii*, vinegar eels or microworms can be started and will increase growth. With ongoing growth, the usual rainbowfish food can be given more and more. After six weeks they reach a size of approx. 1.5 to 2 cm, after three months they are usually at 2.5 to 3 cm and at the optimal size to be distributed to other rainbowfish friends.

The difficult acquisition of the two rainbowfish species and habitat under threat from massive environmental destructions in New Guinea are good reasons for their keeping and breeding in captivity by aquarists.

Note: an earlier edition of this article was published in the German language. Graf, 2008. Zwei neue Regenbogenfische. *Aquaristik Fachmagazin* 40 (6) 36–39.