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## **ARK - Arizona Rivulin Keepers**

## The Scheel Letters, No. 34

## News about Killies

The Jan. 60 issue of Het Aquarium (Dutch) gives information on *Nothobranchius brieni* described by Poll in 1938. This Notho lives (according to Poll) near Bukama, in small pools connected with the river (Lualaba) by canals. 35-58 mm. E. Graindorge found this species in a huge swampy area between Jadotville and Elisabethville in the southeastern Belgian Congo, that is to say, 250-300 km further south than the typical species. Some parts of the swamps are connected to rivers by means of canals. Other parts are not connected with rivers. In this area very many pools are formed during the rainy season which begins in November and ends in May. Pools are 30-150 cm deep. The (mean?) rainfall is: Nov. 100 mm, Dec. 150 mm, Jan. 200 mm, Feb. and Mar. each 300 mm, Apr. about 100 mm. Yearly rainfall: about 1300 mm ("Climates of the Continents" gives these data:

Jan. 228 mm (9.1 inches), Feb. 238 (9.5), Mar. 217 (8.7), Apr. 42 1/2 (1.7), May 5 (0.2), June 0 (0), July 0 (0), Aug. 0 (0), Sep. 2 1/2 (0.1), Oct. 27 1/2 (1.1), Nov. 120 (4.8), Dec. 253 (10.1). Year: 1130 mm (45.3 inches).

This data is for Elisabethville, situated 4035 feet above the sea. Air temperature hottest in Oct. (75 F, 24 C), the coldest month is June-July (61, 16). During the rainfall. May is coldest (65, 18 1/2). Grainorge found N. brieni in stagnant pools. Hardness was about 5 German degrees, pH 6.3-6.5. At noon, the temperature was 25-27 C at the surface and one centigrade less at a depth of 80-100 cm. During the last weeks of May the temperature decreased to  $20 \frac{1}{2}$  C at the surface and about 19 at a depth of 1 meter.

Jacobson, Johannesburg, South Africa recently informed me that a Nothobranchius has been found within the Kruger Park in Transvaal.

Het Aquarium (Dutch) Jan.60 deals mostly with killies. A picture of a hybrid of Nothobranchius made by Mr. de Looze and possibly "rachovi male/orthonotus female". The presumed "mother species" is called "kuhntae" and came from Aquarium Hamburg together with the male: a true "rachovi". However, Roloff recently informed me that the Aquarium Hamburg stock (rachovi and "kuhntae") was taken at Beira and independent of his own catch of "rachovi" and "orthonotus". I have had and bred adults of both stocks and have not been able to distinguish between males as well as females from these two stocks. Well, de Looze brought a pair of supposed "rachovi" and its offspring was not at all "rachovi". de Looze informed me about the colors: the hybrids are dark red and have blue body, the caudal fin is deep red. The dorsal and anal fin have large dark spots and a light blue rim. No orange color at all.

But this is not the sole case of "mistakes" in "rachovi". Franz Werner recently wrote me that he also got hybrids from the breeding of a presumed pair of "rachovi" (Roloff stock). He sent me a color photo of the breeding pair, showing a typical "rachovi" male and a typical "orthonotus" (or melanospilus) female. Females of "melanospilus" (Hansen's stock) possibly cannot be distinguished from females of "orthonotus" (at least I tried in vain). Males, however, are easily distinguished if you look at the part of the head which lies below a line horizontal through the lower edge of the eye. In that part of the head there are many big and dark spots in "orthonotus" (Roloff's stock) but none in "melanospilus" (Hansen's stock). However, the two forms are so close to each other that they may be races of "orthonotus" - both of them. Females of "rachovi" have no dark spots as have females of "melanospilus" and "orthonotus" (perhaps not always, but no doubt in the present stocks).

If you have the June 59 issue of Tropical Fish Hobbyist at hand on the front cover and on page 13 you will find a photo showing just the same fish as the de Looze hybrid pictured in Het Aquarium. The TFH picture shows an unidentified Notobranchius belonging to the importation of Roloff. Roloff informed me that he discovered this form rather a long time after his arrival back to Germay. Comparing this widespread information we may conclude that "rachovi male" crossed easily with "orthonotus female" (or hybrid female?) in aquaria. Do these species also cross freely in nature? -the hybrid being Roloff's "mayeri stock" or "red species".

Possibly there is another "couple" of Nothos in nature. Foresch recently informed me that the Tropicarium stock of "palmquisti" was imported by that firm from a Sisal plantation, 70 km from Dar-es-Salam, Tanganyika. Here it was caught together with "melanospilus". That means that once more in the same water we find two forms of Nothos - a big one and a small one. The big form spawns big eggs, the small form spawns small eggs. Just the same as in the Beira swamps (I have no doubt about the eggs size in "rachovi" as I have had eggs from Foersch, from Claus Petersen, and from a pair which Roloff sent to my friend Ove Larsen. All these eggs were the same size as we find it in "palmquisti" and "guentheri"). The "melanospilus" and "orthonotus" forms differ not only in egg size from the other group (palmquisti, guentheri and rachovi), but look at the dorsal and anal in the males of the group first mentioned. The rays of the fins run outside the fin membrane which has a whitish to bluish rim.

Nothos not only are most handsome and most interesting in the breeding procedure, they are also a confused mass of forms, names and mistakes. If only those eggs under control spawnings for crossings would develop or decompose. Why do they stay transparent without traces of development for many months? Perhaps something is needed to start them.