



Roloffia fredrodi VANDERSMISSEN, ETZEL & BERKENKAMP, 1980 *)

Pronunciation:

Ro-lof-fia fred-ro-di

Meaning of the scientific name:

Roloffia: Dedicated in honour of Erhard Roloff

fredrodi: Dedicated in honour of A.J. Wright (called Fred) and Rod Roberts

Common name:

Unknown

Original description:

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Terra typcia:

2 miles from Goboru on the road from Pujehun to Bo, Sierra Leone

Meristics:

D 13; A 16; S_ql 31; Frontal scalation G-type
caryotype: n = 21

Typematerial:

Natur-Museum und Forschungsinstitut Senckenberg/Frankfurt am Main.

Holotype (SMF 15310): 1 male with a total length of 53,2 mm and a

standardlength of 42,5 mm from type locality.

Paratypes (SMF 15311): 1 male and 2 females (totallengths 38,0 - 49,2 mm; standardlengths 31,0 - 39,5 mm) from type locality.

Paratypes (SMF 15312): 3 males and 1 female (totallengths 40,8 - 45,0 mm, standardlengths 33,0 - 35,9 mm), collected at Serabu

Length:

Males about 50 mm, females becomes slightly shorter

Systematics:

Division according to ROSEN, 1964

Family: *Cyprinodontidae* GÜNTHER, 1866

Subfamily: *Rivulinae* HOEDEMAN, 1961

Genus: *Roloffia* CLAUSEN, 1966 *)

Species: *Roloffia fredrodi* VANDERSMISSEN, ETZEL & BERKENKAMP, 1980

Division according to PARENTI, 1981

Family: *Aplocheilidae* BLEEKER, 1860

Subfamily: *Nothobranchiinae* RADDA & PÜRZL, 1981

Genus: *Aphyosemion* MYERS, 1924

Subgenus: *Scriptaphyosemion* RADDA, 1987

Species: *Aphyosemion fredrodi* VANDERSMISSEN, ETZEL & BERKENKAMP, 1980

*) The name *Roloffia* has been rejected according to "Opinion 1010" of the international nomenclature conference and is because of that not valid. A revalidation application has not yet been discussed, because of this the genus name *Roloffia* is kept for the reason of convention.

Aphyosemion fredrodi VANDERSMISSEN, ETZEL & BERKENKAMP, 1980 is closely related to *Roloffia roloffi* (AHL, 1938) and *Roloffia liberiensis* (BOULENGER, 1908) and can only be separated from these two through exact expert knowledge. The separation to the latter species succeeded with the help of carotype, elektrohoresis and crossing experiments. Because *Roloffia fredrodi* is very difficult to separate phenotypically from *Roloffia liberiensis*, RADDA & PÜRZL (1987) regards this species as a synonym of *Roloffia liberiensis*.

First import:

In 1976 by A.J. WRIGHT and travelling companions from the vicinities of Gaboru and Serabu to England, from here trough Belgium to Germany.

Distribution:

Roloffia fredrodi is until now only known from the south eastern Sierra Leone. According to WRIGHT (1976) the Terra typica (Location 20) is composed of small, rapidly drying pools in a brook bed. The temperature of the turbid water was 24° C, the air temperature was 31° C, the water hardness 2° dH and the pH-value 6,5. *Roloffia fredrodi* was found among plants at the shaded bank. Living sympatric with *Epiplatys barmoiensis*.

Another location collected by WRIGHT was a drying swamp-area (Location 24), crossed by a small brook. The water temperature was 27° C, the air temperature 33° C, the water hardness 1,5° dH and the pH-value 6,3. The species was found close to plants and was accompanied by *Epiplatys njalaensis* and *Epiplatys annulatus*.

In 1989 BUSCH and HELLNER was able to find *Roloffia fredrodi* at two more locations: Before Mislar at Sowoja-River and at Matanga-Stream. The waterholes was at the 21.09.1989 strongly overgrown and fully exposed to the sun (Sowoja-R.) or lay between

woods and was shaded (Matanga-St.). The air temperature was 33° C at both locations, the water temperature 23° and 27° C (!) - (water pool at Sowoja-River).

Description:

Description of the male: The male shows a steel blue body coloration, that very seldom changes into a green. The back is dark, the ventral area and the snout area are yellow. Red spots are distributed from the gill covers and the body sides into the caudal fin. These are spot like of distinct scale size and are arranged randomly. The distal margins of the caudal, anal and ventral fins are decorated with a red horizontal line. At the base of the dorsal and anal fins are a few red spots. The pectoral fins are transparent and have a whitish border. The upper and lower edge of the caudal fin is decorated with a red horizontal line, the borders are out towards the edges - in its height as wide as the red lines - usually blue of colour.

The female has a yellow-brown body coloration. The colour pattern of the fins and the body are of a brownish red. A chin spot is not present, at the upper part of the caudal peduncle a round to streak like shaped ocellus is present. From the level of the eyes until the ocellus a horizontal colour pattern is distributed. This pattern is composed of points, spots and lines. Between the dorsal and caudal fin this is very obvious at the back area by approximately six closely adjoining spots. At the foremost upper half of the body, this colour pattern breaks up, which is completely missing in the lower half of the body. The pectoral and ventral fins have no pattern. The dorsal, anal and caudal fins are spotted with in part very small points.

Keeping and breeding:

Roloffia fredrodi is, as *Roloffia liberiensis* and *Roloffia roloffi*, easy to keep and not difficult to breed. Real big aquariums are not necessary for the keeping, just keep in mind, as with all *Roloffia* species, that the females can hide themselves from to vigorously courtship (males). Here have javamoss or nylon wool proved to be best. A close-fitting cover glass for the aquarium is absolutely necessary, because the fishes are excellent jumpers. There are no special requirements for the water quality: pH-value up to ca. 7.0, total hardness up to 15° dH and temperatures up to 23° C (never keep as warm in aquaria as in nature) is fully adequate, to keep *Roloffia fredrodi*, but also for breeding purposes. When it comes to food no special requests are demanded. Live food like *Cyclops* and *Daphnia* and mosquito larvae of all kind as well, as long they have the right size, is gladly taken. Nauplia of *Artemia salina* are not despised either.

One uses a pair or a trio for breeding, that in advance has been separated for some days in order to obtain a better egg production. The breeding aquaria is best set up without any bottom layer, as a spawning medium javamoss, synthetic fibers or peat fibers are used. *Roloffia fredrodi* can be breed as a bottom- or a top-spawner. The eggs are hard and can be picked with the fingers. They are either placed in low containers with water or in moist peat. The fry hatch in 14 to 21 days in water. Eggs in peat can be kept moist for 21 to 24 days and then watered. By this the fry hatches mainly within 24 hours and can, because they are of equal size, be raised without any problems. As first food newly hatched nauplia of *Artemia salina* is very suitable.

Roloffia fredrodi lives when feed good, but sparsely for 2 ½ years and is also able to breed for that long. But by this is important, that worm food (*Tubifex*, grindal and whiteworm) very seldom is given, best not at all. Hereby is a fattening prevented.

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DKG slide: Erhard Roloff

Literature:

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Wright, F. (1976) From the complete field notes of the Jan./Febr. 1976 collecting trip to Sierra Leone.
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Collecting site of *Roloffia fredrodi* at Matanga, Sierra Leone - Photo: E. Busch