



## DKG – Study Group Chromaphyosemion

### **The Genus Chromaphyosemion, well - known facts and news.**

by Rudolf Pohlmann (translation Dr. Werner Neumann)

In both sexes of the species *Chromaphyosemion* two black longitudinal bands occur. Because the distinctness of these bands depends on the disposition of the specimens one can mark it as disposition band. In 1895 Loennberg pointed out to this feature by the creation of the name *bivittatus*. *Bivittatus* was the first species described in this group with longitudinal strips. (*bivittatus* = a fish with two strips).

In the past all fishes with longitudinal stripes were composed in the *bivittatum* group. In 1971 Dr. Alfred Radda separated the *bivittatum* group from the subgenus *Fundulopanchax* (Myers, 1924) and created the new subgenus *Chromaphyosemion*.

"Following the opinion of Clausen (letter information) and Scheel (1968) I give the superspecies *Aphyosemion bivittatum* the rank of an own subgenus inside the genus *Aphyosemion*. I propose to name this subgenus *Chromaphyosemion* subsp. nov. and to consider *Aphyosemion multicolor* Meinken (1930) as the type species, because Lönnberg described *Aphyosemion bivittatum* in 1895 as a type by a female only. The new subgenus is characterized by the feature above mentioned."

From 1966 to 1990 Scheel worked intensively about these questions of the longitudinal striped fish and tried to put in order the nomenclature. In this way he recognized that the *bivittatum* group is an own unit, distinct from other *Aphyosemion* form-groups. This difference to *Aphyosemion* caused that in 2000 Sonnenberg in a comprehensive work arose the subgenus *Chromaphyosemion* into the state of genus.

"The Aplocheiliden genus *Aphyosemion* Myers, 1924 is divided into several subgenera (Myers, 1924; Huber, 1977; Huber & Seegers, 1977; Kottelat, 1976; Radda 1971b, 1977). One of them, *Chromaphyosemion* is clear monophyletic (Amiet, 1987, 1991; Seegers, 1987) and is here considered as genus."

(Monophyletic = descent only from one ancestor).

#### **Explanation**

*Chromaphyosemion* are distinct from other fishes of the related genera by the following features:

The dorsal fin (9 to 11 rays) originate direct above the anal fin (11 to 15 rays) or is inserted above the first or second ray of the anal fin. The dorsals of the males are perfect triangular and have streamers. The anal fin is formed like a trapezoid with streamers at the posterior part. The caudal fin is circular with streamers at the edges. Their colour can be yellow, white or orange. All fins of the females are circular. The upper two or three rows of the scales of the male have a metallic brilliance (Brilliance - scales). Two black longitudinal bands occur from time to time in both sexes. The intensity vary according to disposition and population. But stress, dominance and illness are of influence too. The longitudinal band in *Chromaphyosemion riggenbachi* occurs rarely. The body colour varies in both sexes according to disposition and order of precedence.

### **The species of *Chromaphyosemion*.**

In 1895 Lönnberg received a fish for distinction, prepared by alcohol. This female was brought to him from the vicinity of the Swedish travel station at the Ndian - River near Mundema. He named this fish *Fundulus bivittatus*. In 1903 Boulenger described *Fundulus loennbergii*. In 1924 Ahl described several species: *Fundulus bitaeniatus*, *Fundulus pappenheimi*, *Fundulus rubrostrictus* and *Fundulus riggenbachi*.

*Fundulopanchax splendopleuris* and *multicolor* were first described by Brüning. Meinken completed this description in 1930 and used the name proposed by Brüning..

In 1930 Meinken described *Fundulopanchax bivittatus coerulea* because he discovered differences to *Fundulus bivittatus*

But the name *coerulea* was used by this time for another fish, so Myers in 1933 changed the name into *Aphyosemion bivittatum hollyi*. In 1935 Ahl described two species, *Aphyosemion (Fundulopanchax) nigri* and *unistrigatum*.

In the years after following species were discribed:

1977 *Aphyosemion volcanum* by Radda & Wildekamp

1991 *Aphyosemion Lugens* and *A. poliaki* by Amiet

1998 *Aphyosemion alpha* by Huber

1999 *Aphyosemion kouamense* by Legros

Most of the authors consider the following species as distinct.

*Chromaphyosemion bivittatum* (Lönnberg, 1895)

Synonyme: *coeruleum* (MEINKEN,1930)

*hollyi* (MYERS,1933)

*Chromaphyosemion loennbergii* (Boulenger,1903)

Synonyme: *pappenheimi* (AHL,1924)

*unistrigatum* AHL,1935)

*Chromaphyosemion bitaeniatum* Ahl,1924)

Synonyme: multicolor (BRÜNING,1929)  
nigri (AHL,1935)  
rubrostictum (AHL,1924)

Chromaphyosemion riggenbachi (Ahl,1924)

Chromaphyosemion splendopleure (Brüning, 1929)  
Synonyme: volcanum (RADDA & Wildekamp,1977)

Chromaphyosemion lugens (Amiet,1991)

Chromaphyosemion poliaki (Amiet,1991)

Chromaphyosemion alpha (Huber, 1998)

Chromaphyosemion kouamense (Legros, 1999)

### **Explanation:**

Aphyosemion hollyi (coeruleum) is definitely considered a Chromaphyosemion bivittatum. The colour of the populations varies indeed, but one can recognize the typical feature of bivittatum.

As the collection site of Aphyosemion unistrigatus was given Bipindi (Cameroun). This place is the same like was given years ago for pappenheimi by Ahl. The description by Ahl is not so detailed and therefore the most of authors consider pappenheimi as a synonym of loennbergii, which occurs in the same area.

In Berlin Seegers investigated in 1986 the types of multicolor and bitaeniatum. He recognized that the taxa of bitaeniatum and multicolor concern the same species. So multicolor is a synonym of bitaeniatum.

Aphyosemion rubrostictum and nigri are distributed in the Niger - Estuary.

Bitaeniatum live in this area. Colour and size of the collection populations vary indeed and have to investigate better. Because the collection site of nigri and rubrostictum are not given exactly we have to consider both as synonyms of bitaeniatum.

Aphyosemion volcanum was descript from Kumba. There it was found over volcanic soil. Below the east slope of the Mount Cameroun one can find another variety of Chromaphyosemion. Amiet recognized that this fish is very different from the Aphyosemion volcanum type and described this fish as Chromaphyosemion poliaki.

Furthermore several authors think that the form of Kumba is a synonym of splendopleure.

Chromaphyosemion splendopleure varies to a high degree by colour and so we know some phaenotypes:

Chromaphyosemion	splendopleure	(phaenotype Tiko)
Chromaphyosemion	cf. splendopleure	(phaenotype Meme)
Chromaphyosemion	spec. aff. splendopleure	(phaenotype Dizangue)
Chromaphyosemion	spec.aff. splendopleure	(phaenotype Kopongo)

Several Chromaphyosemion, different by colour, received a number:

Chromaphyosemion sp. Nr.1 Bolifamba (1991 described as poliaki by Amiet.)

Chromaphyosemion sp. Nr.2 Cap Esterias (1998 described as alpha by Huber)

Chromaphyosemion sp. Nr.3 Afan Essokie ( 1991 described as lugens by Amiet)

Chromaphyosemion sp. Nr.4 Bibabimvoto and Bitande ( not yet described )

Chromaphyosemion sp. Nr.5 Engong Kouame (1999 described as kouamense by Legros)

Chromaphyosemion sp. Nr.6 Fenda KEK 98/10 (not yet described)

Chromaphyosemion sp. Nr.7 Nkolbonda KEK 98/6 ( not yet described)

Several authors wrote a "sp" in front of the collection site and collector code. These are populations one can not classify to a distinct species.

Chromaphyosemion sp. Likado CSK 95/

Chromaphyosemion sp. Mboro CMM 18

Chromaphyosemion sp. Campo HJRK 92/17

Chromaphyosemion sp. Chutes d` Ekam HLM 99/1

Chromaphyosemion sp. Rio Muni GEMHS - travel, several populations from Aequatorial Guinee` not yet exactly investigated.

Chromaphyosemion Bioko GMHS - travel, several populations from the isle Bioko , Aequatorial Guinee`, likely form a species, but not yet described.

#### **Explanation about the collection code:**

KEK 98/10 = Kliesch, Eberl,und Kämpf, 1998, collection site 10.

HLM 99/1 = Huijgenvoort, Lambert, Malumbres, 1999, collection site 1

CMM 18 = collection travel 2000 collection site 18

GEMHS 25 = Guinee`Equatorial, Malumbres, Huijgenvoort ,Sanjuan, collection site 25.

The collection code are a creation of the people who catch the fish. There is not a regulation. Nowadays the GPS dates often are given in the collection reports, too.

To avoid problems about breeding, the Chromaphyosemion should be given to other killi fans with the complete name only.

