
The Scheel Letters, No. 31

The Genus Epiplatys

Epiplatys are African killies living mostly in Western Africa from Senegal in the north to Congo in the south. In the northern area they push forward to the Nile through French West Africa. In the southern distribution area they reach the Rift Lakes (almost).

These fish never became very popular among aquarists, especially when compared to their close relatives, the Aphyosemion. This may be because they like to live close to the water surface and not to move around presenting themselves to the aquarist. Only one species, *Epiplatys chaperi*, you will often find in tanks (ed. note - there was confusion over the identity of this species for many years. What was called *E. chaperi* is now known to be *Epiplatys dageti*, and *E. chaperi* is a different and distinct species). To the killie enthusiast, Epiplatys might be of interest independently from their "bad" habits. If only we can get the various species for our tanks. Very few specimens are available on the international market just now. My own stock contains only 3-4 different species. 3-4 species? Does that mean that this aquarist does not know how many species he keeps in his tanks? Yes, he does not know because of the fish called "petersi". Aquarists normally will consider the "petersi species" to be an Aphyosemion. However, this fish does not look like any other species in Aphyosemion. It looks more like an Epiplatys. having cross bars in the female and immature specimens. No other Aphyosemion has cross bars of that type in females.

One of my odd hobbies concerning killifish is the collecting (copying) of original descriptions of killies from the various zoological literature. I have also collected descriptions of Epiplatys. Until now I have collected 40 different species descriptions of fish that possibly are Epiplatys. There are still 5 descriptions that I do not have. That makes about 45 different "species". As a non-zoologist, I am not able to synonymize and reduce the number of "species". I do not envy zoologists who, in the future, will have to bring order to this confused mess of insufficient information. There seems to be more of a desire to describe new species than to eliminate old ones. I have not been able to find general information or a survey on this genus. Therefore it is not possible to use scientific reviews of this group of fish to help the amateur, the "user of Epiplatys", the aquarist.

The Generic Name

The Epiplatys originated in 1862 when Gill described the "sexfasciatus" species. Dumeril's "*Poecilila*

spilargyreus" might be identical with the "sexfasciatus" species. The name Epiplatys however was not commonly used on the fish now considered as Epiplatys. These fish were usually placed in the huge group of Haplochilus containing also typical Aphyosemion, Aplocheilus, Aplocheilichthys, Pachypanchax, Oxyzygonectes, some Rivulus, some Hypsopanchax and even some Fundulus. In 1933 Myers (Copeia 1933) separated Epiplatys from the Haplochilus and listed 25 species that might be Epiplatys. However, he had only 4 species at hand. Since 1933 another 10 species (and subspecies) were described. That makes about 35 species (including subspecies). At least 6 species, described before 1933, are not listed by Myers, these are "spilargyreus" (Dumeril 1861), "decorsei" (Pellegrin 1904", "chinchoxcanus", "elberti", "flavus" (Ahl 1924), "jacobi" (Ahl 1928). The generic name Panchax was commonly used for Epiplatys up to 1933 and occasionally since that time. However, Epiplatys now seem to be the only name used on these fish.

The Various Species

"spilargyreus" (1861) does not occur in Myers paper in 1933, but the name is used by Poll (1941 together with "sexfasciatus"). Schultz in 1942 and Daget in 1951 use the name Epiplatys spilauchen (this possibly stands for Aplocheilichthys spilauchen). In 1923 Pellegrin also named Haplochilus spilargyreus, but also H. spilauchen. "sexfasciatus" (1862), "fasciolatus" (1866), "senegalensis" (1870), "bifasciatus" and "maroni" (1881), "chaperi" and "petersi" (1882), "singa" (1889), "decorsi" and "chevalieri" (1904), "ansorgei", "grahami", "longiventralis", "macrostigma" and "striatus" (1911), "annulatus" (1915), "chinchoxanus", "elberti", "flavus", "superbus", and "unicolour" (1924), "senegalensis acuticaudatus", "multifasciatus" and "nigrans" (1913), "boulengeri" (1926), "jacobi", "normani", "nyongensis" and "ornatus" (1928), plus "sangmelinensis", "zenkeri" (1928), "decemfasciata" (subspecies of "grahami"), "steindachneri" and "taeniatus" (1933). "baudoni" before 1933. "dorsalis" (1936), "nigromarginatus" (1938), "olbrechtsi" (1941), "matlocki", "ndelensis" and "stictopleuron" (1949), "melantereon" (1950), "duboisi" (1952), "dageti" and "sheljuzhkoi" (1953).

Dumeril, Gill, Gunther, Pfaff, and Svensson described one species (or subspecies) each, Sauvage 2 species, Steindachner 3 species, Fowler and Poll 4 species each, Pellegrin 6 species, Boulenger 9 species, and Ahl 13 species!

The Distribution Area

Compared with their relatives Aphyosemion, the genus Epiplatys spreads over a somewhat larger area of Africa:

Senegal has "senegalensis" found near the Senegal River at Dagana etc. and possibly also at other localities. Perhaps also "spilargyreus" is found in this country. "senegalensis" from here spreads along the West African coast (see later) down to the Congo River. Also this principal species spreads inland from Senegal through French West Africa at least represented by its close relatives in the "senegalensis" group. It reaches the Nile in Soudan (?).

Gambia has "senegalensis" and also the close relative (possibly), the "steindachneri" species.

French Soudan has "senegalensis" (Jebba) and also the possible close relative "taeniatus".

Sierra Leone, the northern limit for Aphyosemion (see pages before, and A. sjoestedti, found at Matca and other localities) has several Epiplatys: "bifasciatus", "annulatus", "chaperi", and "fasciolatus". "annulatus" was for example found at Matca.

Liberia has even more species. "bifasciatus" representing "senegalensis", "chaperi" (for example at Monrovia), "fasciolatus", "matlocki" (Robertsport), "melantereon" (Robertsport), and "sexfasciatus".

Ivory Coast has "chaperi", "fasciolatus", and "sexfasciatus" still present. Also "sheljuzhkoi", "dageti", and "olbrechtsi" are found in this country.

Ghana has "chaperi", "senegalensis", "petersi", and "decemfasciatus". Possibly also "fasciolatus" and "sexfasciatus".

Nigeria has "sexfasciatus" (Ibadan etc.), "grahami" (Lagos), "longiventralis" (Old Calabar, Agwarba-Awka), "senegalensis" (Old Calabar). Also (?) "flavus", "nigromarginatus", and "spilargyreus".

Cameroon has most of Ahl's species: "elberti" (Lebo River), "jacobi" (Lolodorf), "nyongensis" (Nyong River), "sangmelinensis" (Yaounde), "zenkeri" and still more doubtful "chinchoxanus" and "ornatus".

Gabon has "ansorgei", "nigrans" (both in the Ogooue basin), "sexfasciatus", "striatus", and "ornatus".

Congo has many species. A fine survey is found in Rev. Zool. Bot. Aft. vol. 45, 1952 by Dr. Max Poll: "Notes sur les Cyprinodontidae du Musee du Congo Belge: Les Rivulini". Poll also shows the distribution on a map.

Lower Congo (below Leopoldville) "macrostigma" (Chiloango, Boma), "strigatus" (Chiloango, also Ogooue Basin), "sexfasciatus" (Chiloango), "singa" (Boma, Leopoldville), "senegalensis" (Loepoldville to Kwamouth), "chevalieri" (Leopoldville, possibly endemic, according to Poll), "duboisi" (Stanley Pool).

Central Congo has two principal species: "multifasciatus" (including "boulengeri"? quite a lot of localities scattered all over the huge area), "nigrans" (also many localities and often found together with "multifasciatus"), "stictopleuron" from Oha, Congo Basin, I cannot find it on my map.

Ubanghi-Shari has "decorsi" (Ubanghi, Congo Basin) and "bifasciatus" (Bahr-el-Geleb, upper Nile and Bahr-el-Seraf, not on my map), "maroni" (same localities) and ??? "fasciatus".

It will not be possible to draw any clear impression on the distribution of this confused group of fish from the information that I found hitherto. In particular, the distribution (except inside the Congo Basin) inland and the limits eastwards are very unclear. However, the information on localities makes it clear that a few species have a very large distribution area. In particular this is true for the species "senegalensis" and its close relatives which may be "bifasciatus", "var. acuticaudatus", "maroni", "steindachneri", "taeniatus", but also perhaps "melantereon", "longiventralis" and some Aphyosemion

species ("liberiensis", "cameronensis" and the more doubtful "congicum"). Another principal species might be the "sexfasciatus" which also has a very large distribution area and also with many apparently closely related forms such as "fasciolatus", "chaperi", "multifasciatus", "nigrans", "dageti", and many others.

Are there any groups of closely related species? Some zoologists, in their descriptions, confirm an affinity or relationship between their species and the forms known at the time when the description was published. If this information is used "uncritically" for the whole genus at least some information on "groups" might be collected. Here are some principal zoological data:

species	**year**	**no**	**D**	**A**	**Li**	**Lt**	***1**	***2**	***3**	***4**	***5**	**mm**
acuticaudatus	1913	16	9-10	15-16	26-29	19-21	10	?	?	C	-	43
annulatus	1915	19	7	13	28-29	?	4	+	+	C	-	16
ansorgei	1911	11	11	16	30-31	18	-	-	-	-	-	70
bifasciatus	1881	5	6-7	15-16	27-28	16-18	-	+	+	C	2	46
boulengeri	1926	25	10-11	14-17	28-29	20-22	8-10	?	?	?	-	55
chaperi	1882	7	7-8	14-15	25-27	20	5-7	-	+	L	-	65
chevalieri	1904?	7-8	13-14	27-28	22	-	?	?	C	-	50	
chinchoxanus	1924	20	8	14	27	20	yes	+	+	C	-	40
dageti	1953	42	9	14-16	26,6	19-20	5-6	-	+	C	-	44
decorsi	1904	10	8-9	13-14	25-28	24-26	-	?	?	-	1	40
dorsalis	1936	34	14	18	28	20	-	+	+	-	-	80

duboisi	1952	41	9-10	14-16	25-26	18	--	-	-	C	-	30
elberti	1924	21	6-7	11-12	30-31	24	-	+	+	-	-	43
fasciolatus	1866	3	11-13	15-18	27-31	9-10	9	+	+	C	1	80
flavus	1924	22	7	14	29	22	-	+	+	C	-	40
grahami	1911	12	7-8	15-16	28-29	20-22	5-8	-	-	C	-	60
jacobi	1928	26	6-7	11-12	24-27	20-22	-	+	+	-	-	34
longiventralis	1911	13	9	15-16	25-27	20	many	-	-	-	-	55
macrostigma	1911	14	8-10	15-18	27-31	18-21	-	+	+	-	-	65
maroni	1881	6	8	14-15	27	17	?	?	?	?	?	?
matlocki	1949	37	8-9	17	25,3	16	9-11	-	-	C	1	68
melantereon	1950	40	7	10	29-31	14-16	-	-	-	C	1	25
multifasciatus	1913	17	9-10	15-17	27-30	20-24	6-7	?	?	C	-	62
nigrans	1913	18	9-10	15-16	28-29	20-22	?	?	?	C	2-3	55
nigromarginatus	1938	35	9	15-16	29-30	20	7-9	-	+	-	-	75
nyongensis	1928	27	7	13	28	20	-	+	+	C	1	55

olbrechtsi	1941	36	11-12	15-16	28-30	20-22	7-8	+	+	C	-	60
ornatus	1928	28	9	16	28	20	-	-	+	C	-	60
petersi	1882	8	9-10	14	29-31	21	6-8	-	-	-	-	60
sangmelinensis	1928	29	8	15	30	20	-	+	+	C	-	53
senegalensis	1870	4	7-9	15-17	25-30	20-22	10-13	?	+	C	1-2	52
sexfasciatus	1862	2	10-12	15-17	28-32	20-22	5-7	+	+	C	-	110
sheljuzhkoi	1953	43	11	16	30-32	21-22	0/5	+	+	-	-	59
singa	1899	9	8-9	14	27-28	20	-	-	-	E?	-	45
spilargyreus	1861	1	10-11	14-16	26-29	17-18	7-9	?	?	?	1	?
striatus	1911	15	9-11	13-15	30-31	20-22	-	+	+	U	-	38
taeniatus	1933	33	8	16	27	20	-	+	+	E?	2	40
unicolour	1924	21	9	12	26	20	-	+	+	C	-	39
zenkeri	1928	30	9	15-16	29-30	22	3-4	+	-	E	-	49

Key to the chart:
"no": seniority.
"D": rays in dorsal fin.
"A": rays in anal fin.
"Li": scales in a longitudinal series.
"Lt": scales round body in front of dorsal fin.
"*1": dark cross bars (0/5 = 0 in male/5 in female).

"*2": dorsal fin, rays produced in male ("+" = yes, "-" = no).
"*3": anal fin, rays produced in male.
"*4": caudal fin, rays produced (C = central rays, U = upper edge, L = lower edge, E = upper and lower edge, as in many Aphyosemion).
"*5": dark longitudinal bands.
"mm": measurement in millimeters, total length.

I have no data for "baudoni" (no?), "grahami decemfasciatus" (no 31), "ndelensis" (no 38), "normani" (no ?), "steindachneri" (no 32), and "stictopleuron" (no 39).

"Cross bars": 19 species or forms have distinct dark cross bars. As far as I know, no Aphyosemion has such dark cross bars. For example, the bars that we find in A. coeruleum are not cross bars in the same sense as in Epiplatys, but merely vertical rows of red or reddish brown points. It seems as if the cross bars often fade away in adult males, but they are always present in adult females. The "bifasciatus" species (Clausen's, see before) has no cross bars in females, whereas in the adult male these is some oblique light crossbars on the hindmost part of the body, between those bars there are oblique red lines. In my sole hybrid "sexfasciatus Ibadan father/chaperi old stock female" there are no distinct cross bars on the central part of the body. Only a frontal and a caudal peduncle band are normally present.

"Pin tail": many Epiplatys (males) have more or less elongated central rays in the caudal fin. Very few Aphyosemion have this character, at least not without also having pronounced upper and lower rays in that fin ("coeruleum", "filamentosum", etc.). In the best known Epiplatys, the "chaperi" species, the lower rays are produced (in connection with dark pigmentation, as we often find it in guppy, possibly it is a rule in Lebistes that a dark edge of the caudal fin always accompanies a "sword" at that edge of the fin). In Epiplatys the "pin tail" is also present in the females, not so in Aphyosemion.

"Pike head": many Epiplatys are rather pike-like, possibly because they are typical pike-like Epiplatys. "bifasciatus" (Clausen's stock) is somewhat pike-like, but not conspicuously. "duboisi" is not very pike-like. Drawings and photos of other species show us fish that are often but not always rather pike-like.

If in a most uncritical way one takes all information from the various descriptions in the affinity between species and plots this information on the paper, you will have this figure:

The "sexfasciatus" group (chart not available)

The "senegalensis" group (chart not available)

Also *E. decorsi* near *E. unicolour* and *Aphyosemion exiguum*, *E. flavus* near *Aphyosemion elegans* etc.

I know no rules by which aquarists may be able to distinguish between Epiplatys and Aphyosemion when the species concerned has no dark cross bars, not an obvious "pike head" or belongs to the Fundulopanchax group in Aphyosemion. Also the eggs do not give any answer. I have seen eggs from 4 different species of Epiplatys:
E. bifasciatus egg 1.2 mm yolk 1.0 mm, no color, membrane plain, long slimy filaments in 2 or more poles

E. chaperi egg 1.1 mm yolk 0.9 mm, no color, membrane has fine net structure, long slimy filaments in 1 pole
E. duboisi egg 1.1 mm no color, membrane has fine dots, long slimy filaments in 1 pole
E. petersi egg 1.25 mm mostly yellow, membrane plain, long slimy filaments in 1 pole
These eggs do not commonly differ from eggs of Aphyosemion.

Keeping Epiplatys

Some species, such as "chaperi", have no particular needs and these species are kept without any difficulties by the common aquarist. Other species ("duboisi" a.o.) seem to like soft water and are feeble in alkaline and/or hard water. All species take dry food as well as live food. Their temperature range is possibly greater than that of Aphyosemion because these fishes often live in a more open country. We badly need more species to work with as well as more information.