

A note on the recognition of genera *Amphilius* and *Anoplopterus* within mountain catfishes (Amphiliidae: Amphiliinae) of Africa

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A recently published chapter in a two-volume work on catfishes (Skelton & Page 2025; Arratia & Reis 2025) formerly recognized some previously proposed nomenclatural changes within the genus *Amphilius sensu lato* (Amphiliidae: Amphiliinae). These changes were proposed in an unpublished dissertation that split the catfishes in the subfamily Amphiliinae into two groups: one group broadly defined as being from “High Africa” and the other group found in “Low Africa” (Thomson 2013). A multi-locus molecular phylogeny and morphological characters supported the distinction between these groups. The Low Africa group has 6 + 7 or 7 + 8 principal caudal-fin rays and typically has fleshy crenulations at the base of the forked caudal fin (Fig. 1A). The High Africa group has 8 + 9 principal caudal-fin rays and lacks the fleshy crenulations at the base of the emarginate caudal fin (Fig. 1B). The Low Africa species are now recognized as *Amphilius* Günther, 1864, and the High Africa species are recognized as *Anoplopterus* Pfeffer, 1889 (Skelton & Page 2025). The change was also implemented in the revised guide to fishes in southern Africa (Skelton 2024). This guide also elevated *Anoplopterus brevidorsalis* (Pellegrin) and *Anoplopterus hargeri* (Boulenger) from synonymy with *Anoplopterus uranoscopus* Pfeffer and recognizes them as distinct species in southern Africa.



FIGURE 1. Characters used to distinguish typical species of *Amphilius* from *Anoplopterus*. Caudal fin region from *Amphilius crassus* (UF 170708, 59.2 mm SL) collected in the Divue River in Tanzania (A), and *Anoplopterus krefftii* (UF 170704, 63.7 mm SL) collected in Pangani River in Tanzania (B). Note the fleshy crenulations (arrow) at the base of the caudal fin in A that are lacking in B. The principal caudal-fin rays are also noted; 6 + 7 or 7 + 8 in *Amphilius* (A) versus 8 + 9 in species of *Anoplopterus* (B). Photographs by S. M. Arellano.

There are currently 42 species within *Amphilius* and *Anoplopterus* across continental Africa (Fricke *et al.* 2025; Table 1). Although several species were recently described by Thomson *et al.* (2015) and Mazungula & Chakona (2021), many more species remain to be formally described (Schmidt & Pezold 2011; Decru *et al.* 2020; Maetens *et al.* 2025). As some

researchers, especially those in African countries, may not have access to the chapter published by Skelton & Page (2025), this note serves to highlight the morphological differences between these two genera and provides a current list of the valid species in *Amphilius* and *Anoplopterus* (Table 1). Full diagnoses of these genera and the subfamily Amphiliinae can be found in Skelton & Page (2025).

TABLE 1. Valid species of *Amphilius* and *Anoplopterus* following Skelton and Page (2025).

Valid name	Authority	Synonyms
<i>Amphilius</i> (n=24)		
<i>Amphilius atesuensis</i>	Boulenger	<i>Amphilius pictus</i> Nichols & LaMonte
<i>Amphilius brevis</i>	Boulenger	<i>Amphilius nigricaudatus multipunctata</i> Pellegrin
<i>Amphilius caudosignatus</i>	Skelton	
<i>Amphilius crassus</i>	Thomson & Hilber	
<i>Amphilius dimonikensis</i>	Skelton	
<i>Amphilius frieli</i>	Thomson & Page	
<i>Amphilius grammatophorus</i>	Pellegrin	
<i>Amphilius jacksonii</i>	Boulenger	
<i>Amphilius kakrimensis</i>	Teugels, Skelton, & Lévêque	
<i>Amphilius korupi</i>	Skelton	
<i>Amphilius lamani</i>	Lönnberg & Rendahl	
<i>Amphilius lentiginosus</i>	Trewavas	
<i>Amphilius longirostris</i>	(Boulenger)	
<i>Amphilius lujani</i>	Thomson & Page	
<i>Amphilius maesii</i>	Boulenger	
<i>Amphilius mamonekenensis</i>	Skelton	
<i>Amphilius nigricaudatus</i>	Pellegrin	
<i>Amphilius opisthophthalmus</i>	Boulenger	
<i>Amphilius pagei</i>	Thomson & Swartz	
<i>Amphilius pedunculus</i>	Thomson & Page	
<i>Amphilius platychir</i>	(Günther)	<i>Amphilius grammatophorus brevipinna</i> Pellegrin <i>Amphilius grammatophorus inaequalis</i> Pellegrin <i>Amphilius grammatophorus marmoratus</i> Daget
<i>Amphilius pulcher</i>	Pellegrin	<i>Amphilius pulcher ephippiata</i> Pellgrin
<i>Amphilius rheophilus</i>	Daget	
<i>Amphilius ruziicensis</i>	Thomson & Page	
<i>Anoplopterus</i> (n=18)		
<i>Anoplopterus athiensis</i>	(Thomson & Page)	
<i>Anoplopterus brevidorsalis</i>	(Pellegrin)	
<i>Anoplopterus chalei</i>	(Seegers)	
<i>Anoplopterus cryptobullatus</i>	(Skelton)	
<i>Anoplopterus cubangoensis</i>	(Pellegrin)	
<i>Anoplopterus engelbrechti</i>	(Mazungula & Chakona)	

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TABLE 1. (Continued)

Valid name	Authority	Synonyms
<i>Anoplopterus grandis</i>	(Boulenger)	
		<i>Anoplopterus oxyrhinus</i> (Boulenger)
<i>Anoplopterus hageri</i>	(Boulenger)	
<i>Anoplopterus kivuensis</i>	(Pellegrin)	
<i>Anoplopterus krefftii</i>	(Boulenger)	
<i>Anoplopterus lampei</i>	(Pietschmann)	
<i>Anoplopterus laticaudatus</i>	(Skelton)	
<i>Anoplopterus leopardus</i>	(Mazungula & Chakona)	
<i>Anoplopterus marshalli</i>	(Mazungula & Chakona)	
<i>Anoplopterus natalensis</i>	(Boulenger)	
<i>Anoplopterus uranoscopus</i>	Pfeffer	
		<i>Anoplopterus leroyi</i> (Vaillant)
<i>Anoplopterus zairensis</i>	(Skelton)	
<i>Anoplopterus zuluorum</i>	(Mazungula & Chakona)	

Key for genera within Amphiliinae

- Fleshy crenulations present at base of caudal fin, crenulations may have free margins or be attached to base of caudal fin; 6 + 7 or 7 + 8 principal caudal-fin rays (Fig. 1A) *Amphilius* Günther, 1864.
Species of *Amphilius* listed in Table 1. Species of *Amphilius* occur throughout West and Central Africa, including the Congo River basin, in East Africa in the African Great Lakes basins, and in upper reaches of rivers in the East Coast ichthyofaunal region.
- Fleshy crenulations absent from base of caudal fin (versus present); 8 + 9 principal caudal-fin rays (Fig. 1B).
. *Anoplopterus* Pfeffer, 1889.
Species of *Anoplopterus* listed in Table 1. Species of *Anoplopterus* occur in eastern and southern Africa from the Shebelle River in Ethiopia and Somalia to the eMkhomazi River in KwaZulu-Natal, South Africa. A few species of *Anoplopterus* also occur in the Congo River basin.

References

- Arratia, G. & Reis, R.E. (Eds.) (2025) *Catfishes, a Highly Diversified Group. Vol. 2. Evolution and Phylogeny*. CRC Press, Boca Raton, Florida, 375 pp.
<https://doi.org/10.1201/9781003374312>
- Decru, E., Vranken, N., Bragança, P.H., Snoeks, J. & Van Steenberge, M. (2020) Where ichthyofaunal provinces meet: the fish fauna of the Lake Edward system, East Africa. *Journal of Fish Biology*, 96 (5), 1186–1201.
<https://doi.org/10.1111/jfb.13992>
- Fricke, R., Eschmeyer, W.N. & Van der Laan, R. (Eds.) (2025) *Eschmeyer's Catalog of Fishes: Genera, Species, References*. Available from: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (accessed 6 November 2025)
- Günther, A. (1864) Catalogue of the Physostomi, containing the families Siluridae, Characinidae, Haplochitonidae, Sternoptychidae, Scopelidae, Stomiatidae in the collection of the British Museum. *Catalogue of the fishes in the British Museum*, 5, 1–455.
- Maetens, H., Mukungilwa, P.N., Kasangaki, A., Boom, A., Nshimiyumuremyi, T., Munyandamutsa, P.S., Clausnitzer, V., Vranken, N., Snoeks, J., & Van Steenberge, M. (2025) An ichthyological borderland: The fishfauna of Nyungwe National Park and surroundings (Rwanda, East Africa). *Journal of Fish Biology*. [early view]
<https://doi.org/10.1111/jfb.70185>
- Mazungula, D.N. & Chakona, A. (2021) An integrative taxonomic review of the Natal mountain catfish, *Amphilius natalensis* Boulenger 1917 (Siluriformes, Amphiliidae), with description of four new species. *Journal of Fish Biology*, 99 (1), 219–239.
<https://doi.org/10.1111/jfb.14714>
- Pfeffer, G. (1889) Übersicht der von Herrn Dr. Franz Stuhlmann in Ägypten, auf Sansibar und dem gegenüberliegenden Festlande gesammelten Reptilien, Amphibien, Fische, Mollusken und Krebse. Verlag von L. Gräfe. *Jahrbuch der Hamburgischen Wissenschaftlichen Anstalten*, 6, 1–36.

- Schmidt, R.C. & Pezold, F. (2011) Morphometric and molecular variation in mountain catfishes (Amphiliidae: *Amphilius*) in Guinea, West Africa. *Journal of Natural History*, 45 (9–10), 521–552.
<https://doi.org/10.1080/00222933.2010.534560>
- Skelton, P.H. (2024) *Freshwater fishes of southern Africa, A Complete Guide*. Struik Nature, Cape Town, 388 pp.
- Skelton, P.H. & Page, L.M. (2025) Phylogeny and classification of loach catfishes, Amphiliidae. In: Arratia, G. & Reis, R.E. (Eds.), *Catfishes, a Highly Diversified Group. Vol. 2. Evolution and Phylogeny*. CRC Press, Boca Raton, Florida, pp. 310–327.
<https://doi.org/10.1201/9781003374312-19>
- Thomson, A.W. (2013) *Systematics of the African catfish family Amphiliidae (Teleostei: Siluriformes)*. PhD Dissertation, University of Florida, Gainesville, Florida, 214 pp.
- Thomson, A.W., Page, L.M. & Hilber, S.A. (2015) Revision of the *Amphilius jacksonii* complex (Siluriformes: Amphiliidae), with the descriptions of five new species. *Zootaxa*, 3986 (1), 61–87.
<https://doi.org/10.11646/zootaxa.3986.1.3>