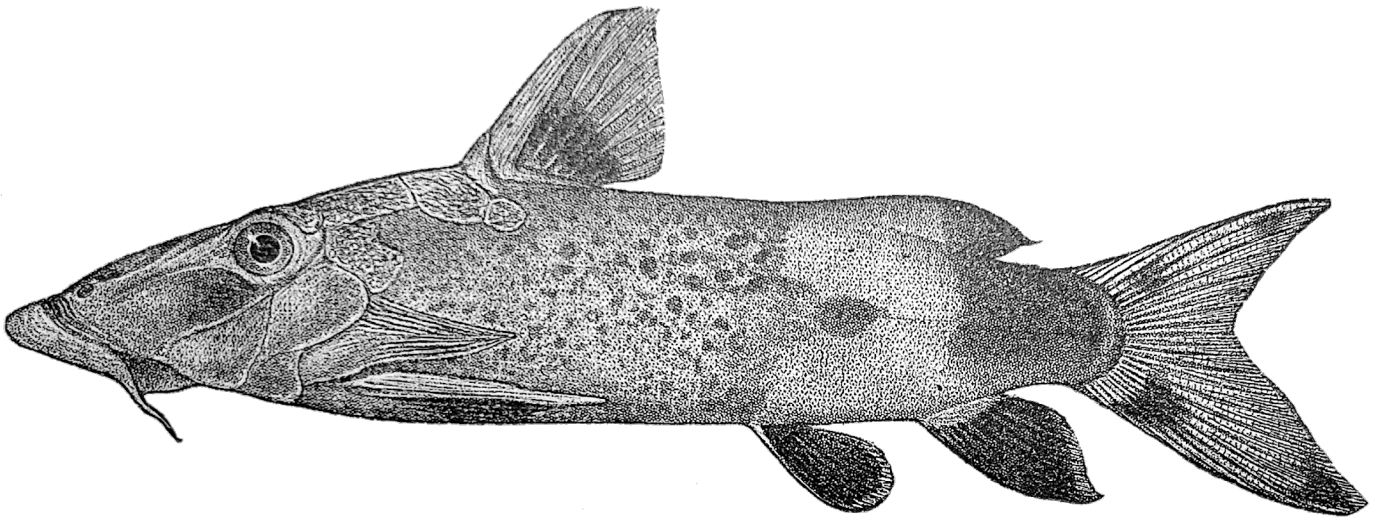
Order SILURIFORMES

Squeakers or Upside-down Catfishes

Family **MOCHOKIDAE**

Regan 1912



Atopochilus christyi. From: Boulenger, G. A. 1920. Poissons recueillis au Congo Belge par l'expédition du Dr C. Christy. (Matériaux pour la Faune du Congo.). Annales du Musée du Congo Belge Sér. C (Zoologie) (Sér. 1) 2 (fasc. 4): 1–38, Pls. 23–25.

African Suckermouth Catfishes

Subfamily CHILOGLANIDINAE

Vigliotta 2008

Atopochilus

Sauvage 1879

átopos (ἄτοπος), strange, anomalous or out of place; *cheílos* (χεῖλος), lip, referring to unusual oral morphology of *A. savorgnani* (thick lips that form a large sucking disc)

Atopochilus chabanaudi **Pellegrin 1938** in honor of French ichthyologist-herpetologist Paul Chabanaud (1876–1959), Preparator of Fishes, Muséum national d'Histoire naturelle (Paris)

Atopochilus christyi **Boulenger 1920** in honor of Cuthbert Christy (1863–1932), English physician (specializing in sleeping sickness), zoologist, explorer, and Director of the Congo Museum (Tervuren, Belgium), who collected holotype

Atopochilus macrocephalus **Boulenger 1906** big-headed, from *makrós* (μακρός), long or large, and *kephalḗ* (κεφαλή), head, referring to its longer head compared with *A. savorgnani*

Atopochilus mandevillei **Poll 1959** in honor of J. Th. Mandeville, fisheries agent, government of Leopoldville (now Kinshasa, Democratic Republic of the Congo), who collected some of the paratypes

Atopochilus pachychilus **Pellegrin 1924** *pachýs* (παχύς), thick or stout; *chilus*, from *cheílos* (χεῖλος), lip, referring to its thick lips, which form an oral disc

Atopochilus savorgnani **Sauvage 1879** in honor of Italian explorer Pietro Paolo Savorgnan di Brazzà (1852–1905), who explored the Ogooué River of Gabon (type locality); under French colonial rule, the capital of the Republic of the Congo was named Brazzaville after him and retained by post-colonial rulers

Atopochilus vogti **Pellegrin 1922** in honor of monsignor Franz Xaver Vogt (1870–1943), German Catholic Missionary, Bagamoyo, German East Africa (now Tanzania), who sent holotype to the Muséum national d'Histoire naturelle (Paris)

Atopodontus

Friel & Vigliotta 2008

átopos (ἄτοπος), strange, anomalous or out of place; *odontus*, Neo-Latin scientific adjective derived from *odoús* (ὀδούς), tooth, referring to unusual mandibular dentition (mandibular teeth arranged in three or more straight transverse rows)

Atopodontus adriaensi **Friel & Vigliotta 2008** in honor of Belgian biologist Dominique Adriaens (b. 1970), University of Ghent, who brought the existence of this species to the authors' attention

Atopodontus adriaensi, holotype, male, 59.4 mm SL. Photo by Thomas R. Vigliotta. From: Friel, J. P. and T. R. Vigliotta. 2008. Atopodontus adriaensi, a new genus and species of African suckermouth catfish from the Ogooué and Nyanga River systems of Gabon (Siluriformes: Mochokidae). Proceedings of the Academy of Natural Sciences of Philadelphia 157: 13–23.

Chiloglanis

Peters 1868

cheílos (χεῖλος), lip, referring to sucking disc formed by the lips, an adaptation to life in strong currents; *glánis* (γλάνις), ancient name for a silurid catfish (probably *Silurus aristotelis*) dating to Aristotle, often used as a general term for catfish

Chiloglanis angolensis **Poll 1967** *-ensis*, Latin suffix denoting place: Angola, where it is endemic

Chiloglanis anoterus **Crass 1960** *anóteros* (ανώτερος), higher, occurring at higher altitudes than other Natal species of *Chiloglanis*

Chiloglanis asperocutis **Mutizwa, Bragança & Chakona 2025** *asper* (L.), rough; *cutis* (L.), skin, referring to distinct ridges on the skin (more pronounced on the head dorsum), characteristic of this species

Chiloglanis asymetricaudalis **De Vos 1993** *asymmetrica* (L.), *asymé-*

trique in French; *caudalis* (L.), of the tail, referring to its forked asymmetrical caudal fin, the upper lobe longer than the lower

Chiloglanis batesii **Boulenger 1904** in honor of George Latimer Bates (1863–1940), Cameroon farmer and ornithologist, who collected specimens for the Natural History Museum (London), including holotype of this species

Chiloglanis benuensis **Daget & Stauch 1963** *-ensis*, Latin suffix denoting place: Bénoué at Lakdo, Cameroon, type locality

Chiloglanis bifurcus **Jubb & Le Roux 1969** Latin for two-pronged, referring to shape of caudal fin, "forked with large lobes"

Chiloglanis brevibarbis **Boulenger 1902** *brevis* (L.), short; *barbis* (scientific Neo-Latin), barbel, referring to shorter barbels compared to *C. deckenii* and *C. niloticus*

Chiloglanis camarabounyi **Schmidt & Bart 2017** named for Camara-Bounyi, Guinean village adjacent to type locality; residents generously allowed access to the river, assisted with collecting, and the children provided the common name "Fanye Makonyi," i.e., "the fish that bites people," likely referring to its sharp pectoral- and dorsal-fin spines and associated venom

Chiloglanis cameronensis **Boulenger 1904** *-ensis*, Latin suffix denoting place: Cameroon, where type locality (Efulen) is situated

Chiloglanis carnatus **Mutizwa, Bragança & Chakona 2024** Latin for fleshy, referring to dermal tissue covering dorsal-fin base of some larger specimens, and its general robust body structure compared with its regional congeners

Chiloglanis carnosus **Roberts & Stewart 1976** Latin for fleshy, presumably referring to the general appearance of its body

Chiloglanis compactus **Mutizwa, Bragança & Chakona 2025** Latin for compact (i.e., small), referring to its short and rotund body shape and to its being the smallest of all currently known congeners in southern Africa

Chiloglanis congicus **Boulenger 1920** *-icus* (L.), belonging to: the Congo Basin (Stanley Falls), type locality

Chiloglanis deckenii **Peters 1868** in honor of Karl Klaus von der Decken (1833–1865), German explorer who collected holotype

Chiloglanis devosi **Schmidt, Bart & Nyingi 2015** in honor of the late Luc DeVos (1957–2003), Belgian ichthyologist and director of the Ichthyology Section at the National Museums of Kenya, who was instrumental in establishing its collection and building it into a regional and internationally invaluable collection, and who was partly responsible for discovering and recognizing this species and *C. kerioensis* as distinct

Chiloglanis dialloi **Schmidt & Pezold 2017** in honor of Guinean fisheries biologist Samba Diallo, who provided logistical support and assisted in the field during the 2003 and 2013 expeditions; his efforts are largely responsible for the success of the expeditions and the subsequent descriptions of nine new species of *Chiloglanis*, including this one

Chiloglanis disneyi **Trewavas 1974** in honor of British medical entomologist Ronald Henry Lambert Disney (b. 1938), who collected holotype

Chiloglanis elisabethianus **Boulenger 1915** *-anus* (L.), belonging to: Élisabethville (now Lubumbashi), Democratic Republic of the Congo, type locality

Chiloglanis emarginatus **Jubb & Le Roux 1969** Latin for deprived of its edge, referring to its emarginate (having a notched tip or edge) caudal fin, compared with deeply forked caudal fin of *C. bifurcus*

Chiloglanis fasciatus **Pellegrin 1936** Latin or banded, referring to "traces" of five blackish bands on body

Chiloglanis fortuitus **Schmidt, Bragança & Tweddle 2023** Latin for happening by chance, referring to the "fortuitous aspect" of collecting the only known specimen, and its "discovery" in a lot of specimens borrowed by the first author to aid with the description of *C. tweddlei* in 2017

Chiloglanis frodobagginsi **Schmidt, Friel, Bart & Pezold 2023** in honor of another "diminutive traveler," Frodo Baggins, a character from Tolkien's "Lord of the Rings" series, who journeyed ~2897 km in 185 days, referring to how this species (Congo River basin) may have descended from *C. micropogon* (Niger River drainage), a distance of ~4,800 km, an "incredible journey for such a small and seemingly non-vagile" group of fishes

Chiloglanis harbinger **Roberts 1989** Middle English word meaning omen or precursor, referring to large number of teeth *Atopochilus* and *Euchilichthys*, a condition presaged or foreshadowed in this species of *Chiloglanis*

Chiloglanis igamba **Friel & Vigliotta 2011** named for Igamba Falls, Lower Malagarasi River, Tanzania, type locality

Chiloglanis kabaensis **Schmidt & Friel 2017** *-ensis*, Latin suffix denoting place: Kaba River drainage, Guinea (and likely Sierra Leone), where it is endemic

Chiloglanis kalambo **Seegers 1996** named for the upper Kalambo River basin, western Tanzania, where it is endemic

Chiloglanis kazumbei **Friel & Vigliotta 2011** in honor of George Kazumbe, an "expert fisherman and friend" from Kigoma, Tanzania, who assisted the authors and several of their colleagues during their fieldwork

Chiloglanis kerioensis **Schmidt, Bart & Nyingi 2015** *-ensis*, Latin suffix denoting place: Kerio River, Lake Turkana basin, Kenya, where it is believed to be endemic

Chiloglanis kinsuka **Vigliotta, Friel & Stiassny 2025** named for the Kinsuka rapids, Democratic Republic of the Congo, type locality

Chiloglanis kolente **Schmidt & Bart 2017** named for the Kolenté River drainage, Guinea, where it is endemic

Chiloglanis lamottei **Daget 1948** in honor of French biologist Maxime Lamotte (1920–2007), who collected holotype

Chiloglanis loffabrevum **Schmidt & Pezold 2017** *loffa*, referring to Loffa River, Guinea, where it is endemic; *brevum*, unnecessary masculinization of *brevis* (L.), short, referring to its short pectoral-fin spines

Chiloglanis longibarbis **Schmidt & Friel 2017** *longus* (L.), long; *barbis*, (scientific Neo-Latin), barbel, referring to its long maxillary and mandibular barbels

Chiloglanis lufirae **Poll 1976** of the Lufirae River system, Democratic Republic of the Congo, where it is endemic

Chiloglanis lukugae **Poll 1944** of Lukuga, mistakenly referring to the Lukuga River drainage, the only outlet of Lake Tanganyika (type locality is Luvua River drainage, which Poll corrected in a later publication)

Chiloglanis macropterus **Poll & Stewart 1975** large-finned, from *makrós* (μακρός), long or large, and *pterus*, from *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, referring to its very large fins ("très grandes nageoires")

Chiloglanis marlieri **Poll 1952** in honor of Belgian zoologist Georges Marlier (1898–1968), director of IRSAC (Institut pour la Recherche Scientifique en Afrique Centrale) at Lake Tanganyika, who collected type

Chiloglanis mbozi **Seegers 1996** referring to a stream draining the Mbozi block between Mbozi and Tunduma, Tanzania, type locality

Chiloglanis micropogon **Poll 1952** *micro-*, from *mikrós* (μικρός), small; *pōgōn* (πώγων), beard, referring to its short maxillary barbels, about as long as diameter of eye

Chiloglanis microps **Matthes 1965** *micro-*, from *mikrós* (μικρός), small; *ōps* (ὦψ), eye, referring to its "miniscule" eyes

Chiloglanis modjensis **Boulenger 1904** *-ensis*, Latin suffix denoting place: Modjo River, Ethiopia, type locality

Chiloglanis mongoensis **Schmidt & Barrientos 2019** *-ensis*, Latin suffix denoting place: Rio Mongo, a tributary to the Rio Wele, Equatorial Guinea, where it is presumed to be endemic

Chiloglanis msirii **Kashindye, Manda, Friel, Chakona & Vreven 2021** in honor of King Mwenda Msiri Ngelengwa (1830–1891), who founded and ruled the Yeke Kingdom of South-East Katanga, now Democratic Republic of the Congo (where this catfish occurs), from about 1856 to 1891 and was murdered for resisting Belgian colonial rule in his area; name is dedicated "in acknowledgment and in honour of his service and defence of the integrity of his people"

Chiloglanis neumanni **Boulenger 1911** in honor of German ornithologist Oskar Neumann (1867–1946), who collected holotype

Chiloglanis niger **Roberts 1989** referring to both the Niger River basin of Cameroon, where it is endemic, and the Latin word for dark or black, referring to "uniformly dark, almost black" coloration in life

Chiloglanis niloticus **Boulenger 1900** *-icus* (L.), belonging to: Nile River, referring to Arko Island, Sudan (type locality), an island on the Nile

Chiloglanis normani **Pellegrin 1933** in honor of English ichthyologist J. R. (John Roxborough) Norman (1898–1944), British Museum (Natural History), who described the similar *C. polyodon* in 1932

Chiloglanis nzerekore **Schmidt & Pezold 2017** named for the Nzérékoré prefecture in southeastern Guinea, where it occurs

Chiloglanis occidentalis **Pellegrin 1933** Latin for western, referring to its westernly distribution compared to congeners known at the time

Chiloglanis orthodontus **Friel & Vigliotta 2011** *orthós* (ὀρθός), straight or erect; *odontus*, Neo-Latin scientific adjective derived from *odoús* (ὀδούς), tooth, referring to its mandibular dentition, which is relatively straight and evenly spread across dentary as compared to most congeners

Chiloglanis paratus **Crass 1960** Latin for prepared or equipped, apparently a key word in the family motto of T. G. Fraser (Natal Parks, Game and Fish Preservation Board), "whose enthusiastic efforts have brought in much useful material"

Chiloglanis pezoldi **Schmidt & Bart 2017** in honor of Frank Pezold, Texas A&M University-Corpus Christi, who led 2003 Guinea expeditions that collected this species and others; he initiated Schmidt's research on fishes from the area and continues to work in the region

Chiloglanis pojeri **Poll 1944** in honor of Dr. G. Pojer, a Belgian scientist (no other information available), who collected holotype

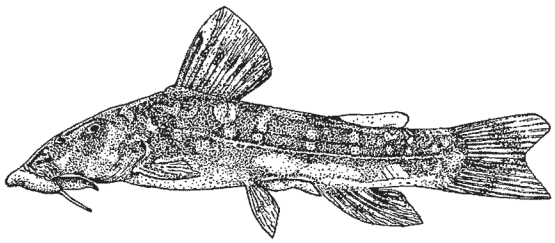
Chiloglanis polyodon **Norman 1932** *polý* (πολύ), many; *odon*, from *odoús* (ὀδούς), tooth, presumably referring to number of teeth (85–90) in the lower jaw

Chiloglanis polypogon **Roberts 1989** *polý* (πολύ), many; *pōgōn* (πώγων), beard, referring to its 3–5 auxiliary mental barbels on one or both sides of lower lip

Chiloglanis pretoriae **van der Horst 1931** of Pretoria District, Transvaal (now Gauteng), South Africa, type locality

Chiloglanis productus **Ng & Bailey 2006** Latin for lengthened or prolonged, referring to the longer caudal fin of males

Chiloglanis reticulatus **Roberts 1989** Latin for net-like or netted, referring to "reticulum or network" of well-developed tuberculated epidermal ridges on head and body of larger specimens



Chiloglanis pretoriae. From: van der Horst, C. J. 1931. Some South African siluroid fishes. Annals of the Transvaal Museum 14 (3): 246–250.

Chiloglanis rukwaensis **Seegers 1996** *-ensis*, Latin suffix denoting place: Lake Rukwa drainage, Tanzania, where it is endemic

Chiloglanis ruziziensis **De Vos 1993** *-ensis*, Latin suffix denoting place: Ruzizi River basin, Lake Tanganyika drainage, eastern Africa, where it is endemic

Chiloglanis sanagaensis **Roberts 1989** *-ensis*, Latin suffix denoting place: Sanaga River basin, Cameroon, type locality

Chiloglanis sardinhai **Ladiges & Voelker 1961** in honor of the authors' sponsor and companion, forestry engineer Augusto Manuel Sardinha

Chiloglanis somereni **Whitehead 1958** in honor of Vernon Donald van Someren (1915–1962), zoologist and Senior Research Officer, Ministry of Forest Development, Game and Fisheries, Nairobi, Kenya, where Whitehead was affiliated at the time

Chiloglanis swierstrai **van der Horst 1931** patronym not identified, probably in honor of Cornelis Jacobus Swierstra (1874–1952), a Dutch-born South African entomologist, who, per Jubb (1967)[1], collected holotype

Chiloglanis trilobatus **Seegers 1996** *tri-* (L.), three; *lobatus* (L.), lobed, referring to three lobes on caudal fin

Chiloglanis tweddlei **Schmidt & Friel 2017** in honor of Denis Tweddle (b. 1949), Honorary Research Associate at South African Institute for Aquatic Biodiversity, who collected most of the type material, for his ongoing contributions to ichthyological research in Africa

Chiloglanis voltae **Daget & Stauch 1963** of the Volta River system (Burkina Faso, Ghana), where it occurs (also occurs the upper Bénoué River system in Nigeria and Cameroon)

Chiloglanis wagenia **Vigliotta, Friel & Stiassny 2025** named for Wagenia Falls, Democratic Republic of the Congo, type locality

Chiloglanis waterloti **Daget 1954** in honor of Georges Waterlot (1877–1939), who collected specimens for the Muséum national d'Histoire naturelle (Paris) in French West Africa and Madagascar, including holotype of this species

Euchilichthys

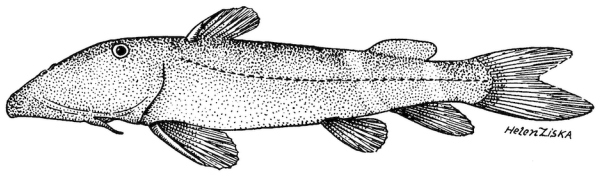
Boulenger 1900

eŭ- (εὖ), well or very, and *chil-*, from *cheílos* (χεῖλος), lip, referring to their papillate, well-developed lips; *ichthýs* (ἰχθύς), fish

Euchilichthys astatodon **(Pellegrin 1928)** *ástatos* (ἄστατος), unstable; *odon*, from *odoús* (ὀδούς), tooth, referring to the variability of its teeth (a combination of uni- and bicuspid teeth)

Euchilichthys boulengeri **Nichols & La Monte 1934** patronym not identified but clearly in honor omfBelgian-born Britishmichthyologist-herpetologist George A. Boulenger (1858–1937), British Museum (Natural History), who proposed the genus in 1900

Euchilichthys dybowskii **(Vaillant 1892)** in honor of Jean Dybowski (1856-1928), French–Polish agronomist, naturalist and explorer, who collected holotype



Euchilichthys boulengeri, holotype, male, 95 mm SL. Illustration by Helen Ziska. From: Nichols, J. T. and F. R. LaMonte 1934. More new fishes from the Kasai district of the Belgian Congo. American Museum Novitates No. 723: 1–6.

[1] Jubb, R.A. 1967. Freshwater fishes of Southern Africa. Cape Town: A. A. Baljema. vii + 248 pp + 15 plates.

***Euchilichthys guentheri* (Schilthuis 1891)** patronym not identified but clearly in honor of German-born British ichthyologist-herpetologist Albert Günther (1830–1914), British Museum (Natural History)

***Euchilichthys royauxi* Boulenger 1902** in honor of Capt. Louis-Joseph Royaux (1866–1936), who led expedition during which holotype was collected and supplied indigenous names of the species collected

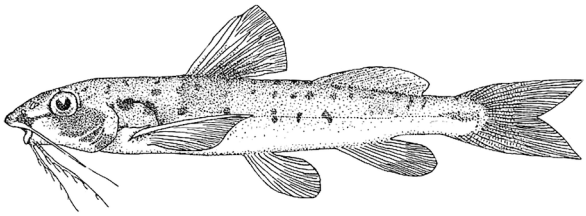
Squeakers or Upside-down Catfishes
Subfamily MOCHOKINAE
Regan 1912

Acanthocleithron

Nichols & Griscom 1917

acanthus (L.), from *ákantha* (ἄκανθα), thorn; *cleithron*, from *kleíthron* (κλεῖθρον), cleithrum (main element of dermal shoulder girdle), referring to spinous projection above base of pectoral spine

***Acanthocleithron chapini* Nichols & Griscom 1917** in honor of American ornithologist James Paul Chapin (1889–1964), joint leader of the Lang-Chapin expedition to the Congo during which holotype was collected



Acanthocleithron chapini, holotype, 55 mm SL. Illustration by Douglas B. Whitney. From: Nichols, J. T. and L. Griscom. 1917. Fresh-water fishes of the Congo basin obtained by the American Museum Congo expedition, 1909–1915. Bulletin of the American Museum of Natural History 37 (25): 653–756, Pls. 64–83.

Microsynodontis

Boulenger 1903

micro-, from *mikrós* (μικρός), small, referring to small size of *M. batesii* (10 cm TL), i.e., a small *Synodontis*

***Microsynodontis armatus* Ng 2004** Latin for armed with a weapon, referring to antrorse (distally directed) and retrorse (proximally directed) serrations on anterior edge of pectoral spine, unique to this species

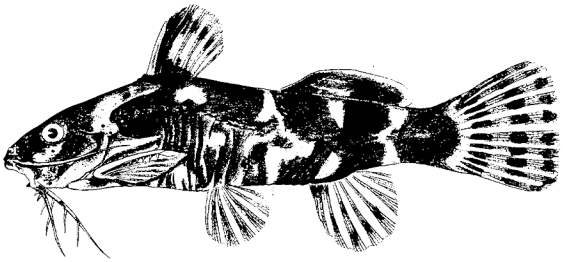
***Microsynodontis batesii* Boulenger 1903** in honor of George Latimer Bates (1863–1940), Cameroon farmer and ornithologist, who collected specimens for the Natural History Museum (London), including holotype of this species

***Microsynodontis christyi* Boulenger 1920** in honor of Cuthbert Christy (1863–1932), English physician (specializing in sleeping sickness), zoologist, explorer, and Director of the Congo Museum (Tervuren, Belgium), who collected holotype

***Microsynodontis emarginata* Ng 2004** Latin for notched at the apex, referring to distinctive emarginate shape of caudal fin

***Microsynodontis hirsuta* Ng 2004** Latin for hairy, referring to long tubercles on dorsal and lateral surfaces of head, giving it a "somewhat hairy appearance"

***Microsynodontis laevigata* Ng 2004** Latin for smooth, referring to smooth anterior edge of pectoral spine



Microsynodontis lamberti, holotype, 44 mm TL. From: Poll, M. and J.-P. Gosse. 1963. Contribution à l'étude systématique de la faune ichthyologique du Congo Central. Annales, Musée Royal de l'Afrique Centrale, Tervuren, Série in 8o, Sciences Zoologiques 116: 43–101, Pls. 1–4.

***Microsynodontis lamberti* Poll & Gosse 1963** in honor of Poll's frequent collaborator, Belgian ichthyologist and botanist Jacques G. Lambert (1923–2013), "well-versed in many genera of African fishes" (translation)

***Microsynodontis nannoculus* Ng 2004** *nánnos* (νάννος), dwarf; *oculus* (L.), eye, referring to its small eye, the smallest in the genus

***Microsynodontis nasutus* Ng 2004** Latin or large-nosed, referring to its snout, the longest in the genus

***Microsynodontis notata* Ng 2004** Latin for marked, referring to dark-brown elongate spots frequently present on body

***Microsynodontis polli* Lambert 1958** in honor of Belgian ichthyologist Max Poll (1908–1991), Curator, Musée de Congo Belge (Tervuren), whose help and advice guided Lambert in his early ichthyological work

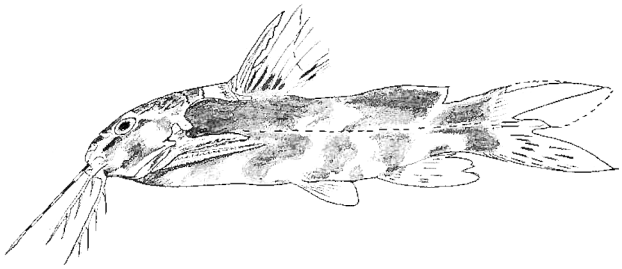
***Microsynodontis vigilis* Ng 2004** Latin for alert or watchful, referring to its relatively large eyes

Mochokiella

Howes 1980

-ella (L.), a diminutive, referring to dwarf size of *M. paynei*, i.e., a small mochokid

***Mochokiella paynei* Howes 1980** in honor of fisheries biologist A. Ian Payne, University of Sierra Leone, who collected holotype



Mochokiella paynei. From: Howes, G. J. 1980. A new catfish from Sierra Leone. Bulletin of the British Museum (Natural History) Zoology 38 (3): 165–170.

Mochokus

Joannis 1835

Latinization of *Mouchchouéké*, Arabic name for *M. niloticus*, roughly translating as "don't get stung or jabbed by it," referring to its dangerously sharp spines, which local fishermen try to avoid

***Mochokus brevis* Boulenger 1906** Latin for short, referring to shorter caudal part of body compared to *M. niloticus*

***Mochokus niloticus* Joannis 1835** *-icus* (L.), belonging to: Nile River near Thebes, Egypt, type locality

Mochokus niloticus. From: Joannis, L. de. 1835. Observations sur les poissons du Nil, et description de plusieurs espèces nouvelles. Magasin de Zoologie 1835 (5 anneé): 53 pp. numbered as Classe IV, Pls. 1–15.

Synodontis

Cuvier 1816

synodontís (συνοδοντίς), an "ancient [Greek] name for an undetermined fish from the Nile" (translation), apparently reflecting Geoffroy St. Hilaire's 1809 description of *Pimelodus synodontis* (=*Synodontis clarias*), in which he likely borrowed the name from a list of Nile fishes compiled by the Greco-Egyptian author Athenaeus in his *Deipnosophistae* (ca. 200 AD); Grant (2026) posits that the name is

derived from *syn-* (συν), together or joined, and *odoús* (ὀδούς), tooth, reflecting the presumed etymology of *Synodus synodus* (Synodontidae) and referring to the "close formation of the teeth" of *S. clarias*, but, based on separate entries in Thompson (1947), συνόδους (Greek) and συνοδοντίς (perhaps of Coptic-Egyptian origin) do not appear to be etymologically related[2] [συνοδοντίς is a feminine noun but the name has historically been treated as masculine]

Synodontis abditus **De Weirdt, Huyghe & Vreven 2021** Latin for hidden, refers to the hitherto "hidden" existence of this species, being both similar to and misidentified as *S. haugi* in the past, and hence "hidden in collections" for over 20 years

Synodontis acanthomias **Boulenger 1899** *acantho-*, from *ákantha* (ἄκανθα), thorn; *omias*, perhaps from *hṓmos* (ὦμος), shoulder or humerus, referring to humeral process armed with spines; name may also refer to *S. omias*, to which this species had incorrectly been identified

Synodontis acanthoperca **Friel & Vigliotta 2006** combination of *acantho-*, from *ákantha* (ἄκανθα), thorn, and *opercul*, truncation of *operculum* (L.), cover or lid, referring to distinctive opercular spines developed by mature males (apparently treated by the authors as a feminine adjective; the gender of *Synodontis*, usually treated as masculine, is treated as feminine by some authors)

Synodontis afrofischeri **Hilgendorf 1888** *afro-*, from Latin *Afr-*, stem of *Afer*, African, presumably referring to distribution in east Africa (type locality in Tanzania); *fischeri*, in honor of Gustav Adolf Fischer (1848–1888), German medical officer and natural history collector, who collected holotype

Synodontis alberti **Schilthuis 1891** patronym not identified, presumably in honor of King Albert I of Belgium (1875–1934); described from the Congo, which was a Belgian colony at the time

Synodontis albolineatus **Pellegrin 1924** *albus* (L.), white; *lineatus* (L.), striped, referring to white midlateral stripe

Synodontis angelicus **Schilthuis 1891** Latin for angelic, allusion not explained, presumably referring to its attractive color pattern (dark brown in spirits, with yellow spots over entire body, fins banded with yellow)

Synodontis annectens **Boulenger 1911** Latin or linking or joining, presumed to be intermediate in form between *S. sorex* and *S. clarias*

Synodontis ansorgii **Boulenger 1911** in honor of British explorer and collector William John Ansorge (1850–1913), who collected holotype

Synodontis arnoulti **Roman 1966** in honor of French ichthyologist-herpetologist Jacques Arnoult (1914–1995), Muséum national d'Histoire naturelle (Paris), for help and encouragement in the exploration of wildlife in the Republic of Upper Volta (now Burkina Faso)

Synodontis aterrimus **Poll & Roberts 1968** superlative of *ater* (L.), black, i.e., very black, referring to "noir profound" coloration on lower part of body, an example of inverse pigmentation in which ventral surface is darker than dorsal surface (a countershading adaptation to swimming upside-down at the water's surface)

Synodontis bastiani **Daget 1948** in honor of M. (probably Monsieur) Bastian (no other information available), who collected holotype

Synodontis batensoda **Rüppell 1832** from *Schal baten soda*, local name for this catfish in Cairo, Egypt, meaning "the Schal [Arabic vernacular in Egypt for squeaker catfishes in general] with the black belly"

Synodontis batesii **Boulenger 1907** in honor of George Latimer Bates (1863–1940), Cameroon farmer and ornithologist, who collected specimens for the Natural History Museum (London), including holotype of this species

Synodontis brichardi **Poll 1959** in honor of Belgian aquarium-fish exporter Pierre Brichard (1921–1990), who discovered this catfish in the rapids near Kinshasa, Democratic Republic of the Congo

[3] References: (1) Grant, S. 2026. The eymology and gender of *Synodontis* Cuvier, 1816 (Mochokidae). Journal of the Catfish Study Group 27 (2): 16–24. (2) Thompson, D. W. 1947. A glossary of Greek fishes. London: Oxford University Press. vi + 302 pp.

Synodontis budgetti **Boulenger 1911** in honor of British zoologist John Samuel Budgett (1872–1904), who collected holotype

Synodontis camelopardalis **Poll 1971** *camelus* (L.), camel; *párdalis* (πάρδαλις), leopard, together forming the ancient name of the giraffe (cameleopard), referring to its giraffe-like coloration

Synodontis carineae **Vreven & Ibala Zamba 2011** in honor of anthropologist Carine Plancke, who worked with the Punu people in the Nyanga area of the Congo Republic (where this species occurs), and who especially like the color yellow (referring to the vivid yellow shine of this species in life)

Synodontis caudalis **Boulenger 1899** Latin for of the tail, referring to deeply notched caudal fin, both lobes produced into a long filament

Synodontis caudovittatus **Boulenger 1901** *cauda* (L.), tail; *vittatus* (L.), banded, referring to black stripe along outer margin of caudal-fin lobes

Synodontis centralis **Poll 1971** Latin for central, referring to its distribution in the central Congo basin

Synodontis clarias **(Linnaeus 1758)** meaning uncertain; name introduced by Hasselquist (1757, later made available by Linnaeus), who, per Valenciennes (1840), may have selected *clarias* as the name for this Nile catfish because Belon (1553) used a similar name "Claria nilotica" for a different catfish from the Nile, now known as the clariid *Clarias anguillaris* (Clariidae); an alternative explanation is that *clarias* is derived from *clarus* (L.), which usually means bright or clear but can also mean loud or clangorous, referring to the ability of this "squeaker" catfish to make stridulatory sounds through its pectoral fins when handled or disturbed (although Hasselquist did not mention this seemingly noteworthy attribute in his description)[4]

Synodontis comoensis **Daget & Lévêque 1981** *-ensis*, Latin suffix denoting place: Comoé River, National Park of Comoé, Ivory Coast, type locality

Synodontis congicus **Poll 1971** *-icus* (L.), belonging to: Congo River basin south to Katanga, Democratic Republic of the Congo, where it occurs

Synodontis contractus **Vinciguerra 1928** Latin for drawn together (i.e., compressed), referring to its elevated profile, which creates the appearance that its body has been compressed from both ends towards the middle

Synodontis courteti **Pellegrin 1906** in honor of French soldier Henri Courtet (1858–1912), member of 1902–1903 French expedition to the region between Ubangi River and Lake Chad, during which holotype was collected

Synodontis cuangoanus **Poll 1971** *-anus* (L.), belonging to: Cuango, Cafunfo, Democratic Republic of the Congo, type locality

Synodontis decorus **Boulenger 1899** Latin for beautiful, referring to its attractive spotted color pattern

Synodontis dekimpei **Paugy 1987** in honor of Paul De Kimpe (b. 1927), Fisheries Officer at Cotonou (Dahomey, now Republic of Benin), who collected fishes for the Musée royal de l'Afrique centrale (Tervuren), including holotype of this one

Synodontis denticulatus **Kasongo Ilunga, Abwe, Decru, Chocha Manda & Vreven 2019** *-atus* (L.), adjective suffix; *denticulus* (L.) small tooth, i.e., small-toothed, referring to well-marked and quite numerous denticles on posterior margin of dorsal-fin spine

Synodontis depauwi **Boulenger 1899** in honor of Louis De Pauw (1876–1943), taxidermist and curator of collections, l'Université libre de Bruxelles, who installed an exhibition of Congo fishes there in 1897

Synodontis dhonti **Boulenger 1917** in honor of G. Dhont-De Bie, Belgian

[4] References: (1) Hasselquist, F. 1757. Iter Palæstinum eller resa til heliga landet, förråttad ifrån år 1749 til 1752, med besfrikningar, rön, anmärkningar öfverde märkvårdigaste naturalier, på Hennes Kongl. i–xv + 1–619 + i. (2) Cuvier, G. and A. Valenciennes. 1840. Histoire naturelle des poissons. Tome quatorzième. Suite du livre seizième. Labroïdes. Livre dix-septième. Des Malacoptérygiens. Pitois-Levrault, Paris. v. 14: i–xxii + 2 pp. + 1–464 + 4 pp., Pls. 389–420. [Valenciennes authored volume.] (3) Belon, P. 1553. De aquatilibus, libri duo. Paris: 1–448. See Family Clariidae for a detailed analysis of this etymologically mysterious name.

East African Expeditionary Force, member of Louis Stappers' expedition to Lakes Tanganyika, where he collected holotype

Synodontis dorsomaculatus **Poll 1971** *dorso-*, from *dorsalis* (L.), of the back; *maculatus* (L.), spotted, referring to dark round spots on dorsal surface (which grow diffuse with age)

Synodontis eupterus **Boulenger 1901** *eŭ-* (εὖ), well or very; *pterus*, from *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, referring to the "extraordinary development" of its dorsal fin, "remarkable for its great depth"

Synodontis fascipinna **Nichols & La Monte 1953** *fascia* (L.), band; *pinna* (L.), fin, referring to caudal and anal fins, "conspicuously banded with blackish"

Synodontis filamentosus **Boulenger 1901** Latin for filamentous, referring to "filamentous prolongation" of dorsal fin

Synodontis flavitaeniatus **Boulenger 1919** *flavus* (L.), yellow; *taeniatus* (L.), banded, referring to two yellow stripes on sides of head and body

Synodontis frontosus **Vaillant 1895** Latin for many-browed or with a large forehead, allusion not explained, presumably referring length of cephalo-nuchal shield being nearly equal to its width [may be a junior synonym of *S. schall*]

Synodontis fuelleborni **Hilgendorf & Pappenheim 1903** in honor of German physician and parasitologist Friedrich Fülleborn (1866–1933), who collected holotype during his travels as a doctor with the German Army in East Africa

Synodontis gambiensis **Günther 1864** *-ensis*, Latin suffix denoting place: Gambia, type locality [treated as a junior synonym of *S. schall* by some workers]

Synodontis geledensis **Günther 1896** *-ensis*, Latin suffix denoting place: Geledi (also spelled Gualidi and Jilledy), Somalia, type locality

Synodontis gobroni **Daget 1954** in honor of M. (probably Monsieur) Gobron, a volunteer at Laboratoire de Diafarabé (Mail), who collected holotype (no other information is available)

Synodontis granulosus **Boulenger 1900** *granum* (L.), seed or grain; *-osus* (L.), suffix connoting fullness, referring to body covered with granular papillae

Synodontis greshoffi **Schilthuis 1891** in honor of Anton Greshoff (1856–1905), Dutch trader and collector, who presented several species from the Congo to the Zoological Museum of Utrecht University, including holotype of this one

Synodontis guttatus **Günther 1865** Latin or dappled, speckled or spotted, referring to numerous brown spots on body, small and rounded on adipose fin and "hinder parts" of tail

Synodontis haugi **Pellegrin 1906** in honor of French Protestant missionary Ernest Haug (1817–1915), a correspondent of Múseum national d'Histoire naturelle (Paris); he collected fishes from the Ogowe River of Gabon, including this one, recording their local names in three different languages

Synodontis irsacae **Matthes 1959** of I.R.S.A.C. (Institut pour la Recherche Scientifique en Afrique Centrale), where Matthes worked

Synodontis iturii **Steindachner 1911** of the Ituri River, Democratic Republic of the Congo, type locality

Synodontis katangae **Poll 1971** of Katanga, a province in the Democratic Republic of the Congo, type locality

Synodontis khartoumensis **Abu Gideiri 1967** *-ensis*, Latin suffix denoting place: Khartoum, Sudan, near type locality in the Blue Nile

Synodontis koensis **Pellegrin 1933** *-ensis*, Latin suffix denoting place: Ko River, Man, Ivory Coast, type locality

Synodontis kogonensis **Musschoot & Lalèyè 2008** *-ensis*, Latin suffix denoting place: Kogon River, Guinea, type locality

Synodontis laessoei **Norman 1923** in honor of Maj. Harold Henry Alexander de Laessoe (d. 1948), British soldier, explorer and administrator in Africa, who helped collect holotype

Synodontis leopardinus **Pellegrin 1914** Latin for leopard-like, referring to small black spots on a yellowish body

Synodontis leopardus **Pfeffer 1896** Latin for leopard, referring to dark-brown spots on brown body

Synodontis levequei **Paugy 1987** in honor of French ichthyologist-hydrobiologist Christian Lévêque, ORSTOM (Office de la Recherche Scientifique et Technique d'Outre-Mer), who collected holotype

Synodontis longirostris **Boulenger 1902** *longus* (L.), long; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to its obtusely pointed snout, twice as long as postocular part of head

Synodontis longispinis **Pellegrin 1930** *longus* (L.), long; *spinis*, from *spinus* (L.), thorn, described as a variety of *S. batesii* with a longer dorsal-fin spine

Synodontis lufirae **Poll 1971** of the Lufira River, Congo River basin, Democratic Republic of the Congo, type locality

Synodontis macrophthalmus **Poll 1971** big-eyed, from *makrós* (μακρός), long or large, and *ophthalmós* (ὀφθαλμός), eye, referring to its very large eyes compared with congeners in the Congo

Synodontis macrops **Greenwood 1963** *makrós* (μακρός), long or large; *ōps* (ὦψ), eye, referring to larger eye compared with the similar *S. schall*

Synodontis macropunctatus **Wright & Page 2008** *makrós* (μακρός), long or large; *punctatus* (L.), spotted, referring to large, discrete, widely spaced dark spots on skin

Synodontis macrostigma **Boulenger 1911** *makrós* (μακρός), long or large; *stígma* (στίγμα), mark or spot, referring to large round or oval blackish spots on back and sides

Synodontis macrostoma **Skelton & White 1990** *makrós* (μακρός), long or large; *stóma* (στόμα), mouth, referring to its distinctive large mouth

Synodontis manni **De Vos 2001** in honor of Michael ("Mike") J. Mann, former FAO Fisheries Officer, who first reported the presence of this species in the Tana River (Kenya) in 1968

Synodontis marmoratus **Lönnberg 1895** Latin for marbled, referring to blackish-brown coloration, marbled with white, and white fins, marbled with black

Synodontis matthesi **Poll 1971** in honor of Dutch ichthyologist Hubert Matthes, Musée Royal de l'Afrique Centrale (Tervuren, Belgium), who collected holotype

Synodontis melanopterus **Boulenger 1903** black-finned, from *mélanos* (μέλανος), genitive of *mélas* (μέλας), black, and *pterus*, from *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, referring to its black fins, "with some light cross-bands in the young"

Synodontis melanostictus **Boulenger 1906** *mélanos* (μέλανος), genitive of *mélas* (μέλας), black, and *stiktós* (στικτός), spotted, referring to small black-brown spots on body

Synodontis membranaceus **(Geoffroy St. Hilaire 1809)** Latin for of skin or membrane, referring to membranes on maxillary and mandibular barbels

Synodontis multimaculatus **Boulenger 1902** *multi-* (L.), many; *maculatus* (L.), spotted, referring to dark round spots on body, larger spots on dorsal fin, and smaller spots on ventral, anal and caudal fins

Synodontis multipunctatus **Boulenger 1898** *multi-* (L.), many; *punctatus* (L.), spotted, referring to roundish dark-brown spots on body

Synodontis nebulosus **Peters 1852** Latin for dark or cloudy, referring to black spots on body and fins, merging together on upper part of body

Synodontis ngouniensis **De Weirdt, Vreven & Fermon 2008** *-ensis*, Latin suffix denoting place: Ngounié River basin, Gabon, type locality

Synodontis nigrita **Valenciennes 1840** Latin name for Niger, ancient name of Senegal, type locality

Synodontis nigriventris **David 1936** *niger* (L.), dark or black; *ventris*, genitive of *venter* (L.), belly, referring to dark belly (instead of the usual lighter belly), a countershading adaptation to swimming upside-down at the water's surface

Synodontis nigromaculatus **Boulenger 1905** *nigro-*, from *niger* (L.), dark or black; *maculatus* (L.), spotted, "covered all over with round black spots, some of which, on the posterior part of the body, are confluent"

Synodontis njassae **Keilhack 1908** of Lake Nyasa (called Njassasee by European colonial rulers), Tanzanian name (meaning "great water") for Lake Malawi, where it is endemic

Synodontis notatus **Vaillant 1893** Latin for marked, referring to 1–4 blackish spots on sides

Synodontis nummifer **Boulenger 1899** *nummus* (L.), coin; *-ifer*, from *fero* (L.), to have or bear, referring to 1–2 rounded (i.e., coin-like) black spots on the sides

Synodontis obesus **Boulenger 1898** Latin for fat, allusion not explained, perhaps referring to its less-elongate body shape compared with *S. serratus*, with which it had been misidentified

Synodontis ocellifer **Boulenger 1900** *ocellus*, diminutive of *oculus* (L.), eye (but here meaning eyespot); *-ifer*, from *fero* (L.), to have or bear, referring to "large black-and-white ocellar spots disposed with greater or less regularity at considerable intervals"

Synodontis omias **Günther 1864** etymology not explained, perhaps from *hṓmos* (ὦμος), shoulder or humerus, referring to humeral process "armed with a series of three or four compressed, triangular spinous processos [*sic*], running along the lower margin of the bone, the last being placed at its extremity"

Synodontis orientalis **Seegers 2008** Latin for eastern, referring to its distribution in eastern Africa

Synodontis ornatipinnis **Boulenger 1899** *ornatus* (L.), decorated; *pinnis*, scientific Neo-Latin adjective of *pinna* (L.), fin, i.e., finned, referring to yellow rayed fins (except pectoral), with black spots confluent into transverse bands; on the tail, these bands form crescents inverse to the shape of the fin

Synodontis ornatissimus **Gosse 1982** Latin or very ornate or decorated, referring to its "striking" coloration (translation), with many black spots on body and dorsal fin and black bands on tail [replacement name for *S. ornatus* Boulenger 1920, preoccupied by *S. ornatus* Pappenheim 1914]

Synodontis ouemeensis **Musschoot & Lalèyè 2008** *-ensis*, Latin suffix denoting place: Oueme River, Benin, type locality

Synodontis pardalis **Boulenger 1908** Latin for like a leopard, referring to large, leopard-like dark-brown spots on body

Synodontis petricola **Matthes 1959** *pétra* (πέτρα), rock or stone; *-cola* (L.), dweller or inhabitant, living among the rocks and boulders of Lake Tanganyika

Synodontis pleurops **Boulenger 1897** *pleuro-*, from *pleurá* (πλευρά), side; *ṓps* (ὦψ), eye, referring to laterally placed eyes, "visible from above as well as from below"

Synodontis polli **Gosse 1982** in honor of Belgian ichthyologist Max Poll (1908–1991), for his revision of the genus [replacement name for *S. eurystomus* Matthes 1959, preoccupied by *S. eurystomus* Pfeffer 1889]

Synodontis polyodon **Vaillant 1895** *polý* (πολύ), many; *odon*, from *odoús* (ὀδούς), tooth, referring to greater number of mandibular teeth (~75) compared with *S. schall* (~25)

Synodontis polystigma **Boulenger 1915** *polý* (πολύ), many; *stígma* (στίγμα), mark or spot, referring to numerous black spots on body and fins

Synodontis pulcher **Poll 1971** Latin for beautiful, described as a pretty species ("une jolie espèce")

Synodontis punctifer **Daget 1965** *punctum* (L.), spot; *-ifer*, from *fero-*, (L.), to carry or bear, referring to black spots irregularly scattered on sides and belly

Synodontis punctulatus **Günther 1889** diminutive of *punctum* (L.), spot, i.e., having tiny spots, referring to numerous, very small brown dots on head, body and adipose fin

Synodontis punu **Vreven & Milondo 2009** named for the Punu people living in the areas of Gabon and the Republic of the Congo where this catfish occurs, for their help during collecting and their "spontaneous" hospitality

Synodontis rebeli **Holly 1926** patronym not identified but almost certainly in honor of Austrian entomologist Hans Rebel (1861–1940), first director of the Naturhistorisches Museum Wien, where types are deposited

Synodontis resupinata **Boulenger 1904** Latin for turned back (i.e., inverted or reversed), probably referring to reversed countershading, the lower half darker than the upper, an adaptation to swimming upside-down at the water's surface

Synodontis ricardoae **Seegers 1996** in honor of Cicely Kate Ricardo (later Ricardo-Bertram, 1912–1999), who, together with Ms. R. J. Owen, collected in the Lake Rukwa drainage (where this species occurs) and co-authored several important papers on the fishes of East and Central Africa

Synodontis robbianus **Smith 1875** *-anus* (L.), belonging to: Rev. Alexander Robb (1824–1901), Scottish Presbyterian missionary, who provided specimens from the "Old Calavar district of tropical Africa," including holotype of this one

Synodontis robertsi **Poll 1974** in honor of American ichthyologist Tyson R. Roberts (1940–2025), who helped collect holotype during a National Geographic Society expedition to Zaire (now Democratic Republic of the Congo) in 1973

Synodontis ruandae **Matthes 1959** of Rwanda, where type locality (Kagera at Rusumu) is situated

Synodontis rufigiensis **Bailey 1968** *-ensis*, Latin suffix denoting place: Rufiji River, Tanzania, type locality

Synodontis rukwaensis **Hilgendorf & Pappenheim 1903** *-ensis*, Latin suffix denoting place: Lake Rukwa, Tanzania, type locality

Synodontis schall **(Bloch & Schneider 1801)** *Schal*, Arabic vernacular for squeaker catfishes in Egypt

Synodontis schoutedeni **David 1936** in honor of Belgian zoologist Henri Schouteden (1881–1972), who collected many new species in the Belgian Congo, including this one

Synodontis serpentis **Whitehead 1962** genitive singular of *serpens* (L.), snake, allusion not explained, perhaps referring to marbled pattern on caudal peduncle of juveniles, which resembles the marbled pattern seen on many constrictors[5]

Synodontis serratus **Rüppell 1829** Latin for toothed like a saw, referring to anteriorly serrated dorsal-fin spine

Synodontis smiti **Boulenger 1902** in honor of Pierre Jacques Smit (1863–1960), who illustrated the plates in Boulenger's work

Synodontis soloni **Boulenger 1899** in memory of Alexandre Solon, a young traveler who died in Congo after helping Capt. Capra (no other information available) collect fishes

[5] Erwin Schraml, Welt der Fische/World of Fishes, pers. comm.

***Synodontis sorex* Günther 1864** Latin for shrew or shrew-mouse, allusion not explained, perhaps referring to its pointed snout and/or long, slender teeth

***Synodontis steindachneri* Boulenger 1913** in honor of Austrian ichthyologist Franz Steindachner (1834–1919), for contributions to the knowledge of the fishes of Cameroon (where this species is endemic to the Nyong River)

***Synodontis tanganyicae* Borodin 1936** of Lake Tanganyika, where it is endemic (originally spelled *tanganaicae*; emended spelling is in prevailing usage)

***Synodontis tessmanni* Pappenheim 1911** in honor of German explorer, ethnographer and plant collector Günter Tessmann (1884–1969), who collected holotype

***Synodontis thamalakanensis* Fowler 1935** *-ensis*, Latin suffix denoting place: Thamalakane River at Maun, Botswana, type locality

***Synodontis thysi* Poll 1971** in honor of Poll's Musée de l'Afrique Centrale colleague, Belgian ichthyologist Dirk Thys van den Audenaerde (b. 1934), who collected holotype

***Synodontis tourei* Daget 1962** in honor of Moussa Touré, forestry inspector in Mamou, a city in the Fouta Djallon area of Guinea, where this catfish occurs

***Synodontis unicolor* Boulenger 1915** *uni-*, from *unus* (L.), one, referring to uniform dark-brown coloration on body and fins

***Synodontis vanderwaali* Skelton & White 1990** in honor of zoologist Ben Van der Waal, University of Venda (South Africa), who collected holotype, for his donations of fishes from northern Namibian rivers to the J. L. B. Smith Institute of Ichthyology and the Albany Museum

***Synodontis velifer* Norman 1935** *velum* (L.), sail; *-ifer*, from *fero* (L.), to have or bear, referring to prolonged first and second soft rays of dorsal fin

***Synodontis vermiculatus* Daget 1954** Latin for vermiculate (with wavy lines and marks), referring to small black vermiculations on a completely yellow body

***Synodontis victoriae* Boulenger 1906** of Lake Victoria in Uganda, type locality

***Synodontis violaceus* Pellegrin 1919** Latin for violet-colored, referring to its general violet body coloration

***Synodontis voltae* Roman 1975** of the upper Volta River basin, western Africa, where it is endemic

***Synodontis waterloti* Daget 1962** in honor of Georges Waterlot (1877–1939), who collected specimens for the Muséum national d'Histoire naturelle (Paris) in French West Africa and Madagascar, including holotype of this catfish

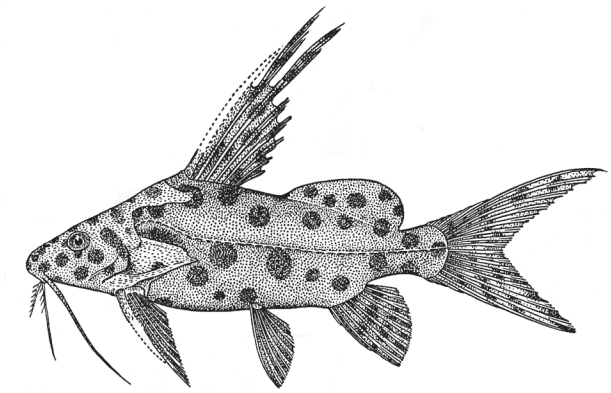
***Synodontis woleuensis* Friel & Sullivan 2008** *-ensis*, Latin suffix denoting place: Woleu River, Gabon, type locality

***Synodontis woosnami* Boulenger 1911** in honor of Richard Bowen Woosnam (1880–1915), British soldier, traveler, naturalist, and game warden of the British East African Protectorate, who collected holotype

***Synodontis xiphias* Günther 1864** *xiphías* (ξιφίας), swordfish, referring to remarkably prolonged snout of stuffed and mounted type specimen (later discovered through X-ray photography to be skin stretched over a protruding wire)

***Synodontis zambezensis* Peters 1852** *-ensis*, Latin suffix denoting place: Zambezi River, Mozambique, type locality

***Synodontis zanzibaricus* Peters 1868** *-icus* (L.), belonging to: Zanzibar, a possible misnomer since the catfish does not occur there; perhaps name refers to general vicinity of type locality (Mombassa, Kenya) to the Zanzibar Archipelago



Synodontis velifer, holotype, 225 mm TL. Illustration by William P. C. Tenison. From: Norman, J. R. 1935. A collection of fishes from the Ashanti Forest, Gold Coast. Annals and Magazine of Natural History (Series 10) 15 (86): 215–221.