

Order GYMNOTIFORMES

Glass Knifefishes

Family STERNOPYGIDAE

Cope 1871



*Eigenmannia sirius*, paratype, 77.3 mm to end of anal fin. From: Peixoto, L. A. W. and W. M. Ohara. 2019. A new species of *Eigenmannia* Jordan & Evermann (Gymnotiformes: Sternopygidae) from rio Tapajós, Brazil, with discussion on its species group and the myology within Eigenmanniinae. PLoS ONE 14 (8): e0220287: 1–30.

Glass Knifefishes

Subfamily EIGENMANNIINAE

Mago-Leccia 1978

*Archolaemus*

Korringa 1970

*archós* (Gr. ἀρχός), anus; *laimós* (Gr. λαίμος), throat, referring to location of vent under eye

***Archolaemus blax* Korringa 1970** Latin for doltish, “in reference to the fish’s general appearance”



*Archolaemus blax*, holotype, 435 mm TL. From: Korringa, M. 1970. A new gymnotoid fish from the Rio Tocantins, Brazil. Proceedings of the California Academy of Sciences (Series 4) 38 (13): 265–271.

***Archolaemus ferreirai* Vari, de Santana & Wosiacki 2012** in honor of Brazilian ichthyologist Efreim J. G. Ferreira (b. 1954), Instituto Nacional de Pesquisas da Amazônia (INPA), who helped collect the type series, for his many contributions to our understanding of Amazonian fishes

***Archolaemus janeae* Vari, de Santana & Wosiacki 2012** in honor of Jane Mertens, Faculty of Agriculture and Horticulture, Humboldt Universität zu Berlin, for her assistance to the second author

***Archolaemus luciae* Vari, de Santana & Wosiacki 2012** in honor of Lucia Rapp Py-Daniel, Curator of Fishes, Instituto Nacional de Pesquisas da Amazônia, for her many contributions to the knowledge of Amazonian fishes and her assistance to the authors over the years

***Archolaemus orientalis* Stewart, Vari, de Santana & Wosiacki 2012** Latin for eastern, referring to its presence in the rio São Francisco (Minas Gerais, Brazil), the easternmost known occurrence in the genus

***Archolaemus santosi* Vari, de Santana & Wosiacki 2012** in honor of Brazilian aquatic biologist Geraldo Mendes dos Santos, Instituto Nacional de Pesquisas da Amazônia (Manaus), who collected holotype, for his many contributions to our knowledge of Amazonian fishes

*Distocyclus*

Mago-Leccia 1978

*disto* (L.), stand apart (i.e., be different); *cyclus*, from *kýklos* (Gr. κύκλος), ring or circle, different from *Eigenmannia* (original genus) in having a long and conical snout

***Distocyclus conirostris* (Eigenmann & Allen 1942)** *conus*, from *kónos* (Gr. κώνος), cone; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to its conical head (including snout)

*Eigenmannia*

Jordan & Evermann 1896

*-ia* (L. suffix), belonging to: German-born American ichthyologist Carl H. Eigenmann (1863–1927), for his “excellent work” on the freshwater fishes of South America [replacement name for *Cryptops* Eigenmann 1894, preoccupied by *Cryptops* Leach 1814 in Myriopoda, *Cryptops* Schoenherr 1823 and *Cryptops* Solier 1851 in Coleoptera]

***Eigenmannia antonioi* Peixoto, Dutra & Wosiacki 2015** in memory of Antônio da Silva Wanderley, grandfather of the first author

***Eigenmannia besouro* Peixoto & Wosiacki 2016** Portuguese for beetle, in honor of Manoel Henrique Pereira (1895–1924), known as Besouro Mangangá (The Mangangá Beetle), a native of the Recôncavo region of Bahia, Brazil (where this knifefish occurs), and a legendary figure in the Afro-Brazilian martial art capoeira [see also *Hypostomus bimbai* and *H. pastinhai*, Loricariidae: Hypostominae]

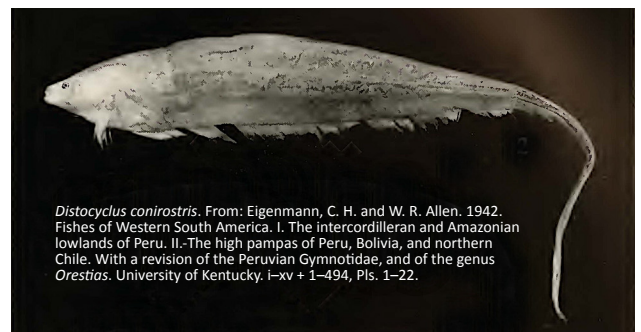
***Eigenmannia camposi* Herrera-Collazos, Galindo-Cuervo, Maldonado-Ocampo & Rincón-Sandoval 2020** in honor of Brazilian biologist Ricardo Campos-da-Paz, Universidade de São Paulo, for contributions to our knowledge of gymnotiform fishes

***Eigenmannia catira* Cardoso & Dutra 2023** *catira*, a popular dance in Brazilian folklore performed by herdsmen and farmers in the areas of influence of the sertaneja culture in São Paulo and Mato Grosso do Sul states, Brazil, where this knifefish occurs

***Eigenmannia correntes* Campos-da-Paz & Queiroz 2017** named for the rio Correntes (main river of the rio Piquiri system, Mato Grosso do Sul, Brazil), where all type specimens were collected

***Eigenmannia desantanai* Peixoto, Dutra & Wosiacki 2015** in honor of Brazilian ichthyologist Carlos David de Santana, for his contributions to our knowledge of gymnotiform fishes

***Eigenmannia dutrai* Peixoto, Pastana & Ballen 2021** in honor of Brazilian zoologist Guilherme M. Dutra, Universidade de São Paulo, for his



*Distocyclus conirostris*. From: Eigenmann, C. H. and W. R. Allen. 1942. Fishes of Western South America. I. The intercordilleran and Amazonian lowlands of Peru. II. The high pampas of Peru, Bolivia, and northern Chile. With a revision of the Peruvian Gymnotidae, and of the genus *Orestias*. University of Kentucky, i–xv + 1–494, Pls. 1–22.

contribution to ichthyology, particularly the taxonomy of *Eigenmannia*

*Eigenmannia guchereauae* (Meunier, Jégu & Keith 2014) in honor of Corinne Guchereau, Muséum national d'Histoire naturelle (Paris), who facilitated the technical aspects of the authors' work for 15 years

*Eigenmannia guairaca* Peixoto, Dutra & Wosiacki 2015 named for the legendary Guairacá, a brave Indian chief who protected the Guaraní people and their land

*Eigenmannia humboldtii* (Steindachner 1878) in honor of Prussian geographer-naturalist Alexander von Humboldt (1769–1859), one of the first ichthyological explorers of the Río Magdalena, Colombia, type locality (also occurs in Brazil and Venezuela)

*Eigenmannia limbata* (Schreiner & Miranda Ribeiro 1903) Latin for edged or bordered, referring to white anal fin bordered in black

*Eigenmannia loretana* Waltz & Albert 2018 -ana (L.), belonging to: in honor of the residents and inhabitants of Loreto, Peru, where type locality (Lago Tomana, southwest of Iquitos) is situated

*Eigenmannia macrops* (Boulenger 1897) *macro-*, from *makrós* (Gr. μακρός), long or large; *ōps* (Gr. ὄψ), eye, referring to its "much larger" eye compared with presumed congeners in *Sternopygus*

*Eigenmannia macuxí* Dutra, Peixoto, Donin, de Santana & Menezes 2024 named for the Macuxi indigenous people whose home territory is near the type locality in Roraima, Brazil

*Eigenmannia magoi* Herrera-Collazos, Galindo-Cuervo, Maldonado-Ocampo & Rincón-Sandoval 2020 in honor of Venezuelan ichthyologist Francisco Mago-Leccia (1931-2004), for his contributions to our knowledge of gymnotiform fishes

*Eigenmannia matintapereira* Peixoto, Dutra & Wosiacki 2015 named for Matinta Pereira, a mythical figure that haunts people in search of tobacco and coffee in northern Brazil; according to reports, its appearance is marked by a blackened aspect, alluding to the color pattern of this species

*Eigenmannia meeki* Dutra, de Santana & Wosiacki 2017 in honor of American ichthyologist Seth Eugene Meek (1859–1914), who made many contributions to the knowledge of the diversity of the fishes of Panama (where this knifefish occurs)

*Eigenmannia microstoma* (Reinhardt 1852) small-mouthed, from *mikrós* (Gr. μικρός), small, and *stóma* (Gr. στόμα), mouth, referring to its "extremely small" mouth (translation)

*Eigenmannia muirapinima* Peixoto, Dutra & Wosiacki 2015 named for the indigenous people of the Muirapinima tribe, who inhabit region near type locality in Pará, Brazil

*Eigenmannia nigra* Mago-Leccia 1994 Latin for dark or black, referring to its "peculiar black phase coloration"

*Eigenmannia oradens* Dutra, Peixoto, de Santana & Wosiacki 2018 *ora* (L.), edge; *dens* (L.), tooth, referring to bony dorsolateral flange on dentary in which teeth are attached

*Eigenmannia pavulagem* Peixoto, Dutra & Wosiacki 2015 named for Arraial do Pavulagem, a cultural movement created in Pará, Brazil, characterized by music of a unique traditional style that originated in Amazon region

*Eigenmannia sayona* Peixoto & Waltz 2017 named for La Sayona, a spirit of "philanderous vengeance" in Venezuelan lore (this species occurs in the río Orinoco basin, Venezuela); name is intended as an homage to the Venezuelan people with no meaning or significance to the fish itself (Luiz Peixoto, pers. comm.)

*Eigenmannia sirius* Peixoto & Ohara 2019 Sirius, brightest star in night sky (Canis Major constellation), representing state of Mato Grosso (where this species is probably endemic) in Brazilian national flag

*Eigenmannia trilineata* López & Castello 1966 *tri-* (L.), three; *lineata* (L.), lined, referring to three dark horizontal stripes, one across middle

of body, one along bottom, and one along base of anal fin

*Eigenmannia vicentespelaea* Triques 1996 *spelaeum* (L.), cave; *vicente*, referring to Cave São Vicente II, Tocantins River basin, Goiás, Brazil, type locality

*Eigenmannia virescens* (Valenciennes 1836) *viridis* (L.), green; *-escens* (L.), becoming, i.e., greenish, name dates to a plate, allusion not explained in subsequent written description (1847) but likely referring to green-tinted transparent body in life

*Eigenmannia waiwai* Peixoto, Dutra & Wosiacki 2015 named for the Waiwai, indigenous people whose home territory is near type locality in Pará, Brazil

*Eigenmannia zenuensis* Herrera-Collazos, Galindo-Cuervo, Maldonado-Ocampo & Rincón-Sandoval 2020 *-ensis*, Latin suffix denoting place but in this case in honor of the Amerindian Colombian tribe Zenú, who historically occurred throughout the San Jorge River basin of Colombia, where this knifefish occurs

### Japigny

Meunier, Jégu & Keith 2011

named for Japigny, a tributary of Approuague River, French Guiana, where *J. kirschbaum* was first found

*Japigny kirschbaum* Meunier, Jégu & Keith 2011 in honor of Frank Kirschbaum, Humboldt Universität zu Berlin, a specialist in gymnotiform fishes who has spawned and bred several species in the laboratory [a noun in apposition, without the patronymic "i" (although spelled *kirschbaumi* in the photo captions)]



*Japigny kirschbaum*, holotype, 156 mm TL. Photo by Paul Planquette. From: Meunier, F. J., M. Jégu and P. Keith. 2011. A new genus and species of neotropical electric fish, *Japigny kirschbaum* (Gymnotiformes: Sternopygidae), from French Guiana. *Cybium* 35 (1): 47–53.

### Rhabdolichops

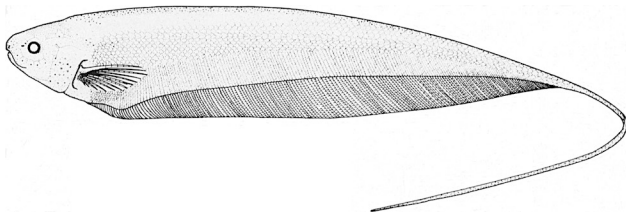
Eigenmann & Allen 1942

*rhabdos* (Gr. ῥάβδος), rod, wand or staff; *lichanós* (Gr. λιχανός), forefinger; *ōps* (Gr. ὄψ), eye or face (i.e., appearance), allusion not explained, perhaps referring to "enormously exaggerated" and "tumid" tails on some specimens of *R. longicaudatus* (= *R. troscheli*), which, on one specimen, exceeded length of body

*Rhabdolichops caviceps* (Fernández-Yépez 1968) *cavus* (L.), hollow or hole; *-ceps* (Neo-Latin), headed, referring to a series of cavities around the eyes

*Rhabdolichops eastwardi* Lundberg & Mago-Leccia 1986 of the research vessel *Eastward*, formerly of the Duke University Oceanographic Program, the ship that supported two productive ichthyological expeditions to the lower Orinoco of Venezuela, where this knifefish occurs

*Rhabdolichops electrogrammus* Lundberg & Mago-Leccia 1986 *electro-*, combining form of *electricus*, Neo-Latin for "of amber," referring to amber's attractive properties, later applied to objects capable of attracting "light bodies" (e.g., bits of paper) when excited by friction, and then applied even later to the cause (electricity) rather than the property of the attraction; *grammus*, scientific Neo-Latin derived from *grammē* (Gr. γραμμή), line or stroke of the pen, referring to narrow



*Rhabdolichops electrogrammus*, paratype, 137 mm to end of anal fin. Illustration by Jane Law. From: Lundberg, J. G. and F. Mago-Leccia. 1986. A review of *Rhabdolichops* (Gymnotiformes, Sternopygidae), a genus of South American freshwater fishes, with descriptions of four new species. Proceedings of the Academy of Natural Sciences of Philadelphia 138: 53–85.

transparent electric organ usually visible with transmitted light above posterior part of anal fin

***Rhabdolichops jegui* Keith & Meunier 2000** in honor of ichthyologist Michael Jégu, ORSTOM (Office de la Recherche Scientifique et Technique d'Outre-Mer), who collected holotype

***Rhabdolichops lundbergi* Correa, Crampton & Albert 2006** in honor of American ichthyologist John G. Lundberg (b. 1942), Academy of Natural Sciences of Philadelphia, for his contributions to the study of gymnotiform and other Neotropical fishes

***Rhabdolichops navalha* Correa, Crampton & Albert 2006** Portuguese word for razor, referring to its highly laterally compressed body

***Rhabdolichops nigrimans* Correa, Crampton & Albert 2006** *nigri*, from *nigra* (L.), dark or black; *mans*, from *manus* (L.), hand (homologous to the pectoral fin,) referring to diagnostic black pectoral fin

***Rhabdolichops stewarti* Lundberg & Mago-Leccia 1986** in honor of ichthyologist Donald J. Stewart (b. 1946), Museum of Zoology, University of Michigan, friend and colleague who brought this knifefish to the authors' attention

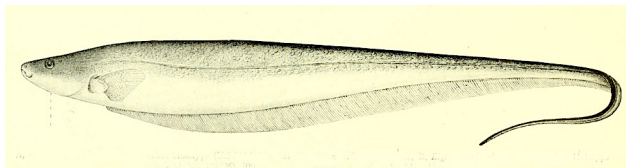
***Rhabdolichops troscheli* (Kaup 1856)** in honor of German zoologist Franz Hermann Troschel (1810–1882), who, with Johann Müller, recognized this knifefish as *Sternopygus* (= *Eigenmannia*) *virescens* in 1849

***Rhabdolichops zareti* Lundberg & Mago-Leccia 1986** in honor of the late Thomas M. Zaret (1945–1984), University of Washington (Seattle, USA), the authors' "close friend, who contributed much to our knowledge of *Rhabdolichops*, planktivorous fishes and fish ecology"

### **Rhinosternarchus**

**Dutra, Peixoto, Abrahão, Wosiacki, Menezes & de Santana 2021** *rhinós* (Gr. ῥινόσ), genitive of *rhís* (ῥίς), snout, referring to its elongated snout; *sternarchus*, a common suffix in knifefish taxonomy, from *Sternarchus* Bloch & Schneider 1801 (= *Apteronotus*, Apteronotidae), *stérnon* (Gr. στέρνων), breast or chest (especially of men), and *archós* (Gr. ἀρχός), anus, referring to placement of anal opening near breast of *Apteronotus albifrons* (and all other gymnotiforms)

***Rhinosternarchus goajira* (Schultz 1949)** referring to area inhabited by the Goajira Indians in Venezuela, where holotype was collected



*Rhinosternarchus goajira*, holotype, 505 mm TL. Illustration by Aime M. Awl. From: Schultz, L. P. 1949. A further contribution to the ichthyology of Venezuela. Proceedings of the United States National Museum 99 (3235): 1–211, Pls. 1–3.

### Rattail Knifefishes Subfamily STERNOPYGINAE Cope 1871

### **Sternopygus**

Müller & Troschel 1846

*stérnon* (Gr. στέρνων), breast or chest (especially of men); *pygus*, from *pygé* (Gr. πυγή), rump or buttock, allusion not explained, perhaps referring to placement of anal opening near breast of *S. aequilabiatu*s

***Sternopygus aequilabiatu*s (Humboldt 1805) *aequalis* (L.)**, equal; *labiatu*s (L.), lipped, referring to how lower jaw does not project beyond upper jaw as in *Gymnotus carapo* (Gymnotidae), its presumed congener at the time

***Sternopygus arenatus* (Eydoux & Souleyet 1850)** Latin for sandy or sanded, referring to its brown-yellow coloration, "very finely dotted with black" (translation)

***Sternopygus astrabes* Mago-Leccia 1994 *astrábē* (Gr. ἀστράβη)**, a mule's saddle, or a padded saddle, referring to 2–4 black, wide and saddle-like vertical bands on body

***Sternopygus branco* Crampton, Hulen & Albert 2004** Portuguese for white, referring to characteristic pale color of freshly netted live specimens

***Sternopygus dariensis* Meek & Hildebrand 1916 -ensis**, Latin suffix denoting place: Darién, Atlantic slope of Panama, where type locality (Río Tuyra at Marriganti) is situated

***Sternopygus macrurus* (Bloch & Schneider 1801)** large-tailed, from *makrós* (Gr. μακρός), long or large, and *urus*, from *ourá* (Gr. οὐρά), tail, referring to its long (but finless) tail

***Sternopygus obtusirostris* Steindachner 1881 *obtusus* (L.)**, blunt; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to its shorter, more rounded snout compared with *Gymnotus carapo* (Gymnotidae), its presumed congener at the time

***Sternopygus sabaji* Torgersen & Albert 2022** in honor of American ichthyologist Mark Henry Sabaj (b. 1969), Academy of Natural Sciences of Philadelphia, for his "many contributions to the exploration and understanding of Neotropical aquatic diversity," and his "role in collecting and photographing the specimens of the type series and his help to the authors in obtaining specimen loans for this study"

***Sternopygus sarae* Torgersen, Galindo-Cuervo, Reis & Albert 2023** in honor of Sara Holmberg Albert, the fourth author's wife, for her "perennial support"

***Sternopygus pejeraton* Schultz 1949** from *peje ratón* (mouse fish), its local name in the Lake Maracaibo region of Venezuela, probably referring to its mouse- or rat-like tail

***Sternopygus xingu* Albert & Fink 1996** named for the río Xingú basin, Mato Grosso, Brazil, type locality



*Sternopygus sabaji*, paratype, 146 mm TL. Photo by Mark Henry Sabaj, for whom it is named. From: Torgersen, K. T. and J. S. Albert. 2022. A new species of *Sternopygus* (Gymnotiformes: Sternopygidae) from the Atlantic coast of the Guiana Shield. Ichthyology & Herpetology 110 (4): 714–727.