

The *ETYFish* Project

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COMMENTS: 

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Order PERCIFORMES (part 16)

Suborder COTTOIDEI

Infraorder GASTEROSTEALES

3 families · 8 genera · 27 species/subspecies · Taxonomic note: similar to Gasterosteidae in other classifications, but excluding Indostomidae.

Family HYPOPTYCHIDAE Sand-eel and Korean Sandlance

Aulichthys Brevoort 1862

aulos, flute, referring to rigid and inflexible tube at end of snout; *ichthys*, fish [sister species to *Hypoptychus dybowskii* yet retained in Aulorhynchidae, its previous family, by many workers]

Aulichthys japonicus Brevoort 1862

Japanese, described from the coast of Japan (but no type known; also occurs off eastern China and Korea)

Hypoptychus Steindachner 1880

hypo-, under; *ptychos*, fold, referring to longitudinal dermal fin fold on ventral surface of body

Hypoptychus dybowskii Steindachner 1880

patronym not identified but probably in honor of Polish biologist Benedykt Dybowski (1833-1930), who studied the fauna of the Russian Far East (where type locality, Peter the Great Bay, is situated)

Family AULORHYNCHIDAE Tubesnout

Aulorhynchus Gill 1861

aulos, flute; *rhynchus*, snout, referring to flexible tube-like snout

Aulorhynchus flavidus Gill 1861

yellowish, described as having a “tawny” body color with a “yellow” line on snout

Family GASTEROSTEIDAE Sticklebacks

5 genera · 24 species/subspecies

Apeltes DeKay 1842

a-, without; *peltes*, shield, referring to lack of lateral plates

Apeltes quadracus (Mitchill 1815)

quadra-, four; *acus*, needle, referring to four (sometimes two or three) free dorsal spines

Culaea Whitley 1950

near anagram of *Eucalia* Jordan 1876 (missing the “*r*”), original name for this genus but preoccupied in butterflies, *eu-*, well; *kalia*, nest, referring to its nest-building habits (like all sticklebacks)

Culaea inconstans (Kirtland 1840)

variable, referring to varying number of dorsal spines and dorsal- and anal-fin rays among specimens

Gasterosteus Linnaeus 1758

gaster, belly; *osteus*, bony, referring to bony pelvic skeleton, which forms a ventral shield



Hypoptychus dybowskii. Kwun, H. J. and M.-J. Yim. 2018. Redescription of the Korean sandlance *Hypoptychus dybowskii* from Korea. *Fisheries and Aquatic Sciences* v. 21 (no. 20): 1-3.

***Gasterosteus aculeatus aculeatus* Linnaeus 1758**

spined, referring to its dorsal and pelvic spines

***Gasterosteus aculeatus microcephalus* Girard 1854**

micro-, small; *cephalus*, head, referring to “very small” head, perhaps when compared with *G. a. williamsoni*, described in the same paper (although Jordan & Evermann 1896 say head is “unusually large for a stickleback”)

***Gasterosteus aculeatus williamsoni* Girard 1854**

presumably in honor of Lt. Robert S. Williamson (1825-1882), U.S. Army Corps of Topographical Engineers, who commanded a government survey of proposed transcontinental railroad routes, during which type was collected; could also refer to Williamson’s Pass, Soledad Canyon, Los Angeles County, California (USA), type locality

***Gasterosteus crenobiontus* Băcescu & Mayer 1956**

creno-, from the Greek *krene*, spring; *bionta*, presumably an adjectival form of *biont*, an individual organism, referring to springs of Lake Techirghiol, Romania, where it was endemic [extinct due to introgressive hybridization with *G. aculeatus*; last seen in the 1960s]

***Gasterosteus islandicus* Sauvage 1874**

-icus, belonging to: Iceland, where it is endemic

***Gasterosteus nipponicus* Higuchi, Sakai & Goto 2014**

-icus, belonging to: Nippon (Japan), referring to its occurrence along coastal Japan facing the Sea of Japan from Kyushu to Hokkaido Islands, along the Pacific coast of northern Japan from the Chiba Prefecture to Hokkaido (also occurs along Sea of Okhotsk west to southern and eastern coasts of Korean Peninsula, north to Sakhalin Island, Russia)

***Gasterosteus wheatlandi* Putnam 1867**

in memory of the late Richard H. Wheatland (1830-1863), Cabinet Keeper (and collector of fishes and reptiles), Essex County Natural History Society (Salem, Massachusetts, USA), who collected type in 1859

***Pungitius d’Annone* 1760**

Latin for pricking, referring to its dorsal and pelvic spines, based on “Pungitio Alberti” of Jonston 1649 [authorship often given as Coste 1848 but d’Annone 1760 has priority]

***Pungitius bussei* (Warpachowski 1888)**

in honor of Fyodor Fyodorovich Busse (1838-1897), Russian geographer, archaeologist, and Chairman of the Society for the Study of the Amur Region (where this species was found)

***Pungitius hellenicus* Stephanidis 1971**

Hellenic (i.e., Greek), referring to the only country where it occurs

***Pungitius kaibarae* (Tanaka 1915)**

per Tanaka 1918, described from Kyoto, near Kaibara (now a part of Tanba), Tanba Province (now Hyogo Prefecture), Japan

***Pungitius laevis* (Cuvier 1829)**

smooth, referring to lack of scutes on caudal peduncle

***Pungitius modestus* Matsumoto, Matsuura & Hanzawa 2021**

moderate, gentle or unassuming, referring to its “moderate” behavior: adults do not fight each other except during the reproductive season, they tend to hide in water grasses, and they also frequently remain still just above the bottom

***Pungitius platygaster platygaster* (Kessler 1859)**

platy, broad; *gaster*, belly, presumably referring to wide pelvic shield supporting ventral fin

***Pungitius platygaster aralensis* Kessler 1877**

-ensis, suffix denoting place: Aral Sea and mouth of Amu Darya River, Uzbekistan, type locality

***Pungitius polyakovi* Shedko, Shedko & Pietsch 2005**

in honor of Ivan Semenovich Polyakov (1847-1887), “famous” (translation) zoologist, anthropologist, ethnographer, and one of the first to study the fauna of Sakhalin Island, Russia, where this stickleback is endemic

***Pungitius pungitius pungitius* (Linnaeus 1758)**

Latin for pricking, referring to its dorsal and pelvic spines

***Pungitius pungitius occidentalis* (Cuvier 1829)**

western, referring to its distribution on western side of the Atlantic [preoccupied by *Gasterosteus occidentalis* Linnaeus 1758 and should be replaced]

***Pungitius sinensis* (Guichenot 1869)**

-ensis, suffix denoting place: Sinica (China), where presumed type locality (Yangtze River) is situated (occurs from Kamchatka, Russia, south to Amur River and Tumannaya River of Tumen, China, including Kuril Islands)

***Pungitius stenurus* (Kessler 1876)**

stenos, narrow; *oura*, tail, presumably referring to elongate body “strongly tapered toward caudal end” (translation)

***Pungitius tymensis* (Nikolskii 1889)**

-ensis, suffix denoting place: Tym River, Sakhalin Island, Russia, type locality (also occurs in Japan)

***Pungitius vulgaris* (Mauduyt 1848)**

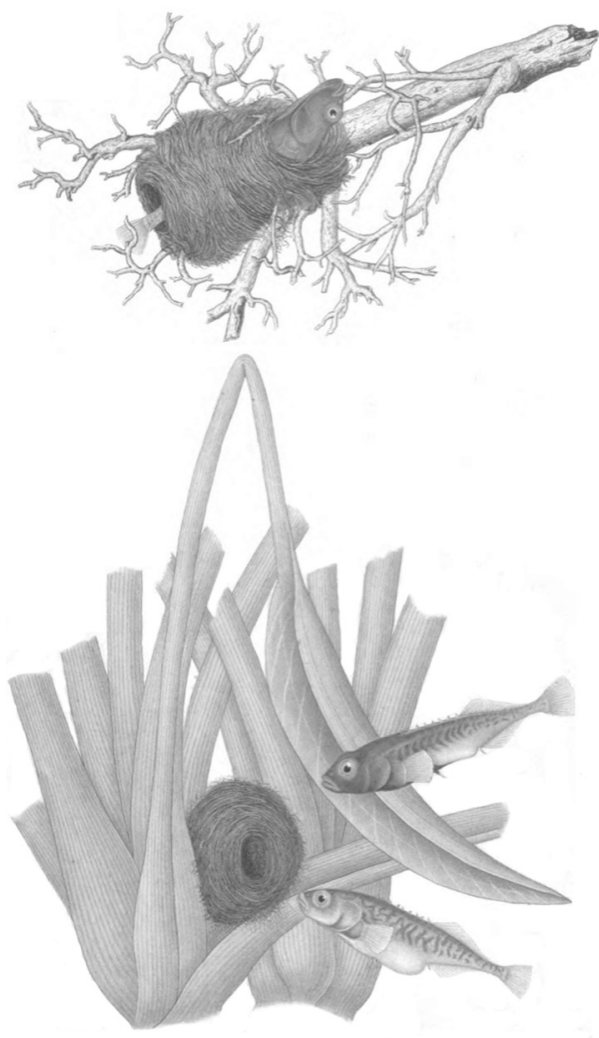
Latin for common; Mauduyt credits name to *Gasterosteus vulgaris* Cuvier in “Ency., pl. 57, fig. 255,” but that publication, assuming it is cited correctly, has not been found (possibly confused with *Spinachia vulgaris* Fleming 1828, a junior synonym of *S. spinachia*)

***Spinachia* Cuvier 1816**

tautonymous with *Gasterosteus spinachia* Linnaeus 1758

***Spinachia spinachia* (Linnaeus 1758)**

according to Cuvier (1829), a “word made by authors of the Middle Ages” (translation), presumably derived from *spinus*, spine, referring to 15 dorsal spines



Top: male *Pungitius pungitius* rotating its body to form a cylindrical nest. Bottom: the female entering the nest to deposit her eggs. From: Coste, J. 1848. Nidification des épinoches et des épinochettes. *Mémoires Présentés par Divers Savants à l'Académie des Sciences de l'Institut de France, Sciences Mathématiques et Physiques* (Ser. 2) v. 10: 574-588, 1 pl. [Coste 1848 was the publication that *Pungitius* had been dated to until we found d'Annone 1760.]