

2013

Genus Schismatogobius Beaufort

Schismatogobius Beaufort, Zool.  
Anzeiger, vol. 39, p. 139, 1912 (Type  
Schismatogobius brunneus Beau-  
fort, orthotypic)

Body elongate, compressed. Head depressed. Eyes in front half of head, close together. Mouth little oblique. Maxillary extends back far behind eye, half way to preopercle. Teeth fixed, long, needle like, curved backwards at end, widely set in several rows in both jaws. Isthmus broad. Body naked. Vertical fins well developed. Dorsals separated, first dorsal with 6 spines, second dorsal with 9 rays. Caudal pointed. Ventrals united, form well developed disk.



2014

Schismatogobius brunyisi Beaufort

Schismatogobius brunyisi Beaufort,  
Zool. Anzeiger, vol. 39, p. 139, 1912  
(type locality, River Erne,  
Honitetu, West Ceram, fresh  
water). — Koumans, Prelim.  
Revis. Gobioid Fishes, p. 54, 1931  
("type seen").



Schismatogobius roxasi Herre

Schismatogobius roxasi Herre, Philippine Journ. Sci., vol. 59, no. 3, p. 362, pl. 2, fig. 5, March 1936 (type locality, San Jose, Antique Province, Panay).



2016

Genus Itbaya Herre

Itbaya Herre, Gobies of Philippines,  
p. 288, 1927. (Type Itbaya nuda  
Herre, orthotypic.)

Body elongate, compressed. Head with longitudinal crest from snout tip to nape, compressed. Eye advanced or in front half of head, less than snout. Mouth nearly horizontal, upper jaw little prominent. Denter row of slightly enlarged pointed teeth, followed by band of 3 rows of minute teeth; in lower jaw outer row of enlarged tricuspid teeth, behind which band of 4 rows of minute pointed teeth; no canines. Gill openings narrow, isthmus broad. Body and head naked. Dorsal



2017

fins separate, first dorsal with  
6 spines and second fin with  
13 or 14 rays. Anal with 9  
rays. Caudal obtuse. Pectoral  
without free silk like rays.



Itbaya nuda Herre

Itbaya nuda Herre, Gobies of Philippines,  
 p. 288, pl. 23, fig. 2, 1927 (type locality,  
 Itbaya, one of the Batan Islands,  
 north of Luzon). — Roxas and Marten,  
 Dep. Agric. Comm. Manila, Tech. Bull. 6,  
 p. 237, 1937 (reference).

Depth  $5 \frac{3}{4}$  to 6; head 4 to  $4 \frac{1}{5}$ ,  
 width  $1 \frac{3}{4}$ . Snout 3 to 4 in head,  
 boldly convex; eye  $4 \frac{1}{3}$  to  $4 \frac{1}{2}$ ,  
 $1 \frac{1}{4}$  in snout, greatly exceeds  
 interorbital; maxillary reaches  
 to front eye edge or  $\frac{1}{3}$  in eye,  
 length  $2 \frac{4}{5}$  in head; mouth  
 cleft small, begins well below  
 level of lower eye edge, jaws  
 subequal; upper lip rather  
 thick; upper teeth with outer  
 slightly enlarged row, pointed,



2019

followed by band of 3 rows  
of minute teeth; lower teeth  
with short outer row enlarged  
and tricuspid, middle cusp  
longest, and posteriorly wide  
band of 4 rows of minute  
pointed teeth; interorbital width  
 $\frac{3}{5}$  of eye. Conspicuous cutaneous  
median ridge begins on snout  
tip extending back to nape.

No scales present.

D. VI - I, 12, second spine  
2 to  $2\frac{1}{4}$  in head, first branched  
ray 2; A. I, 8, first branched  
ray  $2\frac{1}{4}$ , last ray 2; caudal  
10, convex behind; least depth  
of caudal peduncle 2; pectoral  
 $\frac{4}{10}$ , rays 13; ventral rays I, 5,  
fin  $1\frac{2}{3}$  in head, margins dissected,  
sharp-lobulate, and extend  
less than half way to minute  
anal papilla.



2020

Color in alcohol deep, dull olive brown, paler under head. First dorsal with brown crossband near upper edge, basal half of fin minutely speckled with dark. Dark band along upper margin of second dorsal. Anal and caudal plain brown, paired fins little paler.

Length 18.8 mm.

(Herre.)

Philippines.



2021

Genus Sicydium Valenciennes

Sicydium Valenciennes, Hist. nat. Poiss.,  
vol. 12, p. 167, 1837. (Type Gobius  
plumieri Bloch, designated by Bleeker,  
Arch. Néerl. Sci. Nat. Harlem, vol. 9, p. 313,  
1874.)

Sicyopterus Gill, Proc. Acad. Nat. Sci.  
Philadelphia, p. 01, 1860. (Type  
Sicyopterus stimpsoni Gill, monotypic.)

Cotylopus Guichenot, Notes Isle de la  
Réunion, vol. 2, add. C, p. 9, 1864. (Type  
Cotylopus acutipinnis Guichenot,  
monotypic.)

Sicydiops Bleeker, Arch. Néerl. Sci. Nat.  
Harlem, vol. 9, p. 314, 1874. (Type Sicydium  
xanthurus Bleeker, orthotypic.)

Microsicydium Bleeker, op. cit. (Type  
Sicydium gymnauchen Bleeker, orthotypic.)



2022

Sicya (not Guéncé 1857 in Lepidoptera)  
Jordan and Evermann, Rep. U. S. Fish  
Comm., pt. 21, p. 456, <sup>1895</sup> (1896). (Type  
Sicydium gymnogaster Ogilvie-Grant,  
orthotypic.)

Sicyosus Jordan and Evermann, Bull. U.  
S. ~~Fish Comm.~~ Nat. Mus., no. 47, pt. 3, p.  
2867, 1898. (Type Sicydium gymnogaster  
Ogilvie-Grant, virtually. Sicyosus  
Jordan and Evermann proposed to  
replace Sicya Jordan and Evermann.)

Oreogobius Boulenger, Ann. Mag. Nat. Hist.  
London, ser. 7, vol. 4, p. 125, 1899. (Type  
Oreogobius rosenbergii Boulenger,  
monotypic.)



2023

Body elongate, nearly cylindrical to little compressed. Head oblong. Snout rounded. Eye usually small, elevated, advanced in head. Mouth nearly horizontal, upper jaw prominent. Lips thick, lower with a series of slender, numerous horizontal teeth. Upper jaw with uniserial, uniform, numerous, movable teeth, attached by ligament to maxillary edge; behind visible series lie numerous parallel series of young teeth hidden in gum, which succeed former. Lower jaw with uniserial, wide set, conic teeth, with or without at least one canine after symphysis each side. All upper teeth simple, slender, terminal half bent inward nearly at right angle.

~~Scales 50 to Gill openings~~  
moderately wide. Scales 50 to 80 in lateral series, largely



small and ctenoid, become cycloid<sup>2024</sup> anteriorly or on predorsal and belly. Predorsal scales usually forward to eyes. Cheeks naked. Dorsal fins separate, first dorsal with 6 spines and second dorsal with 11 to 13 rays. Caudal free, obtuse, moderate. Ventrals united in short cup-like disk, attached to belly, rays short with many branches in short space or length.

A large genus, widely distributed in the fresh waters of the torrid zone, many characteristic of the water courses of oceanic islands.

Here says: These dull-colored inconspicuous fishes abound in boulder-strewn mountain streams where the current is moderately swift. They love to lie above large rocks where they bask in the sunlight,



2025

protected by a shallow stratum  
of rippling water. Here they  
nibble at minute algae, ready  
to slip out of sight beneath  
the boulder at the first  
movement made by man or bird.  
Although authors state they  
are "confined to fresh waters  
near the sea," they really go  
down to the sea to spawn, in  
common with many other fresh-  
water gobies. Their fry, which  
ascend the Ilocano and Cagayan  
streams, form one of the most  
important sources of fish  
during the autumnal months.  
In both Mindanao and Luzon  
they ascend to an altitude of  
1000 meters or more.



Sicydium brevis (Beaufort) 2026

Sicyopterus brevis Beaufort,  
Zool. Anzeiger, vol. 39, p. 141, 1912  
(type locality, upper course of  
river Tubah, West Ceram).



Sicydium crassus (Herre)

2027

Sicyopterus crassus Herre, Gobies of  
Philippines, p. 307, pl. 24, fig. 2 (tooth),  
1927 (type locality, Craan River, on the  
southern coast of Cotabato Province);  
Fishes Herre 1931 Philippine Exped., p. 92,  
1934 (Zamboanga). — Roxas and Martin,  
Depart. Agric. Comm. Manila, Techn.  
Bull. 6, p. 229, 1937 (reference).

Depth  $4\frac{3}{5}$  to over 5; head 4 to  
 $4\frac{2}{5}$ , width  $1\frac{1}{5}$  <sup>to  $1\frac{1}{10}$</sup> . Snout 2 to  $2\frac{1}{3}$   
in head; eye  $6\frac{2}{3}$  to 9, 3 to 4 in  
snout, 4 to  $4\frac{1}{4}$  in interorbital.  
maxillary reaches to front or to  
hind eye edge, length  $2\frac{2}{5}$  in  
head; mouth low, slightly in-  
clined; upper lip with median  
cleft, behind which conspicuous  
long pointed papilla, and with  
median saclike or alveoluslike



2028

incision on each half of lip,  
each with stout but rather short  
papilla behind it, and inner  
margin of lip with rugose  
tubercles; upper teeth in closely  
packed row, tips honey yellow,  
long and pointed, long central  
cusp with tip curved backward,  
very acute in lateral view,  
lateral cusps much smaller,  
sharp pointed, erect; on lower  
lip row of simple, pointed,  
horizontal teeth set close  
together; besides hooked canines  
at symphysis 6 to 8 stout conical  
teeth on each side of lower jaw,  
middle ones small, others almost  
or quite large as symphyseal.  
interorbital  $1 \frac{7}{8}$  in head, flat,  
eye nearly entering upper profile.

Scales 73 to 76 in lateral  
series; 20 transversely; 26 to 32  
predorsal, very small on nape  
and small on trunk, large on



tail. Head, except predorsal, <sup>as noted, 2029</sup> pre-  
pectoral region, ~~and~~ chest, ~~naked~~  
breast and axil of pectoral  
naked.

D. VI, I, 11, third spine term-  
inally filamentous or  $3\frac{1}{5}$  to  
 $4\frac{2}{3}$  in fish without caudal,  
fin height  $1\frac{1}{3}$  to  $1\frac{4}{7}$  in head;  
A. I, 10, fin height  $1\frac{2}{3}$  to  $1\frac{7}{8}$ ;  
caudal  $3\frac{4}{5}$  to 4 in rest of  
fish, broad, rounded; least depth  
of caudal peduncle  $1\frac{1}{2}$  in head;  
pectoral 1, rays 15; ventral  
I, 5, fin  $2\frac{3}{4}$  in head. Anal  
papilla short, thick.

In alcohol uniform dull brown-  
ish gray, paler on sides and  
posteriorly, whitish beneath.  
Snout and cheeks darker and  
brownish plum color. First  
dorsal clear, spines brownish  
gray. Second dorsal with 4 or 5  
diagonal rows of dull brown  
bars on lower  $\frac{3}{4}$  of spines



only, membranes colorless, and  
fish with broad reddish brown  
margin. Anal dull gray, with  
broad violet black margin.  
Caudal yellowish gray, with  
broad violet black hind margin.  
Pectorals gray, seem to have  
been yellowish with pale violet  
margin. Ventrals whitish.

Length 97 to 128 mm. (Herre.)

Philippines.



2031

Sicydium laticeps Valenciennes

Sicydium laticeps Valenciennes, Hist.  
Nat. Poiss., vol. 12, p. (133) 177, 1837  
(type locality, Fresh waters of Bourbon  
Island). — ~~Günther, Cat. Fish. Brit. Mus., vol.~~  
~~Schweigger, Cat. Mus.~~  
~~Godeffroy, No. 4, p. 18, 1869 (Randava).~~  
<sup>3, p. 93, 1864 (copied)</sup>  
— Bleeker, Rech. Faune Madagascar,  
Pollen et Van Dam, Poiss., p. 178, 1874  
(reference). — ~~Sauvage, Hist. Nat.~~  
~~Sauvage~~ Ogilvie & Grant, Proc. Zool.  
Soc. London, 1887, p. 160 (copied).

~~Sicyopterus laticeps Fowler, Mem.~~  
~~Bishop Mus., vol. 10, p. 401, 1928 (copied).~~  
— Sauvage, Hist. Nat. Madagascar,  
Poiss., p. 378, pl. 40a, fig. 2, pl. 47,  
fig. 5, 1891 (Madagascar). —  
Boulenger, Cat. Fresh Water Fish.  
Africa, vol. 4, p. 44, fig. 26 (copied),  
1916 (type).



2032

Depth  $5\frac{2}{3}$ ; head 5, broader than deep. Eye 5 (figure shows  $5\frac{3}{5}$ , 2 in snout) in head; maxillary reaches below front eye edge, length  $2\frac{5}{7}$  in head; movable labial teeth tricuspid, and anterior mandibular teeth much larger than others; eye entering upper profile of head.

Scales 60 in lateral series. Body entirely scaly, predorsal scales extending forward over opercle. Head naked.

D. VI - I, 10, spines ending in filaments with third with  $3\frac{3}{5}$  in fish without caudal, fins well separated, eighth ray  $1\frac{1}{5}$  in head; A. I, 10, sixth ray  $1\frac{7}{8}$ ; caudal  $1\frac{1}{10}$ , convex behind; pectoral 1; ventral  $1\frac{2}{3}$ .

Blackish brown.

Length 110 mm. (Boulenger.)

Reunion, Mascarene Islands.



2033

Sicydium marquesensis (Fowler)

Sicyopterus marquesensis Fowler,  
Occas. Pap. Bishop Mus., vol. 9, no. 25,  
p. 7, fig. 3, 1932 (type locality, 1700  
feet Kohetaivanu, Amoa Valley,  
Fatuhiwa, Marquesas Islands);  
Mem. Bishop Mus., vol. 11, no. 6, p. 442,  
1934 (reference).



2034

Depth  $5\frac{2}{3}$  to  $6\frac{1}{2}$ ; head 4 to  $4\frac{1}{5}$ , width  $1\frac{3}{5}$  to  $1\frac{4}{5}$ . Snout  $2\frac{1}{2}$  to  $2\frac{3}{4}$  in head; eye 4 to 5,  $1\frac{1}{4}$  to 2 in snout,  $1\frac{2}{5}$  to  $2\frac{1}{4}$  in inter-orbital; maxillary reaches  $\frac{1}{2}$  in eye, length 2 to  $2\frac{1}{5}$  in head; upper lip entire, toothless, with slight median notch and more conspicuous lateral one each side below nostril; within upper lip small whitish papilla below median notch and dozen each side before teeth; upper teeth of 3 contracted cusps, long, conic, pointed, tip of each bent, appearing bifid or simple; lower teeth with outer row of fine, short, flexible, uniserial slender points, tip bent or slightly recurved inward; lower jaw with inner row of 6 strong, erect, simple, conic teeth on each ramus, first



largest, each little curved and sixth next in size after first; interorbital 3 to 3 1/5, broad, level. Gill rakers as 12 small rudimentary papillae, much shorter than gill filaments, which 3/4 of eye.

Scales 55 to 62 in median lateral series to caudal base and 7 or 8 more on latter; 16 to 18 transversely at soft dorsal and anal origins, 23 predorsal. Head largely naked, except scaly occiput. Scales small and crowded on predorsal, front of back and belly. Scales with 13 to 16 straight slender apical denticles, in one row; 12 to 13 basal radiating striae; circuli very fine.

D. VI - 12, I, third spine 1 1/8 to 1 2/3 in head, second ray 1 1/2 to 2; A. II, I, fourth ray 1 3/4 to 2 1/5; caudal



1, rounded; least depth of caudal peduncle  $1\frac{2}{3}$  to 2; pectoral  $1\frac{1}{8}$  to  $1\frac{1}{5}$ ; ventral  $1\frac{2}{5}$ .

Dark-olive brown generally. About 7 large, indistinct, dark or neutral black blotches along side. Under surface of body, belly, and tail whitish. Lips neutral gray. Iris dark neutral gray. 7 fins, except pale or whitish ventrals, all dark neutral gray. Upper and lower edges of both caudal and pectorals sometimes pale to light or even whitish.

Marquesas Islands. Apparently differs from Sicydium cynocephalum Valenciennes, as described from the Moluccas by Ogilvie-Grant, from three specimens 124 mm. long, in the smaller eye and fewer scales. He gives the eye as "half the inter-



2037

orbital space" and scales "L. lat. 75-80". He also says, "Dorsal and anal fins orange, second dorsal sometimes with large regular brown spots on the rays".

B. P. Bishop Mus., no. 3493.  
Elevation 1700 feet, Tohetaivau, Amoa [Uomoa] Valley, Fatuhiva, Marquesas Islands. August 27, 1930. Collection Le Bronnec.  
Length 65 mm. Type.

B. P. <sup>Bishop</sup> Museum, twelve examples.  
Same data as above. Length 42 to 63 mm. Paratypes.

B. P. Bishop Museum, three examples. Elevation 300 feet, Amoa Valley. September 16, 1930. Collection Le Bronnec. Length 31 to 46 mm.



Sicydium micrurus Bleeker

Sicydium micrurus Bleeker, Nat.  
Tijds. Ned. Indië, vol. 5, p. <sup>(320)</sup>341, 1853  
(Type locality, Amboina, rivers);  
vol. 12, p. 293, 1856 (Boleling, Bali).  
Günther, Cat. Fish. Brit. Mus.;  
vol. 3, p. 93, 1861 (Amboyna).

Sicydium micrurus  
— Agilvie - Grant, Proc. Zool. Soc. London,  
1884, p. 164 (Amboyna).

Sicyopterus micrurus Bleeker, Verslag.  
Kon. Akad. Wet. Amsterdam, ser. 2, vol.  
9, p. 280, 1876 (Bali; Amboina). —  
Weber and Beaufort, Java Caledonia,  
Sarasin and Roux, Zool., vol. 2, pt. 1,  
p. 40, 1915 (brooks near Cape Colnett;  
Tao). — Fowler, Mem. Bishop Mus.;  
vol. 10, p. 400, 1928 (copied).



2039

Depth 6 in total; head  $6\frac{1}{3}$ , width  $1\frac{1}{2}$ . Snout obtuse, convex; eye 4 in head,  $1\frac{1}{2}$  in interorbital; maxillary reaches  $\frac{1}{2}$  in eye, jaws subequal; upper lip papillate; upper teeth crowded, curved, pointed, lower labial teeth slender, each side of mandible 4 or 5 curved anteriorly and posteriorly longer canines.

Scales 55 to 60 in lateral series; 15 or 16 transversely between front of second dorsal and anal; 24 predorsal very small. Scales on anterior part of trunk larger than those on tail.

D. VI - I, 10 or 11, first dorsal acute, not lower than body depth and third spine longest; A. I, 10 or 11, like soft dorsal, lower than body; caudal obtuse, rounded, 6 in body length; pectoral obtuse rounded, not or rather shorter than head, rays 18 or 19; ventral



rays I, 5, subcircular, not or somewhat shorter than head without snout, frenum little elevated. Anal papilla conic, short.

Body above olivaceous green, sides yellowish, below silvery. Iris violet, pupil edged golden. Back and sides with 8 transverse blackish violet bands. Dorsal fins olive golden. Caudal with greater part golden, with broad median violet black horseshoe like band. Anal golden, lower margin violet against red and yellow. Paired fins golden.

Length 78 to 80 mm. (Bleeker.)  
East Indies.



Sicydium longifilis (Beaufort)

Sicyopterus longifilis Beaufort,  
Zool. Anzeiger, vol. 39, p. 140, 1912  
(type locality, upper course of  
river Tubah, West Ceram).



Sicydium ouwensi (Weber)

2042

Sicyopterus ouwensi Weber, Nova  
Guinea, vol. 9, pt. 4, p. 602, 1913  
(type locality, Humboldt Bay and  
Hobai River, North New Guinea). —  
Fowler, Mem. Bishop Mus., vol. 10, p.  
400, 1928 (copied).

Depth  $4\frac{4}{5}$  to  $5\frac{1}{5}$ ; head  $3\frac{4}{5}$  to 4.  
Snout nearly twice long as eye;  
eye 5 in head, advanced; maxillary  
nearly reaches opposite hind eye  
edge; upper lip with median notch  
and 1 each side laterally; upper  
teeth curved, ends tridentate, lower  
with 6 or 7 median small canines.

Scales 65 to 70 in lateral  
series; 17 to 19 transversely between  
second dorsal and anal; 25  
predorsal. Scales ctenoid, only  
smaller and cycloid on  
predorsal.



D. VI, I, 10, first dorsal origin  
 1 to  $1\frac{1}{3}$  times head from snout  
 tip, longest spine equals head  
 and reaches second dorsal and  
 last rays reach caudal or equal  
 $\frac{2}{3}$  body depth; A. I, 10, like  
 second dorsal; pectoral rays  
 22, subequal or little longer  
 than head; ventral half long as  
 head.

Brown, darker on head and  
 back. Between pectoral end and  
 caudal base 6 obscure dark  
 cross bands, broader than pale  
 interspaces and downward on  
 sides. Fins dark brown. Anal  
 with edge darker. Caudal with 2  
 pale marginal bands. Pectoral  
 with pale edge, sometimes with 2  
 parallel blackish longitudinal  
 bands.

Length 46 to 110 mm. (Weber.)  
 East Indies.



2044

Sicydium sarasini (Weber and Beaufort)

Sicyopterus sarasini Weber and Beaufort,  
Nova Caledonia, Sarasin and Roux,  
ser. 2, vol. 1, p. 40, 1915 (type locality,  
Tionaca River; Dourncheur River,  
Pote', near Ni). — Fowler, Mem.  
Bishop Mus., vol. 10, p. 400, 1928  
(copied).

Depth  $6\frac{1}{2}$ ; head  $4\frac{4}{5}$  to 5. Snout  
obtuse, longer than interorbital,  
nearly double eye; eye 5 in head;  
maxillary reaches eye; upper  
lip without papillae, with deep  
median notch and small notch  
each side; each jaw with 8  
curved teeth, anterior and  
posterior strong canines.

Scales 88 in lateral series;  
13 or 14 transversely. Scales  
ctenoid, become small on nape  
and abdomen, where cycloid.

D: VI - I, 10, median dorsal



2045

spines prolonged as filaments,  
reach nearly within last half  
of second dorsal; A. I, 10; pectoral  
longer than head; ventral equals  
postorbital.

Yellowish brown, head and  
back darker. Scales near  
caudal with black blotches, on  
flanks gray blotches. First  
dorsal with oblique undulated  
gray brown line, second with  
black spots between rays.  
Caudal and pectoral edged  
pale.

Length 120 mm. (Weber and Beaufort.)  
New Caledonia.



Analysis of species

a. Anterior mandibular teeth not larger than teeth following; upper teeth curved, tricuspid, trident-shaped, all lobes nearly equal in length and strength. Tacutipinnis

a.<sup>2</sup> Anterior mandibular teeth larger than teeth following.

b. Dorsal spines 6.

c. Scales about equal.

d. No broad white lateral band.

e. Eye less than interorbital.

f. First 8 to 10 rows of scales on occiput very small; head  $4\frac{1}{2}$ ; caudal with dark horse-shoe like marginal band met by a second passing along middle rays from base; eye  $1\frac{2}{3}$  in interorbital.

f.<sup>2</sup> First 2 or 3 rows of scales on occiput very small; head  $4\frac{1}{2}$  to  $5\frac{1}{2}$ . taeniurum

g. Eye  $1\frac{1}{2}$  in interorbital; caudal



with dark horseshoe-like <sup>2047</sup>  
marginal band met by a  
second passing along middle  
rays.

g. Eye 2 in interorbital; a  
black interorbital band;  
caudal border dark, with  
white edges. halei

e. Eye equals interorbital,  
~~h.~~  $3\frac{1}{5}$  to  $3\frac{1}{2}$  in head;

~~h.~~ Scales 30 or 31. elegans

~~h.~~ Scales 50. xanthurum

e. <sup>3</sup> Eye equals or greater than  
interorbital, 4 to  $4\frac{1}{2}$  in head.

h. Head and body with  
darker transverse  
bars; scales 40. gymnauchen

h. Head and body with  
longitudinal bands;  
scales 30 to 38.

ix. Scales 38; second dorsal  
I, 7; A. I, 8. formosum

ix. Scales 30; second dorsal  
I, 9; A. I, 10. fulchellum



7048  
k.<sup>3</sup> Uniformly dark, without  
bands; scales 36; second  
dorsal I, 9 or 10; A. I, 9 or 10.  
atro-purpureum.

d.<sup>3</sup> Broad white lateral band,  
below which longitudinal row  
of large black spots. albotaeiatum

e.<sup>2</sup> Scales on middle of trunk  
larger or much larger than those  
on anterior parts and tail.

f.<sup>1</sup> Predorsal scales 14 to 16; eye  $1\frac{3}{4}$   
to  $2\frac{1}{3}$  in interorbital. extraneus

f.<sup>2</sup> Predorsal scales 18; eye  $1\frac{2}{3}$   
in interorbital. macrostetholepis

f.<sup>3</sup> Predorsal scales 24 to 30.  
h.<sup>1</sup> Eye  $1\frac{2}{3}$  to  $2\frac{1}{3}$  in interorbital.

l.<sup>1</sup> Scales 60 to 65.

m.<sup>1</sup> Upper lip entire. lacrymosum

m.<sup>2</sup> Upper lip with 2 narrow  
lateral clefts, not sac like  
and no median cleft, edge  
denticulate-crenate. parvius

l.<sup>2</sup> Scales 70.

f.<sup>4</sup> Predorsal scales 35 to 40.

n.<sup>1</sup> Eye  $1\frac{7}{8}$  to 2 in interorbital;  
scales 74 to 80; maxillary



reaches  $\frac{1}{3}$  to  $\frac{2}{3}$  in eye. <sup>2049</sup>

stimpsoni  
n.<sup>2</sup> Eye 2 in interorbital;  
scales 75 to 80; maxillary  
reaches hind eye edge.

cynocephalum  
n.<sup>3</sup> Eye 2  $\frac{7}{10}$  to  $3\frac{1}{3}$  in inter-  
orbital; scales 70; max-  
illary not reaching or  
only to front eye edge.

fuliag.  
c.<sup>3</sup> Scales on neck and belly  
smaller than rest, which equal.

o.<sup>1</sup> Maxillary reaches front  
of eye; scales 60, trans-  
versely 15 or 16. microcephalum

o.<sup>2</sup> Maxillary reaches  $\frac{1}{2}$   
in eye; scales 67, trans-  
versely 19. fasciatum

o.<sup>3</sup> Maxillary reaches  $\frac{1}{3}$   
in eye; scales 80, trans-  
versely ? 25. griseum

b.<sup>2</sup> Dorsal spines 7; belly naked; eye  
over 5 in head, 2 in interorbital;  
maxillary not reaching eye.  
parvipinnis



2050

Sicydium acutipinnis (Guichenot)

Cotylopus acutipinnis Guichenot,  
Notes Isle de la Réunion, vol. 2, Add.  
C., p. 10, 1862 (type locality, Réunion).  
— Bleeker, Rech. Faune Madagascar,  
Pollen et Van Dam, pt. 4, p. 78, 1874  
(reference). — Sauvage, Hist. Nat.  
Madagascar, Poiss., p. 520, 1891  
(reference).

Sicydium acutipinne Ogilvie-Grant,  
Proc. Zool. Soc. London, 1884, p. 159  
(Bourbon).

Sicydium acutipinnis Boulenger, Cat.  
Fresh Water Fish. Africa, vol. 4, p. 44,  
1916 (Réunion).



Depth 7 in total; head  $5\frac{2}{3}$  <sup>width</sup> <sup>2051</sup>, rather less than  $1\frac{1}{2}$ . Eye 5 to 6 in head, equals interorbital; mouth reaches opposite front of <sup>or</sup> to  $\frac{1}{2}$  in eye; upper lip entire; movable labial teeth tricuspid, and mandibular teeth subequal.

Scales 56 to 70 in lateral series; 18 transversely. Scales strongly ctenoid on sides of body. Head, neck and belly naked.

D. VII - I, 10, last ray extended long as head or reaches fast caudal base; A. I, 10; caudal large, 5 in total length; pectoral long as head.

Deep black, lighter on sides and whitish on belly. Oblong black spot on each scale, most distinct on posterior part of body. Dorsal and anal black, with large spots of darker, and latter with black marginal band. Pectoral gray, edge blackish. Caudal black. Pectoral gray, edge blackish. Length 90 mm. (Ogilvie-Grant, Boulenger.)  
Reunion, Mascarene Islands.



2052

Sicydium taeniurum Günther

Sicydium taeniurum Günther, Journ.  
Mus. Godeffroy, vol. 6, pt. 11, p. 183, pl.  
112, fig. C, 1877 (type locality,  
Namusi, Viti Levu; Anaitium, New  
Hebrides). — Ogilvie-Grant, Proc.

Zool. Soc. London, p. 161, 1884 (types).

— Schmeltz, Cat. Mus. Godeffroy, no. 8, p. 6, 1881  
(Viti). — Pöhl, Cat. Mus. Godeffroy, no. 9, p. 3,  
1884 (Viti).

Sicyopterus taeniurus Jordan and Seale,  
Bull. Bur. Fisher., vol. 25, p. 410, 1905  
(1906) (Pago Pago); — Kendall and

Goldsbrough, Mem. Mus. Comp. Zool.,  
vol. 26, p. 323, 1911 (Fataua River, Tahiti).

— Fowler, Mem. Bishop Mus., vol. 10, p.  
401 (Fataua R., Tahiti; Samoa); vol. 11,  
no. 5, p. 361, 1931 (reference); vol. 11, no. 6, p. 442, 1934  
(Haroboroboyawa, Fiji).

Jordan and Richardson, Bull. Bur. Fisher., vol.  
27, p. 279, 1907 (1908) (Mindoro; Sibuyan);  
Philippine Journ. Sci., p. 51, 1910 (reference).



Sicydium lagocephalum (not Pallas)  
Kner, Sitzs. Ber. Akad. Wiss. Wien,  
 vol. 57, pt. 1, p. 29, 1868 (Viti Levu,  
 Fiji). — Schmeltz, Cat. Mus. Godeffroy,  
 no. 4, p. 18, 1869 (Namusi); no. 5,  
 p. 28, 1874 (Viti Levu); no. 7, p. 47, 1879  
 (Viti Levu). — Pöhl, Cat. Mus. Godeffroy,  
 no. 9, p. 33, 1884 (Viti).

Sicydium macrostetholepis (not Bleeker)  
~~Günther, Cat. Fish. Brit. Mus., vol. 3, p. 194, 1861 (New Hebrides).~~  
~~Kner, op. cit., p. 326, 1868 (Samoa).~~

? Sicydium laticeps (not Valenciennes) Schmeltz, Cat. Mus. Godeffroy, no. 4, p. 18, 1869 (Kandavu).  
Sicyopterus laticeps Fowler, Mem. Bishop Mus., vol. 10, p. 401, 1928 (on Schmeltz).

Sicydium pugnans Agilvie - Grant,  
 Proc. Zool. Soc. London, p. 160, pl. 11, fig. 3,  
 pl. 12, fig. 7, 1884 (type locality,  
 Savaii, Samoa).

Sicyopterus pugnans Jordan and Seale, Bull.  
 Bur. Fisher., vol. 25, p. 410, 1905 (1906) (reference).

? Sicydium halei Day, Fishes of India,  
 Suppl., p. 749, 1888 (type locality, Ceylon);  
 Fauna of British India, Fishes, vol.  
 2, p. 272, 1889 (copied).

Sicyopterus tanae Jordan and Seale,  
 Bull. Bur. Fisher., vol. 25, p. 410, fig. 96,  
 1905 (1906) (type locality, Vaisigano  
 River, Apia, Samoa).



2054

Sicydium japonica Tanaka

- Sicydium japonica Tanaka, Journ. College  
Sci. Emp. Univ. Tokyo, vol. 27, art. 8, Oct. 10, 1909,  
p. 23, 1909 (type locality, Kōti, Wakayama).  
Yoniyama, Jap. Journ. Zool., vol. 7,  
no. 1, p. 97, 1936 (Yaita; Kawanabe;  
Amami-Oshima; Taihoku, Formosa).  
# Sicydium japonicum Jordan, Tanaka, Snyder, Journ. College Sci.,  
vol. 33, art. 11, 1913, p. 358 (reference).  
# Sicyopterus japonicus Anonymous, Jap. Aquat.  
Pl. Animals, vol. 1, pl. 47, fig. 1, 1931.

Sicyopterus extraneus Herre, Gobies of  
Philippines, p. 311, fig. 4 (tooth), 1927  
(type locality, Cabalian, Leyte;  
Cagayan River). — Roxas and Martin,  
Depart. Agric. Comm. Manila, Techn.  
Bull. 6, p. 229, 1937 (reference).

Papenua pugnans Herre, Journ. Pan-Pac.  
Res. Inst., vol. 6, no. 4, p. 10, Oct. - Dec. 1931  
(Moorea); vol. 7, no. 1, p. 6, Jan. - March  
1932 (fresh water Tahiti).



Depth  $5 \frac{1}{4}$ ; head 4, width  $1 \frac{2}{5}$ . Snout  $3 \frac{1}{2}$  in head; eye  $5 \frac{1}{5}$ ,  $1 \frac{3}{4}$  in snout,  $1 \frac{2}{3}$  in interorbital; mouth wide, gape extends opposite  $\frac{1}{3}$  of eye, inferio; maxillary 2 in head; row of fine, even, close set, short teeth along each edge of jaw, lower all flaring out laterally; also 12 inner larger mandibular teeth, gradually larger to symphyseal pair, each of last inclined little outward; tongue adnate, knob like; interorbital  $3 \frac{1}{6}$ , broad, flattened.

Scales 50+5 in median lateral series; 16 transversely; 15 predorsal. Head naked.

D. VI-I, 11, i, first branched ray  $1 \frac{7}{8}$  in head, third spine  $2 \frac{3}{4}$  in combined head and body; A. I, 10, i, first branched ray  $2 \frac{1}{8}$ ; caudal rounded convexly behind; least depth of caudal peduncle  $2 \frac{1}{8}$ ; pectoral  $3 \frac{3}{4}$ ; ventral disk  $1 \frac{4}{5}$ .

Mostly uniform umber. Under surface of head, ventrals and belly pale.



U. S. N. M., no. 52261. Samoa.  
 Bureau of Fisheries (06521).  
 Length 48 mm.

U. S. N. M., no. 66030. Fatana  
 River, Tahiti, November 7.  
~~Bureau~~ U. S. Fish Comm. (05902).  
Albatross Explorations 1899-1900.  
 Length 108 to 114 mm. Two  
 examples.

U. S. N. M., no. 82962. Tahiti.  
 Wilkes Exploring Expedition. Length  
 96 mm. <sup>in fresh water.</sup>

U. S. N. M., no. 83329. Tahiti.  
 Wilkes Exploring Expedition. Length  
 20 to 33 mm. 127 examples.



U. S. N. M., no. 88640. Tahiti,  
Society Islands. November 1926.  
J. M. Clements. Length 24 to 33 mm.  
518 examples. "These small  
fish appear in enormous numbers  
during the first half of November  
each year and go into the mouths  
of the rivers. At first they are  
practically transparent but  
in a few days, especially after  
they have returned to the sea,  
they become much larger. The  
fish are netted and are a great  
delicacy."



2058

Sicydium lagocephalum  
(Pallas).

Gobius lagocephalus Pallas,  
Spicil. Zool., vol. 8, p. 14, pl. 2, figs.  
6-7, 1770 (type locality, "America")  
~~1770~~ [= ? Mauritius] — Bonnaterre,  
Tabl. Ichth., p. 65, 1788 (copied).  
— Gmelin, Syst. Nat. Linnaeus,  
pt. 1, p. 1202, 1789 (copied). —  
Walbaum, Artedi Pisc., vol. 3,  
p. 196, 1792 (copied). — Lacepede,  
Hist. Nat. Poiss., vol. 3, pp. 537,  
570, 1800 (copied).



~~Gobioides~~  
~~Gobioides brachygaster (Günther)~~

brachygaster Günther,

Gobioides brachygaster Jordan and Richardson,  
Bull. Bur. Fisher., vol. 27, p. 1908  
(Aparri); Philippine Journ. Sci., p. 51,  
1910 (reference).



2059

Sicydium lagocephalum Valenciennes

Sicydium lagocephalum Valenciennes,  
Hist. nat. Poiss., vol. 12, p. (131) 174, 1837  
(type locality, Mauritius; Bourbon).

— Bleeker, Verh. Batavia. Genoot.  
(Blenn. Gob.), vol. 22, p. 39, 1849  
(Purworedjo in Bogowanto R., South  
Java); nat. Tijds. Ned. Indie, vol.  
5, p. 154, 1853 (Maroa, Celebes).

— Günther, Cat. Fish. Brit. Mus.,  
vol. 3, p. 92, 1861 (copied). — Kner,  
Reise Novara, Fische, p. 181, 1866  
(Nicobars). — Ogilvie-Grant, Proc.  
Zool. Soc. London, 1884, p. 161.

(Mauritius; Bourbon). — Sauvage,  
Hist. <sup>nat.</sup> Madagascar, Poiss., p. 520, 1891 (reference).

— Boulenger, Cat. Fresh Water Fish.  
Africa, vol. 4, p. 45, 1916 (Réunion).  
Sicydium lagocephalum Bleeker, Rech. Faune  
Madagascar, Poiss. et Van Damp, Poiss., p. 78, 1874 (reference).  
Sicyopterus lagocephalus Bleeker,  
Verh. Kon. Akad. Wet. Amsterdam,  
vol. 18, no. 3, p. 17, 1879 (Mauritius).



Depth 5 to  $5\frac{1}{2}$ ; head  $4\frac{2}{3}$  to 5, broad as deep. Eye 5 to 6 in head,  $1\frac{1}{2}$  in interorbital; mouth extends below center of eye; labial teeth movable, tricuspid, and anterior mandibular teeth much larger than others, curved, canine-like.

Scales 60 to 65 in lateral series. Body entirely scaly.

D. VI, I, 11, third and fourth rays of first dorsal produced into short filaments; A. I, 10; pectoral long as head.

Brown, uniform or clouded with darker. Second dorsal with dark dots. Anal with black and white margin.

Length 90 mm. (Boulenger.)

Mauritius, Reunion, Mascarene Islands.



Sicydium halei Day

2061

Sicydium halei Day, Fishes of India, Suppl., p. 794, 1888 (type locality, Ceylon); Fauna British India, Fishes, vol. 2, p. 292, 1889 (copied).

Snout obtuse, rounded, with oblique fall from <sup>orbit;</sup>

Depth  $7\frac{1}{4}$  in total; head  $5\frac{1}{2}$ . eye  $4\frac{1}{2}$  in head,  $1\frac{1}{2}$  in snout, 2 in interorbital; mouth cleft nearly horizontal, longer upper jaw overhanging by snout; maxillary reaches  $\frac{1}{2}$  in eye; lips thick; upper teeth ~~uniseriate, in external movable row in gums~~ much smaller than lower, ~~and~~ <sup>in</sup> external movable row in gums directed almost horizontally, single inner row of longer pointed curved ones, two rows divided by considerable interspace; each side of symphysis of lower jaw large recurved canine; interorbital nearly flat, eye



impinging on upper profile of head.

Scales 56 in lateral series; 16 transversely; 19 predorsal to occiput, with first few anterior rows somewhat small. Scales strongly ctenoid, exposed portion above twice high as wide and rounded, on body uniform in size. No warts, barbels or scales on head.

D. VI-12, separated, spines of first dorsal ending in filamentous prolongations and longest not quite equal to body depth, second dorsal rays half body depth; A. 11, like second dorsal; caudal rounded behind, central rays longest; pectoral long as head without snout, rays 19; ventral rays I, 5, not reaching half way to vent.

Color greenish brown. A black interorbital band, continued from



2063  
eye to mouth angle. Dark vertical  
bands on body. Dark band on  
outer edge of caudal, margined  
externally with white, which  
widest at angles. Anal and  
ventral with dark outer edges.

Length 76 mm.

Ceylon.

(Day.)



2064

Sicydium yanthurum Bleeker

Sicydium yanthurum Bleeker, Nat.  
Tijds. Ned. Indië, vol. 4, p. 271, 1853  
(Type locality, West Sumatra);  
vol. 12, p. 293, 1856 (Boleling, Bali);  
~~Günther, Cat. Fish. Brit. Mus.,~~  
~~vol. 3, p. 93, 1861.~~

Act. Soc. Sci. Ind. Néerl. (Acht. Sumatra), vol. 8,  
p. 43, Feb. - Aug. 1859 (Priaman?).

~~Sicyopterus (Sicydiops) yanthurum~~  
~~Bleeker, Arch. Néerl. Sci. Nat. Harlem,~~  
~~vol. 9, p. 26, 1874.~~

Sicydium yanthurum Günther, Cat. Fish. Brit.  
Mus., vol. 3, p. 93, 1861 (copied). — Ogilvie-Grant,  
Proc. zool. Soc. London, 1874, p. 162 (copied).

Sicyopterus yanthurum Bleeker, Verlag.  
Kon. Akad. Wet. Amsterdam, ser. 2,  
vol. 9, p. 283, 1876 (West Sumatra;  
Bali).



2965

Depth 8 in total; head 6, width  $1\frac{1}{2}$ .  
Snout convex, obtuse; eye  $3\frac{1}{2}$  in  
head, 1 in interorbital; maxillary  
reaches  $\frac{1}{2}$  in eye, jaws subequal;  
upper lip papillate; upper teeth  
crowded, pointed, curved; lower  
teeth slender in lips, each side  
of mandible with 5 or 6 strong  
unequal teeth anteriorly, and rest  
much larger subhorizontal curved  
canines.

Scales 50 in lateral series;  
 $1\frac{1}{2}$  transversely between second  
dorsal and anal; 14 predorsal.  
Predorsal, scapular and ventral  
scales cycloid, on sides and  
tail stenoid. Predorsal scales  
not much smaller than others,  
also those on anterior part of  
trunk not larger than those on  
tail.

D. VI - I, 11 or 12, first dorsal  
acute, higher than body and third  
spine longest; A. I, 10 or 11, like



2066

second dorsal, not to little lower than body depth; caudal little longer than head, obtuse, rounded; pectoral rays 19 or 20, little longer than head; ventral rays I, 5, subcircular, longer than post-ocular part of head, frenum elevated. Anal papilla short, obtuse.

Body blackish violaceous, below paler. Iris greenish. Dorsals and anal brownish violet. Caudal golden ~~posteriorly~~. Caudal with black horse-shoe like mark. Pectoral greenish violaceous, edged golden. Ventral pale violaceous. (Bleeker.)  
Length 64 mm.  
East Indies.



U. S. N. M., no. 17991. Oahu,  
Hawaiian Islands. Dr. J. H. Streets.

U. S. N. M., no. 51133. Hawaii.  
Bureau of Fisheries. Two examples.

U. S. N. M., no. 55149. Wailalua,  
Hawaiian Islands. Albatross  
Collection.

U. S. N. M., no. 55216. Hawaii.  
Bureau of Fisheries.

U. S. N. M., no. 55411 and 55412.  
Hawaii. Bureau of Fisheries.

U. S. N. M., no. 82815. Maui,  
Hawaiian Islands. Wilkes Exploring  
Expedition. Length 119 mm.

U. S. N. M., no. 82854. Maui.  
Wilkes Exploring Expedition.

U. S. N. M., no. 82862. Oahu.  
Wilkes Exploring Expedition. Length 67 mm.

U. S. N. M., no. 82886. Hilo.  
Wilkes Exploring Expedition. Length 80 mm.



2067

Sicydium gymnanchen Bleeker

Sicydium gymnanchen Bleeker, Act. Soc.  
Sci. Ind. Neerl., vol. 1, no. 3, p. 5, 1856  
(type locality, Manado, Celebes); vol. 3,  
no. 4, p. 11, 1857-58 (Manado). —  
Günther, Cat. Fish. Brit. Mus., vol. 3,  
p. 95, 1861 (copied). — Ogilvie-Grant,  
Proc. Zool. Soc. London, 1884, p. 163  
(copied).

Microsicydium gymnanchen Bleeker,  
Verlag. Kon. Akad. Wet. Amsterdam,  
ser. 2, vol. 9, p. 284, 1876 (Celebes).



<sup>in total</sup>

Depth 7 to 8; head 5, width 2.  
 Snout obtuse, convex, prominent  
 before mouth; eye 4 to 4 1/2 in  
 head, equals interorbital;  
 maxillary extends below front  
 part of eye; jaws subequal;  
 upper teeth closely crowded,  
 ends obtusely clavate, lower  
 teeth with external horizontal  
 series slender, subequal with  
 mandibular.

Scales 40 in lateral series;  
 12 transversely between second  
 dorsal and anal. Scales on  
 body moderate.

D. VI - I, 9 to 11, first dorsal  
 acute, second dorsal <sup>anteriorly</sup> little  
 higher than body depth; A. I, 10  
 or 11, like second dorsal; caudal  
 truncate emarginate, angles acute,  
 5 and less to 6 in body; pectoral  
 rays 19, obtuse, rounded, shorter  
 than head; ventral oblong, rays  
I, 5, larger than postocular part



2069

of head, interspinous membrane  
broad.

Body greenish above, below  
silvery. Iris green or violet.  
Blackish or brownish transverse  
bands or streaks subequally  
spaced on body, narrower than  
interspaces narrower; first  
ocular, second from nape to  
thorax, eighth near caudal  
base, 4 or 5 posteriorly little  
narrower and descend obliquely  
back. Bands on body variable  
obscure and broad or absent.  
Fins rose hyaline, anal dotted  
with blackish.

Length 23 to 34 mm; (Bleeker)  
East Indies.



Aicydium formosum (Herre)

2070

Microsicydium formosum Herre, Gobies  
of Philippines, p. 297, pl. 23, fig. 3, 1927  
(type locality, Titunod, a small stream  
near Kolambugan, Lanao Province,  
Mindanao).

Stipodon formosum Herre, Fishes Herre  
1931, Philippine Exped., p. 92, 1934 (Culion).  
— Roxas and Martin, Depart. Agric.  
Comm. Manila, Techn. Bull. 6, p. 234,  
1937 (reference).



2071

Depth  $5\frac{2}{3}$ ; head  $4\frac{2}{5}$ , width  $1\frac{1}{2}$ .  
Snout  $4\frac{1}{2}$  (figure shows  $2\frac{7}{8}$ )  
in head; eye equal to snout.  
(figure shows  $4\frac{1}{5}$  in snout,  
equals interorbital; maxillary  
reaches  $\frac{1}{3}$  in eye (figure shows  
 $\frac{1}{2}$  in eye, length from snout tip  
 $2\frac{1}{3}$  in head; mouth slightly  
oblique (figure shows it low  
to nearly horizontal with curved  
mouth cleft and lower jaw  
shorter); upper teeth uniserial,  
immovable, thickly crowded,  
small, brownish; lower lip  
with row of horizontally placed  
minute teeth, not reaching  
surface of membrane in which  
thickly set, and posteriorly on  
jaw 2 pairs of very small,  
hooked, slender canines near  
symphysis; interorbital broad  
(figure shows eye impinging  
on upper profile of head).



Scales 38 in lateral series; 10 transversely between second dorsal and Anal; 13 or 14 predorsal which extend forward over middle of opercle or nearly to eyes. Head otherwise, chest and prepectoral region naked. Scales large, ctenoid, become cycloid on predorsal.

D. VI - I, 7, interdorsal almost equals first dorsal base (figure shows it  $3\frac{3}{4}$  in first dorsal base), second spine  $1\frac{3}{5}$  in head, first branched dorsal ray  $1\frac{5}{6}$ ; A. I, 8, first branched ray  $1\frac{2}{3}$ ; caudal 1, convex behind; least depth of caudal peduncle  $\frac{2}{3}$ ; pectoral  $1\frac{1}{8}$ , rays 15; ventral rays I, 5, fin  $1\frac{1}{2}$  in head.

In alcohol yellowish brown. with blackish brown longitudinal stripes; widest one passes around snout tip and back across cheeks - on pectoral base, from beneath



2073

pectoral along middle of side to caudal base, and just beyond hind end large circular black spot surrounded by broad white band; second band passes around brow across upper part of eye and back along side to upper end of caudal base, connected with its fellow by 2 crossbands on caudal peduncle; third narrow stripe begins short space behind upper eye edge and passes back along dorsal region far as hind end of second dorsal, latter part more or less obscure; from upper eye edge line curves inward and backward beside median line of nape to first dorsal base. Few blackish spots on hind part of first dorsal. Anal with single row of blackish marginal spots. Caudal medianly with elongate blackish spots,



additional to large blackish spot noted. Pectoral basally with few blackish brown spots.

Length 40 mm. (Herre.)

Philippines. Herre says: It lives in stony, brawling hill creeks, where numbers of specimens were seen. It is difficult to secure, as it slips into crevices between the rocks at the least sign of danger. It is evidently related to Sicydium elegans Steindachner, from the Society Islands, but is separated by differences in the scalation, fins, and color.



2075

Sicydium pulchellum (Herre)

Stiphodon pulchellum Herre, Gobies of Philippines, p. 299, pl. 23, fig. 4, 1927  
(type locality, Dumaguete River, Dumaguete, Oriental Negros); Fishes Herre 1931 Philippine Exped., p. 92, 1934 (Dumaguete). — Roxas and Martin, Depart. Agric. Comm. Manila, Techn. Bull. 6, p. 234, 1937 (reference).

Depth  $6 \frac{2}{5}$ ; head  $4 \frac{5}{7}$ , width  $1 \frac{4}{7}$ . Snout 4 in head; eye  $3 \frac{3}{5}$ , little longer than snout; maxillary reaches  $\frac{1}{5}$  in eye, length  $2 \frac{3}{5}$  in head; mouth small, slightly oblique, jaws subequal; upper teeth uniserial, small, immovable, close set, colorless teeth with brownish tips; lower jaw with pair of hooked canines near symphysis, and fastened to lip horizontal row of slender colorless teeth projecting well beyond margin; interorbital



2076

equals snout, eye entering upper profile of head.

Scales 30 in lateral series; 9 transversely; 8 predorsal. Large ctenoid scales become cycloid on predorsal and extend far above as middle of opercle.

D. VI - I, 9, fin far apart, third spine  $\bar{=}$  less than body depth or  $1\frac{4}{7}$  in head, fall far short of second dorsal when depressed, second dorsal height  $1\frac{3}{4}$ ; A. I, 10, fin height 2; caudal 1, rounded behind; least depth of caudal peduncle  $2\frac{1}{4}$ ; pectoral 1, rays 13; ventral rays I, 5, fin  $10\frac{2}{5}$  in head, broad, rounded.

In alcohol uniform pale sandy yellow, lighter under head. Broad dark brown band around snout on upper lip and extends back below eye to pectoral base where ending in darker blotch; beneath pectoral continues



2077

as broader brown band to caudal  
base. Beginning behind eye  
narrower paler band continues  
back along upper part of side  
to upper edge of caudal base.  
On caudal base conspicuous,  
rounded, blackish brown spot.  
Other fins colorless, and anal  
with some brown spots along  
base.

Length 28 to 32 mm.

(Herre.)

Philippines.



2078

Sicydium atro-purpureum (Herre)

Microsicydium atro-purpureum Herre,  
Gobies of Philippines, p. 296, 1927  
(type locality, Irid River, Santa  
Ines, Rizal Province, Bangar).

Stiphodon atro-purpureum Herre, Fishes  
Herre 1931 Philippine Exped., p. 92, 1934  
(Brook near Santa Fe). — Roxas and  
Maarten, Depart. Agric. Comm. Manila,  
Techn. Bull. 6, p. 233, 1937 (reference).



2079

Depth  $6\frac{1}{5}$ ; head  $4\frac{1}{2}$ , width  $1\frac{3}{4}$ . Snout  $3\frac{3}{4}$  in head, broad, blunt, rounded, projecting; eye  $3\frac{3}{4}$ , subequal with snout, or equal to snout and interorbital; maxillary reaches  $\frac{1}{2}$  in eye, hind end concealed; mouth inferior, nearly horizontal, lower jaw weak; outer row of lower teeth horizontal, projects beyond lip so plainly visible, and inner row formed of 3 hooked canines on each side, anterior largest; interorbital wide, flat.

Scales 36 in lateral series; 10 transversely; 10 predorsal. Predorsal scales forward opposite hind edge of opercle.

D. VI - I, 9 or 10, fins far apart, fourth spine longest or barely touching second dorsal origin when depressed, little greater than body depth; A. I, 9 or 10, like second dorsal, hind



rays longest and equal first dorsal spine but not reaching caudal when depressed; least depth of caudal peduncle  $1\frac{9}{10}$  in head; caudal  $1\frac{1}{5}$  times head, nearly truncate; pectoral broad, pointed, nearly long as head; ventral short, broad, reach less than half way to slender pointed anal papilla.

In alcohol dark purplish brown, sides of head purplish black and large violet-black spot covering pectoral base.

Dorsals, anal and forward  $\frac{2}{3}$  of caudal deep velvety black. Pectorals concolorous with body. Ventrals and hind third of caudal colored like body, with narrow lateral white edge.

Length 23 to 34 mm, (Herve.)  
Philippines.



2081

Sicydium albotaeniatum Günther

Sicydium albotaeniatum Günther, Journ.  
Mus. Godeffroy, vol. 6, pt. 11, p. 183, pl.  
110, fig. D, 1877 (type locality, Brooks  
of Hawaiian Islands). — Jordan and  
Evermann, Bull. Bur. Fisher., vol. 23,  
pt. 1, p. 490, fig. 217 (copied). 1903 (1905)  
(copied Günther).  
Sicydium albo-taeniatum Ogilbye & Grant,  
Proc. Zool. Soc. London, 1884, p. 164 (copied).  
Sicyopterus albotaeniatus Fowler, Mem.  
Bishop Mus., vol. 10, p. 400, 1928 (copied).



2082

Depth  $4\frac{1}{2}$ ; head 4. Snout  $3\frac{1}{8}$   
in head; eye 6 in head, 2 in snout;  
maxillary reaches  $\frac{1}{2}$  in eye, length  
from upper jaw tip 3 in head;  
mouth cleft short, low, nearly  
horizontal; lower jaw shorter;  
eye elevated, enters upper  
profile of head.

Scales 60 in lateral series;  
13 or 14 transversely. Small scales  
forward on predorsal about  
half way to eyes. Prepectoral  
region, chest and breast naked,  
also head except as noted.  
Scales smaller on trunk than  
on tail.

D. VI - 15, third and fourth  
spines extended,  $2\frac{7}{8}$  in length  
of combined head and body  
without caudal, thirteenth ray  
 $3\frac{4}{9}$ ; A. 18, fin height 2 in  
head; caudal  $3\frac{1}{5}$  in rest of  
fish, obtusely pointed; least



depth of caudal peduncle 2;  
pectoral 1, rays 15; ventral  
1 3/4 in head. Anal papilla  
pointed, long as eye.

Back and upper surface of  
head olive, sharply contrasted  
by white lateral T band from  
lower face of snout, <sup>band passing below eye</sup> to upper  
pectoral base, <sup>then to caudal base.</sup> Entire lower  
half of body below white band  
dull or pale olive ~~gray~~ buff,  
with row of 8 dark gray blotches  
from behind pectoral T fin.  
Iris red. Fins all dull gray brown,  
hind caudal edge, upper dorsal  
edge, lower anal edge and  
numerous bluish small spots  
on basal half of fin light blue.  
Ventral with front edge reddish.

Figure 154 mm.

Hawaiian Islands.

(Garrett's  
figure)



2084

Sicydium macrostetholepis Bleeker

Sicydium macrostetholepis Bleeker,  
Natuurk. Tijds. Ned. Indië, vol. 4, p. 271,  
1853 (type locality, West Sumatra,  
in rivers); — Günther, Cat. Fish.

Brit. Mus., vol. 3, p. 94, 1861, <sup>part, not material</sup> ~~(Amboina)~~.  
~~Sikness bij de Bersada. Wet. Amsterdam, vol. 58, p. 157.~~

Act. Soc. Sci. Ind. Neerl. (Acht. Sumatra),  
vol. 8, p. 43, Feb. - Aug. 1859 (Priaman?).

— Ogilbye-Grant, Proc. Zool. Soc. London, 1884,  
p. 1168 (copied).

Sicyopterus macrostetholepis Bleeker,  
Verlag. Kon. Akad. Wet. Amsterdam,  
ser. 2, vol. 9, p. 281, 1879 (West Sumatra;

Singapore; Bali; Amboina). — Fowler,  
<sup>List</sup> Cat. Malaya Fish., p. 221, 1937  
(reference).



Depth  $6\frac{1}{2}$  to 7 in total; head  $5\frac{1}{3}$  to  $5\frac{1}{2}$ , width  $1\frac{1}{3}$ . Snout obtuse, convex; eye  $4\frac{1}{2}$  to 5 in head,  $1\frac{2}{3}$  in interorbital; maxillary descends below hind part of eye; jaws subequal; upper lip papillate; upper teeth crowded, curved, ends acute, lower teeth slender laterally, each side with 5 or 6 unequal teeth, anterior well curved and posterior long canines.

Scales 50 in lateral series; 14 or 15 transverse between second dorsal and anal; 18 predorsal to occiput. Predorsal, scapular and ventral scales cycloid, on sides and tail ~~steroid~~ <sup>anterior scales of trunk much larger than those on middle of sides and tail.</sup> ~~latter much larger.~~

D. VI - I, 11 or 12, first dorsal higher than body depth with second to fourth sometimes ending in short filament of which third longest; A. I, 10 or 11, like



2066

second dorsal, subequal or lower than body depth; caudal convex, rounded, not or little longer than head; pectoral obtuse, rounded, not or little longer than head, rays 19; ventral rays I, 5, subcircular, little longer than postocular part of head, frenum little elevated.

Body above violaceous or blackish green, below paler. Eyes violaceous or green, edge of pupil golden. Back with 4 or 5 diffuse broad transverse blackish-violet bands. Dorsals and caudal brownish violet, or violaceous, sometimes with small, irregular, blackish spots. Anal deep brown or violet below with black margin. Caudal with brown or blackish bands, median longitudinal, or horse-shoe like. Pectoral violet green, edged golden. Ventral greenish golden. Length 58 to 103 mm. (Bleeker.) East Indies, Malaya, Melanesia.



2087

Sicydium lacrymosum (Herre)

Sicyopterus lacrymosus Herre, Gobies of Philippines, p. 303, pl. 24, fig. 1 (teeth), 1927 (type locality, Abra River, Bangued, Abra Province; Laoag River; Titunod River; Baquer River; Bangar; Dumaguete River; Zamboanguita); Fishes Herre 1931 Philippine Exped., p. 92, 1934 (Zamboanga). — Roxas and Martin, Depart. Agric. Comm. Manila, Tech. Bull. 6, p. 229, 1937 (reference).

Depth  $4 \frac{4}{5}$  to  $5 \frac{1}{10}$ ; head 4 to  $4 \frac{1}{5}$ , width  $1 \frac{1}{8}$  to  $1 \frac{1}{3}$ . Snout  $2 \frac{1}{5}$  to  $2 \frac{3}{5}$  in head; eye  $4 \frac{1}{2}$  to  $5 \frac{1}{3}$ ,  $1 \frac{2}{3}$  to  $2 \frac{1}{3}$  in snout,  $1 \frac{2}{3}$  to 2 in interorbital; maxillary reaches  $\frac{1}{4}$  in eye, length  $2 \frac{1}{4}$  in head; mouth low, inferior; upper lip entire, thick, fleshy, inner margin more or less rugose,



2088  
not papillate or tuberculate;  
upper teeth with erect cusps,  
central one largest with broadly  
rounded tip, other cusps acute;  
outer edge of lower lip with  
row of simple horizontal  
microscopic teeth, usually covered  
with thick coat of slime and  
therefore invisible; besides pair  
of stout recurved symphyseal  
lower canines 6 or 8 curved white  
teeth on each side, last 2 much  
larger and stronger than others;  
interorbital and top of head  
flat above, eye touching upper  
profile of head.

Scales 65 in lateral series;  
16 to 18 transversely; 25 to 30  
predorsal extend forward nearly  
to eyes. Head other than noted,  
prepectoral region and chest  
naked. Very small scales behind  
ventrals. Scales largest along  
middle of sides, smaller on  
posterior half of caudal peduncle,



2089

and beneath pectoral, especially  
to on predorsal.

D. VI - I, 10, well separated,  
second to fourth elongated with  
filamentous tips of which second  
and third  $2\frac{1}{2}$  in fish without  
caudal, ninth ray 1 in head;  
A. I, 10, ninth ray  $1\frac{1}{2}$ ; caudal  
 $3\frac{7}{8}$  in rest of fish, convex behind;  
least depth of caudal peduncle  
 $1\frac{2}{3}$  in head; pectoral  $3\frac{9}{10}$  in  
fish without caudal, rays 18;  
ventral I, 5, fin  $1\frac{2}{3}$  in head.

Top and sides of snout  
marbled with darker. Front of  
snout and upper lip more or  
less purplish dusky. Conspicuous  
deep black blotch from eye  
down over cheek behind maxillary  
and narrowing below. Vague  
dusky blotch on opercle. Black-  
ish band begins under pectoral,  
passes back along side to tip of  
caudal fin, - often disappearing



2090

with age. Back with 7 blackish double crossbars, 4 posterior ones running diagonally forward down side, anterior short, and first on nape. Throat and belly white. First dorsal clear, hind part marbled with irregular, wavy, dark longitudinal lines or irregular spots. Second dorsal rays dusky greenish, membranes covered with many dusky spots. Anal whitish, with narrow dusky edge. Caudal black, with narrow pale margin above and below. Pectoral blackish, edged with yellowish or whitish. Ventral white or faintly yellowish.

Length 5 to 6.8 mm. (Herre.)

Philippines.



Sicydium panayensis (Herre) 2091

Sicyopterus panayensis Herre, Gobies of Philippines, p. 313, fig. 5 (mouth), 1927 (type locality, San Jose, Antique Province, Panay); Fishes Herre 1931 Philippine Exped., p. 92, 1934 (Dumaguete). — Roxas and Martin, Depart. Agric. Comm. Manila, Techn. Bull. 6, p. 229, 1937 (reference).

Depth  $4 \frac{3}{5}$  to 5; head  $4 \frac{1}{10}$  to  $4 \frac{1}{3}$ , width  $1 \frac{1}{8}$  to  $1 \frac{1}{10}$ . Snout  $2 \frac{1}{5}$  to  $2 \frac{1}{4}$  in head; eye  $5 \frac{1}{2}$  to 6,  $2 \frac{1}{2}$  to  $2 \frac{2}{3}$  in snout or interorbital; maxillary reaches about  $\frac{1}{4}$  in eye; mouth low, almost horizontal; upper lip very broad, especially posteriorly, without median cleft but with small narrow-curved cleft each side nearer posterior end of lip than middle, edge more or less denticulate-crenate; inner



2092

side of lip and gum smooth, without papillae or tubercles; upper teeth curved inward, with large broad median cusp with chisel edge, and 2 much smaller sharp pointed lateral cusps; horizontal teeth of lower lip slender, sharp pointed, widely spaced, often entirely concealed; 5 or 6 stout curved teeth on each side of lower jaw, all smaller than pair of large symphyseal canines; interorbital space broad, flat, equals snout.

Scales 64 to 66 in lateral series; 18 to 20 transversely between second dorsal and anal. 24 to 26 predorsal. Scales smallest on predorsal and belly, otherwise largely uniform.

D. VI, I, 10, tips of first dorsal spines more or less elongate, second to fourth longest and reach beyond second dorsal origin or to fourth and fifth ray when



2093

depressed, longer than head or  $3\frac{7}{10}$   
 $4\frac{1}{3}$  in length; second dorsal  
 $1\frac{1}{3}$  to  $1\frac{1}{2}$  in head, middle rays  
longest and last <sup>ray</sup> not reaching  
caudal when depressed; A.D.  
I, 10, like second dorsal, only  $\frac{2}{3}$   
to  $\frac{3}{4}$  as high; caudal truncate  
to bluntly rounded, little more  
or less than head; least depth  
of caudal peduncle  $1\frac{2}{3}$  to  $1\frac{4}{5}$ ,  
pectoral  $1\frac{1}{10}$  to  $1\frac{1}{5}$ , broadly  
ovate-pointed; ventral  $1\frac{4}{5}$ ,  
broader than long,  $2\frac{1}{3}$  to  $2\frac{1}{2}$   
in space to vent.

In alcohol uniform bluish  
gray to brownish or blackish  
gray, with 8 or 9 broad brown  
or blackish dorsal crossbands;  
2 before dorsal, last just before  
caudal. Under parts of body  
white. Membrane of second  
dorsal and hind part of first  
dorsal thickly sprinkled with



small, elongate, dark spots.  
Ventral whitish, with broad  
dusky margin. Pectoral dusky,

with broad white edge.

Caudal dusky, upper and  
lower margins white, with  
more or less distinct vertical  
dark band on base. Ventrals

white.

Length 71 to 74 mm. (Herre.)

Philippines.



2095

Sicydium parvei Bleeker

- Sicydium parvei Bleeker, Nat. Tijds.  
ned. Indie, vol. 4, p. 426, 1853 (type  
locality, Garut in Preanger, Java).  
— Günther, Cat. Fish. Brit. Mus.,  
vol. 3, p. 94, 1861 (Moluccas).  
— Károli, Termesz. Füzetek, Budapest,  
vol. 1, p. 166, 1881 (1882) (Palaboen).  
— Ogilbye - Grant, Proc. Zool. Soc.  
London, 1884, p. 167 (copied).

Sicyopterus parvei Bleeker, Verslag.  
Kon. Akad. Wet. Amsterdam, ser. 20,  
vol. 9, p. 277, 1876 (Java).



2096

Depth 7 in total; head  $5\frac{1}{2}$  to  $5\frac{3}{4}$ , width  $1\frac{1}{2}$ . Snout obtuse, convex; eye 4 to 5 in head,  $1\frac{1}{2}$  to 2 in interorbital; maxillary reaches  $\frac{1}{2}$  in eye, jaws subequal; upper lip papillate; upper teeth crowded, curved, pointed; lower teeth in lip slender, each side of mandible 8 curved longer canines.

Scales 70 in lateral series; 14 transversely between second dorsal and anal; 30 predorsal. Predorsal, scapular and ventral scales cycloid, on sides and tail ctenoid, latter not much the larger.

D. VI - I, 10 or 11, first dorsal acute, higher than body <sup>depth</sup>, third spine longest; A. I, 10 or 11, like second dorsal, lower than body depth; caudal obtusely rounded, 5 in body; pectoral rays 21, obtuse, rounded, longer than head;



2097

ventral rays I, 5, oblong, not shorter than head = without snout, frenum little elevated. Anal papilla obtuse, short.

Color of body blackish violet, below paler. Iris violet green. Fins brownish violet or violaceous. Caudal golden, above, below and posteriorly edged broadly with violet.

Length 70 to 119 mm. (Bleeker.)

East Indies. Bleeker says it is found to elevations of 800 meters above sea level. He also mentions Günther's record for the Moluccas, without other details, as appearing doubtful, as the Sunda Islands have frequently been confused with the Moluccas.



2098

Sicydium stimpsoni Gill

Sicydium (Sicyopterus) stimpsoni  
Gill, Proc. Acad. Nat. Sci. Phila-  
delphia, vol. 12, p. 161, 1860 (type  
locality, Fresh water brooks, Hilo,  
Hawaii).

Sicydium stimpsoni Günther, Cat.  
Fish. Brit. Mus., vol. 3, p. 93, 1861.

(copied) in — Jordan and Evermann,

Bull. U. S. Fish Comm., vol. 23, pt. 1, p.  
489, fig. 216, 1903 (1905) (Hilo; Heeia;  
Kailua). — Fowler, Copeia, no. 112,

p. 84, nov. 20, 1922 (Hawaii). —

Jordan and Jordan, Mem. Carnegie  
Mus., vol. 10, no. 1, p. 79, Dec. 1922  
(Hilo).

Journ. Mus. Godeffroy, vol. 6, pt. 11, p. 183.  
1877 (copied). — Regilvie - Grant, Proc.

Zool. Soc. London, 1884, p. 156, pl. 12,  
fig. 4 (types of Sicydium nigrescens).



2099

Sicyopterus stimpsoni Bleeker,  
Arch. Néerl. Sci. Nat. Harlem, vol. 9,  
p. 313, 1874 (~~fresh water~~).

Streets, Bull. U. S. Nat. Mus., no. 7,  
p. 59, 1877 (fresh water Oahu). —

Jenkins, Bull. U. S. Fish Comm., vol.  
22, p. 502, 1902 (1903) (fresh water  
Honolulu). — Snyder, Bull. U. S.  
Fish Comm., vol. 22, p. 536, 1902 (1904)  
(Lahania and Wailuka Rivers, Maui).

— Fowler, Mem. Bishop Mus., vol.  
10, p. 400, 1928 (Hawaii; Hilo; Oahu;  
Wailua; Honolulu; Maui; Society  
Islands). — Pitschmann, Bull.  
Bishop Mus., no. 73, p. 20, 1930 (Wai-  
ahole, Oahu). — Fowler, Mem.  
Bishop Mus., vol. II, no. 6, p. 442, 1934  
(Manoa Valley, fresh water Oahu).



2100

Sicydium nigrescens Günther, Rep.  
Voy. Challenger, vol. 1, pt. 6, p. 60,  
pl. 26, fig. C, 1880 (type locality,  
Streams of Hawaii). — Ogilvie-  
Grant, Proc. Zool. Soc. London, 1884,  
p. 165 (type).



2101

depth  $4\frac{1}{2}$  to 7; head  $3\frac{4}{5}$  to  $4\frac{1}{2}$ , width  $1\frac{1}{3}$  to  $1\frac{2}{5}$ . Snout  $2\frac{2}{3}$  to 3 in head; eye  $4\frac{3}{4}$  to 7; maxillary 2 to  $2\frac{2}{5}$ , reaches  $\frac{1}{3}$  in eye,  $\frac{2}{3}$  in younger examples; teeth above bifid, fine, even, close set, in single row, concealed in gums; inner lower teeth large, few, form single row of simple erect conic canines and outer teeth as fine movable setiform row in lip; tongue thick, rounded; interorbital  $2\frac{1}{3}$  to  $3\frac{1}{2}$ , level to very slightly depressed. Gill rakers 1+1, Vestigial tubercles; gill filaments twice eye.

Scales 74 to 90 + in axial lateral series; 16 or 17 transversely at soft dorsal origin; 38 to 42 predorsal. Scales with 9 to 20 basal radiating striae, 3 auxiliaries; 16 to 24 apical denticles; circuli



fine. Scales greatly reduced and much smaller on predorsal region and trunk.  
 D. VI - I, 10, I, third spine  $2\frac{1}{2}$  in fish without caudal, penultimate ray  $3\frac{2}{5}$ ; A. I, 10, I, penultimate ray 1 in head; caudal  $3\frac{3}{4}$  in rest of fish, rounded behind; least depth of caudal peduncle  $1\frac{1}{4}$  in head; pectoral  $4\frac{1}{2}$  in fish without caudal; ventral  $1\frac{1}{2}$ , circular,  $1\frac{3}{5}$  in space to vent.

Uniform dull brown. Obscure brown band from jaws along side of head and trunk, on former entirely below eye. Band obsolete or not evident in some specimens. Dorsals and anals deep brown, soft fins with submarginal longitudinal dusky-brown band. Other fins dull brown.

Hawaiian Islands, Polynesia.



U. S. N. M., no. 17991. Oahu,  
Hawaiian Islands. Dr. J. H.  
Streets. Length 90 to 117 mm.  
Five examples.

U. S. N. M., no. 51133, Hawaii.  
U. S. Fish Comm. (05140 and 05141)  
Length 145 and 140 mm. Two  
examples.

U. S. N. M., no. 55149. Wailuku  
River, Maui. U. S. Fish Comm.  
Albatross explorations 1902. Length  
48 to 103 mm. Eleven examples.

U. S. N. M., no. 55216. Stream  
near Lahaina, Maui. April 12, 1902.  
U. S. Fish Comm. Albatross  
Explorations 1902. Length 165 mm.

U. S. N. M., no. 55411. Kaiwika,  
Hawaii. U. S. Fish Comm. (05136).  
~~Bureau of Fish Albatross~~  
Length 155 to 175 mm. Three  
examples.



2104

U. S. N. M., no. 55412. Hawaiian  
Islands. Bureau U. S. Fish Comm.  
(05119). Length 51 to 148 mm.  
Two examples.

U. S. N. M., no. 82815. Maui.  
Wilkes Exploring Expedition. Length  
65 mm.

U. S. N. M., no. 82854. Oahu.  
Wilkes Exploring Expedition. Length  
102 mm.

U. S. N. M., no. 82862. Oahu.  
Wilkes Exploring Expedition. Length  
116 mm.

U. S. N. M., no. 82886. Hilo,  
Hawaii. Wilkes Exploring Expedition.  
Length 80 to 88 mm. Two  
examples.



U. S. N. M., No. 82888. Maui.  
Wilkes Exploring Expedition.

U. S. N. M., No. 82891. Hilo.  
Wilkes Exploring Expedition.

A. N. S. P., Nos. 23345 to 23348.  
Hawaiian Islands. Dr. J. K. Townsend.  
Length 70 to 77 mm.

A. N. S. P., Nos. 28032 to 28033.  
Hawaiian Islands. Bureau of  
Fisheries. Length 105 mm.



Sicydium cyanocephalum Valenciennes

Sicydium cyanocephalum Valenciennes,  
Hist. Nat. Poiss., vol. 12, p. <sup>111</sup>134, pl. 352,  
1837 (type locality, Manado, Celebes).

Bleeker, Nat. Tijds. Ned. Indië, vol. 9,  
p. (192) 201, 1855 (Batjan; Sawangan,  
Yoncea; Garut, Purworedjo, Tjirebat,  
Java; West Sumatra), p. 284 (Su-  
wangan, Celebes); vol. 12, p. 293, 1856

(Bleling, Bali); vol. 13, p. 385, 1857  
(Batjan); <sup>Act</sup> vol. 16, p. 209, 1858 (Batjan);

vol. 20, p. 156, 1859-60 (Tjibadjang,  
3000 feet); — Günther, Cat. Fish.

Bret. Mus., vol. 3, p. 94, 1861 (compiled)  
Martens, Preuss. Exped. Ost. Asien, vol. 1, p. 392, 1876 (Wuriana Adenare)

Ogilbye - Grant, Proc. Zool. Soc. London,  
p. 166, 1884 (Moluccas; East India). — Boulenger,

Ann. Mag. Nat. Hist., London, ser. 6,  
vol. 15, p. 185-189, 1895 (Palawan).  
— Károlyi, Termész. Füzetek, Budapest, vol. 5, p. 166, 1881

(1882) (Palaboen).

Sicydium cyanocephalum Bleeker, Act. Soc.

Ned. Ind. Nedl., vol. 3, no. 7, p. 2, 1857-58  
(Padang, Sumatra); vol. 5, no. 8, p. 1,  
1858-59 (Kiabatdiatas, Celebes); (Act.

Sumatra), vol. 8, p. 42, Feb.-Aug. 1859 (Padang,  
Priaman).



Sicydium cynocephalus Bleeker,  
 Nat. Tijds. Ned. Indië, vol. 9, p.  
 (192) 201, 1855 (Batjan; Sawangan,  
 Lonca; Garut, Purworedjo,  
 Tjisebat, Java; West Sumatra),  
 p. 284 (Sawangan, Celebes); vol. 12,  
 p. 293, 1856 (Boleling, Bali); vol.  
 13, p. 385, 1857 (Batjan); vol. 16,  
 p. 209, 1858 (Batjan); vol. 20, p.  
 156, 1859-60 (Tjikadjang, 3000 feet);  
 Act. Soc. Sci. Ind. Néerl., vol. 3,  
 no. 9, p. 2, 1857-58 (Padang, Sumatra);  
 vol. 5, no. 8, p. 1, 1858-59 (Kisbat-  
 diatas, Celebes); (Acht. Sumatra),  
 vol. 8, p. 42, Feb.-Aug. 1859 (Padang;  
 Priaman).



Sicydium cynocephalum Károli,  
Termesz. Füzetek, Budapest, vol. 5,  
 p. 166, 1881 (1882) (Palaboen)

Gobius cynocephalus (Quoy and  
Gaimard) Valenciennes, Hist. Nat.  
Pois., vol. 12, p. (177) 134, 1837 (name  
 in text).



2109

Sicyopterus cynocephalus Bleeker,  
Verlag. Kon. Akad. Wet. Amsterdam,  
ser. 2, vol. 9, p. 275, 1876 (Sumatra;  
Java; Bali; South Borneo; Celebes;  
Matjan). — Jordan and Richardson,  
Philippine Journ. Sci., p. 51, 1910  
(reference). — Herre, Gobies of  
Philippines, p. 306, 1927 (copied).  
— Roxas and Martin, Depart. Agric.  
Comm. Manila, Techn. Bull. 6, p. 229,  
1937 (reference).

Sicydium lagocephalum (not Valenciennes)  
Bleeker, Verhand. Batavia, Genoot.  
(Blenn. Gob.), vol. 22, p. 39, 1849.

Gobius hasselti Bleeker, Nat. Tijds.  
ned. Indie, vol. 1, p. 250, 1850 (type  
locality, Tjisebat in Bantam,  
Java).



Depth 6 to  $7\frac{1}{2}$ <sup>in total</sup>; head  $5\frac{1}{2}$  to  $6\frac{1}{4}$ , width  $1\frac{1}{3}$  to  $1\frac{1}{2}$ . Snout strongly convex; eye 4 to 5,  $1\frac{1}{3}$  to 2 in interorbital; maxillary extends below hind part of eye, jaws subequal; upper lip papillate; upper teeth close set, pointed, curved, obtuse or acute; teeth of lower lip slender, in mandible each side 5 to 12, anteriorly and posteriorly some enlarged or canine like.

Scales 75 to 80 in lateral series, 17 transversely between second dorsal and anal; 35 predorsal forward to occiput. Predorsal, nuchal, scapular, and axillary ventral scales cycloid, others ctenoid.

D. VII - I, 11 or 12, first dorsal higher than body depth with third spine longest and filamentous; A. I, 10 or 11, like



second dorsal, lower than body depth; caudal obtuse, rounded, little longer than head; pectoral obtuse, rounded, little longer than head, rays 21 to 23; ventral rays I, 5, subcircular, little longer than postocular region of head; frenum elevated.

Body above deep violet or olive green, below silver or golden. Iris greenish, edge of pupil golden. Inclined subocular brownish violet band. <sup>Back</sup> ~~Dorsals~~ with 5 or 6 broad oblique violet brown bands, often obscure, sometimes indistinct. Dorsal and anal golden, rays sometimes variegated with large irregular brown spots. Anal with lower third or fourth brownish violet. Pectoral violet olive, edged with golden. Ventrals pale olive or golden. Caudal golden, basally olive or violet, behind violaceous, above and below with diffuse intermarginal violet band.

Length 65 to 160 mm.

(Bleeker.)

East Indies, Philippines.



Sicydium fuliag (Herre)

2112

Sicyopterus fuliag Herre, Gobies of  
Philippines, p. 309, fig. 3 (tooth), 1927  
(type locality, Pinacanawan River at  
Lamug, a barrio in the mountains  
east of Tuguegarao, Cagayan Province,  
Karoan). Royas and Martin, Departm.  
Agric. Comm., Manila, Techn. Bull. 6, p.  
229, 1937 (reference).

Depth  $5\frac{1}{3}$  to  $5\frac{4}{5}$ ; head  $4\frac{1}{5}$  to  
 $4\frac{1}{3}$ , width  $1\frac{1}{6}$  to  $1\frac{1}{4}$ . Snout  
 $2\frac{1}{5}$  to  $2\frac{1}{3}$  in head; eye  $6\frac{2}{3}$  to 8,  
3 to  $3\frac{2}{3}$  in snout,  $2\frac{2}{3}$  to  $3\frac{1}{3}$   
in interorbital; maxillary not  
quite reaching front eye edge or  
below it; mouth horizontal,  
wide; upper lip broad, fleshy,  
with 3 clefts, median linear,  
and baylike or sacklike one  
at middle of each side, inner



2113

edge of lip tuberculate; behind middle cleft of upper lip short nipplelike papilla, and short very stout one below each lateral cleft; upper teeth in a closely packed row, honey yellow tips tricuspid, median cusp longest with rounded tip, others shorter and very sharp pointed, tips projecting very little beyond gum; on outer edge of gums of lower lip row of simple, horizontal, widely spaced teeth, additional to strong symphyseal pair of canines inner row with 4 to 6 teeth on each side with last 2 enlarged, caniniform, usually as large as anterior canines; inter-orbital broad, flat,  $2\frac{2}{5}$  to  $2\frac{1}{2}$  in head.

Scales 70 in lateral series; 20 to 22 transversely; 36 to 40 predorsal extend forward nearly



2114

to eyes. Body beneath and in front of ventrals, and in pectoral axil, naked. Scales much smaller anteriorly on body than those posteriorly.

D. VI - I, 10, fins well separated first dorsal elevated with first 4 or 5 spines elongated, but united, second and third longest or  $2 \frac{9}{10}$  to 4 in length or usually a little longer than head, posterior ray of second dorsal  $1 \frac{1}{4}$  to 2 in head; A. I, 9 or 10, like second dorsal, but lower; caudal equals or slightly longer than head, truncate or slightly rounded; least depth of caudal peduncle  $1 \frac{1}{4}$  to 2 in head; pectoral  $1 \frac{1}{5}$  to  $1 \frac{1}{4}$ , very broad, pointed; ventral 2 or nearly twice, and 3 or nearly 3 in space to very short rounded anal papilla.

In alcohol dusky olive brown, paler to yellowish or whitish



beneath, with about 7 blackish crossbars, wider than interspaces, which descend to belly and most apparent on posterior half. Forward-curved heavy black line descends from eye to mouth angle. More or less waved heavy black line crosses interorbital from eye to eye, terminating in black spot on upper eye margin. Anterior 2 similar lines and behind another line or series of dashes. First dorsal uniform dull olive brown. Second dorsal pale olive, with numerous crossbars of dusky brown lines or spots, running diagonally downward and backward. Caudal uniform with body color, tip darker. Anal very dark olive brown. Pectoral blackish, with narrow yellowish margin. Ventrals yellowish.

Length 72 to 140 mm. (Herre.)

Philippines.



2116  
Sicydium microcephalum Bleeker

Sicydium microcephalus Bleeker, Nat.  
Tijds. Ned. Indië, vol. 7, p. 437, 1854

(Type locality, Tjibiling, Java).

Günther, Cat. Fish. Brit. Mus.;  
vol. 3, p. 95, 1861 (copied).

Sicydium microcephalum

— Ogilvie-Grant, Proc. Zool. Soc. London,  
1884, p. 169 (copied).

Sicyopterus microcephalus Bleeker,  
Verlag. Kon. Akad. Wet. Amsterdam,  
ser. 2, vol. 9, p. 278, 1876 (Java; Celebes).



Depth 7 to  $7\frac{3}{4}$  in total; head  $6\frac{2}{3}$  to  $6\frac{3}{4}$ , width  $1\frac{1}{4}$ . Snout obtuse, convex; eye 4 and less in head, 2 in interorbital; maxillary extends below front part of eye, jaws subequal; upper lip papillate; upper teeth crowded, pointed, curved; lower labial teeth slender, each side of mandible 5 to 8 curved, anteriorly and posteriorly longer canines.

Scales 60 in lateral series; 15 or 16 between second dorsal and anal transversely; 20 predorsal forward to occiput, conspicuously small, largest on tail.

D. VI - I, 10 or 11, first dorsal acute, little less to somewhat higher than body depth, second to fourth spines longest and subequal; A. I, 10 or 11, subequal with second dorsal; caudal obtuse, rounded,  $4\frac{1}{3}$  to  $4\frac{2}{3}$  in body; pectoral



2118  
obtuse, rounded, longer than head,  
rays 19 or 20; ventral rays I, 5,  
subcircular, not or somewhat  
shorter than head without snout,  
frenum rather broad. Anal  
papilla short, obtuse.

Body above bright violaceous,  
below silvery. Iris violet green,  
pupil edge golden. Subocular  
violet bar. Sides with yellow  
spots in longitudinal series,  
posteriorly on tail coalescent or  
reticulate. Fins rose violet.  
Dorsals with small, crowded,  
irregular spots, pectorals with  
numerous dots and caudal with  
deep longitudinal bands of deep  
violet. Caudal above and below,  
and paired fins, edged with golden.  
Anal violaceous golden, below  
edged brown.

Length 90 to 112 mm. (Bleeker.)  
East Indies.



219

Sicydium fasciatum Day

Sicydium fasciatum Day, Journ.  
Asiatic Soc. Bengal, vol. 43, pt. 2,  
p. 31, 1874 (type locality, Burma);  
Fishes of India, pt. 2, p. 299, pl. 64,  
fig. 7, 1876 (type). — Ogilvie-Grant,  
Proc. Zool. Soc. London, 1884, p. 168  
(copied). — Day, Fauna British India,  
Fishes, vol. 2, p. 273, 1889.  
fig. 92.

Depth  $4\frac{7}{8}$ ; head  $4\frac{2}{3}$ , width  $1\frac{1}{2}$ .  
Snout 3 in head; eye  $4\frac{1}{2}$ ,  $1\frac{1}{2}$   
in snout,  $1\frac{3}{4}$  in interorbital;  
maxillary reaches opposite hind  
eye edges, length 2 in head; lips  
rather thick; upper teeth small,  
implanted in gums in single series;  
inner row of lower teeth large, conic,  
recurved, spaced, 2 canines near  
symphysis also minute row of  
sharp ones on lower lip; head  
flattened above, eye impinging on  
upper profile.



Scales 67 in lateral series; 19 transversely; 30 predorsal nearly forward to eyes. Scales strongly ctenoid, irregularly arranged, on predorsal and before anal smaller than others and more or less cycloid. Cheeks and opercle nased.

D. VI - I, 10, fourth spine  $3\frac{7}{8}$  in fish without caudal, ninth ray  $1\frac{1}{4}$  in head; A. 11, tenth ray  $1\frac{1}{3}$ ; caudal 1, convex behind; least depth of caudal peduncle  $1\frac{1}{2}$ ; pectoral 1, rays 17; ventral I, 5, fin  $1\frac{1}{2}$  in head.

Reddish brown, with 6 vertical darker bands on body, wider than ground color, also some dark spots. Under surface of body dirty yellowish brown. Fins nearly black, with light, nearly white edge.

Length 95 mm.

Burma.

(Day.)



Sicydium griseum Day

Sicydium griseum Day, Journ. Linn.  
Soc. London, vol. 13, Zool., p. 140, 1878

(type locality, South Canara, in  
fresh water). ~~Water of the sea~~  
~~water~~ — Ogilvie — Grant, Proc. Zool.

Soc. London, 1884, p. 169 (copied).  
— Day, Fishes of India, ~~part 4~~ pt. 4,  
p. 747, 1878 (copied); Fauna British  
India, Fishes, p. 273, 1889.  
vol. 2. ~~length~~ width 1.

Depth 6 in total; head  $5\frac{1}{2}$ , snout  
not overhanging mouth; eye 4 in head,  
over 1 in snout,  $1\frac{1}{2}$  in interorbital;  
mouth cleft reaching  $\frac{1}{2}$  in eye,  
lower jaw placed horizontally;  
lips thick, edge of upper coarsely  
fringed; upper teeth uniserial,  
small, close set, implanted on  
gums; lower teeth with outer  
horizontal row, posterior and  
opposite symphysis 2 strong,  
recurved canines; upper surface



of head flat.

Scales 80 in lateral series; 25 transversely. Scales strongly ctenoid, irregular in size and shape and rows, extend forward on predorsal nearly far as eyes, none on sides of head.

D. VI - I, 10, spines filiform and project beyond membrane; A. 11; caudal rounded; pectoral rays 17; ventral 6.

Brownish, with 8 or 9 rings of darker tint encircling body, wider than ground color. Fins dark, most deeply so at edges.

Length 76 mm. (Day.)

India,



2123

Sicydium parvipinnis (Guichenot)

Cotylopus parvipinnis Guichenot,  
Notes Ile de la Réunion, vol. 2, Add.  
C, p. 11, 1862 (type locality, Réunion).  
— Bleeker, Rech. Faune Madagascar,  
Poiss., pt. 4, p. 78, 1874 (reference).  
— Sauvage, Hist. Nat. Madagascar,  
Poiss., p. 520, 1891 (reference).

Sicydium parvipinne Ogilvie-Grant,  
Proc. Zool. Soc. London, 1884, p. 170  
(copied).

Sicydium parvipinnis Boulenger, Cat.  
Fresh-water Fish. Africa, vol. 4, p. 45,  
1916 (compiled).



Depth  $5\frac{3}{4}$ . Eye over 5 in head, 2 in interorbital; maxillary not reaching opposite front eye edge.

Belly naked  
D. VII - I, 10, <sup>first dorsal with spines not produced,</sup> second dorsal high high as body, rays extend above membrane and last slightly produced into point; A. I, 10; caudal little longer than pectoral or 6 in total length; pectoral long as head.

Color pale yellow, grayish on belly. Each scale with brown border and black central spot. Dorsal and anal fins yellow, spotted with brown, latter also with black marginal band. Caudal brownish yellow. Pectoral yellow, brownish towards end.

Length 110 mm. (Agilbe Grant, Boulenger.)

Reunion, Mascarene Islands.



2125

Genus Lentipes Günther

Lentipes Günther, Cat. Fish. Brit. Mus.,  
vol. 3, p. 96, 1861. (Type Sicyogaster  
concolor Gill. Lentipes Günther proposed  
to replace Sicyogaster Gill.)

Sicyogaster (not Brisout de Barneville 1846)  
Gill, Proc. Acad. Nat. Sci. Philadelphia,  
p. 102, 1860. (Type Sicyogaster concolor  
Gill, orthotypic.)



Body elongate. Head oblong, broad, depressed. Snout obtuse, convex. Eyes moderate. Mouth nearly horizontal, jaws subequal. Lips moderately thick. Both jaws with single row of teeth, premaxillary closely set and tricuspid, and behind these several series of small teeth, hidden in the gum, which succeed former as they become broken or worn out. Lower lip with a series of numerous short pointed horizontal teeth, sometimes indistinct.

Gill openings moderate.

Body naked on posterior part covered with cycloid scales. Dorsal fins separated, first with 6 spines. Caudal rounded. Ventral united into a short disk adherent to belly.



## Analysis of Species

- a.<sup>1</sup> No scales present. concolor
- a.<sup>2</sup> Body naked, except few scales on trunk posteriorly and on caudal peduncle. semirudus



2128

Lentipes concolor (Gill)

Sicyogaster concolor Gill, Proc. Acad. Nat. Sci. Philadelphia, p. 102, 1860 (type locality, Fresh waters of Hilo, Hawaii "Habitat cum Sicydio Stimpsoni in aquae dulcis rivulis saxi adhaerens.").  
Cat. Fish. Brit. Mus., vol. 3, p. 96, 1861 (copied);

Lentipes concolor Günther, Journ. Mus. Godeffroy, vol. 6, pt. 11, p. 184, 1877 (Hilo);  
Rep. Voy. Challenger, vol. 1, pt. 6, p. 61, 1880 (Streams of Hawaii). — Jordan  
and Seale, Bull. Bur. Fisher., vol. 25, p. 411, 1905 (1906) (reference). —  
Fowler, Mem. Bishop Mus., vol. 10, p. 402, 1928 (copied).

— Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, pt. 1, p. 491, 1903 (1905) (copied).



2129  
Body subcylindrical anteriorly  
tail gradually tapering. Head <sup>in body</sup>  $\frac{5}{1}$   
~~broader~~ <sup>higher</sup> than <sup>wide</sup> ~~high~~, rounded in  
front. Eyes advanced in head.  
Mouth moderate, horizontally cleft.  
Upper teeth close set anteriorly,  
ends expanded, tricuspid, with  
median cusp largest and partly  
rounded; lateral teeth fewer,  
more spaced, simple, partly  
cylindrical, little recurved;  
lower teeth anteriorly, subcylindrical,  
recurved and wide set.

Body scaleless.

D. VI - 11, first dorsal with  
flexible  $\bar{=}$  spines; A. 10; caudal  
rounded; pectoral rays 15;  
ventral rays I, 5.

Color purplish. Anal margin  
purple. Paired fins partly  
pearly. (Gill.)

Hawaii. This species not  
obtained since originally described,  
and its size not given.



Lentipes seminudus Günther

Lentipes seminudus Günther, Rep. Voy. Challenger, vol. 1, pt. 6, p. 61, 1880 (type locality, Fresh waters of Honolulu).

— Jordan and Seale, Bull. Bur. Fisher., vol. 25, p. 411, 1905 (1906) (reference).

— Fowler, Mem. Bishop Mus., vol. 10, p. 401, 1928 (Maui).

(Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, pt. 1, p. 491, 1903 (1905) (copied).



2131

Depth  $6\frac{1}{4}$  to  $6\frac{3}{5}$ ; head  $4\frac{3}{5}$  to  $4\frac{2}{3}$ ,  
width  $1\frac{2}{5}$  to  $1\frac{1}{2}$ . Snout 3 to  $3\frac{1}{4}$   
in head; eye 4; maxillary reaches  
 $\frac{1}{2}$  in eye, not quite opposite hind  
eye edge in smaller example;  
length  $2\frac{1}{10}$  to  $2\frac{1}{8}$  in head;  
teeth above trifid, with median  
point largest, small, even,  
more conspicuous than in  
Sicyopterus stimpsoni; lower  
teeth larger and fewer,  
uniserial, simple, conic; also  
outer row (damaged) of small  
movable setiform teeth at front  
of lip at least; tongue thick,  
rounded in front; interorbital  
 $3\frac{1}{5}$  to  $3\frac{1}{4}$ , level. Gill rakers  
1 + 1 rudimentary points; gill  
filaments slightly longer than  
eye.

Body naked, except few scales  
on trunk posteriorly and on



caudal peduncle. Scales with <sup>2132</sup> 16  
to 18 basal marginal parallel  
striae; circuli coarse.

D. VI - I, 10, I; A. I, 10, I.

Hummy brown to cinnamon brown  
in alcohol. Fins dull brown.  
In smaller example spinous dorsal  
dusky and anal white edged  
with dusky submarginal streak.  
Hawaiian Islands.



2133  
U. S. N. M., no. 82888. Maui,  
Hawaiian Islands. Wilkes Exploring  
Expedition. Length 63 mm.

U. S. N. M., no. 83078. "Manila"  
[doubtless Maui]. Wilkes Exploring  
Expedition. Length 84 mm.



Genus Stiphodon Weber

2134

Stiphodon Weber, Zool. Forschungsr.  
Simon, Bd. 5, p. 269, 1895. (Type  
Stiphodon semoni Weber = Sicydium  
elegans Steindachner, monotypic.)

Body elongate, subcylindrical.  
Head flattened above. Snout  
prominent, rounded, obtuse.  
Mouth cleft small, nearly  
horizontal, upper jaw prominent.  
Lips hardly thickened. Lower lip  
with series of numerous closely  
set teeth, which more or less  
tricuspid, besides in upper  
jaw some movable microscopic  
teeth - and hooked, bent. Lower  
jaw with a few canine like  
teeth, bent outwards and  
backwards. Head and foremost  
part of body naked. Scales 35  
in lateral series, little smaller



2135  
on anterior part of body. Dorsals  
separate, first with 6 spines.  
Centrals form sucking disk,  
which only at base attached  
to belly.



2136

~~Stipodon~~  
Sicydium elegans (Steindachner)

Sicydium elegans Steindachner, Sitzb.  
Ber. Akad. Wiss. Wien, vol. 80, pt. 1,  
p. 152, 1879 (1880) (type locality,  
Society Islands). — Ogilvie-Grant,  
Proc. Zool. Soc. London, p. 162, 1884  
(copied).

Microsicydium elegans Jordan and Seale,  
Bull. Bur. Fisher., vol. 25, p. 411, 1905  
(1906) (reference). — Fowler, Bull. Bishop  
Mus., no. 38, p. 27, 1927 (Marquesas);  
Mem. Bishop Mus., vol. 10, p. 401, 1928  
(Marquesas); vol. 11, no. 5, p. 361, 1931  
(Papeete); vol. 11, no. 6, p. 442 (reference).



2137

Stiphodon elegans Beaufort, Bijdr. Dierk.  
Amsterdam, vol. 19, p. 143, pl. 2, figs. 4  
- 5, 1913 (Batjan; Ceram). — Weber and  
Beaufort, Nova Caledonia, Sarasin  
and Roux, Zool., vol. 2, pt. 1, p. 39, 1915  
(Tao R.). — Herre, Journ. Pan-Pac.  
Res. Inst., vol. 6, no. 4, p. 10, Oct.-Dec.  
1931 (fresh water Moorea). — Fowler,  
Occas. Pap. Bishop Mus., vol. 9, no. 25,  
p. 8, fig. 4 (male and female), 1932  
(350 feet, Vai Tuoru R., Papenoo  
Valley, Tahiti; Taioha, Nukuhiva;  
300 feet Amoa Valley, Fatuhiva;  
Hakahetan R., Uapou).

Koumans, Prelim. Rev. Gobioid Fishes, p.  
30, 1931 (type of S. ~~elegans~~ <sup>semoni</sup> seen).



Stiphodon semoni

~~W~~ Weber, Zool. Forsch. Australien, Semon, vol. 5, p. 270, 1894 (<sup>type locality</sup> New Guinea); Nova Guinea, vol. 4, pt. 2, p. 264, 1908 (Klipong R. and Manapiri, north New Guinea). — Beaufort, Bijdr. Dierk., p. 144, 1913.



Depth  $5\frac{3}{4}$  to  $6\frac{2}{5}$ ; head  $4\frac{4}{5}$  to 5, width  $1\frac{2}{5}$  to  $1\frac{3}{5}$ . Snout  $3\frac{4}{5}$  to 4 in head; eye  $3\frac{1}{5}$  to  $3\frac{1}{4}$ , greater than snout or interorbital; maxillary reaches  $\frac{1}{3}$  to  $\frac{2}{5}$  in eye, length  $3$  to  $3\frac{1}{5}$  in head; lips entire; teeth slender, clavate, appearing as simple swollen conic points, though evidently contracted tricuspid with median cusp of each longest; inner pair of lower wide set front canines; interorbital  $3\frac{1}{5}$  to  $3\frac{1}{2}$ , level or but slightly concave. Gill rakers very minute or vestigial papillae; gill filaments  $1\frac{4}{5}$  in eye.

Scales 27 or 28 in median lateral series to caudal base and 3 more on latter; 10 transversely between soft dorsal and anal origins; 10 or 11 predorsal to occiput. Head naked. Scales smaller on belly than



2140

elsewhere. Scales with row of 17 or 18 parallel, slender, rather long, apical spinules; 11 to 16 basal radiating striae; circuli moderately coarse.

D. in male VII, in female VIII - 10, third spine  $1\frac{1}{3}$  in head in male,  $1\frac{1}{8}$  times head in female, second ray  $1\frac{1}{4}$  to  $1\frac{1}{2}$  in head; A. 10, second ray  $1\frac{1}{5}$  to  $1\frac{3}{4}$ ; caudal  $1\frac{1}{3}$  times head; pectoral  $1\frac{1}{8}$  to  $1\frac{1}{3}$ ; least depth of caudal peduncle  $1\frac{2}{3}$  to  $1\frac{7}{8}$  in head; ventral  $1\frac{1}{5}$  to  $1\frac{3}{5}$ .

Male with back and tail above light brown. Upper surface of head, abdomen, and tail whitish, peritoneum showing through on abdomen silvery gray. Dark or dusky brown streak each side of snout above, over eye, and then forks to form single dark line to predorsal. Dark or dusky brown



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line from behind eye bounding  
brown color of back to upper  
surface of caudal peduncle.  
Down middle of back row of  
5 pale spots. Blackish band  
around snout, below eye back  
to pectoral, then brownish black  
as broad dark lateral band to  
caudal base, appearing as if  
with about 10 still darker blotches  
in its course, with rounded jet  
black spot less than eye at  
caudal base. Iris dark gray.  
Each dorsal spine and ray with  
3 or 4 dark spots, on soft dorsal  
subbasal spot blackish. Anal with  
similar, though much paler, dark  
spots. Caudal pale or whitish,  
with 4 blackish transverse bands.  
Pectoral pale, with 4 or 5 very  
indistinct transverse bands.  
Ventral transparent whitish.



Female dark or dusky brown on back. Sides with numerous indistinct parallel, vertical, close set, obscure brownish streaks. Under surface of body paler, head below and belly tinged with grayish. Iris dark gray. Fins all dark gray to dusky, upper and lower caudal edge paler. Ventrals gray.

East Indies, Melanesia, Polynesia.



2143

B. P. Bishop Museum). Twenty-three  
examples. Elevation 350 feet, P'ai  
Tuoru River, Papenoo Valley,  
Tahiti, Society Islands. October  
26, 1928. A. M. Adamson. Length  
16 to 30 mm.

B. P. Bishop Museum). Twenty-  
three examples. Taiohae, Nukunua,  
Marquesas Islands. September 1929.  
Mumford and Adamson. Length  
14 to 17 mm.

B. P. Bishop Museum. Twenty-  
four examples. Elevation 300 feet,  
Omoo [Omoo] Valley, Fatuhiva,  
Marquesas Islands. September  
16, 1930. Collection Le Brunee.  
Length 17 to 28 mm.

B. P. Bishop Museum. Seventy-  
eight examples. Hakahetau River  
near sea level, Uapou, Marquesas  
Islands. December 4, 1931. Collection  
Le Brunee. Length 15 to 28 mm.



2144

Genus Pleurosicya Weber

Pleurosicya Weber, Siboga Exped., vol.  
65, Fische, p. 456, 1913. (Type

Pleurosicya boldinghi Weber, monotypic.)



Body elongate, cylindrical.  
Head pointed. Mouth little  
oblique, upper jaw little  
prominent. Lower lip with row  
of needle-like movable small  
teeth, obliquely placed. In  
upper jaw teeth in one row,  
simple, unequal partly canine  
like. Teeth in lower jaw small  
in one row, behind symphysis  
2 curved canines. Intermaxillary narrow.  
Scales 25 in axial lateral series,  
ctenoid. Head scaled above  
after eyes, rest of head naked?  
Breast naked. Dorsal fins separate,  
first dorsal with 5 spines.  
Ventrals united, forming disk,  
which not adherent to belly,  
with many ramifications in  
short distance.



2146

Pleurosicya boldinghi Weber

Pleurosicya boldinghi Weber, Siboga  
Expd., vol. 65, Fische, p. 457, fig. 88  
(type locality, S. lat.  $1^{\circ}42'5''$ , E. Long.  
 $130^{\circ}47'5''$ , in 32 meters, West New  
Guinea). — Fowler, Mem. Bishop Mus.,  
vol. 10, p. 402, 1928 (copied).

Depth  $3\frac{2}{3}$ ; head  $2\frac{1}{2}$ , width  $1\frac{1}{2}$ .  
Snout 3 in head; eye  $4\frac{1}{2}$ ,  $1\frac{1}{3}$   
in snout, greater than interorbital;  
maxillary reaches  $\frac{1}{2}$  in eye,  
length  $2\frac{1}{6}$  in head; mouth  
cleft large, little inclined,  
jaws equal; interorbital  $4\frac{1}{3}$ ,  
low, eye entering upper profile  
of head.

Scales 25 in lateral series;  
9 transversely; 8 ~~or~~ 9 predorsal  
forward not quite to eye. Except



2147

as noted head naked, also chest  
and prepectoral region. Scales  
ctenoid.

D. V - 8, third spine  $2\frac{3}{4}$  in  
head, first ray  $1\frac{1}{3}$ ; A. 8, third  
ray 3; caudal  $1\frac{3}{5}$ , convex  
behind; least depth of caudal  
peduncle  $2\frac{7}{8}$ ; pectoral  $1\frac{3}{4}$ ,  
rays 18; ventral length  $1\frac{7}{8}$  in  
head.

Yellowish, only one specimen  
with dark blotch upon first  
dorsal.

Length 22 to 31 mm. (Weber.)  
East Indies.



Pleuroxicya annandalei Hornell  
and Fowler

Pleuroxicya annandalei Hornell  
and Fowler,



Genus Leptogobius Bleeker

2149

Leptogobius Bleeker, Arch. Néerl. Sci.  
Nat. Harlem, vol. 9, p. 311, 1874. (Type  
Gobius oxypterus Bleeker, orthotypic.)



Body partly elongated. Head compressed. Mouth cleft oblique. Lower jaw prominent. Teeth in each jaw uniserial, slender, pointed, equal. No canines. No labial teeth. Tongue bilobate. Scales 25 in axial lateral series, ctenoid. Head naked? First dorsal with 5 spines, second with 8 or 9 rays. Anal with 13 to 15 rays. Second dorsal and anal & subtriangulate, acute. Ventrals united, free from belly.



2157

Leptogobius oxypterus (Bleeker)

Gobius oxypterus Bleeker, Nat. Tijds.  
ned. Indië, vol. 9, p. (392) 400, 1855

(type locality, Lake at Grati, Java).

Günther, Cat. Fish. Brit. Mus.,  
vol. 3, p. 34, 1861 (copied).

Leptogobius oxypterus Bleeker, Verslag.  
Kon. Akad. Wet. Amsterdam, ser. 2,  
vol. 9, p. 292, 1876 (Java).



Depth 6; head  $4\frac{2}{3}$ , width 2.  
 Snout much shorter than eye,  
 acute; eye 3 and less in head,  
 greater than interorbital;  
 Maxillary extends partly below  
 eye; mouth well inclined, lower  
 jaw protruding; teeth in jaws  
 small, slender, equal.

Scales 25 in lateral series;  
 7 or 8 transversely between second  
 dorsal and anal. Head and  
 predorsal naked. Scales on body  
 ctenoid.

D. V - I, 7 or 8, fins well  
 separated, front rays lower and  
~~hind rays~~ much lowest and anterior  
 ray elevated acutely, little higher  
 than body; A. I, 13 to 14; caudal  
 obtusely rounded, shorter than  
 head; Pectoral rays 15, fin  
 obtusely rounded, little longer  
 than head; ventral rays I, 5,  
 length 2 in head.



2153

Body clear greenish. Iris pale  
green or yellow. Lips black.  
Postanal region with 12 transverse  
angulated violaceous striae,  
angles directed anteriorly.  
Fins pale yellowish. Anal rays  
with violet dots or streaks.

Length 23 to 28 mm. (Bleeker.)  
East Indies.



Gobius oxypterus Bleeker

Gobius oxypterus Bleeker, Nat. Tijds.  
ned. Indië, vol. 9, p. (392) 400, 1855  
(type locality, Lake at Grati, Java).



2154

Genus Sicyopus Gill

Sicyopus Gill, Proc. Acad. Nat. Sci. Philadelphia, p. 262, 1863. (Type Sicydium zosterophorum Bleeker, designated by Bleeker, Arch. Néerl. Sci. Nat. Harlem, vol. 9, p. 311, 1874.)

Body elongate, somewhat cylindrical to little compressed. Head obtusely convex. Mouth cleft nearly horizontal. Each jaw with series of slender, hooked, movable teeth, none canines or none labial. Lips thick. Tongue rounded. Scales 32 to 55 in lateral series, mostly ctenoid, cycloid anteriorly. First dorsal with 6 spines, second dorsal with 10 or 11 rays. Anal rays 10 or 11, fin obtuse like second dorsal. Ventral rounded, free from belly.



Sicyopus multisquamatus Beaufort

Sicyopus multisquamatus Beaufort,  
Zool. Anzeiger, vol. 39, p. 142, 1912  
(type locality, Brook in the  
mountains near Honitete, West  
Ceram).



## Analysis of species

a.<sup>1</sup> Series of 10 to 12 conic teeth in each jaw; body with 4 transverse brownish bands, first broadened.

gasterophorus

a.<sup>2</sup> Series 40 conic teeth above and 20 below; brown lateral band from head to caudal. bahinensis



japonicus (Houttuyn).

Synodus variegatus (Lacepede).

japonicus Houttuyn, Bark. Holland. Maatsch. Wet. Haarlem

Salmo variegatus Lacepede. Hist. Nat. Poiss., vol. 5, 1803, p. 157,

vol. 20, 1782, p. 337

pl. 3, fig. 3 (type locality, Japan)

Synodus variegatus Norman, Proc. Zool. Soc. London, 1935, p. 106

(Hawaiian Is.).

Synodus varius Jordan and Evermann, Bull. U.S. Fish Comm., vol. 23,

pt. 1, 1903 (1905), p. 63, pl. 2, fig. 14 (Hilo; Honolulu).

Synodus japonicus Fowler, Mem. Bishop Mus., vol. 10, 1928, p. 64, fig.

12 (Honolulu; Hilo; Laysan; French Frigates Shoal; Guam; Rarotonga; Man-

gareva; Faté; Shortland Is.; Society Is.; Ebon I.; Fiji; types of Synodus

dermatogenys); vol. 11, no. 5, 1931, p. 318 (Honolulu); Proc. U.S. Nat Mus.,

vol. 80, art. 6, 1932, p. 4 (<sup>Ch</sup>Charles and Hood Is., Galapagos; Nukahiva);

Mem. Bishop Mus., vol. 11, no. 6, 1934, p. 391 (Hawaii).

→ One, 59 mm., Tagus Cove, Albermarle Island, March 1; one 57 mm., same

locality, March 3.



2157

Sicyopus zosterophorus (Bleeker)

Sicydium zosterophorum Bleeker,  
Natt. Tijds. Ned. Indië, vol. 12, p. (293)  
296, 1856 (type locality, Boeliling,  
Bali). — Günther, Cat. Fish. Brit.  
Mus., vol. 3, p. 95, 1861 (copied).

Sicyopus zosterophorus <sup>me</sup> ~~Gill, Proc.~~  
~~Acad. Nat. Sci. Philadelphia, p. 262, 1863~~

— Bleeker, Verslag. Kon. Akad. Wet.  
Amsterdam, ser. 2, vol. 9, p. 287, 1876  
(Bali).



Depth 8 in total; head 5, width 1 1/2. Snout obtuse, convex, shorter than eye; eye 3 1/2 in head, 1 in interorbital; maxillary extends below posterior part of eye, jaws equal; upper lip fleshy; series of 5 or 6 unequal, conic, pointed, curved, spaced teeth each side in both jaws.

Scales 32 in lateral series; 8 or 9 transversely between second dorsal and anal; head and neck scaleless. Scales on body strongly ctenoid, larger on tail.

D. VI - I, 9, first dorsal obtusely rounded, lower than body, median spines longest, second dorsal little or not higher; A. I, 9, little lower than second dorsal; caudal obtusely rounded, little longer than head; pectoral obtusely rounded, not or little less than head, rays 15;



2159

ventral rays  $\underline{I}, 5$ , twice shorter than head. Anal papilla conic, acute.

Color rose green, paler below. Head violaceous. ~~Head violaceous~~ Body encircled by 4 violet brown bands; first broadest, extends from first dorsal spine to second dorsal origin; second and third between second dorsal and anal, narrow; fourth behind anal. Each scale between bands with brown crescentic spot. First dorsal violet brown, above golden-yellow, second dorsal with basal half violaceous, terminal half golden yellow. Caudal golden basally, terminally violet black. Paired fins and Anal golden.

Length 51 mm.

East Indies. Bleeker had a single specimen.



2160

Sicyopus balinensis (Bleeker)

Sicydium balinense Bleeker, Nat.  
Tijds. Ned. Indië, vol. 12, p. (293) 297,  
1856 (type locality, Booleling, Bali).  
— Günther, Cat. Fish. Brit. Mus.,  
vol. 3, p. 96, 1861 (copied).

Sicyopus balinense Gill, Proc. Acad.  
Nat. Sci. Philadelphia, p. 262, 1863.

~~\*\*\*~~ Bleeker, Verslag. Kon. Akad. Wet.  
Amsterdam, ser. 2, vol. 9, p. 288, 1876  
(Bali).



2161

Depth 8 in total; head 5, width  $1\frac{3}{5}$ . Snout obtuse, convex, shorter than eye; eye  $3\frac{1}{2}$  in head, 1 in interorbital; maxillary extends below posterior part of eye, jaws subequal; upper lip fleshy; both jaws with a series of conic, pointed, curved teeth, above each side 20 little crowded and equal, lower 10 each side, spaced, unequal.

Scales 35 in lateral series; 8 or 9 transversely between second dorsal and anal; 7 predorsal. Head and predorsal anteriorly naked. Scales of trunk strongly ctenoid, much larger on tail and posteriorly.

D. VI - I, 9 or 10, first dorsal obtusely rounded, double lower than body depth and median spines longest, 2 second dorsal higher; A. I, 9 or 10, not or rather shorter than second dorsal; caudal obtusely rounded, not or somewhat shorter



than head; pectoral obtuse, rounded,  
little shorter than head, rays 17  
or 18; ventral rays I, 5, twice  
shorter than head. Anal papilla  
conic.

Body rose green, below paler.  
Snout violet. Iris greenish.  
Violet band from eye to maxillary.  
Brown lateral band from head  
to caudal. Back and sides clouded  
with brownish violet. Many scales  
on side each with brown crescentic  
spot. Fins yellowish golden.  
Caudal violaceous posteriorly.  
Pectoral with brownish spot at  
middle of base.

Length 48 to 51 mm. (Bleeker.)  
East Indies.



2162

Genus Bryanina Fowler

Bryanina Fowler, Occas. Pap. Bishop  
Mus., vol. 9, no. 25, p. 10, 1932. (Type  
Bryanina inana Fowler, orthotypic.)

Body elongate, moderately slender, trunk and tail compressed. Head moderate. Muzzle obtuse. Eye large, high, anterior. Mouth small, inferior. Lips entire. Lower labial teeth fine, slender, small. Pair of wide set inner lower canines. Scales large, begin on posterior half of trunk, ctenoid, uniform. Dorsal spines 6, rays 10. Anal rays 11. Caudal longer than head.



differs from Sicyopus Gill<sup>2163</sup>  
in the presence of distinct lower  
labial teeth and greater  
anterior scaleless region of  
trunk. Not only is the head  
scaleless, but also the entire  
front half of the trunk.



Bryanina inana Fowler

2164

Bryanina inana Fowler, Ocas. Pap.  
Bishop Mus., vol. 9, no. 25, p. 10, 1932  
(type locality, Elevation 3500 feet <sup>fig. 5</sup>  
Wai Tuoru River, Papenoo Valley,  
Tahiti, Society Islands); Mem.  
Bishop Mus., vol. 11, no. 6, p. 442,  
1934 (reference).



2165

Depth  $5\frac{1}{4}$  to  $7\frac{3}{4}$ ; head  $4\frac{1}{8}$  to  $4\frac{1}{5}$ , width  $1\frac{1}{3}$  to  $1\frac{7}{8}$ . Snout  $3\frac{1}{2}$  to  $3\frac{3}{4}$  in head; eye  $3\frac{2}{5}$  to  $3\frac{1}{2}$ , subequal with snout or interorbital; maxillary reaches  $\frac{1}{5}$  to  $\frac{1}{4}$  in eye, length  $2\frac{1}{2}$  to  $2\frac{4}{5}$  in head; upper lip entire; teeth fine, slender, close set, upper simple and lower forked or bifid; pair of lower wide set, rather large, inner curved canines; interorbital  $2\frac{2}{3}$  to  $3\frac{1}{2}$ , level. Gill rakers as minute or vestigial papillae; gill filaments  $1\frac{3}{4}$  in eyes.

Scales 30 to 32 in median lateral series to caudal base and 3 more on latter, beginning on body below middle of spinous dorsal; 14 transversely. Head, predorsal, chest and trunk till opposite middle of first dorsal



2166

and belly nearly to vent, naked. Caudal base scaly. Scales with row of 6 to 8 slender, long, straight, apical denticles; 10 basal radiating striae; circuli rather large and coarse.

D. VI-10, third spine  $1\frac{1}{2}$  to  $1\frac{4}{5}$  in head, third ray  $1\frac{1}{2}$  to  $1\frac{4}{5}$ ; A. 11, third ray  $1\frac{1}{3}$  to  $1\frac{3}{4}$ ; caudal  $1\frac{1}{8}$  times head; least depth of caudal peduncle  $1\frac{7}{8}$  to 2 in head; pectoral  $1\frac{1}{5}$  to  $1\frac{1}{4}$ ; ventral  $1\frac{2}{3}$  to  $1\frac{3}{4}$ .

Pale or light brown, still paler to whitish on under surfaces. Along side of head 3 large darker brown blotches and 7 or 8 on rest of body, of which third forked above and sprinkled with some minute black dots. Dark or dusky spot below eye. Iris gray. Dorsals and caudal



grayish, other fins pale to whitish.<sup>2167</sup>  
Polynesia. Distinctive in its  
coloration.

B. P. Bishop Museum, no. 3494.  
Elevation 350 feet, Vai Tuoru  
River, Papenoo Valley, Tahiti,  
Society Islands. October 26, 1928.  
A. M. Adamson. Length 33 mm.

Type.

B. P. Bishop Museum. Two  
specimens, same data, paratypes.  
Length 30 to 32 mm.

B. P. Bishop Museum. Eight  
examples. Mouth of river, Hanavave  
Valley, Fatuhiva, Marquesas Islands.  
September 12, 1930. Collection Le  
Branee. Length 19 to 29 mm.



B. P. Bishop Museum. One  
example. Elevation 300 feet, Amoa  
(Lomoa) Valley, Fatuhiva,  
Marquesas Islands. September  
16, 1930. Length 25 mm.



2169

Genus Gobiopterus Bleeker

Gobiopterus Bleeker, Verslag. Kon. Akad. Wet. Amsterdam, ser. 2, vol. 9, pp. 290, 311, 1874. (Type Apocryptes brachypterus Bleeker, virtually orthotypic, as he says "Les caractères sont établis sur les Gobiopterus brachypterus".)

micrapocryptes Hora, Mem. Indian Mus., vol. 5, <sup>no. 11,</sup> p. 751, <sup>April</sup> 1923. (Type micrapocryptes fragilis Hora, orthotypic.)



Body elongate, compressed.  
Head compressed. Eyes advanced,  
in front half of head. Mouth  
cleft nearly vertical, lower  
jaw prominent. Teeth in both  
jaws in one row, in upper jaw  
canines, in lower jaw anterior  
ones canines, lateral ones smaller,  
In lower jaw behind symphysis,  
canine on each side, inserted  
little more inward. No labial  
teeth. Tongue bilobate. Scales  
25 to 36 in axial lateral series,  
ctenoid. Head naked? Dorsal  
fins separated, first with 5 or 6  
spines, second with 8 or 9 rays.  
Anal rays 8 to 14. Caudal  
truncate. Ventrals united,  
free from belly.



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## Analysis of Species

- a.<sup>1</sup> Scales 25 in lateral series;  
body and fins without spots;  
D. V - I, 7 or 8; A. I, 12 or 13.  
brachypterus
- a.<sup>2</sup> Scales 36 in lateral series;  
body and fins with black bands  
and spots; D. VI - I, 8; A. I, 7.  
variiegatus



Gobileptes brachypterus (Bleeker)

Apoecryptes brachypterus Bleeker,  
Nat. Tijds. Ned. Indië, vol. 9, p. (392)  
401, 1855 (type locality, Lake Grati,  
Pasuruan Province, Java).

Károli, Termész. Füzetek, Budapest,  
vol. 5, p. 165, 1881 (Selita).

Fowler, <sup>cat.</sup> Cat. (Malaya Fish.), p. 212, 1927  
(Singapore).

Günther, Cat. Fish. Brit. Mus., vol. 3,  
p. 84, 1861 (copied).



2172

Gobiopterus brachypterus (Bleeker)

Apocryptes brachypterus Bleeker, Nat.  
Tijds. Ned. Indië, vol. 9, p. (392) 401,  
1855 (type locality, Lake at Grati,  
Java). — Günther, Cat. Fish. Brit.  
Mus., vol. 3, pp. 80, 84, 1861 (copied). —  
Károli, Termész. Füzetek, Budapest,  
vol. 5, p. 165, 1881 (1882) (Selita).  
— Fowler, List Fish. Malaya, p. 212,  
1927 (Singapore).

Gobiopterus brachypterus Bleeker,  
Verslag. Kon. Akad. Wet. Amsterdam,  
ser. 2, vol. 9, p. 290, 1874 (Java).



2173

Depth 6, body elongate, compressed; head 4, width 2. Snout shorter than eye, depressed; eye 4 in head, equals interorbital; maxillary extends below front part of eye; mouth cleft well inclined, lower jaw longer; teeth large, pointed, curved, spaced, upper all subequal with 9 or 10 each side, below 6 or 7 erect, anteriorly 3 or 4 longer and strong erect curved canines behind symphysis.

Scales 25 in lateral series; 8 transversely between second dorsal and anal. Head and predorsal scaleless.

D. V - I, 7 or 8, well separated, spines low, and rays not or little lower than body depth; A. I, 12 or 13, little lower than body; caudal shorter than head, obtusely rounded; pectoral rays 14 or 15,



2174

fin obtusely rounded, shorter  
than head without snout;  
ventral like pectoral, rays  
I, 5. Anal papilla conic, acute.

Body pale greenish. Iris  
yellowish green. Upper lip blackish.  
Fins pale yellowish, anal  
rays variegated with brown  
and black.

Length 23 to 29 mm. (Bleeker.)

East Indies, Malaya.



2175  
Gobiopterus variegatus (Peters)

Apocryptes variegatus Peters, Monatsb.  
Akad. Wiss. Berlin, p. 267, 1868 (type  
locality, Singapore).

Gobiopterus variegatus Bleeker, Verslag.  
Kon. Akad. Wet. Amsterdam, ser. 2, vol.  
9, p. 291, 1874 (reference).  
copied



Depth  $4\frac{3}{4}$ ; head  $3\frac{2}{3}$ . Eye in second fourth of head, equals interorbital. Teeth in both jaws uniserial, each side below a canine.

Scales 36 in lateral series; 11 transversely between second dorsal and anal fins.

D. VI - I, 8; A. I, 7.

Yellowish brown, with irregular black spots. From upper lip to eye and to upper part of preopercle black streak, and parallel with last on cheek a longitudinal blotch. Dorsal fins with longitudinal rows, <sup>and</sup> caudal with transverse rows of blackish spots. Anal with dark longitudinal band. A longitudinal blotch from middle of pectoral base toward fin tip. (Bleeker.)

Malaya.



2177

Gobiopterus chuno (Buchanan-Hamilton)

Gobius chuno Buchanan-Hamilton,  
Fishes of Ganges, pp. 53, 366, 1822  
(type locality, Estuary below Calcutta  
— Hora, Mem. Indian Mus., vol. 9,  
pl. 14, fig. 6, 1929 (lit. drawing of  
Buchanan-Hamilton)).

Gobiopterus chuno Hora, Records  
Indian Mus., vol. 36, pt. 4, p. 487,  
Dec. 1934 (discussion).

Microgobius fragilis Hora, Mem.  
Indian Mus., vol. 5, no. 11, p. 751, text-  
fig. 31<sup>33</sup>, April 1923 (type locality,  
Baliaghata Canal, outskirts of  
Calcutta; 1.9 miles N.E. of Kalidai;  
off Balugaon; East of Barisal).  
— Hora, Prelim. Rev. Gobioid Fish.,  
p. 32, 1931 ("cotypes seen").



Caecula macrodon (Bleeker).

Sphagebranchus macrodon Bleeker, Ned. Tyds. Dierk., vol. 1, 1863, p.  
184 (type locality, Borneo).

Ophichthys macrodon Günther, Journ. Mus. Godeffroy, vol. 9, pt. 17,  
1910, p. 402 (Society Is.).

Caecula macrodon Fowler, Mem. Bishop Mus., vol. 10, 1928, p. 47  
(compiled).