

Genus Pterogobius Gill

1780

Pterogobius Gill, Proc. Acad. Nat. Sci.
Philadelphia, ^{vol. 15,} p. 266, 1863. (Type
Gobius virgo Schlegel, monotypic.)

Body elongate, little compressed.
 Head partly cylindrical.
 Snout long as eye. Eyes in
 front half of head. Mouth
 little oblique, lower jaw
 prominent. Teeth in both jaws
 in several rows, outer enlarged,
 lower outer row extending only
 to half of jaw, last canine
 like. Tongue rounded to slightly
 emarginate. Nostrils not tubular.
 Space interorbital equals eye.
 Gill openings extend forward
 below, isthmus moderate to
 narrow. Inner edge of shoulder
 girdle without fleshy flaps.
 Scales 65 to 135 in axial lateral
 series, small, very weakly stenoid
 or cycloid. Neck and breast
 covered with cycloid scales.
 Head scaled above behind eyes.

sometimes scaly on upper edges
of preopercle and opercle.
Mucous canals indistinct, perhaps
2 longitudinal extend over
preopercle. Dorsal fins separate,
first fin with 8 spines, second
fin with 20 to 28 rays. Anal
rays 19 to 27. Caudal obtuse.
Pectoral with free silk like
rays at upper edge, base scaled.
Ventrals united, small, under
pectorals.

1783

Pterogobius elapoides (Günther)

Gobius elapoides Günther, Proc. Zool.
Soc. London, p. 665, pl. 63, fig. 1, (type
locality, Japan?) — F. R. Smith,
Ann. Mag. Nat. Hist., ser. 6, vol. 18,
p. 196, 1896.

Pterogobius elapoides Jordan and Snyder,
Proc. U. S. Nat. Mus., vol. 24, p. 90, 1901
(Aomori; Hakodate; Matsushima Bay;
Annot. Zool. Japon., vol. 3, p. 113, 1901 (reference)
Settsu, Japan; Fusan, Korea);
Yanaka, Journ. Fac. Sci. Imp. Univ.
Tokyo, vol. 1, pt. 1, p. 5, pl. 3, 1931;
Jap. Fish. Life Colours, no. 326, 1933.

Pterogobius elapoides elapoides Tomiyama,
Jap. Journ. Zool., vol. 7, no. 1, p. 86, 1936
(Saitu; Anakusa; Kumamoto north to
Takenoura; near Onagawa; Miyagi and
to Tobisima).

Pterogobius daimio Jordan and Snyder,
Proc. U. S. Nat. Mus., vol. 24, p. 91, fig.
17, 1901 (type locality, Misaki, Japan;
Wakanoura).

1785

Depth $4\frac{2}{5}$ to $4\frac{1}{2}$; head $3\frac{1}{2}$ to $3\frac{3}{4}$,
width $1\frac{2}{3}$ to 2. Snout $3\frac{1}{8}$ to $3\frac{1}{2}$
in head; eye 4 to 5, $1\frac{1}{4}$ to $1\frac{1}{2}$
in snout, $1\frac{1}{6}$ to $1\frac{2}{5}$ in inter-
orbital; maxillary very oblique,
reaches opposite front eye
edge, length $2\frac{3}{4}$ to 3 in head;
teeth in rather narrow bands
in jaws, fine, conic, simple, lower
outer row little enlarged;
tongue entire, edge little convex;
interorbital $3\frac{3}{4}$ to $3\frac{7}{8}$ in head,
low, level, or slightly depressed
medially. Gill rakers 8+14,
conic, $\frac{4}{5}$ of gill filaments, which
2 in eye.

Scales 63 to 68 in axial
lateral series to caudal base and
4 to 6 more on latter; 26 transversely
between soft dorsal and anal
origins; 28 predorsal scales
forward to middle of interorbital.
Head largely naked, predorsal

scales extending forward to eyes so all of postocular region on head above scale. Scales on chest, breast and prepectoral much smaller than others on body. Four parallel horizontal rows of papillae on cheeks; row along hind margin of preopercle and forward along each mandibular ramus on its lower face. Scales with 9 basal radiating striae; circuli rather coarse, arched basally, parallel apically; some anterior scales on back with many as 16 apical denticles in single row.

D. VIII - I, 20 or 21, fourth ^{spine} ray $1\frac{1}{3}$ to $1\frac{2}{5}$ in head, ends of third to sixth spines flexible and filamentous, first ray $2\frac{1}{3}$ to $2\frac{1}{2}$; A. I, 18, first ray $3\frac{1}{2}$, seventeenth ray $2\frac{1}{4}$; caudal $1\frac{1}{8}$ to $1\frac{1}{3}$, convex behind; least depth

of caudal peduncle $2\frac{1}{2}$ to $2\frac{3}{5}$; ¹⁷⁸⁷
pectoral $1\frac{1}{5}$ to $1\frac{1}{4}$, rays 22,
of which 5 to 7 uppermost,
short, free and silk like;
ventral rays 7, 5, fin length
 $1\frac{4}{5}$ to $1\frac{7}{8}$ in head. Vent close
before anal.

Light brown, paler to whitish
on under surfaces. Iris gray
white, narrow dark brown
band connects eyes across
interorbital, and continued down
over cheek below but not to
branchiostegal region, and
adjoining both front and hind
edges. Pale or whitish line.
Dark brown narrow postocular
band, slopes little upward
posteriorly and then transversely
over predorsal to join its fellow.
On body 7 broader transverse
dark brown bands, all narrowing

1788

little below, and all with narrow white bordering line both in front and behind; first 2 meet on belly and all but last² extend on bases of dorsal fins short space, where slightly broader, and below only reach anal fin, though not extending on its base. Last transverse band at caudal base, but not reaching bases of uppermost or lowermost rays. Dark brown line close along hind edge of opercle.

U. S. N. M., no. 45327. Fusan, ¹⁸⁸⁵ 1789
Korea. P. L. Jouy. Length 65 to
87 mm. Six examples.

U. S. N. M., no. 45326. Korea.

P. L. Jouy. Length 88 mm.

U. S. N. M., no. 49962. Hakodate
Japan. D. S. Jordan and J. O.
Snyder. Length 70 mm.

U. S. N. M., no. 71423. Shiogama,
Rikuzen, Japan. Bureau of
Fisheries. Albatross Explorations.
Length 67 mm.

U. S. N. M., no. 71431. Sagami,
Misaki, Japan. Bureau of
Fisheries. Albatross Explorations
1906. Length 88 to 120 mm.
Seven examples. As Pterogobius
daimio.

U. S. N. M., no. 74791. Yawatahama,
Japan. Y. Manabe. Length
93 mm.

U. S. N. M., no. 49941. Wakanoura,
Japan. D. S. Jordan and J. O. Snyder.
Length 70 to 88 mm. Two examples.
As Pterogobius daimio.

Pterogobius virgo (Schlegel)

1790

Gobius virgo Schlegel, Fauna Japonica,
Poiss., pt. , p. 143, pl. 74, fig. 4, 1846
(type locality, entrance to Nagasaki Bay). —
Bleeker, Verh. Batavia. Genoot.
(hal. Ichth. Japan), vol. 25, p. 15, 1853
(reference). — Günther, Cat. Fish. Brit.
Mus., vol. 3, p. 79, 1861 (copied).

Pterogobius virgo Jordan and Snyder,
Proc. U. S. Nat. Mus., vol. 24, p. 88, 1901
Annot. Zool. Japon., vol. 3, p. 113, 1901 (Nagasaki).
(Miyajima; Waga) — Taniyama,
Jap. Journ. Zool., vol. 7, no. 1, p. 86,
fig. 34, 1936 (Tayama Bay; Misaki;
Wakayama; Nagasaki).
— Anonymous, Illustrat. Jap. Aquat. Pl.
Animals, vol. 1, pl. 47, fig. 4, 1931. — Tanaka,
Jap. Fish. Life Colours, no. 325, 1933.

1791

Depth 7 to $7\frac{1}{2}$; head $3\frac{1}{2}$ to $4\frac{1}{4}$. Snout 3 to $3\frac{7}{8}$ in head; eye $4\frac{1}{2}$ to 6, 1 to $1\frac{1}{5}$ in snout, $\frac{1}{2}$ to $1\frac{1}{3}$ in interorbital; maxillary reaches front eye edge to $\frac{1}{3}$ in eye, length 3 to $3\frac{1}{4}$ in head; mouth little inclined, low, jaws subequal or lower included; teeth small, curved, pointed, in 2 or 3 rows in jaws, outer row slightly enlarged, ^{front end of tongue slightly concave;} none canines; ^{interorbital concave} eye entering upper profile of head. Gill rakers 1 + 10, slender, ^{4 of eye.}

Scales 130 to 135 in lateral series; 40 or 41 transversely between front of second dorsal and anal. Head minutely ^{though not quite forward to eyes,} scaled on predorsal, postocular region and opercle above, otherwise naked. Chest, breast and prepectoral region finely scaled. Most scales on body finely ctenoid, on upper

1792

posterior region and under portions
cycloid.

D. VIII, 27 or 28, fifth spine
 $2\frac{1}{4}$ to $2\frac{1}{3}$ in head, second
dorsal height $2\frac{7}{8}$ to 3; A. 27,
fin height $2\frac{1}{4}$ to 4; caudal $1\frac{1}{3}$
to $1\frac{2}{5}$; least depth of caudal
peduncle $2\frac{7}{8}$ to $3\frac{1}{8}$; pectoral
 $1\frac{1}{5}$ to $1\frac{1}{4}$, ray 20 to 22, of which
3 or 4 uppermost free; ventral
I, 5, fin $1\frac{2}{3}$ to $1\frac{3}{4}$ in head.

In life light olive gray
with greenish on back. Bright
orange lateral band from side
of snout to upper part of caudal
base, bordered above and below
by narrow band of light blue.
Blue band back from mouth corner
to lower part of opercle. Under
surface of head pale to whitish.
Iris yellow. Dorsals edged orange,
with blackish or dark ^{bluish} submarginal
band on each, fins basally orange.

1793
Caudal olive, broad blackish
margin behind, Anal pale
olive with broad dark margin.
Paired fins olive gray.
Japan.

U. S. N. M., no. 22573. Niuramisaki,
Japan. Japanese Government.
Length 210 mm.

U. S. N. M., no. 49967. Miyajima,
Japan. D. S. Jordan and J. D.
Snyder. Length 194 mm.

U. S. N. M., no. 71425. Misaki,
Sagami, Japan. Bureau of
Fisheries. Albatross Expedition
1906. Length 158 mm.

1795

Pterogobius zacalles Jordan and Snyder

Pterogobius zacalles Jordan and Snyder,
Proc. U. S. Nat. Mus., vol. 24, p. 93, fig.
18, 1901 (type locality, Misaki, Japan).
— Franz, Abhandl. Kon. Bayer.
Akad. Wiss., vol. 1, Suppl. Band 1,
p. 68, 1910 (Fukuoka). — Tomiyama,
Jap. Journ. Zool., vol. 7, no. 1, p. 86, 1936
(Ioni Bay; Tokyo market; Misaki;
Hudisawa; Toyama Bay; Nagasaki).

Depth $5\frac{2}{5}$; head $4\frac{1}{8}$. Snout
 $3\frac{1}{2}$ in head, length $2\frac{3}{5}$; eye
 $3\frac{1}{2}$, subequal with snout or
interorbital; maxillary
reaches $\frac{1}{5}$ in eye, length $2\frac{1}{2}$
in head; mouth oblique, begins
in front level with lower edge
of eye, jaw apparently even in
front; teeth pointed, simple,
in narrow bands in jaws,
and an outer biserial [?] row of
enlarged ones, lower teeth with

small, curved canine each side; interorbital low, eye entering upper profile of head. Gill rakers slender.

Scales 96 in lateral series; 33 transversely. Head with minute predorsal scales, post-ocular region and upper part of preopercle and opercle, on preopercle extending well down below level of eye, otherwise head naked. Prepectoral region, chest and breast well scaled, and closely set small scales on body cycloid.

D. VIII, 26, fifth spine 2 in head, second dorsal height $2\frac{1}{5}$; A. 26, fin height $2\frac{4}{5}$; caudal $1\frac{1}{4}$; least depth of caudal peduncle $2\frac{2}{7}$; pectoral ^{3 or 4 uppermost filamentous} $1\frac{1}{8}$, rays $2\frac{2}{4}$; ventral rays I, 5, fin $1\frac{1}{2}$ in head.

Body with 5 dark, broad, vertical

Gobileptes lanceolatus (Schneider)

Electris lanceolata Schneider, Syst.
Ichth. Bloch, p. 67, pl. 15, 1801 (type
locality, "Tranquebaria" [Tranqueran]).

Apocryptes lanceolatus Károli, Termesz.
Füzetek, Budapest, vol. 5, p. 166, 1881
(1882) (Canton). — Chu, Biol. Bull. St.
John's Univ., no. 1, p. 166, Jan. 1931
(reference).
Martens, Preuss. Exped. Ost Asien, vol. 1, p.
392, 1876 (Singapore). —

1797

bands; obscure dark band at origin of first dorsal, second at interdorsal notch and then 2 more from soft dorsal base distinct, besides last at caudal base; none of bands continuous below. Each scale with conspicuous, narrow, dusky edging. Fin more or less dusky throughout.

Length 95 mm. (Jordan and Snyder.)
Japan.

1798

Pterogobius zonoleucus Jordan and Snyder

Pterogobius zonoleucus Jordan and Snyder,
Proc. U. S. Nat. Mus., vol. 24, p. 94, fig.
19, 1901 (type locality, Misaki, Japan).
— Yamiyama, Jap. Journ. Zool., vol. 7,
no. 1, p. 86, 1936 (Toyama Bay; Tiba
to Nagasaki).

Depth $4\frac{1}{2}$; head 4, width 2.
Snout $4\frac{1}{8}$ in head; eye $3\frac{4}{5}$,
greater than snout, subequal
with interorbital; maxillary
reaches $\frac{1}{4}$ in eye, length $2\frac{7}{8}$
in head; mouth cleft oblique,
begins in front level with lower
edge of eye, lower jaw slightly
protruding; teeth caniniform, small,
in narrow bands in jaws, outer
row enlarged, above outer row
little larger anteriorly, lower with
several enlarged near symphysis,
followed by few smaller ones,

1799

then 2 larger curved canines,
front edge of tongue concave;
interorbital flat, eye touching
upper profile of head.

Scales 65 or 66 in lateral
series; 21 transversely between
front of soft dorsal and anal;
head naked except predorsal
region. Prepectoral region naked.
Body covered with small, finely
ctenoid scales, little larger
posteriorly or on caudal peduncle.

D. VIII - 20, mostly with free
ends and second to fifth largest,
third $2\frac{4}{5}$ in fish without caudal,
third dorsal ray 2 in total head
length; A. 19, third ray $2\frac{1}{3}$;
caudal $1\frac{1}{10}$, convex behind; least
depth of caudal peduncle $2\frac{1}{3}$;
pectoral 1, rays 19 of which
5 uppermost filamentous;
ventral I, 5, fin $1\frac{1}{8}$ in total
head length.

1800

Brown above, with 8 narrow, inconspicuous pale or light vertical bands; first at pectoral origin, second from front of first dorsal and second from hind part of same fin, 3 others from soft dorsal and others behind same fin, none united below. Second dorsal with 2 dark longitudinal bands, anal with 1. Ventrals blackish.

Japan.

U. S. N. M., no. 49918. Misaki, Japan.
D. S. Jordan and J. D. Snyder.
Length 53 mm. "Cotype" [= paratype]
of Pterogobius zonoleucus.

1807

Genus Pipidonia H. M. Smith

Pipidonia H. M. Smith, Proc. U. S. Nat. Mus., vol. 79, art. 7, p. 39, 1931. (Type Pipidonia quinquecincta H. M. Smith, orthotypic.)

Body elongate, compressed. Head depressed. Eyes advanced, in front half of head. Mouth small, oblique. Teeth small, in about 3 rows in each jaw, outer teeth somewhat enlarged. Scales with 39 axial lateral series, cycloid. Head naked. Snout, rami of lower jaw, and median surface of lower jaw with numerous short, fleshy filaments. Dorsal fins separate, first fin with 5 spines, second fin with 9 rays. Anal rays 9. Caudal wedge shaped,

1803
long as head. Pectoral broad,
without free silk like rays.
Ventrals united.

1804

Pipidonia arenaria (Snyder)

Heteroleotris arenarius Snyder, Proc.
U. S. Nat. Mus., vol. 35, p. 100, 1908
(type locality, Naha, Okinawa); vol.
42, p. 513, pl. 67, fig. 3 (types).
1912

Pipidonia arenarius Yoniyama, Jap.
Journ. Zool., vol. 7, no. 1, p. 93, 1936
(compiled).

Pipidonia quinquecincta H. H. Smith,
Proc. U. S. Nat. Mus., vol. 79, art. 7, p. 39,
1931 (type locality, Koh Pipidon, Siam).
— Swatti, Index Fish. Siam, p. 157, 1936
(reference).

Depth $6\frac{1}{2}$; head $3\frac{2}{3}$. Snout 4 in head from snout tip; eye 8, $2\frac{1}{2}$ in snout, $2\frac{1}{2}$ in interorbital; maxillary reaches $\frac{3}{4}$ to eye, length $4\frac{1}{8}$ in head from snout tip; mouth cleft oblique, front end begins level with lower edge of eye, mandible protruding; teeth in jaws in bands, no canines, none on palate; tongue truncate; interorbital flat, eye impinging on upper profile of head.

Scales 35 in lateral series; 12 transversely. Head, predorsal, prepectoral region, chest, breast and belly naked. Side of head with 4 papillate ridges, lowest few short barbels, extend from chin back. Scales on body anteriorly little smaller, cycloid, posteriorly ctenoid.

D. VI - 12, third spine $2\frac{1}{3}$ in

total head length, second ray $2\frac{3}{4}$, eleventh ray $1\frac{2}{3}$; A. 10, ninth ray $1\frac{2}{3}$; caudal 1, convex behind; least depth of caudal peduncle $2\frac{3}{4}$; pectoral $1\frac{1}{8}$, rays 18; ventral rays I, 5, fin $1\frac{1}{3}$ in total head length.

Whitish. Upper surface of head brown. Back with 4 brown cross bands, first over predorsal above pectoral base, second from middle of spinous dorsal base, third from front part of second dorsal and fourth from hind part of fin. Broad brown lateral band intersects dark cross bands from above, broadening at caudal base to form dark transverse band. Fins all pale otherwise.

Japan, Siam.

U. S. N. M., no. 62237. Kaha,
Okinawa, Riu Kiu. Albatross
Collection. Length 270 mm.
Type.

1808

Genus Pogonogobius H. M. Smith

Pogonogobius H. M. Smith, Proc. U. S.
Nat. Mus., vol. 79, art. 7, p. 37, 1931.
(Type Gobius planifrons Day,
monotypic.)

Body elongate, compressed. Head greatly depressed. Eyes in anterior half of head, widely separated. Mouth nearly horizontal, lower jaw slightly projecting. Teeth small, in several rows, none enlarged. Tongue rounded. About 8 short, fleshy barbels on each side of snout, one large pair on the chin near median line and one pair on each side of lower jaw in line with tubular anterior nostrils. Scales with 46ⁱⁿ axial lateral series, ctenoid, become smaller on predorsal. Opercles and cheeks naked. Mucous canals on opercles, cheeks, snout and under side of lower jaw. Dorsal fins separated, first fin with 6 spines, second

dorsal with 10 or 11 rays. Anal
rays 10 or 11. Caudal oblong.
Pectoral with free silk like
rays?

1811

Pogonogobius planifrons (Day)

Gobius planifrons Day, Proc. Zool. Soc.
London, 1873, p. 108 (type locality,
Bombay); Fishes of India, Pt. 2, p. 293,
pl. 63, fig. 9, 1876 (type); Fauna
British India, Fishes, vol. 2, p. 264,
1889.

Pogonogobius planifrons H. M. Smith, Proc.
A. S. Nat. Mus., vol. 79, art. 7, p. 37, 1931
(Menam Chao Phya, Paknam). — Fowler,
Proc. Acad. Nat. Sci. Philadelphia,
vol. 87, p. 161, 1935 (Paknam). — Suwatti,
Index Fish. Siam, p. 157, 1936
(reference).

1872

Depth 5; head 3, width $1\frac{1}{3}$. Snout
 $4\frac{1}{2}$ in head from snout tip; eye 6,
 ^{$1\frac{1}{3}$ in snout,}
greater than interorbital; maxillary
reaches $1\frac{1}{2}$ eye-diameters behind
eye, length $1\frac{3}{4}$ in head from
snout tip; mouth cleft nearly
horizontal, low, jaws subequal;
teeth numerous, villiform, in
rows, outer row enlarged, none
canines; interorbital $1\frac{1}{2}$ in eye,
low, upper edge of eye nearly
entering upper profile of head;
upper surface of head flat.

Scales 46 in lateral series;
^{18 predorsal.}
15 transversely; head naked,
fine tentacles near nostrils,
and rows of warty glands on
sides of head. Scale rows on
body very irregular, on predorsal
extend forward to eyes. Scales
on body finely ctenoid.

D. VI - IV, 10, second spine $2\frac{2}{3}$
in head, first ray 3; A. 10,

1813

first ray $4 \frac{1}{8}$, ninth ray $2 \frac{1}{10}$;
caudal $1 \frac{2}{3}$, rounded; least
depth of caudal peduncle $3 \frac{1}{5}$;
pectoral $1 \frac{2}{5}$, rays 19; ventral
rays I, 5, length $1 \frac{7}{8}$ in head.

Anal papilla rather large.
Color olive. Fins very dark
gray. Second dorsal spotted.
Black blotch at pectoral
base.

Length 100 mm.

India, Siam.

(Day.)

Genus Lophiogobius Günther

1814

Lophiogobius Günther, Ann. Mag. Nat. Hist. London, ser. 4, vol. 12, p. 241, 1873.
(Type Lophiogobius ocellicauda Günther, monotypic.) (Lophogobius Gill 1862 not involved.)

Ranulina Jordan and Starks, Proc. U. S. Nat. Mus., vol. 31, p. 522, 1906 (1907).
(Type Ranulina fimbriidens Jordan and Starks, orthotypic.)

Cassigobius Whitley, Austral. Zool., vol. 6, p. 334, 1931. (Type Lophiogobius ocellicauda Günther, virtually.)

Cassigobius Whitley proposed to replace Lophiogobius Günther.

1815

Body elongate, partly cylindrical, tapering to caudal. Head flat, depressed. Snout 3 times eye. Eyes advanced, in front half of head, small. Mouth oblique, reaches beyond eye, lower jaw prominent. Teeth in both jaws in 2 rows, outer enlarged, widely set, canine like. Outer row of lower teeth more or less horizontal, none canines. Tongue rounded. Bony interorbital ^{upper eye} width twice eye. Along edge of lower jaw row of barbels to hind edge of preopercle. Mucous canals indistinct. Gill openings extend far forward below. Isthmus narrow. Inner edge of shoulder girdle without fleshy flaps. Scales 40 in axial lateral series, ctenoid. Head scaled above

1876
behind eyes with ctenoid scales,
Preopercle and opercle with
ctenoid scales. Dorsal fins
separated, first with 7 spines,
second with 17 rays. Caudal
pointed, long as head. Pectoral
without free, silk like rays,
base oblique, naked. Ventrals
united, before pectoral.

1817

Koumans says "Whitley considers
Lophiogobius Günther 1863 as a
homonym of Lopogobius Gill 1862.
According to art. 36 of the
International Rules of zoological
nomenclature, these names are
not homonyms on this account
and are not to be rejected.
So Cassigobius is a superfluous
name."

1818

Lophiogobius ocellicauda Günther

Lophiogobius ocellicauda Günther, Ann.
Mag. Nat. Hist. London, ser. 4, vol. 12,
p. 241, 1873 (type locality, Shanghai).

— Evermann and Shaw, Proc. Cal.

Acad. Nat. Sci., vol. 4, no. 16, p. 120, 1927
(Wenchow). — Herre, Gobies of Philippines,
p. 272, pl. 22, fig. 1, 1927 (Fuechow). —

Tomiyama, Jap. Journ. Zool., vol. 7, no. 1,
p. 94, 1936 (compiled). — Reeves, Journ.

Pan-Pac. Res. Inst., vol. 2, no. 3, July-
Sep. 1927 (reference). — Chu, Biol.

Bull. St. John's Univ., no. 1, p. 163, Jan. 1,
1931 (reference).

Gobius (Lophiogobius) ocellicauda Rendahl
Arkiv Zool. Stockholm, vol. 16, no. 2, p. 20, April
9, 1924 (reference).

Lophiogobius ocellicauda Chu, Biol. Bull.
St. John's Univ., no. 1, p. 163, Jan. 1, 1931 (reference).

Ranulina fimbriidens Jordan and Starbuck,
Proc. U. S. Nat. Mus., vol. 31, p. 523, fig. 3,
1906 (type locality, Port Arthur).

Depth $5\frac{4}{5}$ to $6\frac{4}{5}$; head $3\frac{3}{8}$ to $3\frac{1}{8}$. Snout 3 in head ^{from snout tip}; eye $10\frac{1}{2}$, $3\frac{1}{2}$ in snout, 2 in interorbital; maxillary reaches $1\frac{1}{2}$ to 2 eye diameters beyond eye, length $1\frac{3}{4}$ to $1\frac{4}{5}$ in head ^{from snout tip}; mouth large, little inclined from horizontal, begins in front well below level of eye, lower jaw slightly projecting; teeth pointed slender, well spaced and biserial in jaws; outer row flares outward to nearly horizontal, and in inner row smaller and curved inward; under surface of head with very small close set short tentacles, more thickly set medially; few small papillae on snout above; interorbital 5 in head, low, concave.

Scales 40 in lateral series, entire and thin. Cheek, opercle

and predorsal scaly, rest of head ¹⁸²⁰ naked.

D. VIII — 17, third spine 3 in total head length, third ray 3; A. 17, third ray $3\frac{1}{6}$; caudal $1\frac{3}{5}$, convex behind; least depth of caudal peduncle $6\frac{1}{3}$; pectoral $1\frac{2}{5}$, rays 21; ventral rays I, 5, fin $1\frac{1}{2}$ in total head length.

Brownish, above each scale with broad darker area — on posterior margin of exposure. Top of head obscurely mottled darker. Below pale or whitish. Dorsals with 3 or 4 dark spots on each ray or spine, forming irregular streaks. Caudal with ^{conspicuous} round black basal blotch, about twice size of eye, and 4 ~~transverse~~ bars arched transversely behind. Pectoral with 5 or 6 dark transverse bars above,

1829
otherwise like ventral and anal
pale or uniform.
China:

1822

U. S. N. M., no. 61168, Port Arthur,
Korea. J. F. Abbott. Length 88
to 120 mm. Six examples.
"Cotypes" [= paratypes] of Ranulina
fimbriidens Jordan and Starbuck.

Genus Parachaetrichthys Bleeker ¹⁸⁷³

Parachaetrichthys Bleeker, Arch. Néerl.
Sci. Nat. Harlem, vol. 9, p. 325, 1874
(1875). (Type Chaetrichthys polynema
Bleeker, orthotypic.)

1824

Body elongate, little compressed.
Head subcylindrical. Snout
long as eye. Eyes advanced, in
front half of head. Mouth oblique,
lower jaw little prominent. Ramus
of lower jaw with many short
barbels. Teeth in both jaws in
several rows, outer one enlarged,
canine like, outer row of
mandible extends only to half of
jaw. Tongue subtruncate. Nostrils
not tubular. Bony interorbital
 $\frac{1}{2}$ eye diameter. Gill openings
wide, not continued forward below,
isthmus wide. Inner edge of
shoulder girdle without fleshy
flaps. Scales 30 in axial lateral
series, ctenoid. Breast and belly
scaled, more or less cycloid? Head
scaled on snout, above behind
eyes and on opercle and preopercle.
Open pore on each side of snout,

1825

one in median line in interorbital space, one on each side after eye, some along upper and hind edges of preopercle. Dorsal fins separate, first fin with 6 spines, second fin with 10 to 12 rays. Anal rays 10 or 11. Caudal pointed, much longer than head, with black ocellus on dorsal margin. Pectoral without free silk like rays, base sealed. Ventrals united, oblong, under pectorals.

1826

Parachaetrichthys hinsbyi ~~Johnston~~
(McCulloch and Ogilby)

Gobius hinsbyi Johnston, Proc. Roy. Soc.
Tasmania, p. 10, 1902 (1903) (type
locality, Tasmania) (name only).

— McCulloch and Ogilby, Rec.
Austral. Mus., vol. 12, no. 10, p. 215,
pl. 33, fig. 1, July 14, 1919 (type;
Wedge Bay, Tasmania; Queenscliff,
Victoria).

~~Gobius~~ Parachaetrichthys hinsbyi Fowler,
Mem. Bishop. Mus., vol. 10, p. 307, 1928
(reference).

Gobius pictus (not Malm 1863)
Castelnau, Proc. Zool. Soc. Victoria,
 vol. 1, p. 124, 1872 (St. Kilda).
 — Macleay, Proc. Linn. Soc. New South
 Wales, vol. 5, ^{p. 42} p. 599, 1881 (copied).
 — Lucas, Proc. Roy. Soc. Victoria,
 ser. 2, vol. 2, p. 28, 1890.

Depth $3 \frac{2}{5}$; head $3 \frac{1}{2}$. Snout
 $3 \frac{1}{3}$ in head; eye 4, $1 \frac{1}{3}$ in
 snout, greatly exceeds inter-
 orbital; maxillary reaches
 $3 \frac{1}{4}$ to eye, length $3 \frac{2}{5}$ in head;
 mouth low, little inclined
 from horizontal, lower jaw
 included in upper; teeth subequal
 in size, 3 or 4 rows in front
 part of each jaw, reduced to
 1 or 2 as extend backward;
 tongue rounded, free anteriorly;
 eyes close together, enter upper
 profile of head and interorbital

14528

narrow ridge. Gill openings continued well forward below, separated by narrow isthmus. Exposed edge of shoulder girdle smooth.

Scales 50 in lateral series; 15 transversely between second dorsal and anal. Opercle covered with small scales and few on cheeks, where concealed by mucus. Scales small and ctenoid, extend forward to nape behind eye. Breast and pectoral base with smaller cycloid scales. Rows of mucigerous papillae across cheek and opercle and around preopercle border.

D. $\overset{\text{or VIII}}{\text{VII}}_1 - \overset{\text{to 12}}{9}_1$, third spine $1\frac{4}{5}$ in head, second ray $1\frac{4}{5}$; A. $\overset{\text{to 11}}{9}_1$, third ray $2\frac{1}{2}$; caudal $1\frac{1}{4}$, convex behind; least depth of caudal peduncle $3\frac{1}{4}$; pectoral

1829

$1\frac{1}{3}$, rays 19; ventral rays I, 5,
length $1\frac{1}{8}$ in total head length.
Light olive on back, whitish
on sides and under surfaces.
Upper parts closely freckled
with gray dots and lines,
which unite to form about 5
darker cross-bars on back.
Middle of sides bear 5 darker
blotches formed of black dots,
most pronounced of which at
base of tail. Sides vertically
barred with about 13 gray
stripes, which most pronounced
anteriorly. Dark stripe extends
from eye to preorbital, another
descends across opercle. First
dorsal with many small gray
dots between rays, and on second
dorsal tend to form larger spots.
Caudal and pectoral with transverse
rows of gray spots on rays. Anal
and ventral colorless.

Length 33 to 86 mm. (McCulloch¹⁸³⁰
and Whitley.)
Tasmania, Victoria.

1831

Parachaeturichthys polynema (Bleeker)

Chaeturichthys polynema Bleeker,
Verh. Batavia. Genoot. (Japan), vol.
25, p. 44, fig. 4, 1853 (type locality,
Nagasaki, Japan).

Gobius polynema Günther, Cat. Fish.
Brit. Mus., vol. 3, p. 46, 1861 (China;
Madras). — Day, Fishes of India,
pt. , p. 286, Pl. 61, fig. 8, 18
— Fowler, Journ. Bombay Soc. Nat.
Hist., vol. 30, pt. 3, p. 649, 1925 (Sci.
); Proc. Acad. Nat. Sci.
Philadelphia, vol. 77, p. 262, 1925
(Delagoa Bay).
— Károli, Termész. Füzetek, Budapest, vol. 5,
p. 165, 1881 (1882) (Kobe; Nagasaki; Yokohama).

Gobius (Parachaeturichthys) polynema Barnard,
Ann. South African Mus., vol. 21, pt. 2,
p. 826, Oct. 1927 (Zululand, Delagoa Bay,
12 to 26 fathoms).

1832

Parachaeturichthys polynema Bleeker,
Verh. Akad. Wet. Amsterdam, vol.
18, p. 19, 1879 (Japan). — Jordan
and Snyder, Proc. U. S. Nat. Mus.,
vol. 24, p. 103, 1901 (Ywuga; Kobe;
Nagasaki; Wakanoura; Hiroshima;
Aomichi). — Jordan and Seale,
Proc. U. S. Nat. Mus., vol. 29, p. 528,
1905 (Hong Kong). — Herre, Gobies of
Philippines, p. 270, pl. 21, fig. 4, 1927
(Iloilo; Amoy, China; Manila Bay);
Fishes Herre 1931 Philippine Exped.,
p. 91, 1934 (Magallanes). — Tomiyama,
Jap. Journ. Zool., vol. 7, no. 1, p. 94, 1936
(Hiro, Karaka; Saizyo, Irado;
Nagasaki; Formosa).

— McCulloch and Ogilby, Rec. Austral Mus.,
vol. 12, no. 10, p. 213, July 14, 1919
(Somerset; Bombay). — McCulloch and
Whitley, Mem. Queensland Mus., vol. 8, pt. 2, p.
172, July 7, 1925 (reference).

Parachaeturichthys polynemus Jordan and Snyder,
Annot. Zool. Japon., vol. 3, p. 113, 1901 (reference).

? Gobius pictus (not Castelnau 1872)
Schmeltz, Cat. Mus. Godeffroy, no. 4,
p. 18, 1869 (Pelew Islands).

1834

Depth $5\frac{2}{5}$; head 4, width $1\frac{1}{2}$.
Snout 4 in head; eye $3\frac{7}{8}$, long
as snout; maxillary reaches
 $\frac{1}{3}$ in eye, length $3\frac{7}{8}$ in
head; teeth fine, in narrow
bands in jaws, outer row
enlarged; tongue broadly convex
in front; interorbital 7 in
head, narrow, concave. Gill
rakers 5 + 11, short points.

Scales 26 in axial lateral
series to caudal base and 3
more on latter; 9 transversely
above anal origin; 14 predorsal.
Three horizontal rows of fine
papillae across cheek. Scales
with 9 basal striae; apical
points 33 + 34 to 38.

D. VI - I, 10, second spine 2
in head, ninth ray $1\frac{3}{5}$; A. I, 9, I,
eighth ray $1\frac{1}{3}$; ventral 1;

1835

caudal $2\frac{1}{5}$ in combined head
and body, pointed; pectoral 3;
caudal peduncle depth $2\frac{1}{8}$ in
head.

Pale purplish gray. Fins
neutral gray, darkened terminally.
Large black, light ocellus on
upper caudal rays basally,
little larger than eye.

Zululand, Portuguese East
Africa, India, Philippines,
China, Formosa, Japan, Pelew
Islands?

1836
A. N. S. P., one example. Delagoa
Bay, Portuguese East Africa.
H. W. Bellmarley. Length 123 mm.

U. S. N. M., no. 49909. Anomichi,
Japan. J. D. Snyder and D. S.
Jordan. Length 110 to 128 mm. Six
examples.

U. S. N. M., no. 56419. Hong Kong,
China. P. L. Jouy. Length 58 to 78 mm.
Two examples.

U. S. N. M., no. 49867. Tsuruga,
Japan. Capt. A. Weston. Length
96 mm.

U. S. N. M., no. 49880. Nagasaki,
Japan. D. S. Jordan and J. D.
Snyder. Length 100 mm.

U. S. N. M., no. 86953. Foochow,
China. A. de C. Sowerby. Length
70 to 86 mm. Four examples.

1838

Genus Chaetrichthys Richardson.

Chaetrichthys Richardson, Voy. Sulphur,
Fish., p. 55, 1844. (Type Chaetrichthys
stigmatis Richardson, monotypic.)

Amblychaetrichthys Bleeker, Arch.
Néerl. Sci. Nat. Harlem, vol. 9, p. 324,
1874. (Type Chaetrichthys hexanema
Bleeker, orthotypic.)

Suwaga Jordan and Snyder, Proc. U.
S. Nat. Mus., vol. 24, p. 96, 1901 (1902).
(Type Suwaga fundicola Jordan and
Snyder, monotypic.)

Amblychaetrichthys

1839

Body elongate, compressed. Head partly cylindrical, compressed. Snout shorter than to subequal with eye. Eyes advanced, in front half of head. Mouth oblique, jaws equal or lower little prominent. On median ramus of lower jaw on each side 3 barbels. Teeth in several rows, outer one in both jaws enlarged, more or less caninoid. Tongue rounded or truncate. Bony interorbital very narrow, $\frac{1}{2}$ to subequal with eye diameter. Gill openings very wide, extended forward below. Isthmus narrow, or moderate. Inner edge of shoulder girdle with or without fleshy flaps. Scales with 30 to 50 in basal lateral series, more or less deciduous, cycloid anteriorly or feebly ctenoid posteriorly.

Head scaled between and behind eyes, preopercle and opercle naked or scaly. Some open pores near eye and along upper edge of preopercle. Dorsal fins separated, first with 8 spines and second with 14 to 21 rays. Anal with 17 rays. Caudal oblong, pointed, longer than head. Pectoral with out free silk like rays, base scaled. Ventrals united, oblong, under pectorals.

Analysis of Species

a. Amblychaetichthys. Soft dorsal rays I, 13 to I, 16.

b. Scales 35 in lateral series; caudal with 4 or 5 dark transverse bands. sciistius

b.² Scales usually over 40; caudal uniform dark or gray. hexanema

a.² Chaetichthys. Soft dorsal rays I, 20; scales 45 to 57 in lateral series. stigmatias

1842

Chaeturichthys sciistius Jordan and
Snyder

Chaeturichthys sciistius Jordan and
Snyder, Proc. U. S. Nat. Mus., vol. 24,
p. 107, fig. 22, 1901 (type locality,
Ysuruga; Owari Bay; Amori;
Tobya; Matsushima; Mororan;
Hakodate, Japan); — Tomiyama,

Jap. Journ. Zool., vol. 7, no. 1, p. 94,
1936 (Takendura; Kanazawa;
Toyama Bay; Mie-bend; Wakayama;
Hirosima; Beppu; Nagasaki;
Kagosima).

— Snyder, Proc. U. S. Nat. Mus., vol. 42,
p. 444, Aug. 30, 1912 (Hakodate;
Kagoshima).

Depth $5 \frac{1}{4}$; head $3 \frac{1}{2}$ to $3 \frac{2}{3}$.
 Snout 4 to $4 \frac{3}{4}$ in head; eye
 3 to $3 \frac{1}{5}$, greater than snout
 or interorbital; maxillary
 reaches $\frac{4}{7}$ in eye, length $2 \frac{1}{4}$
 in head from snout tip; lips
 thin; mouth cleft begins
 nearly level with lower eye
 edge, length $2 \frac{1}{4}$ in head;
 teeth biserial in jaws, simple,
 outer row slightly enlarged,
 small, uniform otherwise; tongue
 truncate in front; interorbital
 narrow, eye impinging slightly
 on upper profile. Gill rakers
 $4 + 13$, elongate, slender.

Scales 32 in lateral series;
 10 transversely, 13 predorsal
 forward to eyes. Head largely
 scaled, snout, mandible and
 branchiostegal region naked.
 Scales on body cycloid. Three
 short barbels on each mandibular ramus.

1844

D. VIII - 15, third spine $1\frac{4}{5}$
in head, third ray 2; A. 12,
seventh ray $1\frac{7}{8}$; caudal $1\frac{1}{8}$,
convey behind; least depth of
caudal peduncle $3\frac{1}{4}$; pectoral
 $1\frac{1}{4}$, rays 20; ventral rays
I, 5, fin $1\frac{1}{8}$ in head. Anal
papilla 2 in eye.

Pale brown. Row of 5
gray axial spots along side,
last close before caudal
base. Broad black blotch
on hind part of spinous dorsal,
and anteriorly on fin 2 or 3
rows of pale or whitish
spots. Soft dorsal with about
6 dark spots on each ray.
Caudal with 6 or 7 slightly
darker transverse bands.

Japan.

Continued

1845

U. S. N. M., no. 44884. Japan.
Government of Japan. Length
147 to 158 mm. Three examples.
As Gobius hexanema.

U. S. N. M., no. 49986. Owari Bay,
Japan. Bureau of Fisheries,
Albatross Expedition. Length 57
to 60 mm. Twenty-three examples.

U. S. N. M., no. 49987. Suruga
Bay, Japan. Bureau of Fisheries.
Albatross Expedition. Length 59 mm.

U. S. N. M., no. 49988.

Bureau of Fisheries. Albatross
Station 3654. Length 69 to 88 mm.
Two examples.

U. S. N. M., no. 59579. Kagoshima,
Japan. June 12. Dr. H. M.
Smith. Length 73 to 75 mm.
Two examples.

U. S. N. M., no. 59580. Kagoshima,
Japan. June 16. Dr. H. M.
Smith. Length 69 to 75 mm. Two
examples.

U. S. N. M., no. 71416. Hakodate,
Japan. Bureau of Fisheries. Albatross
Expedition 1906. Length 75 to 97 mm.
Eighteen examples.

1847
U. S. N. M., no. 71501. Kagoshima,
Japan. Bureau of Fisheries.
Albatross Expedition 1906: Length
79 mm:

1848

Chaetrichthys hexanema Bleeker

Chaetrichthys hexanema Bleeker,
Verh. Batavia. Genoot. (hal. Ichth.
Japan), vol. 25, p. (16) 43, ~~fig. 5~~ 1853
(type locality, Nagasaki); (hal.
Ichth. Japan, vol. 26, pl. (9), fig. 5;
Act. Soc. Sci. Ind. Neerl., vol. 3, no.
3, p. 3, 1857-58 (Kioesio), p. 6 (Japan).
— Gill, Ann. Lyc. Nat. Hist. New
York, p. 16, 1859 (Shimoda). — Jordan
and Snyder, Proc. U. S. Nat. Mus., vol.
23, p. 372, 1900 (Lake Biwa). — Taniyama,
Jap. Journ. Zool., vol. 7, no. 1, p. 94, 1936
(Nagasaki, Sibata; Hososima to
Watanoha). — Jordan and Snyder, Ann. Zool., vol. 3, p. 113, 1901.

1849

Chaetrichthys hexanemus Jordan
and Snyder, Annot. Zool. Japon.,
vol. 3, p. 113, 1901 (Nagasaki; Lake
Biwa). — Snyder, Proc. U. S.
Nat. Mus., vol. 42, p. 444, Aug. 30,
1912 (date). — Chu, Biol.
Bull. St. John's Univ., No. 1, p. 164
Jan. 1931 (reference).

Gobius hexanema Günther, Cat. Fish.
Brit. Mus., vol. 3, p. 77, 1861 (copied).
— Martens, Preuss. Exped. Ost Asien,
vol. 1, p. 392, 1876 (Yokohama). —
Günther, Rep. Voy. Challenger, vol. 1, pt.
6, p. 67, 1880 (Yokohama Bay, 15 fathoms;
Inland Sea; Kobe). — Karoli, Termesz.
Füzetek, Budapest, vol. 5, p. 165, 1881
(1882) (Nagasaki). — Steindachner,
Sitzb. Ber. Akad. Wiss. Wien, vol. 102,
p. 237, 1893 (Swatow).

Butis melanostigma Bleeker, Act.
Soc. Sci. Ind. Néerl. (Achtst.
Sumatra), vol. 8, p. 41, 1860 (Sumatra);
(Borneo) vol. 8, p. 17, 1860 (Borneo);
Ned. Tijds. Dierk., vol. 2, p. 174,
1865 (Siam); Verslag. Kon. Akad.
Wet. Amsterdam, sed. 2, vol. 11, p.
68, 1877 (Sumatra; Java; Borneo).
Arch. Néerl. Sci. Nat. Harlem, vol. 10, p. 105,
1875 (reference);

Eleotris wolffii Bleeker, Nat. Tijd.
Ned. Indië, vol. 1, p. 253, 1850 (Type
locality, Banjarmassing, Borneo,
austral-orientalis, in fluvis).

Butis wolffii Bleeker, Act. Soc. Sci.
Ind. Néerl. (^{Biatr. Borneo}~~Enum. Pisc.~~), vol. 6, p.
17#3, 1860 (reference).

Amblychaetrichthys hexanema ~~Huber~~
~~Arch. Néerl. Sci. Nat. Harlem, vol. 7, p.~~
~~325, 1874 ()~~. — Herre,
 Gobies of Philippines, p. 274, 1927
 (Fuchow, China).

Suruga fundicola Jordan and Snyder,
 Proc. U. S. Nat. Mus., vol. 24, p. 96, fig.
 20, 1901 (type locality, Suruga Bay,
 Matsushima; Owari Bay, Sagami).
 — Franz, Abh. Kon. Bayer. Akad.
 Wiss., Vol. 4, Suppl. Band 1, p. 68, 1910
 (Sagami Bay).

1851

Depth $5\frac{1}{2}$ to $5\frac{2}{3}$; head $3\frac{1}{2}$ to $3\frac{3}{5}$. Snout 4 to $4\frac{1}{5}$ in head; eye $2\frac{4}{5}$, greater than snout or interorbital; maxillary reaches $\frac{2}{5}$ in eye, length $2\frac{2}{5}$ in head; mouth cleft begins well below level of lower eye edge, jaws equal; teeth simple, spaced, in narrow bands in jaws, outer row in each enlarged though in upper more so; tongue convex in front; interorbital very narrow or eyes nearly meeting above and impinging on upper profile of head. Gill rakers 3 + 8.

Scales 40 or 41 in lateral series; 12 transversely. Head scaleless, predorsal anteriorly, prepectoral region and chest also naked. Scales stenoid, little smaller on trunk, more or

less deciduous.

D. VIII - 18, third spine $1\frac{1}{2}$ in head, third ray $2\frac{2}{3}$, sixteenth ray $2\frac{1}{3}$; A. 16, eighth ray 3; caudal $1\frac{1}{6}$, convex behind; least depth of caudal peduncle $3\frac{1}{5}$; pectoral $1\frac{1}{4}$, rays 21; ventral I, 5, fin $1\frac{1}{10}$ in head.

Brownish, scarcely paler below. Axial lateral series of 5^{or 6} dark spots, last at caudal base. Fins brownish.

China, Japan.

U. S. N. M., no. 49889. Owari
Bay, Japan. Albatross Collection.
Length 53 to 58 mm. Three
examples.

U. S. N. M., no. 49907. Matsushima
Bay, Japan. D. S. Jordan and
J. Q. Snyder. Length 75 to 84
mm. Three examples.

U. S. N. M., no. 49991. Suruga
Bay, Japan. Albatross Station
3707. Length 48 to 65 mm. Seventeen
examples. "Cotypes" [= paratypes]
of Suruga fundicola Jordan and
Snyder.

U. S. N. M., no. 51387. Suruga
Bay, Japan. Albatross Station
3707. In 60 to 75 fathoms. Length
59 to 65 mm. Forty-four examples.
"Cotypes" [= paratypes] of Suruga
fundicola Jordan and Snyder.

~~U. S. N. M., no. 56408. Shanghai,
China. P. L. Jouy. Length 38 to
54 mm. Three examples.~~

U. S. N. M., no. 49910, Matsushima,
Rikuzen, Japan. D. S. Jordan and
J. O. Snyder. Length 163 mm.
Two examples. ^{36 to}

U. S. N. M., no. 49926. Iwuyga,
Echizen, Japan. D. S. Jordan and
J. O. Snyder. Length 122 mm.

U. S. N. M., no. 49940. Kawatana,
Japan. D. S. Jordan and J. O.
Snyder. Length 120 mm.

U. S. N. M., no. 49945. Nagasaki,
Hizen, Japan. D. S. Jordan and
J. O. Snyder. Length 117 to 145 mm.
Eleven examples.

U. S. N. M., no. 49946. Chikugo
River, Kurume, Japan. D. S.
Jordan and J. O. Snyder. Length
178 mm.

U. S. N. M., no. 49947. Kobe,
Settsu, Japan. D. S. Jordan and
J. O. Snyder. Length 114 to 127 mm.
Six examples.

1855
U. S. N. M., no. 49973. Owaru
Bay, Japan. D. S. Jordan and J. O.
Snyder. Length 72 to 91 mm. Five
examples.

U. S. N. M., no. 59578. Matsushima,
Japan. Dr. H. M. Smith. Length
124 mm.

U. S. N. M., no. 71325. Habodate,
Japan. Bureau of Fisheries.
Albatross Collection. Length 200
mm.

Chaeturichthys stigmatias Richardson

Chaeturichthys stigmatias Richardson,

Voy. Sulphur, Zool., p. 55, pl. 35, figs.

3-5, 1844 (type locality, Southern

Pacific Ocean). — Jordan and Snyder,

Proc. U. S. Nat. Mus., vol. 23, p. 764, 1901

(Tsushima); vol. 24, p. 105, 1901 (same

localities). — Jordan and Metz, Mem.

Carnegie Mus., vol. 6, ^{no. 1, June,} p. 57, 1913 (Tsushima).

— Jordan, Tanaka, Snyder, Journ. College Sci. Tokyo,

vol. 33, Art. 5, p. 1913, 1913 (reference).

— Herre, Gobies of Philippines, p. 276,

1927 (Amoy; Fu Chow). — Taniyama,

Jap. Journ. Zool., vol. 7, no. 1, p. 95,

1936 (reference). — Chu, Biol. Bull. St. John's Univ., no. 1, p. 163, Jan. 1931 (reference).

— Rutter, Proc. Acad. Nat. Sci. Philadelphia,

1897, p. 86 (Swatow).

Gobius stigmatias Günther, Cat. Fish.

Brit. Mus., vol. 3, p. 78, 1861 (type);

Ann. Mag. Nat. Hist., London, vol. 12,

p. , 1873 (Shanghai). — Steindachner,

Sitzb. Ber. Akad. Wiss. Wien, vol. 102, p.

237, 1893 (Swatow).

1857

Depth $5\frac{3}{4}$ to $7\frac{1}{2}$; head $3\frac{2}{3}$ to 4, width 2. Snout $3\frac{1}{3}$ to $3\frac{2}{3}$ in head from snout tip; eye $4\frac{2}{3}$ to 6, $1\frac{1}{2}$ in snout, subequal with interorbital; maxillary reaches $\frac{1}{2}$ in eye, length 2 to $2\frac{1}{2}$ in head from snout tip; front of mouth cleft begins below level of lower edge of eye, lower jaw protruded; teeth biserial, slender, pointed, curved, outer row little enlarged; tongue concave in front; interorbital low, slightly concave. Gill rakers $3 + 11$, long, slender.

Scales 45 to 57 in lateral series; 14 transversely. Predorsal, opercle, preopercle and cheeks scaled, rest of head naked. Scales ^{cycloid} small on trunk anteriorly, large on tail. Each mandibular ramus with 3 short barbels.

D. VIII — I, 22 or 23, first spine $1\frac{3}{5}$ to $1\frac{4}{5}$ ^{in total head length}, third ray $2\frac{2}{3}$, fifteenth

1858

ray 2; A. 19 or 20, fin height
 $2\frac{1}{4}$ to $2\frac{1}{3}$; caudal 3 in rest
of fish, lanceolate; least ^{in total head}
depth of caudal peduncle $4\frac{1}{2}$;
pectoral $1\frac{1}{2}$, rays 19 or 20; ventral
rays I, 5, length 2 in head.

Brown, little paler below.
Blackish blotch on hind part
of spinous dorsal.
China, Japan.

U. S. N. M., no. 37775. Sasuna,
Tsushima, Japan. P. L. Jouy.
Length 109 mm.

U. S. N. M., no. 85866. China.
A. de C. Sowerby. Length 100 mm.

1860

Genus Illana Smith and Seale

Illana Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 79, ^{June 4,} 1906. (Type Illana cacabet Smith and Seale, monotypic.)

Body elongate, compressed. Head little depressed, naked? Lower jaw little prominent. In upper jaw row of large, stout teeth, followed by 3 rows of minute, depressible teeth; lower teeth ~~followed by~~ of outer row smaller than in upper jaw, followed by 2 rows of minute depressible teeth; no canines.
Chin ^{with barbel each side.}

Tongue deeply emarginate in front. Scales 30 to 32 in axial lateral series. Preopercle with 5 or 6 longitudinal and 2 oblique mucous canals. dorsal fin

1861

separated, first with 6 spines
and second with 10 rays. Anal
with 10 rays. Caudal rounded.
Ventrals united.

Illana bicirrhusa (Weber)

Gobius bicirrhusus Weber, Zool. Ergebn.
Nederl. Indië, vol. 3, p. 412, 1894
(type locality, Maros River, Celebes).

Illana bicirrhusus Koumans, Zool. Meded.
Rijks Mus. Nat. Hist. Leiden, p. 143, 1935
(types; Java).

Allana cacabet Smith and Seale ¹⁸⁶³

Allana cacabet Smith and Seale, Proc.
Biol. Soc. Washington, vol. 19, p. 79, fig.,
^{June 4,} 1906 (type locality, Rio Grande,
Cotabato Province, Mindanao). —
Jordan and Richardson, Philippine
Journ. Sci., p. 49, 1910 (reference). —
Herre, Gobies of Philippines, p. 269,
pl. 21, fig. 3, 1927 (Rio Grande de
Mindanao). — Roxas and Martin,
Dep. Agric. Com. Manila, Tech. Bull.
6, p. 235, 1937 (reference).

Depth 5 to 6; head $3\frac{1}{3}$ to $3\frac{2}{3}$,
width $1\frac{3}{5}$. Snout $3\frac{1}{8}$ in head
from snout tip; eye $4\frac{1}{8}$, $1\frac{1}{9}$ to $1\frac{1}{5}$
in snout, greatly exceed interorbital;
maxillary reaches opposite front
eye edge, length $3\frac{1}{5}$ in head
from snout tip; mouth little
inclined, front part of mouth cleft

1864

begins below level of lower eye edge,
lower jaw slightly protruding
and with pair of very short
barbels at chin $2\frac{1}{2}$ in eye;
interorbital flat, $2\frac{1}{4}$ in eye,
which enters upper profile of
head.

Scales 30 to 32 in lateral series;
10 transversely below second dorsal;
13 predorsal. Plump naked
cheeks crossed by 5 longitudinal
rows of minute papillae and warts
on lower half. Lower edges of preopercle
and subopercle fringed with
fine papillae, and on opercle
similar row running diagonally
backward and downward.

D. VI - I, 9, second spine $1\frac{1}{2}$
in total head length, first
branched ray $2\frac{1}{10}$, last ray $1\frac{2}{5}$;
A. I, 9, first branched ray $2\frac{1}{2}$,
last ray 2, caudal $1\frac{1}{8}$, convex
behind; least depth of caudal
peduncle $2\frac{7}{8}$; pectoral $1\frac{1}{2}$, rays

19; ventral rays $\overline{I, 5}$, fin $1\frac{1}{2}$ in ¹⁸⁶⁵
total head length. Small anal
papilla about $\frac{2}{5}$ of eye, pointed.

Color in alcohol brown,
with 5 large, dark reddish
brown spots along midline of
side, last at caudal base. Three
broad, indistinct dark brown
cross bars over back, first
below hind part of first
dorsal and posterior, second
below front part of second
dorsal, third below hind part
of second dorsal and over front
part of caudal peduncle.

Interorbital with variable
brown spots and bars.

Length 61 mm.

(Here.)

Philippines. Smith and Seal
show the second dorsal spine
elongated or reaching half way to
the caudal base. They also add
say "Gobius cyanoxomus Bleeker
probably belongs to this genus,
but is a different species, as

1866

seen by the presence of the lines
of warts on cheeks of our
specimens, and the different
color markings. In G. cyanosomus
the jaws are said to be equal,
in our specimens the lower jaw
is a little the longer. "Evidently
Gobius cyanosomus Bleeker" is
intended for Gobius cyanomus
Bleeker.

1867

Genus Sagamia Jordan and Snyder

Sagamia Jordan and Snyder, Proc. U.S. Nat. Mus., vol. 24, p. 100, 1901. (Type Sagamia russula Jordan and Snyder, monotypic.)

Ainosus Jordan and Snyder, op. cit., p. 109. (Type Gobius geneionema Hilgendorf, monotypic.)

Body elongate, cylindrical anteriorly, compressed behind. Head large. Snout moderate, blunt. Eye large, advanced, high. Mouth little inclined. Maxillary reaches below eye. Teeth biserial, outer row enlarged. Gill openings moderate, little extended forward. Gill rakers lanceolate. Scales small, - on head extend on predorsal and sides of head. Under surface

of head
with rather numerous short barbels 1868
Dorsals divided, with 8 spines
and 15 or 16 rays. Anal rays
14. Caudal moderate, rounded
behind. Pectoral moderate or
shorter than head, with some
of uppermost rays free and
detached. Ventrals united,
little shorter than pectoral.

Though described as in
agreement with Acanthogobius
Gill^{and}, differing in the presence
of free silky rays on the pectorals.
Boulman united it, though later
Taniguchi has found in the
presence of the 2 rows of ^{barbels} about
a dozen in each row, on the
underside of the head, it really
belongs with Ainosus. He says
these barbels are easily rubbed
off.

~~Scanthogobius~~

1869

Sagamia geneionema (Hilgendorf)

Gobius geneionema Hilgendorf, Sitzs. Ber.
naturf. Fr. Berlin, p. 108, 1879 (type
locality, Bay of Tokyo).

Ainosus geneionemus Jordan and Snyder,
Proc. U. S. Nat. Mus., vol. 24, p. 109, 1901
(Misaki).

Chaetrichthys geneionemus Jordan and Snyder,
Annot. Zool. Japon., vol. 3, p. 113, 1901 (Yokohama).

Sagamia geneionema Tomiyama, Jap.

Journ. Zool., vol. 7, no. 1, p. 95, 1936

(Misaki; Iwa; Wakayama; Uoda;
Iduhara; Beppu; Kagasaki).

1870
Sagamia russula Jordan and Snyder,
Proc. U. S. Nat. Mus., vol. 24, p. 100, fig.
21, 1901 (type locality, Misaki,
Wakanoura; Nagasaki). — Franz,
Abh. Kon. Bayer. Akad. Wiss., vol. 4,
Suppl. Band 1, p. 68, 1910 (Sagami Bay).

Chaetrichthys tanakae Schmidt, Trans.
Pac. Comm. Acad. Sci. U. S. S. R., vol. 2, p.
135, fig. 23, 1931 (type locality, Misaki,
Kanagawa).

Depth $5 \frac{2}{5}$ to $5 \frac{3}{5}$; head $3 \frac{1}{5}$ to $3 \frac{1}{4}$, width $2 \frac{1}{4}$, snout $3 \frac{1}{4}$ to $3 \frac{1}{2}$ in head; eye $3 \frac{2}{3}$ to 4, $1 \frac{1}{5}$ to $1 \frac{2}{5}$ in snout, greater than interorbital; maxillary reaches $\frac{1}{4}$ to $\frac{1}{2}$ in eye, length $2 \frac{1}{2}$ to $2 \frac{3}{5}$ in head; mouth low, little inclined from horizontal, begins in front below level of eye, jaws equal or lower included; tongue with front edge concave; interorbital very narrow, eye impinging on upper profile line of head. Gill rakers $2 + 10$ or 11 , slender, $\frac{2}{5}$ of eye.

Scales 54 to 60 in lateral series; 16 or 17 transversely between second dorsal and anal, 20 predorsal forward to eyes. Small scales on cheek, also upper part of opercle, and except on predorsal as noted, otherwise

1872

naked. Scales on head cycloid,
on body ctenoid.

D. VIII - 15 or 16, fourth
spine 2 in head, third ray 2 to
 $2\frac{1}{8}$; A. 14, fin height $2\frac{2}{3}$ to
 $2\frac{3}{4}$; caudal $1\frac{3}{4}$ to $1\frac{1}{2}$, convex
behind; least depth of caudal
peduncle $3\frac{1}{5}$ to $3\frac{1}{4}$; pectoral
 $1\frac{2}{4}$ to $1\frac{1}{3}$, rays 19 or 20 and
2 or 3 uppermost free or
detached from membrane;
ventral rays I, 5, fin $1\frac{3}{4}$ to $1\frac{1}{2}$
in head.

Pale brownish, with dark
spots and mottling above, below
dull white. Side medially with
6 to 8 dark spots, obsolete
anteriorly, last at caudal base
best defined. Three obscure inclined
gray lines on side of head, first
forward from eye to middle
of maxillary and last on
opercle. First dorsal with several
longitudinal rows of dark

spots, also large dark spot on
 penultimate membrane. Soft
 dorsal with 4 rows of dark
 spots. Anal pale, edged below
 with dusky. Caudal with several
 irregular transverse dark
 bands. Pectoral with dark
 blotch above at base. Ventrals
 dark gray.
 Japan.

1874

Acridothera tristis
U. S. N. M., no. 49872. Nagasaki,
Japan. U. S. Jordan and J. D. Snyder.
Length 49 to 75 mm. Twenty-one examples.

U. S. N. M., no. 59566. Yamagawa,
Japan. June 14, 19... Dr. H. M.
Smith. Length 50 to 51 mm. Two
examples. As Sagamia russula.

U. S. N. M., no. 59567. Yamagawa,
Japan. Length 70 mm. Dr. H. M. Smith.
As Sagamia russula.

U. S. N. M., no. 59569. Kagoshima,
Japan. Dr. H. M. Smith. Length
68 mm. As Sagamia russula.

U. S. N. M., no. 59570. Kagoshima,
Japan. Dr. H. M. Smith. Length
67 to 72 mm. Two examples.
As Sagamia russula.

U. S. N. M., no. 49916. Misaki,
Japan. Dr. S. Jordan and J. O. Snyder.
Length 44 to 60 mm. Two examples.

U. S. N. M., no. 71414. Habodate,
Japan. Albatross Expedition 1906.
Length 88 mm.

U. S. N. M., no. 71495. Misaki,
Sagami, Japan. Albatross
Expedition 1906. Length 73 mm.

Genus Gobileptes Swainson

Gobileptes Swainson, Nat. Hist. Animals, vol. 2, p. 183, 1839. ^{atypical} (Type Gobius bato Buchanan - Hamilton, designated by Bleeker, Arch. Néerl. Sci. Nat. Harlem, vol. 9, p. 327, 1874.)

Apocryptes (not Osbeck) Valenciennes, Hist. Nat. Poiss., vol. 12, p. (107) 142, 1837. (Type Gobius bato Buchanan - Hamilton, designated by Bleeker, Arch. Néerl. Sci. Nat. Harlem, vol. 9, p. 327, 1874.)

Apocryptodon Bleeker, Arch. Néerl. Sci. Nat. Harlem, vol. 9, p. 327, 1874. (Type Apocryptes madurensis Bleeker, orthotypic.)

1877

Body very elongate, anteriorly subcylindrical, posteriorly compressed. Head subcylindrical. Snout long as eye. Eye advanced, in front half of head. Mouth nearly horizontal, upper jaw little prominent. Teeth in both jaws in one row, in both jaws bilobate, in lower jaw horizontally inserted and after symphysis each side canine. Tongue rounded, nearly entirely adnate to mouth floor. Bony interorbital about half eye diameter. Nostrils not tubular. Gill openings about long as basal pectoral width. Isthmus broad. Inner edge of shoulder girdle without fleshy flaps. Scales ^{40 to} 100 in axial lateral series, cycloid, with other small irregularly placed small cycloid

scales between. Head entirely sealed.
 Dorsal fins close together, first
 with 5^{or 6} spines, second with ¹⁵21 to 24
 rays. Anal rays 22^{or 23}. Caudal
 long, pointed. Pectoral without
 free rays. Ventrals united,
 oblong, under pectorals.

1879

Gobileptes bato (Buchanan-Hamilton)

Gobius bato Buchanan - Hamilton,
Fishes of Ganges, p. 40, ^{365,} pl. 37, fig. 10,
1822 (type locality, Ganges estuaries).

— Seale, Philippine Journ. Sci., vol. 9, pt. 1,
p. 77, 1914 (Hong Kong).

Genus Apocryptes Valenciennes

Apocryptes bato Valenciennes, Hist. Nat. Poiss., vol. 12, p. (108) 143, pl. 369, 1837 (Bengal). — Bleeker, Verh. Batavia. Genoot. (Bengl. Hindostan), vol. 25, p. 103, 1853 (reference).
 Act. Soc. Sci. Ind. Neerl. (Dert. Bijdr. Borneo), vol. 8, p. 327, 1860.
 — Günther, Cat. Fish. Brit. Mus., vol. 3, p. 82, 1861 (copied). — Day, Fishes of India, pt. 2, p. 302, pl. 64, fig. 6, 1876 (Calcutta); Fauna British India, Fishes, vol. 2, p. 278, 1889.
 — Vinciguerra, Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, vol. 9, (1889-90, p. 175) (Rangoon).

Stylops
U. S. N. M., no. 101,303. Singapore.
March 14, 1934. A. C. Howe.
Length 20 to 27 mm. Ten examples.
"Stylops." (= paratypes)

1281

Apocryptes bato Chu, Biol. Bull. St.
John's Univ., no. 1, p. 165, Jan. 1931
(reference).

Apocryptes batoides Day, Fishes of
India, pt. 2, ~~1876~~, p. 301, pl. 66, fig. 3,
1876 (type locality, Moulmein);
Fauna British India, Fishes,
vol. 2, p. 277, 1889 (copied).

1887

Depth $5\frac{3}{4}$; head $4\frac{1}{2}$, width $1\frac{1}{2}$. Snout $3\frac{3}{4}$ in head; eye $4\frac{3}{4}$, $1\frac{1}{5}$ in snout, equals suborbital, or interorbital; maxillary reaches $\frac{1}{2}$ in eye, length $2\frac{7}{8}$ in head; front of mouth cleft begins well below level of lower eye edge, but little inclined from horizontal, lower jaw shorter; about 48 teeth in each jaw, lower flaring out horizontally, and 2 moderate posterior lower canines; interorbital low, slightly concave.

Scales cycloid, variably large and small, largest on tail, also extend on head.

D. V — 21 or 22, second spine $1\frac{3}{4}$ in head, second ray $2\frac{1}{4}$; A. 23, second ray $4\frac{1}{2}$, twenty second ray 3; caudal $2\frac{2}{3}$ in rest of fish, lanceolate, least depth of caudal peduncle $2\frac{3}{4}$; pectoral $1\frac{2}{5}$, rays 23; ventral

length $1\frac{1}{2}$, rays I, 5.

Pale olive, with 12 obscure
narrow, darker, ^{transverse} bands, mostly
on back. Fins brownish. Dark
bar across pectoral base.

India, East Indies, China.

Burma,

1884

U. S. N. M., no. 44729. Rangoon,
Burma. L. Lea. 1885 - 1889.
Length 103 mm.

1885

Gobileptes bivittatus (Macleay)

Apocryptes bivittatus Macleay,
Proc. Linn. Soc. New South Wales,
vol. 2, pt. 4, p. 357, pl. 9, fig. 5, 1878
(type locality, Port Darwin).

Depth $3\frac{1}{4}$; head 4. Snout 4 in head; eye $3\frac{3}{4}$, greater than snout, maxillary reaches $\frac{1}{4}$ in eye, length $2\frac{4}{5}$ in head; mouth cleft begins slightly below level of lower eye edge, but little inclined, jaws subequal; 2 canines in lower jaw, curved and horizontal; interorbital space flat, wider than orbit, and eye not entering upper profile.

1886

D. VI - 18 (figure shows VI -
I, 16), second spine 2 in head,
third ray $2\frac{1}{4}$; A. 16 (figure
shows I, 14), second ray $1\frac{2}{3}$;
caudal $1\frac{1}{10}$, "tail rather pointed"
(figure shows caudal obtuse or
slightly convex behind); least
depth of caudal peduncle 2;
pectoral $1\frac{1}{3}$, rather short, convex;
ventral $1\frac{1}{2}$.

Color yellowish with dark
band from muzzle through eye
and continued above or below
distinctly to back near tail,
and another from lower jaw
through pectoral root to root of
tail. Some specimens obscurely
marked with transverse bands.
Fins unspotted, dorsal and
anal slightly washed with
black.

Length 102 mm.

Dudensland.

(Macleay.)

Gobileptes
Apocryptodon bleekeri (Day)

1887

Apocryptes bleekeri Day, Fishes of India,
pt. 2, p. 300, pl. 64, fig. 3, 1876 (type
locality, Madras); Fauna
Brit. India, vol. 2, p. 276, 1889.

Apocryptodon bleekeri Tomiyama, Jap.
Journ. Zool., vol. 7, no. 1, p. 97, fig. 41,
1936 (type of Apocryptodon punctatus;
Ariake Sound).

1888

Apocryptodon malcolmi H. M. Smith,
Proc. U. S. Nat. Mus., vol. , p. 47, fig.
22, 1931 (type locality, mouth of
Chantabun River, Siam) Fowler,
Proc. Acad. Nat. Sci. Philadelphia,
vol. 89, p. 257, 1937 (Bangkok;
Yachin).

Boleophthalmus smithi Fowler, Proc.
Acad. Nat. Sci. Phila., vol. 86, p. 160,
fig. 129, 1934 (type locality, Bangkok,
Siam); vol. 87, p. 162, 1935 (Bangkok;
Paknam).

Apocryptodon punctatus Tomiyama,
Jap. Journ. Zool., vol. 3, pt. 3, p. 332, fig. 4,
1934 (type locality, Ariake Sound).

Boleophthalmus taylori (not Herre 1927)
Fowler, op. cit., vol. 86, p. 159, fig. 128, 1934
(type locality, Bangkok, Siam);
vol. 87, p. 162, 1935 (Bangkok, Paknam).

Apocryptodon montalbanii Herre, Gobies
of Philippines, p. 277, pl. 22, fig. 2, 1927
(type locality, Zarraga, Iloilo Province,
Panay). — Roxas and Martin, Dep. Agric.
Comm. Manila, Tech. Bull. 9, p. 231, 1937
(reference).

Apocryptodon sealei Herre, op. cit., p.
278 (type locality, Manila market).
— Roxas and Martin, op. cit. (reference).

Apocryptodon taylori Herre, op. cit.,
p. 279, pl. 22, fig. 3 (type locality,
Adiangan, Tablas). — Roxas and Martin,
op. cit. (reference).

1890

Depth $7\frac{2}{3}$ to $8\frac{3}{4}$; head 5 to $5\frac{2}{5}$,
width $1\frac{3}{4}$ to $1\frac{7}{8}$. Snout $3\frac{2}{5}$ to
 $3\frac{1}{2}$ in head; eye $5\frac{1}{2}$ to 7, $1\frac{7}{8}$ to 2
in snout; subequal with interorbital;
maxillary reaches back below
hind eye edge, length $2\frac{1}{8}$ to $2\frac{1}{5}$
in head; lips rather narrow,
fleshy; teeth uniserial, conic,
moderate, in jaws, 5 or 6 anterior
upper slightly canine-like and
much larger inner pair below
behind mandibular symphysis,
directed backward; no teeth on
palate; tongue large, thick,
fleshy; interorbital $5\frac{1}{4}$ to $5\frac{3}{5}$
in head, slightly convex, with
superciliary swelling each still
trifle higher. Gill rakers 5 + 8,
robust, curved, epibranchial
larger, $\frac{1}{2}$ of gill filaments,
which equal $1\frac{1}{2}$ eye diameters.

1891

Scales 60 or 61 in lateral axial series to caudal base and 6 or 7 more on latter; 18 or 19 transversely above anal origin; 24 or 25 predorsal scales forward opposite hind eye edge, anteriorly 3 or 4 much enlarged forming conspicuous area at occiput or behind eyes. Snout, inter-orbital and chin naked. Breast scaly. On tail posteriorly scales much larger than on fore part of body. Scales with 9 to 11 basal radiating striae; circuli fine, concentric. Large posterior scales of tail with 39 or 40 close-set basal radiating striae.

D. VI, I, 25, I to 27, I, spines flexible, second $1\frac{1}{2}$ to $1\frac{4}{8}$ in head, second dorsal height $1\frac{1}{2}$ to 2; A. 26, I or 27, I, fin height $1\frac{3}{4}$ to $1\frac{4}{5}$; least depth of caudal peduncle

1892

2 to $2\frac{1}{3}$; pectoral $1\frac{1}{5}$ to $1\frac{1}{4}$, rays
I, 19; ventral I, 5, fin 1 to $1\frac{1}{5}$ in
head; caudal $2\frac{1}{3}$ to $3\frac{1}{8}$ in
rest of fish.

Light brown above, sides pale
and under surfaces whitish.
On middle of back to large,
dark brown, saddle like blotches,
each much less than pale
interspaces. Along middle of
side series of 4 (dark brown)
blotches, each little in advance
of dark saddle like blotch
on back above. Head brown
above, with obscure, diffuse
blotches, under surfaces paler
to whitish. Iris brownish.
Vertical fins gray brown, first
dorsal narrowly edged with
blackish and anal dark gray.
Pectoral suffused with brown,
darker basally. Ventrals whitish.

One example. Batan Island. Tide ¹⁸⁹³
pools. July 22, 1909. Length 47 mm.

One example, Cavite market. June
14, 1908. Length 113 mm.

Two examples, Cebu, reef opposite.
April 7, 1908. Length 45 to 69 mm.

One example. Cebu market.
March 20, 1909. Length 90 mm.

Ten examples. Iloilo River, shore
above Panay. June 2, 1908. Length
53 to 122 mm.

Nineteen examples. Mahinog, Camiguin
Island, brackish water. August

3, 1909. Length 72 to 110 mm.

Eight examples. Manila market.
March 12, 1908. Length 80 to 142 mm.

One example. Manila market.
March 16, 1909. Length 95 mm.

6972 to 6974, 6967 [1522]. Manila
market. April 14, 1908. Length 70
to 102 mm.

One example. Manila market.
April 17, 1909. Length 84 mm.

Two examples. Manila market.
April 20, 1909. Length 77 to 80 mm -

Thirty-seven examples. Manila ¹⁸⁹⁴
market. April 21, 1909. Length 65
to 88 mm.

5200, ~~5201, 5203~~ to 5206, 5208,
5209, 5195, 5196, 5198, 5199. Manila
market. June 11, 1908. Length 82
to 133 mm.

20307. Manila market. June
17, 1908. Length 95 mm.

Twenty-four examples. Manila
market. July 11, 1908. Length 58
to 78 mm.

One example. Hogar Point, Panay.
February 4, 1908. Length 47 mm.

854B. San Fernando, Union
Province, Luzon. March 17, 1908.
Length 108 mm.

One example. Sebatic Bay,
Borneo. October 10, 1909. Length 71 mm.

One example. Sorogon market.
March 12, 1909. Length 113 mm.

20373. Sandakan Bay, Borneo.
March 2, 1908. Length 99 to 110 mm.

Four examples. Sandakan Bay. March
21, 1908. Length 101 to 122 mm.

1895

A. N. S. P., no. 60020, Bangkok,
R. M. de S. Chaunsee.
Siam, March 12, 1933. Length 194
mm. Type of Boleophthalmus
smithi.

A. N. S. P., nos. 60021 to 60022.
Same data as preceding. ~~Paratypes~~
Length 174 to 190 mm. Paratypes
of Boleophthalmus smithi.

1896

Gobileptes borneensis (Bleeker)

Apocryptes borneensis Bleeker, Nat.
 Tijds. Ned. Indië, vol. 9, p. (418) #21,
 1855 (type locality, Bandjerimassing,
 Borneo). — Peters, Monatsb. Akad.

Wiss. Berlin, p. 840, 1876 (Timor).
 — Günther, Cat. Fish. Brit. Mus., vol. 3,
 p. 81, 1861 (copied).

— Martens, Preuss. Exped. Ost Asien, vol.
 1, p. 392, (Manila). — Vinciguerra,
 Ann. Mus. Civ. Stor. Nat., Genova, ser.
 3, vol. 10, p. 552, Aug. 1926 (Sarawak).

Depth 10 to 12; head $6\frac{1}{2}$ to $6\frac{3}{4}$, width $1\frac{2}{3}$ to $1\frac{4}{5}$. Snout obtuse, well convex, shorter than eye; eye 4 to 5 in head, closely set, advanced in head; maxillary reaches below posterior part of eye; mouth little inclined, lower jaw shorter; teeth slender, ends conic or truncate, upper with 19 larger each side, lower partly horizontal and 12 each side, with 2 inner symphyseal canines.

Scales of body very small, scarcely conspicuous, larger on tail.

D. $\overline{\text{V}}$ - $\overline{\text{I}}$, 27 to 30, well separated, spines low and obtuse, rays lower anteriorly and all lower than body depth; A. $\overline{\text{I}}$, 25 to 27, like second dorsal; caudal $3\frac{2}{3}$ to 4 in body, acute; pectoral $7\frac{1}{2}$ to $8\frac{3}{4}$, rounded, rays 21 or 22; ventral rays $\overline{\text{I}}$, 5, fin $8\frac{1}{2}$ to 10

1899
in body. Anal papilla short, conic.

Body above violaceous green, below silvery or ~~rosy~~ silvery, above and on sides minute irregular dots and specks. Behind vent on sides L-shaped angular bands. Fin membranes yellowish, rays golden. Spinous dorsal with small anterior and large posterior violet black blotch. Between each ray of soft dorsal 1 to 5 blackish brown spots. Small blackish spots on each membrane between caudal rays. Pectoral with brownish spots basally.

Length 60 to 112 mm. (Bleeker.)
Borneo.

Goldleptes
Apoeryptodon edwardi (Fowler) 1900

Apoeryptodon edwardi Fowler, Proc.
Acad. Nat. Sci. Philadelphia, vol.
89, p. 257, 1937 (on Boleophthalmus
taylori, not Herre, Fowler; Tachin,
Siam).

Boleophthalmus taylori (not Herre 1927)
Fowler, Proc. Acad. Nat. Sci. Philadelphia,
vol. 86, p. 159, fig. 128, 1934 (type
locality, Bangkok, Siam); vol. 87,
p. 162, 1935 (Bangkok; Palanang).

Depth $7\frac{7}{8}$; head 6, width $1\frac{3}{4}$.
 Snout 5 in head; eye 7, $1\frac{1}{4}$ in
 snout, greatly exceeds interorbital;
 maxillary extends back opposite
 hind eye edge, length 3 in head;
 lips rather narrow, fleshy;
 single row of large, conic, well
 spaced, brownish teeth, lower
 somewhat flaring outward,
 especially in front; no teeth on
 palate; tongue large, fleshy, convex;
 interorbital $\frac{3}{5}$ of eye, low,
 little convex. Gill rakers 4 + 6,
 low, slender, curved denticles
 fleshy basally, 3 in gill filaments,
 which $1\frac{1}{2}$ times eye.

Scales 160 in axial lateral
 series to caudal base; 35 transversely
 above anal origin; 60 predorsal
 forward to snout end. Head
 largely covered with minute scales.
 Scales with 29 to 34 radiating striae,
 half or less often incomplete;

circuli concentric, complete, moderate.

D. VII, 26, spines flexible, fourth $1\frac{2}{5}$ in head, second dorsal height 2; A. 28, fin height $2\frac{2}{3}$; least depth of caudal peduncle $2\frac{1}{5}$; pectoral $1\frac{2}{5}$, rays 18; ventral rays I, 5, length $1\frac{3}{5}$ in head; caudal $4\frac{1}{2}$ in rest of fish.

Gray brown above, sides paler, ventral under surfaces whitish. Head gray to drab above, white below. Iris gray. Lips all more or less dark gray. Obscure dark gray blotches on cheek and opercle. Dorsals dull gray. Anal whitish. Caudal gray, with numerous, fine, transverse, wavy, blackish cross bars. Pectoral gray above, whitish below. Ventrals white. On caudal peduncle several large blackish gray blotches.

Siam.

A. N. S. P., no. 60019. Bangkok,
Siam. March 12, 1933. R. M. de
Schaensee. Length 200 mm. Types
of Apocryptodon edwardi Fowler
and Boleophthalmus taylori Fowler.

Gobileptes
Apocryptodon fasciatus (Macleay) 1904

Apocryptes fasciatus Macleay, Proc.
Linn. Soc. New South Wales, vol. 8,
p. 268, 1883 (type locality, New
Guinea).

Apocryptodon fasciatus Jordan and
Seale, Bull. Bur. Fisher., vol. 25, p. 407,
1905 (reference). — Fowler, Mem. Bishop
Mus., vol. 10, p. 417, 1928 (copied); vol.
11, no. 6, p. 444, 1934 (types of Apocryptes
fasciatus).

Depth 4 in total, body compressed; head 4, less compressed than body. Snout rounded; eye equals snout, moderate, greater than interorbital; mouth oblique, gape reaching 1/2 in eye; strong bony elevation on front orbital edges.

Scales 56 in lateral series. Cheek naked or nearly so.

D. VII, 15, spines filamentous, connecting membranes not nearly extending to middle; A. 15; caudal rounded.

Color dark, with 6 broad darker fasciae on sides. Soft dorsal and anal with small blue or light colored dots.

(Macleay)

New Guinea.

1906

Gobileptes glyphisodon (Bleeker)

Apocryptes glyphisodon Bleeker,
Verh. Batavia. Genoot. (Blenn. Gob.),
vol. 22, p. 36, 1849 (type locality,
Batavia, in sea); Nat. Tijds. ned.
Indie, vol. 18, p. 356, 1859 (Bawean);
Verslag. Kon. Akad. Wet. Amsterdam,
vol. 12, p. 32, 1861 (Singapore). —
Fowler, Cat. ^{Plat.} (Malaya Fish.), p. 212, 1937
(Singapore).

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

1907

Depth 9, body elongately compressed, head 5, obtusely convex, width 2. Eye 6 in head, subequal with interorbital; mouth cleft oblique, largely below eye; upper teeth 16, erect, conic, lower with ends notched, horizontal, 24 in number, and 2 erect close set canines.

Scales 50 in lateral series.

D. VI - I, 22, spinous dorsal higher = than = body; A. I, 22; pectoral 7 1/2, rays 22; ventral rays I, 5, fin 8 in body; caudal 4 1/2, = acutely rounded. Anal papilla short, conic.

Body gray, with 5 diffuse brown spots on side. Head with sides and above with many small black spots.

Length 73 mm. (Bleeker)

East Indies, Malaya.

Gobileptes lineatus (Alleyne and Macleay).

Apocryptes lineatus Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, pt. 4, p. 332, pl. 12, fig. 3, 1877 (type locality, Taken in abundance at Cape Grenville).
— Weber, Siboga Exped., vol. 57, Fische, p. 484, 1913 (Insel Siau).

? Apocryptes bivittatus Macleay, Proc. Linn. Soc. New South Wales, vol. 2, p. 357, pl. 9, fig. 5, 1877 (type locality).

1909

Depth $4\frac{1}{5}$; head $3\frac{7}{8}$. Snout $3\frac{3}{4}$ in head; eye $4\frac{2}{3}$, $1\frac{1}{8}$ in snout; maxillary reaches $\frac{1}{5}$ in eye, length $2\frac{1}{2}$ in head; mouth begins in front slightly below level of lower eye edge, but little inclined, jaws subequal; teeth distinct, conic, sharp, in lower jaw nearly horizontal, with recurved canine on each side; interorbital low, eye not quite entering upper profile of head.

Scales 64 in lateral series, become much larger towards tail.

D. VI - I, 15, third spine $1\frac{3}{4}$ in head, first branched ray $1\frac{9}{10}$; A. I, 13 (figure shows I, 14), first branched ray $2\frac{1}{10}$; caudal $1\frac{1}{10}$ rounded behind; least depth of caudal peduncle $2\frac{1}{5}$; pectoral 1; ventral $1\frac{1}{8}$.

1910

Color dirty white, with 2 black bands, one from muzzle through eye to first third of soft dorsal fin, second through opercle and pectoral base to about middle of body. First dorsal with black patch more or less along its entire base. Second dorsal with 4 elongate black basal spots extending ^{to} ~~on~~ body. Well marked dark spot at caudal base nearly large as eye and median.

Length 89 mm. (Alleyne and Macleay.)

Queensland.

1911

Gobileptes
Apocryptodon madurensis (Bleeker)

Apocryptes madurensis Bleeker, Verh.
Batavia. Genoot. (Blenn. Gob.), vol. 22,
p. 35, 1849 (type locality, Madura
Strait near Surabaya and Bangcallang);
(Madura) vol. 22, p. 5, 1849 (Bangcallang,
Kammal). — Martens, Preuss. Exped.
Ost Asien, vol. 1, p. 392, 1876 (Manila).
— Günther, Cat. Fish. Brit. Mus., vol. 3, p. 84,
1861 (copied).

Depth 7; head $5\frac{1}{2}$, width $1\frac{2}{3}$.
Eye 5 in head, advanced, 1 in
interorbital; mouth cleft large,
oblique, extends well beyond
eye; above 26 to 30 vertical,
conic scales teeth, below 50 hori-
zontal teeth with ends divided
or incised, and 2 erect close-
set canines.

Scales about 35? in lateral
series.

D. VI - I, 23, first dorsal height
equals body depth; A. I, 22;

1912

caudal acute, $4\frac{1}{2}$ in body;
pectoral rays 16, fin $7\frac{1}{2}$ in
body; ventral 7, fin rays
I, 5. Anal papilla short,
conic.

Body clear pearly. Snout
green. Dorsals, pectorals
and caudal fins greenish.
First dorsal with large black
spot above between third and
fourth spines. Anal violaceous
marginied with white. Ventrals
pink.

Length 74 mm. (Bleeker.)
East Indies, Philippines.

1913

Gobileptes nexipinnis (Cantor)

- Apocryptes nexipinnis Cantor, Journ. Asiatic Soc. Bengal, vol. 18, p. 2, p. 1170, 1849 (1850) (type locality, Penang). — Günther, Cat. Fish. Brit. Mus., vol. 3, p. 83, 1861 (types). — Fowler, Cat. ^{list} (Malaya Fish.), p. 83, ~~1861 types~~ 212, 1937 (Penang). — Martens, Preuss. Exped. Ost Asien, vol. 1, p. 392, 1876 (Manila).

Depth 11 in total; head 4, width 3. Snout rounded, longer than eye; eye vertical, oval, occupies third seventh in head, greater than interorbital; mouth cleft enormous, almost horizontal, angle marks first half in head length; maxillary extends far behind eye; teeth in jaws horizontal, above front tooth each side of symphysis excessively long, curved, projects beyond lower jaw when mouth closes; at distance from these canines commences on each side single series of 12 to 14 smaller, distant teeth, almost horizontal and arched downwards, thin membranous upper lip covers teeth all except 2 foremost, and with small downward pointed lobe beneath front angle of orbit; lower teeth 10 to 12 distant each side, horizontal and bent up, first each side of symphysis

1915

little behind rest and smallest, succeeding 4 gradually increase in length and last 2 longest of series, which terminate with anterior half of jaw well before upper teeth; tongue short, rounded in front and adnate.

Scales of nape very small, deciduous, gradually increase towards posterior part of body where very large. Scales orbicular, with 16 striae.

D. VI, 26, fins continuous; A. I, 25, slightly lower than dorsal; caudal 4 in rest of body, lanceolate; pectoral 7, rays 21; ventral rays I, 5. Anal papilla short, conic.

Slate colored, lighter on abdomen. Throat bluish white. Iris slate colored. Fin membrane of dorsals and caudal minutely dotted with brown, giving fins

1916

grayish appearance). Anal and
ventrals transparent. Pectoral
blackish gray, -divided in
middle by crescent-shaped
transparent band, which expands
over lowest 8 rays.

Length 86 mm. (Cantor, Günther.)

Malaya, Philippines:

1917

Gobileptes rictuosus (Valenciennes)

Apocryptes rictuosus Valenciennes, Hist.
Nat. Poiss., vol. 12, p. (114)¹⁴³, 1837 (Type
locality, mouth of Arrian River,
Pondicherry); — Schmeltz, Cat.

Mus. Godeffroy, no. 4, p. 18, 1869
(Pelew Islands); — Fowler, Mem.

Bishop Mus., vol. 10, p. 417, 1928
(copied).

— Jerdon, Madras Journ. Lit. Sci. 1851, p. 143.

— Bleeker, Verh. Batavia. Genoot. (Nal.
Ichth. Bengal), vol. 25, p. 50, 1853
(reference); — Günther, Cat. Fish.

Brit. Mus., vol. 3, p. 82, 1861 (Madras).

— Day, Fishes of Malabar, p. 113, 1865.

— Day, Fishes of India, pt. 2, p. 300,
1876 (India); Fauna British India,
Fishes, vol. 2, p. 275, 1889.

1918

Depth 7 to 8 in total; head $7\frac{1}{2}$, width 2. Snout rather obtuse; eye 6 to 7 in head, equals snout, greater than interorbital; mouth cleft deep, reaching at least one eye diameter beyond hind eye edge; lower jaw little longer than upper; lower teeth 20 to 28 in each ramus of jaw, pointed, most external each side recurved; rather large number also of pointed ones in upper jaw; pair of small internal lower canines above symphysis; interorbital width $\frac{1}{3}$ of eye.

Scales 75 in lateral series; in irregular rows, very small anterior to dorsal fin, become larger posteriorly.

D. VI, 24 to 27, continuous at bases, spines of first dorsal with filamentous extensions but not much higher than second

1919

dorsal, and last ray reaches caudal base; A. 25 to 29, begins in vertical below second or third dorsal ray; caudal 3 in total length, pointed, very elongate; pectoral rays 20, fin long as head without snout; ventral rays I, 5, fin long as pectoral.

Color grayish, lighter toward abdomen, with poorly defined oblique bands passing down and forward from dorsal base half way to abdomen. Inside of mouth with black spots. Dorsals, anal and pectoral whitish, externally stained with gray, sometimes spotted with brown. Usually black spot, surrounded by yellow ring on last few dorsal rays.

Length 180 mm. (Day.)
India, Melanesia.

Gobileptes serperaster (Richardson)

Apocryptes serperaster Richardson,
Jchth. China and Japan, p. 206, 1846
(type locality, Macao). — Günther,
Cat. Fish. Brit. Mus., vol. 2, p. 82,
1861 (China). — Rutter, Proc. Acad.

Nat. Sci. Philadelphia, p. 87, 1897
(Swatow). — Chu, Biol. Bull. St.
John's Univ., No. 1, p. 166, Jan. 1931
(reference). — Suwatti, Index Fish. Siam, p. 158, 1936
(Pak-pet; Bangpalsong R.; Canthaburi R.).
— Day, Fishes of India, pt. 2, p. 206 300, pl. 6, fig. 2,
1879. Fauna British India, Fishes, vol. 2, p. 275, fig. 93,
1889. (Madras)

Boleophthalmus serperaster Reeves,
Journ. Pan-Pac. Res. Inst., vol. 2, no.
2, p. 13, July-Sep. 1927 (reference).

Apocryptes serperastes Borodin, Bull.
Vanderbilt Mar. Mus., vol. 1, art. 3, p. 96,
1932 (Noumea, New Caledonia) (error).

1921

Parapocryptes serperaster Herre,
Gobies of Philippines, p. 262, 1927
(Fuchow, China). — Fowler, mem.
Bishop Mus., vol. 11, No. 6, p. 444, 1934
(reference).

1922

Depth $6\frac{1}{3}$ to 7; head $5\frac{1}{2}$ to 6, width $1\frac{2}{5}$ to $1\frac{1}{2}$. Snout $3\frac{1}{5}$ to $3\frac{1}{4}$ in head; eye $4\frac{3}{5}$ to 5, 1 to $1\frac{1}{2}$ in snout, greatly exceeds interorbital; maxillary reaches to hind eye edge or half an eye diameter beyond, length $2\frac{1}{5}$ to $2\frac{1}{4}$ in head; mouth cleft but little inclined from horizontal; upper teeth with outer enlarged row, of which 4 to 8 inclined down on either side of symphysis; lower teeth uniserial, extend outward and one canine or pair internally above symphysis; interorbital very narrow, $\frac{1}{3}$ of eye, which enters upper profile of head.

Scales 65 to 70 in lateral series; 20 transversely below front of second dorsal. 26 scales on muzzle and interorbital, on rest of head, predorsal and trunk

1925

very small, and irregular, but become very large on tail, especially posteriorly so only 6 transversely between bases of last dorsal and anal rays.

D. VI - 27, third spine 2 in head, first ray 3, penultimate ray $1\frac{3}{4}$; A. 27, first ray 5, penultimate ray $2\frac{1}{2}$; Caudal 4 in rest of fish, lanceolate; least depth of caudal peduncle $2\frac{7}{8}$; pectoral $1\frac{3}{4}$, rays 21; ventral rays I, 5, fin $1\frac{1}{3}$ in head.

Dull olive on back, becoming paler to whitish below. Along back 5 or 6 dark blotches, extend downward about half way in body depth. Dorsals pale below, with narrow longitudinal grayish band along lower third of each fin, and both fins dark gray terminally or along

.1924

upper margins. Anal grayish,
with narrow medial darker
gray ~~narrow~~ longitudinal band,
and lower or terminal edge of
fin dark gray. Other fins
gray.

I. India, Siam, China, Melanesia.

U. S. N. M., no. 103364. Bangpakong
River, Central Siam. June 27, 1933.
Dr. H. M. Smith. Length 210 mm.

U. S. N. M., no. 86957. Foochow,
China. A. de C. Sowerby. Length
98 to 128 mm. Three examples.

D. VI - 28; A. 28.

1926

Gobileptes
Apocryptodon wirzi (Koumans)

Apocryptodon wirzi Koumans, Zool.
Meded. Rijks Mus. Nat. Hist. Leiden,
p. 26, 1937 (type locality, Turama
River, Western Division British
New Guinea).

Genus Pseudapocryptes Bleeker ¹⁹²⁷

Pseudapocryptes Bleeker, Arch. Néerl.
Sci. Nat. Harlem, vol. 9, p. 328, 1874.
(Type Apocryptes lanceolatus
Cantor, orthotypic.)

Body very elongate, anteriorly subcylindrical, posteriorly compressed. Head partly cylindrical. Snout long as eye. Eyes small, advanced, in first third of head. Mouth nearly horizontal, jaws subequal.

Teeth in both jaws uniserial, pointed, those of lower jaw partly horizontal and on each side of symphysis of lower jaw a canine. Tongue rounded, nearly entirely adnate to mouth floor.

^{Bony} interorbital ^{wide} as eye.

Gill openings not very wide, long as basal pectoral width, Isthmus broad. Inner edge of shoulder girdle without fleshy flaps. Scales with over 200 in axial lateral series, very small and cycloid. Head entirely, or nearly entirely, scaly.

1929

Dorsal fins nearly continuous,
first with 5 spines, second with
28 to 31 rays. Anal rays 26 to
30. Caudal pointed, long.
Pectoral without free rays,
base scaled. Ventrals united,
oblong, under pectorals.

Pseudapocryptes lanceolatus (Schneider) ¹⁹³⁰

Eleotris lanceolata Schneider, Syst. Ichth. Bloch, p. 67, pl. 15, 1801 (type locality, Tranquebar ~~z~~ [Tranquerar]).

Apocryptes lanceolatus Cantor, Journ. Asiatic Soc. Bengal, vol. 18, pt. 2, p. 1169, 1849 (1850) (Penang; Malay Peninsula; Singapore). — Günther, Cat. Fish. Brit. Mus., vol. 3, p. 80, 1861 (India; Malayan Peninsula; Madras).

— Kner, Reise Novara, Fische, p. 180, 1865 (Madras; Tahiti). — Martens, Preuss. Exped. Ost Asien, vol. 1, p. 392, 1876 (Singapore). — Bleeker, Ned. Tijds. Dierk., vol. 2, pp. 34, 174, 1865 (Siam). — Károli, Termesz. Füzetek, Budapest, vol. 5, p. 166, 1881 (1882) (Canton; Sardjoh).

— Day, Fishes of India, pt. 2, p. 301, pl. 64, fig. 5, 1876 (Calcutta). — Duncker, Mitteil. naturh. Mus. Hamburg, vol. 21, p. 160, 1903 (1904) (Klang). — Johnstone, Fascic. Malay. Annandale and Robinson, Zool. pt. 2, p. 295, 1903 (Patani; Jhering). — Fowler, Mem. Bishop Mus., vol. 10, p. 418, 1928 (compiled).

— Chu, Biol. Bull. St. John's Univ., no. 1, p. 166, Jan. 1931 (reference). — Viniquerra, Ann. Mus. Civ. Stor. Nat. Genova, vol. 29, p. 174, 1889-90 (Rangoon).

1931

Pseudapocryptes lanceolatus Jordan and Seale, Bull. Bur. Fisher., vol. 25, p. 407, 1905 (1906) (reference). — Suwatti, Index Fish. Siam, p. 15-6, 1936 (reference). — Fowler, ~~Bull.~~ Fish. Malaya, p. 220, 1937 (reference). — Tomiyama, Jap. Journ. Zool., vol. 7, no. 1, p. 98, 1936 (Amami-Oshima, Kagosima).

Gobius changua Buchanan-Hamilton, Fishes of Ganges, p. 41, pl. 5, fig. 10, 1822 (type locality, Ganges estuaries).

Apocryptes changua Valenciennes, Hist. Nat. Poiss., vol. 12, p. (109) ~~109~~₁₄₅, 1837 (Pondichery; Rangoon; Batavia).

1932

~~Apocryptes changuia~~⁹ Bleeker, Verhand.
Batavia. Genoot. (Batavia. Gob.), vol.
22, p. 36, 1849 (Surabaya; Batavia;
Bangcallang; Sumanap); (Madura)
vol. 22, p. 5, 1849 (Kammal); Nat.
Tijds. Ned. Indie, vol. 1, p. 3, 1850
(Bandjermassing, Borneo); vol. 3, p.
53, 1852 (Singapore); vol. 13, p. 476,
1857 (Banter, Java); vol. 16, p. 45,
1858 (Anjer), p. 196 (Sinkawang);
Act. Soc. Sci. Ind. Neerl., vol. 5, no.
7, p. 2, 1858-59 (Sinkawang, Borneo).

Apocryptes changuia Bleeker, Verh.
Batavia. Genoot. (Nat. Ichth. Bengal),
vol. 25, p. 50, 1853 (reference).

Gobileptes dentatus (Valenciennes)

Apocryptes dentatus Valenciennes,
Hist. Nat. Poiss., vol. 12, p. ^{(111) 148,} ~~392~~, 1837
(type locality, Pondicherry; Calcutta).

— Martens, Preuss. Exped. Ost Asien,
vol. 1, p. 400, 1846 (Singapore). —

Fowler, ^{list} Cat. Fish. Malaya, p. 212,
1937 (Singapore).

— Jordan, Madras Journ. Lit. Sci., 1851, p. 143 (India).

— Bleeker, Verh. Batavia. Genoot. (hal.
Jeth. Bengal), vol. 25, p. 50, 1853

(reference). — ~~Day~~ Günther,
Cat. Fish. Brit. Mus., vol. 3, p. 81,

1861 (copied). — Day, Fishes of India,
pt. 2, p. 301, 1876 (evidently compiled).

— Day, Fauna British India, Fishes,
vol. 2, p. 278, 1889 (copied). —

1934

Depth 8 to $8\frac{1}{2}$; head $5\frac{7}{8}$ to $6\frac{1}{4}$, width $1\frac{3}{4}$ to $1\frac{4}{5}$. Snout $5\frac{3}{4}$ to $6\frac{1}{4}$ in head; eye $5\frac{4}{5}$ to $6\frac{1}{2}$, 1 to $1\frac{1}{5}$ in snout, subequal with interorbital; maxillary reaches $\frac{1}{2}$ in eye or to its hind edge, length $3\frac{1}{4}$ to 4 in head; mouth cleft low, little inclined from horizontal, jaws subequal in front; teeth moderate, upper truncate or slightly swollen, lower horizontal with pair of canines behind symphysis; interorbital low, eyes entering upper profile of head.

Scales very small or minute, most distinct posteriorly or on tail.

D. V— 31 or 32, fins appear separated, third spine $2\frac{1}{5}$ in head, second dorsal fin height $3\frac{1}{4}$ to $3\frac{1}{2}$; A. 29 or 30, fin height $4\frac{1}{4}$ to $4\frac{1}{2}$; caudal $4\frac{4}{5}$

1935

to 5 in rest of fish, lanceolate;
least depth of caudal peduncle
 $2\frac{2}{5}$ to $2\frac{1}{2}$ in head; pectoral $1\frac{2}{5}$
to $1\frac{1}{2}$, rays 20 or 21; ventral
rays I, 5, fin $1\frac{1}{2}$ to $1\frac{3}{5}$ in head.

Dull olive brown above,
often with numerous, obscure,
transverse bands or bars from
back to abdomen. Dorsals with
4 to 6 dark spots, usually
ill defined or often not much
contrasted, on each membrane.
Caudal with variable dark
bands transversely, formed of
dark spots. Paired fins dark
grayish.

India, Burma, Malaya,
East Indies, Siam, Japan. Though
reported from Tahiti by Puer this
record may well be questioned.

1936

U. S. N. M., no. 44730. Rangoon,
Burma. L. Lea. Length 144 mm.

1885-1889.

U. S. N. M., no. 44770. Rangoon,
Burma. L. Lea. Length 148 mm.

1885-1889.

U. S. N. M., no. 89497. Rangoon,
Burma. G. E. Gates. Length 102
mm.

1937

U. S. N. M., no. 47987. Cochin China.
Lynn Museum. Length 171 mm.

Genus Triaenopogon Bleeker

1938

Triaenopogon Bleeker, Arch. Neerl.
Sci. Nat. Harlem, vol. 9, p. 312, 1874.
(Type Triaenophorichthys barbatus
Günther, orthotypic.)

Body robust. Head large, much
broader than body. Snout short,
blunt. Eyes small, well advanced
or near first third in head.
Maxillary extends below eye.
Mouth cleft broad. Gill
opening lateral. Body with
rather large ctenoid scales.
Head naked. A conspicuous
fringe of barbels, one series
along suborbital, another along
preopercle edge and ramus
of lower jaw to chin. Teeth
biserial in both jaws, outer
row tricuspid, inner row simple
pointed.

1939

Dorsal with 6 spines and 11 rays.
Anal rays 10. Caudal moderate,
rounded. Pectoral shorter than
head. Ventral shorter than
pectoral.

Known among all its family
by the possession of tricuspid
teeth and barbels.

Awaous vittatus Fowler, Copeia, no. 112,
p. 84, Nov. 20, 1922 (Hawaii [lapsus for
genivittatus]).

Chonophorus genivittatus Jordan and
Jordan, Mem. Carnegie Mus., vol. 10, no.
1, p. 78, Dec. 1922 (Hawaii). — Fowler,
Bull. Bishop Mus., no. 22, p. 30, 1925
(Honolulu); Mem. Bishop Mus., vol. 10,
p. 410, 1928 (Hawaiian Islands; Honolulu;
Laie Stream, Oahu; Waialua Stream,
Molokai; Society Islands; Kusaie;
Maui; Hanapepe River; Apia).

— Herre, Gobies of Philippines, p. 211, pl. 16,
fig. 4, 1927 (Limbones Cove; Bigaa and
Arimbay Rivers; Sibuyan I.; San Jose,
Panay; Dumarao; Lapsay; Cagayan;
Balabac). — Fowler,

1940

Triaenopogon barbatus (Günther)

Triaenophorichthys barbatus Günther,
Cat. Fish. Brit. Mus., vol. 7, p. 90, 1861
(type locality, unknown, probably
China). — Bleeker, Ned. Tijds.
Dierk., vol. 2, p. 58, 1865 (Amoy). —
Peters, Monatsb. Akad. Wiss. Berlin,
p. 922, 1880 (Kungpo).

Tridentiger barbatus Steindachner,
Sitzb. Ber. Akad. Wiss. Wien, vol. 80, p.
151, 1879 (Celebes or Philippines).

Triaenopogon barbatus Rutter, Proc. Acad. Nat. Sci. Philadelphia, p. 85, 1897 (Swatow). — Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 111, fig. 23, 1901 (Tokyo Bay). — Rendahl, Arkiv Zool. Stockholm, vol. 16, p. 25, 1924 (Japan). — Herre, Gobies of Philippines, p. 281, pl. 22, fig. 4, 1927 (Amoy). — Reever, Journ. Pan-Pac. Res. Inst., vol. 2, no. 3, p. 13, July - Sep. 1927 (reference). — Chu, Bibl. Bull. St. John's Univ., no. 1, p. 165, Jan. 1931 (reference). — Tomiyama, Jap. Journ. Zool., vol. 7, no. 1, p. 97, 1936 (Tokyo; Wakayama; Nagasaki; Taihoku and Tainan, Formosa).

Triaenopogon japonicus Rendahl, op. cit., p. 27, 1924 (type locality,

1942

Depth $3\frac{1}{4}$ to $3\frac{7}{8}$; head 3.

Snout $4\frac{1}{4}$ in head from snout tip; eye 7, $1\frac{2}{3}$ in snout; maxillary reaches below hind edge of eye, length $2\frac{2}{5}$ in head from snout tip; mouth little inclined, begins in front well below level of lower eye edge; teeth biserial, pointed, upper biserial, ^{outer} tridentate with median cusp highest, and inner row small and simple; lower teeth biserial, those in outer row tridentate, and small inner row simple; tongue rounded in front. Gill rakers 2 + 5, short rather slender.

Scales 36 in lateral series; 14 transversely. Predorsal scales small and only extend forward above opercle, head otherwise naked. Suborbital edge with double fringe of barbels, extend

1943

back little beyond eye. Each side of mandible 2 fringes of barbels longitudinally, and posteriorly continue up along preopercle and as few scattered barbels on opercle. Prefectoral region and chest naked.

D. VI-11, third spine $2\frac{3}{4}$ in total head length, second dorsal height 2; A.V. 10, fin height $2\frac{2}{5}$; caudal $1\frac{3}{4}$, convex behind, least depth of caudal peduncle $2\frac{2}{5}$; pectoral $1\frac{1}{4}$, rays 19; ventral rays I, 5, fin $1\frac{4}{7}$ in head.

Dull olive brown, with 5 obscure darker bars or blotches on back. Transverse dark band across middle of predorsal.

First dorsal with 2 broad blackish inclined bands. Second dorsal with 4 longitudinal dark bands, and caudal with 6 or 7 transversely, likewise pectoral. Anal dark gray, paler basally. Ventral pale.

1944

Japan.

U. S. N. M., no. 86383. China.

A. de C. Sowerby. Length 75 mm.

D. VI-11; A. 10; teeth tricuspid.

~~U. S. N. M., no. 49934. Tokyo,~~

~~Japan.~~

U. S. N. M., no. 49934. Tokyo,

Japan. D. S. Jordan and J. D.

Snyder. Length 78 mm.

1946

Genus Tridentiger Gill

Tridentiger Gill, Ann. Lyc. Nat. Hist. New York, vol. 7, p. 16, 1858. (Type Sicydium obscurum Schlegel, orthotypic.)

Triaenophorus (not Rudolphi 1793 in Vermees) Gill, op. cit., p. 17, 1858. (Type Triaenophorus trigonocephalus Gill, monotypic.)

Triaenophorichthys Gill, Proc. Acad. Nat. Sci. Philadelphia, p. 195, 1859. (Type Triaenophorus trigonocephalus Gill, monotypic.)

Trifissus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 373, 1901. (Type Trifissus ioturus Jordan and Snyder, orthotypic.)

1947

Body little compressed. Head broad, little depressed above. Snout blunt, rounded. Eye small, well advanced in head, well separated. Maxillary extends below eye, lower jaw little prominent. Teeth rather large, fixed, biserial, in outer row trifid with median cusp largest, inner series smaller, pointed. Tongue rounded. Gill openings lateral, broad. Scales moderate to large, ctenoid. Head naked, cheeks tumid. No barbels. First dorsal with 6 spines, second dorsal with 10 to 13 rays. Anal rays 11. Caudal rounded. Pectoral rounded. Ventral moderate, free from belly.

China, Japan.

Analysis of Species

- a.¹ Scales 48 to 52. trigonocephalus
- a.² Scales 34 to 40.
- b.¹ Hape, hind part of predorsal
and belly scaly obscurus
- b.² Hape, predorsal and belly
naked. medicewitcus

Awaous genivittatus Fowler, Proc.
Acad. Nat. Sci. Philadelphia, p. 517,
1900 (Hawaii). — Jenkins, Bull. U.S.
Fish Comm., vol. 22, p. 502, 1902 (1903)
(fresh waters of Honolulu). —
Snyder, Bull. U.S. Fish Comm.,
vol. 22, p. 536, 1902 (1904) (Honolulu;
Waiameo River; Hanapepe River;
Hanalei River; Huleia River;
Anahulu River). — Jordan and
Evermann, Bull. U.S. Fish Comm.,
vol. 23, pt. 1, p. 492, fig. 218, 1903
(1905) (Honolulu; Moanalua,
Kaneohe Creek; Hilo). — Jordan and
Seale, Bull. Bur. Fisher., vol. 25, p.
405, 1905 (1906) (Daisigano River,
Samoa). — Kendall and Goldsbrough —
ough, Mem. Mus. Comp. Zool., vol. 26,
p. 320, 1911 (Kusaie, Carolines). —
Roxas and Martin, Depart. Agric. Comm.
Manila, Tech. Bull. 6, p. 224, 1937
(reference).

1949

Tridentiger trigonocephalus (Gill)

Triaenophorus trigonocephalus Gill,
Proc. Acad. Nat. Sci. Philadelphia,
p. 17, 1858 (type locality, China).

Triaenophorichthys trigonocephalus
Gill, op. cit., p. 195, 1859 (name only).
— Günther, Cat. Fish. Brit. Mus.,
vol. 3, p. 89, 1861 (China). —
Bleeker, Ned. Tijds. Dierk., vol. 2, p.
58, 1864 (Amoy). — Günther, Ann.
Mag. Nat. Hist. London, ser. 4, vol. 12,
p. 242, 1873 (Shanghai); ser. 4, vol.
13, p. 156, 1874 (Chefoo). — Rutter,
Proc. Acad. Nat. Sci. Philadelphia,
p. 85, 1897 (Swatow).

1950

Tridentiger trigonocephalus Rendahl,
Arkiv för Zool., Stockholm, vol. 16,
no. 2, p. 27, 1924 (compiled).
— Herre, Gobies of Philippines, p.
285, 1927 (Fuchow; Amoy; Hong Kong).
— Reeves, Journ. Pan-Pac. Res.
Inst., vol. 2, no. 3, p. 13, July-Sep.
1927 (reference). — Chu, Biol. Bull.
St. John's Univ., no. 1, p. 165, Jan. 1931
(reference). — Tomiyama, Jap. Journ.
Zool., vol. 7, no. 1, p. 96, 1936 (Nagasaki;
Tobisima; Kesen).

Tridentiger bifasciatus Steindachner,
 Sitzs. Ber. Akad. Wiss. Wien, vol. 83, pt.
 1, p. 190, pl. 7, fig. 2-a, 1881 (type
 locality, Strietok, Japanese Sea). —
Jordan and Snyder, Proc. U. S. Nat.
 Mus., vol. 24, p. 117, fig. 25, 1901
 (types of Trifissus ioturus). —
Jordan and Fowler, Proc. U. S. Nat.
 Mus., vol. 25, p. 576, 1902 (Wakanoura).
 — Jordan and Starks, Proc. U. S. Nat.
 Mus., vol. 28, p. 210, 1905 (Fusan; Chemulpo).
 — Seale, Philippine Journ. Sci.,
 vol. 9, pt. 1, p. 77, 1914 (Hong Kong).
 — Rendahl, Arkiv för Zool., Stock-
 holm, vol. 16^{no. 2}, p. 27, fig. 1, 1924 (Fergien)
 (head above).
 — Berg, Annuaire Mus. Zool. St. Peterbourg,
 vol. 12, p. 10, 1907 (1908) (reference).
 — Herre, Gobies of Philippines, p. 283, 1927
 (Fuchow; Hong Kong; Shiogama, Japan).
 — Chu, Biol. Bull. St. John's Univ., no. 1,
 p. 165, Jan. 1931 (reference).
Trifissus ioturus Jordan and Snyder, Proc.
 U. S. Nat. Mus., vol. 23, p. 373, pl. 18, 1900 (type
 locality, Tokyo Bay).

1952

Tridentiger bucco Jordan and Snyder,
Proc. U. S. Nat. Mus., vol. 24, p. 115, fig.
24, 1901 (type locality, Misaki and
Tokyo, Japan). — Jordan and
Fowler, Proc. U. S. Nat. Mus., vol.
25, p. 576, 1902 (Tamagawa, Japan).

Tridentiger geminaculatus Regan,
Ann. Mag. Nat. Hist. London, ser. 7,
vol. 15, p. 23, pl. 2, fig. 1, 1905
(type locality, Inland Sea of
Japan).

Tridentiger marmoratus Regan,
~~Ann. Mag. Nat. Hist. London,~~
~~op. cit.~~ p. 22, pl. 2, fig. 2, 1905
(type locality, Inland Sea of
Japan).

→

1953

Depth $4\frac{1}{3}$ to $5\frac{1}{2}$; head $3\frac{1}{5}$ to $3\frac{1}{2}$,
width $1\frac{1}{3}$ to $1\frac{3}{4}$. Snout $4\frac{3}{4}$
to $5\frac{1}{2}$ in head; eye 4 to 8, greater
than snout to $1\frac{1}{2}$ in snout,
variably subequal, ^{with interorbital} maxillary
reaches $\frac{1}{2}$ in eye to slightly
beyond eye, length $2\frac{1}{2}$ to 3 in
head; mouth variably inclined,
sometimes begins in front level
with lower eye edge; teeth biserial,
outer tridentate with median
cusp largest and rounded, and
inner lower series conic, sharp,
slender, recurved; tongue round
in front; interorbital level,
eye entering though not protruding
in upper profile of head. Gill
rakers 3 + 8, short points.

Scales 48 to 52 in lateral
series; 15 or 16 in transverse
series. Predorsal with few small
scales or largely nased. Head

1954

naked. Scales on body ctenoid, little smaller on trunk. Prepectoral region, chest and breast naked. D. VI - 13, third spine $1\frac{4}{5}$ to 2 in head, second dorsal height $1\frac{7}{8}$ to 2; A. 11, fin height 2; caudal $1\frac{1}{4}$ to $1\frac{1}{3}$, convex behind; least depth of caudal peduncle 2 to $2\frac{1}{3}$; pectoral $1\frac{1}{8}$ to $1\frac{2}{5}$, rays 19 or 20; ventral rays I, 3, fin $1\frac{2}{5}$ to $1\frac{2}{3}$ in head. Anal papilla conic, long as eye.

Bluish to olive gray, sides with 6 or 7 narrow dark cross bands. Head with very numerous small, close set pale spots. Soft dorsal and anal edged blackish. Caudal blackish. Paired fins gray black, with whitish transverse basal bar on pectoral. Young with black band from

interorbital along each side of ¹⁹⁵⁵
dorsal bases and upper side
of caudal peduncle to caudal
above. Second narrower dark
band from side of snout, over
postocular to upper base of
pectoral then back to bases of
lower median caudal rays.

China, Japan, Korea, Kamchatka.

U. S. N. M., no. 71521. Shiogama,
Rikuzen, Japan. Albatross
Expedition 1906. Length 43 to 69
mm. Thirty-four examples.
As Tridentiger bifasciatus.

U. S. N. M., no. 85867. China.
A. de C. Sowerby. Length 31 to 66
mm. Seventeen examples. As
tridentiger bifasciatus. D. VI - 13;
A. 11; scales 52 in lateral series.

U. S. N. M., no. 91531. Mui
Hua, Foochow, China. April
1930. A. S. Pearse. Length 57
mm.

U. S. N. M., no. 105,191. Vladivostok
Kamchatka. A. Taranets. Length
75 mm. As Tridentiger bifasciatus.

1957
U. S. N. M., no. 45331. Korea
or Japan. P. L. Jouy. Length 35
to 39 mm. Eleven examples.
As Tridentiger bifasciatus.

U. S. N. M., no. 45333. No locality.
P. L. Jouy. Length 34 to 44 mm.
Two examples. As Tridentiger
bifasciatus. In poor preservation?

U. S. N. M., no. 37763. Korea.
J. B. Bernadou. Length 76 mm.
As Tridentiger bifasciatus.

U. S. N. M., no. 59559. Matsushima
Bay, Japan. Dr. H. M. Smith.
Length 82 mm. As Tridentiger
bifasciatus.

U. S. N. M., no. 62380. Port
Arthur. J. F. Abbott. Length 65
mm. As Tridentiger bifasciatus.

U. S. N. M., no. 71498. Shimonoseki,
Japan. Albatross Expedition 1906.
Length 27 to 32 mm. Three
examples. As Tridentiger bifasciatus.

U. S. N. M., no. 85998. China.

A. de C. Sowerby. Length 60 mm.

U. S. N. M., no. 86428. China.

A. de C. Sowerby. Length 61 mm.

U. S. N. M., no. 86514. China.

A. de C. Sowerby. Length 31 to 33 mm. Two examples.

U. S. N. M., no. 86515. China.

A. de C. Sowerby. Length 60 mm.

U. S. N. M., no. 86964. Soochow

China. A. de C. Sowerby. Length 57 to 74 mm. Two examples.

U. S. N. M., no. 86967. Shanghai,

China. A. de C. Sowerby. Length 68 to 78 mm. Nine examples.

U. S. N. M., no. 45337. Fusan,

Korea. P. L. Jouy. Length 57 mm. As Tridentiger bifasciatus.

U. S. N. M., no. 49902. Misaki,

Japan. D. S. Jordan and J. Q. Snyder. Length 72 to 85 mm.

Four examples. "Cotypes" (= paratypes) of Tridentiger bucco Jordan and Snyder.

1959

Tridentiger obscurus (Schlegel)

Sicydium obscurum Schlegel, Fauna
Japonica, Poiss., pts. 7-9, p. 145, pl. 76,
fig. 1, 1845 (type locality, Rivers
in Bay of Nagasaki). — Bleeker,
Verh. Batavia Genoot. (hal. Ichth.
Japan), vol. 25, p. 16, 1853 (reference).
— Jordan and Starks, Proc. U. S.
Nat. Mus., vol. 28, p. 210, 1905 (Genoa).

— Berg, Annuaire Mus. Acad. St.
Petersbourg, vol. 12, p. 10, 1907 (1908)
(reference). — Franz, Abhandl. Kon.
Bayer. Akad. Wiss., vol. 4, Suppl.
Band 1, p. 68, 1910 (Fukuoka).

Tridentiger obscurus Gill, Ann. Lyc.
Nat. Hist. New York, vol. 7, p. 17, 1858
 (Shimoda). — Günther, Cat. Fish.
Brit. Mus., vol. 3, p. 566, 1861 (copied).
 — Jordan and Snyder, Proc. U. S.
Nat. Mus., vol. 24, p. 113, 1901 (Iwuyga;
 Omori; Matsushima; Kawatana;
 Kobe; Kurume; Nagasaki; Misaka;
 Wakanoura; Same; Enoshima;
 Niigata; Tanabe R.; Ise; Ishikawa);

Amot. Zool. Japon., vol. 3, p. 114, 1901 (Nagasaki).
 — Jordan and Fowler, Proc. U. S.
Nat. Mus., vol. 25, p. 576, 1902
 (Kitahami R., Japan). — Anonymous,
Illustrat. Jap. Aquat. Pl. Animals, pl. 47,
 fig. 9, 1931. — Tanaka, Jap. Fish. Life Colours, 1933, no. 329.

Tridentiger obscurus obscurus Tomiyama
Jap. Journ. Zool., vol. 7, no. 1, p. 96, 1936
 (Hakodate; Yaegaki-jima).

(Jordan, Tanaka, Snyder, Journ. College Sci.,
 vol. 33, art. 1, p. 359, 1913 (reference)).

1961

Triaenophorichthys squamistrigatus
Hilgendorf, Sitzs. Ber. nat. Hist. Berlin,
vol. 3, p. 111, 1879 (type locality, Japan).
— Jordan and Snyder, Proc. U. S.
Nat. Mus., vol. 23, p. 372, 1900 (Ione R.;
~~Ishikawa-ken~~; ~~Amakusa~~; Annot. Zool. Japon., vol. 3, p. 114,
1901 (Ishikawaken; Ione R.).

Tridentiger squamistrigatus Steindachner,
Sitzs. Ber. Akad. Wiss. Wien, vol. 80,
pt. 1, p. 149, 1879 (Japan).

Gobius (Ctenogobius) atriceps Regan,
Ann. Mag. Nat. Hist. London, ser. 7,
vol. 16, p. 364, 1905 (type locality, Iloilo,
Inland Sea of Japan).
Rhinogobius atriceps Jordan, Tanaka, Snyder, Jordan, Proc. U. S. Nat. Mus., vol. 33, art. 1, p. 344, 1913 (reference).

Tridentiger coreanus Regan, ~~Proc. Zool. Soc. London~~
~~Proc. Zool. Soc. London~~, p. 63, pl. 3, fig. 2, 1907
(type locality, Cong-ju, Korea) (young).

Tridentiger kurilwa Jordan and
Tanaka, Ann. Carnegie Mus., vol.
p. 276, pl. 23, figs. 1-3, 1927 (type
locality, Amami-Osima, Yakushima;
Oshidawa; Iriya).

Depth $4\frac{1}{2}$ to $5\frac{1}{3}$; head $3\frac{1}{2}$ to $3\frac{4}{5}$. Snout $2\frac{4}{5}$ to $3\frac{1}{3}$ in head; eye 5 to 10, 2 to 3 in snout; Maxillary reaches front eye edge or $\frac{1}{4}$ in eye, length $3\frac{1}{2}$ in head; mouth cleft low, subhorizontal, jaws equal; teeth biserial, in outer row mostly compressed, tridentate, and lower teeth in inner row small, simple, pointed, recurved; tongue rounded in front; inter-orbital low, with eye impinging on upper profile of head. Gill rakers $3 + 12$, short, obtuse.

Scales 34 in lateral series; 16 transversely. Scales ctenoid on body, on predorsal and belly cycloid, on breast embedded. Head scaleless. No barbels.

D. VI - 12, in males ends of spines long, filamentous, free,

1963

much shorter in females, first spine of male subequal with head, soft dorsal height $1\frac{3}{4}$ in head; A. 11, origin behind base of second dorsal ray, fin height 2; caudal $1\frac{1}{3}$, convex behind; least depth of caudal peduncle 3; pectoral $1\frac{1}{2}$, rays 19 or 20; ventral rays 1, 5, fin $2\frac{1}{2}$ in head. Anal papilla conic, subequal with eye.

Back and above olive gray, variably paler. Sometimes obscure pale spots on sides of head. Dorsals grayish, with dark spots on membranes. Caudal olivaceous. Anal pale gray. Paired fins gray.

Japan, Korea.

1964

U. S. N. M., no. 6379. Fresh water
ditches, Japan. Length 52 mm.
In poor preservation.

U. S. N. M., no. 9723. Simoda,
Japan. Length 52 mm.

U. S. N. M., no. 45345. Yuen-san,
Korea. P. L. Jouy. Length 34 to 83
mm. Six examples.

U. S. N. M., no. 49861. Tsuruga,
Echizen, Japan. D. S. Jordan and
J. O. Snyder. Length 58 to 74 mm.
Four examples.

U. S. N. M., no. 49931. Same,
Japan. D. S. Jordan and J. O.
Snyder. Length 57 to 70 mm.
Two examples.

U. S. N. M., no. 49953. Nagasaki,
Japan. D. S. Jordan and J. O.
Snyder. Length 35 mm.

U. S. N. M., no. 49964. Aomori,
Japan. D. S. Jordan and J. O. Snyder.
Length 45 to 74 mm. Nine
examples.

U. S. N. M., no. 59581. Kochi,
Japan. May 7, 1903. Dr. H. W. Smith.
Length 68 mm.

1966
U. S. N. M., no. 71409. Akune,
Satsuma, Japan, in Takamatsu
River. Bureau of Fisheries.
Albatross Collection, Length
76 to 105 mm. Five examples.

U. S. N. M., no. 71422. Shio-
gama, Japan. Bureau of
Fisheries. Albatross Explorations.
Length 114 mm.

U. S. N. M., no. 71429. Aikawa,
Rikuzen, Japan. Bureau of Fisheries.
Albatross Explorations 1906. Length
57 to 63 mm. Five examples.

U. S. N. M., no. 71442. Same,
Rikuohe, Japan. Bureau of
Fisheries. Albatross Expedition
1906. Length 36 to 85 mm.
Nineteen examples.

U. S. N. M., no. 71479. Same,
Japan. Bureau of Fisheries.
Albatross Expedition 1906.
Length 60 mm.

U. S. N. M., no. 71534. ¹⁹⁶⁷ Suido,
Ilogo Island, Japan. Bureau of
Fisheries. Length 40 to 84 mm.
Twenty-one examples.

1968

Tridentiger nudicervicus Tomiyama

Tridentiger nudicervicus Tomiyama,
Journ. Fac. Sci. Imp. Univ. Tokyo,
vol. 3, pt. 3, p. 328, fig. 2, 1934
(type locality, Ariake Sound).

Tridentiger obscurus nudicervicus
Tomiyama, Jap. Journ. Zool., vol. 7,
no. 1, p. 96, fig. 40, 1936 (types).

Differs from Tridentiger obscurus
chiefly in the predorsal region
entirely naked or scaleless.
Also said not to reach so large
a size.

Japan, in brackish water.

1969

Alepigobius new genus

Type — Gobiosoma insignum
Herre

Body elongately ovoid, deepest at first dorsal, well compressed and tapering back in long slender caudal peduncle. Head moderate, compressed. Snout short, obtuse. Eye moderate, elevated, entering upper profile and at second fifth in length of head. Maxillary extends below front of eye. Jaws equal and upper protractile. Teeth small, simple, in narrow bands in jaws. Interorbital very narrow. Gill opening lateral, little extended forward and not much broader than width of pectoral base. Branchiostegals 5. No scales. Dorsals separated, first dorsal of 6 short spines and second

dorsal with spine and 9 rays.
Anal like second dorsal. Caudal
small rounded. Pectoral with
broad base, fin shorter than
head. Ventrals united, long as
head or little longer.

For the small naked gobies
usually placed in the American
genus Gobioxoma Girard, though
with which they have no close
affinity other than the absence
of scales. The greatly different
facies is quite distinctive.

1971

Alepigobius insignis (Herre)

Gobiosoma insignum Herre, Gobies
of Philippines, p. 289, pl. 27, fig. 3,
1927 (type locality, Dumaguete
River, Oriental Negros; Bangar,
La Union Province, Luzon; Antique
Province).

Cephalopoda 1972

Two examples. Calugao River,
Catanduanes Island. June 9, 1909.
Length 43 to 45 mm. [1622]

One example. Mananga River,
Cebu. August 25, 1909. Length
45 mm.

1973

Alepigobius marmoratus (Peters)

Gobiosoma marmoratum Peters,
Monatsber. Akad. Wiss. Berlin, p. 267,
1868 (type locality, Loguilocan,
Samar) — Herre, Gobies of
Philippines, p. 291, 1927 (copied).

Genus Gignimentum Whitley

Gignimentum Whitley, Records
Austral. Mus., vol. 29, no. 1, p. 88,
Aug. 2, 1933. (Type Gignimentum
penicillum Whitley, orthotypic.)

Stylops

Stylops

Stylops, more or less abundant &
local; upper test truncate, bearing
on declivity; lower test with row of
movable, more or less long setae
test; lower jaw with row of
teeth. Test in course

1974

Genus Kelloggella Jordan and Evermann

Kelloggella (Jordan and Seale) Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, pt. 1, 1903 (July 29, 1905). (Type p. 488.)

Kelloggella cardinalis (Jordan and Seale) Jordan and Evermann, designated by Jordan and Seale, Bull. Bur. Fisher., vol. 25, p. 409, 1905 (1906).

1975

Body elongate, compressed.
Head little compressed. Snout
 $\frac{1}{2}$ to one diameter of eye. Eye
advanced, in front half of head.
Mouth little oblique, jaws equal,
upper little prominent. Teeth
of lower jaw rather large in
front, laterally uniserial; outer
row enlarged, anteriorly some
canine-like teeth. Upper teeth
similar, with fewer canines.
Gill openings low, restricted,
slightly oblique. Body naked,
or with only few very minute
scales posteriorly. Dorsal fins
separated, first with 6 spines,
second with 11 or 12 rays. Anal
rays 7 or 8. Caudal rounded.
Ventrals united.

Kelloggella cardinalis Jordan and Evermann

Kelloggella cardinalis (Jordan and Seale)
 Jordan and Evermann, Bull. U. S. Fish
 Comm., vol. 23, pt. 1, p. 488, 1903 (July 29,
 1905) (type locality, Samoa).
 — Jordan and Seale, Bull. Bur. Fisher.,
 vol. 25, p. 409, pl. 53, fig. 1, 1905 (Dec.
 15, 1906) (Pago Pago). — Fowler, Mem.
 Bishop Mus., vol. 10, p. 408, 1928 (copied).

Depth $5 \frac{2}{5}$; head $4 \frac{1}{3}$. Snout
 $4 \frac{1}{4}$ in head; eye $4 \frac{1}{2}$, subequal
 with snout, greater than interorbital;
 maxillary reaches $\frac{1}{3}$ in eye,
 length $3 \frac{1}{5}$ in head; mouth
 cleft small, but little elevated
 from horizontal and well below
 level of lower eye edge; teeth
 small, sharp pointed in jaws,
 none on palate or tongue; inter-
 orbital low, width 2 in eye,

which not entering upper
profile.

1977

Body scaleless.

D. ~~VII~~, 13, second spine $1\frac{4}{5}$
in head, second ray $1\frac{5}{6}$; A.
9, first ray $2\frac{2}{3}$, eighth ray²;
caudal 1, convex behind; least
depth of caudal peduncle $\frac{1}{2}$;
pectoral 1; ventral $1\frac{2}{5}$.

In life color clear grass
green. Both dorsals, anal
and caudal bright cherry red.
Paired fins green. Larger
specimens greenish black, more
greenish anteriorly; dorsal and
anal bright orange, edged
with black; caudal gray;
paired fins golden green.

Samoa.

U. S. N. M., no. 51785. Pago Pago,
Samoa. Bur. of Fisher. Length
28 mm. Type.

Kelloggella oligolepis (Jenkins) 1978

Enyprias oligolepis Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 504, fig. 45, 1902 (1903) (type locality, Honolulu).
— Snyder, op. cit., vol. 22, p. 536, 1902 (1904) (Honolulu).

Kelloggella oligolepis Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, pt. 1, p. 488, fig. 215, 1903 (1905) (Waianae; Honolulu).
— Jordan and Seale, Bull. Bur. Fisher., vol. 25, p. 409, 1905 (1906) (reference).
— Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 147, 1912 (La Perouse Bay, Easter Island; type). — Fowler, Copeia, no. 112, p. 84, nov. 20, 1922 (Hawaii); Mem. Bishop Mus., vol. 10, p. 408, 1928 (Hawaii; type; Easter Island).

1979

Erypnias desquamatus Brigham, Decas.
Pap. Bishop Mus., vol. 2, no. 2, p. 21, 1903
(1904) (type locality, Honolulu) (no
description or figure).

1980

Depth $5\frac{1}{4}$ to $6\frac{1}{5}$; head 4 to $4\frac{7}{8}$,
width $1\frac{4}{5}$ to 2. Snout 4 to 5
in head; eye 3 to $3\frac{1}{4}$, greatly
exceeds snout or interorbital;
maxillary reaches back $\frac{2}{3}$ in eye,
length $2\frac{1}{4}$ to $2\frac{1}{3}$ in head,
mouth but little inclined from
horizontal, well below level of
eye, jaws subequal; teeth in
bands anteriorly in jaws,
narrowing to subserial laterally
and posteriorly, outer row
more or less enlarged; inter-
orbital narrow, 3 to $3\frac{1}{2}$ in eye,
which enters upper profile of
head. Gill opening $2\frac{1}{2}$ in head.

Body scaleless, "a very
few minute scales on posterior
part."

D. VI — I, 10 or 11, second spine
 $1\frac{1}{2}$ in head, first branched ray
 $1\frac{2}{3}$; A. I, 6, first branched ray
 $1\frac{7}{8}$, fifth ray $1\frac{1}{3}$; caudal 1,

convex behind; least depth of ¹⁹⁸¹
caudal peduncle 2; pectoral 1,
to $3 \frac{4}{5}$ in fish without caudal
rays 12; ventral rays I, 5,
fin equals head.

Brown, with 12 dark
transverse bands, pale inter-
spaces very narrow. Dorsals
and caudals brownish, other
fins paler.

Hawaiian Islands, Easter Island.

U. S. N. M., no. 50715. Honolulu,
Hawaiian Islands, Dr. O. P.
Jenkins. Length 17 mm. Type.

Genus Gobiodon Bleeker

1982

Gobiodon (Kuhl and Van Hasselt) Bleeker,
Nat. Tijds. Ned. Indië, vol. 11, p. 407, 1856.
(Type Gobius histrio (Kuhl and Van Hasselt)
Valenciennes, designated by Bleeker,
Arch. Néerl. Sci. Nat. Harlem, vol. 9, p.
309, 1874.)

Pseudogobiodon Bleeker, Arch. Néerl.
Sci. Nat. Harlem, vol. 9, p. 309, 1874.
(Type Gobius citrinus Rüppell, orthotypic.)

Ellerya Castelnau, Proc. Zool. Soc. Victoria,
vol. 2, p. 95, 1873. (Type Ellerya unicolor
Castelnau, monotypic.)

1983

Body short, compressed. Head deeper than long, compressed, profile rounded in front. Snout steep, obtuse. Eye advanced, elevated, small. Mouth slightly inclined, gape short, jaws subequal. Teeth in narrow band in each jaw, outer row largest; few stronger inner teeth on each side of mandibular symphysis. Tongue partly free, truncate or rounded anteriorly. Interorbital convex. Gill opening opposite and wide as pectoral base, isthmus very broad. Body naked, but covered with thick granular mucus, when removed may leave small pits in skin resembling rudimentary scales. Large tubular pores open between nostrils, on interorbital space, behind eye and around preopercle border. Lower edge

1984

of preopercle and mandible with
minute papillae. Shoulder
girdle smooth. Dorsal with 6
spines and 11 rays. Anal
like soft dorsal. Caudal and
pectorals rounded, latter with
18 or 19 rays. Ventrals small,
cup shaped.

Probably a single widely
distributed species, very variable
from yellow or pale reddish to
black. Indo Pacific.

Gobiodon rivulatus (Rüppell)

1985

Gobius rivulatus Rüppell, Atlas Reise
nördl. Afrika, Fische, p. 136, 1828 (type
locality, Jubal Island, Red Sea); neue
Wirbeltth. Fische, p. 138, 1835 (copied).

Gobiodon rivulatus Günther, Cat. Fish.
Brit. Mus., vol. 3, p. 87, 1861 (Jubal).
— Klunzinger, Verh. zool. bot. Gesell. Wien,
vol. 21, p. 481, 1871 (Red Sea).

— Peters, Monatsber. Akad. Wiss. Berlin,
p. 840, 1876 (New Britain). — Günther,
Journ. Mus. Godeffroy, vol. 6, pt. 11, p.
180, pl. 109, figs. 7-9, 1877 (Society Is-
lands; Friendly Islands; Solomons;
Bonham Islands; Vavau). — Schmeltz,
Cat. Mus. Godeffroy, no. 7, p. 47, 1879
(Kingsmills). — Röhl, Cat. Mus. Godeffroy,

no. 9, p. 33, 1884 (Savaii). — Ogilby, Rec.
— Day, Fishes of India, ~~part~~ suppl., p. 798, 1888 (reference);

Austral. Mus., vol. 1, p. 7, 1890-91 (Howla
Island, Solomons). — Boulenger, Ann.

Mag. Nat. Hist. London, ser. 6, vol. 20, p. 373,
1897 (Rotuma).

— Kossmann, Zool. Anzeiger, vol. 2, p. 22, 1879 (Red Sea).

Fishes, vol. 2, p. 270, 1889.

— Jordan and Seale, Bull. Bur. Fisher.,
 vol. 25, p. 409, 1905 (reference). — Kendall
 and Goldsbrough, Mem. Mus. Comp.
 Zool., vol. 26, p. 323, 1911 (Fakarava).
 — Fowler and Ball, Bull. Bishop Mus.,
 no. 26, p. 27, 1925 (Wake Island). —
Fowler, Mem. Bishop Mus., vol. 10, p. 398,
 1928 (Guam; Wake Island; Samoa;
 Fakarava); vol. 11, no. 5, p. 361, 1931 (note).
 — Herre, Journ. Pan-Pac. Res. Inst.,
 vol. 6, no. 4, p. 14, Oct.-Dec. 1931 (New
 Hebrides). — Fowler, Mem. Bishop
 Mus., vol. 11, no. 6, p. 442, 1934 (Duaco
 Island). — Swatti, Index. Fish. Siam,
 p. 152, 1936 (Ko Tau; Ko Ka-ten). —
Tomiyama, Jap. Journ. Zool., vol. 7, no. 1,
 p. 55, fig. 12 ~~12~~ (variation), 1936
 (Okinosima; Koniya; Philippines;
 Palau).

Gobius citrinus Rüppell, Neue Wirbelth.
Fische, p. 139, pl. 32, fig. 4, 1835 (type
locality, Massawa, Red Sea).

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Godeffroy, no. 4, p. 18, 1869 (Savay). -

Klunzinger, Verh. Zool. bot. Ges. Wien,

vol. 21, p. 40, 1871 (Red Sea). Day,
Fishes of Siam, pt. 2, p. 298, fig. 64, fig. 2, 1876 (Andaman). -

Günther, Journ. Mus. Godeffroy, vol. 6,

pt. 11, p. 181, pl. 109, fig. E, 1877 (Ponape).

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p. 95, 1877 (Samoa). ~~Day, Fishes of~~

~~India~~, pt. 2, p. 298, pl. 64, fig. 2,

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p. 47, 1879 (Samoa). - Macleay, Proc.

Linn. Soc. New South Wales, vol. 5, pt. 4,

p. 613, ¹⁸⁸⁰ (1881) (Endeavour River). - Pöhl,

Cat. Mus. Godeffroy, no. 10, p. 33, 1884

(Samoa). - Boulenger, Linn. Mag.

Nat. Hist. London, ser. 6, vol. 20, p. 373,

1897 (Rotuma).

- Day, Fauna British India, Fishes,

vol. 2, p. 271, fig. 91, 1889.

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1989

Paragobiodon citrinus Jordan and Seale,
Bull. Bur. Fisher., Vol. 25, p. 410, 1905
(Apia). — Fowler and Silvester,
Marine Pap. Carnegie Inst. Washington,
p. 125, 1922 (Pago Pago).

Gobius coryphaenula Valenciennes, Hist. Nat. Poiss., vol. 12, p. ⁽⁹⁹⁾131, 1837 (type locality, Guam). — Blyth, Proc. Asiatic Soc. Bengal, 1858, p. 272.

Gobius histrio (Kuhl and Van Hasselt) Valenciennes, op. cit., p. ⁽¹⁰⁰⁾132, pl. 347, 1837 (type locality, Java; Tongatabu, Friendly Islands). — Bleeker, Nederl. Tijds. Dierk. Ind. Ind. vol. 1, 1851, fig. 6.

Gobiodon histrio Schmeltz, Cat. Mus. Godeffroy, no. 3, p. 9, 1866 (Samoa); no. 4, p. 18, 1869 (Samoa). — Günther, Cruise of Curacoa, Breuchley, p. 410, 1873 (Solomons). — Peters, Monatsb. Akad. Wiss. Berlin, p. 840, 1876 (1877) (Timor; New Ireland). — Schmeltz, Cat. Mus. Godeffroy, no. 7, p. 47, 1879 (Samoa). — Jordan and Seale, Bull. Bur. Fisher., vol. 25, p. 409, 1905 (reference). — Kendall and Goldborough, Mem. Mus. Comp. Zool., vol. 26, p. 322, 1911 (Fakarava).

— Martens, Preuss. Exped. Ost Asien, vol. 1, p. 392, 1876 (Singapore; Zamboanga, Mindanao).

Gobius quinquestrigatus Valenciennes,
 Hist. Nat. Poiss., vol. 12, p. ⁽¹⁰¹⁾134, 1837
 (type locality, Tongatabu). — Bleeker,
 Nat. Tijds. Ned. Indie, vol. 5, p. (69)
 82, 1853 (Lawajong and Bima, Solor);
 vol. 7, p. 228, 1854 (Kema, Celebes);
 vol. 8, p. 306, 1855 (Batoe Island).
Gobius quinquestrigatus Bleeker, Journ. Indian Arch.,
 vol. 2, p. 633, 1848 (Bima, Sumbawa) (error).
Gobiodon quinquestrigatus Bleeker, Verh.
 Batavia. Genoot. Blenn. Gob.), vol.
 22, p. 29, 1849 (Bima, Sumbawa); Nat.
 Tijds. Ned. Indie, ~~vol. 5, p. 82, 185~~ vol. 11, p. 386, 1856
 (Kajeli, Buru); vol. 13, p. 56, 1857
 (Kajeli); vol. 15, p. 201, 1858 (Goram);
 Act. Soc. Sci. Ind. Neerl., no. 2, vol. 6,
 p. 5, 1859 (Doreh, New Guinea); Nat.
 Tijds. Ned. Indie, vol. 20, p. 142, 1859-60
 (Cocos Island); vol. 22, p. 249, 1860
 (Timor); Ned. Tijds. Dierk., vol. 1, p. 271,
~~Nat. Tijds. Ned. Indie, vol. 22, p. 249, 1860~~
 1863 (Tatapupu, Timor). — Kner,
 Reise Novara, Fische, vol. 2, p. 180,
 1865 (Tahiti). — Günther, Ann. Mag.
 Nat. Hist., ser. 3, vol. 20, p. 61, 1867
 (Cape York).

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Mus. Godeffroy, no. 6, p. 14, 1879 (Navao).
— Macleay, Proc. Linn. Soc. New South Wales, vol. 5, pt. 4, p. 613, 1880 (reference).

— Weber, Siboga Exped., no. 57, Fische, p. 454, 1913 (Borneo Bank; Celebes Sea; Celebes; Selayu; Kei; Jember).

— McCulloch and Ogilby, Rec. Austral. Mus., vol. 12, no. 10, p. 210, fig. 4, July 14, 1919 (Cairns Reef, off Cookstown, Queensland).

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— Herre, Gobies of Philippines, p. 294, 1927 (Dumaguete; Puerto Galera; Zamboanga; Sitanisi; Zamboanguita; Cabalian).

— McCulloch, Austral. Mus. Mem., no. 5, pt. 3, p. 379, Nov. 28, 1929 (reference). — Herre, Journ. Pan-Pac. Res. Inst., vol. 6, no. 4,

p. 14, Oct.-Dec. 1931 (New Hebrides). — Chu, Biol. Bull. St. John's Univ., no. 1, p. 165, Jan. 1931 (reference). — Giltay, Mem. Mus. Roy. Hist. Nat. Belg., vol. 5, fasc. 3, p. 98, fig. 29 (var.), 1933

(Sorong, New Guinea). — Herre, Fishes Herre 1931 Philippine Exped., p. 92, 1934 (Lanisan; Dumaguete; Jolo).

Günther, Cat. Fish. Brit. Mus., vol. 3, p. 187, 1861 (copied).

Gobiodon quinque-striatus Schmeltz, Cat. Mus. Godeffroy, no. 7, p. 47, 1879 (Navao).

Gobius douglasi Saville - Kent, Great
Barrier Reef, p. 310, pl. 16, fig. 12, 1893
(type locality, Thursday Island and southwards).

Gobiodon atrangulatus Garman, Bull.
Mus. Comp. Zool., vol. 39, p. 234, pl. 2, fig.
2, 1903 (type locality, Vairai, Fiji).

— Jordan and Seale, Bull. Bur.
Fishes, vol. 25, p. 409, 1905 (1906)
(reference). — Kendall and Goldborough,
Mem. Mus. Comp. Zool., vol. 26, p. 322,
1911 (Fasarava).

Gobiodon fulvus Herre, Gobies of
Philippines, p. 292, 1927 (type locality,
Calapan, Mindoro; Maricaban Island).

Gobius erythrophaius Bleeker, Journ.

Indian Archip., vol. 2, p. 633, 1848 (type locality, Bina, Sumbawa)

p. 637, 1848 (~~type locality~~, Sumbawa);

Verh. Batavia. Genoot. (Blenn. Gob.),

vol. 22, p. 29, 1849 (Bina, Sumbawa);

Nat. Tijds. Ned. Indië, vol. 10, p. 361, 1856 (Ternate).

Nat. Tijds. Ned. Indië, vol. 11, p. (385)

409, 1856 (Kajeli, Buru); vol. 12, p. 508,

1856 (Wahdai, Ceram); vol. 13, p. 56,

1857 (Kajeli, Buru); vol. 15, p. 201,

1858 (Goram); Act. Soc. Sci. Ind.

Néerl., no. 2, vol. 6, p. , 1859 (Doreh,

New Guinea).

Gobiodon erythrophaius Bleeker,

Gobius ceramensis Bleeker, Nat. Tijds.
ned. Indie, vol. 3, p. (690) 704, 1852
(type locality, Wahai, Ceram); vol. 11,
p. 385, 1856 (Kajeli, Buru).

Gobiodon ceramensis Günther, Cat. Fish.
Brit. Mus., vol. 3, p. 88, 1861 (China Sea; Borneo;
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Bleeker, Act. Soc. Sci. Ind. Neerl., no. 2, vol. 6,
p. 15, 1859 (Doreh, New Guinea). —

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1866 (Samoa); no. 4, p. 18, 1869 (Samoa).

— Macleay, Proc. Linn. Soc. New South
Wales, vol. 1, p. 322, 1876 (New Guinea)

— Günther, Journ. Mus. Godeffroy, vol.
6, pt. 11, p. 182, pl. 109, fig. D, 1877 (Fiji).

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— Streets, Bull. U. S. Nat. Mus., no. 7,
p. 96, 1877 (Samoa). — Schmeltz, Cat
Mus. Godeffroy, no. 7, p. 47, 1879 (Samoa).

— Klunzinger, Sitzb. Ber. Akad. Wiss. Wien, vol. 81, p. 384, 1879 (Port Denison). — Macleay,
— Pöhl, Cat. Mus. Godeffroy, no. 9, p. 33,
1884 (Samoa). — Boulenger, Linn. Mag.

— Károli, Termész. Füzetek, Budapest, vol. 5, p. 166, 1881 (1882) (Ceylon).
Nat. Hist. London, ser. 6, vol. 20, p. 273,
— Jordan and Seale, Bull. Bur. Fisher., vol. 25, p. 409, 1905 (1905).

1897 (Rotuma). — Fowler, Opera, no. 58,
p. 65, June 18, 1918 (Philippines); Bull.
Bishop Mus., no. 22, p. 17, 1925 (Guam); Proc.
Acad. Nat. Sci. Phila., vol. 79, p. 291, 1927 (Philippines).

Proc. Linn. Soc. New South Wales, vol. 5, pt. 4, p. 612, 1880 (1881) (Samoa).

1995

Gobiodon quinquestrigatus var. ceramensis
McCulloch and Ogilby, Rec. Austral. Mus.,
vol. 12, no. 10, p. 211, July 14, 1919 (Murray
Island; Darnley Island).

Gobiodon quinquestrigatus ceramensis McCulloch and Whitley, Mem.
Queensland Mus., vol. 8, pt. 2, p. 172, July 1, 1925 (reference). — Whitley, Mem.
Queensland Mus., vol. 10, pt. 1, p. 21, July 28, 1930 (Bowen).

Gobiodon heterospilos Bleeker, Nat. Tijds.
ned. Indië, vol. 11, p. (385) 409, 1856 (type

locality, Kajali, Buru). — Günther, Cat. Fish.
Brit. Mus., vol. 3, p. 88, 1861 (copied). — Weber, Siboga Exped.,
vol. 57, Fische, p. 455, 1913 (Tual, Kai 52).

Gobiodon reticulatus Playfair, Fishes of
Zanzibar, p. 72, pl. 9, fig. 2, 1866 (type
locality, Aden).

Ellerya unicolor Castelnau, Proc. Zool. Soc.
Victoria, vol. 1, p. 95, 1873 (type locality,
Half a mile from Eclipse Island, Cape

Sidmouth).
Gobiodon unicolor Railey, Proc. Linn. Soc. New South Wales, vol. 5, pt. 4, p. 613,
1880 (1881) (Endeavour of inter).

Pseudogobiodon macrochir Bleeker, Arch.
Néerl. Sci. Nat. Harlem, vol. 10, p. 116,
1875 (type locality, Amboina).

Gobiodon hypselopterus Bleeker, op. cit., p.
120, 1875 (type locality, Ternate; Buru;
Ceram; Amboina). — Herre, Gobies of
Philippines, p. 293, pl. 28, fig. 2, 1927
(Calipan; Camigaran).

Gobiodon micropus Günther, Cat. Fish.
Brit. Mus., vol. 3, p. 89, 1861 (type
locality, China Seas). — Károli,
Termész. Füzetek, Budapest, vol. 5,
p. 166, 1881 (1882) (Singapore). —
Fowler, ^{Brit} Cat. Malaya Fish, p. 216, 1937
(reference).

Gobiodon erythrospilus Bleeker, Arch. Neerl. Sci. Nat. Harlem, vol. 10, p. 123, 1875 (type locality, Batu; Cocos; Sumbawa; Solor; Timor; Celebes; Buru; Goram). — Day, Fauna British India, Fishes, vol. 2, p. 271, 1889. — Giltay, Mem.

Mus. Roy. Soc. Hist. Nat. Belg., vol. 5, fasc. 3, p. 100, 1933 (Vorong, New Guinea). — Fowler, Mem. Bishop Mus., vol. 11, no. 6, p. 442, 1934 (reference). — Weber, Siboga Exped., vol. 57, Fische, p. 455, 1913 (Borneo Banks; Celebes Sea; Boco; Selmaksie; Ambon; Saleyer; Gual, Kei 2).

Gobiodon verticalis Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 333, pl. 12, fig. 4, 1877 (type locality, New Guinea). — Macleay, Proc. Linn. Soc. New South Wales, vol. 5, p. 612, (1881) (Samley Island). — McCulloch and

Ogilby, Rec. Austral. Mus., vol. 12, no. 10, p. 208, pl. 32, fig. 2, July 14, 1919 (types; Murray Island, Coolstown, Green (reference)). — McCulloch and Whitley, Mem. Queensland Mus., vol. 8, pt. 2, p. 172, July 7, 1925 (reference).

Whitley, Rec. Austral. Mus., vol. 10, no. 1, p. 28, Oct. 7, 1927 (Michaelmas Cay). — Fowler, Mem. Bishop Mus., vol. 10, p. 398, 1928 (type

of G. atrangulatus; Fakarava); vol. 11, no. 5, p. 361, 1931 (Guam); vol. 11, no. 6, p. 442, 1934 (Danco Island). — Suwatti, Index Fish. Siam, p. 152, 1936 (Ko Jan; Ko Ja-ten).

1880

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

Gobiodon axillaris De Vis, Proc. Linn. Soc.
New South Wales, vol. 8, p. 448, 1884
(type locality, Banks Group). —
Jordan and Seale, Bull. Bur. Fisher.,
vol. 25, p. 409, 1905 (1906) (reference).

Gobiodon lineatus De Vis, op. cit., p. 449,
1884 (type locality, Banks Group). —
Jordan and Seale, op. cit., p. 409 (reference).

Gobiodon flavidus De Vis, op. cit., p. 449,
1884 (type locality, Banks Group; New
Hebrides). — Jordan and Seale, op. cit.,
p. 409 (reference).

Gobiodon inornatus De Vis, op. cit., p. 449,
1884 (type locality, Banks Group). —
Jordan and Seale, op. cit., p. 409 (reference).

2000

Depth $2\frac{1}{3}$ to $2\frac{3}{4}$; head $3\frac{1}{5}$ to $3\frac{1}{2}$, width $1\frac{1}{3}$ to $1\frac{2}{5}$. Snout 3 to 4 in head; eye $3\frac{1}{5}$ to 5, 1 to $1\frac{4}{5}$ in snout, equal to subequal with interorbital; maxillary reaches to front of eye or $\frac{1}{2}$ in eye, length 3 to $3\frac{4}{5}$ in head; mouth low, but slightly inclined, jaws equal; narrow band of villiform teeth in each jaw, with outer row of stronger ones, 1 or 2 inner canines below; interorbital well inclined, convex, eye not entering upper profile line of head. Gill opening lateral $1\frac{2}{3}$ to $2\frac{2}{3}$ in head length.

Body scaleless, skin smooth. Minute papillae along lower and hind edge of preopercle, and on infraorbital.

D. VI, 11 or 12, third spine 2 to $2\frac{3}{5}$ in head, sometimes first spine long as head, second ray $1\frac{3}{4}$ to $2\frac{1}{5}$,

2001

ninth ray 1 to $1\frac{3}{4}$; A. 10 or 11,
second ray $1\frac{4}{5}$ to $3\frac{1}{5}$, tenth ray
1 to 2; Caudal 1 to $1\frac{3}{5}$, convex
behind; least depth of caudal
peduncle $1\frac{3}{5}$ to $1\frac{4}{5}$; pectoral
1 to $1\frac{1}{3}$, rounded; ventral $1\frac{4}{5}$
to $2\frac{1}{6}$.

Greatly variable in coloration,
from pale to dark, or body pale
and fins dark. In life brilliant
yellow, scarlet, green or various
shades of brown to black.
Sometimes various, ^{darker} bands may occur
transversely on side of head at 3
to 5, or another across pectoral
base. Again these may be blue
and along the bases of the
dorsals and anals.

Red Sea, Aden, Seychelles,
India, Ceylon, Andamans, Nicobars,
Malaya, Siam, East Indies,
Philippines, Japan, Queensland,
Melanesia, Micronesia, Polynesia.
A very variable little fish, with

2002
many nominal forms mostly
based on the various extremes
or combinations of color variation,
as Tomiyama has recently
shown. Often individuals very
numerous in coral reefs,
tide pools or among marine
invertebrates.

Eight examples. Marongas Island.
Shore coral head. February 10, 1908.
Length 35 to 48 mm.

Three examples. Caracaran Bay,
Batan Island. Dynamite. June
8, 1909. Length 35 to 40 mm.
Yellow variation [1627]. Brown
specimen [1628].

One example. Danawan and Si
Amil Islands. September 27, 1909.
[2002] Length 43 mm.

Two examples. Simalue, Bisibisi
Island. Tide pool. September 23,
1909. Length 33 to 37 mm. Brown,
with blackish fins.

Bobbitia maculata (Luffen) 2004
One example. Port Palapag.
Dynamite. June 3, 1909. Length 40 mm.

One example. Port Palapag.
Dynamite. June 2, 1909. Length 27 mm.

Two examples. Jolo Island, Jolo.
Dynamite. March 7, 1908. Length 32 to
39 mm. Both uniformly dark.

One example. Buena Vista, Guimaras
Island. January 14, 1909. [1084.]
Length 38 mm.

One example. Aeki, Boero Island.
Dynamite. December 9, 1909. Length 35
mm.

Four examples. Marangas Island.
Shore coral heads. February 10, 1908.
Length 16 to 41 mm.

p. 21304. Bubuan Island, Jolo.
February 14, 1908. Length 47 mm. Dark
chocolate colored specimen.

Five examples. Marangas Island.
Shore coral head. February 10, 1908.
Length 34 to 43 mm.

U. S. N. M., no. 15114. Samoa.
 A. B. Steinberger. Length 32 to 47
 mm. Four examples. As
Gobiodon citrinus.

U. S. N. M., no. 20511. Samoa.
 A. B. Steinberger. Length 27 to 28
 mm. Two examples. As
Gobiodon ceramensis.

U. S. N. M., no. 32712. Indian
 Archipelago. Royal Mus. Leiden.
 Length 32 mm. As Gobiodon
quinquestrigatus.

U. S. N. M., no. 52212. Apia,
 Samoa. Bureau of Fisheries.
 Length 41 to 48 mm. Six examples.
 As Pseudogobiodon citrinus.

U. S. N. M., no. 52249. Apia,
 Samoa. Bureau of Fisheries.
 Length 49 mm. As Pseudogobiodon
citrinus.

2006

U. S. N. M., no. 65840. Fakarava,
Tuamotus. ~~Bureau of Fisheries~~ ^{U. S. Fish Comm.} (05840)

Albatross Expedition 1899-1900.
Length 21 to 30 mm. ~~two~~ ^{three} examples.
As Gobiodon astrangulatus.

U. S. N. M., no. 65841. Savau,
Tonga Islands. ~~Bureau of Fisheries~~ ^{U. S. Fish Comm.}
(05917). Albatross Expedition 1899-1900.
December 4, 1899. Length 42 mm.
As Gobiodon citrinus.

U. S. N. M., no. 65842. Fakarava,
Tuamotus. U. S. Fish Comm.
(05918). October 11, 1899.
Albatross Expedition 1899-1900.
Length 26 to 35 mm. Four examples.
As Gobiodon histrio.

U. S. N. M., no. 65843. Fakarava,
Tuamotus. U. S. Fish Comm. (05916).
Albatross Expedition 1899-1900.
October 11, 1899. Length 31 mm.
As Gobiodon rivulatus.

2007
U. S. N. M., no. 87956. Poeloe
Tookus Island, Indian Ocean.
November 1925. Lieut. H. C. Kellers.
Length 40 mm. As Gobiodon
citrinus.

U. S. N. M., no. 87957. Poeloe
Tookus Island, Indian Ocean.
December 20, 1925. Lieut. H. C.
Kellers. Length 34 to 42 mm. Seven
examples. As Gobiodon citrinus.

Genus Lubricigobius Tanaka

Lubricigobius Tanaka, Dobuts. Zasshi
Tokyo, vol. 27, p. 565, 1915. (Type
Lubricigobius exiguus Tanaka,
monotypic.)

Gobiodonella Lindberg, Compt. Rend.
Acad. Sci. U. R. S. S., p. 436, 1934.
(Type Gobiodonella macrops Lindberg,
monotypic.)

Differs from Gobiodon chiefly
in the large, subvertical mouth
cleft, beginning level with lower
edge of pupil, and the
mandible well protruded in
front.

Lubricigobius exiguus Tanaka ²⁰⁰⁹

Lubricigobius exiguus Tanaka, Obuts.
Zasshi, Tokyo, vol. 27, p. 568, 1915. (type
locality, Nagasaki). — Tomiyama,
Jap. Journ. Zool., vol. 7, no. 1, p. 55, fig.
11, 1936 (type; type of Gobiodon
gnathus; Nagasaki; Hayama; Misaki).

Gobiodonella macrops Lindberg, Compt. Rend.
Acad. Sci. U. R. S. S., p. 430, Figs. 1-2, 1934
(type locality, Misaki, Kanagawa-ben).

Gobiodon-gnathus Tomiyama, Journ. Fac.
Sci. Imp. Univ. Tokyo, vol. 3, pt. 3, p. 330,
fig. 3, 1934 (type locality, Misaki,
Kanagawa-ben).

2010

Depth $3\frac{3}{5}$; head $3\frac{3}{5}$. Snout
 $4\frac{1}{2}$ in head from snout tip; eye
 $3\frac{2}{5}$, greatly exceeds snout or
interorbital; maxillary concealed,
reaches about $\frac{1}{3}$ in eye, length
 $2\frac{1}{8}$ in head from snout tip;
teeth in narrow band in each
jaw, upper with several large
outer teeth, below several canines
on inner edge of band; tongue
thick, truncate; nostrils large,
with conspicuous tube,
anterior near margin of snout,
posterior above front eye edge;
interorbital 2 in eye, low, eye
not entering upper profile of
head.

Head and body naked.
Large pores around eye and
nostrils, in interorbital behind
posterior nostrils, near preorbital
edge on lower margin of cheek
to chin, in supra^{pre}opercular groove,
in supraopercular groove,
on hind preopercle edge and lower

part of opercle; several series ²⁰¹⁶ of small pores above and below supraperopercular groove, below hind part of eye, on cheek near mouth angle along lower lip and on lower edge of cheek above and along the series of large pores.

D. VI, 10, fourth spine 2 in total head length, second ray 2, eighth ray $1\frac{4}{7}$; A. 7, first ray 3, fifth ray $1\frac{4}{5}$; caudal $1\frac{1}{8}$, convex behind; least depth of caudal peduncle 2; pectoral $1\frac{1}{5}$, rays 18; ventral rays I, 5, fin $1\frac{1}{2}$ in total head. Anal papilla small. Stout low keels on caudal peduncle between vertical fins.

In life yellow. Tiny reddish brown dots, scarcely visible, scattered on predorsal and on upper part of anterior half

of body. ^{35 to}
Length 48 mm.
Japan.

(Taniyama.)