

***Lubbockichthys myersi*, a new species of dottyback fish from Guam (Pseudochromidae: Pseudoplesiopinae)**

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Abstract

Lubbockichthys myersi is described from a single 38.6 mm SL specimen from Blue Hole, Guam. It is unique among pseudoplesiopines in having a very slender body (greatest body depth 15.8 % SL; body depth at dorsal-fin origin 15.3 % SL) and a higher number of vertebrae (14 + 18).

Key words: Perciformes, Pseudochromidae, Pseudoplesiopinae, *Lubbockichthys myersi* new species, taxonomy, Micronesia.

Introduction

There are five genera recognised in the Indo-Pacific fish subfamily Pseudoplesiopinae (Gill and Edwards, 1999): *Pseudoplesiops* Bleeker 1858, *Chlidichthys* Smith 1953, *Pectinochromis* Gill and Edwards 1999, *Amsichthys* Gill and Edwards 1999 and *Lubbockichthys* Gill and Edwards 1999. Species of the genus *Lubbockichthys* are distinguished from members of other pseudoplesiopine genera in having the following synapomorphies: scales small; scales cycloid at all stages of ontogeny; some head bones with weakly honeycombed surface; and parietal enclosing dorsal part of supratemporal laterosensory canal (Gill and Edwards, 1999). There are two species currently recognised in the genus (though we will describe additional species in an upcoming revision of the genus), the type species (*Pseudoplesiops multisquamatus* Allen 1987) and *L. tanakai* Gill and Senou, 2002. We herein describe a new species from Guam.

Methods and materials

Methods of counting and measuring follow Gill and Senou (2002; see also Gill and

Edwards, 2004). The type specimen is deposited in the Natural History Museum, London (BMNH).

***Lubbockichthys myersi* new species**

Pencil dotted back

Figure 1

Pseudoplesiops sp. 1.; Myers & Shepard, 1980: 318 (description).

Pseudoplesiops sp. A.; Myers, 1989: 115 fig. 1e (description; black and white fig.).

Pseudoplesiops sp. 3; Gill, 2000: 2561 (key).

Lubbockichthys sp. 2; Gill & Senou, 2002: 4 (comparison).

Holotype. BMNH 2001.5.24.1, 38.6 mm SL, Guam, off Orote Peninsula, inside Blue Hole, 29 m, R. Myers, 6 September 1978.

Diagnosis. *Lubbockichthys myersi* is distinguished from congeners in having a very slender body (greatest body depth 15.8 % SL; body depth at dorsal-fin origin 15.3 % SL) and a higher number of vertebrae (14 + 18).

Description. Dorsal-fin rays II,26, last 17 rays branched; anal-fin rays II,15, last 10 rays branched; pectoral-fin rays 18/18, upper 2/2 and lower 2/2 rays unbranched; pelvic-fin rays I,4, second segmented ray branched or unbranched, other rays unbranched; principal caudal-fin rays 9 + 8, the uppermost and lowermost rays unbranched; upper procurrent caudal-fin rays 5; lower procurrent caudal-fin rays 5; total caudal-fin rays 27; scales in lateral series 64/60; scales in transverse series 24/24; predorsal scales 11; cheek with 3 scale rows below eye, 2 scale rows behind eye, and 4 scale rows at angle; circumpeduncular scales 27; gill rakers 6 + 14; pseudobranch filaments 8.

Head pores: nasal pores 2/2; anterior interorbital pores 1/1; supraotic pores 3/2; suborbital pores 11/13; preopercular pores 10/10; dentary pores 4/4; intertemporal pores 1/1; posttemporal pores 1/1; parietal pores 3/3; posterior otic pores 1/1; anterior temporal pores 1/1; median posterior interorbital pores 1.

As percentage of standard length: body depth at dorsal-fin origin 15.3; greatest body depth 15.8; body width 8.5; head length 26.4; snout length 5.2; orbit diameter 8.5; interorbital width 4.1; upper jaw length 8.8; depth of caudal peduncle 11.1; caudal peduncle length 11.1; predorsal length 26.9; preanal length 61.1; prepelvic length 26.7; length of first segmented dorsal-fin ray 6.7; length of third from last segmented dorsal-fin ray 11.7; dorsal-fin base length 62.7; length of first segmented anal-fin ray 7.3; length of third from last anal-fin ray 10.9; anal-fin base length 28.2; caudal fin length 19.7; pectoral fin length 14.5; pelvic fin length 19.4.

Lower lip complete; fin spines weak and flexible; anterior dorsal-fin pterygiophore formula S/S/3/1+1; 20 consecutive dorsal-fin pterygiophores inserting in 1:1 relationship directly behind neural spine 4; anterior anal-fin pterygiophore formula 3+1/1+1; 7

consecutive anal-fin pterygiophores inserting in 1:1 relationship directly behind haemal spine 2; second segmented pelvic-fin ray longest; caudal fin rounded; all scales cycloid; dorsal and anal fins without distinct scale sheaths; caudal fin with basal sheath of cycloid scales; anterior lateral line represented by a single tubed scale at branchial opening, followed by intermittent series of centrally pitted scales, which terminate beneath segmented dorsal-fin ray 20/20; a second intermittent series of centrally pitted scales originating on midside above anterior third of anal fin; additional 1-2 centrally pitted scales present above and below pitted scale(s) on middle part of caudal-fin base; scales present on cheeks (not extending posteriorly on to preopercle) and operculum; predorsal scales extending anteriorly to parietal; vertebrae 14 + 18; epurals 2; epineurals present on vertebrae 1 through 17; pleural ribs present on vertebrae 3 through 14, final rib relatively small.

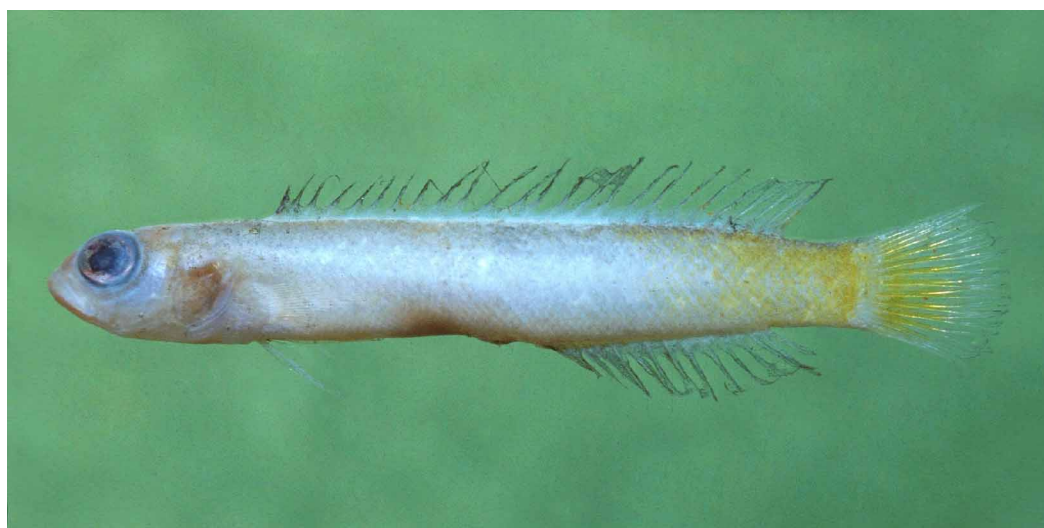


FIGURE 1. *Lubbockichthys myersi*, BMNH 2001.5.24.1, 38.6 mm SL holotype, 29 m, Blue Hole, Guam. (Photo by R.F. Myers)

Upper jaw with 4 pairs of curved, enlarged caniniform teeth anteriorly, the medial pair smallest, and 4-5 (at symphysis) to 1-2 (on sides of jaw) irregular inner rows of small, conical teeth, the teeth of outer row of conical teeth largest; lower jaw with 3 pairs of curved, enlarged caniniform teeth, the medial pair smallest, and 3-4 (at symphysis) to 1 (on sides of jaw) irregular inner rows of small conical teeth, the conical teeth gradually increasing in size and becoming more curved on middle part of jaw, then becoming abruptly smaller on posterior part of jaw; vomer with 1-2 irregular rows of small, stout conical teeth arranged in a chevron; palatines with 1-2 irregular rows of small conical teeth in an elongate patch; ectopterygoid edentate; tongue pointed and edentate.

Live coloration of holotype when freshly dead (Fig. 1): Head lavender, with pink markings on snout, nape, around lower orbital rim, and on operculum; iris orange-red,

with dark blue line above and below pupil; anterior two-thirds of body lavender, pink dorsally and ventrally, with posterior third of body (including caudal peduncle) bright yellow; dorsal and anal fins lavender on base, remainder hyaline; caudal fin bright yellow on basal two-thirds, remainder of fin lavender to hyaline; pectoral and pectoral fins pinkish hyaline to lavender. According to Myers and Shepard (1980: 318) the holotype was “pink anteriorly, yellow posteriorly, fin membranes clear.” An underwater photograph taken of an individual in Saipan is possibly referable to this species (see Remarks; Fig. 2).

Preserved coloration of holotype: Head and body greyish brown, paler ventrally; fins brownish hyaline to hyaline.



FIGURE 2. *Lubbockichthys myersi* (?), approximately 5cm TL, 40 m, Saipan. (Photo by Y. Miyamoto.)

Comparisons. *Lubbockichthys myersi* is unique among species of *Lubbockichthys* in having a very shallow body (body depth at dorsal-fin origin 15.3 % SL versus 19.3 % SL or deeper in other species), and 14 precaudal vertebrae (versus 12-13). It is also relatively unusual in having four anal-fin pterygiophores anterior to haemal spine 2 (versus two or three in most other species). Only two other species of *Lubbockichthys* have four anal-fin pterygiophores anterior to haemal spine 2, an undescribed species from the Solomon Islands, and an undescribed species from the Philippines. Aside from the two characters

noted above (body depth and number of precaudal vertebrae), the former species differs from *L. myersi* in having 17 (versus 18) pectoral-fin rays and 31 (versus 32) total vertebrae, whereas the undescribed Philippine species has fewer segmented dorsal-fin rays (25 versus 26), and fewer caudal and total vertebrae (17 and 30, respectively, versus 18 and 32).

Remarks. An individual photographed by Y. Miyamoto in 40m in Saipan is possibly referable to this species. The photograph is reproduced here in Fig. 2. Unfortunately, the orientation of the fish in the photograph precludes such details as the depth of the body and fin ray counts. In any case, a specimen would be needed to make positive identification. However, given the proximity of Saipan to Guam and the general pink and yellow coloration of the fish, it seems likely that it is *L. myersi*.

R.F. Myers (pers. com.) volunteered the following observations: “I’ve seen it perhaps a half-dozen times, only at the type locality. Its behavior is reminiscent of a *Gunnellichthys*—it hovers within 1 half meter of the side of the cave (a large chimney with a 3-4 m opening in a shelf at about 20m, and a large opening in the adjacent wall from about 36 to 50+ m), and can’t be approached any closer than 2-3 meters before darting into a hole. I don’t recall even seeing the hole [when collecting the holotype], just squirted quinaldine into the vicinity.”

Etymology. Named for Robert F. Myers, who collected the holotype and made it available for study, in recognition of his important contributions to our understanding of Micronesian fishes.

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