

First records of the pipefishes *Minyichthys myersi* and *Micrognathus andersonii* from the Society Islands

by

John E. RANDALL* (1), C. Seabird MCKEON (2), Arthur ANKER (2) & Philippe BACCHET (3)

RÉSUMÉ. - Premiers signalements de *Minyichthys myersi* et de *Micrognathus andersonii* aux îles de la Société.

Le syngnathidé *Minyichthys myersi* (Herald & Randall, 1972) était signalé des îles de la Société simplement par son nom. Ce signalement est aujourd'hui documenté par la collecte d'un spécimen à Moorea, ainsi que d'un autre, récemment, à Tahiti. Un autre petit syngnathe, *Micrognathus andersonii* (Bleeker, 1858), est signalé pour la première fois dans les îles de la Société, sur un plateau récifal de Tahiti.

Key words. - Syngnathidae - *Minyichthys myersi* - *Micrognathus andersonii* - Pipefishes - Society Islands - First records.

The first museum specimens of fishes from the Society Islands were collected at Tahiti during the circumnavigations of Louis-Antoine de Bougainville and James Cook in 1768 and 1769, respectively. Extensive collections of fishes have since been made in the islands, making the archipelago among the best known for fishes of the Indo-Pacific region. *Minyichthys myersi* (Herald & Randall, 1972), a small syngnathid fish, was reported from the Society Islands in a book on South Pacific fishes by Randall (2005) by name only. The collection of a second specimen in Moorea in 2008 has provided the opportunity to fully document this record. In addition, we report the first record of another diminutive pipefish, *Micrognathus andersonii* (Bleeker, 1858), from a specimen recently collected from the reef flat of Tahiti. The very small size of these two species accounts for their being overlooked for so many years.

MINYICHTHYS MYERSI (Fig. 1)

Micrognathus (Minyichthys) myersi Herald & Randall, 1972: 137, figs. 5, 6 (Guam).

The diminutive pipefish *Micrognathus myersi* was described by Herald & Randall (1972) in the new subgenus *Minyichthys* from two specimens collected in 18-30 m from coral reefs in Guam, Mariana Islands. In a review of the pipefishes of the Indo-Pacific region, Dawson (1985: 143) elevated *Minyichthys* to a genus and extended the range of *M. myersi* to Papua New Guinea, Indonesia, Philippines, and St. Brandon Shoals (Cargados Carajos) in the western Indian Ocean.

Randall (2005: 111) added the Society Islands to the distribution in a book on South Pacific fishes, but without documentation. This first Society Islands record, also the first for the South Pacific, was based on a single specimen, 48.4 mm in standard length (SL), collected with rotenone off the northwest coast of Moorea in 1989 by R. Winterbottom, W. Holleman, R. Mooi, and R. Stegar at a

depth of 18-24 m. The specimen is catalogued at the Royal Ontario Museum in Toronto as ROM 60689.

A second specimen from the Society Islands was collected at Moorea on October 23, 2008 by the second author between Temae and Afareaitu off the exposed northwest coast in loose *Pocillopora* and *Acropora* rubble (Moorea Biocode Collection 2116) on a steep reef slope at 21 m (17.51448°S, 149.76160°W). It was deposited in the fish collection of the Florida Museum of Natural History (FLMNH) under UF 174682. It is a female, 57 mm SL. Diagnostic data: rings 18 + 40; subdorsal rings 8.5; dorsal-fin rays 30; anal-fin rays 2; caudal-fin rays 6; pectoral-fin rays 12; head length 7.5 in SL; snout length 2.4 in head length; snout depth 2.8 in snout length. Three colour photographs taken by the third author of the freshly caught fish are combined as figure 1.

One other species is known in the genus, *M. brachyrhinus* (Herald), a Hawaiian endemic. It is readily distinguished from *M. myersi* by its shorter and deeper snout (snout depth about 1.5 in snout length, compared to about 2.5 for *M. myersi*), and 8-10 pectoral rays (usually 13 in *M. myersi*).

Minyichthys myersi was named in honour of the eminent ichthyologist George S. Myers (1905-1985) of Stanford University.

MICROGNATHUS ANDERSONII (Fig. 2)

Syngnathus andersonii Bleeker, 1858: 465 (Cocos Keeling Islands).

The pipefish *Micrognathus andersonii* (Bleeker) was described from a single specimen, 43 mm in total length, from the Cocos-Keeling Islands in the eastern Indian Ocean. Dawson (1985: 122) reported on the examination of over 600 specimens, 12-78 mm standard length, from the northern Red Sea south to South Africa and Madagascar, and east to the Samoa Islands and Tonga; it ranges in the western Pacific from Japan to Queensland. Dawson wrote "Although recorded to depths of 5.2 m, this pipefish is most commonly taken in less than 2 m from rock or coral tidepools, among "grass" or algae, or from reef and sand flats". Galzin *et al.* (2006: 228) listed *Micrognathus cf. andersonii* in a list of fishes from Rapa. Jeffrey T. Williams (pers. comm.) confirmed the identification of six lots of USNM specimens as *M. andersonii*, adding that a photograph of a male is available. The fourth author took an underwater photograph of a very small pipefish (Fig. 2) on the reef flat in 0.5 m at the district of Faaone, Tahiti, and succeeded in collecting it. It measures 26 mm SL. He was aware of the recent collection of *Minyichthys myersi* from Moorea, so he expected his specimen to be the same. However, it was identified as *M. andersonii*, a first record for the Society Islands. It is deposited in the Bishop Museum as BPBM 41007. Diagnostic data are as follows: rings 16 + 29;

(1) Bishop Museum, 1525 Bernice St., Honolulu, HI 96817-2704, USA. [jackr@hawaii.rr.com]

(2) Florida Museum of Natural History, Gainesville, FL 32611, USA. [mckeons@ufl.edu] [arthuranker7@yahoo.com]

(3) BP 2720, Papeete, Tahiti, FRENCH POLYNESIA. [bacchetphil@mail.pf]

* Corresponding author

subdorsal rings 5; dorsal-fin rays 18; caudal-fin rays 10; pectoral-fin rays 11; head length 8.4 in SL; snout length 2.95 in head length; snout depth 2.45 in snout length; whitish in alcohol, the head abruptly blackish below level of middle of eye, except for midventral pale spots; ventral part of trunk dusky.

Acknowledgements. - We thank Richard Winterbottom and Erling Holm of the Royal Ontario Museum for information on the ROM specimen of *Minyichthys myersi*, Robert H. Robins for the loan of the FLMNH specimen to the first author, and Jeffrey T. Williams for his review of the manuscript. The second and third authors' fieldwork in Moorea was part of the Biocode Moorea project (<http://www.moorea-biocode.org/>) sponsored by the Gordon and Betty Moore Foundation.

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Reçu le 23 février 2010.

Accepté pour publication le 2 mars 2010.



Figure 1. - *Minyichthys myersi*, UF 174672, female, 57 mm SL, Moorea, 21 m. (Photo A. Anker)



Figure 2. - *Micrognathus andersonii*, BPBM 41007, 26 mm SL, Tahiti, 0.5 m. (Underwater photo P. Bacchet)