

## SCIENTIFIC NOTE

### A list of forty newly recorded coral fishes in Taiwan<sup>1</sup>

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The number of coral fish species is relatively numerous in Taiwan, but in order to discover them, there still need some thorough and well-planned investigations. Among the previous works, many coral fishes as well as the new records had been studied systematically and published in categories of each family or genus separately. For instance, in 1970's, Shen had begun a series studies or coral fishes. They were Chaetodontidae<sup>(17)</sup>, Acanthuridae<sup>(10)</sup>, Ostraciontidae<sup>(11)</sup>, Canthigastridae<sup>(12)</sup>, Tetraodontidae<sup>(13)</sup>, Labridae<sup>(14)</sup>, Mullidae<sup>(15)</sup>, Pomacentridae<sup>(16,19)</sup> and Apogonidae<sup>(18)</sup> etc.. Meanwhile, many photos of new records belong to other families had also been compiled in the book IV & V of "Pacific Marine Fishes"<sup>(1,2)</sup>. However, the early specimens for taxonomic usage were always collected from tropic fish aquarium or fish market, which could hardly give data of exact catching sites and dates. To study fish fauna in situ can make up this deficiency, but so far, only a few places had been investigated and the studies almost limited in the intertidal zone. Chang and Lee<sup>(3-5)</sup> had reported a total of 29 newly recorded species during their seven years collection at Mao-pi-tou area; Lee<sup>(6)</sup> discovered four new records from Pescadore Island etc.

In 1972, SCUBA diving technique for marine biological studies was introduced to this Island<sup>(7)</sup>. A great deal of newly recorded coral fishes, especially subtidal ones, were then observed and collected by biologist divers. Such as Jones *et al.*<sup>(7)</sup> cited 83 new records from 60 km coastal line of

southern Taiwan; Yong *et al.*<sup>(20)</sup> listed a note of 10 new records in Hsiao-liuchiu etc..

The Institute has also applied the SCUBA diving techniques to study the fish fauna and fish ecology around Taiwan since 1974. Among our collections, many species had been published as the new to Taiwan in previous papers, but most of others are still unpublished. In this article, we selected forty species, belong to 18 families, including one family and ten genera new to Taiwan (indicated with asterisks) for our list members. Most of them were collected in Wan-li-tung area where a total of 357 species of coral fishes had been found in a limited area during one year period<sup>(8)</sup>; several other species were caught from the artificial reef site at Nan-wan and one species from Kuei-hou. All specimens were deposited in the Museum of the Institute. Besides, we have recorded many unidentified specimens as well as many new additional fauna in slides and 16 mm films. These and other specimens collected and identified subsequent to this report will be listed in a supplementary list in future issues. The full description of each new record will also be done in separate articles.

The length measurement are expressed in millimeters of the standard length. Collected dates and localities as well as the number of specimen are also given.

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#### Family MURAENIDAE (moray eel)

*Gymnothorax hepatica* (RUPPELL) Two specimens, 262 and 175 mm, Wan-li-tung, Aug. 29 and Oct. 18, 1977.

#### Family OPHICHTHIDAE (snake eels)

*Kaupichthys\* diodontus* SCHULTZ One specimen, 178 mm, Wan-li-tung, Oct. 18, 1977.

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*Chlevastes\* colubrinus* (BODDAERT) One specimen, 752 mm, Wan-li-tung, Feb. 19, 1978.

*Muraenichthys gymnotus* (BLEEKER) Two specimens, 192 and 305 mm Wan-li-tung, Feb. 19, 1978.

Family CARAPIIDAE (pearlfish)

*Jordanicus gracilis* (BLEEKER) One specimen, 112 mm, Wan-li-tung, Feb. 19, 1978.

Family BALISTIDAE (trigger fishes)

*Sufflamer fraenatus* (BLEEKER) Two specimens, 120 and 175 mm, Wan-li-tung, Apr. 2 and Aug. 29, 1977.

*Prevagor tomentosus* (LINNAEUS) One specimen, 122 mm, Wan-li-tung, Feb. 19, 1978.

*Cantherhines\* pardalis* (RUPPELL) Two specimens, 140 and 147 mm, Wan-li-tung, Dec. 27, 1977 and Feb. 19, 1978.

Family DIODONTIDAE (spiny puffer)

*Diodon lituosus* SHAW One specimen, 152 mm, Wan-li-tung, Feb. 19, 1978.

Family HOLOCENTRIDAE (squirrel fish)

*Holocentrus lacteoguttatus* CUV. & VAL. One specimen, 89 mm, Wan-li-tung, Nov. 24, 1977.

Family SYNGNATHIDAE (pipe fish)

*Micrognathus\* mataafas* (JORDAN & SEALE) One specimen, 82 mm, Wan-li-tung, Aug. 29, 1977.

Family CARACANTHIDAE\*

*Caracanthus\* maculatus* (GRAY) One specimen, 52 mm, Wan-li-tung, Feb. 9, 1977.

Family SCORPAENIDAE (scorpion fish)

*Scorpaena zanzibarensis* PLAYFAIR More than thirty specimens, 21 to 98 mm, Wan-li-tung, Feb. 9, Apr. 2, Aug. 29, Nov. 29, Dec. 27, 1977 and Feb. 19, 1978.

Family POMACENTRIDAE (damsel fishes)

*Amblyglyphidodon aureus* (CUVIER) One specimen, 45 mm, Wan-li-tung, Aug. 29, 1977.

*Eupomacentrus fasciolatus* (OGILBY) Ten specimens, 35 to 122 mm, Wan-li-tung, May 14, Aug. 29 and Oct. 18, 1977.

*Pomacentrus philippinus* EVERMANN & SEALE Thirteen specimens, 5 to 112 mm, Wan-li-tung, Apr. 2, Aug. 29, Oct. 18, Nov. 24, Dec. 27, 1977 and Feb. 19, 1978.

*Pomacentrus flavicauda* WHITLEY Seventeen specimens, 20 to 85 mm. Wan-li-tung, May 14, Aug. 29, Oct. 18, Nov. 24, Dec. 27, 1977 and Feb. 19, 1978.

Family APOGONIDAE (cardinal fishes)

*Siphamia woodi* (McCULLOCH) Two specimens, 35 to 40 mm Wan-li-tung, Dec. 27, 1977.

*Apogon exostigma* (JORDAN & STARKS) One specimen, 28 mm, Wan-li-tung, Aug. 29, 1977.

*Apogon notatus* (HOUTTUYN) Two specimens, 82 to 85 mm, Nan-wan, Jul. 6, 1977.

*Apogon snyderi* KPR. & EVER. Three specimens, 55 to 132 mm, Wan-li-tung, Dec. 6, 1976 Apr. 2 and Oct. 18, 1977.

*Apogon niger* DODERLEIN Three specimens, 40 to 75 mm, Kuei-hou, Jul. 15, 1977.

*Cheilodipterus quinquelineatus* CUV. & VAL. One specimen, 80 mm, Wan-li-tung, Jul. 7, 1977.

*Pseudamia\* gracilicauda* (LACHNER) Four specimens, 25 to 35 mm, Wan-li-tung, Apr. 2, Oct. 18, 1977.

*Pseudamia\* amblyropterus* (BLEEKER) Three specimens, 20 to 55 mm, Wan-li-tung, Feb. 9, Apr. 2 and Nov. 24, 1977.

*Gymnoapogon urosiplotus* LACHNER One specimen, 31 mm, Wan-li-tung, Oct. 18, 1977.

Family SERRANIDAE (groupers)

*Plectroanthias\* longimanus* (WEBER) One specimen, 29 mm, Wan-li-tung, Dec. 27, 1977.

*Belonoperca\* chabanaudi* (FOWLER & BEAN) One specimen, 13 mm, Wan-li-tung, Aug. 29, 1977.

Family PLESIOPIDAE

*Assessor\* macneilli* WHITLEY Fifteen specimens, 35 to 66 mm, Wan-li-tung, Feb. 9, Aug. 29, Oct. 18 and Dec. 27, 1977.

Family PSEUDOCHROMIDAE

*Aporops\* bilinearis* (SCHULTZ) One specimen, 75 mm, Wan-li-tung, Dec. 11, 1976.

Family CIRRHITIDAE (hawkfishes)

*Paracirrhites arcatus* (CUVIER) One specimen, 42 mm, Wan-li-tung, Dec. 27, 1977.

*Cirrhitichthys falco* RANDALL Two specimens, 60 to 78 mm, Wan-li-tung, Dec. 11, 1976 and Dec. 27, 1977.

*Cyprinocirrhites polyactis* (BLEEKER) Six specimens,

53 to 82 mm, Nan-wan, Oct. 20, 1977 and Feb. 20, 1978.

Family LUTJANDAE (snapper)

*Caesio xanthonotus* BLEEKER Two specimens, 120 to 135 mm, Wan-li-tung, Apr. 3, 1978.

Family BLENNIDAE (blennies)

*Cirripectus guagga* (FOWLER & BALL) Four specimens, 50 to 72 mm, Wan-li-tung, Apr. 2, 1977.

*Ecsenius oculus* SPRINGER Two specimens, 25 to 62 mm, Wan-li-tung, May 14 and Aug. 29, 1977.

*Ecsenius yaeyamaensis* (AOYAGI) One specimen, 62 mm, Wan-li-tung, Aug. 29, 1977.

*Plagiotremus rhinorhynchus* (BLEEKER) Two specimens, 63 to 82 mm, Wan-li-tung, Aug. 29 and Dec. 27, 1977.

*Plagiotremus tapeinosoma* (BLEEKER) One specimen, 62 mm, Wan-li-tung, Nov. 24, 1977.

Family GOBIIDAE (goby)

*Eleotriodes helsdingeni* BLEEKER Two specimens, 60 to 68 mm, Nan-wan, Nov. 25, 1977.

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**臺灣珊瑚礁魚類四十種新記錄種**

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