

A New Moray Eel, *Gymnothorax niphostigmus*, (Anguilliformes: Muraenidae) from Northern and Eastern Taiwan

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(Accepted September 13, 1995)

Hong-Ming Chen, Kwang-Tsao Shao and Che-Tsung Chen (1996) A new moray eel, *Gymnothorax niphostigmus*, (Anguilliformes: Muraenidae) from northern and eastern Taiwan. *Zoological Studies* 35(1): 20-24. A new moray eel, *Gymnothorax niphostigmus*, is described here with four specimens from northern and eastern Taiwan. The new muraenid is clearly distinct from its most similar species, *Gymnothorax leucostigmus*, in the character combinations of having denser and smaller whitish snowflake-like patches over the entire body, darker brown ground coloration, anal fin with a distinct white margin, and approximately 140-142 vertebrae.

Key words: Muraenidae, Moray eel, *Gymnothorax niphostigmus* n. sp., Fish fauna, Fish taxonomy.

During recent studies on Taiwanese muraenid fishes, the senior author collected many specimens of moray eels from northern and eastern Taiwan. Among these specimens, it was noticed that there was an exceptional kind of "*Gymnothorax leucostigmus*" which had a special body color pattern. In March 1992, a live specimen of this muraenid was obtained and reared in an aquarium. Its behavior and morphological characters were then observed in more detail. It appeared that this species was undescribed. In April 1993, Miss Yu-Jane Pung of the Institute of Food Sciences, National Taiwan Ocean University, provided another specimen of this undescribed species from Hopingtao, Keelung. Finally, the senior author obtained two specimens of this *Gymnothorax* sp. from Chengkung and Changpin. After examining these specimens and comparing their morphology with that of specimens of other similar moray species, we propose and describe it here as a new species.

MATERIALS AND METHODS

The methods of measurements follow those of

Chen et al. (1994) or Hatooka and Randall (1992). The counting methods for predorsal, preanal, and total vertebrae follow those of Böhlke et al. (1989). Proportional measurements of type specimens of the new moray are expressed as percentage of the total length (TL) or the head length (HL). Lengths, proportions, and vertebral counts are given in Table 1.

The type specimens are deposited in the Museum of the Institute of Zoology, Academia Sinica (ASIZP) and the museum of Taitung Branch of Taiwan Fisheries Research Institute (TFRI-TT).

RESULTS AND DISCUSSION

Gymnothorax niphostigmus n. sp.

(Chinese name: Hsueh-hwa-ban Rou-hsun-tsung)

(English name: Snowflake-patched moray)

(Figs. 1, 2, 3; Tables 1, 2)

Holotype: ASIZP 056940, 713 mm TL, Hopingtao fish market (25°11'N, 121° 51'E), Keelung, longline at depth 100-150 m, Y. J. Pung, 23 Apr. 1993.

Paratypes: ASIZP 056941, 757 mm TL, Aoti (25°6'N, 121° 58'E), Taipei, H. M. Chen, 4 Mar. 1992; TFRI-TT 063,

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