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Ectoparasitic Isopod, *Norileca indica* (Crustacea, Isopoda, Cymothoidae), Obtained from the Stomach of *Coryphaena hippurus* (Perciformes, Coryphaenidae) in the Philippines

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Abstract. An ovigerous female of the ectoparasitic isopod, *Norileca indica* (Milne-Edwards, 1840) was found in the stomach contents of the common dolphinfish *Coryphaena hippurus* Linnaeus collected at the Fishing Port Complex, Iloilo City, the Philippines. The present finding represents the first record of *N. indica* from *C. hippurus* (not as host) and the second record from the Philippines. Published records of Cymothoidae from the stomach contents of fish are summarized. Stomach contents of piscivorous fishes may be an effective collection field of cymothoid isopods.

Key words: *Norileca indica*, Cymothoidae, Isopoda, *Coryphaena hippurus*, the Philippines.

During a parasitological survey of the common dolphinfish *Coryphaena hippurus* Linnaeus (Perciformes, Coryphaenidae) in the Philippines, the second author obtained a single ovigerous female of the cymothoid isopod from the stomach of the fish (956 mm TL, 730 mm BL, 4,400 g), purchased at the Fishing Port Complex, Iloilo City, the Philip-pines on 25 September 2003. This specimen (Fig. 1) is here identified as *Norileca indica* (Milne-Edwards, 1840) on the basis of the following characters: body twisted; pleonite 5 about as wide as pleonite 1; mandible palp article 2 about 3 times as long as article 3; pleotelson triangular, about as long as its maximum width, vaulted on anteromedial surface.

Norileca indica is known to infect the branchial cavities of pelagic fishes, *Alepes apercna* Grant, *Atule malam* (Bleeker), *Selar crumenophthalmus* (Bloch), *Rastelliger kanagurta* (Cuvier), and *Herklotichthyes* sp., from southeast Asia and off Mozambique (Trilles, 1976; Avdeev, 1978; Rokicki, 1982; Bruce, 1990, 1991; Yu & Li, 2003). The present finding represents the first record of *N. indica* from *C. hippurus* (not as host) and the second record from the Philippines following Schioedte and Meinert (1884). The material examined has been deposited in the Kitakyushu Museum of Natural History & Human History, Kitakyushu-shi, Japan (KMNH IvR 500,200).

A host fish of the present specimen would be eaten by the common dolphinfish. As summarized in Table 1, there are also several records of cymothoids from stomachs of piscivorous fishes. Their

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Table 1. Cymothoidae obtained from stomachs of fishes.

Fish	Cymothoidae	Locality	Literature
Callorhynchidae			
Callorhynchus kaianus	*Lironeca* sp.?	Hong Kong	Bruce (1982)
Triakididae			
Smooth-hound (*Mustelus*)	*Livoneca raynaudii*	New Zealand	Hurley (1961)
Moridae			
Red cod [=?*Pseudophysis bachus*]	*Livoneca raynaudii*	New Zealand	Hurley (1961)
Coryphaenidae			
Coryphaena hippurus	*Norileca indica*	Philippines	present study
Coryphaena hippurus	*Ceratothoa laticauda*	Mexico	Brusca (1981)
Coryphaena hippurus	*Nerocila excise*	unknown	Brusca (1981)
Coryphaena sp.	*Nerocila excise*	Near Yap I. [9°57'N, 137°47'W]	Richardson Searle (1914)
Dolphin [=?*Coryphaena* sp.]	*Enispa irregularis*	Arafura Sea	Bruce (1990)
Scombridae			
Scomberomorus multiradiatus	*Nerocila exocoeti*	Papua New Guinea	Bruce & Harrison-Nelson (1998)
Yellowfin tuna [=?*Thumnus olbacares*]	*Anilocra morsicata*	Australia	Bruce & Harrison-Nelson (1998)
Redfish	*Cymothoa oestrum*	Barbados	Richardson (1905)

Square parentheses were inserted by authors.

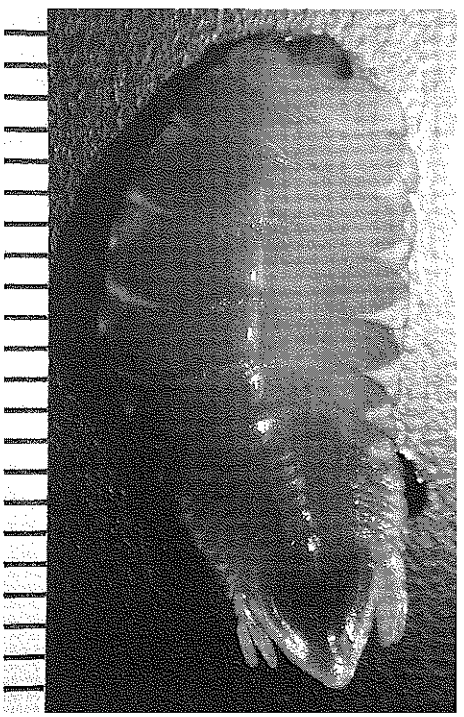

Fig. 1. *Norileca indica*, female (KMNH IvR 500,200) from stomach contents of a common dolphinfish, *Coryphaena hippurus*, Iloilo City, the Philippines. Habitus, dorsal view. Scale in mm.

stomach contents may be an effective collection field of cymothoid isopods as well as other crustacean groups (*cf.* Takeda & Kurata, 1976, 1977, 1984; Nunomura, 1992).

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