Hatschekia oblonga (Copepoda, Caligoida) from Yellowtail Snapper (Ocyurus chrysurus) in the Florida Keys

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wa. Catalogue numbers are as follows: *Homalometron pallidum*, Stafford 1904, 0380; *Lepocreadium setiferoides*, Miller et Northrup 1926, 0378; *Stephanostomum tenue*, Martin 1938, 0381; *Enchinorhynchus gadi*, Zoega in Müller 1776, 0377; *Neoechinorhynchus rutili*, Müller 1780, 0382; *Philometra rubra*, Leidy 1856, 0379.

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Hatschekia oblonga (Copepoda, Caligoida) from Yellowtail Snapper (*Ocyurus chrysurus*) in the Florida Keys

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Ocyurus chrysurus (yellowtail snapper), one of the most common and noticeable species of reef-associated fishes in the Caribbean, was collected with hook and line from 0100 to 0430 hr on 3 October 1982 just north of the Marquesas Keys (24°32.67′N, 82°08.11′W) in about 6 m of water. The fish were placed on ice for approximately 6 hr. Sex and standard length were recorded, and the body surface, fins, mouth, and opercles of each fish were examined. The gill arches were preserved in 70% ethanol and later examined with the aid of a dissecting microscope.

Of the 23 yellowtail snapper collected, 10 were female and 13 male, and they ranged in standard length from 18.1 to 27.2 cm. No parasites were present at any site except the gills, and only one species was found there. This was a copepod identified as *Hatschekia oblonga* (verified by Ju-shey Ho, California State Univ. at Long Beach), and representative specimens were deposited in the U.S. National Museum (USNM 204590). Prevalence was 78.2%, intensity varied from 1 to 31 with a mean of 6.04, and no gross pathological effects were apparent. Omitting the three cases where from one to three individuals were unattached in the bottles when gills were examined, there was a significant ($P < 0.05$; Spearman Rank Correlation) relation between arch number and intensity with intensity decreasing from anterior to posterior arches and a significant ($P < 0.05$; Chi-square test) preference for the medial hemibranchs. Fifty-two individuals were removed from left gill arches and 76 from right arches, which is significantly different from expected ($P < 0.05$; Chi-square test). There was no significant correlation of intensity with fish length.

Apparently the only report of a species of the genus *Hatschekia* (*H. albirubra*) from yellowtail snapper was by Wilson (1913, Proc. U.S. Nat. Mus. 44: 1189–1272). Pearse (1951, Proc. U.S. Nat. Mus. 101: 341–372) reported *H. oblonga* from mangrove snapper (*Lutjanus griseus*) and schoolmaster (*L. apodus*) at Bimini, Bahamas, but apparently did not examine any *Ocyurus chrysurus*. Thus, this report probably constitutes a new host record for *H. oblonga*.

Fernando and Hanek (1976, *In* Ecological Aspects of Parasitology, Kennedy (ed.), North-Holland Publ. Co., Amsterdam, pp. 209–226) suggested that the means by which copepod parasites attach to their hosts, especially the extent to which they are able to change sites, is an important factor in their dispersion patterns. How-

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ever in the genus *Ergasilus*, for example, most species possess similar degrees of mobility, but very different dispersion patterns have been reported (Tedla and Fernando, 1970, J. Fish. Res. Board Can. 27: 1045–1050; Raibaut et al., 1975, Bull. Soc. Zool. Fr. 100: 427–436). Thus each host/gill copepod combination may tend toward a specific dispersion pattern probably determined in part by the physical conformation of the host's gill arches and chamber. Additional factors may include differences in hydrology between habitats. In this study, the affinity of *Hatschekia oblonga* for anterior gill arches and medial hemibranchs could be produced by some combination of these factors, but the apparent tendency to attach on right gills rather than left is probably due to chance.

Hatschekia spp. have been recorded from a wide range of fishes including at least seven families from the Caribbean area alone (Lutjanidae, Serranidae, Labridae, Pomacanthidae, Diodontidae, Blenniidae, and Holocentridae). It is of interest to note that with the exception of one report of *H. amplicapa* from barracuda (*Sphyraena barracuda*) in the Bahamas (Pearse, 1951, op. cit.), all reports from this region are from demersal host fishes. *Ocyurus chrysurus*, more pelagic than other snappers (Hoese and Moore, 1977, Fishes of the Gulf of Mexico, Texas A&M Univ. Press), is one of the least demersal hosts from which *Hatschekia* spp. have been reported.

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Ixodes soricis Gregson Recovered from the Dwarf Shrew in New Mexico

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According to Keirans and Clifford (1978, J. Med. Entomol., Sup. 2: 121–123) *Ixodes soricis* Gregson, 1942, has not been reported from New Mexico. On 16 June 1979, a female dwarf shrew (*Sorex nanus* Merriam) was collected in a pitfall trap set at site 4B (Gennaro et al., 1979, Biol. Stud. Rep., Capulin Mt. Natl. Mon., 72 pp.) on the Capulin Mountain National Monument, Union County, New Mexico. One female and two immatures, recovered from this host, were subsequently identified (by Ed Campos, CDC, Fort Collins, Colorado 80522, USA) as *I. soricis*. All were deposited in the U.S. National Parasite Collection, Beltsville, Maryland 20705, USA (Accession No. 77549). The presence of this host in Union County represents a new distribution record (Findley et al., 1975, Mammals of New Mexico, pp. 14–15) and an unusual locale, since previously New Mexico dwarf shrews had only been collected in alpine regions.

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