

# A NEW HOST-PARASITE ASSOCIATION FROM THE LEVANTINE BASIN BATHYAL ZONE

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## Abstract

A new species of a buccal-inhabiting isopod parasite was identified in the shortnose greeneye, *Chlorophthalmus agassizi*, collected on the upper slope off the southern coast of Israel, Levantine Basin. Infection rate, at 33%, is relatively high considering it is based on free-living populations in the open sea.

*Key words:* Fish ectoparasite, Cymothoidae, *Ceratothoa*, *Chlorophthalmus agassizi*

Cymothoids are ectoparasites of marine, fresh, and brackish water teleost fish. They are known to parasitise many families and numerous species of fish, including many of commercial importance, especially in tropical/subtropical regions (1).

In May 2003, a survey of the demersal fauna of the upper slope (300-400 m depth) off the southern coast of Israel (32°N 34°2E), revealed the presence of buccal inhabiting isopod parasites in the shortnose greeneye, *Chlorophthalmus agassizi* Bonaparte, 1840. Further research has confirmed that these isopods constitute a new species of cymothoid, which is currently being described, and that *Chlorophthalmus agassizi* is a new host record for cymothoid isopods. Marine cymothoids are almost exclusively inhabitants of shallow waters, few being known from bathyal depths (1) and the discovery of a cymothoid species confined to deeper waters is unusual. The host species *Chlorophthalmus agassizi* is a circumglobal bathydemersal fish frequently found in large schools on the continental shelf and upper slope, on mud and clay bottoms, including the Mediterranean coast of Israel (2, 3). This species has little or no commercial value, but is an important forage fish for larger predators.

The new cymothoid species can be distinguished from other species in the genus by a combination of characters but most closely resembles *Ceratothoa steindachneri*. The differentiating characters of the new *Ceratothoa* species, and other accounts of infection from museum collections will be presented.

Though cymothoid infestation levels are known to vary for a given host species and locality, and occurrence of infested fishes is extremely patchy (1, 5), the prevalence of infection we observed, as high as 33% in one of the trawls (N=163), is relatively high considering it is based on free-living populations in the open sea. Higher rates of infestation have been recorded in wild fish populations from enclosed bays and lagoons (4), or those raised in aquaculture (6-8).

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