**Geographic distribution and host specificity of Caribbean *Anilocra* Leach 1818 (Isopoda: Cymothoidae) with molecular phylogeny of five species of from Puerto Rico and the Virgin Islands**

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Members of the genus *Anilocra* Leach 1818 are large external isopod parasites of a variety of coral reef and other habitat-associated fishes. In the Caribbean Sea, it is represented by nine species that demonstrate varying degrees of host and geographic specificity. *Anilocra acanthuri* parasitizes *Acanthurus chirurgus* in the northeastern Caribbean and *Acanthurus tractus* in the northwestern Caribbean, *Anilocra holocentri* parasitizes *Holocentrus adscensionis* in the northwestern Caribbean and a closely related species parasitizes *Myripristis jacobus* in the northwestern Caribbean. *Anilocra haemuli* has a wide host specificity parasitizing grunts and groupers in specific patterns in the Caribbean. *Anilocra chromis* parasitizes *Chromis multilineata* in the northeastern Caribbean and *C. cyanea* in the northwestern Caribbean. *Anilocra holacanthi* is host specific to *Holacanthus tricolor* in the northern Caribbean. *Anilocra* chaetodontis parasitizes several species of butterflyfishes in the northern Caribbean, the Bahamas and Florida. *Anilocra abudefdufi* parasitizes *Abudefduf saxatilis* on the Caribbean coasts of Colombia and Panama. *Anilocra partiti* parasitizes *Stegastes partitus* in Jamaica. We are also describing a new species from Belize and are aware of several others including one possibly on goatfishes here.

Our original descriptions were based solely on their morphology. Their disjunct geographic distributions and host specificity suggest varying degrees of incipient speciation. We used mitochondrial cytochrome c oxidase subunit 1 gene sequences to elucidate phylogenetic relationships of five species of *Anilocra* from Puerto Rico and the Virgin Islands through parsimony, maximum likelihood, and Bayesian inference. The results show that the Caribbean *Anilocra* species form a monophyletic group and are not closely related to *Anilocra physodes* from the Mediterranean Sea, the type species of the genus. Parsimony and Bayesian inference analyses recovered three clades: clade A (*A. chromis*), clade B *(A. holocentr*i), and clade C (*A. acanthuri, A. chaetodonti, A. haemuli*), while maximum likelihood analyses only recovered clade A and C. These analyses depict *A. chromis* as the basal species and *A. chaetodontis* as the most recently evolved species of the Caribbean *Anilocra*. Phylogenetic reconstructions show population structure based on host for *A. haemuli* and based on geographical location for *A. chaetodontis*, which suggest that each of these species might represent cryptic species with morphological stasis.