Abstract

We observed the behavior and ecology of Chaetodon capistratus infected and uninfected with the ecto-parasitic isopod Anilocra chaetodontis to assess whether there may be parasite induced alterations in host biology, host defenses against infection, and/or pathology related to infection. We also examined habitat related differences in infection rates. Infected fish had higher rates of interaction with conspecifics and spent more time in low flow environments (which might improve transmission of juvenile parasites to new hosts). Butterflyfish without isopods were chased more frequently by damselfishes, fed more, and had larger territories. Time spent near conspecifics, and fish condition and gonadosomatic index did not vary between infected and uninfected fish. These results suggest that foureye butterflyfish behavior is altered by the isopod parasite in order for the isopods to more easily gain mates or transmit offspring to new hosts.

Keywords

Caribbean, coral reef, fish, host behavior, parasite, isopod.