

PREDATION EFFICACY OF CYCLOPOID COPEPODS AGAINST *Aedes* MOSQUITOES IN NORTHERN ITALY

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Aedes albopictus and *Aedes koreicus* are invasive mosquito species that have colonized northern Italy and are potentially zoonotic vectors. Cyclopoid copepods are natural predators of mosquito larvae and can be useful biological control agents in artificial containers used as breeding sites by *Aedes* mosquitoes. In this study, we evaluated the predation efficacy of two cyclopoid copepod species, *Macrocyclus albidus* and *Mesocyclops leuckarti*, common in natural conditions in northern Italy, against *Ae. albopictus* and *Ae. koreicus* larvae under laboratory conditions. In each predation test, one female adult copepod was placed with 50 first instar larvae of a single mosquito species in a small Petri dish filled with 10 mL of water. After 24 hours, the mean number (\pm standard error) of larvae killed by one *M. albidus* female was 18.6 ± 1.3 *Ae. koreicus* and 20.9 ± 1.3 *Ae. albopictus*, and the mean number killed by one *M. leuckarti* female was 25.8 ± 2.8 *Ae. koreicus* and 36.1 ± 4.2 *Ae. albopictus*. Predation tests were also conducted using larger Petri dishes filled with 30 mL of water, resulting in reduced predation rates. Our findings indicate that *M. albidus* and *M. leuckarti* are effective larval predators of *Ae. albopictus* and *Ae. koreicus*.