

PhD Dissertation
Department of Environmental Science and Policy
College of Science
George Mason University

Candidate: Darby L. Pochtar

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Title: Invasion history of parasitic castrators influences an estuarine crab host's demographics, physiology, and behaviors

Dissertation Co-Directors: Dr. Amy Fowler

Committee: Dr. April M.H. Blakeslee, Dr. Carolyn K. Tepolt, Dr. Karen T. Lee, and Dr. Jennifer L. Salerno

ABSTRACT

Due to anthropogenic mechanisms, parasites are now being found outside their native ranges where they can impact naïve host populations. White-fingered mud crabs (*Rhithropanopeus harrisi*) host several endoparasites, but the most prevalent are an invasive, castrating rhizocephalan (*Loxothylacus panopaei*) and a native, castrating entoniscid isopod (*Cryptocantrion brevibrachium*). This dissertation examines (1) long-term *L. panopaei* infection prevalence in *R. harrisi* throughout the Chesapeake Bay, (2) salinity tolerance of *R. harrisi* from US Atlantic and Gulf coast populations that differ in invasion history with *L. panopaei*, and (3) if endoparasites alter *R. harrisi*'s feeding ability and susceptibility to predators.