DIFFERENCES IN PARASITE BURDEN IN TWO SPECIES OF FISH THROUGHOUT THE DARBY CREEK WATERSHED.

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INTRODUCTION

We studied the abundance of parasites in eastern blacknose dace (Rhinichthys atratulus n = 55 at each site) at five sites and mummichogs (Fundulus heteroclitus n = 55) at two sites throughout the Darby Creek watershed, hypothesizing that fish living in poor quality habitats expend more metabolic energy to survive, and thus would be less able to combat parasites than fish in less impaired waters (Sure and Knopf, 2004; Sures, 2006). Although the relationship is not simple, the degree of urbanization (and thus population density) can provide some indication of habitat impairment (Lee et al., 1996).

We studied three trematodes: the white grub Posthodiplstromum minimum, the black grub Uvulifer ambloplitis, and the yellow grub Clinostomum marginatum. We also studied the nematode parasite Eustrongylides sp. and an acanthocephalan. All use two to three species in their life cycles (Figure 2).

METHODS

The fish were completely dissected and examined for parasites by eye and at 400x under the microscope. Separate chi-square tests were performed for each species of parasite in each fish species to test whether there were significant differences in parasite abundance between geographical sites.

RESULTS

There were significant differences in parasite abundance between stream sites.

BIBLIOGRAPHY


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