

René Borgella (section 17)**Alternative Landscaping Project**

Research on ecological / environmental issues regarding alternatives to traditional turf-grass lawns. Opportunities to investigate plant-animal interactions, biodiversity of meadows vs. lawns, as well as cost-effectiveness of land management practices

Field Research on Ithaca College's Natural Reserve System (South Hill and Newfield).

Biological Diversity & Population and Community Ecology on IC Natural Lands.

Bird ectoparasite load as a function of forest patch size

We are interested in the relationship between forest patch size and bird ectoparasite loads. Wild birds carry tick ectoparasites around the bill (gape), crown, chin, and ears, which are inaccessible to personal grooming. Other ectoparasites include mites, found under the wings, and feather lice, which can interstices between the feather barbs during flight but are shed upon molting. Ticks in particular carry various infectious disease bacteria, protozoa, and viruses, among them Lyme disease and West Nile Virus. Thus, determination of the ectoparasite load on birds can allow us to predict fitness and disease risk associated with forest patch size. Forest patch size evaluation is an important factor in decisions involving such diverse concerns as logging, homeowner land management, and conservation. Our hypotheses predict that smaller forest patches would have higher parasite loads, and that birds that forage above the ground would have lower parasitic loads than ground feeders.