

Graham H. Cox

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Education

MSc Candidate at the University of New Brunswick supervised by Dr. Stephen B. Heard (2004 to present). My research interests are plant-insect interactions with focus on the ecology and evolution of sympatric host-race maintenance in the galling insects of goldenrod.

Bachelor of Science (Honours, Evolutionary Biology), University of Toronto (2002). Education includes two fourth year level independent research projects, three field courses, a seminar course in evolution and courses in ecology, insects, fungi, plants, Macroevolution, and English.

Research Assistantships

May 2003 to May 2004

Research technician for Dr. Stephen Heard at the University of New Brunswick. Maintenance of the laboratory and assisting in field experiments and collections of galling insects of goldenrod.

January 2003 to May 2003

Research assistant to Kerry Brown of Stony Brook, State University of New York. Collection of demographic data at the Sabana Field Research Station, Puerto Rico, of colonizing populations of *Syzygium jambos*.

June 2002 to September 2002

Research assistant to Dr. Karen Goodell of Rutgers University. Working in Sussex County, New Jersey, USA on a project on the impact of the invasive plant Purple Loosestrife, *Lythrum salicaria*, into wetlands and the implications of its removal for native plant and pollinator communities. Duties include bee and plant identification, hand pollination, insect visitation data collection, and insect pinning and organization.

August 2001 to May 2002

Research assistant to Drs. Anurag Agrawal and Peter Van Zandt at the University of Toronto's Ecology Research Station, Ontario. Assisted in the design and carrying out of ecological experiments on the induced responses in the common milkweed, *Asclepias syriaca*, by the herbivory of specialist insects. Also, I was responsible for maintenance of colonies of three species of milkweed herbivores. Research continued in 4th year independent research project(see below).

May to July 2001

Field Assistant to Erin Dunlop of the University of Toronto, at Harkness Fish Research Laboratories in Algonquin Provincial Park. Collection of reproductive data on bass populations in different lakes examining questions dealing with the history of size differences between bass populations.

2000

Volunteer work for the Entomology Department of the Royal Ontario Museum with Dr. Doug Currie. Aided in mounting and organization of museum insect collections.

July to September 1999

Field assistant to Dr. Des Collins of the Royal Ontario Museum, two months in the mountains of Yoho National Park collecting fossils from the Burgess Shale (a Cambrian invertebrate fossil site).

February to June 1998

Grade 12 Co-op Student, UNB Geology Department, with Dr. Ron Pickerill (Palaeontologist), identification of invertebrate fossils and development of computer database of collection.

Independent Research Projects

Fourth year undergraduate project 2001-2002

Continuation of my experiments carried out in the summer with Dr. Anurag Agrawal. The focus of the research addresses induced responses and tolerance to herbivory in the common milkweed, *Asclepias syriaca*, including whether induced responses and tolerance traits increase with damage caused by herbivores.

Third year undergraduate project 2000-2001

Preparation, character description, and phylogenetic analysis of two hind leg structures of the Simuliidae (black flies). Collaborated with Professor Doug Currie of the Royal Ontario Museum and the University of Toronto. The focus of the research was on whether the *calcipala* and *pedisulcus* are useful characters in describing phylogenetic relationship within the Simuliidae.

Field Courses

Vietnam: Biodiversity and Ecology in Indochina. Research project supervised by Dr. Spencer Barrett and Dr. Chris Darling of the University of Toronto, investigating the relationship between floral density and pollinator visitation.

Nicaragua: Tropical Ecology and Evolution. Research project supervised by Dr. Doug Currie and Dr. Mark Engstrom of the Royal Ontario Museum, collection of Streblidae (ectoparasites of bats) off bats and examination of the accuracy of their recorded range.

Algonquin Provincial Park: Insect Biodiversity. Collection and identification of 70 families of insects and lectures on insect biodiversity with Dr. Chris Darling.

American Museum of Natural History in New York: Bees of eastern North America identification course with Dr. Jerry Rozen.

Research presented

Oral Presentation: Host Adaptation and Tradeoffs in the *Gnorimoschema gallaesolidaginis* Host-Race Pair. Canadian Entomological Society Annual Meeting in Charlottetown, 2004.

Oral Presentation: Tolerance of Milkweed to Monarch Herbivory: Effects of plant genotype and herbivore density. Fourth Year Botany Research Project Presentations, 2002.

Poster Presentation: *Calcipala* and *Pedisulcus*: Hind-leg Structures of Simuliidae Revisited. Independent Research Project Poster Contest at the University of Toronto, 2001.

Other information

I have extensive experience with all Microsoft OSs, Linux/Unix, Apple OSs, MS Office (Access, Excel), web design programs, Adobe PhotoShop, Acrobat, Illustrator, Systat 9, Origin, MiniTab, SAS, and R.