

Hana Kucera

PhD Candidate, Biology

Department of Biology
University of New Brunswick
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Education

University of New Brunswick – PhD Candidate (Algal Systematics): 2004–current

Studying the diversity of marine intertidal seaweeds of Canada, using variation in DNA barcode sequences.

Simon Fraser University, BC – BSc, Biology (Ecology and Evolution): 1998–2004

Extensive field and lab work experience in desert ecology.

Teaching and Community Service

Sessional Lecturer, Department of Biology, UNB: 2009

Curriculum design and lecture for first year, non-majors biology course titled “Microbes - the Good, the Bad and the Ugly”. Delivered three lectures per week in a variety of formats including traditional lectures, case studies, hands-on activities, and using student personal response systems.

Student Representative, NSERC-Atlantic Advisory Committee: 2008–2009

Represented student issues and perspectives at meetings of the advisory committee.

Coordinator, Let's Talk Science Partnership Program, UNB: 2004–2008

Start-up and operations of new LTSP site at UNB. Recruited and trained over 150 volunteers. Partnered volunteers with elementary and high school teachers and organized rural outreach trips to small communities throughout New Brunswick.

Undergraduate Student Lab Advisor, UNB: Summers 2008, 2006

Trained and supervised an undergraduate student during an independent laboratory based research project.

Science Instructor, Saint Mary's First Nation, Fredericton, NB: Summer 2007

Developed and delivered hands-on science course for First Nations youth aged 15–19. Students learned about aquatic ecology, species at risk and water quality monitoring in streams near Saint Mary's First Nation.

Guest Lecture, Molecular Evolution, Department of Biology, UNB: 2006–2007

Wrote and delivered guest lecture on Molecular Phylogenetics for fourth year undergraduate course.

Education Consultant, Museum of Nature, Ontario: 2006

Design of Ontario curriculum based lessons, assessments and teacher resources. Resources to be used in Ontario classrooms who partner with the Museum of Nature in video-conference events involving scientists from the Museum.

Mentor, Student Accessibility Centre, UNB: 2006

Tutored first year student for Introductory Biology course.

Graduate Studies Committee, Department of Biology, UNB: Fall 2006

Served as graduate student representative.

Mentor, Aventis Biotech Challenge, UNB: 2004-2006

Mentorship of high school students undertaking a laboratory based biotechnology project.

Teaching Assistant, First Year Biology, UNB: 2005

Introductory undergraduate biology lab course consisting of a broad overview of many disciplines within biology. I taught group of 16 students, and marked assignments.

Volunteer, Worlds UNBound, UNB: 2004

Presented hands-on science and engineering activities to Grade 3–4 girls science clubs.

Teaching Assistant, Bamfield Marine Science Centre, British Columbia: 2004

Upper level undergraduate course focused on algal taxonomy, physiology and ecology. Assisted students in learning course material, identifying algae in the field and designing and executing independent research projects.

Volunteer, Let's Talk Science Partnership Program, SFU: 2004

Designed and delivered interactive science activities for elementary school students.

Program Delivery Specialist, Mad Science, British Columbia: 2001–2002

Presented hands-on and fun educational workshops for students and community groups.

**Day Camp Coordinator, Canoe Trip and Camp Leader, Sasamat Outdoor Centre
British Columbia: 1997–2002**

Trained and supervised 12 summer camp counsellors, organized day camp programs. Leader on wilderness canoe trip with youth aged 13–17.

Professional Development

Outdoor Educators Workshop, Mactaquac Provincial Park: 2007, 2008

Practical applications of storytelling, team building, challenge of choice and First Nations traditional teachings in outdoor education settings.

Aboriginal Workshop, Let's Talk Science National Conference: 2007

Workshop focused on First Nation's culture, communication and traditional healing.

Diploma in University Teaching, UNB: 2006

Comprehensive education diploma focused on adult learning, course design, and teaching and learning theory.

Setting the Margins for Successful Learning Workshop, Let's Talk Science National Conference: 2006

Workshop on cultural sensitivity and teaching in settings that include students of varied cultural and socioeconomic backgrounds.

Scholarships and Awards**2008**

Graduate Student Award of Merit, Senior Women Academic Administrators of Canada, \$2500.

2007

Post-Graduate Scholarship Doctoral level (PGS-D), National Science and Engineering Research Council of Canada (NSERC), \$42 000 over 2 years.

Board of Governors Merit Award, University of New Brunswick, \$4000.

Canadian Barcode of Life Science Symposium Student Poster Award, \$250.

2006

National Site Coordinator Award, Let's Talk Science, Honourable Mention.

Vaughan Graduate Fellowship in Marine Sciences, University of New Brunswick, \$1500.

Dr. A.R.A. Taylor Graduate Fellowship in Botany, University of New Brunswick, \$3000.

2005

Dr. John S. Little International Study Fellowship, University of New Brunswick, \$1300.

Post-Graduate Scholarship Doctoral level (PGS-D), NSERC, (declined)

Board of Governors Merit Award, University of New Brunswick, \$2500.

2004

Canadian Graduate Scholarship Masters level, NSERC, \$17500 for one year, renewed following year.

Board of Governors Merit Award, University of New Brunswick, \$2500.

2003

Open Scholarship, Simon Fraser University, \$1410.

Student Award, Bamfield Marine Science Centre, \$600.

2002

Undergraduate Student Research Award, NSERC, \$5625.

1998

Post Secondary Scholarship, Port Moody Police Department, \$500.

Publications and Conference Presentations

Research publications

Assigning morphological variants of *Fucus* (Fucales, Phaeophyceae) in Canadian waters to recognized species using DNA barcoding. Kucera, H. and G.W. Saunders. 2008. Botany 86: 1065-1079.

Historical gene flow during adaptive radiation of gall-inducing insects. Joy, J.B., A.O. Mooers, H. Kucera, and B.J. Crespi. Submitted.

Conference Presentations

Northeast Algal Symposium: April 18–20, 2008

Talk title: "DNA barcoding as a tool for species identification in the red algal genus *Porphyra* in Canada"

Centre for Environmental and Molecular Algal Research: Sept. 14–15, 2007

Poster title: "DNA barcoding: an efficient tool to distinguish taxonomically difficult algal species of *Porphyra* (Rhodophyta), *Ulva* (Chlorophyta), and *Fucus* (Phaeophyceae)"

Canadian Society for Ecology and Evolution: May 17–20, 2007

Poster title: "DNA Barcoding: a tool to distinguish species in three taxonomically difficult genera of marine macroalgae"

Canadian Barcode of Life Network's Science Symposium: May 9–12, 2007

Poster title: "DNA Barcoding: a tool to distinguish species in three taxonomically difficult genera of marine macroalgae" **Student Poster Award, \$250.**

Northeast Algal Symposium: April 20–22, 2007

Poster title: "DNA barcoding: an efficient tool to distinguish taxonomically difficult algal species of *Porphyra* (Rhodophyta), *Ulva* (Chlorophyta), and *Fucus* (Phaeophyceae)"

Kaleidoscope: Dec. 6, 2006 (UNB conference on teaching and learning)

Talk title: "The UNB Let's Talk Science Partnership Program"

Evolution: June 23–27, 2006 (International Conference)

Talk title: "Species limits and phenotypic plasticity"

Northeast Algal Symposium: April 21–23, 2006

Talk title: "Molecular analysis of species limits of the brown algal genus *Fucus* in the Northeast Pacific"

Centre for Environmental and Molecular Algal Research: March 30–31, 2006

Talk title: "Molecular analysis of species diversity in the brown algal genus *Fucus* of Canada"

Northeast Algal Symposium: April 27–30, 2005

Poster title: “Resolving species limits for the brown algal genus *Fucus* in the Northeast Pacific”

Evolution-Washington, Idaho, British Columbia, Oregon: April 16–28, 2004

Poster title: “Supertrees vs. Supermatrices: comparing two methods of building phylogenetic trees with large, heterogeneous molecular data sets; a test case with *Sophophora (Drosophila)*”

Pacific Ecology Conference: Feb. 14–16, 2003

Talk Title: “A tree for *Drosophila*, Total evidence versus consensus trees: a proposal”

Memberships

Northeast Algal Society 2004-2008

Canadian Society of Ecology and Evolution 2007

Society of Systematic Biologists 2006

Recreational Canoeing Association of BC (Certified Instructor) 2000-2003