

Andrew K. Swanson
Department of Biology
Case Western Reserve University
10900 Euclid Avenue
Cleveland, OH 44106
Tel: 216-368-8617, Fax: 216-368-4672
email: aks25@case.edu

EDUCATION

- 1993 B.S. University of Western Ontario, London, ON
Biology (Honors)
- 1995 M.S. University of Western Ontario, London, ON
Plant Science, Environmental Science
Advisor: Dr. Dianne Fahselt, Department of Plant Sciences
Thesis: Ultraviolet light exposure in relation to polyphenolics in the
foliose lichen *Umbilicaria americana*
- 2000 Ph.D. Simon Fraser University, Burnaby, BC
Biological Sciences
Advisor: Dr. Louis D. Druehl, Department of Biological Sciences
Thesis: Ecophysiological adaptations of Northeast Pacific kelp communities to
ultraviolet light stress

SPECIALIZATION

Non-Vascular Plant (phycology, mycology) Biology
Global Climate Change Ecophysiology
Molecular Ecology/Environmental Genomics

PROFESSIONAL EXPERIENCES

- University of Western Ontario, Plant Sciences, London, ON
Graduate Teaching Assistant (09/1993 - 04/1994, 09/1994 - 04/1995)
General Biology (Labs, 1st year)
- University of Western Ontario, Plant Sciences, London, ON
Graduate Research Assistant, Dr. D. Fahselt (05-08/1994-1995)
- Simon Fraser University, Biological Sciences, Burnaby, B.C.
Graduate Teaching Assistant (09 - 12/1995)(01 - 04/1996, 05 - 08/1996)
General Biology (Labs, seminars, 1st year)
Biology of Non-Vascular Plants (Lectures, labs, 3rd and 4th year)
- Simon Fraser University, Biological Sciences, Burnaby, B.C.
Graduate Research Assistant, Dr. L.D. Druehl (05-08/1996-1999)
- Simon Fraser University, Burnaby, B.C.
Herbarium Curator, Fungal and Lower Plant Collections (09/1996)
- Bamfield Marine Station, Bamfield, B.C.
Graduate Teaching Assistant (05 - 06/1997, 05 - 06/1998)(09 -10/1997)
Marine Phycology (Lectures, labs, 3rd and 4th year)
Ecological Adaptations of Seaweed (Lectures, labs, 3rd and 4th year)
- Bamfield Marine Station, Bamfield, B.C.
Marine Science Directed Study Supervisor (05-09/1996,05-12/97,05-09/1998)

Fall Program (4th year)
Agriculture and Agri-Food Canada, SCFPRC, London, ON
Postdoctoral research scientist (02/2000 - 05/2002)
University of Western Ontario, Biology, London, ON
Postdoctoral research scientist (05/2002-03/2003)
Case Western Reserve University, Biology, Cleveland, OH
Assistant Professor (06/2003- present)

AWARDS, FELLOWSHIPS, RESEARCH SUPPORT

1995-05 University of Western Ontario Plant Sciences Summer Research Scholarship
1996-01 Western Society of Naturalists Presentation Award
1996-08 American Bryological and Lichenological Society Presentation Award
1996-09 B.C. Packers Limited Scholarship for Fisheries and Aquatic Ecology
1997-01 Western Canadian Universities Marine Biological Station Research
Scholarship
1997-09 Glen Geen Graduate Scholarship in Marine Biology
1997-09 Western Canadian Universities Marine Biological Station Research
Scholarship
1998-01 Western Society of Naturalists Presentation Award
1998-01 Western Canadian Universities Marine Biological Station Research
Scholarship
1998-09 Western Canadian Universities Marine Biological Station Research
Scholarship
1998-09 Simon Fraser University Graduate Fellowship
1999-01 Simon Fraser University President's Stipend
1999-09 Simon Fraser University Graduate Fellowship
2001-08 Phytochemical Society of North America Presentation Award

PUBLICATIONS

A.K.Swanson, D.Fahselt and D.Smith, 1996, Phenolic levels in *Umbilicaria americana* in relation to enzyme polymorphism, altitude and sampling date. *Lichenologist* 28(4): 331-339

A.K.Swanson and D.Fahselt, 1997, Effects of ultraviolet on polyphenolics of *Umbilicaria americana* Poelt & Nash. *Canadian Journal of Botany*, 75(3): 284-289

A.K.Swanson and L.D.Druehl, 2000, Differential meiospore size and tolerance of ultraviolet light stress within and among kelp along a marine depth gradient. *Marine Biology* 136: 657-664

A.K.Swanson and L.D.Druehl, 2002, Induction, exudation and potential UV protective role of kelp phlorotannins within coastal waters. *Aquatic Botany* 1578: 1-13

J.E. Brandle, A.Richman, **A.K.Swanson**, B.P. Chapman, 2002, Leaf ESTs from *Stevia rebaudiana*: A resource for gene discovery in diterpene synthesis.

Plant Molecular Biology 50: 613-622

A.Richman*, **A.K.Swanson***, T.Humphrey and J.E.Brandle
Functional genomics uncovers three glucosyltransferases responsible for the synthesis
of the major sweet glucosides of *Stevia rebaudiana*,
in review *Plant Journal*

* **co-first authors**

SELECTED PRESENTATIONS

A.K. Swanson, D.Fahselt. 1995, Phenolic levels in the lichen *U. americana* in
relation to enzyme polymorphism, altitude and sampling date. **Canadian Botanical
and Plant Physiological Association**, Guelph, Ontario (speaker)

A.K. Swanson, D.Fahselt. 1996, Phenolic levels in the lichen *U. americana* in
relation to enzyme polymorphism, altitude and sampling date. **Western Society of
Naturalists**, Port Townsend, Washington (speaker)

A.K. Swanson, D.Fahselt, 1996, Effects of ultraviolet on polyphenolics of
Umbilicaria americana. **American Institute of Biological Sciences**, Seattle,
Washington (speaker)

A.K. Swanson, L.D. Druehl. 1998, Differential meiospore size and tolerance to UVR
within and among kelp species (Laminariales). **Western Society of Naturalists**,
Monterey, California (speaker)

A.K. Swanson, 2000, The responses of Northeast Pacific seaweed communities to the
changing ultraviolet environment, Puget Sound University, Tacoma, Washington
(**invited speaker**)

J.E. Brandle, A.Richman, **A.K. Swanson**, 2000, Expressed Sequence Tags can be
used to discover genes involved in secondary metabolism. **International Congress of
Plant Molecular Biology**, Quebec City, Quebec (poster)

J.E. Brandle, A.Richman, **A.K. Swanson**, 2001, Expressed Sequence Tags can be
used to discover genes involved in secondary metabolism. 30th Annual **Keystone
Symposia** (Plant foods for human health: Manipulating plant metabolism to enhance
nutritional quality), Breckenridge, Colorado (poster)

A.K. Swanson, A.Richman and J.E. Brandle, 2001, Functional genomics of the *Stevia
rebaudiana* diterpene glycoside metabolic pathway. **Phytochemical Society of North
America**, Oklahoma City, Oklahoma (poster)

A.K. Swanson, 2001, Plant natural products in the pre and post genomics eras.
University of New Brunswick, Fredericton, New Brunswick
(**invited speaker**)

A.K. Swanson, 2001, Plant natural products in the pre and post genomics eras.
Southern Illinois University, Carbondale, Illinois

(invited speaker)

A.K. Swanson, 2002, "Give me shelter": Cryptogam adaptations and responses to environmental pressures, Case Western Reserve University, Cleveland, Ohio

(invited speaker)

TEACHING AND ACADEMIC SERVICE

2003 (June 1 to present)

Graduate Student Advisor

(Sarah Carrino, MS candidate, Department of Biology, CWRU)

Graduate Student advisory committee member

(Allison Aquilina-Beck, MS candidate, Department of Biology, CWRU,
Advisor: Jennifer Liang)

Co-Instructor (Seminar in Experimental Ecology -Biol 531)

Squire Valleevue and Valley Ridge Farm Renovation committee member

Morris K. Udall Foundation Scholarship screening committee member (CWRU)