

Hilary A. McManus

-Curriculum Vita-

ACADEMIC ADDRESS

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EDUCATION

Ph.D. in Botany, University of Connecticut Jan. 2007

DISSERTATION TITLE: "Systematics of the Green Algal Family Hydrodictyaceae
(Sphaeropleales, Chlorophyceae), with Special Reference to
the Genus *Pediastrum* Meyen 1829."

M.A. in Botany with Honors, University of Kansas Aug. 2000

B.S. in Biology, *Cum Laude*, SUNY Oswego May 1998

B.A. in Music, SUNY Oswego May 1998

A.A.S. in Biology, Jamestown Community College May 1995

POSITIONS HELD

Postdoctoral Fellow, Department of Ecology and Evolutionary Feb. 2007 –
Biology, University of Michigan at Ann Arbor present
(Laboratory of Dr. Yin-Long Qiu)

TEACHING

University of Connecticut

Introduction to Botany Teaching Assistant, Biol 110 Fall 2006

Introduction to Botany Teaching Assistant, Biol 110 Fall 2005

Biology of the Algae Teaching Assistant, EEB 290/390 Fall 2004

Principles of Biology I Teaching Assistant, Biol 107 Spring 2003

Biology of the Algae Teaching Assistant, EEB 290/390 Fall 2002

Introduction to Botany Teaching Assistant, Biol 110 Fall 2001

University of Kansas

Biology for majors Teaching Assistant Spring 2000

Biology for non-majors Teaching Assistant Fall 1999

McManus

- 2 -

PUBLICATIONS

- McManus, H. A.**, Lewis, L. A. 2005. Molecular phylogenetics, morphological variation and colony form evolution in the family Hydrodictyaceae (Sphaeropleales, Chlorophyta). *Phycologia* 44(6):582-595.
- McManus, H. A.**, Boucher, L., Taylor, E. L., Taylor, T. N. 2002. *Hapsidoxylon terpsichorum* gen. et sp. nov., a stem with unusual anatomy from the Triassic of Antarctica. *American Journal of Botany* 89 (12):1958-1966.
- McManus, H. A.**, Taylor, E. L., Taylor, T. N., Collinson, J. W. 2002. A petrified *Glossopteris* flora from Collinson Ridge, Shackleton Glacier Area: Late Permian or Early Triassic? *Review of Palaeobotany and Palynology* 120:233-246.
- McManus, H. A.**, Seago, J. L., Marsh, L. C. 2002. Histochemical and Epifluorescent Shoot Anatomy of *Typha latifolia* L., *Typha angustifolia* L. and *Typha glauca* Godr. *Annals of Botany* 90:489-493.

MANUSCRIPTS SUBMITTED & IN PREPARATION

- McManus, H. A.**, Qiu, Y. L. **In review.** Life cycles in major lineages of photosynthetic eukaryotes with a special reference to the origin of land plants. Commissioned by *Fieldiana: Botany*, 3/07.
- McManus, H. A.**, Lewis, L. A. **In prep.** Molecular phylogenetic relationships in the freshwater family Hydrodictyaceae (Sphaeropleales, Chlorophyceae), with an emphasis on *Pediastrum duplex*. To be submitted 10/07 to *Journal of Phycology*.
- McManus, H. A.**, Qiu, Y. L. **In prep.** Life Cycle as a Target of Selection in Macroevolution of Eukaryotes? Commissioned by *BioEssays*, 10/07.

CONTRIBUTED CONFERENCE PRESENTATIONS

- “A phylogenetic and morphometric study of the freshwater green alga *Pediastrum duplex* (Sphaeropleales, Chlorophyceae),” 61st Annual Meeting of the Phycological Society of America, Providence, RI, August 2007 (Oral Presentation).
- “Using molecular phylogenetics and morphometrics to determine species boundaries within the freshwater green algal family Hydrodictyaceae (Sphaeropleales, Chlorophyceae),” 46th Annual Northeast Algal Symposium, Narragansett, RI, April 2007 (Oral Presentation).
- “What two genes and many isolates reveal about species relationships and geographic distribution of the freshwater family Hydrodictyaceae (Sphaeropleales),” 60th Annual Meeting of the Phycological Society of America, Juneau Alaska, July 2006 (Oral presentation).
- “Characterization of Group IA introns in the chloroplast *rbcL* gene of five *Pediastrum* and two *Bracteacoccus* isolates (Sphaeropleales, Chlorophyceae),” 45th Northeast Algal Symposium, Marist College, Poughkeepsie, NY, April 2006 (Oral presentation).

Mc Manus

- 3 -

“Does thylakoid stacking follow a phylogenetic pattern in green algae?” 59th Annual Meeting of the Phycological Society of America with the 8th International Phycological Congress, Durban, South Africa, August 2005 (Poster presentation).

“Fuzzy species boundaries in Hydrodictyaceae (Chlorophyceae): Can molecules and growth studies give us 20/20 vision?” 44th Northeast Algal Symposium, April 2005 (Oral presentation).

“Phenotypic plasticity, molecules and species boundaries in *Pediastrum* Meyen 1829,” 58th Annual Meeting of the Phycological Society of America, Williamsburg, VA, August 2004 (Poster presentation).

“Exploration of morphological and genetic variation within the family Hydrodictyaceae (Sphaeropleales, Chlorophyceae),” 43rd Northeast Algal Symposium, Avery Point, CT, April 2004 (Poster presentation).

“Exploration of morphological variation within the genus *Pediastrum* Meyen 1829 (Chlorophyceae, Chlorophyta),” 57th Annual Meeting of the Phycological Society of America, Salishan Resort, OR, June 2003 (Oral Presentation).

“Phylogenetic relationships within the freshwater green algal family Hydrodictyaceae,” 42nd Northeast Algal Symposium, Saratoga Springs, NY, April 2003 (Oral Presentation).

“Phylogenetic relationships among *Pediastrum* spp. and *Hydrodictyon* spp.,” 56th Annual Meeting of the Phycological Society of America in conjunction with the Botanical Society of America, Madison, WI, August 2002. (Oral presentation).

“An Enigmatic Axis from the Triassic of Antarctica,” American Journal of Botany (87) 6. Botanical Society of America: Botany 2000, Portland, OR (Oral presentation).

“Petrified *Glossopteris* from Collinson Ridge, Shackleton Glacier Area, Antarctica,” XVI International Botanical Congress, St. Louis, MO, August 1999 (Poster presentation).

“Structural comparison of three *Typha* species: *Typha glauca* and its putative parental species, *T. latifolia* and *T. angustifolia*,” American Journal of Botany 85(6): 15. 48th Annual Meetin of the AIBS, Montreal, Quebec, August 1997 (Oral presentation).

INVITED CONFERENCE PRESENTATIONS

“Integrating molecular and morphological data to infer phylogeny in the Chlorophyta,” Symposium: Resolving the green branch of life: Current progress and future challenges. Botanical Society of America: Botany 2004, Snowbird, Utah, July-August 2004 (Oral Presentation).

GUEST LECTURES & SEMINARS

“The ecology and evolution of *Pediastrum*, a native alga of Lake Champlain, and its relatives in the algal family Hydrodictyaceae,” Biological Sciences Departmental Seminar, SUNY Plattsburgh, Plattsburgh, NY, October 2007.

“Introduction to the Algae,” Guest lecturer, Biol 205 Plant and Fungal Biology, Instructor: C. Martine, SUNY Plattsburgh, Plattsburgh, NY, October 2007.

GRANTS AND AWARDS

Systematics, colony form evolution and phenotypic plasticity within the family Hydrodictyaceae, 6/1/2004 to 6/30/2006, National Science Foundation Doctoral Dissertation Improvement Grant, \$10,516.

Completing the Puzzle: Incorporating *Euastropsis* into the Hydrodictyaceae (Sphaeropleales, Chlorophyta) Phylogeny, 5/1/2004-5/1/2005, Ronald Bamford Endowment to the Department of Ecology and Evolutionary Biology, \$745.

Systematics, colony form evolution and phenotypic plasticity within the family Hydrodictyaceae, 4/1/2003 to 4/1/2004, Phycological Society of America Grants-in-Aid of Research Award, \$1,000.

Kindrogan Freshwater Algae Course tuition assistance, 7/2003, Phycological Society of America Croasdale Award, \$1,000.

Systematics of Hydrodictyaceae (Sphaeropleales, Chlorophyta), 5/1/2002 to 5/1/2003, Ronald Bamford Endowment to the Department of Ecology and Evolutionary Biology, \$780.

Petrified *Glossopteris*: Permian or Triassic? 1/2000 to 1/2001, Sigma Xi Grants-in-Aid of Research, \$690.

Travel Awards

Phycological Society of America Hoshaw Travel Award, May 2006, for travel to the 60th Annual Meeting of the Phycological Society of America, \$1,000.

Ronald Bamford Endowment to the Department of Ecology and Evolutionary Biology May 2005, for travel to the 8th International Phycological Congress, \$300.

Phycological Society of America Hoshaw Travel Award, May 2005, for travel to the 8th International Phycological Congress, \$1,000.

Phycological Society of America Hoshaw Travel Award, May 2004, for travel to the 58th Annual Meeting of the Phycological Society of America 2004 conference, \$400.

Phycological Society of America Hoshaw Travel Award, May 2003, for travel to the 57th Annual Meeting of the Phycological Society of America, \$400.

Northeast Algal Society travel award, March 2003, for travel to 42nd Northeast Algal Symposium, \$125.

Deep Time Travel Award, January 2003, for travel to IVth Deep Time Workshop, \$1,000.

Deep Gene Travel Award, August 2002, for travel to Botany 2002, \$500.

Department of Botany Arthur J. Mix Fund, University of Kansas, April 2000, for travel to Botany 2000, \$800.

Mc Manus

- 5 -

Department of Botany Arthur J. Mix Fund, University of Kansas, April 1999, for travel to XVI International Botanical Congress, \$600.

Botanical Society of America: Paleobotanical Section Award, April 1999, for XVI International Botanical Congress registration fees, \$135.

Fellowships

UConn Department of Ecology and Evolutionary Biology Demi-Fellowship (half stipend support) Spring 2006, Summer 2006.

Presentation Awards

Northeast Algal Society Robert T. Wilce Student Award for best graduate student oral Presentation, April 2006.

Other Awards

UConn Department of Ecology and Evolutionary Biology Upper Level Graduate Teaching Assistant Award, Honorable Mention, Spring 2005.

Botanical Society of America Young Botanist Award for Special Achievement, 1998.

WORKSHOP PARTICIPATION

4th Deep Time Meeting and Workshop: Dating Divergence Times,
February 22-23rd, 2003

Deep Gene Research Coordination Network Workshop, August 7th, 2002

PROFESSIONAL SOCIETY MEMBERSHIPS

Phycological Society of America, British Phycological Society, Society of Systematic Biologists, Botanical Society of America, Northeast Algal Society, Sigma Xi

PROFESSIONAL AND COMMUNITY SERVICE

Northeast Algal Society Executive Committee Student Representative 2006-2007
(appointed position)

Phycological Society of America Executive Committee 2005-2007
Student Representative (elected position)

Phycological Society of America Award of Excellence Committee 2005-2007
Student Member (appointed position)

Phycological Society of America Awards Committee Spring 2005
Graduate student member

Department of Ecology and Evolutionary Biology, UConn Fall 2004
Faculty Meeting graduate student representative

UConn Integrated Pest Management Workgroup member 2004-2006
A workgroup of various university professionals working towards
a more natural approach to pest management on campus.

Web Committee for the 2004 Northeast Ecology and Evolution 2003-2004
Conference

Housing Committee for 2004 Northeast Ecology and Evolutionary 2003-2004
Conference

Mc Manus

- 6 -

Ecology and Evolutionary Biology, UConn Curriculum Committee Graduate student representative	2003-2004
Department of Ecology and Evolutionary Biology, U of Kansas Graduate Student Organization Representative	1998-1999
Department of Ecology and Evolutionary Biology, U of Kansas Botany Graduate Student Organization Faculty Representative	1998-1999

EDUCATION OUTREACH

Center for Applied Genetics & Technology: Summer Faculty Workshop in Biodiversity and Forensics Genetics	July 2005
Biologist at University of Connecticut's BioBlitz 24 hour Biodiversity Survey of a Connecticut park. This event is held annually and is designed to increase public awareness of the biodiversity within Connecticut.	June 2001-2005
Educator for Future Problem Solving Program of Connecticut Half-day seminar on DNA Identification: Paper Chromatography	April 2003
Educator at the University of Kansas Natural History Museum Family Weekend Outreach Program: Changes Through Time: Fossils, Past climates and Continental drift	Spring 2000

FIELD STUDIES

Collecting trip to Australia (Northern Territory, Queensland, New South Wales, Victoria) for six weeks to collect *Pediastrum* spp. and *Hydrodictyon* spp. December 2004-January 2005. Visited the laboratory of Dr. Jeremy Pickett-Heaps to isolate specimens at the University of Melbourne, and the Sydney Botanical Gardens to isolate specimens in the laboratory of Dr. Tim Entwisle and Dr. Stephen Skinner.

Collecting trip to Minnesota and Wisconsin for 10 days to collect *Pediastrum* and *Euastropsis*. August 2004. Visited the laboratory of Dr. Linda Graham to isolate specimens at the University of Wisconsin, Madison.