

PHYSIOLOGICAL ECOLOGY ANNUAL REPORT, JULY 2015

MISSION, OFFICERS, AND MEMBERSHIP

The Physiological Ecology Section promotes research and teaching that explore the interrelationships among the functions of organisms and their environments. In December 2014, **Jeannine Cavender-Bares** (University of Minnesota), finished her two-year term as chair of the section. Jeannine was dedicated to working with corporate donors and other sponsors to support student travel and awards, and she raised the profile of the section in numerous ways, for example, by giving an Ignite talk about physiological ecology at the 2014 ESA meeting. **Kate McCulloh** (University of Wisconsin) and **Gretchen North** (Occidental College) were elected Co-Chairs of the section and began their two-year terms in January 2015. Co-secretaries **Molly Cavaleri** and **Joseph Bump** (both at Michigan Technical University) will complete their terms as Co-Secretaries this year, thus an election for their replacement(s) will be held in the fall of 2015. All members are urged to consider nominations for this position, including self-nominations. Student liaisons **Jesse Blanchard** (Florida International University) and **Adam Roddy** (Yale University) helped to create new online material for the section, and Kate McCulloh has created a Facebook page and a Twitter account to help spread news about the section and its members. The section continues to be served by Rob Jackson and Will Cook, who continually update and improve the Physiological Ecology web site: <http://www.biology.duke.edu/jackson/ecophys>. We are one of the largest sections in ESA, with members from most of the sub-disciplines of ecology, including Biogeosciences, Education, Rangeland Ecology, Researchers at Undergraduate Institutions, Soil Ecology, Urban Ecosystem Ecology, and Vegetation Sections.

STUDENT AND POSTDOCTORAL AWARDS

The section is grateful to the judges and donors who make it possible to offer several awards each year.

Student Travel Awards

Generous donations supported student travel award this year, including gifts from LiCor Biosciences, CID Bio-Science, and an anonymous donor who has agreed to donate \$3000 each year until 2019 to support student travel to the ESA meeting. This year the section is pleased to be able to fund seven awards, granted in recognition of the quality of the student's research and the potential contribution of attendance at the meeting to the student's professional development. The grants of \$500 each were awarded to the following students: **Leander Anderegg** (University of Washington), **Megan Bartlett** (UCLA), **Anna Carter** (Victoria University, New Zealand), **Helen Holmlund** (Oklahoma Christian University), **Stephen Klosterman** (Harvard University), **Eric Riddell** (Clemson University), and **Jessica Valdovinos-Ayala** (California State University, Bakersfield).

The *Billings Award*, the *New Phytologist Poster Award* and the *Plant, Cell and Environment Postdoctoral Award* are given annually to students and post docs to recognize significant achievements in physiological ecology. Students giving oral and poster presentations at the annual ESA meetings can enter, and entrants are judged on the rigor, creativity, importance, and quality of presentation of the research. The **New Phytologist Trust** has long contributed to the Billings Fund, which supports prizes for both the Billings Award and the *New Phytologist* Poster Award. **CRC Press Taylor & Francis Group** (includes the former UC Press) continues to support the section by donating books to student award winners and recipients of honorable mentions. *Plant, Cell and Environment* (Blackwell Publishing, Dr. Keith Mott, Editor-in-Chief) continues to support the postdoctoral award.

Billings Oral Presentation Award 2014

Jennifer Johnson from the University of Arizona is the winner of the 2014 Dwight Billings Award for Physiological Ecology for her oral presentation: "The resource-use efficiency of C3-C4 intermediate photosynthesis" with co-authors Joseph A. Berry and Christopher B. Field.

New Phytologist Poster Award 2014

Danielle Marias of Oregon State University is the winner of the *New Phytologist* Poster Award for her poster presentation: "Thermotolerance of *Coffea arabica*: Potential implications in a warming world" with co-authors Rick Meinzer and Chris Still.

Plant, Cell and Environment Postdoctoral Oral Presentation Award 2014

Jessica Savage at Harvard University is the winner of the 2014 Plant, Cell and Environment Postdoctoral Award in Physiological Ecology for her oral presentation: "The complexity of phloem structural diversity and its implications for angiosperm evolution" with co-authors Sierra Beecher, Jan Knoblauch, Michael Knoblauch and N. Michele Holbrook.

Winners receive a monetary award and books from Elsevier and CRC Press.

SECTION ACTIVITIES AT THE BALTIMORE 2015 ESA MEETING

Mixer and Business Meeting

In Baltimore, during the Centennial of the ESA, the Physiological Ecology Section will hold its annual mixer and business meeting on Wednesday, August 12, 2015, from 6:30-8:00 PM in the Camden Lobby, Baltimore Convention Center. In addition, the student travel grant awardees and the winners of the 2014 Billings, *New Phytologist*, and *Plant, Cell and Environment* awards will be announced, and monetary and book awards will be presented. Some topics to be discussed include:

1. Opportunities for student and postdoctoral development, such as *PHYS-Fest*, a field workshop in the summer of 2016, in which participants will collaborate in an ecophysiological sampling campaign to assess the physiological variability among grasses and woody plants at the Konza Prairie (further details to be provided at the meeting).
2. Promoting animal physiological ecology through section activities.
3. Mentorship opportunities for students, both as mentees and as mentors of less advanced students, such as K-12 students or undergraduates.
4. Fundraising efforts and endowment options to support student travel and awards.

SECTION RESOURCES

Web site: Our web site is <http://www.biology.duke.edu/jackson/ecophys/>. The web site is very dynamic, with regularly updated information about:

- faculty, postdoc, graduate, technician, and undergraduate positions
- meetings of interest to our membership and links to other societies
- resources for teaching and mentoring, time management, and writing
- books, equipment, and more!

Section booth at the ESA meetings: We will have a Physiological Ecology Section Booth at the annual meeting. The booth serves as a Section focal point, featuring:

- an area to post job announcements
- a listing of all the student entrants in the award competitions (and the judging ballot box)

- display of the student awards from the 2014 meeting.

Submitted by:

Gretchen North, Co-Chair