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Spring 2-1-2019

BIOS 595.01: ST - Systems Ecology Seminar

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BIOS 595 Systems Ecology Seminar (Spring 2019) - Thursdays, 3:30 to 4:40 pm in FOR 305

Instructor: Diana L. Six

Contact info: diana.six@umontana.edu Office Hours: T 10-11, 3, BRB 104

The spring seminar will consist of weekly seminars by local, national, and international scientists. The fall version will consist of weekly seminars presented by students participating in the course. The fall/spring combination is designed to provide exposure of students and faculty to science being conducted at UM and beyond, and to provide experience for students in presenting their research. Often, the seminar group will reconvene unofficially after the seminar in a casual setting to facilitate further interaction with speakers and the exchange of ideas.

Course Objectives

- 1) Encourage exchange of ideas among faculty and graduate students;
- 2) Exposure to cutting edge science in systems ecology;
- 3) Create community among Systems Ecology/Ecosystem Sciences/Ecology scholars at UM and beyond.

Learning outcomes:

- 1) The ability to critically review scientific literature.
- 2) A deeper understanding of scientific approaches and theory in Systems Ecology.
- 3) A better understanding of how to network professionally.

Expectations (spring seminar):

1. Every week you will read one assigned paper (by the speaker, assigned by the instructor) and formulate two questions for the guest speaker that week. The questions need to be submitted to me **(by email) by noon the day prior** to the seminar. It is up to you if you actually want to ask the questions at the seminar. However, active participation, including asking questions, is **highly** encouraged.
2. Participate in seminars. You get two free absences if I am notified in advance. You will need to complete an extra assignment for each additional class you miss. Missing one third of classes will automatically result in failing the course unless otherwise arranged.
3. Host (as a group, dividing the responsibilities) certain seminar speakers. This includes arranging airport pick up if needed, appointments, attending a lunch, and attending the social event after the seminar.

Academic Honesty

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the [Student Conduct Code](http://www.umt.edu/vpsa/policies/student_conduct.php) (http://www.umt.edu/vpsa/policies/student_conduct.php).

Accommodation for Students with Disabilities

If you are a student with a disability and wish to request reasonable accommodations for this course, contact me privately to discuss the specific modifications. Please be advised, I may request that you

provide a verification letter from Disability Services for Students. If you have not yet registered with Disability Services, located in Lommasson Center 154, please do so in order to coordinate your reasonable modifications. For more information, visit the Disability Services website at www.umt.edu/disability.

Grading: This course is credit/no credit

Systems Ecology Seminar Series Spring 2019

In room FOR 305 except where noted. Thursdays 3:30-4:20 pm

For information contact Diana L. Six at diana.six@umontana.edu

Date	Speaker	Affiliation	Title	Host	
Jan 10	Kim Davis	Postdoc, Systems Ecology, University of Montana	Effects of climate, fire severity, and biotic interactions on post-fire conifer regeneration in low elevation forests	Phil Higuera	
Jan 17	Matt Jones	Research Professor, NTSG, University of Montana	Utilizing big data and machine learning in advanced land cover mapping and rangeland conservation	Diana Six	
Jan 24	John McCutcheon	Associate Professor, Division of Biological Sciences, University of Montana	When a good bacterial endosymbiont goes bad	Diana Six	
Jan 31	Cory Cleveland	Professor, Ecosystem and Conservation Sciences, University of Montana	Biogeochemical constraints on the global carbon cycle	Diana Six	
Feb 7	Sini Kantola	Fulbright Scholar, Aldo Leopold Institute and University of Ooua, Finland	Using PPGIS - Locally Informed Land Use Planning in a sparse population, the Far North of Finland, Lapland	SE students	
Feb 14	Zhihua Liu	Postdoc, Systems Ecology, University of Montana	Understanding interactions among fire, ecosystems, and climate change, across scales	Ash Ballantyne	
Feb 21	Bob Hall	Professor, Flathead Lake Biological Station, University of Montana	Carbon cycling in some streams	Diana Six	
Feb 28	Jeff Gailus	Adjunct Professor, Environmental Journalism, University of Montana	Science and journalism: a symbiosis story	Diana Six	
Mar 7	Martha Apple	Professor, Biological Sciences, Montana Tech	Plant functional traits and microbes vary with position on periglacial patterned ground at Glacier National Park, Montana	SE students	
Mar 14	Joanna Blaszczak	Postdoc, Flathead Lake Biological Station, University of Montana	Exploring drivers of ecosystem productivity and carbon cycling in rivers	Diana Six	
Mar 28	Spring Break	No seminar			

Apr 4	William Anderegg	Assistant Professor, Biology, University of Utah	Predicting the future of western US forests with drought and climate change with plant hydraulic models	SE students
Apr 11	Amy Trowbridge	Assistant Professor, Land Resources and Environmental Sciences, Montana State University	Mechanisms underlying drought-induced shifts in tree investment toward chemical defenses: implications for conifer-bark beetle interactions	SE students
Apr 18	Jessica Mitchell	Spatial Analysis Lab Director, Montana Natural Heritage Program, University of Montana	Spatial analysis lab introductions and biodiversity mapping	Diana Six
Apr 25	Jim Elser	Bierman Professor of Ecology, Director, Flathead Lake Biological Station, University of Montana	Phosphorus, food and our future	Diana Six
May 2	Alex Metcalf			Diana Six