

International Symposium on Science, Sustainability and Teaching

Illinois College Jacksonville, Illinois

March 18 & 19, 2016

Welcome to the second International Symposium on Science, Sustainability and Teaching at Illinois College!

This Symposium is made possible by an Implementation Grant from the Henry Luce Foundation's Luce Initiative on Asian Studies and the Environment (LIASE). We are grateful for the Luce Foundation's support of our growing connections between Asian studies and the sciences at Illinois College.

We would also like to thank our partner institutions in Japan: Ritsumeikan University and Kanazawa University.

We hope you find the Symposium stimulating and engaging, and encourage you to explore some of the other activities listed in the back of this program.

Laura Corey

Associate Professor of Biology, Illinois College Coordinator, Forging New Collaborations on Environment and Sustainability Grant







Schedule - Friday, March 18

4:00 p.m. Panel discussion: Incorporating Asian Environmental Studies Issues into the Science Classroom - Parker Science Hall 106. Pat Kiihne, Mathematics, Laura Corey, Biology, Jason Price, Environmental Studies, Elizabeth Rellinger-Zettler, Psychology

5:00 p.m. Opening reception and Poster Session – Parker Science Hall Rotunda

6:00 p.m. Banquet - Cummings Dining Hall

Coffee, tea, and dessert will be available outside Kirby Learning Center Room 006, beginning at 7 p.m.

7:30 p.m. Welcome – Dr. Adam Porter, Dean of the Faculty, Illinois College



Dr. Mikio Nishizawa, Professor of Biomedical Sciences, College of Life Sciences, Ritsumeikan University.

Post-transcriptional regulation of inducible genes by natural antisense transcripts and involvement of herbal medicine - Kirby Learning Center Room 006 - **CONVO**

Poster Presentations - Friday, March 18 Parker Science Hall Rotunda

Illinois College Summer 2016 Group Research Trip to Japan - Student Projects

Faculty Mentors: Mioko Webster and Kevin Klein

- The Energy Life Cycle of Food Production and Consumption *Rachel Buente*
- The Economic and Environmental Implications of Fukushima Daiichi Nuclear Disaster. Victoria Wynecoop, Julia Mendez, and Tuan Le Ahn
- Unconventional Gas Extraction in Japan. *Kristen Wiley*
- Green Transportation: Bicycles in Japan. Dayana Vazquez Buquer
- Decreasing the Populations of Nonindigenous Species in Lake Biwa, Japan. *Jill Friedrich*
- The impact of human activity on Lake Biwa and the need for water management. *Sam Welbourne*

These students and their faculty mentors will travel to Japan this summer to carry out their research projects.

Poster Presentations - Friday, March 18 Parker Science Hall Rotunda

Identification of orchid mycorrhizal fungi from Madagascar Kaz Yokoya¹, Lawrence W Zettler², Jonathan P Kendon¹, Martin I Bidartondo, ³¹, Andrew L Stice², **Shannon Skarha²**, Laura L Corey², Audrey C Knight², Viswambharan Sarasan¹ ¹Royal Botanic Gardens, Kew, United Kingdom ²Illinois College, Jacksonville, IL ³Imperial College London, United Kingdom

Measuring Genetic Diversity of an Underutilized Tropical Fruit Tree Crop: *Artocarpus odoratissimus Matt Murphy*¹, *Elliot Gardner*², Nyree Zerega² ¹ Illinois College, Jacksonville, IL ² Northwestern University, Evanston, IL

Ongoing Work to Prepare Muscone *Tuan Le Anh* and Brent D. Chandler Illinois College, Jacksonville, IL

Developing and Publishing a Japanese-English Visual Dictionary for the Laboratory *Laura Corey*^t, *Danielle Trierweiler*^t, *Hiroko Uchida*² ¹ Illinois College, Jacksonville, IL ²Ritsumeikan University, Kusatsu, Shiga, Japan

Schedule - Saturday, March 19

Coffee, tea, fruit, and baked goods will be available outside Kirby Learning Center Room 006 beginning at 8:30 a.m.

9:00 a.m. Dr. Andy Moore, Associate Professor of Geology and Associate Academic Dean, Earlham College.

Establishing a tsunami history using the geological record - Kirby Learning Center Room 006 - **CONVO**

How often do tsunamis happen?



10:00 a.m. Student Presentations - Kirby Learning

Center Room 006

Ms. Ai Aoki, Kanazawa University. Some Observations in Phnom Kulen National Park in Cambodia - An Environmental and Cultural Sanctuary in the Angkor World Heritage site

Ms. Airi Fujii, Ritsmeikan University. The effects of the herbal medicine Coptis Rhizome on the expression of inducible nitric oxide synthase in interleukin 1 beta-treated hepatocytes

11:00 a.m. Dr. Shinji Tsukawaki, Professor of



Sedimentary Geology, Institute of Nature and Environmental Technology, Kanazawa University.

An Environmental Crisis in the Angkor World Heritage of Cambodia – A Complex of Natural Environment, Cultural Heritage and Local Society. Kirby Learning Center Room 006 – **CONVO**

12:00 p.m. Lunch - Cummings Dining Hall

Coffee, tea, and dessert will be available outside Kirby Learning Center Room 006 beginning at 1:15.



1:30 p.m. Dr. Dennis Whigham, Senior Research Plant Ecologist, Smithsonian Environmental Research Center.

Conservation Efforts in Japan – Using Science to Help Citizen-based Initiatives. Kirby Learning Center Room 006 - **CONVO**

Schedule - Saturday, March 19, Continued

2:30 p.m. **Dr. Larry Zettler**, Professor of Biology, Illinois College.



The Illinois College Orchid Recovery Program: a model for international research collaboration with undergraduate students. Kirby Learning Center Room 006.

3:15 p.m. Discussion: Establishing Effective International Undergraduate Research Programs. Kirby 110.

> Steven Gardner, Modern Languages – Spanish Larry Zettler, Biology Laura Corey, Biology

4:00 p.m. Symposium closes.

Please recycle your name badge!

As you leave, please hang your name badge on the easel outside Kirby Learning Center Room 006.

Views of Japan Trip in May 2017



for Illinois College Alumni and Ritsumeikan IEP Participants!

Come experience the beauty and mystique of Japan with Illinois College President Barbara Farley as we celebrate 30 years of partnership with Ritsumeikan University in Kyoto, Japan! This Illinois College exclusive two week tour, arranged by SmarTours, will include:

- Sights of Tokyo and surrounding area (including Mount Fuji!)
- Takayama, delightful town nestled in the Japanese Alps
- Kanazawa, home of the renowned Kenrokuen Garden
- Kyoto with its many temples and shrines; special activities hosted by Ritsumeikan University
- Hiroshima and the Peace Memorial Museum
- And much more!

More information can be found online: http://www.ic.edu/alumni

Forging New Collaborations on Environment and Sustainability



Funded in part through a LIASE grant from The Henry Luce Foundation



Forging New Collaborations on Environment and Sustainability Grant Activities 2015-2018

- Research experiences for students:
 - Group Research Trip with faculty three-week trips, Summer 2016 & 2018
 - Research Abroad Program ten-week individual research experience – Summers 2016, 2017, and 2018
 - Support for partnership between Illinois College Japanese-fluent faculty and science faculty to supervise student research in Japanese
- Language-intensive summer internships (Summer 2017 & 2018)
- Faculty travel to partner institutions
- Curriculum Development Accountability Group: Summer 2015 & 2017
- International Symposia on Science, Sustainability, and Teaching: March 2016 & 2018
- Language and cultural learning for Illinois College faculty and staff
- Graduate Internships Ritsumeikan University graduate students visit Illinois College in August and September



- 1. Tanner Hall Office of Admission
- 2. Crispin Hall
- 3. Whipple Hall
- 4. Rammelkamp Chapel
- 5. Octagon House
- 6. Alumni House/ Office of Development
- 7. German House
- 8. Spanish House
- 9. College Apartments
- 10. McGaw Fine Arts Center
- 11. Crampton Hall
- 12. Beecher Hall
- 13. Sturtevant Hall

- 14. Schewe Library
- 15. Barnes House
- 16. Parker Science Building
- 17. Baxter Hall

The Coffee Shop

- 18. Kirby Learning Center 19. Ellis Hall
- 20. Fayerweather House
- 21. David A. Smith House
- 22. Memorial Gymnasium
- 23. Gardner Hall
- Public Safety
- 24. Turner Hall
- 25. Pixley Hall
- 26. Mundinger Hall

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- 27. Cummings Dining Hall
- 28. Caine Student Center
- 29. Abraham Lincoln Hall IC Store
- 30. Greene Hall
- 31. Bruner Fitness and Recreation Center
- 32. Ware Family Track
- 33. England Stadium
- 34. Green Athletic Field
- 35. Campus Services Building
- 36. Joe Brooks Baseball Field
- 37. Bellatti Tennis Complex
- 38. Soccer Field
- 39. Jessica Kamp Softball Field
- 40. Hoagland Field