

1-1-2004

Integrative model of graduate education in biodiversity conservation and sustainable production in fragmented landscapes

Jo Ellen Force

Department of Forest Resources, University of Idaho, Moscow

Lisette Waits

Department of Fish and Wildlife, University of Idaho, Moscow

Nilsa Bosque-Perez

Department of Plant, Soil and Entomological Sciences, University of Idaho, Moscow

Sanford Eigenbrode

Department of Plant, Soil and Entomological Sciences, University of Idaho, Moscow

Paul McDaniel

Department of Plant, Soil and Entomological Science, University of Idaho, Moscow

See next page for additional authors

Follow this and additional works at: <http://digitalcommons.usu.edu/nrei>

Recommended Citation

Force, Jo Ellen; Waits, Lisette; Bosque-Perez, Nilsa; Eigenbrode, Sanford; McDaniel, Paul; Wulfhorst, J. D.; Boll, Jan; Finegan, Bryan; Harvey, Celia; and Somarriba, Eduardo (2004) "Integrative model of graduate education in biodiversity conservation and sustainable production in fragmented landscapes," *Natural Resources and Environmental Issues*: Vol. 12, Article 45.

Available at: <http://digitalcommons.usu.edu/nrei/vol12/iss1/45>

This Article is brought to you for free and open access by the Quinney Natural Resources Research Library, S.J. and Jessie E. at DigitalCommons@USU. It has been accepted for inclusion in Natural Resources and Environmental Issues by an authorized administrator of DigitalCommons@USU. For more information, please contact becky.thoms@usu.edu.



Authors

Jo Ellen Force, Lisette Waits, Nilsa Bosque-Perez, Sanford Eigenbrode, Paul McDaniel, J. D. Wulfhorst, Jan Boll, Bryan Finegan, Celia Harvey, and Eduardo Somarriba

An Integrative Model of Graduate Education in Biodiversity Conservation and Sustainable Production in Fragmented Landscapes

Jo Ellen Force¹, Lisette Waits², Nilsa Bosque-Perez³, Sanford Eigenbrode⁴,
Steven Brunsfeld⁵, Paul McDaniel⁶, J. D. Wulffhorst⁷, Jan Boll⁸, Bryan Finegan⁹,
Celia Harvey¹⁰ and Eduardo Somarriba¹¹

To achieve biodiversity conservation and sustainable production in anthropogenically fragmented landscapes, scientists need to be trained in a holistic fashion that emphasizes integration and interdisciplinary collaboration. Traditional graduate programs in natural resources, conservation biology and agricultural sciences usually fall short of this goal as they train scientists with research knowledge and skills in narrowly defined disciplines. Rarely, if ever, is integration across disciplines facilitated, valued, or emphasized in either coursework or research activities. We present a NSF Integrative Graduate Education Research Training (IGERT) funded experiment in graduate education that designs and evaluates an integrative educational model with an emphasis on developing interdisciplinary research knowledge and skills in the biological/ecological, physical and social sciences. This educational program involves faculty and students from seven departments and two colleges at the University of Idaho and several research areas at the Tropical Agricultural Research and Higher Education Center (CATIE) in Turrialba, Costa Rica. Nineteen doctoral students have been recruited and are working in five interdisciplinary teams to address research questions in biodiversity conservation and sustainable production in temperate and tropical ecosystems in Idaho and Costa Rica. Team members represent conservation genetics, forest ecology, agroecology, entomology, soil science, water quality, aquatic ecology, GIS, sociology and economics. As we approach the halfway mark of this five-year project, recruitment of doctoral fellows, the structure of the academic program and the interdisciplinary teams, the challenges we've faced and the successes of this new graduate program will be highlighted.

Authors 1-8 from the University of Idaho, Moscow, ID 83844

¹Department of Forest Resources, CNR, joellen@uidaho.edu

²Department of Fish & Wildlife, CNR, 83844; lwaits@uidaho.edu

³Department of Plant, Soil and Entomological Sciences, CALS, nbosque@uidaho.edu

⁴Department of Plant, Soil and Entomological Sciences, CALS, sanforde@uidaho.edu

⁵Department of Forest Resources, CNR, sbuns@uidaho.edu

⁶Department of Plant, Soil and Entomological Sciences, CALS, pmcdaniel@uidaho.edu

⁷Department of Agricultural Economics and Rural Sociology, CALS, jd@uidaho.edu

⁸Department of Biological and Agricultural Engineering, CALS; jboll@uidaho.edu

Authors 9-11 from Turrialba, Costa Rica

⁹Tropical Agricultural Research and Higher Education Center (CATIE), Apartado 93-7170, bfinegan@catie.ac.cr

¹⁰Tropical Agricultural Research and Higher Education Center (CATIE), charvey@catie.ac.cr

¹¹Tropical Agricultural Research and Higher Education Center (CATIE), esomarri@catie.ac.cr