

# Dan Flynn

Columbia University

Ecology, Evolution, and Environmental Biology

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## EDUCATION

*PhD* Ecology, Evolution, and Environmental Biology, Columbia University, New York 2005-2011  
Title: *Linking plant traits and herbivory in grassland biodiversity-ecosystem functioning research*

*BA* Oberlin College, OH. Major in Biology. 2001

## FELLOWSHIPS AND AWARDS

*Fellow* National Science Foundation, Graduate Research Fellowship 2007-2009  
Awarded to support doctoral research.

*Grantee* Columbia University, Institute of Latin American Studies 2007  
Awarded in support of research on forest succession in Puerto Rico.

*Fellow* Oberlin College, Alumni Graduate Fellowship 2006  
Awarded to support preliminary doctoral research in Inner Mongolia, China.

*Fellow* Oberlin Shansi Memorial Association. 2002-2003  
Awarded to outstanding graduates of Oberlin College to support cross-cultural exchange, independent projects, and language education in Asia.

*Winter Term Fellow* University of Arizona, Department of Plant Pathology 2000  
Awarded to support visiting students performing independent research.

*Joshua Levitt Memorial Award* Oberlin College, Department of Biology 2000  
Awarded to top biology majors in recognition of academic excellence.

## RESEARCH POSITIONS

*Research Assistant* ROWLAND INSTITUTE AT HARVARD, MA 2005  
Aided research on the chemical ecology of parasitic plant and host plant associations. Planned and conducted experiments using short-lived radioisotopes at Brookhaven National Laboratory. Assisted in constructing chromatographic profile of plant defense compounds.

*Visiting Researcher* PEKING UNIVERSITY, Beijing, China 2003-2005

Collaborated on research papers on plant communities under global change. Specific projects included investigating China's grassland carbon cycle; plant-insect interactions; patterns of leaf nitrogen concentration across China's grasslands; and interactions between planting density, biodiversity, and productivity. Translated and edited papers written by Chinese colleagues; taught specialized ecology and environmental science English to doctoral candidates.

*Research Assistant* HARVARD UNIVERSITY, MA 2001-2002, 2003  
Supported plant ecology and global climate change research. Assisted in managing greenhouse, experimental garden, and open-top chamber CO<sub>2</sub> enrichment experiment. Independently designed, conducted, and prepared manuscript reporting research on effects of aphid herbivory on a common weed under elevated temperature and CO<sub>2</sub> conditions.

*Research Assistant* UNIVERSITY OF VIRGINIA, VA 2000  
Assisted in population genetic research in natural plant populations at the Mountain Lake Biological Station. Conducted cross-pollinations in remote field sites.

## TEACHING

*Consultant* BARNARD COLLEGE DEPARTMENT OF BIOLOGY 2006-2010  
Prepared a web-based tutorial in the statistical software SPSS for undergraduate courses. Enhancing introductory biology curriculum with statistics modules.

*Teaching Assistant* COLUMBIA UNIVERSITY 2006-2008  
Spring 2008 – Statistical Inference in Ecology and Evolutionary Biology.  
Spring 2007 – Introductory Biology.  
Fall 2006 – Forest Ecology.

*Editor-in-Chief* COLUMBIA UNDERGRADUATE SCIENCE JOURNAL 2005-2006  
Worked with undergraduate students to establish a new peer-reviewed science journal for undergraduates. Mentored several students in manuscript preparation.

*MacGregor-Oresman Curriculum Assistant* OBERLIN COLLEGE, OH 2001  
Aided in the design and development of a new course on Biology and Society.

## PROFESSIONAL SERVICE

*Reviewer* Biotropica, Caribbean Journal of Science; Ecology Letters; Journal of Animal Ecology; Oecologia; Oikos; New Phytologist; Perspectives on Plant Ecology, Evolution, and Systematics; PLoS One.

*Member* Ecological Society of America.

**SKILLS**

*Languages* Chinese – Literate, conversational; Spanish – Basic.

*Computer* Proficient in R (statistical programming language), web design, ArcGIS, Unix.

**PUBLICATIONS***In press*

Lin BB, **DFB Flynn**, DE Bunker, M Uriarte, S Naeem. The effect of agricultural diversity and crop choice on functional capacity change in Great Plains grassland conversions. *Journal of Applied Ecology*.

*2010*

**Flynn, DFB**, M Uriarte, T Crk, JB Pascarella, JK Zimmerman, TM Aide, MAC Ortiz. 2010. Hurricane disturbance alters secondary forest recovery in Puerto Rico. *Biotropica*. 42: 149–157.

He, J-S, X Wang, B Schmid, **DFB Flynn**, XF Li, PB Reich, and J Fang. Taxonomic identity, phylogeny, climate and soil fertility as drivers of leaf traits across Chinese grassland biomes. *Journal of Plant Research*. 123: 551-561.

*2009*

**Flynn, DFB**, M Gogol-Prokurat, T Nogeire, N Molinari, B Trautman Richers, BB Lin, N Simpson, MM Mayfield and F DeClerck. 2009. Loss of functional diversity under land use intensification across multiple taxa. *Ecology Letters*. 12: 22-33.

He JS, X Wang, **DFB Flynn**, L Wang, B Schmid, J Fang. 2009. Taxonomic, phylogenetic and environmental tradeoffs between leaf productivity and persistence. *Ecology*. 90: 2779-2791.

Philpott, SM, O Soong, JH Lowenstein, AL Pulido, DT Lopez, **DFB Flynn**, F DeClerck. 2009. Functional richness and ecosystem services: Bird predation on arthropods in tropical agroecosystems. *Ecological Applications* 19: 158-1867.

Crk T, M Uriarte, F Corsi, **D Flynn**. 2009. Forest recovery in a tropical landscape: What is the relative importance of biophysical, socioeconomic, and landscape variables? *Landscape Ecology*. 24: 629-642.

Uriarte, M, C Yackulic, T Cooper, **DFB Flynn**, M Cortes, T Crk, G Cullman, M McGinty, J Sircely. 2009. Expansion of sugarcane production in São Paulo, Brazil: Implications for fire occurrence and respiratory health. *Agriculture, Ecosystems, & Environment*. 132: 48-56.

Brown KA, JC Ingram, **DFB Flynn**, RJ Razafindrazaka, VH Jeannoda. 2009. Protected areas safeguard

tree and shrub communities from degradation and invasion: a case study in eastern Madagascar. *Environmental Management*. 44: 136-148.

Solan, M, JA Godbold, A Symstad, **DFB Flynn**, D Bunker. 2009. Biodiversity-ecosystem function research and biodiversity futures: early bird catches the worm or a day late and a dollar short? *In* D Bunker, S Naeem, M Loreau, A Hector, Eds. The Consequences of Changing Biodiversity: Solutions and Scenarios. Oxford University Press.

Petchey, OL, E O'Gorman, **DFB Flynn**. 2009. A functional guide to functional diversity measures. *In* D Bunker, S Naeem, M Loreau, A Hector, Eds. The Consequences of Changing Biodiversity: Solutions and Scenarios. Oxford University Press.

## 2008

**Flynn, DFB**, B Schmid, JS He, K Wolfe-Bellin, FA Bazzaz. 2008. Hierarchical reliability in experimental plant assemblages. *Journal of Plant Ecology*. 1: 59:65.

He JS, L Wang, **DFB Flynn**, W Ma, X Wang, J Fang. 2008. Leaf nitrogen:phosphorus stoichiometry across Chinese grassland biomes. *Oecologia*. 1: 301-310.

## 2006

**Flynn, DFB**, EA Sudderth, FA Bazzaz. 2006. Effects of aphid herbivory on biomass and leaf-level physiology of *Solanum dulcamara* under elevated temperature and CO<sub>2</sub>. *Environmental and Experimental Botany*. 56: 10-18.

He, JS, JY Fang, ZH Wang, DL Guo, **DFB Flynn**, Z Geng. 2006. Stoichiometry and large-scale patterns of leaf carbon and nitrogen in the grassland biomes of China. *Oecologia* 149: 115-122.

## 2005

He, JS, **DFB Flynn**, K Wolfe-Bellin, JY Fang, FA Bazzaz. 2005. CO<sub>2</sub> and nitrogen, but not density, alter size and C/N ratio of *Phytolacca americana* seeds. *Functional Ecology* 19: 437-444.

Zuo, WY, JS He, M Han, CJ Ji, **DFB Flynn**, JY Fang. 2005. Responses of plant stomata to elevated CO<sub>2</sub> and temperature: observations from 10 plant species grown in temperature and CO<sub>2</sub> gradients. *Acta Ecologica Sinica* 25: 565-574. (In Chinese with English abstract).

## Presentations and invited talks

2010 Ecological Society of America - Annual Meeting

2009 University of Zurich - By invitation of Bernhard Schmid

2009 Stanford University - By invitation of Tadashi Fukami

2009 Ecological Society of America - Annual Meeting

2007 Ecological Society of America - Annual Meeting (Co-author)

2005 University of Vermont - Sino-USA Symposium on Ecosystem Complexity and Ecosystem Services  
(Poster)

2003 Beijing Normal University - Conference on Plant Biology