

February 2013

esa

Volume 94 No. 2

# ECOLOGY

A PUBLICATION OF THE ECOLOGICAL SOCIETY OF AMERICA



## ***Reports***

Where do seeds go when they go far? Distance and directionality of avian seed dispersal in heterogeneous landscapes

## ***Articles***

Precipitation legacies in desert grassland primary production occur through previous-year tiller density

Experimental plant communities develop phylogenetically overdispersed abundance distributions during assembly

Synchrony in dynamics of giant kelp forests is driven by both local recruitment and regional environmental controls

## CONTENTS

### Reports

**267**

Moth herbivory enhances resource turnover in subarctic mountain birch forests? • MAARIT KAUKONEN, ANNA LIISA RUOTSALAINEN, PIIPA R. WÄLLI, MINNA K. MÄNNISTÖ, HEIKKI SETÄLÄ, KARITA SARAVESI, KAROLIINA HUUSKO, AND ANNAMARI MARKKOLA

**273**

Yeasts in nectar of an early-blooming herb: sought by bumble bees, detrimental to plant fecundity • CARLOS M. HERRERA, MARÍA I. POZO, AND MÓNICA MEDRANO

**280**

Fuzzy coding in constrained ordinations • MICHAEL GREENACRE

**287**

Spatial capture-recapture models for jointly estimating population density and landscape connectivity • J. ANDREW ROYLE, RICHARD B. CHANDLER, KIMBERLY D. GAZENSKI, AND TABITHA A. GRAVES

**295**

What causes size coupling in fruit-frugivore interaction webs? • K. C. BURNS

**301**

Where do seeds go when they go far? Distance and directionality of avian seed dispersal in heterogeneous landscapes • TOMÁS A. CARLO, DANIEL GARCÍA, DANIEL MARTÍNEZ, JASON M. GLEDITSCH, AND JUAN M. MORALES

**308**

Phytochemistry predicts habitat selection by an avian herbivore at multiple spatial scales • GRAHAM G. FRYE, JOHN W. CONNELLY, DAVID D. MUSIL, AND JENNIFER S. FORBEY

### Concepts and Synthesis

**315**

The relationship between offspring size and fitness: integrating theory and empiricism • NJAL ROLLINSON AND JEFFREY A. HUTCHINGS

### Articles

**325**

Does coloniality improve foraging efficiency and nestling provisioning? A field experiment in the wild Zebra Finch • MYLENE M. MARIETTE AND SIMON C. GRIFFITH

**336**

Phenotypic and fitness consequences of maternal nest-site choice across multiple early life stages • TIMOTHY S. MITCHELL, DANIEL A. WARNER, AND FREDRIC J. JANZEN

**346**

Ecological and dietary correlates of stable hydrogen isotope ratios in fur and body water of syntopic tropical bats • CHRISTIAN C. VOIGT, KARIN SCHNEEBERGER, AND ANJA LUCKNER

**356**

Limitation and facilitation of one of the world's most invasive fish: an intercontinental comparison • PHAEDRA BUDY, GARY P. THIEDE, JAVIER LOBÓN-CERVIÁ, GUSTAVO GONZALEZ FERNANDEZ, PETER McHUGH, ANGUS McINTOSH, LIEF ASBJØRN VØLLESTAD, ELOY BECARES, AND PHILLIP JELLYMAN

**368**

Bridging the gap between theoretical ecology and real ecosystems: modeling invertebrate community composition in streams • NELE SCHUWIRTH AND PETER REICHERT

**380**

Potassium stimulates fungal epidemics in *Daphnia* by increasing host and parasite reproduction • DAVID J. CIVITELLO, RACHEL M. PENCZYKOWSKI, JESSICA L. HITE, MEGHAN A. DUFFY, AND SPENCER R. HALL

**389**

Climatic and land cover influences on the spatio-temporal dynamics of Holocene boreal fire regimes • CAROLYN M. BARRETT, RYAN KELLY, PHILIP E. HIGUERA, AND FENG SHENG HU

**403**

The responses of soil and rhizosphere respiration to simulated climatic changes vary by season • VIDYA SUSEELA AND JEFFREY S. DUKES

**414**

Survivors, not invaders, control forest development following simulated hurricane • AUDREY BARKER PLOTKIN, DAVID FOSTER, JOEL CARLSON, AND ALISON MAGILL

**424**

Understory plant communities and the functional distinction between savanna trees, forest trees, and pines • JOSEPH W. VELDMAN, W. BRETT MATTINGLY, AND LARS A. BRUDVIG