

August 2014

esa

Volume 95 No. 8

ECOLOGY

A PUBLICATION OF THE ECOLOGICAL SOCIETY OF AMERICA



Reports

Longitudinal bio-logging reveals interplay between extrinsic and intrinsic carry-over effects in a long-lived vertebrate

Concepts and Synthesis

Disentangling the environmental-heterogeneity–species-diversity relationship along a gradient of human footprint

Articles

Estimating unbiased phenological trends by adapting site-occupancy models
A hierarchical perspective on the diversity of butterfly species' responses to weather in the Sierra Nevada Mountains

CONTENTS

Reports

2033

Landscape corridors can increase invasion by an exotic species and reduce diversity of native species • JULIAN RESASCO, NICK M. HADDAD, JOHN L. ORROCK, DEWAYNE SHOEMAKER, LARS A. BRUDVIG, ELLEN I. DAMSCHEN, JOSHUA J. TEWKSBURY, AND DOUGLAS J. LEVEY

2040

Forest stand structure, productivity, and age mediate climatic effects on aspen decline • DAVID M. BELL, JOHN B. BRADFORD, AND WILLIAM K. LAUENROTH

2047

Spatially nonrandom tree mortality and ingrowth maintain equilibrium pattern in an old-growth *Pseudotsuga-Tsuga* forest • JAMES A. LUTZ, ANDREW J. LARSON, TUCKER J. FURNISS, DANIEL C. DONATO, JAMES A. FREUND, MARK E. SWANSON, KENNETH J. BIBLE, JIQUAN CHEN, AND JERRY F. FRANKLIN

2055

Why species matter: an experimental assessment of assumptions and predictive ability of two functional-group models • CAITLIN R. FONG AND PEGGY FONG

2062

Stem, root, and older leaf N:P ratios are more responsive indicators of soil nutrient availability than new foliage • L. A. SCHREEG, L. S. SANTIAGO, S. J. WRIGHT, AND B. L. TURNER

2069

Density-dependent state-space model for population-abundance data with unequal time intervals • BRIAN DENNIS AND JOSÉ MIGUEL PONCIANO

2077

Longitudinal bio-logging reveals interplay between extrinsic and intrinsic carry-over effects in a long-lived vertebrate • F. DAUNT, T. E. REED, M. NEWELL, S. BURTHE, R. A. PHILLIPS, S. LEWIS, AND S. WANLESS

Concepts and Synthesis

2084

Disentangling the environmental-heterogeneity-species-diversity relationship along a gradient of human footprint • IAN SEIFERLING, RAPHAËL PROULX, AND CHRISTIAN WIRTH

Articles

2096

Quantifying the dominance of local control and the sources of regional control in the assembly of a metacommunity • CHRIS RAY AND SHARON K. COLLINGE

2109

A mechanistic-bioclimatic modeling analysis of the potential impact of climate change on biomes of the Tibetan Plateau • JIAN-SHENG YE, JAMES F. REYNOLDS, AND FENG-MIN LI

2121

Functional response of U.S. grasslands to the early 21st-century drought • M. SUSAN MORAN, GUILLERMO E. PONCE-CAMPOS, ALFREDO HUETE, MITCHEL P. MCCLARAN, YONGGUANG ZHANG, ERIK P. HAMERLYNCK, DAVID J. AUGUSTINE, STACEY A. GUNTER, STANLEY G. KITCHEN, DEBRA P. C. PETERS, PATRICK J. STARKS, AND MARIANO HERNANDEZ

2134

The impact of seasonality in temperature on thermal tolerance and elevational range size • KIMBERLY S. SHELDON AND JOSHUA J. TEWKSBURY

2144

Estimating unbiased phenological trends by adapting site-occupancy models • TOBIAS ROTH, NICOLAS STREBEL, AND VALENTIN AMRHEIN

2155

A hierarchical perspective on the diversity of butterfly species' responses to weather in the Sierra Nevada Mountains • CHRIS C. NICE, MATTHEW L. FORISTER, ZACHARIAH GOMPERT, JAMES A. FORDYCE, AND ARTHUR M. SHAPIRO

2169

Disturbance and clonal reproduction determine liana distribution and maintain liana diversity in a tropical forest • ALICIA LEDO AND STEFAN A. SCHNITZER

2179

How do habitat filtering and niche conservatism affect community composition at different taxonomic resolutions? • FRANÇOIS MUNOZ, B. R. RAMESH, AND PIERRE COUTERON