

December 2014



Volume 24 No. 8

Ecological APPLICATIONS

A PUBLICATION OF THE ECOLOGICAL SOCIETY OF AMERICA



Communications

Beyond reducing fire hazard: fuel treatment impacts on overstory tree survival

Articles

Are biological communities in naturally unproductive streams resistant to additional anthropogenic stressors?

Is U.S. climatic diversity well represented within the existing federal protection network?

Long-term monitoring reveals differing impacts of elephants on elements of a canopy shrub community

Ecological Applications

VOL. 24 • NO. 8 • DECEMBER 2014

ISSN 1051-0761

CONTENTS

Communications

1879

Beyond reducing fire hazard: fuel treatment impacts on overstory tree survival • BRANDON M. COLLINS, ADRIAN J. DAS, JOHN J. BATTLES, DANNY L. FRY, KEVIN D. KRASNOW, AND SCOTT L. STEPHENS

Articles

1887

Are biological communities in naturally unproductive streams resistant to additional anthropogenic stressors? • M. ANNALA, H. MYKRÄ, M. TOLKKINEN, T. KAUPPILA, AND T. MUOTKA

1898

Is U.S. climatic diversity well represented within the existing federal protection network? • ENRIC BATLLORI, CAROL MILLER, MARC-ANDRÉ PARISIEN, SEAN A. PARKS, AND MAX A. MORITZ

1908

Dry forest resilience varies under simulated climate-management scenarios in a central Oregon, USA landscape • JOSHUA S. HALOFSKY, JESSICA E. HALOFSKY, THERESA BURCSU, AND MILES A. HEMSTROM

1926

Effects of climate and nutrient load on the water quality of shallow lakes assessed through ensemble runs by PCLake • ANDERS NIELSEN, DENNIS TROLLE, RIKKE BJERRING, MARTIN SØNDERGAARD, JØRGEN E. OLESEN, JAN H. JANSE, WOLF M. MOOIJ, AND ERIK JEPPESEN

1945

Agrochemicals indirectly increase survival of *E. coli* O157:H7 and indicator bacteria by reducing ecosystem services • ZACHERY R. STALEY, JASON R. ROHR, JACOB K. SENKBEL, AND VALERIE J. HARWOOD

1954

Groundwater availability mediates the ecosystem effects of an invasion of *Prosopis pallida* • BRUCE D. DUDLEY, R. FLINT HUGHES, AND REBECCA OSTERTAG

1972

Limitations of extrapolating toxic effects on reproduction to the population level • BENJAMIN MARTIN, TJALLING JAGER, ROGER M. NISBET, THOMAS G. PREUSS, AND VOLKER GRIMM

1984

Aboveground biomass mapping of African forest mosaics using canopy texture analysis: toward a regional approach • JEAN-FRANÇOIS BASTIN, NICOLAS BARBIER, PIERRE COUTERON, BENOÎT ADAMS, AURÉLIE SHAPIRO, JAN BOGAERT, AND CHARLES DE CANNIÈRE

2002

Long-term monitoring reveals differing impacts of elephants on elements of a canopy shrub community • MARIETJIE LANDMAN, DAVID S. SCHOEMAN, ANTHONY J. HALL-MARTIN, AND GRAHAM I. H. KERLEY

2013

Habitat- and rainfall-dependent biodiversity responses to cattle removal in an arid woodland-grassland environment • ANKE S. K. FRANK, GLENDA M. WARDLE, CHRIS R. DICKMAN, AND AARON C. GREENVILLE

2029

Selective-logging and oil palm: multitaxon impacts, biodiversity indicators, and trade-offs for conservation planning • DAVID P. EDWARDS, AINHOA MAGRACH, PAUL WOODCOCK, YINQIU JI, NORMAN T.-L. LIM, FELICITY A. EDWARDS, TROND H. LARSEN, WAYNE W. HSU, SUZAN BENEDICK, CHEY VUN KHEN, ARTHUR Y.C. CHUNG, GLEN REYNOLDS, BRENDAN FISHER, WILLIAM F. LAURANCE, DAVID S. WILCOVE, KEITH C. HAMER, AND DOUGLAS W. YU

2050

Cultivation can increase harvesting pressure on overexploited plant populations • S. J. WILLIAMS, J. P. G. JONES, R. ANNEWANDTER, AND J. M. GIBBONS

2063

Disturbance legacies increase the resilience of forest ecosystem structure, composition, and functioning • RUPERT SEIDL, WERNER RAMMER, AND THOMAS A. SPIES

2078

Biomass growth response to spatial pattern of variable-retention harvesting in a northern Minnesota pine ecosystem • BRIAN J. PALIK, REBECCA A. MONTGOMERY, PETER B. REICH, AND SUZANNE B. BOYDEN

Contents continued on inside of back cover