

## Contents

### Primary Research Articles

- 2981 Seasonal sea ice cover as principal driver of spatial and temporal variation in depth extension and annual production of kelp in Greenland**  
Dorte Krause-Jensen, Núria Marbà, Birgit Olesen, Mikael K. Sejr, Peter Bondo Christensen, João Rodrigues, Paul E. Renaud, Thorsten J. S. Balsby and Søren Rysgaard
- 2995 Combining projected changes in species richness and composition reveals climate change impacts on coastal Mediterranean fish assemblages**  
Camille Albouy, François Guilhaumon, Miguel B. Araújo, David Mouillot and Fabien Leprieur
- 3004 No stimulation of nitrogen fixation by non-filamentous diazotrophs under elevated CO<sub>2</sub> in the South Pacific**  
Cliff S. Law, Eike Breitbarth, Linn J. Hoffmann, Christina M. McGraw, Rebecca J. Langlois, Julie LaRoche, Andrew Marriner and Karl A. Safi
- 3015 Sea anemones may thrive in a high CO<sub>2</sub> world**  
David J. Suggett, Jason M. Hall-Spencer, Riccardo Rodolfo-Metalpa, Toby G. Boatman, Ross Payton, D. Tye Pettay, Vivienne R. Johnson, Mark E. Warner and Tracy Lawson
- 3026 Marine invertebrate skeleton size varies with latitude, temperature and carbonate saturation: implications for global change and ocean acidification**  
Sue-Ann Watson, Lloyd S. Peck, Paul A. Tyler, Paul C. Southgate, Koh Siang Tan, Robert W. Day and Simon A. Morley
- 3039 Tracking climate impacts on the migratory monarch butterfly**  
Elise F. Zipkin, Leslie Ries, Rick Reeves, James Regetz and Karen S. Oberhauser
- 3050 Are responses of herbivores to environmental variability spatially consistent in alpine ecosystems?**  
Anders Nielsen, Nigel G. Yoccoz, Geir Steinheim, Geir O. Størvik, Yngve Rekdal, Michael Angeloff, Nathalie Pettorelli, Øystein Holand and Atle Mysterud
- 3063 The costs of keeping cool in a warming world: implications of high temperatures for foraging, thermoregulation and body condition of an arid-zone bird**  
Katherine L. du Plessis, Rowan O. Martin, Philip A. R. Hockey, Susan J. Cunningham and Amanda R. Ridley
- 3071 Strategic planning for instream flow restoration: a case study of potential climate change impacts in the central Columbia River basin**  
Erin E. Donley, Robert J. Naiman and Mathieu D. Marineau
- 3087 Carbon outcomes of major land-cover transitions in SE Asia: great uncertainties and REDD+ policy implications**  
Alan D. Ziegler, Jacob Phelps, Jia Qi Yuen, Edward L. Webb, Deborah Lawrence, Jeff M. Fox, Thilde B. Bruun, Stephen J. Leisz, Casey M. Ryan, Wolfram Dressler, Ole Mertz, Unai Pascual, Christine Padoch and Lian Pin Koh
- 3100 Different inter-annual responses to availability and form of nitrogen explain species coexistence in an alpine meadow community after release from grazing**  
Ming-Hua Song, Fei-Hai Yu, Hua Ouyang, Guang-Min Cao, Xing-Liang Xu and Johannes H. C. Cornelissen
- 3112 Carbon isotope evidence for recent climate-related enhancement of CO<sub>2</sub> assimilation and peat accumulation rates in Antarctica**  
Jessica Royles, Jérôme Ogée, Lisa Wingate, Dominic A. Hodgson, Peter Convey and Howard Griffiths

*contents continued on inside back cover*

# Contents (*continued*)

- 3125 **A Land System representation for global assessments and land-use modeling**  
Sanneke van Asselen and Peter H. Verburg
- 3149 **Dynamic macroecology and the future for biodiversity**  
Karel Mokany, Thomas D. Harwood, Kristen J. Williams and Simon Ferrier
- 3160 **Long-term variability and rainfall control of savanna fire regimes in equatorial East Africa**  
David M. Nelson, Dirk Verschuren, Michael A. Urban and Feng Sheng Hu
- 3171 **Recovery of ponderosa pine ecosystem carbon and water fluxes from thinning and stand-replacing fire**  
Sabina Dore, Mario Montes-Helu, Stephen C. Hart, Bruce A. Hungate, George W. Koch, Jhon B. Moon, Alex J. Finkral and Thomas E. Kolb
- 3186 **The role of harvest residue in rotation cycle carbon balance in loblolly pine plantations. Respiration partitioning approach**  
Asko Noormets, Steve G. McNulty, Jean-Christophe Domec, Michael Gavazzi, Ge Sun and John S. King
- 3202 **Reproduction and seedling establishment of *Picea glauca* across the northernmost forest-tundra region in Canada**  
Xanthe Walker, Gregory H. R. Henry, Katherine McLeod and Annika Hofgaard
- 3212 **Climate change, fuel and fire behaviour in a eucalypt forest**  
Stuart Matthews, Andrew L. Sullivan, Penny Watson and Richard J. Williams
- 3224 **High arctic heath soil respiration and biogeochemical dynamics during summer and autumn freeze-in – effects of long-term enhanced water and nutrient supply**  
Casper T. Christiansen, Sarah H. Svendsen, Niels M. Schmidt and Anders Michelsen
- 3237 **Shifts in soil organic carbon for plantation and pasture establishment in native forests and grasslands of South America**  
Roxana P. Eclesia, Esteban G. Jobbagy, Robert B. Jackson, Fernando Biganzoli and Gervasio Piñeiro
- 3252 **Temperature adaptation of bacterial communities in experimentally warmed forest soils**  
Johannes Rousk, Serita D. Frey and Erland Bååth
- 3259 **Do nitrogen fertilizers stimulate or inhibit methane emissions from rice fields?**  
Kamaljit Banger, Hanqin Tian and Chaoqun Lu
- Erratum**
- 3268 **Species vulnerability to climate change: impacts on spatial conservation priorities and species representation**  
David M. Summers, Brett A. Bryan, Neville D. Crossman and Wayne S. Meyer