

EDITORIAL

803 Global reach and engagement

OPINION & COMMENT

805 Correspondence: Policy institutions and forest carbon

806 Commentary: El Niño and a record CO₂ rise

Richard A. Betts, Chris D. Jones, Jeff R. Knight, Ralph F. Keeling
and John J. Kennedy

810 Commentary: Earth's surface water change over the past 30 years

Gennadii Donchyts, Fedor Baart, Hessel Winsemius, Noel Gorelick, Jaap Kwadijk
and Nick van de Giesen

813 Commentary: The attribution question

Friederike E. L. Otto, Geert Jan van Oldenborgh, Jonathan Eden, Peter A. Stott,
David J. Karoly and Myles R. Allen

FEATURE

817 News Feature: Contested territory

Michael Green

RESEARCH HIGHLIGHTS

821 Our choice from the recent literature

NEWS & VIEWS

823 Climate response: Strong warming at high emissions

Thomas L. Frölicher

824 Atmospheric dynamics: Arctic winds of change

Dirk Notz

PERSPECTIVE

827 Science and policy characteristics of the Paris Agreement
temperature goal

Carl-Friedrich Schleussner, Joeri Rogelj, Michiel Schaeffer, Tabea Lissner,
Rachel Licker, Erich M. Fischer, Reto Knutti, Anders Levermann, Katja Frieler
and William Hare

REVIEW ARTICLE

836 Key ecological responses to nitrogen are altered by climate change

T. L. Greaver, C. M. Clark, J. E. Compton, D. Vallano, A. F. Talhelm, C. P. Weaver,
L. E. Band, J. S. Baron, E. A. Davidson, C. L. Tague, E. Felker-Quinn, J. A. Lynch,
J. D. Herrick, L. Liu, C. L. Goodale, K. J. Novak and R. A. Haeuber

LETTERS

- 844 **Economic gains stimulate negative evaluations of corporate sustainability initiatives**
Tamar Makov and George E. Newman
- 847 **Mental representation changes the evaluation of green product benefits**
Kelly Goldsmith, George E. Newman and Ravi Dhar
- 851 **The climate response to five trillion tonnes of carbon**
Katarzyna B. Tokarska, Nathan P. Gillett, Andrew J. Weaver, Vivek K. Arora and Michael Eby
→N&V p823
- 856 **Contribution of sea-ice loss to Arctic amplification is regulated by Pacific Ocean decadal variability**
James A. Screen and Jennifer A. Francis
→N&V p824
- 861 **Detecting failure of climate predictions**
Michael C. Runge, Julienne C. Stroeve, Andrew P. Barrett and Eve McDonald-Madden
- 865 **Longer growing seasons shift grassland vegetation towards more-productive species**
Jason D. Fridley, Josh S. Lynn, J. P. Grime and A. P. Askew
- 869 **Land-atmosphere feedbacks amplify aridity increase over land under global warming**
Alexis Berg, Kirsten Findell, Benjamin Lintner, Alessandra Giannini, Sonia I. Seneviratne, Bart van den Hurk, Ruth Lorenz, Andy Pitman, Stefan Hagemann, Arndt Meier, Frédérique Cheruy, Agnès Ducharne, Sergey Malyshev and P. C. D. Milly
- 875 **Drought rewires the cores of food webs**
Xueke Lu, Clare Gray, Lee E. Brown, Mark E. Ledger, Alexander M. Milner, Raúl J. Mondragón, Guy Woodward and Athen Ma

ARTICLES

- 879 **Social norms and efficacy beliefs drive the Alarmed segment's public-sphere climate actions**
Kathryn L. Doherty and Thomas N. Webler
- 885 **Climate change impact modelling needs to include cross-sectoral interactions**
Paula A. Harrison, Robert W. Dunford, Ian P. Holman and Mark D. A. Rounsevell