

Scientific journal articles

[A 40-y record reveals gradual Antarctic sea ice increases followed by decreases at rates far exceeding the rates seen in the Arctic](#) by **Claire L. Parkinson** in **PNAS (2019/07/16)**

About Scientific article: A newly completed 40-y record of satellite observations is used to quantify changes in Antarctic sea ice coverage since the late 1970s. Sea ice spreads over vast areas and has major impacts on the rest of the climate system, reflecting solar radiation and restricting ocean/atmosphere exchanges. The satellite record reveals that a gradual, decades-long overall increase in Antarctic sea ice extents reversed in 2014, with subsequent rates of decrease in 2014–2017 far exceeding the more widely publicized decay rates experienced in the Arctic.

Keywords Antarctic; Arctic; Climate Emergency; Sea Ice; Glacial Melt;

[Natural climate solutions](#) by **Griscom et al.** in **PNAS (2017/09/05)**

About Scientific article on nature based climate solutions

Keywords Climate emergency; climate solutions; climate action; nature based solutions;

[Global Reforestation Potential Map](#) by **Griscom et al.** in **PNAS (2017/09/01)**

About Scientific mapping of global reforestation potential

Keywords Reforestation; mapping; climate emergency; deforestation

[A roadmap for rapid decarbonization](#) by **Johan Rockström, Owen Gaffney, Joeri Rogelj, Malte Meinshausen, Nebojsa Nakicenovic & Hans Joachim Schellnhuber** in **Science (2017/03/24) DOI: 10.1126/science.aah3443 (Not Open Access)**

About Scientific article: roadmap to rapid decarbonisation

Keywords Decarbonisation; climate emergency; climate action; climate policy; roadmap; environmental crisis

[Global Climate Emergency: after COP24, climate science, urgency, and the threat to humanity](#) by **Barry Gills & Jamie Morgan** in **Globalizations (2019/9/24) DOI:**

<https://doi.org/10.1080/14747731.2019.1669915>

About Scientific article on Global Climate Emergency: after COP24, climate science, urgency, and the threat to humanity

Keywords Climate Emergency; Capitalism; Climate action; Environmental crisis

[Asynchronous carbon sink saturation in African and Amazonian tropical forests](#) by **Wannes Hubau et al.** in **Nature (2020/03/04) DOI: <https://doi.org/10.1038/s41586-020-2035-0> (Not Open Access)**

About Scientific article: Here we assess trends in the carbon sink using 244 structurally intact African tropical forests spanning 11 countries, compare them with 321 published plots from Amazonia and investigate the underlying drivers of the trends. The carbon sink in live aboveground biomass in intact African tropical forests has been stable for the three decades to 2015, at 0.66 tonnes of carbon per hectare per year (95 per cent confidence interval 0.53–0.79), in contrast to the long-term decline in Amazonian forests⁶. Therefore the carbon sink responses of Earth's two largest expanses of tropical forest have diverged.

Keywords Carbon sinks; climate emergency; forests; Africa; Amazonia

[Global dataset shows geography and life form predict modern plant extinction and rediscovery](#) by **Aelys M. Humphreys, Rafaël Govaerts, Sarah Z. Ficinski, Eimear Nic Lughadha & Maria S. Vorontsova** in **Nature Ecology & Evolution (2019/06/10) DOI: <https://doi.org/10.1038/s41559-019-0906-2>**

About Scientific article: a comprehensive, global analysis of modern extinction in plants. Almost 600 species have become extinct, at a higher rate than background extinction, but almost as many have been erroneously declared extinct and then been rediscovered.

Keywords Extinction; Ecosystem; Climate Emergency;

[The global tree restoration potential](#) by **Jean-Francois Bastin, Yelena Finegold, Claude Garcia, Danilo Mollicone, Marcelo Rezende, Devin Routh, Constantin M. Zohner, Thomas W. Crowther** in **Science (2019/07/05) DOI: 10.1126/science.aax0848 (Not Open Access)**

About Scientific article on the potential of tree restoration in the face of Climate Emergency

Keywords Tree Restoration; Research; Environmental Restoration; Climate Emergency

[No evidence for globally coherent warm and cold periods over the preindustrial Common Era](#) by **Raphael Neukom, Nathan Steiger, Juan José Gómez-Navarro, Jianghai Wang & Johannes P. Werner** in **Nature (2019/07/24) DOI: <https://doi.org/10.1038/s41586-019-1401-2>**

About Scientific article: No evidence for globally coherent warm and cold periods over the preindustrial Common Era

Keywords Climate Emergency; Research; Global Warming; Pre-industrial era;

[Global Carbon Budget 2018](#) by **Le Quéré et al.** in **Earth System Science Data (2018/12/05) DOI: <https://doi.org/10.5194/essd-10-2141-2018>**

About Scientific article "Global Carbon Budget 2018"

Keywords Carbon budget; Carbon emissions; climate emergency;

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Past and future global transformation of terrestrial ecosystems under climate change by Connor Nolan et al. in *Science* (2018/08/31) DOI: [10.1126/science.aan5360](https://doi.org/10.1126/science.aan5360)

About Scientific article: Terrestrial ecosystems will be transformed by current anthropogenic change, but the extent of this change remains a challenge to predict. Nolan et al. looked at documented vegetational and climatic changes at almost 600 sites worldwide since the last glacial maximum 21,000 years ago. From this, they determined vegetation responses to temperature changes of 4° to 7°C. They went on to estimate the extent of ecosystem changes under current similar (albeit more rapid) scenarios of warming. Without substantial mitigation efforts, terrestrial ecosystems are at risk of major transformation in composition and structure.

Keywords Ecosystems; Climate Emergency;

Towards a fossil fuel non-proliferation treaty by Peter Newell & Andrew Simms in *Climate Policy* (2019/07/08) DOI: <https://doi.org/10.1080/14693062.2019.1636759>

About Scientific article: A new approach is needed to tackle the climate crisis, in which the long overlooked supply-side of fossil fuels takes centre stage. A crucial aspect of this is the need for international agreements and law to effectively and fairly leave large swathes of remaining fossil fuels in the ground. Towards that end, we make the case for a Fossil Fuel Non-Proliferation Treaty (FF-NPT) to deal with emissions at source.

Keywords Fossil Fuels; Climate Emergency; Climate Policy; Treaty;

COVID-19 lockdown allows researchers to quantify the effects of human activity on wildlife by Christian Rutz, Matthias-Claudio Loretto, Amanda E. Bates, Sarah C. Davidson, Carlos M. Duarte, Walter Jetz, Mark Johnson, Akiko Kato, Roland Kays, Thomas Mueller, Richard B. Primack, Yan Ropert-Coudert, Marlee A. Tucker, Martin Wikelski & Francesca Cagnacci in *Nature* (2020/06/22) DOI: <https://doi.org/10.1038/s41559-020-1237-z>

About Scientific article on how Covid-19 lockdown allows scientists to study the human activity's effect on wildlife

Keywords Covid-19; Wildlife; Conservation; Environment;

The state in the transformation to a sustainable postgrowth economy by Max Koch in *Environmental Politics* (2019/10/29) DOI: <https://doi.org/10.1080/09644016.2019.1684738>

About Scientific article: The state in the transformation to a sustainable postgrowth economy

Keywords Climate emergency; degrowth; postgrowth; environmental crisis; transformation; alternatives; Environmental state, materialist state theory, degrowth/postgrowth, steady-state economy, sustainable welfare, eco-social policies

The political economy of global tree plantation expansion: a review by Markus Kröger in *Journal of Peasant Studies* (2014/03/20) DOI: <https://doi.org/10.1080/03066150.2014.890596>

About Scientific review article: This contribution analyses the recent global expansion of different types of tree plantations. A literature review collates accounts from recent academic publications and by NGOs, and is accompanied by field research and interview observations about the causal processes, central features and likely futures of contemporary tree plantation expansion.

Keywords Political Economy; tree plantation; review; deforestation; political ecology

New elevation data triple estimates of global vulnerability to sea-level rise and coastal flooding by Scott A. Kulp & Benjamin H. Strauss in *Nature Communications* (2019/12/12) DOI: <https://doi.org/10.1038/s41467-019-12808-z>

About Scientific article estimating global vulnerability to sea-level rise and coastal flooding

Keywords Glacial Melting; Climate Emergency; coastal flooding; climate crisis;

World Scientists' Warning to Humanity: A Second Notice by William J. Ripple, Christopher Wolf, Thomas M. Newsome, Mauro Galetti, Mohammed Alamgir, Eileen Crist, Mahmoud I. Mahmoud, William F. Laurance, 15,364 scientist signatories from 184 countries in *BioScience* (2017/11/13) DOI: <https://doi.org/10.1093/biosci/bix125>

About Scientific article evaluating the human response by exploring available time-series data since 1992 of the "World Scientists Warning to Humanity" by the Union of Concerned Scientists and more than 1700 independent scientists

Keywords Scientists; Climate emergency; climate crisis; climate action; environmental movement

Climate tipping points — too risky to bet against by Timothy M. Lenton, Johan Rockström, Owen Gaffney, Stefan Rahmstorf, Katherine Richardson, Will Steffen & Hans Joachim Schellnhuber in *Nature* (2019/11/27) DOI: [10.1038/d41586-019-03595-0](https://doi.org/10.1038/d41586-019-03595-0)

About Scientific article on climate tipping points and related risks

Keywords Climate; climate emergency; tipping points; climate crisis; environmental crisis; risk;

Cascading regime shifts within and across scales by Juan C. Rocha, Garry Peterson, Örjan Bodin, Simon Levin in *Science* (2018/12/21) DOI: [10.1126/science.aat7850](https://doi.org/10.1126/science.aat7850)

About Scientific article of cascading effects of regime shifts. The potential for regime shifts and critical transitions in ecological and Earth systems, particularly in a changing climate, has received considerable attention. However, the possibility of interactions between such shifts is poorly understood. Rocha et al. used network analysis to explore whether critical transitions in ecosystems can be coupled with each other, even when far apart

Keywords Climate emergency; tipping points; regime shift; risk; climate crisis; climate science;

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Eight Tons of Material Footprint—Suggestion for a Resource Cap for Household Consumption in Finland by Michael Lettenmeier, Christa Liedtke & Holger Rohn in **Resources** (2014/07/09) DOI: <https://doi.org/10.3390/resources3030488>

About Scientific article suggesting a sustainable material footprint of eight tons, per person, in a year as a resource cap target for household consumption in Finland.

Keywords Climate emergency; climate crisis; material footprint; climate footprint; carbon footprint; carbon emissions; Finland; research

Ecological Reconstruction by BIOS (2019/11/08) DOI: <https://doi.org/10.3390/resources3030488>

About Scientific article on ecological reconstruction by a Finnish Thinktank Bios

Keywords Climate emergency; environmental crisis; ecological reconstruction; climate action; climate policy;

Is Green Growth Possible? by Jason Hickel & Giorgos Kallis in **New Political Economy** (2019/04/17) DOI: <https://doi.org/10.1080/13563467.2019.1598964>

About Scientific article on the possibility or impossibility of green growth

Keywords Green Growth; growth; political economy; economy; SDGs

Is it possible to achieve a good life for all within planetary boundaries? by Jason Hickel in **Third World Quarterly** (2019/12/10) DOI: <https://doi.org/10.1080/01436597.2018.1535895>

About Scientific article: Is it possible to achieve a good life for all within planetary boundaries?

Keywords Sustainable development, planetary boundaries, de-growth, ecology

Socialism Without Growth by Giorgos Kallis in **Capitalism Nature Socialism** (2017/10/17) DOI: <https://doi.org/10.1080/10455752.2017.1386695>

About Scientific article: In this article, I take issue with (eco-)socialists who embrace an ecological critique of growth under capitalism, but remain supportive or agnostic of the prospects for socialist growth.

Keywords Degrowth, eco-socialism, surplus, green growth

A systematic review of the socio-economic impacts of large-scale tree plantations, worldwide by Arttu Malkamäki, Dalia D'Amato, Nicholas J. Hogarth, Markku Kanninen, Romain Pirarde, Anne Toppinen & Wen Zhou in **Global Environmental Change** (2019/07) DOI: <https://doi.org/10.1016/j.gloenvcha.2018.09.001>

About Scientific systematic literature review of the impacts of large-scale tree plantations for local communities.

Keywords Systemic review; tree plantation;

In search of unity: a new politics of solidarity and action for confronting the crisis of global capitalism by Barry Gills & Christopher Chase-Dunn in **Globalizations** (2019/08/23) DOI: <https://doi.org/10.1016/j.gloenvcha.2018.09.001>

About Scientific essay: This essay is an introduction to a Special Forum by critical scholar-activists responding to the late Samir Amin's call for the establishment of a new political vehicle that would be capable of uniting diverse progressive and revolutionary movements consisting of the workers and peoples of the whole world. The purpose of this vehicle would be to confront and radically transform a global capitalist order in deep crisis.

Keywords Solidarity; Global Crisis; Capitalism; Unity;

Walden Bello: Review Essay: Africa Unveiled [Franklin Obeng-Odoom: Property, Institutions, and Social Stratification in Africa] by Walden Bello in **Journal of Australian Political Economy** (Winter 2021)

About Review Essay: This essay reviews Franklin Obeng-Odoom's book Property, Institutions, and Social Stratification in Africa.

Keywords Stratification economics; Africa; development economics

Amazonia as a carbon source linked to deforestation and climate change by Luciana V. Gatti et al. in **Nature** (14/07/2021)

About Scientific article which investigates Amazonia's carbon budget and the main drivers responsible for its change into a carbon source.

Keywords Amazonia; deforestation; climate change;