

nature INDEX 2018 EARTH AND ENVIRONMENTAL SCIENCES

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THE SEARCH FOR SOLUTIONS

Compared to other areas of research, Earth and environmental sciences generate much political controversy. The scrutiny they attract reflects the importance of these topics to our global future.

Our analysis reveals other distinctions. In Earth and environmental sciences, researchers at academic institutions account for a lower proportion of high-quality research than in the life sciences, physical sciences and chemistry, while the research output of government institutions is higher than for the other natural sciences. Moreover, the proportion of internationally collaborative articles is higher in Earth and environmental sciences than in the other fields tracked by the index.

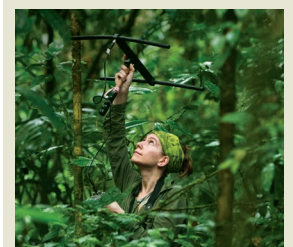
The United States is still the largest producer of high-quality research in the field. But, China's output is catching up, rising 95%

between 2012 and 2017 to take over second place from the United Kingdom in the index (S3). The country's science flagship, the Chinese Academy of Sciences, has the highest output in the field, according to the index.

This supplement marks an expanded presence for Earth and environmental sciences. The addition of five journals on the subject has doubled the number of articles on this topic in the index.

Climate change is the issue that looms largest. Just as we depended on scientists to identify the problem, we look to them for solutions that will help the Earth sustain life for the generations to come. As our coverage makes clear, there are no grounds for complacency.

Catherine Armitage
Chief editor, Nature Index



ON THE COVER

Primatologist Amy Porter tracking Red Titi monkeys at the Tiputini Biodiversity Station in the Amazon rainforest, Ecuador.

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In the line of fire

S2: Earth and environmental scientists are drawing on data from across the disciplines to evaluate risks and solutions for adapting to a changing planet.

Gravitational pull

S6: Growing collaboration between deep-sea and space research is based on a conviction that oceans are a good place to look for life outside Earth.

Casting a net for knowledge

S10: In the wake of the Fukushima accident, joint research between Japan and



the US has improved prospects for overfished bluefin tuna.

Core values

S14: China's lofty ambitions in high-profile global Earth science rival urgent environmental priorities on the home front.

Paving the way to an urban future

S18: As urban populations grow, new and existing cities must coordinate planning and adaptation.

Big data goes green

S19: Enormous datasets are informing new routes for discovery.

Zoom in on the big picture

S21: Career rewards need to support academics who 'act locally' in research.

Pooled resources

S22: Collaborations between water companies and universities are set to become more important.

The tables

S23: How institutions stack up in Earth and environmental sciences.