nature

Sign up for alerts 💭

You have full access to this article via your

institution.

worldwide

<u>revolution</u>

<u>extinct</u>

**Subjects** 

Roomy \_\_\_\_ Toe Box

every weekday.

e.g. jo.smith@university.ac.uk

**Email address** 

Sign up

Environmental sciences

**Download PDF** 

**Related Articles** 

How\_a vast\_digital twin\_of\_the\_Yangtze

River could prevent flooding in China

The Burning Earth: how conquest and carnage have decimated landscapes

Fall of the wild: why pristine

wilderness is a human-made myth

**How 'organized looting and plunder** 

drove Britain's second scientific

family spread – and why others go

VIVAIA

Designed For All-Day Walking

Walk 8+ Hours without Getting Tired Shop Now

Sign up to Nature Briefing

An essential round-up of science news,

Yes! Sign me up to receive the daily Nature Briefing email. I agree my information will be

Springer Nature Limited Privacy Policy.

processed in accordance with the Nature and

opinion and analysis, delivered to your inbox

<u>Culture</u>

History.

Enhanced Arch Support

**RSS** feed

**BOOK REVIEW** 21 July 2025

nature > book reviews > article

# Should we treat rivers as living things?

Rivers are born, evolve and die, and can bring life – and death. We might respect them more if we saw them as animated by spirits of their own.

By Andrew\_Robinson



Advertisement

**Is a River Alive?** *Robert Macfarlane* Hamish Hamilton (2025)

Thirst: In Search of Freshwater Wellcome Collection, London 26 June 2025–1 February 2026

**Thirst: In Search of Freshwater** *Foreword by Robert Macfarlane*. Wellcome Collection (2025) When Robert Macfarlane, a nature writer, was walking with his son to school, the boy asked

him the title of his current book project. "Is a River Alive?" Macfarlane replied. "Well, duh, that's going to be a short book, then, Dad," said his son, "because the answer is yes!" As a boy, Macfarlane felt the same about rivers. But, as an adult,

RELATED

How a vast digital twin of the **Yangtze River could prevent flooding in China** 

he developed doubts. In the book's introduction, he describes how hard it was for someone like him, who had been raised on rationalism, to imagine that a river could be alive beyond the life it sustains. "It requires unlearning, a process much harder than learning," he writes. "We might say that the fate of rivers under rationalism has been to become one-dimensional water. Rivers have been systematically stripped of their spirits and reduced to what Isaac Newton called 'inanimate brute matter'." His childhood belief returned while he was researching the book. In it, he refers to rivers

"who" flow, rather than rivers "that" flow. Macfarlane's view seems akin to that of the political scientist and anthropologist James Scott: his last book, In Praise of Floods, published in February after his death in his eighties, argues controversially that crucial rivers, such as the Colorado River in the western United States and the Irrawaddy River in Myanmar, should not be damned by being dammed. In Scott's words: "Rivers, on a long view, are alive. They are born; they change; they shift their

channels; they forge new routes to the sea; they move both gradually and violently; they teem (usually) with life; they may die a quasi-natural death; they are frequently maimed and even murdered. Each river, though subject to the same hydraulic laws, has its own unique personality and history." **Rivers under threat** 

## Macfarlane ranges, compellingly, further afield than Scott's relatively academic study – not

only geographically, but also intellectually and emotionally. Driven by his concern over human damage to rivers in England, where he lives, he journeys at length alongside and along other rivers, in the company of scientists, environmental activists and diverse adventurers. Sometimes paddling by kayak, even dangerously over rapids, he experiences three, very different, threatened riverine landscapes – in Ecuador, India and Canada. The first is a cloud forest in the Andes Mountains: Los Cedros, the 'Forest of Cedars', which forms the headwaters of the Rio Los



worldwide

and gold mining. The second includes the rivers, creeks, lagoons and estuaries of the city of Chennai on the coast of the Bay of Bengal. They are deeply polluted by toxic industrial products and exposed to a brutal cycle of droughts and floods caused by monsoons and

Cedros, which eventually reach the ocean through another river.

Los Cedros is threatened by companies eager to pursue copper

Mutehekau Shipu, the Magpie River, which reaches the sea at the Gulf of St Lawrence, some 1,000 kilometres northeast of Montreal. It is constantly at risk from dam-building. Rivers in time As a spin-off from his newly released book, Macfarlane also provides a foreword to a diverse

The third is Nitassinan, homeland of the Innu people. It is a wild interior through which flows

cyclones.

### collection of short writings about water. Thirst was commissioned by the Wellcome

Collection in London, to accompany its exhibition of the same title. The exhibition is divided into sections: Aridity, Rain, Glaciers, Surface Water and Groundwater. Surprisingly, rivers are not given their own space. But they flow through the

exhibition, which begins with a Babylonian clay tablet from around 1900–1600 bc, on which the Epic of Gilgamesh is inscribed in cuneiform. It describes the first war waged over water in ancient Mesopotamia, the 'land between rivers' – the Tigris and Euphrates. Later comes a section on the Iraqi Marshes, including filmed interviews with their inhabitants. In the late 1980s and 1990s, the swamps were drained to about 10% of their original size by the regime of dictator Saddam Hussein, to evict the people living there – but have since been partially rejuvenated. Videos feature people across the globe wading speechlessly through their houses after flooding, exploring human experiences of the phenomenon. A satirical cartoon from 1828,

entitled 'Monster Soup commonly called Thames Water', shows a horrified woman peering through her microscope, studying numerous creatures swimming about in a drop of drinking water from London's River Thames. Another drawing, made in 1931, shows a cross-section of an artesian tube well drilled beneath the Wellcome Collection building into one of London's many underground rivers.



founded Navdanya, an Indian non-governmental organization that promotes biodiversity conservation; Native American Robin Wall Kimmerer, a botanist at the State University of New York College in Syracuse; and Anthony Acciavatti, a scholar at Yale University in New Haven,

Connecticut, who works at the intersection of landscape and the history of science and technology. Writers and artists, including British-Turkish novelist Elif Shafak, Vietnamese-American poet Ocean Vuong and the Delhi-based Raqs Media Collective, provide vivid snapshots of freshwater and its behaviour. But, oddly, the book contains no photographs or maps of rivers, as crucially displayed in Macfarlane's book. Only 3% of Earth's water is fresh, so humans have always had to search for freshwater to alleviate thirst — a word which derives, in both English and Sanskrit, from the Proto-Indo-European root \*ters, meaning 'dry'. Early civilizations were motivated by their thirst for water to designate territorial boundaries and devise ways to secure supplies.

than an environmental issue. It reflects "exploitative practices like over-extraction, and other causes such as conflict". The hope is that the "regenerative power of water" will inspire us to "learn from its cyclical, healing nature, as well as from



RELATED

Colonial empires and commercial businesses, not to mention many scientists, have denied that rivers are in any sense alive; the investment bank Goldman Sachs refers to water as "the new oil". They have generally treated flowing waters as dead: wholly inanimate. For example, after the Spanish Conquest of the Andean-Amazonian region half a millennium ago, a New World branch of the Inquisition was established, notes Macfarlane. This sentenced any locals who worshipped a river or stream to a hundred lashes.

But thirst was also, and still is, "associated with greed", as the

exhibition's opening panel notes. Today's water crisis is more

communities, past and present, who create abundance out of

scarcity" – such as those encountered by Macfarlane.

towards extinction the recognition of the forests and rivers as both central to life and themselves alive." Somehow, though, through five centuries of oppression, such Indigenous communities held onto their "vital ideas of the entangled lives of rivers, forests, mountains and people". **River rights** Over the past couple of decades, such thinking has led to a global 'Rights of Nature'

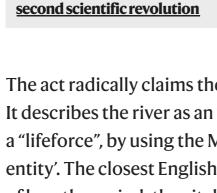
movement to grant nature legal personhood, which Macfarlane discusses at length. More

than 500 nature's rights laws have been passed by local and national governments in about 40

"The Spanish literally flogged animism out of their newly colonized subjects, and persecuted

countries, including the United States and Canada.

River, known to Māoris as *Te Awa Tupua* ('supernatural river'). This arises as meltwater on the snowy slopes of three volcanoes, from which it flows for about 290 kilometress through steep rainforest, deep gorges and bush country to reach the town of



'animism' and 'animus' in the sense of 'mind'".

**How 'organized looting and** 

<u>plunder' drove Britain's</u>

river was weakened by human-made destruction, such as mining and re-routing. The act radically claims the Whanganui River is alive, and an ancestor of the Whanganui tribe. It describes the river as an "indivisible and living whole": a "spiritual and physical entity" with a "lifeforce", by using the Māori word *mouri*, or 'the essential quality and vitality of a being or entity'. The closest English equivalent is 'anima', explains Macfarlane, "which means 'a current of breath or wind, the vital principle, life, soul', and which gives us 'animal', 'animate',

Whanganui on the Tasman Sea between New Zealand and

Australia. During the nineteenth and twentieth centuries, the

One key development was the Te Awa Tupua Act, passed in New

Zealand in 2017, which protects the North Island's Whanganui

bubble up in a small wood near his home – a source of the River Cam that flows through Cambridge. He imagines, in the future, his three grown-up children being reminded of their deceased father while visiting these wells, which he cherished and shared with them when they were kids. "Death and love and life, all mingled in the flow," he concludes. *Nature* **643**, 901-903 (2025) doi: https://doi.org/10.1038/d41586-025-02263-w

So, are rivers now considered alive? The Wellcome exhibition and its book do not answer this

question directly, even in Macfarlane's foreword, but their humanistic tone seems to imply

that the answer is yes. As for Macfarlane's book, at the end he returns to an English place he

has frequently described between his travels in Ecuador, India and Canada: nine springs that

The author declares no competing interests. Latest on:

**Environmental sciences** 

**COMPETING INTERESTS** 

**Extreme river flood** exposes latent erosion risk

History

Culture

**World's most porous** 

powders hit the market

NEWS FEATURE | 09 JUL 25

sponges: intricate

carbon-trapping

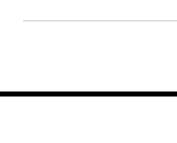
ARTICLE | 10 JUL 25

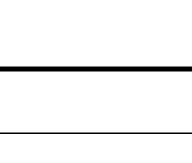
New York (US)

Springer Nature Ltd

Max Perutz Labs, University of Vienna

Postdoctoral Researcher





**Plastics pollution is** 

UN treaty to curb it must be ambitious

EDITORIAL | 09 JUL 25

surging – the planned

**nature** careers Jobs >

<u>Associate Editor or Senior Editor, Nature Methods</u> Job Title: Associate or Senior Editor, Nature Methods Locations: New York, Jersey City, Shanghai or Beijing Deadline: August 3, 2025 About ...

nature portfolio

MAX PERUTZ LABS

Multi-Omics Data Analysis & Machine Learning in Metabolic Diseases Dresden, Sachsen (DE) Prof. Dr.med. Nikolaos Perakakis

<u>Postdoctoral Research Fellow - Bioinformatics (m/f/d)</u>

Tenure-Track Professorship in Mechanistic Cell and Developmental **Biology** 

Launch your lab at the Max Perutz Labs and join us in our mission to analyze and reconstitute complex biological systems across scales. Vienna BioCenter, Austria

Independent Associate Professor at Immunology Frontier Research Center, The University of Osaka

IFReC, The University of Osaka in Japan calls for applications for Young Lead Researchers in Immunology, Cell Biology, or other related fields. Suita Campus, The University of Osaka in Osaka, Japan

Immunology Frontier Research Center, The University of Osaka The University of Osaka Immunology Frontier Research Center

IFReC, The University of Osaka in Japan offers Advanced Postdoc Positions for Immunology, Cell Biology, Bioinformatics and Bioimaging. Suita Campus, The University of Osaka in Osaka, Japan

**About Nature Portfolio** Discover content Journals A-Z About us

Immunology Frontier Research Center, The University of Osaka

Nature (*Nature*) ISSN 1476-4687 (online) ISSN 0028-0836 (print)

Press office Contact us **Libraries & institutions** 

daily.

<u>Librarian service & tools</u>

<u>Press releases</u>

Articles by subject protocols.io Nature Index

<u>Advertising</u>

**Publishing policies** Nature portfolio policies Open access

**Professional development** Nature Careers Nature Conferences

Reprints & permissions Research data <u>Language editing</u>

**Author & Researcher services** 

Scientific editing Nature Masterclasses Research Solutions **Regional websites** 

Nature Africa Nature China Nature India Nature Italy

Nature Japan

Nature Middle East

Partnerships & Services <u>Librarian portal</u> Open research Media kits **Branded content** Recommend to library

Nature and Springer Nature Limited Privacy Policy.

I agree my information will be processed in accordance with the

e.g. jo.smith@university.ac.uk

Terms & Conditions Sign up

Privacy Policy Use of cookies nature briefing Sign up for the Nature Briefing newsletter what matters in science, free to your inbox

Your privacy choices/Manage cookies Legal notice Accessibility statement Email address

**Advertising & partnerships**