Pacific Circle Newsletter

4,8 (17 December 2023)

Lectures and Seminars

Linnean Society, London

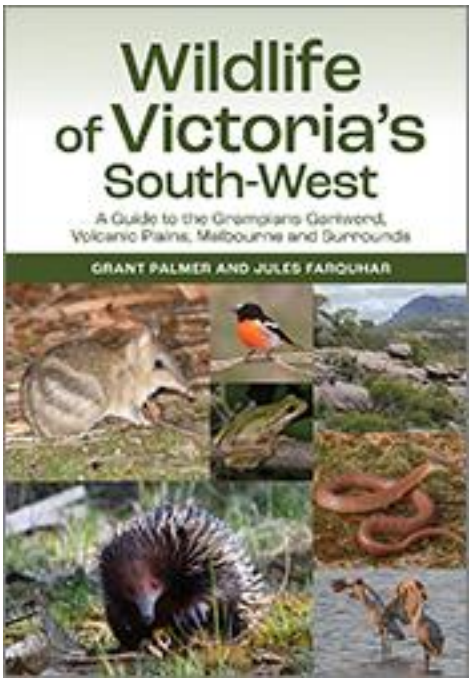
Reptiles on Islands: Gecko Stories from the Indian Ocean Islands | Ashwini Mohan | Jan 24, 12.30 pm | Online and Free

Madagascar is a large island-continent due to its size, long-term isolation from surrounding landmasses, and climatic complexity, while the smaller, volcanic Comoros and Mascarenes archipelagos are younger, smaller, and less complex. Just east of the Indian subcontinent lie the Andaman and Nicobar Islands, which are yet another different kind of archipelago with

complex origins. Through studies across some of these islands, we have uncovered complex colonisation histories, speciation patterns, and diversity of geckos in the western Indian Ocean islands. I share some of these stories to provide a larger picture of the links between islands and reptile biodiversity in the Indian Ocean. **Book here.**

New and Forthcoming Books and Book Chapters

WILDLIFE OF VICTORIA'S SOUTH-WEST:



A Guide to the Grampians-Gariwerd, Volcanic Plains, Melbourne and Surrounds

By: **Grant Palmer, Jules Farquhar, CSIRO Publishing**

Paperback - *February 2024* - **AU $49.99**

Victoria's South-West is an iconic region of Australia that includes the exceptional landscape features of the Grampians-Gariwerd, the Victorian Volcanic Plain with crater lakes and cones, the forests of the Great Dividing Range, and Melbourne and Port Phillip Bay. Victoria's South-West supports remarkable wildlife, including some found only in the region, and is recognised as both nationally and globally significant for the conservation of biodiversity.

Wildlife of Victoria's South-West is a comprehensive photographic field guide to the region's wildlife, many of which occur throughout south-eastern Australia. It covers all the mammals, birds, reptiles and frogs that occur in the region, including on land and in the coastal marine environment. Each of the 432 taxa profiles includes detailed information on identification, range, conservation status, habitat and ecology, and the local Aboriginal name for the species when known. An outstanding colour image and regional distribution map is also included for each species. Additional information is provided on habitat types, conservation and management of wildlife in Victoria's South-West as well as 19 places in the region to visit and view wildlife.

Ideal for those who wish to identify and learn more about the diversity of animals found in the region, while also gaining an understanding of the distinct role Victoria's South-West has in contributing to conserving Australia's stunning wildlife.

Featured Journal

Volume 73(3) 2023

Contents

large-scale modes of variability and Australian rainfall is crucial in ensuring constrained projections of future climate. This paper evaluates models from the sixth phase of the Coupled Model Intercomparison Project (CMIP6), focusing on the seasonal teleconnections between the El Niño–Southern Oscillation, the Indian Ocean Dipole, the Southern Annular Mode and Australian rainfall. An improvement is found in the representation springtime rainfall teleconnections. However, large inter-model spread remains a source of uncertainty.

Abstract | Full Text | PDF (25 MB) Open Access Article

Biases and teleconnections in the Met Office Global Coupled Model version 5.0 (GC5) – insights for seasonal prediction and Australia

Chen Li, Debra Hudson, Xiaobing Zhou, Hongyan Zhu, Matthew C. Wheeler, Griffith Young, Charline Marzin and Luke Roberts

The latest UK Met Office Global Coupled Model Version 5.0 (GC5) configuration, which might underpin the Australian Bureau of Meteorology's next seasonal prediction and numerical weather prediction system, has been evaluated. The assessment focuses on the climate mean state and variabilities relevant to Australian climate and shows significant improvements in the eastern Pacific mean state. Despite remaining issues, GC5 shows promise for improved prediction skill of ENSO and its teleconnections.

Abstract | Full Text | PDF (10 MB) Open Access Article

New and Forthcoming Articles

Jonathan Galka, "Oceans of Ooze: Deep-Sea Sedimentary Data, Mineral Resource Frontiers, and Imperial Continuities in Ocean History," *Historical Studies in Natural Sciences* 53:5 (2023), 481-517.

Historians of science increasingly turn to ocean spaces, especially from the mid–twentieth century, when oceanography adopted new strategic and economic significance during and after World War II. Yet, the overdetermination of oceanography's historiography by histories of conflict obscures the role that empire—its continuities and its ends—played in the transformation of ocean science and politics at the same time. This essay builds on recent work seeking to recover the role of empire's endurance and its long shadows in the construction of mid-twentieth-century ocean science, politics, and law. Focusing on deep-sea sediments, I parse the work of H.M.S. *Challenger* (1872–1876) naturalist-cum-Challenger Office director John Murray alongside that of American economic geologist John Mero, who in the mid–twentieth century articulated all seabeds as storehouses of vast mineral wealth. Murray's sedimentological taxonomies and representations as well as his collected data on global oozes, nodules included, formed much of the basis for Mero's work. And, both Murray and Mero leveraged sediments to argue for proprietary positions premised on priority-in-time for resource discovery claims, and exclusive access based upon scientific knowledge and technical ability, both masked by tropes of equal access and opportunity. These data and practices helped Northern scientists build and maintain control over knowledge of the seabed and the value of its resources, as postcolonial and Cold War impetuses rearranged political and economic order at sea. Historicizing abyssal oozes illuminates the character of contemporary conflicts over the future of the international seabed, asking, who determines how the seabed will be valued?

Pacific Conservation Biology 29:6 (2023)

Special issues in *Pacific Conservation Biology* – an update

Mike Calver

Full Text | PDF (408 KB)

An Indigenous-assisted cultural perspective on conservation of New Zealand soils and the biota dependent on them

Victor Meyer

New Zealand soils are in a critical state, requiring drastic interventions via transformative planning. Intensive land-use practices have led to soil degradation. I propose intervening through the establishment of soil conservancies and the appointment of kaitiaki oneone, or Māori soil guardians, in a bid to curb exploitation of this fundamental natural resource.

Abstract | Full Text | PDF (545 KB) Open Access Article

How well do Immediate Protection Areas conserve biodiversity in Victorian forests?

David B. Lindenmayer and Chris Taylor

In Victoria, Australia additional reserves in logging areas (known as IPAs) have been established to conserve biodiversity. This paper assesses the effectiveness of these reserves, focusing on threatened species such as the Southern Greater Glider and Leadbeater's Possum, then uses Marxan analyses to model an alternative reserve design.

Abstract | Full Text | PDF (11.5 MB)

Drivers of colony failure in a vulnerable coastal seabird, the Australian Fairy Tern (*Sternula nereis nereis*)

C. N. Greenwell and J. N. Dunlop

This study identifies the outcomes, threats and sources of breeding failure at 77 monitored Australian Fairy Tern (*Sternula nereis nereis*) colonies between 2017/18 and 2021/22. Predation, inundation and disturbance were the greatest threats observed at colonies. The development of effective predator control and flood mitigation strategies are critical for addressing the major sources of colony failure.

Abstract | Full Text | PDF (2.6 MB) Open Access Article

Habitat element associations in the bird fauna of an Australian farmland landscape

Michael J. Murphy and Fiona R. Scarff

The decline of birds in farmland is of global concern. This paper documents a local-scale case study of the bird fauna of a 342 km^2 area of agricultural countryside in inland southern New South Wales, Australia, highlighting the important role of remaining woodland elements in the landscape for many terrestrial species and the value of small farm dams and ephemeral wetlands for waterbirds.

Abstract | Full Text | PDF (5.7 MB)

Skinks of Oceania, New Guinea, and Eastern Wallacea: an underexplored biodiversity hotspot

Alex Slavenko, Allen Allison, Christopher C. Austin, Aaron M. Bauer, Rafe M. Brown, Robert N. Fisher, Ivan Ineich, Bulisa Iova, Benjamin R. Karin, Fred Kraus, Sven Mecke, Shai Meiri, Clare Morrison, Paul M. Oliver, Mark O'Shea, Jonathan Q. Richmond, Glenn M. Shea, Oliver J. S. Tallowin and David G. Chapple

The region encompassing Oceania, New Guinea, and Eastern Wallacea houses ~300 species of skinks (almost a fifth of all skink species in the world) on <1% of the Earth's total landmass. We provide the first regional assessment of this diverse fauna to understand their conservation needs, and the knowledge gaps that hinder their protection.

Abstract | Full Text | PDF (2.2 MB) Open Access Article

Tide-excluded banked wetlands on the marine plains of northeastern Australia provide important habitat for migratory shorebirds, other threatened bird species and the Capricorn Yellow Chat

Wayne A. Houston, Roger Jaensch, Rod J. Elder, Robert L. Black, Allan Briggs and Damon Shearer

Conflicts can occur where 'restoration' attempts impact on competing conservation benefits. The tide-excluded banked coastal wetlands of northeastern Australia are targets for blue carbon 'restoration' but were found to support numerous migratory shorebirds and other threatened species. Provision of ecosystem services of biodiversity and conservation, plus food production, soundly justifies their retention.

Abstract | Full Text | PDF (5.8 MB) Open Access Article

Australian deserts: ecology and landscapes

Paul I. Boon

Full Text | Book Review (662 KB)

Island Jewels: the Natural History of Western Australia's Islands

Denis A. Saunders

Full Text | Book Review (248 KB)

Journal of the Royal Society of New Zealand

Special Issue: Renewable Energy

Geological energy storage in Aotearoa New Zealand a technical, geological and social overview

Pedro M. Rendel, Smrithi Talwar & Mark J. F. Lawrence

Pages: 1-20 | DOI: 10.1080/03036758.2023.2288631

Special Issue: Fossil Vertebrates from Southern Zealandia

First records of two mackerel shark species (Carcharodon planus comb. nov. and Carcharodon hubbelli; Lamnidae) from New Zealand | OPEN ACCESS

Dana J. Ehret, Alan J. D. Tennyson, Marcus D. Richards & Robert W. Boessenecker

Pages: 1-11 | DOI: 10.1080/03036758.2023.2278730

Marine and Freshwater Research 74:17 (2023)

Taxonomic diversity of fishes from two coral-reef waters of the South China Sea

Yuanjie Li, Jun Zhang, Zuozhi Chen, Xuejiao Dai, Pengli Xiong and Wenming Yu

To understand the patterns of fish composition and taxonomic diversity in coral-reef waters of the South China Sea, we described the variation of species composition, taxonomic diversity and *G-F* diversity-measure index of coral-reef fish assemblages in Qilianyu Island and Meiji Reef in the South China Sea. We suggest that high species diversity and low taxonomic diversity are important features of the fish assemblages of coral reefs in the South China Sea. Also the Qilianyu Island and Meiji Reef need to be protected in a focused manner.

Abstract | Full Text | PDF (1001 KB)

Effects of acclimation temperature and exposure time on the scope for growth of the blackfoot Pāua (*Haliotis iris*)

Thuy T. Nguyen, Islay D. Marsden, William Davison and John Pirker

This study evaluated the effects of increasing temperature on energy available for growth of Pāua (*Haliotis iris*) in New Zealand and their physiology, including absorbed energy, respiration energy and ammonia excretion energy. With ongoing global warming, it can be concluded that adult Pāua could be under severe stress and divert their energy away from growth by increase in respiration energy.

Abstract | Full Text | PDF (1.4 MB) Open Access Article

Reproductive phenology and the influence of temperature in two sympatric New Zealand freshwater mussel species

Michele Melchior, Susan J. Clearwater and Kevin J. Collier

We investigated the phenology (reproductive timing in relation to environmental conditions) in two New Zealand parasitic freshwater mussel species. Our study demonstrated that *Echyridella aucklandica* reproduces earlier and longer than does *E. menziesii*, with temperature playing a key role in regulating the onset of reproductive activity in both species. The

demonstrated link between temperature and reproductive phenology has broad implications in the context of climate change, raising concerns about potential timing mismatches in glochidia release and host-fish availability.
Abstract | Full Text | PDF (2.8 MB) Open Access Article

Conferences and Meetings

CFP: Paper proposals on Oceans HSTM for the 2025 ICHST in Ōtepoti Dunedin, New Zealand: "Peoples, Places, Exchanges, and Circulation"

The International Commission for the History of Oceanography (ICHO) is seeking paper proposals to join its sessions at the 2025 International Congress of History of Science and Technology to be held 29 June - 5 July 2025 in Ōtepoti Dunedin, New Zealand (for details, see: https://www.ichst2025.org/).

Hybrid sessions permitting remote participation will be possible.

Proposals should address some aspect of the history of ocean science and/or technology (broadly construed) in conversation with the conference theme Peoples, Places, Exchanges, and Circulation, explained below.

Please submit proposed abstracts by Friday, March 1, 2024 via this form. Questions? Contact Penelope Hardy (phardy@uwlax.edu).

Conference theme: Peoples, Places, Exchanges, and Circulation.

One of the most important trends in the field of the history of science, technology, and medicine has been a move towards more integrated, expansive, and connected histories that seek to include the participation of the entire world. Our Congress theme strives to further this development and to link different disciplines and perspectives. We also want to provide an opportunity for Indigenous voices, particularly those of Māori, to be heard.

The Congress theme emphasizes the importance of situating local knowledge and practices in specific contexts as well as local or regional history of science, technology, and medicine in a

global context. What difference does a global perspective make for local, national, and regional studies in the history of science, technology, and medicine? How are local and global contexts related? How do local histories change if they are analyzed using a different scale of analysis, for example a regional or global framework?

The theme, however, also stresses the importance of circulation or back-and-forth movement across borders involving encounters and exchanges. We seek contributions that explore movement or flow between regions, cultures, or societies, specifically the circulation, exchange, and transit of knowledge, techniques, texts, peoples, and material objects. How has this interaction resulted in new configurations in the history of science, technology, and medicine? Nevertheless, circulation does not mean that flows are always smooth.

Exchange and circulation involve local actors, who, in some cases have played an important role as go-betweens or mediators between different knowledge systems, but also as mediators between producers and consumers around the world.

We particularly welcome contributions that explore the historical role of Indigenous peoples in the history of science, technology, and medicine.

Overall, our theme stresses inclusive histories exploring peoples, places, exchanges, and circulation in the history of science, technology, and medicine from around the world.

Contact Information

Questions? Contact Penelope Hardy (phardy@uwlax.edu).

[DHST] 27th ICHST 2025

The organizing committee invites you to submit a Symposia to be considered for presentation at the conference in Ōtepoti Dunedin, 29 June - 5 July 2025.

We invite Symposia submissions on any topic in the history of science, technology and medicine, but we especially encourage proposals that address aspects of the conference theme, across all periods, and from a variety of methodological and historiographical approaches.

Symposia proposal submissions will close on _Monday 1 April 2024_.

The theme of the 27th ICHST is “*Peoples, Places, Exchanges, and Circulation*."

For more information and to download your symposia proposal template, please visit the *conference website.*

<https://urldefense.com/v3/__https://www.ichst2025.org/call-for-symposia-proposals__;!!PvDODwlR4mBZyAb0!UbPYrA8K1FsndPvV1SSaG-8gWAHPi90eMNDhtuoZtFCy0L04q-2QIbHmu186RMLCI5hjkqsQlkBDubm5me0$ >

KEY DATES

Call for submission of symposia proposals Now open
Deadline for submission of symposia proposals 1 April 2024
Call for stand-alone papers opens 1 April 2024
Registration opens 11 July 2024
Deadline for submission of stand-alone paper proposals From 1 October 2024
Deadline for submission of paper abstracts within symposia From 1 November 2024
Early bird registration closes 3 April 2025
Program released online From 1 May 2025
Final date for registration 1 May 2025
Congress opens 29 June 2025

https://urldefense.com/v3/__http://www.ichst2025.org__;!!PvDODwlR4mBZyAb0!UbPYrA8K1FsndPvV1SSaG-8gWAHPi90eMNDhtuoZtFCy0L04q-2QIbHmu186RMLCI5hjkqsQlkBDZCMHL2U$ <https://urldefense.com/v3/__https://www.ichst2025.org/__;!!PvDODwlR4mBZyAb0!UbPYrA8K1FsndPvV1SSaG-8gWAHPi90eMNDhtuoZtFCy0L04q-2QIbHmu186RMLCI5hjkqsQlkBD-OUuXcY$ >