The International Journal of Conservation

Published for Fauna & Flora

www.oryxthejournal.org

January 2025 · Volume 59 · Number 1

Community participation

https://doi.org/10.1017/S0030605325000547 Published online by Cambridge University Pres

Oryx

FYX The International Journal of Conservation

ISSN 0030-6053 Fauna & Flora International A company limited by guarantee registered in England 2677068 Registered Charity 1011102 A non-profit charitable institution ABN 75132715783 in Australia

A non-profit organization EIN #81-3967095 in the USA

fauna-flora.org

Editor

Dr Martin Fisher Fauna & Flora, UK

Managing Editor

Julia Hochbach Fauna & Flora, UK

Editorial Officer Emma Sinnett Fauna & Flora, UK

Senior Editors

Professor Andrew Balmford, FRS University of Cambridge, UK Dr Porter P. Lowry II Missouri Botanical Garden, USA and France Dr Mike Maunder UK Professor Jeffrey A. McNeely Thailand Professor Dame E. J. Milner-Gulland University of Oxford, UK Dr John G. Robinson Wildlife Conservation Society, USA Professor William Sutherland, FRS University of Cambridge, UK

International Board of Editors

Dr Elizabeth L. Bennett USA Dr Mar Cabeza Finland Professor Lisa Campbell USA Dr Liana Chua UK Dr Jenny Daltry USA and UK Dr Aparajita Datta India Dr Abigail Entwistle UK Professor Brendan Fisher USA Professor Brendan J. Godley UK Professor Rhys Green UK Professor George Holmes UK Professor Zhigang Jiang China Professor Julia Jones UK Ashish Kothari India Dr David Mallon UK Dr Helen Newing UK Sara Oldfield, OBE UK Dr Kent H. Redford USA Dr Jon Paul Rodríguez Venezuela Dr Anthony B. Rylands USA Professor Chris Sandbrook UK Professor Philip Seddon New Zealand Dr Aby Sene-Harper USA Professor Bob Smith UK Dr Paul Smith UK Dr Matt Walpole UK

Fauna & Flora

Patron HRH The Prince of Wales

President

HRH Princess Laurentien of The Netherlands

Vice President Sir David Attenborough, OM, FRS

Nature Champions Network

Baroness Valerie Amos, LG, CH, PC Professor Sir Roy Anderson, FRS, FMedSci Georgina Bloomberg The Lord Browne of Madingley, FR Eng Lindsay Bury Dee Caffari Charlene de Carvalho-Heineken Giles Clark Dame Judi Dench, CH Dr Lee Durrell Hugh Fearnley-Whittingstall Rupert Goodman Edward Hoare Tim Jarvis, AM Anders Johansson Rove McManus Justin Mundy, LVO Blaine T. Phillips The Rt Hon the Lord Randall of Uxbridge Dr Lisbet Rausing Sir Gareth Rhys Williams, CB Dr Claudio Segré The Rt Hon Mark Simmonds Victoria Stack Jon L. Stryker Andrew Sykes Edward van Cutsem Antonio Versace Richard Walker, OBE

Fauna & Flora, The David Attenborough Building, Pembroke St, Cambridge CB2 3QZ, UK Tel +44 1223 571000 E-mail info@fauna-flora.org Fauna & Flora Australia, c/o Purpose Accounting, 583 Elizabeth St,

Redfern NSW 2016, Australia. E-mail ffiaustralia@fauna-flora.org Fauna & Flora USA, One Thomas Circle NW, Suite 700, Washington, D.C. 20005, USA. E-mail ffiusa@fauna-flora.org

> Charles Whitbread, DL Dr Adrian Wilson Nigel Winser The Rt Hon Baroness Young of Old Scone

Council

Chair Stephen Fitzgerald, AO **Vice Chair** David Gibson **Treasurer** Martin Tyler

Jeffrey Blumberg Anna Gavazzi Abshiro Halake Tony Juniper, CBE Christine Lloyd Hernán González Merlani Miguel Nogales Dr Liz Rogers Hugh Sloane Tola St. Matthew-Daniel Kimberly Stewart Dominic Waughray Professor Joanne Webster, FLS, FRSB

Chief Executive Officer Kristian Teleki

US Board of Directors

President (Interim) Diane Alfano Treasurer Lorenzo Nogales

Sara Andersen Millie Kerr Nick Lo Tola St. Matthew-Daniel Rayne Sullivan

Australian Board of Directors Chairman Michael Forsdick

Dr Chloe Buiting Dr Angela Dwyer Liz Ann MacGregor Kristian Teleki

Open access and publication charges *Oryx* (ISSN 0030-6053) is published six times per year (one volume per annum) in January, March, May, July, September and November. As a gold open access journal, *Oryx* is published without access restrictions and receives no subscription revenue. The costs of publication are partially covered by an article processing charge levied upon authors, their funding bodies or institutions. The 2025 charge is GBP 2460/USD 3550 for Articles, Reviews and Forum Articles (GBP 975/USD 1475 for Short Communications). No charge is payable for Conservation News items, Letters, Letter Responses, Book Reviews or Editorials. Members of Fauna & Flora International receive a 15% discount on the article processing charge. *Oryx* is committed to supporting all conservationists, and discounts and waivers are available to authors unable to pay the full article processing charge. For full details visit oryxthejournal.org/authors/guidelines-for-authors/#open-access.

Fauna & Flora *Oryx* **member subscription** *Oryx* membership of Fauna & Flora starts from GBP 45 per year for concessions and GBP 100 for other members (or equivalent price in USD/EUR). For more information about Fauna & Flora *Oryx* membership visit fauna-flora.org/appeals/oryx.

Internet access This journal is freely available to read on Cambridge Core at cambridge.org/oryx. For other Press titles access cambridge.org.

Submission of manuscripts Guidelines for authors are available online at oryxthejournal.org/authors/guidelines-for-authors. Manuscripts should be submitted at mc.manuscriptcentral.com/oryx.

Back volumes Print copies of the current volume and two previous volumes can be obtained from Cambridge University Press at Cambridge University Press and Assessment, Journals Fulfilment Department, University Printing House, Shaftesbury Road, Cambridge, CB2 8B5, UK; or in the USA, Canada and Mexico: Journals Fulfilment Department, Cambridge University Press and Assessment, 1 Liberty Plaza, Floor 20, New York, NY, 10006, USA. Requests for previous volumes should be directed to the editorial office at oryx@fauna-flora.org.

Paper and printing *Oryx* is printed on FSC[™]-certified paper and cover board. FSC is an independent, nongovernmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see fsc.org for more information. For EU product safety concerns, contact us at Calle de José Abascal, 56, 1°, 28003 Madrid, Spain, or email eugpsr@ cambridge.org

Printed in the UK by Henry Ling Limited, The Dorset Press, Dorchester, DT1 1HD.