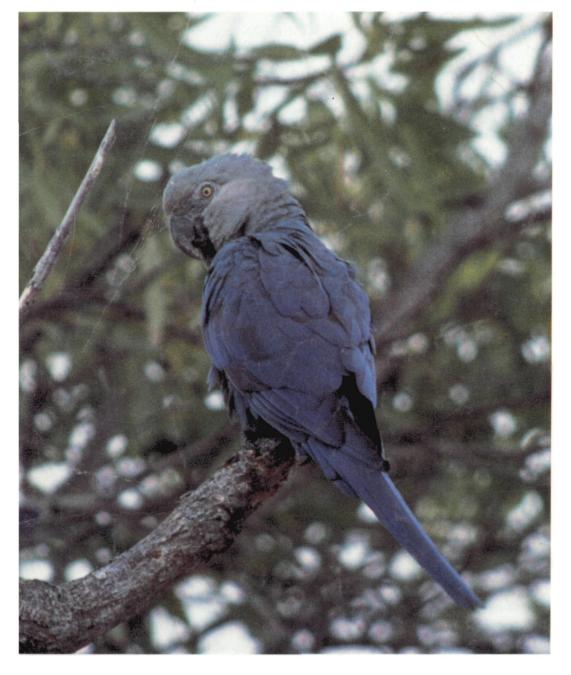
Volume 24 October 1990







Fauna & Flora Preservation Society Conserving Wildlife Since 1903

Patron Her Majesty The Queen

FFPS, 79-83 North Street, Brighton, BN1 1ZA. 0273 820445. Registered Charity 250358

President

Lord Craigton, PC, CBE

Vice-Presidents

Dr E.A.O. Asibey (Ghana)
Sir David Attenborough CBE FRS (UK)
Dr David Bellamy (UK)
Dr Felipe Benavides OBE (Peru)
Dr Gerard A. Bertrand (USA)
Lt Col C.L. Boyle OBE (UK)
Mervyn Cowie CBE ED (Kenya)
Dr Kai Curry-Lindahl (Sweden)
Gerald Durrell OBE (UK)
Maisie Fitter (UK)
Richard Fitter (UK)
Major Ian R. Grimwood OBE (Kenya)
Grenville Lucas OBE (UK)
Academician V.E. Sokolov (USSR)
Dr Lee M. Talbot (USA)

Chairman

David M. Jones

Vice-Chairman Dr David Chivers

Hon. Treasurer Edward Wright

Council

Dr Keith Banister Stephen Bankler-Jukes Lord Birkett Dr Ieremy Cherfas Bruce Coleman Dr Mark Collins Dr Lee Durrell Nicholas Hammond Edward Hoare Richard Howard Dr Chris Humphries James MacEwen Dr David Mcdonald Christopher Parsons Richard Steele Dr Ian Swingland Susan Wells Dr P. Wyse Jackson

Membership

Oryx is free to members. Details, see tear sheet.

Members' changes of address

In order to enable us to keep our membership records up to date please send any changes direct to: The Membership Secretary, FFPS. 79–83 North Street, Brighton, East Sussex BN1 1ZA.

Editor of Oryx

Dr Jacqui Morris

Manuscripts are invited for consideration for publication and should be sent to the Editor at FFPS 79–83 North Street, Brighton, East Sussex BNI 17A

The opinions expressed by authors do not necessarily reflect the policy of FFPS.

Cover

The last wild Spix's macaw, near Caraçá, Bahia State, north east Brazil (Luiz Claudio Marigo/Bruce Coleman Ltd).

Colour cover donated by Edward Wright Ltd. Colour separation donated by Masterlith Ltd of Mitcham in Surrey.

Subscriptions

The Journal is published quarterly (January, April, July, October) and the subscription price for 1990 for non-members is £38 (UK), £44.00 (overseas except North America) and \$73.50 (US and Canada) post free.

The Journal is published for the Fauna & Flora Preservation Society by Blackwell Scientific Publications Ltd. All matters relating to subscriptions, back numbers and offprints should be sent to Blackwell Scientific Publications Ltd, PO Box 88, Oxford OX2 0NE, UK.

Advertising

Enquiries should be sent to the Advertisement Manager, Blackwell Scientific Publications Ltd, Osney Mead, Oxford OX2 0EL, UK (telephone (0865) 240201; facsimile (0865) 721205).

© 1990 Fauna & Flora Preservation Society.

USA

07001, USA.

Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by the Fauna & Flora Preservation Society for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$05.00 per copy is paid directly to CCC, 27 Congress Street, Salem, MA 01970, USA. This consent does not extend to other kinds of copying, such as copying for general distribution for advertising or promotional purposes, for creating new collective works or for resale. Special requests should be addressed to the Editor. 0030–6053/90 \$05.00.

The Journal is despatched within Europe by surface mail, to other continents by various forms of air speeded delivery: to the US* by air freight for forwarding by second class post, to India by air freight for guaranteed local delivery, and to all other countries by Accelerated Surface Post. *Second class postage paid at New York, NY. Postmaster, send address changes to *Oryx*, c/o Mercury Airfreight International Inc. 2323 Randolph Avenue, Avenel, NJ



Journal of the Fauna & Flora Preservation Society

Volume 24 1990 Pages 1–240

Blackwell Scientific Publications
OXFORD LONDON EDINBURGH BOSTON
MELBOURNE PARIS BERLIN VIENNA

CONTENTS

Volume 24 January 1990

News and Views 1

The slaughter of Sahelian wildlife by Arab royalty

John E. Newby 6

Conservation before the crisis—an opportunity in Gabon *Thomas O. McShane* 9

The conservation of loggerhead turtles in Zakynthos, Greece
Lynda M. Warren and Eleni
Antonopoulou 15

Black rhinos and African elephants: lessons for conservation funding *N. Leader-Williams* 23

Northern Europe's most important bat hibernation site *Zbigniew Urbanczyk* **30**

Briefly 35

Book Reviews 49

FFPS News 53

Volume 24 April 1990

News and Views 61

Briefly 62

Javan rhinoceros in Vietnam George B. Schaller, Nguyen Xuan Dang, Le Dinh Thuy and Vo Thanh Son 77

Conserving Pacific Island flying foxes

Amie Braütigam and Thomas Elmqvist 81

Lake Nakuru Black Rhinoceros Sanctuary Christopher Lever 90

How to develop a community sanctuary—an experimental approach to the conservation of private lands *Robert H. Horwich* 95

Conservation in the Pantanal of Brazil Russell A. Mittermeier, Ibsen de Gusmão Câmara, Maria Tereza Jorge Pádua and Janice Blanck 103

Book Reviews 113

FFPS News 117

CONTENTS

Volume 24 July 1990

News and Views 121

Briefly 126

Distribution and status of Nubian ibex in Saudi Arabia

Khushal Habibi and John Grainger 138

Jentink's duiker in Sierra Leone: evidence from the Freetown Peninsula

Glyn Davies and Bastian Birkenhäger 143

Conservation of the black-crested gibbon in China

William Bleisch and Chen Nan 147

A new population of de Brazza's monkey in Kenya

J. W. Muriuki and M. H. Tsingalia 157

The trade in freshwater turtles from Bangladesh

Indraneil Das 163

Letters 167

Book Reviews 170

FFPS News 173

Volume 24 October 1990

News and Views 181

Briefly 189

The white-topped pitcher plant—a case of precarious abundance *George W. Folkerts* **201**

Deciding the future of Uganda's tropical forests

Gary M. Tabor, Andrew D. Johns and John M. Kasenene 208

The conservation of steppic birds—a European perspective *Paul D. Goriup and Leo Batten* **215**

The conservation of Spix's macaw Tony Juniper and Carlos Yamashita 224

Book Reviews 229

FFPS News 234

Index to Volume 24 236



Fauna & Flora Preservation Society

Founded 1903

Patron HER MAIESTY THE OUEEN

Registered Address

c/o Zoological Society of London Regent's Park, London NW1 4RY

Address for mail

79–83 North Street, Brighton East Sussex BN1 1ZA

Registered Charity No. 250358

President

Lord Craigton, PC, CBE

Vice-Presidents

Dr E. A. O. Asibey (Ghana)
Sir David Attenborough CBE FRS (UK)
Dr David Bellamy (UK)
Dr Felipe Benavides OBE (Peru)
Dr Gerard A. Bertrand (USA)
Lt Col C. L. Boyle OBE (UK)
Mervyn Cowie CBE ED (Kenya)
Dr Kai Curry-Lindahl (Sweden)
Gerald Durrell OBE (UK)
Maisie Fitter (UK)
Richard Fitter (UK)
Major Ian R. Grimwood OBE (Kenya)
Grenville Lucas OBE (UK)
Academician V. E. Sokolov (USSR)
Dr Lee M. Talbot

Chairman

David M. Jones

Vice-Chairman

Dr David Chivers

Honorary Treasurer

Edward Wright

Council

Dr Keith Banister Stephen Bankler-Jukes Lord Birkett Dr Jeremy Cherfas Bruce Coleman Dr Mark Collins Dr Lee Durrell Nicholas Hammond Edward Hoare Richard Howard Dr Chris Humphries Iames MacEwen Dr David Macdonald Christopher Parsons Richard Steele Dr Ian Swingland Susan Wells Dr P. Wyse Jackson

Editor of *Oryx*Dr Jacqui Morris

Editorial Board of Oryx

Dr Pat Morris (Chairman)
Dr Kathleen Blanchard
Dr Lee Durrell
Maisie Fitter
Dr Terry Graham
Nicholas Hammond
Dr Chris Humphries
Anthony Huxley
Brian Jackman
Dr Alison Jolly
Dr John Sparks
R. I. Vane-Wright
Dr Maureen Whalen
Edward Wright

©1990 Fauna & Flora Preservation Society. USA: Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by the Fauna & Flora Preservation Society for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$05.00 per copy is paid directly to CCC, 27 Congress Street, Salem, MA 01970, USA. Special requests should be addressed to the Editor. 0030–6053/90 \$05.00.

Typesetting and composition by Plumpton Green Publishing Services. Printing by Grosvenor Press, Portsmouth.

Professional Services in Wildlife Management

Dr. JOHN HENSHAW, F.I.Biol.

Furzeland Deer Park, Cadbury, Devon EX5 5LA, England Telephone: Bickleigh (08845) 556

Providing services to private clients, corporations, institutions, NGOs, governmental and international agencies; either directly or with incorporated consultancies and other professional groups. Thirty years of experience worldwide, covering all aspects of wildlife work.

Basic surveys of wildlife populations and their distribution patterns.

Management of ecosystems – wildlife populations and their habitats.

Planning and management projects for national parks, game reserves and similar.

Planning and development of wildlife related tourism projects.

Wildlife and habitat related environmental impact statements.

Programmes for the conservation, management and protection of endangered species.

Programmes for the utilisation and harvesting of species in abundance.

Specialist in the immobilisation by darting of large mammal species for research, management and translocation purposes.

TRANQUILISATION EQUIPMENT

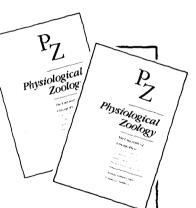
Dart Guns/Gas Pistols/Blow Pipes/ Pole Syringes/Stun Guns

For full details of our complete range of immobilisation equipment, including the superbly flexible Model 50 gas rifle, please contact:

Tranquil-Inject Enterprises, 3 Warren Court, The Warren, Caversham, Reading RG4 7TF Tel: 0734 482560 Telex: 847172 PROJEN G
Fax: 0734 504847

C. J. & K. S. VOICE, Registered Fire Arms Dealer, TV No. 79 VAT Registration No: 438 2184 47

Devoted entirely to issues, discoveries, and developments—*Physiological Zoology* publishes the best and latest research on biological processes, behavior, and impinging environmental factors.



PHYSIOLOGICAL ZOOLOGY

Physiological Zoology has served the needs of experimental and comparative zoologists for over sixty years. Today, it remains one of the few journals concerned with the physiological, environmental, and biochemical responses of diverse organisms and animal populations. Quantitative analyses of data drawn from field observations and laboratory experiments are an integral part of the international research published in **PZ**.

Physiological Zoology: a change of pace:

Under the editorship of Warren Burggren and associate editorship of John Roberts, there's a new look to **PZ**. While retaining its focus on original research, the journal has instituted a number of substantive editorial changes. An *international perspective* is represented by an expanded editorial board; readers can now benefit from the expertise from scientists around the globe, including Australia, Austria, India, Japan, and West Germany among others. Two new sections include: "Invited Perspectives in Physiological Zoology," featuring reflective essays of timely interest and "Technical Comments," a forum for brief notes regarding papers recently published in **PZ**. Symposium issues feature selected peer-reviewed papers from significant meetings around the world.

Warren W. Burggren, editor John L. Roberts, associate editor Published bimonthly by the University of Chicago Press Sponsored by The Division of Comparative Physiology and Biochemistry, American Society of Zoologists

One-year subscription rates: Individuals \$48.00; ASZ members \$39.00; Students (with copy of ID) \$31.00; Institutions \$120.00. **Outside USA**, add \$4.00 for postage. **Visa** and **MasterCard** accepted. To order, send check, purchase order, or complete charge card information to The University of Chicago, Journals Division, Dept. SS0SA, P.O. Box 37005, Chicago, IL 60637.

5/90