

FFPS news

FFPS/ICBP Conservation Expedition Competition winners

The joint FFPS/ICBP Conservation Expedition Competition (whose details were inserted in the 1988 October issue of *Oryx*) attracted entries from expeditions to almost 30 countries. Representatives from both organizations considered each entry with great care before making the final difficult choice of winner and runner-up for each of two categories. At an award ceremony held on the evening of 15 May 1989 during the course of an FFPS members' evening, prizes were presented as follows:

Bird category

£1000 First Prize to the University of East Anglia 1989 Sozoranga Expedition to Ecuador. Ecuadorian tropical dry forest is being destroyed by logging, fuel-gathering and over-grazing by goats, and numerous endemic birds are threatened as a result. The expedition intends to record data on the avifauna of the remnant forest found in the Sozoranga Mountains in the south-west of the country. If these forest areas are found to be a refuge for endemic birds, the information gathered by the expedition on feeding requirements and territory size will be essential for their future conservation.

£800 Runner-Up Prize to the Manchester Indonesian Island Expedition. The expedition's objective is to survey remaining areas of rain forest on the Indonesian islands of Sumba and Buru in order to gain information on the status of the many forest-dependent endemic birds so that a conservation strategy can be formulated. Most of Sumba has already been deforested and much of Buru's forest is under timber concessions.

All Other Animals and Plants category

£1000 First Prize to Project GREEN, the Cambridge Ghana Rainforest Expedition Eighty-Nine. The expedition is undertaking urgent biological research in one of the few remaining areas of primary rain forest in Ghana, concentrating on primate and entomological research to provide information necessary for the preservation of this critical stronghold for endangered animals. The expedition team will also assess the level of use of forest resources by local villagers,

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and their attitude towards existing management policies.

£800 Runner-Up Prize to the Madagascar Environmental Research Group for Tsaratanana 1989. The expedition will work in one of the largest rain forest reserves in Madagascar containing mid-altitude forest, mountain forest and high-altitude zones. No survey work has been carried out here since the 1960s and the current condition of the reserve is unknown. The expedition will concentrate on surveys of small mammals and lemurs, reptiles and birds, on the general forest structure, and on the extent of primary forest and other habitats.

The Oryx 100% Fund

Grants awarded

At its meeting on 15 March the FFPS Council approved funding for the following projects.

£500 for an investigation into the conservation status, ecology, local uses and taxonomic status of eight representative genera of Jamaica's flora. The country's flowering plants include 827 endemics, of which 383 are rare, threatened or possibly extinct. Very few are in cultivation. The project will focus on genera containing a large proportion of rare endemics and on groups that in other regions are known to possess pharmacological properties. Management programmes will be devised for each species and its habitat and small portions of the plants will be collected for cultivation, but not where this would further endanger the species (Project no. 89/5/1).

£500 to a project in Barito Ulu, northern Kalimantan (Indonesian Borneo). A team from Cambridge University will compile the first bird and mammal inventories for the area. These are essential to support the move by conservation bodies and provincial government for full protection of this forest, which is currently covered by logging concessions. Team members will gather all information possible on the ecology of threatened species. An investigation will also be made into the effects of logging on bird communities by doing quantitative surveys within

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undisturbed and adjacent logged forest. The results of the work will be used by the Indonesian Institute of Sciences in formulating future forest management strategies (Project no. 89/16/3).

£300 to the University of East Anglia's expedition to the 10,000-ha El Triunfo reserve in cloud forest in Mexico, where its five members will carry out a detailed vegetation survey. The results will aid the Institute of Natural History of Chiapas with its management plan for this area, which is a vital water catchment and a refuge for several endangered species, including the quetzal *Pharomachrus mocinno* and the horned guan *Oreophasis derbianus* (Project no. 88/59/29).

£300 to Bristol University's expedition to Lake Chilwa, Malawi. This wetland is an important breeding ground for birds, with 150 resident and 35 visiting species. The Malawian Government has already decreed the area as an official bird sanctuary, but the Department of National Parks and Wildlife would like to nominate it as a Ramsar site. This study will help provide information to support that proposal (Project no. 89/15/2).

£300 to a study of forest birds in eastern Nepal. Survey work is urgently needed in the remaining subtropical and temperate broadleaved forests in eastern Nepal to identify suitable areas for protection. These dense wet forests possibly support as many as 11 of the 31 breeding species currently unrecorded inside protected or proposed protected areas. Five of these are known only from this area and are endangered. The work will be useful to the Department of National Parks and Wildlife Conservation in Nepal, which is aiming to protect a representative sample of the country's ecosystems (Project no. 89/16/4).

Reports received

The following two reports were received recently from recipients of Oryx 100% Fund grants.

A Survey of Coastal Wetlands and Shorebirds in South Korea, Spring 1988 (Project no. 88/1)

South Korea has extensive coastal wetlands, many of which are under imminent threat from reclamation. The country also occupies a central position in the East Asian/West Pacific flyway for

migratory birds and little information is available about the ornithological importance of these threatened wetlands. The South Korean Wetland and Waterbird Project was instigated by two graduate students from the University of East Anglia in conjunction with Professor Won Pyong-Oh at the Institute of Ornithology, Kyung-Hee University, Seoul, and the Asian Wetland Bureau, Kuala Lumpur.

The project started in early April 1988 and eight weeks were spent in fieldwork. The aims were: to identify key coastal wetland sites for waterbirds; to obtain information on the number of species and their numerical distribution; and to assess the wetlands with regard to their current protection status, disturbance and threats.

Four wetland areas of international importance, as defined under Ramsar Convention criteria, were discovered on the Yellow Sea coast; South Kangwha Island, South Yong Jong Island, Namyang Bay and Asan Bay. In addition, Shin Islet, on the same coast, was found to be extremely important for breeding waterbirds. Of particular interest here was the discovery of 429 nests of Chinese egret *Egretta eulophotes*, a *Red Data Book* species, representing over half the known world population.

In total 130,000–170,000 shorebirds of 35 species were recorded at 30 wetland sites along the south and west coasts. Of these the most important were spotted greenshank *Tringa guttifer* (the largest number ever recorded), Chinese egret (the world's largest breeding colony), great knot *Calidris tenuirostris* (the largest number recorded in Asia) and eastern curlew *Numenius madagascariensis* (more than 10 per cent of the known world population).

The four areas identified as being of international importance are threatened with complete destruction, being included in the 480,000 ha of intertidal land that the South Korean Government proposes to reclaim by 2001. A further threat identified was that of contamination by pesticides and industrial waste, particularly heavy metals. The team recommended that full protection be given for the four key wetlands and for Shin Islet, that effective pollution control legislation be introduced and enforced, that more ecological information is required in order

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to evaluate the entire coast before and following reclamation work, and that education programmes should be instigated. Following these recommendations the South Korean Government has designated the Chinese egret and Shin Islet as Korean national monuments. The other key sites have also been submitted to the relevant government departments for consideration.

The report of this project, *A Survey of Coastal Wetlands and Shorebirds in South Korea, Spring 1988*, Asian Wetland Bureau Publication No. 39, is available from Asian Wetland Bureau, Institute of Advanced Studies, University of Malaya, Lembah Pantai, 59100 Kuala Lumpur, Malaysia, for US\$28.80 by airmail or US\$20.70 by surface.

Project Kelelawar (Project no. 87/34/13)

Four second-year undergraduates from Oxford University and an Indonesian research student from the National University in Jakarta made a seven-week expedition to the Togian Islands off central Sulawesi, Indonesia, in July–August 1987. The objective was to investigate the bat and invertebrate faunas of the sea and river caves of the islands, which were unknown scientifically.

Their 84-page report details the results of their mapping and survey of 21 caves as well as some forest and village sites. Sixteen bat species were recorded, but of these not one was new to Sulawesi. The invertebrate collection, on the other hand, is likely to yield many new species; to date one species collected from the forest has been identified as representing an entirely new family of millipedes.

News from the Impenetrable Forest

The Society has been giving financial support to the Impenetrable Forest Conservation Project (IFCP) since its inception in August 1986. The project's most recent report gives some heartening news of progress in its objectives to conserve this important forest and the mountain gorillas that live there.

The IFCP has received good co-operation and assistance from the Ugandan Government, local

people and several organizations and institutions. It has almost completed the construction of the Impenetrable Forest Conservation and Research Station and has trained Makere University graduates and Ugandan Government counterparts. Apart from the project leader, Dr Tom Butynski, the project is staffed entirely by Ugandans.

The IFCP, like the Mountain Gorilla Project in Rwanda, works on a number of fronts. It has set up educational, and is participating in agroforestry, programmes, and has involved itself with other local activities, helping to rehabilitate the local dispensary, for example, in order to gain the trust of the local people. In the Impenetrable (Bwindi) Forest itself it has set out to control illegal activities; since the project started, more than 1360 items have been confiscated—wire snares, spears, machetes, gold pans and cattle—and 107 people have been arrested and prosecuted. There is no evidence to suggest that poachers are using guns in the forest and it is probable that no gorillas or elephants have been killed in the last 2½ years. The project leader estimates that there has been a 90 per cent reduction in illegal activity since IFCP started. Much of this is due to the excellent work by the newly trained and equipped guards; FFPS funds have been used to support them, building a guard's camp and providing them with equipment (*Oryx*, 22, 135).

Although the gorilla census in the Impenetrable Forest is not expected to be completed until mid-1989 it is certain that the future of the animals in this forest is more secure as a result of the project.

The Gahinga Gorilla Sanctuary on the Uganda side of the Virungas is not yet so well-protected. There is considerable circumstantial evidence and several witnesses suggesting that one silver-back and one adult female mountain gorilla were killed there in August 1988 and an infant captured and taken to Rwanda, where it probably died. The Senior Game Guard at Gahinga has been arrested and awaits trial, accused of shooting the gorillas with a Game Department rifle and of being the main person behind the taking of the infant.

As a result of this incident it was agreed that Gahinga game guards should be equipped,

trained and supported by IFCP like those in the Impenetrable Forest, that an exchange of guards be made between the two forests, that two new game guards be established at Gahinga and that tourism be limited and better controlled in order to give the guards more time to enforce the Game Act. Some of these changes have been implemented and the work of the guards at Gahinga has improved considerably. The FFPS has recently contributed to this effort by giving £2000 to build a game camp on the edge of the Gahinga Gorilla Sanctuary.

Bromeliads threatened by trade

The trade in many endangered plants is now controlled under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). However, new groups of plants can become victims of horticultural fashion almost overnight and their commercial exploitation can proceed faster than the process of listing them on CITES appendices. A recent example of this is the trade in species of the Bromeliaceae. Research, funded by the Society and carried out by Mike Read, has shown that many of the plants on sale are of wild origin.

There are about 2000 species of bromeliads, all but one from the New World, distributed from Virginia, USA, to southern Argentina. Most are very attractive, with firm sword-shaped leaves and brightly coloured flower-spikes, and they all share the ability to obtain the water and nutrients they require from rainfall and mist, using their roots only for support. Familiar members of the family are the pineapple *Ananas comosus* and Spanish, or Florida, moss *Tillandsia usneoides*, but new species and subspecies are still being discovered.

Most at risk from the current horticultural trade are 'air plants', which constitute a large proportion of the 400 members of the genus *Tillandsia*. The leaves of these plants are covered with grey fur-like scales, which have the dual function of absorbing moisture from the air and transferring it to the leaf tissue, and of protecting the plant from strong sunlight, thus slowing down dehydration in drought conditions.

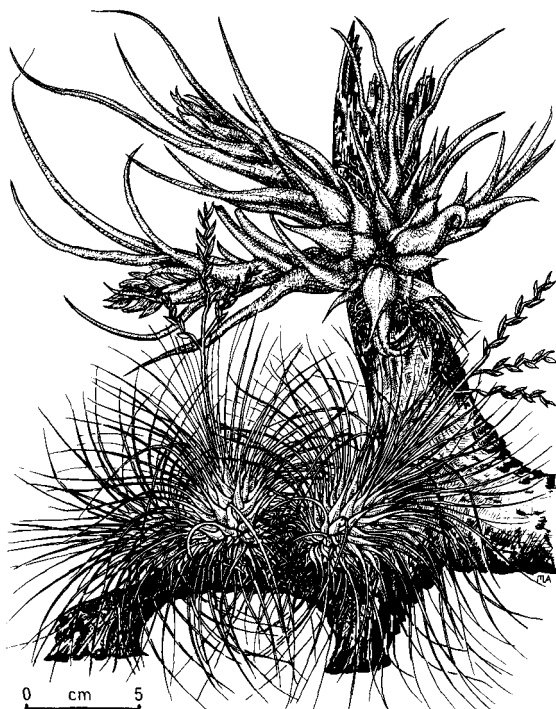
Members of the genus *Tillandsia* are being mar-

keted as being suitable for modern interior decor and as requiring little cultural expertise. In the UK only a few species are currently widely available at garden centres and high street shops, although specialist outlets offer over 70 species. The trade in the US may be considerably larger; advertisements in a specialist US journal offer around 200 species, and bulk lots of up to 10,000 *Tillandsia* plants. The extent of the trade in western Europe is yet to be established, but dealers in The Netherlands, Denmark and West Germany list almost 200 species. There is also probably a high level of trade in Japan.

Since most *Tillandsia* species are difficult to propagate, slow-growing, and take several years to flower from seed, collection of mature plants from the wild is economically attractive, and there is no doubt that it is endangering the survival of many species in the wild. This is especially so if trees are cut down to strip the plants from them, but even where plants are collected from standing trees, a great deal of damage may be done to the ecosystem. It is probable that bromeliads, which densely clothe tree trunks and branches in some places, play an important ecological role by trapping moisture from rain and mist.

There are indications that *Tillandsia* plants are being collected from the wild in at least Paraguay, Panama, Guatemala and Mexico; lorry-loads of plants have been seen to leave these latter two countries bound for the US. It is also believed that plants are exported from Honduras and it is probable that wild collection is occurring in many other Central and South American countries. Although some nursery production of bromeliads is taking place in Argentina, Belize, Brazil and Guatemala, it is probably in tandem with wild-collection.

The status in the wild of many species is still poorly known, although most have a very limited range and it is believed that many are in imminent danger of extinction. The FFPS is recommending that research into the nature, volume and pathways of the trade should be undertaken as soon as possible, along with investigations into which species are most vulnerable or already endangered. The trade also needs to be monitored while the research is under way; to



Two species of air plant: *Tillandsia pruinosa* (above) and *T. filifolia* (below) (by kind permission of Kew Magazine).

this end a proposal for Appendix II listing for all Bromeliaceae (except for the pineapple) and for Appendix I listing of all grey-leaved *Tillandsia* species should be submitted to the Parties to CITES as soon as possible. The governments of those countries from which bromeliads are exported should be encouraged to take steps on a national level to ensure that their natural heritage is not damaged by the bromeliad trade. Nurseries in exporting and importing countries should also be encouraged to propagate bromeliads, from seeds or offsets. Unless funds are found for these initiatives the prospects for some *Tillandsia* species look very poor indeed.

Source

Read, M. 1989. Bromeliads threatened by trade. *The Kew Magazine*, 6, 22–29.

Postscript

Since the above report was prepared an investigation by TRAFFIC Germany has revealed that specialized dealers in West Germany offer up to 160 species/varieties of grey-leaved *Tillandsia*, and garden centres and supermarkets offer about 15 species; about 30 per cent of these are

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considered to be endangered by the trade. About 70 per cent of the plants come from Mexico and Guatemala. Between January 1987 and March 1988 137 tons were exported from Guatemala alone to 10 European and North American countries. West Germany took 54 per cent of these, the USA 12 per cent and the UK 4 per cent. Some 50–70 per cent of the plants are believed to come directly from the wild, the rest being grown from offshoots from wild-collected plants.

European Environmental Bureau meeting in Seville

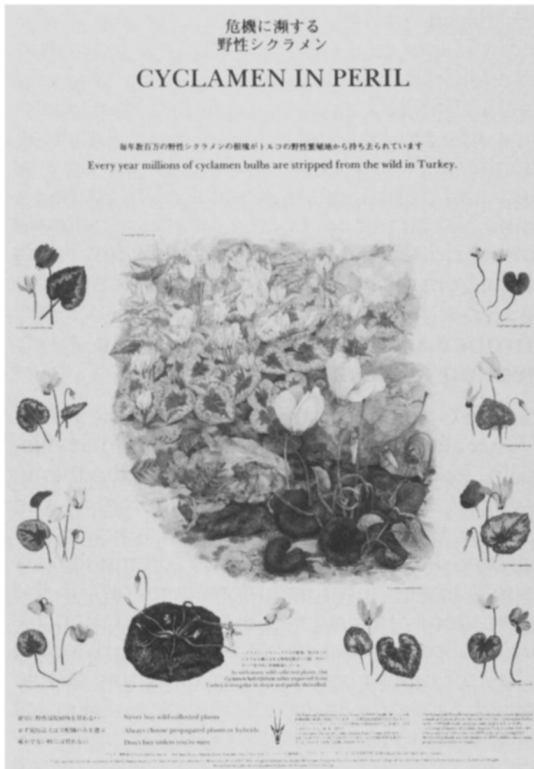
The FFPS Administrative Officer and the Editor of *Oryx* attended an EEB seminar held in Seville, Spain, from 9–11 February 1989 on the theme 'Nature Conservation and Development—The Role for Europe'. NGO delegates from the 12 member states of the European Community discussed topics including consideration of the implications of changes in the Common Agricultural Policy, the need for a regional planning policy for nature conservation under the 'single market', a comparison of measures taken at national and international level under the Community's 4th Action Plan, an overview of the state of the European environment and analyses of the successes and failures of species protection measures, and protected area management.

A common cause for concern was the continuing rapid decline of wild species and habitats throughout the EC and all NGOs were disturbed by the increasing number of threatened species in areas formerly of richest diversity such as Spain, Portugal and Greece.

The meeting pledged its full support for the draft EC directive on the protection of habitats for wild flora and fauna, seeing this as a means of encouraging member states to achieve the goal of a satisfactory conservation status for all European species.

A chance to see the Arabian oryx

Twickers World, in association with FFPS, is offering an 11-day expedition to Oman in October. It will include tracking Arabian oryx with local rangers as well as visiting the Wahiba Sands. The advertisement in this issue gives the address for a detailed itinerary.



FFPS Sales

Don't forget that FFPS offers members a selection of greetings cards, wildlife stickers and a calendar, as well as the Society's tie, lapel-badge, and binders for *Oryx*. The new poster pictured above is printed in pink and green on an ivory background. It was produced to draw attention to the damaging trade in wild-collected cyclamen and other plants. It costs £2.00 including postage and packing and can be obtained from the FFPS office.

Members' meetings

Annual General Meeting

The FFPS Annual General Meeting will be held at 6.30 pm on Monday 2 October 1989 in the Meeting Rooms of the Zoological Society of London. Details of this and other meetings, are given in the insert in this issue of *Oryx*.

Some local group meetings are listed below; others are also being arranged, but full details were not available when going to press. For information about additional meetings please write to the address given for each group, enclosing a stamped, self-addressed envelope.

Bristol and the West of England Group

Ian Redmond, c/o BBC Wildlife Magazine, Broadcasting House, Whiteladies Road, Bristol BS8 2LR.

Cambridge Group

Meetings are held at the Department of Zoology, New Museums Site, Downing Street, Cambridge, and start at 6.00 p.m. with a buffet supper with wine (cost £3.00 only by pre-booked ticket, available from Dr Sandy Harcourt, LARG, Department of Zoology, Downing Street, Cambridge CB2 3EJ). Talks start at 7.30 p.m., at which attendance is free.

Oxford Group

David MacDonald, Department of Zoology, University of Oxford, South Parks Road, Oxford OX1 3PS.

North-West Group

Nick Ellerton, Chester Zoo, Caughall Road, Upton, Chester CH2 1LH.

Edinburgh Group

22 September 1989 at 7.30 p.m. Joint meeting with the Scottish Herpetological Society at the Education Centre, Edinburgh Zoo. A talk by Mike Linley from Anglia Television. Cost £1.50, including coffee and biscuits.

16 November at 7.30 p.m. An illustrated talk, joint with Royal Botanic Garden, Edinburgh—'Destruction, Conservation and Utilization of the Amazon Rain Forest'. Professor G. T. Prance, Director, Royal Botanic Gardens, Kew—Lecture Theatre, Royal Botanic Garden, Edinburgh.

Mrs Ingrid Stewart, Edinburgh Zoo, Murrayfield, Edinburgh EH12 6TS. Telephone 031 334 9171.