

A new lemur from Madagascar

In the July 1987 issue of *Oryx* (p. 181) we published a photograph of a lemur in a forest near Ranomafana, Madagascar. It was captioned as *Hapalemur simus*, the greater bamboo lemur. It was in fact a completely new species of lemur, which has just been described and given the name *Hapalemur aureus*. Until now only two bamboo lemurs were known, the grey gentle lemur *Hapalemur griseus*, which is quite abundant on the island, and *H. simus*, which is rare and was believed extinct until it was rediscovered in 1972 by André Peyri ras. *Hapalemur aureus* is quite distinct from both of these, its black face being surrounded by luxuriant golden eyebrows, cheeks and throat. It is bigger than *H. griseus* and smaller than *H. simus*, and differs in its calls, chromosome number, scent marking glands and feeding habits.

The story of its discovery started in 1985 when a French researcher, Corinne Dague, said that she had seen the two then known species of bamboo lemurs together in rain forest near Ranomafana in south-eastern Madagascar, 45 km east of Fianarantsoa. Zoologists, excited at the possibility that a population of greater bamboo lemurs existed elsewhere (they had at that time only been found in a small forest near Kianjavato, 100 km east of Fianarantsoa), set off, in two expeditions, in 1986. The first was led by Patricia Wright of Duke University, North Carolina, and the second by Bernhard Meier with some Malagasy helpers. Both teams located the greater bamboo lemurs at Ranomafana; Patricia Wright returned to the US after two months, while Bernhard Meier stayed on to study the lemurs. After seven months he travelled east to Kianjavato to compare the greater bamboo lemurs living there with those he had been studying at Ranomafana. To his surprise they looked completely different and he guessed that the lemurs at Ranomafana were a new species. Further work confirmed this and later in 1987 Patricia Wright returned to Madagascar and, working with Meier's local helpers, found that in fact all three species live together at Ranomafana. Their diets are apparently sufficiently different for this co-existence to be possible.

Two individuals of the new species, a male and

a female, are now in captivity at Parc Tsimbazaza, Antananarivo. When they die they will become the holotypes of the new species. As *H. simus* and *H. aureus* are extremely rare, with very patchy distributions, both are highly endangered by habitat destruction, and without immediate intervention all known populations could be extinct by the year 2000.

Sources

Meier, B., Albignac, R., Peyri ras, A., Rumpler, Y. and Wright, P. 1987. *Folia primatol.* **48**, 211–215.
New Scientist, 28 January 1988.

Endau-Rompin may become a park at last

In the October 1987 issue of *Oryx* (p. 252) we reported that conservationists in Malaysia had been pressing for the establishment of Endau-Rompin National Park, which was first proposed in 1945. We were pleased to receive news from the Malayan Nature Society that progress is at last being made.

The Endau-Rompin area is considered to contain the last pristine lowland rain forest in southern Peninsular Malaysia and it is the major refuge in the country for a viable breeding population of Sumatran rhinoceros *Dicerorhinus sumatrensis*. The proposed park covers 870 sq km, straddling the border of the States of Johor and Pahang and encompassing the watershed of two large river systems—the Endau and the Rompin.

In recognition of the area's importance for conservation, the Federal Government proposed gazetting the national park in its Third Malaysia Plan (1975–1980), but this did not come about and logging operations have been carried out in part of the area.

For the past 10 years the Malayan Nature Society has been at the forefront of the struggle to turn the proposed park into a reality. Together with Star Publications, the Society organized a major expedition, the Malaysian Heritage and Scientific Expedition, into the southern part of the area, which ran for a year beginning in June 1985. It was funded entirely by the Malaysian

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public and donations in kind from various government departments and corporations. Over 60 local scientists did research at Endau-Rompin and many of their findings were presented at a symposium, the proceedings of which were published by the Malayan Nature Society. The Society is also in the process of preparing a 'coffee-table' book on Endau-Rompin.

The expedition did much to promote interest in the area. Taking up the challenge, the Pahang State Government has protected the Rompin side under the Land Code and will soon protect it more securely. The State of Johor has also just taken a major step forward; in conjunction with the Malayan Nature Society and the World Wildlife Fund, the Johor State Economic Planning Unit held a 4-day workshop at the basecamp of the expedition to establish guidelines for managing the Johor side of the park. The participants discussed management concepts, park zonation and legislation, and were taken on guided walks to particularly scenic places. The Malayan Nature Society is preparing a report on the agreements reached at the workshop and this will be presented at the June 1988 sitting of the State Government's legislative body. The Society is optimistic that Endau-Rompin will soon be a reality.

Plant conservation in California—way ahead of Europe by Sara Oldfield

California has a flora of over 5000 native flowering plants and ferns, nearly one-third of the total number of species of the USA and Canada. Endemism is high with 47.7 per cent of the plants restricted to the state, a figure that is not exceeded by any other continental flora. In common with Mediterranean floras in other parts of the world, many of California's native plants—around 14 per cent—are threatened with extinction.

Threats to the unique plants of the USA's most populous state are increasing with the rapid spread of residential and recreational developments, together with agricultural and industrial

intensification. Fortunately, however, plant conservation activities in California are impressive. This is in part due to the work of the Californian Native Plant Society (CNPS), which puts voluntary plant conservation organizations in most other parts of the world to shame.

The CNPS has been active for the past 20 years in documenting the status of wild plants with restricted distributions and promoting the conservation of rare and threatened species. It has influenced the development of state legislation to protect rare wild plants and has been involved in land management issues. Educational activities are also carried out, for example by local groups in association with botanic gardens and museums. Wild-flower shows exhibiting garden-grown specimens have been one way of encouraging an interest in threatened wild plants.

In November 1986 CNPS held a conference on the conservation and management of rare and endangered species. The proceedings cover just about every aspect of the conservation of Californian plant rarities, from the management of feral pigs in protected areas to genetic conservation issues in land restoration. The role of federal, state and voluntary bodies is described and the ways in which various organizations work together to promote conservation schemes.

The involvement of individual landowners, which can be crucial for the survival of narrow endemics, is promoted by the California Nature Conservancy. This organization works closely with CNPS in running a programme to bring rare plant species to the attention of landowners. The aim of the scheme is to develop a commitment to species protection on private land. One of the three known populations of a rare fritillary, *Fritillaria rodrickii*, is now protected under this scheme by the Anderson Valley Cemetery District Board. In this case the mowing regime for the cemetery has been changed to allow the fritillary population to flourish.

The conference proceedings describe many such examples of Californian plant species that have been rescued from extinction. Often rescue work involves reintroduction of plants into their natural habitat as part of a conservation package. It may not, however, be possible to save all the

Oryx Vol 22 No 3, July 1988

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state's flora, with endemics still being discovered at a rate of up to 10 a year, and only 26 flowering plants enjoying protection under national legislation. At least in California, however, voluntary organizations are active in saving plants, while in Europe plant conservation at a voluntary level is still struggling to get off the ground.

Source

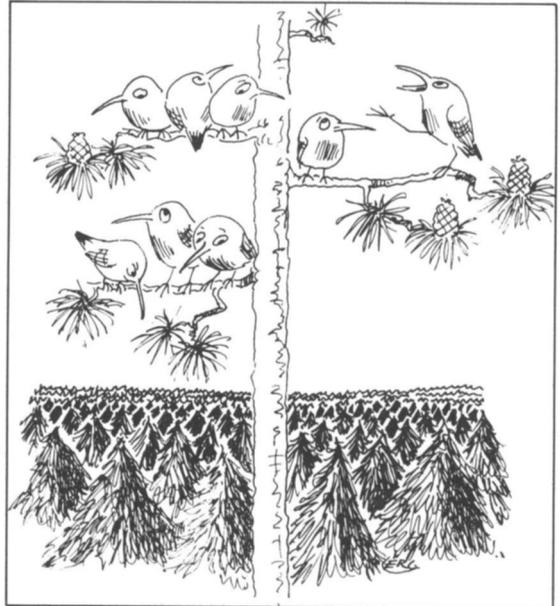
Elias, T.S. (ed.) 1987 *Conservation and management of rare and endangered plants*. Proceedings of a California Conference on the Conservation and Management of Rare and Endangered Plants, Sacramento, 5–8 November 1986. California Native Plant Society.

A role for seed-bank surveys in conservation?

When a site is evaluated for its botanical conservation interest no attempt is made at present to take into account the nature of the seed bank of the soil. Recent findings suggest that perhaps it would be wise to do so. Buried seeds of some species can stay viable for decades, germinating only when unearthed by burrowing animals or other kinds of disturbance. In 1972, great fen ragwort *Senecio paludosus* reappeared in East Anglia, England, after 70 years of presumed extinction, probably having germinated from buried seeds. The rare and local fen violet *Viola persifolia* germinated from soil cores collected in Wicken Fen, also in East Anglia, where it had been supposed extinct since 1916, and later two populations of the plant were found growing on the site, probably as a result of their seeds being disturbed by mole activity or past peat digging.

In a more recent study, Jefferson and Usher investigated the seed banks of the floors of three disused chalk quarries in Yorkshire, England, which were all sites of high nature conservation interest. Taking soil cores and germinating the seeds they contained, produced a few species absent from the quarries. Most were typically associated with disturbed ground and therefore would not be expected to be found in the established sward of the quarry floor. Only one species present in the seed bank and absent from the current vegetation was considered to be of conservation significance in terms of its rarity, hairy

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'Would acid rain help?'

rock-cress *Arabis hirsuta*. However, these sites were already species-rich.

Another problem with the conservation of species-rich chalk grassland is how to manage it in such a way to halt succession to long grass and scrub, which smother the component species of short chalk grassland. It is not always possible to graze or mow a site, which are the management techniques most often employed. The research in the quarries also involved scraping away both vegetation and surface soil and waiting to see what kind of plant communities established. Jefferson and Usher found that the species that grew were those occurring in the original species-rich sward. Where mowing and grazing are impossible, a reasonable management practice would be to scrape bare some areas when succession threatened to smother the species one was trying to conserve, and to rely on the seed bank to restart the succession. One potential disadvantage is that scraping in sites that are visited by members of the general public would appear to be destructive unless efforts were made to inform visitors about what was going on.

Source

Jefferson, R.G. and Usher, M.B. 1987. *Biol. Conserv.* **42**, 287–302.