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On December 11, 1978, FPS celebrates its 75th anniversary, for it was on that date in 1903 that Edward North Buxton summoned the meeting which resolved to form the Society for the Preservation of the Wild Fauna of the Empire, the first of the Society's three names. (The second merely omitted the 'Wild'). The event is being celebrated by the present enlarged issue of Oryx, enabling us to include Robert Olivier's important survey of the Asian elephant, in the genesis of which the Society played an important part, and also by the publication of a small book The Penitent Butchers, whose title derives from the Society's early nickname. Written by the Hon. Secretary, Richard Fitter, illustrated by the Chairman, Sir Peter Scott, and published by Messrs Collins, whose Chairman, the late Sir William Collins, was a Council member, it chronicles the history of wildlife conservation during the present century and the part played by FPS.

HM the Queen, as Patron of FPS, has been graciously pleased to accept copy No. 1 of the otter sculpture in bronze by Michael Rizzello. A limited edition of 200 is being sold in aid of the Otter Haven Project.

In 1968 FPS gave £225 towards the purchase of Cousin Island in the Seychelles by the International Council for Bird Protection (ICBP); this was the 'value' of the five giant tortoises then on the island. FPS thus acquired, as the ICBP

Tortoises Create the Habitat Annual Report for 1977 says, 'a special proprietary interest in them'. The tortoises, however, did not breed. So last April two females were brought in from the Botanic Gardens, with the consent of the Minister of Agriculture, and ICBP hopes that what it calls 'the FPS giant tortoise

family' will at long last increase. This has been done not just to conserve this species but also because of their influence on the habitat. Martin Garnett, who has been studying the effects of giant tortoises on the Cousin vegetation and the density of nesting seabirds, found, by comparing random quadrats inside and adjacent to the tortoise pen, that the tortoises have a significant effect in slowing down regeneration of the forest trees. However, the

tortoises leave some seedlings to regenerate, and these, being at a lower density, grow to be much bushier than the tall etiolated seedlings outside the pen. More surprisingly he found a far higher density of nesting seabirds inside the tortoise pen than outside, probably, he thinks, as a result of the differences in the growth habits of the trees; land birds also seemed to favour the more open canopy and denser understorey of the tortoise pen to the much darker, woodland outside. Giant tortoises were almost certainly indigenous to Cousin, and these observations suggest that they were very important in determining the structure of the native woodland and providing the optimal habitat for the endemic birds. If, now, the tortoises increase their numbers, and it is decided to keep some areas open, they can be allowed to roam free over part of the island and resume their former role.

Britain will soon have a new exotic fish—the Chinese grass carp Ctenopharyngodon idella—if the Ministry of Agriculture, Fisheries and Food (MAFF) decides to allow its introduction as a consumer of the water weeds

Grass Carp for Britain? that, among other things, clog up streams and impede farm drainage. Since 1964 scientists at MAFF's Salmon and Freshwater Fisheries Laboratory have been studying this fish, and several thousand fingerlings are now being 'raised on' by various water boards, to be made available to

farmers pending the success of field trials supervised by MAFF, the Agricultural Research Council and the NCC. Earlier field trials have already been deemed successful, so the introductions are likely to go ahead. How dangerous is this likely to be? Grass carp can live under practically any conditions—high salinities, low oxygen concentrations and temperatures from 0 to 35°—but will reproduce under practically none. The eggs, which do not float, must be kept in suspension by an uninterrupted current of at least 0.5 m/sec for 200km, while the temperature remains above 20°C. They will not hatch if they touch bottom during their 36-hour incubation. No British river ever combines these conditions, and in any case MAFF believes that fish are unlikely to escape from the enclosed waters of the ponds, lakes and drainage ditches where they would be put to work. Trials have shown that certain native fish thrived in their presence and also that the carp controlled the weeds they were supposed to control. But a different picture emerges from the US, where this carp was first introduced in 1971 and where 35 States have now banned further introductions. There it has been accused (not always with proof) of eating the wrong weeds, spreading weeds, being omnivorous, endangering wild rice crops and outcompeting native fish and water birds, as well as having tasteless flesh and even, because of its speed and size (in warm climates 70-pounders are not uncommon), injuring people. But most ominous, it is turning up in places far from known points of introduction while not noticeably decreasing in the original places. The suspicion is that it is transferred by human agency, because the fish has many enthusiasts and the right conditions are easy to recreate in a tank. This is a danger that applies equally to Britain. Vegetation in Britain is now controlled either by herbicides or by machines that simply rip it out, crude methods which destroy a lot besides the offending weeds. It is worth while to consider an alternative, but much better would be to look more closely at preventing excessive vegetation in places where farm run-off is loaded with nitrates and also at the extent to which tidy-minded water boards consider any vegetation to be excessive.

Conservationists have for some time been worried about the implications for wildlife if rabies should appear in Britain. On the Continent it has become endemic in the fox population, and is spreading steadily westwards, although it

If Rabies Comes to Britain has not yet quite reached the Channel coast. Government policy is right to try to prevent it ever reaching Britain, but breaches of the quarantine regulations appear to be so numerous that sooner or later some thoughtless holidaymaker or ship's crew will bring a rabid dog or cat into

Britain. The Nature Conservancy Council has now published a document on the official arrangements in case rabies is discovered in wildlife in Britain. The Ministry of Agriculture will be the executive department, but the NCC will be closely concerned. Foxes would undoubtedly have to be controlled, but it is disturbing to find that MAFF still has nothing better to offer than the admittedly extremely cruel strychnine, if poison is decided upon (which it may well have to be in an emergency). MAFF is said to be investigating the suitability of alternative poisons, but this sounds like a bureaucratic placebo, in view of the intensive efforts the voluntary bodies have made, in vain, to find a suitable substitute for strychnine to eradicate rabbits on Round Island, Mauritius, and elsewhere. What we need is some urgent and intensive research to find a specific and humane poison to control wild mammals. Or better still, a method of control that does not involve poison at all. The voluntary bodies are grateful for being consulted, and brought into the picture before the emergency is on us, but they will all, with one voice, demand something better than they are being offered in the use of strychnine.

The Council of Europe's guidelines for protecting threatened mammals in Europe, issued by the Committee of Ministers, urge states to take special measures to protect both threatened and endangered species; to consider re-

Protecting Europe's Mammals introducing species already extinct (after careful study of the likely effects); to prohibit or strictly control any nonindigenous introductions; to safeguard and, where necessary and practicable, re-establish habitats essential to threatened species, create reserves, and control the use of

poisons. States should coordinate both their protection measures and their research. On rare plants, of which 100 in Europe are in danger of extinction and 1400 rare or threatened, they urge the obvious importance of legal protection, surveys to identify the threats and the action needed, nature reserves, scientific studies and support for scientifically based botanic gardens. The importance of signing the 1973 Convention on International Trade in Endangered Species is

emphasised. (Only Britain, Denmark, France, Germany and Norway have done so and the Netherlands is about to.) Guidelines on the protection of three vulnerable types of habitat are circulated, and they also call for inter-state coordination. For mountain environments—'among the most threatened biological systems in Europe'—which are increasingly used for tourism, recreation and industry and are deteriorating rapidly—they urge proper planning, rational management (including grazing), protection of fauna and flora, and a network of mountain biogenetic reserves. Heathlands and hedgerow landscapes are similarly treated.

Almost the whole known population of Leadbeater's possum in Australia is in forest that is owned by a paper manufacturer and will be progressively clear-felled. (There are some also, numbers unknown, in some water catchment

Disaster for a Possum?

areas). As the possum, which lives only in Victoria, has never yet been found in secondary forest except where old trees had been retained, this spells disaster for the species. Leadbeater's possum was rediscovered in 1961, having been believed extinct—none had been seen since 1909; it

proved to be 'moderately common' in a few areas, but in recent years forest clearance has destroyed several populations. The possum favours mature eucalyptus forest, with some old or dead trees to supply the hollows that are essential—rarely found in trees less than 100 years old—and a thick understorey of shrubs. The forest with the paper concession is planned to be harvested at intervals of probably less than 80 years which would eliminate all trees with the vital hollows. Until recently it was thought that the possum was safe from timber extraction in some water catchments, but it is now feared that this may no longer be true. Now the Victorian Land Conservation Council has recommended to the Victorian Government that two specific forest areas should be managed for the conservation of the possum; a decision is awaited. It is clearly essential that at least one large area should be set aside where the interests of Leadbeater's possum are paramount.

In 1973 Dr Stanley Temple, a US scientist working in Mauritius, noticed that only 13 old and dying specimens of a tree called *Calvaria major* were known to survive in the island, although records showed it to have been common in the

The Tree that Needs the Dodo past. Their age was put at over 300 years. The trees were still producing well-formed apparently fertile seeds each year but none germinated, not even under nursery conditions, and as there were no young trees it looked as if no seeds had germinated for hundreds of years. Three

hundred years ago is about the time that the dodo became extinct (certainly by 1681) and it occurred to Dr Temple that perhaps, because this very large bird exploited the *Calvaria* fruits, the *Calvaria* had evolved an extremely thick endocarp to protect its seeds which would otherwise be destroyed in the dodo's gizzard. The thick-walled stones (pits) could withstand ingestion by the dodos but the seeds within could not germinate without first being abraded in the

dodo's gizzard. Dr Temple force-fed fresh Calvaria stones to turkeys, and seven (out of 17) were eventually crushed in the birds' gizzards. The remaining ten were regurgitated or passed in the faeces after being reduced in size by abrasion in the gizzard. Ten seeds were recovered and planted and three germinated—perhaps the first to germinate in over 300 years, 'empirical support', as Dr Temple rather cautiously says in his account in Science Vol. 197, for the hypothesis that the Calvaria fruits had become highly specialised through co-evolution with the dodo. After the bird became extinct no other animal on Mauritius could ingest the large stones. Perhaps artificial abrasion of the seeds could now save the Calvaria from extinction.

Half-a-million acres of Endau-Rompin, the last remaining large natural forest in southern peninsular Malaysia and the last sizeable refuge of the Sumatran rhino, were scheduled under the Third Malaysia Plan to become a national park

Preserving for Rhinos

in 1980, but the Pahang State Government was granting timber licences there until 1977. A campaign by the Endau-Rompin Malaysian Environmental Protection Society, which included a 7000-signature petition, backed by widespread representations including a letter from IUCN to

the Federal Government, persuaded the State to stop issuing further licences and the Federal Government to ban timber exports from the area. The last existing licence expired in August 1978. N.J. van Strien, working on an IUCN/WWF research project on the Sumatran rhino, comments in his 1977 report on the surprising closeness of the Endau-Rompin rhinos to civilisation. The area, he says, could be reached in a few hours walking from the road at the last village, and although Singapore, where rhino horn is openly traded and displayed, is very close, the local people do not seem to be interested in rhino poaching; in Sumatra, rhinos in an area like this would have been wiped out by poachers many years ago. He suggests that perhaps the high standard of living may be the reason for this.

Of the 34 African countries in which elephants are still found, the populations are declining in all but three, and these are only remnants: in Botswana and South Africa they were almost exterminated over 100 years ago, and in Rwanda

Poaching and the Elephants

23 animals survive. These dismal facts are presented by Dr Iain Douglas-Hamilton, Co-Chairman of the African Elephant Specialist Group set up by IUCN'S Survival Service Commission and supported by WWF and the New York Zoological Society. In Kenya elephant numbers have

halved since 1970 (now 55,000 - 75,000); in Uganda the decline is even greater, with a drop in Kabalega National Park from 14,000 to 2000 plus. At the same time the pressures of human populations are driving elephants into the parks and reserves with the result that excessive numbers have led them to destroy trees; park management is faced with having to cull elephants inside national parks despite decline in numbers overall. The chief cause of the decline in East Africa is poaching, which increased dramatically about 1970 when the price of

ivory went up ten-fold to around \$30-50 per kilo. Before that Kenya's average annual ivory exports were about 40 tons; by 1973 they were 213 tons—and one ton is estimated to be the product of about 100 elephants. In 1975 Hong Kong alone imported 515 tons, and 710 tons in 1976, and in addition it is known that much ivory was and is being smuggled. Dr Douglas-Hamilton suggests that anything between 100,000 and 400,000 elephants may have been killed to produce the 1976 ivory exports from Africa and there are no signs of any let-up in the demand. Tanzania is the one bright spot: with probably 300,000 elephants Tanzania also has the conservation policies and the Government's determination and will to conserve the wildlife, and the dedicated staff to do it. The total African elephant population Dr Douglas-Hamilton puts at about 1.3 million—but declining in 90 per cent range.

Because loss of habitat is the major threat, the Action Plan to save the highly endangered Mediterranean monk seal (world population c. 600), drawn up at the Rhodes conference on the species in April, gives first priority to the

Action Plan for Monk Seal establishment by governments of monk seal reserves. Protection legislation also has high priority—for in most Mediterranean countries the seal is still not protected—and also provision of trained staff. Other points are education of fishermen, who still kill the seals, regarding them as

competitors for the fish, and investigation into the feasibility of compensating them for seal damage to nets. An end to extreme pollution, control of tourists, especially visits to breeding sites, care of orphans and casualties, and research are other points. Greek and Turkish waters are the main Mediterranean areas for the monk seal, and Greece is about to establish a national park in the northern Sporades islands, but the strongest population is on the Atlantic coast of Mauritania, where there is good news that the species has increased from about 30-35 in 1973 to about 60. The two main colonies on this coast are now in the care of the Director of the Banc d'Arguin National Park, which was inaugurated by the President in June.

In a report that covers all the 17 areas in southern India known to have Nilgiri tahr, E.R.C. Davidar puts total numbers at something over 2200. The areas he identifies range from the Nilgiri Hills south to the Ashhambu Hills and

Nilgiri Tahr and Hunting Tiruvanamalai Peak, and despite ominous comments such as 'danger here from cattle grazing', 'danger from poaching', and 'encroaching forestry plantations from above and coffee and cardamom plantations from below', he does not think the species as a whole should be regarded

as endangered. In particular he would like to see it removed from Schedule 1 of the Wildlife Protection Act back to Schedule 2, which would permit the restoration of licensed hunting. This he regards as essential for the tahr's conservation, and the only way of stopping the poaching, particularly in the Nilgiris. It was the hunters' organisations (the first was established in 1879), notably the High Range Game Preservation Association, which kept down the



Nilgiri Tahr

poaching in the past and provided valuable protection. George Schaller when he was studying the species noted that where the tahr 'have had to rely solely on the protection afforded by the State Government, they have either been wiped out or reduced to a few scattered herds... the animals survive in the Nilgiris and High Range only because the local wildlife associations have protected them for years for sporting purposes'. The hunting was to secure trophies which are only of value to the hunter—unlike the tiger's skin—and the old saddlebacks which provide these are extremely difficult to secure. Combined with restricted hunting, Davidar also wants protection in smaller areas and in special sanctuaries. Animal predators are not a serious threat to the tahr although leopards take a toll. The tahr's main ally is the weather. For half the year the high hills that they mainly favour are swept by mist and low clouds and are extremely cold, and the remoteness of the hills at least secures them from the motorised poacher.

One of the most comprehensive environmental laws ever passed by any government, the 1973 US Endangered Species Act, is itself in danger of being weakened by Congress, after the Supreme Court's now famous ruling on the

Effects of the Snail Darter snail darter. The Act, said the ruling, was 'intended to halt and reverse the trend toward species extinction—whatever the cost', and the only habitat of the snail darter, a tiny perch, took precedence over a dam that had already cost \$116 million and was 80 per cent finished. The year the

Act was passed (incidentally the year that the snail darter was discovered), the US endangered list comprised only 109 species, most of them large and furry or feathery, living in remote places with little commercial potential. The northern spotted owl, California condor, Yuma clapper rail, Hawaiian palila, peregrine falcon, grizzly bear, whooping crane, bald eagle and several others benefited from the Act without comment, but when a small yellow snapdragon, the Furbish lousewort, stopped a proposed \$670 million dam project on Maine's St

John River, many Congressmen began to wonder what they had created. Then in January 1977 a group of environmentalists used the snail darter, of which this is the only known population, to halt work on the Tellico Dam on the Little Tennessee River; to survive, the 1400 darters need shallow, fast-flowing water, and since the dam would turn their habitat into a deep, still lake, a US District Court ruled that it could not be closed. The dam's builders, the Tennessee Valley Authority, appealed to the Supreme Court, and the 6-3 verdict went against them. Now a TVA/Department of Interior task force is studying how the dam can be modified to protect the fish and still produce electricity. Congress, meanwhile, seems certain to amend the Act, especially Section 7, which prevents the Government from funding any project that would damage the 'critical habitat' of an endangered species. The only hope is that the changes will be moderate, but feelings are strong, and it is now possible that some day some species will be legally bartered into extinction because they are not visible enough or popular enough to be, as it were, worth a dam.

That captive breeding is the only hope of saving the California condor is the advice of an Advisory Panel appointed by the American Ornithologists' Union and the National Audubon Society. The species, they say, is rapidly declining

Disappearing Condor: a New Plan to extinction. Numbers certainly do not exceed 40 birds and may be under 30, all concentrated in a relatively small area close to Los Angeles that is subject to intensive development, in an environment that is being destroyed. Few species can have the cards more stacked against them!

The Panel's Recovery Plan envisages a captive breeding programme that would produce several hundred birds to be released widely over the condor's former range—which was from British Columbia to Baja California—and possibly outside it. This involves trapping 'a large proportion' of the surviving birds, including as many immature and non-breeders as possible, which would have least effect on the wild population's (poor) chances of survival, and finding large areas of suitable habitat in which to release second generations and later offspring (first generation would be kept for breeding). Research is also urgently needed to resolve management questions and particularly the effects of pesticides, for it is believed that pesticides have played a major part in the condor's decline—three dead condors examined in 1974, '75 and '76 were found to have concentrations of DDE among the highest ever reported in terrestrial birds. The Panel considers that the chances of such a breeding programme succeeding are high, for although California condors have never bred in captivity the experience with other large vultures 'leaves little doubt that they can be brought to do so'.



'It is said that the Indians eat parrots . . . that if we export the parrots there won't be any more left for the Indians to eat. One parrot is enough for one Indian to eat for only one meal. We pay an Indian \$10 for a parrot . . . enough to

**Parrots** in Panama

buy 7 or 8 meals at the local store. So, actually by buying one parrot, we save the lives of seven more parrots...' and Protection This is the reasoning of one Gary Cohn, of Panama City's Exportadores Internacionales G. and G. SA, which thus saved the lives of 6958 (7 x 994) parrots and parakeets, as

well as many other birds, mammals, reptiles and amphibians, in its first ten months of business, April 1977 - January 1978. Cohn, one of the several wildlife exporters in Panama, was applying for an export trade permit from the Government conservation agency RENARE, which turned it down but was overruled by the Minister for Agricultural Development. FPS Colombian Consultant Alberto Donadio reports that the Panamanian wildlife trade is flourishing and that a major portion of it is in Colombian animals exported illegally—all trade there was banned in 1973—and often re-imported to gain domestic permits. Other customers are mainly European and Japanese, including the notorious Ise-Shima 'zoo' in Kobe (see Oryx, July 1977, p. 65). Panama has an excellent national park system and good protection laws, but RENARE has almost no powers of enforcement. But the agency has now drafted a law that would end the spraying of mangroves, draw up an endangered species list, enforce stricter licensing of hunters and traders, ban exports for the pet trade, and provide better patrols for entry points from Colombia, as well as give RENARE greater powers. Panama has yet to take the final step towards ratification of CITES, but if and when it does RENARE's draft would easily fit the terms of the treaty; it would also control the activities of Mr Cohn and his colleagues.

Several reports have reached us from travellers in China commenting on how few birds are to be seen in the Chinese countryside. One was from Mrs Jane Cole, a Trustee of WWF (UK). Another is contained in the latest issue of the

Bird Lesson from China

Hong Kong Bird Report. After travelling in August 1976 from Hong Kong to Canton, Kweilin and Changsha in Kwangtung and Hunan provinces and Kwangsi-Chuang autonomous region, Mr C.A. Viney says that in an area whose rich bird life before World War 2 was well

documented, there are now virtually no birds, especially in the countryside. He positively identified only nineteen species, most of them in or near towns, or at least in non-agricultural areas. From the frontier to Canton he did not see one bird from his railway carriage window. He found the countryside 'beautifully organised, commune following commune, each with its orderly fields of differing crops, and in the damper areas almost endless paddyfields stretched to the horizon. Alongside the track neat lines of trees have been planted...'. The major reason for the dearth of birds appears to be the complete utilisation of the land for food production so that there is no breeding habitat, virtually no hedge-

Opposite: FPS exhibit at the London Zoo. The Zoological Society of London very kindly allowed this large stand to be displayed in the Elephant House in celebration of FPS's 75th birthday. Michael Lister, 7SI

rows, wastelands, marshlands or trees other than fruit trees. Every available square foot in rural areas is cultivated; for instance along the Li River even strips only 10ft wide between the mountain and the river were cultivated. There is also extensive spraying of crops with insecticide. The shooting of birds is banned except near airports, but small birds are still extensively trapped for food. The number of wild birds imported into Hong Kong also suggests that there must still be areas of the interior of China where birds are relatively frequent.

Why is it always bad news that makes the headlines? asked Robert Poole, Director of African Operations for the African Wildlife Leadership Foundation, who was killed in a car crash shortly after the article appeared.

Successes in the Serengeti Writing in their Wildlife News, he said poaching and wildlife slaughter has dominated East African news in the western press, but many encouraging facts are totally ignored. Elephant destruction in Tsavo and elsewhere has been appalling and cannot be minimised, but in the

Serengeti, where elephants only appeared in the 1950s, there are now 2500. (In the Ruaha National Park in Tanzania there are an estimated 40,000.) The 263,000 wildebeest in the Serengeti in 1961 had increased to 1,320,000 in 1977, and 29,000 buffalo to 74,000 in 1975. Topi increased from 13,000 in 1966 and to some 50,000 ten years later. In fact the populations of all large animals, including predators, monitored in the Serengeti by the Serengeti Ecological Monitoring Program, have either increased or remained stable; none has decreased. 'Dedicated, well trained African wardens, supported by their Government and assisted by contributions from abroad, account for the continuance of the Serengeti as one of the world's greatest wildlife sanctuaries', was Robert Poole's final word.

## Geoffrey Dent

Geoffrey Dent, who died on August 3, aged 86, was for many years an Officer and Council Member of FPS. From 1921-25 he was Hon. Secretary of the Society for the Preservation of the Fauna of the Empire (as FPS was then known); he became Hon. Treasurer in 1925 and remained in this position until 1950. He was a Council member until 1958 when he retired from the family business in London (Truman, Hanbury and Buxton, the brewers). He was a kinsman of one of the Society's original moving spirits, Edward North Buxton, and served also for many years as an officer and Council member of the Royal Society for the Protection of Birds.

Over one thousand copies of *The Penitent Butchers*, written by Richard Fitter to celebrate the 75th anniversary of FPS, and illustrated by Sir Peter Scott, had been sold in advance of publication by the end of September. The book will be published by Messrs Collins on November 27. Sir Frank Fraser Darling, our distinguished Vice-President, who saw a copy in proof, writes: 'Richard Fitter is the archivist *par excellence*, and I hope he will fulfil the task through the years. This little book has a contents we all need'.