

ORYX

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Notes and News

On December 11th the FPS celebrates its 70th birthday. Founded in 1903 as the Society for the Preservation of the Wild Fauna of the Empire at a meeting in the Natural History Museum in London, the first resolution resolved 'that a Society be formed for encouraging the preservation of the fauna throughout the British Empire'. The founders, headed by the Duke and Duchess of Bedford, included Sir Edward Grey, Ray Lankester, Sir Harry Johnston, Abel Chapman, Edward Buxton and Lord Avebury—a distinguished ancestry indeed. Since that time, as Lord Greenwood remarked at this year's annual general meeting, we have lost the empire but we have been in the forefront of the battle to preserve the fauna of the whole world. A resumé of Lord Greenwood's remarks is on page 165.

Our Seventieth Birthday

The badger is the first land mammal, apart from 'game' animals, to get legal protection in Britain. As most of our members now know, the Badger Bill, privately introduced by Lord Arran, received the Royal Assent in July and comes into force in January 1974. The new Act makes it illegal to kill or take a badger except where damage to property or crops can be proved, or under licence—from the Natural Environment Research Council (NERC) for scientific or educational reasons, or from the Minister of Agriculture (in Scotland the Secretary of State) in cases of disease. Moreover, on the recommendation of the Nature Conservancy, any area may be declared 'an area of special protection for badgers'. The Act is an enormous if belated advance for a largely harmless and beneficial animal which hitherto has had no more than the dubious (and certainly ineffective) protection that gassing it was illegal. In the last *Oryx* we quoted the opinion of Mammal Society representatives from thirty counties who believed that gassing occurred in all thirty and that digging was increasing.

Badgers Protected— at Last

The latter was often in aid of the horrible trade in pet badgers which will now be stopped—existing pets may be kept but new ones will need a licence, which we assume will only be given in exceptional circumstances. All conservationists will put up a hearty vote of thanks to Lord Arran, Peter Hardy MP who piloted the bill through the Commons, and Lord Cranbrook who tabled the crucial amendments (allowing exceptions to blanket protection) without which the bill would certainly not have had the official and all-party support that got it through so unexpectedly quickly. There will still be land-owners wanting to get rid of their badgers, and for them the solution is transfer to unoccupied sets on land where they would be welcome. This is being done increasingly by county naturalists' trusts, and the FPS will be pleased to supply the name and address of county trust secretaries to anyone wanting this service.

A disturbing discovery last year was that a population of badgers in the Cotswolds was infected with bovine tuberculosis. This came to light because the incidence of the disease in the local cattle was well above the national average. In the spring of this year the Ministry of Agriculture's Pest Infestation Control Service surveyed an area that included 1038 badger sets and found the tuberculosis organism in seven of 152 faeces samples.

**Cattle
Disease in
Badgers**

The inference is that there is now a mutual infection system there between badgers and cattle. So far surveys in two other areas have proved negative, but an area in Cornwall has proved positive. Official advice to a farmer in this situation is to destroy all badgers on the farm, in consultation with the local Pest Officer, in the hope that this will reduce both the risk of re-infection in cattle and the spread of infection in badgers, and discourage other farmers from taking precipitate action. However, it is generally recognised that badgers will soon move in again from surrounding farms. So far the problem seems to be a local not a national one, which it is hoped can be contained.

Red and green pages still mean 'seriously endangered' and 'out of immediate danger' respectively in the new revised Mammals volume of the IUCN *Red Data Book*, but a new amber-coloured page—continuing the traffic-signals analogy that presumably we can all be expected to understand—appears for 'vulnerable' species. These are defined as species likely to become endangered if the causes of their decline are not arrested.

**'Amber
Species' in
the RDB**

This is a most useful new category, making the red-book system both more flexible and more realistic. The 60 species so listed include African cheetah, clouded leopard, ocelot, wolves, three fur seals and two monk seals, Asian elephant, vicuña,



INDIAN ELEPHANTS, an 'amber' species in the new edition of the *Mammals Red Data Book*, photographed on the shores of Periyar Lake, in Kerala, by M. Krishnan. This is one of the many excellent photographs illustrating Mr Krishnan's survey of the Indian elephant in the Bombay Natural History Society's *Journal*, volume 69, no. 2, part of a general survey of India's larger mammals.

dugongs and manatees. White pages indicate 'rare' species, defined as being 'at risk', and the 57 so listed include giant panda, barren-ground grizzly and pygmy hippopotamus. The red pages number a shocking 132—a measure of the gigantic task that is being tackled. A review of this new Red Data Book volume, which can be bought from the FPS office, will appear in the January *Oryx*.

Amphibians and reptiles do not have the wide appeal that birds and large mammals have. Perhaps because of this half the twelve British species—six reptiles and six amphibians—are in urgent need of conservationists' attention. The sand lizard,

**Protecting
Amphibians
and Reptiles**

smooth snake and natterjack toad, have decreased greatly in numbers due to human interference of one kind or another, especially of habitat, and colonies have often been so subdivided that re-colonisation is unlikely to occur. Snakes of all three species—grass, adder and smooth—and the slow worm are ignorantly killed on sight because one, the adder, is venomous. The British Herpetological Society has now set up a Conservation Committee to organise the conservation of these neglected species. This will co-operate with naturalists' trusts and the Nature Conservancy to get the maximum protection, manage sites, collect information, and review the knotty problems involved in reintroductions. Rare species will get priority, but by conserving good habitats, such as mature dry heaths, which support all six reptiles and three of the amphibians, the Committee will hope to achieve wide protection. Their address is c/o the London Zoo.

'Crocodiles are still in serious trouble', says the Survival Service Commission's Crocodile Group, following its last meeting. Fifteen of the 21 existing species are seriously threatened. The Group prepared an action programme with nine species particularly in mind—the Cuban, Orinoco, Siamese and Morelet's crocodiles, Indian and false gavials, and three caimans—the Rio Apaporis, broad-nosed and Chaco broad-nosed.

**Crocodiles
need
Sanctuaries**

The programme includes surveys of wild populations—already a comprehensive one is being made in Latin America by Professor Medem—and the promotion of adequate sanctuaries for all species. Uncontrolled killing for the leather trade the group regards as the main cause of depletion. It is extraordinary that rational management of so obviously valuable a resource, both for hides and as a tourist attraction, is still quite exceptional outside reserves. In some countries crocodiles are still regarded as 'vermin'. In a report on Uganda a few years ago Ian Parker and Murray Watson pointed out that crocodiles 'prey on humans, interfere with fishermen and compete with man for the best habitats'. Crocodiles are not comfortable neighbours and adequate sanctuaries are the urgent need.

More than once the cry has gone up in recent years that the Amboseli Game Reserve in Kenya was in danger of destruction through overgrazing. Now, thanks to a grant of £50,000 from the New York Zoological Society, new water supplies are to be created for the Masai cattle and 150 square miles of the reserve declared a national park. Hitherto the water supplies of Amboseli, which are vital for the wildlife in the dry season, have been equally vital for the cattle of the Masai who own the land. Even by Kenya standards Amboseli is an outstanding area for its variety of wildlife—all the big game, large numbers of antelopes and other plains animals, swamp and bush species, and an abundance of birds. Tourists now exceed 100,000 a year, and as a result Amboseli, although only a very small part of its area, provides three-quarters of the revenues of the Kajiado County Council's area. As ecological studies have shown, wildlife tourism is by far the most profitable use of the land. But the local Masai get no special advantage from the tourism and are required to keep their domestic animals away from the game-viewing areas. Now under the new agreement water will be pumped to other areas suitable for cattle grazing, and there will be no cattle or human settlement in the national park area. One knotty problem still remains:—how in the rainy season, when more than three-quarters of the wildlife moves out of the new park area, to persuade the Masai ranchers not to kill the wild animals that will move on to their land. One solution would

**Amboseli
to be a
National Park**

be to pay grazing fees. An even more difficult problem is the increasing destruction caused by tourist vehicles. By the end of the decade the grazing of the Masai cattle may look very small beer compared with the damage inflicted by the vehicles of the half-million tourists that are expected to visit Amboseli annually.

In a two-month journey through Somalia early this year, Peter Bally, a Swiss botanist who knows the country well, never once saw a lion, cheetah, serval, caracal or hyena, and only one leopard. All these

**Creating
Desert in
Somalia**

predators he says are disappearing due to the Government-organised wholesale poisoning. This is done to protect the vast flocks and herds of camels, sheep and goats, in which Somalia has a considerable export trade, mainly to Saudi Arabia. Not only are predators being exterminated for the trade's sake, but, because only male animals are exported, females being retained for more intensive breeding, the numbers of domestic animals are encouraged to go on increasing. Meanwhile the domestic animals are devastating the countryside, so much so that he feels soon the country will be 'stark, irredeemable desert, another Sahara'. One more specialised animal that he never saw was the dibatag (Clarke's gazelle). In the Volweina region, where it was once not uncommon, this gazelle had disappeared entirely, thanks to the grazing of innumerable domestic animals and the removal of the *Commiphora* trees that were its chief fodder.

In July this year Mariculture, a commercial turtle farm on Grand Cayman Island in the West Indies, announced that green turtle eggs laid on the farm had hatched—the first known case of turtle-breeding

**The First
Captive-Bred
Turtles**

in captivity, previous hatchings having been from eggs collected in the wild. For three years Mariculture had been trying to breed from its adult turtle stocks, but without success until in April this year they introduced two males from a wild breeding beach. The result was an 'outburst' of matings, involving seven of the 60 adult females in the pond; over 4000 eggs were laid and incubated artificially. Hatching began on July 16, and success was over 90 per cent. This could indeed, as Sir Alan Parkes, scientific adviser to Mariculture, says, be a landmark in conserving the green turtle. With an animal as useful (to human beings) as the sea turtle (of which all seven species are endangered) for meat, eggs, hide, shell, soup, etc., farm breeding is probably the only way, and certainly the sensible way, to relieve the pressure on the wild populations. But not until turtle farmers have successfully ousted the commercial use of the wild-caught turtles on the world market will conservationists rejoice.

'Probably for the first time in the history of Tobago at this time of year there are no turtle carcasses on the beaches', Robert Johnson, Chairman of the local branch of the Society for the Prevention of Cruelty to Animals, wrote to us in June this year. Earlier, in April, three leatherback turtles had arrived to lay their eggs on Courland Beach, in front of the aptly named Turtle Bay Hotel, to be killed (as usual) with revolting cruelty and the eggs scattered. A few pounds of meat were taken from each carcass. He decided to try a system of rewards for every turtle that not only laid her eggs but got back to sea. Careful and detailed plans were made and publicised, with the result that in May eleven leatherback turtles laid and all returned safely to the sea: \$550 dollars was paid out at \$50 a time and well reported on radio and in the press. What is more not one turtle was slaughtered in the month. Tobago gives turtles some protection, but the close season is from June 1–September 30, whereas the main laying months are April and May. Mr Johnson's chief difficulty was getting the money for the awards. In June he was able to write that the Turtle Bay Hotel had contributed \$300—well it might for such a tourist attraction—but that, even with gifts from the USA and UK, they were still paying out more than they received.

**Help for
Tobago's
Leatherbacks**

So many green turtles are being taken by fishermen in Hawaii compared with only a few years ago that numbers may be declining seriously. In 1963 fishermen with commercial licences who offered their catch for sale took 380 lbs; in 1971 the figure was 19,884, and last year 25,583. These figures take no account of catches not offered for sale, or those of sport fishermen, or of the many fishermen who simply do not make returns.

**Time to Stop
Turtle Trade
in Hawaii**

Quoting the figures in the Hawaiian Audubon Society's journal *The Elepaio*, George H. Balazs, of the Hawaii Institute of Marine Biology, says that green turtle fillet steaks are served in restaurants on most of the islands, and stuffed turtles are sold as curios; he adds, 'many local residents have observed that the number of turtles sighted in recent years has decreased'. North-west of the main islands Hawaii has a large national wildlife refuge (under control of the Federal Government), extending 800 miles from Nihoa Island to Pearl and Hermes Reef, where of course all wildlife is protected. This is where the turtles breed. But some of their main grazing grounds are round the main islands outside the refuge, where they are only protected within the 60-fathom line (often less than a mile offshore) and on land. Up to the 12-mile limit they can be taken by Hawaiian fisherman and beyond that by anybody. Even hawksbill and leatherbacks, which occasionally occur, can be legally

taken in these waters without size or quantity restrictions. As Dr Harold Hirth pointed out, in a report to the UN, the green turtles nesting in the refuge may well be the same individuals as those feeding unprotected round the main islands. Research tends to confirm this—and Hawaii is losing the opportunity that occurs nowhere else in the world of managing and protecting a colony of green turtles both on their nesting and feeding grounds. Other Pacific islands, including Fiji and Samoa, impose both size limits and close seasons, and French Polynesia bans all commercial catching (allowing only residents to catch for their own consumption). The least Hawaii can do is to implement Dr Hirth's first recommendation and ban the sale of stuffed turtles and the serving of turtle meat and soup in hotels.

The Port of London Authority is sure that by 1975 migratory fish will be again coming up the Thames to spawn in the upper reaches, and they are offering a substantial prize for the largest salmon or sea trout caught between Southend and Teddington. The Thames was once a famous salmon river, but salmon were last found there in 1830. Fifteen years ago the waters were so polluted that only eels survived, but such has

**Waiting
for the First
Salmon**

been the success of the cleaning-up in the interval that there are now at least 63 fish species in the river. Robin Moody, writing in the *Marine Pollution Bulletin*, reckons that the £35m spent by local authorities and £25m by industry on improved sewage works has been 'a good buy', at 30p per head, for the 13 million people whose sewage goes into the river. It seems a pity that the prize for the first salmon should be for killing it.

It has become urgently necessary to divert sport fishermen to shooting with cameras instead of mechanised spear-guns. Hans Hass, pioneer of underwater fishing, says that these guns have turned what was once a difficult sport into a massacre.

**The
Underwater
Massacre**

Revisiting the Great Barrier Reef, Tahiti and Jamaica, he found that 'the fish were gone', and in many other parts of the world the tale is the same—the Mediterranean has long been notorious. Hass demands a world-wide ban on mechanised spear-guns. Jacques Cousteau has pointed out that coral reefs are 'circumscribed and precariously maintained oases', where the fish are sedentary creatures; to kill them is mere child's play, but they may not be replaced. The World Wildlife Fund has called for an end to the 'useless and insensate massacre of fish' that occurs every year in the world underwater fishing championships, and urged that this year's event, held in Spain, should be the last. The Cambridge Coral

Starfish Research Group describes the damage that is being done in the Red Sea—which Cousteau calls the ‘African capital of coral waters’—especially by the tourist divers based on Port Sudan. Fish are killed purely for fun, with enormous wastage, and the reefs denuded. They point, too, to some serious but not immediately obvious effects, as for example the ignorant killing of the inedible (because poisonous) puffer fish *Arothron hispidus*. Quite tame and so an easy prey, the puffer fish is however an important member of the reef community in that it is a predator of the invasive and destructive crown-of-thorns starfish *Acanthaster planci*, which has killed off large coral reefs in many parts of the world, including the Red Sea. By destroying this predator spear-fishing is contributing to the destruction of the coral. Shell and coral collecting for souvenirs are also damaging—the Group’s report describes 37 coral colonies seen drying on the Red Sea Hotel veranda in Port Sudan; collected by nine sport divers they represented 10–20 years of growth. The Group urges the Sudan Government to ban all these activities in the Sudanese Red Sea. As in the Seychelles, where the Government has done this, the result could be a positive encouragement to tourism. It might at least ensure that the coral reefs and their fish were still there for the tourists of the future who are certain to come in increasing numbers.

The unhappy distinction of being the rarest bird species in the world probably belongs to the Mauritius kestrel *Falco punctatus* which has a total population believed to be four or five. This kestrel is unusual in being a forest bird, requiring for its nest hole the large dead trees that are to be found only in the island’s endemic forests, and for its prey arboreal lizards which are both more abundant and easier to catch in those forests. But the Mauritian forests have been disappearing fast in the face of advancing cultivation. Moreover, man-introduced, nest-robbing monkeys also live in the forests, making it impossible for the kestrels to recover. Dr Stanley Temple who has been studying the situation for the Smithsonian Institution, reports that last year only a single young was fledged from probably three breeding pairs. Hunters in pursuit of the introduced deer and boar seem to have accounted for two kestrels shot in 1971, while two more, probably a pair, disappeared in 1972, significantly in the first month of the hunting season. A serious long-term problem—if there is a long term—is the invasion of the forests by exotic shrubs which form so dense an understory that the kestrel cannot hunt in the lower layers. Finally, Dr Temple suggests, another bad cyclone like that of 1962, could finish off a population reduced to four or five birds. Despite the risks Dr Temple recommends that captive breeding be tried. With the

**The Rarest
Bird in
the World**

good facilities that are available for this, and his own expertise in both capturing and rearing kestrels, this seems the only hope of saving the species.

A 210-acre island, Copinsay in the Orkneys, with 200-foot sheer cliffs filled with breeding guillemots (11,000), kittiwakes (10,000), fulmars, razorbills, black guillemots and puffins, a shingle bank where Arctic terns breed, and plants that include several large patches of the beautiful oyster plant *Mertensia maritima*, could hardly be bettered as a memorial for James Fisher, ornithologist and conservationist, and for many years a member of the FPS Council. The island's purchase by the RSPB, with funds collected by James Fisher's friends, is a first-class piece of conservation work. 'Pop would have been delighted', was how Crispin Fisher summed up what all who attended the dedication ceremony on the island last July were feeling; 'just right for James', was Sir Peter Scott's description. James would also have been delighted that the only house on the island (now vacant) will probably be used as a field station for ornithological research, for which the island offers ample scope.

**Memorial
for
James Fisher**

The only surviving population of the Asiatic lion is in the Gir Forest, in north-west India, and numbers are not much over 200. Paul Joslin, in a very detailed and comprehensive report on his three-year study of the lions, puts the figure at about 190. He also shows what a complex social problem is the task of protecting the lions. Because of the human pressures they cannot survive outside the sanctuary. Inside, because of the lack of wild prey, they are forced to kill cattle and other domestic animals, which form 75 per cent of their food, and of which there are many—several thousand permanently inside and 18,000 being taken in and out every day. But because the herdsmen whenever possible chase the lions off their kills before they can eat (and sell the hide to a skin collector) the lions have to kill far more than they need. Joslin recommends that rewards be given to herdsmen for allowing the lions to have their kills and for not informing the skin collector—who in turn would have to be compensated for his loss as lion-killed hides may be a quarter of his stock. If this could be done satisfactorily the lions would actually kill fewer domestic animals. The enormous numbers of these grazing domestic animals has led to serious degeneration of the Gir Forest. Their removal, to allow the habitat and with it the prey species, especially deer, to recover, has already started, but it has to be a slow gradual process or the lions would starve.

**Lions and
People in
the Gir**

Ten years ago the Kissimmee river in Florida was straightened and canalised, reducing its length from 102 miles to 58 and draining the 40,000 acres of marsh through which it flowed, at a cost of 35m dollars. Now the authorities that did the job are having to consider seriously how to undo their work and restore the status quo—at vastly greater expense. The object was to control floods. What has been achieved is a serious pollution problem. The Kissimmee flows into Lake Okeechobee, the main water reservoir for the increasingly populous Florida coast from Palm Beach to Miami, and also for the swamps of the Everglades National Park. Formerly the river meandered through the marshlands, which supported an abundant wildlife (now gone), and also acted as an immense filter for impurities. Now the water rushes down the canal, unpurified, into the lake. The figure of \$88m is quoted as the cost of restoring the river, but first the land has to be repurchased, and land values on the drained marshland, some of it now developed or used for cattle, have soared; the former 'worthless' marshland now sells at \$4000 an acre. Moreover, hydrologists are not agreed that the task can be done at all. A moral tale indeed, but not the first of its kind—or likely to be the last.

How to put back a River's Bends

FPS and the Pet Trade

At a recent meeting the FPS Council considered the policy on the pet trade declared by IUCN/WWF. This policy supports legislation to ensure that trade in wild creatures for use as pets will be restricted to those which meet the following conditions:

- (1) are sufficiently numerous in the wild state to permit of such exploitation;
- (2) have been shown through experience or controlled tests to be suitable for use as pets; and
- (3) represent no known danger to human or animal health and will not damage the environment if they escape.

Council agreed to support this policy and to work towards the long-term aim of a total prohibition of the sale of wild-caught animals as pets, as a desirable measure, although it was unlikely it could be implemented in the near future. Council further agreed to seek the drawing-up of a code of practice for keepers of wild-caught animals.

Lake Pedder—a Reprieve?

Release of the water flooding Lake Pedder and a three-year moratorium are recommended by the Minister of the Environment's Committee investigating this hydro-electric scheme in Tasmania—see May *Oryx*, page 5. Two remarkable statements appear in the report. One, that 'there are national interests involved which would justify the Australian Government in meeting the costs involved in the moratorium or alternative scheme' (up to A\$8 million), and the other that the only real argument against saving the lake is the inability of Tasmania to meet the cost.