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A PLEA FOR PLANTS

CONSERVATION action on behalf of wild plants is minimal. In the world at large there is precious little awareness of the extent to which our lives depend on plants or of the rate at which they are being wiped out.

Yet in the chain of being, plants are primary. No plant life, no animal life. From the outset plants "learned" the trick of tapping the energy of the sun and the nutrients of the earth so as to sustain themselves and support other life-forms. Giving to all animals food, shelter and remedies for ailments, to man plants also give a great deal else.

The astonishing diversity of plant life and the astonishing diversity of cultures, languages and artistic achievements are not unconnected. Even if human life

Some 345 bird species are regarded as rare or endangered, and some 200 mammal species are endangered or vulnerable. Many of them are at risk precisely because the vegetation communities on which they depend for food and shelter are being impoverished or entirely destroyed.

devoid of plants were biologically supportable, it would be a pallid reflection of the real thing. We might not be spiritually bankrupt; we would be damagingly deprived.

Of course plant life is not going to disappear. But plant species are disappearing fast and we are in every sense the poorer for it both actually and potentially — potentially because we have hardly begun to scratch the surface of their value to us.

The essence of the case

"At present the greater part of man's agriculture is precariously based on less than 30 species of plants. The contrast between this statistic and the massive number of threatened species highlights the potential losses that could occur. Some of the threatened species may be potential crop plants in their own right; some may be near relatives of existing crops, and so particularly valuable for maintaining the genetic base available for future breeding and selection. Others may be needed as forage plants, for combating desertification, or for providing new



Hibiscus insularis - Philip Island. Status: endangered. Threat: feral animals

On small islands the most common threat comes from domestic animals brought in by mariners and explorers in centuries past to supply their food needs. Often enough these human colonizers soon left, while their livestock (reinforced by shipboard rats) remained behind and multiplied prodigiously. This practice has led to very severe depletion and sometimes extinction of endemic plants and animals, unequipped by evolution to deal with alien "competitors".

Philip Island in the Pacific is a case in point. Colonized in 1788, goats and pigs were introduced and at a later date rabbits. The island, once dense scrub, is now an uninhabited "colourful desert".

The goats and pigs have eaten their way into oblivion, but rabbits are believed still to be present and preventing regeneration of the tiny number of surviving *Hibiscus insularis*.

drugs, medicines or other biochemicals. Others may prove valuable for their unique life-form or ability to thrive in unusual or particularly harsh environments."

Here in this one paragraph, taken from IUCN's latest Red Data Book on plants is the essence of the case, the overwhelming case, for plant conservation. Some 25,000 flowering species are believed to be rare, vulnerable or endangered. To this prodigious total should be added the countless number being made extinct by 'development' of one kind or another before their existence has even been catalogued. That they will never continued on back page

inside...

New IUCN-UNEP agreement p 10
Whaling: Tokyo pointers p 11
Threats to plants: where, what
and why it matters p 12, 13
Doubts on seal quotas p 14
Plants as contraceptives p 16

THE International Whaling Commission met in Tokyo in December to agree the 1979 quota for North Pacific sperm whales - business left unfinished from the June meeting in London, The quota of 3800 (6444 in 1978) is supposed to be confined to males but includes a so-called "by-catch" of 473 females.

This curiosity represents a typical IWC compromise. The scientists said that the right quota for females was zero but the Japanese objected - partly on the grounds that their harpooners could not reliably tell males from females. One logical solution to this dilemma would have been to declare a zero quota for both sexes, but this

proposal gained only slender support among Commissioners.

In the Scientific Committee John Beddington again represented IUCN. He points out that the Committee would gain in efficiency if all documents had to be tabled one month before the meeting, so enabling them to be read and digested beforehand. While pleased that the Committee is now openly acknowledging its uncertainties, he asks that its "certainties" (or consensus view) be given equal weight. Otherwise there is the danger that Commissioners will come to regard the scientists' advice as

Tussle in Tokyo - where will it lead?

PUSHED firmly towards conservative measures by its Scientific Committee, the IWC had to forage hard for excuses to

protect the whaling industry.

The scientists reported that they could not say what would be a safe quota for North Pacific sperm whales, but that at least all females should be protected and quotas for males set conservatively, and certainly not higher than last year's figure (5105). Their caution was understandable: the only reliable data showed a statistically significant decline in pregnancy rates in the Western North Pacific, and a low pregnancy rate in the Eastern North Pacific with some indication of decline there too.

Sperm whale population (there may be several) in the West can be expected therefore to fall for decades, and the Eastern populations may already have done so, though the information for the East was somewhat scanty. The irony was this: population estimates indicated a quota, but the models which produced those estimates could not be made to reflect the known decline in pregnancy rate.

Minimum size

On scientific grounds there was a case to be made for protection of all North Pacific sperm whales, and the USA proposed just this in the IWC meeting. Unable, predictably, to tolerate the closure of the North Pacific fishery, especially the Japanese coastal whaling stations, IWC delegates retired into secret Commissioners' meetings, hammered out a compromise quota for male sperm whales, and laid 3800 of them at the whaling industry's feet.

Having established a male quota, they then accepted the Japanese plea that you can't tell the sexes apart until they're dead, and agreed that 11.5% of the quota could be females taken in error (called a "by-catch") so long as all sperm whaling stopped once these 473 females were

It is almost certain that the "by-catch" was agreed to was agreed to save the whalers extra searching and chasing time (and thus money). Quotas for females have always been considerably lower than for males, and in the 1978 pelagic season catches for both males and females were

Joanna Gordon Clark of Marine Action Centre was an observer at the **IWC** Scientific Committee meeting in La Jolla, California. She then attended the Tokyo meeting and has sent the following report to the Bulletin.

well below quota. Clearly they stopped for reasons other than confusing the

It has also been said that Japanese harpooners pride themselves on being able to tell the difference. The Commission could have taken the simple step of restoring the minimum size limit to its original 38 feet — which would have cut out all but a very few females.

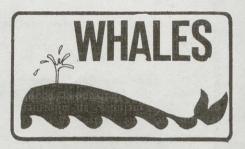
The subject was not even discussed at least, not in public - since perhaps the whalers did not want their interest too nakedly revealed. Perhaps also no-one wanted to mention in public the most flagrant drawback to the whole "bycatch" idea: there are no observers on catcher boats. Even if they genuinely cannot tell the difference, whalers could discard females killed in error without recording them - and carry on whaling.

If there were no industrial special pleading and if international law had greater force, the Commission might have protected all North Pacific sperm whales. A pregnancy-rate decline can only be eased by ensuring that more males reach social maturity, both now and in the future, and this in our present state of knowledge can only be done by protecting both sexes.

Momentous step

The Scientific Committee's decision to say that it did not know, rather than to present a figure despite their doubts and disagreements, was momentous. It is worth remembering that in Canberra in 1977 the sei whale problem was such that they presented the Commissioner with three alternative sets of quotas; worth noting that population estimates for minke whales are hardly reliable, though it may be true that their rate of growth is increasing; and particularly important that a number of scientists have by now written outline alternatives to the hitherto sacrosanct new management procedure, with critiques of how it does not at

The IWC and its member governments continued on back page



TURNING POINT FOR WHALES

December IWC meeting in Tokyo marked a turning point in the IWC as significant as the meeting in 1972 following the UN resolution calling for a moratorium. For the first time, the Scientific Committee recognised and stated the scientific uncertainties involved in its calculations, leaving the quota decisions to the political process in the IWC. Some Commissioners wrongly criticized the scientists, who instead should be congratulated for putting the situation into its proper political perspective.

It is clear that the status of the whales is far worse than the IWC has believed, and that it is not possible to maintain an economically viable whaling industry on a sustained basis. Whaling can no longer be justified on the basis of "scientific certainty", and it should be clear to all that it is now a question of a political trade-off between the shortterm economic gain for a dying industry on the one hand, and the survival of viable populations of

whales on the other.

Lee Talbot

Lee Talbot is the Conservation Directol of the World Wildlife Fund. He attended the Tokyo meeting of the IWC.

Whaling centre opens in U.K.

MARINE ACTION CENTRE has been established to keep conservationists briefed on all matters related to commercial whaling and to assist whale conservation bodies to coordinate their counter-whaling strategies. At present the Centre has a staff of just two: Joanna Gordon Clark and Jon Barzdo. Both have worked full time on the whale campaign for Friends of the Earth UK

The Centre will publish a newsletter 10 times a year and the first one is already out. It includes a blow-by-blow account of the tussle in Tokyo and reports the IWC Secretary as saying the Commission expects four more members by June: Peru, South Korea, Spain, Chile. All are whaling nations.

Annual subscription to the newsletter is £5 for individuals and £8 for organisations. The Centre's address is The Bath House, Gwydir Street, Cambridge, England.



IUCN and WWF concerned over seal harvest



On 6 February IUCN and WWF issued the following press state-

IUCN (the International Union for Conservation of Nature and Natural Resources) and the World Wildlife Fund (WWF) today expressed con-cern at the level of Canada's annual harp seal harvest.

IUCN and WWF pointed out that although the harp seal is not an endangered species, it is seriously depleted, which makes more urgent the need for effective management which conforms with sound prinof conservation. emphasized the need for more and better information on the seals and their ecosystems, and noted with satisfaction that the Canadians had already initiated a research

programme to meet some of the

concerns of IUCN and WWF

IUCN and WWF endorsed Canada's expressed policy to increase the depleted harp seal population, but could not at this time accept that a harvest of 180,000 animals was consistent with this policy.

The "single species" models used to arrive at this quota, they said, took insufficient account of the uncertainty in available data, important aspects of the harp seal's biology, environmental factors and the herd's relationship with other species - for example, depletion of the seal's food stocks, including capelin, due to overfishing in Canadian waters.

In combination these factors could well affect the assessment of what is an acceptable level of harvest from the standpoint of recovery of the harp seal population and the health of the marine ecosystem of which it

IUCN and WWF are also concerned that due to an increased kill by the potentially less controllable landbased hunt (as compared with the large-vessel hunt), a significantly higher proportion of older seals was taken last year than in previous years. The models which determine the quotas are based on the assumption that only 20 per cent of the animals killed will be one year old or older. Last year the proportion was around 25 per cent. If this were to becomes a regular pattern of the hunt, the proportion of breeding animals would be reduced. This should be taken into account in fixing quotas. IUCN and WWF also expressed

concern at the status of the hooded seal, about which much less is known and which may also be in need of stronger conservation

Queries on harp and hooded seal quotas

THE Canadian populations of harp and hooded seals - are they increasing or not? The short anwer is, we don't know but, as the IUCN/WWF press release (see above) makes plain, there are grounds for unease.

A closer look at the 1979 quotas who will take how many and where plus some breakdown on recent catches leads to the view that the hooded seal is, perhaps, the more delicately placed of the two. But it is the harp seal which claims the headlines at this time of year. So it is this species which will be considered first.

Although the overall harp seal quota remains the same as last year (the figure of 180,000 includes an allotment of 10,000 for the indigenous peoples of Greenland, Labrador and the Canadian arctic), Norway's share is sharply down from 35,000 to 20,000.

Canada's share thus goes up from 135,000 to 150,000 -and since Canadian "large vessels" are allowed to take no more than last year (57,000), the additional 15,000 will go to land-based sealers (see the press release for worries on this score).

Harp seal worries

The provisional figure for last year's kill, excluding the indigenous catch, is 161,000 - some 6000 up on 1977. striking feature was the greatly increased take in the Gulf of St Lawrence. In the six years 1972-1977, the average kill for the Gulf was 15,800. Last year it was over 55,000.

Does this matter? Probably not. The Gulf hunt only takes a tiny percentage of older seals; last year's high kill was due to increased activity by land-based sealers at the Front. Also the most recent research (D.M. Lavigne et al 1978) suggests that

the Gulf and the Front populations are one and the same stock, interbreeding randomly. If so, it should not matter how the quota is distributed.

But if the harp seal's "low genetic variability" eases management problems in one direction, it increases them in another. Such species may be peculiarly vulnerable to changes in the ecosystem. Already there is some evidence. (D.M. Lavigne et al) that whelping females in 1978 were in very much poorer physical condition than in 1976. This finding, taken together with Canada's increased capelin fishery and the failure of one of the two main capelin stocks to appear at all last year, underscores the scientific frailty of "single species" modelling.

Doubts on the hooded seal

A separate issue is the hooded seal hunt. While the allowable kill of adult females has this year been reduced from 71/2% to 5% of the catch, the overall quota is as it has been every year since 1972 - 15,000. During this period, however, the average kill has averaged only 11,500 (10,000 last year).

Research on the hooded seal has been very much less than on the harp seal. Nevertheless certain scientists (D.E. Sergeant 1976, G.H. Winters and B. Bergflødt 1978) believe that the hooded seal population has been relatively stable during the past decade or so. This would argue that the quota is too high.

Estimates of sustainable yield vary from the present average kill of 11,500 to 24,000. So wide a difference points to the need for much more research - and meanwhile for conservative quotas.

A Canadian government press release on the subject said: "The scientists have determined that the management regime will allow this population to increase.' The government's choice of scientists would seem to be rather selective.

Patrick Allen.



CANADIANS

A DELEGATION from Canada headed by Mr Ed. Maynard, President of the Executive Council of the Government of Newfoundland, came to Morges on 30 January to discuss Canada's annual harp seal hunt with the Directors General and senior personnel of IUCN and WWF.

The hunt takes place every March and is timed to coincide with the birth of harp seal pups at the Front off northern Newfoundland and in the Gulf of St

Lawrence.

The Canadian delegation included Dr Malcolm Mercer, a specialist in seal population dynamics, and Associate Director of the Fisheries Research Board of Canada. He gave details of Canada's harp seal research programme and said that on all the evidence available the 1979 quota of 180,000 - the same as last year - was fully in line with the government's declared policy of managing the herd for the long-term benefit of local people and of building up the northwest Atlantic stock from its present figure of around 1.3 million to 1.6 million in 5-10 years' time.

For their part IUCN and WWF maintained that the "single species" models used for management purposes contained too many unproven assumptions and made too few allowances for ecosystem changes. The net result, they said, is an assessment of population which may well

be too optimistic.

Their concern was made explicit in a press release issued on 6 February.



Johannesteijsmannia altifrons southeast Asia

Status: vulnerable
Threat: rainforest destruction

Widely scattered in small populations in Malaya, Sarawak and Sumatra, *Johannesteijsmannia altifrons* is never found in secondary forest and rarely survives clear-felling. It is an undergrowth palm which cannot stand direct sunlight. Its habitat is that rapidly dwindling resource, virgin rainforest.

Attempts to cultivate this genus have seldom been successful - a fact which adds to the importance of conserving it in the wild. The foliage makes excellent thatch and the young endosperm is said to be edible.



Fritillaria liliacea - California

Status: endangered Threat: urban development

This sweetly scented, white fritillary is now restricted to a handful of small populations in California and its existence is seriously threatened. One site has been re-zoned for commercial and industrial development; another is being used as a practice area for fire trucks.

The re-zoning has prompted conservation groups and individuals to form the Serpentine Protection League and to sue the responsible City Council for failure to prepare an adequate Environmental Impact Report.

The League takes its name from the fact that unlike other fritillaries, *Fritillaria lilacea* is adapted to serpentine soil. Herein lies the plant's value to science.



Primula palinuri - Italy

Status: rare Threat: tourism

Confined to sandstone and limestone rocks in southwest Italy, *Primula palinuri* always grows near the sea. Increasing tourism poses a threat, though the plants preference for vertical rocks - perhaps to avoid being shaded by other plants - gives it some security.

The Nature Conservation Working Group of the Italian Botanical Society has proposed full protection for this "beautiful and fragrant species" on some 175 hectares of Cape Palinuro



Paeonia cambessedesii - Balearic Islands

Status: vulnerable Threat: commercial development, goats

Probably now confined to the moun-

The attack on flower power

FLOWER power — a power for good that could be lost for good unless strong protective action is taken. Beginning now. The handful of plants featured here will give some indication of where and what the chief threats are and why it matters.

The IUCN Plant Red Data Book says, in its introduction: "The (250) species have been selected, as far as possible, to illustrate the various types of threat, habitat, distribution, plant groups and protective measures, with the emphasis on species that are of particular interest or importance to mankind"

Naturally there are gaps. The plant world is still woefully underresearched and there remains a crying need for basic data. As a result highly important floral regions, such as Latin America and southeast Asia, get much less coverage than they should.

Nevertheless the book is global in its scope and finely portrays the global nature of the threats plants. The threats are many but they come under two main headings: despoliation of habitat and wholesale removal by collectors whose acquisitiveness varies inversely with the plant's abundance.

tainous area of northwest Majorca, *Paeonia cambessedesii* is of great horticultural value as "one of the most delightful paeonies for the garden and the earliest to flower". Goats eat the developing fruits, thus seriously impeding regeneration. Commercial development for tourism is also a threat.

The plant may prove of value to medicine; in Majorca the roots are said to be useful in treating epilepsy. No conservation measures have yet been taken and the authors of the Red Data Book recommend that its habitat - also the home of other endemic species - be made a national park.



Arbutus canariensis - Canaries

Status: vulnerable Threat: forest destruction

The fruit of *Arbutus canariensis* is reputedly the Golden Apple of the Hesperides. The tree is now very rare, its habitat being the severely diminished laurel and pine forests of the Canaries. The former are the only moist forests on the islands and shelter a large number of rare and endemic plants, which are believed to be Tertiary relicts of a now virtually extinct flora.

To the botanical value of these forests - what is left of them - should be added the fact that they play an important role in controlling erosion and producing rain. They should be made into nature reserves forthwith.



Saxifraga florulenta - Alps

Status: vulnerable Threat: collectors

Although growing almost exclusively on north-facing vertical rocks, *Saxifraga florulenta* has suffered from skilled climbers-cum-collectors. Its Italian population has been protected since 1975: removal of seeds and flowers is forbidden.

This relict species is particularly vulnerable. For one thing it takes 10 - 12 years to flower and has no means of vegetable reproduction; propagation can only be by seed. For another thing cultivation is extremely difficult; few plants live long enough to come to flower. It seems that in this instance horticulture is more likely to hasten extinction than ensure survival.

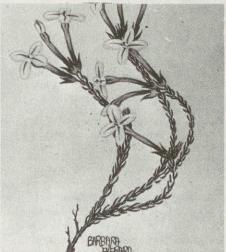


Clianthus puniceus - New Zealand

Status: endangered Threat: Australian opposum

Although widely cultivated in gardens, only six wild populations of this spectacular, red-flowering species are now known - all in the North Island of New Zealand - and three of the six consist of only two plants.

Chief culprit is the Australian opposum, although introduced deer, pigs, goats and rats may also be to blame. The authors of *Threatened plants of New Zealand* conclude: "Without urgent action, disturbance will probably continue until all wild plants are destroyed."



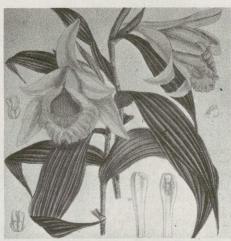
Erica jasminiflora - South Africa

Status: endangered Threat: intensive farming

In South Africa the rich Cape flora has been greatly reduced by intensive farming and in southwest Cape Province 1459 plant species are now listed as, in some degree, under threat. It is in just one hectare of this province that *Erica jasminiflora* clings on to existence.

The tiny population of some 150 plants, though now fenced in, is surrounded by farmland, frequently burnt vegetation and roads. In 1977 scarcely any seed was set - perhaps due to lack of

pollinators. However 1978 was a much better year. 500 seeds have been seedbanked and attempts are being made to bring the species into horticulture.



Sobralia xantholeuca - Central America

Status: endangered Threat: agricultural development

Growing at high altitudes in the cool moist forests of Central America, *Sobralia xantholeuca* is now confined to one area in El Salvador and two in Guatemala. It probably also occurs in Honduras but there is no information.

Forest felling for coffee plantations is the threat to this handsome yellow orchid (the colour is highly unusual most Central American species of **Sobralia** are white or purple). In El Salvador its one habitat is now protected; similar measures need to be taken by Guatemala. All orchids are in Appendix II of CITES.



Rafflesia arnoldii Sumatra

Status: vulnerable, possibly endangered Threat: collectors; rainforest destruction

The largest flower in the world—a metre and more in diameter—*Rafflesia arnoldii* has been called the "prima donna of all parasitic plants". It is therefore much preved upon by collectors.

Being a parasite, protection of the host species, the climbing genus **Tetrastigma**, is also required. The very necessary conservation of **Rafflesia arnoldii** can thus be made into a valuable educational project that highlights the ecosystem approach. The educational potential is all the greater because of the intense curiosity aroused by the plant's astonishing size and structure—even though little is known of its biology or life cycle.

The IUCN Plant Red Data Book

Compilers: Gren Lucas and Hugh Synge IUCN, 540 pp, £10 or \$ 20 (Discounts from 20% for IUCN members.)

WORLD-WIDE some 25,000 plants are believed to come within one or other Red Data Book category. For enormous numbers of these little or nothing is known.

The IUCN Plant Red Data Book has therefore adopted the strategy of covering, so far as possible, a representative cross-section.

Status, distribution, habitat and ecology, conservation measures taken and proposed, biology and potential value, cultivation, description and references are given for 250 plants from 89 countries. Despite inevitable gaps the global nature of the many different threats to plants (22 are listed) comes through loud and clear. The book will be a spur to conservation action in many regions.

Because of the link between plant diversity and that of the dependent fauna, it is likely that a high rate of extinction in the plant kingdom will cause an even greater loss among other organisms. IUCN Plant Red Data Book.

National Red Data Books

Below are brief reviews of recently published national Red Data Books on plants. Except for Scandinavia (plus Finland) the source for these reviews is the latest newsletter put out by the Threatened Plants Committee. Those requiring a copy of this newsletter should write to: Hugh Synge, Threatened Plants Committee, Royal Botanic Gardens, Kew, Surrey, England.

British Red Data Books— Vascular Plants

Compilers: F.H. Perring and L. Farrell

Society for the Promotion of Nature Conservation, The Green, Nettleham, Lincoln, 98 pp, £2.95

IUCN Red Data Book categories are used as well as an unconventional but imaginative "threat number" that takes into account the plants decline and the number of extant localities, and includes a numerical measure of the attraction of each species to collectors and the accessibility of its sites. After a detailed introduction on how the book was produced, on the threats, and on British legislation, short accounts are given of 321 species and subspecies. These represent about 18% of the British flora.

Threatened Plants of New Zealand

Compiler: D.R. Given

Botany Division, Department of Scientific and Industrial Research, New Zealand

A FURTHER 24 sheets were issued in late 1977 for this impressive compilation which now covers 74 species (and varieties) from mainland New Zealand and the offshore islets. For each species there is a 2-page sheet which includes detailed recommendations for action, notes on past disturbance and future threats, a diagram marking collection dates and a ticked checklist to show in which reserves or national parks the species may be found.

Probably far fewer than half the species of the humid tropics have been seen or catalogued by scientists. Worldwatch Paper 22.

Red Data Book of USSR

Compilers: A.M. Borodin et al

Central Research Laboraty on Nature Conservation, USSR Ministry of Agriculture, 459 pp

THIS "official reference book" covers both plants and animals, but flora, with 437 species, greatly outnumber fauna, with 154. Sumptuously produced, this book could well act as a model of its kind. For each species there is an illustration, a distribution map, habitat data and an account of action planned and taken. These are essential elements in such a reference work, particularly for the non-specialist who is often the vital administrator in need of guidance as to how to act.

Large areas of South America remain terra incognita to scientists. Botanists who collected 239 plant specimens on one recent expedition along the Panama-Colombia border found one in every five to be a new species. Worldwatch Paper 22.

Endangered and Threatened Plants of the United States

Compilers: E.S. Ayensu and R.A. De Fillips

Smithsonian Institution and the World Wildlife Fund, Washington DC, 403 pp

THIS massive compilation is a revised version of the Report on Endangered and Threatened Plant Species of the United

States which was presented to Congress by the Smithsonian in 1975 and which forms the basis for US federal activities on plant conservation. 2140 plants are included for the continental US and 113 for Hawaii. The categories used, "Endangered" and "Threatened", derive from the US Endangered Species Act and are wider in scope than IUCN's Red Data Books. Nevertheless these dramatic figures highlight the drastic situation of the rich Hawaiian endemic flora. The islands are a top global priority for plant conservation.

The overrunning of crops by pests or the sudden spread of a disease may easily be perceived as matters of chance when in fact they are the direct result of human actions. Worldwatch Paper 22.

Rote Liste Gefasspflanzen Halle/Magdeburg

Compilers: S. Rauschert et al

THIS small illustrated Red Data Book for the two provinces of Halle and Magdeburg in East Germany is a model of succinct and authoritative botanical documentation. It provides up-to-date lists according to categories used by Korneck et al in a Red Data Book for West Germany. The categories, though more subdivided than those of IUCN, are easily equated with them. Of a total native vascular flora of 1523 species, 1456 have been evaluated. 101 (7%) are probably or certainly extinct, 61 (4.8%) are endangered and 414 (28.5%) are threatened or rare. This serious situation reflects the lack of habitats unaffected by modern agriculture, silviculture or other development in a region with little coast and no high mountains.

Repeated insect devastations of southeast Asian rice crops over the last decade have underscored the continuing folly of reliance on a narrow genetic base in agriculture, Worldwatch Paper 22.

Hotade djur och vaxter i Norden

Nordisk Ministerrads sekretariat St Olavsgate 29, Oslo 1, 194 pp, 61 distribution maps, 43 illustrations

THIS regional Red Data Book deals with threatened mammals, birds, amphibians and vascular plants in Denmark, Norway, Sweden and Finland. It is intended to form the basic material for "internordic" cooperation called for by the Nordic Council of Ministers. It specifies national aims which are considered to be of international (internordic) concern. The categories are those of IUCN although, as in the British Red Data Book, the degree of threat is given a numerical value. There is a 3-page

IUCN and **UNEP** have signed new 2-year

support to IUCN since 1975. An agreement was signed in that year to provide support to IUCN until the end of 1977.

It was subsequently extended to the end of 1978, by which time IUCN had received \$2.8 million under this and other UNEP projects (the official term for these agreements) to enable it to expand its operations.

Following discussions between the two bodies in 1978, a new project was signed at the turn of the year which provides for UNEP support to IUCN of \$1.7 million during 1979-80.

The project document is titled "The development, and promotion of the implementation, of A World Conservation Strategy". This title reflects the desire of both organizations to make the Strategy the cornerstone of their cooperation.

The project provides for support of more than \$630,000 for a number of activities relevant to IUCN's programme as a whole. The remaining assistance goes

to four sub-projects.

The first of these provides more than \$200,000 to bring the Strategy to publication as soon as possible and to

agreement

prepare drafts of a second edition for submission to the 15th General Assembly in 1981.

The second sub-project provides more than \$ 500,000 to promote the Strategy's implementation, and involves numerous activities at the global, regional and national levels.

The third sub-project concerns "The promotion of a network of effectively managed terrestrial and marine protected areas"; support here exceeds \$200,000.

The fourth one is for "development of an information system for a global plan of action aimed at restoring, conserving and managing wildlife with special attention to threatened species" - including - including the development of a "new generation" of Red Data Books. UNEP support here is a little less than \$150,000.

The project as a whole envisages an active role by UNEP in the work of IUCN's newly formed Programme Planning Advisory Group. It also stresses the importance both organizations attach to making the Ecosystem Conservation Group a more effective means of cooperation between its four members: UNEP, IUCN, FAO and UNESCO.

While most of the activities listed above are partially funded by other sources – in particular, WWF and IUCN's own members - UNEP's support does a great deal to enable IUCN to pursue its goals more rapidly, forcefully and effec-

The new agreement affirms that UNEP's interest in many aspects of IUCN's programme will not cease at the end of 1980 and that the two organizations will evolve a basis for continuing their close cooperation thereafter.

Education task force

AT Ashkhabad a General Assembly resolution called for a comprehensive review of the Education Commission. On 29 and 30 January a task force, chaired by Professor Pierre Goeldlin, met in

The task force had before it a draft review paper which analysed the Commission's achievements and problems and presented ideas for new activities. The paper, now redrafted, will go to the first meeting of the Programme Planning Advisory Group

Strategy launch in September

THE World Conservation Strategy (WCS) will be launched publicly in late Septem-

A launch steering committee has been set up jointly by IUCN, UNEP and WWF to ensure that the launch achieves for the WCS the greatest possible impact on decision-makers and the public throughout the world. Further information on the launch will be published as planning progresses

The WCS is now being made ready for publication following the most thorough and prolonged period of drafting and consultation in IUCN's history. Two earlier drafts of the WCS were sent out to all IUCN members and Commission members, as well as to UNEP, WWF and other concerned organizations and indi-

The WCS was then reviewed by the 14th Session of the IUCN General Assembly (see IUCN Bulletin, October/November 1978, page 64). The General Assembly called for a third draft, and authorized its publication following review by a

panel appointed by the IUCN Council.

The purpose of this consultation process has been to ensure that the WCS is practicable, scientifically sound, and has the widest possible backing of the world conservation community

The third draft of the WCS has been duly prepared to reflect the views of the General Assembly. This draft was reviewed by the Council's panel, which met in Morges on 22-26 January.

Panel members were: Mrs Cecilia de Blohm (Venezuela), Dr Sylvia Earle (USA), Dr Ashok Khosla (UNEP/India),



Mr Mats Segnestam (Sweden), Mr Tom Stoel (USA), Dr Lee Talbot (WWF).

Two versions of the WCS will be published - a pack for decision-makers and their advisers, and a paperback for the general public.

The pack will consist of the main WCS document, an executive summary, and a set of action briefs. The main document will be illustrated with photographs, diagrams, charts and maps. The executive summary is aimed at heads of government and other national and international leaders. The action-briefs

summarize the Strategy's recommendations and priorities for different sectors of society, such as political parties, conservation NGOs, industry and commerce. The pack will be published by IUCN in English, French and Spanish.

The paperback will consist of a popular presentation of conservation - why it is needed, what action is required now, the key role of the Strategy in getting that action - plus all of the material that is in the pack. The paperback will be published commercially in as many languages as



WHO is testing plants in aid of family Crackdown on

planning

QUESTION: why has the population of Tibet remained essentially static for the past 200 years?

Answer: because Tibetans eat great quantities of *Pisum sativum*, the common garden pea. That at any rate is a possible answer because the garden pea has proven contraceptive properties.

The World Health Organization is now testing "fertility regulating" claims for plants from all over the world. Facts and hearsay on 3000 of them have been fed

Only a small fraction of the earth's plant species have been screened for medically useful ingredients. Worldwatch Paper 22.

A tropical periwinkle provides a chemical used to fight leukemia; the plant is becoming rare in some areas because its high commercial value has prompted overcollection. Worldwatch Paper 22.

into a computer and 130 plants (though not *Pisum sativum* — only 60% effective) have emerged as being worth further study. An important element is geographical spread and relative abundance. A familiar plant is likely to make family planning more acceptable.

Research centres in South Korea, Sri Lanka, Hong Kong, Brazil, Britain and the US are cooperating in this venture. WHO hopes that one or more birth-control pills will be ready for clinical testing in 1980.

A plea for plants—continued

show up in the casualty lists is cold comfort.

The Amazon Basin, Norman Myers points out (in *Garden of Eden*), may contain a million plant and animal species, making it biologically the richest region on earth, with southeast Asia not far behind. And it is these regions, of course, which are the chief sufferers from the onslaught of the timber trade.

There is no way of putting a figure on the number of plants and animals which die when their rainforest cover and livelihood go. But certainly the figure is astronomic. And almost certainly the timber industry — though by no means the sole THE US Agriculture Department's Animal and Plant Health Inspection Service (APHIS) has in recent months begun to crack down on illicit imports of endangered plants. Those lacking proper CITES documentation are being confiscated — nearly 8000 in the opening weeks of this get-tough policy.

plant imports

A customs officer is seldom a taxonomist, so clearly there are problems of recognition. However, both CITES and the US Endangered Species Act contain "look alike" clauses intended to ease his burden. In cases of doubt they entitle him to seize plants that look like those on the endangered list.

How is this being interpreted by US customs officials? And what are other CITES parties doing to implement the convention with regard to plants? The answer to this last question would seem to be — very little.

Last of three wild wheats found

WHILE modern wheat is known to have had three progenitors, efforts to breed improved strains have been hampered because the whereabouts of only two of them were known. A 60-year search for this missing plant *Triticum searsii* ended in triumph in 1977 when scientists from Israel's Weizmann Institute found it in the region of Samaria and Judaea and the watershed of the Jordan.

Source: Wildlife, November 1978

destroyer of rainforests — is responsible for a larger "incidental take" than any other single industry and perhaps more than all the rest combined.

The 250 plants in the IUCN Plant Red Data Book come from 89 countries and a wide range of habitats. They have been selected in order to illustrate the various types of threat and the plant groups involved. A brief chapter specifies how governments and individuals can help to protect what the compilers of the Red Data Book (Gren Lucas and Hugh Synge of IUCN's Threatened Plants Committee) consider to be our most precious heritage on earth. And who would disagree with them?

Whales-continued

can no longer pretend that it is setting quotas that scientists recommend. The fact that the Commission in Tokyo did cut the quotas considerably should give members of the Scientific Committee the confidence to repeat the honesty of their recent report, but warn them against imprecise phrasing: a number of Commissioners quoted figures for sperm whale populations from a table that the Scien fic Committee had specifically rejected a basis for quotas. Indeed one of the more revealing facts was not spelled out: population estimates for female sperm whales in the Western North Pacific have varied from 150,000 to 450,000 in the last few years, and male population estimates are not much better. A similar anaysis for other whales species would undoubtedly give the same result.

No observers on catcher boats

The Commission did protect, by retrospective amendment to the Schedule, all sperm whales in Division 5 of the Southern Hemisphere – the area in which the Australian land station operated until its closure last summer. This was done despite Japanese protests that they had given (as had the Soviets) their word not to whale there whatever the Schedule said, and they would not like to feel that their word was doubted. Of the divisions in the Southern Hemisphere this is now the third in which sperm whales are completely or partially protected.

IWC protection, however, is not necessarily for long. Division 9, at present protected, is exploited by Peru, a potential member of the Commission, which has supplied catch data that may be used to substantiate a quota. Peruvian data should however be given closer scrutiny — we understand that no observers are present at their land station or on their catcher boats, and that a 75-foot blue whale with a large harpoon wound in its side was washed ashore in Peru in February 1978.

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