CITES – of use to conservation?

Elephants

Of the many proposals to amend the Appendices at the 8th Meeting of the Conference of the Parties to the Convention on Trade in Endangered Species of Wild Fauna and Flora in March those concerning the African elephant are likely to arouse the fiercest debate, as they did at the meeting in 1989. Botswana, South Africa, Namibia, Malawi and Zimbabwe have all proposed that their elephant populations be downlisted from Appendix I to Appendix II. The Panel of Experts for the African Elephant, which was appointed by CITES after the 1989 meeting, has prepared a report on the South African proposal and a report on the remaining proposals will be released at the CITES conference. Its conclusions will be based on the status of the populations concerned and the effectiveness of conservation management measures, following criteria agreed at the 1989 meeting. The FFPS holds the view that if the Panel of Experts finds that an elephant population meets the criteria for transferral to Appendix II it should be only on the condition that the ban on international trade in ivory remains in place. The Appendix II listing would then mean that only trade in non-ivory elephant products would be permissible. Such a stand is essential to protect the rest of Africa's elephants from the effects of an inevitable resumption of illegal killing and ivory smuggling that was so devastating for elephants across much of the continent before the ban. The FFPS is preparing position statements on the elephant and on many of the other proposals being put before the meeting.

CITES needs stronger implementation

The Convention has been criticized by a number of conservation bodies because it has failed to ensure that trade in wild species is managed within sustainable levels. The failure should not be blamed on the Convention itself, which has resulted in much positive action for species listed in its Appendices and has the potential to benefit many more. The failures stem from the fact that the Parties are not fully implementing the requirements of the Convention.

Article IV of the Convention is potentially of great power in requiring Parties to restrict trade in Appendix II species to levels that are not detrimental to their survival. In practice this requirement is largely ignored and many species continue to be traded at high levels, with no assessment of the impact of exploitation on wild populations. Article IV states that the export permits required for Appendix II species should be granted only if the Scientific Authority of the state concerned has advised the Management Authority that such export will not be detrimental to the survival of the species involved – and yet a significant number of CITES Parties have not even appointed a Scientific Authority for CITES purposes.

The Scientific Authority is also supposed to monitor exports and to advise the Management Authority when the export should be limited to 'maintain a species throughout its range at a level consistent with its role in the ecosystem'. This obligation can only be fulfilled if there are ongoing programmes to monitor the wild populations, but few such programmes exist. Most Parties are in fact in formal breach of the Convention and it is this that needs addressing rather than judging the Convention to be useless and only worthy of being abandoned.

Under Article XIII of the Convention the CITES Secretariat should intervene with Parties if it appears that exports are detrimental to wild populations. While this is rarely done, a notable exception being a call by CITES for Parties to cease trading in wildlife with Thailand in April 1991, a draft resolution before the meeting would provide a formal mechanism to do so. Its most important provision is to give the CITES Standing Committee power to recommend to Parties via the Secretariat that if remedial measures are not adopted the Parties should suspend trade in the species with the country in question.

Another cause of over-exploitation of wild species arises from the high levels of mortality

https://doi.org/10.1017/S003060530002336X Published online by Cambridge University Press

that occur in the transport of wild animals. Many Parties are still not enforcing regulations designed to address this problem, which were recommended at the 5th Meeting of the Parties.

Fulfilling obligations under the Convention is not easy and the burden at present falls largely on the exporting countries, most of them in the Developing World. While some exporting countries could find funds to implement the Convention properly from, for example, taxes levied on exports, other countries lack the financial and technical resources to do so. The importing countries should share this burden, being wealthier and able to provide funds and technical assistance for developing monitoring programmes. If importing and exporting countries could find ways to work together under CITES to ensure that trade was truly sustainable and did not reach crisis points where trade bans became inevitable, the countries themselves would benefit as well as the wildlife base of the trade.

Trade bans are obviously appropriate for many species but their necessity is often a sad reflection of the failure of conservation programmes as well as a result of poor implementation of CITES regulations.

Sustainable wildlife trade has a part to play in wildlife conservation strategy

There are some voluntary organizations that call for a ban on all wildlife trade, but FFPS, along with many other conservation organizations, believes that a long-term conservation strategy for wildlife species may have to include sustainable utilization. It may be the only way to safeguard certain species and their habitats. If local people are deprived of the possibility of deriving economic benefit from the wildlife on their lands then the land may have to be used for other purposes, many of which will involve widespread habitat destruction and loss of wild species.

A draft resolution is to be put before the meeting calling for formal recognition of the potential benefits of sustainable wildlife trade. While the FFPS supports the principle behind this resolution, which has been drafted on similar lines to a resolution on the same topic that was passed by the IUCN at its General Assembly at the end of 1990, it believes that each case should be judged on its merits and that the onus should be on the exploiter to demonstrate the conservation benefit for the species concerned.

Such a philosophy underpins the FFPS Indigenous Propagation Project, which was developed after research funded by the Society showed that exploitation of wild bulbous plants in Turkey was depleting wild populations and depriving local people of a long-term sustainable income. The project is just getting off the ground but the lessons we learn and the experience we gain will be used to develop similar projects in other parts of the world where unsustainable exploitation of wild plants is occurring.

Consumptive or non-consumptive use?

The concept of consumptive utilization of wildlife is controversial. Many people would prefer that no such use takes place. Their sensibilities are offended and they often argue that non-consumptive uses of wildlife are the only ones that we should tolerate. There are cases where such uses are feasible: whale-watching and gorilla visiting are economically fruitful, for example, but even they are not entirely without risks and these have to be taken into account when calculating the cost of non-consumptive utilization. For example, gorilla visits open up the possibility of introducing diseases, and minimizing the risk has involved imposing restrictions on visitors and developing expensive immunization and monitoring programmes. On a larger scale, wildlife reserves can be made to pay for themselves by charging entrance fees. However, there are situations where tourist development is not possible or wise. In might be of questionable conservation benefit or even detrimental to the species concerned. All forms of wildlife utilization, whether consumptive or non-consumptive, should be examined carefully to ensure that the operation is really the best way to ensure the survival of a species.
Editor.

https://doi.org/10.1017/S003060530002336X Published online by Cambridge University Press

India's new approach to wildlife protection

India's Wildlife (Protection) Act 1972 was amended towards the end of 1991 in ways that reflect a radical change in attitude to wildlife.

The new Act bans all hunting of wild animals included in four schedules except for the purposes of protecting life and property and for research and education. The word 'game' has been discarded from the Act, and with it the concept that wild animals can be hunted as a renewable resource. There are special provisions covering venomous snakes, whose capture is permitted for the collection of venom and preparation of life-saving drugs.

The new Act also has an anti-trade bias. Trapping of birds is banned, which will effectively close down the trade in Indian birds. Trade in imported ivory and articles made from it is prohibited. The only wildlife products that can be freely traded are items such as peacock tail feathers, antlers and porcupine quills.

Wild plants, largely ignored in previous legislation, are given attention in a new section of the Act and endangered plants listed in a new schedule are protected from all forms of exploitation where they occur on forest lands or other notified areas, except for the personal use of tribal people and for certain scientific and educational purposes. Cultivation of and trade in these plants will be subject to licensing arrangements.

Zoos receive the attention of the Act for the first time. A Central Zoo Authority will prescribe minimum standards for housing, upkeep and care, and zoos that do not comply will not be allowed to operate. The Authority will also provide technical and financial assistance to zoos and will co-ordinate captive-breeding programmes.

The human factor is also recognized in the new Act, which allows for the appointment of district honorary wildlife wardens, gives private individuals powers to prosecute under offences against the Act, requires that tribal people are represented on State Wildlife Advisory Boards, and ensures that no wildlife sanctuaries are declared over private lands without first settling the rights of the people affected. Sanctuaries themselves are to be given stronger protection: exploitation of a sanctuary's wildlife will be banned except where it is necessary for conservation purposes and it will be an offence to damage or alter boundary marks, fell timber, collect minor forest produce, or fish. Regulated grazing will be permitted in sanctuaries but to protect wildlife the Chief Wildlife Warden will be able to take measures to immunize all livestock within 5 km of a sanctuary against communicable diseases.

Other changes involve enforcement and prosecutions and considerably strengthen government powers of confiscation of wildlife and equipment or weapons, and penalties for offences under the Act have been increased considerably: the minimum punishment for hunting in a sanctuary, for example, has been increased from 6 months and Rs500 to 1 year and Rs5000, respectively.

Editor.

Cartagena Convention on the Protection of the Marine Environment of the Wider Caribbean Region

At a meeting last June the 19 Parties to the Cartagena Convention* reached an agreement on the species to be listed in the annexes to a protocol concerning protected areas and wildlife. The agreement breaks new ground and incorporates much of the best in modern conservation thinking (Freestone, 1991).

Under the Protocol the Parties undertake to protect and conserve special areas and species within their own jurisdiction and also to take common action to ensure protection of endangered and threatened species on a co-operative regional basis. Parties agree to accord complete protection to species listed on Annex I (flora) and II (fauna), and to adopt measures

*The Cartagena Convention is a regional framework environmental treaty under the United Nations Environment Programme Regional Seas Programme, signed in Cartagena de Indias, Colombia, 24 March 1983 and came into force on 30 March 1986.

https://doi.org/10.1017/S003060530002336X Published online by Cambridge University Press

to ensure protection and recovery of species listed in Annex III. Species in this latter annex may be exploited, but only on 'a rational and sustainable basis'.

The criteria for selecting species for Annex III made it possible to list species considered to be essential to the maintenance of fragile and vulnerable ecosystems, such as mangrove forest and coral reefs. All coral and mangrove species were listed together with the main sea grass species. A number of international agreements confer protection on areas of habitat, but this appears to be the first time that an international species protection procedure has been used to try to protect ecosystems as a whole. The Caribbean, where coastal tourist development has impacted all coastal ecosystems, is particularly appropriate for this kind of protection. Because there are an enormous number of reef and mangrove systems in the area, it would be difficult to apply a traditional protected area system effectively. Instead all parties are obliged to manage such ecosystems on a rational sustainable basis – a quite different approach.

All marine mammals and turtles were listed on Annex II, prohibiting 'taking, possession or killing ... or commercial trade in such species, their eggs, parts or products'. This will not apply to specimens acquired legally before the Protocol comes into force, or to their progeny, so existing captive-breeding programmes will be unaffected.

The Final Act and the text of the Annexes were signed in June 1991 by eight states and will come into force 30 days after the ninth state ratifies the Protocol. Implementation of such obligations is the next, and more difficult, stage but it will be helped by the fact that the protocol provides a good basis for the necessary legislation and the existence of a permanent Scientific and Technical Committee.

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Editor.

Small is beautiful – even in bogs

The vulnerable nature of wetlands and the need for their protection and management is now widely appreciated. Often, however, conservation action is directed at the maintenance of populations of their more visible inhabitants, notably birds. A meeting held in Liechtenstein in June last year focused instead on equally important but rather smaller species. Sponsored by the Council of Europe and the Secretariats of the Bern and Ramsar Conventions, the meeting reviewed information available on threats to and priorities for conservation of wetland invertebrates, attracting some 50 participants from the west to the east of Europe.

The Bern Convention (the Convention on the Conservation of European Wildlife and Natural Habitats) is perhaps unique in the attention that it gives to invertebrates, and over 80 insects and other invertebrates are listed on the Appendices. Many of these are wetland species. The Ramsar Convention (Convention on Wetlands of International Importance) is heavily orientated towards birds and information on invertebrates present in sites listed under the convention is sparse if it exists at all. However, with the growing awareness that even small wetlands can be of international significance, the role of this convention in protecting invertebrates could become important. Small sites may be critically important for invertebrates and are particularly at risk: small wetlands are often difficult to maintain because of their vulnerability to events affecting water sources and drainage basins over a much wider area. It is becoming increasingly evident that the rarest and most vulnerable wetland invertebrates often have very specific habitat requirements, and these are not necessarily taken into consideration in management for wetland species like birds. As Eladio Fernandez-Galiano of the Council of Europe suggested, ornithologists must start using their binoculars the wrong way round in order to see invertebrates as well as birds.

The lack of information about wetland invertebrates is a major problem, made worse by the scarcity of adequately trained inverte-

brate taxonomists, even in the northern European countries. It was pointed out that the average age of invertebrate taxonomists is also increasing! It is to be hoped that the few groups, such as dragonflies and freshwater mussels, for which good data are now becoming available, will demonstrate the urgent need for further work. For example, management of dragonflies, now declining throughout most of Europe, may be incompatible with that for birds because the former often require wetlands of low productivity. The freshwater mussels, some species of which, for example the pearl mussel *Margaritifera margaritifera*, are declining catastrophically, are now known to need highly specific conditions in clean fast-flowing rivers.

The meeting resulted in the drafting of a recommendation to the Parties of the Bern and Ramsar Conventions, to be approved by their respective management bodies. It calls for the promotion of further invertebrate research and recording schemes, the funding of invertebrate conservation projects, the development of recovery plans for invertebrates and their inclusion in management plans for wetlands, and more education and public awareness programmes relating to invertebrates. The WWF, IUCN and other conservation bodies were invited to carry out more comprehensive invertebrate conservation action.

Susan Wells, Centre for Tropical Coastal Management Studies, Department of Marine Science, University of Newcastle upon Tyne, NE1 7RU.

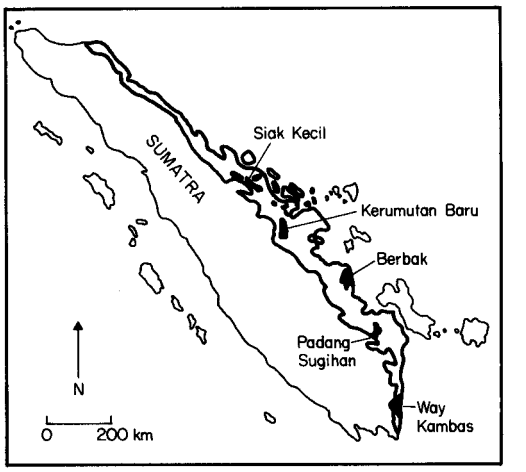
Sumatran rhinoceros: a new locality in Indonesia

The Asian Wetland Bureau reports that a management patrol in October 1991, carried out jointly with the Indonesian Directorate General for Forest Protection and Nature Conservation, has found clear evidence that the Sumatran rhinoceros *Dicerorhinus sumatrensis* still occurs in the Berbak Wildlife Reserve in Jambi province, Sumatra.

The Sumatran rhinoceros is one of the most seriously endangered species of large animals in the world, existing only in small, isolated populations in inaccessible areas of Burma, Thailand, Malaysia and Indonesia. A study carried out over several years in the late 1970s estimated that some 40–75 Sumatran rhinoceros survived in Sumatra. Although populations may have increased since then in national parks, such as Kerinci-Seblat and Gunung Leuser, this is by no means certain, as poaching in those areas has continued. Outside protected areas rhinoceros numbers are certain to have been reduced by a combination of habitat loss, poaching and capture for a government-sanctioned captive-breeding programme.

Over the years there have been only two reports of the rhinoceros in Berbak, one in 1936 and another in 1976, although this is more likely to be attributable to the inaccessibility of the area than a lack of animals. Even today it takes 3 days by motor launch, speedboat and dugout from the provincial capital to reach the areas where the evidence of rhino presence was found.

The signs included footprints, dung and saplings broken off in feeding behaviour that is typical of rhinoceros. The size of the footprints indicates that the animals are likely to be Sumatran rhinoceroses rather than the larger Javan rhinoceros *Rhinoceros sondaicus*. Signs of feeding were found in two locations 7 km apart. An earlier patrol to one of these areas in



Map showing location of Burbak Wildlife Reserve in Sumatra.

https://doi.org/10.1017/S003060530002336X Published online by Cambridge University Press

July 1991 had located tracks in deep mud that were too indistinct to be regarded as proof of the animals' presence, even though they were considered too large to be tapir *Tapirus indicus*, which is common in the reserve.

Sumatran tigers *Panthera tigris sumatrae*, sunbear *Helarctos malayanus*, mouse deer, *Tragulus javanicus* and *T. napu*, and pigs, *Sus scrofa* and *S. barbatus*, are also found throughout the reserve, which is mainly peatswamp forest, freshwater swamp forest and riverine forest. A total of more than 25 species of palms have been found in Berbak, making it the most palm-rich peatswamp yet known. More than 250 bird species have been recorded in the area, including the milky stork *Ibis cinereus*, Storm's stork *Ciconia stormi* and white-winged wood duck *Cairina scutulata*.

The reserve is currently under threat from a proposal to build a port on the adjacent coast, a project that will involve a road across the reserve cutting off the southern third and providing access for illegal activities.

Gordon Claridge, Project Leader PHPA/AWB Sumatra Wetland Project, Asian Wetland Bureau, PO Box 254 Bogor 16001, Indonesia.

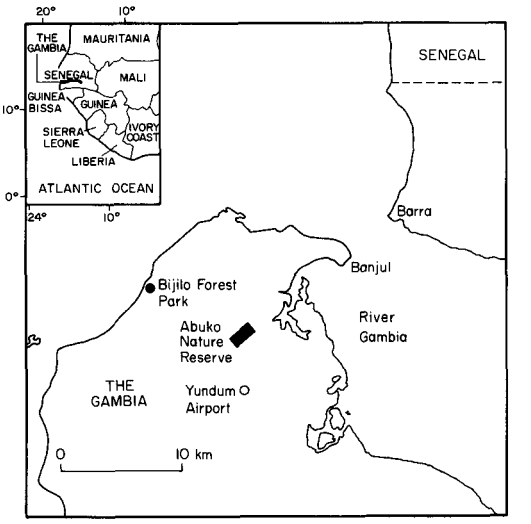
The Gambia's first forest park opens

The West African republic of The Gambia, one of the smallest, most densely populated and poorest countries in Africa (IBRD, 1989), has just opened the 51.3-ha Bijilo Forest Park to the public. Situated on the Atlantic coast approximately 11 km from the capital, Banjul, the park is the second protected natural area to be opened to the public. Within easy walking distance of many of the country's hotels, the park is immediately accessible to the many tourists that flock to the Gambia every winter.

Although small, Bijilo, like Abuko Nature Reserve (the only other protected area with public access), contains a rich fauna and flora. A 4.5-km footpath passes through a mosaic of mixed woodland, sand dunes, tree and shrub savannah, and one of the few good *Borassus aethiopum* (rhun palm) stands in the Gambia. In fact, the rhun palms in Bijilo show the best growth rates in the entire country (Schindele, 1983). Many of the park's tree, shrubs and climbers have been identified and labelled and a guide describing and explaining local uses of plants is on sale. Benches made from local wood have been placed along the path at scenic points and the sound and sight of the Atlantic Ocean is always present. One of the most inviting aspects of Bijilo is the absence of the tsetse fly *Glossina* spp., the vector of trypanosomiasis in man and cattle and the cause of many irritating bites.

Four primate species are resident in the forest park; red colobus *Procolobus badius temminckii*, green monkeys *Cercopithecus sabaeus*, patas monkeys *Erythrocebus patas* and galago *Galago senegalensis*. Hares, brush-tailed porcupines, various unidentified species of mongoose and bats, Gambian sun squirrels, ground squirrels, cutting grass rats, and giant bush rats can usually be seen if one is quiet and observant. Footprints of, as yet unidentified genets and civets are found along the sandy paths. And the unmistakable prints of the cape clawless otter can be found in the mornings along the paths closest to the beach.

Reptiles are well represented and probably even easier to see than most of the mammals. Nile monitor lizards, agamas, skinks, African beauty snakes, black and spitting cobras, puff adders, green mambas and royal pythons can



Map showing location of Bijilo Forest Park, The Gambia.

https://doi.org/10.1017/S0030605300002336X Published online by Cambridge University Press

frequently be seen and it is not unusual to see over 20 monitor lizards during a leisurely stroll.

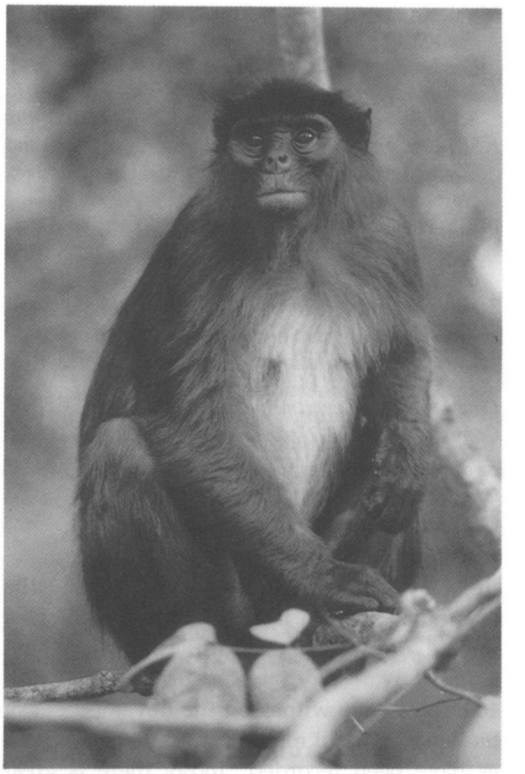
Tim Wacher, recorder for the Gambian Ornithological Society, has identified over 131 species of bird in Bijilo. Some of the more common ones happen to be the most beautiful or bizarre: ground hornbill, red-cheeked cordon bleu, Senegalese fire finch, violet touraco, little and swallow-tailed bee eaters, Barbary shrike, long-tailed glossy starling, and splendid sunbird.

Although Bijilo was gazetted as a forest park in 1952 and thus was theoretically protected from outside encroachment, the Forestry Department and the Gambian-German Forestry Project, which managed Bijilo, recognized that problems had developed over the years. Rhun palms, whose timber is valued for building and many other uses (Gotz, 1983), was being felled on a massive scale. Young boys with sticks and dogs regularly chased monkeys and hares, often killing them and also causing a great deal of disturbance to other wildlife.

In order to save Bijilo the authorities decided to improve protection, employ local people to work in the forest and open it up to the public. It was felt that legitimate human presence would deter illegal activity and that educational and financial gains could be made.

In 1990 the German Government's technical co-operation agency (GTZ) provided funds to fence the park and create scenic paths for visitors. In February 1991 the Minister of the Environment and Natural Resources and the German Ambassador to Dakar opened Bijilo Forest Park to the public.

Throughout the tropics conservation has tended to focus on preserving large pristine area or large areas of specific biological interest. In the Gambia, where pressures on land are very great, large areas or good wildlife habitat no longer exist and it is now possible to preserve only small isolated areas like Bijilo. If this pilot project works and if Bijilo can become self-supporting through tourist fees then local people will see wildlife conservation as a viable option for land use. It might then be worth considering opening up more of the 66 parks under the umbrella of the Forestry Department, particularly those near the tourist complexes (Muhlenburg, 1988).



The red colobus is among the four primate species resident in Bijilo Forest Park. This is a 4-year-old pregnant female (*D. Starin*).

Acknowledgments

I thank the Gambian Government for permission to study in The Gambia; the Forestry Department and the Gambian-German Forestry Project for permission to survey Bijilo and visit various forest parks throughout Western Division; F. Bojang, E. Gotz, D. Reeb, T. Wacher, and the staff of Bijilo Forest Park for their time and assistance: D. Chivers, G. Dasilva and J. Oates for comments on this paper; M. Basi, P. Dunko and H. Snuggity for their encouragement and patience.

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Dawn Starin, Department of Anthropology, CUNY, Graduate Center, 33 West 42nd Street, NYC, NY, USA

Caution urged for biological control

In 1899 Albert Koebele introduced the Australian vedalia lady beetle into California orange groves to control cottony-cushion scale. It was very successful. The following 100 years have witnessed the development of biological control methods and many successes have been recorded. Today there is great enthusiasm for the method, especially with our increasing distrust of chemical pesticides. However, Howarth (1991) urges caution. He points out that the use of biological control agents has often been declared to be environmentally safe, but that this assertion is not backed up by evidence. Few workers have heeded David Sharp, who was concerned that the the particulars of Koebele's 'huge biological experiment' in introducing biological control agents to Hawaii in 1899, should be fully recorded, 'though it must be very long before the results can be at all accurately estimated.'

While the many benefits of biological control have been well documented, there is only scattered and limited information on negative environmental impacts. Howarth reviews these latter aspects, not in order to slight the positive, but rather to provide clues useful in foreseeing the environmental risks of future purposeful introductions. He records declines and extinctions world-wide, most on islands or in freshwater. Most involve invertebrates, although there are vertebrate victims too. In all, biological control agents are strongly implicated in the extinctions of nearly 100 species of animals. A few were the targets of biological control agents but most were desirable non-target organisms. And they are only the ones we know about. Most of the environmental damage was recognized circumstantially with hindsight or was discovered serendipitiously by researchers studying the affected organism in the field at the critical time. Howarth suggests that the majority of environmental impacts of biological control, including most species extinctions, undoubtedly have neither been recognized nor recorded.

In reality, he says, pest control can have no panaceas. Any action to control one species will affect others and will pose some environmental risks. Insect pests have high reproductive potential and genetic plasticity: they evolve ways to cope with control methods and while human agricultural practices continue to provide large areas of insect-attractive food, insects will continue to break through our defences from time to time. The long-term goals, he argues, should be to optimize yields on a sustainable basis using a full range of control methods based on a firm knowledge of ecology and systematics.

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https://doi.org/10.1017/S003060530002336X Published online by Cambridge University Press