

An International Conservation Programme for the Pacific Islands¹

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Abstract

1. Since the middle of last century, under the inspiration of Darwin, Wallace and others, scientists have been aware of the peculiar importance of islands as natural laboratories for biological studies, especially in respect of evolution and genetics, distribution, migration and comparative ecology. In modern times this importance has been enhanced by the widespread loss of continental natural areas hitherto available for research, and by the continuance of natural undisturbed conditions on a number of oceanic islands which are wholly or partly uninhabited. The overwhelming majority of such islands are in the Pacific Ocean and it is with them that the following paper is concerned. The making of an effective international programme for their conservation appears urgent and it is from this standpoint that the paper of which this is an abstract is prepared as an agenda for fuller discussion. It is proposed, following the discussion of the Pacific Science Congress, to follow up the issues in more detail on a worldwide scale as part of the work of IBP/CT.
2. Within the Pacific area there is a great variety of islands, spanning most climatic zones and including Maritime Antarctic, sub-antarctic, cool temperate, warm temperate, sub-tropical and tropical examples. There is also a wide diversity in terms of origin—continental shelf, volcanic coral reef, etc.—and in size and isolation.
3. The value of Pacific Islands for biological research arises from the following, among other, features.
 - 3.1. The differing origins of the island and the influence of such different origins on fauna and flora.
 - 3.2. The different distances and directions of islands from the nearest land and from the nearest continental mass, with consequent effects on plant and animal colonisation. "Stepping stone" dispersal routes, incorporating small islets, are also relevant here.
 - 3.3. The differing altitudes, areas and topography of islands and islets, and the effect of these on fauna and flora. It is well known that mountainous Pacific Islands are of particular biological interest, offering a wide range of habitats.
 - 3.4. The wide climatic variation in the region.

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- 3.5. The differing and often traceable periods since the islands came into existence and the possibility of relating genetic differentiation and colonisation by plants and animals to such known periods.
- 3.6. The known occurrence of distinct insular floras and faunas with high proportions of endemics, offering unique opportunities for biological research.
- 3.7. Known and possible successional changes or instability in insular floras and faunas, including catastrophic changes, e.g. from seismic, volcanic or meteorological causes.
- 3.8. The different duration of human interference both by non-European (e.g. Polynesian) and by Western or Westernised settlers and visitors, and the nature and effects of such interference.
- 3.9. Problems arising through deliberate introduction of alien plant and animal species, including parasites, pathogens, and their vectors.
- 3.10. The incidence of previous and current scientific work and the extent to which certain islands (e.g. Galapagos) have come to have an added value of "scientific capital" on account of such investigations and researches.
4. What are the main conservation problems involved? In this context we must consider:
 - 4.1. Experience hitherto of establishing and operating national parks, nature reserves and biological stations on Pacific Islands.
 - 4.2. Instances where natural areas obviously important for conservation have already been lost or badly damaged, or where species have become extinct or survive with difficulty.
 - 4.3. Past and present trends in land use and their traceable impacts on fauna and flora.
 - 4.4. Vulnerability of species to disturbance or interference and analyses of groups of habitats peculiarly liable to be lost.
 - 4.5. Conservation practices and techniques which have been tried, and their effectiveness, especially in vulnerable areas.
 - 4.6. Assessment of nature and location of irreversible damage already done, and of deterioration, the reversal of which will take a long time.
 - 4.7. The location of, and present conservation position for, islands which still retain natural ecosystems in a viable condition.
 - 4.8. Applicability of methods, techniques and classifications devised in other areas to the problems of Pacific islands.
 - 4.9. Problems of current or prospective known impacts—e.g. pollution, reclamation, population pressure, persecution and disturbance.
5. In any discussion of this subject, one must also consider attitudes, policies and programmes affecting conservation on the Pacific Islands, including legislation, ordinances, local customs, and clashes with interests of particular human groups.
6. Steps may be taken towards preparing a list of Pacific Island nature reserves, classified as:
 - 6.1. Existing reserves effective.
 - 6.2. Existing reserves ineffective.

- 6.3. Proposed reserves—urgent.
- 6.4. Proposed reserves—long-term.
7. Opportunities exist for international action—e.g. an international convention affording provisional reserve status to all (listed) uninhabited islands in the Pacific, subject to agreed procedure for considering internationally and advising upon the acceptability of plans for development in special cases.
8. A follow-up under the auspices of IBP/CT is proposed, to include:
 - 8.1. National contributions to survey, and research, leading to recommendations for particular areas.
 - 8.2. Compilation of an international list of Pacific Islands already safeguarded or proposed to be safeguarded, together with existing research institutions (Darwin Institute, Bishop Museum Honolulu, etc.)
 - 8.3. Intensification of scientific studies and publications under the stimulus of IBP, involving links with other international or national projects.
 - 8.4. A fully prepared IBP/CT Technical Meeting on problems of island conservation.
 - 8.5. A possible draft international convention for the conservation of uninhabited oceanic islands.

Statement on Fulfilment of the Resolution on the Conservation for Scientific Study of a Series of Pacific Islands

1. In fulfilment of the Tokyo Resolution of the Eleventh Pacific Science Congress in September 1966 the following steps will be taken under the joint auspices of the Pacific Science Association, the international Biological Programme (Conservation of Terrestrial Biological Communities Section—CT), and the International Union for the Conservation of Nature and Natural Resources.
2. The task will be broken down into four successive stages:
 - 2.1. Survey in the field as may be required to supplement published and unpublished information in order to provide basic data for analysis and for the preparation of regional reviews and reports by Rapporteurs appointed in September 1966. Interim reviews and reports should be submitted by the end of 1967, and final reports at latest by mid-1968.
 - 2.2. Circulation, critical analysis and revision as necessary of regional reviews and reports, leading to their consideration at Technical Meeting to be convened by IBP/CT in collaboration with the other parties probably at Koror, Pelau Islands in the Pacific late in 1968 date. Here a comprehensive programme would be adopted and passed for action by the international authorities and governments concerned through IUCN.
 - 2.3. Transmission by IUCN to governments of the approved programme with recommendations for action to be followed up in correspondence

and interviews in order to secure maximum effectiveness of conservation of the listed sites. Simultaneously, by 1969, when its General Assembly meets in India, IUCN to prepare a draft International Convention for the Conservation of Oceanic Islands (not necessarily restricted to the Pacific). It is hoped that, given ample advance preparation, such a Convention might be adopted in 1970, by which time action through individual governments should have secured national measures to safe-guard a good proportion of the listed islands. In view of their uninhabited character some co-operative enforcement provisions might be necessary to make such a convention practically effective.

- 2.4. Review by the Twelfth Pacific Science Congress in Australia of the fulfilment of this resolution and of implications for further measures of conservation in the Pacific, which will be proceeding simultaneously through other channels. In particular, consideration of the further development of International Biological Stations or general Scientific Stations at suitable points giving base coverage of the Pacific region, and review of contributions towards a more comprehensive programme of long-term research in the Pacific.

Resolution Agreed by the 11 th Pacific Science Congress on the Conservation for Scientific Study of a Series of Pacific Islands

In view of the unique significance for world science of a number of islands in the Pacific Ocean which have hitherto, wholly or in part, escaped manmade changes, and in view of the irreplaceable endemic or rare species for which some of these islands form last refuges, and of the serious threats to the continuance of such natural conditions for research.

The 11 th Pacific Science Congress, meeting in Tokyo in 1966,

1. Affirms the urgent international scientific importance of securing early and effective conservation of natural habitats on such islands.
2. Requests that member organisations of the Pacific Science Association should bring to the attention of their governments the need to exercise the strictest restraint in relation to such island natural areas.
3. Requests all scientists concerned to accord the fullest co-operation to the International Biological Programme and to the International Union for Conservation of Native and Natural Resources in developing jointly with the Pacific Science Association, surveys and recommendations which will enable the authorities concerned to establish an adequate permanent series of natural habitats conserved as a base for research throughout the Pacific. Action arising out of these recommendations is to be reported at the next meeting of the Pacific Science Congress.