



NEW SERIES Vol. 3, No. 11

NOVEMBER 1972

Published with the financial assistance of UNESCO; issued monthly

IUCN Viewpoint

Imperatives for National Parks

National Parks have been part of the world scene for more than 100 years. In all this time very little has occurred to alter or augment their basic purpose, which is, of course, to protect outstanding bits of the natural world for the perpetual benefit of mankind.

But there have been a great many social and technological changes, especially in the last decade, that have resulted in a number of management imperatives which must be carried out if National Parks and park systems and the National Park idea – so lovingly cherished in many parts of the world – are to survive.

This was the principal message of the Second World Conference on National Parks which brought together park experts from 82 countries of the world for nine days of study, talk and deliberation.

What are these imperatives?

Briefly, we believe they can be summarized in four broad statements.

1. To counteract rapidly growing use of established parks by visitors, controls must be established on use and development.
2. In the face of dwindling resources of park-quality areas through organized exploitation or casual destruction, governments must take action to protect the integrity of these resources, to create more parks and to bring more areas under effective protection for future parks in an increasingly crowded world. All countries should have National Parks, but 43 nations have none, and some 30 others have only primitive park systems.
3. Because of rapidly changing conditions, brought about by use as well as the various impacts of technology, urgent efforts must be made to protect the great scientific and aesthetic values of unaltered natural ecosystems, both terrestrial and marine.
4. The last great imperative involves exchanges of information: between experts and the public, between adult and child, between the trained and the untrained. This is essential in building human understanding and appreciation of the natural world and its processes, in advancing the National Park concept, and in improving day-to-day management of National Parks and equivalent reserves.

None of these imperatives can be said to be new. All have been discussed at length many times before. But never before have they been seen so clearly or recognized so widely.

The Second World Conference on National Parks

Theme: National Parks – A Heritage for a Better World

September is a transition month on the high plateau that makes up most of Yellowstone National Park in the Rocky Mountain regions of Wyoming, Montana and Idaho in the USA. Bright days usually give way to winter with startling suddenness. But this September proved to be a fortunate time for the Second World Conference on National Parks, which convened at Old Faithful on the 19th after more than two years of detailed planning and preparatory effort. Except for a brief outbreak of rain, snow and hail which dampened the initial outdoor ceremonies, the autumn weather was benign, providing a glorious ambience for what is regarded as one of the most successful international conferences ever held.

In this year of the centennial of the US National Parks, the Conference appropriately opened at Yellowstone, the first National Park in the USA and in the world. Centering in the complex of facilities at Old Faithful, our US hosts, the National Parks Centennial Commission, with the US Department of the Interior and National Park Service, which joined with IUCN to sponsor the Conference, had arranged three days of tours, discussions and ceremonies preliminary to the formal Technical Sessions at Grand Teton National Park.

Opening ceremonies were in the Recreation Hall at Old Faithful. Then followed a series of panel presentations on the theme, "Policy and Program Considerations in the Establishment, Preservation and Use of National Parks in the USA." In late afternoon, some 1750 people were taken in special buses to nearby Madison Junction for an outdoor barbecue supper, and an evening programme during which the wife of the US President, Mrs Richard Nixon, re-dedicated Yellowstone with a symbolic re-lighting of the celebrated 1870 campfire around which the National Park idea was conceived.

On 20 September, panel discussions were continued at Old Faithful. Then on 21 September, the participants who were invited to take part in the Technical Sessions were transported to Jackson Lake Lodge in Grand Teton National Park, some 50 miles south.

Director George B. Hartzog, Jr. of the US National Park Service, and Director-General Gerardo Budowski of IUCN were co-chairmen of the Conference, opening the sessions on the morning of 23 September. Experts from 82 nations and a number of their territories, 8 international organizations, plus federal, state and private US natural resource agencies were registered.

The Technical Sessions were organized to provide a review of the past in the National Park movement and to explore the major problems of park formation, planning, operation and management that lie ahead. Background aspects were covered in a series of 32 previously distributed papers which had been prepared and translated under IUCN's guidance during the preceding year. Experts from around the world were authors (see IUCN Bulletin 3 (8), p. 37, August 1972).

The Conference was organized in 47 parts. After the opening session, when rules of procedure and agreement on the committee and handling of Recommendations were adopted, 15 technical meetings were held.

Unfortunately, time problems compelled scheduling a number of meetings concurrently. However, this handicap was mitigated somewhat by an extensive review by Rapporteurs on the afternoon prior to the final session.

The Conference ended at noon on 27 September following adoption of 20 Recommendations, which are published elsewhere in the Bulletin. These had been received by the Committee up to noon of Sunday, 24 September. On Monday afternoon drafts were supplied in 3 languages to the Conference for study, and amendments were received up to noon on Tuesday. Final drafts

in the three languages were distributed that evening, and considered in detail by the Conference on the morning of 27 September.

At the final session, a clear consensus emerged that a 3rd World Conference on National Parks be held sometime between 1975 and 1978. No invitation was issued but the hope was expressed that since the first two World Park Conferences had been in the United States, the third should be on another continent, and in a non-industrialized country.

Special events at Yellowstone and Grand Teton included the granting of special achievement awards by the National Parks Centennial Commission to ten distinguished US citizens, six eminent elder statesmen in the international community of park leaders, and five younger leaders who have made special contributions to the development of National Park programmes in their home countries. The Conference Banquet on 23 September was hosted by Reader's Digest, Inc. and Chairman Edmund B. Thornton of the National Parks Centennial Commission. It was attended by 677 participants and guests, and was followed by the première showing of the film "Earthbound", produced by William Eddy of The Conservation Foundation for the US National Park Service. A copy of this film was offered to each of the countries represented at the Conference, and each participant also was given a copy of the companion book, "Consider the Process of Living", by Rob Milne.

Other outstanding presentations of current literature to the participants included "Yellowstone, A Century of the Wilderness Idea" by Ann and Myron Sutton, "The National Park Service" by William C. Everhart, Sunset's "National Parks of the West" by the Lane Book & Publishing Company, and "National Parks for the Future", a report prepared by The Conservation Foundation for the Centennial Commission.

The Conference was sponsored by the National Parks Centennial Commission and the US Department of the Interior through the National Park Service, and IUCN. Co-sponsors were FAO, UNESCO, and the Natural Resources Council of America.

Special note must be taken of the generosity of the Centennial Commission which provided financial assistance for the travel of a large number of participants, and for their expenses at both Yellowstone and Grand Teton. Without this practical assistance the Conference could not have been successful.

Physical arrangements for the Conference were excellent. Transportation, the handling of baggage, services for participants, special tours, etc., had been carefully planned and were carried out smoothly by teams of US National Park Service personnel under the general supervision of Superintendents Jack Anderson of Yellowstone and Gary Everhart of Grand Teton.

Principle members of the Secretariat were all from the US National Park Service. Roger Contor was Secretary General. Deputy Secretaries General were Gordon Fredine, who looked after Conference organization and the travel and other affairs of participants, Robert Standish (seconded to IUCN's staff), who supervised preparation of the papers and organization of the technical meetings, and Cecil Lewis, in charge of special activities. National Parks Centennial Commission staff was headed by William J. Briggles, with T. Sutton Jett and Mrs Jean C. Henderer as staff directors.

Publication of the Proceedings

Proceedings are expected to be produced in all three Conference languages. These will be prepared under IUCN's guidance, with Sir Hugh Elliott, Rapporteur General of the Conference, serving as principal editor.

Highlights of the Technical Sessions

In recent years increasing attention has been given to the specialized aspects of National Park management. This has developed as the body of park knowledge has expanded and as problems have become more acute.

It was quite natural therefore for the organizing group to divide the Technical Sessions so as to consider more effectively the major areas of management interest. Authors were experts in the fields they dealt with, but panels usually contained a number of generalists who were concerned with broad applications of knowledge and techniques. This arrangement allowed scope for specialists to explore particular areas in some depth, whilst avoiding discussions that were so technical as to obscure the elucidation of broad management guidance, which was the purpose of the Conference.

While all sessions proved to be lively, well-attended and of great interest, it is obviously not possible to discuss them all here. They will, of course, be treated in detail in published proceedings. Nor is it necessary to give more than passing mention to the opening sessions which were designed to provide all participants with basic background and a common starting point for the more technical discussions that followed.

The sessions can be grouped in six subject areas: general, scientific habitat, management, planning, interpretation, and cooperative activities.

The Session on Parks and People embraced a general discussion of the problems of visitor numbers and what can be done about them. More technical sessions considered the social, scientific and environmental problems of parks in especially vulnerable regions or areas difficult to manage. A number of Conference Recommendations specifically refer to some of the fragile areas discussed in these sessions. Conservation of tropical rain forest ecosystems is an example.

A number of meetings dealt with interpretation of park values, and with the opportunities parks offer for the expansion of human understanding and appreciation of the natural world. One session used an unusual approach to explore basic educational opportunities through a series of outdoor workshops. These permitted individual participation in the techniques of learning.

Several sessions were devoted to opportunities for further international cooperation, in expanding protection of park resources and in identifying sources and types of aid and assistance available through international, national and private organizations.

Any evaluation is, of course, subjective, but the majority of park managers indicated that sessions of exceptional interest included those on *Planning and Management*, *Wildlife and Resources Management*, and *Staff Development and Training*.

The Planning session was particularly constructive, and the following synoptic notes cover the major points.

1. Park Planning in Perspective of Total Environment

There is no doubt that planning must provide the necessary base for all further parks development and management. Planning of National Parks has to fit in in an overall land use planning and into the adopted planning system of the particular country. It was pointed out that in Europe all state agencies and all private interests are obliged to comply with the approved planning systems and with specific plans. A "plan" for an area, including a National Park, means a written statement of objectives and policies including the following six principles. It must be: a) directly related to the plans for the land around it; b) as simple as possible; c) related to environmental, social and economic issues; d) conform with the resources, powers and techniques available to implement it; e) frequently brought up to date; and f) continuously followed up.

Second World Conference on National Parks Grand Teton National Park, Wyoming, USA

22 to 27 September 1972

Recommendations

The establishment of a comprehensive series of national parks and reserves and their effective planning and management is only a part, although a vital and important part, of world action in the conservation of natural and cultural features and values. The Conference was conscious of the pressures resulting from the rapid growth of human populations and from the development of both primary and secondary industry, which involve pollution and encroachment on natural areas.

Although the recommendations of the Conference relate mainly to issues directly concerning national parks, it was emphasized that conservation principles must be applied to planning and management of all natural resources. The recommendations are not comprehensive but are directed to those matters that the Conference felt were of urgent and immediate concern.

The Conference was not of an intergovernmental character and in consequence it decided that its final conclusions should only be in the form of recommendations to governments and various agencies concerned, as follows:

1. Conservation of Representative Ecosystems

Recalling Recommendations 2 and 3 of the First World Conference on National Parks concerning the constitution of a series of natural reserves for the conservation of representative habitats;

Recalling also Project 8 of the Unesco Man and the Biosphere Programme concerned with promoting the conservation of natural areas and genetic resources through the establishment of a coordinated worldwide network of protected areas;

Considering Principle 2 of the Declaration of the United Nations Conference on the Human Environment (Stockholm, 1972) and Recommendations in the Action Plan of that Conference calling for the safeguarding of representative samples of natural ecosystems;

Being aware of the action taken by the International Union for Conservation of Nature and Natural Resources (IUCN) and the International Biological Programme (IBP) in assembling information about representative ecosystems and their conservation status;

Recognizing the particular threats to tropical forests and grasslands, polar regions, and island ecosystems and coral reefs because of development programmes;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Expresses satisfaction at the action taken by those nations that have successfully established national parks and other protected areas;

Calls upon all governments to widen the coverage of their protected areas so as to ensure that adequate and representative samples of natural biomes and ecosystems throughout the world are conserved in a coordinated system of national parks and related protected areas, and that the selection and setting aside of such areas should be considered as an essential element in regional and national land-use planning;

Proposes in this connexion that high priority be given to the conservation of representative biomes and ecosystems on land and sea that are still virtually undisturbed, those in danger of disappearing totally, and those containing threatened species and important genetic resources;

And in particular proposes that special attention be given to tropical forests and grasslands, polar regions, and island ecosystems and coral reefs;

Urges all agencies providing technical and financial assistance, particularly those in the UN system, to give high priority to requests for help in establishing, developing and managing additional protected areas;

And in particular invites IUCN to intensify its activities connected with the collection of data on representative ecosystems and the publication of a World Directory of National Parks and Other Protected Areas.

2. Conservation of Tropical Rain Forest Ecosystems

Recalling Recommendation 2 of the IUCN 11th General Assembly (Banff, 1972) concerning the conservation and development of tropical rain forests;

Welcoming the high priority being given to this topic in the Man and the Biosphere Programme of Unesco (Project 1), the programmes of FAO and the projects of IUCN/WWF;

Recognizing the rapidly accelerating destruction of these ecosystems now proceeding in many countries and the consequent danger of extinction of plant and animal species and communities, and depletion of genetic resources;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Draws attention to the paucity of protected areas in the tropical forest biomes;

Urges governments concerned, acting either alone or in concert, to take effective steps to increase protected areas of virtually untouched natural forests of the humid tropics;

And recommends that financial help from international sources be made available for this purpose.

3. Conservation of North Polar and Sub-polar Ecosystems

Considering that the present numbers and distribution of protected areas in the north polar and sub-polar regions are inadequate to ensure that samples of representative ecosystems from all bioclimatic zones in these regions are safeguarded;

Recognizing that the discovery and extraction of petroleum and mineral resources is proceeding at an unprecedented rate and threatens to damage or destroy ecosystems in many parts of these regions;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Commends those nations that have taken steps to protect representative ecosystems, including those sites designated under the International Biological Programme, by creating national parks or other protected areas;

And urges all nations concerned to expand as rapidly as possible their networks of protected areas to accomplish the above purposes.

4. Marine National Parks and Reserves

Recalling Recommendation 15 of the First World Conference on National Parks urging that governments extend existing national parks and equivalent reserves with shorelines to appropriate off-shore boundaries;

Expressing satisfaction at the action already taken by some countries to establish marine national parks and other protected areas to conserve underwater habitats of special significance, and sites where the remains of past cultures are to be found under the sea;

Being informed of action taken by IUCN to prepare guidelines for the establishment of marine national parks and other protected areas;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Urges all governments concerned to set aside appropriate marine areas as national parks and reserves and to take action to extend the boundaries of existing terrestrial national parks and reserves to include representative marine ecosystems.

5. Establishment of Antarctica as a World Park under United Nations auspices

Recognizing the great scientific and aesthetic value of the unaltered natural ecosystems of the Antarctic Continent and the seas surrounding it;

Recognizing that the Antarctic Treaty provides, to an unprecedented degree, protection to these ecosystems;

Believing that, in this second century of the national park movement, the concept of World Parks should be promoted;

Considering that Antarctica offers special opportunities for the implementation of this concept;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Recommends that the nations party to the Antarctic Treaty should negotiate to establish the Antarctic Continent and the surrounding seas as the first World Park, under the auspices of the United Nations.

6. International Parks

Recognizing that natural ecosystems often extend across international boundary lines;

Being aware that discussions have taken place on the establishment of international parks to protect such natural ecosystems;

Believing that considerable benefits can ensue from coordinated planning and management of national parks that are contiguous and separated only by international boundaries;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Requests governments to collaborate closely in the planning and management of neighbouring or contiguous national parks.

7. Regional Systems of National Parks and Other Protected Areas

Being informed of the collective action being taken by the countries of the Central American isthmus to establish a regional system of national parks and other protected areas;

Realizing that such collective action permits the unification of objectives and standards, resulting in greater scientific, cultural, educational, recreational and economic benefits, and enables the most economic and effective use to be made of personnel and technical resources;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Recommends to governments concerned that they establish as soon as possible adequate mechanisms to permit the early functioning of this regional system;

Urges international agencies concerned to give strong support to this initiative;

And commends this example of regional cooperation to the attention of other regional groupings of nations.

8. Conservation of the World Heritage

Recalling proposals by conservationists for the recognition of outstanding natural and cultural areas as constituting the World Heritage and the initiatives taken by Unesco and IUCN in this connexion;

Being aware of the draft Convention on Conservation of the World Cultural and Natural Heritage that will be considered by the General Conference of Unesco in Paris in October/November 1972;

Noting the endorsement of this draft Convention by the UN Conference on the Human Environment (Stockholm, 1972);

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Calls upon governments to take action to conclude and adhere to the Convention on the Conservation of the World Cultural and Natural Heritage.

9. Wetlands Convention

Being aware that the Convention on Conservation of Wetlands of International Importance has been opened for signature by Unesco at its headquarters in Paris;

Recognizing the importance of this convention in assisting in the protection of important ecosystems of international significance;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Urges all governments concerned to adhere to the Convention on Conservation of Wetlands of International Importance.

10. Standards and Nomenclature for Protected Areas

Recalling the action already taken by IUCN in relation to the definition and classification of protected areas, particularly the important definition of "national park" adopted by its 10th General Assembly (New Delhi, 1969);

Recognizing the great value of international standards for selection and management of protected areas for specified purposes;

Recognizing nevertheless the difficulties inherent in the adoption by all nations of a standardized nomenclature for protected areas;

Recalling Recommendation 8 of the First World Conference on National Parks concerning the executive administration and control of national parks and equivalent reserves;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Recommends that IUCN should, taking into account existing terminology in international treaties and in close consultation with governments concerned:

- (1) define the various purposes for which protected areas are set aside; and
- (2) develop suitable standards and a nomenclature for such areas;

Recommends also that governments in setting aside protected areas should adhere as far as possible to such standards and nomenclature;

And recommends further that the executive administration and control of such areas, either on land or off-shore, be vested in a statutory organization with clear responsibility for conservation and management of national parks and with adequate powers and competence to maintain the required standards.

11. Integrity of National Parks and Equivalent Reserves

Recognizing the importance of national parks and equi-

valent reserves as a sensible use of natural resources, and the importance of areas dedicated as national parks in safeguarding plant and animal species, biotic communities, geomorphological sites and habitats of special scientific and educative interest, as well as landscapes of great beauty, and in providing for inspirational, cultural and recreational purposes;

Being aware that in some instances the integrity of national parks and equivalent reserves is being violated by exploitation of natural resources including the establishment of hydro-electric works, prospecting, mining, timber cutting, grazing of domestic animals, by encroachment, by hunting and commercial fishing, and by various forms of development including construction of inappropriate roads, recreational and touristic facilities, and by the use of vehicles in ways incompatible with park objectives;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Urges all governments to respect the integrity of national parks and equivalent reserves by taking urgent measures to give complete and continuous protection to all national parks by adequate legislation banning all disturbing activities of the type specified in the preamble to this recommendation and by effective enforcement of such legislation.

12. Usage of National Parks

Considering that conflicts may occur in national parks between nature conservation and other legitimate uses, especially tourism;

Believing that some of the activities now carried out in national parks could equally well be catered for in less valuable and sensitive areas outside national parks;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Recommends to all authorities concerned with national parks:

- (1) that a system of zoning be introduced where necessary, designating sections of the national park for specific usage;
- (2) that measures be taken to limit the use within each zone to a level which will not adversely affect the conservation of those features for which the zone was established;
- (3) that wherever possible facilities for tourism be located outside the national park boundaries;
- (4) that wherever possible more imaginative systems of transportation be provided to and inside the park which will permit discouraging or banning of the use of automobiles;
- (5) that where roads and other access facilities are necessary, care be taken in their siting and planning; and
- (6) that every effort be made to reduce undue disturbance by visitors;

And urges governments to take action to set aside and develop suitable areas, to provide for public use and recreation and reduce visitor pressure on national parks.

13. Detrimental Effects of Vehicles, Boats and Aircraft in National Parks and other Protected Areas

Considering the great increase in the use of vehicles, boats, and aircraft in national parks and other protected areas;

Recognizing that such protected areas often include virtually undisturbed ecosystems containing threatened species of animals and plants and fragile biotic communities, sensitive to disturbance resulting from the indiscriminate use of vehicles, particularly snowmobiles, hovercraft and other all-terrain vehicles, and boats;

Recognizing the disturbing effects on particular species and biotic communities, as well as to the aesthetic value of the area, caused by vehicles, boats and aircraft;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Recommends that all governments take the necessary steps through legislation and administrative action to control the use of vehicles, boats and aircraft so as to eliminate

disturbance and damage to species and biotic communities as well as other values.

14. Research on National Park Values

Considering the valuable contributions to the quality of life, science, education, and touristic potential that derive from national parks;

Being aware that the great pressure on land for development in many countries, often caused by rapid increases in population, may endanger existing national parks and militate against the creation of new national parks;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Stresses that provision for protecting areas as national parks or equivalent reserves to meet the various needs listed above should be an essential ingredient in regional and national land-use planning;

Emphasizes the urgent need for further research and investigation to evaluate the manifest contributions of national parks to the well-being of the community in social, environmental and economic terms;

And requests governments and agencies concerned to give high priority to the initiation and support of such research and investigation.

15. Planning of National Parks and Other Protected Areas

Recalling Recommendation 12 of the First World Conference on National Parks concerning the need for planning of national parks and park systems;

Recognizing the vital importance of a management plan as a basis for proper operation and management of such protected areas;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Recommends that the planning, development and management of national parks and other protected areas be fostered on a comprehensive and long-term basis within each country with careful attention to environmental protection and improvement, and in doing this so:

- (1) that a system of protected areas be set up, embracing a variety of park areas and purposes;
- (2) that the park needs of all the people of the country be taken into account;
- (3) that parks be provided in many locations ranging from remote wilderness to metropolitan regions;
- (4) that a balance be sought by zoning among the several uses of parks, ranging from conservation of nature to tourism;
- (5) that compatible land-use practices be implemented outside the boundaries of national parks;
- (6) that provision be made within or related to park systems for conservation of cultural features, historic areas and buildings;

Urges that strenuous efforts be made to ensure that national and regional plans include provision for park systems and especially that national investment programmes and budgets provide adequately for parks;

Proposes that a means be found for coordinating the planning of park systems among the various countries for their mutual advantage;

Requests that all agencies concerned advance park systems planning, making full use of work already accomplished, initially stressing the following activities:

- (a) a research programme to develop further the basis for methods of park systems planning;
- (b) a technical aid programme for park systems planning and development;
- (c) several demonstration projects in selected countries or regions; and
- (d) an information and education programme to acquaint interested persons with park systems approach and its advantages;

Urges all authorities concerned with national parks and other protected areas to develop a management plan for each protected area using skilled planning personnel and the results of scientific research and to adopt this management plan as the basis for operation and management of the area;

Calls upon all agencies providing technical assistance to give priority to requests for the services of such skilled planning personnel and for the training of such personnel;

And stresses that provision for continuous ecological research and monitoring is essential in all park management planning.

16. Exchange of Information

Recalling Recommendation 35 of the Action Plan of the United Nations Conference on the Human Environment (Stockholm, 1972) calling for an exchange of information between nations on all matters affecting national parks planning and management;

Being aware of the action already taken by various agencies including FAO, Unesco, and IUCN to facilitate such exchanges (including the convening of the present Conference);

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Urges all governments and agencies concerned to implement Recommendation 35 of the Stockholm Conference Action Plan;

Commends the proposal that IUCN publish a loose-leaf National Parks Handbook as a ready reference to those concerned with park operations, management, and interpretation;

Welcomes the suggestion that an international periodical be published as a medium for exchange of information on national parks operation and management, and stresses the need for its contents to appear in different languages and be adapted to the varying conditions throughout the world;

Recommends that all agencies concerned give special attention to the preparation and distribution, in appropriate form and languages, of material about national park research, operation, management, and interpretation, including manuals, model management plans, and information on national park systems.

17. Technical and Financial Assistance for National Parks

Recognizing that many countries cannot allocate adequate resources to permit the satisfactory development of a system of national parks;

Recognizing also that the setting up of national parks and equivalent reserves is of concern to all nations, not only the country in which they are situated;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Urges developing countries to give serious consideration in their requests for aid to this important aspect of land-use planning;

Further urges developed countries to set aside a proportion of their technical and financial assistance programmes to provide aid to other countries in this field;

And recommends that all governments and international agencies concerned give high priority to requests for technical and financial assistance in the establishment and management of national parks and other protected areas.

18. Training

Realizing the need for qualified personnel to be charged with the management and operation of national parks and equivalent reserves;

Being aware of the shortage of such qualified personnel, particularly in developing countries;

Noting with satisfaction the establishment of schools at Mweka, Tanzania, and Garoua, Cameroon, with technical assistance from UNDP/FAO, serving respectively English-speaking and French-speaking countries in Africa, and pro-

viding training in wildlife management and in national parks operation and management;

Noting also the splendid record of the short courses in national park administration organized by the US National Park Service in collaboration with Canada and the University of Michigan;

Recognizing the initiatives that have been taken by various agencies in Latin America in organizing training opportunities open to national parks personnel;

Recalling Recommendation 34 of the Action Plan of the United Nations Conference on the Human Environment (Stockholm, 1972) concerning the need for additional training for national parks personnel, particularly in Latin America and Asia;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Recommends to all agencies providing technical assistance that action be taken to establish additional training schools where required at all levels and to provide more opportunities for short courses for national park personnel.

19. International Services for National Parks

Recognizing the important role of national parks in social and cultural life and in contributing to achieving a high quality of life;

Recognizing the important contribution that environmental education makes to man's awareness of his place in the natural world;

Recognizing the need for interpretative services associated with national parks to foster an appreciation of park values and to contribute to environmental education;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Recommends to all national park authorities:

- (1) that interpretative and environmental educational services be promoted both within and associated with the national park system; and
- (2) that special attention be given to the needs of youth in organizing these services;

Draws attention to the Environmental Study Area concept and programmes developed by the US National Park Service;

Suggests the inclusion of training in interpretation and environmental education services as a regular component in the courses preparing personnel for national parks activities;

And proposes that all governments and agencies concerned consider the designation of an international week for environmental education aimed at promoting environmental awareness.

20. Education in National Parks and other Protected Areas

Recognizing the need for environmental education among young people and the special approach involved;

Recognizing the important role national parks and other protected areas play in environmental education by promoting understanding of, and active involvement in, environmental conservation;

The Second World Conference on National Parks, meeting at Grand Teton National Park, USA, in September 1972:

Recommends to all national parks authorities:

- (1) that environmental education programmes should be organized, including short-term conservation courses and international, regional, and national study- and work-camps;
- (2) that assistance be given to help young people interested in environmental studies and conservation to organize themselves to contribute better to this field;
- (3) that facilities in national parks be made available for youth groups to carry out environmental studies and conservation programmes;
- (4) that attention be given to special exchange programmes to stimulate international cooperation and understanding about national parks among the youth of various countries.

According to Miss Sylvia Crowe, author of one of the papers, the whole land should be planned on conservation lines, so that National Parks are not regarded as mere oases of nature reserved for animals and plants, but as areas where man co-exists with other species. This is especially the case in highly developed countries such as England or Germany where no natural areas are left and cultivated areas have to be included in park areas. The Luneburg Heath Area in northern Germany forms an excellent example for this. This park, designated as a "Nature park" or "Natural countryside park", is part of an overall land use plan in the triangle of the three big cities of Hamburg, Hannover and Bremen as a recreation area for 3.5 million people per year and providing the preservation of a natural landscape with its ecosystems. This dichotomy in National Park objectives, preservation of nature and encouraging recreational use, forms the platform for all planning.

Discussions brought out strong opposition against selection of park areas as tourist attractions or merely for scenic beauty. The primary criteria must be to set aside adequate samples of the most important natural communities; i.e., to preserve representative ecosystems. But within these criteria samples of the most scenic landscapes are included as well.

2. Park Planning Techniques

For each established or prospective national park, a master plan and further detailed management plans must be provided. The task of a master plan aims principally at establishing the set of policies which will, a) outline the main areas in their principle functions within the park objectives; and b) dictate the degree of development (if any), and management.

The master plan does not normally include the subsequent site planning and management planning, but both are controlled by it. Its *first task* is to assemble comprehensive background information which should be carefully analyzed to come to the *second task*, the determination of specific and detailed park objectives.

It seems very important to include the basic requirement of park interpretation programmes in this planning. As a matter of fact, interpretation starts with letting the public take part in the planning. The needs of people can thus be learned; usually much more is known about the flora and fauna than about people using the parks. The carrying capacity, which has to come into the planning concepts, should play an important role in the people-ecosystems relationships of each park. But it was stated very clearly that preservation of nature must have priority. This priority should be made evident in national and regional planning as well as in all development plans.

3. Implementation of Planning

In the implementation of planning, *zoning* should become a key tool for decision-making, and development should become a subdivision of management planning. It seems necessary to prepare alternative plans for achieving the stated concepts. In some cases, especially in developing countries where ecological information and other knowledge are scarce, *periodic* plans will ease the implementation of objectives and allow improvements based on growing information.

As well as for bringing forward the planning concepts a variety of disciplines is needed to manage parks. The ideal park manager seems to be an ecologist with strong social science capability. It was stated that the National Parks' authority should be an autonomous body, able to establish its own priorities concerning management and funding, to make agreements and negotiate with other official and private agencies — all necessary flexibility to carry out implementation programmes.

The suggestion was made that management might be divided into 1) planning and decisions, and 2) practical field work. Planning and decisions should be in the hands of people with a well-founded scientific knowledge

of ecology and a far-reaching background of sociology and education. The practical field work could be directed by foresters, technicians, road builders, etc.

Notes on the Technical Sessions

All Working Sessions of the Conference except three had basically similar organizations: a chairman, authors of background papers, and a group of expert discussion leaders. In operation, the chairman presented a brief outline of the area to be covered and introduced members of the panel. Authors then each took a few minutes to present highlights of their papers, all of which had been circulated previously. Discussion leaders then presented their comments. Normally at least half of each 3-hour session was given over to comments or questions from the floor and responses from panel members. Generally discussions were lively and all sessions were well-attended.

Three sessions were organized differently. Session 12, Environmental Interpretation, made use of 19 outdoor workshops in which small groups of participants, organized by language groups, considered various aspects of the subject in participation-demonstrations of techniques and methods.

Session 15, Developing Public Support, depended on oral presentations and discussions of the expert members.

Session 16 was a review of each working session conducted by the Rapporteurs. This was the last meeting prior to consideration of the draft Recommendations.

While some sessions got off to a slow start, or otherwise suffered from lack of organization (or over-organization), efforts had been made beforehand to make certain each panel had met as a group and had reviewed the principal lines of discussions. It is believed the effort was very much worthwhile.

Special Awards

Three groups of leaders in the National Parks movement were recognized with special awards by the National Parks Centennial Commission. These included five young leaders who have made significant contributions in their own countries; six international leaders whose efforts over the years have made significant contributions to the world park movement; and 10 leaders who have contributed significantly to the strength and quality of the National Park system of the United States.

Leadership awards:

Mr J.B. Alvarez, Jr. — Philippines
Mr Zekai Bayer — Turkey
Mr Mario Boza — Costa Rica
Mr Perez Olindo — Kenya
Mr Phariot Suvanakon — Thailand

International awards:

Mr Enrique Beltran — Mexico
Mr Harold Jefferson Coolidge — USA
Sir Frank Fraser Darling — UK
Prof. Jean-Paul Harroy — Belgium
Dr Tsuyoshi Tamura — Japan
Dr Jacques Verschuren — Zaire (Belgium)

USA awards:

Mr Horace M. Albright
Mr Newton B. Drury
Dr Ira N. Gabrielson
Mr Gordon Gray
Dr Melville B. Grosvenor
Mrs Jack E. Haynes
Mr Alfred A. Knopf
Mr Paul Mellon
Mr Laurence Rockefeller
Mr Conrad L. Wirth

Book reviews

Unless otherwise indicated, book reviews in the Bulletin are prepared by Professor Tom Harrisson.

Lucas, J. & Duplax-Hall, N. (1972): *International Zoo Yearbook Vol. 12*. London: Zoological Society of London. 416 pp., £ 8.00 (UK); \$ 21.00 (overseas).

The latest and best-yet volume of this essential reference work is edited, as before, by Joseph Lucas (who has now joined the staff of IUCN at Morges) plus Nicole Duplax-Hall (a new live wire on the conservation scene). It appears at a time of gathering interest in, especially, the great international traffic in animals and wastage arising therefrom. As in previous years, this aspect of zoo business is almost neglected. It is a serious defect by now.

As last year, the opening section is devoted to a special subject, this time South American primates in captivity (60 pages) with some very useful articles, notably a general survey of the status of Latin-American primates by Miss Moira Warland, Executive Officer of the Survival Service Commission. The material that the volume does contain on trapping and trading animals is mainly in this section.

The second section covers new developments in the zoo world, and is sub-divided into series of articles on Architecture, Conservation, Education and Veterinary work. Architecture (25 pages) has several papers which seem to your reviewer to illustrate a frequent failure to be really integrated with ethology, with the purpose of the structure and the principles of the animal life involved. In particular, one is struck with the emphasis on angles, concrete, metal and the super-unnatural in new primate houses at Ibadan in Africa, at Denver in Colorado, and in Dresden, East Germany. The last, of these as described by the Technical Director (p. 79), sets the whole concept of captive environment by the heels in this delicious passage:

"In front of these aviaries there is a bed of plants and since the aviaries have glass fronts, the plants appear to be inside the aviaries, giving the impression that the animals are in a natural environment. Indeed, the aviaries act as a visual foil to the essentially massive cages."

Cactus, perhaps? It is, of course, the primates who are most sensitive to the wretched conditions still being engineered by modern thinking in so many zoos. It seems almost incredible that organizations as intelligent, sympathetic and well-intentioned as the Jersey Zoo or the London Zoo can be proud of new ape houses they have put up within the last few months. The reader of the *International Zoo Yearbook* will seek for treatments of such fundamental themes in vain. It remains — and fairly enough, I suppose — a huge conglomeration of articles on a very wide range of subjects, at the level of reportage rather than reflection.

This is not so happily reflected when we come to the remarkably little section on Conservation. The seven pages devoted to this are really tied to the much longer treatment (48 pages) of captive breeding and reflect the strong new line being developed in the zoo argument. This volume gives powerful and important assistance to conservation through captive breeding in this way. Many zoos are now approaching a position where too much effort is being concentrated on claiming a good breeding record, however much neglected in the past. Some animals, including man, can breed under any conditions. Can we forget that there is also happiness and "naturalness", — fundamental concepts which are far too seldom faced in this field.

As in previous years, the Reference Section, nearly 200 pages, is eventually the guts of the whole. The census of rare animals in captivity is a priceless document in itself. Again, there is emphasis, covering 65 pages, on species of wild animals bred in captivity during the previous year. However, this reaches some grotesque levels. Everything that has been reported by zoos is thrown in willy-nilly. Evansville, a small American show, gives the only breeding record for a species of *Pholidota*; it appears to be a common pangolin, although the species is not identified, and there is a note stating "conceived in the wild". One is struck by the erratically poor record of breeding for birds. Some of the conclusions are bewildering again, such as a blackbird recorded from a small English Zoo; or the Magpie-robin breeding at Surabaya in Indonesia, where it is the commonest garden bird all around. Just for good measure, the Java sparrow is also given credit for breeding in a Java zoo; in fact it breeds even in public buildings all over South-East Asian towns and cities.

It is perhaps not too much to hope that the editor will at last cut out some of the repetitive material next year, and devote more space to the deeper issues, especially the field where zoo world and conservation overlap in the animal trade, and elsewhere.

Kieran, John (1971): *A Natural History of New York City*. New York: The Natural History Press for the American Museum of Natural History. 308 pp., \$ (U.S.) 2.95.

This is a revised and abridged paperback edition of a well-known, well-written and popular book, first published in 1959. From 50 years of nature study in and about New York, the author lovingly combines the Big City and the small wild life in a rare montage, and — for once, in books of this kind — without emotional extravagance. Packed with information, especially useful because of the coverage of invertebrates, plants and in general the unobvious. Mr. Kieran also refrains from cursing everything that is urban. Indeed, he makes a point of bringing out the instances of animals and plants which benefit from this way of life, such as the African cockroach which has taken kindly to television, where it finds comfortable warmth and plenty of delicious insulation to eat. (p. 69).

Walter Heinrich (1971): *Ecology of Tropical and Subtropical Vegetation*. Edinburgh: Oliver Boyd. 540 pp., £ 10.50.

Steele, R. C. (1972): *Wildlife Conservation in Woodlands*. London: H.M.S.O. 68 pp., 40 p.

Since its publication in 1957, the book on *Ecology of Tropical and Subtropical Vegetation* by the Professor of Botany at the University of Stuttgart, has become a classic and been through many editions. Based as it is on the deeply thorough German approach, with the compilation, condensation, and presentation of information, this lucid translation by Professor D. Mueller-Dombois of the University of Hawaii, comes at a useful time. For this book surveys the whole field of plant ecology, of which the author was one of the continental pioneers. Professor J. H. Bernette of the University of Oxford, has further polished the text with pleasing results.

The value and pleasure of this closely packed volume which surveys in such a clear and systematic way the main categories of habitat across the world, the chapters ranging from tropical rain forests, to other types of humid tropic vegetation into the cooler rain forests of higher altitudes in tropical mountains (chapter 4, which is particularly excellent), then tropical evergreen and deciduous forests, natural savannahs, several forms of desert (including fog-desert). Although the larger bulk of the text deals with arid and desert type formation, one is led most of all to admire the treatment of what the author calls "continuously wet tropical rain forest", which seems

a clumsy way of saying evergreen forest, perhaps? There is no better short statement on the subject than in these 72 pages, supported — as in every chapter — with an adequate international bibliography.

What further distinguishes this volume is the surprisingly high standard of readability. It is not exactly well-written. But one feels that the author has such complete command of the whole subject, that he is able to put together widely disconnected, spatial and temporal ideas and keep them integrated in a swiftly moving, fully documented prose style. Moreover, there is a pleasant regard for other disciplines, including even history (e.g. p. 492).

The paper is excellent, the text-figures adequate, the presentation of tabular and other information impressive. Unfortunately, Professor Walter lost all his photographic illustrations in World War 2, though one feels more could have been done to replace them. The use of small black and white pictures on a third of a page, or even less in some cases, not always brilliantly reproduced, is the only important criticism to be made.

All too often a reviewer describes a volume as an essential handbook, indispensable reading, etc., etc. But *Ecology of Tropical Vegetation* really is in this category. It can be read by non-botanists of all sorts with equal advantage, as a key introduction to the whole theme.

Steele, of the Monks Wood Experimental Station in Britain, writes a directly popular text, a slender volume, handsomely printed on big pages. Considering the small space, it is surprising to find two Forewords (by the Director of the Nature Conservancy, and then by the Director General of the Forestry Commission) which contribute no more than what could have been said in a couple of sentences in the "blurb".

The photographs are really fine, filling whole pages. The text is lively, informative, closely to the point. To anyone interested in woodlands, and especially for people owning them, there is a lot of interesting and useful information here, cheap at the price.

Power, Elaine (1972): *Waders in New Zealand*. Auckland and London: Collins. 46 pp., £1.75.

This book contains paintings of 20 named species of waders, mostly New Zealand residents, but also a few Australian strays and northern hemisphere migrants. Brief descriptions of each are given, but in only two instances are the latin names quoted. The paintings are quite superb; the artist has taken great care to be zoologically and botanically accurate, and has a sense of design which makes each a work of art. *J. Lucas*

Masini, Giancarlo (1972): *S.O.S. Save the Earth*. London: Collins. 49 pp; £1.50.

This fascinating book sets out to make young children (8–12 years old) aware of our place on the Earth and to encourage them to do what they can to help in a concerted effort to stop environmental damage. It is vividly produced in full colour, and is full of intriguing pull-outs of ecological life chains, food chains, ladders to lift and peer at, and double page spreads of impact pictures. We are told by the publisher that it has been a runaway success on the Continent (it was first published in Italy) and this is easy to understand; but judging by the interest shown in the office it is of equal interest for adults, if mainly for the originality of its presentation. *J. Lucas*

Durrell, G. (1972): *Catch me a colobus*. London: Collins. 221 pp., £1.60

Another full-length saga from Gerald Durrell (one might almost say 'the Man from Jersey'); this time recounting an expedition to Sierra Leone to catch a colobus and another to Mexico for a Volcano rabbit or Teporingo. But both these episodes are embedded in a welter of reminiscences about the animals, and humans, of the Jersey Zoo and Wildlife Preservation Trust. There is much quiet, and perhaps occasionally not quite so quiet, amusement in these pages; but the author knows what conservation is about, and sees that the reader is left in no doubt of its importance. *J. Lucas*

Bagnall, T. B. (1972): *The Observers' Book of Sea Fishes*. London: Warner. 184 pp., 50 p.

This new and revised edition gives up-to-date details of the breeding and feeding habits of sea fishes, their distribution and migrations. Obviously in the space available the author has to be highly selective, but even so he has managed to discuss 170 species in detail, and mention another 33 rarer species. There are more than 120 illustrations including a number in colour. *J. Lucas*

Scientific Report of the Zoological Society of London, 1969–1971 (1972): Reprinted from: *J. Zool. Lond.* 166:499–610 (n.p.).

This publication is a summary of the scientific activities of the Zoological Society of London, including the research carried out at the Veterinary Hospital, Pathology Department, Whipsnade Park, Curators' Departments, Wellcome Institute of Comparative Physiology, Nuffield Institute of Comparative Medicine and King's College Research Unit. Appendices list material supplied gratis to outside institutions for research purposes; scientific and supporting staff; and published work by members of the staff. *J. Lucas*

Odell, Rice (1972): *The Saving of San Francisco Bay*. Washington D. C.: The Conservation Foundation. 115 pp., \$(US)3.00.

This paperback describes the pioneering effort of the local citizens' movement to save the San Francisco Bay from environmentally destructive filling and development. The public interests have been decisively asserted by the San Francisco Bay Conservation and Development Commission, and they have been upheld by the courts. This experience provides many lessons for those who seek to protect other estuaries or natural resources. It is an encouraging milestone in a slow but definite progress toward full recognition of public interests in the use of private lands. *A. Hoffmann*

Other books received

Adamson, Joy (1972): *Pippa's Challenge*. London: Collins. 175 pp., £2.75.

Gore, M. E. J. & Won, Pyong-oh (1971): *The Birds of Korea*. Weesp (The Netherlands): European Book Service. 450 pp., \$(US)19.25.

Paul, Aileen (1972): *Kids gardening*. Garden City, New York: Doubleday. 96 pp., \$(US)4.50.

Rambach, Patricia (Ed.) (1972): *Environment and Development: The Founex Report*. New York and Geneva: Carnegie Endowment for International Peace. 84 pp., \$(US)1.00.

Whitehead, S. B. (1972): *The Observer's Book of Flowering Trees and Shrubs for Gardens*. London: Warne. 193 pp., 45 p.

Wigginton, E. K. (1972): *The foxfire book*. Garden City, New York: Doubleday. 384 pp., \$(US)8.95.

Sjögren, B. (1971): *Inseln unter dem Land* (trans. into German: A. O. Schwede). Leipzig: F. A. Brockhaus Verlag. 298 pp., n.p.