



First World Ranger Congress

May 1995



Zakopane, Poland

International Ranger Federation Accord

The International Ranger Federation is a federation of national, state and territorial ranger associations whose express objectives are to:

- ✓ further the professional standards of rangers throughout the world;
- ✓ advance the aims of IUCN's World Conservation Strategy in all our common efforts;
- ✓ share knowledge and resources;
- ✓ establish global communications among ranger organizations;
- ✓ foster professional exchanges among rangers;
- ✓ provide each other with advice and guidance on travel contacts in parks in our respective nations;
- ✓ arrange and conduct regular international meetings; and
- ✓ undertake joint activities to directly support each other's operations where necessary and feasible.

Membership as an affiliate association in IRF is open to all national associations of rangers or wardens who perform the services associated with ranger work, including protection and preservation of wild lands and their resident flora and fauna, protection and preservation of historical and cultural heritages, provision of recreational opportunities in natural settings, interpretation of natural, historical and cultural themes, and administration of public lands.

International Ranger Federation Council and Members

IRF Council — Officers

Chair	Gordon Miller, Countryside Management Association, England
Secretary	Bob Reid, Scottish Countryside Ranger Association, Scotland
Treasurer	Mike Marshall, Countryside Management Association, England
Editor	Bill Halainen, Association of National Park Rangers, USA

IRF Council — Continental Representatives

North America	David Nelson, California State Park Rangers Association, USA
South America	Vacant
Europe	Gordon Miller, Countryside Management Association, England (acting)
Africa	John Forrest, Game Rangers Association of Africa
Asia	Ashok Khand, Rangers Association of Nepal
Australia	Vacant

Member Associations and IRF Representatives

Australia	Rory Neal, National Park Rangers Association of Western Australia
Canada	Mark Halley, National Park Wardens Association
Costa Rica	Franklin Carmiol Umana, Acorea C.R. Rafael Gutierrez, Costa Rica Rangers Association
Denmark	Ida Marie Jensen, Naturvejleder Foreningen i Danmark
Dominican Republic	Ingeniera Gabriel Valdez, Confunto del Guardaparques de la Republic Dominica
England/Wales	Colin Dilcock, Countryside Management Association
Germany	Alfred Heilmann, German Rangers Association
Honduras	Nasry Javier, Fed-Ambiente de Honduras
Iceland	Kristinn Stefansson, Iceland Wardens Association
Ireland	Brendan O'Shea, Ranger Association of Ireland
Italy	Augusto Atturo, Associazione Ligure Agenti Di Vigilanza Ambientale
Nepal	Ashok Khand, Rangers Association of Nepal
Northern Ireland	Hugh McCann, Northern Ireland Countryside Staff Association
Paraguay	Alejandro Cantero, Asociacion de Guardaparques del Paraguay
Portugal	Francisco Jose Semedo Correia, Associacao Portuguesa de Guardas e Vigilantes da Natureza
Romania	Calin Georgescu, Romanian Rangers Association
Scotland	Bob Reid, Scottish Countryside Ranger Association
Slovakia	Vladoj Vancura, Slovak Rangers Association
South Africa	Mike Landman, Game Rangers Association of Africa
United States	Barbara Goodman, Association of National Park Rangers Mike Lynch, California State Park Rangers Association

National associations are also presently being established in Kenya, Australia, Finland, Sweden, France, Uruguay, Austria and Malta.

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All photos in this document by Colin Dilcock of Countryside Management Association, England

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ZAKOPANE, 1995: FIRST WORLD RANGER CONGRESS



Rangers from around the world — Saudi Arabia, Kenya, Tasmania, Sweden and points between — pose in their national or state ranger uniforms, with the Tatra Mountains behind.

Bill Halainen Association of National Park Rangers, United States

At 6:30 on the evening of Sunday, May 21, 1995, Gordon Miller, chairman of the International Ranger Federation (IRF), officially opened the First World Ranger Congress with the raising of IRF's flag — the green, blue and white yin-yang symbol, representing the balance of the world's waters, lands and mountains — outside the Kasprowy Hotel in Zakopane, Poland, to the thunderous applause of 135 delegates from ranger organizations from 35 nations around the world.

That triumphant moment symbolized both an end and a beginning—the end of the three intense years of planning and organizing that followed the signing of the original IRF charter in July 1992; the beginning of a true world community of park and protected area rangers. It was a watershed moment in the history of the ranger profession—and in the movement to bring together the people who are on the ground in protected areas worldwide, directly involved on a day-to-day basis with putting research and theory into practice to conserve and maintain the last fragments of the world's incalculably precious natural and cultural heritage.

The impetus for both the federation and the congress came from a meeting on the shores of Loch Lomond in the spring of 1991, when representatives from England's Association of Countryside Rangers (ACR), the Scottish Countryside Ranger Association (SCRA), and the U.S. National Park Service's Association of National Park Rangers (ANPR) met in the corner of a hotel pub and agreed to work toward the creation of an international organization and a world ranger congress to formally inaugurate it. The meeting itself followed years of discussion and the laying of groundwork for such an organization by rangers in the United Kingdom.

After a year's work on a charter for IRF, the presidents of the three associations met in Peak District National Park in England in July 1992 and signed the document, formally establishing the International Ranger Federation.

The charter stipulated that member organizations (IRF is a federation of associations rather than an association of individual members) had united in order to:

- ✓ further the professional standards of rangers throughout the world;
- ✓ advance the aims of IUCN's World Conservation Strategy in all its efforts;
- ✓ share knowledge and resources;
- ✓ establish global communications among ranger organizations;
- ✓ foster professional exchanges among rangers;
- ✓ provide advice and guidance on travel contacts in parks in their respective nations;
- ✓ arrange and conduct regular international meetings; and
- ✓ undertake joint activities to directly support fellow member's operations where necessary and feasible.

The charter also specified that membership as an affiliate association in IRF was open to all national associations of rangers or wardens "who perform the services associated with ranger work, including protection and preservation of wild lands and their resident flora and fauna, protection and preservation of historical and cultural heritages, provision of recreational opportunities in natural settings, interpretation of natural, historical and cultural themes, and administration of public lands."

Once the charter was signed, work began in earnest on two tasks—bringing in national associations and organizing the first world congress. Both have been successes.

Since the signing of the charter just over four years ago, IRF has grown from three to almost 20 members, with more pending. The federation has member associations from England and Wales, the United States (ANPR and the California State Park Ranger Association), Scotland, Northern Ireland, South Africa, Ireland, Italy, Denmark, Paraguay, Honduras, Costa Rica, the Dominican Republic, Western Australia, Romania, Portugal, Iceland, Canada, Germany, and Nepal. National associations are currently being formed in France, Kenya, Finland, Sweden, Australia (including all territories), Malta, and elsewhere; these will come into IRF in coming years.

If anything, the first world congress in Poland—chosen because of its status as an emerging Eastern block nation and its outstanding parks (Tatra National Park, near Zakopane, is a world biosphere reserve)—was even more of a success. The delegates all came on their own time; most came at their own cost, though a number received partial support through the contributions of three major donors—Scottish National Heritage in Scotland and R&R Uniforms and the National Parks and Conservation Association in the United States. Because of this, the delegates displayed an exceptionally high level of interest in their work, their commitment to improving the lot of rangers and wardens worldwide, and their devotion to the cause of natural and cultural resource protection.

The congress had themes for each day that reflected principal concerns of the delegates. On Monday, it was the federation and its purposes, then some of the issues and problems in protected areas; on Tuesday, resource management; on Wednesday, human resources; on Thursday, the means for balancing conflicts, particularly through interpretation and education; on Friday, IRF's future.

The approach to each theme was similar—a presentation or two on the subject, followed by workshops and discussions. The topics addressed in these sessions illustrated the diversity of issues that rangers must address; among them, providing environmental education, dealing with native or aboriginal peoples resident within parks, managing parks on the urban fringe, controlling poaching and other resource depredations, establishing ranger training programs, and integrating research into resource management. Delegates were continually intrigued to find so many commonalities in issues faced by rangers wherever they lived and worked. Discussions revealed solutions found in one country that might resolve problems in another, and served to foster the already high degree of interchange among delegates. The text of many of the presentations and some of the recommendations which emerged from many of the subsequent discussions appear in these proceedings.

But congress activities weren't limited to papers and position statements, nor to auditoriums and meeting rooms. Except for Monday, there were field trips each day of the week—a bit of good luck, as it rained on Monday but was mild, clear and beautiful through the balance of the week. The trips on Tuesday and Wednesday were to different sections of Tatra National Park—a limestone gorge, a cave high on the side of a ridge, an alpine meadow. On Thursday, the group got to visit the park's new visitor center, then adjourned to a nearby meadow for vodka toasts, a

roaring bonfire, and rounds of national songs sung by rangers from different countries. The final excursion of the week was a half-day raft trip down magnificent Dunajec Gorge in Pieniny National Park on the border of Poland and Slovakia.

There were also evening speakers and slide shows that provided some of the weeks most memorable moments. Robert Swan, who has *walked* to both poles and is about to mount another expedition to the South Pole, gave an extraordinary slide show on his journeys in the Arctic and Antarctic, and concluded by urging that IRF develop a worldwide ranger network to educate the earth's people on their dramatically diminishing resources. He also proposed that Antarctica be declared an international park/protected area and that it be managed by a company of rangers from many nations sponsored by IRF.

On subsequent evenings, delegates gave slide and video presentations on their parks, which again revealed both the remarkable diversity of their resources and the striking similarity of their management issues. Although there were inevitable differences in cultures and in the type and severity of local problems, the fundamentals were again the same—increasing visitation, accelerating impacts to natural resources, encroachments, insufficiency of funds and staff, political meddling, and so forth. But delegates also got to see the the breath-taking beauty of the world's natural areas, from Kenya to Nepal, Tasmania to Alaska, Brazil to Finland. The effect was to give delegates a sense of *one* worldwide system of parks and protected areas and a realization that rangers preserve the very last fragments of this planet's wondrous natural diversity.

The week ended all too soon. On Friday, delegates got together to review decisions made at a Thursday night board meeting, to talk about IRF's future, and to ratify a declaration that was subsequently presented to reporters at a late afternoon press conference. The congress concluded with a banquet, farewells, firm promises to write and visit each other, and a strong commitment to further IRF and the mission of rangers worldwide.

IRF has since followed up on the decisions made at the congress and in planning future activities, including:

- ✓ Preparation and dissemination of quarterly newsletters to member associations.
- ✓ Examination of two possible sites for the next congress in 1997 — Costa Rica and South Africa (Costa Rica was subsequently selected).
- ✓ Preparation and dissemination of these proceedings.
- ✓ Development of an international code of ethics for rangers.
- ✓ Establishment of a working group to prepare a list of issues to be addressed by IRF and strategies for advocating them to citizens and governments.

As noted above, IRF is an organization for associations whose members protect, preserve, and interpret parks and protected areas worldwide, work to support and advance professional standards, and strive to help each other in our common efforts to preserve and sustain the world's heritage. It is different from other international conservation organizations in that it is comprised of people who do the work in the field, who fight in the trenches every day. We have come together to support each other and work together, and we are doing it on our own, without the direct support of any government or agency.

We strongly recommend that rangers and kindred park professionals either join their national ranger association or begin such an organization, then join in the federation in order to further our common aims. Over the next decades, the last of the world's unprotected areas will disappear due to the onslaughts of growing populations and resource demands. Those areas that have been designated as protected will also fall under unprecedented pressures for resource extraction, increased access and deauthorization. It is time for us to work together to defend what little remains. ☺



Sunday, 21 May

15.00 - 19.00
19.00

Congress Registration
Slide Presentation and "Potlach" (A traditional friendship meal)

Monday, 22 May

09.00 - 10.00

Introduction to Congress by IRF Chairman, Gordon Miller
Official opening by Polish Deputy Minister of the Environment
Welcome by the Mayor of Zakopane and the Director of Tatra National Park

IUCN representative Pedro Rosabal, Programme Officer, Protected Area Programme, Cuba: *"CNPPA — The World Family"*

10.00 - 10.30
10.30 - 11.15

Coffee Break
FNNPE representative Marija Zupancic-Vicar, IUCN/CNPPA Regional Vice Chair for Europe & former Vice President and Minister of Culture, Slovenia: *"Protected Areas in Europe"*

USNPS Associate Director (Operations) Maureen Finnerty

11.15 - 13.00

Delegates to address issues related to IRF Statement of Purpose - IRF representatives will outline issues followed by group discussions.

13.00 - 14.00

Lunch

14.00 - 17.00

Delegates will relate and discuss problems and successes in their protected areas.

19.00 - 20.00

Dinner

20.00 - 21.00

Guest Speaker — Robert Swan, Special Envoy to Director General, UNESCO, U.N. Ambassador for Young People and the Environment, Pole to Pole Explorer

Tuesday, 23 May

09.00 - 10.00

"Resource Management"

Keynote speaker — Pedro Rosabal, Programme Officer, Protected Area Programme, Cuba: IUCN *"Resource Management in Protected Areas"*

Workshops (Habitat based) — Resource management-related issues

Speakers

Tom Kovacs, Director of Resource Conservation, Parks Canada
Dr. Zbigniew Krzan, Tatra National Park (World Biosphere Reserve), Poland
Meg Weesner, Saguaro National Park, United States
Maria Elisa Castellanos Sola, Directorate of Protection and Biodiversity, IEF, Brazil
Gurmit Singh, Director, Wildlife, Punjab, India
Dr. Sabine Hahn, WWF Germany
Chris Arthur, Tasmanian National Park Service, Australia
John Forrest, Game Rangers Association of Africa

Issues discussed and experiences shared

Erosion problems and solutions
Modern and traditional management techniques
Research into practice
Sustainable practice in protected areas.

Group A

10.30 - 13.00
14.30 - 18.00

Resource management workshop 10.30 - 14.00
Field visit to Tatra National Park 15.30 - 18.00

Group B

Field visit to Tatra National Park
Resource management workshop

19.00 - 20.00

Dinner

Free evening — Optional presentations by participants

Wednesday, 24 May

09.00 - 10.00

"Human Resource"

Keynote speaker — Allan Fox, Australia: *"Working with Aboriginal Peoples in Protected Areas."*

Workshops — Human resource-related issues

Speakers

Rick Smith, Retired, U.S. National Park Service: *"Latin American Conservation Issues"*

Rick Mossman, U.S. National Park Service, Alaska: *"Subsistence Use of Alaskan Parks by Aboriginal People."*

Daniel Onsembe, Kenya Wildlife Service

Tim Stone, U.S. National Park Service: *"International Work Camps for Volunteers."*

Andrew Markwick, Victoria State Parks Service, Australia: *"Wild Life on the Fringe."*

Bob Reid, Strathclyde Park, Scotland: *"The Urban Fringe Ranger."*

10.30 - 18.00

Format as for Tuesday

19.00 - 20.00

Dinner

20.00 - 21.00

Guest speaker

Thursday, 25 May

09.00 - 10.00

"Balancing Conflicts"

Keynote speaker — Professor John Smyth, OBE, IUCN Commission on Education & Communication, Scotland: *"Rangers as Educators."*

10.00 - 10.30

Coffee break

10.30 - 13.00

Workshops — Sharing practical experiences

Speakers

Ruth Grant, Director of Communications and Education, Scottish Natural Heritage

Allan Fox, Consultant on Environmental Management, Education and Interpretation

Workshop 1: *"Interpretation and the Ranger"*

13.00 - 14.00

Lunch

14.00 - 16.30

Workshop 2: *"Interpretation and the Ranger"*

16.30 - 17.30

Panel of experts to address key issues raised during the workshop sessions

18.30 - 19.30

Dinner

20.00

Visit to Tatra National Park Museum followed by informal reception

Friday, 26 May

07.30

Depart for Pienny National Park and raft trip through Dunajec Gorge (includes packed lunch)

13.30

Return to Hotel Kasprowy

14.30 - 15.45

Presentations:

Rosie Simpson, Countryside Commission, England: *"Exchanging Places — Staff Exchanges in Protected Areas."*

Uwe Nehring, Crater Lake National Park, United States: *"Ranger Training — Sharing Experiences."*

Dr. Vasarhelyi, UNESCO Paris: *"Networking and Communication"*

15.45 - 16.30

Delegates to join one of three discussion groups

1. Exchanging places — Chair: Gordon Miller, IRF

2. Ranger training — Chair: Bill Wade, Shenandoah National Park, United States

3. Networking and Communications — Chair: Bill Halainen, IRF

16.45 - 17.45

Delegates to discuss other IRF issues relating to "Structure and Functions" in caucuses/groups

17.45 - 18.30

Plenary session

19.30 -

Farewell banquet

Saturday, 27 May

Delegates depart for home or excursions

UNESCO'S ACTIVITIES IN THE FIELD OF ENVIRONMENTAL INFORMATION

Background document for the International Ranger Federation 1st World Congress

1. Overview

Mandate

UNESCO was established in 1946 as the United Nations' Specialized Agency for education, science, culture and communication. This broad mandate puts UNESCO in a strong position to promote the kind of research, national capacity building and education, as well as intersectoral work, required for sustainable development in general, and for the implementation of Agenda 21 in particular. UNESCO's programmes in the natural and social sciences seek to provide the scientific information and human resources needed for sound policy making. UNESCO's education programmes seek to promote education that will provide citizens with the knowledge and skills they need to act in an environmentally responsible manner. Cultural considerations permeate the organization's work, by virtue of its overall mandate. While its headquarters are located in Paris, UNESCO also has about 50 sub offices, located primarily in developing countries, including regional and sub-regional offices in education, science and technology and culture. UNESCO's work is supported at the national level by UNESCO National Commissions, and national committees established to carry out specific UNESCO programmes. UNESCO also works in close collaboration with other U.N. agencies and numerous non-governmental organizations.

2. Environmental Mandate/Activities

2.1 UNCED specific activities

Environment and development problems have been a major focus of UNESCO's work for the past 40 years. Beginning with Arid Zone Programme in 1951, numerous UNESCO programmes have been launched to address research, education and training and policy needs related to specific environment and development issues (e.g., water resources management, conservation of biological diversity) and specific ecological systems (e.g., islands, tropical forests, mountains and arid lands). Since the Rio Conference, Agenda 21 follow-up has become one of UNESCO's top priorities and will be a central concern for the UNESCO Medium Term Plan to be prepared for 1996-2000. For its 1994-1995 programme and budget period, UNESCO has reoriented its environment and development programmes to meet the specific objectives of Agenda 21. UNESCO has focused particularly on those objectives of Agenda 21 in which UNESCO already has substantial programmes and expertise, including the chapter on conserving biodiversity (15), protecting oceans and coastal zones (17), managing fresh water (18), strengthening the role of the scientific and technological community (31), science for sustainable development (35), promoting education, training and awareness (36), and capacity building (37), UNESCO also has launched four cross-sectoral initiatives intended to chart new directions across established programme lines.

These initiatives focus on:

- a) capacity development
- b) information and communication on environment and development
- c) interdisciplinary sciences for sustainable development
- d) biological diversity

A small committee of outside experts has been appointed by the Director General to advise UNESCO on developing and implementing these initiatives. UNESCO is also about to launch a major interagency initiative on environment and population education and training with UNEP and UNFPA, in cooperation with UNDCP, WHO, UNDP and UNICEF.

UNESCO is actively involved in U.N. systemwide collaboration in implementing Agenda 21. UNESCO is one of nine core members of the Interagency Committee on Sustainable Development responsible for increasing cooperation and coordination among U.N. bodies. UNESCO has been asked to serve as "task manager" to coordinate within the U.N. system implementation of Agenda 21, Chapter 35, Science for sustainable development and Chapter 36, Promoting education, public awareness and training.

UNESCO is fully participating in efforts to implement the conventions signed at UNCED, as well as in ongoing negotiations for a convention on desertification. UNESCO is involved in preliminary work to implement the Convention on Biological Diversity with the intergovernmental Committee on the Convention. UNESCO, in particular its Intergovernmental Oceanographic Commission (IOC) is participating in the implementation of the Convention on Climate Change. In this respect, the IOC is coordinating efforts to launch a Global Ocean Observing System and Programmes to train scientific, technical and

managerial personnel. UNESCO is providing technical support to the INC on the proposed convention on decertification and will host its final meeting in June 1994.

The UNESCO Bureau for the Coordination of Environmental Programmes, established in 1990, is responsible for coordinating UNESCO's follow-up to Agenda 21 and for spearheading cross-sectorial work on themes such as climate change, biodiversity and information/communication. The Bureau is also responsible for input to U.N. systemwide effort of UNCED.

2.2 General environmental activities

UNESCO's four primary functions in the field of environment and development are to:

- a) promote research that addresses environmental and development problems
- b) ensure that developing countries have trained researchers and managers
- c) promote education that will provide citizens with the knowledge they need to make environmentally sound decisions
- d) disseminate research results to policy-makers

UNESCO achieves these goals by working through international networks of researchers, trainers and educators, and donors to identify research, training, education and policy needs, and to mobilize human and financial resources to address these needs. UNESCO sponsors a wide range of environment and development programmes, many in cooperation with other U.N. agencies and scientific NGOs.

UNESCO develops, promotes and coordinates a number of information systems, networks, databases, etc., related to environment and contributing to selected chapters of Agenda 21, in particular:

3.1 In the field of education (chapters 25 and 26):

- ✓ innovative systems of knowledge transfer will be set up in the framework of the UNITWIN university twinning and of the UNESCO chairs projects
- ✓ educational information and documentation services are provided to Member States, governmental and non-governmental organizations

3.2 In the field of sciences (chapters 31 and 35):

- ✓ the network of solar energy centres in the Mediterranean countries (MEDSOLAR) is in the process of development
- ✓ geodata networks will be developed to enhance the use of modern techniques in development planning, with priority given to Africa
- ✓ information generated within the MAB programme will be communicated to researchers and decision makers through more widely disseminated, streamlined and selective information means
- ✓ inputs will be provided to the development of the proposed Global Terrestrial Observing System
- ✓ cooperation among humid tropical regions in the field of ecology and sustainable development of ecosystems will be fostered through promoting the exchange of information.

3.3 In the field of oceans and coastal areas (chapter 17):

- ✓ marine science related activities will include interregional networks, e.g., the interregional project on Coastal Marine Systems (COMAR)
- ✓ activities will be undertaken to narrow down the uncertainties about the role of the ocean in climate and global systems within the framework of the Global Ocean Observing System
- ✓ special attention will be paid to the provision of information together with interpretation for decision-makers regarding oceans, seas and coastal areas in order to pave the way to measures for prevention of or the adaptation to expected climate and other changes and their potential impact
- ✓ regional data and information exchange networks will be strengthened with a view to supporting regional cooperation in marine science and coastal area management.

3.4 In the field of hydrology (chapter 18):

- ✓ special attention will be paid to promoting the exchange of data on the hydrological cycle, on the impacts of global and regional climate changes on water resources, etc.

3. Environmental Information in UNESCO'S Programmes

- ✓ also a review and update of the data on river sediment discharges into the ocean will be made

3.5 Strengthening environmental information in the framework of the General Information Programme

The Division of the General Information Programme has a special responsibility regarding the development of information, documentation, library and archival services, information networks and data bases in the Member States. Within this framework due attention will be paid to contributing to the follow-up of UNCED, in particular to the implementation of Chapter 40 of Agenda 21.

In order to achieve this objective, action should be taken at several levels:

- ✓ regarding the promotion of all available PGI products, in particular guidelines, directories etc., which should be used/adapted when environment-related information systems and services are developed nationally or internationally.
- ✓ regarding the use and networking of information resources, networks, etc. developed or promoted by other sectors of UNESCO regarding the development of cooperation with other UN and international organizations in the field of environment-related information.

In particular ways and means will be identified to contribute to the development of the resources required for providing information support to environment-related decision making, such as information, software, human resources, financial resources.

4. Cooperation with the International Ranger Federation

UNESCO, in particular its General Information Programme, is interested in developing cooperation with the International Ranger Federation in the field of communications and networking.

This cooperation may cover:

- ✓ the provision of guidelines, information exchange formats, etc., for the development of information exchange in the field of the Federation
- ✓ the provision of software for the management of textual and statistical information (CDS/ISIS and IDAMS)
- ✓ the promotion of the establishment of organizational links with international information resources and networks
- ✓ the provision of special training materials on environmental information



Gordon Miller
Chairman
International Ranger
Federation

The International Ranger Federation welcomes you all to the First World Ranger Congress and to the Tatra National Park—an international national park with Slovakia and World Biosphere Reserve. The mountain in the clouds above us is known as Geiwont—the sleeping giant. I think he is taking his blanket off for us.

Poland has seen some dramatic changes in the past decade and it has been a time of change in ranger services around the world. These changes together with increasing threats to our protected areas has made it timely that ranger organizations should look outwards to the wider world. It is through partnership and sharing that we can, I believe, have a significant effect on the long term sustainability of our precious areas. Sharing is the underlying theme of this Congress and there is a vast range of experience in this room to be shared.

It seems unbelievable that only four years ago we were talking about an international family of rangers and that three years ago we were to establish the Federation. We now represent 25 nations around the world with the Rangers Association of Nepal, represented here by Ashok Khand, as our newest members. Countries like Kenya, Germany, Latvia, and Jamaica forming national associations as a result of the Federation. Last week I was representing the Federation in Romania where grassroots efforts to have their parks properly recognized by government is coming from those who are likely to become rangers and who already talk of a rangers association.

So, a lot has happened in those few years culminating in this much dreamed of first World Ranger Congress. Experience from seven continents is represented here this week and if we can achieve this in three years, what can we achieve in 10? Rangers are dedicated people with a crusade to protect and a willingness to share. Let us use the time this week to learn from each other, and in return, our very special areas should benefit. ☺

Dr. Zygmunt Krzeminski
Deputy Director
Department of Nature
Conservation, Poland

Mr. Chairman, ladies and gentlemen:

On behalf of the Minister of Environmental Protection, Natural Resources and Forestry, I welcome the participants as well as the invited guests at the World Congress, the first meeting held in Zakopane, the winter capital of Poland and one of the most beautiful places in our country and close to the Tatra Ski National Park, Transboundary Biosphere Reserve. The Minister of Environmental Protection, Natural Resources and Forestry, is taking part in the Council of the Ministers United Nations Environmental Program, beginning in Kenya which made it impossible for him to participate personally in the Rangers Congress.

We are participating in a very important event for the international nature conservation. For this first meeting is gathered a great number of representatives from the protected areas of many countries on several continents as well as the representatives of governmental and non-governmental, national and international organizations.

I would like to congratulate Mr. Gordon Miller and the other founders of the Rangers Federation, initiators of this meeting, and in particular, all the participants who came here to contribute to the Congress. I wish all the participants of the meeting the fruitful debates and many favorable impressions during their stay in Poland, especially during the study tour in the Tatra and Pieni ski national parks. These parks characterize by high biological diversity which plays an important role in the national system of protected areas as well as in the network of protected areas having international importance. During your visit in those national parks you will get detailed information on their natural values and threats.

I would like to take advantage of this opportunity and provide you with some information concerning the nature preserve in Poland. In Poland, over 28 percent of the country territory is forested with fragments of primeval forests. Agricultural structure in a great number of regions is favorable to the high diversity of agricultural landscape. Eastern areas of Poland have poor industrial development, low density of population and scattered settlements network, which forms a contrast with well industrialized, urbanized southern and southwestern regions of the country. This distinctive feature of these regions is a conducive advantage to retaining Polish natural resources. It is reflected in the decisions putting the Green Lungs of Poland in the

northeastern part of the country constituting 15 percent of the country territory. Valuable habitats, ecosystems and areas of high biological diversity are protected by law as national parks, reserves, landscape parks, landscape protected areas which create the national system of protected areas. The system will embrace approximately 30 percent of the country territory. It is already approaching this international objective now. At present there are 20 national parks, over 1,000 reserves, 100 landscape parks, over 250 landscape protected areas which in all constitutes approximately 25 percent of the country territory.

During the last two years, three national parks were set up including the largest — Biebrza National Park. A number of protected areas have international status. Seven areas have been recognized as Biosphere Reserves on the UNESCO list.

On the Ramsar list there are five protected areas. There are also three candidates for the list. On the World Cultural and Natural Heritage list there is Bialowiecki National Park. As far as cooperation with our neighbor countries, special attention is being paid to putting the transboundary ecosystems under protection. At present, seven transboundary ecosystems are protected and another is being proposed.

Particular progress has been achieved in the sphere of plant and animal protection. This year the Minister of Environmental Protection, Natural Resources and Forestry signed an ordinance concerning animal and plant protection. The Minister signed a new ordinance concerning the hunting seasons, too.

Newly implemented legislation in the sphere of the protection of fauna and flora laid the foundations of the accession to the convention in the field of nature conservation. This year Poland signed the Bern Convention. The process of preparing the accession to the Bern Convention and biological diversity convention is approaching its end.

During the forthcoming couple of days you will be discussing a lot of problems concerning protected areas and the management within them. You will also be talking to the people working there as well as those who come to visit the areas. These are very important issues for the whole of nature protection matters and in particular for working out a strategy of the protection of biological diversity.

I wish you success and I am sure that the results of the First World Ranger Congress will contribute to improving the actions in the protected areas as well as in the protection of biological diversity. I wish you very good impressions during your stay in Poland. Thank you, Mr. Chairman. ☺

Stanislaw Mielczarek
Director of Tatra National
Park, Poland

Mr. Chairman, organizers and participants of the First World Ranger Congress, ladies and gentlemen:

Welcome to all of you and I would like to express my satisfaction that the First Ranger Congress takes place here in Zakopane in the vicinity of the Tatra National Park. Our park was established to protect high mountain ecosystems unique to this part of Europe. The Tatra Mountains was designated a national park by the Council of the ministers in 1954 with an area over 21,000 hectares. The natural landscape varies from cultivated lands to high summits of 2499 m asl.

Our park is frequently visited by tourists, hikers, skiers, and climbers. Every year about 3 million people visit the park. This creates the need for some restrictions and regulations to protect our natural treasure. To do this we have a permanent staff of about 100 specialists working in the National park office, educational and scientific centers, and directly in the field.

Detailed information concerning the Tatra National Park can be obtained from our printed information, publications, visiting our natural museum and during the field trips.

The staff of our park is looking forward with interest to the Congress. I hope that the congress resolutions will be helpful for protection of nature and our national park.

I wish all participants effective discussions and good weather during the field trips, and that you see the beauty of Tatra nature and the problems of protecting it. ☺

Protected Areas in Europe

I thank you for asking me to be with you these days. On behalf of FNNPE, I would like to present the current situation of national and nature parks and other protected areas in Europe, and about the efforts for the improvement of parks policy and management throughout Europe. It's a great pleasure to bring you greetings from both the Federation of Nature and National Parks of Europe (FNNPE) and its president, Aitken Clark, as well as from IUCN's Commission on National Parks and Protected Areas and its chair, Adrian Phillips. They wish you success in this Congress.

At the National Parks Congress in Caracas, Venezuela, in February 1992, regional reports were presented about the situation in protected areas all over the world, including two reports on Europe — the report for the European Palearctic Region and North Eurasia (the latter for historical reasons covered Byelorussia, Moldavia, Russia and Ukraine, which are geographically in Europe). The reviews have indicated the main problems in parks and protected areas worldwide, as well as in Europe. The Caracas Congress focused on these problems, and on a number of issues of global concern. An action plan was adopted and governments are calling for increased international cooperation.

In responding to this call, "Parks for Life — Action Plan for Protected Areas in Europe," was adopted. In Europe, the current decade leading up to the World National Park Congress in 2002 will be marked by enhancing the activities to ensure an adequate, effective and well-managed network of protected areas in Europe.

Europe — Diversity On A Small Scale

Europe may be one of the small continents, but it has remarkable diversity, not just of nature, but of civilizations, cultures and languages, reflecting its long and complicated history. Europe is also a young continent, in that most of its present ecosystems, at least those north of the Alps, developed only after the retreat of the ice sheets some 10,000 years ago. Despite that, the Europeans of today inherit a much altered but very rich natural and cultural heritage.

Nature in Europe varies from the arctic tundras in the north to the warm evergreen-oak forests in the Mediterranean. It includes some of the world's most spectacular mountains, such as Mont Blanc, Mount Etna, Mount Olympus; wetlands, such as Cota Donana in Spain and the Danube Delta in the Black Sea; and valuable forests, such as Bialowieza and Bieszczacki in Poland. Europe has a rich flora of some 12,500 vascular plants, as well as familiar animals such as the lynx, bear and wolf.

In Europe, the vegetation has been almost completely changed by human activities. Today, the only areas of vegetation that can be considered similar to their original state are the coniferous forests and arctic vegetation in Scandinavia and some broad-leafed forests in southeast Europe. In the rest of the continent, the only vegetation that is not substantially altered is on mountain tops above the tree line, in some wetland areas like peat bogs, and on some stretches of coastline.

The changes over most of Europe happened not recently, but thousands of years ago. These long-established changes led to a varied and biologically diverse continent until only a generation or so ago. Yet, since 1945, there has been a steady degradation of this rich landscape. In many parts of northern Europe, mechanized agriculture has reduced the rich patchwork quilt of woodlands, hedges and small fields into an industrial prairie largely devoid of wildlife, and extensive drainage has spared only remnants of the previously extensive wet forests. In southern Europe, the massive expansion of tourism is causing unprecedented damage to the fragile Mediterranean coast.

Protected Areas in Europe

The history of protected areas in Europe is exceptionally complicated, but a few general points can be made. Europe has had protected areas for centuries, some as royal hunting reserves or as forest preserves. Since the first part of the 19th century, small areas or even single features such as trees and rocks have been declared as protected. However, the national park concept emerged later in Europe than in many other parts of the world. The first national parks were set up in the early years of this century and progress was slow, with much hesitation about whether to create a few large areas or many small ones. In the 1950s, Europe led the way in developing the concept of the protected landscape.

Despite this late start, there is today an extraordinary diversity of approaches to the conservation of nature across Europe from one country to another. This reflects a diversity in geography, history, law and political systems from one country to another.

The protected areas eligible for inclusion on the United Nations list (falling into IUCN categories I to V) are only part of the protected area estate in Europe. These are an estimated 10,000 to 20,000 protected areas in Europe, of which 2,736 are on the U.N. list, amounting to 10 to 20 percent of the total by number but very much more by area. The main types of protected areas in Europe are in national parks (Category II), habitat/species management areas (Category IV), and protected landscapes/seascapes (Category V). It is notable that protected landscapes account for 62 percent of areas of the protected area estate, at least those on the U.N. list.

Generally, the conservation of manmade landscapes — cultural landscapes — is given greater priority than the conservation of natural landscapes. Before agricultural intensification took place, these cultural landscapes were varied in character and rich in species. But the use of agricultural machinery, artificial fertilizers and pesticides has significantly changed them and has destroyed their character. Today, remnants of this cultural landscape are being protected in almost every European country.

Many countries have well-developed conservation structures with large numbers of small Category I reserves, but only rarely have established large Category II national parks. At the same time, however, there is a lack of understanding of natural landscapes in European countries, and although there are nearly 200 national parks, only a few of them (20 percent at most) can be classified in Category II. Protected areas created in the last decade represent an overall total of nearly 10 million hectares which have been added to the protected area estate — an area larger than Hungary.

Pressures On Protected Areas

The natural wealth of Europe is under threat. The protected areas do not escape these pressures. According to the results of an FNNPE questionnaire, a majority of protected area managers believe that the ecological condition of protected areas in Europe has deteriorated over the last 10 years. Protected area professionals in the region feel that most protected areas in Europe are under some degree of pressure and threat.

The main pressures and problems in parks and protected areas in Europe are:

- ✓ land use in nature reserves and national parks (hunting, forestry, agriculture, grazing, etc.);
- ✓ construction of dams for hydroelectric power plants and regulation of the courses of rivers;
- ✓ mass tourism — national and nature parks near large urban areas or traditional tourist resorts are being overrun by visitors;
- ✓ air pollution and acid rain;
- ✓ insufficient patrolling — in some of the national and nature parks there are no full-time rangers;
- ✓ reprivatization of land in central and eastern European nations;
- ✓ military training — in some countries, armies use national parks as training areas and for firing practice;
- ✓ lack of financial means and staff resources;
- ✓ lack of management plans; and even,
- ✓ damage by war.

Protected Area Institutions

In Europe, the institutions responsible for protected area management vary greatly from one country to another. In some countries, protected areas are the responsibility of central governments, but in others, such as Germany and Austria, the system is highly decentralized.

There is also a split between landscape conservation and nature conservation. In some countries, two separate, parallel systems exist. The two systems often had different origins, the landscape conservation tending to have emerged from a need to provide recreation opportunities or to encourage rural development.

As in other parts of the world, many European countries are decentralizing their administrations. This is both an opportunity and a danger. It is an opportunity for conservation, because it is easier to create the multi-sectional, multi-functional protected areas that are needed to deliver effective conservation to a crowded continent and to integrate them into

land use planning at the local level than at the national level. Decentralization may also facilitate cooperation between governmental and non-governmental agencies over parks. Regional nature parks in France, for example, bring together the national government and local bodies. This is a true bottom-up approach in which local interests are fully represented right from the beginning.

A danger, however, is that the local authorities may not have the trained personnel to take on their responsibilities. It's also more difficult to arrange training programs than in centralized systems. It may be difficult for decentralized nations to implement international conventions where the central government has to guarantee the protection of certain areas.

Staffing of Protected Areas and Training Opportunities and Needs

The data available are not sufficient to show staffing levels in European protected areas or to permit an analysis, but some general points can nevertheless be made. There are large differences from one country to another.

Some countries, for example, have no rangers in their national parks. Others, by contrast, not only have large, paid staffs, but also have volunteers who help out. The number and types of protected areas in Europe and the staffs who manage them have increased in the past decade, and techniques for resource and visitor management have become much more sophisticated.

This has resulted in an increased need for training in the broad range of skills required for good protected area management, particularly in:

- ✓ techniques for nature and landscape conservation and visitor management;
- ✓ education and interpretation;
- ✓ campaigning for and promoting conservation issues;
- ✓ management planning;
- ✓ policy-making and implementation;
- ✓ managerial skills; and
- ✓ information technology.

Provision of training is currently patchy. Staff working in protected areas have varied qualifications and experience, but specialist degrees and technical level courses in conservation management are still relatively rare. Further needs are met through in-service training, but provision is ad hoc and training opportunities are often not available for the full range of staff employed.

Rangers and interpreters are best provided for, and Belgium, Denmark, France and the United Kingdom are among the countries offering special training for them. The amount of training provided for other European protected areas is varied, but many employ too few staff to organize in-house training for specialists and must rely on external opportunities which in many countries are not well developed.

Study visits and exchanges have much potential for exchanging information and developing expertise, but are not well used at present and, to date, most have been organized informally. For a number of years, FNNPE has promoted staff exchanges between parks, and in February 1995, officially started a project for setting up a central agency for partnerships, staff exchanges and training programs between European protected areas.

Initiatives Between European Countries

Many of Europe's protected areas have international designations. Most countries have designated considerable parts of their protected area estates as RAMSAR wetland sites and as UNESCO biosphere reserves, but world heritage sites, with their much tougher conditions for entry, are much less numerous.

There are many initiatives between countries in Europe, first through the European union, which is the only supra-national law-making body to which nation states have surrendered significant elements of their sovereignty, including environmental protection and nature conservation. There are two EU directives that create protected areas, the birds directive and the habitats directive.

The Council of Europe created the Bern Convention — the Convention on the Conservation of European Wildlife and Natural Habitats. The Council of Europe is also creating a European network of biogenetic reserves and awards the European diploma to protected areas.

The Barcelona Convention — the Convention for the Protection of the Mediterranean Sea Against Pollution — contains a protocol on protected areas. The protocol include provisions to set up specially protected areas of marine and coastal areas and watercourses up to the freshwater limit. And there are other conventions and agreements for the Alps, for the Baltic, and for other areas.

It should be pointed out that there are other organizations with international remits on protected areas.

FNNPE has grown considerably during the decade. It is a pan-European organization whose main membership is comprised of national and nature parks from across Europe. As of today, there are 200 members, mainly parks and national agencies in 32 countries, representing over 1,600 protected areas in Europe.

Protected areas in Europe have also benefitted from the continuing work of the Protected Areas Data Unit (PADU) of the World Conservation Monitoring Center (WCMC). There are also a number of other information centers around Europe, like the International Park Documentation Center (CEMP) in Florence, Italy. The International Center for Protected Landscapes at the University of Wales was established to promote the concept of protected landscapes through training, research, information exchanges, and related activities.

But all these, as well as many other activities and initiative among European countries, are not sufficiently coordinated and for too long we have lacked a Europe-wide approach to protected areas.

Parks For Life — Action For Protected Areas in Europe

“Parks For Life” is the first ever plan for protected areas in Europe, and it is the result of a remarkable partnership among countries, agencies and individuals throughout Europe. CNPPA and other partners, especially FNNPE, World Wildlife Fund International, WCMC and Birdlife International, all wanted a truly participatory approach. We invited members of the network to comment on the proposed structure. We also asked for volunteers to write particular sections. This procedure encouraged over 200 individuals to contribute.

Two drafts of the plan were broadly discussed, the first one at the CNPPA regional meeting in Sweden and the second draft at a conference in Maastricht. The governments of all European countries at the IUCN’s general assembly agreed to a resolution supporting the plan. And nine countries provided financial support.

It is not, then, a plan prepared by an outside international organization, but a plan developed by European nature conservation experts — governmental and non-governmental — using IUCN as their international union. And it represents a consensus across Europe about what needs to be done.

The vision set out by this plan may be expressed in terms of policies to:

- ✓ increase the extent of Category I and II protected areas, with an emphasis on countries in which coverage is currently inadequate;
- ✓ extend protected areas in each country to encompass at least one population of every species or habitat threatened on a European scale;
- ✓ protect a representative area of each ecosystem within each country;
- ✓ strengthen management capacity and conservation status of Category V protected areas;
- ✓ promote effective land use planning systems for rural landscapes in each country;
- ✓ adopt management plans for all protected areas;
- ✓ establish effective laws in each country to enable the establishment and management of protected areas;
- ✓ assure staff of sufficient quality, quantity and training for appropriate protected areas;
- ✓ provide adequate funding where funding currently limits the extent and value of protected areas;
- ✓ improve cooperative arrangements between protected area managers and local communities; and
- ✓ establish a single, easily accessible, Europe-wide system of information about protected areas.

“Parks for Life” is a document to help the governments and managers of protected areas to ensure an effective and well-managed network of protected areas in Europe. The plan puts most emphasis on work at the national level. It is almost a blueprint for a nation’s policies on protected areas. The plan also contains one chapter on those individual countries and some sub-regions whose protected area systems were most deficient.

The plan contains three types of actions. First, it makes recommendations, mainly to governments, regarding protected areas and their relationship with other aspects of policy, such as agriculture, forestry and tourism. Second, it endorses many existing initiatives, recognizing that much is already done in Europe. And third, it outlines 30 priority projects to be undertaken

by conservation bodies as ways of mobilizing that support.

Cooperation among all conservation bodies and international funding will be vital to implementing this plan. Only by a synergy among all the many initiatives in Europe can its aims be achieved.

Through CNPPA and the European program, and working with members in Europe, IUCN will oversee and coordinate the implementation of the plan. An annual forum will be arranged which will be open to all international partners and others to monitor, plan and coordinate implementation of the plan at the regional and national levels.

And to give the implementation of the plan greater impact and momentum, a European regional meeting on national parks and protected areas will be held in 1997.

I wish the Congress success and call for further close cooperation between IRF and both CNPPA and FNNPE. ☺

Maureen Finnerty
Associate Director,
Operations
National Park Service
United States

I feel very honored and privileged to be representing the United States National Park Service at this inaugural meeting of the International Ranger Federation in Zakopane, Poland. I bring warm personal regards from National Park Service Director Roger Kennedy and Deputy Director John Reynolds.

Setting foot on Polish soil for the first time has additional special meaning for me — 100 years ago, this coming October, my grandmother was born in a small village about 100 miles east of here. She emigrated to the United States, through Ellis Island, in 1910. She is still alive — and I only hope that I have her genes, her strong constitution and strength of character, so well exemplified by the Polish people.

I am very excited about the formation of this International Federation. The National Park Service and our colleagues in the international conservation community have discussed the concept of an international ranger organization for decades. That it has finally become a reality is due to the grassroots efforts of many individuals.

In 1991 the first meeting on the organization of the International Ranger Federation (IRF) was held at the Balloch Hotel on the south end of Loch Lomond in Scotland. Representatives from the Scottish Countryside Ranger Association (SCRA); the Countryside Management Association of England (CMA); and the Association of National Park Rangers (ANPR) from the United States formulated the idea for IRF.

Work on the charter took place over the next year, and it was signed in Peak District National Park in England on July 31, 1992, by Steve Nunn for SCRA, Phil Page for CMA and Rick Gale for ANPR.

Since these inaugural events, work has continued to ensure the growth of the IRF. Among those whose efforts are to be applauded are Mike Marshall, Bob Reid, Rick Gale, Bill Halainen, Barbara Goodman, Colin Dilcock and Sue Clark.

But over and above all these talented and committed individuals stands the efforts of Gordon Miller. His vision, energy and persistence made IRF a reality.

Gordon was particularly insightful in making IRF a Federation to which organizations and *not* individuals, would be drawn. This has encouraged the formation of Ranger Associations throughout the world — 25 are now members of the IRF.

I would like to take a few moments to reflect on the United States' experience with the formation of its ranger organization nearly 20 years ago.

In 1977, a group of 32 field rangers founded the ANPR — primarily as a social forum to rebuild the "sense of family" that many felt had been lost, and to actively promote and strengthen the professionalism of the United States National Park Service ranger. Our ranks are now nearly 1,800 strong, with the vast majority of our members being National Park Service employees, in particular, park rangers.

I personally joined ANPR in 1979 and found the benefits to my career, of this association, to be immediate and lasting. It put me in close contact with many employees who were on the front lines and gave me a better understanding of the delicate and challenging dual mission of the National Park Service — to preserve park resources, while providing for visitor use and enjoyment.

This professional and personal relationship strengthened throughout the years, and I was extremely fortunate and privileged to serve as the fifth president of ANPR in 1985 and 1986. As I have been promoted to positions of increasing responsibility within the National Park Service, I have continued to rely on my close ties to this organization as a very valuable way to maintain contact with our field people—those who really are making a difference in resource protection and visitor service. Too many of us in upper management positions fail to maintain this contact — so critical to our success and effectiveness. ANPR provides a valuable forum to facilitate this.

There is an important point to make, however, about the relationship between ANPR and the National Park Service. The Association is *not* an employees' union. While we have close ties to the management arm of the NPS, we are *not* an extension of management. We are supportive of the policy level of the Service, when it deserves our support, and are constructively critical when it does not. We are members of an association actively promoting the ranger profession, as well as being employees of the United States government. And, while the line between the two occasionally blurs, there is a line. Members of ANPR pay their own way to annual meetings, take official leave from work, and volunteer their non-work time throughout the year to promote the goals of the organization.

The significance of this to the IRF is important. The Federation came into existence as a grassroots organization. You individuals are here from around the world representing yourselves and your organizations, *not* specific governments. Your objective should be to allow candor and communicate openly.

Those of us here from the United States, members of the Association of National Park Rangers, stand ready and willing to share our experiences in forming ANPR with the International Ranger Federation. Included in our ranks are three past presidents — Rick Smith, Rick Gale and myself — and numerous individuals who have served on ANPR's board of directors or have been otherwise actively involved in the organization.

The National Park Service will remain supportive of IRF from a distance. The Service does not want to insert the government bureaucracy into this effort. But, the NPS is very dedicated to the world's conservation efforts, and has had a long history of involvement with the international community providing advice on the development of other nations' parks, identifying resource protection issues, developing strategies to mitigate resource damage, and assisting with the provision of quality visitor services and facilities.

The National Park Service very much supports the success of the International Federation of Rangers, and believes it is important that the IFR remain closely tied to national parks and conservation — and their importance to the world community.

So, what does the future hold for those of us in the conservation community? Here are some thoughts for you to consider this week:

1. One of our greatest challenges will be to figure out not how to do more with less or less with less, but how to do more of the right things and less of the inconsequential things. This means we will need to do a better job of thinking strategically and setting priorities, lest we waste valuable time, and human and fiscal resources, on things that do not contribute to our very highest priorities.
2. We are going to have to figure out how to more effectively involve the private sector and non-governmental organizations (NGO's) in our work. No government, including the richer first-world countries, is going to be able to afford what we need to do in preservation and protection. Even though the word "partnership" is overused, we must find a way to be partners with our natural allies — NGO's and private sector corporations who want to or need to be, convinced that they should be more "environmentally sensitive" in their corporate activity. And we must even find a way to seek partnerships with our enemies. In my opinion, the days of fighting with everyone are over. It drains too much of our time and energy. We simply *must* find a way to reach out to those people who are opposed to government activity in conservation.
3. Another challenge is to find methods to reduce the insularity of our employees — to make them more effective in community relations, in outreach. In the western United States, there is a real gulf beginning to develop between federal conservation officials and the people who live in and around parks, forests and other federal lands. We need to make these local individuals our partners to convince them that protected areas can contribute to a sustainable lifestyle for them and their families. We cannot succeed in the long run without their support and cooperation. And, you in the ranger profession must play a vital role in making this happen.

The traditional role of the park ranger is changing and must continue to change rapidly. The days of worrying about and taking care only of what goes on within the boundaries of a park — are over. Those of you on the front line must increasingly communicate with the public particularly those adjacent to protected areas. This new and expanded role is critical to the survival of both the park ranger profession *and* protected areas.

4. We must all become proficient at consensus building. Those of us in government must assume a leadership role in this arena — and not be viewed as constantly representing confrontational positions. This does not mean that we sacrifice the resource or do a disservice to the visitor. But, one starting point for discussions must be commonalities that exist between and among parties — not the differences.

5. Our programs of environmental education need to be strengthened and upgraded. Our parks can and should become classrooms and overall learning centers for both young and old. In many developing nations there is simply no environmental ethic. And even in developed countries, it needs to be strengthened. Our efforts in promoting an environmental ethic particularly among children is the key to changing this situation. But, environmental education must be aimed at changing behavior, not just attitudes.

6. We must all actively promote protected areas as lending stability to society. In reconnecting with our natural and cultural heritage, we get a better sense of who we are as people, and what the forces are that shaped our national identity. Protected areas are worth the price we pay for them, if for no other reason than this.

So, where do we want to be at week's end? There are over 125 of us here from 35 countries.

Let us:

- ✓ spend time with each individual present here,
- ✓ make the most out of our days together,
- ✓ reach across any language and cultural barriers that may exist.

The benefits gained from a national association are multiplied on an international scale. The potential for personal growth this week is significant. Recognize that even with all the different languages we speak, we have a common language — that of the park ranger. We have more in common than we might think.

And here is the final challenge — that each of us use this historic occasion to move to the next level of excellence. ☺

Rick Smith
Retired, U.S. National Park
Service

Latin American Conservation Issues

Thank you, Mr. President, for the invitation to speak to the delegates to the Congress of the IRF on Latin American conservation issues. I have had the opportunity to work with our colleagues in Latin America and hope to be able to summarize the issues that I have observed during my trips. I will be making general comments, and you will understand, I hope, that there are exceptions to these observations in some countries. When I use the term "Latin America," I mean the countries of Central America, including Mexico, the island nations of Cuba and the Dominican Republic, the Portuguese-speaking nation of Brazil, and the rest of South America.

The history of Latin American conservation began in the 1930s. Nations such as Ecuador, Brazil, Chile and Argentina created parks or equivalent reserves. The Galapagos Islands was established by Ecuador in 1934. On May 1, 1942, many Latin nations signed the Pan American Convention on Nature Protection in the Western Hemisphere, an early attempt to encourage signatory nations to establish protected areas and to cooperate in joint research projects and to protect species that crossed international borders. In the 1970s and '80s, the pace of conservation efforts increased and almost all nations now have systems of protected areas. Most also are signatories to the World Heritage Convention, the Man and the Biosphere Program, RAMSAR, and some of the conventions that grew out of the Rio Conference. Many Latin American conservation pioneers are still alive and active in the conservation movement.

The principal reason that many Latin countries have established protected areas is to preserve the incredible biodiversity that exists within their boundaries or to protect significant features such as watersheds or wetlands. Often, these protected areas do not feature the same emphasis on the preservation of cultural patrimony that exists within certain developed nations. Nor is there the same emphasis on visitor services; few Latin parks and protected areas contain the same kind of visitor infrastructure found in European or North American parks and preserves.

There are certain shared realities that affect our Latin colleagues as they work in protected area management. Almost all Latin countries have skyrocketing birth rates with significant percentages of their populations under the age of 15. This rapid population growth has led to a rapidly expanding agricultural frontier, which increasingly pushes close to, or inside of, the boundaries of protected areas. Extractive industries such as oil and gas and timber are aggressively seeking new territory. Many Latin American protected area systems are undercapitalized and underfinanced. Their field personnel often lack adequate education and training and live under conditions that often are marginal at best. The ranger profession is not accorded much social prestige or standing. Managers within the systems are well educated but often come to their jobs right out of the university with little or no field experience. Science and research are often considered luxuries and many resources management decisions have to be made without the benefit of adequate scientific information. Finally, in some countries, there are no consistent national policies to guide protected area managers and they must make strategic decisions based on their own intuitions rather than on clear guidelines.

Faced with these problems, our Latin American colleagues are seeking innovative and creative solutions, using a mix of imaginative strategies. Some countries are experimenting with the decentralization of authority and responsibility. Argentina and Costa Rica have both decentralized responsibility to local or regional managers. As with all decentralization strategies, the trick will be to decentralize authority at the same time giving managers the power to make decisions without several levels of federal review. Other countries, Ecuador and Paraguay, for example, are assigning the responsibility to manage protected areas to non-governmental foundations. The Bertoni Foundation in Paraguay manages Mbaracyu, the largest reserve in the country. Mexico is considering granting concessions for managing some of its parks to private corporations. The corporations would be allowed to sustainably harvest some park resources in exchange for managing the parks.

Almost all countries are examining alternative funding strategies. These include differentiated fee structures for national and international visitors, the establishment of trust funds for individual parks or reserves, the encouragement of ecotourism programs that would allow local communities in or near the protected areas to share in the benefits of ecologically sustainable tourism, and a host of programs such as concessions and fees that would bring protected areas closer to the goal of economic self-sufficiency. Some countries are altering their planning strategies, concentrating on shorter term operational plans instead of producing general management plans, which tend to be very expensive and often out of date before they are published.

Finally, nearly all countries are modifying their decision-making processes to allow for greater public participation in the development of short- and long-term strategies for resources protection and preservation within their protected areas. They have come to realize that no conservation program will ever be successful without the support and participation of the communities adjacent to the protected areas.

Our Latin colleagues are also examining new strategies for resources economics. Too often, resources economics have concentrated on the input side of the ledger. If a tree, valued at \$20,000 was cut down, the \$20,000 was added to the Gross Domestic Product of the country. The problem was that the tree was not subtracted from what we might call the Gross Patrimony Account of the country. Our fellow professionals in Latin America want to revolutionize resources economics so that the true cost of resource degradation shows up, not only on the plus side, but also the negative side of the equation. We all have a stake in the outcome of their efforts in this regard.

The International Ranger Federation should seek ways to support our Latin American colleagues. Often it will be enough to establish avenues of communication so that they realize that they are not in this alone, that we support them and appreciate their efforts. Other times we will have to facilitate the flow of technical information and advice, much of it inaccessible currently to Latin American rangers. Perhaps we could establish a system of sister parks so that parks with similar resources issues could exchange information and staff visits.

I have been very impressed with the dedication and skill of our brothers and sisters in Latin America. They work under very difficult conditions with few of the financial and human resources available to park managers in North America or Europe. I have often called these folks the real heroes of the conservation movement. The IRF must simply find a way to assist them in their efforts. ☺



Tom Kovacs
Director, Natural Resource
Conservation, Parks Canada

Resource Management Issues in Canada's National Parks

Introduction

My intent is to give an overview of resource management issues facing Canada's national parks and some of our responses to them. By these issues I mean those natural or man-made events and effects which may be harmful to park ecologies, requiring monitoring and mitigation. Time limitation precludes detailed treatment, thus for the purposes of this presentation, I will deal only with some of the major resource management issues that have been described as stressors in the 1994 Canadian State of the Parks Report.

The many and varied resource management issues affecting Canada's national parks emanate from the interaction of complex environmental, social, economic and cultural conditions and human-environment relations which constitute Canada. Factors influencing these issues include the size and location of the country; the size and location of national parks, their history, use pattern, perceived role; changing philosophies, societal expectations, transboundary and global influences. While they define the unique character of Canada, sufficient issues are believed to be also present elsewhere so that the Canadian example may be of value to others.

With nearly 10 million square kilometers, Canada is the third largest country in the world. Its national parks system is one of the largest and oldest. The first Canadian national park was established in 1885. Back then, the purpose of national parks was to provide playgrounds for the rich. Over time, ecological integrity and biodiversity have become primary objectives, in addition to environmental education, recreation and tourism. Today, there are 36 national parks and national park reserves, as well as four marine areas. They range in size from St. Lawrence Islands National Park, the smallest at 8.7 square kilometers, to Wood Buffalo National Park, which at 44,802 square kilometers, is larger than Switzerland. Five of these national parks are also World Heritage Sites (see **Figure 1**).

Figure 1.

Canada is divided into 39 natural regions, each with distinctive vegetation, physiography and other environmental characteristics. These natural regions provide the basis for selecting new national parks. Canada's goal is the creation of a national park system that represents each of the 39 natural regions. At present 22 of the 39 natural regions are represented.

About 22 million visitors a year enjoy Canada's national parks. **Figure 2** shows the main activities and prohibitions.

Figure 2.

National Park Visitor Activities

Commonly permitted

- Hiking, camping, viewing
- Skiing, climbing, rafting, canoeing
- Traditional hunting and gathering
- Scientific research

Prohibited

- Motor boats, aircraft tours
- Collecting, sport hunting
- Commercial extraction, e.g. logging, mining, hunting, hydroelectricity

Like many other nations, Canada, too, has to cut government expenditures in an effort to reduce the national debt. Lower funding levels mean that park managers will have to be much more resourceful, innovative and effective, if the increasing challenges of park management are to be met. Parks Canada has put together a Business Plan with the objective of placing it on a firm financial footing. Only then will Parks Canada be able to meet its three basic accountabilities, namely:

- 1) ensuring the ecological and commemorative integrity of national parks and historic sites;
- 2) providing services to visitors; and
- 3) expending public funds wisely and effectively.

Resource Management Issues

Resource management issues relate practically to all aspects of park operations. They run the range of protecting ecological integrity, maintaining biodiversity, the use of controlled fires, managing transboundary regional and global influences, providing for visitation (tourist facilities and infrastructure), dealing with exotic vegetation and animals and the loss and fragmentation of habitats, mitigating the effects of adjacent development (parks as islands of nature in a sea of development), coping with solid waste, sewage and contaminated sites, countering poaching, etc.

The mandate of national parks in Canada is to preserve in a natural state representative examples of the country's natural environments, while providing opportunities for enjoyment. Reflecting the social values of the day, the amended National Parks Act of 1988 requires that the maintenance of ecological integrity should be the first priority when preparing park management plans. Similarly, the 1994 Parks Canada Guiding Principles and Operational Policies also give emphasis to protecting ecological integrity and park ecosystems. In addition, the revised Act calls for the periodic tabling of State of the Parks reports in Parliament. Released recently, the second State of the Parks Report (1994) gives an account of the resource management issues, and the responses to maintaining ecological integrity in national parks.

The report indicates that in Canada's large national parks and reserves located in remote areas, the physical, ecological elements and processes are generally intact and functional. Small parks in altered, developed regions, however, suffer from the effects of surrounding forestry, agriculture, mining, industrialisation and urbanization. Examples of such activities include dams built upstream from national parks, and community, railway and highway developments inside parks. Transboundary and global influences have contributed to air and water pollution within national parks. Trails, roads, campgrounds, and borrow pits have caused minor disturbances to soil and streams in a number of parks.

When looking at the biological elements, it is observed that most indigenous species in national parks still exist, but there have been many local and regional extinctions. Most national parks have been invaded by some exotic species. Smaller southern national parks, which have become ecological islands in the sea of change, are most heavily invaded.

A 1992 survey of 29 stressors identified visitor/tourism facilities (both within and outside parks) causing a significant ecological impact (see **Figure 3**). These facilities include roads, accommodations, golf courses, ski hills and swimming pools, along with others. In many cases, such facilities are a legacy from the past, reflective of park history. Twenty-two of the 34 parks reported these facilities as significant stressors.

Figure 3.

National Parks Reporting Significant Stress, 1992			
Tourism and park infrastructure	19	Exotic fish	9
Exotic vegetation	18	Human disturbance	8
Utility corridors	17	Climate change	8
Commercial forestry	15	Exotic invertebrates	8
Acid precipitation	15	Solid waste, garbage	5
Agriculture	14	Poaching	4
Urbanization	13	Sport fishing	3
Hydro dams	13	Vehicle kills	3
Pesticides	12	Commercial fishing	3
Petrochemicals	12	Exotic micro-organisms	1
Exotic mammals	12	Ground level ozone	0
Management practices	11	Sewage	0
Heavy metals	10	Sport hunting	0
Mining	9		

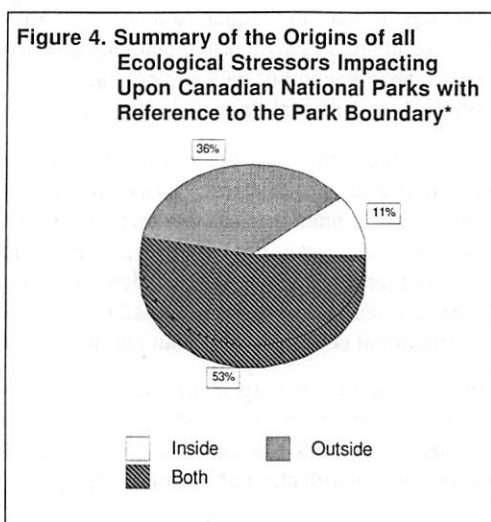
The second most commonly reported stress was from exotic vegetation. Nineteen parks reported that non-native plants were invading or displacing native ones.

Many of the reported stresses reveal how connected protected areas are to the rest of the country. Nineteen parks have transportation or utility corridors, either electric lines and gas pipelines, or through highways and railways. Many parks are impacted from outside activities of forestry and agriculture. Although these occur external to park boundaries, they are within regional ecosystems.

Stress from park management itself, for example from fire suppression, was reported from 13 parks. Since periodic wildfire is a necessary element of many park ecosystems, suppression can have undesirable consequences.

Some of the more traditional national park concerns were reported as significant only from a few parks. Issues as vehicle kills, solid waste and sewage were reported from only four parks.

Figure 4 presents a summary of the origins of the 29 stresses, relative to park boundaries. Only 11 percent of all reported stresses have origins within parks. Fully 36 percent of stresses have their origin totally outside park boundaries, and 53 percent of all stresses occur without regard to boundaries. From this, managers can easily conclude that managing from within park boundaries is not possible.



*34 national parks surveyed

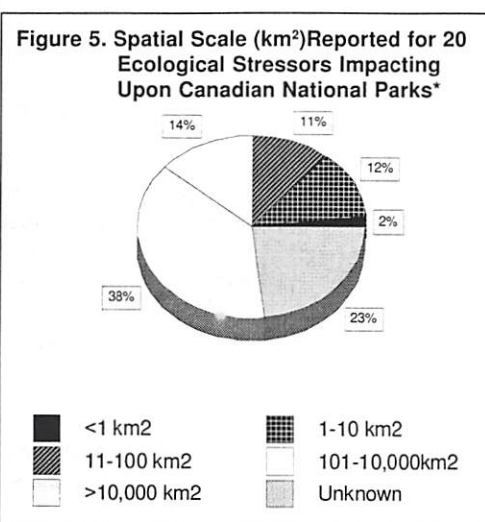


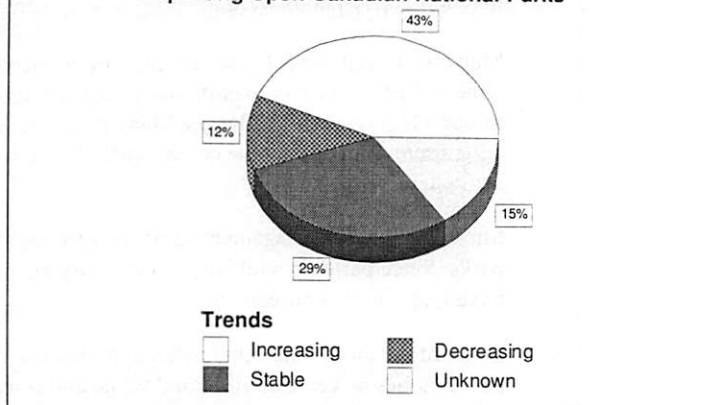
Figure 5 presents the spatial scale of all stresses. The majority of all stresses were reported to be acting over an area of greater than 100 square kilometers. Only 2 percent of stresses were acting on a local scale, defined as less than 1 square kilometer. The large spatial scale of these issues also points to the need to consider management options on an ecosystem basis. Forty-three percent of stresses were reported to be increasing, while 12 percent were decreasing (see **Figure 6**). The remaining were either stable or the trend was unknown. The report noted that ecological changes of many kind appear to be occurring. The most commonly reported change was in community structure where the mix of species was remarkably changed. An example is the widespread changes in forest vegetation that occur when white-tailed deer invade an area. There were also many reports of populations that were reduced to very low levels, so that their role in the ecosystem was virtually absent. For example, there are very low populations of pine marten in Cape Breton Highlands National Park and of woodland caribou in Pukaskwa National Park.

Soil or water pollution was reported from areas such as St. Lawrence Islands National Park.

Habitat loss or habitat fragmentation was reported for most parks. There were also reports of losses of species from parks or of parts of their previous range within parks; for example, lynx at Fundy National Park and bullfrog at Point Pelee. The latter was very common 10 years ago.

Responses to these issues require, first and foremost, good science and information, things which agencies find difficult to support during harsh economic times. Without a sound knowledge base, however, park management objectives cannot be achieved. Investment in research is, therefore, essential if tomorrow's challenges are to be met. In Parks Canada, increased revenue generation will assist in meeting the cost of protecting ecological integrity.

Figure 6. Summary of Trends Reported for Ecological Stressors Impacting Upon Canadian National Parks*



*34 national parks surveyed

It is because of the ecosystem-based management approach that good science and information, including traditional knowledge, are especially needed. Maintenance of species and habitats in a healthy state rests on long term study and monitoring. Consequently, Parks Canada is investing a great deal in resource studies, data bases, monitoring, Geographical Information Systems, impact analysis and the like, in order to maintain scientific information required for decision making. Parks Canada also collaborates with provincial and territorial agencies, sister federal departments and universities in the collection of data and conduct of natural resource studies. As well, it cooperates with the U.S. National Parks Service and park agencies of other countries.

Implicit in the foregoing is the requirement for properly trained staff and communication. Parks Canada sponsors university and in-house workshops in ecosystem management, and such international fora as the Science and Management of Protected Areas Conferences to foster scientific knowledge. It also provides national training programs in law enforcement, wildlife immobilization, fire management for park wardens, visitor activities management, visitor risk assessment, to name a few. Further, Parks Canada is supportive of its staff participating in national and international conferences to gain and to share knowledge.

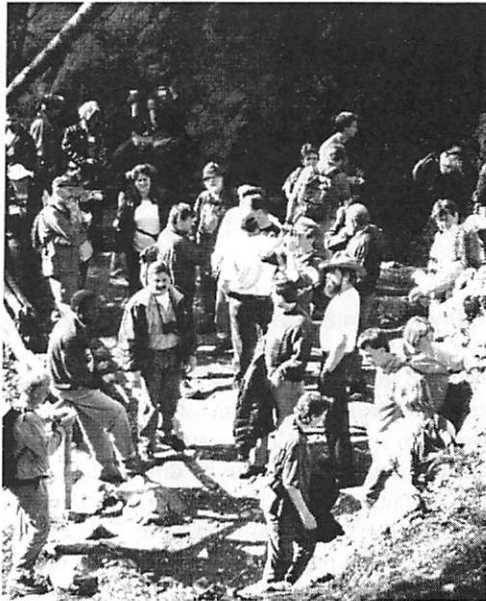
Finally, responses to resource management issues lie in management action. Management intent is expressed in Park Management Plans, which must rest, among other things, on a solid resource information base. Park Management Plans are the primary tool for upholding Park Canada's mandate for the protection of ecological integrity.

National parks do not exist in isolation from surrounding lands. Nor were they established on the basis of complete, functioning ecosystems. It comes as no surprise that managing park resources solely from within is not possible; species move in and out of parks and global influences do not stop at park boundaries. It is clear that a fixed point in time cannot be held as a management objective since changes in ecosystems take place continuously. An interesting question for the national park manager is to ask: how will it be determined what is natural or what level of change is acceptable? Because of the dynamic situation we face and of the growing pressures, at a time when the stock of natural systems is diminishing, the task of park managers will become more challenging.

To meet the challenges, we must have better science and information; some form of consensus-based, decision-making process in the greater ecosystem where the protected area is located; and multi-level cooperation. International organizations such as this federation and congress to foster cooperation and mutual learning are essential if resource management issues are to be met. Quite simply, we must pull together to get the job done. Our collective wisdom and resources will be needed for the tasks that lie ahead.

Conclusions

In Canada, as elsewhere, natural resources issues are numerous and diverse. They are both external and internal to protected areas. They range in size from local to global. Because of these attributes, their management requires an ecosystem based approach. Such an approach must rest on sound information, both scientific and traditional, and a planning process that is, ideally, inclusive of all interests. The extent and complexity of issues compel us to pool our resources and knowledge. This is also necessary because we share many of the issues needing common solutions. Cooperation and communication at every level, including the international level, are a prerequisite for solving our respective and mutual resource management issues.



Above, delegates enjoy a raft trip through the Dunajec Gorge in Pieniny National Park on the border of Poland and Slovakia. Left, delegates tour Tatra National Park near Zakopane, Poland.

I have referred to some documents in my presentation, copies of which are on display table in the poster area. These, along with some other references of possible interest, are listed below. Note that Parks Canada, Environment Canada – Parks, or Canadian Parks Service is the same organization under different names.

Canadian Heritage, Parks Canada, *State of the Parks 1994 Report*

Canadian Heritage, Parks Canada, *Guiding Principles and Operational Policies*, 1994

Environment Canada, *Biodiversity in Canada, A Science Assessment*, 1994

Parks Canada, *Towards a Better Understanding of Human/Environment Relationships in Canadian National Parks*, 1993

Parks Canada, *National Business Plan 1995/96 - 1999/2000*

Environment Canada, Parks Service, *Strategic Framework to Sustain the Integrity of Ecosystems*, July 1992

Lopoukhine, Nikita, *Canada's National Parks in the Next Millennium: Managing for Wilderness*, Parks Canada, May, 1995

Parks Canada, *Visitor Risk Reference Manual*, December 1994

Parks Canada/University of Regina, *Science and Research in Western Canadian National Parks*, March 1994

Parks Canada/University of Waterloo, Heritage Resource Centre, *Ecological Monitoring and National Parks*, 1994

Science and Management of Protected Areas Association, *Ecosystem Monitoring and Protected Areas Wolfville*, Nova Scotia, Canada, 1995

Woodley, Stephen, *Ecosystem Management for Managers*, Canadian National Parks Service Workshop, Heritage Resources Centre, University of Waterloo, 1993

Woodley, Stephen, et al. *Ecological Integrity and the Management of Ecosystems*, Heritage Resource Centre, University of Waterloo, and the Canadian Parks Service, 1993 ☺

Harike Wetland and Conservation Efforts

This paper attempts to provide a brief introduction of the Harike wetland of the Punjab state, which is in the northwest of India. It is the biggest wetland in the northern region of India. The 86 sq. km area of Harike wetland was also declared a sanctuary by the Punjab government in 1992. (The convention on wetlands of international importance, especially as waterfowl habitat, was signed in Ramsar, Iran, in 1971 and came into force in 1975.) This convention provides a framework for international cooperation for the conservation of wetland habitats. The Harike wetland was added on 23rd March 1990 along with Wular Lake, Loktak Lake and Sambar Lake as wetlands of international importance.

On the initiative of the late Dr. Salim Ali, Bombay Natural History Society (BNHS) conducted a bird ringing programme from 1980 to 1985. BNHS is a pioneer to start research work in the area. Despite the recognition given to Harike wetland for its biodiversity values, not all is well with this Ramsar site when the reservoir was created. The riverine biome was converted into a lacustrine biome, a transition that has never been scientifically investigated. As in the case of a number of reservoirs in the country, the various development activity directly and indirectly resulted in an increased loading of nutrients, organic matter and sediment into the water body. Infestation by water hyacinth (*Eichhornia Crassipes*) is a serious problem. Threats like encroachment of area, excessive fishing, pollution and population pressure are some of the major problems.

Some conservation measures taken by the Ministry of Environment and Forests, the government of India and the Punjab government are discussed here. Future plans to develop the area as an ideal wetland are also stated.

Introduction

Wetlands are still considered wastelands. From time to time different agencies have been trying to drain, dredge, fill or other actions to try to reclaim for production purposes such as agriculture, housing and settlement. Such an attitude has seriously endangered the existence of wetland ecosystem.

Punjab state is proud to have the Harike wetland as one of the important wetlands of India. The area is also called, in Punjab, the "Bet-Mand area." It consists of the "river tract" and the "flood plains" of the rivers Beas and Satluj. It derives its name from the geophysical and local environment configuration with its tall elephant grass, swamps, marshes and uneven topography (town and country planning departments observation). It is an "environmentally critical area" of Punjab and is associated with poor accessibility, inhospitable and wild terrain, soil erosion, water logging, flash floods and sheet erosion. The Harike wetland is the largest in the northern region of India.

History of Harike Lake

Harike is a place where the famous rivers of Punjab — Satluj and Beas — meet. Harike Lake came into existence as a result of irrigation barrage built at the junction of Satluj and Beas in 1950. The construction of the 636.12 meter long, 10.06 meter high barrage near Harike township impounded the water of two rivers, creating a shallow water storage reservoir. According to irrigation sources at the time of creation the water storage capacity was 67,900 acre feet.

The Harike Lake (31° - 13'N 75° - 12' E) forms part of a larger wetland system in the districts of Amritsar, Ferozepur and Kapurthala. Harike Lake is triangular in shape. Harike is 55 Km from Amritsar, the famous city of the Golden temple. The place is well connected by rail and road. Makhu is a small railway station at a distance of 5 km from Harike. Rajasansi Airport (Amritsar) is the nearest airport (60 km). Some important gurudwaras like Baoli Sahib at Goindwal (Amritsar) and Rababsar Sahib (Kapurthala District.), Nanaksar falls in the vicinity of Harike Lake. Harike is a place where Sabharaon Sikh fought the British forces in 1846. The wintering of large number of migratory birds, mainly water fowl, shows the abundance of food in Harike Lake and its surroundings.

Climate

Punjab falls in one biogeographic province of a single zone 4A i.e., Punjab plains of the semiarid zone (Rodgers & Panwar, 1988). Climatically much of Punjab should be in the arid

desert zone (less than 400 mm rainfall per year), but extensive irrigation has removed virtually all true desert elements. So, the state is considered as under the semiarid indus drainage area. The average annual rainfall over the past five years within major portion of wetland is 673.26 cm. The temperature ranges from a maximum of about 45° C during the peak summer to minimum of around 1° C in January.

Present land use

The population of this area is either stagnant or declining because of socioeconomic backwardness, absence of essential amenities and facilities, and underutilization of the natural riverfront environment. In the area surrounding the wetland, agriculture is still the major means of sustenance. Major crops grown in the area are wheat, sugar cane, rice maize, gram and barley. Agrochemicals applied to the crops find their way in the wetlands in the rainy season. The water was taken for irrigation purposes through two major canals — Ferozepur and Rajasthan feeders — which carry water to southern Punjab and Rajasthan through the Makhu outlet distribution in local areas. These all remove 29,984 cusecs (cubic feet per seconds) of water predominantly for agricultural purposes.

Problems in the present system

Like many other wetlands in the country, Harike Lake is also facing a number of problems. These include excessive use of the water, increasing silt load, weed infestation, encroachment, pollution, fishing and population pressure.

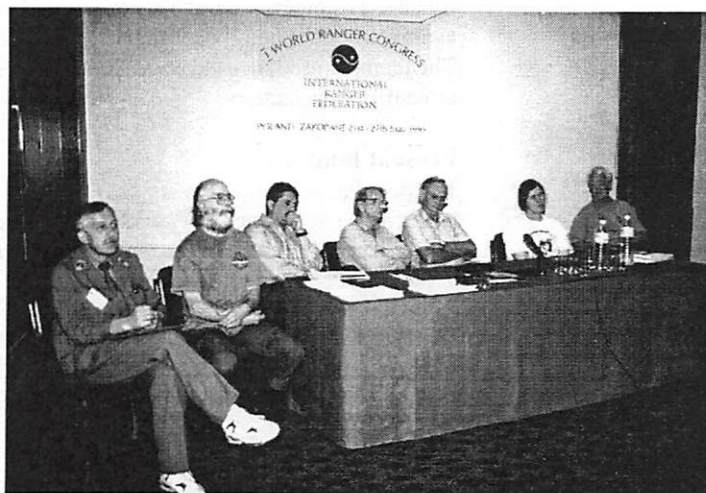
1. Excessive use of water: Harike Lake originally was created as a storage reservoir with canals to use water for irrigation. This is still the major use of the wetland (WWF 1994). Receding water levels become a serious matter in the month of May and June every year. Tube wells are sunk deeper and deeper to keep up with requirements in Punjab. There are eight lakh working tube wells (Gill, 1992), compared to 1.92 lakh in 1970. The Beas and Satluj rivers together bring in about 25 million acre feet of water a year into the wetland. The two major canals, Ferozepur and Rajasthan feeders, carry water to southern Punjab and Rajasthan. From the Rajasthan feeder water also is used for drinking purposes.

2. Siltation: Siltation is also one of the major problems of Harike. Day by day the wetland area has shrunk. Intensive grazing and trampling of surface grasses loosens the topsoil in the catchment area of the lake and in lower shiwalik. The topsoil then washes away with rainfalls through the Satluj River into Harike Lake. Modern agricultural methods like deep plowing increase water runoff with precipitation.

The water storage capacity of the lake decreased from 67,900 acre feet in 1952 to 35,670 acre feet in 1980 and 17,740 acre feet in 1990. There has been a 78.29 percent reduction in the storage capacity in a span of four decades. Islands covered with a growth of *Ipomoea fistula*, *Typha elephantina* and *saccharum spontaneum* have emerged within the lake. Presently there are 13 islands in the wetland. Immediate soil protection measures need to be taken if Harike wetland is to be maintained for biological diversity.

3. Weed infestation: Weed infestation is also one of the major problems in Harike. Water hyacinth (*Eichhornia crassipes*) has spread to almost three-fourths the lake. The unnatural spread is mainly due to eutrophication of the lake water. Effluents from cities and villages in the catchment and fertilizer runoff that find their way into the lake result in a high organic loading, which aids rapid multiplication of the weed. Manual removal of water hyacinth is not possible. Mechanical means of removing the weed would involve importing a weed harvester. No chemical method can be initiated because the water of Rajasthan canal is used for drinking purposes. Biological control of water hyacinth has already been initiated in an experiment using weevils to feed on the soft tissues of the plant.

4. Encroachments: The local population surrounding the wetland is farmers. When the Harike head work was constructed, the agricultural land of a number of villages was taken by the government. The acquired land was used. The surplus government land was returned back to the villages. However, many people still consider the land now inside the wetland as private property because it belonged to their ancestors. At a number of places villagers have encroached on the land. Encroachment upon wetland area is therefore one of the major problems. The issue involves several departments, including the Irrigation Department, Department of Forests and Wildlife, and the concerned district administration.



Panel members make presentation to congress participants.

5. Fishing: Every year Harike Lake is auctioned for fishing by the Fisheries Department. The area of Harike wetland is a major source of fish. The revenue from fishing was approximately 67 lacs. The wetland was leased by a private contractor. The contractor brings fishermen from Bihar and Gorakhpur (U.P.) side on an annual contract basis. The fishing activity disturbs the animals and migratory birds (Singh, 1988 and Hussain, 1984). All of these disturbances adversely affect the habitat required by avifauna. Fishermen don't like the restrictions imposed by various acts. Sometimes poaching of birds is also done by them.

6. Population pressure: Population pressure around Harike has increased. During the last three years, the Punjab state has been a peaceful state in India. This has encouraged the Forest and Wildlife Department to undertake a number of works, but because the villagers around wetland are agriculturists, they have encroached on the wetland area for agriculture. Generally they take one wheat crop from the land. By active initiative from state government, all girdawris are stopped by the Revenue Department in the sanctuary area.

Demand for agricultural land has been increasing. There is a likelihood that conflict between encroachers and authorities will increase. The increase in population will affect the wetland ecosystem because people still do not understand the benefits of the wetland system to their social and economic well-being.

7. Poaching: Harike wetland is open from all sides. Fishermen inside the lake and people surrounding Harike Lake sometimes are involved in poaching incidents. Cases have been detected in which wheat grains soaked in pesticides were given to the birds. The court imposed a fine of Rs. 5000/ — with imprisonment of one year in such cases. The court sometimes has taken a lenient view by imposing a fine of Rs. 50 & 100.

8. Conservation Measures: The first step for conservation of the Harike area was taken by the Punjab government in 1982. A 41 sq. km area of Harike wetland was declared a bird sanctuary. At the time of the convention on wetlands of international importance, especially as waterfowl habitat (Ramsar Convention in Iran in 1971), Harike Lake was recommended for designation. In 1987 the India Department of Environment included Harike Lake as one of the 10 important wetlands of India. The other wetlands are Chilka Lake (Orissa), Dihallu Jheel (Madhya Pradesh), Khabartal at (Bihar), Bhartpur (Rajasthan), Point Calimer (Tamilnadu), Dal Lake (J&K) and Pulicat Lake (Tamilnadu). In 1992, a 86 sq. km. area of Harike Lake was declared a sanctuary area.

9. Research on Harike Lake: On the recommendation of the late Dr. Salim Ali, Harike Lake was made a substation for ringing from 1980-85 by the Bombay Natural History Society. From the study conducted by BNHS, it was found that being a fresh-water lake, Harike attracts the largest number of waterfowl (after Bharatpur in Northern India). The hydrobiological regime

of the lake provide an ideal niche for several migratory species. BNHS has also reported the presence of these ducks, which are rarely seen in any other parts of the country:

1. Falcated or bronze-capped teal (*Anas falcata*)
2. Scaup duck. (*Aythya marila*)
3. White-headed stiff-tailed duck (*Oxyura leucocephala*)

The mammals found at Harike wetland include the smooth Indian otter (*Lutra perspicillata*); the fishing cat, jungle cat (*Felis Chaus*); jackal (*Canis aureus*); hog deer (*Axis porcinus*); Indian wild boar (*Sus scrofa*); and the common mongoose (*Herpestes edwardsi*) (Singh, 1988).

Conclusion

Harike wetland area was also affected when the state was under violent terrorism. Due to the period of intensive militant activity, Harike wetland, with its extensive cover of high grasses, was regularly used as a hideout by militants. During the last three years the environment in the state has been more peaceful. Authorities took a number of steps: fencing the critical area; setting up check posts to check poaching and entry points; constructing watch towers; and installing a wireless system to improve communication system. An audio visual centre at Harike was also set up for educational programmes in the area. This will help people living around Harike Lake. The project to remove water hyacinth, with financial assistance from international bodies, and research projects can further improve the wetland habitat.

Dr. S.S. Grewal and Co. workers from Punjabi University, Patiala, have been studying the morphometry and eco-behavior of *Kanhuga smithi* and *Geoclemys hamiltonii* (Testudine turtles) at Harike. Indian-roofed turtles (*Lissemys punctata andersoni*) are the most common.

Research on the biological control of water hyacinth using weevils (*Neochetina bruchi* and *Neochetina eichhorniae*) is being undertaken by a team from the Irrigation and Power Research Institute, Amritsar, led by Dr. Mahinder Kumar in 1993.

Studies on land-use mapping of the Harike wetland and surrounding areas have also been carried out by various scientists (Gill & Sharma 1993, Sharma 1992). The Punjab remote-sensing centre at Ludhiana has been entrusted by the Ministry of Environment and Forests to survey the Harike wetland.

Conservation and management strategies for the wetland have also been studied and proposed by Dr. N. Jerath (Jerath 1989, 1990, 1991). The Punjab State Council for Science and Technology has prepared a management plan for the development of the Harike wetland.

Acknowledgments

I would like to thank the Punjab government and the International Ranger Federation for providing me the financial assistance for presenting this paper.

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Development of an Occupational Profile, Including Further Training, for a Professional Ranger Service in the Major Protected Areas of the Federal Republic of Germany

The "WWF-Germany Environmental Foundation; Foundation for the Protection and Formation of the Natural Environment" has its seat in Frankfurt on Main and is a foundation under civil law with legal capacity. The goal of the foundation is conservation of nature. Its conservation policy is oriented in particular to problems in Germany and Europe, with interregional key projects.

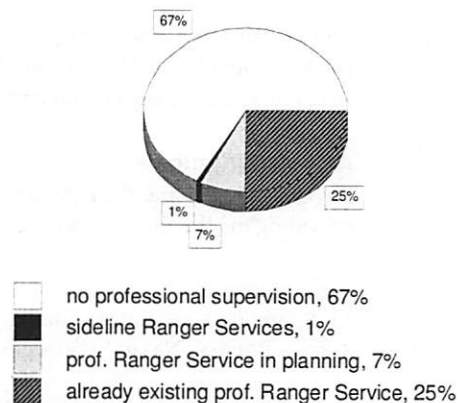
In this respect, the WWF-Germany Environmental Foundation views other like-minded conservationist associations and state agencies as partners in the assumption of common tasks, and endeavors to promote close cooperation in solving present problems.

Definition of the Problem

Currently there are 11 national parks (a 12th, the Lower Oder Valley National Park, should be finally assured at the end of this year), 12 biosphere reserves and some 80 natural parks in Germany.

For years, WWF and other associations have been demanding that the politicians responsible establish a professional ranger service. At present a professional "ranger service" exists in only a few protected areas (Figure 1).

Figure 1. Situation of the Ranger Service in the Major Protected Areas in the FRG (106 Major Protected Areas)

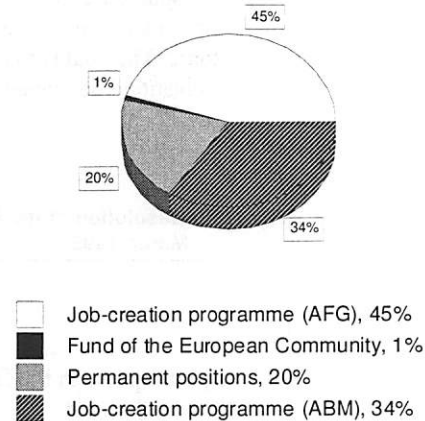


Another problem is that only 20 percent of 472 rangers in Germany have permanent positions. The others are paid by the help of job-creation programmes (Figure 2). Most of the job-creation programmes will finish in 1996. A federal recognition of the park ranger as a distinct further training occupation is lacking. In order to achieve this goal, the project entitled "Development of an Occupational Profile including further training, for a professional Ranger Service in the Major Protected Areas of the Federal Republic of Germany" was established.

The results of Phase I (April 1994 through September 1995):

1. A "Project Supervising Working Group" was established.
 - ✓ Cooperation partners ranging from ministries and conservation groups to conservation academies.
 - ✓ So far, three working group meetings have taken place. The participants in the working group were informed regularly of the project's progress, or in some cases, were themselves involved actively in the tasks.

Figure 2. Source of financial support for the Ranger Service in Germany



2. A regulation regarding the exam for the recognized degree of "Certified Ranger."
 - ✓ The text was drafted after the direction of the Federal Institute for Occupational Training (BIBB).
 - ✓ Initiation of a procedure for the recognition of the further training occupation of "Certified Park Ranger."
3. A lesson plan for the further training course was developed.
 - ✓ Three training institutions in Germany prepared for implementation of the further education course in 1996.
4. Results of a poll on the situation of the ranger services in Germany.
 - ✓ A 40-page questionnaire was developed in order to get a grasp on the existing status regarding the situation of the ranger services in Germany. The questionnaire was sent to all national parks and biosphere reserves, and to 12 selected natural parks.
 - ✓ The results were statistically evaluated, and are currently being compiled for future publication.
5. The Study "What Value Does the Occupation of Ranger Have?"
 - ✓ In order to underscore the importance of the Ranger Service for the preservation of protected areas, a study was concentrated to the IST — Society for Applied Social Sciences and Statistics, Berlin/Heidelberg in spring 1995.
 - ✓ Specific topics of the investigation included the discernible utility in regard to the input effort required for a ranger, and extent to which visitors would be prepared to pay a contribution for the maintenance of a protected area and/or for the support of a Ranger Service.
 - ✓ The question of how to create positions for a Ranger Service over the long term was to be examined.
6. The first Nationwide Meeting of the Ranger Service in Germany, March 1995.
 - ✓ The invitation of the WWF Environmental Foundation, Conservation Station East, and the Schorfheide — Chorin Biosphere Reserve received an overwhelming response. More than 120 members of the Ranger Service from all over Germany took part.
 - ✓ The participants in the first Ranger Service meeting have resolved a resolution (Figure 3, next page).

Projected Activities during Project Phase II (October 1995 through March 1997):

1. Preparation of uniform federal course material.
2. Testing of the training course at three training institutions in Germany.
3. Evaluation and training.
4. Recognition of the further training occupation "Certified Ranger" at the federal and/or state levels.

5. Integration of the volunteer conservation sector;
6. Second nationwide meeting of Ranger Service staff in the Thuringian Rhön Mountains Biosphere Reserve;
7. Presentation of the results to the public through a series of press conference and press tours. The goal is to conduct targeted lobbying in order to persuade the state ministries to institute permanent positions for rangers. ☺

Figure 3. Resolution of the First Nationwide Meeting of the Ranger Service in Germany, March 1995

Resolution

The participants in the first National Ranger Service Meeting have resolved the following demands:

1. The management of the protected areas is a sovereign task of the government. It must be incorporated as a requirement into the federal and state natural conservation legislation.
2. For this purpose, permanent staff members must be employed at the natural conservation agencies. Positions financed by third parties must be transformed into permanent positions. Structures which have proven themselves, such as the activities of associations, are to be integrated and encouraged. The number of management personnel must be determined by the natural-spatial conditions and by the number of visitors. The exact figures are to be determined by the protected areas/administrations,
3. A nationwide regulation for further training and an examination directive in accordance with the Occupational Training Law must be promulgated. The states are called upon to implement the appropriate qualification measures.
4. For the successful management of protected areas, the assignment of sovereign powers to the staff under the Conservations Laws are indispensable. These should include:
 - ✓ the power to require identification;
 - ✓ the power to exercise immediate force;
 - ✓ the power to require persons to depart;
 - ✓ the power of search and seizure of appropriated protected plants and animals;
 - ✓ the power of entry (protected areas and private property).

In order to support Points 1 through 4 of this resolution, the creation of a "federal Rangers' Association" is supported.

Due to the great interest in the meeting, it was determined that the WWF Environmental Foundation should organize a follow-up meeting for 1996.

Martina Fleckenstein
 WWF Environmental Foundation Germany
 Director, Conservation Station East

The African Ranger

Who is the African ranger? What does he do? How does he manage his area? How well is he trained? As far as the Game Rangers Association is concerned, a man or woman who has spent five years *in the field* and has performed an acceptable variety of duties qualifies as a ranger. A ranger can be the officer in charge of a national park or game reserve. He can be running a section, or can be the so-called anti-poaching game scout.

A ranger is responsible for the management of a park or area and in so doing will carry varying degrees of responsibility, including, often, the control and supervision of sometimes large numbers of staff, who might be laborers, camp staff, mechanics, builders, research scientists, administrative staff, and so on. The ranger in charge of a park is much like the captain of a ship. Everything that happens within his area of control is his responsibility and his concern.

Generally speaking, head office — the big brass not far short of outer space — are responsible for matters of principle and efficient overall administration of all the parks or areas the organization is responsible and accountable for.

Where Do We Come From?

Sometimes highly educated — even wealthy, sophisticated, idealistic dreamers. More often than not, from very poor backgrounds — just ordinary tribesmen, ex-poachers, ex-farmers, ex-soldiers, ex-clerks, etc.

We have something in common. We love this vast, vibrant, tempestuous, and often violent continent of ours. Most would die for it. Some do.

What Do We Do?

We touch on, more or less, the whole spectrum of conservation activities. Some of us do very little, if anything, constructive. Some of us are misdirected or not directed at all. Some of us do not even know if our mother organization still exists, as in Mozambique. We have not been paid for years. But we keep working, if we have not been intimidated or killed.

Some of us are corrupt, often because we have been intimidated, or not paid a living salary, or any salary at all. These individuals have contributed to a frightening degree to the destruction of Africa's wildlife heritage.

But worse are some of those in positions of power. Those who control us, often politicians. A few have set an unenviable standard in the calculated destruction of Africa's greatest asset for their personal profit.

I am afraid these things need to be said.

But then there is the vast majority of us. I believe that amongst us are the finest and most dedicated conservationists on earth, although in many areas we are still losing the war. We do what needs to be done, and more often than not we do it well.

The field ranger or section ranger is probably the most important of all of us. He is the man on the ground, on his two feet. He does the job. His primary task is to ensure the territorial integrity of the area he is responsible for. If he fails in this alone, all of our management objectives — including eco-tourism and all the fine ideas of the numerous NGO's and the plans of the big brass at the head office — are not worth the paper they are written on.

The Ranger (Himself)

Rangers enjoy the icy winds, the treacherous slopes, the exhaustion of the mountains. And their beauty. They are close to God up there.

And the forests — dank, foetal, unrevealing. Not easy country to work in. They taste the dust, swat the flies, curse the mosquitoes and the heat and the thirst, the ruthlessness of the land, this often hostile environment.

They know the fear of the crashing buffalo bull, the irate lion, the lurking danger where the eye can not see. The fear of unfriendly bullets — and death. They know the hard ground to sleep on,

and the endless patrols, day and night. And they love the wonder of it all — this land of deserts, savannas, bush, mountains, forests, white beaches and coral reefs. Probably the earth's ultimate ecological paradise, or what's left of it. They know, too, the joy of winning a few battles, and the frustration and despair of losing so many more.

As I said, in Africa the primary task of a ranger is to ensure the territorial integrity of his area of responsibility. This means to make sure the area is secure in order to carry out the necessary management activities. Obviously, anti-poaching activities, prevention of illegal squatting, and similar issues must take priority. It's a fact that well-armed poachers and rangers are involved in open warfare in many parts of Africa. The stakes are high and people are dying. We are still losing or have lost the rhino and elephant war in most parts of Africa.

The Work

Depending on the sophistication of the organization he works for, the ranger will to a greater or lesser degree be involved in all or many of the other management activities in his area, obviously in conjunction with the specialized staff and labor. These include:

- ✓ **Halting soil erosion** — Over-utilized or eroded land is reclaimed using numerous methods, including rock packs, gabions, and scrub cut and laid on bare earth to encourage soil stabilization and the collection of seeds and to prevent excessive water runoff. Over-utilization of the habitat because of overpopulation of certain species is often a cause of erosion.
- ✓ **Exotic/alien plant control** — The removal of all invading alien plants from our conservation areas using methods ranging from physically cutting and burning to the use of specific chemicals, an on-going task in many areas. Often a very expensive process and less and less affordable even by the so-called wealthy parks departments.
- ✓ **Monitoring of game and plant species and assistance to research projects or scientists** — This varies from keeping an inventory of every single animal of certain rare species in an area, such as black rhino, to recording marked animals, tracing them with radio collars, general game counts from ground and air, monitoring lion populations using the bait and call-up method (tapes and hi-fi). Monitoring of veld conditions and changes.
- ✓ **Game capture** — This includes ground drives into plastic bomas on foot or using a vehicle, or, more commonly in southern Africa, helicopters, and the capture of individual animals by hand or darting, such as elephants and black and white rhinos. Something like 4,000 white rhino alone have been caught in Umfolozi game reserve and sent all over the world. Other species can number in the thousands per year. Many caught animals are held over in game pens or bomas for varying periods of time, often to condition them for transport or awaiting auction. Most are immediately transported by specially built-up vehicles for distances of up to several thousand kilometers. The Republic of South Africa leads the world in game capture of all species, and this has largely replaced culling.
- ✓ **Culling** — This management tool is used less and less these days, but sometimes excessive populations of certain species still need to be shot by staff. In some game reserves, the number in the past has been as high as 6,000 to 8,000 per year, including wildebeest, warthog, impala, and zebra. Drugs such as scoline are also used to put animals down; they are then given a lethal bullet. Examples include elephants, lions and buffalos, when their numbers become excessive. Elephants and buffalos are darted from helicopters, then shot in the head. Lions are normally called up by using tapes and bait, then darted and shot.
- ✓ **Problem animal control** — These are animals, usually dangerous, such as buffalos, lions, hyenas or elephants that may have left the park, and/or have become extremely dangerous for one reason or another. These are normally shot. Since the animals are often in a state of extreme aggression to start with, the job can be dangerous and requires a high level of expertise. When possible, carcasses baited with drugs are used, but this is not usually successful under these conditions.
- ✓ **Fire breaks and planned burns** — A 50 to 100 meter or wider strip is cut and burnt around the boundaries of many parks, as are internal fire breaks. In larger parks, these can amount to many thousands of kilometers or miles. These expensive firebreaks are put there to prevent unwanted fires from spreading out of control and to facilitate our planned

burning programs. The section rangers is often responsible for these tasks. In areas where management tends to be sophisticated, fire is a major and successful management tool. One must remember that the savannas and woodlands of Africa are essentially fire-created and maintained habitats.

- ✓ **Fences** — In southern Africa in particular, but often in other states where population pressures exist and finances permit, parks are fenced. In many situations, these fences are designed to keep in animals, such as elephants, rhinos, lions and hyenas. They might be as high as two-and-a-half meters, and be comprised of heavy gauge square netting with two or three heavy cables and electricity, or one or the other of these. They also define park boundaries and inhibit the movements of poachers and potential squatters. Rangers are ultimately responsible for the erection and maintenance of these fences, which can be hundreds and sometimes thousands of kilometers long. They are not cheap.
- ✓ **Neighbor relations** — This highly complex and important aspect of our work is often carried out by staff or persons specifically trained in this field. In Africa, where such a large percentage of the population is comprised of subsistence farmers, or where increasing populations require more land, you find people who are not inclined to be great conservationists. They see unlimited meat, firewood, thatch and land inside the park. They sometimes have their fields destroyed by wild animals, or their cattle and goats eaten by lions and leopards and hyenas, or even their hut roofs ripped off by elephants looking for grain, their off season food reserves. Rangers working in our parks have a responsibility to help these people and to try and change their attitudes whenever other work pressures allow. All over Africa, many excellent projects are underway to show these people how conservation and eco-tourism can be to their financial advantage. Wherever possible, the collection of thatch, timber and sometimes medicinal plants is allowed under control in the parks. And, of course, excess meat from any culling provides them with a source of protein. Many parks allocate a percentage of their revenue to neighbors. Where there are wild animals outside park boundaries, the revenue from controlled hunting and eco-tourism goes to the local people. Somewhere along the line, the ranger can and must be involved.
- ✓ **Zone officers or extension rangers** — Some of the major conservation bodies have a system of zone or extension officers (as it is known in Kwazulu-Natal). This ranger does not work inside a park at all, but is allocated an area of responsibility which could include farmlands and towns and in which all matters which could have a conservation implication are his concern. This includes public relations, conservation education, anti-poaching on private land, illegal traffic in protected ivory, rhino horn, birds, advice to those who want it, cooperation and advice to NGO's, the public, farmers, and so on. In South Africa, a specialized branch of these people are coastal fish officers whose specific task is to ensure the protection and wise use of the resources of the coast line. The control of illegal activities is a major and difficult part of their work. Large areas of coast have been declared national parks, but these fall under the control of so-called park rangers.
- ✓ **Practical matters** — Buildings, vehicles, pumps, windmills and the like — we put them up, we fix them, we maintain them. One of the most important abilities of a good ranger is to be practical. In most parts of Africa, civilization is more often than not very far away, both in distance and time. If the ranger is not capable of performing these tasks to some degree, he is in trouble. So is his park. Unfortunately, not enough emphasis is placed on this in training programs or in the selection of staff, and fewer and fewer modern rangers are sufficiently versatile. I have seen a large section of a park ranger force totally incapable of performing their tasks for weeks, as the vehicles had broken down (none seriously) and not one man was capable of fixing them. They waited for a month, doing nothing, until a mechanic came from headquarters to fix the vehicles. This is unacceptable.
- ✓ **Wilderness trails, day walks, game drives** — These are all visitor or tourist oriented, and should be designed to give the park visitor a conservation and wildlife "experience." Wilderness trails are probably the ultimate "bush" experience in Africa. They involve walking, camping, and living in the bush with rangers, and vary in primitiveness from backpacking to a fair amount of comfort. The National Parks Board and Natal Parks Board are well known throughout the world for their trails. In both bodies, the leading of wilderness trails is an essential part of a ranger's bush experience. Generally speaking, rangers in Africa, as the Game Rangers Association of Africa defines the term and who

work in parks, and excepting wilderness trails officers, do *not* include dealing with visitors or tourists as a major part of their day-to-day responsibilities. They are certainly responsible for visitor facilities, but otherwise their task is or should be left to specialists, such as field guides, those involved in education, camp managers, or those rangers specifically delegated to work with neighbors and kindred tasks. We are a part of the management team. In the final analysis, the most important part.

- ✓ **Conservation education** — If we fail in this in Africa, then there is no hope for the future. To those rangers who have forsaken the magic of the bush for this thankless task, I can only say a heavy burden rests on their shoulders and wish them well.
- ✓ **Administration** — The bigger the organization, usually the more bureaucratic they become. Those in the positions of power have often themselves not worked at the coal face or have forgotten what it is all about. Fortunately, there are still one or two with the right background. More and more bureaucrats find more and more reasons for rangers to spend more and more of their time at their desks using a pen — while out there in the bush, Africa is dying. Some appear not even to care. Many new rangers coming into middle management positions know no better or do not want to know any better. Many are forgetting about what a ranger's work and responsibilities are all about. I personally seem to have carried on a protracted war with bureaucracy since I became a ranger. Some battles you lose, some you win. Nevertheless, good and sensible administration remains a major function of rangers involved in general park management. And this includes good man management as a priority in a continent of many cultures. Bad man management has been one of our major causes of failure to meet objectives. In this field, we receive no training to speak of.
- ✓ **Training** — Like most things in Africa, it varies from some of the finest in the world to virtually non-existent. It usually depends on the sophistication and finances available to the conservation body concerned. In many parts of Africa, lack of adequate training is a cause for grave concern.
- ✓ **Research** — This is a large and important component of conservation activities in Africa, especially in the more sophisticated organizations. Most of it is funded by international bodies. Because of the huge variety of game animals and habitats, good research is essential for efficient management. We are acquiring much excellent information, but scientists are not gods and they make mistakes. We cannot afford to ignore the incredible knowledge we have gained through many years in our profession, provided we did not sit at a desk or in a vehicle most of the time.
- ✓ **Environmental education and assistance program** — Another specialized group of people are environmental officers. They do nothing else but work with the public, whether it be environmental education or on self-assistance programs. Some conservation bodies actively assist local communities on various projects, such as putting in running water, building community facilities, or making money from various projects involving wildlife or products from wildlife. Hopefully to the benefit of conservation. These people have a thankless task. A heavy burden rests on their shoulders. If they fail in teaching people the real value of conservation, there is no hope for Africa.
- ✓ **Anti-poaching operations** — If we fail in securing boundaries of our formal conservation areas, or if we fail in adequately protecting the fauna and flora within those boundaries, then let us not talk of eco-tourism, research projects, veld reclamation projects, or any other activity that is conservation-oriented. All else is irrelevant. Poaching is destroying Africa's wildlife at an accelerating rate in many areas as populations increase. Environmental education and persuading people that they can benefit from wildlife are the obvious priorities. But in the meantime, we can only combat it reactively in the bush, adapting our systems and tactics as poachers become more sophisticated, more professional, and more ruthless. And people will die, including rangers. Anti-poaching operations are a complicated and interesting subject in themselves, but there's not time for more detail here.



Delegates listen to a presentation by IRF Chairman Gordon Miller during the Congress.

Our Strengths and Our Failings

Rangers in Africa have their strengths. In a highly complex environment, some of our conservation bodies have developed systems of wildlife management probably unequalled and certainly not excelled anywhere in the world. We are learning from our mistakes. And there's an incredible reservoir of conservation management expertise in various parts of Africa, especially in the south, which is available for the benefit of the rest of the continent - if those who need it will use it, and the money can be found to pay for it.

We also have our failings:

- ✓ Lack of good training in many areas.
- ✓ Inadequate finances to carry out our tasks.
- ✓ Low salaries.
- ✓ Bad leadership in some instances, then low motivation.
- ✓ Soul-destroying bureaucracy. Often, rangers achieve wonders, not because of the conservation bodies they work for, but despite them.
- ✓ Territoriality. We do not communicate and cooperate sufficiently with each other.
- ✓ Corruption in some places, sometimes through intimidation, sometimes from sheer greed.

The Game Rangers Association

We consider ourselves an elite organization that has within its ranks some of the finest and most knowledgeable rangers in Africa, with the potential to significantly improve the chances of winning the conservation struggle, the outcome of which at present looks very bleak, if only this expertise is utilized.

We have three goals for the future:

- ✓ The GRA must further expand its membership throughout Africa if we are to achieve our objectives.
- ✓ Projects already identified as essential for the future of the game ranger in Africa and the profession must be implemented as soon as finances permit.
- ✓ The GRA must more actively seek sufficient finances to achieve its objectives.



Allan Fox
Principal, Allan Fox &
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Relating Indigenous and Local Peoples with Protected Areas

This paper deals with my experiences in working with the first people of Australia, native Australians, the Aborigines, now believed to have been in occupation for over 60,000 years — we Europeans, the new Australians, barely 200 years. It has taken almost that 200 years to lose a blindness imposed upon us by our own European history and culture.

The first and most difficult lesson to learn before we could successfully involve indigenous Australians in the planning and management of protected areas was to recognise the cultural differences and values of an Aboriginality developed and trialed for that vast period of continuous relationship with this southern isolated continent. That is where we must begin.

Two hundred years after our coming to Australia we have just begun to scratch the surface of aboriginal knowledge won during 60,000 or more years of rigorous testing. Australia was a land convalescing during the past 14,000 years, following a period of horrendous aridity, when we arrived with our European baggage filled with set ideas as foreign to the Aboriginal, the land and its wildlife as the sheep and rabbit were to Australia. On the one hand was a society that knew no kind of central government but which, in the spirit of consensus, had evolved a mass of rules for living together on fixed spaces of land for which they were responsible to the higher authority of their ancestors. There were no fences dividing the land for there was no ownership as we know it. Accumulation of physical possessions had no role — ideas and the experience of living were the prized possessions which were shared as community members became ready to receive them.

These relationships are so different from the European anthropocentric view of the world that it is difficult to adequately describe the philosophy of Aboriginal life and living in the English language.

The question in 1995 is how do we empower what remains of the Aboriginal people and their vast experience, for those people to cultivate *our* receptivity for the achievement of the common goal — the effective management of nature sustain us all.

What follows is a description of one of two projects which in a variety of ways have related the indigenous Aborigines to protected areas and have had a very positive effect on the indigenous neighbouring communities. This project was the establishment of an Aboriginal ranger training program in Kakadu National Park.

Kakadu NP was born with Aboriginal involvement written into the contract. This involved the employment of Aboriginal cultural advisers, the introduction of an Aboriginal Ranger Training Program, and generally both formal and informal consultation with traditional owners.

The most important factors in establishing the program were the following:

- ✓ Selection of training and senior officers with Aboriginal teaching experience, as well as wildlife management, park planning and other park skills.
- ✓ Full financing. This program being Australia's first serious attempt to develop an Aboriginal ranger service, it did not lack essential finance. The federal government's credibility was at stake.
- ✓ A setting which was central to major samples of all the habitats, wildlife, physical features and Aboriginal cultural areas, and was located near a wildlife ranger and his family and not too far from visitor areas.

Six men were selected for the first group (later programs were an even mix of men and women). All were selected through an extensive, prolonged and cooperative effort with clan elders. One eventually left, leaving five trainees.

Editor's note: Due to the length of Dr. Fox's paper, only key excerpts are reproduced here. For further information, contact Dr. Fox at Environmental and Interpretive Consultants, RMB 2049, 35 Beaumont Crescent, The Ridgeway, Queanbeyan, NSW 2620, Australia.

The course subject matter covered the needs of isolated and self-directed ranger work in the field and the requirements of the central office linkage. Subjects were structured with the management planning process in mind. Integration of knowledge and step by step development of concepts were basic as was the field relationships of all work. Major topics included:

- ✓ planning processes;
- ✓ operational activity;
- ✓ the public and the problem of their management;
- ✓ communication and interpretation methods;
- ✓ bush skills and wildlife/environmental survey;
- ✓ the maintenance and use of essential equipment (vehicles, motors, boats, chain saws, tractors, radios, survey gear);
- ✓ personal and visitor safety;
- ✓ language skills on an individual requirement basis;
- ✓ the philosophy of conservation and national park management;
- ✓ linking Aboriginal and European cultures;
- ✓ management of art sites and cultural areas; and
- ✓ law as it applies to the park and its visitors.

The teaching method was based on a fusion of Aboriginal and European teaching methods. The success of the policy of using the rich knowledge of the environment as a base was borne out by the rapid way in which the elders were able to become essential "Aboriginal teaching aides." On the other hand, the brief encounters of inexperienced (from the Aboriginal point of view) European teachers were disastrous.

The quite different directions from which the cultures approach education became clear on one occasion when a visiting training officer was teaching how to derive reference numbers for places on the map. Here a new map, highly detailed, was presented to five trainees. Within seconds they were talking about this rock here, the stand of bloodwoods there and the fish in that lagoon. They had brought their remarkable spatial perceptive skills to bear on the map.

A reference for one location was demonstrated. No responses appeared on student faces. She repeated the process; still no response. She referenced another spot; a faint response was visible.

"Ah," she said, "at last you begin to understand!"

The students showed utter distaste. One responded, "You think we are bloody dumb!"

"Not really," she said.

"We got it the first time."

"But you showed nothing on your face, no smile, no nod!" she came back.

"Do you know the trouble with you white fellas, you balanda? You want rewards every time you succeed in doing anything. We learn because to learn is to live. Why should we nod or smile when we learn something? We'd be doing it all our lives. Anyway, if any of us hadn't picked it up now, (the other instructors) would have shown us how."

As teachers of Europeans, we continuously give and receive responses for what the student called rewards. We are fostered on rewards almost from our first breath. Rewards are usually equated with possessions, and so one of the great cultural differences from the Aboriginal culture is born — the hoarding of wealth, of possessions.

We learned as much if not more than the Aboriginal trainees from our experiences in training.

One of the great problem areas was the concept of a "national park." The observation of experiences and demonstrations are key learning experiences. So, on several occasions we packed our bags and headed interstate to learn from the long experience of others. At Royal National Park, the world's first, they observed how a tiny area of 20,000 hectares, the size of one of Kakadu's outlying hills, could cope with four million visitors a year. At Kosciusko National Park, they spent a week with old rangers watching and helping to groom ski slopes, to survey wildlife and to counter erosion.

These people already knew how to smell the bush, how to see the day old movements of animals, to be part of country. What interested them most was to see how the balanda struggled so hard to

fit in and to preserve, almost to stop changes happening to systems which are ever-changing. What they feared most was to see how much of Aboriginal Australia had been packaged with wires of steel, cut up, bought and sold. The course gave them a perspective on the land hunger of just six generations of Europeans and the purpose of protected areas. This was a vital understanding.

(The) program ushered in a new movement, which has had and is having far reaching effects because the program is tied tightly to the idea that many protected areas can best be managed jointly as Aboriginal land and national parks. A bright status has been given to Aboriginal environmental know-how and intuition gained over 3,000 generations, a status which will benefit us all.

Three groups of trainees graduated over five years. While some sophistication of the program occurred with the rapid growth in staffing and infrastructure of the new park, the original pattern remained more or less intact. Following each graduation, the training officer was slotted into general park education programs for a year, during which time he provided support in the very difficult period of grafting the new rangers into a very European, or American if you like, park structure. Here they took their place beside rangers who had received their training in a faraway university and domestic park.

Evaluation as part of the training program process was never part of the structure, and therefore, one of its greatest deficiencies. This was probably avoidance behaviour on the part of the Park Service because no one had really much idea of the ultimate role of the Aboriginal rangers in the park management process. So let us briefly try to evaluate.

Several problems occurred during and after the program. Among these were:

- ✓ The location of an effective training officer.
- ✓ Acclimatizing the trainees to a completely different lifestyle.
- ✓ Establishing jointly the rules for the program.
- ✓ Getting clear guidance from park managers of their expectations of the program.
- ✓ Establishing a program with enough flexibility to maintain Aboriginal living patterns, which have their own special responsibilities (e.g. ceremonial life.)
- ✓ Achieving and maintaining the confidence of elders, national leaders and park people with disparate expectations.
- ✓ Politicisation of the program.
- ✓ The incredibly long hours and demands on the training officer's time.
- ✓ The Aborigines never really got to understand the constraints on the Park Service — and many still don't.
- ✓ No bottom line was set by the program or the Service as to work-time responsibilities, which became a source of friction between Aboriginal and European staff.
- ✓ The white rangers never received anything like the same training targeted on Kakadu's indigenous people.
- ✓ Aboriginal trainees had special problems that were never aired until the problems were out of control.
- ✓ Some trainees' expectations of advancement because of their highly specialised knowledge were not met by the Park Service. Because of overriding Public Service structures it was difficult to equate their experience with university-qualified rangers.

But there were also positive values to the program:

- ✓ Five new rangers with a rich cultural and ecological background were available to the park for management, staff training and interpretative guide functions.
- ✓ One partially trained guide returned to his bush community to utilise his training there (this may be the best ultimate value of all.)
- ✓ Confidence and respect for traditional people and communities inside and outside of the park was won.
- ✓ There was great public relations value throughout Australia, and an awareness of the importance of Aboriginality was reinforced in the "public" mind.
- ✓ We and the park staff acquired a vast pool of knowledge of ecosystem dynamics, climate, wildlife, and Aboriginal culture necessary for management of an area of the greatest value. This is now a world-class reference area with the oldest cultural sites in Australia.

Three programs were run over five years, showing clearly the need for continuous programs, the very successful incorporation of women into the programs and the need for extending the work. At the end of the period the training officer took leave and no comparable officer has been located to carry on.

The training program has degenerated into an on-the-job training program with special in-service intensive periods. In the words of a senior aboriginal adviser, "We are not now moving in the right direction; the personal, caring touch has been lost."

It has been observed that "mediocrity is setting in." Perhaps this is a symptom of a larger problem the park system has in managing too few parks with little scope for inter-park movement of people and ideas.

But what is needed more than ever is some real program evaluation of the whole park management process before the lead set in those earlier days is lost. The area and its culture are too valuable to be treated in anything less than a superlative way. ☹

Rick Mossman
Glacier Bay National Park
National Park Service
United States

Subsistence Use in the National Parks of Alaska

A paradox in the mission statement of the U. S. National Park Service. We are required to both conserve resources and provide for the enjoyment of the people. The fundamental principle in natural areas is that no hunting should take place in national parks. Yet that is what we have in Alaska, because of some unique circumstances in the state.

Alaska is a popular hunting area with a tradition of sport and subsistence hunting. Much of the land belongs to the federal government and is occupied by Native Americans (indigenous peoples who have lived in the area for thousands of years). In the 1970s, the federal government began efforts to resolve land use and ownership issues. This initiative resulted in the creation of a number of new national parks and the resolution of Native American land claims.

These two actions provoked an passionate discussion about the future status of game hunting, commercial fishing and subsistence hunting in the new national parks. No consensus could be reached. In the end, Alaska was treated by Congress as a special case, and a bill was passed which permitting sport hunting and other non-traditional utilizations of the parks. The law permitted the continuation of mining in the parks, although no new mines were permitted. It authorized the continuation of commercial salmon fishing. And it allowed the continuation of subsistence hunting, which, in this case, includes both trapping and the harvesting of berries, trees, and grass.

Subsistence hunting is practiced by both Native Americans and rural people who have traditionally "lived off the land," and is open to native and rural people who lived within a declared area around each park. Subsistence hunters from outside such areas can apply for a permit to continue subsistence hunting in a particular park. Illegal trophy hunters abusing this arrangement are controlled by a ban on removal of trophies from parks. Sport hunting is

permitted only in specifically zoned preserve areas, while subsistence hunting is permitted throughout the parks.

Several related issues came up in the discussion following the presentation:

- ✓ Traditional native transport and hunting methods have been lost, but there is much support for the position that subsistence hunting should be done by traditional means. There are no controls on methods except for a prohibition on the use of aircraft. The all-terrain vehicles that sport hunters use are something of a problem.
- ✓ Subsistence hunting permits are free, but sports hunting licenses must be purchased.
- ✓ The U. S. Endangered Species Act and Protection of Marine Mammals Act apply in the parks, based on CITES (Convention on International Trade in Endangered Species) requirements regarding protection, trade, and so forth. Certain species protected by the acts may be taken by subsistence hunters (Native Americans only), such as whales, but no CITES-listed species may be hunted.
- ✓ Aboriginal people in Australia use guns, vehicles, boats, bikes and other modern means in traditional hunting. This has created a controversial situation. There's no monitoring of the take, nor any applied research. A permit containing controls and conditions should be utilized.
- ✓ Hunting in Alaskan parks is sustainable. Research is constantly being conducted, and monitoring programs are in place to gauge the degree of take and the impact of the hunting. Prohibitions for certain species may be (and are) imposed on subsistence and sport hunters when necessary.
- ✓ A certain amount of illegal guiding occurs in Alaskan parks, and poaching is a problem. ©

Daniel Onsembe
Kenya Wildlife Service

Rangers in Kenya

Introduction

I work with the Kenya Wildlife Service as a warden in charge of a district (Kakamega) in Kenya. The Kenya government supports the conservation of its natural resources, and at independence in 1963, made this statement:

"The natural resources of this country, its wildlife which offers such an attraction to visitors from all over the world, the beautiful places in which these animals live, the mighty forests which guard the water catchment areas so vital to the survival of man and beast are the priceless heritage for the future.

"The government of Kenya fully realizes the value of its natural resources, pledges itself to conserve them for posterity with all the means at its disposal."

Kenya covers an area of 582,646 km² and has a population of 26 million people. We have 26 national parks and 29 national reserves. The area of the national parks is 29,100.9 km² and the area of the National Reserves is 5,401.4 km². Percentage of total area occupied by national parks and reserves is 7.6 percent. The tourism industry is our major foreign exchange earner. We also have a wonderful coastline with a good number of tourist hotels.

The number of visitors who visited our national parks and reserves in the last five years were: 1990 — 1,399,333; 1991 — 1,388,910; 1992 — 1,389,010; 1993 — 962,104; 1994 — 1,261,755. From these figures you can see the crucial role of tourism plays in our national economy.

Other challenges to contend with are regional competition, promotional blackout (negative publicity), rapid population growth, poverty, lack of well-trained personnel, political willingness, unstable neighboring countries and natural calamities.

Federation

As a federation we need to have a mission statement to guide us in the direction we shall take.

Federation Mission Coinage

We hold in trust, and are charged with the responsibility of taking care of the inestimable natural resources of this world which are of economic, socio-cultural and aesthetic value, for the present and future generations. To fulfill this mission we need to develop the requisite human resources and seek the support and participation of the people of this world.

Human resource is one of the most important assets in any organization, as such it needs to be developed carefully in order to achieve the organization's objectives. Proper training is the word.

Human Resources

In our ever changing world each organization that is looking ahead must be thinking of developing the human resources. This is a focus that must now address our results in light of the current resource limitations. *Each organization must aim at sustainability, growth and excellence.*

As a body responsible for sustainable management of wildlife, historical and cultural resources we should be obliged to uphold those ethics that makes it possible for mankind to live gainfully on earth. I do not want to pretend that we can set ourselves up as examples to the rest of mankind, far from it. If there are lessons to be learned from our experience as resource managers they are to be drawn as much from our mistakes and failures as from our successes.

It is important to draw up management policies which reflect the socio-economic benefits and environmental considerations. The policies should be:

- ✓ Clear
- ✓ Implementable
- ✓ User friendly
- ✓ Sustainable and beneficial
- ✓ Geared towards proper institutional building and training
- ✓ Involve local communities in management

Rangers' Work

What is the role of a ranger on a protected area? It includes educator, researcher, community mobilizer (social worker), law enforcer, politician, accountant, personnel manager, public administrator, naturalist, constructor, driver/pilot, receptionist, trainer, monitor, evaluator, businessman, liaison officer, planner, surveyor (simple), camper, wild animal capture and care of specialist, licensing officer and more.

Rangers require some special training in order to carry out their work effectively.

The rate at which natural ecosystems are being destroyed is very worrying such that even if the most wild animals are endangered, I consider a ranger as one of the most endangered animal species. A ranger is no longer a voice in the wilderness. We want him to be heard. We want his work to be recognized by the policy makers as crucial. We need to build a professional body of people of integrity.

To achieve this we need to be:

- ✓ Organized and well coordinated
- ✓ Disciplined
- ✓ Committed
- ✓ Adhere to standards and rules
- ✓ Well motivated
- ✓ Have adequate resources
- ✓ Well trained
- ✓ Talk with one voice

This kind of forum will strengthen the above objectives. For a long time the plight of the local communities around protected areas has been ignored and that is why some management policies are not working.

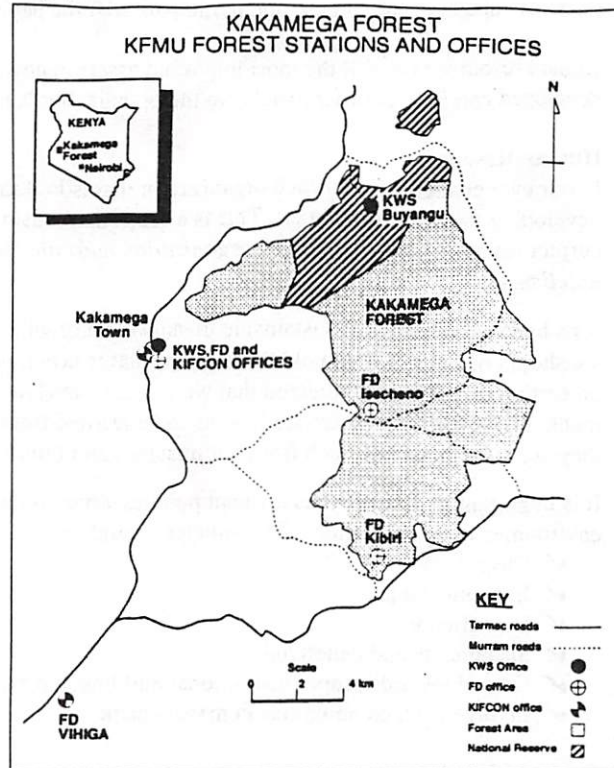
Forest Management in Kenya: A Case Study from Kakamega Forest

Prior to 1933, Kakamega Forest was managed by local clans living adjacent to it. In 1933 the forest was gazetted as a trustland forest with a total area of approximately 24,000 hectares managed by the local authority. In 1964, through a central government legal notice, it became a central government forest under the jurisdiction of the Forest Department. In 1985 about 4,500 hectares in the north of the forest was declared a national reserve under the jurisdiction of

Kenya Wildlife Service. In 1991 a MOU was signed between the Forest Department and Kenya Wildlife Service to manage the whole forest jointly. In 1991 a project funded by ODA (KIFCON) was started to enhance the protection of indigenous forests (Map 1).

This is a unique forest in Kenya which is of Guineo-Congolian type (tropical rainforest) which is quite rich in biological diversity. It contains quite a number of both endemic and threatened species. Temperature ranges from 16°C - 29°C and the average annual rainfall is about 2000 mm with an elevation of 1250 to 1500 m (asl). It is situated in the Western part of Kenya (Kakamega District). The population of Kakamega District is 1,005,879. The area of the District is 3020 sq. km with a density of 333 per km². (Source C.B-S-NRB).

Map 1.



When the forest was gazetted in 1933 certain local rights were granted to community living around the forest reserve. Principally these include rights to:

- ✓ Collect dead fallen wood (firewood) for domestic use
- ✓ Collect thatching grass for domestic house building
- ✓ Pick wild berries and fruits
- ✓ Cut and remove creepers for domestic buildings
- ✓ Place honey boxes and have access to them
- ✓ Take stock (except goats) for watering
- ✓ On payment of a fee, graze stock on glades
- ✓ Collect medicinal parts of the plants
- ✓ Collect vegetable plants

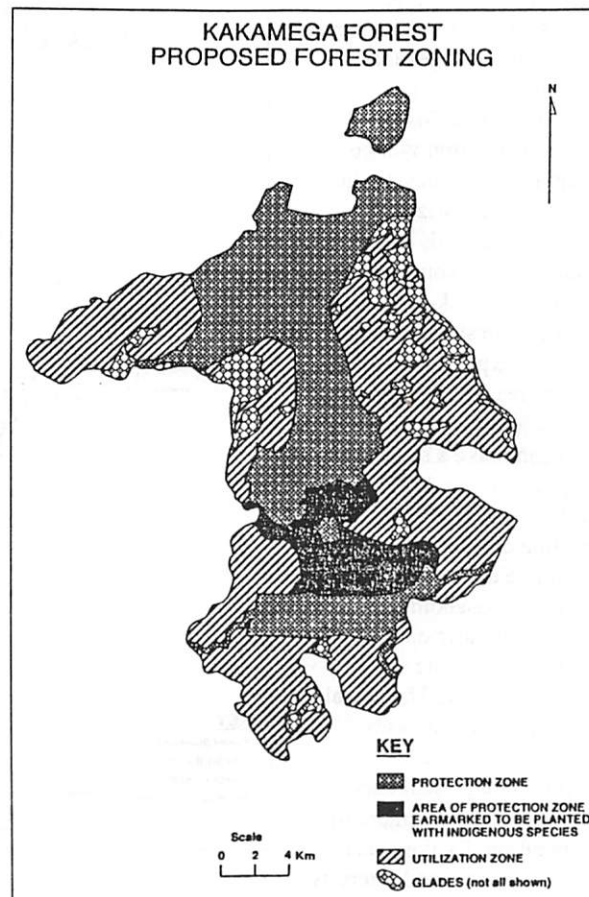
Most of the above activities are now illegal due to very high demand.

Current Situation

Due to rapid increase of population and unemployment crisis, there is a lot of pressure on the forest resources; hence the extraction is no longer sustainable. There is a lot of illegal activities going on, e.g., pitsawing, charcoal burning, encroachment, grazing, thatching grass extraction, collecting firewood, mineral prospecting, hunting, honey collection and uprooting of medicinal plants.

Another factor which has led to a loss of forest cover and forest land is the government initiated excisions for institutional development of settlement. In summary, despite establishment of plantations, Kakamega forest has been declining in both size and quality due to a number of inter-related political, managerial, and financial (declining recurrent and development expenditures) reasons since it was gazetted in 1933.

Map 2.



New Approaches Involving Villagers In Forest Management

Despite the above limitations, over the last 3½ years efforts have been made to arrest the continued destruction of the forest through a process of explicit dialogue with the 57 villages adjacent to the forest by consultation and liaison with the relevant GOK Departments. This work began in 1991 with the forest zoned into:

- ✓ Protection areas (indigenous)
 - ✓ Plantation areas
 - ✓ Community utilization areas for management purposes.
- (Map 2)

At the beginning of this period we met with several constraints:

- ✓ Conflicts between forest departments/Kenya Wildfire Service/communities
- ✓ Low moral and motivation among the staff
- ✓ Lack of any suitable institutional base to develop community participation in indigenous forest management
- ✓ Lack of knowledge on integrated forest management
- ✓ Critical financial situation facing local forest managers.

Kakamega Forest Management Unit

Through the project (KIFCON) a start was made to develop better cooperation between two key government departments (KD/KWS) by delegating work responsibilities to four technical teams. Together these teams formed the KFMU.

The aims of the KFMU were to:

- ✓ Involve villagers in forest management
- ✓ Promote income generating activities
- ✓ Promote on-farm activities (bee keeping, livestock improvement, horticulture and tree seedling production)
- ✓ Promote tourism in the forest
- ✓ Plantation development to meet local demand and ultimately achieve better conservation and management of the forest.

Village Negotiation

At the same time efforts began in the villages to establish an appropriate mechanism for community involvement in forest management.

Below is an outline of negotiation procedure/process (Map 3, next page):

Step 1. Orientation Visit. Visit the village, the chief, assistant chief, headman and other relevant local leaders to get their support.

Step 2. Select village representative and give first communication training skills. Village representatives are used as communicators to pass the project principles to the forest adjacent villages.

Map 3.

[illegible]

KEY

Forest Boundary
Villages Boundaries
Villages presently
Involved in the project

0 2 4 km

Explain project principles and function of VCG.

Step 20. Sign final forest agreement. Sign the agreement in a grand ceremony with the whole village and relevant officials present.

VR: Village Representative

Rural Development and Forest Management

Owing to policy bottlenecks, the above negotiation strategy was halted in 1993. From this date emphasis in the project switched to village-based pilot projects, which aim to lessen dependence on the forest for domestic or commercial reasons.

As a result, work during the last 18 months has focused on:

- ✓ Encouraging youth group activities for income generation
- ✓ On-farm beekeeping
- ✓ Organic farming methods and horticulture promotion
- ✓ On-farm tree nursery establishment and support
- ✓ Provision of community bulls (grade stock) to improve local livestock
- ✓ Introduction of energy saving jiko (stoves) to rural homes and nearby urban centers
- ✓ Training courses, workshops, and seminars based on village needs
- ✓ Development of educational materials in support of forest conservation (e.g., village information pack)

Lessons Learned from Kakamega Experience

Briefly our experience has shown that the following conditions need to exist for a project of this nature to succeed.

At the local level:

- ✓ There must be effective control of natural resource base through sound implementation of rules and regulations.
- ✓ There should be excellent coordination of project interventions and liaison between the project partners.
- ✓ Field supervision and follow up must be a priority for project officers.
- ✓ Project officers and local people must be prepared to learn together in seeking new ways to manage the indigenous forest (learning process).
- ✓ Each village may have different priorities and a different history, the project negotiation process therefore has to be flexible.
- ✓ Reasonable economic alternatives should be provided to peoples dependent on forest products.
- ✓ Forest managers must recognize that unless urban demands for forest products is reduced or met from other sources, forest degradation will continue.
- ✓ Communication of project principles should be a priority and should continue to be a priority throughout.
- ✓ Institutional linkages between villagers and forest managers should be explored and developed as early as possible to ensure peoples participation.

At the national level:

- ✓ Suitable institutional structures must be developed at the national level to support local institutional forms in order to allow effective indigenous forest conservation.

Conclusion

Without a change in policy environment for the forestry sector in Kenya, there is no possibility that projects which aim to involve local people more directly in the project negotiation and management process will succeed. Members of the local community are the key players in determining the destiny of the status of the forest, yet previously they were conspicuously ignored. ☹



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Rangers as Educators

As you can tell from the present company the ranger service in Scotland has become an influential and professional body of people. I have felt very privileged to watch it develop from the sidelines, and am specially grateful to have been allowed to join in this event which must be hailed as a triumph for ranger services around the world.

Naturally I have been most interested in the potential of rangers as environmental educators. The IUCN (World Conservation Union) Commission on Education and Communication also became interested in rangers during the lead-up to the World National Parks Congress in Caracas in 1992, where a preliminary inquiry was carried out. As you can see from the excellent account prepared for our congress by Duncan MacInnes and circulated with the meeting papers¹, education has been a particular concern of rangers in Scotland. IUCN interest was therefore strengthened when Ruth Grant described the work of Scottish rangers to the Commission's European Committees, meeting together in Slovenia in 1992².

In view of this interest the Scottish experience of rangers as educators is now presented to you as a case study, for comment and advice, with the thought that it might lead to an international guide, published perhaps jointly by IRF and IUCN-CEC. Your views about this, and your participation in assembling material for such a guide, will now be sought.

Environmental Education

Environmental education is an attempt to re-orientate education so that environmental competence is restored as one of its basic aims, along with personal and social competence. It is not just a subject of education but an expansion of its whole philosophy, recognizing our environment as continuous with ourselves and in need of the same care and understanding as we give to our personal and social health and well-being.

Environmental competence is reached through stages of awareness, of understanding (environmental literacy), of responsibility (involving the growth of value systems) and of the skills and commitment needed to bring these qualities to bear on practical action.

Environmental education is about the whole environment, natural, cultivated and constructed, physical, social, cultural and temporal (i.e. not just the 'green' environment). People learn about it from many sources — from formal and informal education and also from parents, friends, employers, the media, advertising, and from the public example of many around them who may not realize that they are educators at all. Environmental learning is a lifelong experience and none of the many influences can be disregarded. This was the approach adopted by Chapter 36 of Agenda 21, agreed at the Earth Summit in Rio de Janeiro in 1992³, and also by our own Scottish national strategy, *Learning for Life*⁴, which appeared in 1993 and has just been adopted as the basis for Scottish policy by the Secretary of State for Scotland⁵. Both documents identified rangers specifically as contributors to their aims.

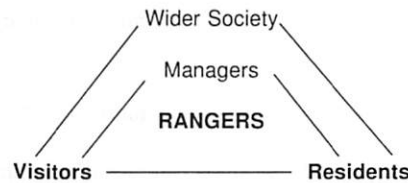
The Role of Rangers

What gives rangers their special strategic importance? To answer this we might think first about a protected area, the sort of place where rangers are most often employed. It could be anything from a national park, nature reserve, scenic area or heritage site, to a local park used largely for recreation. Whatever it is we can identify three important categories of people who are involved with it⁶. These are:

- ✓ the managers whose responsibility it is to protect and care for the site, and supervise its use;
- ✓ the visitors who come to it for study or pleasure, individually or in organized groups, not always by their own choice, not always known to the managers;

- ✓ the residents (assuming that they have not been moved out) who often have to bear the brunt of visitors, put up with restrictions on their own freedom, and tolerate infringement of their privacy.

Obviously each of these groups could be sub-divided according to particular work, interests or objectives, but for the present they can be treated as shown. All of them are parts of wider societies, from local to national, on which they depend. They all interact, as shown below:



The ranger is right in the middle of this system, in contact with everyone, a mediator, encourager or buffer as the case demands — a very strategic position.

A Learning Web

Groups in contact with each other, as these are, inevitably learn from each other, *i.e.* they constitute a learning web (on the analogy of a food web). They may not, of course, learn the right things and it is here that education comes in, to guide learning so that it is in sympathy with the objectives of management of the area. It should be a central feature of any management plan, and the ranger is ideally placed to be the educator.

In this web there are altogether twelve learning channels. Some are more familiar than others but it is probably vital to the achievement of management objectives that each channel be part of an education strategy: a weak channel may damage the whole effect. The web offers a convenient tool for making an assessment of needs. An illustration of some relevant considerations is contained in the following matrix.

To From	Managers	Visitors	Local Residents	Wider Society
Managers	Staff training and liaison, assembly of databases, monitoring and evaluation of education programmes, networking, attendance at conferences	Visitor centres, methods of interpretation, programmes of activities, study facilities, health and safety, protection of sensitive areas, organisation of maintenance programmes and volunteer services, organisation of activities outside the area, e.g. visits to schools, community groups, voluntary organisations	Develop local involvement in planning and management of the area, bring help and advice on provision of access and facilities	The three groups should complement each other in presenting to the public a picture of a well-integrated development in which the interests of all are well served in a way that will sustain the resources, and for which support in different forms is well merited: reinforcement of these messages may include publicity materials, media presentations, special visits and functions, involvement in curriculum development and in the work of statutory and voluntary bodies.
Visitors	Information from market research/visitor studies on sources, needs, expectations and capacities of visitors; derive methods, facilities	Make pre-visit preparations to get the most out of the visit, e.g. guide books, countryside code	Show respect for local work and privacy, offer appreciation of local customs and resources	
Local Residents	Local knowledge, oral history, artifacts, archives, present needs/problems, perspectives for the future	Local expertise, potential as local guides, wardens, writers of local guide books and leaflets	Re-appraisal of characteristic features of the locality, and of what should be valued as a community resources	
Wider Society	The framework within which all these groups operate is provided by public policy through national and local government, formal education, public opinion expressed through the media, levels of support through statutory and voluntary organisations, communities and individuals, the views of all of which are monitored and appropriate responses designed.			Support for the educational potential of protected areas and ranger services should be actively pursued in both public and private sectors.

Not only do people learn from many different sources but they learn in different ways; these can be conveniently grouped into three:

- ✓ by instruction, including that provided by both formal and informal education and training, by legislation, by the media, by advertising, by parents, friends, employers, and cultural leaders;
- ✓ by absorption, from the examples set by people and environments around them, the perceived norms of their own groups and communities, their experiences at work and at leisure;
- ✓ by investigation, comprising their own deliberate attempts to learn, by whatever means.

The effective sources of learning and the most appropriate methods vary with time and circumstances. Rangers are well placed to work through all of them as the occasion demands. Because they work primarily outdoors rangers are particularly well placed to offer opportunities for active experience, and to give people the kind of involvement in an area which fosters the growth of values and commitment to its care.

What are the Strengths of Rangers as Educators?

Basing comments on observation of Scottish rangers it is possible to identify many strengths, of which these are no more than examples:

- ✓ Because of their role their approach to their environment is naturally holistic — they are concerned at one time or another (and often together) with its climate, its geology and geomorphology, vegetation and fauna, local people and land use, owners, visiting experts, school parties, families, casual visitors, undesirable visitors and the various representatives of authority and order;
- ✓ They are regarded (partly because of this) as real people with real stakes in the area, and as educators they have an immediate authority not always shared by formal educators;
- ✓ They have a greater degree of freedom than the formal sector usually has to develop innovative ways of promoting learning, and a particular interest in making it enjoyable, an important factor in fostering future attitudes and values;
- ✓ They are well placed to cultivate the aesthetic appreciation of their areas along with their other attributes, also a powerful contribution to attitudes and values;
- ✓ They have opportunities to involve people actively in the care and management of valued areas and thus to foster a sense of ownership and responsibility for their maintenance.

These qualities are built on existing experiences of many different kinds, by no means all academic, and of course adapted to a range of different circumstances in which the services operate.

Raw Material

Rangers are close, by virtue of their jobs, to the processes which guide environmental conservation policy — the maintenance of ecological life support systems, of biodiversity in terms of habitat, species and genetic constitution, and the sustainable development of renewable natural resources⁷. Conservation policy now recognizes, however, that at the interface between an environmental and a human system the latter needs as much attention and understanding as the former — and is no less complex. Rangers stand astride this interface. Most academic training for professional environmentalists is a poor preparation for handling human problems, so the ranger may have to learn by experience. Here the wide range of backgrounds from which rangers are recruited may give added strength through diversity.

The need for conservationists to prescribe for the human as well as the environmental system led IUCN to structure its second strategy document⁸ round nine Principles for Sustainable Living. These, briefly stated, are:

- ✓ Respect and care for the community of life;
- ✓ Improving the quality of human life;

- ✓ Conserving the earth's vitality and diversity;
- ✓ Minimizing depletion of non-renewable resources;
- ✓ Keeping within the earth's carrying capacity;
- ✓ Changing personal attitudes and practices;
- ✓ Enabling communities to care for their own environments;
- ✓ Providing a national framework for integrating development and conservation;
- ✓ Creating a global alliance.

Many rangers will see their work as subscribing already to these principles, some of it very directly. We are contributing to the last of them now. Nevertheless they carry the subject matter of environmental education from the enjoyment of familiar places to the cares of all the world. How can we help to achieve such a transfer of concern?

Many will believe that the circumstances are not in our favour. Rangers are likely to be familiar with some of the effects of stress on a natural system — the transition from a structured, specialized community of organisms to one dominated by opportunists, the change in emphasis from husbanding of resources for a stable, continuing population of the same species to rapid exploitation of what is available for quick reproduction and wide distribution of offspring, loss of biodiversity, storage capacity, information content and so on. It is a set of effects well illustrated in our own countrysides, although much less simple than this statement might imply.

Unhappily rapid change is a stressor which also acts on human population with comparable effects. People have moved from stable, predictable lifestyles to new conditions which also favour opportunistic behaviour and short term rewards, where uniformity and conformity are favoured over diversity, where the raw materials of living are distorted products from unfamiliar sources, where present lifestyles may be unrewarding and the future unpromising. How is any educator to bring to such a world a respect for natural life support systems, for biodiversity and for sustainable lifestyles at home and far away?

There are no simple answers to these questions nor space here even to start discussing them, other than to suggest that rangers are as well suited as any to tackle them. The evident success of rangers in some of the vast, deprived housing areas that fringe Scottish cities, in fostering interest and ownership of local green space, is evidence that their qualities noted above may be more encouraging, more empowering, less threatening than the approaches of formal education or local government unaided. A ranger service working with local authority and school staff is as relevant to urban situations as to heritage sites and protected areas.

The Scale of the Task

The nature of modern urban society is a reminder of the scale of the task which environmental educators are setting out to address. In recent years the emphasis both internationally and nationally has been moving towards sustainable development as well as global environmental issues, recognizing the futility of trying to care for the Earth without also caring for the carers. Education cannot bring about equity between present and future generations, industrialized and developing countries, races, genders, social classes (as called for in Agenda 21) any more than it can reverse global warming or close the ozone hole, but it can prepare people's minds for these issues, foster the growth of values and attitudes and equip them with relevant skills.

I sometimes tease my colleagues by suggesting that they are too fond of comfort words in environmental education: 'networks' with that cozy feeling of support all around, 'sustainable' with its sense of continuity rather than change, even 'strategy' with its implication of something already achieved. There are, perhaps, too many influential people around who are happy to see us busy with nature trails and pond-dipping excursions while their world gets on with its affairs unhindered. These innocent activities do of course have their very important place in forming the attitudes and values of the people who allow those in authority to continue to be influential. But we have to keep our eyes still on the further goals, be content sometimes to be the buffer, dodge the grander slogans, and be true to our own perception of a system in which we are harmoniously working parts.

Conclusion

So what, in summary, are the points on which a case might be built for rangers as educators, if IRF were to promote it more widely in the environmental education community? They would surely include the following:

- ✓ The status of rangers as stewards of the environment, active in its care, holistic in their interpretation of it;
- ✓ Their familiarity with current conservation issues such as biodiversity, to which many already make important practical contributions, both in understanding and education;
- ✓ Their freedom as educators to be innovative, enjoyable, unstuffy;
- ✓ Their opportunities to develop senses of responsibility and ownership of environmental quality;
- ✓ Their potential to be effective in town as well as in countryside;
- ✓ Their chance to draw the connections between friendly, cherished, local sites and the wider systems of which they are dependent parts.

These are qualities which will be greatly valued by those concerned for the promotion and extension of environmental education.

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Exchanging Places — Staff Exchanges in Protected Areas

Introduction

Rangers and other managers of protected areas, have a challenging job. They have to care for Europe's finest natural and cultural areas at a time of great change and do this well with limited resources. Protected areas are having to adapt to a fast changing world and quick action is often needed to tackle new pressures that could cause irreversible damage. These pressures can be as wide ranging as the effects of pollution, changes in tourism patterns or the consequence of changes to European agricultural support.

Protected areas have two especially valuable resources to meet these challenges: staff, who with the right training and experience are vital to the successful management of protected areas; and information about their experience of park management. The key question is how to make sure that protected area staff have the right knowledge, information and experience to work effectively.

Providing good training is one way, good networking and communication are others and staff exchanges between protected areas a further opportunity. My presentation is based on the findings of a study on staff exchanges in European protected areas which I carried out while I was on a staff exchange myself. I was seconded by the Countryside Commission for England to work for a year at the Federation of Nature and National Parks of Europe (FNNPE). So, as well as summarising the findings of the FNNPE report *Exchanging places* (FNNPE 1993). I will be speaking very much from personal experience.

The Importance of Cooperation

The IUCN "Parks for Life" report criticised the lack of collaboration across Europe on protected area issues. If parks are to succeed with their limited resources, they must cooperate and share experience of dealing with common issues and problems.

Sharing information is being made easier by advances in technology but it is difficult to communicate practical experience by such methods. Because people remember so much more from seeing and experiencing things, face to face contact through exchanges is an excellent way to get first hand experience of park management issues. It also enables people to work together to solve problems creatively. Well planned partnerships and staff exchanges are very effective methods for developing staff skills and they should be part of every protected area's training programme.

What do we mean by exchanges and what are the benefits?

Staff exchanges include many types of activities such as:

- ✓ exchanges of individuals (simultaneously or at different times);
- ✓ group exchanges and study visits;
- ✓ twinning — both formally and informally;
- ✓ longer term secondments or work placements (from several weeks to months);
- ✓ trans-frontier cooperation;
- ✓ joint research projects and expeditions;
- ✓ training events, courses and seminars.

I will use examples from my research to describe this range of exchange activities and to show some of the results and lessons learned.

Individual exchanges

Jane Hodges, ecologist with the Pembrokeshire Coast National Park, Wales, worked here in Poland, in the Tatra National Park, for six weeks. While at first glance the two parks appear to be quite different, she found some important common interests. Many coastal cliffs in Pembrokeshire are sensitive areas with nesting birds. Jane had previously worked closely with rock climbing groups to negotiate agreements that climbing would only take place outside the nesting season. Her experience proved very useful in the Tatra National Park where they were trying to deal with similar problems on mountain crags.

Although there is not much demand for snow monitoring in Pembrokeshire, in the Tatra Park snow depth indicates when ski runs need to be closed to prevent damage to sensitive *Pinus mugo* communities. These close links between ecological monitoring and visitor management have been useful in helping Jane to think about how she can improve monitoring in Pembrokeshire;

Rosy White, Information Officer for the Brecon Beacons National Park in Wales, exchanged jobs for a year with Michael Howes, her counterpart with the Department of Conservation and Environment in Victoria, Australia. One of Rosy's projects was to produce an interpretive display for a new information centre at Organ Pipes National Park. She brought some new ideas to the region such as the use of cartoon characters on special panels beneath the main display to encourage children to learn about the area.

Group exchanges

As part of the Atlantic Arc Programme to exchange experience on countryside and rural management, Dartmoor National Park in England, has linked with Finistère in France. Groups of technical students from colleges in both regions work together, trained by staff from the National Park and local authorities in each area. Projects are very practical and are designed to exchange knowledge about each region's methods for managing traditional landscape features such as dry stone walls, footpaths and bridges;

Since 1985, the Countryside Commission has had an agreement to exchange information and staff with the United States National Parks Service. A special US/UK Countryside Stewardship Exchange takes place alternately in the U.S. and UK every two years. The 1993 exchange involved 64 professionals including rangers, from protected areas, conservation NGOs and local authorities in both countries. After an initial briefing, small groups act as consultants on local case studies, where their brief is to solve problems and develop management proposals.

Projects have included developing proposals for the sustainable development of Cape Cod in the USA and for implementing a strategy for sustainable use of the Somerset Levels, a sensitive wetland area in England;

Trans-frontier cooperation

The Bavarian Forest National Park, Germany and the Sumava National Park in the Czech Republic are trans-frontier parks and have developed close links between their ranger services and a number of joint projects. The rangers meet for training days, a common system for information signs is being developed and a small joint information centre has been opened at a border crossing for walkers and cyclists. Bilingual information provides a welcome for visitors from both countries:

Twinning

Snowdonia National Park in Wales has twinned recently with Triglav National Park in Slovenia, whose mountain landscapes are similar. Both cultures have Celtic roots. The parks hope to exchange experience on ranger training, interpretation, school visits and community development. Triglav National Park has exchanges with parks in several countries and believes that international exchanges have raised the park's status in the eyes of local people;

Contacts between the Peak National Park in England and Ojcow National Park in Poland started when the parks' education centres began to cooperate on training events. The parks soon found that they had much in common—for example, their limestone landscapes are almost identical in places. The parks twinned formally in 1993 and intend to collaborate on environmental education, heritage conservation, park management and development control.

A new educational project to improve waste management in both areas has already started.

Ojcow National Park is hoping to convert an old house into a National Park Study Centre similar to Losehill Hall in the Peak District.

Training through exchanges

When the Danish Ranger Service was being developed, two one-week workshop exchanges were organised, one in Denmark and one in the UK. A mixture of field visits, talks and discussions enabled the rangers from both countries to learn from each other, particularly about different approaches to environmental education, interpretation and management.

The benefits of protected area partnerships and exchanges

The above examples show how exchanges can bring a range of benefits for protected areas. In summary the benefits are that:

- ✓ practice spreads more rapidly
- ✓ parks get practical help with management problems
- ✓ new ideas are generated
- ✓ staff make useful professional contacts
- ✓ language skills develop
- ✓ staff are motivated and horizons broaden
- ✓ international cooperation promotes local, national and global environmental conservation — by sharing information and influencing policies

Organising successful exchanges — the need for a more systematic approach

Most FNNPE members are involved in some type of exchange and many participate in several kinds. At present exchanges tend to be organised in an ad hoc way—contacts are often made as a result of chance meetings, at conferences like this for example, rather than systematically. Often their success is also a matter of luck—some work well but others find that they have little in common with their exchange partners.

FNNPE members were keen to develop their exchange activities but were hampered several factors, such as the lack of resources (time as well as money), information about potential exchange partners and language skills. Members said they would welcome a more systematic approach, which FNNPE is now developing, together with more advice on how to organise exchanges more effectively — a role that the Exchanging Places report was designed to play.

The most important aspects of organising successful exchanges are summarised below.

Good organisation

A key factor in organising a successful exchange is to plan well. Ideally, exchanges need to have clear objectives, the location and type of exchange partner should be carefully selected, political support and funding are important and the results should be monitored, reviewed and publicised — so that others can learn from the exchange.

Making contacts

One of the main problems facing anyone trying to set up an exchange is how to find a suitable contact. Exchanges seem to work best when the protected areas involved have a similar outlook, environment or management issues.

The main factors in selecting where to develop an exchange are to find similarities in one or more of the following:

- ✓ landscape type or biotype
- ✓ type of designation
- ✓ comparable projects, problems or management issues
- ✓ language
- ✓ geographical location
- ✓ social and cultural similarities

Many networks can help with finding suitable contacts, including IRF and conferences like this one which can be a useful starting point. Other useful worldwide organisations include the World Conservation Union (IUCN), The Man and Biosphere (MAB) programme, and the World Wide Fund for Nature (WWF). Within Europe, FNNPE, EUROSITE, the Council of Europe Diploma holders, LEADER and networks concerned with special regions or issues, such as Medwet, MEDPAN and the Atlantic Arc Programme offer a number of opportunities.

National programmes also promote the exchange of experience. For example, in the UK, the Environmental Know How Fund supports projects in protected areas in post-Communist countries, including Poland, Russia, Bulgaria and Hungary and the British Council supports a range of initiatives to enable professionals to exchange experience. I am grateful to the British Council for supporting my participation at this conference.

Finding resources

The 1993 survey showed that funding for exchanges between FNNPE members was modest. The largest park budget was only £8,000 a year and several parks had just a few hundred pounds or nothing at all. Some areas had found sources of outside funds such by organising fund raising, finding EC and other grants and by attracting commercial sponsorship.

Considering the low level of resources that have been available, there is a remarkable amount of activity. But there are limits to what can be done on a shoestring. Four-fifths of parks contacted wanted to expand their exchange activities but lack of funding was the greatest constraint. Many Parks help each other by providing accommodation and local transport so that the costs to visiting Parks staff can be kept low and they may only need to cover their travel expenses. However, even this can be hard to find for some of Europe's protected areas, particularly those in post-Communist countries.

In 1994, FNNPE received over one million Pounds Sterling from the European Commission for a five-year project to develop exchanges between protected areas in Europe and those in Latin America and Asia. They have appointed an Exchange Coordinator and hope to develop 15 long term active links. So far one partnership has been signed, between Montseny, a biosphere reserve in Spain and La Amistad in Costa Rica, a Biosphere Reserve covering 600,000 ha and including four National Parks.

Other projects are developing between Peneda-Gerez National Park in Portugal and Serra das Andorinhas State Park in Brazil; Hautes Fagnes-Eifel Nature Park in Belgium and Ama Cayaco in Columbia; Gede Pangrango in Indonesia and the Bavarian Forest National Park; and between the bilateral Si-a-paz Conservation Area, in Costa Rica and Nicaragua, and the regions of Donana and Lombardy in Spain and Italy. The Prifinio Reserve on the border of El Salvador, Honduras, and Guatemala, the Genung-Leuser National Park in Indonesia and the Pilon-Cajas Biosphere Reserve in Bolivia are looking for exchange partners.

FNNPE hopes to obtain further EC funding to enable them to provide training to support these long distance exchanges and is establishing a European exchange programme with an emphasis on East-West links.

Large scale projects such as these will provide much experience of how to support exchanges and make them effective. However, at present only a few areas can benefit from this scheme.

Developing exchanges for rangers

There is still much scope for organisations like IRF, for protected areas and for individual rangers and other staff to develop and benefit from exchanges. My own experience and the results from the FNNPE study suggests that it is a good idea to begin with small projects. For example, study visits arranged informally with colleagues in other areas can be very valuable. These sometimes lead to more formal or long-term links — as with the Ojcow and Peak District National Parks.

Many protected areas and other organisations are finding creative ways to develop low cost exchanges or to find additional funds for more ambitious programmes. In Europe, a variety of European Commission funds are available. These have been used to support the EUROSITE twinning programme and links between protected areas in Wales, Germany, Portugal and France. Commercial sponsorship is another solution, the ELF France company has provided over 500,000 FFfr per year to the French parks, much of which has been used to support their twinning programmes.

International organisations like IRF are well placed to apply for financial support for exchanges, either alone or in partnership with other organisations. The advantage of exchanging experience about protected area management is that it covers such a wide spectrum of interests such as habitat management, biodiversity conservation, visitor management, tourism development, information technology, working with rural communities. This means that a broad range of funding programmes can be targeted to the benefit of protected areas.

Conclusions

The Rio conference marked a turning point for conservation by highlighting the need for a global partnership to achieve sustainable development. IUCN's Parks for Life report on European protected areas recommends action to boost training and sees the development of staff exchanges, particularly between east and west as a key part of this action. Parks across the world face many similar issues and we have much to learn from each other. Exchanges help to create an invisible but vital web of professional support for rangers and other park staff worldwide.

However, in the context of Rio we must ensure that protected area policies, including those for exchanges, are sustainable. Priority might be given therefore to staff exchanges that minimise costs and impact on the environment. It will always be important to have some direct contact between more distant areas but considering the costs and time involved, information technology may offer a more sustainable method for the frequent exchange of information over longer distances.

Pressures of work, limited resources and the practical nature of much of a ranger's work sometimes makes it difficult for rangers to get support from their employers to participate in exchanges. The tendency of staff exchanges to have the image of "a bit of a holiday" does not help either.

The workshop this afternoon provides an opportunity to consider exchanges in more detail and I would like to leave you with some questions that you might consider as a means of looking at how rangers could benefit more from exchanges:

- ✓ How would participating in exchanges benefit your work?
- ✓ What types of exchanges would be most useful and why?
- ✓ What experience of ranger exchanges already exists which could be used as a guide to good practice?
- ✓ Is any further information, advice or support needed? If so, what?
- ✓ What role could IRF and other networks play?
- ✓ How can informal approaches be used to develop exchanges?

My own experience of exchanges is that they are very rewarding but exhausting! I learned an enormous amount, made many useful professional contacts and met some good friends too but a successful exchange requires a lot of hard work and effort from everyone involved.

References

IUCN Parks for Life — Action for protected areas in Europe, 1994

FNNPE Exchanging places — staff exchanges in Europe's nature and national parks, 1993 (copies are available free from the Countryside Commission, National Parks and Planning Branch, John Dower House, Crescent Place, Cheltenham, Gloucestershire GL50 3RA, UK Telephone: 01242 521381).

Summary of discussion from workshop on Exchanging Places

Background

This popular workshop involved participants from a variety of countries, many of whom had participated in exchanges, together with others who were interested in doing so.

There was strong agreement that exchanges were a useful form of training and staff development, not only for rangers, but for all staff involved with park and countryside management.

Experience of exchanges

A number of approaches had been used to organise exchanges:

- i. some organisations have formal or informal links with particular countries which enable their staff to exchange. For example the Canadian Park Service in Ottawa had links with Australia, Hungary and Chile; the Broads Authority in England is twinned with three other protected areas through a European partnership organisation called Eurosite;
- ii. volunteer work programmes can provide work experience abroad at low cost. The participant from Brazil had worked on the scheme organised by the U.S. Fish and Wildlife Service, for example;
- iii. self-help is sometimes the only way to organise an exchange—one Australian ranger had personally organised a long term exchange with a colleague in the UK, exchanging not only jobs but also cars and homes. Both rangers' salaries continued to be paid by their employers but they had to cover other expenses themselves.

Problems

A number of practical problems had been encountered in organising exchanges. The main difficulty was that of discovering whom to talk to initially to get information and contacts and finding the right person exchange with.

Proposals for developing exchanges

A number of proposals were made to enable rangers to take part more easily in exchanges:

1. Find financial support

- ✓ **IRF should seek international sponsorship for exchanges**, using its international NGO status to approach a variety of sources (e.g., multinational companies; the World Bank or the Global Environment Fund; international airlines) and rangers with limited resources would apply for help and their applications assessed against some simple criteria.
- ✓ **IRF should encourage establishment of a fund to help rangers with limited resources**—e.g., encourage a sizeable donation (which would remain the property of the owner) but use the interest to support exchanges;
- ✓ **National associations should identify national or regional sources of funding** to help support exchanges by their members.

2. Improve information about members and provide contacts for those seeking to develop a database of the characteristics of members' areas and of people seeking exchanges. (it was agreed that IRF should consider following up the offer from UNESCO to provide software. Declan Keilly of the Countryside Management Association in England and Wales offered to coordinate an informal group to develop a pro-forma for collecting such information).

- ✓ **develop a handbook of IRF members who are willing to host visiting rangers** for short periods.
- ✓ **each National Association should appoint a volunteer exchange officer** to offer information to people seeking exchanges.
- ✓ **the IRF Bulletin should include a contacts page** for those seeking exchanges.

3. Encourage twinning between national ranger associations
4. Members own employers should be encouraged to have a training Policy that supports and encourages staff exchanges
5. IRF might provide further help by:
 - ✓ **writing supporting letters** to rangers seeking outside funding for exchanges.
 - ✓ **conducting a survey of training needs and producing an inventory of training that is available.**
 - ✓ **publicising the benefits of training rangers** (reports on exchanges should be sent to national coordinators and a summary included in the Bulletin). ☺

Workshops were held throughout the week on a variety of topics concerning park management, ranger operations, and the organization, function and direction of IRF.



Viorel Lascu
Mihai Gligan
Romanian Ranger
Association

Romanian Ranger Association

First of all, we would like to express our gratitude to Gordon Miller for the possibility to participate at the first World Ranger Congress

We bring the salute of the Romanian Ranger Association to all participants of this Congress. We hope this will create for us new openings in the surveillance of protected areas in Romania as well as in environmental education.

Even though the first Romanian national park dates to 1930, we have no tradition on national park management and surveillance. Only the Danube Delta Biosphere Reserve has a protection system somewhat similar to the ranger one (military guard and inspection corps). The civil society and environmental NGOs development have shown their desire to have national parks and natural reserves managed by the state and a ranger type system of protection, surveillance, and education.

Considering the lack of legislation and the difficulties in surveillance and maintenance of protected areas that authorities have to face, more than 20 NGOs from five counties around the Apuseni Mountains have created the Regional Environmental Survey Center/Centrul Regional de Supravaghere Ecologica (CRSE). The goals of CRSE are to create and develop the mechanisms for the environmental survey of protected areas and the promotion of the Apuseni Mountains area as a national park, based on sustainable development of the region. Being the first coalition of this type in Romania and having been successful in environmental survey and education, CRSE together with the prefecture of Bihor County have created the first Environmental Guard in Romania. The model offered by the collaboration between CRSE — as NGOs representative and local authorities — as government representative led to the first Environmental Convention in Romania signed by the top authorities of five counties (15 percent of Romania's surface) and CRSE. The objective of this convention is to support the creation of the Apuseni Mountains National Park and its survey system.

The Environmental Guard is a volunteer-based system of environmental surveillance and education and has the role of preserving the areas until they become protected areas by law. It is fighting to force the Parliament to vote for the new Environmental and Protected Areas Law. Our wish is to get trained at the IRF level so that we can face all the problems in the areas we have taken under protection.

At the international seminar, "National Parks in Romania," held in Baile Herculane on May 12-14, 1995, the Romanian Ranger Association (RRA) was born. This association was created by members of some of the organizations that have already developed a ranger type system: CRSE, Environmental Guard for the Apuseni Mountains; UNESCO Pronatura, custodians for the Retezat Mountains National Park; Romanian Speleological Federation, cave custodians staff; Administration of the Danube Delta Biosphere Reserve, guard and inspection corps; the Ecologist Youth of Romania, national and international relationship frame. Thanks to the direct help of the IRF (Gordon Miller), FNNPE (Aiken Clark), USNPS (William Briggles), Regional Environmental Center (Ovidiu Oancea), and NGOs from Romania and abroad.

We do hope that the IRF will continue to help us in our attempt to create national parks and other protected areas and to have well prepared rangers in Romania. We also hope that the Romanian Ranger Association will become, at the first World Congress, a new IRF member and a good partner for all rangers of the world. ☺

Juris Jatnieks, Deividas
Makavicius and
Valdis Pilats
Latvia

Rangers in Latvia

The ranger profession is a new one in Latvia. No one in the job is officially called a ranger, but there is a long history of nature protection in Latvia and many nature conservation professionals, researchers, forest guards and environmentalists from different NGOs at least partly cover ranger activities in Latvia.

Today, there are five strictly protected nature reserves (in the first category of IUCN protected areas), one national park, one future biosphere reserve, 10 nature parks, one culture heritage area and 83 different sanctuaries. About 40 percent of the total area of Latvia is covered by forest, and population density in rural areas is about 25 people per square kilometer. Only four of the above mentioned nature areas have their own administration. Often, particularly during recent years of

land reform, responsibility and ownership of these areas has not been clear. In many cases, nature areas are under control of the state forest service.

If we consider that the following are the three main functions of ranger work — protection of territory, education of the public and guiding — then the situation in Latvia can be characterized as follows:

- ✓ **Areas with their own administration** — Guiding and education is provided by one part of the staff, protection work by others. It would be necessary to combine these abilities in the person of a ranger.
- ✓ **Areas without administration** — Guides who work in these areas are from tourist companies, nature researchers or environmentalists. Protection is provided mostly by foresters or state environmental inspectors. Here each group can provide some of the ranger's duties, but no one undertakes all tasks.
- ✓ **Less popular nature areas** — These are known mostly by specialists or locals. There can be irregular and uncontrolled guides; often no one is responsible for protection. Nature education is often provided by teachers or NGOs only. There is almost no coordination among the different groups mentioned, because protection, education and guiding functions are the responsibility of different institutions or organizations within the borders of one protected nature area.

During discussions with persons whose work could be related to the ranger profession, we clarified features which could be characteristic to ranger work in Latvia and necessary for future, ranger-associated activities, such as forming an association, exchanging experience and improving professional skills.

Rangers in Latvia should:

- ✓ be responsible for or at least connected to a certain nature protection area;
- ✓ know this territory well;
- ✓ have a knowledge and understanding of nature, culture and history;
- ✓ be able to transfer this knowledge to others;
- ✓ be responsible for people that he/she is going to guide;
- ✓ be able to continue his/her own education by studying more, improving work skills, and exchanging the experience with other rangers; and
- ✓ know foreign languages used by most visitors, at least English or German.

We have formulated the following list as main tasks that must be undertaken in our attempts to organize a national association:

- ✓ form the image of the ranger in Latvia, one which will make the idea of rangers known and common and give people a clear idea of what rangers are, based on the world's best experience;
- ✓ establish information exchanges about each other's work experiences, actual problems, and possible solutions; tasks will be much easier to achieve together; and
- ✓ form a certification commission for guides who wish to work in nature areas which would evaluate them professionally, if they are able to foster environmental awareness and present environmental topics in a proper way. ☺

Tim Stone
Association of National Park
Rangers, USA

International Work Camps for Volunteers in Protected Areas

Tim Stone, a ranger in the United States' National Park Service, discussed his experiences in organizing international work camps for volunteers in national parks in the United States. He talked about how the camps were organized, the costs associated with the support of the camps operations, the types of work projects undertaken, and the benefits derived from hosting the camps.

The volunteers who come to the camps accomplish much needed resource protection work, and also promote a strong sense of international cooperation and understanding of environmental and national park ideals. Both the camp participants and the park staffs benefit significantly from the work camp experience.

Many of the participants in this session related their own experiences in organizing volunteer projects in their own countries. Volunteers have made substantial contributions to completion of projects which would not have been otherwise undertaken during these times of diminishing funds.

There's been a long tradition of volunteer work camps throughout Europe, and it was felt that the knowledge from those who have organized such work camps could be shared with other protected areas.

Pedro Rosabal of the IUCN expressed strong interest in promoting the international work camp ideal through contact with his program. There may be possibilities of financial support for these types of environmental protection and educational activities.

The members of the group felt very strongly that further actions are necessary to move forward with the ideas discussed during the session. It was decided that a statement of support should be developed and brought forward to the Congress for declaration as a position:

Statement of Support for International Volunteer Work Camps

The first world ranger Congress strongly supports/endorse the ideal of international volunteerism in protected areas. Through international volunteerism, necessary projects may be undertaken to protect and perpetuate the natural and cultural heritage throughout the world.

It's understood that the necessity and expedience of environmental and heritage protection actions and measures in protected areas in the world far exceeds the available resources to accomplish these actions. It is further understood that these unique and valuable resources belong to the people of the world. It is through the promotion and support of international volunteerism that the management of protected areas may accomplish work actions while fostering and nurturing the ideal of protected areas through commitment of international cooperation and spirit.

The Congress urges the administrations of protected areas to support and promote the utilization of international volunteerism through budgetary commitment and allocation of human resources (time) to organize and supervise work camp projects. It further urges administrations to coordinate their efforts with those undertaken by other organizations, such as IUCN and the UN.

It was also decided that the IRF should take a proactive role in supporting the international work camps and in acting as a clearing house in organizing them. This could be done through development of a database of work camp organizations and contacts with persons who could support and organize them.

Tim Stone volunteered to act as lead contact for the promotion of this effort and as a contact person for the IRF. ☺

Bill Wade
Association of National Park
Rangers, USA

Ranger Training

Participants in the workshop focused on three training issues and identified both problems and potential solution.

The first objective was to identify the most significant deficiencies in competence of rangers among organizations represented at the Congress. Participants agreed that rangers that many rangers lack:

- ✓ skill in external (community and public) relations and understanding of associated influences — the area in which the group agreed rangers have the most significant shortcomings;
- ✓ knowledge of legal issues and constraints;
- ✓ technical field skills;
- ✓ administrative skills;
- ✓ professional competency; and
- ✓ adequate orientation to the ranger profession.

The group then discussed ways of overcoming these deficiencies, and agreed that the best ways included self-study courses, staff exchanges (including mentoring or shadowing), courses through formal training centers, and distribution of case studies (successes and failures from other areas).

The session concluded with an examination of IRF's role in ranger training. Participants came up with 10 ways in which IRF could support ranger training:

- ✓ Develop an inventory of available training throughout the world.
- ✓ Prepare a listing of available publications and case studies.
- ✓ Develop an inventory of ranger experts."
- ✓ Identify sources of funds for training.
- ✓ Create a listing of "target parks" willing to host rangers for training purposes.
- ✓ Prepare a summary of non-governmental organizations with interest in supporting ranger training.
- ✓ Survey training needs.
- ✓ Identify sources of training plans to serve as examples.
- ✓ Publicize the benefits of ranger training to outside funding organizations.
- ✓ Identify expertise available to member organizations outside of official government channels. ☺

Mike Marshall
Countryside Management
Association, England

Review of IRF Statement of Purpose

Those attending the workshops on the Federation's statement of purpose discussed many issues. The consensus among them was that these actions should be considered:

- ✓ The eight points of the original statement of purpose need to be simplified.
- ✓ The IRF needs a mission statement which will include a specific role for rangers.
- ✓ The federation should undertake a number of activities important to the future of the profession and protected areas. The IRF should:
 - * promote the professional voice of the ranger;
 - * promote national ranger organizations;
 - * produce 'best practice' guides for elements of ranger work;
 - * define the term 'ranger';
 - * limit membership to organizations only;
 - * facilitate professional exchanges;
 - * maintain a register of contacts in member nations;
 - * promote IUCN and the use of IUCN categories for protected areas;
 - * share knowledge, perhaps through a library of publications;
 - * circulate existing publications to national organizations;
 - * promote an IRF newsletter or bulletin;
 - * develop an Internet bulletin board;
 - * maintain information on travel and contacts;
 - * assist with the provision of ranger training and programs and provide trainers where possible;
 - * organize regional/continental meetings;
 - * develop a database for exchange of information and an inventory of skills;
 - * publicize IRF;
 - * identify resources for translating documents;
 - * identify funding sources;
 - * react to world events and speak on behalf of rangers;
 - * produce an annual report;
 - * list training already available;
 - * establish links to policy makers on natural resource issues;
 - * focus on practical issues;
 - * recognize regional and national differences; and
 - * identify national coordinators. ☺



IRF Chairman Gordon Miller, right, addresses the congress in Poland. A Polish interpreter sits beside him.



Gordon Miller
Chairman
International Ranger
Federation

Closing Remarks to the Congress

The International Ranger Federation resembles a seed — the idea of a worldwide ranger family has been there in the ground for some years. In 1992 it finally germinated with the signing of the first Accord. This week it has shown itself to the world. I believe that it will now blossom if we care and nurture it.

This week has been like opening a box for the first time and finding it bulging with ideas and enthusiasm. How we harness that energy will be crucial to the future development of the Federation. It was necessary for this first Congress to address general issues. We can now look forward to more specific issues at future Congresses.

The essence of this week has been sharing, but that could not have happened without the commitment and enthusiasm demonstrated by all of you. We have learned from each other. We have become aware of the difficulties that some of our colleagues like Daniel Onsembe in Kenya and Juan Carlos Gambarotta experience in their working lives. We must now extend that ability to share to the whole world family of rangers.

I would now like to thank our sponsors and in particular Scottish Natural Heritage who by providing \$15,000 enabled not only Scottish rangers to attend but 10 delegates from Eastern Europe. British Airways, R & R Uniforms, National Park and Conservation Association (U.S.) and Reuters Foundation also provided assistance to delegates. Jaroslaw Glass financed the press conference. The Robert Swan Foundation made it possible for Robert Swan to attend as a keynote speaker. I would also like to express our thanks to the U.S. National Park Service who actively supported the excellent attendance by members of ANPR.

The Congress would not have happened without the hard work of a lot of people. I would like in particular to mention Bill Halainen and Barbara Goodman of ANPR and the Congress Committee of Mike Marshall, Colin Dilcock and Sue Lark of CMA and Bob Reid of SCRA. In Poland, Piotr Dabrowski and staff of *Eko-Tourist*, and last but by no means least, Christine Richmond from *Journeys* and Catherine Harlow who have worked tirelessly throughout this week. To yourselves, a big thank you for the support that you have given this Congress by coming here and giving your wholehearted support during an exhausting week.

Finally, I would like to ask for your endorsement of the following declaration put together by Juan Carlos Gambarotta, assisted by Bill Halainen and Rick Smith. ☺

Zakopane Declaration

We, the delegates here assembled in Zakopane, Poland, at the first International Ranger Federation Congress, representing rangers from 35 nations on six continents, do hereby declare our commitment to the following principles:

- ☉ That, as principal guardians of the world's premier natural and cultural protected areas, we are uniquely positioned and qualified to monitor their health, assess their problems, and extrapolate current trends into probable futures;
- ☉ That, unless circumstances change, these natural and cultural areas under our charge will in many cases continue to slowly but inexorably decline;
- ☉ That the rangers charged with protecting these areas play a distinctive and essential role in identifying problems associated with this decline and proposing practical solutions to them;
- ☉ That these rangers also have a fundamental role in explaining the importance of natural and cultural resources to the public, thereby awakening in them the essential desire and interest in conserving them for future generations;
- ☉ That these rangers are involved in complex and highly important tasks in preservation of natural and cultural resources, but lack recognition of the importance of these tasks from the governments that employ them;
- ☉ That the majority of these rangers live in very difficult conditions, lack adequate institutional support and resources, receive meager salaries, and take significant personal and professional risks to protect these invaluable sites, which constitute core elements of the world's natural and cultural heritage;
- ☉ That they all too often sacrifice their lives in their commitment to protection of this heritage;
- ☉ And that, for all these reasons, we are firmly committed to seeking greater recognition and attention to their work, to their well-being, and to the critical status of the heritage that they protect and defend, and will exert ourselves in a concerted effort to resolve these problems, enlisting in this effort the support of the people and governments of this earth.



Attendees and Speakers

Australia

Kristen Appel	P.O. Box 1046, Alice Springs, Northern Territory 0871, Australia
Christopher Arthur	P.O. Box 141, Whitemark, Flinders Island, Tasmania 7255, Australia
Allan Fox	RMB 1/35 Beaumont Crescent, The Ridgeway, Queanbeyan, New South Wales, 2620, Australia
Andrew Markwick	Arthur's Seat National Park, RMB 5528 Arthur's Seat, Victoria, 3928, Australia

Brazil

Maria Castellano Sola	Rua Paracatu 304, Barro Preto, Minas Gerais, 30.180.090, Brazil
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Bulgaria

Konstantin Ikonov	Director, Pirin National Park, 4 Bulgaria Str., Bansko, 2770, Bulgaria
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Canada

Tom Kovacs	Parks Canada, 25 Eddy St., Hull, Quebec, KIA OH3, Canada
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Cuba

Pedro Rosabal	IUCN, Rue Mauverney 28, Gland, 1196, Switzerland
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Czech Republic

Michal Skalka	Pod Kostelem 136, Mlade Buky, 54223, Czech Republic
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Denmark

Ida Jensen	Naturhistorik Museum, Universitetsparken, Aarhus C, DK-8000, Denmark
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Eire

Brendan O'Shea	Killarney National Park, Killarney, County Kerry, Eire
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Ian Brooker	Dovedale, Castle Road, Okehampton, Devon EX20 1HU, England
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Colin Dilcock	86 Littledale, Pickering, North Yorkshire, YO18 8PS, England
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France Patrice Martin	Park National des Cevennes, PO Box 15, Florac, 48400, France
Germany Jan Brockmann Sabine Hahn Alfred Heilmann Michael Strecker	Conservation Station East, Schulstr. 6D-14482, Potsdam, Germany Umweltstiftung WWF-Deutschland, Naturschutzstelle Ost, Schulstrasse, Potsdam, 14482, Germany Schlossweg 4, Spreewiese, D-02694, Germany c/o Symbiosis, Behrenstr. 23, Berlin, D10117, Germany
Iceland Steinunn Asmundsdottir Guorun Kristinsdottir	Haaleitsbraut 71, IS-108, Reykjavik, Iceland Stiflisdalun, IS 801, Selfoss, Iceland
India Gurmit Singh	Director of Wildlife, Punjab, SCO 2463-64, Sector 22-C, Chandigarh, Punjab, India
Israel Hezi Giladi	Kibutz Maabarot, Doar Na Emek Hefer, 40230, Israel
Jamaica Ruel Corniffe Merrick Myrie	Montego Bay Marine Park, P.O. Box 67, Cornwall Beach Complex, Montego Bay, Jamaica 147 Canal Street, Bridgeport P.O., St. Catherine, Jamaica
Kenya Daniel Onsembe	Kenya Wildlife Service, P.O. Box 879, Kakamega, Kenya
Latvia Juris Jatnieks Deividas Makavicius Valdis Pilats	No address listed Kamanos Nature Reserve, Akmenes, LT5450, Lithuania Raina str 15, Sigulda, LV-2150, Latvia
Nepal Ashok Khand	No address listed
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