

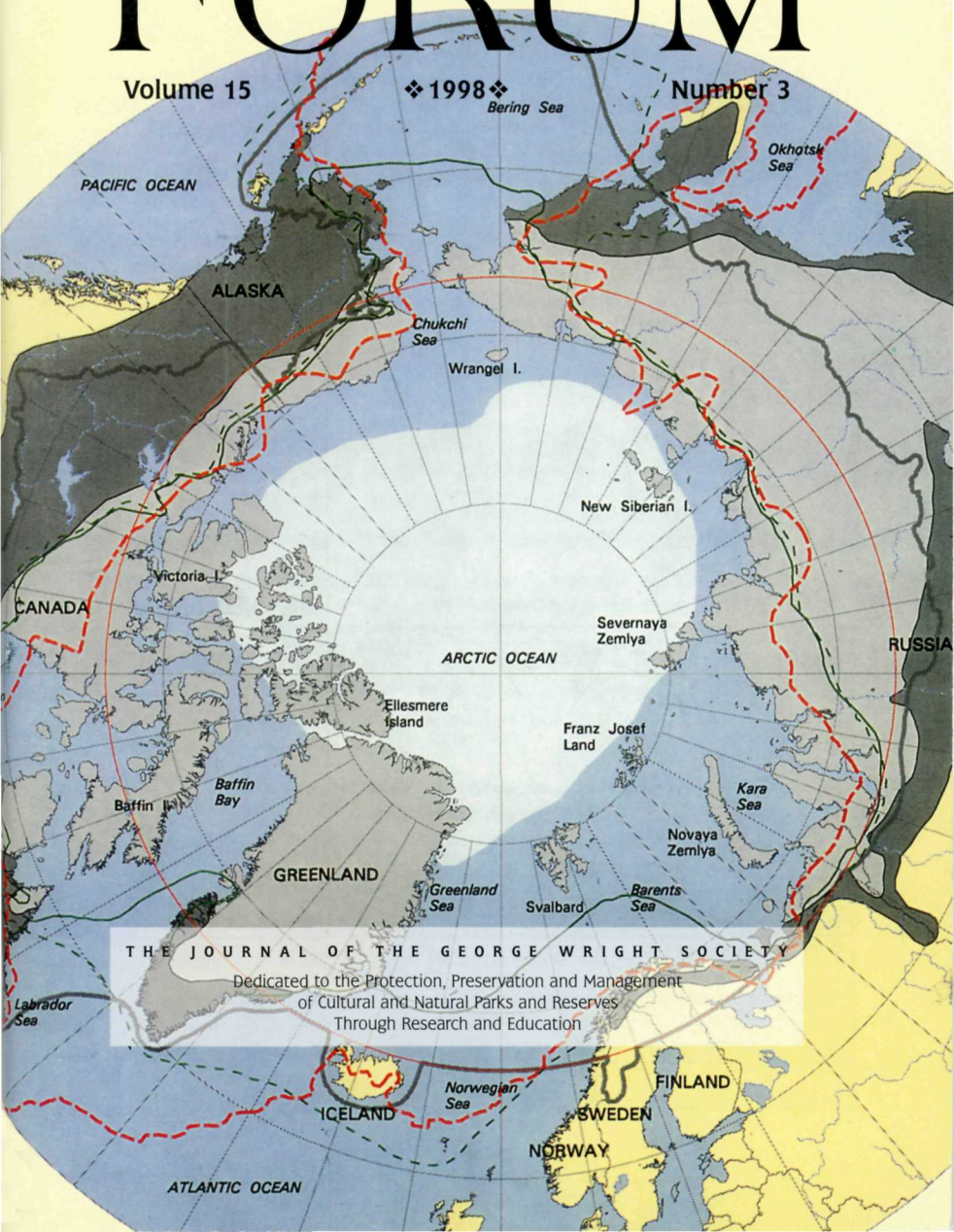
THE GEORGE WRIGHT

# FORUM

Volume 15

❖ 1998 ❖

Number 3



THE JOURNAL OF THE GEORGE WRIGHT SOCIETY

Dedicated to the Protection, Preservation and Management  
of Cultural and Natural Parks and Reserves  
Through Research and Education

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ISSN 0732-4715

Editorial guidelines may be found on the inside back cover.

Text paper is made of 50% recycled fibers.

Printed by Book Concern Printers, Hancock, Michigan

## Key to Cover Map:

Dashed red line: 10° C — July Isotherm

Solid red line: Arctic Circle

Solid green line: Floristic Arctic boundary

Dashed green line: Phytogeographic Arctic boundary

Solid black line: Southern limit of Arctic data as provided by member countries.

Dark shaded area: Discontinuous permafrost.

Lightly shaded area: Continuous permafrost.



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**On the Cover:** The Arctic Region, a map developed by the Conservation of Arctic Flora and Fauna (CAFF) initiative. Note **Key to Cover Map** on inside front cover. (See article beginning on page 40.)

# Society News, Notes & Mail

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## Letter to the Editor: More on Indian Religious Freedom and Public Lands

Dear Editors:

In 1996, THE GEORGE WRIGHT FORUM published my article entitled “American Indian Private Religious Preserves on Public Lands: The Legal Issues” [Vol. 13, No. 4]. Since then, three events have significantly affected Indian religion and/or the religion clauses of the First Amendment. First, President Clinton issued an Executive Order on Indian Sacred Sites (EO 13007) in May 1996. The EO disappointed those who hoped for authority to close federal land to public use for Indian religious purposes. The EO neither provides for nor directs closures for such purposes. Second, in June 1997, in *City of Boerne v. Flores*, the Supreme Court declared unconstitutional the Religious Freedom Restoration Act of 1993. Congress enacted RFRA to overturn the Supreme Court’s standards in *Employment Division of Oregon v. Smith* (1990). With *Boerne*, the court reinstated the lower standard of *Smith*: that neutral and generally applicable laws may incidentally burden religious conduct if such laws serve a valid state purpose.

Third, in April 1998 the U.S. District Court decided that the National Park Service could implement a revised climbing management plan for Devil’s Tower National Monument. Part of the plan requested that climbers voluntarily refrain from climbing the tower during June to respect Indian religion. The plan also provided that NPS-issued commercial-use licenses for guided climbs would prohibit such climbs during the month of June to protect the privacy of Indian religious ceremonies. In June 1996, the District Court in Wyoming partially enjoined the plan because the court found the latter prohibition violated the First Amendment’s Establishment Clause. The NPS modified the plan in November 1996 to delete the commercial-use license prohibition; the court subsequently found that the issue in the case was moot and upheld the modified plan. In both the injunction of 1996 and the decision of April 1998, the court found that the plan’s *voluntary* closure fell within the limits of permissible accommodation of religion.

The court’s preliminary injunction focused on the plan’s provision that NPS could convert the voluntary climbing closure to a mandatory one if the voluntary ban did not succeed. The 1998 decision allowed NPS to keep this troubling language in the plan. The judge appeared to believe that the issue of a mandatory closure is not yet ripe. The judge wrote that “the conversion to a mandatory ban is only one of eight options which the NPS may consider in the event of a failed voluntary ban.... The remote and speculative possibility of a

mandatory ban ... is insufficient to transform the Government's action into a coercive measure."

The Mountain States Legal Foundation has appealed the 1998 decision, arguing that a hint of a possible mandatory closure tinges a voluntary ban with coercion, and thus violates the First Amendment. Their argument, though reasonable, is difficult. Until the NPS actually attempts a mandatory ban, a court may decide that there is no issue to be adjudicated. The appeals court may also ignore the fact that the modified plan, by considering mandatory closure as a *viable* option, still harbors what the NPS's 1987 Native American Relationships Policy and 1988 Management Policies prohibit.

If the NPS attempts to impose a mandatory ban, such a coercive measure would then clearly run afoul of the First Amendment's Establishment Clause and NPS policies. Such an action would be of a wholly different nature than a request that the public refrain voluntarily from climbing to protect Indian religious rituals. For federal land managers, the bottom line remains: An effort to forcibly close federal land solely to protect the privacy of Indian religious practices, except where provided for in law, will meet inevitable legal challenge and a list of unsupportive court decisions.

Frank Buono  
Prineville, Oregon

*[Ed. note: Readers may also wish to refer to John Cook's rebuttal of Buono's original article, published as a letter to the editor in Vol. 14, No. 3 (1997).]*

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## Fast Approaching : Deadline for 1999 Abstracts, Awards Nominations

October 15 is the deadline for submitting abstracts for "On the Frontiers of Conservation: Discovery, Reappraisal, and Innovation," the 1999 GWS conference. This, the 10th Conference on Research and Resource Management in Parks and on Public Lands, will be held March 22-26, 1999, in Asheville, North Carolina. October 15 is also the deadline for making nominations for the 1999 round of GWS Awards, which will be given out at the conference. Before submitting, be sure to read the complete details and instructions in the conference Web site. Go to

<http://www.portup.com/~gws/gws99.html>

and click on to the appropriate link.

# 1999 International Symposium on Society and Resource Management

7–10 July 1999—Brisbane, Australia

**Theme:** The application of Social Science to Resource Management in the Asia-Pacific Rim.

**Sponsors:** Griffith University, University of Queensland, and the University of Wisconsin–Madison.

This is an interdisciplinary symposium dedicated to the study of sustainable relationship between natural resources and society. Planned activities include keynote and plenary addresses, paper presentations, organized panels, dialogue sessions, film and video sessions, a poster session, workshops and professional field trips.

Participants are invited to submit an abstract no longer than 300 words, double spaced, by 14 December 1998. Submit a hard copy of the abstract as well as a copy on disk (WordPerfect or Word for PC, not Mac).

**For more information, to pre-register or submit an abstract, contact:**

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# WCPA News: Raising the Profile of Protected Areas in the Convention on Biological Diversity

*This paper was reviewed at the symposium "Protected Areas in the 21st Century—From Islands to Networks" (Albany, Western Australia, November 24-29, 1997). Attended by more than 80 protected areas experts from over 40 countries, the symposium helped shape the proposal below, and endorsed the principle of promoting a work programme on protected areas within the Convention on Biological Diversity.*

## Introduction

Protected areas are essential to biodiversity conservation, and must be at the heart of efforts to implement the Convention on Biological Diversity (CBD). But, while they are specifically mentioned in Article 8 of the Convention, protected areas have not yet received focused attention from the Conference of the Parties (COP), the implementing body of the CBD. The purpose of this paper is to propose that an initiative be undertaken to raise the profile of protected areas in the implementation of the Convention.

Protected areas are "well known as national parks and nature reserves," but "they also encompass more recent concepts such as sustainable use reserves, wilderness areas and heritage sites. With proper management to effectively conserve biological diversity, a good network of protected areas forms the pinnacle of a nation's efforts to protect biodiversity, ensuring that the most valuable sites and representative populations of important species are conserved in a variety of ways. The network complements other measures taken to conserve biodiversity outside protected areas" (Glowka et al. 1994, 39).

Protected areas also provide societies around the world with a wide range of environmental services, acting, for example, as sources of fresh water for large cities, as protection against tidal surges and flooding, as

the foundation of a prosperous tourism industry, and as the basis for productive marine and freshwater fisheries. Protected areas are thus worth many billions of dollars, but they are also important for the non-material values which human communities attach to them in every region of the world.

The global network of over 30,300 protected areas of various types now covers approximately 8.84% of the total land area of the world. The fact that nearly every country has set up protected areas is evidence of governments' commitment to ensuring that this generation passes on to future generations a world at least as diverse and productive as the one we now enjoy. This commitment has been bolstered by similar actions taken by many sectors of civil society.

But despite the numerous initiatives taken at international, national and local levels in support of protected areas, more are required in many countries and existing ones need to be larger. Also, established protected areas everywhere are under threat, and these threats mount year by year. The main dangers are the ever-increasing demands for land and water resources to meet human needs, especially in poorer countries. Pollution, climate change, and irresponsible tourism add to the pressures. Too often protected areas lack political support and are poorly funded.

So there is an increasing credibility gap. On the one hand, the values of protected areas are clear, and indeed more and more such areas are being set up: on the other hand, progress is often thwarted by the ever-greater pressures placed on these areas. The rhetoric which often accompanies the establishment of protected areas has to be contrasted with the reality of there being many "paper parks"—protected areas legally in existence, but not functioning in practice.

This dilemma cannot be resolved by a strategy based solely on law enforcement, nor can it be dealt with only within the areas themselves. Instead, protected areas must be planned and managed with, and through, local communities wherever possible, not against them; developed as part of sustainable strategies for poverty alleviation and economic and social advancement in rural areas; and encompassed within broader

bioregional strategies incorporating lands around or between more strictly protected core areas. There is a need to utilise a wide range of protected areas approaches, including areas in which people live and make a living, and involve all levels of government and all sectors of civil society. While the scale of the crisis facing the world's protected areas is well documented, there is now also wide understanding of the required response.

The CBD provides an opportunity to help mobilise a more effective, integrated response than has been possible hitherto. Article 8 of the Convention (on *In situ* Conservation) calls on each Contracting Party to: establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity (8a); develop guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity (8b); regulate or manage biological resources important for the conservation of biological diversity, whether within or outside protected areas, with a view to ensuring their conservation and sustainable use (8c); and promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas (8e). There are also many other parts of the CBD which are relevant to protected areas (e.g., training, research, education), although the distinctive role which such areas

can play in each of these is not usually identified.

In its decisions, the COP has specifically addressed the importance of establishing and consolidating representative systems of marine and coastal protected areas; emphasised the importance of protected areas in contributing to the conservation of *in situ* forest biodiversity; and recommended the development of a thematic approach to the compilation and dissemination of information on protected areas.

Despite these welcome initial developments, so far the CBD has not yet been able to promote action which would have a significant impact by reversing the destructive trends affecting the world's protected areas. IUCN's World Commission on Protected Areas (WCPA) believes, however, that the crisis facing the world's protected areas represents one of the biggest challenges to the COP of the CBD. Without effective systems of protected areas, there can be no long-term *in situ* conservation of biological diversity; and *ex situ* measures alone can never be more than a very partial substitute. The text of the CBD is very general in setting out obligations for Contracting Parties towards protected areas. WCPA believes that the COP should develop a general work programme so as to raise the profile of protected areas in implementing the CBD—with the overriding purpose of enhancing the future prospects for biodiversity conservation through protected areas worldwide.

By consolidating and disseminating experience in the effective planning and management of protected areas, such a work programme developed within the framework of the CBD would increase greatly the impact of Article 8. It would also bring together the implications for protected areas of those articles of the CBD which do not explicitly address *in situ* conservation.

The work programme could lead to a number of important measures taken by the COP. At one end of the range of options is the adoption of a protocol on protected areas; another possibility is the development of an annex to the CBD on protected areas; but much can also be achieved through decisions of the COP. At this stage, WCPA has no preference; what matters is that a process to raise the profile of protected areas be embarked upon soon, and with determination.

### **The Planning and Management of Protected Areas**

Much work has been done by the worldwide community of protected areas professionals in recent years to improve the quality of planning and management. Examples are: the Fourth World Congress on National Parks and Protected Areas, Caracas, Venezuela (1992); numerous IUCN/WCPA regional and thematic meetings; publications (especially guidelines), workshops, training events, etc., to improve management standards; and resolutions of the IUCN General Assembly and of its 1996

World Conservation Congress (WCC; the resolutions referred to below are in IUCN 1997), along with other international measures (e.g., the World Heritage and Ramsar conventions). Through these and a wealth of other initiatives at the national and local levels, a corpus of best practice has developed in the planning and management of protected areas which can be drawn upon in the suggested work programme.

### **The Possible Scope of a CBD Work Programme on Protected Areas**

The following elements could form the basis of the proposed work-programme for the COP, leading to measures to encourage Contracting Parties to:

*Develop a national system plan for protected areas.* The implications of this are set out in guidelines prepared by IUCN/WCPA. *A Guide to the Convention on Biological Diversity* (Glowka et al. 1994) says that the word "system" "implies that the protected areas of a Party or region should be chosen in a logical way, and together would form a network, in which the various components conserve different portions of biological diversity" (p. 39). Clearly this needs planning. The CBD requires countries to put in place a national system of protected areas; however, the concept of a plan to guide this is only hinted at in Article 8b: the need for a national system plan should be made clear. Such a plan could form part of the National Biodiver-

sity Strategy called for under Article 6b; if not, it should be closely linked to the strategy.

*Establish new protected areas in priority areas for biodiversity conservation.* This is implicit already in Article 8a, but a more explicit requirement to consider the need to set up new areas would help governments to give higher priority to neglected ecosystems, e.g., in the marine and desert environments.

*Set up protected areas with a range of management objectives.* WCC Recommendation 1.35 urges countries to "apply the IUCN system of protected areas categories which both provide strict protection primarily in order to protect nature and which provide for a balance of conservation and the sustainable use of natural resources to help meet the needs of local people." The six categories are:

- I. Strict Nature Reserve/ Wilderness Area: protected area managed mainly for science or wilderness protection.
- II. National Park: protected area managed mainly for ecosystem protection and recreation.
- III. Natural Monument: protected area managed mainly for conservation of specific features.
- IV. Habitat/Species Management Area: protected area managed mainly for conservation through management intervention.
- V. Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation.
- VI. Managed Resource Protected



Area: protected area managed mainly for the sustainable use of natural resources (IUCN 1994).

*Put in place the legal or other means to plan and manage protected areas, including measures to enforce laws, etc.* IUCN advice on this says: "Implementing Articles 8a and 8b requires a firm legal base under which government authorities can establish and manage protected areas" (Glowka et al. 1994, 40). However, in some countries laws are supplemented or complemented by custom or tradition. None of this effort is of much value, however, without the power of enforcement.

*Adopt and implement management plans (or similar measures) at the site level for individual protected areas, or groups of related protected areas.* The need for a framework for site management as provided for by a management plan is widely recognised as a necessary means of ensuring that the areas in question can be managed effectively. Plans must however be implemented if they are to be of real value.

*Adopt bioregional approaches to planning and management.* Strictly protected core areas on land and sea need to be buffered by support zones (see Article 8e). Where appropriate, they should also be linked by corridors of ecologically friendly land uses, and include also the restoration of degraded ecosystems (see Article 8f). The bioregional approach, with its emphasis on interlinked networks of protected areas rather than "islands," is rapidly emerging as a cen-

tral thrust of much work on the design of protected areas systems for the future—for example, to help cope with the consequences of climate change. See also WCC Resolution 1.35.

*Integrate protected areas planning and management with all sectors of government policy.* Protected areas need to be integrated with policies for resource conservation. For example, with agriculture, forestry, freshwater and marine fisheries, other aspects of economic development (e.g., transport, tourism, industry, energy, minerals, and urban and infra-structure development) and other government use of land (e.g., for defence).

*Monitor the effectiveness with which protected areas are managed.* Monitoring and evaluation systems are needed to improve decision-making in the field (i.e., adaptive management), as well as to review protected area policies, enhance accountability, and justify resource allocations. Such action will help to ensure limited resources are used wisely and to ensure that "paper parks" become real protected areas.

*Ensure the special place of protected areas in environmental assessment procedures.* Article 14 requires Contracting Parties to introduce appropriate procedures for environmental impact assessment. It is desirable that the special place of protected areas is recognised in national legislation, etc.

*Adopt or remove economic incentives affecting protected areas.* There is a need for economic incentives to support protected areas, and to re-

move so-called perverse incentives which threaten protected areas. Action here is one of the most important practical measures open to governments in furthering the aims of the CBD. It would also help Parties to ensure that the requirements of Article 11 (Incentive Measures) are applied to protected areas as elsewhere.

*Provide a national framework level to encourage an appropriate range of organisations to set up and manage protected areas.* WCC Recommendation 1.35 speaks of "affirming the essential role of national governments in protected areas planning and management" but also providing "a fuller role to be played by provincial and local governments, indigenous peoples, other local communities, NGOs and private organisations and individuals." However, as signatories to the CBD, governments will wish to provide a framework for such efforts, which could be provided by the national system plan—see above.

*Adopt public participation, collaborative management, and stakeholder involvement in the planning and management of protected areas.* This has been recommended in numerous IUCN resolutions (e.g., WCC 1.42), IUCN publications, CBD resolutions, and other advice.

*Recognise the rights of indigenous peoples, as well as of local communities, to their lands or territories, and to the responsible use of those resources within protected areas which they have traditionally used in a sustainable way.* Traditional cultural

integrity and the traditional rights of indigenous peoples and other local communities "can often be supported by protected areas policies and practices which safeguard traditional forms of sustainable resource use" (WCC Recommendation 1.35).

*Include protected areas in policies of public education and awareness.* Article 13a contains general requirements about public education to encourage the conservation and sustainable use of biological diversity. The need here is for more explicit encouragement to Parties to include protected areas within public education and awareness programmes.

*Put in place programmes of scientific study and research to underpin biodiversity conservation efforts in protected areas.* Article 12b contains general requirements about research to underpin the conservation and sustainable use of biological diversity. The need here is for more explicit encouragement to Parties to include protected areas within such programmes of scientific study, especially for benchmark monitoring of change.

*Link in situ and ex situ conservation.* The CBD sees *in situ* conservation as the principal means of conserving biodiversity. However, Article 9 places obligations on Parties to adopt measures for *ex situ* conservation. It is important that there are appropriate links between these two complementary approaches to conservation.

*Adopt policies on bio-prospecting and access to genetic resources in pro-*

*tected areas.* Article 15 deals with access to genetic resources. Many of these will be found in protected areas, and it is highly desirable therefore that Parties adopt policies and procedures relating to bio-prospecting and access to resources for such areas which do not adversely affect their conservation status.

*Set up transfrontier protected areas through co-operative arrangements with neighbouring countries.* In order to conserve shared biodiversity resources *in situ*, many countries will need to establish more transfrontier protected areas, and to draw up agreements on their collaborative management.

*Build capacity within individual countries through training for protected areas.* The importance of strengthening the training of professional staff at all levels engaged in protected areas management is widely recognised. The need here is to make the linkage with the obligations on Parties under Article 12 on Research and Training.

*Request countries to collect, exchange and disseminate information about protected areas.* The exchange of information about biodiversity is the subject of Article 17. In respect of protected areas, there would be great value in encouraging Contracting Parties voluntarily to provide regular updated reports to IUCN's Environmental Law Centre (ELC) and the World Conservation Monitoring

Centre (WCMC). The ELC maintains a global database on environmental law, and WCMC maintains the global database on the status of the world's protected areas. Their ability to assist countries to meet their CBD obligations is greatly helped by the receipt of timely reports on status and distribution of protected areas.

*Include protected areas within reports of the Contracting Parties.* Article 26 calls for national reports from Contracting Parties to be presented to the COP on measures to implement the CBD. These should include appropriate reports on progress with protected areas, e.g. in respect of the foregoing list of items.

### Next Steps

It is hoped that key individuals from a number of Contracting Parties will be prepared to indicate their support for this idea and willingness to explore within their governments how to advance it within the COP. IUCN, principally through its World Commission on Protected Areas and the Commission on Environmental Law, and through the Protected Areas and Environmental Law Programmes of the IUCN Secretariat, will be ready to assist in the preparation of the work programme. The next World Parks Congress (Africa, 2002) would be a good target to set for the adoption of key measures arising out of the work programme.

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*Debra Clausen*

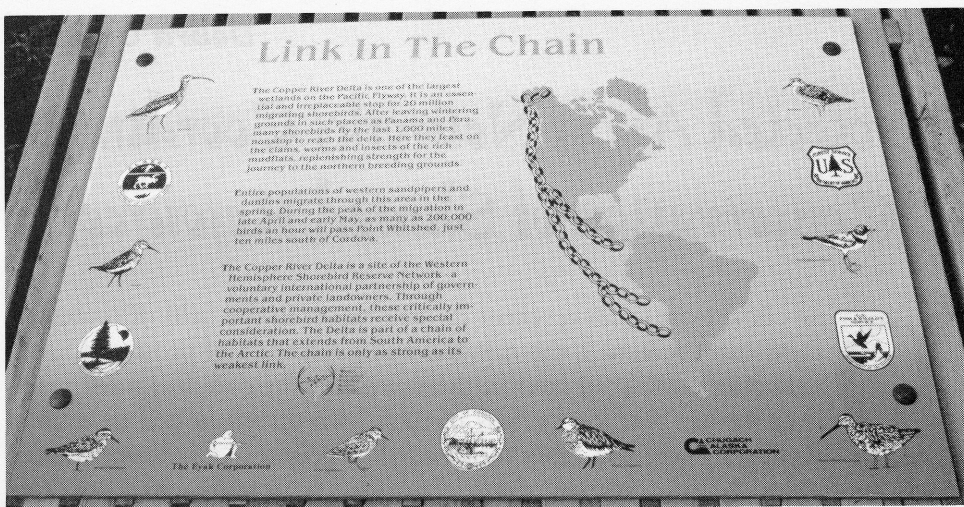
# Protected Areas Networks Coordinate Conservation of Shared Resources

One of the most exciting recent developments in the field of protected areas management is the creation and expansion of protected areas networks. Sooner or later in the course of their duties, most managers realize that the success of their own efforts is tied to actions taken or not taken by others in other locations. Protection of migratory species populations and the conservation of critical portions of large biomes is successful in the long term only if other habitats vital to the species or ecosystem are maintained as well. International agreements such as the designation of Wetlands of International Importance under the Ramsar Convention and the Migratory Bird Treaty Act recognize this fact. Waterfowl refuges established for the protection of spring and fall staging areas require conservation of core winter habitats as well as summer nesting areas if populations are to be maintained.

Protected areas networks share the common concept that the health of migratory species populations and sustainability of large biomes requires a holistic approach to conservation. Networks allow individual protected areas to contribute to a larger whole by providing coordination, communication, and an opportunity to identify critical gaps, thus increasing the effectiveness of each individual protected area.

The excellent articles presented in this issue of THE GEORGE WRIGHT FORUM explain what is happening in five of the world's most active protected areas networks. One of the first to be established (in 1960), and definitely the largest volunteer network

of protected areas managers, is IUCN's World Commission on Protected Areas (WCPA). With over 1,400 members in 160 countries, its mission is to promote the establishment and effective management of a worldwide representative network of terrestrial and marine protected areas. In this role, in addition to its many regional initiatives, WCPA has overseen the creation of the Mountain Protected Areas (MtPA) Network and the Marine Protected Areas (MPA) Network. Both the MtPA and the MPA networks have taken lead roles in addressing protected areas management globally in their respective areas of focus. In the Americas, the Western Hemisphere Shorebird



**Figure 1. Western hemisphere Shorebird Reserve Network sign for Copper River Delta. Alaska Department of Fish & Game file photo by Nancy Tankersley.**

Reserve Network (WHSRN) was established in 1985 to address conservation of critical shorebird habitats throughout Pacific, Central, and Atlantic shorebird migration corridors. WHSRN produces a quarterly newsletter, supports local community capacity-building projects and workshops, and continues work on dedication of additional critical shorebird sites. Annual shorebird festivals at many of the dedicated sites and the phenomenally successful Shorebird Sister Schools Program have provided very popular public outreach for network activities. In the Arctic, the Circumpolar Protected Areas Network (CPAN), a task force of the Arctic Council's Conservation of Arctic Flora and Fauna (CAFF), has been collaborating since 1991 on inventory and gap analysis of protected

areas.

In other regions and biomes protected area networks include the East Asian-Australasian Shorebird Reserve Network initiated by Wetlands International, WHSRN's counterpart in the Western Pacific and Indian oceans; the Temperate Grasslands Network now being established under the auspices of WCPA to link professionals interested in temperate grassland protection (considered to be the least protected of the world's 26 biomes); and a Cave and Karst Working Group, also established through WCPA, to link professionals in that specialized field of protected areas management.

In addition to providing a forum for exchange of information and ideas, many protected areas networks produce newsletters, have developed

management guidelines, and are undertaking gap analyses and strategic planning exercises to address critical conservation needs. Non-governmental organizations (NGOs) are also contributing to protected areas networks. Notable is the support provided to CAFF/CPAN by the World Wildlife Fund's Arctic Programme (WWF-AP) which produces the quarterly newsletter *Arctic Bulletin*, providing a comprehensive source of information regarding conservation efforts in the eight arctic countries. WWF-AP has also developed and distributed the ten principles for arctic tourism and the code of conduct for tour operators and arctic tourists.

Connections among the various protected areas networks are now beginning to form as well. In the North, CPAN efforts to address gaps in marine protected areas in the Arctic complements the MPA Network's identification of critical marine habitats in the same region, while CAFF's recently produced discussion paper on the conservation of migratory arctic breeding birds outside the Arctic and WHSRN's identification of critical shorebird sites along Alaska's coast reinforce the North-South connection.

Future challenges to the successful functioning of protected areas networks include how to establish and keep active essential membership contacts yet limit participation to an effective size. This is especially true

for protected area networks which are large in scope and depend upon the volunteer efforts of its members to organize newsletters, publications, meetings, etc.

Jet travel and electronic communication have made professional networking possible. Fragmented and shrinking habitats combined with accelerated species extinction rates have made effective and efficient conservation efforts imperative. The need for protected areas networks will no doubt be discovered for additional species and other habitats, especially on the regional level. For example, successful conservation of migratory species such as the endangered Columbia River salmon, which migrates through three states and two countries, threatened habitats such as the Meso-American Caribbean coral reef which extends across four countries, and creation of conservation corridors such as the Yellowstone-to-Yukon (Y2Y) Conservation Initiative could be facilitated through improved communication offered by protected area networks.

Ironically, as the focus of nature conservation becomes ever-more holistic, it is also becoming increasingly apparent that the key to sustainability is found at the local level. To be successful, national and regional protection initiatives must work with local interests. For example, dedication of Kachemak Bay, Alaska, as a site of international importance in the Western Hemisphere Shorebird Re-

serve Network was dependent upon local community protection of key intertidal habitats as well as through participation by the state of Alaska and the U.S. Fish and Wildlife Service.

The promise of protected areas networks is to reach across govern-

mental jurisdictions to address the organic functions which individual protected areas are dedicated to sustain. Coordination of related protected areas management really can lead to success greater than the sum of individual protected area managers' efforts.

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# A Global Representative System of Marine Protected Areas

## Introduction

**M**arine Protected Areas (MPAs) are not a new concept. Some forms of them have existed—adjacent to island countries at least—since before the time that the relevant communities recorded events in writing.

What is new is the development of a global sense of urgency about the condition of the world's seas and the recognition that MPAs can address some of the threats arising from human activities directly, and all of them indirectly.

This article does not attempt to recount the history of the development of MPAs or the programs that are intended to create them. Its aim is to describe the present MPA program of IUCN-The World Conservation Union and its World Commission on Protected Areas (WCPA) and the concepts that underlie that program. However, it should be recognised that the current program builds on a long history of effort and achievement by people in the IUCN from its earliest days (it was created in 1948) and in other institutions.

The WCPA MPA network consists of people who have expertise in various aspects of MPAs and who are prepared to donate their time and effort to achieving the IUCN marine

goal and objectives. WCPA has a policy of working with other people and networks with similar aims. I hope that this article will contribute to further collaboration between like-minded people in the cause of marine conservation and to an extension of the existing network, either formally or informally.

Sometimes in this article I have expressed my views very directly. I have done this to avoid the misunderstanding which can arise from subtlety. I hope that readers are not offended by this lack of diplomacy.

## The Goal and Vision

At its 17th General Assembly in 1990, IUCN adopted a primary marine conservation goal in Resolution 17.38, as follows:

To provide for the protection, restoration, wise use, understanding and enjoyment of the marine heritage of the world in perpetuity through the creation of a global, representative system of marine protected areas and through the management in accordance with the principles of the World Conservation Strategy of human activities that use or affect the marine environment (Kelleher and Kenchington 1992).

This primary goal deliberately identifies MPAs as a means to an end, rather than an end in themselves. The language of this goal clearly recognises that the overall vision is one where *all* areas of the world are subject to a code of human behaviour that ensures that ecological processes and conditions are not insidiously (or blatantly) degraded by human activities. Because almost the entire surface of the world drains into the sea, there are virtually no areas which are excluded from this goal.

The unstated implication of this language is that we in IUCN should be working towards the establishment of systems of integrated ecosystem (or bioregional) management that cover the entire global surface, with MPAs being integrated into these systems. It is only through integrated management of entire ecosystems that the adverse effects of sectoral management can be avoided, namely the externalisation of costs (such as environmental degradation) and the internalisation of profits.

IUCN's MPA program is being carried out in this context. While small, highly protected MPAs are vital to the eventual attainment of the goal, it is recognised that, if they are not embedded in ecosystem-wide management systems, they will be extremely vulnerable to external destructive influences, particularly pollution. For this reason, large, multiple-zoned MPAs (such as biosphere

reserves) which include highly protected (no-take) areas can contribute a lot towards integrated ecosystem management. Of course, no MPA will achieve its aims if it is not managed effectively.

### What is an MPA?

The IUCN and the World Wilderness Congress have defined an MPA as "any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which have been reserved by law or other effective means to protect part or all of the enclosed environment" (Kelleher and Kenchington 1992).

Because this definition and the general definition of protected areas developed by IUCN deliberately use very general language, so as to encompass all types of protected areas, it has been necessary to classify protected areas into different types according to their primary management objective. Site management objectives are treated as of supplementary value. This was first done in 1978 by IUCN's Commission on National Parks and Protected Areas (CNPPA; recently renamed WCPA) and published by IUCN. In 1994, IUCN published a revised, simplified categorisation prepared by its WCPA.

Very briefly, the categories and their primary objectives can be summarised as follows.

The various categories comprise areas managed mainly for:

- I. Strict protection (Strict Nature Reserve / Wilderness Area)
- II. Ecosystem conservation and recreation (National Park)
- III. Conservation of natural features (Natural Monument)
- IV. Conservation through active management (Habitat/Species Management Area)
- V. Landscape/seascape conservation and recreation (Protected Landscape/ Seascape)
- VI. Sustainable use of natural ecosystems (Managed Resource Protected Area).

Detailed explanations of these categories with terrestrial and marine examples can be found in *Guidelines for Protected Area Management Categories* (IUCN 1994).

These categories apply equally to protected areas of land and sea. It is important to note that they do not assess management effectiveness—this is a separate (but necessary) exercise—and that all categories are considered by WCPA to be important.

From the definition and the description of categories it is clear that an MPA can vary in size from a small area in which nearly all human activities are prohibited to a vast area which allows for a variety of human activities, usually defined by zoning. One form of the latter is the biosphere reserve. Such MPAs can encapsulate the marine component of an entire coastline or of a coastal area which has been defined under an Integrated Coastal Management (ICM) regime.

### Origin of the Current IUCN/WCPA Program

Although there had been considerable work by IUCN (and CNPPA, the forerunner of WCPA) on MPAs in the preceding years, the lessons from some of which were incorpo-

rated in *Marine and Coastal Protected Areas: A Guide For Planners and Managers* (Salm and Clark 1984), in 1986 both organisations concluded that the attention given to protection of the world's seas, including the creation of marine protected areas, lagged far behind the corresponding progress on land. The position of Vice Chair (Marine) was created in the WCPA with the task of accelerating the development of a global representative system of marine protected areas, as an important part of an overall program which would achieve the IUCN's primary marine goal. The system was and is intended to include a representative example of every major biogeographic type in the world's coastal seas. It is now being extended to the high seas.

### Why Do We Need MPAs?

Although the lessons derived from the adverse experience of countries which have maintained areas available to the public for private use, without ownership, have long been recognised and encapsulated in phrases such as "the tragedy of the commons" (Hardin 1968), the world has been slow to apply these lessons to the sea and its resources. The almost universal failure of sectoral management to avoid overfishing and collapse of fish stocks has shown how powerful are the incentives for selfish and destructive actions in relation to resources which are not owned by a person or a group.

Marine protected areas provide a mechanism for establishing *de facto* ownership of marine resources. They establish geographic and behavioural boundaries to which everyone should be subject. This is especially true where the benefits flow to local communities, which then have many of the incentives for sustainable use that are normally conferred by real ownership.

It has been usual over the past two decades for most conservation organisations to focus on the contributions of protected areas to conserving biological diversity, almost to the exclusion of the vital roles that they can play in protecting biological productivity and improving human welfare. Fortunately, this is changing. The almost universal failure of protected areas to perform their designed functions in the face of opposition or apathy from local communities has led to widespread recognition that protected areas must meet the needs of these communities if they are to survive.

IUCN shares this view. Its program on MPAs aims at helping local communities in their struggles for survival, while contributing to the maintenance or restoration of ecological quality. Experience has shown that these dual aims are likely to be achieved only when local communities are largely responsible for the designation, design, management, monitoring and assessment of the

MPAs in their vicinity. Real benefits must flow to them. In today's world of relatively rapid economic growth, increasing consumption of natural resources and, in most developing countries, very rapid increases in human population, the Malthusian principles are everywhere evident. People cannot place emphasis on biological diversity and benevolence towards nature when they are struggling to survive.

### **The Present IUCN/WCPA Program**

The overall goal of the program has been described. In order to move towards the attainment of this goal, the following course has been pursued. This process is described because, although many people find organisational issues boring, they are often crucial in meeting objectives. It is hard to refrain from making the unpopular comment that, despite the widespread condemnation of bureaucracies, they have often made the difference historically between highly energetic chaos and coordinated action.

The program consists of the following principal, interdependent elements:

- The division of the world's coastal seas into a small number (18) of major biogeographical regions.
- The division of each region's and country's marine coastline into its biogeographic zones.

- The identification of existing MPAs, and thus of the gaps in representation of biogeographic zones.
- The determination of highest priorities for new MPAs or for establishing effective management in existing ones.

The organisational actions that have been taken or are in progress include:

- The writing, publication, and widespread distribution of simple, inexpensive guidelines which describe the approaches that have been successful in establishing and managing MPAs in various social and ecological situations (Kelleher and Kenchington 1992). This document does not attempt to address ecological theory and methodology. Detailed treatment of biophysical issues can be found in such publications as Salm and Clark 1984.
- The recruitment of working group leaders for the 18 coastal regions and one for the high seas and the establishment of regional working groups, consisting of scientists and managers, government and non-government people.
- The establishment of working groups in the countries of each region.
- The establishment and empowerment of networks of professionals and activists concerned with MPAs, to work with the working groups.
- The provision of assistance and encouragement to working groups in

their work.

### Principles and Policies

The *Guidelines for Establishing Marine Protected Areas* are based on the following observations and principles which have been derived from experience from many coastal areas subject to human pressures. These principles apply specifically to MPAs, but they are relevant to any management system whose aim is ecologically sustainable development.

- The entire marine ecosystem under consideration and the mainland area that affects it should be treated as a single system, integrating ecological, social (including cultural), and economic issues. The area should be managed in accordance with the principles of Integrated Coastal Management (ICM).
- Commitment to the overall project from all major stakeholders will be necessary.
- Commitment will be achieved primarily through inculcating a sense of ownership among stakeholders by involving them meaningfully in education, planning, administration, research, monitoring, and enforcement.
- Identifiable benefits must flow to local communities from the project.
- Stakeholders include state and federal governments and their relevant agencies; local communities; traditional, recreational, and commercial fishers and their representative agencies; women's groups; church groups; and other NGOs.

agencies; women's groups; church groups; and other NGOs.

- All processes of decision-making, management and enforcement should be both "top-down" and "bottom-up."
- Scientists and managers must work together continually, not sporadically, if they are to learn to understand their respective "languages," capabilities, constraints, and incentives, and to work together in achieving scientifically sound solutions to the problems being addressed.
- A specific operational structure will be necessary to achieve integration. This structure and its operations should be designed to encourage trust among all of the stakeholders.
- The creation of new organisations should be minimised, consistent with achieving the primary goal.
- Existing legislation, organisations, and their resources should be used to the maximum extent practicable, rather than always seeking new legislation and organisations.

In almost every country in the world there is strong competition between the government agencies responsible for fisheries and those responsible for environmental protection. This is perhaps the greatest inhibition to progress in achieving successful MPA (or ICM) establishment and management. It is understandable in terms of human nature, and specific actions are necessary if

the destructive effects of this phenomenon are to be reduced.

In order to achieve cooperation between these important agencies, so that their complementary objectives (which can be summarised as focusing on biological productivity and biological diversity, respectively) can be achieved efficiently, it is desirable for MPA work to be carried out by working groups that are both interdisciplinary and interdepartmental, consisting of staff from both government departments, as well as research agencies and NGOs with relevant expertise and responsibilities. A system of rewarding scientists based on their contributions to sustainable development of a particular MPA or marine ecosystem and the associated mainland area should be developed to replace, at least partly, the traditional reward system based on published papers.

### Where Are We Now?

In summary, considerable progress has been made towards achieving those elements of IUCN's primary goal referring to MPAs, but there is still a very long way to go. Thousands of MPAs have been established. Many more are proposed. Some are well-managed and some exist in theory only.

The coming into effect in 1994 of the Convention on Biological Diversity and the UN Convention on the Law of the Sea has established an international foundation for MPAs



energy apparent in this field that continues to increase, together with a general acceptance of some fundamental principles, such as the need for community "ownership" of MPAs, that give grounds for a degree of optimism.

In 1995, IUCN, the World Bank, and the Great Barrier Reef Marine Park Authority published *A Global Representative System of Marine Protected Areas* (Kelleher, Bleakley, and Wells 1995). This four-volume report identified the 18 major coastal marine biogeographic regions, divided the regions into their principal biogeographic zones, listed the existing MPAs in each country's jurisdiction, identified the highest priorities for establishing new MPAs or for converting paper parks into effective MPAs, and proposed a series of actions considered necessary to achieve the primary goal stated above (which is not confined to MPAs).

Since then, progress has been highly variable. Some countries, such as Canada, have produced beautifully crafted systems plans, but have had limited success in implementing these, although significant progress seems imminent. Others, such as those in Southeast Asia and the Baltic, are moving with determination and commitment to involve local communities in establishing MPA systems that provide both ecological and economic benefits. Progress in some countries is such that the report is al-

ready out of date—a most desirable situation.

### The Future

The IUCN MPA program is one of many being carried out or coordinated by different organisations around the world. It is deliberately structured to work in cooperation with other compatible programs rather than in competition with them.

The semi-hierarchical structure of the IUCN program is there only to achieve coordination, cooperation, and communication, and to facilitate assessment of progress and changing priorities. The hope is that there will continue to develop informal and formal networks of people with interest and relevant skills in all parts of the world, co-operating to achieve protection and sustainable use of the seas.

The *Global Representative System* report will require periodic revision. Whether this will result in publication of paper reports in the future remains to be determined. The current version is already available on the Internet through Australia's Department of Environment Web site <[www.environment.gov.au/portfolio/gbrmpa/mpa/regions.html](http://www.environment.gov.au/portfolio/gbrmpa/mpa/regions.html)> and its data are available from the World Conservation Monitoring Centre in Cambridge, England, on <[www.wcmc.org.uk](http://www.wcmc.org.uk)>. It is at least conceivable that paper versions will become largely unnecessary as electronic data access continues to increase globally.

We are considering revising *Guidelines for Establishing Marine Protected Areas* to take account of the experience in MPAs that has been gained in various parts of the world over the past seven years, and to improve their ease of use.

As the uniqueness of every ecosystem or habitat area becomes more apparent, we can expect that the goal of a fully representative system of MPAs will become more refined. There will always be scope and need for additional MPAs to represent ecological processes or features that are revealed by increasing scientific knowledge and understanding.

### Conclusion

Most of the world's people live close to the sea, and depend greatly on its living resources. Coastal seas are being degraded through a combination of increasing human popula-

tion, the demand for more resources, destructive fishing practices, increasingly sophisticated fishing technology, the failure generally of conventional fishing management strategies, and pollution.

The ultimate solution to this worldwide problem probably lies in integrated ecosystem management, extending from the headwaters of watersheds to the edge of the continental shelf. Marine protected areas can serve as the core of such regimes, providing a buffer against failures in conventional management and against natural disasters.

The shift from top-down decision making to fully democratic processes involving all levels of community (top-down and bottom-up) is likely to be the key to achieving IUCN's primary goal of marine conservation and use.

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# Shorebird Conservation:

## Protecting Habitats for Hemispheric Migrants

Crossing thousands of miles between North and South America, migratory shorebirds depend upon a few distantly separated, vital staging sites as critical "links in their migration chain." Some of these sites enjoy legal protection and community support, while many others are threatened by growing economic development pressures. On a global scale, shorebird habitats continue to be degraded, and threats to critical wetlands from unsustainable land and water uses are increasing. In the Western Hemisphere it is now apparent that coordinated site protection across the entire shorebird range, from the Arctic to austral South America, is essential for sustained conservation.

Shorebirds, also known as "waders" in Europe and Asia, are usually associated with some kind of water's edge at some time of their lives. Sometimes that might mean the edge of a river or lake as well as the ocean shores. Many are even found in the prairie potholes and ponds of central North America, and they may build their ground nests in habitats as diverse as tallgrass prairies, remote lichen-covered tundra, sandy beaches, and upland farm fields. The term "shorebirds" does not include the other water-associated birds (such as gulls, terns, herons, cranes, ducks, or geese) that share these environments but fill distinct niches.

Western Hemisphere shorebird populations (more than 47 species of sandpipers, plovers, oystercatchers, and related birds from the Charadrii-

dae, Scolopacidae, and Haematopodidae families) continue to suffer substantial declines. Of the 41 shorebird species that migrate through North America, 5 have declined by 25% or more over the last five years, and 16 others have projected or actual population declines of 5-20% (Harrington 1995). Only the upland sandpiper appears to have a stable or increasing population. The evidence comes from over twenty-five years of field data that the Manomet Center for Conservation Sciences has coordinated through the International Shorebird Survey (ISS), from Point Reyes Bird Observatory, and from other sources documenting relative abundance, migration chronology, and the key areas used by these birds.

Globally, there are over 175 species of shorebirds, and in the Eastern



*Photo by David C. Twichell*

Hemisphere they are believed to be suffering similar declines. Although the need for improved conservation is clear, several key factors limit progress. Shorebird habitat management priorities are often absent in key areas, there is a lack of adequate scientific information, and public support is weak. In general, this may be correlated with the lack of public awareness regarding the ecological and human importance of wetlands.

Naturalists since Aristotle's time have marveled at how these small birds navigate over vast distances. Even today we lack a complete understanding of how they can so precisely find their way from the far reaches of Tierra del Fuego up to extreme-Arctic lands and back again. How can these slight, elegant birds fly nonstop for 2-3 days, covering up to 2,000 miles (averaging 50 miles per hour) between rest stops? *How* do they do it? *Why* do they do it? Try this: Go to your favorite fast-food restaurant and consume the highest-fat selections they offer. Eat fast and don't stop eating until you have doubled your weight, all within a few days (about 4,000 burgers in all). Now, run outside and don't stop until you cover at least 1,000 miles without food or water. Stop and do it all over again. Get the picture? This is the shorebird migration that occurs beautifully and naturally every year, spring and fall, across the globe.

If only shorebirds could tell us the stories of their experiences. The

physical feat alone is beyond our comprehension. The accomplishment of navigating night and day high over the world's largest rainforests, mountain ranges, vast stretches of oceans, and into the remote tundra is truly mind-boggling. Perhaps even more intriguing is, How do the new-born chicks, departing on their first southward migration after the adults have left, find their way over totally unfamiliar territory to wintering grounds so distant and unknown?

Recent physiological research indicates that shorebirds undergo dramatic internal changes in preparation for the long migrations. Their flight muscles enlarge and internal organs are greatly reduced to cut extra baggage for the trip. They also develop an exceptional metabolic ability to convert food into stored fat for the extended flights of 50-60 hours to come. Once at the nesting grounds, the female then rapidly produces up to four eggs which may weigh as much as 50% of her total body weight. Faced with a very brief Arctic summer, newborn shorebirds begin walking and feeding on insects within hours of hatching. Often the adult females will depart first, soon after their chicks begin foraging, leaving any brief parenting to the father, who will leave before the chicks have their flight feathers completely developed. Traveling south, the juveniles follow a similar pattern of concentrating at critical staging sites where they seem to know where to find the abundant

food for their first migration across completely unfamiliar skies.

Hudsonian godwits and red knots are long-distance travelers and may cover over 20,000 miles round-trip every year (Harrington 1996). Snowy and piping plovers travel more modest distances between their summer and winter residences, wintering along the Gulf of Mexico coastline and nesting in the northern prairies of the U.S. and Canada, similar to many ducks and geese. Woodcock and snipe are also shorebirds, but generally migrate short distances or not at all.

Even the most efficient shorebird needs to replenish fuel and rest to make such an extreme voyage. Knowing when and where to find that food may be the key evolutionary feat of these awesome birds; it may also be their point of greatest vulnerability to the human species. Just when we are discovering the intricacies of the most successful and spectacular migratory beings on the planet, we may be unwittingly preparing to annihilate them.

Migrating wildlife follow distinct routes determined by the species' capabilities and dietary needs. Shorebirds follow the food supply and arrive at critical sites just as the maximum abundance of prey becomes available. The shorebirds' diet is selected for its high energy content. The availability of food depends on climate, season, and competition. Successful feeding also depends upon

having minimal disturbances, as well as roosting security during stopovers. Despite their relatively small, delicate appearance, shorebirds are actually voracious predators, consuming thousands of insect larvae, small clams, snails, worms, and other invertebrates. Plovers are usually visual hunters and can be seen "stalking" prey, while many sandpipers use a rapid probing technique with specialized beaks that can "smell" the prey and feel movements in the soil.

Probably no other animal species on Earth migrates the great distances and concentrates to the extremes shorebirds do. (Arctic terns, also famous for their long-distance migration, differ significantly by using a "short hop" strategy.) This makes them very special in terms of their ecological niche, but also can make them highly vulnerable to loss of a single critical wetland "stepping stone" upon which their migrations depend. Often shorebirds are found by the hundreds of thousands concentrated at a single site, making the whole species extremely vulnerable for those intense few weeks. If any one site were lost to or degraded by development or pollution, whole populations could face devastating consequences.

Every year new threats to shorebirds and their habitats are developing. Delaware Bay on the U.S. Atlantic coast may host 75% of the Western Hemisphere's red knot population (along with individuals of many other

species) during a few critical weeks each spring (Clark and Niles 1993). Dramatic increases in the harvest of spawning horseshoe crabs as eel bait may have affected the supply of surplus crab eggs. These eggs may be an irreplaceable energy supply required to complete the last flight directly to the shorebirds' Arctic nesting grounds and to produce eggs. There is growing concern about this impact on the birds, and new state regulations to manage the crab harvest have been developed by New Jersey and Delaware. At issue is more than conservation: the bird migration annually generates over US\$10 million in tourism income for the region.

Wetlands worldwide are being filled, drained, polluted, and degraded to such an extent that all life in these diverse ecosystems may be in peril. Although economic analysis of global wetlands suggest they are by far the most productive ecosystems on the planet (Costanza et al. 1997), yielding about US\$33 trillion in products and services per year, almost double the world total gross domestic product (GDP). The United States has already destroyed over 50% of its original wetlands, Canada nearly a third, and many other countries follow this trend as development pressures grow and the values of wetlands are severely underestimated. Water supplies to many western U.S. wetlands must compete with agriculture and municipal demands. Cheyenne Bottoms, Kansas, which hosts up to

90% of the stilt sandpipers, depends upon the limited Arkansas River—and may have to share it with a proposed large-scale hog production and processing project. Proposed construction of a Legacy Highway over the eastern-shore wetlands of Great Salt Lake, Utah, would directly affect one of North America's most vital inland sites for shorebird and waterfowl staging and nesting. San Francisco Bay is being invaded continually by exotic species that may disrupt natural productivity vital for over 1 million shorebirds. Oil spills such as that from the *Exxon Valdez* threaten spectacular sites like the Copper River Delta in Alaska, where over 15 million shorebirds stage during both spring and fall migrations. The issues are endless, and sustainable protection requires dedicated support from scientists, environmentalists, and communities as well as the public agencies mandated to conserve wildlife.

It was in response to this challenge that the Western Hemisphere Shorebird Reserve Network (WHSRN) was formally conceived in 1986, with the goal of addressing shorebird conservation from a science base. A group of scientists from the Manomet Center for Conservation Sciences, World Wildlife Fund, National Audubon Society, and the Philadelphia Academy of Natural Sciences had been studying shorebird migration and discovered the unique concentration patterns occurring in special staging

sites. Realizing that these few sites were vital and spread over the shorebirds' international range, they concluded that only a multi-organizational, international network would be able to provide effective conservation. (A similar network of sites is currently being developed by the Eastern Australasian Shorebird Reserve Network with support from Wetlands International.)

The science base of the WHSRN is Manomet's ISS, which comprises field data gathered by volunteer collaborators working in over 1,650 sites for 26 years—the largest database of its kind. In addition, WHSRN draws upon data from the U.S. Fish and Wildlife Service (USFWS), the Canadian Wildlife Service (CWS), and many other sources that have indicated significant declines in shorebird populations. Further, Manomet recently signed a broad memorandum of understanding with the USFWS under which over 500 national wildlife refuges will become eligible for WHSRN support for monitoring, training, habitat project development, and information exchanges.

Scientific understanding of shorebird migrations and the need for protected areas has been refined over the past quarter-century. New analysis by Manomet of ISS information is now helping us to understand the shorebirds' migration, population trends, and ecological role in the wetlands. The unique strategy of shorebird migration became the foundation for the

network of over 120 organizations collaborating in the protection of nearly 9 million acres of vital habitat. The network is considered a model program for international cooperation and the environmental motto "think globally and act locally." Everyone in the network has local responsibility for his or her important site: sites which, collectively, contribute to sustaining the hemispheric populations of shorebirds.

Delaware Bay was the first site in the WHSRN, and now 35 critical sites in seven countries are officially recognized, with over 150 potential additions believed to exist in North America alone (Harrington and Perry 1996; Morrison et al. 1995). Currently there are over a dozen nominations pending for additions to the WHSRN, all initiated by local organizations. Additional nominations can be made at any time by organizations or agencies responsible for a given site.

WHSRN sites, always nominated by the owners and local stakeholders, must satisfy two sets of criteria. Biological criteria require a minimal shorebird use to indicate the level of concentration occurring at the site: Hemispheric Sites host over 500,000 birds per year, International Sites host 100,000 to 500,000, and Regional Sites have at least 20,000. Data are taken from local reports, independent studies, and our own monitoring. The second set of criteria requires that all local stakeholders (landown-



ers, managing agencies, communities, organizations, businesses, etc.) be fully informed and supportive of the designation. This, we believe, is essential to the long-term success of on-site conservation, since these stakeholders identify the resources and needs, set priorities and responsibilities, and will ultimately be responsible for the management and benefits.

Ownership of WHSRN sites is highly variable, including diverse coalitions such as San Francisco Bay (California) and Chaplin Lake (Saskatchewan), each with over a dozen participants, as well as single-owner national wildlife refuges and national forests, state-owned sites such as Great Salt Lake, and combined public-private ownerships, as at Cheyenne Bottoms (state of Kansas and The Nature Conservancy). We strongly encourage the participation of nearby communities and local businesses who may have a stake in the protection and development of the area. Active collaboration to achieve common goals has been our most significant strategy to avoid unproductive conflicts and get science-based conservation implemented.

WHSRN is currently coordinated by the Manomet Center for Conservation Sciences and has a partnership with Wetlands International: the Americas for developing services to sites in Canada and South America. The WHSRN Advisory Council is a stakeholder body representing state,

federal, and private partners, including the sites, which guides the Network's strategic planning and development. A Scientific Advisory Board, composed of shorebird scientists from North and South America, advises WHSRN on site designations, reviews scientific aspects of proposals and projects, and assures that we maintain our strong scientific foundation. The Manomet staff is very limited, with a senior scientist, an education-outreach specialist, and the director. Funding has been requested to support additional positions so we can improve services to the Network sites and implement more effective conservation projects. Wetlands International supports WHSRN with its own staff in Ottawa. Probably the most impressive aspect has been the network of nearly 900 volunteers who have provided field data to the ISS.

Protected areas share common needs but have limited resources to fulfill their missions. WHSRN promotes and coordinates the "twinning" of northern and southern sites that share shorebird species and conservation needs. Linked sites are able to exchange information and ideas, support each other as they address common issues at distant points of the network, and learn from each other's experiences.

An example of twinning is the Canadian Wildlife Service's work at the Bay of Fundy, which has been paired with that of counterparts in Suriname,

to study semipalmated sandpipers and improve their habitat management practices at both ends of the bird's range. Another exciting project has been recently developed with Canadian, U.S., and Mexican sites to strengthen their training, monitoring, public outreach, and land management capabilities. A "Linking Communities and Wetlands" workshop was held with representatives from a site in Mexico, the USA, and Canada who jointly discussed mutual issues for a cooperative strategy to benefit the shorebirds they share. Another initiative on joint training of biologists working in the breeding, migration, and non-breeding sites for shorebirds has begun this year, involving participants from the west coast of Mexico, north-central USA, and south-central Canada. These sites include national and state parks, wildlife refuges, and private lands that have critical saline habitats for the same populations of American avocets, marbled godwits, and yellowlegs. Working together as a team, these sites clearly can have a much stronger program of conservation and public awareness than can any one alone.

Official recognition of the international ecological significance of a site—such as is afforded by membership in the WHSRN—gives it great political status in the eyes of agencies, funders, and the local communities. It provides an important tool for the

protection of the site when threats may develop, and facilitates local and regional coordinated management. In addition, the site becomes a resource of information for the other Network sites. WHSRN also develops funded projects for multiple sites, provides training in shorebird ecology and habitat management for biologists, facilitates information and experiential exchanges among sites, and provides direct assistance when threats develop. Organization of public activities that promote awareness and local economic benefits, such as shorebird festivals, have had remarkable success at several sites.

As the need for effective landscape- and regional-scale conservation becomes more apparent, the International Association of Fish & Wildlife Agencies, representing all 50 U.S. states, has funded the development of a U.S. National Shorebird Plan. Design of this plan, coordinated by Manomet, will be closely integrated with the North America Waterfowl Management Plan for waterfowl and Partners in Flight plans for songbirds. Completion of these, along with a new shorebird plan in Canada now beginning, not only will provide strategic guidance for research and land management for the major groups of migratory birds, but will establish the groundwork for much needed plans throughout North and South America.

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# The Shorebird Sister Schools Program

## Introduction

**T**he Shorebird Sister Schools Program is an interactive Internet education program designed to educate students about shorebird ecology, wetland conservation, migration, and cultures throughout the Western Hemisphere. The program was initiated in Homer, Alaska, in 1994, with 17 schools participating on the West Coast (U.S. Fish and Wildlife Service 1995). The program was expanded in 1996 to include thousands of schools throughout the Western Hemisphere (U.S. Fish and Wildlife Service 1997). Students not only learn about shorebird ecology, but also about wetland ecosystems and cultures throughout the world. There are now three major components of the program: an Arctic-nesting shorebird curriculum, a Shorebird Sister Schools Program Web page, and a shorebird listserv.

The goals of the program are to teach students about the fascinating migration of Arctic-nesting shorebirds and the importance of conserving wetland habitats for their survival. They learn the concept of conserving these critical habitat areas for the continuing benefit of shorebirds and other migratory bird species. Finally, students learn more about other cultures in the world so they will have a better understanding of the idea of "sharing" a resource with others.

### Arctic-nesting Shorebird Curriculum

An Arctic-nesting shorebird curriculum was completed in March 1998 (U.S. Fish and Wildlife Service 1998). It is a K-12 curriculum with teacher background information and children activities for all the major

components of shorebird life history and ecology. These include an introduction ("What are shorebirds?"); shorebird adaptations, habitat, nesting and breeding, and migration; the Shorebird Sister Schools Program; field trips; and a "tying it all together" section. Each of these chapters includes activities for all age groups. Additional appendices provide more in-depth or advanced information about shorebird ecology. Included with the curriculum is a full-color poster of shorebird wintering grounds, stopovers, and nesting grounds; and a field guide to shorebirds. Available to Alaska teachers are shorebird kits with videos, slides, books, activity pieces, puppets, and posters. The kits can be checked out through inter-library loan at the Alaska Resources Library and Infor-

mation Services in Anchorage, Alaska. The curriculum materials are also being translated into Russian and Spanish, and will be available in the fall of 1998.

### Shorebird Listserv

In 1996, a shorebird E-mail listserv (fws-shorebirds-digest) was developed to allow students to share their own field trip information with other students, ask questions of biologists, and learn about issues of and threats to shorebirds throughout the world. Postings are made each week from Anchorage, Alaska ("Shorebird Central"), providing shorebird life history information and challenging questions for the students. Answers to the questions are given the following week, with another challenging question added.

By the time students are ready to conduct their own shorebird field trips, they have completed an entire lesson within the classroom, including shorebird identification, how to use a field guide, information on where the shorebirds have migrated from, what shorebirds eat, and where and when they nest in the Arctic. Students are encouraged to complete projects (as individuals, as a class, or as an entire school) that make improvements to shorebird habitats or assist individual birds. Many schools choose to conduct beach clean-ups or community wetland clean-ups prior to the arrival of shorebirds.

As Arctic-nesting shorebirds mi-

grate from their wintering grounds to Alaska and the Canadian Arctic, students are watching and waiting for the birds to pass through their communities. Upon arrival, the students conduct their own field trips and submit the data to the listserv. Students from the Arctic regions are excited to know where the birds are each day and anticipate their arrival in May or early June. Students from the wintering grounds are excited to see the shorebirds arrive safely. During the fall migration, the reverse process happens, and students from the Arctic and along the flyway share field notes as the birds are heading back down south.

The concept of migration becomes much more realistic for students, and when we talk about "long-distance migrants" and the tremendous amount of threats to the birds along their journey, it is much easier for them to understand.

To subscribe to the E-mail listserv, send a message, leaving the "subject" line blank, to <listserv@www.fws.gov>. In the body of the message, type "subscribe fws-shorebirds-digest" and your name. (Exclude the quotation marks and do not put your name in parentheses.)

### Worldwide Web Site

In 1996, a Worldwide Web site was created for the program <<http://www.fws.gov/r7envded/sssp.html>> so students could learn more about shorebird ecology, test their



**Figures 1 and 2. Fish & Wildlife biologists host childrens field trips at the Kachemak Bay Shorebird Festival.**



Figure 3. Students at Clark Middle School painted a mural of the birds traveling from their wintering grounds to the nesting grounds.



Figure 4. La Mancha, Veracruz—Many beautiful shorebirds.



shorebird identification skills through on-line quizzes, and track the migration of shorebirds electronically. Curriculum materials were added to the Web site in both English and Spanish to provide educators with classroom materials to use prior to conducting field trips with their students. Currently, translation into Portuguese is being completed.

Additional materials were produced specifically for shorebird enthusiasts and families who are interested in "where the birds are today" and when and where the next shorebird festival is taking place. Links to wetland and other migratory bird ecology and education Web sites are available to enhance the Shorebird Sister Schools Program and learn more about wetland ecosystems. National Wildlife Refuges are highlighted, showing some of the protected areas for shorebirds and other bird species. Endangered species, such as the snowy plover, are highlighted to emphasize added protection in particular sensitive areas. Maps are included to show where the Western Hemisphere Shorebird Reserve Network sites are located, where the major stopover locations are for Arctic-nesting shorebirds, and the locations where they winter, nest, and breed.

A "Just for Kids" section was created that highlights children's artwork, poetry, and Web pages. In addition to sharing information with the many schools involved in the Shore-

bird Sister Schools Program, students are also participating in pen pal exchanges with specific schools. They are exchanging letters, artwork, and interesting things from their own cultures. These projects are highlighted in the Web page for others to enjoy.

### **Project Successes and Evaluation**

The Shorebird Sister Schools Program participation has exploded, going from 17 schools in 1995 to 250 subscribers on the E-mail listserv in 1996 to 800 subscribers in 1998. There are currently 23 countries participating in the program, with thousands of people accessing the Web site each month. Written and oral evaluation of the program shows there was a tremendous need for such a program, and we anticipate further growth.

From the time we established the Shorebird Sister Schools Program on the Worldwide Web until the present, we have received hundreds of positive comments about the quality of information on the Web page. One participant wrote: "Just wanted to drop you a note to say how much I love this program! I'm a mega-shorebird enthusiast, and it thrills me no end to see the flow of E-mail messages over the past few months, especially from school kids."

Although we have already reached thousands, the program is still in its infancy. Several organizations and school groups have applied for grants



successfully and now have received the funds. This will allow them to get more involved, conducting teacher workshops, train-the-trainer workshops, and children's field trips.

Since 1996, workshops have been conducted in Mexico, Russia, Canada, and the United States. Many of these were specific to the Shorebird Sister Schools Program. Others were in conjunction with other migratory bird education programs or wetland workshops. The program has expanded from a Pacific Coast project to a Western Hemisphere project, and countries elsewhere have expressed interest in expanding the project worldwide.

Students participating in the program have not only learned many new skills they can use throughout life, but have contributed to scientific data and research of shorebirds. Students have helped at banding stations, have found flag-banded birds and provided the information to research biologists, and have helped determine

species, numbers, and timing of shorebirds as they migrate to and from their non-breeding to breeding grounds each year.

## Conclusion

The Shorebird Sister Schools Program has been a very successful way to share information with students about shorebird ecology, threats to wetland habitats, and cultures throughout the world. Teachers and students throughout the Western Hemisphere are combining classroom learning, field studies, and computer technology to expand their knowledge and understanding of the importance of shorebirds to wetland ecosystems. They are learning life skills in bird identification, research methods and data collection, wetland ecology, and world cultures and geography. The contributions to society, stemming from the skills learned in the program, are potentially immense.

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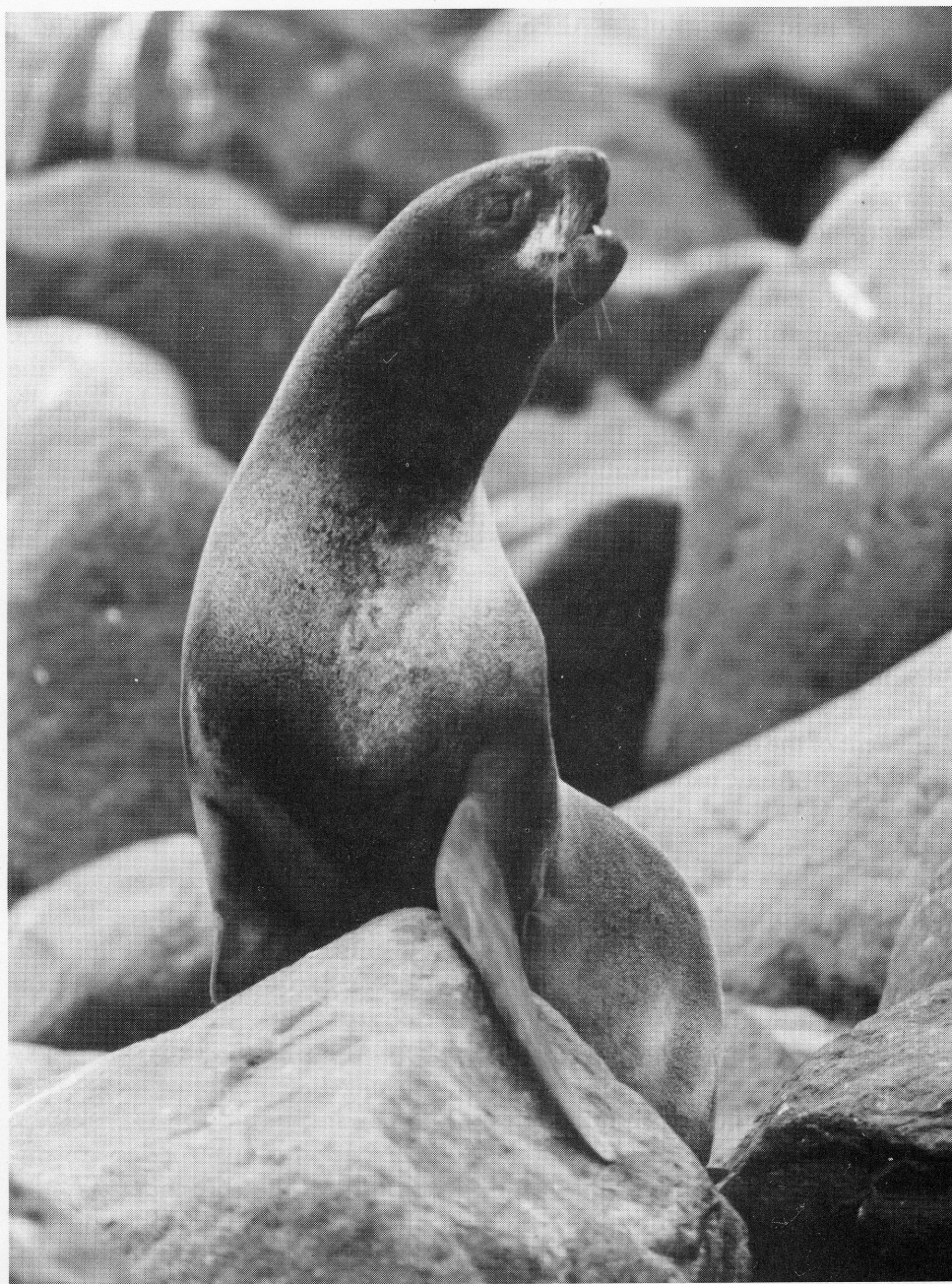
# A Circumpolar Protected Areas Network for Conserving Biological Diversity

**T**he Arctic is a vast but fragile region. Characterized by large numbers of relatively few species, Arctic food chains lack the resilience of those in more temperate regions. Native species are highly adapted to the harsh climate as well as extremes of light and darkness. Biological diversity is often concentrated in certain key habitats such as calving areas and the dynamic ice-edge ecosystem. Arctic species and ecosystems can be extremely vulnerable to anthropogenic effects, such as pollution and disturbance caused by human activities. The many migratory species that use the Arctic, whether waterfowl, shorebirds, marine mammals, or caribou, all require large areas of relatively undisturbed habitat.

Although fragile, much of the Arctic is as yet relatively undisturbed and so represents a global treasure. Protected areas are the centerpiece of each of the Arctic countries' strategies for conserving biological diversity and sustaining use of living resources of the Arctic.

Recognizing this intrinsic commonality of approach has led to an agreement among the eight Arctic nations to develop a Circumpolar Protected Areas Network (CPAN) designed to help protect habitats and ecosystems in the region. Developing and implementing CPAN is one of the main activities of the Conservation of Arctic Flora and Fauna (CAFF) initiative, one of the four programs of the Arctic Environmental Protection Strategy (AEPS).

A Declaration on the Protection of the Arctic Environment, signed in June 1991, at Rovaniemi, Finland, by Canada, Denmark (representing Greenland), Finland, Iceland, Norway, Russia, Sweden, and the United States, established the AEPS as a co-operative international forum for addressing Arctic environmental issues of common concern. Along with the eight member countries, the AEPS includes representatives of three organizations representing indigenous people as permanent participants: the Inuit Circumpolar Council (ICC), Saami Council, and Association of Indigenous Peoples of the North, Siberia, and the Far East of the Russian Federation. Non-Arctic governments and non-governmental organizations (NGOs) with an interest in the Arctic



**Figure 1. Fur Seal on Bogoslof Island, Aleutian Islands Unit, Alaska Maritime National Wildlife Refuge. *Leslie Kerr photo.***

participate in the work of the AEPS as observers.

Other programs of the AEPS include the Arctic Monitoring and Assessment Program; Protection of the Arctic Marine Environment; and Emergency Prevention, Preparedness and Response. Along with CAFF, these programs now operate under the auspices of the Arctic Council, an umbrella organization established in 1996.

The 1991 Rovaniemi Declaration identified habitat conservation as an area of emphasis for the AEPS. As a result, CAFF participants have undertaken a number of efforts to document the status of habitat conservation in the circumpolar Arctic, with an initial focus on protected areas. Identification of a CPAN is just one element of the overall CAFF program in the eight Arctic nations.

The CAFF has compiled overviews of existing and proposed protected areas, an evaluation of national principles and mechanisms for creating protected areas, proposed principles and guidelines for Arctic protected areas, a preliminary gap analysis to identify areas or habitat types in need of protection, and a strategy and action plan for further work. Copies of these reports are available from the CAFF International Secretariat, Hafnarstraeti 97, P.O. Box 375, 600 Akureyri, Iceland, (telephone: 354-462-3350; e-mail: CAFF@natfs.is; <<http://www.grida.no/caff>>), or from the Alaska Office of the U.S. Fish and

Wildlife Service, 1011 E. Tudor Road, Anchorage, Alaska 99503-6199 (telephone: 907-786-3544).

All of these products cover the area defined as "Arctic" by each of the member countries. Unfortunately, no single scientific or political definition of "Arctic" was acceptable to all the countries. In the United States, the latitudinal tree line is used to define "Arctic" for the purposes of the CAFF program. A biologically meaningful definition was chosen since the CAFF program relates to conservation of Arctic biota. An early CAFF working paper, "Towards an Ecologically Meaningful Definition of the Circumpolar Arctic," characterized the United States definition as "a northern treeless region, in which treelessness is a function of regional climate and not local edaphic conditions."

Each of the eight Arctic countries has established its own system of protected areas for ecosystem, species and habitat conservation; see Table 1 for a summary of the portion of each country's Arctic region that has protected area status.

The CAFF's purposes in informally linking these protected areas are as follows:

- Many Arctic fauna species are migratory. Different countries host major seasonal aggregations of these animals. No one country can ensure habitat protection for critical stages in the entire life cycle.

**Table 1. Protected areas in the Arctic, by country (1995; adapted from CAFF Habitat Conservation Report No. 2)**

<b>Country</b>	<b>Portion of Arctic land area under protected status</b>
Canada	8.3%
Finland	32.6%
Greenland/Denmark	45.7%
Iceland	11.8%
Norway	25.5%
Russia	3.7%
Sweden	20.7%
USA (Alaska)	56.1%
<b>Total</b>	<b>14.1%</b>

- Certain key areas are critical to maintaining the biodiversity and productivity for the entire Arctic ecosystem. All countries recognize their dependence on protection of these productive areas, which may come under another country's jurisdiction.
- Many of the Arctic countries have indigenous people and local rural populations that depend completely or to a large extent upon consumption of Arctic flora and fauna and maintenance of the integrity of the ecosystem. All Arctic countries share common concerns relating to sustainable uses and the impact of development on biologically productive areas warranting protection.
- Many of the Arctic's outstanding natural areas are safeguarded in some form of protected area. They have scientific, educational, recreational, and spiritual value, and represent a natural heritage of global significance.
- The countries have recognized and embraced the need to protect as fully as possible the wide variety of Arctic ecosystems and successional stages across their natural range of variation, and to maintain viable populations of all Arctic species in natural patterns of abundance and distribution.

The goal of CPAN is "to facilitate implementation of initiatives to establish, within the context of an overall Arctic habitat conservation strategy, an adequate and well managed network of protected areas that has a high probability of maintaining the dynamic biological diversity of the Arctic region in perpetuity." The re-

sulting network of protected areas (CPAN) is intended to:

- Represent as fully as possible the wide variety of Arctic ecosystems and successional states across their natural range of variation;
- Contribute effectively to maintain viable populations of all Arctic species in natural patterns of abundance and distribution; and
- Serve to maintain ecological and evolutionary processes, such as natural disturbance regimes, hydrological processes, nutrient cycles, and biotic interactions.

To meet this goal, the eight Arctic nations agreed that certain tasks should be undertaken. Each country must assess for itself the degree to which any given task is relevant given its national system of protected areas. This self-assessment is presented in the CPAN implementation plan prepared by each country. The general tasks needed to implement the CPAN are as follows:

- Identify gaps in existing and proposed protected areas;
- Expand and create protected areas to fill the identified gaps;
- Strengthen national mechanisms for creating and managing protected areas;
- Integrate the needs of protected areas into national policies and planning frameworks;
- Expand public and political support for protected areas;
- Improve the legal and institutional

framework;

- Provide adequate funding for protected areas; and
- Monitor the state of protected areas.

Details of each country's proposals for domestic implementation of CPAN can be obtained through the CAFF Secretariat in Iceland. The remainder of this article will give an overview of plans for implementation within the United States.

The United States is a world leader in conservation efforts in the Arctic. The percentage of U.S. Arctic lands in some form of protected status is the largest of the eight countries (Table 1). Management of these protected areas include provisions for access and use by local rural residents. United States law will continue to govern the establishment and management of U.S. protected areas in the Arctic and will guide U.S. participation in CPAN discussions and activities. Decisions on the specifics of U.S. participation are addressed cooperatively by the federal government and the state of Alaska in the Interagency Arctic Policy Group (a group, convened by the Department of State, composed of federal, state, and non-governmental organizations to consider issues of U.S. Arctic policy) and through other collaborative mechanisms.

From the U.S. perspective, CPAN offers several potential benefits. First, international cooperation among scientists provides valuable information

on the role of the Arctic in global environmental processes. This helps us understand the significance of the U.S. Arctic on circumpolar and global levels, and to identify any conservation needs. Second, it allows us to share our expertise as a world leader in environmental conservation. Third, the U.S. is able to learn from the experiences of other countries, including those that have experienced greater impacts from tourism and other human activities. This may help us to reduce or prevent impacts arising from increased use of Alaska's resources and its protected areas. Fourth, it encourages land management agencies at all governmental levels to look at conservation from an ecological perspective rather than being bound by constraints of political boundaries.

The U. S. participation in CPAN is outlined in a "Draft Circumpolar Protected Areas Network (CPAN)—Implementation Plan for the United States," which is still in preparation by the U.S. Fish and Wildlife Service, Alaska Region. This report outlines ongoing activities within the U.S. Arctic area that relate to the numbered sections of the overall CPAN strategy and action plan described earlier. Some of these activities relate specifically to management of protected areas, while others address Arctic species wherever they occur.

The United States already has a superb system of protected areas in the Arctic, but challenges do remain. One of these frontiers in habitat protection is the marine environment. In this, the Year of the Ocean, conservation of the Bering Sea looms large. Shared by the United States and Russia, the Bering Sea is a very productive and diverse ecosystem. Several Bering Sea conservation initiatives are now underway, including proposals for joint Russian-U.S. efforts. There are many approaches to providing protection and preservation of critical habitats in the Bering Sea, and CPAN can provide a forum for discussing these options.

The initial focus of the CPAN has resulted in an improved inventory of resources in the protected areas of all eight Arctic countries, and has provided a focus for efforts to establish additional protected areas; see Table 2. It has also provided a forum for communication and exchange of information, and has served to highlight areas of common concern. Better information and communication is at the heart of better science, and, with better science, better predictions regarding effects of alternative management decisions can be made. More accurate predictions result in more knowledgeable and, it is hoped, better management. In this way, the CPAN will improve the effectiveness of each country's management of its own protected areas.

**Table 2. Proposed protected areas in the Arctic (adapted from CAFF Habitat Conservation Report No. 2).**

<b>Country</b>	<b>Total proposed areas</b>	<b>Coastal &amp; marine areas (including islands)</b>	<b>Transboundary areas</b>
Canada	21	15	1
Finland	3	Not applicable	0
Greenland	3	3	0
Iceland	11	6	0
Norway	43	32	7
Russia	31	15	7
Sweden	4	Not applicable	1
USA (Alaska)	2	1	1
<b>Total</b>	<b>118</b>	<b>72</b>	<b>17</b>

*Notes. (1) Data are missing for one proposed area for Canada; (2) Data are missing for one proposed area for Finland; (3) A large marine area (fjords) is included for Greenland; (4) Data are missing for one proposed area for Norway; (5) Large marine areas are included for Norway; (6) Data are missing for 13 proposed areas for Russia; and (7) For USA, the figure relates to one new area proposed by non-governmental organizations (the other proposal mainly consists of already-existing protected areas).*

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# The Mountain Protected Areas Network

Because of the three-dimensional nature of mountains, their heterogeneity of environments within short distances, their geologic dynamism, their being usually less accessible, and their climatic extremes, the management of mountain protected areas (MtPAs) around the world has many common elements not usually shared by other kinds of protected areas. They also have a higher proportion of inhabitants from vanishing cultural minorities and a higher concentration of sacred sites. There are tough problems of search and rescue and altitude health problems. Fragile alpine environments are difficult to restore if overuse occurs. They are the critical upper watersheds of the world's rivers. These and several other special characteristics of mountain environments create a strong community of interest and concern among managers of protected areas and scientists who work in them.

"Parks, Peaks and People" was the title of a pioneering workshop held in Hawai'i Volcanoes National Park in 1991 to focus on these common problems and suggest solutions. Under the sponsorship of the East-West Center (a nonprofit educational institution in Honolulu) and IUCN-The World Conservation Union, it brought together 44 scientists and managers working in mountain protected areas in 30 countries around the world. Out of this working meeting two important documents were produced: *Parks, Peaks and People*, and *Guidelines for Mountain Protected Areas*, which is Publication No. 2 in IUCN's Protected Areas Series (1992). The exciting synergism and collegial support which were forged there on the slopes of Mauna Loa and

Kilauea volcanoes called for on-going contact—and a fledgling network was born. Jim Thorsell, IUCN's senior advisor for World Heritage, and Bing Lucas, who was then the chair of IUCN's Commission on National Parks and Protected Areas (now the World Commission on Protected Areas), were co-organizers of this event with me (at that time I was with the East-West Center).

The commission encouraged the formation of a formal network, and in 1992 appointed me vice-chair of the mountain theme within the commission. Armed with a small budget provided by the commission to stimulate mountain theme activities, my wife and professional partner, Linda Hamilton, and I began to expand the network and to put out a newsletter

on a regular basis. This replaced the periodic circular letters which had followed the workshop. *Mountain Protected Areas UPDATE* became a quarterly publication in 1994, prepared at desktop and photocopied. It is the principal device for nourishing what has become a group of 360 individuals working in MtPAs. It usually runs 10-12 pages and contains short (two- or three-paragraph) articles on various problems of management, recent research, success stories, descriptions of an unusual MtPA, a brief profile of a relevant organization, and sections on publications of interest and forthcoming meetings, as well as a "Bits and Pieces" section with news of network members or other brief items. *UPDATE* is produced in hard copy and mailed, since over 85% of the members prefer this form of communication. According to our 1996 survey, these copies are commonly circulated to other colleagues. Members who do have Web pages are welcome to insert any material from *UPDATE*, and some, such as The Mountain Forum, do so. We have been reluctant to put this newsletter out on the Internet, since, as volunteers, we feel unable to handle the volume of feedback and inquiry from non-network members which would result. Moreover, we feel that the strong sense of personal connection with other colleagues which now exists in the network would be lost if it went out into a large electronic void. This desire to maintain the benefits of

an interactive community also raises the question of how large the network can grow. At some point, personal connection can be lost to anonymity, and we are probably close to the maximum size now. The mailing list is culled of inactive members every two years, but continues to grow strongly.

A gratifyingly large number of network members have been able to engage in workshops and conferences sponsored by WCPA or other parts of IUCN, and this strengthens our interaction and sense of community. In 1995, for instance, with WCPA seed money of only \$4,000 and heroic fundraising efforts by Australian partners, we were able to organize a traveling seminar and workshop on "Transborder Cooperation in Mountain Protected Areas" (see Figure 1). This was held at several sites in the Australian Alps and brought together 35 network members from sets of border parks around the world. The working groups produced a set of guidelines to which we added case studies, and produced the book *Transborder Protected Area Cooperation* (L.S. Hamilton, J.C. McKay, G.L. Worboys, R.A. Jones, and G.B. Manson, published in 1996 by the Australian Alps Liaison Committee) which was a joint effort between the Australian Alps Liaison Committee and WCPA. In 1996, I organized a MtPA workshop on the topic of "Large Protected Area Mountain Corridors" at the World Conserva-

tion Congress in Montreal. The 15 papers presented were all by network members, and roughly 70 other networkers participated in the two large plenary sessions and two working-group sessions.

Wherever there is a significant regional protected areas meeting, a small amount of money, and a key network member organizer, we encourage a subsidiary workshop, or at least an informal gathering of those with mountain interests. Examples

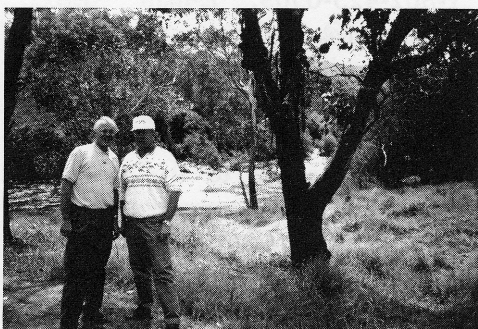


Figure 1. Two network members sharing a MtPA workshop experience in Australian Alps National Parks. Merv Syroteuk, superintendent (at that time) of Waterton Lakes National Park, Canada, and Dave Mihalic, superintendent of Glacier National Park, USA—jointly the world's first International Peace Park. Photo Larry S. Hamilton.

include the First Latin American Protected Areas Congress in Colombia in May 1997, and the North American WCPA Conference in 1995 in Banff (a very appropriate location). And we look forward to seeing many network members at the Andean Mountain Association con-

ference, being held in Quito in December 1998 on the theme of "Andean Cultural Landscapes."

A very real product and benefit of the network, which is more difficult to quantify, is the function of putting people with similar interests in touch with one another. But good examples come to light from time to time. For instance, a formal park partnership between National Park Alpi Marittime (Italy) and Huascarán National Park (Peru) was initiated through *UPDATE*, and it is now sanctioned by both governments and financially supported by Europarc. A partnership between New York State's Adirondack Park and Italy's Abruzzo National Park also grew out of contacts made through the network. [Ed. note: see Paul M. Bray, "Italian Park and Protected Areas Experience and Twinning," *THE GEORGE WRIGHT FORUM*, 15:2 (1998), 20-23.] Collaboration on publications and development of joint research proposals have also been facilitated by the network. Appeals for information or expertise also go out via the newsletter and are responded to, e.g., familiarity with a nominated World Heritage Site for evaluation.

Mountain protected areas are usually the most isolated in a protected areas system. Researchers and managers working in them find few, if any, professional networks which deal with the unique problems common to mountains. The practical benefit of

sponses to a September 1997 evaluation survey in *UPDATE*.

In the spring of 1998, regional coordinators were appointed for Africa and for Australia-New Zealand. These individuals, Peter Blignaut and Graeme Worboys respectively, are encouraged to marshal the power of the network members in their regions to implement regional or sub-regional activities, and to address problems that have a more local geographical focus. These and new ones might gradually evolve into the major players as regional MtPA networks, but I have some personal reservations about "over-regionalization." IUCN is, after all, a WORLD Conservation UNION, and there is value in inter-regional exchange. The common challenges in MtPAs are global in nature. Under its mountain theme,

WCPA has also been attempting to find substantial financial support for a MtPA task force that would implement specific projects, drawing on the network membership in doing so.

Though we are not anxious to greatly expand the network, readers who are working in MtPAs and wish to be part of this network are invited to send particulars on their interests and expertise, along with contact information, to 342 Bittersweet Lane, Charlotte, Vermont 05445 USA, fax 1-802-425-6509, E-mail <LSx2\_Hamilton@together.org>. Please keep in mind that network members are expected to share information of potential interest to others via periodic submissions to the newsletter *UPDATE*, and to engage in local or regional mountain activities whenever possible.

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David Sheppard

# The World Commission on Protected Areas: A Network of Professional Expertise

## What is WCPA?

**T**he World Commission on Protected Areas is the world's largest voluntary network of protected area managers and specialists. It is one of six commissions of IUCN-The World Conservation Union. These commissions comprise experts in different areas, including species conservation, environmental law, and environmental education, amongst others, as well as protected areas.

WCPA was first established at the IUCN General Assembly in Greece, in 1958. The IUCN *Bulletin* at the time reported on this event in the following lyrical terms: "The meeting was inaugurated just as night was falling. When the rising moon was beginning to throw light and shade among the hills where once echoed the oracular voice of the pythian priestess of Apollo, Hal Coolidge and ten others established the Provisional Commission on National Parks." With a beginning like this, how could any organisation fail?

Since that time, this commission has gone through several changes of name and focus, reflecting changing realities and perceptions regarding the role of national parks and protected areas in society.

## How Do We Work?

The members of WCPA serve in a voluntary capacity. Membership is by invitation and is based on two broad

criteria: first, competence in relation to the area of protected areas; and second, willingness to contribute in a voluntary capacity to the activities of WCPA. Membership has grown rapidly in recent years, from 400 in 1993 to the current membership of over 1,400 members in 160 countries.

WCPA is structured by geographical region and by theme. There are 16 geographic regions (including Brazil and Antarctica as separate regions), each under the direction of a regional vice chair. The regional vice chair for North America is Bruce Amos, the director general of Parks Canada, who will be familiar to many readers of THE GEORGE WRIGHT FORUM. To address "cutting edge" protected area issues, WCPA has established theme programmes and task forces, with the latter generally set up to achieve specific outcomes and then disbanding after these outcomes are achieved. Theme programmes,

which exist over a longer time period than task forces, have been established to cover marine protected areas, mountain protected areas, World Heritage sites, and biosphere reserves. Task forces have been established to cover the following areas as they relate to protected areas: tourism, information management, training, national systems planning, economic benefits, and funding. In addition to the task forces and official theme programmes, WCPA also has informal thematic programmes on various issues, including cave and karst management, grasslands, and the spiritual values of protected areas.

### What Do We Do?

The fundamental role of WCPA is to encourage the establishment and management of a worldwide, representative network of terrestrial and marine protected areas. In carrying out this task it recognises the vital importance of protected areas to biodiversity conservation, but also acknowledges that the value of protected areas to human development is not always understood or appreciated. The many benefits from protected areas can only be achieved if they are carefully planned and effectively managed. There is thus a need at the international level to ensure that key habitats are protected, new cooperative approaches to management are developed, and the duplication of efforts is minimised. WCPA has been

leading attempts to carry out this mission since its inception.

One of the main functions of WCPA is to provide focused and relevant forums in which protected area professionals can meet and discuss key issues. It has convened four World Parks Congresses, held every 10 years, with the last being in Caracas, Venezuela, in 1992. WCPA was delighted to work closely with the George Wright Society at this congress, and this cooperation resulted in the publication of the useful document *Coordinating Research and Management to Enhance Protected Areas*. The commission looks forward to future cooperation with the GWS in the implementation of the Vth World Parks Congress, which will be held in Africa in 2002. WCPA has also organised more than 50 regional working sessions in all regions of the world, with the last North American working session having been held in Montreal in October 1996, in association with the IUCN World Conservation Congress.

WCPA has ongoing activities in most of its regional and thematic programmes and task forces. Key outcomes have included the development of the category system for protected areas (as outlined in the document *Guidelines for Protected Area Management Categories*). This system is providing a framework for approaching the classification and establishment of systems of protected areas and, in a number of cases, is

providing the basis for relevant national legislation. WCPA has an active publication programme which includes the distribution of the magazine *PARKS* and the *WCPA Newsletter* to all members, three times a year, and the preparation of publications on a range of issues.

WCPA also has provided a range of policy advice to decision-makers and donors, such as, for example, through the preparation of the landmark four-volume publication *A Global Representative System of Marine Protected Areas*, which identifies priorities for the establishment and more effective management of marine protected areas around the world. Policy advice has also been provided by WCPA to the Convention on Biological Diversity, particularly as it relates to Articles 8(a) and 8(b) concerning *in situ* conservation. [Ed. note: See WCPA News, this issue.]

Recent WCPA activities have included the implementation of two major international symposiums: The "Parks for Peace Conference" explored the role of transboundary protected areas in contributing to biodiversity conservation and also in encouraging cooperation and better relationships between countries.

The "Albany Symposium" brought together 80 world leaders in protected area issues in Albany, Western Australia. This meeting reviewed the Caracas Action Plan (which was adopted at the IVth World Parks Congress) and exam-

ined the key issues facing protected areas as we move into the next century. While noting the considerable progress in the establishment of protected areas—the current global system comprises some 30,000 sites, covering about 13.2 million sq km or 9% of the Earth's surface—the symposium noted that many challenges still face such areas. It concluded that protected areas need to incorporate a more outward focus and approach if they are to have a viable future into the next century. The elements of this approach include the need to more clearly demonstrate how protected areas contribute to local economies and human welfare, plus the need for complementary management. Protected area management must be linked with the management of surrounding areas, particularly through the encouragement of compatible land use and "biological corridors," such as the Yellowstone-to-Yukon Corridor in North America. It is interesting to note that this parallels the viewpoint of George Wright, who, as has been noted in THE GEORGE WRIGHT FORUM, "realised that protected areas cannot be managed as if they are untouched by events outside their boundaries." Clearly he was a visionary ahead of his time.

### What are Some of the Lessons from WCPA?

There are a number of lessons from the experience of WCPA that are relevant for other protected area

networks—the focus of this issue.

First, networks of volunteers, when mobilised and motivated towards clear objectives, can make an enormous contribution for conservation. The nature and extent of this contribution is rarely quantified; when it has been it provides interesting results. For example, an investment of US\$100,000 by the World Bank in the marine network of WCPA resulted in products conservatively estimated at US\$1.5 million (the four-volume publication *A Global Representative System of Marine Protected Areas*). Thus a multiplier effect of 15. The non-monetary benefits, while harder to quantify, are also significant. These include the informal training and capacity-building associated with networking and exchange of experience, as well as the ability to distil lessons learnt from case studies around the world.

Second, networks work best when they have a clear focus, have effective leadership and where some basic resources to “grease the wheels” already exist to help achieve results. Networks function most effectively when they are linked to the interests and aspirations of the members—the practical manifestation of this in WCPA can be seen through the work of the WCPA theme programmes and task forces which bring together highly motivated individuals working together in specific areas relevant to conservation. WCPA also seeks to apply the “give-get test.” That is, the member-

ship of WCPA receive considerable services, including free issues of *PARKS* and the *WCPA Newsletter*. For this we are increasingly seeking something from the membership in return, whether it is through contributing some of their time to a task force or through contributing an article to the WCPA newsletter.

Third, it is important that realistic expectations are established in relation to what can and cannot be achieved by volunteer networks. Network members cannot be treated as paid staff of a protected area agency, for example. Management of networks requires special skills, and this needs to be recognised in the recruitment of staff who are working to support the operation of volunteer members.

Fourth, partnerships with like-minded institutions are essential. It has been estimated by WCPA that there are more than 150,000 persons working in the field of protected areas around the world. WCPA, with its membership of 1,400, will never be able to adequately cover and represent all these people. Partnerships with institutions with similar objectives, such as the George Wright Society and the International Ranger Federation, need to be forged to the mutual benefit of all parties.

### In Conclusion

WCPA plays a major role at the international level in contributing to the more effective establishment and



management of protected areas. membership as well as working with  
 However, its potential has still to be partners, such as the George Wright  
 fully realised. It is only through more Society, that this potential will be fully  
 effectively mobilising its voluntary realised.

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*Sharon A. Calcote*

# Thousand-Mile Front: Civil War in the Lower Mississippi Valley

**A**n intriguing, colorful, vital, and yet overlooked story of the Civil War is that of the Western Theater—the events and warfare that ultimately toppled the Confederacy by the capture of the Mississippi River. That story has now been told in “The Thousand-Mile Front: Civil War in the Lower Mississippi Valley,” a brochure produced by the Lower Mississippi Valley Civil War Task Force. Its 33 members represent a wide array of offices and disciplines from seven states. Prior to working on this project, committee members had not worked together, nor, in most cases, even known one another.

Nonetheless, the Thousand-Mile Front was successfully produced by this task force. The massive story was told by pulling resources together (with no budget) and having the grit and determination to finish the work. A two-year-long process has reaped the accolades of state and federal officials from each state, as well as from others. Most have been amazed that a feat of this size was accomplished at all, much less by means of the infamous committee.

The collaboration process by which the Thousand-Mile Front was created has been the subject of many national and regional presentations. Other state and regional efforts are interested in parroting the task force's work. Two of the most important reasons why are: (1) the task force utilized existing resources (experts) and required no new monies; and (2) the

effort brought local people into the planning and development process. Some of the underlying goals of the Thousand-Mile Front were to bring the history of America alive, make it more accessible and friendly to the public, and demonstrate the connection of history to the conservation and preservation of historic sites. The basis of the task force was to create a tourism document that would be of interest to the history buff, the general public, and the heritage traveler. The text of the brochure focuses on military action, as well as the lives of ordinary citizens. Many would argue that this is a natural connection, and others would argue that often history is taught in the third person and the student of history or historical events does not put time, place, people, and action together. Often history is taught by a series of dates and actions,

but is not related to place. The Thousand-Mile Front attempts to make just that connection.

Moreover, this project showcases the ultimate success that can be achieved through building regional partnerships and communication links and putting creativity to use—without the luxury of a large (or, for that matter, any) budget. The accomplishments of the Lower Mississippi Valley Civil War Task Force can be achieved by anyone or any group who sets a goal and is determined to achieve it. To adequately explain how the task force was formed and work on the Thousand-Mile Front came about, we must start at the very beginning.

It began in Louisiana. Historically, Louisiana has had a problem realizing the importance of historic preservation. Preservation efforts were usually handled by a small group—considered to be elite. Talk of preserving a battlefield, a house, a church, a school, or even a downtown “Main Street” area was above the heads of average community residents, who never realized how saving a building or cultural landscape affected them and their ability to provide for their families.

The bottom line is this: The everyday person-on-the-street has never identified with or been part of preservation activities. Nowhere in Louisiana is this more relevant than in the state's northeastern corner, which includes East Carroll, Madison, and

Tensas parishes. These parishes are adjacent to Vicksburg, Mississippi. As we all know (or as we in Louisiana would like to think everyone knows), the northeastern corner of the state played a major role in the Vicksburg Campaign, particularly Grant's March. In fact, remnants of Grant's canals are still visible.

It was believed that if the Vicksburg National Military Park receives over a million visitors each year, then surely Louisiana could derive some economic benefit. Never mind that there were no signs, sites, literature, trails, or interpretation—and never mind that northeastern Louisiana is noted as one of the poorest areas in the United States. To determine the interest of Mississippi in helping Louisiana pursue the re-establishment of Grant's March to tell the Louisiana side of the story, a group was formed that later became known as the Louisiana Civil War Task Force. It included academics; state park and tourist industry officials; representatives from the NPS Rivers, Trails, and Conservation Assistance Program's Louisiana field office; and Civil War historians. It was determined that pursuit of Grant's March was a good thing—and we strongly believed that the story could not be told without a link to Vicksburg and other battles along the Mississippi River, especially given the significance of Port Hudson.

While working on the Grant's March concept, it became clear that

telling the military history was only a part of the story, so it was decided to include cultural, historical, economic, and social issues of the era as well. Meanwhile, the Louisiana Civil War Task Force met with Vicksburg National Military Park and started discussions on how to best tell of Grant's March, focusing on the Louisiana side of the story. It was concluded that this would best be done by highlighting the stories, battles, and other events surrounding the capture of the Mississippi River. This growing concept now called for including the states of Louisiana, Mississippi, Arkansas and Tennessee. So it was that the Lower Mississippi Valley Civil War Task Force was created. Letters were written by the Louisiana lieutenant governor to counterparts in the other states requesting that appropriate participants be appointed to a working task force. After the members were appointed, an organizational meeting was set and the group was charged with the responsibility of developing a brochure providing an overview and illustrating the Vicksburg Campaign Heritage Trail along the Mississippi River from Memphis to the Gulf of Mexico.

Having no money to work with, along with no designated budget, each state agreed to absorb into existing budgets the expenses for travel, research, and staff time. Costs were held to a minimum. Mostly the expenses were for travel and lodging; meals were provided. The task force

held its first meeting, and the four states determined that the entire story needed to be told—from Cairo, Illinois, to the Gulf of Mexico. Thus the states of Illinois, Kentucky, and Missouri were added to the mix, bringing the task force to 33 members representing the seven states. And, around this time, the efforts of the Lower Mississippi River Civil War Task Force were adopted by the National Park Service as part of its Lower Mississippi Delta Region Initiative.

Believe it or not, there were many nay-sayers! There were those who said this project could not be done by committee, that committee members would never reach a consensus, that the project would fizzle, and that states would not participate, among other comments. There were great concerns regarding the objective or any hidden agenda.

The work of the task force began with serious focus. We developed criteria, a site submission form, a time line, and a concept of the text and layout. According to the original concept, the text was to include a concise narrative of Civil War activities in the Lower Mississippi Valley and a chronology of events. All sites were to be marked on a seven-state map showing major transportation arteries, and a series of individual maps were to highlight significant military operations from each year from 1861 through 1865. The format was based on the National Park Service brochure "Civil War at a Glance."

This first prototype was produced with no sites listed—only icons on the map illustrating the type of site at a location. Obviously, this format did not work. It did not satisfy the mission of the task force, which was to produce a user-friendly brochure. Some members of the group objected to producing a collateral piece that was already for the most part done. Plus, there were objections to its being too military-oriented and uninteresting to tourists. So, after taking several other shapes, it finally crystallized into its present form—which everyone on the task force helped to build—and the Thousand-Mile Front was born.

Originally, there were three phases to the task force's Civil War project. Phase 1 created the document. Phase 2 begins the "hands-on" activities: grassroots efforts, using the expertise and know-how of the task force, to assist sites, communities, and states in their respective preservation efforts. Phase 2 includes mini-conferences, workshops, and field work. Phase 3, long-term planning, includes, but is not limited to, planning, developing, or incorporating into existing facilities and recreation areas such facilities as interpretive kiosks, trails (hiking, biking, walking, driving), and other facilities or forms of activity deemed appropriate by the states and local governing authorities.

The spin-off efforts of the Thousand-Mile Front have been a phenomenon. For instance:

- **Louisiana** created a statewide Civil War Map as promotional literature; is in the process of cooperating with Texas to create a brochure on the Red River Campaign; is working with Texas to create an even larger military guide to that state, encompassing the War of 1812 to the post-Civil War period; is working with the state of Mississippi and Vicksburg National Military Park to re-establish Grant's March; and is working with the Civil War Trust and the NPS Rivers, Trails, and Conservation Assistance Program to assess the restoration needs of Fort DeRussy in Avoyelles Parish, which may be used as part of a guidebook on methods to restore Civil War battlefields and sites.
- **Kentucky** is working on a statewide Civil War guide.
- **Mississippi** is creating 11 topic-specific brochures covering additional Civil War campaigns in the state; created a Friends of the Vicksburg Campaign non-profit group to work on the entire route of the Vicksburg Campaign, one of sites newly designated as "endangered" by the National Trust for Historic Preservation; and is cooperating with Louisiana to re-establish Grant's March, which will link the northeastern corner of Louisiana to the Vicksburg Campaign.
- **Missouri** is creating a more specific regional Civil War heritage

- brochure along with the states of Arkansas, Kansas, and Oklahoma.
- **The Civil War Trust** included the Thousand-Mile Front in its *Discovery Trail Guidebook*, with a map of the seven-state region and an overview of the trail; developed a guidebook on methods to restore Civil War battlefields and sites, using case studies in the Mississippi Delta region; and is also planning a state-of-the-art Civil War traveling exposition (which we hope to host along the Mississippi River in the Delta region) to take advantage of the unparalleled interest in the Civil War.

Most importantly, there have been discussions among the seven states exploring the possibility of establishing a multi-state heritage consortium which would use the talent and expertise on the task force to assist members in doing such things as to:

- Work together to pool resources to preserve historic sites.
- Develop a "connectiveness" between the lower Delta states and their various histories.
- Expand interpretation at historic sites to include living histories and living communities.
- Conduct multi-state educational workshops and mini-seminars highlighting methods or processes from other consortium states.

- Work to educate the Delta states on the importance of their heritage; of preserving and conserving their cultural, natural, and human resources; and of making interpretation more interesting to the public at large.

Historic preservation, the Civil War, tourism, parks, litter control, saving the landscape—and maintaining the integrity of an area or site—are all components of the same thing. We need to help one another, rather than fight one another. We need to cooperate rather than go our own ways. Much can be done through cooperative efforts: pooling of resources, pooling of money, creating the critical mass necessary for economic impact. The Thousand-Mile Front brought to the table groups that have never cooperated before. When this project began, we were quickly reminded by others sitting around the table that we needed to cast aside our personal views and work toward the total project. After overcoming this obstacle, the project took care of itself and success was almost guaranteed. Views, beliefs, and opinions became those of the group, rather than an assortment of individuals. Finally, a product was created which everyone believes in—and had a vital role in bringing to life.

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*Stephen A. Thompson*

## Bilateral Resource Management and Development: The Illinois–Kentucky Civil War Heritage Trail

**T**hrough the annals of world affairs, armed conflict often presents itself as the defining catalyst of a regime, nation, or culture. In relation to United States history, the Civil War was one such conflict. This first “modern war” broke new ground in technology and tactics, but where it deviates from other U.S. wars is that it established a domestic unification which provided the framework for the development of a young nation suffering through the growing pains of its democratic ideals.

The scale of the U.S. Civil War in the numbers of armed and non-combatant participants, as well as the diverse locations of campaigns and support functions, guaranteed that most inhabitants of the then-divided nation were in some manner affected by the struggle. This, in conjunction with the fact that this was a war conducted between fellow countrymen, has led to the insatiable interest in Civil War history, both internally and abroad. This fascination with the Civil War has not passed unnoticed by public and private organizations with a stake in the conservation of the war's remaining cultural resources.

The state of Illinois and commonwealth of Kentucky have a substantial Civil War heritage. Military, industrial, and political activities took place in Illinois and Kentucky over the duration of the conflict. War-time personalities, both major and minor, played important roles within these contexts. Through a joint initiative,

the state governments have initiated the Illinois–Kentucky Ohio River Civil War Heritage Trail, a project designed to formally identify, preserve, and interpret previously unaddressed sites common to their Civil War heritage.

### Securing and Interpreting Civil War Resources

The concept of the Civil War interpretative trail is not a recent revelation. The foundation for this education and entertainment venue can be traced to the era of the war itself. Within weeks or even days of the action at some engagement sites, local entrepreneurs realized there was a demand by a curious public to visit the scene of the great battles. Period guide organizations conducting third-person tours of the sites unknowingly provided the basis for the first battlefield preservation efforts.

After the war, veterans groups took the lead in the preservation and inter-

pretative venture. Wishing to commemorate the ground for which they fought, organizations such as the Grand Army of the Republic and United Confederate Veterans placed monuments at the scenes of their struggles. Consolidation of these groups led to a formidable lobbying faction capable of exerting significant influence within the U.S. Congress. The diligence of their memberships resulted in governmental acquisition of battlefield resources at Chattanooga-Chickamauga and Gettysburg in the 1890s.

Throughout the 20th century, the federal government continued the acquisition of additional battlefield resources. State and local governments, along with private entities, also stepped forward to acquire and preserve significant period sites.

Although the conservation of Civil War resources is a paramount objective of the preservation community, formal interpretation programs frequently becomes the priority once the resources are secured. Public and private organizations involved in historic preservation are aware of their responsibility to, and interest by, the general public in the interpretation of any historic resource. Sufficiently funded organizations have the capabilities to develop sophisticated interpretative master plans for their sites, integrating state-of-the-art technology and proven techniques to create informative and flexible programs. Groups operating under fi-

nancial limitations often have to approach interpretative functions from more static angles, such as erecting signs or holding periodic events.

The diversity and innovation employed in the preservation and interpretation of Civil War resources can be attributed not only to financial considerations, but also to the necessity for unconventional preservation approaches in the legal arena and the continuous upgrading of interactive technology. The primary factors for innovation in the field are the multidisciplined individuals involved. Documented successes during recent years indicate there is a substantial nationwide constituency involved in the preservation and interpretation endeavor. This constituency's strength exists in its ability to advance toward common goals through a consolidated effort.

### **The Ohio River as the Link**

The southwestern portion of the Ohio River has always served as the demarcation line between Illinois and Kentucky. While acting as a physical boundary, it became a reality early on that this waterway provided one of the strongest bonds between the two states.

Illinois and Kentucky have always viewed the Ohio River as a natural resource worthy of preservation and development. Issues regarding the economy of the river have consistently required effective bi-state coordination. Within the latter decades of



the 20th century, long-standing commercial and transportation emphasis has expanded into the recreational and cultural fields.

When contemporary students of the Civil War examine the roles played by Illinois and Kentucky, major contexts—such as the industrial and commercial efforts that occurred in the young city of Chicago, the 1862 Confederate campaign in Kentucky, and the activities of Confederate General John Hunt Morgan's command—receive much attention. As the military context in the Western Theater progresses southward, so follows the generalist's attention. This results in the neglect of themes and events along the Ohio River that demonstrate the importance of Illinois and Kentucky to the Federal and Confederate governments until the end of the war.

For example, the Union had a huge investment in the naval depot and shipyard at Mound City, Illinois, home base of the Mississippi Naval Squadron. Also, Confederate sympathizer organizations, such as the Sons of Liberty, had large cells in southern Illinois and were the nemeses of Union provost marshals stationed in the Illinois river communities. Military operations by Confederate General Adam R. "Stovepipe" Johnson's cavalry in Illinois and Kentucky during the summer of 1864 were an integral part of the Confederate government's plans to disrupt the Union's fall elections. Espionage and

guerrilla operations were also a constant on both sides of the river throughout the war.

Through the development of the Illinois-Kentucky Ohio River Civil War Heritage Trail, the project partnership intends to bring these and other stories to light in the physical settings where they occurred. The resulting interpretative trail will assist in the preservation of the sites, provide an educational experience to all that follow the trace, and encourage economic development opportunities in the areas through which it passes.

### **The Illinois-Kentucky Ohio River Civil War Heritage Trail**

The trail did not originate within the master plans of the Illinois Historic Preservation Agency (IHPA) or the Kentucky Heritage Council (KHC). Personal research by the author concerning General Johnson's cavalry command was the catalyst. Investigation of Johnson's operations led to other regional wartime contexts, linking sites from Cairo to Henderson.

During this investigative period, Illinois and Kentucky had been members of the Lower Mississippi Valley Civil War Task Force for the development of the "Thousand-Mile Front" brochure identifying wartime sites in the seven most southern states of the Mississippi River Valley. [Ed. note: See the article by Calcote, this issue.] Consultations internally at IHPA and shortly thereafter with

KHC led to the determination that there was enough significant Civil War-related historical context along the Ohio River to pursue the development of a preservation and interpretation project.

In the fall of 1996, the IHPA and KHC management team produced a master plan which outlined goals and objectives for the project. The plan emphasized formal identification and interpretation of sites, along with the formation of a project partnership unifying tourism, economic development, and special-interest groups in the region. Presentation of the plan to upper-echelon government officials in both states resulted in the authority to obligate staff time to the project.

Unfortunately, time for the development and management of the project was all that could be committed. Financial support for the undertaking had to be obtained from sources outside the spheres of the managing organizations. Only through the assistance of the National Park Service's American Battlefield Protection Program (ABPP), the Illinois Bureau of Tourism, the Kentucky Department of Travel, and the Illinois Association of Museums was the program able to be set in motion.

### **The Master Plan**

The project master plan allows for two distinct development phases. The first phase consists of general partnership development, intensive historical research, site registration, and selec-

tion of sites to be interpreted. Second-phase objectives include preparation of interpretive signs, negotiating for the monitoring of the sites by local agencies, and development of material promoting the trail.

A project of this nature can only be successful through the participation and input of multi-disciplined organizations and individuals standing to benefit from positive results. Even though state and federal entities are in place with development, coordination, and financial expertise to advance preservation, education, and regional economic agendas, the most important players are the regional-local partnership members.

Participating corridor partners, such as Main Street programs and Civil War Roundtables as well as other special-interest organizations and individuals, stand to gain immeasurably from the establishment of the trail. On the horizon are enhanced economic opportunities and quality-of-life improvements for area inhabitants due to the involvement of their fellow residents in this project. From the managerial standpoint, the participation of the "locals" is essential to generate regional support, provide the avenues to primary source information, and assist in the perpetual management and promotion of the completed trail.

While partnership development is a priority, the primary goal of site identification and interpretation is the driving force for the project. Some

sites preliminarily targeted for interpretation by the management team are well known. Objectives of this portion of the project are to verify locations, produce an accurate context for each, and search for additional sites throughout the corridor. Managing partner ABPP stipulated that National Register of Historic Places (NRHP) listing of significant sites would also be a necessity. With these objectives in mind, the management team determined it prudent to acquire the services of a historical consultant to prepare a historical survey report and NRHP documentation.

At the conclusion of a qualifications-based selection process, former State Historical Society of Iowa Historic Preservation Planning Coordinator James Jacobsen, now the principal of the "History Pays!" preservation planning firm (based in Des Moines), was awarded the contract for the task. Jacobsen's enthusiasm to work with the "locals," professional experience, and understanding of the need to identify contexts and sites outside period military themes contributed to his selection.

The survey undertaken by Jacobsen will concentrate on resources of the built and cultural landscape that, over the last 130 years, have been affected by flooding and watershed management operations. Jacobsen will act as the initial field coordinator for the project, being instrumental in the areas of collaboration with local site owners, trail loop layout, and

general public relations. Upon completion and review of the final survey report, sites for registration and potential interpretation will be selected by the management team and NRHP documentation preparation will proceed. Properties targeted for NRHP registration will be those which exhibit significance from either national, regional, statewide, or local perspectives.

As phase two gets underway, the responsibilities of and efforts by the management team and general partnership will intensify. Objectives of this phase will include final selection of the sites for interpretation, production and placement of signs, development of informational materials for use by the public, opening ceremonies, and project closeout. Resources targeted for interpretation will be selected by the management team after comments on the final survey report are provided by the general partnership. Additional considerations for interpreted sites will include accessibility and security.

The public benefit of an interpretative trail is nil unless a majority of the sites are accessible by two-wheeled drive vehicles. The geographic characteristics of the corridor, primarily rural floodplain and forested limestone bluffs, will undoubtedly include sites accessible only by extended foot trails. It is the intention to keep these types of trail locations to a minimum. Security of the signs and the sites themselves will

be achieved through a perpetual monitoring system by local partners, providing periodic reports to IHPA and KHC. State and local law enforcement agencies will also be made aware of site locations along with applicable preservation statutes providing for resource protection.

Production and placement of the interpretative signs is an important element of phase two. Various types of signs are currently being evaluated for use. The selected product will not only need to be visually appealing, but must be able to sustain intense environmental effects. Graphic artists, historians, and museum technicians internal to IHPA and KHC, supplemented by private consultants, will design the signs. Visual- and hearing-impaired presentation techniques are being examined for integration with the signs. To reduce project costs, general partners will assist with on-site installation.

The route of the trail will be determined by the location of the interpreted sites in relation to the established regional transportation network, which encompasses interstate and state highways, township roads, bikeways, hiking trails, and the river itself. Two-wheeled access will be the priority, but recreational-access aspects of the project area cannot be ignored. Trailway identification will be accomplished through the placement of directional signs containing the trail logo. An informational trailway map will also be developed.

Although promotion of the trail is an objective throughout both phases of the project, this function will intensify prior to the official opening. Articles will be submitted to pertinent historical and travel periodicals. Press releases will be submitted to national and statewide media organizations. The management team will conduct on-site interpretative interviews to gain further momentum. Opening ceremonies, attended by national, state, and local officials, members of the project partnership, and the general public, will consummate the effort.

The preparation and distribution of an after-action report on the project is essential. This will allow for the management team to assess the successes and shortfalls within the parameters of the original goals and objectives. Recommendations will be made regarding additional development of the trail and to identify regional organizations and individuals with the capabilities of conducting similar initiatives. The report will also provide post-completion direction for the promotion of the trail and preservation of the resources by the local property owners and managers.

### WhereNext?

At its inception, the Illinois-Kentucky Ohio River Civil War Heritage Trail project focused on the creation of an interpretative corridor, stressing the goals of preservation and constituency awareness through part-

nership development. The support generated and relative ease of project implementation soon had the management team considering, "Why not the whole Ohio River Valley?"

Cursory investigation attests that numerous Civil War contexts also exist along the river in Indiana, Ohio, West Virginia, and Pennsylvania. A multi-state approach would not only serve to complete the story of the Ohio River during the war, but would also unify regional personnel whose expertise is generally limited to their professional environs. Toward this end, Illinois and Kentucky have initiated consultations with the other valley states to encourage their investment in projects similar to the Illinois-Kentucky Ohio River Civil War Heritage Trail.

### **And in the End...**

When the trail is in place and the project is put to bed, what will have been accomplished? Superficial goals of identification and interpretation will have been achieved, but this project will generate more profound effects.

Civil War history in Illinois and Kentucky will no longer be limited to the U.S. Grant, Perryville, John Breckinridge, and Rock Island Prison Barracks contexts. The public will have at its disposal consolidated information addressing a significant region in the nation throughout the conflict.

The interactive project partnership will provide for long-term coordination in the region for related area development. Crossover of participating personnel will be fluid for current companion initiatives such as the Federal Highway Administration's Scenic Byway program and Illinois' and Kentucky's heritage tourism enterprises.

Techniques used in project planning and implementation will establish a demonstration module for organizations and individuals considering comparable projects. Knowledge of the various skills required to conduct such an operation will benefit professionals who, all too often, restrict their influence by focusing exclusively on a particular subject, or who rarely step outside of established vocational circles.

It is anticipated that the framework of the local economy will be altered by the establishment of the trail. The phrase "Build it and they will come" is very applicable. Once the existence of the trail is known, historians and students of all levels will be the initial and constant audience. Tourists who had previously blown through the region on the way to the attractions of St. Louis and Nashville may now have a reason to get off the interstates. With this influx, there will be a need for the basics: food, fuel, and lodging. In the fulfillment of these needs, and probable expansion into the realm of "knick-knack" concessions, the local people stand to profit immensely.

The sector which will substantially benefit from this auspicious undertaking is the historic preservation community. Formal confirmation of resources previously treated as subjects of folklore conjecture will provide direction in the master planning for the protection and programmatic development of regional Illinois and Kentucky historic properties. The significance and promotion of sites in the corridor will assist in drawing attention of preservation advocates and politicians to long-neglected areas of both states. Perhaps most important of all, the project will promote historic preservation awareness and philosophy within the ranks of the local resource owners and constituency.

Possibly, the Illinois-Kentucky Ohio River Civil War Heritage Trail

will produce other payoffs not envisioned. Whatever the final outcome, it is apparent that this class of historically related projects can provide enormous benefits to society at all levels.

It is discouraging that, every day, scores of cultural resources which could be adapted for present-day use slip into oblivion. The passive approach—waiting years until the perfect scenario presents itself to recognize and preserve them—is at fault. Only through dedicated and consolidated preservation and development strategies will countless historic resources nationwide, such as those dating from the Civil War along the Ohio River, survive for the enlightenment of future generations.

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*William H. Mulligan, Jr.*

## Interpretation and Preservation of Civil War Sites: Two Case Studies from West Kentucky

**T**he recent surge in interest in the American Civil War, which still seems to be rising, has expanded efforts, both governmental and private, to preserve battlefields and increase the number of visitors to those battlefields. In a number of states these efforts have worked with existing programs to preserve green spaces; in others they have helped increase awareness of the value of green and open spaces. They have also fueled the preservation and interpretation of a wide variety of historic sites. The combination provides many opportunities for public historians, opportunities we have used at Murray State University while developing a public history emphasis in our Master's program. Rather than discuss what I see as the causes of the current surge of interest in the Civil War and where I think it may go, a topic for another day perhaps, I'd like to discuss two of our projects that deal with specific Civil War sites in Kentucky—Columbus-Belmont State Park in far western Hickman County and Sacramento in McLean County.

### **Columbus Belmont State Park**

Columbus, Kentucky, was an important port on the Mississippi River and the northern terminus of the Mobile and Ohio Railroad when the Civil War began. At the beginning of September 1861, Confederate General Leonidas Polk occupied Columbus and began erecting fortifications to defend the Mississippi River. The site became known as the "Gibraltar of the West." Polk's move prompted Union General U.S. Grant to occupy Paducah and Smithland to protect Federal control of the Ohio River and its tributaries, the Tennessee and Cumberland rivers. These movements ended the "neutrality" of Kentucky, setting in motion the battle for control of the western rivers that

would be pivotal in the outcome of the war.

In November 1861, Grant led his troops against a Confederate camp at Belmont, Missouri—directly across the river from Columbus. He was forced to withdraw after overrunning the Confederate camp when the guns from Columbus opened fire on his troops. He returned to Paducah and in late January 1862 began his campaign against Forts Henry and Donelson, which eventually led to Union control of the Mississippi Valley. It proved to be a keystone of the Union victory.

When Fort Donelson fell in early February 1862, the Confederate position at Columbus was seen as indefensible—especially after an epidemic

all but wiped out the garrison at Camp Beauregard—and the fortifications were abandoned at the very end of February. When Union forces arrived to attack the fort on March 1 they found it abandoned and occupied it without a struggle. The “Gibraltar of the West” fell without a struggle or the loss of a single life. For the rest of the war it was used as a Union garrison in the very pro-Confederate Purchase region of Kentucky. During this period of occupation, it was a gathering point for African-Americans fleeing slavery, known at the time as “contrabands,” and a major recruiting point for African-American troops, some of whom garrisoned the site. Columbus was second only to Camp Nelson as a recruiting site for African-American troops in Kentucky. There are many Civil War stories that can be effectively told at Columbus.

Shortly after the war the fort was abandoned and allowed to return to its natural state—earthworks eroded, trees and other vegetation grew up, and the river shifted (unfortunately for its preservation, the fort is on the cutbank side of the river). Massive flooding in 1927 led to the relocation of the community of Columbus and the loss of nearly every antebellum building—one exception being a small frame house on the bluff used as a hospital after the battle. In 1934 much, probably most, of the fort became part of the Kentucky State Park system and the Civilian Conservation Corps “restored” the surviving earth-

works and made other improvements to the park.

In 1994, I was invited to serve on a task force on the future of Columbus-Belmont State Park, being in the midst of a survey of Civil War sites in the Purchase region at the time. As I sat in the task force meetings, several ideas emerged about how our public history program at Murray State could become involved, and our direct involvement began to develop.

In the fall of 1994 my museum studies course used the park as a laboratory. One group took up the redesign of the small museum in the park; another developed an interpretive program for the earthworks. Working with the existing collection and space, applying what they were learning in the course, the museum group developed a 96-page report that got down to the level of how many 2x4s would be needed for the panels. The earthworks group took a more general approach, but had several ideas that we have subsequently developed—restoring a portion, at least, of the earthworks to an appearance closer to that when they were in use (also an idea from the task force, but not something I shared with the students), and stationing costumed interpreters in the earthworks area.

These reports were given to the Kentucky Parks Department and the task force. We then obtained a grant from the Kentucky Humanities Council (with additional funding from the Parks Department) to develop characters for a first-person in-



terpretation program that would use Murray State graduate students and summer youth program participants from Hickman County for implementation.

For a year (June 1 to May 30) two graduate students (Chamonie Miller and Robyn Warren) worked on the development of these characters. When we began we had several types in mind—a Confederate and a Union soldier, male and female slaves, townsmen and women, and an African-American soldier. In the course of our research we added another type: an observer of the battle. We researched various accounts of the Battle of Belmont with special attention to primary sources—first-person accounts—and other materials by people who were in Columbus during the war.

We ended up developing four characters: Sallie Law, an upper-class woman from Memphis, who observed the Battle of Belmont from a riverboat and went ashore to help care for wounded soldiers; Robert Hancock Wood, a Confederate captain from Bolivar, Tennessee, who fought in the battle; William, Wood's personal slave servant who accompanied him to Columbus; and Chauncey Cooke, a sixteen-year-old Union private from Wisconsin who served on garrison duty in Columbus.

While we were developing the characters two things happened that affected the project: a team of Americorps volunteers restored a section of the earthworks by removing the

vegetation that had grown up over the years, and Congress played with the federal budget. The first of these developments was positive: we had an excellent setting for our military characters. The second was very damaging: Hickman County was cut from fifty-plus summer youth workers to four. We were not going to be able to implement our program as we had intended. We did not give up, but after some consideration presented three of the characters during the 1996 Civil War Days at Columbus-Belmont State Park. Two undergraduate students and one alumnus from our Master's program interpreted Sallie Law, Chauncey Cooke, and Robert Hancock Wood. They used the background and archival material we had collected and each created a character. They each prepared a short monologue, or soliloquy, for the opening ceremony of the event, and a number of other stories and background information so that they could meet and interact with visitors on Saturday for a six-hour period when walking tours of the park were offered. Each character had a station appropriate to his or her story where he or she met groups and casual visitors throughout the day. Visitor reaction was overwhelmingly positive, as was that of event organizers. What was a vague idea to many because they had no experience with first-person interpretation became clear, and they got excited. The program was repeated in 1997, and we continue to work with park manage-

ment to make it a regular part of the park's program.

### **The Battle of Sacramento and the Civil War in McLean County**

Our second large-scale interpretation project is in McLean County. It begins from a different point—there is no park or publicly owned site, yet, in the county—and has focused on developing two driving tours, one related to the Battle of Sacramento, the other to the Civil War on the county generally. Joe Brent of the Kentucky Heritage Council and I met with County Judge-Executive Larry Whitaker about Civil War sites in the county and how they might be interpreted and developed as part of an effort to increase tourism and local awareness of the history of the county. We agreed to focus on a National Register nomination for the battlefield at Sacramento, if the site could be identified precisely enough and had sufficient “integrity,” and two driving tours.

Civil War events in McLean County, particularly the Battle of Sacramento, are related to those in Columbus, but that has not been a factor in our involvement. When Leonidas Polk occupied Columbus, the CSA established a defense line across southern Kentucky from Columbus through Bowling Green to the Cumberland Gap, with a small jog down into Tennessee for Forts Henry and Donelson, of course. In preparing to defend Bowling Green, Confederate forces seized Lock and Dams 3 and 4

on the Green River and heavily damaged Number 3 to prevent Union forces from using the river to attack their position in what became the Confederate capital of Kentucky. The Union responded quickly, sending 10,000 troops to occupy Calhoun under General Thomas L. Crittenden and protect Lock and Dam Number 2, which was across the river at Rumsey. This all took place in September and October 1861. The Green River, which flows through McLean County became strategically important to both sides and a focal point for large numbers of troops.

Both sides patrolled the territory between Bowling Green and Calhoun to keep an eye on one another's movements. In December, at Sacramento, about ten miles south of Calhoun, a Union scouting patrol, about 180 men, under eighteen-year-old Union Major Eli Murray was surprised by a Confederate patrol of about 300 led by Nathan Bedford Forrest. The engagement that followed ranged over several miles as the Confederates first attacked and then pursued the withdrawing Union troops part way back to Calhoun—but not so close as to encounter the large relief party Crittenden dispatched.

The Battle at Sacramento was not a major engagement; no more than 500 men were involved on both sides. It is, however, very representative of the small, random skirmishes between patrolling forces that characterize most of the military action in

western Kentucky. It is also important for several other reasons, but primarily as Forrest's first combat action. At Sacramento he displays many of the tactics and traits that produced the success he enjoyed throughout the war and which became the basis for his enduring popularity in western Kentucky and Tennessee.

Our project had two components: first, to nominate the battlefield at Sacramento to the National Register of Historic Places; and second, to develop driving tours that would explain the battle to visitors and would develop the impact of the war on a rural county in western Kentucky. The nomination work gave us a solid research base for the driving tours. What happened, where did it happen, what stories are associated with particular sites, what documentation exists for all of this?

Simultaneously, a community group developed a program to hold a re-enactment at the battlefield which has greatly increased interest and awareness of the county's Civil War history. Efforts are now underway to purchase the core of the battlefield and preserve and interpret it. In the interim, it is protected by formal agreements that prevent development.

I was assisted on this project by Jarrod Smith, then a graduate student at Murray State, who did most of the research and met with many local historians to identify sites. The battle tour (or, as we sometimes refer to it, the "red tour" because we used red

dots to mark the sites on the country road map while we were developing it), has ten sites and can be begun from either Greenville, the seat of neighboring Muhlenberg County, or Calhoun, the seat of McLean County. Forrest assembled his troops at the courthouse in Greenville the morning of the skirmish and proceeded toward Sacramento. We have identified several sites where he met with scouts and a remarkable young woman, Molly Morehead, who warned him of the exact location of Union troops. The tour also includes Garsts Pond where the first shots were exchanged (Forrest himself fired the first shot), the battlefield, and several sites along the route the engagement followed as Union troops withdrew. Finally it reaches Calhoun, where it includes the Lock and Dam and Crittenden's headquarters. The tour brochure (and, later, the signs we are developing to install along the route) will not only explain what happened but why it is significant.

The second tour follows a similar approach with less thematic unity. It includes a number of cemeteries, using graves and tombstones to focus on themes important to the Civil War and to McLean County: the Orphan Brigade, family division (e.g., the Hackett family cemetery in Livermore with Union and Confederate veterans from the family buried at opposite sides from one another), four African-American veterans, etc. It also includes the site of a Union recruiting and training camp; the home of Sue

Monday, a guerrilla executed late in the War; and the site of the Battle of Panther Creek, just over the county line in Daviess County. The main focus is on the extent to which the war permeated the experience of people in a rural county.

The battle tour has been implemented—without full roadside signs until they can be funded—and the second will be in place shortly. The re-enactment of the skirmish at Sacramento is now an annual event in May, and we see the driving tours expanding the impact of this one-weekend-a-year event throughout the year. When we started, McLean County was 120th in tourism activity out of the 120 counties in Kentucky. It is on the rise.

### **Conclusion**

In both projects we had several goals. One has been and continues to be to give students first-hand experience in public history by working on real projects with real people. A second has been to provide a service to communities and organizations within Murray State University's service area. Third, each project has had specific, local goals: to enrich the interpretation program at Columbus-Belmont, to increase awareness of

history in McLean County, and, in both projects, to attract additional visitors.

In both we have benefited from those we have partnered with. In Columbus, Hickman County Judge-Executive Greg Pruitt has been a constant supporter who has welcomed our involvement, as have Ed Henson and Brooks Howard of the Kentucky Parks Department in Frankfort and Park Manager Bill Stevens. We have also had grant support from the Kentucky Humanities Council and the Parks Department to cover the costs involved. In McLean County, Judge-Executive Larry Whitaker has been the catalyst and driving force behind the project, incorporating history into the county's plans for development in a very basic and fundamental way. His support, that of the fiscal court, and a grant from the Kentucky Heritage Council to the fiscal court have made this possible. The project has been picked up by the local camp of the Sons of Confederate Veterans, led by Fred Wilhite. In this we have succeeded in building strong partnerships with local support and leadership to ensure the preservation and interpretation of important resources.

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## Preserving Mississippi's Civil War Heritage

From Battery Robinette at Corinth and the forts around Grenada in the north to Beauvoir (the historic last home of Jefferson Davis) on the coast; from the Old Capitol Building in Jackson, where the ordinance of secession was passed on January 9, 1861; to the awe-inspiring monuments at Vicksburg National Military Park—scores of structures, sites, and battlefields serve to remind Americans of the rich Civil War heritage available in Mississippi and provide the state with a largely untapped reservoir for heritage tourism.

Long overshadowed by the battlefields and associated historic sites in Pennsylvania, Maryland, and Virginia, few realize that some of the most bitterly contested actions of the war occurred in Mississippi. The state experienced 772 military events, among which were the battles of Iuka, Corinth, Brices Cross Roads, Tupelo, and, perhaps the most decisive campaign of the war, the complex army-navy operations that resulted in the fall of Vicksburg. The most celebrated cavalry raid of the war, Grierson's Raid, traveled the length of Mississippi, and William T. Sherman's Meridian campaign of 1864 was a precursor to the devastating "March to the Sea" which broke the spirit of the Southern people. Edwin C. Bearss, historian emeritus of the National Park Service, refers emphatically to the significance of these events as the "Decision in Mississippi," and argues that the military operations that focused on the Mississippi River determined the outcome of the war.

Until recently, the sites in Mississippi have largely been ignored by those interested in the Civil War. With the exception of Vicksburg National Military Park, which receives one million visitors a year, the battlefields, historic homes, and other structures associated with the Civil War across Mississippi could boast of only a few thousand visitors. Such is no longer the case, and interest in Mississippi's Civil War sites has grown dramatically in recent years.

Nationwide interest in Mississippi's Civil War heritage spirals upward in part due to the establishment by Congress of the Civil War Sites Advisory Commission in 1990. The commission was charged to identify the nation's historically significant Civil War sites, determine their relative importance, evaluate their condition, assess threats to their integrity, and recommend alternatives for preserving and interpreting them. The report issued by the commission in 1993 addresses those issues at 384

sites in 26 states. Of the fifty most significant sites listed by preservation priorities, eleven are in Mississippi.

National recognition of the state's historic sites has led to heightened awareness throughout Mississippi of Civil War resources. In turn, awareness has led to increased visitation across the state and has served to create a healthy climate for preservation initiatives. Those factors have combined with opportunities for significant results in battlefield preservation across the state. Leading the charge for battlefield preservation in Mississippi are two organizations that boast of impressive results across the country: The Conservation Fund and the Association for the Preservation of Civil War Sites (APCWS). Other groups have joined in these efforts and present preservationists with unique opportunities to preserve entire battlefields, and thus provide communities with economic development potential through heritage tourism.

Fueling such mass appeal for preservation efforts in Mississippi are the price of land compared with acreage in Virginia or elsewhere, and the integrity of setting versus battlefields in other states. Capitalizing on this situation, The Conservation Fund, utilizing a grant from the Richard King Mellon Foundation, has secured 825 acres at Champion Hill—site of the largest, bloodiest, and most decisive action of the Vicksburg Campaign. That land has

been turned over to the Mississippi Department of Archives and History for management. Coupled with a 5-acre parcel that includes the historic Coker House, owned by the Jackson Civil War Round Table, a significant portion of the battlefield is now preserved.

In the largest purchase of what has been a history of significant acquisitions, the APCWS secured 705 acres at Brices Cross Roads, which constitute 75% of the battlefield. An additional 146 acres of the battlefield was recently purchased by the APCWS. Commitment on such a grand scale was based largely in response to the tremendous support and financial assistance provided by local governments in three Mississippi counties: Lee, Prentiss, and Union. Plans are currently being drawn for a museum-visitor center and for interpretive markers that will be placed on the battlefield. Recognizing the benefits to be derived from such a park, funding for this project is mostly local.

Both The Conservation Fund and the APCWS have also targeted several smaller sites for preservation efforts. Under the guidance of Frances Kennedy, The Conservation Fund helped to preserve a small 2.5-acre tract that encompasses the remaining vestige of Grant's Canal. (Although across the Mississippi River in Louisiana, the canal was an integral part of the Vicksburg Campaign and is now a unit of Vicksburg National Military Park.) The APCWS recently

announced the purchase of a 6-acre tract at Grand Gulf (the preferred site for Grant's amphibious landing during the Vicksburg Campaign) that was donated to the state of Mississippi for inclusion in the Grand Gulf Military Monument. Both organizations are actively seeking additional land acquisitions at Champion Hill, Raymond, and Port Gibson battlefields, and welcome preservation opportunities on lesser-known fields throughout Mississippi. Preservation of the forts at Grenada should be recommended to these organizations for consideration.

In several Mississippi communities there is grassroots support for preservation, most notable of which is in Corinth, where The Siege and Battle of Corinth Commission is working to preserve impressive lines of earthworks across Alcorn County. Several sites, totaling 485 acres, have been designated a National Historic Landmark with the potential of adding over 2,000 additional acres to the NHL designation. NHL status is also being sought for the historic Shaifer Road on Port Gibson battlefield, and preservation stalwarts in Claiborne County are working diligently to ensure that more of the battlefield is protected. In 1995, Congress authorized the United States Mint to issue a silver dollar and clad half-dollar commemorating the battlefield preservation efforts. Proceeds generated by sales of the coins are earmarked for battlefield preservation,

\$200,000 of which—matched by the state of Mississippi—was awarded for land acquisition at Corinth, with a pledge for an additional \$200,000.

Much is also being done on the state level. The Mississippi Civil War Battlefield Commission was recently established by Governor Kirk Fordice to identify significant Civil War resources in the state and offer strategies for preservation. Mississippi is also participating in the Lower Mississippi Delta Civil War Task Force, which has developed a brochure identifying Civil War resources throughout a seven-state area that are publicly accessible and illustrates a number of travel corridors for visitors to use in touring the region. The forts at Grenada are included in the brochure that was released in 1997. In addition, Mississippi is part of The Civil War Discovery Trail.

Responding to increased interest in the state's Civil War resources, Mississippi is developing a series of folders, such as one on the Vicksburg campaign, that will highlight the major campaigns and significant Civil War themes available for study in Mississippi. One of the folders will detail Grant's Central Mississippi Campaign and provide for a loop drive from Holly Springs following Grant's line of advance through Oxford to Grenada and return following the route of Van Dorn's raid.

Publications have played a key role in enhancing public awareness in Mississippi and across the nation.

The state has produced the *Civil War Guide* which is available at no charge by calling 1-800-WARMEST. "A Guide to the Vicksburg Campaign" brochure has also been produced, and site-specific guide brochures on the battlefields of Chickasaw Bayou, Port Gibson, Raymond, and Champion Hill are available at the national military park in Vicksburg. Future guide brochures are planned for the battlefields at Jackson and Big Black River Bridge.

Advertising in publications such as *Civil War Times Illustrated*, *Blue & Gray Magazine*, *Civil War*, and a score of other Civil War-related publications target specific audiences that are more likely to visit historic sites. The National Trust for Historic Preservation informs us that "visitors to historic sites stay an average of a half-day longer and spend an average of \$62 more than travelers who do not visit historic sites." At Vicksburg National Military Park, for example, our sales outlet this year alone will sell in excess of \$730,000 in books and theme-related items.

Mississippi justly boasts of active and innovative battlefield preservation initiatives. Much has been done that will benefit generations of Americans yet to come, but more can and needs to be done. As in states such as Maryland and Kentucky, Mississippi has availed itself of the opportunity to use Intermodal Surface Transportation Efficiency Act (ISTEA) funding for protection of bat-

tlefield sites. Those three states alone have expended more than \$20 million of ISTEA funding to preserve hundreds of acres on significant battlefields. Such action is already paying economic dividends for those states in terms of tourism-generated jobs and tax revenue. ISTEA funding can be used to do even more in Mississippi. Revenues from the vast gaming industry could also be used for the sake of historic preservation. Regardless of the funding source, opportunities abound in Mississippi for preservation of Civil War resources that will spark both heritage tourism and economic development and benefit the state for generations to come.

In its publication, "Tourism + Preservation = Economies," The National Trust for Historic Preservation states: "Today, tourism and preservation are much more likely to overlap," and emphasizes that "the key to sustainable heritage tourism is to build a bridge between preservation and travelers." In every community the bridges are in place if only we will open and maintain them. Across Mississippi, communities large and small have heritage to offer. "When a community's heritage is the substance of what it offers visitors, protecting that heritage is essential."

With the continuing rise of national interest in the Civil War and associated sites, Mississippi stands poised to become a major attraction. We must recognize that preservation and tourism can combine in a "pow-



erful synergy” to create reasons for people to visit. In closing, permit me to paraphrase from the movie “Field of Dreams”: “If you preserve it, they will come”—and bring with them jobs, increased revenues, and economic development that is diversified and sustainable.

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*Part 1 of this set of articles appeared in Volume 15, Number 2. It includes:*

Joseph E. Brent and William H. Mulligan, Jr., “Introduction”

Tanya M. Gossett, “The American Battlefield Protection Program: Forging Preservation Partnerships at Historic Battlefields”

Joseph E. Brent, “Preserving Kentucky’s Civil War Sites: Grassroots Efforts and Statewide Leadership”

Chris Calkins, “The Making of the ‘Lee’s Retreat’ Driving Tour”



# Yellowstone's Creation Myth

According to a still-popular tradition presented in literally thousands of publications and public speeches during the past 90 years, the idea for Yellowstone National Park originated with one man on a specific day. As this tradition has come down to us, on September 19, 1870, members of the Washburn exploring party, during a discussion around a campfire at the junction of the Gibbon and Firehole rivers, developed the idea of setting aside the geyser basins and surrounding country as a national park. According to Nathaniel Langford, who published his edited "diary" of this expedition in 1905, party member Cornelius Hedges proposed the idea and his companions heartily embraced it. This "campfire story," promoted and celebrated by several generations of conservation writers and historians, became well established in the popular mind as the way Yellowstone and national parks in general originated.<sup>1</sup>

But as early as the 1940s, historians doubted the tale. Its belief required ignoring known pre-1870 proposals that Yellowstone should be set aside as a public park, as well as ignoring that the process by which the park was established seemed to spring from a number of sources, and denying that the public-spirited sentiments attributed to the park's founders were only one of the impulses driving their actions. In the 1960s and 1970s, Yellowstone National Park's staff historian, Aubrey Haines, and an academic historian, Richard Bartlett, cast further doubt on the story by suggesting, among other things, that even the campfire conversation itself was a historically doubtful episode.<sup>2</sup>

These revelations set off a round of

debate and reconsideration in the National Park Service over the validity of the story and its usefulness to park staff as an educational device. In both the National Park Service and among the larger community of managers, scholars, and the public, the credibility of the campfire story has since gradually declined, though it is still often invoked, especially by public speakers and in informal publications and other media about Yellowstone. On August 17, 1997, during his speech at Mammoth Hot Springs as part of the 125th anniversary celebrations, Vice President Al Gore referred to the campfire story, and, though acknowledging that there was some debate over it, invoked its symbolic power. We can't let it go.

The persistence of the campfire story as a part of the culture of conservation should not be surprising. For one thing, though the story has been shown to be simplistic and not at all fair to the complexities of history, it has not, and probably cannot, be conclusively proven untrue in *some* of its specifics. For another, stories this deeply embedded in the thinking and self-perception of so many people, true or not, do not yield themselves to easy disregard. Their existence depends upon much more than mere provability: the Madison campfire story has become a part of the historic and even the spiritual fabric of the National Park Service and of the conservation community. And, like any good story, it reveals greater complexities the harder we look at it.

As Aubrey Haines has pointed out, not only were ideas of preserving natural areas a part of the regional consciousness, but also Yellowstone itself had been considered as a possible candidate for such action well before the Washburn party set out. As early as 1865, Cornelius Hedges himself had heard another Montana citizen propose the idea of setting Yellowstone aside.<sup>3</sup>

We have reviewed the 20 or so first-hand contemporary accounts left by members of the Washburn party: a wealth of unpublished diaries and letters, as well as numerous articles and reports published shortly after the

expedition returned to the settlements. As Aubrey Haines has showed and we confirm, none even mention the conversation or the idea of creating a national park, a term that Langford, many years later, claimed the group used that night.

In his diary, the following morning, Cornelius Hedges himself said only, "Didnt sleep well last night. got thinking of home & business."<sup>4</sup> But in 1904, when Hedges' diary was finally published in an edited version, he added the following critical passage as part of a larger footnote:

It was at the first camp after leaving the lower Geyser basin when all were speculating which point in the region we had been through, would become most notable that I first suggested the uniting all our efforts to get it made a National Park, little dreaming that such a thing were possible.<sup>5</sup>

Langford's own account appeared the next year, reinforcing Hedges in several paragraphs that contained actual dialogue of the conversation. Langford's diary, now available in a paperback edition from the University of Nebraska, has long been one of the most popular early accounts of Yellowstone, and his account of the campfire story has served as the primary source for almost all later renditions of the tale. But what actually happened that night?

Only four party members left diary entries covering that night, and none mentioned any such conversation. This might seem odd, but is not in itself persuasive proof no conversation occurred; presumably these men talked around the fire on many evenings without feeling compelled to leave an account of it. These diaries, unlike Langford's, were quite brief, generally limited to distance traveled and a few outstanding sights seen; they were not ruminative or conversational. On the other hand, according to Langford, this must have been one of the most, if not the most, energizing, far-reaching conversations of the entire trip, so we might have hoped for some diarist to comment on it. In any case, by June of 1871, members of the Washburn Party had published at least fifteen articles, letters, and extended episodes in newspapers and magazines. None of these publications said a word about this great idea that, according to Langford, had them all so excited, and, also according to Langford, filled them with a sense of mission to spread the word about the national park idea. This is hardly the sort of ardent advocacy that Langford would later claim existed among these men as a result of their September 19 campfire conversation. These publications were their foremost opportunity to convince the public of the importance of protecting Yellowstone, and they completely missed their chance.

Besides this curious lack of talk

about the national park idea, there are a host of other minor circumstantial and contextual problems with the story, most discovered and outlined by Haines in his official correspondence as Yellowstone historian in the 1960s and summarized in his book *The Yellowstone Story*. This book was published in 1977 after a several-year delay that seems primarily have been due to the discomfort his challenge to the campfire story caused among powerful National Park Service officials and alumni. These other problems include irregularities in Langford's later behavior relative to the campfire story. For example, in the extensive Langford collections in the Minnesota Historical Society, among the conspicuously missing items is the one diary covering his 1871 Yellowstone trip; it is thus impossible to check to see if he actually wrote his very long diary on the trip, or if some of it, including the discussion of the campfire conversation, wasn't added later. Haines suspected that this was an all-too-convenient gap in the record, and so do we.

But besides this and other irregularities, we must also assert that Langford's discussion of the campfire conversation in his published "diary" of 1905 (which we prefer to think of as a reconstructed account) simply does not ring true. It has a contrived, hindsight tone about it, as if manufactured later with a thematic tidiness that probably would not have characterized an authentic diary entry.

The repeated use of the term “National Park” by participants in the conversation is suspect. No members of the party (including Langford) were to use the term even once in the spate of articles and letters they produced over the course of the next year. It all seems too perfect.

Though historians and other observers are perhaps too blithe and ready to call historical figures liars; such accusations should be made no more lightly than they would be made against living persons fully able to look you in the eye and defend themselves. And yet, we simply do not believe Langford in this case. Perhaps the years between 1870 and 1905 magnified the conversation in his mind until it was more than it had been, and he elaborated on it in his diary. Or, perhaps, to put the most cynical cast on it, Langford was what some have suspected him of being: a dishonest self-promoter. It is impossible to know at this point. But it is also impossible for us to believe his tale.

The evidence that the campfire conversation did *not* occur is all negative. That is, we may lack convincing evidence that it happened as Langford claimed, but we have no proof that it did *not* occur. For support of the existence of the conversation, we are entirely dependent on reminiscences from many years later by two people: one of whom,

Cornelius Hedges, stood to gain great glory for originating such an important idea, and the other, Nathaniel Langford, who stood to bask in the considerable reflection of that glory. But while no early Yellowstone booster ultimately proved more energetic at promoting his own heroic image than did Langford, none of the others was more retiring in the face of promotion of his name than was Hedges. Thanks to Haines’ sleuthing, we know Langford to have been a fairly slippery and self-promotional character otherwise, and know Hedges to have been a remarkably trustworthy man.

Based on our review, not only of the sources and of Haines’ analysis but also of the sometimes bitter debate over this issue in the National Park Service in the 1960s and 1970s, it seems most likely to us (as it did to Haines) that there may well have been some kind of conversation that evening that dealt with the question of the fate of the wonders of Yellowstone, but that it was not perceived as momentous by the participants.

What matters historically is the impact of that conversation. Did it lead to the establishment of Yellowstone National Park? It is in answering this question that Langford’s self-promotion is most revealed and the campfire story most clearly transformed into a myth, or at least a legend:

Langford and the generations who believed him portrayed the Washburn Party that night as public-spirited altruists, forgoing personal profit in favor of public service. The story portrayed the park idea as having such intuitive force of rightness that it was immediately embraced by all who heard it. For park defenders seeking to justify or enlarge their meager budgets, the campfire story provided a rhetorical position of moral unassailability. It also provided the park movement with perfect heroes: altruists who were so committed to protecting wonder and beauty that they would forgo all thought of personal gain. And it put the creation of the park movement in the hands of the people whose possession of it would have the most symbolic power: regular citizens.<sup>6</sup>

In fact, by the time of the campfire, Langford himself was already at least a part-time employee of the Northern Pacific Railroad, specifically hired to speak publicly on behalf of railroad promotion in his region. His Yellowstone talks in the East the following winter were funded by the Northern Pacific, and said nothing about the park idea; they described and thereby promoted the wonder, not the protection.<sup>7</sup> Hedges did not even vaguely refer in print to setting aside a reservation until early 1872, when he wrote about it in a similarly economically oriented vein, as part of a territo-

rial resolution designed to convince Congress to transfer the Yellowstone region from Wyoming Territory to Montana Territory.<sup>8</sup>

A spirited defense of the campfire story by an assortment of National Park Service staff in the late 1960s and early 1970s emphasized that it was the publicity given Yellowstone by the Washburn party that led to the creation of the park: that, for example and most importantly, federal geologist Ferdinand Hayden only decided to explore Yellowstone in 1871 because he heard Langford speak in Washington, D.C.<sup>9</sup> Hayden's report on Yellowstone, including William Henry Jackson's stunning photography of features that were only rumored or verbally described before, is regarded as an important factor in persuading Congress to create the park the year after his 1871 survey. But a variety of historical evidence now suggests that Hayden had known about the rumored wonders of Yellowstone for several years, and was already well along in planning the Yellowstone survey by the time he heard Langford speak.<sup>10</sup>

Again and again, the simplistic traditional tale faces complications like these. These were real people, leading lives as complicated as our own, full of conflicting and sometimes complementary impulses:

The only hope for a reasonable understanding of the origin of Yellowstone National Park is in admitting

that none of this was simple. Human nature was not on holiday. The people who created Yellowstone were not exempt from greed, any more than they were immune to wonder. Some cared more for the money, some for the beauty. Some were scoundrels, some may have been saints.<sup>11</sup>

All of this is to say that they sound a lot like us.

The Madison Campfire story is a kind of creation myth, which is to say that though it is not true in any strict historical sense, it is still very important, and in its way a valid and even essential part of the life of its adherents. According to one definition, "a creation myth conveys a society's sense of its particular identity.... It becomes, in effect, a symbolic model for the society's way of life, its world view—a model that is reflected in such other areas of experience as ritual, culture heroes, ethics, and even art and architecture."<sup>12</sup> In the nearly venerable subculture of the National Park Service, and even in the greater society of the conservation movement, the Madison Campfire story is such a model. Like many seminal events seen through romantic filters, it has in it a kind of truth, a loftier vision of human nature than those who admire it would ever expect themselves to sustain, and thus it offers us ideals that are no less admirable for being

unattainable.

But even the best myths can wear out. We do not for a minute blame all those loyal, sincere people who happily believed the campfire story and made such good use of it in generating public support and affection for the national parks. They had no reason to believe otherwise. Today we do. Like the famous environmentalist speech attributed to Chief Seattle, the myth of the Kaibab deer population irruption and collapse, and other environmental fables, the Madison campfire story does not do justice to the complex realities we now know to characterize historical, ecological, or political process.<sup>13</sup>

The strongest criticism we received of earlier drafts of this manuscript, and of the more detailed analysis in a much longer paper we are also preparing, was that we are much too easy on the people who knowingly perpetuated the campfire story's inaccuracies. The greatest blame here goes to Langford, of course, who gets the lion's share of blame for the whole mess, but others contributed, especially those who persisted in pretending the story was true long after Haines' work should have convinced anyone to be more cautious. Indeed, Langford's version of the campfire story is alive and well today, in many public pronouncements in the conservation community, often from well-intentioned people who do not

know any better. We do not know how to alert the ignorant that they are parroting bad history, any more than we know how to convince the people who simply prefer the story to historical truth that they are doing a disservice to their audiences and to the park. We hope, however, that the saga of the campfire myth will serve as a cautionary tale when all of us encounter similar situations and are tempted to fall back on simplistic views.

Just as national parks struggle constantly to reconcile the realities of scientific findings with the even more pressing realities of social preference, so do they face similar conflicts between historical scholarship, agency folklore, and popular understanding. The Madison campfire story promises to be with us, in one form or another—as historical fact for some people, as heroic metaphor for oth-

ers—for many years to come.

The appearance of the long-lost 1870 expedition diary of Henry Washburn, unveiled at the humanities conference in Yellowstone National Park in October 1997, should warn us that there may yet be more evidence out there.<sup>14</sup> And whether or not new evidence ever surfaces, some day new analytical techniques may appear and existing evidence may yield new insights. But just as the evidence may grow or become more cooperative, so too will change the cultural temperament of the society that embraced and now doubts the campfire story. In the dynamic state of such things, the campfire story will be replaced or supplemented by other tales, some perhaps no more trustworthy but more appealing to the modern ear and sensibilities.

## Endnotes

1. Hiram Chittenden, *The Yellowstone National Park, Historical and Descriptive* (Cincinnati: Stewart & Kidd Company, 1915), 74, provides a stereotype of most later accounts of the campfire story, though quite often the tale was fancifully embellished and given extensive dialogue. Nathaniel Langford, *The Discovery of Yellowstone Park* (Lincoln: University of Nebraska Press, 1972), 117-118, provides the published version of Langford's account.
2. Hans Huth, "Yosemite: The Story of an Idea," *Sierra Club Bulletin* 33 (March 1948), 72. Carl P. Russell, "Madison Junction Museum Prospectus," typescript dated June 3, 1960, at Orinda, California, p. 19, cited in Aubrey Haines, letter to Robert Utey, stamped January 8, 1972, p. 2, authors' collection, courtesy of Aubrey Haines and Richard Sellars. Richard Bartlett, *Nature's Yellowstone* (Albuquerque: University of New Mexico Press, 1974), 198-208. Among the many documents relating to this subject and produced by Haines in his role as park historian in the 1960s, one of the first was his memo to the Assistant Superintendent, June 5, 1963, Yellowstone National Park Archives, Box H-3, "Madison Jct. Pageant." This was his first critique of the then-popular annual theatrical pageant held at Madison Junction every year to celebrate the campfire story. Haines' more complete telling of the real story of the campfire and how it fit in the creation of the park is in the first volume of his book *The Yellowstone Story* (Boulder: Colorado Associated University Press and the Yellowstone Library and Museum Association, 1977), 1:129-130, 1:163-173.
3. Haines, *The Yellowstone Story*, 1:90.
4. Cornelius Hedges, "Excerpts from the Diary of Cornelius Hedges (July 6, 1870 to January 29, 1871), with a verbatim transcript of that portion concerned with the 'Yellowstone Expedition' from the time it left Helena, Montana Territory on August 17 until the return of the pack train to that city on September 27, Transcribed from the original diary in the Montana State Historical Society Library, Helena, Montana, by Aubrey Haines, Park Historian, November 5, 1962." Yellowstone National Park Research Library, manuscript file, 12.



5. Cornelius Hedges, "Journal of Judge Cornelius Hedges," *Contributions to the Historical Society of Montana*, 5 (1904), 372.
6. Paul Schullery, *Searching for Yellowstone: Ecology and Wonder in the Last Wilderness* (Boston: Houghton Mifflin, 1997), 56.
7. Haines, *The Yellowstone Story*, 1:105, 1:165; *Yellowstone National Park: Its Exploration and Establishment* (Washington, D.C.: U.S. Government Printing Office, 1974), 59.
8. Louis Cramton, *Early History of Yellowstone National Park and its Relationship to National Park Policies* (Washington: U.S. Government Printing Office, 1932), 107.
9. E.T. Scoyen, letter to Superintendent Jack Anderson, March 23, 1971, Yellowstone National Park Archives, Box H-1, File 196.1.
10. Aubrey Haines, ed., *The Valley of the Upper Yellowstone* (Norman: University of Oklahoma Press, 1965), xxix. Mike Foster, *Strange Genius: The Life of Ferdinand Vandeveer Hayden* (Niwot, Colorado: Roberts Rinehart, 1994), 202-204.
11. Schullery, *Searching for Yellowstone*, 61.
12. David Leeming and Margaret Leeming, *A Dictionary of Creation Myths* (New York: Oxford University Press, 1994), vii.
13. Randy Adams, "Chief Seattle & The Puget Sound Buffalo Wallow," *Borealis* 5(1), Spring 1994, 50-54. C. John Burk, "The Kaibab Deer Incident: A Long-persisting Myth," *BioScience* 23(2), February 1973, 113-114.
14. Lee Parsons, "The Diary of Henry Dana Washburn for the 1870 Exploration of the Yellowstone Wilderness," paper presented at "People and Place: The Human Experience in Greater Yellowstone," the Fourth Biennial Conference on the Greater Yellowstone Ecosystem, October 12-15, 1997, Mammoth Hot Springs, Yellowstone National Park, Wyoming. Proceedings in press.

## Acknowledgments

This essay is based on a paper presented at "People and Place: The Human Experience in Greater Yellowstone," the Fourth Biennial Conference on the Greater Yellowstone Ecosystem, October 12-15, 1997, Mammoth Hot Springs, Yellowstone National Park, Wyoming. We thank Robert Barbee, Aubrey Haines, Barry Mackintosh, Susan Rhoades Neel, P.J. Ryan, Richard Sellars, and Robert Utley for information, insights, readings, or other help with this manuscript.

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