

MOVING FORWARD through PARTNERSHIPS

Developing and relying on an integrated network of partners is a key strategy for successfully planning and implementing conservation action for waterbirds. No single institution or person can accomplish all that is required and partnerships at all levels will be a driving force. The Plan was created from the input of numerous parties, and continued planning and implementation will follow the approach of collaboration and partnership.

International Waterbird Conservation

The Waterbird Conservation Council

Continued planning and facilitation of waterbird conservation at the continental scale will fall to the Waterbird Conservation Council (the Council), successor to the Plan's Steering Committee. The Council will be the keeper of the Plan and have responsibility for coordinating, supporting, and communicating implementation

of this and other waterbird plans, updating the plans, and facilitating actions for waterbird conservation throughout the Plan area.

Specifically, the Council will have the following responsibilities:

- ❖ Be the sponsor of the Plan document, overseeing its dissemination and revision. This includes publication of Version 2 by 2004, and reviews at least every five years thereafter to facilitate the adaptive approach advocated by the Plan
- ❖ Conduct planning and implementation at the continental scale and facilitate conservation at all levels, from continental to local
- ❖ Identify implementing agencies, entities and individuals, and through interactions, interventions, and collaborations, leverage opportunities for waterbird conservation
- ❖ Facilitate the acquisition of resources to support



Common Murres

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waterbird conservation throughout the Plan area

- ❖ As invited, select or nominate representatives to various committees and councils
- ❖ Promote and support work of regional working groups
- ❖ Interact with other bird conservation initiatives, habitat Joint Ventures (JVs), provinces/states, national governments, local interests, and others
- ❖ Facilitate and support the Waterbird Monitoring Partnership
- ❖ Facilitate and support the meeting of scientific information needs
- ❖ Facilitate and support the waterbird conservation communication program combining communication, education and public awareness activities
- ❖ Maintain the Plan's home page
- ❖ Assure coordination of the Plan with other international bird conservation programs and initiatives
- ❖ Periodically evaluate if goals of the Plan are being met, and modify plans and activities accordingly
- ❖ Recruit new members to the Council.

Council membership will be recruited to represent all of the interests and stakeholders involved in waterbird conservation. Together, councilors will provide perspectives that cover:

- ❖ The geographical extent of the Plan area
- ❖ Taxonomic groups of birds included in the Plan
- ❖ The range of habitats in the Plan area
- ❖ Species and resource management
- ❖ Communication and outreach
- ❖ Monitoring

And include representatives of:

- ❖ Political entities
- ❖ Non-governmental organizations
- ❖ Research and scientific organizations
- ❖ Other stakeholders

The Council is an independent, self-perpetuating non-governmental organization and will not be part of any governmental agency or single non-governmental organization. The Council will select its own members, based on recommendations, nominations and approvals



American White Pelicans

obtained from participating stakeholder groups and organizations. Appointments will be for staggered, renewable three-year terms. The Council will develop its terms of reference, appoint committees and working groups as needed and select its Chair. An Executive Committee will be appointed to allow rapid action and continuous engagement in conservation issues.

Waterbird Monitoring Partnership

The Waterbird Monitoring Partnership was discussed in Part 2. The Council will facilitate the development of this partnership with USGS Patuxent. Via the Waterbird Monitoring Partnership, monitoring will be carried out across the plan area by a multi-national array of partners, including provincial, state, national and local governments, non-governmental organizations, and volunteers. Where possible, monitoring efforts for waterbirds will be linked to efforts for other bird groups.

Waterbird Conservation Communication Program

The need for organized communication and outreach activities was also discussed in Part 2. A Waterbird Communication and Outreach Coordinator will consult with the Council to articulate and promote a communication strategy integrating existing programs. As with monitoring efforts, waterbird conservation communication, education and public awareness will be a cooperative effort by numerous partners.

North American Bird Conservation Initiative and Other International Partnerships

Within Canada, Mexico, and the U.S., implementation of the Plan will be accomplished to the extent possible and appropriate within the structure and philosophy of NABCI. The Plan has adopted NABCI BCRs and related PBCRs as its basic planning units. Plan representatives will participate in NABCI activities as invited, and serve as members of committees and subcommittees, as needed.

Continental implementation requires cooperation and coordination beyond, as well as within, the artificial boundaries of the Plan. There are many international partnerships that benefit waterbird conservation and with which the Plan should link, especially associated with conservation in the Asian and Central Pacific, Bering Sea, and circumpolar Arctic areas. Alliances with national and international conservation entities in South America should also be fostered.

National Waterbird Conservation

Planning and implementing waterbird conservation on the national level is crucial to the success of waterbird conservation. However, the exact strategy taken to work towards national conservation will vary among countries, depending on the governmental structure and conservation entities within the country and the availability of resources. Flexibility in how countries both plan and implement waterbird conservation is a desirable part of the multinational Waterbird Initiative. National planning, for example, may be the responsibility of biological staff of the national wildlife or natural resource agency, a non-governmental organization (NGO), or a combination of national stakeholders brought together for the purpose.

National plans and strategies can be important and valuable options in national scale conservation. Frameworks for national waterbird conservation are presently developed for Canada, Mexico, and the U.S. as discussed



Arctic Tern
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below. Other nations will be taking other approaches to planning and implementing waterbird conservation that they find appropriate. It is hoped that national strategies will, to the extent possible, take into consideration and be mutually consistent with the continental Plan.

There are many potential elements of a national waterbird conservation strategy:

- ❖ A national waterbird conservation plan or strategy, including an assessment of species conservation status using the continental-scale status assessment as a starting point
- ❖ A national waterbird coordinator, a professional biologist preferably in a national agency
- ❖ A national inventory of waterbird colonies and breeding sites, important roost sites, and feeding areas linked to other national inventories
- ❖ A national monitoring scheme for waterbirds and their habitats linked to other national schemes via partnerships
- ❖ Summary of available information on waterbirds and their habitats
- ❖ Identification and management of key sites for waterbirds, including IBAs in partnership with BirdLife International
- ❖ Identification and management of important habitats
- ❖ Ongoing inventory of information gaps
- ❖ A system for technical assistance to national agency staff and other stakeholders in waterbird conservation
- ❖ Nationally coordinated communication strategy, linking education and public awareness programs featuring waterbird conservation
- ❖ Communication network among waterbird stakeholders in the country.

Canada

Within Canada, waterbird conservation will be organized and facilitated through a National Waterbird Working Group in conjunction with NABCI Canada Council. Canada is preparing a national plan for the conservation of all waterbirds entitled *Wings Over Water*¹, through a partnership of national, provincial and territorial wildlife agencies, environmental NGOs, and other specialists. Developed concurrently with the continental Plan, the two plans are

Tahiti Petrel ➤ Fiji Petrel ➤ Black-winged Petrel ➤ White-necked Petrel ➤ Mottled Petrel ➤ Bonin Petrel ➤



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Dredged Sand Island

consistent in goals and approach. Additional planning will occur at regional levels with coordinated implementation at appropriate levels. As work evolves there should be increasing opportunities for broader continental planning and implementation.

An important element of waterbird conservation in Canada is the NABCI goal to integrate bird conservation across species groups and national boundaries. Cross-border integration for areas that encompass parts of the U.S. and Canada will occur first in joint planning regions where there are species and issues of common concern. Most implementation will occur at regional and local levels with various partners and will include evaluation to ensure appropriate results and national consistency.

United States

In the U.S., bird conservation is a partnership among local, state, and federal agencies and NGOs. A distinct U.S. waterbird conservation plan will not be developed, since finer-scale regional and state strategies will be used to deliver on-the-ground conservation.

State governments are a principal force in waterbird conservation; coordination among state governments occurs through the International Association of Fish and Wildlife Agencies (IAFWA). Representatives of the Waterbird initiative will participate in the committee system organized by IAFWA, particularly the Shorebird and Waterbird Working Group, the Migratory Shore

and Upland Game Bird Working Group, and Bird Conservation Committee. The Shorebird and Waterbird Working Group has as its particular charge the support of the Waterbird initiative.

Desirable state roles and actions include:

- ❖ Creating a state waterbird conservation strategy, using the continental Plan as a starting point, which includes population and habitat goals
- ❖ Maintaining an inventory of waterbird nesting sites and important nonbreeding habitats
- ❖ Assisting in identifying and managing important areas for waterbirds
- ❖ Monitoring waterbirds and their habitats in cooperation with other parties through the Waterbird Monitoring Partnership at USGS Patuxent
- ❖ Continuing colony site protection and management programs
- ❖ Providing technical assistance to other stakeholders in waterbird conservation
- ❖ Supporting education and awareness programs focusing on waterbird conservation
- ❖ Participating in the continent-wide communication network, and defining research and monitoring and other information needs

As stated above, each state is urged to create a waterbird conservation strategy and to appoint a member of their technical staff to have primary responsibility for the waterbird strategy within the state. This staff person would be responsible within the state for overseeing waterbird inventory and monitoring, protecting colony/breeding and feeding areas, identifying priority research needs, identifying Important Bird Areas, and implementing other conservation measures for waterbirds within the state.

States should encourage and support local conservation efforts on behalf of waterbirds. The state coordinators are encouraged to participate in JVs within their boundaries and facilitate the sharing of data with national data management networks. Each state is encouraged to organize and/or conduct a monitoring program for waterbird populations and, as reasonable, habitat and demographic parameters within the state. The monitoring program should follow the protocols of this plan and participate in the continental data management program.

Each state is encouraged to carry out an environmental education program that reaches into the school system, teaching the conservation of waterbirds in ways appropriate for the region. Each state is encouraged to set up a mechanism to facilitate communication and support from individuals and organizations monitoring, managing, and protecting waterbird sites.

Management of migratory birds is also the responsibility of numerous federal agencies, especially the U.S. Fish and Wildlife Service. Migratory birds are also a focus of many NGOs, whose activities include advocacy, education, research, fund-raising, and habitat acquisition. The facilitation of the partnership of states, federal entities, and NGOs is also a goal of the NABCI U.S. Committee.

Mexico

In Mexico, waterbird conservation will be focused on planning and conservation action at AICAs. Waterbird planning and implementation in Mexico will occur under the auspices of the NABCI Mexico Council, with the important involvement of international and national NGOs. It is hoped that in planning and implementation, Mexico will take into consideration and be mutually consistent with the continental Plan, where possible.

Countries of the Caribbean and Central America

In the Caribbean and Central America, planning efforts should identify the resources necessary in each nation to make waterbird conservation a priority. The continental waterbird conservation community should share responsibility in assisting to secure these resources. It is recommended that countries develop national waterbird strategies and plans, incorporating all species of birds using aquatic habitats. It is hoped that in each country at least a part-time position be designated to lead the national waterbird conservation program.



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Laughing Gull

Regional Waterbird Conservation

Conservation action in many cases is most effectively planned and carried out on a regional basis with special consideration to both political realities and ecological zones. The strategies and goals set forth on the continental scale by the Plan must be supplemented by more precise goals set at subcontinental scales. To carry out regional planning, sixteen waterbird conservation planning regions have been established that together cover the Plan area. The Plan also recognizes the critical role played by Habitat Joint Ventures (JVs), established regional entities formed under the North American Waterfowl Management Plan in Canada, the U.S. and parts of Mexico. JVs are positioned to perform on-the-ground habitat protection and restoration, and they are expanding beyond the traditional focus on waterfowl. The relationships among regional planning and implementation units are shown in Table 3. This information will be modified as regional working groups refine or adjust their boundaries and compile regional data.

Habitat Joint Ventures

JVs consist of voluntary organizational and agency partners working together to conserve bird habitat, especially wetlands of importance to waterfowl. JVs set habitat goals and mobilize partners to achieve these goals. Since wetlands are important to other aquatic birds, integration of the habitat needs of waterbirds into JV planning and implementation is important for waterbird conservation.

Every effort should be made to identify areas of overlap between habitat needs for various bird groups.

The Plan suggests that each JV include strategies for waterbird conservation and undertake explicit planning, habitat and population goal setting, habitat acquisition and protection, and management for waterbirds. Some JVs have already begun this process. Specifically, they are urged to protect and manage

Hawaiian Petrel ➤ *Kermadec Petrel* ➤ *Juan Fernandez Petrel* ➤ *Murphy's Petrel* ➤ *Bermuda Petrel* ➤

TABLE 3. The Relationship of Waterbird Planning Regions to Other Planning and Implementation Units

Waterbird Conservation Planning Region	Overlapping Provinces or States or Countries ^a	Composite NABCI Bird Conservation Regions ^b	Composite Pelagic Bird Conservation Regions ^b	Overlapping Habitat Joint Ventures and Other BCR-Based Partnerships
Alaska/Bering/Yukon	Alaska, British Columbia, Yukon Territory, Northwest Territories	1,2,3 (Alaska and Yukon only) 4	68,69, 70	None
Pacific Coast	Yukon,Alaska, British Columbia, Washington, Oregon,California, Baja California	5,32	71	Pacific Coast, Central Valley Habitat, San Francisco Bay
Mexico– Southwest U.S.	California, Nevada,Arizona, New Mexico, Texas, Aguascalientes, Baja California, Baja California Sur, Campeche, Chiapas, Chihuahua, Coahuila, Colima,Distrito Federal, Durango, Guerrero, Guanajuato, Hidalgo, Jalisco, México, Michoacán, Morelos, Nayarit, Nuevo León, Oaxaca, Puebla,Querétaro, Quintana Roo, Sinaloa, San Luis Potosí, Sonora, Tabasco, Tamaulipas, Tlaxcala, Veracruz, Yucatán,Zacatecas	33,34, 35,38, 39, 40, 41,42, 43,44, 45, 46, 47,48, 49,50, 51, 52, 53,54, 55,56, 57, 58, 59,60, 61,62, 63, 64,65, 66	71,72, 73,74	Sonoran Desert
Intermountain West	Idaho, Utah,Nevada, Colorado, Arizona, New Mexico, Wyoming, British Columbia,Alberta	9,10, 15, 16	None	Intermountain British Columbia,Intermountain West, Sonoran Desert
Boreal	Northwest Territories, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Newfoundland, Nunavut, St. Pierre et Miquelon (France)	6,7, 8	75	None
Arctic Canada	Northwest Territories, Nunavut, Quebec, Newfoundland	3 (except Alaska and Yukon)	76,84, 85	None
Northern Prairie and Parkland	Alberta, Saskatchewan,Manitoba, Montana,North Dakota, South Dakota, Minnesota,Iowa	11	None	Prairie Habitat, Prairie Pothole
Central Prairies	Montana, Wyoming, Colorado, New Mexico, Texas, North Dakota, South Dakota, Nebraska,Kansas, Oklahoma	17,18, 19	None	Playa Lakes, NE Rainwater Basin,Northern Great Plains
Upper Mississippi Valley/Great Lakes	Manitoba, Ontario, Quebec, Minnesota, Illinois, Kansas, Wisconsin,Indiana,Oklahoma, Michigan, Iowa,Arkansas, Ohio, Nebraska,Missouri,Alabama, Tennessee, New York, Kentucky, Vermont, Pennsylvania	12,13, 22,23, 24	None	Upper Mississippi Valley and Great Lakes Region, Central Hardwoods, Eastern Habitat, Atlantic Coast
Southeast U.S.	Texas, Oklahoma, Mississippi, Kentucky, Arkansas, Missouri, Tennessee, Louisiana, North Carolina, Virginia, Maryland,Ohio, Pennsylvania, New York, South Carolina,Alabama, Florida, West Virginia,Georgia	20,21, 25,26, 27, 28,29, 31,36, 37	74,77	Atlantic Coast,Lower Mississippi Valley, Gulf Coast
Mid Atlantic/ New England/ Maritimes	Delaware, Rhode Island, Vermont, New Jersey, Maryland,New York, Connecticut, Maine, Massachusetts, New Hampshire, New Brunswick, Nova Scotia,Prince Edward Island, Quebec	14,30	78,79	Eastern Habitat, Atlantic Coast
Pacific Islands	Hawaii,American Samoa,Northern Mariana Islands, Marshall Islands, Federated States of Micronesia,Baker and Howland Islands, Commonwealth of Guam, Jarvis Island, Johnston Atoll, Cocos, Kingman Reef, Midway Atoll, Palmyra Atoll, Wake Island	67	80	None

Black-capped Petrel ➤ *Bulwer's Petrel* ➤ *Jouanin's Petrel* ➤ *Parkinson's Petrel* ➤ *Cory's Shearwater* ➤

Waterbird Conservation Planning Region	Provinces or States or Countries	NABCI Bird Conservation Regions ^a	Pelagic Bird Conservation Regions ^b	Habitat Joint Ventures and Other BCR-Based Partnerships
Caribbean	Bermuda, Bahamas, Jamaica, Cuba, Haiti, Dominican Republic, Anguilla, Antigua & Barbuda, St. Kitts & Nevis, Dominica, St. Lucia, St. Vincent & the Grenadines, Barbados, Granada, Trinidad & Tobago, the Dutch islands of Aruba, Bonaire, Curacao, Saba, St. Eustatius, and St. Maarten, the French islands of Martinique, Guadeloupe, St. Martin, and St. Barthelemy, the British islands of Turks & Caicos, Caymans, British Virgin Islands, and Montserrat, the U.S. islands of Puerto Rico, U.S. Virgin Islands, and Navassa, and the Venezuelan islands in the Caribbean	n/a	81	None
Central America	Guatemala, Belize, Honduras, El Salvador, Nicaragua, Costa Rica, Panama	n/a	72	None
Pacific	n/a	n/a	82	None
Atlantic	n/a	n/a	83	None

^a Subject to change as regional plans are developed.
^b See Figure 2.

nesting and roosting sites located within and near important waterbird feeding habitats. The Plan urges JVs to create mechanisms, such as waterbird advisory committees, to bring together all local partners in aquatic bird conservation for waterbird conservation goal setting within the context of goals for other aquatic species. JVs and other regional partners are urged to engage waterbird specialists with responsibilities for developing and carrying out conservation strategies and for working with regional waterbird working groups to formulate population and habitat goals and implementation projects. Regional waterbird working groups will assist JVs in implementing projects by providing expertise and perspective on the needs of waterbirds in the region.

Waterbird Conservation Planning Regions

The waterbird planning regions are shown in Figure 1. Regional plans will step down the goals of the continental Plan to smaller scales, and it is expected that regional waterbird conservation plans will identify priority species, habitat and species goals, IBAs, and prioritize implementation projects for its composite units. Regional conservation plans will be developed first for

those regions that have the knowledge and expertise base sufficient for planning. Many, but not all of the waterbird planning regions already have voluntary regional working groups dedicated to producing a comprehensive plan. Other regions have groups planning for some subset of species or a particular geographic



Sandhill Cranes

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Streaked Shearwater ➤ *Wedge-tailed Shearwater* ➤ *Buller's Shearwater* ➤ *Flesh-footed Shearwater* ➤



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American White Pelican

area within the region—efforts that will hopefully be merged into a comprehensive plan in the future. Finally, some regions, such as the Boreal, Arctic Canada, Central Atlantic, and Central Pacific, will need further consideration by partners to clarify how planning will proceed.

As discussed previously, the regions include land-based planning units and/or pelagic areas established to enable conservation planning for seabirds. BCRs and PBCRs are visualized as the principal way to plan waterbird conservation within the context of all bird habitat conservation. It should be noted that the Plan does not view planning units such as BCRs and PBCRs as being implementation units, with independent structure or staff. Implementation should draw on many units, including, but not limited to, political entities at every scale, and partnership-based implementation bodies.

The distribution of waterbird species in the planning units is shown in Appendix 3. In order to categorize the conservation status of species occurring in their region, regional working groups will implement a process appropriate to their needs. The continental colonial breeding species status data are available to each working group (Appendix 1). These data, along with a consideration of the importance of a geographic area to the continental population, can be used to determine regional species conservation status. Where possible, approaches should be used that are compati-

ble with multiple bird conservation initiatives. Regional working groups should also consider special populations or subspecies when determining priority species within the region as appropriate. Regional planning efforts should include solitary nesting waterbirds (e.g., marshbirds) from the onset along with colonial-nesting waterbirds.

Regional working groups should also identify key sites for waterbirds in their region. Specifically, it is expected that groups will compile information that would allow an assessment of key sites against IBA criteria at global, continental, and/or national levels of significance, drawing on the criteria identified by IBA Programs in relevant countries. Additionally, in the U.S., National Audubon Society will partner with relevant regional waterbird working groups to identify state-level IBAs. Key sites that do not meet IBA criteria may also be identified within a region, and regional working groups will take these sites into account in planning and conservation action.

Alaska/Bering/Yukon

This region includes large interior portions of Canada's western provinces, all of Alaska to the tip of the 1,100 mile Aleutian Chain, as well as the surrounding pelagic areas. It is characterized by a wide diversity of physical features, including open ocean, seaside cliffs, coastal plains and tundra, mountain ranges, and diverse forest. The region's extensive coastlines and nutrient rich waters host some of the largest seabird colonies in the world, including those of the Black-legged Kittiwake, Common Murre, and Pelagic Cormorant. In summer, the world's populations of breeding Red-legged Kittiwake, Least Auklet, and Whiskered Auklet are found here, and Southern Hemisphere albatrosses and petrels forage offshore. Inland are found tremendously large, undisturbed areas inhabited by a small suite of waterbirds such as loons and cranes. All of the bird species found in this region benefit from the extended opportunities to feed and reproduce during the region's long—sometimes continual—periods of summer daylight. Despite low-density human populations, the region's waterbirds face a number of human-related threats, including introduced predators, fisheries mortality, oil spills and other contamination, global climate change affecting ice and ocean regimes, and development for lumber, mining, and oil exploration.

Pacific Coast

The Pacific Coast region stretches from the Kenai Peninsula in Alaska through British Columbia and California coasts to include the northern portion of Baja California. Its diverse habitats include the coastlines and highly productive offshore marine areas, the largely coniferous coastal rainforests of its northern half, low coastal mountains of mixed chaparral vegetation towards the south, and the wetlands and lowlands of the expansive Central Valley of California. Each of these habitats hosts an array of waterbird species subject to varying threats. The northern coastlines include large proportions of the global breeding populations of a number waterbirds including Ancient Murrelet, Cassin's Auklet, Rhinoceros Auklet, Glaucous-winged Gull, and Leach's Storm-Petrel, while rocky islands off the southern coast support many or most of the world's

breeding Ashy Storm-Petrel, Brandt's Cormorant, Western Gull and Xantus's Murrelet. The region's pelagic waters provide habitat for large numbers of shearwaters, storm-petrels, alcids, and albatrosses. The major threats to these coastal and pelagic species include introduced mammalian predators, bycatch in fisheries operations, contaminants, oiling, climate change, and lack of formal protection for several key breeding colonies and their associated marine foraging areas. The threats to Marbled Murrelets from timber harvest in the coastal rainforests are well known but this activity also impacts the waterbirds utilizing the associated river deltas and pockets of wetlands. Much of the depressional wetland and riparian habitats of the Central Valley, lying between the coastal and Sierra Nevada mountain ranges, have been lost to agriculture and other development, but large populations of waterbirds breed and winter here. The southern marshes and beaches of the region provide critical habitat for endangered populations of Clapper Rail and Least Tern. These habitats are threatened by development, as are all habitats in this rapidly developing region. Because of the tremendous diversity of populations, habitats, and threats, planning in the Pacific Coast region will be multi-faceted, including on-going scientific study, monitoring, management, education and outreach.

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Green Heron

Mexico–Southwest U.S.

The Mexico region includes all of Mexico's lands, ocean waters and islands, as well as dry, often mountainous portions of southern California, Nevada, Arizona, New Mexico and Texas. From its northern edge, the region makes a transition from a temperate to tropical climate, and mountain ranges running almost the length of the region define the interior regions that separate the Pacific and Atlantic coastal plains. The region's complex topography results in a diverse array of aquatic habitats and waterbird species, and often localized bird distributions. The Mexican islands in the Pacific, Gulf of Mexico, and Caribbean (the Campeche Bank) support important seabird and coastal waterbird breeding colonies. Pacific offshore waters host non-breeding pelagic species, notably those ranging from their nesting islands in central and south Pacific, and the Gulf of Mexico provides foraging habitat for both locally nesting seabirds and wintering migrants. On the mainland, shallow bays, mangroves, coastal lagoons, and marshes frequented by wading birds are scattered along the

Christmas Shearwater  *Manx Shearwater*  *Newell's Shearwater*  *Townsend's Shearwater* 

Pacific coast. On the Atlantic slope, the remaining mangrove-fringed lagoon complexes provide nesting areas and migratory bird wintering areas, and the low-lying area from southern Veracruz to the boundary with Belize offers extensive freshwater marshes and lagoons, hosting large colonies of wading waterbirds. The lagoons stretch to the north coast of the Yucatan, while the Yucatan's southern coasts are sparsely occupied by coastal species in winter. Important waterbird habitats in the region's interior include interior river drainages, the Salton Sea, lakes on the Mexican Plateau, and Central Volcanic Belt marshes, all providing refuge in an otherwise arid landscape.

The Mexico region's waterbirds and their habitats face numerous threats directly and indirectly resulting from human activity. In Mexico, conservationists are particularly challenged by a lack of information and resources, yet can draw on an emerging environmental awareness. Moreover, the network of Mexican AICAs provides a strong foundation from which to launch waterbird conservation in concert with conservation action for other aquatic species. As discussed previously, it is envisioned that the NABCI Mexico Council will oversee waterbird conservation planning and implementation in Mexico, working with planners in the U.S. portions of the region.

Intermountain West

The Intermountain West Region, as its name implies, is bounded by the Sierra Nevada and Cascade mountains on the west, and the Rocky Mountains on the east. It includes the extensive Great Basin, Columbia Basin, Colorado Plateau, and the Wyoming Basin. Characterized by diverse basin and range topography, the region provides a variety of habitats for waterbirds including high mountain lakes, rivers and streams, both fresh and brackish basin wetlands, and large alkaline lakes. Due to the arid climate—a result of the rainshadow cast by the mountains to the west—the wetlands of the Inter-

mountain West serve as life-giving, yet transient, oases for aquatic birds. The region's dispersed lakes, marshes and riparian zones host about 40 waterbird species, including many or most of world's Eared Grebes, American White Pelicans, White-faced Ibises, and California Gulls. The competing demands for human uses of water, such as agriculture, development, and recreation pose the greatest threat to waterbird populations. The presence of contaminants (e.g., mercury, DDT and its breakdown products) is also a significant regional threat. Because of the West's feast-or-famine water regime, the Intermountain West regional plan will stress the necessity of conserving a network of high-quality wetland habitats with secure water sources in order to provide options for waterbirds during drought and flood cycles.

Boreal

This immense region arches across the length of Canada. It includes the tundra of the low arctic and the forests of the subarctic, as well as the boreal forest. Dominant features include, from west to east, the Mackenzie River and its tributaries, the softwood forests of the boreal transition zone, the Hudson Plains (the largest extensive area of wetlands in the world), and eastern seacoasts. Glacially carved, low lying wetlands cover a large percentage of the region and widespread permafrost results in lowlands being waterlogged or wet for prolonged periods of time. Several major river deltas occur in the central portion of the region, including the Saskatchewan River delta, Peace-Athabasca River delta, and Slave River delta, all of which are critically important to migrating and breeding

waterbirds. Coastal marshes and extensive tidal flats are present at Hudson Bay and on the Atlantic shorelines. This region provides extensive breeding habitats for large populations of waterbirds. Other breeding marshbirds include four species of grebes, American Bittern, Sora, Yellow Rail, as well as the American White Pelican and a variety of gulls and terns. An abun-



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Virginia Rail

dance of seabirds, including a number of alcid species, utilize the shorelines and open oceans on the Atlantic coast. Most waterbird habitats in the region are in a comparatively pristine state relative to those in more southern regions. However, the cumulative impacts of developing forestry, fisheries, mining, hydroelectric, oil and gas development, transportation infrastructure, and other industrial activities in the north are resulting in degradation of habitats. As well, the impacts of climate change may be a more immediate and larger concern at higher latitudes than elsewhere. Finally, regard-



Black Guillemots

less of breeding area affiliations, all migrants to the region are exposed to a wide array of environmental hazards during migration and on wintering areas. Planning in the Boreal region will focus first on gaining a better understanding of populations, particularly the least abundant and most poorly understood. Some of the research and monitoring challenges facing planning efforts in the Boreal region are common everywhere, while others are unique to the northern situation.

Arctic Canada

This region includes low-lying, coastal tundra and drier uplands of the Arctic mountains across the entire northern edge of Canada. Because of thick and continuous permafrost, surface water dominates the landscape (20-50 percent of the coastal plain). Freezing and thawing form a patterned mosaic of polygonal ridges and ponds, and many rivers bisect the plain and flow into the Arctic Ocean. The open seawaters of the Beaufort Sea, Chukchi Sea, Arctic Ocean, and Hudson Bay are frozen much of the year, and the ice pack is never far from shore. Breeding species include a variety of larids (jaegers, gulls, terns), alcids (guillemots, auklets, murre, puffins, and murrelets), loons and Sandhill Cranes. Few bird species of any type winter in the region.

Northern Prairie and Parkland

The Northern Prairie and Parkland region, extending

from the southern edge of prairie Canada's boreal forest, across the international border, and south to the banks of the Missouri, is an area composed primarily of mixed-grass prairie. Aspen poplar woods form a belt of "parklands" along the region's northern boundary. The region offers waterbirds a tremendous variety and often high density of small wetlands or "potholes", ranging from wet meadows and shallow water ponds, to saline lakes, marshes and fens. Oxbow wetlands created by the changing flow of small prairie rivers and streams, and human created reservoirs dot the landscape. Widely regarded as the most important waterfowl production area in North America, the region hosts twenty-four colonial and fifteen non-colonial species of breeding waterbirds including the endangered interior Least Tern. A number of species reach their highest densities or have breeding ranges contained largely within the region, notably the American White Pelican, Eared Grebe, California Gull, Black Tern, Forster's Tern and Franklin's Gull. The challenge for the Northern Prairie and Parkland regional plan is operating in a landscape significantly affected by agriculture, oil/gas and other human development activities which factor immensely in the region's conservation issues. Wetland loss and deterioration tops the list, which is further influenced by the region's natural cycles of drought and inundation. The widespread and uncertain ramifications of global warming will affect the regional plan's strategies

Short-tailed Albatross ➤ *Black-footed Albatross* ➤ *Laysan Albatross* ➤ *Black-browed Albatross* ➤

to combat wetland loss and properly manage associated upland habitats for the benefit of waterbirds and other bird species.

Central Prairies

The Central Prairies region, stretching across the U.S. heartland, is characterized by a semi-arid climate and consists of rolling plains vegetated with shortgrass and mixed-grass prairie. Native grassland vegetation exists in many areas, especially in the north and west, and ranching is a dominant land use. Rowcrop agriculture is a more prevalent land use in the eastern parts of the region. Wetland resources are relatively sparse and consist mostly of river-associated wetlands, playas and depressional wetlands. The region supports significant breeding populations of interior Least Terns, Black Terns, Eared Grebes, Black-crowned Night-Herons, American Bitterns, and Virginia Rails. Additionally, critical migratory stopover habitat for Mid-continent Sandhill Cranes and Whooping Cranes is found along the Platte River in Nebraska and in other wetland complexes in the region. There is lack of adequate information on habitat use, and population sizes and trends for many waterbirds in this region. Primary threats to waterbirds in the Central Prairies region include unpredictable rainfall patterns, and habitat loss or degradation due to agricultural activity and urban development. The Central Prairies regional plan will focus on documenting critical waterbird sites/landscapes and identifying information gaps which may hinder the effective monitoring and management of waterbird populations.



Least Terns

Upper Mississippi Valley/Great Lakes

The Upper Mississippi Valley/Great Lakes (UMVGL) region is a diverse area lying in the middle of North America. About 40 species of waterbirds occur in the region, and among the priority species there are Least, Common, Black, and Forster's Terns; Black-crowned and Yellow-crowned Night-Herons; American and Least Bitterns; Yellow, Black, and King Rails; and Common Loons. Superabundant species that are causing human conflicts include Double-crested Cormorants and Ring-

billed Gulls. The UMVGL region provides a variety of waterbird nesting, roosting, and foraging habitats, including islands, natural and managed wetlands, lakes and lake shorelines, reservoirs, rivers and floodplains, sand and gravel bars, beaches, and Great Lakes coastal estuaries. The Great Lakes and "big rivers" (Mississippi, Illinois, Ohio, and Missouri Rivers) provide a foundation for much of the important waterbird habitat in the region. Parts of the region are heavily forested or have rugged terrain with few wetlands, and these support little waterbird use. Wetland losses from urban development, river dredging and diking, and agricultural drainage have reduced the amount of waterbird habitat in the region, and water quality has been impacted by agricultural and industrial runoff. Dredged material island creation, wetland creation and restoration activities, and water control structures have provided new

waterbird habitat in some areas. Fluctuating water levels in the Great Lakes have reduced habitat for some species and enhanced habitat for others. A primary goal of the UMVGL regional plan is to ensure the availability of waterbird nesting and foraging sites by protecting, restoring, and managing a variety of habitat types throughout the region. Other limiting factors

to UMVGL waterbirds include human disturbance, predation, nest-site competition, altered food base, contaminants, and conflicts with humans.

Southeast U.S.

This Southeast region borders the southeastern U.S., stretching from eastern Texas and Oklahoma, capturing the Florida peninsula, and extending northward into eastern North Carolina and Virginia. It extends into the Gulf of Mexico and pelagic areas off both the Atlantic and Gulf coasts. Particularly important waterbird habitats in the region include pelagic areas, marshes, forested wetlands, and barrier and sea island complexes. The Southeast U.S. region is particularly critical to 15 species of waterbird. Federally listed taxa include breeding populations of Wood Stork, the Mississippi subspecies of Sandhill Crane, Whooping Crane, interior Least Tern, and Gulf coast populations of Brown Peli-

can. The population trends for the long-legged wading species in the region vary and are of great interest, as these birds are important ecological indicators for restoring the Everglades and for identifying environmental problems elsewhere (e.g., Okefenokee Swamp). Among concerns requiring region-wide attention are mortality of waterbirds associated with various fisheries (“waterbird bycatch,” depredation control at aquaculture ponds and other facilities), loss and deterioration of habitat, disturbance of nesting areas (particularly those of beach-nesting terns and skimmers), and effects from contaminants. A key objective of the Southeast regional plan is the standardization of data collection efforts and analysis procedures across the region. This will allow better tracking of regional movements and the association of these movements with environmental or land use changes to better recommend effective conservation measures.

Mid-Atlantic/New England/Maritimes

Stretching from the southern end of the Chesapeake Bay to the Gulf of St. Lawrence, this region offers a great variety of coastal habitats. The islands and shores of the Chesapeake and Delaware Bays host large mixed colonies of coastal and wading waterbirds, as do the estuaries and embayments formed behind mid-Atlantic barrier islands. Most of the world’s population of Roseate Tern nests on the islands of southern New England, as do large numbers of other terns and gulls. Sandy shores give way to the rocky or muddy intertidal shorelines of northern New England and Canada’s maritime provinces. Here, Black Guillemots breed on the coast, while Leach’s Storm-Petrel, gulls, terns, and the southern-most populations of breeding alcids nest on offshore islands. The inland ponds, lakes, and river valleys often offer more isolation for waterbirds than coastal habitats, though they freeze earlier and easier. Development pressure is a critical issue for this region, which hosts tremendously dense human populations, especially in its southern end. Overexploitation of coastal resources and contamination are also key threats. The planning effort for the Mid-Atlantic/New England/Maritimes region has the advantage of being able to draw on the knowledge and expertise of a number of locally based waterbird working groups.



American Coot

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Pacific Islands

The Pacific Islands waterbird planning region extends across a vast area of the north and central Pacific Ocean encompassing numerous islands and island groups under U.S. jurisdiction. The region stretches 5,000 miles from east to west and 3,000 miles from north to south and includes some of the most isolated islands in the world. The physical geography ranges from mountainous, alpine environments to low-lying tropical atolls just a few feet above sea level. This region is of international importance for both endemic species (an evolutionary result of island isolation) and migratory waterbirds capable of crossing great distances of open ocean. This region supports millions of breeding seabirds representing 30 species, including the entire global population of Hawaiian Dark-rumped Petrel and Newell’s Shearwater and greater than 98% of the world populations of Laysan and Black-footed Albatross. Unfortunately, the small size and isolation of these islands increases the vulnerability of individual species and their habitats. Rails, coots, and gallinules (several of which are endemic) are at risk of becoming endangered or are already extinct. Habitat loss and degradation associated with human development and invasive species have devastated native flora and fauna, especially on the more developed islands. Introduced species (predators, herbivores, insects, plants, etc.), introduced diseases, contaminants, and mortality resulting from interactions with commercial fisheries pose serious threats to waterbirds, both on land and at sea. The U.S.

White-faced Storm-Petrel ➤ *Polynesian Storm-Petrel* ➤ *European Storm-Petrel* ➤ *Least Storm-Petrel* ➤

Pacific Islands regional plan will synthesize the conservation issues of the region and prioritize management efforts to address them.

Caribbean

This region includes Bermuda, the islands and waters of the Caribbean Basin, and the islands and waters off the northern coast of South America. The majority of these islands are of volcanic origin, thus dispersal of species from surrounding continents and subsequent evolution in isolation have shaped the region's avifauna and produced a number of endemic species. Breeding residents and local migrants, wintering or migrating neotropical migrants, and non-breeding austral migrants can all be found in the region. The waterbirds occurring on each particular island are dependent on its size (ranging from Cuba's 110,860 km² to tiny rocky islets) and topography and the resulting suite of marine and freshwater habitats. Coastline extension and shelf width affect the presence and nature of beaches, estuaries, mud flats and mangroves. Mangroves provide foraging habitat for waterbirds seeking fish and invertebrates, and Brown Pelicans, as well as many species of herons and egrets, roost and nest in the mangrove canopy. Sandy and rocky coasts, as well as offshore rocks and

reefs, are also routinely used as nest locations and roosts by shorebirds, gulls, terns and wading birds. Saltwater ponds and lagoons, formed as a result of the growth of corals across the mouth of an indented shoreline, can provide an important prey base for waders. Artificial spoil islands formed from dredging are used by several species of birds. Artificial freshwater habitats can also be very important, as Caribbean islands often have few natural inland bodies of fresh water. Reservoirs constructed for the purposes of potable water, irrigation, power, and flood control; ponds for irrigation, livestock, or aesthetic reasons; and irrigation canals can all serve as waterbird habitat. Where rivers, streams, or creeks occur, they range from rapid flows in the steep mountains to slower and more winding courses across the lowlands. Habitat destruction and disturbance associated with a growing human population are the principal threats in the Caribbean, notably deforestation, destruction of mangroves and other wetlands, hunting, and the introduction of exotic predators. Water pollution, siltation of water bodies, and excessive withdrawals of fresh water are also problems. These threats have caused declines in a number of waterbird and other aquatic bird species, including the globally threatened Bermuda Petrel, Black-capped Petrel, West Indian



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Anhinga

Wedge-rumped Storm-Petrel *Band-rumped Storm-Petrel* *Leach's Storm-Petrel* *Tristram's Storm-Petrel*

Whistling-Duck and Zapata Rail.

The Caribbean region's island nations for the most part have limited capacity for conservation action. Moreover, these nations share an ecological identity not reflected by political boundaries. Thus, a multinational conservation planning and implementation effort is required to effect conservation action in this region. This effort should address the needs of all aquatic birds, including seabirds, coastal birds, wading birds, marshbirds, shorebirds, and waterfowl, in order to make the most effective use of resources. As an important first step, the Society for the Conservation and Study of Caribbean Birds has formed a Waterbirds Task Force for the Caribbean region. It is proposed that this working

group conduct workshops to bring together stakeholders in aquatic bird conservation to enable them to define and coordinate regional conservation action. The group will determine and document regional and national population goals, habitat management goals, avian (waterbird) monitoring goals and techniques, and important aquatic bird areas (IBAs); identify needs and develop training and educational materials; and develop and implement priority conservation projects. It is hoped that Caribbean planning will foster waterbird interests in the Caribbean, generate additional species-based working groups, secure increased funding for aquatic bird conservation projects, and surmount political obstacles to access and collaboration.

Central America

The Central America region is defined by the seven nations of Central America and adjacent ocean areas. The region has 6,603 km of coast (approximately 12% of the Latin American and Caribbean coastline), with



Wood Stork

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approximately 567,000 hectares of mangroves (8% of world's total), plus 1,600 km of coral reef. The low-lying coastal zones include many estuaries and extensive lagoons, important as waterbird habitat. The Gulf of Fonseca, a natural, shallow Pacific harbor shared by El Salvador, Honduras, and Nicaragua, is similar to the Gulf of California, with estuaries, marshes, rocky coastline, and islets. On the Atlantic side, the Honduras Bay islands and reefs host local colonies of seabirds while offshore waters in the Caribbean serve as foraging grounds for locally nesting seabirds and migrants. The region also contains the huge Isabel Lake (Guatemala) and Nicaragua and Managua Lakes (Nicaragua), and a regional system of volcanic lakes, such as Ilopango (El

Salvador); Amátitlan and Atitlán (Guatemala); and the Arenal reservoir (Costa Rica). Extensive flood plains are found along the Mosquitia (Nicaragua and Honduras); the Belize River (Belize), and La Pasion, Polochic and Cahabon rivers (Guatemala).

Central America's coasts and wetlands contribute greatly to local, national and regional economies, but their importance is not always recognized and protection and management are often lacking. Conservation action in the region should include the promotion of greater awareness of these important ecosystems, primarily via local projects to demonstrate the feasibility of sustainable resource use. A process similar to that being developed for the Caribbean is suggested for the region. The first step would be to assemble those individuals willing to work towards developing a regional waterbird conservation plan into a working group. This working group, starting with identification of core participants, would conduct workshops to facilitate planning; devel-

Markham's Storm-Petrel ➤ *Black Storm-Petrel* ➤ *Ashy Storm-Petrel* ➤ *Fork-tailed Storm-Petrel* ➤



© TONY PALISER

Sooty Shearwater

op population and habitat goals; determine monitoring needs and approaches; support identification, protection and management of waterbird IBAs; create training and education materials; and identify and implement model conservation projects. Integration across national borders and of the needs of all aquatic birds (i.e., waterbirds, shorebirds, and waterfowl) is suggested as the most efficient approach to conservation, though the development of conservation strategies and monitoring could be done on a subregional basis, along the Pacific slope, Atlantic slope and interior lakes. It is recognized that funding is critical for this region to move forward with waterbird planning and conservation.

Pacific and Atlantic

These regions refer to the high seas of the Pacific and Atlantic, which are regularly utilized by the pelagic seabirds considered in the Plan, including shearwaters, petrels, storm-petrels, puffins, fulmars, gannets, skuas, kittiwakes, jaegers, and auks. Though consisting entirely of open water, these regions offer habitat of varying quality, depending on distance from land, latitude and the shifting character of the water (i.e., temperature, salinity, nutrients, and biological communities). Because of fluctuations in weather and food supply, and because food often has a patchy distribution, most pelagic seabirds must travel constantly and over enormous areas. Information on the movements and distribution is lacking for many pelagic seabird species, in part because of their extensive movements. It is known that after nesting in very crowded colonies, many species continue to congregate outside the breeding season in areas of high productivity, such as upwellings. Huge flocks of Sooty and Greater Shearwaters have been seen in these

areas. The major threats to waterbirds on the high seas are oil and other contaminant spills, discarded plastics and other pollution, fisheries conflicts and the unknown impacts of altered ocean cycles. Activities on the continental shelves, such as ocean dumping and sand mining, can also directly or indirectly impact pelagic birds. Seabird conservation planning for the Pacific and Atlantic Regions will call for continued research and additional monitoring, and will explore how policy changes, enforcement, and alleviation of threats can be accomplished via international communication and cooperation.

Local Waterbird Conservation

Conservation planning at the local level is essential. Many waterbirds are part of the local communities that humans inhabit and survive within the human-dominated landscape. Local action and community-based conservation may well be the most important level of implementation. Many different locally-based agencies or groups share responsibilities for the management of birds and their habitats with national governments. The Plan recognizes and encourages a diversity of local conservation efforts on behalf of waterbirds.

The approaches that local governments and organizations use for planning and conservation action for waterbirds will differ markedly depending on local conditions, resources, opportunities, needs and interests. These should enhance, rather than weaken, overall conservation success. Not only will a diversity of approaches allow conservation to fit to the local situation but will provide experiments in conservation, the results of which can inform actions elsewhere.

Despite the necessity and desirability of flexibility, it does remain important that local planning and implementation of waterbird conservation be connected to continental, national, state and regional goals, programs and opportunities. This will ensure the availability of information, ideas, planning assistance and resources as well as use of common protocols, such as those developed for monitoring. Mechanisms used should bring partners together to conserve birds and habitats on a landscape level. Cooperation among state and provincial biologists, non-government organizations, especially community-based organizations, is essential.

Particular progress towards goals identified in this Plan could be made at the local level by identifying key local sites. Imbedding waterbird conservation in special site management is particularly well situated to engage local stakeholders in site monitoring and protection, while at the same time serving as a vehicle to address research, education and outreach, and coordination and integration priorities.

Possible elements of a local conservation program:

- ❖ Set goals to achieve waterbird conservation,
- ❖ Collaborate with regional waterbird conservation working groups to assess waterbird status and local conservation needs,
- ❖ Become familiar with regional scale assessments of waterbird status, habitat priorities and other needs and opportunities, but do not be limited by them,
- ❖ Develop programs to manage waterbirds and their habitats at local sites, including parks and preserves, for multiple purposes, including public involvement,
- ❖ Identify waterbird biologists able to facilitate, guide and manage local waterbird conservation,
- ❖ Monitor waterbird colony sites, breeding populations,



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Lea Island, North Carolina

wintering numbers (where appropriate), and habitats and link to the continent-wide monitoring partnership,

- ❖ Develop programs, methods and protocols to protect, conserve and manage habitat used by waterbirds,
- ❖ Identify candidate sites for IBAs for waterbirds; help evaluate status, and ensure adequate protection of sites selected for conservation,
- ❖ Identify colonies or important wetlands that may not meet IBA criteria but serve to educate and increase public awareness of waterbirds,
- ❖ Secure protection of important colony sites, breeding sites, habitats and IBAs for waterbirds, and manage these sites for waterbirds,
- ❖ Develop broad-base partnerships among government, business, and local conservationists for waterbird conservation,
- ❖ Develop an information and education strategy including “how-to” publications for managers and the public, and provide mechanisms to incorporate waterbirds in local education and outreach programs,
- ❖ Assure consideration of waterbird conservation needs in land acquisition, land management, regulation, planning and zoning, and
- ❖ Identify scientific and management information needs, and secure resources through partnerships to fill these needs.

The Bottom Line

The Plan does not propose the creation of a stand-alone delivery infrastructure for waterbirds. To the contrary, waterbird conservation should be accomplished, to the extent possible, within existing structures, agencies and organizations. With a few exceptions, such as the Waterbird Monitoring Partnership and a waterbird conservation communication strategy, the Plan does not advocate new programs dedicated to waterbirds. Alternatively, the Plan advocates the inclusion of waterbird conservation action within existing programs, and where appropriate, refocusing or expanding programs to enhance their abilities to achieve waterbird conservation.

Although largely imbedded within existing structures and organizations, waterbird conservation requires staff and program support. Staff needs include positions and support funds dedicated at least in part to waterbirds. Program support includes the delivery mechanisms for waterbird conservation. At this time, existing staff size

TABLE 4. Resources Needed for Waterbird Conservation in the Americas

Programs	Waterbird Positions	Lead and Participating Organizations	No. of Positions/ Annual Funding (x \$1000)
Waterbird Conservation for the Americas initiative		Waterbird Conservation Council (volunteer representatives for the range of partners and interests)	0/10
Waterbird Monitoring Partnership	Waterbird Monitoring Coordinator	USGS Patuxent Wildlife Research Center, national, state, local partners	1/2,200
Waterbird conservation communication program	Waterbird Communication and Outreach Coordinator	NGO	1/150
Waterbird IBA identification and conservation	IBA coordinators	National Audubon Society, and other BirdLife International partners	1+/2,000
Seabird population monitoring and fisheries issues programs	Seabird conservation coordinators	Pacific Seabird Group, other NGOs, conventions, national and state agencies	1+/4,000
Priority research projects		National agencies and NGOs	?/1,000
Habitat restoration and conservation programs		National agencies and NGOs	?/20,000
National waterbird conservation:			
Canada	National waterbird coordinator	Canadian Wildlife Service	1/200
U.S.	National waterbird coordinator	U.S. Fish and Wildlife Service	1/200
	National waterbird coordinator	Other national natural resource agencies in U.S.	26/2,600
Mexico	National waterbird coordinator	NABCI Mexico Council	1/200
Nations of Central America and Caribbean	National waterbird coordinators and specialists	Wildlife agencies and NGOs	30/300
NGO waterbird programs	Organization waterbird specialists	NGOs	?/?
Regional waterbird conservation:			
North American regions		Regional waterbird conservation working groups	0/250
Caribbean and Central America regions:			?/200
planning/coordination		Caribbean and Central American working groups, Society for the Conservation and Study of Caribbean Birds, BirdLife International, other NGOs	
surveys, monitoring, conservation action and site programs		National agencies, Ducks Unlimited, other NGOs, site-based partnerships, other partnerships	?/1,000
Local waterbird conservation and site-based programs		Community-based organizations	?/1,000

and resources are inadequate to carry out the work that must be done to assure waterbird conservation in the Plan area. Resources needed to accomplish further planning and implementation are shown in Table 4.

Partners in Implementation

At this point in time it is possible to recognize many of the partners that will be called upon in implementing waterbird conservation as outlined in this Plan. It is hoped and anticipated that additional organizations, as well as new innovative approaches to waterbird conservation, will be incorporated into this Plan in subsequent versions.

The Waterbird Conservation for the Americas Initiative

Implementation of the Plan, especially in the form of on-the-ground conservation action, is the purpose of the Waterbird initiative. As previously described, the Council will serve as the keeper of the Plan and the initiator and facilitator of conservation action at all levels by setting continental goals, seeking funding, and developing infrastructure, partnerships, and communication linkages. Improving information through monitoring is the core function of the Waterbird Monitoring Partner-

ship, made up of an array of partners throughout North America, Central America, and the Caribbean. Dissemination of information, as well as education and public awareness will be directed by the waterbird conservation communications program. In Canada, U.S., and Mexico, regional waterbird working groups, and other entities formed under the Waterbird Initiative will integrate, where possible, with the other bird initiatives and NABCI.

Other International Coalitions

Key to waterbird implementation is the formation of networks between the Waterbird initiative and other international coalitions. These include, but are not limited to, the Central American Biological Conference, Mesoamerican Biological Corridor Project, American Pacific Flyway Initiative, Asia Pacific Migratory Waterbird Conservation Strategy, Central Pacific Flyway Initiative, the North American Flyway Councils, Circumpolar Seabird Working Group, Conservation of Arctic Flora and Fauna (CAFF), and Beringian Seabird Working Group. These networks should also connect to parties established under relevant conventions and treaties, for example, the Convention on Migratory Species (Bonn Convention), Convention on Wetlands of International Importance (the Ramsar Treaty), and North



Red-billed Tropicbird

American Marine Protected Areas Network, a project of the North American Commission for Environmental Cooperation (CEC).

Professional Societies

Professional societies are important partners in implementation of the Plan, as they can take the lead in addressing the scientific and technical needs described in the Plan. In some areas, societies can also provide leadership in developing conservation strategies. Notable partners include the Pacific Seabird Group, Waterbird Society, Society for the Conservation and Study of Caribbean Birds, MesoAmerican Society for Conservation Biology, and CIPAMEX.

Environmental Nongovernmental Organizations

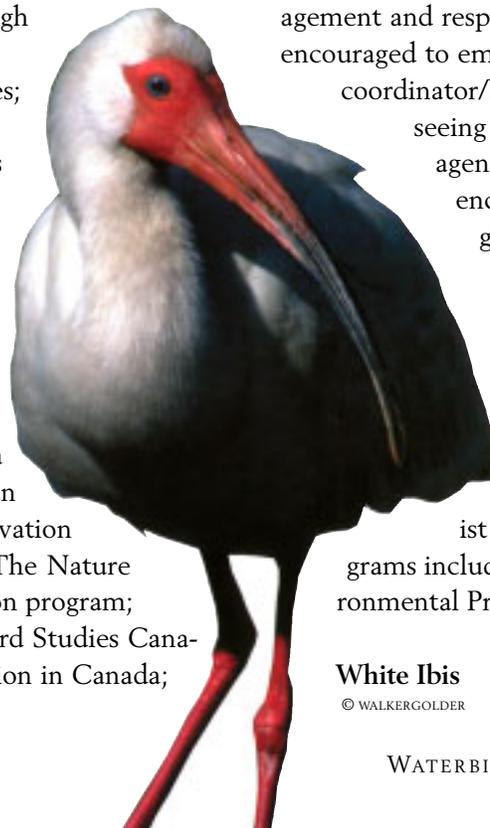
NGOs, many of which operate internationally, are also critical partners in waterbird implementation. NGOs with interests and missions compatible with the conservation of waterbirds should consider the needs and opportunities to deliver waterbird conservation within their conservation activities. The Waterbird Initiative especially urges the continued engagement in waterbird conservation by its current special partners: National Audubon Society via the U.S. and State IBA programs; Ducks Unlimited through monitoring and cooperative habitat work in Canada, the U.S. and Latin America; Pronatura and CIPAMEX as advocates for waterbird partnerships in Mexico; Manomet Center for Conservation Sciences for its long-term, parallel interests in shorebird and wading bird conservation; Point Reyes Bird Observatory through its work on Marine Protected Areas and other seabird conservation issues; Wildlife Management Institute through flyway management and its interests in marshbird conservation; International Association of Fish and Wildlife Agencies via its facilitation of state implementation; National Fish and Wildlife Foundation and its networks in Central America and Caribbean; BirdLife International, Americas Division via the Central American and Caribbean IBA programs and waterbird conservation partnerships in member countries; The Nature Conservancy via its bird conservation program; Canadian Nature Federation and Bird Studies Canada for their IBA program coordination in Canada;

American Bird Conservancy through its PanAmerican program; and Wetlands International in developing an international waterbird census and flyway initiatives.

Government Agencies

Governmental bodies at all scales are key partners in implementing waterbird conservation strategies. The Trilateral Committee, representing national wildlife agencies in Canada, U.S. and Mexico, facilitates cooperation for conservation of wildlife and habitat common to the three countries. In Canada, the Canadian Wildlife Service will work with NABCI Canada Council and federal, provincial and territorial natural resource management agencies, non-government conservation organizations, and other specialists as determined through the development of *Wings Over Water: Canada's National Waterbird Conservation Plan*. The structure of bird conservation in Mexico centers on the NABCI Mexico Council. In the U.S., migratory bird management is one of the principal responsibilities of the U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service is encouraged to appoint and support a permanent waterbird coordinator within the Division of Migratory Bird Management. This person should concentrate on assisting regional planning efforts and implementation, facilitate functioning of the Council, and be a spokesperson for waterbird conservation in the U.S. This individual should have a budget sufficient to support travel, facilitation and small grants.

Other U.S. federal agencies concerned with land management and responsible for bird conservation are also encouraged to employ and support national waterbird coordinator/biologists whose responsibility is overseeing waterbird management within their agencies. The U.S.D.A. Forest Service is encouraged to employ waterbird biologists at all organizational levels, including the national and international level, in order to address waterbird conservation needs within the Taking Wing Program and other bird conservation initiatives. Additional U.S. agencies called upon to create waterbird coordinator/ specialist positions within their national programs include: National Park Service, USGS, Environmental Protection Agency, U.S. Department of



White Ibis

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Agriculture Wildlife Services, Bureau of Land Management, Bureau of Indian Affairs, National Oceanic and Atmospheric Administration's National Marine Fisheries Service, Bureau of Reclamation, Natural Resources Conservation Service, Mineral Management Service, and Department of Defense's Services and Army Corps of Engineers.

Regional and Taxonomic Working Groups

Regional waterbird working groups and the strategies they develop are central to future planning efforts and implementation of waterbird conservation actions. Regionally, implementation will occur through many different entities including, but not limited to, federal agencies, states, provinces, industry groups, species interest groups, local entities, and individuals. State and provincial governments include and partner with people whose engagement is critical to long-term conservation of waterbirds. IAFWA's Shorebird and Waterbird Working Group, Migratory Shore and Upland Game Bird Working Group, and Bird Conservation Committee are venues where state agencies interface with waterbird conservation interests. The partners in JVs are specifically focused on wetland and associated upland habitat acquisition, protection, restoration, and management. The Gulf of Maine Seabird Working Group and the North Pacific Albatross Working Group are examples of integral special interest stakeholders.

Community-based Organizations

Given the need to affect waterbird conservation at all geographic scales, it must be emphasized that one of

the principal means of implementing waterbird conservation is through local action. Cities, towns, villages, islands, local governmental organizations, and NGOs should be involved. To the extent that "all conservation is local," waterbirds must be protected, conserved, monitored, and managed by people with the wisdom gained by their intimate knowledge of the local situation. The superstructure of continental waterbird planning should be designed to support local waterbird conservationists and natural resource managers as they implement conservation actions at local colonies, breeding, roosting, and feeding sites, at local parks, refuges, and sanctuaries, and at local patches of aquatic habitat or adjacent pelagic conservation regions. Each colony or breeding site and important feeding site should have its advocate and guardian, backed by legislation from local and state governments.

Additional Partners

It cannot be overemphasized that waterbird conservation will benefit from the participation of additional partners. Anyone interested in waterbirds can contribute to their conservation. Moreover, contribution at all scales—be it management at a local sanctuary or international policymaking—is welcome and important. Additional partners will be recognized in subsequent versions of the Plan.

¹ Canadian Wildlife Service. In prep. *Wings Over Water: Canada's National Waterbird Conservation Plan*. Environment Canada, Ottawa, Canada