Important Bird Areas of Washington

Compiled by Tim Cullinan

Audubon WASHINGTON

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Washington Department of FISH and WILDLIFE

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Important Bird Areas of Washington

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Foreword

We're proud to present *Important Bird Areas of Washington*, Audubon's first effort to scientifically identify places throughout our state that are essential to maintaining healthy bird populations. This book represents thousands of hours of work by Audubon chapter members, staff, and volunteers; and by our many partners in the scientific community, government agencies, and other conservation organizations. We especially applaud Tim Cullinan, Audubon Washington's Director of Science and Bird Conservation, whose exceptional skill as both scientist and communicator provided indispensable leadership for this first phase of the IBA project.

With this documentation of our Important Bird Areas (IBAs), Washington joins a worldwide effort to identify key places with significant bird populations. Our state, a vital link on the Pacific Flyway, provides habitat for more than 350 species of birds. Many of our migratory birds depend on small staging areas during their long journeys, like the millions of arctic-bound sandpipers that stop in more than 21 sites now formally identified as IBAs.

In Washington, our native flora and fauna are still fairly widespread and healthy. Yet, our human population is expected to increase by fifty percent in the next fifty years, which will put even greater pressure on habitat. This directory provides a tool for citizen activists, local governments, state and federal agencies, and non-governmental organizations to develop effective conservation strategies. It provides a framework for making decisions today that will protect areas that birds rely on for their well-being now and in the future.

So, in the spirit of John James Audubon, we commend this book to you, and wish you "Good birding!"

Jeff Parsons
Executive Director
Audubon Washington

Helen Engle
Chair
Audubon Washington Stewards

Acknowledgements

The Important Bird Area program would not have been possible without the dedication, commitment, and teamwork of many people and organizations. Audubon Washington happily shares credit for the program's success with hundreds of Audubon members, conservationists, professional biologists, government agency personnel, students, birders, and other volunteers; and with the organizations that provided funding.

Audubon Washington gives a standing ovation to the enthusiastic activists from our 26 local chapters. We are especially grateful to those who served as IBA coordinators for their chapters: Ron Sikes, Admiralty Audubon; Jean MacGregor and Scott Morrison, Black Hills Audubon; Mike Denny, Blue Mountain Audubon; Teri Pieper and Lottie Hemore, Central Basin Audubon; Stuart Johnston, Columbia Gorge Audubon; Leonard Steiner, East Lake Washington Audubon; Barbara Clarke and Dana Ward, Lower Columbia Basin Audubon; Joe Meche, North Cascades Audubon; Dan Stephens, North Central Washington Audubon; Bob Boekelheide, Olympic Peninsula Audubon; Bill Warren, Palouse Audubon; Darryl Thompson, Pilchuck Audubon; Brenda Senturia and Jennifer Seavey, Seattle Audubon; Steve and Gail Aslanian, Skagit Audubon; Gary Blevins and Joanne Powell, Spokane Audubon; Leslie Ann Rose, Tahoma Audubon; Wilson Cady, Vancouver Audubon; Dan Willsie, Vashon-Maury Island Audubon; Ann Campbell and Sarah Schmidt, Whidbey Audubon; Gerald Henry, Willapa Hills Audubon; and Ken Bevis, Yakima Valley Audubon.

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Christi Norman and Bríd Nowlan led the production of this book, enlisting artist Ed Newbold, who painted the color plates; Al Tietjen, who designed the layout and drew the pen-and-ink illustrations; and copy editor Elsa Gruber. We are especially grateful to our chief editor, Hilary Hilscher, who generously donated her time and expertise to the production of this book.

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As with any endeavor the size of the IBA program, the invaluable contributions of some individuals may not have been documented. We extend our heartfelt thanks to everyone who participated in the IBA program, and offer our sincere apologies to anyone inadvertently omitted from these acknowledgement lists.

This project was made possible by generous grants from the following organizations: The Washington Department of Fish and Wildlife Cooperative Projects Fund, Batdorf and Bronson Coffee Roasters, the Bullitt Foundation, the Greater Wenatchee Community Foundation, the New York Community Trust, Olympia Federal Savings, the Rathmann Family Foundation, the Seattle Foundation, and the Whatcom Community Foundation.

Finally, I thank my wife Val for tolerating my many late nights at the keyboard, and my many weekends away from home during this effort.

Tim Cullinan

Introduction

This publication presents the initial results of the Important Bird Area (IBA) program in Washington. Like IBA programs in other states and countries, ours has two primary and complementary goals: (1) to identify the sites in the state of Washington that are the most essential for long-term conservation of birds, and (2) to take action to ensure the conservation of these sites.

An Important Bird Area is a site that provides essential habitat for one or more species of birds. In most cases, IBAs are discrete sites on the landscape. As with all IBA programs, Washington's sites were chosen carefully, using standard biological criteria and expert ornithologists' review. All sites nominated as potential IBAs were rigorously evaluated to determine whether they met the necessary qualifications. IBAs represent both terrestrial and aquatic sites that are critically important to birds during breeding, wintering and migration.

The purpose of Audubon's nationwide IBA program is to identify in each state a network of sites essential to maintaining naturally occurring populations of birds, and to protect or manage those sites for long-term conservation. Each state has established an IBA program in its own unique way, but the goals, methods and outcomes are consistent across state and national programs.

The basic procedure for any IBA program has six key steps:

1. Establish objective, state-specific criteria for identifying IBAs.
2. Solicit IBA "nominations" from Audubon chapters, birders, scientists, land managers and owners, and other interested parties.
3. Collect data about the sites.
4. Evaluate data from each nomination and determine if the site meets the qualifications necessary to be an IBA.
5. Enter information into a database and report the results of the IBA inventory.
6. Collaborate with local, regional and statewide groups to establish conservation priorities and develop conservation plans for threatened or high-priority IBAs.

This publication contains, in part, the results of the first five steps. The sixth step will be accomplished in the second phase of the program.

This directory contains an accounting of all the IBAs in Washington identified to date. It should be regarded as a status report on the first round of nominations and site selection. The task of gathering credible ornithological and ecological information on all the potential IBAs in a state is enormous. This is especially true in a state as large and diverse as ours. Audubon staff, chapter members, and other dedicated volunteers worked diligently to gather the information necessary to identify and evaluate sites, but it was not possible to create a complete database in the first two years of the program. Consequently, we are aware that there are sites that have been overlooked. These will be inventoried and evaluated in the near future, and those that qualify will be included in a future edition of this publication.

Background

The Important Bird Area program is a global effort. It began in Europe in the mid-1980s, when a committee of scientists from the International Council of Bird Preservation (since renamed BirdLife International) sponsored an intensive inventory of key sites for birds throughout the continent. The scientists used an objective set of criteria to determine whether a site was an "Important Bird Area," focusing on wetlands, aquatic habitats and sites where birds congregated in large numbers.

The initial product of that effort was the book *Important Bird Areas of Europe*, published in 1989. It identified over 2,400 IBAs in 31 countries and provided brief descriptions of each site and its bird life. By the year 2000, the list of IBAs in Europe had grown to 3,600 sites in 51 countries, covering seven percent of the European land mass.

Important Bird Areas of Europe is more than a mere catalogue of key bird habi-

tats. It serves as a blueprint for bird habitat protection throughout the continent. Shortly after the first edition was published, the European Community endorsed the findings of the IBA survey and encouraged its members to give "Special Protection" status to Important Bird Areas. Many countries responded favorably. For example, Denmark has now protected up to 97 percent of the IBAs within its borders. By the mid-1990s, hundreds of sites comprising almost sixteen million acres of habitat in Europe had been given some special protection.

Important Bird Area inventories have been or are now being conducted in 100 countries, on nearly every continent. IBA inventories are complete for Europe, the Middle East, and much of Africa. In North America, a first volume of Important Bird Areas in Canada, Mexico and the United States (50 sites in each country) was published in 1999 by the Commission on Environmental Cooperation, a tri-national body created under the North American Agreement on Environmental Cooperation. As of summer 2001, Canada's Important Bird Areas program has collected data on 600 sites and has initiated conservation planning on about 150 of these. The Mexican IBA program, *Areas de Importancia para la Conservacion de las Aves*, has identified most of the qualifying sites and has established a hierarchy of conservation priorities for that country's IBAs.

The mid-1990s saw the creation of the American Bird Conservancy, the U.S. affiliate of BirdLife International. During the same time period, the National Audubon Society completed a long-range strategic plan, refocusing on its historic mission to conserve birds, other wildlife, and their habitats. Together, the American Bird Conservancy (ABC) and Audubon brought the IBA program to the United States. The ABC took on the task of identifying Important Bird Areas of national significance, while Audubon chose to conduct IBA inventories of individual states.

A pilot project was begun to identify and describe the Important Bird Areas in Pennsylvania in 1995, and a similar project in New York State soon followed.

Since then, most of the remaining states have begun IBA projects. As of summer 2001, IBA inventories are either complete or in progress in 30 states.

In late 1997, Audubon Washington entered into a partnership with the Washington Department of Fish and Wildlife (WDFW) to begin an Important Bird Areas program in our state. Funding came from WDFW's Cooperative Projects Fund to help defray the travel costs of volunteers participating in the program. In 1998, volunteers were trained and data collection began. During the next two years, seventy-five sites were formally nominated and evaluated; additional evaluations are ongoing. This publication describes the first 53 sites selected as IBAs in Washington.

Goals of the IBA Program

The primary goal of the IBA program in Washington is to identify and describe specific places on the landscape that are essential for sustaining wild bird populations in our state. The aim is to provide landowners and managers, planners, developers, regulators, conservationists, and other interested parties with reliable information on where the birds are, in order to support sound land use and management decisions. By establishing science-based priorities for identification and conservation of IBAs, and by creating awareness of the places vital to the survival of bird populations, the IBA program promotes thoughtful, sensible decisions regarding land use and development.

The IBA program is, of course, more than just an information-management exercise. The ultimate goal is to slow the tide of habitat loss and to create safe havens that ensure healthy habitats for productive breeding, wintering and migration. The objective is to foster sound stewardship of vital bird habitats in Washington and to guarantee that the ornithological values of these sites will continue in the future.

Site Identification and Selection

Biological Rationale

The Important Bird Area concept is a site-based approach to wildlife conservation. It recognizes that there are some places on the landscape that provide exceptionally valuable habitat for birds. Enlightened management of these most-critical sites is an important approach to conservation. Many species can be effectively conserved in this manner.

Because of the gregarious nature of some species — such as herons, waterfowl, shorebirds and seabirds — sites with extraordinary values for these species are easily recognizable. In the case of more widely dispersed birds, most rare or declining species are closely associated with a specific habitat type or with a narrow range of habitats. Consequently, by recognizing and identifying the highest-quality examples of such habitats, we can delineate sites that will form the basis of a landscape-level conservation network. In either case, experience has shown that sites with high value for one bird species often support numerous species.

The IBA selection process examines sites based on: (1) the presence and abundance of birds, and/or (2) the condition and quality of the habitat. We seek, primarily, sites that support rare species, or an exceptional abundance of one or more species, or sites that contain large and relatively undisturbed examples of native habitats.

The Selection Process

The IBA program in Washington began in late 1997, when a team of bird experts from across the state developed selection criteria for IBAs. The team of eight people (the Expert Team) included expert birders, ornithologists, wildlife managers, and members of academia from most regions of the state. Using criteria from several eastern states as models, the Expert Team developed a set of draft standards for sites to qualify as Important Bird Areas (see next section).

It was immediately recognized that the criteria developed in the eastern U.S. could not be easily applied here. Therefore, selection criteria were deliberately left in draft form, with the understanding that they would be revised as the Team learned more about the characteristics of key bird areas in Washington. The selection criteria were made final in autumn 2000.

The IBA identification and selection process involved two steps: nomination of sites, and evaluation by the Expert Team. Nominations for IBAs were solicited from Audubon chapters, other bird advocacy groups, landowners and managers, natural resource agency personnel, and other interested parties. A site nomination involves completing a five-page form that provides information about the physical and biological characteristics of a site, its ornithological significance, habitat, land use, ownership, and potential threats to birds and habitat (see Appendix A). The Expert Team assisted in the design of the nomination form.

Audubon Washington began distributing IBA nomination forms in summer 1998. With grant funding from WDFW, we sponsored a two-day training session for our Audubon chapter leaders, to familiarize them with the IBA project and to train them in the identification and nomination of sites as IBAs. Ninety-three people, representing 23 of Washington's 26 local Audubon chapters, attended the training session.

Audubon chapter leaders recommended that the first step in the identification process be a list of potential sites. This list would serve two purposes. First, it would assist the staff in determining the scope of the project; second, it would allow us to coordinate among chapters the task of filling out nomination forms, to prevent duplication of effort. We used two methods to generate the initial list. Participants in the training session drew potential IBAs on a large-scale map of Washington. They then polled chapter members about likely IBAs in their areas and submitted descriptions of potential IBAs on an abbreviated, one-page version of the nomination form. With the use of these methods we identified nearly 160 sites as potential IBAs.

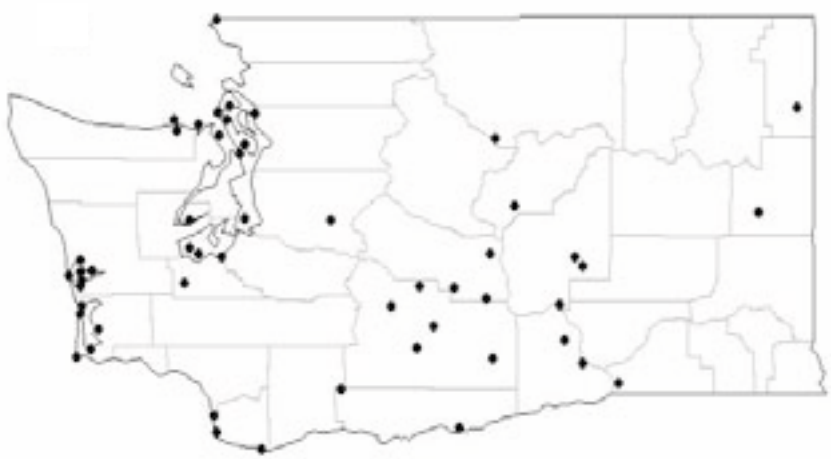
When nominations were received, the IBA coordinator summarized the information and sent it to members of the Expert Team for review. They evaluated the information and recommended that a site be either accepted or rejected as an IBA, or they requested additional information. Nominations and supporting information were kept on file, and summary data about each nominated site were stored in an ArcView database at Evergreen State College.

As of this writing, BirdLife International and the National Audubon Society are making final the American version of the *World Bird Database,* to be used by all states with IBA programs. This data management system is currently in use in most countries with IBA programs. When it becomes available for use by individual states, all of the Washington IBA data will be entered and stored on the *World Bird Database* system, where it will become part of the worldwide system and will be available for retrieval from the BirdLife International web site.

Selection Criteria

An Important Bird Area is a site providing essential habitat for one or more native species of birds in Washington at any time in their annual life cycle. Sites vary in size, and are usually distinguishable from surrounding areas in character, habitat, or ornithological importance. In most cases, sites are delineated by clearly recognizable physical features that separate them from adjacent areas. Boundaries include rivers, roads, ridgelines, abrupt habitat edges, and other clear landmarks. When possible, the boundaries of an IBA are drawn to encompass most of the birds' needs (e.g., feeding and roosting areas) during the seasons for which those are important.

In general, IBAs are predominantly natural areas. Human-made habitats such as landfills and sewage lagoons are generally not considered IBAs. Further, there should be reasonable potential for IBAs to receive additional protection and/or enhanced habitat management in the future, for the benefit of birds.



Location of IBA sites in Washington

Standardized criteria are used to identify and select Important Bird Areas. These criteria are biological in nature and reflect the quantity and/or quality of bird life in given areas. The criteria are not designed to evaluate the educational value or the recreational birding values of sites. While every attempt is made to fulfill one or more of the criteria when nominating sites for IBA designation, the criteria are not absolute and other factors, such as importance relative to other sites, may be taken into account when making final selections.

The criteria are divided into five major categories, described briefly below. Sites meeting one or more of these criteria can qualify as Important Bird Areas. More detailed information about the criteria can be found in Appendix B.

CATEGORY 1: Site for endangered or threatened species, or species of special concern in Washington.

CATEGORY 2: Site for species on the National Partners in Flight WatchList with significant breeding or wintering populations in Washington.

CATEGORY 3: Site containing species assemblages associated with a representative, rare, or threatened natural-community type in Washington.

CATEGORY 4: Site important for long-term avian research or monitoring.

CATEGORY 5: Site where birds regularly concentrate in significant numbers.

Conservation and Management of Important Bird Areas

The ultimate goal of the Important Bird Areas program is to promote the conservation of essential habitats for birds. Because the legal, political, regulatory, and voluntary means of habitat conservation vary widely among jurisdictions, regions, and land ownership, each site must have its own individually tailored conservation strategy. Audubon Washington encourages people interested in helping conserve IBAs to talk with our state office, as well as with landowners and managers, local officials, regulatory and management agencies, and other conservation organizations. Future publications from Audubon Washington will provide a more in-depth discussion of IBA conservation and management.

The Role of Important Bird Areas in Avian Conservation

It is important to note that the IBA program is not a panacea for bird conservation, nor is it one that will work equally well for all species. The IBA site-based approach to bird conservation is not even applicable to some species. For example, territorial species that are widely dispersed at low densities across a breeding range, such as raptors and songbirds, cannot be conserved by protecting a few sites where they are known to occur. Such species require landscape-level or management-based approaches— e.g., designing new land-use techniques that promote successful breeding and survival. *The lack of IBA status for a particular place does not imply that it is unimportant for birds.* Rather, the lack of IBA designation in that specific location may merely mean that a site-based approach to conservation is less effective than another method.

Also, the IBA program seeks to identify the most essential sites statewide. While some sites are not significant on the state level, they may nonetheless be very important for conserving birds on the county or local level. For example, many parks and green spaces in the heavily urbanized parts of western Washington provide the last refuges for birds in an entire city. Likewise, small, remnant

patches of mature or old-growth forest in landscapes dominated by short-rotation industrial forestry provide high-quality habitat for some old-growth associated birds. While such parks and remnant forests are not extraordinary from a statewide perspective—and therefore are not eligible for IBA status—they may be vital on the local level.

Though the IBA Program is not the final word on bird conservation in Washington, it is a substantial and effective tool. IBAs, together with other approaches to safeguarding birds and their habitats, will help ensure that future human generations will be able to experience the same richness and diversity of bird life that current generations now enjoy.

General Guidelines

This publication can be used to help determine local, county, and state conservation priorities. IBA information allows different areas to be compared, using several criteria: the area's importance to birds; the nature and urgency of threats; and the feasibility of successfully implementing conservation actions. To the greatest extent possible, we have used objective, numerical criteria to assess sites. However, our information base is incomplete at this time: Not all potential IBA sites in Washington have yet been evaluated, and there certainly will be more IBA sites identified in the future.

The process of identifying IBAs has also produced data useful for guiding land use planning and habitat management decisions. Information about the species and groups present, their seasonal abundance, and major habitat types can assist landowners and managers in avoiding detrimental impacts. Some IBA descriptions are merely summaries of the data we have collected, and people interested in conservation of a particular site should contact Audubon Washington to see if more information is available.

Because the IBA concept is site-based, conservation strategies will differ from

site to site. For each IBA, owners, managers, and conservationists will need to assess the location, physical and biological characteristics, patterns of current and past land use, habitat and management needs, laws, regulations, and the availability of resources, before proceeding with any conservation strategy. Such assessments must also consider the needs and attitudes of people using the area, because the most successful and enduring conservation arises from cooperative partnerships among private landowners, public land managers, governments, individuals, and non-government organizations. The best conservation planning involves all stakeholders, and private landowners must be given the opportunity to participate in the cooperative planning process.

The Important Bird Area program carries no regulatory authority. Identification of a site as an IBA imposes no legal restrictions or management requirements on any property, public or private. It is our intent that the recognition of an area as important for birds will encourage a sense of stewardship among landowners and managers, and lead them to voluntarily safeguard the habitat and bird life on their lands. Audubon Washington's goal is to achieve—through partnerships, education, and outreach—an environment in which individuals and communities take pride in the knowledge that they are the stewards of extraordinary natural resources, and that their involvement will help ensure a better future for both birds and people.

Site Summaries

A summary of each Important Bird Area appears in this section. The sites are organized geographically, with the state divided into four regions: Pacific Coast, Western Lowlands, Cascade Mountains, and Columbia Basin. Within each of the four areas, the sites are arranged alphabetically by site name. All sites and corresponding page numbers are listed in the index.

The summaries were compiled from information submitted in nomination forms, from published and unpublished literature, and from interviews. Printed sources are listed in the bibliography. The information in the summaries is arranged under the following headings:

- Name of Site
- Geographic Coordinates
- Elevation/Size
- Ownership
- IBA Criteria
- Habitats
- Land Use
- Site Description
- Birds and Habitat
- Conservation Issues

Name of Site

The site name suggested by the nominator. Often, this is a name that appears on U.S. Geological Survey maps. Most site names are based on a natural landmark or geographical feature, or on a land management unit such as a state wildlife area or national wildlife refuge. In cases where a site is known by more than one name, the second is listed in parentheses. Where several geographical locations were combined into a single IBA, the names were combined.

Geographic Coordinates

Latitude and longitude of the approximate center of the IBA.

Elevation/Size

The site's elevation in meters above sea level, and the size of the area in hectares. One hectare (ha) = 2.47 acres; one meter (m) = 3.28 feet.

Ownership

General land ownership categories, listed in order of relative amount from most to least. Additional information about site ownership also appears in some of the site descriptions.

IBA Criteria

The criteria under which the site qualifies as an IBA. Additional information about the site's qualifications is found under the **Birds and Habitat** heading.

Habitats

General categories of major habitats present on the site, listed in order of relative amount, from most to least. In some cases, additional information about habitat appears in site descriptions or under the **Birds and Habitat** heading.

Land Use

General categories of land use, listed in order of amount, from most to least.

Additional information about land use may appear in the site description or conservation issues sections.

Site Description

General description of the location, and the physical and ecological characteristics of the site. Additional information about ownership or management, habitat, and land use may appear under this heading.

Birds and Habitat

Overview of why the site is important to birds. In particular, this section describes the evidence upon which the site's identification as an IBA was based. It includes available information on bird population sizes and the significance of those populations. Where a site qualifies under Category 3, the description lists the habitat and describes the assemblage of species associated with that habitat. In some cases, a separate table lists the important species or groups and estimates of their seasonal abundance, when available.

Conservation Issues

Summary of the existing or potential threats to the birds or habitat on the site.

Key to Codes Used in Site Summaries

IBA Criteria

These are standardized criteria used to identify and select Important Bird Areas. They are divided into the following categories. See Appendix B for a more detailed description of the IBA selection criteria.

CATEGORY 1: Site for endangered or threatened species, or species of special concern in Washington.

CATEGORY 2: Site for species on the National Partners in Flight WatchList with significant breeding or wintering populations in Washington.

CATEGORY 3: Site containing species assemblages associated with a representative, rare, or threatened natural-community type in Washington.

CATEGORY 4: Site important for long-term avian research or monitoring.

CATEGORY 5: Site where birds regularly concentrate in significant numbers.

5a. Over a short period of time during any season: at least 2,000 waterfowl in fresh water habitats; or 5,000 waterfowl in marine/estuarine habitats.

5b. Over a short period of time during any season: at least 50 seabirds, in either marine or terrestrial nesting areas; or 1,000 gulls at inland sites or 5,000 gulls at coastal sites; or 50 terns.

5c. At least 100 shorebirds in fresh water habitats or 1,000 shorebirds in marine/estuarine habitats, over a short period of time during any season; or 12 or more shorebird species over a season (two to three months).

5d. At least 50 Great Blue Heron nests; or any nesting pelicans, egrets, or Black-Crowned Night Herons during breeding season; or 30 Brown Pelicans at any time of the year.

5e. Migratory corridor for at least 1,000 raptors (seasonal total) during

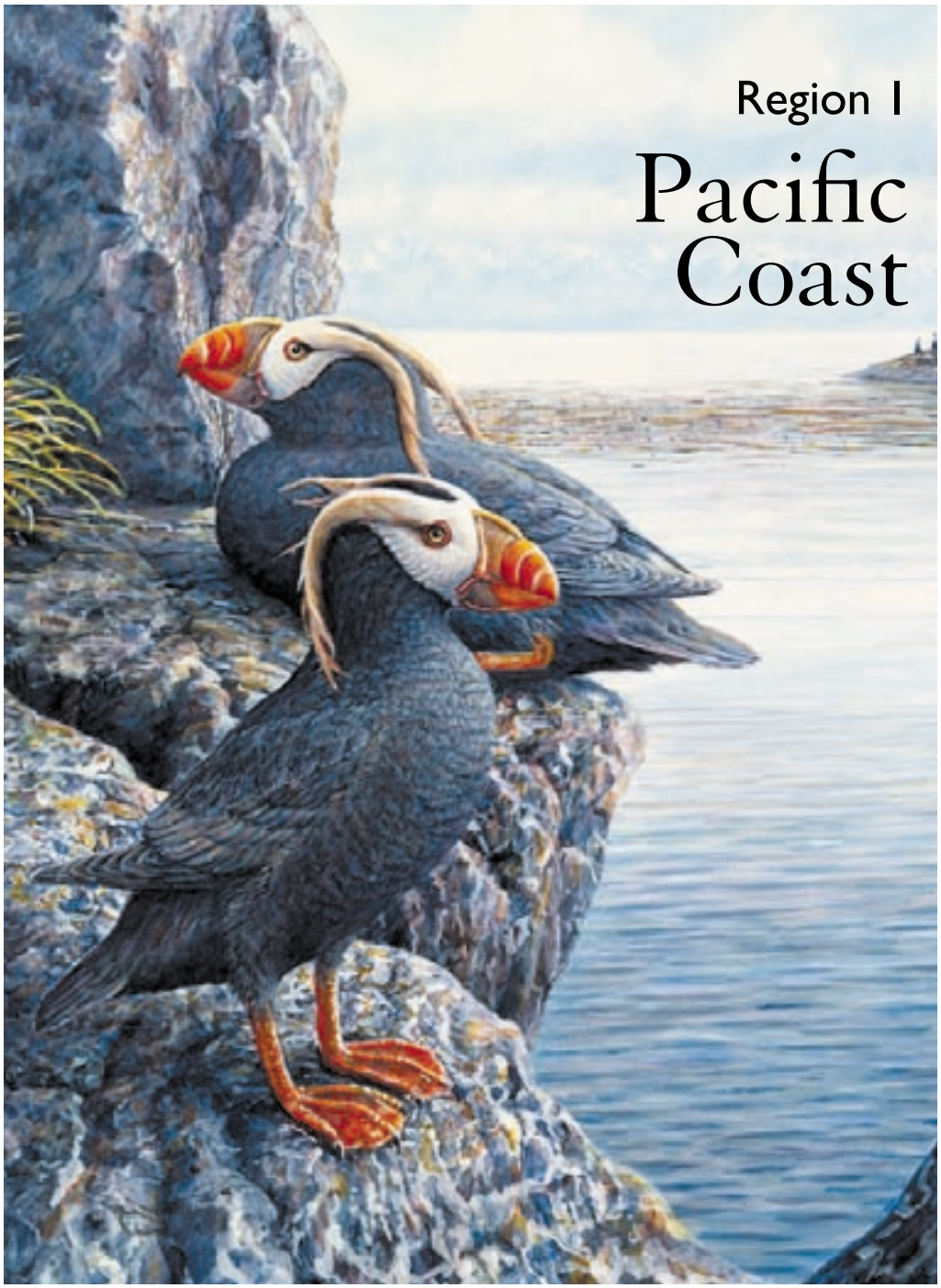
spring or fall migration; or a winter concentration area used by at least 100 raptors.

5f. Significant proportion of a species' statewide or regional population at one time during some part of the year.

5g. Exceptional number or diversity of terrestrial birds during the migration season.

Season Codes

W=winter, **S**=spring, **B**=breeding, **F**=fall, **M**=migration.



Region 1

Pacific Coast

PACIFIC COAST

Bottle Beach

46° 54′ N, 124° 02′ W 0-1 m/730 ha

Ownership	State, private
IBA Criteria	5c
Habitats	Marine, estuarine, beach, salt and fresh water marsh
Land Use	Recreation, residential, agriculture

Site Description

Bottle Beach is located on the south shore of Gray's Harbor between the estuaries of Elk River and Johns River, about five kilometers east of Westport. The site includes about 155 hectares of terrestrial habitat composed of broad sandy beach, salt marsh, moist meadows, and approximately 575 hectares of intertidal mudflats immediately to the north and west.

Birds and Habitat

Bottle Beach and the adjacent tideflats are critical shorebird habitat during spring migration. This site is second in importance only to Bowerman Basin in the Gray's Harbor region. In spring, it supports about 16 percent of the shorebirds staging in Gray's Harbor. Major species are Western Sandpiper, Dunlin, dowitchers, and Red Knot. Shorebirds feed on the tideflats and roost in the salt marshes and wet meadows. In autumn and winter, shorebird numbers are much reduced, but still exceed the thresholds to qualify the site as an IBA.

SPECIES OR GROUP	SEASON	AVERAGE	MAXIMUM
shorebirds	SM	16,000	160,000
shorebirds	FM,W	1,688	4,000

Conservation Issues

Development of fresh water wetlands and adjacent uplands pose the risk of pollution and altered hydrology. The mudflats are vulnerable to invasion by *Spartina*, a non-native cordgrass.

PACIFIC COAST

Bowerman Basin

46° 58′ N, 123° 56′ W 0-1 m/850 ha

Ownership	Federal, port district
IBA Criteria	1, 5c, 5f
Habitats	Estuarine, mudflats, salt marsh
Land Use	Wildlife conservation, recreation

Site Description

Bowerman Basin is an intertidal basin of tideflats and estuarine emergent salt marsh located in the industrial area west of Hoquiam, between Bowerman Field airport and State Route 109. The IBA includes both the Gray's Harbor National Wildlife Refuge, and the mudflats and islands off the west end of the airport peninsula, extending to a north-south line 2.8 kilometers west of the old pilings at the west edge of the refuge.

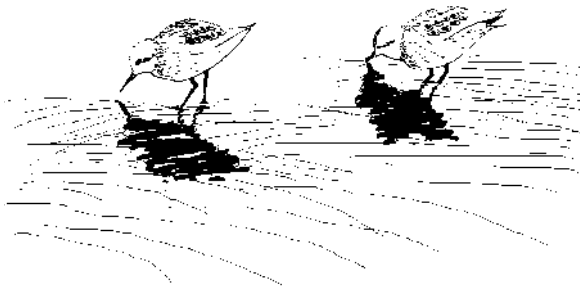
Birds and Habitat

Bowerman Basin provides essential habitat for a diversity of birds. It hosts approximately 45 percent of the migrating shorebirds in Gray's Harbor, which is one of four estuaries in North America that supports more than one million shorebirds during migration. Bowerman Basin is home to shorebirds year-round, but is a critically important staging site during spring migration. The broad tidal flats produce an abundance of *Corophium*, a shrimp-like amphipod that is a vital part of the estuarine food chain and a key food source for shorebirds. Densities of *Corophium* as high as 55,000 per square meter have been recorded in parts of Bowerman Basin. The basin is listed by the Washington Department of Fish and Wildlife as priority wintering habitat for Peregrine Falcons.

SPECIES OR GROUP	SEASON	AVERAGE	MAXIMUM
Western Sandpiper	SM	supports >1% of flyway population	
shorebirds	SM	250,000	450,000
shorebirds	FM,W	1,649	20,000

Conservation Issues

Land adjoining the refuge is zoned for heavy industrial development. In recent years, several proposals have been made to convert the land currently occupied by the airport to heavy industrial facilities. Such conversion would create disturbance and pose the threat of pollution in the basin. Like many shallow-water estuaries along the coast, Bowerman Basin is vulnerable to invasion by *Spartina*, a non-native cordgrass.



PACIFIC COAST

Cape Disappointment

46° 17′ N, 124° 05′ W 0-95 m/1,900 ha

Ownership	Federal, state
IBA Criteria	1, 5b, 5c, 5f
Habitats	Marine, estuarine, cliffs
Land Use	Military (Coast Guard), recreation

Site Description

Cape Disappointment is a diverse area at the mouth of the Columbia River, consisting of cliffs and headlands, exposed sand flats and beaches, tidal sand flats, and 1,200 hectares of open marine waters. It includes Fort Canby State Park except the developed area around the campground, the Cape Disappointment and North Head lighthouses, and the marine waters extending southward to the state line and westward three kilometers into the Pacific Ocean. The steep, rocky cliffs of the headlands form a relatively secure nesting area for marine birds.

Birds and Habitat

This site is important because it contains a marine bird-nesting site in close proximity to good foraging habitat. The cliffs near the lighthouse on the cape support these nesting birds: 96 Brandt's Cormorants, 240 Pelagic Cormorants, 12 Pigeon Guillemots, and 12 Glaucous-winged Gulls. The marine waters in this area support thousands of feeding seabirds, including shearwaters, gulls, terns, and significant numbers of Common Murre, a candidate for listing by the Washington Fish and Wildlife Commission as a threatened species. Fort Canby State Park is considered a migrant trap with an exceptional number and diversity of landbirds during spring and fall migration.

Conservation Issues

Disturbance of birds during nesting season by recreational boating and by aircraft is a critical problem. Overfishing and pollution of the water by ship-borne contaminants are secondary threats.

PACIFIC COAST

Center Islands

46° 57′ N, 124° 03′ W 0-1 m/1,505 ha

Ownership	State
IBA Criteria	5c, 5d
Habitats	Estuarine, sandy beach
Land Use	Wildlife conservation

Site Description

The Center Islands IBA includes several sandy islands and extensive surrounding tideflats in Gray's Harbor, about three kilometers east of Damon Point. These low-lying islands and sandflats have shifting dunes and coastlines, and are subject to erosion from tidal action and winter storms. Exact size, location, and vegetation depends upon rebuilding after winter storms. Sand Island, (three hectares) and Goose Island (five hectares) appear on maps, but many short-lived smaller islands appear and disappear seasonally. The surrounding tideflats comprise most of the area.

Birds and Habitat

Historically, the Center Islands were nesting sites for Caspian Terns. Bald Eagles, Double-crested Cormorants, Brant and other waterfowl, and many other gulls and shorebirds use the islands. During the highest tides, most of the shorebirds feeding in the North Bay of Gray's Harbor find refuge on the Center Islands. Sand Island is a primary roost, both day and night, for Brown Pelicans in Gray's Harbor. Because of the remoteness of these islands and the difficulty of observing birds there, no exact numbers are available regarding shorebird use in spring migration. However, if this is like other sites in Gray's Harbor, the

shorebird use in spring is much greater than in fall and winter. Thus, this site's importance is likely under-represented by the fall and winter data listed below.

SPECIES OR GROUP	SEASON	AVERAGE	MAXIMUM
Brown Pelican	post-B	727	1,416
Brown Pelican	F	413	1,700
shorebirds	FM,W	3,413	17,000

Conservation Issues

The Center Islands are a Natural Area Preserve managed by the Washington Department of Natural Resources. Erosion, pollution, and human disturbance are minor threats. Compared to sites on the mainland, the habitat is relatively secure.

PACIFIC COAST

Damon Point/Oyhut

46° 56′ N, 124° 09′ W 0-5 m/2,350 ha

Ownership	State
IBA Criteria	1, 5b, 5c, 5d
Habitats	Marine, estuarine, salt marsh, rock jetty
Land Use	Wildlife conservation, recreation

Site Description

Located at the south end of the Ocean Shores Peninsula in Gray's Harbor County, this site includes the Point Brown jetty, the harbor mouth extending into both ocean and harbor waters, the Oyhut Wildlife Area, and Damon Point, but excludes developed residential areas to the north. The site comprises 2,105 hectares of marine waters and 245 hectares of estuary and uplands. Habitats include marine and estuarine waters, sand spit, tidal lagoon, salt marsh, sand and mudflats, dunes, and rock jetty.

Birds and Habitat

The rock jetty of Point Brown provides feeding and resting habitat for gulls, turnstones, Rock Sandpipers, Wandering Tattlers, and Surfbirds. The Oyhut Wildlife Area supports many species of shorebirds and migrating waterfowl. Marine and estuarine habitats in and around the harbor mouth are rich foraging areas for loons, grebes, shearwaters, cormorants, pelicans, gulls and kitiwakes, terns, alcids, and scoters. Damon Point is a vitally important roosting site for shorebirds, gulls, and terns. Audubon members have several times recorded 10,000 Black-bellied Plovers roosting here. Damon Point and Oyhut Wildlife

Area have been recommended for designation as Snowy Plover critical habitat by the U.S. Fish and Wildlife Service.

SPECIES OR GROUP	SEASON	AVERAGE	MAXIMUM
Brown Pelican	FM*	300	1,200
Snowy Plover	B	**	
shorebirds	W	1,770	14,000
gulls and terns	FM	100	1,000

* FM includes post-breeding dispersal.

**Exact numbers not available. Breeding confirmed.

Conservation Issues

Adjacent residential development and increasing recreational use may detract from the site's value to birds. Invasion by non-native plants may be a threat to the estuarine and salt marsh areas. After several decades of accreting, the beaches on the Pacific side of this IBA now appear to be eroding rapidly. While this may alter the mix of habitats, it is not yet clear whether the net impact of erosion will be detrimental.

PACIFIC COAST

Elk River Estuary

46° 51′ N, 124° 03′ W 0-32 m/1,230 ha

Ownership	State, county, private
IBA Criteria	5a, 5c
Habitats	Estuarine, salt marsh, coniferous forest
Land Use	Wildlife conservation, recreation, aquaculture

Site Description

The Elk River Estuary lies at the southernmost extension of marine waters in Gray's Harbor, about six kilometers southeast of Westport, and is the largest estuary in the south bay. This IBA includes the mouth of the Elk River, Beardsley Slough, Sopun Inlet, Mallard Slough and its adjacent uplands, and all the tidal marshes and mudflats south of the State Route 105 bridge. This is a pristine estuary, containing mudflats, both salt water and fresh water marshes, and marine waters. The state-owned portion of the site is a Natural Resources Conservation Area managed by the Department of Natural Resources (DNR).

Birds and Habitat

A 1993 report by DNR stated that the Elk River estuary is "the largest, highest quality estuarine system remaining in Washington or Oregon. It includes diverse habitats, ranging from tideflats and sloughs, salt marsh and fresh water wetlands, to forested uplands. [It is] identified as critically important waterfowl and shorebird habitat."

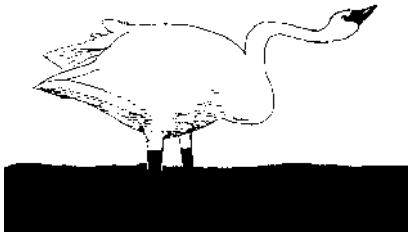
The site's primary importance is as a fall migration area for waterfowl and a spring migration staging area for shorebirds. It is also a wintering area for Peregrine Falcons, and a small number of Trumpeter Swans and Brant; as well

as breeding habitat for Bald Eagles, Pileated Woodpeckers, and Vaux's Swifts. Waterfowl are predominantly Mallard, American Wigeon, Green-winged Teal, and Northern Pintail. Data show that up to 15,000 shorebirds utilize the Elk River estuary to continue feeding on the rising tide when lower-lying sites in Gray's Harbor are flooded.

SPECIES OR GROUP	SEASON	AVERAGE	MAXIMUM
waterfowl	FM	1,475	7,186
waterfowl	W	658	3187
shorebirds	SM	--	15,000

Conservation Issues

The Elk River Estuary is in a watershed used primarily for commercial forestry. Compared to other sites around Gray's harbor, residential development pressure is light, but is increasing. Runoff from adjacent agricultural lands and from the state highway create a minor risk of water pollution. Perhaps the greatest long-term threat is the possible invasion of the mudflats by *Spartina*, a non-native cordgrass.



PACIFIC COAST

Humptulips Estuary

47° 03′ N, 124° 03′ W 0-10 m/2,710 ha

Ownership	Private, state
IBA Criteria	1, 5a, 5c
Habitats	Estuarine, salt and fresh water marsh, riparian, forested wetland
Land Use	Wildlife conservation, residential, agriculture

Site Description

The Humptulips Estuary—located in the North Bay of Gray's Harbor, 15 kilometers northwest of Hoquiam—includes the mouth of the Humptulips River; Campbell, Jessie, and Gillis Sloughs and their associated wetlands; the uplands south of State Route 109; and the intertidal mudflats south of the shoreline. A complex of estuarine and wetland habitats, the IBA is primarily intertidal mudflats in state ownership. The uplands include several protected areas owned by The Nature Conservancy and the Gray's Harbor Audubon Society. Some of the open meadows are former pasture.

Birds and Habitat

This IBA contains a rich mixture of habitats that include mudflats, emergent salt marsh, riparian habitat, open water ponds and fresh water wetlands, and forested wetlands with patches of mature alder and spruce in stands varying in age from 30 to 100 years. The mouth of the Humptulips River supports large waterfowl concentrations, primarily American Widgeon, Green-winged Teal, Mallard, Northern Pintail, and Bufflehead. The North Bay supports 24 percent of the shorebirds migrating through Gray's Harbor in spring, and 16 percent of these are found in the Humptulips Estuary. Data suggest that the estuary has

as many as 160,000 shorebirds migrating through in spring—mostly Western Sandpiper, Dunlin, and dowitchers—and supports large wintering populations as well. The site is also part of a priority Peregrine Falcon wintering area.

SPECIES OR GROUP	SEASON	AVERAGE	MAXIMUM
waterfowl	W	--	20,000
waterfowl	FM	3,454	10,878
Dunlin	W	1,630	7,000
shorebirds	SM	--	160,000
shorebirds	W	1,260	6,800

Conservation Issues

Residential and agricultural development have historically been the major threats, but these are diminishing as more of the area is acquired by conservation organizations. Runoff of contaminants from lands upstream and invasion by non-native plants remain causes for concern.

PACIFIC COAST

Ledbetter Point

46° 37′ N, 124° 03′ W 0-15 m/1,970 ha

Ownership	Federal, state
IBA Criteria	1, 5c, 5d, 5g
Habitats	Beach, dunes, estuarine, salt marsh
Land Use	Wildlife conservation, recreation

Site Description

Ledbetter Point comprises the northern 6.8 kilometers of the Long Beach Peninsula at the mouth of Willapa Bay, and includes Grassy Island and surrounding mudflats. The northern two-thirds of the area is part of Willapa National Wildlife Refuge; the remainder is in Ledbetter Point State Park. The sandy tip of the point has been designated a Research Natural Area, with emphasis on the Snowy Plover.

Birds and Habitat

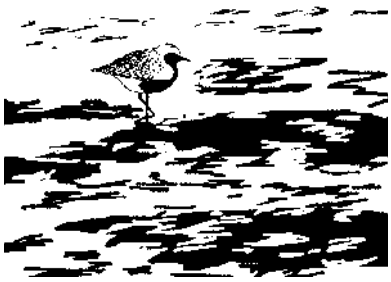
Ledbetter Point consists of sandy ocean beach, sand dunes, intertidal mudflats, eelgrass beds, and salt marsh. The upland areas of the point contain a diverse forest dominated by Sitka spruce, western hemlock, and red alder, with an understory of willow, cascara, and western crabapple. This IBA supports regular large concentrations of waterfowl, including Brant and shorebirds. The ocean beach is a documented active breeding site for Snowy Plover, and has been proposed as critical habitat by for this species by the U.S. Fish and Wildlife Service. Spring shorebird counts typically exceed 10,000 individuals. It is estimated that Ledbetter Point hosts about seven percent of the Willapa Bay shorebirds in spring. When Sand Island is submerged by tides (see Sand and Gunpowder Islands IBA),

Ledbetter Point is a secondary roost site for Brown Pelicans. Over 180 bird species have been recorded here. This area is considered an important staging site for passerines in spring migration.

SPECIES OR GROUP	SEASON	AVERAGE	MAXIMUM
Brown Pelican	post-B	--	230
Snowy Plover	B	--	14 nests
shorebirds	SM	6,000	13,000
shorebirds	FM	--	6,270
shorebirds	W	3.971	3,971

Conservation Issues

Disturbance from recreational use is the single most serious threat to nesting Snowy Plovers. Wetland areas are vulnerable to invasion by non-native plants, particularly the cordgrass *Spartina*.



PACIFIC COAST

Sand and Gunpowder Islands

46° 41′ N, 124° 02′ W 0-1 m/220 ha

Ownership	State
Habitats	Sandy island, intertidal sandflats
Land Use	Wildlife conservation

Site Description

Sand and Gunpowder Islands are two low, sandy islands at the mouth of Willapa Bay. The islands accrete and erode with changing ocean conditions, so the size is not constant; dune vegetation and seabirds re-colonize the shifting habitat. The site totals 220 hectares at low tide and 47 hectares at high tide. In recent years, Sand Island has been diminishing. Gunpowder Island is a Natural Area Preserve managed by the Washington State Department of Natural Resources.

Birds and Habitat

As recently as 1998, Gunpowder Island was a Snowy Plover nesting site. In the past, both islands hosted breeding populations of Ring-billed and Glaucous-winged Gulls, but breeding census data from the early 1980's show that populations have significantly declined since then. Formerly, as many as 3,000 Caspian Terns nested on these islands. These colonies no longer exist, though the habitat still does. At high tide these islands form an important roosting area for shorebirds. Since 1987, Sand Island has been Willapa Bay's primary Brown Pelican roost, but in recent years this appears to be shifting to Gunpowder Island.

SPECIES OR GROUP	SEASON	AVERAGE	MAXIMUM
Brown Pelican	post-B	650	2,160
Snowy Plover	B	*	*
gulls	B	6,341	--

* Exact numbers not available. Breeding confirmed.

Conservation Issues

Disturbance from recreational use is perhaps the greatest overall threat, particularly to nesting Snowy Plovers. The threat of disturbance is more serious for Gunpowder Island, which is sometimes accessible from Ledbetter Point at low tide.

PACIFIC COAST

Shoalwater Bay (South Willapa Bay)

46° 24′ N, 124° 02′ W 0-1 m/2,330 ha

Ownership	Federal, state, private
IBA Criteria	5a, 5c
Habitats	Estuarine, salt and fresh water marsh
Land Use	Wildlife conservation, recreation, agriculture, light residential

Site Description

Shoalwater Bay is located at the south end of Willapa Bay, about six kilometers northeast of the town of Long Beach. The IBA comprises the Bear River Delta, Parker and Tarlatt Sloughs, the tidelands south and west of Nahcotta Channel, and the surrounding salt water and fresh water marshes adjacent to the river channels and tidelands. The site consists primarily of intertidal mudflats, about 1,620 hectares; estuarine habitat; emergent fresh water marsh; a small amount of riparian and moist coniferous forest; and upland pastures. It includes the Riekkola and Lewis units of Willapa National Wildlife Refuge; state-owned portions of the site are managed by the Department of Natural Resources.

Birds and Habitat

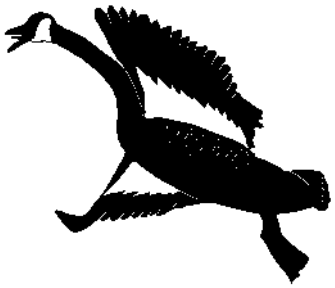
During spring migration and winter, Shoalwater Bay supports extremely high numbers of shorebirds, with dominant species being Western Sandpiper and Dunlin. Shoalwater, one of two critically important shorebird sites in Willapa Bay, supports more shorebirds than any other site in southwest Washington. Shorebirds feed on the mudflats, and roost during high tides in the surrounding marshes and pastures. This site also supports large concentrations of waterfowl,

especially during fall migration, and relatively large numbers of Dusky and Cackling Canada Geese in winter.

SPECIES OR GROUP	SEASON	AVERAGE	MAXIMUM
waterfowl	W	2,200	--
shorebirds	SM	--	54,450
shorebirds	W	--	27,470

Conservation Issues

Much of the intertidal mudflat habitat in this part of Willapa Bay has been lost to invasion by *Spartina*, and the damage caused by this non-native cordgrass continues to worsen. Contamination from pesticides used in agriculture could have a detrimental impact on the intertidal areas. Conversion of wetlands to cranberry bogs reduces roosting and feeding habitat available to shorebirds during extremely high tides.



PACIFIC COAST

Willapa River Estuary

46° 41′ N, 123° 49′ W 0-2 m/3,255 ha

Ownership	State, private
IBA Criteria	2, 5a, 5c, 5f
Habitats	Estuarine, salt marsh
Land Use	Aquaculture, agriculture, residential

Site Description

This site, in Pacific County, comprises the mudflats and wetlands of the Willapa River estuary, extending from the two-meter elevation contour to the subtidal area of Willapa Bay. It includes the mouth of the Willapa River and Fredrickson, Johnson, and Mailboat Sloughs, but excludes the Willapa Harbor Airport and the developed areas around the city of South Bend.

Birds and Habitat

Two-thirds of the IBA are intertidal mudflats, plus emergent wetlands in the upper reaches of the estuary, and some fresh water wetlands. The estuary is important primarily to wintering and migrating shorebirds, which feed on the mudflats, and roost in the marshes and pastures along the river. Dominant species are Western Sandpiper and Short-billed Dowitcher in spring, and Dunlin in winter. The site's secondary importance is as a fall migration and wintering site for waterfowl, mostly Brant, Canada Goose, Mallard, and American Wigeon. The wetlands near the airport are particularly valuable for waterfowl, and support breeding Wood Ducks. A mineral spring frequented by Band-tailed Pigeons is located on the north shore, about six kilometers downstream from the city of South Bend.

SPECIES OR GROUP	SEASON	AVERAGE	MAXIMUM
shorebirds SM	--	22,665	
shorebirds W	--	13,510	
shorebirds W	--	10,000	

Conservation Issues

Invasion of the intertidal areas by *Spartina*, a non-native cordgrass, is the most serious threat to the estuary. Runoff and pollution from upstream industrial and residential areas pose potential detrimental impacts.