Oregon’s Birds in the Neotropics
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Oregon's Birds in the Neotropics
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The phenomenon of migration is one of the great spectacles of the natural world, so commonplace that we rarely pause to consider the full implications of the ecological and evolutionary drama being played out before us. Among birders as well as in the popular consciousness, the arrival of spring is heralded by birds — whether swallows at Capistrano, vultures at Hinkley, Ohio, or hummingbirds in Oregon. Likewise, the approach of our long winter is foreshadowed by the departure of these much admired visitors. Humans of all cultures throughout history in the temperate zones have celebrated this spectacle in literature, song and art. On a personal level as well, each of us has his or her favorite migrant species — a shorebird, a flycatcher, a swallow, or a warbler.

This seasonal passage of birds from temperate to equatorial latitudes serves as a powerful reminder of our intimate ties with the lands and peoples of the tropical world — that part of the earth lying between the Tropics of Capricorn and Cancer. While significant efforts in environmental education and habitat conservation have taken place here in northwestern North America, most nearctic migrants spend over half their life cycle hundreds or even thousands of miles away from these good intentions. We truly inhabit one interconnected biosphere.

A majority of the species of birds recorded in Oregon spend only a portion of their lives here in the Pacific Northwest. Of the roughly 345 regularly-occurring species in Oregon, discounting accidentals and rare migrants, we estimate that at least some portion of the populations of fully 169, or 49 percent of these species, spend a significant segment of their annual cycle in the neotropics. While more study of the migratory behavior of specific populations will alter this figure somewhat, the conclusion is plain — what happens in the neotropics matters to many of Oregon's birds.

This issue of Oregon Birds explores several facets of this hemispheric interconnectedness. We are driven by the conviction that we Oregon ornithologists and birders must enlarge our conception of their natural history by incorporating an understanding of and appreciation for the mostly neglected tropical dimensions of their annual cycles.

Brian Sharp, U.S. Fish & Wildlife Service, and Verda Teale, OFO member, have worked long and hard with me to make this a high quality and interesting issue. Useful comments were received from Mark Stern (The Nature Conservancy), Mark Smith, and Larry McQueen. Oregon Birds Editor Owen Schmidt has been very patient and helpful.

Tom Love, Issue Editor

Oregon and the Neotropics: Introduction

Tom Love, 8060 S.W. Churchill Court, Tigard, OR 97224
Oregon Birds in the Neotropics, or ... Neotropical Birds in Oregon?

Tom Love, 8060 S.W. Churchill Court, Tigard, OR 97224

“Mid-winter peonies
And a distant plover singing,
Did I hear a cuckoo
In the snow?”
—Basho, The Narrow Road to the Far North

Birds have occupied the New World much longer than has humankind, whose Asiatic ancestors arrived as Siberian “vagrants” not longer than 25,000 years ago. Except in areas of state-organized, dense human settlement in the highlands of central and southeast Mexico and Guatemala, the Yucatan lowlands, the central Andean coastal valleys from Ecuador to northern Chile, the Andean highlands from Colombia to northern Argentina, and the lower reaches of the main stems of the rivers of the Amazon drainage, the environmental impact of our species in the New World before the sixteenth century has been relatively slight.

Though we humans have everywhere and always modified habitats to channel more energy and matter toward our populations, our role as an agent of significant ecological change has generally been limited or local until recent times. In the Old World, certainly the deforestation of Europe has been underway since the rise of highly centralized and stratified state-organized societies in the Mediterranean basin and Mesopotamia over 4000 years ago. The same is true of eastern lowland China and the Indogangetic plain as well. However, in the New World it was generally not until the agricultural transformations brought on by the growth of the modern world market economy since 1500, dominated first by capitalist Europe and later North America, that major large-scale environmental transformations in the neotropics got underway in earnest (see Vogt 1970).

The pace of such environmental change has been accelerating rapidly, especially in the last century. Such economic pressures as cattle ranching, logging, mining and agriculture are currently degrading millions of acres of forests and wetlands, and these forces are exacerbated by the massive migrations of poor settlers into many parts of the regions under consideration here.

The pace and nature of this environmental modification has varied
greatly among the regions of Latin America, however, with consequently uneven and mostly poorly understood effects on both tropical and temperate avifauna. This article reviews the geography of environmental modification in Latin America in relation to the migrant portion of the Oregon avifauna.

Geographic overview
Latin America is physiographically and climatically diverse. The conqueror Cortés was asked by the King of Spain on his return from Tenochtitlán, the Aztec capital, to describe the geography of the new lands. Taking a piece of paper from the King's desk, he crumpled it in his hands, saying, "Sir, there is the map of Mexico." Equatorial, desert and temperate climates occur, as well as cooler and polar climates in the extensive mountain systems.

The biogeography of Latin America is correspondingly diverse. Of special interest are tropical highlands, which contain multiple ecological zones arrayed altitudinally. In Oregon we are certainly familiar with the different life zones to be encountered by climbing into the higher Cascades or up Steens Mountain. But in the mountains of Mexico, Central America, and especially western and northern South America, enormous altitudinal zonation greatly increases the types of habitats and diversity of species present. Such complex mountain zonation makes difficult an even basic understanding of both the distribution in space and across habitats of both permanent as well as "our" wintering bird species. Somewhat different ecological relations may be operating in different areas. For example, it has been argued that there is both species replacement by elevation, with little altitudinal migration (Teal 1971, in Cordillera Vilcabamba, Peru), and substantial altitudinal migration and seasonal mingling of birds from different zones (Stiles 1988, in Caribbean slope, Costa Rica). Representing on maps wintering ranges of migrants under these conditions is extremely difficult (Teale 1990).

The economic geography of Latin America is especially complex. Travellers from the developed world are perplexed to see gleaming modern cities side-by-side with villages of traditional Indians and peasants. This very uneven development is characteristic of most of Latin America, the result of a complex historical interpenetration of capitalist and non-capitalist forms of social organization whose analysis is far beyond the scope of this paper. Suffice it to say that in the colonial Spanish and Portuguese areas of Latin America (that is, not the southern cone region for the most part) there are sharp differences between urban and rural sectors. Traditional forms of land use persist in many areas; for example, communal resource-sharing persists in the Andes, Guatemala and parts of Mexico, as well as in lowland Panama, Yucatan and much of the upland areas of the Amazon basin.

Politically, modern Latin America's 43 countries range widely in size, from giant Brazil (about the size of the 48 contiguous states) to the tiny microstates of the Lesser Antilles. Nevertheless, because of their rugged physiography, some of the smaller countries like Costa Rica or Ecuador are actually more ecologically diverse than other much larger areas. Environmental laws are well-developed in most of the larger countries; enforcement is somewhat uneven, however. Substantial national park systems exist in almost all countries, at least on paper. Most of these countries exercise jurisdiction over some portion of the territory of interest to us here in the Northwest, and thus their legal systems merit our attention and understanding. I briefly review the legal status of habitat conservation achievements later in this article.

Nevertheless, for present purposes some countries are more important than others. To simplify the picture somewhat, it helps to cluster these diverse states into 7 regions.

1. Mexico
2. Central America (Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, and Panama)
3. the Caribbean - including the Greater (Cuba, Jamaica, Haiti, Dominican Republic, Puerto Rico) and Lesser Antilles (the eastern chain of small islands from the Virgin Islands to Grenada)
4. South America
   a. Northern South America (Colombia, Venezuela, Trinidad and Tobago, Guyana, Surinam, and French Guiana)
   b. Andean (Western) South America (Ecuador, Peru, Bolivia, Paraguay)
   c. Brazil
   d. the Southern Cone (Chile, Argentina, Uruguay).

The regions of primary environmental concern for Pacific Northwest migrants to the neotropics are Mexico and Central America, followed by Andean (Western) South America and Northern South America. These patterns are more fully discussed below.

What is meant by the "tropics"? The term is taken from the lines of latitude at 23-1/2 degrees N (Tropic of Cancer) and 23-1/2 degrees S (Tropic of Capricorn) which mark the northernmost and southernmost parallels, respectively, which receive direct rays of the sun at some point during the year. The "neo" tropics, then, are those parts of the New World tropics that lie south of central Mexico and Cuba, but north of northern Argentina and southeastern Brazil. A number of nearctic migrants skip through the tropics and winter in the southern temperate zone summer.

Species of "Oregon" birds involved
Like much of the rest of the United States, about half of "our" Oregon avifauna spends a significant portion of the annual cycle in the neotropics. Of 345 regularly occurring species, we estimate that 169 (or 49 percent) are neotropical migrants. A major study by the U.S. Fish & Wildlife Service found that 51 percent of the 650 species making up the regular avifauna of the United States are nearctic migrants that winter in the neotropics (Rappole et al. 1983).

Most temperate zone birders tend to think that it is primarily the passerines — flycatchers, thrushes, and warblers — which migrate to and

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from the neotropics. While it is true that a majority of our passerine breeders — 69 of 121, or 57 percent — do spend a majority of their lives outside Oregon, 100 non-passerine species, particularly shorebirds, are also involved. The migration of nearctic species to the neotropics is thus both a richer and less well understood biological phenomenon than we commonly realize. Especially poorly known are the Procellariiformes — the albatrosses, petrels and storm-petrels — several of which spend substantial time in the tropical Pacific. We chose not to analyze these, nor did we include the jaegers or skua.

To derive the list of 169 of the regularly-occurring species of Oregon birds involved in this phenomenon, we examined a variety of data. We consulted both the Fifth and Sixth Editions of the A.O.U. Checklist of North American Birds, a variety of regional and local field guides, other references listed in the bibliography (e.g., Rappole et al. 1983), and banding recovery data from the U.S. Fish & Wildlife Service, and our own neotropical experience.

Following this introductory article is our annotated provisional list of 169 species of birds that spend some portion of their annual cycles in both Oregon and the neotropics. Revisions will certainly be made in this list, especially since there is little understanding of the movements of specific populations of most species. For purposes of this volume we have used the species as the unit of analysis; wherever possible we have tried to get a handle on whether Oregon populations are specifically involved (see Table 1 of subspecies in Teale 1990).

Of these 169 species, at least 23 species are significantly declining in Oregon and at least 11 species are significantly increasing in number, according to Oregon breeding bird survey data (see Sharp 1990). We believe that these serve as “indicator” species which ought to be watched carefully to check for longer trend fluctuations, particularly those that appear to utilize especially vulnerable tropical habitats such as dry forest, humid cloud forest, and wetlands. More careful study may reveal whether these declines are due primarily to temperate or tropical disturbance.

Nine species which occur in Oregon are predicted by Rappole et al. (1983: 90-92) to decline in the near future, due mostly to tropical habitat modification. Only 3 of these are Oregon breeders — Peregrine Falcon, Veery, and Townsend's Warbler — and only 1 — Townsend’s Warbler — has its center of breeding distribution in the Pacific Northwest.

While this list is useful, it is very general and very preliminary. Sharp (1990) analyzes declining Oregon species, and on a species-by-species basis discusses whether these declines may be due to the modification or destruction of neotropical habitats, or to some other causes away from the wintering areas. The general conclusion fits well with recent literature, in that few of the species’ predicaments can be tied directly to the destruction of habitats or other problems on the winter range (see Hutto 1988).

### Table 1. Oregon species predicted to decline in Oregon due to neotropical habitat modification.

<table>
<thead>
<tr>
<th>Species</th>
<th>Vulnerability</th>
<th>Status</th>
<th>Factors Causing Vulnerability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peregrine Falcon</td>
<td>w 4 p/c</td>
<td>1</td>
<td>c = exposure to high levels of contaminants; p = small population size; r = restricted range; s = vulnerable stopover points where large segments of population concentrate</td>
</tr>
<tr>
<td>Lesser Golden-Plover</td>
<td>m 3 s</td>
<td>2</td>
<td>d = direct disturbance by humans (e.g., hunting, disruption of breeding colonies, etc.)</td>
</tr>
<tr>
<td>Red Knot</td>
<td>m 3 p/s</td>
<td>3</td>
<td>t = migration of nearctic species to the neotropics</td>
</tr>
<tr>
<td>Stilt Sandpiper</td>
<td>m 3 p/s</td>
<td>3</td>
<td>t = migration of nearctic species to the neotropics</td>
</tr>
<tr>
<td>Buff-breasted Sandpiper</td>
<td>w 2 p/s/r/d</td>
<td>3</td>
<td>t = migration of nearctic species to the neotropics</td>
</tr>
<tr>
<td>Red-necked Phalarope</td>
<td>m 3 s</td>
<td>3</td>
<td>t = migration of nearctic species to the neotropics</td>
</tr>
<tr>
<td>Common Tern</td>
<td>b 3 h/d</td>
<td>3</td>
<td>t = migration of nearctic species to the neotropics</td>
</tr>
<tr>
<td>Veery</td>
<td>w 3 h</td>
<td>3</td>
<td>t = migration of nearctic species to the neotropics</td>
</tr>
<tr>
<td>Townsend’s Warbler</td>
<td>w 3 h</td>
<td>3</td>
<td>t = migration of nearctic species to the neotropics</td>
</tr>
</tbody>
</table>

1. Most vulnerable period: b = breeding, m = migration, w = wintering.
2. Status: 1 = already reduced to near extinction; 2 = likely to show serious declines within the next decade; 3 = likely to show declines in the next decade; 4 = vulnerable but may or may not decline.
3. Factors causing vulnerability: c = exposure to high levels of contaminants; d = direct disturbance by humans (e.g., hunting, disruption of breeding colonies, etc.); h = preferred habitat decreasing; p = small population size; r = restricted range; s = vulnerable stopover points where large segments of population concentrate.

### Neotropical habitats used by “Oregon” birds

Most of the concern about the fate of temperate zone migrants to the neotropics has focussed on the tropical forest habitats. We residents of the colder, seasonal climates think of the “tropics” as composed chiefly of humid lowland forests. Even a brief visit will quickly disabuse one of this notion, however. While tropical moist forests are indeed the most diverse terrestrial ecosystems on the planet and therefore worthy of our special attention, we must expand our conception of “tropical,” realizing that there are many habitats involved (see Kricher 1989).

In the face of such habitat diversity, it is extremely difficult to make generalizations about habitat preferences of wintering temperate zone species. There are 3 principal aspects to the problem which make generalization difficult: (1) results from the growing number of studies of avian wintering ecology are to be found in a scattered literature, and are only recently being pulled together (e.g., Ridgely & Tudor 1989; Blake 1977); (2) the environmental matrix in Latin America is complex and poorly understood, especially in the tropical highlands; and (3) many species are composed of races, subspecies, and populations whose seasonal and migratory movements are generally poorly understood.

A substantial mapping project was carried out by a team assembled by the U.S. Fish & Wildlife Service, in conjunction with the World Wildlife Fund (Rappole et al. 1983). Our understanding of winter ranges of most species is, however, still in its infancy. Teale (1990) has surveyed much of the ornithological literature from Mexico and Central America, and has...
found gaps in our knowledge. While little is specifically known about the winter ranges of “Oregon” birds in these areas, some general inferences as well as directions for future work can be identified.

While much remains to be discovered, it is known that every major habitat type in the neotropics supports some nearctic migrants, including shrub-steppe, aquatic, and forest environments. The percentage of migrant species in tropical forest communities varies greatly, ranging from a low of 4 percent in montane wet forest of Colombia to 51 percent in the gallery forest of Colima, Mexico (Rappole et al. 1983).

In order of importance, the 14 most significant habitats used by species of nearctic migrants to the neotropics are: brackish and freshwater wetlands, riparian forest, savannah, scrub (short, dry forest), deciduous (seasonally dry) forest, lowland evergreen forest, beach/tidal flats, coniferous forest, grassland, mixed coniferous/broadleaf forest, highland evergreen forest, desert/semi-desert, pelagic/coastal marine, and alpine (Rappole et al. 1983:8).

Neotropical wintering habitat preferences of Oregon’s migrants are shown in the annotated list following this article. To interpret these habitat types, refer to the following discussion.

I. Shrub-steppe habitats.
Shrub-steppe habitats are found generally away from the humid tropics proper, either altitudinally or latitudinally. As a consequence, much of this habitat in Latin America strictly speaking lies outside the “tropics,” either to the north (central and northern Mexico) or to the south (much of western and southern Argentina). Highland shrub-steppes are widespread in the Andes, both at high altitudes and along the dry western slopes from southern Ecuador to central Chile.

In this category are areas subject to extremes of temperature and precipitation that make them generally less suitable for development, including alpine and desert habitats. Also within this category, however, are some of the richest farmlands and grazing lands, and these have long since been converted to crop production or commercial grazing. Since shrub-steppes occupy relatively less of the surface area of Latin America, alteration of these areas may in fact be more significant than realized. Much work needs to be done on these neglected tropical habitats.

Five habitat types characterize this category of tropical environments:

1. Alpine: stunted trees, grasses, sedges and mosses, at high elevations. Found in a surprising number of Latin American countries, including Mexico, Costa Rica and Panama, the Santa Marta Mountains of northern Colombia, and all the Andean countries from Venezuela to Chile and Argentina.

2. Desert: sparse cover of xerophytic plants in regions of less than 10 inches per year precipitation. Found in western Mexico from Baja and Sonora along the Pacific coastal slope to Chiapas and on through Central America on the Pacific coast to the Peninsula de Azuero, western Panama. In South America found along the west coast from southwestern Ecuador to central Chile, and much of western Argentina. In the Caribbean found in scattered areas of Cuba, the Dominican Republic, Puerto Rico, and islands off the coast of Venezuela.

3. Grassland: may occur not only as wide treeless prairies but also as patches with intervening gallery forest or savanna. Found scattered through northern and central highland Mexico, and east-central Argentina, Uruguay and southeastern Brazil. A prairie-like bunch-grassland is found in the high Andes above about 14,000 feet from Venezuela to Chile, called variously páramo and puna.

4. Savanna: tropical grasslands with scattered trees or gallery forest along waterways, where seasons are regulated by precipitation (dry/wet seasons) but not temperature (warm all the time). Found in Gulf Coast Mexico (Tamaulipas), parts of the Caribbean, and much of South America,
including northern and eastern Colombia, southern Venezuela, and much of south-central and east-central Brazil, eastern Bolivia, and northern Paraguay.

(5) **Scrub**: dense, low cover of woody vegetation. Found widely in Latin America, including much of the central highland plateau of Mexico, northern Colombia, parts of northern Venezuela, and northeastern and western central Brazil. Within this ought to be included the Mediterranean chaparral of central Chile.

Desert, grassland, savanna, scrub or alpine habitats are used by 120 (36 percent) of the 332 neotropical migrant species analyzed by Rappole et al. (1983). Of Oregon’s 169 migrants, 95 (56 percent) use these shrub-steppe habitats. Species-specific habitat preferences are shown in the appendix.

### II. Wetland habitats.

Wetland habitats are a second important category of tropical environment. Below I discuss 4 wetland habitat types:

1. **Freshwater wetlands**: lakes, rivers, streams, oxbow lakes, etc. The most important area of freshwater wetlands is the Amazon basin, one large swampy region occupying almost half the South American continent. However, smaller areas of freshwater wetlands are found throughout central and southern Mexico, highland and especially Gulf Coast Central America, eastern Panama, western Colombia and Ecuador, northwestern Venezuela, the high Andes, and the great *pantanal* (marshland/savanna) area of Paraguay and southwestern Brazil.

2. **Brackish wetlands**: salt marshes, lagoons and mangroves. Salt marshes and lagoons are widespread in coastal Latin America, but are especially critical in the desert coastal regions (see I.2) such as western South America. Mangroves are found on the Pacific coast from southern Baja to northern Peru, and on the Atlantic coast from southern Tamaulipas to eastern Brazil.

3. **Seashore**: littoral zone, beach, tidal flats. Like the salt marshes and lagoons, tidal flats and associated seashore habitats are widespread throughout Latin America, but are especially critical in the desert coastal regions mentioned above.

4. **Coastal marine**: offshore areas, often with important zones of upwelling as off the Peruvian coast. The first major oil spill in tropical coastal marine environments recently occurred in Caribbean Panama, with disastrous results on corals and other wildlife.

These habitats are important in several ways, such as nursery grounds for tropical fisheries, critical stopover points for long-distance migrants such as waders, and as highly-productive environments which nurture a whole array of neotropical food webs. They are especially threatened, unfortunately, not only from direct threats such as filling and discharge of pollutants, but also because damage to surrounding habitats usually affects wetlands adversely through siltation from erosion, chemical pollution from runoff, and flooding from deforestation on steeper hillsides.

Wetlands, especially coastal, are critical for the migration of a number of species of shorebirds. A massive cooperative effort, the Western Hemispheric Shorebird Reserve Network, is being established for conserving these vital habitats (Myers et al. 1987). Among the most important of these shorebird areas in Latin America are the Bay of Panama (Pacific side), the Surinam coast, the Paracas Peninsula of Peru, the Mejía Lagoon of southern Peru, the Lagoa do Peixe of southeastern Brazil, and the Río Grande de Tierra del Fuego.

Tropical ponds, marshes, rivers, lakes, estuaries, seashore, and coastal marine environments support 106 (32 percent) of the 332 species analyzed by Rappole et al. (1983). Of Oregon’s 169 migrants, 95 (56 percent) use these wetland habitats. Species-specific habitat preferences are shown in the appendix.

## III. Forest habitats.

The great forests of Latin America have evoked wonder since Europeans first laid eyes on them. "Epithet after epithet was found too weak to convey to those who have not visited the intertropical regions, the sensation of delight which the mind experiences... The land is one great wild, untidy luxuriant hothouse, made by nature for herself.” (Darwin 1905: 488).

It is the tropical forest environment which most comes to mind when discussing the ties of temperate zone migrants to the tropics. But, not only are there a wide variety of non-forested environments, as we have seen, but there are also many different types of forests. These include lowland humid evergreen forests, lower montane humid evergreen forests, montane humid evergreen forests, upper montane humid evergreen forests ("cloud forests"), elfin forests of treeline, and lowland dry seasonal forests ("monsoon" forests), among others. Each of these harbors a rather different assemblage of diverse creatures.

Forest habitats identified by Rappole et al. (1983) include:

1. **Coniferous**; pine forests of the mountains of western Mexico from Chihuahua to Jalisco.

2. **Mixed Coniferous**: broadleaf/pine-oak forests for the most part, found in central highland Mexico from Jalisco and southern Tamaulipas to Oaxaca, and again in the highlands of Chiapas and Central America to Nicaragua. Also found on Haiti, where there has been severe disturbance.

3. **Deciduous (seasonal) Broadleaf**: tropical forests adapted to a dry season. These forests are found on the Pacific slope from Nayarit to the Peninsula de Azuero in Panama. Dry tropical forests are also found on the Gulf/Caribbean slope from southern Tamaulipas through the Yucatan Peninsula. In South America found in northern Venezuela and northeastern Colombia, southwestern Ecuador/northeastern Peru (an isolated region of especially high endemism), and much of eastern Brazil from southern Rio Grande do Norte south to Paraná and west to Mato Grosso (also a region of high floral and faunal endemism).

4. **Broadleaf Evergreen**: the tropical forests which come to the minds of most people. Here there is no sharp dry season, so humidity is relatively high and temperatures warm all year round. Species diversity is very high; hypotheses to account for this diversity keep a small army of ecologists...
employed. Forsyth and Miyata (1984:31-38) argue that a primary cause is the patchiness introduced into the forest environment by random canopy and emergent tree falls. The flora has evolved host of amazing strategies for taking advantage of these unpredictable shafts of light down to the forest floor.

Latin America contains about 55 percent of the world’s tropical humid forest. While South America contains 94 percent of the humid forest of Latin America, it is the severely modified 6 percent found from southern Mexico to Panama that is most important for Oregon’s neotropical migrants. These “true” tropical forests are found from Chiapas through much of highland and Gulf-Caribbean coastal Central America, especially Costa Rica and Panama. In the Caribbean humid forests are found on all major and minor islands, especially the windward sides. The U.S. Forest Service manages a bit of tropical humid forest in the mountains of eastern Puerto Rico, extensively damaged in 1989 hurricanes.

In South America’s Amazon basin and vicinity, of course, stand the major humid forests of the planet. All the Andean countries possess vast tracts of this forest, from Venezuela through Colombia, Ecuador and Peru, to Bolivia, as well as northern Argentina and eastern Paraguay. The eastern Andean slope is one of the most exciting and diverse ecological transects on the planet. This is a region of growing conservation effort, with the establishment of major conservation units such as the incredible Manu National Park in southeastern Peru. While small, the 3 Guianas contain important humid forest regions. However, Brazil alone contains 35 percent of the world’s tropical humid forest (Myers 1980).

(5) Gallery: woody vegetation bordering fresh water. These forests occur in the savanna and grassland regions adjacent to forested areas. Greatest amounts of gallery forest are to be found in western Mexico and the Pacific slope from Jalisco to central Panama. Also, gallery forest is to be found in eastern Colombia and southern Venezuela, and central and eastern Brazil from Maranhão and Piauí through Bahia and Goiás to Mato Grosso, São Paulo and Paraná. 107 (32 percent) of the 332 species analyzed by Rappole et al. (1983) are found primarily in forested areas. Of Oregon’s 169 migrants, 58 (34 percent) use forested habitats, as listed in the appendix.

**Migrant species in neotropical avian communities**

Oregon’s migrants to the neotropics almost without exception appear to occupy more generalist niches on the winter range than they do while breeding here in Oregon. There are a number of caveats in order, however. It may be that competition from resident species in the neotropics is stronger than from temperate zone residents, so that wintering migrants are forced out into the more marginal, edge habitats. On the other hand, competition may in fact be relaxed enough so that most wintering migrants are not forced to develop a specialized feeding strategy, and can therefore exploit resources in a variety of habitats. It may be that resident species, especially of the heavily forested areas, have not evolved strategies for dealing with the increasingly fragmented and successional habitats caused by human disturbance, so many wintering migrants are better able to exploit such “competitively open” habitats. Great caution must be taken in regard to interpreting the significance of feeding niches among wintering migrants.

In contrast to South America, Central America appears to have more ecological “space” for North American migrants. This may be due to the fact that South America has been separated from North America during long stretches of geological time, connected occasionally by a narrow land bridge at Panama. Hence the island continent of South America has evolved somewhat isolated from patterns in North America. Since they probably evolved there, North American migrants to Mexican and Central American avian communities appear to function as integral members of the tropical communities they inhabit. They attend multi-species flocks, defend territories against conspecifics, and are not excluded by resident species of these communities (Rappole et al. 1983). For example, on the Caribbean slope of Costa Rica, Stiles (1988) found that nearctic migrants winter chiefly in the lowlands. The arrival of winter residents in the lower elevations roughly coincides with the arrival of altitudinal migrants from up-slope; the smaller number of winter residents at higher elevations partially offsets the departures of many breeding species downslope. There was some altitudinal movement among a few of the species of northern migrants on their wintering grounds.

**The effect of neotropical habitat alteration on populations of “Oregon” birds**

With the rapidly growing awareness of the terrible environmental and socioeconomic costs associated with the accelerating destruction of tropical habitats, it is tempting to ascribe declines in the abundance of “our” migrant species to habitat alteration on the wintering grounds. Recent studies document, however, that a variety of factors are responsible for declining (and increasing) populations of migrant species.

Habitat alteration in Mexico and Central America is of particular importance to Oregon’s migrant species. This is illustrated by the following data on the percentage of neotropical migrant species wintering in the major regional divisions of the neotropics (Rappole et al. 1983:53).

<table>
<thead>
<tr>
<th>Region</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Mexico</td>
<td>25.2</td>
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<tr>
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<tr>
<td>Caribbean &amp; Central America</td>
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<tr>
<td>Caribbean</td>
<td>1.6</td>
</tr>
<tr>
<td>Caribbean and South America</td>
<td>0.4</td>
</tr>
</tbody>
</table>

The importance of these habitats is also supported by the maps in Teale’s (1990) article as well as in the maps reproduced from Rappole et al. (1983) that follow our articles.
Nevertheless, the loss of humid tropical forest does pose problems for some Oregon species, such as thrushes and flycatchers. Two striking features of the ecology of Latin America’s humid tropical forests should be noted. Foremost among these is the paradox that the luxuriant abundance of life and enormous species diversity all rest on soils that are relatively shallow and low in organic content. The nutrients of these tropical forests are up in the trees themselves, not in the upper soil horizons. This means that tropical forests are highly prone to disturbance from human activities; clearing too large an area of forest can lead to the permanent alteration of environments.

Second, recent research shows that there is a “reverse edge effect” process at work in tropical humid forests. As forest clearance proceeds, edges tend to dry out and inner forest/understory species of birds and butterflies retreat farther into the forest. Studies of a 100 hectare forest fragment isolated study plot in the Minimum Critical Size Project north of Manaus, Brazil, showed that conditions for humid forest species in fact existed on only the interior 25-30 of the 100 hectares (Lovejoy’s work with World Wildlife Fund; see Wilcove & May 1986).

The following section examines both rates and causes of modification or conversion of neotropical habitats, with some legal aspects noted, by country within region. The emphasis is on the forest habitats, since they have captured the major attention of researchers. Data are scattered and hard to come by, especially for wetland and shrub-steppe habitats. Useful information on general trends in the humid forested tropics are found in Myers (1980), which forms the basis for this brief overview.

1. Mexico. Wetlands and forests are critical Mexican habitats for Oregon wintering species. Shorebirds are especially dependent on stopover points as they migrate south. Forests, both tropical and temperate, cover 22 percent of the country. Only 3 large patches of humid evergreen forest remain—the Lacandón Forest near the Guatemalan border (13,000 square kilometers), forests in the Isthmus of Tehuantepec (2-3,000 square kilometers) and at Las Tuxtlas in Veracruz (20-30 square kilometers). These remnants are undergoing rapid conversion, primarily because of government-sponsored projects for cattle ranches, coffee plantations, and agricultural colonization by land-poor peasants. Spontaneous peasant colonization of the Lacandón Forest has been underway for several decades, eliminating perhaps as much as 25 percent of that area. However, over 26,000 square kilometers of the Lacandón Forest and its surrounding areas have been declared a forest reserve, including a 3300 square kilometer UNESCO biosphere reserve. Major dam-building along the Usumacinta River was halted, at least temporarily, in the mid-1980s.

Dry tropical forests in general, and in western Mexico particularly, have been far more extensively cleared than other forest types. Further clearance of this forest type, and the gallery forests that occur in a riparian situation along with it, likely has had and will have very significant negative results for Oregon’s wintering species, since many of our migrant species rely on these 2 forest types (see Appendix). Townsend’s and Hermit Warblers, the 2 Pacific Northwest warblers on our cover, rely on Mexican forests in winter; they will surely be affected to some degree by further forest clearance, though no declines have been detected as yet.

2. Central America. Most parts of the region have only remnant patches of once extensive, mostly humid forests; approximately two-thirds of the original forest cover has been cleared. The expansion of pasturelands for export-linked cattle raising has been a primary cause of deforestation. Population pressure on the land is extremely high, due in part to rising absolute populations but also to unequal land distribution. Export-led agribusiness-controlled tropical monoculture has replaced subsistence and petty-commodity farmers throughout the region, especially in Guatemala and El Salvador. These people invade remaining open, largely forested areas in their hunger for land (see Maguire & Brown 1986; Nations & Leonard 1986). Panama is an exception, since its population is mostly urban.

(a) Belize. The country is mostly forested, and the condition of the forests in Belize is good, since a low population exerts little pressure on the resource. An active conservation program profiling the jaguar is underway, coupled with a model environmental education project linked to the national zoo. Wetlands are important along the coast, and appear to be in relatively good condition as well.

(b) Guatemala. Guatemala contains both highland pine/oak temperate and lowland humid forests, the latter primarily in the northern third of the country called the Petén. Large parks have been legally established in the Petén, but the government is sponsoring agricultural colonization projects that will undoubtedly have severe impacts on the remaining forests. Guatemala has the most unequal land distribution in the hemisphere, leading to peasant pressure on both highland and lowland resource bases. Cotton plantations on the Pacific coast have recorded among the highest rates of pesticide application anywhere in the world. The effect on dry tropical forests has been devastating, and Pacific wetlands have undoubtedly suffered badly. These Pacific slope habitats appear to play a major role for wintering Oregon birds.

(c) El Salvador. El Salvador is the most densely populated country in the Americas, and the resulting pressure on the landscape is obvious. There are no significant tracts of primary forest left in the country, apart from 1 highland area near the borders with Guatemala and Honduras that has been set aside.

(d) Honduras. The forests of eastern Honduras are still in relatively good condition, though cattle projects are expanding. An active environmental group is working on environmental education linked to the La Tigra National Park in the Tegucigalpa area, and the U.S. Peace Corps, with USAID assistance, is actively involved in environmental education.

(e) Nicaragua. Although Nicaragua is considered to feature the largest tract of humid forest remaining in Central America, this is only a small portion of what is reputed to have existed half a century ago. Logging has taken place in this eastern Mosquitia Forest for many centuries. Sandin-
ista government environmental policies have been uneven. For example, the large joint tropical forest peace park project with Costa Rica in the Mosquitaia Forest was first promulgated, then because of a budget crunch the government allowed Costa Rican logging companies to enter, then under international pressure backed off and revoked logging permits.

(f) Costa Rica. Costa Rica is an enigma, since it combines the most enlightened park policy in the Americas (roughly 10 percent of the country is set aside as well-run national parks) with what until last year were the highest rates of deforestation in Latin America. This deforestation was primarily due to cattle grazing linked to export to fast food chains in the U.S. and Europe. Alarmed by the imminent loss of all forests not set aside in conservation units, Costa Rica effectively banned all logging of tropical forests in 1988. The famous Guanacaste National Park—the first tropical forest park to be recreated after high levels of human clearance and disturbance—is found in western Costa Rica in this zone (Cherfas 1986). There is some pressure on parks from squatters and gold miners, such as in the Corcovado National Park.

(g) Panama. The Darién Forest of eastern Panama is in very good condition, though the last link of the Pan American Highway has long been planned to go right through it to Colombia. The northern side of this forest is under the control of one of the most ambitious and far-sighted conservation projects in the Americas—the model Kuna-Yala Biosphere Reserve. There traditional land users, the Kuna Indians, have entered into agreements with national and international agencies to safeguard the resources and monitor hunting, resource use and tourism. There are fine forests reserved as part of the Canal Zone, though just outside the Zone peasants attracted to part-time jobs in the cities have degrad ed most forests. Away from the Canal area, however, Panama's forests are under some but not extreme pressure. There are fine national parks in the western mountains.

3. The Caribbean. The Caribbean Islands have been densely populated and intensively cultivated since the earlier parts of the colonial period in the sixteenth and seventeenth centuries. Remnant patches of forest and other native habitats harbor most bird species, but island endemism has created difficult conditions and many species are endangered. Cuba has set aside some larger areas as national parks, including the famous Zapata Swamp and an Ivory-billed Woodpecker reserve. It is now believed that massive conversion of Cuba's lowland forests to sugar cane are largely responsible for the decline of Bachman's Warbler. Haiti and the Dominican Republic are the most disrupted. Puerto Rico and Jamaica maintain some highland areas in parks. The Lesser Antilles have been severely disrupted, but even in such difficult cases all hope is not lost. A RARE Center project combining habitat conservation with environmental education seems to have effectively turned the tide for the St. Vincent Parrot. The government there has decreed 13 percent of the island as a parrot reserve, on-island captive breeding is underway, forest officers have been trained, and the populace strongly endorses parrot conservation.

4. South America. Though biologically extremely rich, South American habitats are generally not as critical to Pacific Northwest migrants as are the habitats of Mexico and Central America. However, the grasslands and wetlands of western, northern and southern South America are important for many species of migrant shorebirds. The forests of northern and northwestern South America are very important for several of the flycatchers (especially Olive-sided and Western Wood-Pewee), thrushes, and a few warblers.

Northern South America

(a) Venezuela. About a third of the country is humid forest, most of it located in the southern half of the country. About two-thirds of the forests of the northern half of the country have disappeared. In general, the forest habitats of Venezuela remain in surprisingly good condition. The same cannot be said of the wetland habitats, however. The Maracaibo Basin, center of Venezuela's important oil industry, rivals the Houston ship channel of coastal Texas for the extent of oil-related wetland contamination.

(b) Colombia. Though 60 percent of the country is nominally forested, much of the forest land has been cleared in this century. The central highlands have been cleared for coffee plantations, though coffee does maintain some semblance of layered forest structure, and birding on coffee fincas can be fairly good. Agricultural and livestock expansion eastward onto the savanna and forests accelerated in the 1970s, with consequent destruction of forests. Faced with poor soils and high precipitation, farming is difficult; recent government policy is moving away from colonization programs in this area, however. The extremely wet and very diverse western Chocó Forest from eastern Panama down the Pacific slope to western Ecuador has been little exploited until recent years, but this area is set for considerable logging.

(c) Guyana / Surinam / French Guiana. All 3 countries possess substantial tracts of tropical forests in excellent condition. The relatively light populations are almost entirely coastal, and place little pressure on forest or wetland resources. Surinam has established an excellent system of parks protecting all major types of ecosystems.

Andean (Western) South America

(a) Ecuador. About 60 percent of the country is forested, covering both Amazonian and Pacific coastal forests, as well as substantial montane and cloud forests on both slopes. Ecuador has an enormously diverse and highly endemic flora, with as many species as all of Central America and southern Mexico combined (20,000). The pace of settlement, commercial agriculture, and oil-related development in Amazonian Ecuador is accelerating, though forests are still in relatively good condition. Western humid forests are in poor condition following rapid clearance in the last few decades for banana, cacao, and oil-palm agriculture and logging. This is especially unfortunate as the flora of these Pacific forests is considered to be...
forested. While the forests of Peru are in generally good condition, agricultural settlement is accelerating and substantial deforestation has occurred in the east central region. The center of world cocaine production lies in this region, and is having major impacts on rivers and forests through contamination and clearance for plantations. Shrub-steppes (grasslands) and wetlands in the highlands have been impacted by overgrazing since colonial times, deforestation of montane humid forest since pre-Inca times, and mine-related contamination in modern times. Overfishing in the extremely productive Humboldt Current has led to population crashes for endemic species, with possibly similar effects on migrants to the area (e.g., Red Phalarope, Franklin's Gull). Wetlands along the dry desert coast are critical; major campaigns have been and continue to be waged to protect the Paracas and Mejfa lagoon and tidal flat areas from encroachment.

(c) Bolivia. About a third of the country is humid forest, with another third in savanna/gallery forest. The humid forest is restricted to the north of the country, and is receiving relatively little pressure until very recently. Evicted shiringueros, or rubber tappers, are leaving adjacent Acre (Brazil) and entering Bolivia. While they act to preserve the forest, since they harvest sap from wild rubber trees and collect Brazil nuts, others may be drawn to nearby areas for destructive intensified slash-and-burn farming.

(d) Paraguay. Grassland and scrub in the east, savanna/gallery forests in the east, and substantial swamps and freshwater marshes in the center-north give Paraguay remarkable diversity. Habitats are generally in good shape, since the economic activity of the country has been tightly controlled by a tiny national elite. Charcoal burning is taking its toll on woodlands away from the capital city.

Brazil.

There has been devastating clearance of seasonal semi-deciduous forest in eastern Brazil, much of it for coffee plantations. A number of the most interesting and colorful species of tanagers and hummingbirds in the world, along with primates and a number of plants and insects, are found only in eastern Brazil and are seriously endangered. The vast Amazonian interior of the country sees surprisingly few North American, and fewer still Pacific Northwest migrants. Road-building, planned and now spontaneous colonization by land-hungry peasants, mining, dam-building, and cattle grazing — virtually the entire list of ravages of humid lowland forest — are to be found in Brazil. An active Greens party has emerged, and international concern over deforestation has accelerated dramatically in the last few years, but there is little a relatively weak government seems able to control in such a vast frontier. The growing extractive reserve movement of western Amazonia shows substantial promise for slowing environmental destruction.

The Southern Cone
(a) Chile. Wetlands along the dry coast of the north are important for migratory shorebirds of several species, though impacts here beyond the few wetlands are of limited importance for northwestern North America migrants.

(b) Argentina. Wetlands and grasslands are of primary interest, since a number of species of nearctic shorebirds and Swainson’s Hawk winter in the rich pampas of east central Argentina. Unfortunately, Argentina has protected only 8500 hectares of savannah and grassland habitat.

(c) Uruguay. Uruguay has set aside 219,000 hectares of grassland and savanna; this is important for migratory shorebirds.

Conclusions
In brief conclusion, there are several actions we can take as Oregon birders to address the concerns raised in this issue of Oregon Birds. The principal task is to realize the gravity of the situation, that the 1990s will be a historic phase of human and planetary history. What is done now regarding conserving and wisely developing tropical habitats will have global consequences — even to the Pacific Northwest, as I have argued — for centuries to come. The migration of birds serves as one of the best symbols of our global interconnectedness.

Wetlands and dry tropical forests are of primary concern to migrating birds, yet relatively little is known about the status of these habitats in Latin America. Conservation International and The Nature Conservancy: Latin America Program are making concerted efforts to construct a natural data base inventory in most Latin American countries, much like the programs carried on in most U.S. states. These 2 organizations especially deserve our support. Other groups active in conserving habitats critical for Pacific Northwest migrants include the World Wildlife Fund, the Environmental Defense Fund, Wildlife Conservation International, and the Rainforest Action Network. A group that is especially effective in the critical habitats of Central America is EPOCA — the Environmental Project on Central America, affiliated with the Earth Island Trust in San Francisco.

As both amateur and professional birders here in Oregon and the Northwest, we ought to be more carefully monitoring the populations of the indicator species we have identified. Declines in these species serve as early warning signals of difficulties in regions of importance to “our” birds, whether those regions are thousands of miles away in the neotropics or right here on the breeding grounds themselves. The data base is weak but growing; much more banding needs to be done to determine where specific Oregon populations are wintering and what habitats they are actually using.
LITERATURE CITED


Appendix

Wintering Habitats Used by Nearctic Migrants in the Neotropics (adapted from Rappole et al. 1983)

For explanation of Code, see pages 12-15:

I. Shrub-Steppe Habitats
(1) Alpine (Alp)
(2) Desert (Des)
(3) Grassland (Grsl)
(4) Savanna (Sav)
(5) Scrub (Scr)

II. Wetland Habitats
(1) Freshwater wetlands (Frsh)
(2) Brackish wetlands (Brksh)
(3) Seashore (Shor)
(4) Coastal marine (Mar)

III. Forested Habitats
(1) Coniferous (Conf)
(2) Mixed Coniferous Broadleaf (Conf/Dec)
(3) Deciduous (seasonal) Broadleaf (Dec)
(4) Broadleaf Evergreen (Trop)
(5) Gallery (Gal)

Shrub-Steppe
(1,2,3,4,5)

Wetland
(1,2,3,4)

Forested
(1,2,3,4,5)

Pied-billed Grebe
Eared Grebe
Western/Clark's Grebe

[Procellariiformes not covered]

American White Pelican

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<table>
<thead>
<tr>
<th>Species</th>
<th>Habitat</th>
<th>Notes</th>
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<td>Alder/Willow Flycatcher</td>
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<td>Gray Flycatcher</td>
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<tr>
<td>Western Flycatcher</td>
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<tr>
<td>Say's Phoebe</td>
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<td>Ash-throated Flycatcher</td>
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<td>Eastern Kingbird</td>
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<td>Tribe Swallow</td>
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OREGON BIRDS 16(1): 24, Spring 1990

OREGON BIRDS 16(1): 25, Spring 1990
Population Trends of Oregon’s Neotropical Migrants

Brian Sharp, Nongame Biologist, U.S. Fish and Wildlife Service, 1002 N.E. Holladay Street, Portland, OR 97232

Introduction
The majority of the birds breeding in the Pacific Northwest are migratory, and 49 percent are long-distance migrants wintering in the tropics. Most such species in fact spend more time in the tropics than they do on the breeding grounds (Keast and Morton 1980; Rappole et al. 1983).

Populations of breeding birds in North America are monitored by the Breeding Bird Survey, which is organized by the U.S. Fish and Wildlife Service and conducted annually with the assistance of qualified volunteers. This survey, designed to measure breeding bird population trends, has revealed that populations of some species are showing long-term declines in Oregon. A great deal of concern has been expressed (e.g., Vogt 1970) that such declines may be caused in part by the destruction of tropical forest, which is wintering habitat for these North American migrants. This paper presents available Breeding Bird Survey data for neotropical migrants from Oregon and the Pacific Northwest, and examines possible reasons for the observed population trends.

Methods
The Breeding Bird Survey (henceforth BBS) consists of approximately 1970 randomly located roadside routes throughout the United States and Canada. In the western United States, the survey began in 1968, so data have now been collected for 21 years, through 1988. In Oregon, there are 62 established routes, of which about 45 have been run in any typical year, though most routes are now covered. The survey is conducted annually at the height of the breeding season, from late May to early July. Each route basically consists of 50 3-minute stops spaced 1/2 mile apart, at which all birds seen or heard are recorded. The running of a route usually takes about 4 1/2 hours. A printout of the statistically-analyzed data through 1987, showing population trends for the 20 years between 1968 and 1987, was obtained from the U.S. Fish and Wildlife Service in Laurel, MD. Data from 1988 were not yet computerized and thus were not available at the time of this writing.

The U.S. Fish and Wildlife Service also maintains a banding and encounter file of birds banded in North America. A printout was...
obtained of records of birds banded in the Pacific Northwest (Oregon, Washington, British Columbia, and Idaho), and encountered in Latin America, or banded in Latin America and encountered in the Pacific Northwest. The file included records computerized as of September 1987. These data were examined for clues as to what is happening to Pacific Northwest migrants on the wintering grounds.

Results

BBS and band recovery data are presented in Appendices 1 and 2. The BBS data presents the observed yearly average population changes that have occurred each year for the past 20 years. Asterisks indicate whether these changes are statistically significant, with 3 asterisks indicating the most reliable data, with a probability of 99 percent, 2 asterisks 95 percent, and 1 asterisk not quite significant at 90 percent. If there is no asterisk, the change is not statistically significant and can be ignored unless other data are independently supportive of the trend. Percent annual population changes are presented for Oregon separately, and for the region as a whole (the 5 western states). If population changes are statistically significant in states adjacent to Oregon, the annual changes, positive or negative, are provided in the comments column. These data allow the reader to determine if any significant population changes in Oregon carry over to adjacent states, or are of regional scope.

Another measure of population change is the proportion of survey routes in Oregon on which a species is increasing or decreasing. If this proportion is statistically significant, it has been presented in the comments column. Pertinent information on wintering habitat for passerine species (taken from the AOU Checklist for North American Birds, 6th edition) is also presented in the comments column.

Available band encounter data are presented in Appendix 2, except waterfowl band recoveries, which are too numerous to summarize in this paper.

Oregon populations of 19 bird species show statistically significant declining trends (2 or 3 asterisks), and 6 more show almost significant declines (1 asterisk). Nine species show significantly increasing trends, with 2 additional species showing an almost significant increase. These data are summarized in Table 1.

Additional decreasing species on the basis of “proportion of routes” are Cinnamon Teal, Cooper’s Hawk, Band-tailed Pigeon, Rufous Hummingbird, Ruby-crowned Kinglet, Swainson’s Thrush, Solitary Vireo, Yellow Warbler, and Lark Sparrow. Increasing species on the basis of proportion of routes are Dusky Flycatcher and Warbling Vireo. On the basis of both proportion of routes and trend data, it can be said that the Rufous Hummingbird and Dusky Flycatcher, both shown above in Table 1, are significantly decreasing and increasing, respectively.

There are thus a total of 33 decreasing species and 12 increasing in Oregon. Populations of 123 species of Oregon migrants to the tropics are either stable, or changes are not statistically significant.

### Table 1. Declining and increasing breeding bird species populations in Oregon

<table>
<thead>
<tr>
<th>Declining</th>
<th>Increasing</th>
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<tbody>
<tr>
<td>Western/Clark’s grebe</td>
<td>Great egret</td>
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<tr>
<td>American bittern</td>
<td>White-faced ibis</td>
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<tr>
<td>Northern pintail</td>
<td>Canvasback</td>
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<tr>
<td>Blue-winged teal</td>
<td>Redhead</td>
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<tr>
<td>American wigeon</td>
<td>Osprey</td>
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<td>Turkey vulture</td>
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<tr>
<td>American kestrel</td>
<td>Caspian tern</td>
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<tr>
<td>Killdeer</td>
<td>(Dusky flycatcher)</td>
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<tr>
<td>(Ring-billed gull)</td>
<td>(Bank swallow)</td>
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<tr>
<td>Forster’s tern</td>
<td>European starling</td>
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<tr>
<td>Mourning dove</td>
<td>Wilson’s warbler</td>
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Trends for species in parentheses are not quite significant (P ≤ .10)

Species accounts

The rest of this discussion focuses on those species that are shown as declining in Table 1 and Appendix 1, and attempts to provide insights into or explanations for the observed population changes. In particular consideration is given as to whether wintering ground problems in Latin America might be responsible for the observed declines.

**Western/Clark’s Grebe** — (Note: Data for Western and Clark’s Grebes have not been separated in the BBS database). The negative yearly population trend, though significant, is small and appears to be localized. The high water levels of the last several years in the Harney Basin have resulted in a temporary lack of emergent nesting cover, which has prevented or reduced breeding by “Western” grebes.

**American Bittern** — Although a highly significant negative population trend of 7.4 percent a year is indicated for Oregon, there is no overall change in the Region and the trend is up slightly in California. Therefore, one would conclude that factors adversely affecting American

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Bitterns in Oregon are of a localized nature, and that an explanation of the observed population change should be sought within the state, e.g., loss of marshes that are extensive enough to hold bitterns.

**Northern Pintail** — Breeding pintail populations are down everywhere in the region and continent-wide. Drought and extensive drainage of wetlands in the prairies are the primary causes. The bulk of the pintail population, including Oregon’s relatively small contribution, winters in the Central Valley of California, where much habitat has been lost to agriculture and drainage. It is quite likely that wintering-ground problems — drainage, perhaps in conjunction with over-harvest and lead poisoning, are adversely affecting Oregon’s birds. It is unlikely that the observed widespread declines are related to neotropical wintering ground considerations, although conversion of wetlands to agriculture is occurring in Mexico also.

**Blue-winged Teal** — Oregon’s contribution to the Blue-winged Teal population is relatively minor. There has been a significant decrease in Oregon and Idaho which is not carried over into a regional decline, though continental populations are down 25 percent over the past 33 years. It is likely, therefore, that observed state-wide changes are connected to the overall problems on North American breeding grounds, which, as with other ducks, consist of wetland (poothole) drainage. However, Blue-winged Teal do winter extensively and are hunted in Latin America, and it is possible that populations cannot withstand the wintering mortality in conjunction with breeding habitat destruction.

**American Wigeon** — Although significant, the indicated population change for Oregon is based on a very limited sample, and the Oregon wigeon breeding population is small. Without additional information it is difficult to surmise why the observed change has occurred, or how real it is. Continent-wide, populations of wigeon have increased.

**Turkey Vulture** — There has been a widespread and highly significant decline in Turkey Vulture numbers throughout the region and, except for Nevada, on a state-by-state basis. The possibility of a shift in distribution cannot be discounted for such a wide-ranging species. However, it is more likely that something adverse, probably contaminant-related, perhaps strychnine poisoning for ground squirrels, appears to be affecting this species, and further investigation is most definitely warranted. This species has appeared on the Audubon Society’s “blue list” of species that need to be watched (Tate 1986). It is not known where Oregon Turkey Vultures winter, and additional banding effort would be helpful. Vulture wintering ecology should be investigated. One would think that the increase in cattle grazing in Central America would benefit vultures.

**American Kestrel** — The Kestrel decline in Oregon is not carried over to the region as a whole, and appears to be localized. One would therefore think that wintering ground problems are not the explanation for the observed Oregon decline, unless Oregon birds winter differentially in areas of high pesticide use, which seems unlikely.

**Killdeer** — Again, the decline in Oregon does not carry over to the region and appears localized. Any changes would thus seem to be related to what is happening within the state rather than on tropical wintering grounds. The Killdeer occupies open, disturbed habitats, and we are at a loss to explain the observed downward trend, since such habitat would seem to be abundant.

**Ring-billed Gull** — The almost significant decline in Oregon is not reflected in the regional data. Therefore, the observed change may not be real, and it is unlikely that the explanation for the observed change is related to that portion of the wintering range that extends to the tropics.

**Forster’s Tern** — Highly significant declines in both Oregon and Idaho, a negative trend in the region, and comments by observers as to the decreasing prevalence of this species in Oregon, indicate that the decline in Forster’s Terns is real and warrants concern. It is possible that loss of marshland/wetland habitat within the state is contributing to the decline. However, Forster’s Terns winter on the west coast of Mexico and Central America, where almost all of the lowland tropical forest on the Pacific slope has been converted to cotton and other agricultural crops. Growing cotton depends on the heavy application of pesticides, and Forster’s Terns may thus be subject to pesticide runoff from Pacific slope agriculture. Further investigation of Forster’s Terns, both on breeding and wintering grounds, seems warranted.

**Mourning Dove** — Dove populations are down significantly in Oregon and in the region as a whole, and since Mourning Doves are hunted in the west, the population changes are of concern to wildlife managers. There are no clear indications that there are productivity problems or breeding habitat changes that are contributing to this widespread decline. A likely contributing factor is hunter harvest. Band recoveries indicate that Oregon birds winter as far south as the west coast of Mexico.

**Rufous Hummingbird** — The almost significant 2.8 percent annual population change in Oregon is supported by the fact that the Rufous Hummingbird is declining on 68 percent of the routes in Oregon. However, any such decline is restricted to the state and is not regional in extent. Therefore, except to say that the explanation should be looked for within the state, the information on hummingbirds is rather too limited to be able to hypothesize the reason for the changes.

**Olive-sided Flycatcher** — The BBS data reveal widespread and highly significant declines in state and regional breeding populations of this species, including Oregon. The reasons for the observed changes, however, are unclear. The species is found during the breeding season in more open forest, even thinned stands. However, it has disappeared from formerly-occupied habitat, even where the habitat is protected, e.g., Kings Canyon National Park (Marshall 1988). Therefore, unless some behavioral factor is involved, e.g., intolerance of disturbance, the conclusion seems inescapable that something like tropical deforestation is adversely affecting these birds on the wintering grounds in South America.
America. However, information as to precisely where these birds are wintering, what kind of habitat is being utilized, and what is happening to the habitat, need further investigation.

**Western Wood-Pewee** — As with the preceding species, the BBS also shows widespread and highly significant population decreases in Oregon, neighboring states, and in the region. The reasons for the observed changes are unknown. It cannot be discounted that wintering habitat changes in South America are a factor, but more information is needed on wintering habitat use and habitat trends. It has also been hypothesized that cowbird parasitism may be a factor, due to the fragmentation of western Oregon forests, which has allowed cowbirds, an open country and edge species, to gain access to forest interiors. However, Cowbird populations in Oregon have themselves declined recently (see below), and whether both Wood-Pewee and Cowbird population trends will continue to be negative remains to be seen.

**Willow Flycatcher** — (Note: Although the "Traill's" flycatcher was separated into 2 species, the BBS data for the Willow Flycatcher in Oregon were for many years filed under the "Traill's" designation, and these data are used here.) Although this flycatcher is still widespread and common in Oregon, its numbers and distribution have decreased in Oregon, neighboring states, and in the Region. (Though the data show an increase in California, large reductions in range preceded the survey, that is, occurred before 1968.) Due to the character of wintering habitat (shrubs, etc.) it would seem unlikely that wintering habitat is the limiting factor. It is more likely that breeding habitat changes — the destruction of riparian habitat, particularly in eastern Oregon, due to grazing, and the fragmentation of western Oregon forest, allowing the invasion of cowbirds — have contributed to the observed declines (Sharp 1987).

**Hermit Thrush** — Although there is a slight, but non-significant, declining trend in Oregon, this is not carried through to the region as a whole, or to adjacent states. The information is therefore insufficient to hypothesize wintering ground problems.

**Loggerhead Shrike** — Widespread significant declines in Loggerhead Shrike populations are indicated on a state-wide, regional, and even continental basis, the reason(s) for which remain a mystery. Pesticides were thought to be a possible factor, but contaminant studies have failed to substantiate a problem. Land use changes on both breeding and wintering grounds needs to be examined in detail. Climatic change is another possibility.

**Red-eyed Vireo** — Red-eyed Vireos, which are at the edge of their range in the Pacific Northwest, are showing significant negative trends in the Region. Since the species is increasing nationally (Robbins et al. 1986), wintering ground problems specific to Pacific Northwest birds are a possibility. Wintering habitat is given as a variety of forest and scrub (AOU Checklist, 6th Edition), which is too imprecise and general to be used as a basis for understanding. Breeding habitat changes cannot be discounted.

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**Western Tanager** — Since the decline of 3.1 percent per year in Oregon is not carried over to the region, and since the Western Tanager occupies a variety of habitats in winter, the possibility of adverse changes on Central American wintering grounds seems unlikely. However, data from the first 15 years of the BBS indicate a decline in tanagers west of the Rocky Mountains (Robbins et al. 1986). Could the reduction in tanager numbers be a reflection of the conversion of uneven-aged stands to even-aged commercial forest, which may provide insufficient breeding and/or feeding habitat? Or could the Oregon declines be a localized response to pesticide use for spruce budworm and tussock moth control in Oregon's national forests?

**Black-headed Grosbeak** — Negative but non-significant trends in Oregon and Washington are supported by a negative significant trend for the region as a whole. It is difficult to believe that breeding ground problems are causing these changes, since the species breeds in deciduous second growth, a habitat that would seem plentiful in the state (except in some areas east of the Cascades, where riparian habitat has been modified). Perhaps there is a wintering habitat problem in Mexico that needs further investigating.

**Lazuli Bunting** — The BBS provides indications of a widespread incipient decline, including a declining tendency in Oregon. The Lazuli Bunting occupies a variety of shrubby habitats, which would seem not to be limiting, although riparian modification east of the Cascades may be a contributing factor. Since the species uses weedy and grassy wintering habitats, a wintering ground explanation for the observed changes seems unlikely.

**Chipping Sparrow** — Declines in the Oregon population are also reflected in adjacent states and in the region. Since the species uses upland open woods and scrub in winter, it seems unlikely that wintering ground changes are responsible for the observed trends. In eastern Oregon, at least, Chipping Sparrow populations have probably greatly increased since pioneer settlement in response to juniper invasion of grasslands (Sharp 1985). With the current trend toward juniper clearing, a decrease in Chipping Sparrows might be expected. The use of pesticides on western forests and rangelands may be a factor contributing to the decline.

**White-crowned Sparrow** — The declining tendency in Oregon is part of a more general, highly significant regional decline for this species. Since White-crowned Sparrows use shrubby habitat in winter, it would appear that habitat availability in winter in Latin America is not the limiting factor. It is more likely that the control of birds depredating California agricultural crops is the principal reason for the observed changes. In California there are preliminary estimates of tens of thousands of White-crowned Sparrows, House Finches, and Horned Larks being killed by poisons put out to protect crops (U.S. Fish and Wildlife Service, unpublished data).

**Brown-headed Cowbird** — The 20-year downward population trend in Oregon reverses a longer-term increase in Cowbirds that...
declining neotropical migrants do not include any of the Pacific Northwest species. For many species, the sample sizes from the Breeding Bird Survey may be too small to show trends that are statistically significant. In addition, the data from the BBS are available only from 1968, and declines of some species, e.g., the Yellow-billed Cuckoo and Common Nighthawk, preceded the survey's inception. Some Oregon species that are not neotropical migrants are also declining, but these are not the subject of the present paper. Obviously, responsibility for declines in resident and short-distance migrants cannot be ascribed to changes on neotropical wintering grounds.

It will also be noticed how few of the population changes for species of nongame birds we can readily explain. At the moment, the state of the art is to document the changes themselves, and then to begin to ask the questions as to why the changes are occurring. From the foregoing discussion it will have been seen that only a few of the declines of Pacific Northwest species can be ascribed tentatively to wintering ground problems in Latin America. With additional information, it might become evident that we are indeed losing Northwest species because of habitat loss in the tropics. However, while much more work on wintering ecology is needed, it appears that few of the 169 Oregon neotropical migrants are dependent on tropical lowland evergreen forest (see Love 1990, for habitats used by Oregon's tropical migrants). In a recent study, for example, Robbins et al. (1987) could document that only 2 North American species, the Gray-cheeked Thrush and Louisiana Waterthrush, were dependent on extensive areas of tropical forest. We may find that the reasons populations of neotropical migrants are declining are to be found to some extent within the borders of the United States, and even within Oregon.

It may come as somewhat of a surprise that the foregoing lists of declining neotropical migrants do not include any of the Pacific Northwest warblers. Most of these are generalists on their wintering grounds, and occupy a variety of shrubby second growth, or edge habitats in Latin America. Therefore, these groups of species might even be expected to benefit from forest conversions to rangeland, agriculture, etc. On the other hand, it is very clear that the tropical endemics—the residents—are suffering from the fragmentation of tropical forest (Robbins et al. 1987). Since the distribution of tropical species is characterized by low numbers of individuals and high numbers of species per unit area, it is understandable how such species would be more severely affected by loss of extensive tracts of forest.

This is not to underestimate the habitat changes that are occurring in the tropics. In Central America, the clearance and fragmentation of the Pacific lowland and Pacific slope forests, the areas in which Northwest birds most likely winter, is especially worrisome, and such forests exist only as remnants. This is the area of most fertile soils in Central America, and these have been converted to agriculture, some of which, e.g., cotton, are protected by heavy use of pesticides. In the forested interior, much clearing is taking place to convert forest to rangeland, for the raising of cattle for export. In fact, much of the tropical forest destruction in Central America is an attempt to convert tropical forest to cash crops for export, in part to attempt to deal with the foreign debt problem. Such changes may be having a long-term impact on North American migrants, but the effects of changes are apparently not as obvious as was previously thought.

Obviously, there is a dearth of specific information. The banding data are very limited, and we have virtually no idea where migrants from any particular state or region are spending the winter. The recovery rates of passerines are so low that filling this data gap soon is unlikely. For some of the larger or more conspicuous species, e.g., Forster's Tern, Turkey Vulture, recovery rates are higher and banding would be productive. However, these species are dispersed on the breeding grounds, and the difficulty would be to capture and band a large enough sample to be meaningful. From the limited amount of banding data available, it will be noted that shooting is the major method of collecting the information from banded birds in the tropics.

**LITERATURE CITED**


### Appendix 1. Annual Changes (percent) in breeding season populations in Oregon and in the Western Region (CA, OR, WA, ID, NV), 1968-1987. (February 23, 1989). See page 28 for explanation of significance levels.

<table>
<thead>
<tr>
<th>Species</th>
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<th>Comments</th>
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<td>0.80</td>
<td>7 bend recoveries, 5 shot (1 Caribbean coast)</td>
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<td>2.7**</td>
<td>7 band recoveries, all Western Mexico south to Guerrero</td>
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OREGON BIRDS 16(1): 36, Spring 1990

OREGON BIRDS 16(1): 37, Spring 1990
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<td>Tree swallow</td>
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<td>-0.31</td>
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<td>-0.76</td>
<td>-4.2**</td>
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<td>House wren</td>
<td>1.8</td>
<td>1.6</td>
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<tr>
<td>Marsh wren</td>
<td>13.6</td>
<td>6.2**</td>
<td></td>
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<td>B.-gray gnatcatcher</td>
<td>-</td>
<td>6.9***</td>
<td></td>
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<tr>
<td>Mountain bluebird</td>
<td>2.0</td>
<td>1.5</td>
<td>-9.2**</td>
<td>ID, +6.3** WA</td>
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<tr>
<td>Veery</td>
<td>1.3</td>
<td>-3.5</td>
<td>-9.2**</td>
<td>WA</td>
</tr>
<tr>
<td>Swainson’s thrush</td>
<td>-1.2</td>
<td>-0.67</td>
<td>Decreasing on 69% of routes in Oregon</td>
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<tr>
<td>Hermit thrush</td>
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<td>-0.14</td>
<td>+10.8**</td>
<td>WA</td>
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<tr>
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<td>-5.7**</td>
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<td>2.9***</td>
<td>2.0**</td>
<td>+5.0**</td>
<td>WA</td>
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<td>0.83</td>
<td>-5.6**</td>
<td>WA, -16.7** ID, +3.3** CA Decreasing on 65% of routes in Oregon Wintering: variety forest and scrub</td>
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<td>Warbling vireo</td>
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<td>2.2**</td>
<td>-10.5**</td>
<td>ID, -5.2** WA Wintering: variety forest and scrub</td>
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<tr>
<td>Red-eyed vireo</td>
<td>-5.2***</td>
<td>-5.7**</td>
<td>-10.5**</td>
<td>ID, +5.2** WA Wintering: variety forest and scrub</td>
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<td>-</td>
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<td>-1.5</td>
<td>-5.1**</td>
<td>WA, -17.6** ID Wintering: edge</td>
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<td>2.3</td>
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<td>Y.-rumped warbler</td>
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<td>+4.4**</td>
<td>CA Wintering: forest, 2nd growth</td>
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Appendix 2. Summary of band encounter data for Pacific Northwest migrants to the tropics and northern Mexico.

WATERBIRDS

Eared grebe 2 encounters, banded ID: 1 shot Sinaloa, 1 shot Baja.
American white pelican 44 encounters banded OR: Baja 3, Sonora 4, Sinaloa 18, Durango 1, Nayarit 5, Jalisco 4, Colima 1, Michoacán 2, Guerrero 4, México D.F. 1, unknown México 1. 19 shot
California gull 13 encounters: Baja 8, Sonora 3, Nayarit 1, Guanajuato 1. 5 shot
Ring-billed gull 13 encounters: Baja 4, Sonora 8, Guanajuato 1. 7 shot
Caspian tern 37 encounters, 36 banded WA, 1 banded ID: Sonora 6, Sinaloa 20, Nayarit 4, Zacatecas 1, Colima 1, Jalisco 2, Chiapas 1, Guatemala 1. 16 shot
Forster's tern 1 encounter, found dead Sonora, banded WA.
Black tern 2 encounters: 1 shot El Salvador, banded OR, 1 shot Sinaloa, banded B.C.
D. -crested cormorant 1 encounter, shot Sonora (Dec.), banded Malheur.
Brown pelican 1 encounter, banded Baja, found dead near Brookings, OR (Aug.)
American coot 2 banded WA, 1 banded ID: Sinaloa 3, Chihuahua 1, Jalisco 2, Michoacán 1, México 1.

WADING BIRDS

White-faced ibis 2 encounters, banded ID: 1 shot Sinaloa, 1 shot Baja.
D-Spotted sandpiper 3 encounters banded OR: Sonora 1, Sinaloa 1, Guerrero 1, banded ID: Sinaloa 1, Durango 1, Sinaloa 1, Guanajuato 1, unknown México 1. 15 of 18 shot
Great blue heron 1 encounter, shot Baja, found dead near Brookings, OR, (Aug.)

GREYHERON 14 encounters banded OR: Sonora 9, Sinaloa 3, Baja 1, Jalisco 11. 8 shot
Grey egret 5 encounters banded ID: Sinaloa 2, Colima 1, unknown México 1, Guatemala (south coast) 1. 1 shot
Snowy egret 1 encounter, shot Nayart, banded ID

B. -crowned I-Heron 1 encounter banded OR: Veracruz; 3 encounters banded WA: Sonora, Sinaloa, Nayart; 16 encounters banded ID: Sinaloa 5, Nayart 4, Chihuahua 1, Tamaulipas 1, Colima 1, Michoacán 1, unknown México 1, Veracruz 2. 14 of 20 shot

G. Sandhill Crane 7 encounters banded ID: Chihuahua 1, Durango 1, 6 shot

SHOREBIRDS

Least sandpiper 1 encounter, banded B.C., early Aug. shot Guanajuato early March.
Western sandpiper 2 encounters: 1 banded B.C. early Sept. shot Surinam mid-April; 1 banded Costa Rica early Oct. recaptured B.C. April 2 1/2 yrs later.

DOVES

Mourning dove 40 Mexican encounters banded OR, 36 from west coast México, 32 from tropical México: Baja 2, Sonora 1, Sinaloa 3, Nayart 2, Zacatecas 2, Guanajuato 2, Jalisco 14, Michoacán 11, Colima 1, Guerrero 1, Oaxaca 1.

RAPTORS

Osprey 5 encounters banded OR: Sinaloa 2, Jalisco 1, Chiapas 1, Costa Rica 1; 3 encounters banded WA: Hidalgo, El Salvador, Costa Rica; 21 encounters banded ID: Baja 1, Sinaloa 2, Chihihuahua 1, Nuevo Leon 1, Coahuila 1, Jalisco 1, Colima 1, Michoacán 3, Chiapas 1, Guatemala 1, El Salvador 2, Honduras 2, Costa Rica 1, Panamá 1, Ecuador 1.

Northern harrier 1 shot Chihuahua banded OR.
The distribution of the birds of Middle America has been of special interest to me for some time. My own personal project has been to generate maps to show the distribution of all the birds of Middle America and these I plan to publish. This project, now in its final stages, includes over 1200 maps covering about 1400 species.

The maps following this article show wintering areas of some of our Oregon birds which breed in Oregon but migrate through or winter in Middle America. These were adapted from the maps I have drawn for my project.

Some problems do exist in drawing such maps. There still are some gaps in the available information. Particularly, it is difficult to plot ranges for some birds in Mexico because of the complexity of the ranges. Also, no books have been written devoted exclusively to the distribution of the birds of Nicaragua. Various published articles fill in the gaps for certain selected areas. The 1983 AOU Checklist gives the distribution of the birds of North America, but often in only a very general way.

A difficulty exists in determining the winter ranges of the Empidonax flycatchers. None of these are shown as wintering in the Yucatán peninsula, and this follows all of the cited literature. However, the Christmas Bird Counts for Belize City and Belmopan, Belize, as well as those for Uxmal and Sayil, Yucatán, regularly show numbers of Empidonax flycatchers, all lumped together under the designation “Empidonax flycatchers”. Robert Ridgely (1986) points out that, although the “empies” do not often sing in winter, they do call frequently and “the calls combined with certain morphological characters can make a convincing identification.”

Where a species consists of more than 1 subspecies, further problems exist, since the subspecies breeding in Oregon may have a different wintering range than do the more eastern subspecies. Table 1 gives the probable wintering ranges of several subspecies of birds found in Oregon. Since the 1983 AOU Checklist seldom addresses the problem of subspecies, up-to-date information is lacking in this respect. Therefore, except for 2 cases (Audubon’s Warbler and Bullock’s Oriole), the maps do not differentiate between the subspecies.

Certain species presented additional mapping problems. The Red-eyed Vireo is one of these. The usual migration route is east of the Rockies south down the Gulf/Caribbean slope of Mexico. However, the 1983 AOU Checklist states that they also migrate regularly through California (more commonly in fall). Presumably these individuals would...
move down the west coast of Mexico, and join their eastern relatives in southern Mexico in their southward movement. I could find no specifics, so have not plotted that route on the map.

Although there appears to be some relationship between a decline in some eastern songbird populations and destruction of tropical forests and/or fragmentation of eastern forests (Erlich et al. 1988), perhaps our western songbirds are not as much affected. According to Alexander Skutch, "The one generalization we can make about the migrations of the wood warblers is that species which breed in the mountains of western North America tend to winter in the highlands of Mexico and northern Central America, whereas those which nest in the east or far north are far more erratic in their choice of a winter abode." (Griscom 1979, p. 218).

Alexander Skutch found that in mid-winter, when migrants had settled into their southern home, the altitudinal preferences of some species were clearly evident. Yellow Warbler, American Redstart, and Yellow-breasted Chat, among others, settled down at low or moderate altitudes. Some warblers, such as the "Myrtle Warbler," were seen in mid-winter from sea level up to 8500 or 9000 feet in the mountains (Griscom 1979, p. 219). On the other hand, Townsend's Warbler, Yellow-rumped, Hermit and MacGillivray's Warblers were found in the highlands (in the pine and pine-oak or fir forests). Such species-specific habitat choices make mapping winter ranges quite difficult.

To illustrate the complexity of mapping winter ranges I will focus on the wood warblers. The Yellow Warbler chooses for its winter quarters the brushy pastures, hedgerows, or dooryard shrubbery, and in the Central American lowlands it is often associated with man. MacGillivray's Warbler prefers fields with low, dense vegetation, chiefly in the highlands. Northern Waterthrushes "haunt the watercourses in their winter as in their summer homes, but in the tropics they also forage over trimmed lawns or bare ground at a distance from water, often close about the dwellings of men, although they are shy and take flight as soon as a human appears. Species which breed in coniferous forests may also winter among conifers in the highlands and even at lower elevations in central Central America ..." (Skutch in Griscom 1979, p. 220).

Wintering warblers often are quite adaptable in their southern homes. For example, in El Salvador, Wilson's Warbler is a common winter visitor, from 3500 to 8500 feet. Here, "this warbler is chiefly an inhabitant of low growth beneath the forest. Coffee groves are particularly favored in the lower elevations. On Los Esesmiles many were noted in the cloud forest, but there were even more in the arid associations such as oak scrub, bracken beneath the pines, and blackberry tangles along small watercourses" (Dickey and van Rossum 1938, p. 503).

A summary of all migratory wood warblers found on Christmas Bird Counts in the neotropics (Pashley and Martin, 1988) gives information for 301 neotropical terrestrial counts at 53 different sites. For the species covered in my article, the indication is that most of these birds are still relatively common in their winter ranges. The most common species was the Wilson's Warbler, particularly in eastern Mexico, less so in Western Mexico. Second to this was the Northern Waterthrush, found on 196 counts at 33 sites. It was considered the most commonly reported species in the Caribbean region.

The Townsend's Warbler winters in mountainous pine or pine-oak woodlands, a habitat rarely sampled in the CBC's. It showed up sparingly at 8 sites in Mexico, more commonly at 2 more in the highlands, and also at the 3 CBC sites in Guatemala and the 1 site in El Salvador. Alexander Skutch had reported this to be the most abundant migratory warbler in Guatemala between 2000 and 10,000 feet (Bent 1953).

According to Emmett Blake, of the essentially western warblers — Townsend's, Hermit, and MacGillivray's — none can be considered uncommon in Mexico. The first 2 range over much of the western portion of Mexico (Townsend's south to Nicaragua), but only MacGillivray's is widespread in winter, being found from coast to coast, and southward to Colombia. On the other hand, most of the warblers breeding across North America have extensive wintering grounds. Nashville and Wilson's Warblers, Northern Waterthrushes, and American Redstarts are widespread in winter (Griscom 1979, pp. 203-204).

Some of the wintering warblers were found to be present in their winter ranges for well over half a year. (E.g. Yellow Warbler—early August to mid-May, Wilson's Warbler—September 3 to May 22, Townsend's Warbler—September 2 to May 2.) This is for the species as a whole, as we lack banding records to show how long particular individuals remain in their winter home (Griscom 1979, p. 221).

The social status of the wintering birds varies. Yellow-rumped Warblers are very gregarious, associating with other resident birds. Skutch also considered Townsend's Warbler among the most social. It forms the nucleus of the mixed species flocks of small birds, resident and migratory, that wander through the highland forests (Griscom 1979, p. 220). However, most of the wintering birds are solitary, especially those at lower elevations. In Costa Rica, Skutch found that the Olive-sided Flycatcher, when it occurs, is always solitary (Bent 1942, p. 300), much like it behaves on the breeding grounds.

Some of these winter visitors — the Yellow Warbler, for example — claim winter territories upon arrival in autumn and fight for suitable area. In a garden in the Guatemalan highlands, Skutch saw 2 newly-arrived Wilson's (Pileolated) Warblers fighting earnestly on the ground, apparently for possession of the garden (Griscom 1979, p. 220).

In conclusion, I would say that the maps which follow will give a fairly good representation of the winter ranges or migration routes for the species covered. It is anticipated that further research will necessitate making some changes in the maps before I finally publish them for my project. As to the specifics of where our Oregon birds may be spending the winter, reference to Table 1 may give helpful information. For a very few maps banding recovery data are shown by a small rectangle (in one case with a figure "2" showing 2 returns for that state).

Little else is known about our Oregon birds in the Mexico and Central American neotropics.
LITERATURE CITED


Table 1. The probable subspecies breeding in Oregon and the wintering area in the neotropics. Follows the 1957 AOU Checklist for the wintering areas, with the exception of 2 cases where the 1983 AOU Checklist was used and is so indicated.

MOURNING DOVE (Zonitida macroura marginella) - summer resident and breeder in Oregon. Casual winter resident. Migrants over most of the breeding range, to small numbers north to British Columbia, Idaho, and Minnesota, but mainly from northern California, southern Nevada, central Arizona, central Colorado, Nebraska, and Iowa south through Mexico and Central America to central Panama.

WESTERN WOOD-PEWEE (Contopus sordidulus veliei) - summer resident and breeder throughout Oregon. Winters from Colombia and Venezuela south to Peru and Bolivia, casually north to Costa Rica. Migrates through Middle America, occurring in lowlands on both slopes as well as in highlands (1983 AOU Checklist).

WESTERN FLYCATCHER (Empidonax difficillus difficillus) - summer resident in Oregon. Winters from southern Baja California, rarely from northern Sonora, south to southern Sinaloa and southern Oaxaca.

SAY’S PHOEBE (Sayornis saya saya) - summer resident in Oregon. May winter casually. Winters north to northern California, northern Arizona, central and southeastern New Mexico and southern Texas, and south to southern Baja California, and the states of Mexico, Puebla, and central Veracruz.

ASH-THROATED FLYCATCHER (Myiarchus cinerascens cinerascens) - summer resident in eastern Oregon, and Rogue River Valley west of Cascades. Winters from northern Baja California, southeastern California, central Arizona, and southern Tamaulipas south to Guatemala and El Salvador, casually to Costa Rica; rarely in southwestern California.

NORTHERN ROUGH-Winged SWALLOW (Stelgidopteryx serripennis serripennis) - summer resident and breeding in Oregon. Winters from northern Mexico, northern Arizona, and southern Baja California south to the breeding range in Mexico and Central America, and south to Panama; breeding populations from the lowlands and central interior of Mexico southward are generally sedentary.

HERMIT THRUSH (Catharus guttatus poliocephala) - breeds in the Blue Mountains of eastern Oregon. Although 4 subspecies of Hermit Thrushes occur in Oregon, this is the only one that reaches the neotropics. Winter specimens have been taken from southeastern Arizona, Nuevo Leon, Tamaulipas, and Guatemala.

LOGGERHEAD SHRIKE (Lanius ludovicianus gambelli) - summer resident and breeding species east of Cascades in Oregon. Winters from central Washington south to southern Baja California, Michoacán, and Morelos.

ORANGE-CROWNED WARBLER (Vermivora celata) - breeds in Oregon west of the Cascades. Winters from central California through western Mexico and Guatemala.
V. c. lutescens - breeds in Oregon west of the Cascades. Winters from central California through western Mexico and Guatemala.
V. c. orestera - breeds in eastern Oregon. Winters from southeastern California, Nevada, Arizona and Texas south to southern Baja California, Michoacán, Puebla, and Tamaulipas.

NASHVILLE WARBLER (Vermivora ruficapilla ruficapilla) - breeds in western United States. Winters southern Sonora and Durango south through Mexico, except Yucatán, to Guatemala.

YELLOW WARBLER (Dendroica petechia morcomi) - breeds in Oregon. Winters southern Baja California, Guerrero and Veracruz south through Central America to northern South America.

YELLOW-RUMPED WARBLER (Dendroica coronata) - breeds in eastern Oregon. Winters Baja California to Guatemala, except Yucatán.
D. c. auduboni - breeds in western Oregon. Winters Baja California to Guatemala, except Yucatán.
D. c. magnifica - breeds in eastern Oregon of the Cascades. Winters south through Mexico to Guatemala.

AMERICAN REDSTART (Setophaga ruticilla tricolor) - breeds in northeastern Oregon. Winters from southern Baja California, Puebla, Veracruz, Yucatán, and Quintana Roo to northern South America to British Guiana.

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NORTHERN WATERTHRUSH (Seiurus noveboracensis notablis) - breeds in Oregon. Winters from southern Baja California, Veracruz, Quintana Roo, the Bahamas and Cuba, to northern South America.

MACGILLIVRAY'S WARBLER (Oporornis tolmiei)
O. t. tolmiei - breeds in most of Oregon. Winters from southern Baja California, southern Sonora, and Nuevo León, south to Oaxaca and through Central America to Panama.
O. t. monticola - breeds in southeastern Oregon, in the Steens and Mahogany mountains. Winters from Colima, Michoacán, and Morelos, Mexico south to Guatemala.

COMMON YELLOWTHROAT (Geothlypis trichas)
G. t. arizana - breeds in western Oregon. Winters from northern California to southern Baja California and northern Sonora.
G. t. occidentalis - breeds in Oregon. Winters from central valleys of California south through Baja California and central Mexico to Guerrero and Oaxaca, and southern Texas, Arizona and Nuevo León south to Guatemala.
G. t. campicola - breeds in northeastern Oregon. Winter range unknown, but extends to Sonora, Nuevo León and Tamaulipas, Mexico.

WILSON'S WARBLER (Wilsonia pusilla)
W. p. lutescens - breeds in Oregon west of the Cascades. Winters southern Texas, Nuevo León, south through Mexico, except Yucatán, and Central America to western Panama.
W. p. chrysoleuca - breeds in Oregon east of the Cascades and coastal ranges. Winters southern Baja California and Sonora south through western Mexico to western Panama.

YELLOW-BREASTED CHAT (Icteria virens auricollis) - breeds in Oregon except near the coast (it does breed on the southern Oregon coast). Winters from southern Baja California, southern Sinaloa, southern Texas south to Colima, Oaxaca, and central Guatemala.

BLACK-HEADED GROSBEAK (Pheucticus melanocephalus)
P. m. melanocephalus - breeds in eastern Oregon. Winters from southern Sonora, southern Chihuahua, Nuevo León, and Louisiana south to Guerrero and Oaxaca.
P. m. maculatus - breeds in western Oregon. Winters southern Baja California and Sonora south through western Mexico to western Panama.

CHIPPING SPARROW (Spizella passerina arizonae) - summer visitor in Oregon. Winters from central California, southern Nevada, central Arizona, central New Mexico, and western and central Texas south to southern Baja California, Veracruz, Guerrero and Oaxaca.

WHITE-CROWNED SPARROW (Zonotrichia leucophrys)
Z. l. leucophrys - summer resident and breeding species of higher mountains from summit of Cascades eastward (Gabrielson and Jewett 1940). Winters south into Mexico, to Sinaloa, Aguascalientes, Nuevo León, and northern Tamaulipas.
Z. l. gambeli - spring and fall migrant east of Cascades, much less common in western Oregon. Uncommon winter resident in lower valleys (Gabrielson and Jewett 1940). Winters from southern British Columbia, southeastern Washington, southern Idaho, central Wyoming, and northeastern Kansas south to southern Baja California, Tres Marias Islands, Nayarit, and southern Tamaulipas.
Z. l. pugentis - breeds in Oregon west of the Cascades. Winters from southwestern British Columbia south to southwestern California.

BROWN-HEADED COWBIRD (Molothrus ater artemisiae) - this widespread subspecies is the one breeding in Oregon. Winters from western and southern California, southwestern Arizona, northeastern Texas, and southeastern Louisiana south to southern Baja California, Michoacán, Guerrero and Veracruz.

NORTHERN ORIOLE (Icterus galbula bullocki) - breeds in Oregon. Winters regularly in coastal California, and from southern Sinaloa, the states of Mexico and Puebla south to Guatemala (casually to northeastern Costa Rica), in small numbers in the Gulf coast region from eastern and southern Texas east to southern Georgia and Florida, and casually north to central California and southern Arizona (1983 AOU Checklist).

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widespread migrant but mainly coastal & insular

M13 Bank Swallow  M14 Hermit Thrush

M15 Loggerhead Shrike  M16 Red-eyed Vireo

M17 Orange-crowned Warbler  M18 Nashville Warbler

M19 Yellow Warbler  M20 Yellow-rumped Warbler

M21 Black-throed Gray Warbler  M22 Townsend's Warbler

M23 Hermit Warbler  M24 American Redstart

Distributional Maps of Pacific Northwest Birds Using Neotropical Habitats


Of the roughly 345 regularly-occurring species of birds in Oregon (and the Pacific Northwest, by extension), we estimate that populations of 169 species spend some portion of their annual cycle in the neotropics (between the Tropics of Cancer and Capricorn, as discussed in Love 1990). The code below shows symbols used for interpreting the maps.

Most importantly, as this issue seeks to demonstrate, very little is known about the annual movements of specific Oregon/Pacific Northwest populations of most species. The following maps include various populations within the general species range. There are often resident neotropical populations which mix in unknown ways with nearctic migrant populations of the same species. These maps must be considered as a very rough first step toward increased understanding of these phenomena, and must be carefully and critically interpreted. Note that for a number of species (e.g., Common Snipe and Band-tailed Pigeon), it is obvious that various populations are covered.

The geographic and temporal distributional information depicted on these maps is highly generalized and not very accurate. You will note, for example, that the distribution of Upland Sandpiper does not include its known breeding range in northeastern Oregon. Certain taxonomic changes have occurred since 1983 which are not reflected in the maps. Note, for example, Western/Clark’s Grebe and Pacific Slope/Cordilleran Flycatcher. Nevertheless, we find these maps highly informative and provocative.

Several species require comment (most taken from Rappole, et al. 1983):

- Procellariformes — not included.
- Cinnamon Teal — few records in Central America south of Mexico.
- Osprey — may breed on the Caribbean coastal islands of Central and South America.
- Red-necked Phalarope — winters mostly at sea in the southern Atlantic and Pacific Oceans.
- Red Phalarope — winters mostly at sea, southern Atlantic and

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Franklin's Gull — many winter at sea, Humboldt Current (off western Peru).
Sabine's Gull — many winter at sea, Humboldt Current.
Arctic Tern — no map in Rappole et al. (1983), (strictly pelagic?).
Jaegers and Skua — not included.
Black Swift — winter range poorly known; irregular distribution within breeding range.
Pacific-slope/Cordilleran ["Western"] Flycatcher — includes flavescens.
Ash-throated Flycatcher — includes nuttingi; casual to Costa Rica. Purple Martin includes dominicensis, modesta, chalybea.
Northern Rough-winged Swallow — map includes recently-separated Southern Rough-winged Swallow.
Barn Swallow — winters irregularly throughout Middle America and southwestern United States.
House Wren — includes brunneicollis, musculus.
European Starling — no map included in Rappole et al. (1983).
Warbling Vireo — includes leucophrys.
Red-eyed Vireo — includes chivi, flavoviridis.
Yellow Warbler — includes erithrochelis.
Townsend’s Warbler — records from Costa Rica, Colombia.
MacGillivray’s/Mourning Warbler — thought at the time to be conspecific.
Grasshopper Sparrow — Central American populations very local.
Northern Oriole — includes bullocki, abeillei.

— Tom Love, Issue Editor

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Calliope Hummingbird

Black-chinned Hummingbird

Common Nighthawk

Short-eared Owl

Common Poorwill

Black Swift

Vaux's Swift

White-throated Swift

Broad-tailed Hummingbird

Rufous Hummingbird

Allen's Hummingbird

Belted Kingfisher

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FIELDNOTES

Oregon Birds and American Birds have synchronized reporting areas, periods, and deadlines. Field reports for eastern and western Oregon are due to the OB Regional Editor and AB Regional Editor at the same time.

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FIELDNOTES: Eastern Oregon, Summer 1989

David A. Anderson, 6203 S.E. 92nd Avenue, Portland, OR 97266

Abbreviations:
- C.G. Campground
- F.S. Forest Service
- hq headquarters
- MNWR Malheur National Wildlife Refuge
- N.W.R. National Wildlife Refuge
- W.M.A. Wildlife Management Area

Again, as in the last seasonal report, I am citing only the sources from which I have directly obtained the information summarized herein. Whether or not I will continue this practice remains to be seen — I probably won’t, for several valid reasons.

If I didn’t think that there was a good reason for these seasonal field notes, I wouldn’t be spending hours each season going through the field notes individuals take the time to send me, and going through the various newsletters which contain information submitted to various editors. Someone, at some time, just might be interested in what birds we were seeing in the latter portion of the 20th century in eastern Oregon. So, from a historical perspective, the information summarized herein could be of importance if it is accurate.

Secondary sources of information are not as reliable as primary sources. How do I really know that Bill Birder actually saw a Wierd Warbler at the mouth of Dry Creek on 30 February, as it was reported in the Cool Coot? I have seen several instances of secondary information being incorrect in regards to location, dates, or observers credited. If I throw out all secondary information, believing all of it to be unreliable, you can see from this and last season’s reports what would be left.

I ask birders to send me copies of, or summaries of, their field notes so this can be a field notes column. If someone can spend 6-8 hours driving to Malheur and back, they can also spend 15 minutes and a 25-cent stamp to report what they saw there. Please don’t rely on someone else to supply your information.

An adult Pied-billed Grebe with 3 young was noted at Davis L. 1 July (KM). A Horned Grebe was noted at Knox Pond, MNWR in late July (fide GI). Three Red-necked Grebes were at Upper Klamath N.W.R. 23 June and were joined by a chick 8 July (JJ). At least 128 Eared Grebe nests were found in 3 colonies at MNWR this season (GI). This is higher than last year’s 75 nests. No Western Grebes nested again around Malheur,
Harney, and Mud Lakes due to the lack of nesting habitat. Twenty-seven nests were found elsewhere on the refuge. A Clark's Grebe was at Willow Creek W.M.A., GILL 17 June (LW, PM). Twenty were found along the south shore of Harney L this summer but no nesting was observed (GI).

This summer 1515 pairs of American White Pelicans nested on 3 islands in Malheur L and produced 910 young (GI). The big news for this species however, was that the Nevada colonies apparently failed, forcing the resident birds northward. Large numbers were reported along the Columbia R. at Umatilla N.W.R. (The Oregonian). The only reports received from active birders were 2 west of Celilo, WASC 22 July (DL), and 1 at Three Mile Canyon, MORR 29 July (LW, PM).

Eight hundred forty-nine Double-crested Cormorant nests were at 7 colonies in the Harney Basin this season. This is an improvement over last year's 665 pairs but still short of 1878's peak of 1120 nests. There were 494 Great Blue Heron nests in 10 colonies in Harney Basin this season, down by almost 200 from last year (GI). Great Egrets on the other hand had 675 nests which is the second highest number recorded in the Harney Basin (GI). Snowy Egrets showed an improvement in the Harney Basin with 35 nests (last year: none) (GI). One Snowy wandered to near Lakeview 22 June (JJ). Up to 4 Cattle Egrets were found about 3 miles west of Burns 14 July (fide GI). No nesting of this species has been reported in the region since 1986. Three hundred fifteen Black-crowned Night-Heron nests were noted in 6 colonies in the Harney Basin this year (GI), which is a vast improvement over the 45 pairs which attempted to nest last year. White-faced Ibis continue to set new records at MNWR with 4110 nests in 9 colonies this year (GI). Elsewhere, 12 were noted between Dayville and Picture Gorge, GRAN 28 July (U.S.) and a constant stream of 150-200 in many small flocks were seen flying northward near Paisley 22 June (JJ).

A Tundra Swan which summered at MNWR was captured and banded 31 July (GI). This is a highly unusual record for this time of year. Two swans were seen on Alkali Lake, Klamath Co., on 24 June. This would be very out-of-season for Tundra Swans, and out of range for Trumpeters (LW, PM). Trumpeter Swans had limited success this year at MNWR. Of the 2 active nests only 3 eggs hatched. The cygnets from this nest were last observed alive on 16 September (TC, DS). The Red-necked Ducks 14 July and the 21 on the 24th at Hatfield L were the first summer records for that location (CM). A female Barrow's Goldeneye was at Frog L., WASC 3 June (DL). Twelve Bufflehead were on Thompson Res., LAKE 22 June (JJ).

A BROAD-WINGED HAWK was reported 5 June near Flagstaff Butte in the Trout Creek Mtns. (fide GI, A.W. 8/89). A juvenile Merlin on 23 July at Hart Mt. was also unusual for the time of year (fide GI). Single Gray Partridge were at Rosebush, SHER 10 June and Wolf Hollow Rd., GILL 17 June (LW, PM). Up to 8 Yellow Rails were heard along Seven Mile Rd., KLAM 23-24 June (DL, FN). Five were still calling in the Fort Klamath area as late as 28 July (PS). Two Sandhill Cranes were at Hereford, BAKE 2 July (LW, PM).

A very late Black-bellied Plover was at the OO Ranch, MNWR 11 June (U.S 7/89). Semipalmated Plovers, rare in summer, were noted near Buena Vista, MNWR 14 June (KM) and along the north shore of Harney L. 12 & 16 July (fide GI). Summer reports of American Avocet in the northeast corner of the state have increased in recent years. On 20 July 2 adults and 1 juvenile were at the La Grande sewage ponds and another was seen 3 miles west of Wallowa (PS). Seven were noted in a stock pond on the Zumwalt Rd., WALL 30 June (LW, PM). A Greater Yellowlegs was at Davis L. 1 July (KM) and 5 were at Klamath Forest N.W.R. 25 June (LW, PM). A Solitary Sandpiper was at Sisters 30 July (LR). The first fall Western Sandpiper was noted near Baker City 3 July along with 3 adult Least (LW, PM). Thereafter they were widespread in the region. A Red Phalarope, rare inland, was reported by a Dutch birder about 8 miles south-southeast of Burns 7 June (fide GI). A Bonaparte's Gull was on Derrick L., OO Unit, MNWR 14 June and 14 were at Stinking L. on the 20th (GI). Four California Gulls were at Wallowa L. 29 June and 3 Caspian Terns visited Philips Res., BAKE 3 July (LI, PM).

A YELLOW-BILLED CUCKOO was heard at MNWR-hq 1 July but, unfortunately, was not seen (A.W. 9/89). Up to 3 Flammulated Owls were seen in the Starr C.G. area in June (PS, JJ) and another was located at the Ochoco R.S. 6 June (JJ). A Great Gray Owl was at Sunriver 21 June (JJ) and up to 7 Short-eared Owls were noted in Gilliam Co. 17 June (LW, PM). Common Nighthawks arrived in the Burns area by 29 May and at Bend on 3 June, an all-time early date (TC). Over 100 were at Black Butte Ranch 1 July (A.W. 8/89). Three Poorwills were northwest of Olex, GILL 16 June (LW, PM). A Black Swift was noted at Lookout Mtn., HOOD 22 July (DAA). Does this species nest in the Mt. Hood area? Some of the 12 Vaux's Swifts in the Pendleton area on 4 June were seen collecting nesting material (PS). White-throated Swifts were noted at Owyhee Rim 3 June (TW) and at Burnt River Canyon, BAKE 2 July (LW, PM).

Seven Calliope Hummingbirds were visiting the feeders in Dale 8 June (PS). Three reports of Broad-tailed Hummingbird were received from Grant Co. A male was at Canyon Creek meadows 2 July (A.W. 8/89), an unsexed bird was in John Day 15 July (U.S. 7/89), and a female
was in Dale 23 July (DL). A Red-breasted Sapsucker was at Indian Ford C.G. 11 June (KM). Another was east of Wahtum L., HOOD 7 July (DAA). Two Williamson’s Sapsuckers were noted at King Mtn., HARN 4 June and 1 was at Ochoco Divide 6 June (JJ). The only Three-toed Woodpecker report was from Indian Rock (Grant Co.) (U.S. 7/89). Black-backeds were more widely reported. Nesting was confirmed for Hood River Co., when a vocal fledgling still in the nest was found at Chindere Mtn. 9 July (DAA). An adult was in the immediate area but not seen. An adult male was also noted north of Wahtum L. about 1/2-mile east of the nest the same day (DAA).

An ALDER FLYCATCHER was reported at Benson Pond, MNWR from 28 May to at least 17 June (TC, RG). A Least Flycatcher was at MNWR-hq 5-6 June (fide GI). Four reports of the Cordilleran Flycatcher were received. Singles were noted at Ladd Crk. 17 June and near Bly 23 June (JJ). They nested again in Bend’s Shevlin Park and along Jack Creek, Jefferson Co. Observers are asked to make note of both species of the recently-split Western Flycatcher complex. [The western Oregon form of this complex, Pacific-slope Flycatcher, is said to be a regular migrant in the interior western States—Assoc. Ed.]

A Purple Martin at MNWR 31 May was only the second Harney County record and the first in 70 years (TC). Bank Swallows began staging by the end of July at MNWR. At Knox Pond over 2000 were noted while at Buena Vista a mere 1500 were seen. Numbers of Bank Swallows have dramatically increased at Malheur in recent years, as receding waters in Harney Lake have undercut the dunes along the lake shore creating favorable nest sites.

Gray Jays are not unusual in proper habitat in the region and are therefore seldom reported. One was noted at Hortense L., DESC 1 July (GG). Nine Pinyon Jays were at Boones Borough, Bend 28 July (PS). Bushtitts were reported along Mill Crk., UMAT 30 July (DL et al.). This species is infrequently noted in this area. Four Veerys were noted in Baker Co. 1 July near F.S. Rds. 39 & 66. A Gray Catbird was noted at Halfway, BAKE 1 July (LM, PM). Not all of Sherman Co. is wheat fields. There is still enough sagebrush to support or attract at least 1 Sage Thrasher. One was found near Rosebush 10 June (LM, PM). Migrant Red-eyed Vireos were noted at MNWR-hq 10 June, at Benson Pond (2 birds) 3 June (TC) and 11 June (fide GI), and in upper Fulton Canyon, SHER 10 June (LM, PM).

Five vagrant species of warblers were reported this season. A NORTHERN PARULA was at MNWR 13 June; a CHESTNUT-SIDED WARBLER was at Benson Pond, MNWR 8 June; a MAGNOLIA WARBLER at MNWR-hq also on the 8th; Ovenbirds at Benson Pond 7 June and at MNWR-hq 18 June (all fide GI); and a KENTUCKY WARBLER was heard and seen at Fields 16 June (Marcie Nufer, fide HN, A.W. 8/89). This was the first report for Oregon but unfortunately the bird was not photographed. A pair of Black-throated Gray Warblers were again reported from Page Springs in June (m.ob.). Another pair

was on Mahogany Ridge in the Trout Creek Mtns. 16 June (RG). Hermit Warblers are not at all common east of the Cascades. Therefore 3 reports of single birds are of interest—at Hortense L. and Cold Springs C.G. 1 July (GG), and along the Little Deschutes R. off Hwy. 97, 28 July (PS). A single Northern Waterthrush was noted along the Little Deschutes R. near Gilchrist 11 June (JJ).

Following last season’s report of a female Rose-breasted Grosbeak at MNWR-hq, was a male seen at Benson Pond 14 June (fide GI). A PAINTED BUNTING was photographed east of John Day 14 June (U.S. 7/89). I have not heard if the I.D. was confirmed. Four Green-tailed Towhees were noted along Lonerock Rd., GILL 17 June (LM, PM). About 6 Grasshopper Sparrows were seen at the well-known colony near Lexington 1 June and another was seen about 10 miles west of Heppner the same day (JJ). Six to 7 Fox Sparrows were repoted from the Trout Creek Mtns. 15-16 June (RG).

Malheur’s Bobolink population remains stable. Three males were at Roaring Springs Ranch in the Catlou Valley 10 June where they have been seen in the past (fide GI). Six were reported from Hereford, BAKE 2 July (LM, PM), and a single bird was west of Wallowa 20 July (PS). The Tricolored Blackbirds at the marsh near the junction of 1-84 and Hwy. 207 were last reported 8 June (PS). They may have abandoned this location because of harassment from Yellow-headed Blackbirds. Another GREAT-TAILED GRACKLE was added to the state’s list when 1 was noted at MNWR-hq between 1 & 5 June (fide GI).

An immature Rosy Finch was seen on F.S. Rd. 66, 1 mile from the intersection with Rd. 39, BAKE on 1 July (LM, PM). Twenty-five White-winged Crossbills were seen in the Blue Mtns., WALL (DL et al.). Red Crossbills were reported to be common and widespread in the mountains of eastern Oregon this summer (A.W. 9/89) but not in the northern Cascades (DAA). Eight Lesser Goldfinches were in Wheeler Co. about 6 miles east of Clarne 4 June (LM, PM). Evening Grosbeaks were scarce in the northern Cascades this season after several years of being quite abundant (DAA). Any correlation to last year’s spraying in the area for the bud worm? Evening Grosbeaks were quite common in Deschutes Co. on 1 July when 200 were noted at Hortense L. and 250 were at Skylight Cave (GG).
Loons - Herons

A breeding-plumaged Common Loon was on DL 7 July (DFi). Common Loons formerly nested in Oregon but currently any found inland during the breeding season are noteworthy. An immature YELLOW-BILLED LOON was found on the Coquille R. estuary at Bullards Beach S.P. 4 June (DA). Although the bird was not reported thereafter during the season it may be the same individual which was found at the same spot the following September. A breeding-plumaged Red-necked Grebe was found on Fish L. (Jackson) 1 June (HS, JB, MM). As with the Yellow-billed Loon this bird may have summered, since a Red-necked

Note for western Oregon birders

Steve Heinl, one of the Western Oregon fieldnotes editors, will be living in Ketchikan, Alaska for about a year, but he will continue to write the Spring and Fall notes for Oregon Birds during his absence. For the time being, send all western Oregon notes to Jim Johnson at 3244 N.E. Brazee Street, Portland, OR 97212, before the designated deadlines for each season. Jim will pass the appropriate material on to Steve. Your cooperation will be appreciated.
Grebe was found at this location the following August. Two Clark's Grebe reports were received. One was at Seaside 26 June (MP), and a pair was at Agate L 22 July-3 Aug. (MM, HS, JB, PS).

Reports of pelagics came from 2 observers who went out on the ocean in mid-June and late July. A high total of 150 Black-footed Albatross were 40 mi. off Lane Co. 13 June (PS), the next largest group was 65 birds. On 19 June a respectable 50 Pink-footed Shearwaters were 20 mi. off Florence and 2000 Sooty Shearwaters were off Yaquina Head (TT). Four Buller's Shearwaters were found 20 mi. off Florence 27 July (TT). No Northern Fulmars were reported. Large numbers of Fork-tailed Storm-Petrels (55-100) were 20-40 mi. off Lane and Lincoln Cos. (PS, TT), but the only report of Leach's Storm-Petrel was of 50 birds 20 mi. off Florence 27 July (TT).

For the second summer in a row American White Pelicans were at Hyatt Res. and Howard Prairie L. (HS, MM). Fourteen were on Hyatt Res. 6 July and 20 were there 8-15 July. Six were on Howard Prairie L. 15 July. The first inland Great Egret of the season was at FRR 17 July (SH). The only Black-crowned Night-Heron report was 2 at Camp Rilea Hyatt Res. and Howard Prairie L. (HS, MM). Fourteen were on Hyatt Res. and Howard Prairie L. (HS, MM). Fourteen were on Hyatt Res. 6 July and 20 were there 8-15 July. Six were on Howard Prairie L. 15 July. The first inland Great Egret of the season was at FRR 17 July (SH). The only Black-crowned Night-Heron report was 2 at Camp Rilea Hyatt Res. and Howard Prairie L. (HS, MM). Fourteen were on Hyatt Res. and Howard Prairie L. (HS, MM). Fourteen were on Hyatt Res. 6 July and 20 were there 8-15 July. Six were on Howard Prairie L. 15 July. The first inland Great Egret of the season was at FRR 17 July (SH). The only Black-crowned Night-Heron report was 2 at Camp Rilea Hyatt Res. and Howard Prairie L. (HS, MM). Fourteen were on Hyatt Res. and Howard Prairie L. (HS, MM). Fourteen were on Hyatt Res. 6 July and 20 were there 8-15 July. Six were on Howard Prairie L. 15 July. The first inland Great Egret of the season was at FRR 17 July (SH). The only Black-crowned Night-Heron report was 2 at Camp Rilea Hyatt Res. and Howard Prairie L. (HS, MM). Fourteen were on Hyatt Res. and Howard Prairie L. (HS, MM).

Waterfowl - Crane
Several reports of late or summering waterfowl were received. An unidentified swan was on Miller Sands I. in the lower Columbia R. 21 July (fide HN). As usual, small numbers of Brant summered on the coast. Reports were of singles or small flocks numbering no more than 6. A male Green-winged Teal was in the DL marsh 10-12 June (DFi). There are few breeding records of this species for western Oregon. Single male Northern Pintail were at the Nehalem s.p. 5 June (HN) and FRR 23 June (SH). Pairs of Gadwall, another rare breeder in the region, were on Smith L. near Fort Stevens S.F. and SJCR 2 June (HN). A Redhead was at Eckman L. (Lincoln) 18 June (RL) and an adult male White-winged Scoter was on FRR 10 July (SH). A pair of Buffleheads with 6 ducklings was on DL 7 July. This species is a very uncommon but regular breeder in the Cascades.

Two reports of Black-shouldered Kite were received: an immature at Warrenton 6 July (MP), and an adult at DWA (Jackson) 10 July (HS). Six each of the smaller accipiters were reported with an unusual valley floor report of an adult Northern Goshawk at Corvallis 24 July (RH). The only Red-shouldered Hawk report away from the southern coast was of 1 near Talent (Jackson) 26 July (HS). A Merlin was found near the Cascade crest 5 mi. southeast of Toketee Ranger Sta. (Douglas) 1 July (DFi). This species may have been a rare breeder in the state at one time (pre-1900s), but there is no recent evidence that this species currently breeds in Oregon.

Two Sandhill Cranes were heard along Dead Indian Rd., 1 mi. east of Howard Prairie L. 17 June (MM, JW), and 1-2 were at the same spot 29 July (PS). A pair bred in the same area in 1988. Another crane was on SI all July (JJ, NL). This is the first summer record of this species from the Island known to the author.

Shorebirds
An American Avocet was in northeast Portland 3 June (GG). One was in the same area last year. Lesser Golden-Plover were reported as follows: singles at Florence 5 June, Tillamook Bay 24 June, near Brownsville 25 June, Warrenton 8 July, and 2 were at Bandon 31 July. The first southward-bound Semipalmated Plovers reported were at Clatsop Beach 12 July and the peak count was 400 at Tillamook Bay 26 July (HN). The first Greater Yellowlegs was at Seaside 26 June (MP) with the peak of 50 on Sauvie Island 30 July (JJ, NL). The first Lesser Yellowlegs was at Warrenton 2 July (MP). Solitary Sandpipers, unfortunately, did not return to Gold L. Bog this year but 1 at the DL s.p. 29 June-1 July was the earliest fall migrant ever noted in the state (DFi). The only other report of this species was from SI 26 July (JJ, NL).

Numbers of Wandering Tattlers were in Florence 1 June, but the first fall migrants were at Seal Rocks 15 July (fide HN). Five Marbled Godwits were reported beginning with 1 at Warrenton 16 July (MP). Both turnstons were first noted at Seal Rocks 15 July (HN). One hundred and twenty-five Ruddy Turnstones were at Bandon by 31 July (LT). An early concentration of 100 Surfbirds was at Seal Rocks by 8 July, but an incredible 500 were there by 15 July (fide HN). Three solitary Red Knots were reported, the first one at Warrenton 1 July (MP).

During the first week of July 1988, I did an aerial survey over a heron rookery located on the North Spit in Coos County, Oregon. At this time, 3 Great Egrets (Casmerodius albus) were seen in the rookery and appeared to be on a nest. The following day I visited the rookery on foot and observed 2 nests with Great Egret chicks in them. I also observed adult Common Egrets near the nests.

On 11 June 1989, I again observed Great Egrets nesting in the North Spit rookery. The nests were in the same location as in 1988, the northeast section of the rookery. The 2 nests observed in 1989 were in nest trees 11 and 12. Egret chicks were seen in the nest in tree 11 and near the nest in tree 12. The Great Egrets were seen again on 2 July 1989.

Donna Rainboth, 165 Sunway, Coos Bay, Oregon 97420

OREGON BIRDS 16(1): 95, Spring 1990
A total of 14 Semipalmated Sandpipers were reported, the first at Nehalem s.p. 3 July (JJ, JC, TS). Two at DL s.p. 7 July were the first for that locale (DFi). The first Western Sandpipers were on Tillamook Bay 26 June with the adult peak of 1500 there 12 July (MP, HN). An early Least Sandpiper was at Astoria by 23 June (MP). The adult peak was 250 at Tillamook Bay 26 July (HN). Three Pectoral Sandpipers were at Warrenton 2 June (HN), and 1 was at Florence 5 June (SH) which is a little above normal for spring migrants. The first fall migrant was on SI 8 July (GG). An adult Stilt Sandpiper was at Warrenton 19-23 July (MP).

The first Short-billed Dowitcher was at Yaquina Bay 29 June (DF), with the adult peak of 150 at Warrenton 17 July. The first returning Long-billed Dowitches were at SJCR 28 June (HN). The peak number was 800 on SI 30 July (JJ, NL). June reports of Wilson's Phalarope were 4 at Florence 5 June (SH), and 2 near Brownsville 13 and 25 June (DFi, BL). A couple or more were heard at DL marsh 12 June where there is excellent breeding habitat. During a criss-cross traverse of the marsh 7 July 20-25 agitated males called and flew near the observer (DFi). Two juveniles and 6 or 7 adults were on the DL s.p. 18 July. Only the juveniles were present 24 July. Three juveniles were on the south end of DL 30 July. The possibility of breeding seems high given the number of adults present throughout the season. Other July reports were 3 at Howard Prairie L. 15 July (MM), and 1 in Central Point 22 July (HS, MM). The first Red-necked Phalaropes were off Lincoln Co. 8 July (TT).

**Skua - Sapsuckers**

An early South Polar Skua was 12 mi. of Depoe Bay 3 July (TT). The only Franklin's Gull reported was 1 on Clatsop Beach 28 July (OB). The first Hermann's Gulls of the post-breeding season were at the Coos R. mouth 20 June (LT). Three Forster's Terns were at FRR 23 June where they occur nearly every spring/summer (SH). An extremely large count of 360 Marbled Murrelets were on the ocean off the Siuslaw R. mouth (SH), possibly indicating that the Siuslaw R. drainage is an important breeding area for the species. The Marbled Murrelet is a possible candidate for threatened status.

A Flammulated Owl was heard in Sam's Valley (Jackson) 5-6 June (JB). There are few records for the Rogue Valley but this owl probably breeds regularly there. A breeding record of the Barred Owl came from near Vida in the McKenzie R. valley (Lane) in the Cascades. A pair with a juvenile were here 12 June (SH). Another pair was between Lemolo L. and DL (Douglas) (fide DFi). Up to 11 Black Swifts were at Salt Creek Falls-the only known breeding site in Oregon (NL). Two were at Pamella L. (Linn) 1 July (RG), which may have been from an as yet undiscovered breeding colony. Very unusual was a male Calliope Hummingbird coming to a feeder in Yachats through June (fide DF). A female was at Scott L. (Lane) 15 July which is only about 6 mi. from the Cascades crest (SH). A pair of Williamson's Sapsuckers was at Conde Crk. (Jackson) 6 July (HS). This species probably breeds regularly in eastern Jackson Co.

**Kingbirds - Passerids**

An Eastern Kingbird, rare in western Oregon, was at DWA (Jackson) 7 June (HS). A Rock Wren was on Saddle Mtn. (Clatsop) 24-27 June where territorial birds have been found in the past (DK, MP). The only Northern Mockingbird reported was 1 at DWA 10 July (HS). Up to 12 Red-eyed Vireos were on the western side of SI all summer (m.ob.). This is the largest number recorded from this locale. One was at FRR on 22 June only (SH). At least 1 pair has bred here the last couple of years. Unusual warbler reports were a male American Redstart on SI 4 July (AF), a singing Ovenbird at Santiam Pass 14 July (JC), and a singing Northern Waterthrush recorded at the Ashland Pond 4 June (BS). A few Northern Waterthrushes were at the Salt Creek Bog 22 June (SH) — the only known spot in western Oregon where this species probably breeds.

Two Grasshopper Sparrows were at the breeding colony near Hwy. 140 in rural Eagle Point (Jackson) 10 June (MM, JW). This is currently the only known breeding site in western Oregon. Large numbers of Red Crossbills were in the Cascades from mid-June on (m.ob.). White-winged Crossbills staged a small-scale invasion into the northern Cascades in July. Up to 12 were at Gold L. 22 July (DI, SH, JJ) and 3 were on Larch
Mtn. (Multnomah) 29 July (JJ, TS, GL). These records probably provide just a hint of the true number that were present in the Cascades as few active birders visit the mountains in late summer. Last and possibly least, a Eurasian Tree Sparrow began coming to a North Bend feeder on 17 July and was joined by a second individual 28 July (BG, m.ob.). This author is not willing to guess where these birds came from.

Eurasian Tree Sparrow, 17 July - 10 September 1989, OBRC No. 688-89-01, North Bend, Coos Co. Photos | Barbara S. Griffin.

Observers:
DA - David Anderson
JA - June Babcock
JC - John Crowell
DF - Darrel Faxon
DFi - David Fix
AP - Anthony Floyd
RG - Roy Gerig
JG - Jeff Gilligan
GG - Greg Gillson
BG - Barbara Griffin
SH - Steve Heinl
RH - Rich Hoyer
DI - David Irons
JJ - Jim Johnson
DK - Durrel Kapan
NL - Nick Lethaby
GL - Gerard Lillie
RL - Roy Lowe
BL - Bob Lucas
MM - Marjorie Moore
HN - Harry Nehls
BOB - Bob O'Brien
MP - Mike Patterson
HS - Howard Sands
TS - Tom Staudt
BS - Bruce Stewart
PS - Paul Sullivan
TT - Terry Thompson
LT - Larry Thornburgh
JW - Jai White

News and Notes

• OFO's 11th annual meeting is scheduled for 15-17 June 1990, at The Inn at Hood River. Speakers are scheduled for Friday and Saturday evenings with field trips Saturday and Sunday morning. The annual banquet will be held on Saturday evening after a late afternoon membership/board meeting and cocktail hour. Field trips will explore various areas of Hood River County in order to acquaint birders with the variety of birds to be found there. Other field trips will be offered for those birders who are hard-core county listers. Since Hood River is a popular wind surfing area, anyone who is interested in attending the annual meeting should make plans soon. Registration materials and further information will be sent to all OFO members in March.

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• OFO members leading birding trips for local Audubon Societies and bird clubs can get a packet of up to 25 free OFO field checking cards. Each field card has information about OFO and a membership form, as well as the checklist of Oregon's birds accurate according to the Oregon Bird Records Committee. The idea is to promote an awareness of and membership in OFO. Pass out a checklist when you lead your next birding trip. Once birders find out about us, they will like us, and they will join us. The OFO Board adopted this policy at their 20 January meeting. If it works, OFO will grow and its services can be expanded. This offer may be revoked at any time. Write or call the OFO Treasurer well enough in advance to get your packet in time for your trip: Kit Larsen, 2162 Kincaid Street, Eugene, OR 97405, (503)344-9574.

• Steve Heinl, one of the western Oregon fieldnotes editors, will be in Ketchikan, Alaska, for about a year, but he intends to continue writing the spring and fall notes for Oregon Birds. During his absence, send all western Oregon notes to Jim Johnson at 3244 N.E. Brazee Street, Portland, OR 97212, before the designated deadlines for each season. Jim will pass the appropriate material on to Steve, and will continue to write the summer and winter field notes. Your cooperation will be appreciated.
In January, Jeff Gilligan and Jim Johnson were re-appointed to 3-year terms, and Jim Carlson was appointed to a 2-year term to fill the vacancy left by Steve Heinl's resignation. Alternates for 1990 are Nick Lethaby (Portland), Alan McGie (Corvallis), Jim Rogers (Port Orford), Tom Staudt (Portland), and Linda Weiland (Portland). The current roster of OBRC members and alternates appears on the inside front cover of each issue of Oregon Birds.

Oregon Birds is one of 885 worldwide journals scanned for bird articles and abstracted in Recent Ornithological Literature. ROL is sent to members of the American Ornithologists' Union, British Ornithologists' Union, and Royal Australasian Ornithologists Union. In any year, only about half these journals have articles pertaining to birds.

The Ninth Annual John Scharff Migratory Waterfowl Festival will be held 6-8 April 1990 in Burns, Oregon. Many interesting activities are planned for the Festival this year! Exhibits featuring wildlife art, booths, displays, and demonstrations of wood carving and flint knapping will open Friday evening. There will be wildlife films, a country-style breakfast, a day-long tour featuring Harney Basin wildlife and history, sage grouselek tours, and workshops. An additional popular feature of the Festival is the Bird Central Booth, which is staffed by local bird experts who help with bird identification, and provide up-to-date information about bird sightings and where the birding hot spots are. Entertainment on Saturday evening includes a prime rib banquet, door prizes, a keynote speaker, and a dance! Pre-registration is encouraged, especially for the tours. Harney County Chamber of Commerce, 18 West D Street, Burns, Oregon 97720, (503)573-2636.

This is a portion of the "executive summary" of the 1989 progress report from Malheur National Wildlife on its predator control program:

Sandhill cranes experienced a good production year in 1989. Overall sandhill crane hatching success was 61 percent in 1989, below the goal of 75 percent identified in the predator control plan. Predators took 33 percent of the nests this year (raven -13 percent, raccoon - 6 percent, coyote - 4 percent, and unidentified predators - 6 percent). This was the first year of the five-year extension for the predator control program. The program could not begin until approvals were received from the Regional Office for coyote and raccoon control, and from Washington for use of DRC-Office for coyote and raccoon control, and from Washington for use of DRC-1339 for raven control. Coyote gunning began in mid April (normally early February) and raven control did not begin until late May. Therefore, nest success was good considering the late start of the predator control efforts.

Crane chick counts were conducted on September 6-9. Thirteen chicks were observed in the Double-O Unit (a record count), and an additional 36 were counted from the ground in the Blitzen Valley, yielding a total of 49 cranes produced.

A sample of monitored crane nests revealed 61 percent nesting success. Estimated brood survival was 25 percent, equalling the predator control plan goal. Although nesting success did not meet the objective, it appears brood survival was quite good, yielding a record recruitment rate of 12.7 percent. The 49 chicks produced should help the population build, and hopefully achieve refuge crane production objective in the future.

For more information, write to Forrest W. Cameron, Refuge Manager, Malheur Wildlife Refuge, HC 72, Box 245, Princeton, OR 97721.

Roger Tory Peterson wrote in Bird Watchers Digest 11(6):20, July/August 1989, that the Wrentit "is almost exclusively an endemic of California, scarcely crossing the borders into Oregon and Baja California," Oregon birder Donna J. Lusthoff wrote to RTP to set the record straight. RTP himself wrote back: "Actually, the map of the Wrentit in the forthcoming Western Field Guide, a map prepared by Mrs. Peterson and myself, shows the Wrentit going right up the coast to the Columbia River on the coast of Oregon with a bit of an intrusion into the borders into Oregon and Baja California." Oregon birder Donna J. Lusthoff wrote to RTP to set the record straight. RTP himself wrote back: "Actually, the map of the Wrentit in the forthcoming Western Field Guide, a map prepared by Mrs. Peterson and myself, shows the Wrentit going right up the coast to the Columbia River on the coast of Oregon with a bit of an intrusion into the interior of the southwestern section of the state. This has been based on the latest information we have from Oregon. It was a blooper to have restated the old range in my article. This elicited letters from several people. Fortunately, the range map in the new book is correct." So Peterson's new field guide to western birds will have the Wrentit's range correctly mapped, and we should expect this new guide by April 1990. Thanks, Donna, for sharing your letter!

The Sanderling Project's January 1989 midwinter Sanderling census showed a 47 percent drop in birds at the Oregon Dunes, but a 41 percent increase at Morro Bay. The 1990 midwinter census was set for 6-14 January. Here are the results of the 1989 midwinter

Oregon Bird
Records
Committee

OB
abstracts

Ninth
Annual
Waterfowl
Festival

Malheur
crane
report

Wrentit
range

Sanderling
report
For more information on the Sanderling Project, write Pete Myers, Bodega Bay Marine Lab, P.O. Box 247, Bodega Bay, CA 94923, (707)875-2043.

The Oregon Department of Fish and Wildlife has begun a program to computerize a database on Oregon's wildlife, including birds. Personnel and equipment have been committed, and the program is expected to be fully operational within 2 years. "This information system will be designed from the 'bottom up' which means that every attempt will be made to document species occurrence and to go back in time to develop a historical perspective. The data base will be heavily referenced throughout so that the source(s) of the information can be quickly identified. The data base will be indexed to allow multiple queries or sorting of the information. The system will have the capability to produce reports as well as booklets on individual species. *** Establishing a species information system from the 'bottom up' will allow a historical perspective, as well as lend confidence in the data set so that managers in the future will have access to the best available information on which to base their decisions." This very large undertaking is expected to involve the cooperation of a number of federal and state agencies. For more information, contact Tom O'Neil at the ODF&W in Corvallis, (503)757-4186. This item is taken from The Wildlife Society's Oregon Chapter Newsletter, December 1989, page 3.

- The Oregon Department of Fish and Wildlife has announced 2 new additions to their series Studies in Oregon Ornithology:
  - SOO No. 6, The Cormorant/Fisherman Conflict in Tillamook County, Oregon, by R.D. Bayer, 99 pages, $9.50 ppd, a review of the controversy of fishermen wanting to harass cormorants because cormorants eat salmon and steelhead smolts; and
  - SOO No. 7, Records of Bird Skins Collected Along the Oregon Coast, by R.D. Bayer, 246 pages, $18.50 ppd, each record is indexed by species, subspecies, collection site (i.e., county, beach or pelagic specimen, offshore island, lake, and/or shell mound), and collector.

To order, write to Gahmken Press, P.O. Box 1467, Newport, OR 97365.

- Marice Stith Recording Services has a new catalog if you're in the market for tape recorders, microphones, parabolic reflectors, etc. Stith is Professor Emeritus of Music at Cornell University, as well as founder of his 25-year old business. Items in the catalog include 20-, 24-, and 30-inch parabolas. Marice Stith Recording Services, 467 Asbury Road, Freeville, NY 13068.

- Bill Ward, wildlife sound recording enthusiast, has agreed to make his tapes Birds of the Northwest available to the public on a non-profit basis. Ward, whose recordings are used by Cornell University's Laboratory of Ornithology among others, has spent years collecting, refining, and updating these tapes. The set of two 60-minute cassette tapes is priced at $15.00. All proceeds from the sale of Ward's tapes will go to the Siskiyou Audubon Society. To order, write to Siskiyou Audubon Society, P.O. Box 1047, Grants Pass, OR 97526.

- This item appeared in The Sandpiper, the monthly newsletter of Yaquina Birders and Naturalists: "If you are walking the beach and find a dead bird, leave it there! You can't help the bird, and if you remove it, you may mess up somebody's research. Several of us (Roy Lowe, Bob Loeffel, Sarah Brown, Dale Snow, Kathy Liska, and Range [Bayer]) do Beached Bird Walks (BBW) on portions of the beach between Alsea Bay and Beverly Beach State Park. During a BBW, each volunteer identifies, counts, and records each dead bird, so we prefer that unless a dead bird is rare that you leave it alone. To find out if someone is doing a BBW for a particular Lincoln County beach, call Roy Lowe, USFWS Biologist, at 867-3011 (ext. 270)." For more information...

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about Yaquina Birders and Naturalists, write to them at P.O. Box 1467, Newport, Oregon 97365.

**Celestron International announces a photo contest open to anyone using Celestron lenses or scopes.** Entry categories include one for wildlife and animals. Top prize is $300. Deadline for entries is 30 April 1990. Celestron International, 2835 Columbia Street, P.O. Box 3578, Torrance, CA 90510, (213)328-9560.

**This new organization is “Dedicated to the enjoyment of backyard birds.”** Members receive an official National Bird-Feeding Society coffee mug, a window decal and bumper sticker, and a subscription to the NBS newsletter Feeding Your Feathered Friends. Membership is $15 per year, and proceeds go to fund research and educational projects that will benefit wild birds. National Bird-Feeding Society, 1441 Shermer Road, Suite 110, Northbrook, IL 60062-5395.

A number of field assistants are needed to survey for Spotted Owls in National Forests throughout Oregon and Washington. The U.S. Forest Service will be hiring field assistants for the March-August field season. “Field work includes night work in remote areas.” Kathy O’Halloran, U.S.F.S. Regional Office, P.O. Box 3623, Portland, OR 97208.

**The Burke Museum at the University of Washington is acquiring an increasingly more important ornithological collection. Dennis Paulson, editor of Washington Birds, is affiliate curator.** The museum is undertaking a fund-raising drive. “This year we have two special goals. First, we have a unique opportunity to acquire many new species from a collection, primarily of Florida birds, amassed by Glen Woolfenden. Bringing parts of this fine collection to the Burke will add representatives of 174 species, including 28 new to our collection. Of special importance are 8 southeastern birds, long sought for our North American reference collection, and a rich variety of southeastern water birds. Our second desire is to add to the Burke’s endowment for Ornithology.” Donors of $100 or more will receive a year’s honorary membership in the Museum. All gifts are tax-deductible. Sievert Rohwer, Acting Director, Thomas Burke Memorial Washington State Museum, DB-10, University of Washington, Seattle, Washington 98195, (206)543-5690.

The International Crane Foundation is organizing a work trip to Zhalong Nature Reserve, one of the largest wetlands in Asia with 6 species of nesting cranes. The trip is planned for 20 days in June/July 1990. Volunteers pay their own way, but all expenses are tax deductible. “We prefer volunteers with bird watching, photography, or related skills, or with a special interest in public education. Participants should be in good health, but there will be no strenuous activities.” Write to Jim Harris, International Crane Foundation, E-11376 Shady Lane Road, Baraboo, Wisconsin 53913.

But it doesn't just happen. *Oregon Birds* is put together with the help of quite a few birders. A notable contribution is made to each issue by the field notes editors — who are presently David A. Anderson for eastern Oregon and Jim Johnson and Steve Heinl for western Oregon. David Fix has been a field notes editor for western Oregon and Steve Summers for eastern. Perhaps the most enduring value for *Oregon Birds* will be the regular field notes columns written by these dedicated authors. Years from now, we will refer to the pages of *Oregon Birds* for the details left out of the necessarily truncated seasonal reports in *American Birds*. Perhaps this will be the highest complement for those who work to regularly get *Oregon Birds* into our mailboxes.

**Running tally of the birds of the Oregon rare bird phone network (and some we learned about too late for the phone network):**
- Crested Caracara, 1 November 1989, again 1 January 1990, 4 miles up the Rogue River from Highway 101, Curry Co., by Larry Thornburgh;
- Yellow-billed Loon, 1 January 1990, Fern Ridge Reservoir, Lane Co., by Steve Heinl and David Fix;
- McCown’s Longspur, 13 January 1990, Oregon side of Lower Klamath Refuge, Stateline Road, Klamath Co., by Steve Summers; and
- Iceland Gull, 21 January 1990, south jetty of Yaquina Bay, Lincoln Co., by Rich Hoyer; and
- Yellow-billed Loon, 29 January 1990, Hood River marina, Hood River Co., by Mike Denny.

**Spotted Owl surveyors needed**

**Burke Museum**

**National Bird-Feeding Society**

**Photo contest**

**Crane trip to China**

It happens

**Rare birds**
Meetings & events

- 22 April 1990 — twentieth anniversary of Earth Day.
- 31 May - 3 June 1990, Wilson Ornithological Society and Association of Field Ornithologists, joint meeting at Wheaton College, Norton, Massachusetts.
- 15-17 June 1990, Oregon Field Ornithologists, 11th annual meeting, The Inn at Hood River, Hood River, Oregon. David A. Andersen, 6203 S.E. 92nd Avenue, Portland, OR 97266.
- 25 June -1 July 1990, American Ornithologists' Union and Cooper Ornithological Society joint meeting in Los Angeles, CA.
- 2-9 December 1990, XX International Ornithological Congress in Christchurch, New Zealand. “This important scientific occasion will provide the focus for a wide range of international events celebrating aspects of The World of Birds — a Southern Perspective.” Dr. Ben D. Bell, Secretary-General, XX International Ornithological Congress, Department of Zoology, Victoria University, Private Bag, Wellington, New Zealand.
- 15 - 19 May 1991, Cooper and Wilson Ornithological Societies, joint annual meeting, University of Oklahoma, Norman, OK.
- 13-17 August 1991, 109th stated meeting of the American Ornithologists' Union, Montreal, Quebec, Canada.

Information Wanted on Oregon's Birds

Note to OB readers: OB publishes information requests that may be of interest to Oregon's birders. The ending notation in brackets shows the first issue of OB in which the request appeared.

Recent entries:

Sensitive species. I am preparing short accounts of the status of 100 sensitive species of Oregon vertebrates under a contract with the nongame program of the Oregon Department of Fish and Wildlife and the Portland Audubon Society. Unpublished information is needed on the status of the following bird species: Horned Grebe (breeding population); Least Bittern, Harlequin Duck (breeding population); Spruce Grouse; Barn Owl (in northeastern Oregon); Horned Lark (in the Willamette Valley); Bank Swallow (breeding population); Western Bluebird (populations outside those using nesting boxes); Grasshopper Sparrow; Bobolink; Tricolored Blackbird (breeding colonies); and Western Meadowlark (in the Willamette Valley). Credit will be given for information used. [OB 15(4)] David B. Marshall, 4265 S.W. Chesapeake Avenue, Portland, OR 97201, (503)244-3837.

Marbled Murrelet sightings. Information is requested on inland and at-sea records of Marbled Murrelets in Oregon. Recent and dated observations are needed of murrelets along rivers or creeks, in forested areas, in bays, at river mouths, and off shore. Details should include date, time of day, specific location, number of birds, age, plumage, and behavior. [OB 15(4)] S. Kim Nelson, Oregon Cooperative Wildlife Research Unit, Oregon State University, 104 Nash Hall, Corvallis, OR 97331-3803, (503)737-4531. Mark A. Stern, Oregon Natural Heritage Data Base, 1205 N.W. 25th Avenue, Portland, OR 97210, (503)229-5078.

White-headed Woodpeckers. I am conducting a research project on White-headed Woodpeckers on the east slope of the Cascades. The project is funded by the Oregon Department of Fish and Wildlife and the Klamath Tribes. Please contact me if you have any information on nest sightings. [OB 15(2)] Pam Matthews, Oregon Department of Fish and Wildlife, 61374 Parrell Road, Bend, OR 97702, (503)388-6363.
Tricolored Blackbirds. In cooperation with the U.S. Fish and Wildlife Service, I am summarizing the published literature and unpublished information on the historical and current status and distribution of Tricolored Blackbirds. If you have unpublished field notes on historical or recent colonies, please contact me. [OB 15(2)] Edward C. Beedy, Jones & Stokes Associates, Inc., 1725 23rd Street, Sacramento, CA 95816, (916)444-5638.

Bald Eagles in Lincoln County. If you see Bald Eagles in Lincoln County — especially any at Devils Lake or any away from Siletz Bay, Yaquina Bay, or Alsea Bay — please note the age of the eagle, the date, the bird’s activity, and the location of the sighting. [OB 15(1)] Gloria Sullivan, 3121 N.E. 30th Drive, Lincoln City, OR 97367, (H) 994-3759.

Color-marked Birds in Oregon

Note to OB readers: OB keeps a running tab of color-marked birds that may be seen by Oregon’s birders. The ending notation in brackets shows the first issue of OB in which the notice appeared. Any banded or color-marked bird, including those with the standard aluminum U.S. Fish & Wildlife Service band, may be reported directly to the Bird Banding Laboratory, Laurel, MD 20708.

Recent entries:

Dark-eyed Juncos. A 5-year “Oregon” Junco color leg banding project has been undertaken to determine the winter movements, spring-fall migration routes, and summer nesting locations of the Dark-eyed Junco population that winters in the Rogue River Valley. Marked individuals have 2 color bands (red, yellow, blue, or orange) of the same color on the left leg, with a U.S. Fish & Wildlife Service numbered band on the right leg. The color of the band will indicate the original banding location. The following information is requested: date, accurate location description, color of bands, number of marked and unmarked juncos seen together at any time, and the number of consecutive days marked individuals were seen at the same location. [OB 16(1)] Dennis P. Vroman, 1106 N.W. A Street, Grants Pass, Oregon 97526, (H) (503)479-4619 (W) (503)476-3830.

Pacific Black Brant. Black Brant in Alaska have been marked with colored leg bands and colored nasal tabs. Note the color of the band.

Harlequin Ducks. A population of Harlequin Ducks in northern Idaho has been marked with nasal discs of various shapes and colors: blue, red, gray, white, orange, green, yellow, and black discs in the shape of a circle, square, oval, triangle, and cross. Marking will continue in 1990. For a recent and similar study in Grand Teton National Park, 50 percent of marked Harlequin Ducks returned the next year. Please note sex and number of duck, color and shape of nasal marker, and exact location of sighting. If possible, try to take a photograph. [OB 16(1)] Craig Groves, Nongame and Endangered Wildlife Program, Idaho Department of Fish and Game, P.O. Box 25, Boise, ID 83707, (208)334-3402.

Pacific Golden-Plovers. As part of a study on their wintering biology, Pacific Golden-Plovers have been banded on Oahu, Hawaii, and near Nome, Alaska. Each bird wears a Fish & Wildlife Service band on one leg and 1 or more color bands on the other. Color band combinations are 2 of the same color, 2 of different colors, 3 of 2 colors, and 3 of 3 colors. Please note which leg is color banded and the exact sequence of colors. “It is important that we know which leg carries the particular color(s) and, where used together, whether the color band is above or below the metal band.” A yellow dye was applied to the white plumage of 88 Pacific Golden-Plovers on Oahu in April 1989. The project is expected to continue several more years. Recent findings: the population consists of both territorial and non-territorial birds, with one or the other behavior apparently fixed for life after the first wintering season; survival rates are high (over 80% from year to year); and the birds exhibit strong site fidelity, with territorial individuals occupying the same territories from year to year. [OB 15(2); 16(1)] Oscar W. Johnson, Department of Biology, Moorhead State University, Moorhead, MN 56560, (201)236-2360.

Shorebirds. About 800 shorebirds of several species were banded at Cheyenne Bottoms in Kansas during the 1989 spring and fall migrations. All birds carry an orange band on one leg, a green flag on another leg, and a yellow flag on another leg. [OB 16(1)] Nellie Tsipoura, Pan American Shorebird Program, PASP/ WSRN, 550 S. Bay Avenue, Islip, NY 11751.
**Snowy Plovers.** In 1987-88, in cooperation with the Oregon Department of Fish and Wildlife Nongame Program, we color-marked 372 Snowy Plovers at Abert Lake, Lake Co., Oregon. Each plover has 2 bands on each leg, which may include either 3 colored bands and an aluminum Federal band, or 4 colored bands. Band colors include white, yellow, red, blue, lime, and the aluminum Federal band. Banded plovers have been resighted at Abert Lake, and may likely occur at other alkaline lakes in Lake and Harney Cos. These banded plovers have been resighted frequently along the California and Baja California coasts during fall/winter, and should be watched for along the Oregon coast during both the fall/winter and spring/summer seasons. [OB 15(1)]

Report sightings to Mark Stern, Oregon Natural Heritage Program, 1205 N.W. 25th, Portland, OR 97210, (503)229-5078.

**Greater Sandhill Cranes.** Since 1983, The Nature Conservancy has color-marked approximately 90 Greater Sandhill Cranes at Syac Marsh and surrounding breeding sites in Lake Co., Oregon. All marked cranes have a 3-inch tall orange band with a 1/2-inch wide piece of white tape wrapped around the middle. Often this tall orange band is reported as "orange/white/orange." Additional bands are 1-1/2 inches tall and are colored yellow, white, blue, red, and green. Typically, each crane has a tall orange band on one leg and 2 smaller colored bands on the other. All bands occur on the upper leg. Banded cranes have been reported from Langell Valley east of Klamath Falls, Camas Prairie, Summer Lake Wildlife Management Area, Paulina Marsh, Chewaucan Marsh, and near Greaser Reservoir in the Warner Basin. [OB 15(1)]

Report sightings to Mark Stern, Oregon Natural Heritage Program, 1205 N.W. 25th, Portland, OR 97210, (503)229-5078.

**Loggerhead Shrikes.** Loggerhead Shrikes in east central Alberta have been color banded in 1989 with white split plastic rings. It is expected that banding will continue at least the next several years. [OB 15(4)]

[Doug Collister, 3426 Lane Crescent S.W., Clagary, Alberta, T3E 5X2, Canada.]

**Common Ravens.** During the spring of 1989, 75 juvenile Common Ravens were marked in Douglas County, Washington. A bright yellow marker with a number was placed on each wing of nestlings. Information from returns will be used to determine timing, route, and rapidity of migration, and wintering habitat. Please note date of sighting, number of ravens seen, number on wing tags if possible, and your name, address, and phone number. [OB 15(1)]

[George Brady, Washington Department of Wildlife, Box 535, Pateros, Washington 98846, (509)923-2326.]

**California Gulls.** San Francisco Bay Bird Observatory has been color banding California Gull chicks in a colony near San Francisco. We would appreciate any information on sightings. Reports should include name and address of observer, date and location of sighting, and color band order (right leg, yellow over green, etc.). Reports will aid in our continuing study of the colony, especially movements outside the breeding season. [OB 15(2)]

Don Starks, Executive Director, San Francisco Bay Bird Observatory, P.O. Box 247, Alviso, CA 95002, (408)946-6548.

**Redheads.** In a cooperative study of the ecology of wintering Redheads in south Texas, Redheads have been banded with U.S. FWS aluminum bands and nasal discs. Yellow, white, red, blue, and green discs were used. Disks attached in 1987-88 were blank, while those attached in 1988-89 are alpha-numerically coded. Please report location, date, sex, nasal disc color, alpha-numeric code, and condition of observed birds. [OB 15(2)]

Joe Moore, Department of Wildlife and Fisheries Sciences, 302 Nagle Hall, Texas A&M University, College Station, TX 77843-2258.

**Canada Geese.** Wildlife agencies in Washington and Oregon have marked a segment of the Canada Goose population along the lower Columbia River with light gray neck collars. Black alphanumeric codes on the collars begin with 2 numbers followed by 2 letters (for example, 01CA). Please record the following information: collar code, exact location, and date and time of sighting. Include your name, address, and phone number. [OB 15(2)]


**Common Redpolls.** Redpolls were color banded in the Canadian arctic in the summer of 1988. Each bird has an individual combination of 3 plastic color bands plus a standard FWS metal band. Please report the exact band combination (note light or dark for blue). [OB 15(1)]

Giles Seutin, Department of Biology, Queen's University, Kingston, Ontario K7L 3N6, Canada.

**Bristle-thighed Curlews.** Bristle-thighed Curlews were color banded in Alaska and on the northwest Hawaiian Islands as part of a study of their breeding and population ecology. All birds were banded on the tibia and some on the metatarsus with a stainless steel band and either 1 light blue band or 4 colored plastic bands in combinations of red, green, light blue, yellow, orange, and mauve. Note the colors, sequence and position (above or below the ankle joint) of bands on each leg. [OB 15(1)]

Brian McCaffery, U.S. Fish and Wildlife Service, P.O. Box 346, Bethel, AK 99559 (907)543-3151; Robert Gill, U.S. Fish and Wildlife Service, 1011 E. Tudor Road, Anchorage, AK 99503 (907)786-3514.
Semipalmated Sandpipers, Stilt Sandpipers, and Hudsonian Godwits. The Canadian Wildlife Service banded 700 Semipalmated Sandpipers, 500 Stilt Sandpipers, and 100 Hudsonian Godwits on Little Quill Lake, Saskatchewan, during the 1988 southbound migration. These were the first Hudsonian Godwits ever banded in prairie Canada. [OB 15(1)] Send observations to H. Loney Dickson, Wildlife Biologist, Canadian Wildlife Service, Second Floor, 4999 98th Avenue, Edmonton, Alberta, T6B 2X3, Canada.

Sanderlings and Western Sandpipers. The Sanderling Project has mist-netted and color-banded Sanderlings along the West Coast. The only colors used were green, orange, red, yellow, and white. No blue. Some juvenile Sanderlings have been transplanted to other parts of the coast in an attempt to determine how a young bird selects a given site along the coast as its winter home. Each transplanted bird carries a color combination of bands, and a green flag on its right leg. Please try to record the complete color combination. Western Sandpipers have also been color banded. For both species, note which leg the aluminum FWS band is on. [OB 15(1)] The Sanderling Project, P.O. Box 247, Bodega Bay, CA 94923, or Roy Lowe, U.S. Fish and Wildlife Service, Marine Science Center, Newport, OR 97365, 867-3011 ext. 270. Reports of banded Sanderlings can be sent to Barbara Kus, Department of Biology, San Diego State University, San Diego, CA 92182, or Suzanne Fellows, Bodega Marine Lab, P.O. Box 247, Bodega Bay, CA 94923.

American Robins. Robins have been marked with the standard aluminum U.S. Fish and Wildlife Service bands plus colored bands (combinations of red, light blue, dark blue, silver, gold, and green). These birds are part of a study concerned with diet choice and information on where they are seen feeding is of particular interest. Please note the following: band colors (in their order down the leg), where the band is seen, if the bird is feeding (what on), and the date and time of sighting. [OB 15(1)] Rex Sallabanks, Department of Biology, University of Oregon, Eugene, OR 97403.

Oregon Field Ornithologists
Eleventh Annual Meeting
15-17 June 1990
The Inn at Hood River
Hood River, Oregon

The 11th annual meeting of Oregon Field Ornithologists is scheduled for 15-17 June 1990, in Hood River. Speakers are scheduled for Friday and Saturday evenings with field trips Saturday and Sunday morning. The annual banquet will be held on Saturday evening after a late afternoon membership/board meeting and cocktail hour. This meeting should be fun and interesting for all attending.

Field trips will explore various areas of Hood River County in order to acquaint birders with the variety of birds to be found there. Other field trips will be offered for those birders who are hard-core county listers.

Since Hood River is a popular wind surfing area, anyone who is interested in attending the annual meeting should make reservations immediately. We have a limited number of rooms reserved for OFO members at The Inn at Hood River until 18 April 1990, at slightly reduced rates. City view rooms are $45.00 (single or double). There will be a charge of $10 per person over double occupancy. Anyone reserving a room at The Inn must identify themselves as members of "Oregon Field Ornithologists," not "OFO."

Other charges for the annual meeting will be: registration for OFO members ($12); registration for non-OFO members ($15); banquet ($13.75 includes gratuity). At the time of registration, arrangements can be made for box lunches ($7.50) on both Saturday and Sunday. This is convenient for those who will be miles from the nearest eatery during the day.

Registration materials and further information will be sent to all OFO members in March. See you in Hood River!

David A. Anderson, 6203 S.E. 92nd Avenue, Portland, OR 97266
Where do you find a ___ in Oregon?
Solitary Sandpiper

Mettman Creek, a tributary of Kentuck Creek on the east side of Coos Bay, is one of the most reliable sites for Solitary Sandpipers on the Oregon coast in spring. The Solitary Sandpipers linger during migration at a small marshy slough near the mouth of Mettman Creek. To reach the slough from the north, turn left off U.S. Highway 101 onto East Bay Drive at the Glasgow intersection stoplight near the approach to McCullough Bridge (see map). Proceed east on East Bay Drive to the intersection with Kentuck Creek. Turn left and follow Kentuck Creek while paralleling the Kentuck Golf Course to the Mettman Lane junction at the eastern edge of the golf course. Turn left onto Mettman Lane (gravel road) where several pullouts exist along the first 0.1 mile that provide excellent views of the slough. Solitary Sandpipers can be found in Mettman Slough for them is be-legs also fre-added bonus to nearly every spring. The best time to try between 22 April and 5 May. Lesser Yellow-quent this slough which may provide an your trip.

Alan McGie, 2816 N.W. 13th Street, Corvallis, OR 97330

Acorn Woodpecker

Acorn Woodpeckers may be found year-round at the “53rd Street oak grove” across from the Benton County Fairgrounds in Corvallis. The oak grove is on Oregon State University property (western boundary). Fifty-third Street intersects with Harrison Blvd., the major Corvallis access from I-5. Turn left onto 53rd Street from Harrison Blvd. Once by the oak grove, look for the birds flying or calling. You’ll probably see several birds since Acorn Woodpeckers are a colonial species.

Kent Rodecap, 982 N.W. Cypress Avenue, Corvallis, OR 97330

Isolated oak groves in the Willamette Valley are good spots for Acorn Woodpeckers. Here are a few: anywhere south of Philomath, central
Pelagic Trip
9 June 1990
(backup date 16 June 1990)
A long-range trip is planned, 40-50 miles, leaving from Ilwaco. Contact Portland Audubon Society, 5151 N.W. Cornell Road, Portland, OR 97210, (503)292-6855.

Oregon Birds is looking for material in these categories:

News Briefs on things of temporal importance, such as meetings, birding trips, announcements, news items, etc.

Articles are longer contributions dealing with identification, distribution, ecology, management, conservation, taxonomy, behavior, biology, and historical aspects of ornithology and birding in Oregon. Articles cite references (if any) at the end of the text. Names and addresses of authors appear at the beginning of the text.

Short Notes are shorter communications dealing with the same subjects as articles. Short Notes typically cite no references, or at most a few in parentheses in the text. Names and addresses of authors appear at the end of the text.

Bird Finding Guides "where to find a _____ in Oregon" (for some of the rarer birds) and "where to find birds in the ______ area" (for some of the better spots).

Reviews for published material on Oregon birds or of interest to Oregon birders.

Photographs of birds, especially photos taken recently in Oregon. Color slide duplicates are preferred. Please label all photos with photographer's name and address, bird identification, date and place the photo was taken. Photos will be returned; contact the Editor for more information.

Deadline for the next issue of Oregon Birds—OB 16(2)—is 27 April 1990. The next issue should get to you by the first week of June 1990. Material can be submitted any time, and the sooner the better. Please send materials directly to the Editor, 3007 N.E. 32nd Avenue, Portland, OR 97212 (503)282-9403.

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