INTRODUCTION

Twenty-one years have elapsed since Gabrielson and Lincoln (1959) concluded data collection for their comprehensive book, *Birds of Alaska*. This work provided a foundation for further ornithological studies in Alaska by consolidating a wealth of previously unpublished as well as published detail on the birds of the State; and, because their treatise was remarkably complete, it continues to be the single, basic reference on the birds of Alaska. Information has accumulated, however, at an ever increasing rate in the years since its publication. Seventy-five species have been added to those known to have occurred in Alaska, of which 30 have been new also to North America; and the status and distribution of more than half of Alaska's species are now known to be substantially different from those outlined by Gabrielson and Lincoln (op. cit.). The quantity of recent data, coupled with the need for it by ornithologists, wildlife managers, environmentalists, and others, has prompted the preparation of the following updated compilation.

In this compilation, we have used Gabrielson and Lincoln (op. cit.) as a base and have included only those birds for which the earlier volume no longer gives a satisfactory picture. For each of these species, we have prepared a complete account of its current status and distribution in Alaska.

Alaska's extensive and deeply sculptured coastline and the nearness of Siberia across the Bering Sea have presented problems in geographically defining Alaska, especially in terms of seabird distribution. Our solution has been to outline Alaska using 1) the political boundary dividing Alaska and Canada, 2) the international dateline bisecting the Chukchi and Bering seas between Alaska and Siberia, and 3) the 200-nautical mile (370 km) fisheries economic zone elsewhere along the coastline (see Fig. 1). The resulting geographic area encompasses approximately 5,191,655 km^2 (2,004,500 statute mi^2), two-thirds the area of the contiguous 48 states of the United States, and extends across 27 degrees of latitude and 62 degrees of longitude.

PATTERNS OF DISTRIBUTION

The avian distribution patterns in Alaska are the result of a number of interacting factors, historic (geology, species evolutionary history, historic species ranges and migration habits, etc.) and contemporary (habitat and ecological niche, current species ranges and migration routes, etc.). But basic to all these factors is the geographic position of Alaska—relative to the earth's axis, to the arrangement of the earth's land and water masses, and to the area of geographic origin (or at least the current centers of distribution) of the various avian species:

1) Alaska is relatively far north, with over 80% of its land mass north of 60°N. Hence, most species are those associated with tundra or taiga habitats; also present are species with affinities for the edge of the sea ice.

2) Alaska is at the northwestern extremity of the North American continent, with the result that it serves as the normal terminus of migration for many species wintering farther south; also, many accidental or casual species are those that "overshoot" their usual summer ranges in interior Canada or that engage in post-breeding wanderings from these interior ranges. The distance, too, from South and Central America accounts for the relatively small number of species representing South American and Pantropical avifaunal elements (see Mayr 1946).

3) Alaska is close to Siberia and, historically, has been connected with it intermittently by the Bering Sea land bridge. Thus, Old World species are more frequent here than elsewhere in North America, both as regular members of the avifauna and as accidental and casual visitors.

4) Alaska incorporates much of the historical Beringian area, the hypothesized differentiation center for the Aleutican avifaunal element (see Fay and Cade 1959); consequently, many species of this group have centers of abundance in Alaska, and some are scarcely known beyond the Bering and Chukchi seas, even in winter.

5) Alaska is at the northern boundary of the Pacific Ocean and hence is the normal migratory terminus for many seabirds, including some trans-Pacific migrants that are seldom seen in numbers in the northern hemisphere outside of Alaska or the arctic.

The major distribution patterns, resulting from the various historic and contemporary influencing factors, make it possible to subdivide Alaska into six biogeographic regions, subdivisions that we have used to facilitate descriptions in the species list below: Central, Southeastern, Southcoastal, Southwestern, Western, and Northern Alaska (see Fig. 1). These biogeographic regions can be differentiated as follows:

Central Alaska: Taiga habitats, especially white spruce (*Picea glauca*), predominate; alpine tundra occurs above 750 m in foothills and mountain systems. Interior Canada species reaching the northwestern extremity of their ranges, either breeding or migration, often extend into the eastern portions of central Alaska, usually via the major river systems—upper Yukon, upper Tanana, and upper Copper river drainages—but sometimes via the alpine tundra of the mountain systems.

Southeastern Alaska: Sitka spruce-hemlock (*Picea sitchensis, Tsuga mertensiana,* and *T. heterophylla*) coastal forest predominates. Interior Canada birds reach Alaska via the mainland river systems, which dissect the Coast Range. A number of species, both seabirds and others, reach either their northern or their southern distribution extremes in this region.

Southcoastal Alaska: Sitka spruce-hemlock coastal forest predominates, but its composition is more depauperate than in southeastern Alaska. The region includes the farthest north open water for overwintering waterfowl and shorebirds and major migration stopover sites for Pacific coast migrants and for some trans-Pacific migrants. A few members of the Aleutican avifauna reach the eastern extremity of their breeding range in this region (Red-faced Cormorant and Aleutian Tern).

Southwestern Alaska: Tundra and marine influences predominate. A number of Old World species are regular migrants and visitants, and occasional breeders (Wood Sandpiper); these are more numerous in the western portions of the region, where migrants regularly pass through on their way between southeastern and northeastern Asia. Southern Hemisphere procellariiforms occur regularly in the offshore waters during our summers. Some Aleutican species breed only in this region (Red-legged Kittiwake and Whiskered Auklet); others reach their range limits in this region in winter (Emperor Goose and McKay's Bunting).

Western Alaska: Tundra and marine influences predominate. A number of taiga birds are rare to casual as far as the Bering and Chukchi sea coasts. Several Aleutican species have their entire breeding populations here (Black Turnstone, Bristle-thighed Curlew, and McKay's Bunting). Most Old World species that have become well-established as breeders have done so in this region. Other Old World species occur only as accidentals or casual migrants and summer visitants. Pack ice covers much of the sea surface in winter, and birds associated with its face are winter visitants (Ivory Gull and Black Guillemot).

Northern Alaska: Tundra and marine influences predominate; the ocean surface, except for leads, is frozen 9 to 10 months a year and the ice pack is never far from shore. A number of breeding Old World and Aleutican species penetrate the region from the west, and species regularly breeding in the Canadian arctic penetrate from the east. Taiga birds reach the region casually or rarely along drainage systems from the Brooks Range. An impressive number of interior Canada species has been recorded at Point Barrow, birds that probably reached the arctic coast via the Mackenzie River Valley and then worked their way westward along the coast to be recorded in the scientist-populated Barrow area.

SELECTED LIST OF SPECIES

The vast geographic extent of Alaska, its varied physiography, its extensive marine contiguity, and its proximity to the region of the Bering Sea land bridge and to the Old World all contribute to the variety and uniqueness of Alaska's avifauna. Nevertheless, the northern geographic position of the State, with its arctic and subarctic characteristics, limits the kinds and complexities of habitats and hence the total number of bird species. As of 30 November 1977, 381 species had been recorded in Alaska (enumerated according to the A.O.U. 1957, 1973, 1976 and Vaurie 1959, 1965). We discuss 202 of these species (see Table 1), the status and distribution of which differ substantially from those described by Gabrielson and Lincoln (op. cit.). Whether differences are the result of actual changes that have occurred during the last 21 years or just the result of improved information is difficult to ascertain, but most appear to be the latter.

For each of the species selected, we have made generalized statements on status, based on a summation of all the data we had available. Following these general statements, we have included, usually parenthetically, as much specific data as we have felt necessary for substantiation and clarification.

In describing the status of a given species, we have used the following terminology:

resident—a species present throughout the year.

migrant—a seasonal transient between wintering and breeding ranges; in spring, includes species that have overshot their normal breeding range.

breeder—a species known to breed; prefixed by "possible" or "probable" if concrete breeding evidence is unavailable.

visitant—a nonbreeding species; also, in fall, a species not directly en route between breeding and wintering ranges.

abundant—species occurs repeatedly in proper habitats, with available habitat heavily utilized, and/or the region regularly hosts great numbers of the species.