There are some 61 species of birds that use the inside marine environment of northern southeast Alaska in sufficient numbers that an oil spill could result in spectacular kills or in damage to a major portion of their population. An additional 45 species are considered uncommon or rare in the marine environment here but further investigation might show their numbers are more significant than now thought. A brief status of the 61 important species is given below followed by a list of the 45 additional species.

It must be remembered that Chatham Strait, Lynn Canal, Cross Sound and Icy Strait compose an enormous marine environment, with few permanent residents. The area is frequently stormy. No detailed study of bird populations in this area has ever been done. We do know that it is an extremely rich source of marine foods, lying near the top of the temperate zone where it plays a vital role in the lives of millions of birds that nest in the less productive habitats just to the north. The Population figures given are largely estimates and some observers may disagree with certain of them. They are presented merely to give some idea of the size of the resource.

Loons - The common loon and the red-throated loon are year-round residents of this area with populations in the thousands. The Arctic loon is a migrant in spring and fall with probable populations in the thousands at times. It is possible that the entire population of Arctic loons uses the waters of northern southeast Alaska in some or all years. The yellow-billed loon, largest and rarest of the loons, is regularly seen in this area and probably some dozens occur. Major portions of the entire population of these birds may also be present and vulnerable to pollution in some years or seasons.

Grebes - The red-necked and horned grebe are both common in migration and some hundreds spend the winter.

Cormorant - The pelagic cormorant is common in fall, winter and spring with a few in summer. Some hundreds are involved.

Great Blue Heron - This species occupies the area in some hundreds year round.

Swans - Thousands of whistling swan migrate through the area spring and fall stopping regularly in the marine habitat. Several hundred trumpeter swans also use the marine habitats and as this is a rare bird with world population of less than six thousand, substantial damage could be caused by an oil wreck.

Geese - Several thousand Vancouver Canada geese are year-round residents of this area, constituting perhaps 25 percent of this race.
Dabbling Ducks - Found primarily in the estuarine habitats. Mallards in some thousands are year round residents. There is some evidence that the nesting population moves south in winter and is harvested in Puget Sound and the winter population nests in the Interior. Many thousand pintails, green-winged teal and widgeon, bread and butter of the big hunting areas of California, migrate through the area.

Diving Ducks - There is some evidence of a major southwest fall migration of diving ducks from the western Canadian and Alaskan north to winter habitats in coastal Alaska and British Columbia. Northern southeast Alaska affords some of the best of this habitat and is extremely important to these species. Greater scaup, lesser scaup, common goldeneye, Barrow's goldeneye and bufflehead by the tens of thousands utilize this habitat for migration and in winter. Surf and white-winged scoters are found in the area by the hundreds of thousands at times. Scoters don't nest until their second year and males leave the nesting areas and return to salt water as soon as eggs are laid so that summer populations in Southeast may equal or exceed the winter populations. On May 2, 1978, a flock of 70 thousand scoters was observed on the water near Benjamin Island in Lynn Canal. Such spectacular congregations are not unusual. This area is the heart of the best nesting habitat in North America for harlequin ducks which spend most of their life on or near the beach and are present in some tens of thousands. Likewise this region is optimum habitat for common and red-breasted mergansers which occur in some tens of thousands year round.

Raptors - Some of the best bald eagle nesting habitat in the world occurs along Chatham Strait. Over 900 eagle nests have been located on Admiralty Island, more than in all other states combined. Annual production of bald eagles for the Chatham, Icy Strait, Lynn Canal area probably exceed 1,500 young from some 1,200 pairs. Thus about 30 percent of the eagle population in southeast Alaska could be affected by oil problems in these shipping lanes. Eagles are year-round residents. Though eagles don't sit on the water, they depend heavily on ducks and other marine birds during the cold months of winter when fish are scarce. An eagle's attention is instantly drawn to any stressed bird; thus oiled birds on the beach would attract eagle predation. Eagles feed on fish in the intertidal and shallow waters the rest of the year. An eagle with an oiled beak would be a probable casualty. Marsh hawks are present by the hundreds, possibly thousands, during migration when they hunt the intertidal marshes. Sparrow hawks in some hundreds also hunt the marshlands during migration.

Shorebirds - Shorebirds occur all along the intertidal zone with major concentrations on the outwash plains such as Gustavus, Eagle River, St. James Bay, Berners Bay and Chilkat River. Numbers during migration may reach hundreds of thousands. Nesting species are black oystercatchers, semipalmated plover, killdeer, greater and lesser yellow legs and spotted sandpiper. Wintering species include the black oystercatcher,
black turnstone, rock sandpiper, dunlin and northern phalarope. Common spring and fall migrants in addition to the above include semipalmated plover, pectoral sandpiper, least sandpiper, short-billed dowitcher, and western sandpiper. Many of these species are Arctic nesters that winter in the southern hemisphere. They depend on a rich habitat for fattening just prior to arriving and after departing the less productive Arctic habitats where they nest.

Gulls - By the hundreds of thousands gulls use the intertidal, sheltered waters and open waters of southeast Alaska. Gulls are always around even though numbers diminish in summer. Glaucous-winged gulls and herring gulls remain in large numbers all winter. Thayer's gull, mew gull and Bonaparte's gull are extremely abundant during migration.

Terns - The Arctic tern is a common nester and migrant in the area possibly reaching some tens of thousands.

Alcids - The pigeon guillemot and marbled murrelet are common nesters in the area. These species lead their young to salt water for rearing. The guillemot is present by thousands and murrelet in tens of thousands. Some thousands of common murres are present in spring and fall. This group is extremely vulnerable to oil.

Great Horned Owls - Like the eagles, horned owls, which are present year round in some hundreds, are drawn to stressed birds in winter and would be vulnerable to oiled prey.

Belted Kingfisher - Present in some thousands, this species feeds by diving into nearshore waters.

Passerines - Though not generally considered marine birds there are a number of the perching birds that make use of intertidal habitats in this area and could be subject to some effects of oil pollution. Three swallows, the violet-green, tree and barn by the tens of thousands hunt flying insects over the tide flats and salt marshes, particularly in mid summer. The common raven and northwestern crow are scavengers in the intertidal zone and numbers probably exceed ten thousand of each species. The American robin and the water pipit likewise feed in the salt marshes during migration in numbers that exceed ten thousand.

Less abundant birds of the marine habitat:

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<thead>
<tr>
<th>Eared Grebe</th>
<th>American Coot</th>
<th>Emperor Goose</th>
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<tr>
<td>Western Grebe</td>
<td>American Golden Plover</td>
<td>White-fronted Goose</td>
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<tr>
<td>Fulmar</td>
<td>Black-bellied Plover</td>
<td>Snow Goose</td>
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<td>Fork-tailed Petrel</td>
<td>Surfbird</td>
<td>Gadwall</td>
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<td>Double-crested Cormorant</td>
<td>Ruddy Turnstone</td>
<td>Blue-winged Teal</td>
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<td>Cackling Canada Goose</td>
<td>Common Snipe</td>
<td>Shoveler</td>
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<td>Black Brant</td>
<td>Whimbrel</td>
<td>Redhead</td>
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</table>
Ring-necked Duck  Wandering Tatler  Sanderling
Canvasback      Sharp-tailed Sandpiper    Red Phalarope
Common Scoter  Baird's Sandpiper       Glaucous Gull
Ruddy Duck     Long-billed Dowitcher    Black-legged Kittiwake
Hooded Merganser Stilt Sandpiper      Kittlitz' Murrelet
Osprey          Semipalmated Sandpiper  Ancient Murrelet
Sandhill Crane  Buff-breasted Sandpiper Rhinocerous Auklet
Solitary Sandpiper Hudsonian Godwit    Tufted Puffin

REFERENCES


U.S. Forest Service and Alaska Department of Fish & Game, Juneau, Alaska. Birds of Southeast Alaska, A Checklist.