

Outer Islands Province

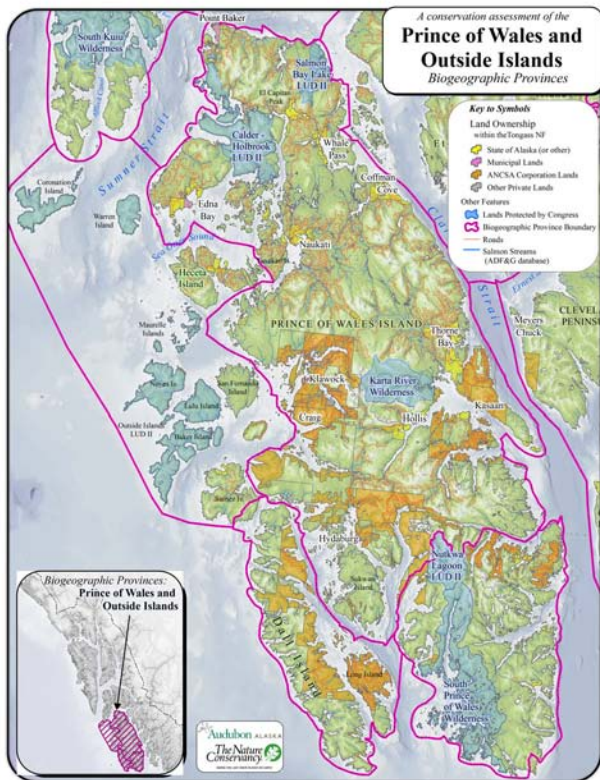


FIG 1. Outer Island Province.

The Outer Islands Province is the second smallest (216,045 acres [87432 ha]) and most far-flung unit in the Alexander Archipelago (Fig 1). Situated in the Alexander Geologic Terrane, the bedrock substrate is mostly well-drained sedimentaries and metamorphics supporting vigorous conifer forest. This province has a high proportion of POG relative to the size of the province (Chapter 2, Table 5). Unproductive granitic rocks occur only in small patches such as the highlands of southern Baker Island. Very high-grade limestone and marble on Heceta Island once grew some of Southeast’s finest large-tree karst forest (Fig 2).

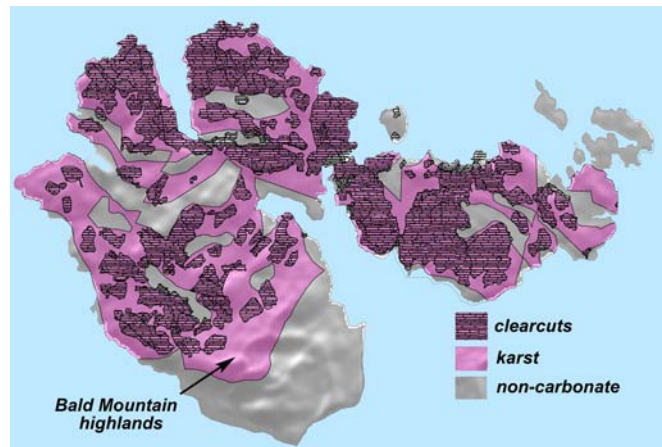


FIG 2. Virtually all clearcuts on Heceta Island fall on high-grade Silurian carbonates. Only the southern portion of the island on non-carbonate rock is administratively protected.



FIG 3. View north from Heceta Island across Sea Otter Sound. Almost all of the clearcuts on this island fall on karst, as shown in Fig 2. (John Schoen photo)

Lulu and San Fernando Islands and the Maurelle Island cluster are topographically muted. These islands are covered with till lowlands supporting low-productive pine bogs.

At the peak of the Wisconsin Glaciation, when almost all of Southeast Alaska was buried under

thousands of feet of ice, low-elevation coastal refugia existed on the outermost islands. Considerable portions of Coronation, Warren, Noyes, Baker and Suemez Islands may have escaped glaciation, thereby later serving as sources from which many plant and animal species recolonized Southeast.

Temperatures are moderate year round in this province. Sea-level snow is rare and transient.

Streams on these islands are short and often prohibitively steep for anadromous fish. The only watershed in the province that ranks within Southeast's top 55 pink salmon systems is Baker Island (actually a combination of many small watersheds), where 24 catalogued anadromous streams support an estimated combined annual escapement of 55,000 fish (Flanders et al. 1998).



FIG 4. Sea lion haulout on the tip of Cape Addington, a narrow peninsula jutting 5 mi (8 km) into the open Pacific from Noyes Island. A survey marker here is labelled "Dizzy." While the Cape itself is resistant granite, much of the peninsula is of soluble carbonate rock. Cormorants fly in and out of large sea caves. (Richard Carstensen photo)

The Outer Islands have the lowest mammal count—11 species—among Southeast biogeographic provinces. This low count is predictable; biogeographers have determined that island species richness is determined by both size and isolation of the land mass. In Southeast, however, isolation has the greater effect (Conroy et al. 1999).

The same isolation that accounts for the Outer Islands' low mammal richness also gives birth to their relatively high number of endemic subspecies (four). *Sorex monticolus malitiosus*, a dusky shrew, and *Mustela erminea seclusa*, an ermine, are unique to the island cluster. The Coronation Island vole, *Microtus longicaudis coronarius*, is a distinctive subspecies of long-tailed vole suggesting prolonged isolation from more typical longtails. *Mustela erminea seclusa*—an

ermine subspecies—is known only from Suemez Island (Chapter 6.7).

The top watersheds for winter deer habitat in this province are Baker Island and Noyes Island. Both rank within the top 20 watersheds in Southeast. The Outside Islands have relatively low fish production ranking 3rd from the bottom in Southeast in terms of anadromous streams (Chapter 2, Table 11). Although black bears occur on most of the larger islands in the province (except Warren and Coronation), summer habitat values are also relatively low compared to other black bear provinces in Southeast. Only Baker Island ranks within the top 60 watersheds for the region. The province is an important area for both seabirds and marine mammals.



FIG 5. Tertiary basalt columns at Cape Felix on the exposed southwestern tip of Suemez Island. The sand beaches of nearby Arena Cove are one of the most popular recreational destinations for residents of Hydaburg. Suemez Island is thought to have been ice-free during the last glacial maximum. Obsidian artifacts from volcanic formations upslope of Cape Felix have been found 140 mi (224 km) away in archeological sites as old as 10,000 years, indicating an extensive trade network already in place not long after glaciers receded from the region (USDA Forest Service 1997). (John Schoen photo)

Productive old growth is proportionally abundant in the Outside Island Province and large-tree old growth was also relatively high. The Outer Island province has been intensively high-graded on Heceta, San Juan Bautista and Suemez Islands, but only lightly logged on the other islands. Heceta Island in particular once supported rare, large-tree karst forest that has been extensively cut throughout Southeast. Fourteen percent of the POG have been harvested in this province (Chapter 2, Table 5), although some individual islands and watersheds were extensively logged (Fig 2). Forty-two percent of the large-tree stands occur in watershed

reserves, 18% in sub-watershed reserves, and 28% occur on lands managed for development (Chapter 2, Table 6).

An estimated 78% of the original summer black bear habitat values remain in this province and 73% occur in watershed reserves while 20% occur on development lands (Chapter 2, Table 15). Winter deer habitat is estimated to be 84% of its original value and 61% of that habitat occurs in watershed reserves while 22% occurs on development lands (Chapter 2, Table 8). Only 10% of the riparian forest with anadromous fish habitat has been harvested in this province and 62% are in watershed reserves (Chapter 2, Table 12).

Forest types, historical logging, and roads are mapped within the Outer Islands Province in Figure 7. Refer to the Arc Reader GIS database in Appendix C of this report to review detailed mapped information on location of large-tree stands, past timber harvest, roads, forest reserves, protected areas, and regions of core ecological values.



FIG 6. Second-growth forest on Heceta Island logged in 1926. A Landmark Trees crew measured stumps here and estimated that a one acre (.4 hectare) karst stand would have contained 230,000 board feet of timber. (Richard Carstensen)

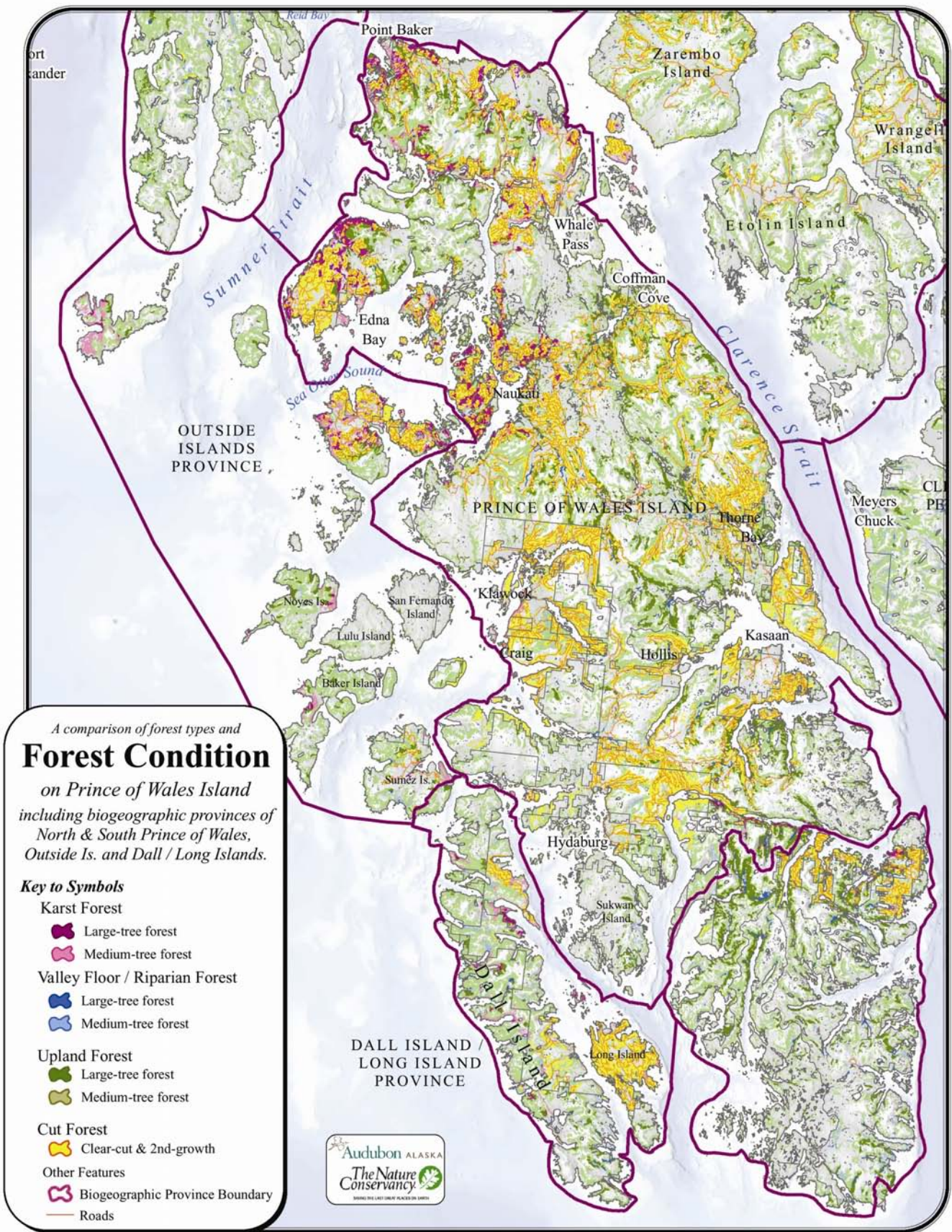


FIG 7. A comparison of forest type and condition in the Outer Islands Province of southeastern Alaska.