

Stikine Province

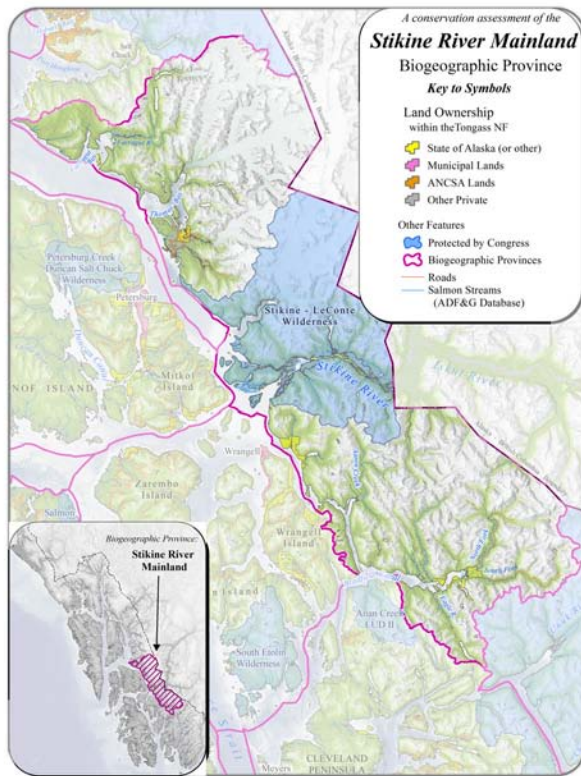


FIG 1. Stikine Province.

The Stikine Province is located on the central Southeast mainland (Fig 1) and 25% of the region is legislatively protected in the Stikine-LeConte Wilderness. An additional 55% of the province is administratively protected under the Tongass Land Management Plan while 20% of the lands are managed for development. In many ways, biological and physical, the Stikine River dominates this province. The following discussion concentrates first on the river and its many contributions to regional productivity and biodiversity; afterward a few other important watersheds in the province are mentioned.

The Stikine is by far the largest river corridor connecting Southeast with the interior. It drains about 19,000 mi² (48,640 km²) of British Columbia. The next largest watersheds are the Taku and Alsek/Tatshenshini, each approximately 5,000 mi² (12,800 km²).

The Stikine's influence extends far beyond its tideflats (Fig 2). Canadian glacial silt permeates



FIG 2. View northeast over Sergief Island up the Stikine River. This convoluted estuary holds 22,000 acres of tidal salt marsh and mudflat, about twice as much as the next largest estuary in Southeast (the Dangerous/Ahrnklin system in Yakutat Province). The Stikine flats are a globally significant stopover site for migratory shorebirds and waterfowl. Islands well offshore from the river mouth are blanketed by air-borne silt deposits called "loess," support unique, significantly impacted forest types, and serve as stepping stones for colonization of mammals and amphibians into the Southeast archipelago. (John Schoen photo)

not only Wrangell's seawater, but sometimes the air itself. During winter low flows, bare sand and silt is exposed in broad belts throughout the Stikine flood plain. When strong down-valley winds pick up the finest grains, a haze of airborne sediment restricts visibility. For many plants, however, this "loess" provides a steady renewal of nutrients. Thick loess

blanketing the upriver side of Farm Island inhibits conifers, resulting in lush thicket communities. On Kadin Island, more moderate loess deposition nurtures a highly productive spruce forest with devil's club (*Oplopanax horridus*) understory. A Research Natural Area designation protects this island. This and other river-mouth islands technically occur in the Wrangell/Etolin Province but geomorphically belong to the Stikine.

Like the Alsek, Chilkat and Taku river flood plains, the Stikine has riverside deciduous cottonwood/alder (*Alnus rubra*)/willow forest keyed to perennial flood influences. Compared to the Taku, Chilkat and Alsek rivers, however, the deciduous forests of the less actively aggrading Stikine are more limited in extent on the US side of the border.

Several songbirds of deciduous forests that are uncommon elsewhere in Southeast can be found on the Stikine and in similar big-river environments (see species in Taku Province).

As on other transboundary rivers, moose have been present since early in the 20th Century. But to a greater degree than from other Southeast corridors, Stikine moose have expanded far out into neighboring provinces, reaching Mitkof, Kupreanof and even Kuiu islands. This was due partly to an accident of geography; only here are there stepping-stone islands with easily negotiated saltwater barriers.

The Stikine River Delta is the biggest river delta and tidal estuary in Southeast and the largest on the Pacific Coast from the Fraser River in southern British Columbia to the Copper River delta approximately 1,250 mi (2,000 km) north. This tidal estuary is used in spring by up to 15 shorebird species and may be one of only two major Southeast stopover sights for a large portion of the Pacific population of western sandpipers which may number about 750,000 birds annually (Iverson et al. 1996, Warnock and Bishop 1998, Brown et al. 2000). Based on numbers of small sandpipers, the Stikine River Delta qualifies as a Western Hemisphere Shorebird Reserve Network International Reserve. This site has also been nominated as an Important Bird Area by the National Audubon Society.

The Stikine corridor has Alaska's greatest amphibian species richness. Six native species are documented at the river mouth: three salamanders, two frogs, and western toad (*Bufo boreas*) (MacDonald 2003). Chief Shakes Hot Spring on Ketili Slough is a "hotspot" of activity for amphibians as well as tourists.

All five Pacific salmon species run in the Stikine. The five watersheds (VCUs) comprising the US portion of the river collectively have an estimated coho salmon smolt capability of about 1 million fish (Flanders et al. 1998). This places the Stikine second only to the Yakutat Forelands for coho capability. The lower Farragut River watershed has an estimated coho salmon smolt capability of 181,985 fish (Flanders et al. 1998), making this the 8th highest producing watershed in Southeast. In this conservation assessment, the upper Stikine and Stikine Braids ranked as the number 7 and 11 VCUs in Southeast in terms of value for all salmon habitat. The North Fork of the Bradfield River also ranked within the top 20 salmon watersheds in Southeast.

About 1,000 bald eagles collect at the Stikine each April for the eulachon run. This number is exceeded only by the November congregation on the Chilkat River chum salmon.

The down-side of transboundary connectivity is increased susceptibility to invasive species. White sweet clover (*Melilotus alba*) is displacing native plant communities on the river mouth (M. Shepard, Ecologist, State and Private Forestry, personal communication, 2004).



FIG 3. View east over the Farragut River mouth, one of Southeast's largest remaining unlogged mainland rivers. The Farragut also has the 14th largest estuary in Southeast. (John Schoen photo)

Stikine Kwan had the largest territory of any Tlingit group—almost 8,000 mi² (20,480 km²). Their wealth and regional dominance were due in part to the "interior connection," the profitable trade with the Tahltan people of British Columbia.

Although Alaskans are certainly possessive about the Stikine, and protective of its contributions to local economy and recreation, the river is, after all, mostly

Canadian and potential development projects along the Canadian portion of the river may affect Alaska's portion of the Stikine.

The Baird, Patterson and LeConte Glaciers—all north of the Stikine River—are the southernmost of the great Alaskan valley glaciers that emerge from icefields and flow down into lowland valleys. From the Stikine southward along the mainland, only smaller alpine glaciers are found.

The northern limit of the natural distribution of western redcedar (*Thuja plicata*) occurs at Farragut Bay. This species appears less cold-tolerant than yellow-cedar (*Chamaecyparis nootkatensis*), and is not common on the mainland.

There are 333,591 acres (135,000 hectares) of POG in this province and 4% of that POG has been harvested (Chapter 2, Table 5). Fifty-one percent of the province's large-tree stands are protected in watershed reserves, 12% in sub-watershed reserves, and 25% occur on lands managed for development (Chapter 2, Table 6). Summer habitat for black and brown bears is estimated to represent 87% of its original condition and 60% is protected in watershed reserves while 30% occurs on lands managed for development (Chapter 2, Table 15). The Stikine Province is estimated to have the sixth highest amount of marbled murrelets nesting habitat in Southeast and 55% of that is protected in watershed reserves while 30% occurs in lands managed for development (Chapter 2, Table 10). The Stikine Province contains 910 mi (1,456 km) of anadromous fish streams (Chapter 2, Table 11). Nineteen percent of riparian forests associated with anadromous fish have been harvested in this province while 58% are protected in watershed reserves and 36% occur on lands managed for development (Chapter 2, Table 12).

Forest types, historical logging, and roads are mapped within the Stikine Province in Figure 5. 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 core ecological values.



FIG 4. View northwest over the Eagle River estuary and Bradfield Canal. The Harding River mouth also shows on the opposite right-hand shoreline of Bradfield. This is the site of a proposed road from Wrangell into British Columbia. Both forks of the Bradfield River at the head of the canal are already roaded and logged. (John Schoen photo)

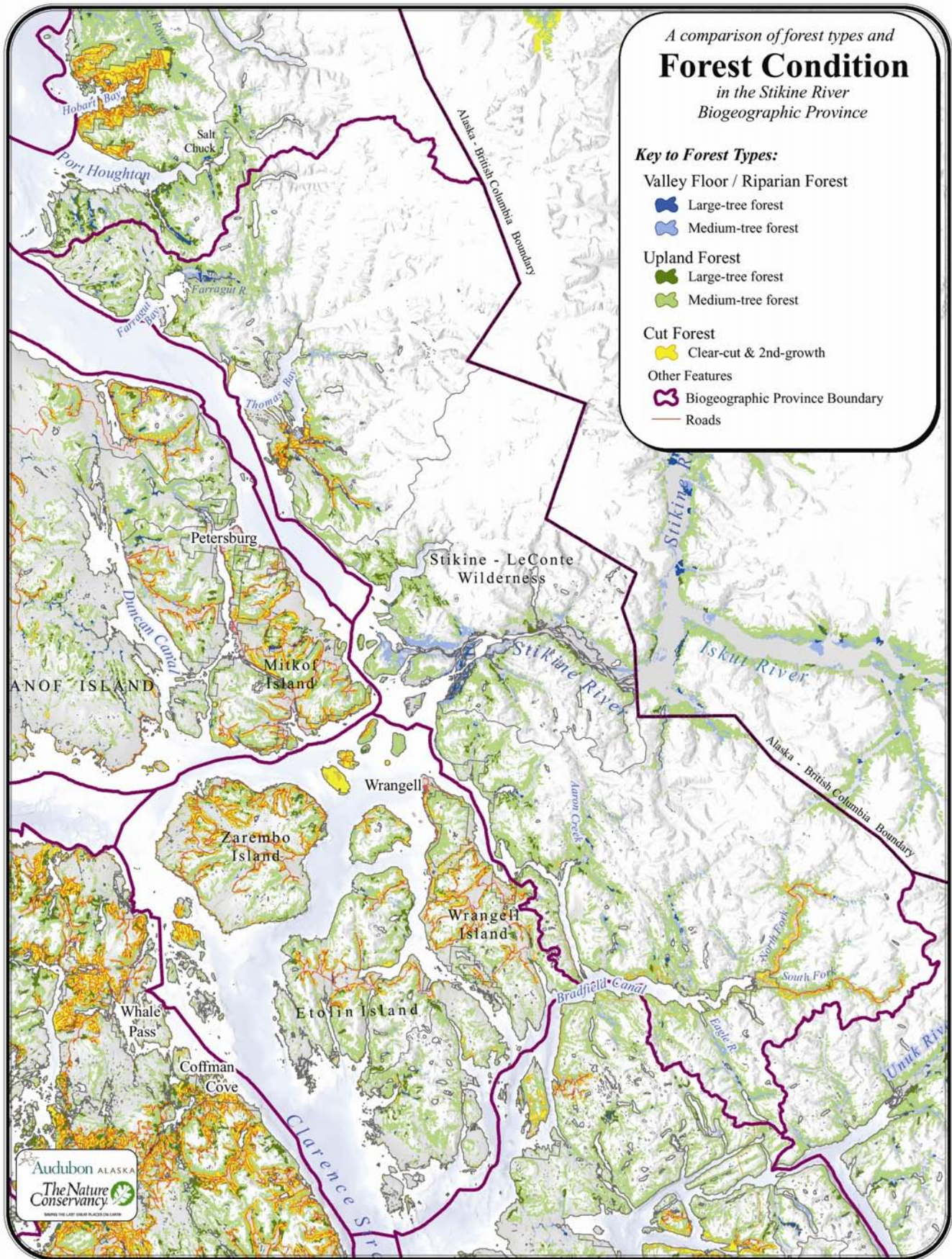


Fig 5. A comparison of forest types and forest condition within the Stikine Province of southeastern Alaska.

