

WORLD HERITAGE NOMINATION - IUCN SUMMARY

626: GLACIER BAY NATIONAL PARK AND PRESERVE (U.S.A.) (Extension to existing Wrangell-St. Elias-Kluane site)

Summary prepared by WCMC/IUCN (March 1992) based on the original nomination submitted by the Government of the United States of America. This original and all documents presented in support of this nomination will be available for consultation at the meetings of the Bureau and the Committee.

1. LOCATION

Glacier Bay National Park and adjacent Preserve are located in south-east Alaska. The centre of the park is 144km north-west of Juneau and about 965km south-east of Anchorage. Glacier Bay National Park (1,312,424ha) and Preserve (23,068ha) cover 1,335,492ha, comprising 252,000ha of saltwater and 1,415km of coastline. The site is separated by a gap of 60 km from the existing Wrangell-St. Elias Kluane World Heritage site and is proposed as an extension to this international property.

2. JURIDICAL DATA

Glacier Bay National Monument was created in 1925 under the Antiquities Act, 1906. By virtue of the Alaska National Interest Lands Conservation Act, 1980, Glacier Bay National Preserve was created in the vicinity of the Alsek River, and Glacier Bay National Monument was enlarged and redesignated as Glacier Bay National Park. About 85% of the national park has also been designated a wilderness area under the Wilderness Act, 1964. Glacier Bay, together with the nearby Admiralty Island National Monument, was designated a biosphere reserve in 1986.

3. IDENTIFICATION

The altitudinal range of Glacier Bay National Park and Preserve is from 500m below sea level to 4,670m. There are parts of four mountain ranges, running in a north-south direction within park boundaries: the Fairweather Range to the west, culminating in Mount Fairweather at 4,670m; the tip of the St Elias Range to the north; the Takhinsha Range to the north-east; and the Chilkat Range to the east. The Alsek River, which joins Canada's Tatshenshini River, is one of very few river systems to breach the coastal range from the subarctic interior, and the Alsek River delta represents the confluence of several streams and rivers in the park. Glacier

Bay is a focal point of earth dynamics where continental plates collide, and is considered to be Alaska's highest seismic risk zone. Glacier Bay, a large fjord of 105km in length, has experienced four major advances and retreats of glaciers in recent geological time.

Two centuries ago, the Bay was completely filled with Grand Pacific Glacier. With its retreat of about 95km in the past 200 years, 20 separate glaciers, 16 of which are tidewater glaciers, have been created.

Conditions are maritime with cool, wet summers and mild, wet winters. At higher altitudes, severe arctic conditions prevail. There are four terrestrial habitats in and around the properties: wet tundra; coastal western hemlock / sitka spruce forest; alpine tundra; and glaciers and icefields. There are 28 terrestrial mammal species, 210 land and sea bird species, and over 237 fish species. There are eight marine mammals, including humpback whale which has been studied and monitored for the past 18 years. Endangered species known to occur in the area are humpback whale and peregrine falcon. Currently, nearly 200,000 visitors visit the park annually via cruise ships, tour boats, charter boats and small aircraft. At present, there are no permanent Native American settlements in the park or preserve, or in the immediate vicinity.

4. STATE OF PRESERVATION / CONSERVATION

Glacier Bay National Park and Preserve is administered by the National Park Service, Department of the Interior. The park, most of which is unmodified wilderness, is zoned into non-wilderness waters, wilderness lands, wilderness waters, development, and special use categories. The general aims of management are ecosystem conservation, baseline study and monitoring, public recreation and education. In the preserve, the proper management of ongoing consumptive uses of resources is a further objective. The 1982 Statement for Management and the 1984 General Management Plan set the overall direction for management of natural and cultural resources, visitor use, land protection, and facility development. These plans will remain in place for about 15 years.

Glacier Bay National Park and Preserve is used primarily for recreation and, apart from limited commercial and sport fishing activities, all resources within the park are fully protected from consumptive uses. The preserve category provides statutory authority for regulated commercial and subsistence hunting and fishing. The park is unique in the US in that the legislation establishing the area gave management of the ocean waters and bottom of the Bay itself, as well as an outer coastal fringe, to the National Park Service.

Of concern to Glacier Bay is the increase in visitors and number of vessels, which may affect numbers of humpback whales, and illegal commercial fishing which is taking place in park waters. There is currently a proposal to eliminate the legal harvest in marine fish and shellfish within seven years unless they prove to be

compatible with the conservation of the marine ecosystem and other park values. A potential threat from outside the park is the development of the proposed Windy-Craggy open-pit copper mine in British Columbia.

Located 24km from the park, this project has the potential to affect water quality in the Tatshenshini/Alsek River system, riparian ecosystems, fisheries, and migratory bird populations. A thorough environmental assessment and review is currently being conducted by the Government of British Columbia.

5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST

The Glacier Bay nomination, as presented by the government of the United States, provides the following justification for designation as a World Heritage property:

Natural property

- (ii) **Ongoing geological processes/biological evolution** Glacier Bay is most renowned for the last two centuries of rapid glacial retreat, the formation of 16 tidewater glaciers, its display of world-class depositional features, and a broad range of stages in ecological succession from pioneering mosses and lichens to mature temperate rainforests. Associated with these various stages is incumbent terrestrial wildlife. Glacier Bay represents a geological and ecological extension of the existing Wrangell-St Elias/Kluane World Heritage site, and enhances this site through its representation of the later stages of glacial retreat and ecological succession, and its inclusion of significant marine components and their characteristic marine species.

WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

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1. DOCUMENTATION

- i) IUCN/WCMC Data Sheet (10 references)
- ii) Additional Literature Consulted:
M. Fay. Kluane/Wrangell-St.Elias Joint Management. World Parks Congress Paper, February 1992; S. Slocombe. The Kluane-St.Elias National Parks: Seeking Sustainability Through Biosphere Reserves. Mt. Res. and Devel. 12(1). 1992; G. Wright. Principles of New Park-area Planning as Applied to the Wrangell-St.Elias Region of Alaska. Environ. Cons. 12(1). 1985; Province of British Columbia Press Release of 20 July, 1992; J.S. Peepre. 1992. Tatshenshini-Alsek Region Wilderness Study.
- iii) Consultations: USNPS and Canadian Parks Service officials, W.Schmidt, S. Cunha, J. Masselink, M. Murta, S. Baker, S. Fuller, W.O. Field, E. Askey, C.Day
- iv) Field Visit: July 1992, J. Thorsell

2. COMPARISON WITH OTHER AREAS

On a global scale the Glacier Bay National Park can be compared to the SW New Zealand/Fjordland World Heritage site and Chile's Bernardo O'Higgins/Laguna San Rafael National Parks. All three have spectacular mountainous settings with vertical sea cliffs, waterfalls, glaciers, offshore islands and diverse wildlife. All three of these protected areas are situated in the path of strong westerly moisture-laden winds and all three have contiguous protected areas inland which extend into rainshadow areas.

On a regional scale the mountain/fjord landscape of Glacier Bay is present throughout much of SE Alaska and northern British Columbia (e.g. Stephen's Passage, Misty Fjords, Le Conte Inlet). The Kenai Fjords National Park is also comparable with its combination of mountain-flanked fjords, sea arches, wildlife and remnant icefield. This park, located west of Prince William Sound features a sheltered coastline rimmed by the rugged Chugach Mountains. Through impressive, it lacks the wilderness qualities, active tidewater glaciers, and the special scientific stature and isolation that characterises Glacier Bay.

Glacier Bay, however, is one integral component of a natural continuum that extends from the Pacific Ocean, up over the coast mountains and down into the Yukon Territory. Much of this region is included in the Wrangell-St.Elias-Kluane World Heritage site. Glacier Bay is viewed as an extension of the protected area "system" which covers some three-quarters of the total land unit.

In sum, the qualities that distinguish Glacier Bay and its associated Alaska/Yukon World Heritage site are:

- the breadth of the display of active natural processes (tectonic, volcanic, glacial, fluvial, aeolian, mass wasting, soil formation, plant succession, animal migration);
- the combination of spectacular marine, coastal, wild river, and high mountain scenery;
- the diversity and abundance of habitat for wildlife and fisheries (resident and migratory, marine and terrestrial);
- the minimal extent of human modification, paucity of permanent human settlement, and pristine wilderness qualities; and
- the quality and amount of research that has been conducted on both the Alaska and Yukon sides.

3. INTEGRITY

Apart from limited commercial and sport fishing activities, all resources within Glacier Bay National Park are fully protected from consumptive uses by national legislation. The designation in the management plan of 85 % of the park as a wilderness area reinforces protection and effectively precludes direct human modification within this zone. Legislation gives management of the ocean waters and the bottom of the Bay and the outer coastal fringe to the National Park Service. This provision is a unique one and greatly enhances integrity.

A small portion of the nomination is the Glacier Bay National Preserve in the north corner of the park. This area receives much less protection and is the scene of a major commercial fishery. Sport hunting is also allowed. Consideration was given by IUCN to requesting the Dry Bay area to be excluded from the site. But as the use is seasonal and closely regulated and as the Alsek River floodplain is integral to the whole unit, its inclusion is still seen as valuable.

Threats to the integrity of the park that are being addressed by management include:

- illegal commercial fishing in wilderness waters;

- the impact of tour boats on wildlife of Glacier Bay, particularly the humpback whale;
- native Huna Tingit claims to subsistence harvesting rights within the park; and
- existence of a 80 ha mining claim on the Brady Ice Field.

Barring the discovery of major petroleum or mineral deposits, the long-term future of Glacier Bay will not be substantially affected by threats from within the boundaries of the park.

Glacier Bay, however, faces one significant threat. Although the boundaries of the park largely follow a natural watershed configuration, the headwaters of one major drainage system lie outside the park in Canada and are un-protected. It is here, in the upper Tatshenshini River 24 km from the park boundary, that a Canadian company proposes a large open-pit copper mine. The proposed mine was the subject of an IUCN General Assembly Resolution in 1990 which outlines the impacts this mine could have and called for a thorough environmental assessment. Since then the B.C. Government has deferred a decision on the mine pending a review of land use options for the region (known as the Haines Triangle). The wilderness values of the area have been the subject of an exhaustive study which demonstrates that the area is complementary and indeed is a critical lynch-pin in the Kluane/Glacier Bay unit and thus also meets World Heritage criteria.

The situation with regards to the proposed mine is similar to that faced at Coronation Hill in Kakadu which has now been resolved with the inclusion of the entire South Alligator River watershed. This would be a preferred course of action for the Tatshenshini mine as well.

4. ADDITIONAL COMMENTS

The map shows that the small gap of mostly unprotected wildland between Glacier Bay and the Wrangell/St.Elias/Kluane World Heritage site is a major deficiency in the administrative and ecological unity of the site. Pending the outcome of discussions on the Windy-Craggy mine proposal this "missing link" should be eventually added as part of the World Heritage site which would then form the world's third largest terrestrial protected area.

Another missing piece of the unit that should be part of the nomination is the Tongass National Forest Wilderness. The inclusion of this area will assist in linking Wrangell St. Elias with Glacier Bay. Most of the area is high glaciated mountains and is well-protected under the Wilderness Act.

Other additions along the Yakutat foreland and near Cape Suckling were mentioned at the Bureau meeting but these are of secondary importance to incorporating the relevant portions of the Haines Triangle and the Tongass Forest.

5. EVALUATION

Glacier Bay is nominated as an extension to the existing Wrangell/St.Elias/Kluane site on the basis of criteria ii. Glacier Bay not only increases the size of the property by 25 % but also contributes some exceptional additional values that reinforce the justification for the original site which was inscribed in 1979 on three criteria. Even though Glacier Bay could stand on its own as a World Heritage site, its addition to the Wrangell-St-Elias-Kluane property has the additional advantage of providing the impetus for bioregional or ecosystem management of the entire unit.

6. RECOMMENDATION

Glacier Bay National Park and Reserve should be added to the World Heritage List as part of the existing Canadian/U.S.A. transfrontier site of Wrangell/St.Elias/Kluane. A new, less cumbersome name for the property - (for instance "St. Elias Mountain Parks") should be requested from the authorities.

The Committee should note the gap that exists between Glacier Bay and the Wrangell/St.Elias/Kluane unit and suggest that a linkage be eventually incorporated. Specifically, the American authorities should be urged to consider adding the Tongass Forest Wilderness and the Canadian authorities encouraged to establish and incorporate a new protected area within the Haines Triangle. The Committee should also express serious concerns over the prospect of potential impacts from the Windy-Craggy mine proposal.

