

WORLD HERITAGE NOMINATION

IUCN TECHNICAL REVIEW

1. IDENTIFICATION NUMBER AND NAME 145 The Glaciers National Park
2. LOCATION: Between 49° 15'S and 50° 40'S and 72° 45'W and 73° 30'W  
Argentina, Province of Santa Cruz
3. NOMINATED BY: Government of Argentina
4. DOCUMENTATION:
  - (i) Nomination form
  - (ii) Map "Los Glaciares" 1:300,000 1977
  - (iii) Book - La Conservacion de la Naturaleza: Parques Nacionales Argentinos, 1977
  - (iv) World Directory of National Parks and Protected Areas
  - (v) Oryx, Vol, XII, No. 2

5. BACKGROUND AND SUMMARY

The nomination was submitted in Spanish and was reviewed by Dr. Marc Dourojeanni, Vice Chairman, Commission on National Parks and Protected Areas.

The nomination was also reviewed by Dr. Felipe Matos, previously the Latin American Desk Officer, IUCN.

Established as a national park in 1937, this vast alpine area includes 600,000 ha. of glaciated mountainous terrain situated on the Argentine-Chilean border. As an example of significant geological process "glaciation" the area fulfils criteria C 10(ii) (a).

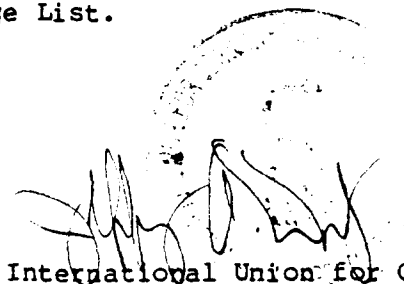
The park also meets criteria C 10(iii) as an area of exceptional natural beauty. Finally, rare species such as the huemul (Hippocamelus bisulcus), and the condor (Vultur gryphus) qualify the area under criteria C 10(iv).

6. INTEGRITY

The presence of a series of buffer zones on the east side of the park and its high alpine nature provide considerable assurance that its natural values will be protected.

7. RECOMMENDATION

The Glaciers National Park meets natural criteria (ii) and (iii) and should be added to the World Heritage List.



International Union for Conservation of Nature and  
Natural Resources

July 1981 (rev)

## THE GLACIERS NATIONAL PARK (Argentina)

During the past 100,000 years, as Homo sapiens was evolving into his fully modern form, glaciers periodically advanced to cover much of Eurasia and North America, as well as the southern temperate regions. The so-called "periglacial" environment is widely thought to have provided one of the environmental challenges which led to advances in tools, social behavior, language, and the other qualities which make a modern human. Glaciation is therefore important to man not only for its geological effects, but also for its social effects.

The best place in South America to see glaciers in action is the Glaciers National Park in southern Argentina, a vast, 600,000 hectare alpine area which contains some of the few glaciers in the world which are actually advancing, reversing the worldwide trend of retreating glaciers. The site offers a fertile ground for comparing the effects of retreating and advancing glaciers, a dramatic comparison indeed. For the advancing Mereno glacier in the park often advances so far that its snout cuts off the normal escape stream of Lake Rico, forming a natural dam which inundates vast areas before melting in the heat of summer and sending a roaring wall of water on its destructive course down the valley.

The Glaciers National Park is an area of exceptional natural beauty, with rugged, towering mountains and numerous glacial lakes, including the great Lake Argentina, a hundred miles long; at its further end three glaciers meet to dump their effluvia into the milky gray glacial water and massive blue icebergs are launched into the lake with a thunderous splash.

The most impressive wildlife in the park is undoubtedly the birds. The many lakes offer ideal habitat to black-necked swans and a variety of ducks and geese, and Chilean flamingos wade along the shore sifting small organisms from the water. Overhead glides the Andean condor, the largest bird in the world in terms of sail area, and the high grasslands are dotted with Darwin's rhea, South America's version of the ostrich.

The site suffers from introduced species, notably the European hare, whose voracious vegetarian appetite is having a major impact on the natural ecosystems, and two species of trout, which have found an excellent habitat in the rushing streams of the park. Sheep are also grazed within the park, and tourism is a major objective of park management.

But it is fascinating to see that all of these human impacts on the environment pale into insignificance next to the inexorable geological impact of the mighty glaciers.

## **ARGENTINA**

**NAME** Los Glaciares National Park & Reserve

**MANAGEMENT CATEGORY** II (National Park)  
IV (Nature Reserve)  
X (World Heritage Site - Criteria: i, ii, iii, iv)

**BIOGEOGRAPHICAL PROVINCE** 8.11.2/8.37.12 (Chilean Nothofagus/S. Andean)

**GEOGRAPHICAL LOCATION** Southern Argentine Andes, south-west Santa Cruz Province, on the Chilean border. 49½15'-50½40'S, 72½45'-73½30'W

**DATE AND HISTORY OF ESTABLISHMENT** 11 May 1937 by Law 13.895 and Decrees No. 105.433/37 and 125.596/38; Decree-Law 9.504 of 28 April 1945 and Law 19.292 of 11 October 1971. Accepted as World Heritage site in 1981.

**AREA** Park 445,900ha; reserve 154,100ha

**LAND TENURE** Park and majority of reserve government owned, although a few small settlements still remain.

**ALTITUDE** 200m-3,500m

**PHYSICAL FEATURES** A mountainous lacustrine area in the snow-capped Andean Cordillera which includes many glaciers derived from the Patagonian ice field. The glaciers adopt an elongated form approximately 350km long and around 50km wide; estimated area approximately 14,300 sq.km. This ice mantle is second only to Antarctica in area. Forty-seven glacial tongues descend from this reservoir of snow, 37 belonging to the Pacific basin and 10 to the Atlantic basin, the largest being the Upsala Glacier on Lake Argentino. Evidence suggests that all the glaciers excluding Moreno are currently retreating. Numerous outstanding examples of glacier movement and erosion occur. Descriptions of glaciers and glacial activity are given in Anon. (n.d.) and Rios (1989). The highest peaks in the park are Fitz Roy or Chalten (3,375m) and Torre (3,128m). Soils are acidic and nutrient-poor, overlying a base rock of granite and schist. The pre-Andean zone which extends eastward to the middle of the Lake Argentino basin consists mainly of clay, phthanitic and sandy rocks in which fossils occur. The sub-Andean zone is characterised by tablelands that merge into the arid areas of Patagonia and contain terminal moraines and other evidence of glacial activity. Lakes Argentino and Viedma form a vast basin of glacial origin which flows into the Atlantic Ocean via the Santa Cruz River.

**CLIMATE** Average minimum temperature 3.3½C and average maximum

Infobase produced by WCMC, January 1992

12.0½C. Average precipitation 809mm, the park lying in the rain shadow of the Andes. Most rainfall usually occurs from March to May.

VEGETATION The park contains two clearly delimited major phytogeographical formations: subantarctic Patagonian forest and Patagonian steppe. The principal species in the Andean-Patagonian forests include southern beech Nothofagus antarctica, N. pumilio, N. betuloides (present over extensive areas), N. dombeyi (southernmost distribution), Fuchsia magellanica, Winter's bark Drimys winteri, Ribes magellanicus, Berberis buxifolia, Pernettya mucronata and Philesia buxifolia; Patagonian steppe occurs to the east with bare snow-covered mountains and glaciers to the west. Studies indicate that the mixed forest has reached its succession climax which began during a more moist period. Threatened species include Guaytecas Islands cypress Pilgerodendron uviferum.

FAUNA Rich fauna includes little armadillo Zadus pichiy, chinchilla mouse Euneomys sp., mara Dolichotis patagonum, coypu Myocaster coypus santacruzae, tucotuco Ctenomys sp., puma Felis concolor pearsoni, kodkod F. guigna, guanaco Lama guanicoe, southern river otter Lutra provocax, pudu Pudu pudu, southern Andean huemul Hippocamelus bisulcus (E), chinchillon Lagidium wolffsohni, grey fox Dusicyon griseus, red fox D. culpacus, Patagonian ferret Lyncodon patagonicus, skunk Conepatus humboldti and austral chinchilla Lagidium wolffsohni sp. Birds include lesser rhea Pterocnemia pennata tarapacensis (E), condor Vultur gryphus (threatened), Kleinschmidt's falcon Falco kreyenborqi (I), peregrine F. peregrinus, Patagonian tinamou Tinamotis ingoufi, white-bellied seedsnipe Attagis malouinus, night-heron Nycticorax n. obscurus, plumbeous rail Rallus sanguinolentus landbecki, rufous-collared sparrow Zonotrichia capensis australis, yellow-bellied finch Melanodera xanthognamma, flying steamer duck Tachyeres patachonicus, torrent duck Merganetta armata, ashy-headed goose Chlophaga poliocephala, common wild goose C. picta, magellanic woodpecker Campephilus magellanicus, austral conure Enicognatus ferrugineus, common bandurria Theristicus caudatus and dappled eagle Geranoeatus melanoleucus. Snakes recorded include Bothrops ammodytoides.

CULTURAL HERITAGE No information

LOCAL HUMAN POPULATION There are no inhabitants within the park but some stock-raising local people live in the transition zone (nature reserve) and their activities are managed under National Park Law 18.594.

VISITORS AND VISITOR FACILITIES Over 8,000 visitors annually. Facilities include hotels, camping and picnic areas within the reserve area. Organised tours are also available to major sites such as Lago Argentino and some glaciers.

Infobase produced by WCMC, January 1992

SCIENTIFIC RESEARCH AND FACILITIES Flora inventory and vertebrate inventory completed. Meteorological observation and monitoring of atmospheric pollution. There are no facilities.

CONSERVATION MANAGEMENT Livestock have been removed from the Lake Rico area and Guaytecas Island cypresses and Pilgerodendron uviferum which were threatened with extinction have now recovered. Access routes are controlled by the Park wardens. Zoned as park and reserve (transition zone). Development confined to the Reserve which is further subdivided into 3 zones. Sport fishing (salmonids) occurs and is regulated.

MANAGEMENT PROBLEMS Poaching of guanaco was previously a problem but is almost curbed now. Some areas have been untouched by man, but introduced European hare Lepus europaeus and cattle are a problem. Some areas, including Mt Fitz Roy, have been heavily over-grazed, particularly by sheep. Tourism pressures can be quite high in summer. Large areas have been burnt by uncontrolled forest fires and uneven regeneration of the forest renders the park particularly susceptible to disturbance of any kind. Notofagus forest in the south has been completely destroyed by fire.

STAFF 1 Superintendent, 6 rangers and 20 administrative staff and workers

BUDGET US\$416,033 in 1981 excluding salaries

LOCAL ADMINISTRATION Intendencia, Parque Nacional Los Glaciares, Administracion de Parques Nacionales, Lago Argentino, Provincia de Santa Cruz  
Servicio Nacional de Parques Nacionales, Avenue Santa Fe 690, Buenos Aires

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DATE June 1981, updated May 1990  
0197Q

PATRIMOINE MONDIAL: CANDIDATURE

EXAMEN TECHNIQUE PAR L'UICN

1. NUMERO D'IDENTIFICATION ET NOM: 145 Le parc national des glaciers
2. SITUATION GEOGRAPHIQUE: Entre 49° 15'S et 50° 40'S et 72° 45'O et 73° 30'O, de l'Argentine, le province de Santa Cruz.
3. CANDIDATURE PROPOSEE PAR: Le Gouvernement de l'Argentine
4. DOCUMENTATION:
  - (i) Formulaire de candidature
  - (ii) Carte "Los Glaciares" 1:300,000 1977
  - (iii) Livre - La Conservacion de la Naturaleza: Parques Nacionales Argentinos, 1977
  - (iv) Patrimoine mondial des parcs nationaux et des aires protégées
  - (v) Oryx, Vol. XII, No. 2
5. PRESENTATION RESUMEE

La candidature a été soumise en espagnol et a été révisée par M. Marc Dourojeanni, Vice Président de la Commission des parcs nationaux et des aires protégées.

La candidature a également été révisée par M. Felipe Matos, Chargé du programme pour l'Amérique latine de l'UICN.

Etabli comme parc national en 1937, cette vaste région de haute montagne comprend 600,000 ha. de terrain glaciaire situé à la frontière de l'Argentine et du Chili. Cette région étant un exemple important de développement géologique glaciaire, elle remplit les conditions du critère C 10(ii) (a).

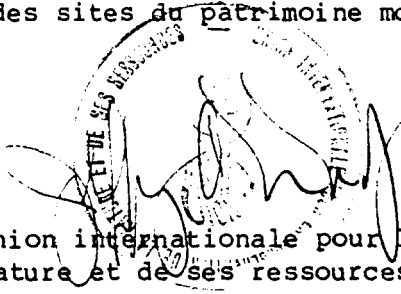
Comme le parc est une région d'une beauté naturelle exceptionnelle, il remplit également les conditions du critère C 10 (iii). Enfin, des espèces rares telles le cerf des Andes méridionales (Hippocamelus bisulcus), et le condor (Vultur gryphus) en font une région répondant au critère C 10 (iv).

6. INTEGRITE

La présence d'une série de zones tampons sur la côte est du parc, ainsi que la nature de son relief assurent dans une large mesure que ses valeurs naturelles seront protégées.

7. RECOMMANDATION

Le parc national des glaciers répond aux critères de la convention et devrait donc être inscrit sur la liste des sites du patrimoine mondial.

  
Union internationale pour la conservation de la  
nature et de ses ressources  
juillet 1981