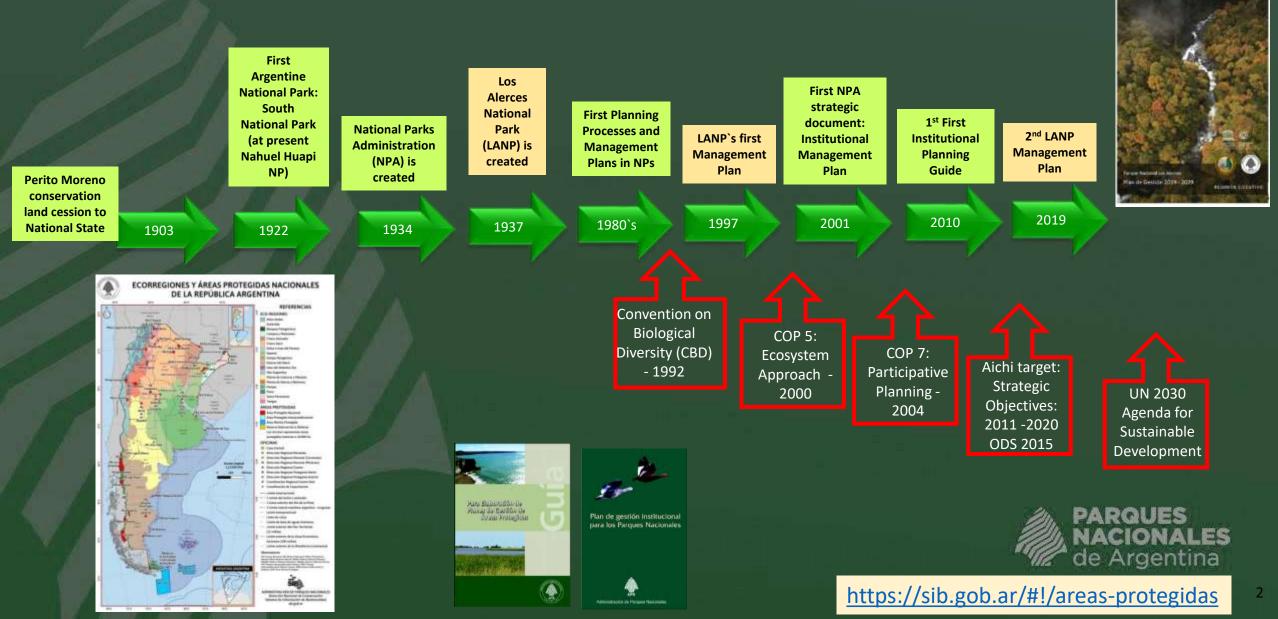
Summer School Project

### LOS ALERCES NATIONAL PARK MANAGEMENT PLAN 2019/2029



#### Argentine National Conservation System: Conservation paradigm evolution and planning trajectory



#### **GENERAL INFORMATION**

#### **Los Alerces National Park**

Surface: 259.822 he (National Park ss: 188.379 he and National Reserve: 71.443 he)

Location: NW of Chubut Province (42°34'43''S-43°09'52''S; 72° 09' 29''O - 71° 34'40''O)

Ecoregion: Valdivian Temperate Forests (By APN 1990: Andean Patagonian Forests, Valdivian Forests, High Andean environments and Steppes)

Conservation categories: National Park (ss) and National Reserve

International Designation: Included in the Andean-North Patagonian Biosphere Reserve (ANPBR, 2007) and the National Park (ss) was declared as Natural World Heritage Site(UNESCO, 2017).

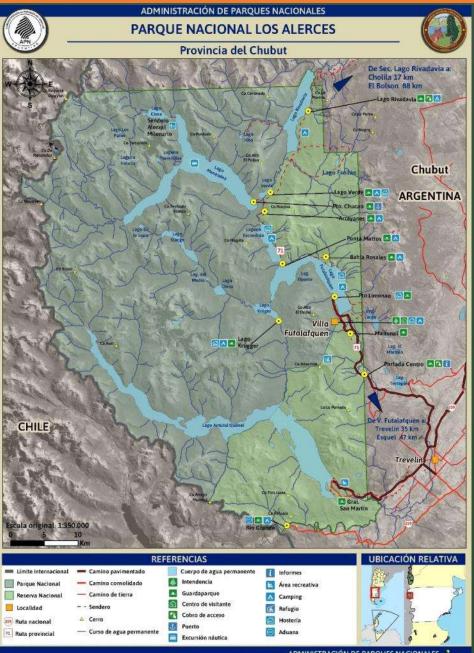
Annual visitors: 125.766 visitors (2017/2018 season)

Management Plan Temporal Horizon: 10 years

Period: 2019 - 2029

Management Plan Geographical Range:

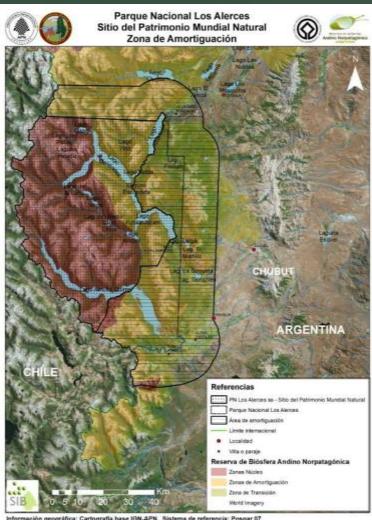
Legal Los Alerces National Park (PNLA) limits and a complementary area as buffer zone, involved in Andean-North Patagonian Biosphere Reserve corridor



ADMINISTRACIÓN DE PARQUES NACIONALES Dirección Nacional de Conservación - Dirección Regional Patagonia Norte Sistema de Información de Biodiversidad - sib.gob.ar

### MANAGEMENT PLAN GEOGRAPHIC RANGE

- Andean-North Patagonian Biosphere Reserve corridor
- Nearby communities:
  - Cholila
  - Villa Lago Rivadavia Esquel
  - Trevelin
  - Los Cipreses
  - Aldea Escolar
  - Lago Rosario
  - Corcovado
  - Cerro Centinela
  - Carrenleufu

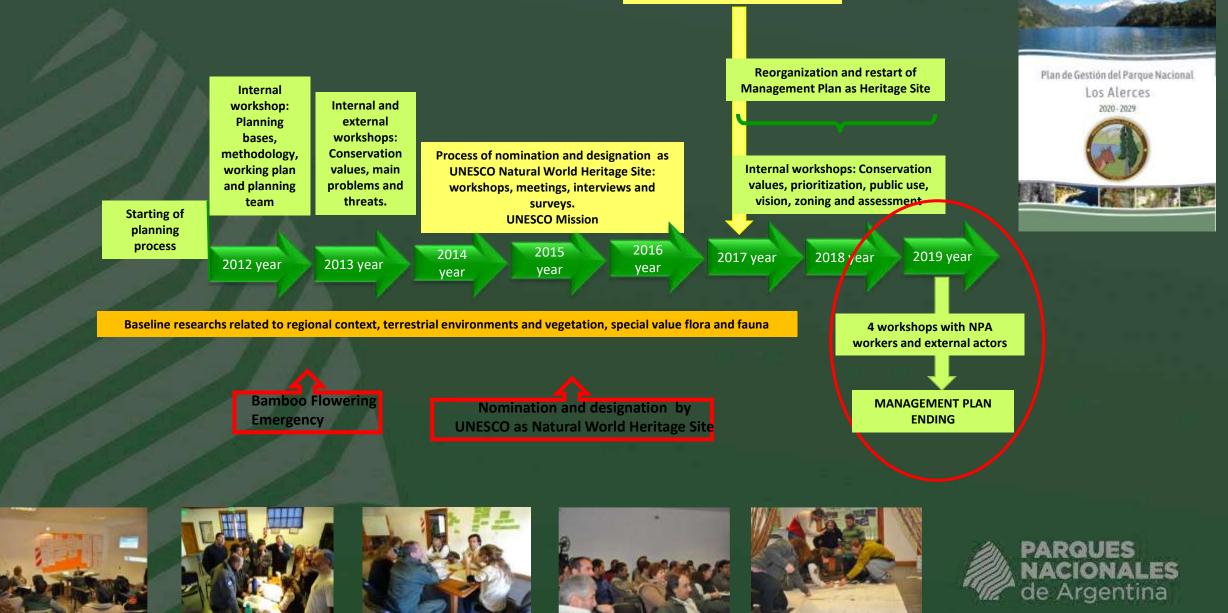


Información geográfica: Cartografia base IGN APN. Sistema de referencia: Posgar 07 Autor del mapa: Ing. Agr. Fabiana Cantarell Nodo Patagonia SIB - APN DRPN Plan de Gesción PNLA, APN, 2019.



#### **The Planning Process**

#### DESIGNATED BY UNESCO AS NATURAL WORLD HERITAGE SITE



### MANAGEMENT PLAN FOCUSED ON CONSERVATION VALUES

#### What are conservation values ?

Natural or sociocultural elements, characteristics or processes of a protected area that explain the existence of the area itself.









Why was this protected area created?

Grouping categories	Natural Values	Management priority	
	Western forest communities with an important degree of ecological integrity, including Valdivian forest cores and other associated communities		
VEGETATION COMMUNITIES	Guaitecas cypress forests	Н	
AND SPECIES	Austrocedrus forests	VH	
	Alerce forests	VH	
	Maytenus forests	VH	
	Riparian forests	VH	
	Restricted distribution flora	L	
	Huemul deer	VH	
	Big island frog (Batrachyla fitzroya)	Н	
FAUNA	Native fishes	VH	
1.1 1.1	Torrent duck and related environments	Н	
and the second s	Special value fauna	М	

Grouping categories	Natural Values	Management priority
	Menéndez Lake (Southern arm, Alerce river, Big Island)	н
	Cisne Lake water basin	VH
WETLANDS AND WATER BASINS	System of Rivadavia river - Verde Lake – Arrayanes river	н
	Stange river water basin	М
	Glaciers and high water basins	Н
PALEONTOLOGICAL SITES	Fossil sites	н
GEOLOGICAL SITES	Monogenetic Volcanoes	L

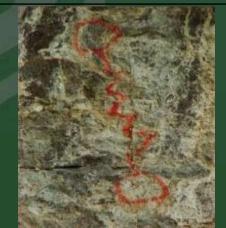








	Grouping categories Cultural Values		Management priority
	ARCHAEOLOGICAL SITES	Rock art in shelters and open sites –Shaman-	νн
	AND MATERIAL GOODS	Archaeological and historic collections	н
	HISTORICAL SITES AND MATERIAL GOODS	Sailing history goods (ports and harbours, watercrafts, anchors, photos, documents, maps, etc.)	VH
		Goods related with productive activities of the settlement period -XIX and XX century (settlements, cemeteries, farmyards, equipment, documents, etc.)	VH
	INSTITUCIONAL HISTORIC MATERIAL HERITAGE	Institutional goods (rangers settlements, main office, sawmill, historic equipment, documents, photos, maps, etc.)	VH





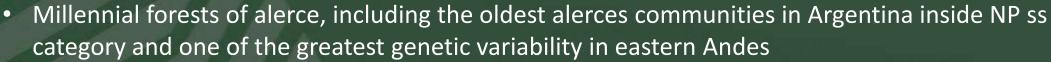


Grouping categories	Cultural Values	Management priority
IMMATERIAL HERITAGE: KNOWLEDGES AND TRADITIONAL PRACTICIES	Cultural practices of NP's rural settlers	VH
	Emblematic elements -alerce-	м
IMMATERIAL VALUES:	Natural landscapes – Arrayanes river, Pirámides chain, La Monja, Torrecillas-	VH
AESTHETIC, PERCEPTUAL OR SCENIC	Starry sky, dark nights	VH
	Wilderness	VH



### **PROTECTED AREA RELEVANCE**

- Valdivian temperate forest
- Big intact block of forests inside intangible areas
- Significative cores of "old growth forests"



- Numerous family and genus endemisms in flora and fauna (Big Island frog) and many ecoregional special value species (huemul deer, torrent duck, etc.)
- High water basins, glaciers and vast sweet-water reservoir
- Sites, ensembles and goods of the archaeological and historic heritage related to the human settlement in humid forests
- Remote areas of extraordinary beauty and natural value







### CONSERVATION VALUES ASSESSMENT

Represents the current condition of conservation of the identified values, uses and management situation.

What is the current condition of the National Park ?



#### <u>Terrestrial communities</u> maintain important levels of environmental integrity.

#### Main problems

- exotic species presence
- deficient logging
- inefficient livestock management
- forest fires

# Different sources of impact affect specific <u>fauna</u> species:

- exotic species introduction (habitat invasion, predation, disease transmission)
- inefficient livestock management
- disturbances, interferences and risks related to public use
- Aquatic environments contamination: pathogens, contaminant substances.

#### Insufficient knowledge of NP paleontological heritage











#### **Wetlands and water basins:**

In a general basis, the NP involves important sweet water reservoirs in very good conservation conditions.

Main problems:

- anthropic pressures in coastal lines and riparian vegetation
- exotic invasive species introduction
- specific impacted sectors related with anthropic activities: livestock, public use, recreation and roads nearby coast lines.





#### **Archeological and historic sites:**

Main problems:

- the effects and impacts of natural climatic conditions of forests environments
- historical heritage presents physical damages, disorganization and structure losses as a result of forest invasion, animal effects and insufficient maintenance

The **greatest risk factor** of archeological and historic sites is the potential increment of forest fires







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Botación del lanchón de Parques Gentileza José C. Mermoud



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PROFESSION



José Mermoud (h.)Construcción del lanchón de Parques Gentileza José C. Mermoud



Atracadero Bahía Toro. Gentileza José C. Mermoud

#### **Immaterial heritage:**

Main problems:

- cultural practices loss related with the movement of young people to urban areas
- insufficient experience and specific skills related with immaterial heritage management

<u>These values are recognized by both protected area settlers and</u> <u>local communities.</u>









### MANAGEMENT ASSESSMENT

- Recent designation as Natural World Heritage Site
- Increasing public use
- Difficulties related with sustainability of productive activities
- Demand of working in coordination with the neighboring territories and with the Biosphere Reserve corridor
- Management requirements related with emergencies and risks at regional level
- Villa Futalaufquen services requirements

#### Main limitations:

- insufficient budget
- inadequate staff and internal structure in relation with present management requirements















### PUBLIC USE ASSESSMENT

# Increasing **<u>public use</u>** without an adequate reinforcement of specific planning process

Main problems:

- summer season saturation
- increasing public use in free areas
- unfinished regularization of services
- insufficient facilities

Public use activities require planning and integral reinforcement including environmental monitoring and abiding by management decisions.









### MANAGEMENT PLAN OBJECTIVES

They represent the future desirable condition of conservation values and the focus on the UV reinforcement.

What will the National Park protect in the long term ?



### MANAGEMENT VISION 2019-2029

- Protect and mantain the relevant NP's conservation values, as well as the area declared Natural World Heritage Site
- Strengthen the management of different uses focused on accomplish better environmental quality and sustainability of productive activities in accordance with the protected area status
- Promote direct conservation actions at species level and build strategies to afford global risks and hazards
- Promote the improvement of settlers' better living conditions and a deeper social awareness of NP's conservation value and their related goods and environmental services.

### **INTERNAL ZONING**

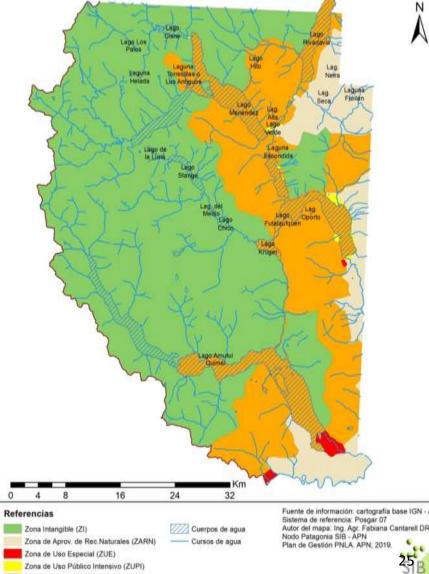
			<b>Cf</b>
Zone		Objectives and uses criteria	Surface
Intangible		<ul> <li>Keep and enhance the protection and conservation status of the "intact block free of roads" inside the NPss, including the main conservation values and associated basins integrity.</li> <li>1) Admit control activities</li> <li>2) Admit eventually scientific use, when do not exist other available of the same condition place in the area</li> </ul>	158.144,56 he (60,8%)-
Public Use	Intensive	<ul> <li>Maintain the natural quality, conservation status and processes integrity in the surrounding environments. Carry out sustainable management in those areas with direct intervention.</li> <li>1) Admit important number of simultaneous visitors in concentrates zones.</li> <li>2) Admit fix and permanent lodging, gastronomic and recreational infrastructure, related with environmental carrying capacity and the prescriptions of the Public Use Plan and the General Institutional Management Plan.</li> </ul>	726,32 he (0,28 %)
	Extensive	<ul> <li>Maintain the natural quality, conservation status and processes integrity in the surrounding environments.</li> <li>1) Admit small scale human intervention according to the previsions of the legal conservation categories and not massive or concentrated uses.</li> <li>2) Admit minimum or dismountable infrastructure (walkways and piers), in accordance with specific environmental thresholds and management guidelines established in Public Use Plan.</li> <li>3) Involves zones with different accessibility levels and recreational opportunities in close contact with nature.</li> </ul>	76.918,64 he (29,6 %)-
Special Us	e	Sustain the institutional uses and/or basic management infrastructure of the area.	98,69he (0,42 %)
Resources Use	Natural	Sustain –in specific zones of the National Reserve- historic and traditional sustainable uses of natural resources 1) Admit sustainable uses maintaining natural and cultural values, ecosystem functionality and environmental services.	22.948,13 he (8,83%)



Zona de Uso Público Extensivo (ZUPE)

Mapa de zonificación interna del Plan de Gestión 2019





### **PROPOSAL ASPECTS**

#### DIMENSIONS TEMATHIC AREAS WORKING GUIDELINES

Action and/or strategic lines should serve as a guidance to management decisions and implementation processes. They were organized in four Dimensions involving central focus of priority work and are based on:

- Implementing internal efforts
- Strengthening of participative processes
- Enhancing alliances with strategic community actors

### **CONSERVATION DIMENSION**

	Dimension	Thematic areas	Working guidelines
	CONSERVATION	Flora and Terrestrial	Sustain the integrity of Intact and continuous block free
		Communities	of roads
		Aquatics Environments	
		Fauna	• Enhance the National Reserve environment quality and
		Paleontological Heritage	sustain protected area scenic value
		Material Cultural Heritage	
			Maintain the condition of aquatics environments and water reservoir quality
			<ul> <li>Protect strict endemisms and species in critical situation</li> </ul>
			Improve exotic species management
			Settle site livestock management plans
			Ensure no renewable heritage protection and
A MAR			management

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# **SOCIO- TERRITORIAL DIMENSION**

	Dimension	Thematic areas	Working guidelines
	SOCIO-TERRITORIAL	Public Use	<ul> <li>Public use planning and management</li> </ul>
		Protected Area Inhabitants	
		Immaterial Cultural Heritage	<ul> <li>Regularization and ordering in touristic services</li> </ul>
		Environmental Education and	<ul> <li>Promotion of the inhabitants access to better living</li> </ul>
		Communication	conditions and to opportunities and tools for improving
		NP buffer area and regional corridor	productive activities
			Strengthen of Immaterial Cultural Heritage
Z			Strengthen of regional corridor functionality
			<ul> <li>Social valorization of the protected area and deep awareness about the relevance of being Natural World Heritage Site</li> </ul>

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### **INSTITUTIONAL DIMENSION**

Dimension	Thematic areas	Working guidelines
	Management and decision making	<ul> <li>Increase of planning and effective institutional management</li> </ul>
	Planning Aspects Protection and Control Infrastructure and Equipment	• Territorial coordination inside the corridor and
	Human Resources	with bordering protected areas
	Financial Aspects	<ul> <li>Enhance the internal structure and management capacities of the NP</li> </ul>

- Human Resources Improvement
  - Reformulation of the territorial work

### **RESEARCH AND MONITORING DIMENSION**

Dimension	Thematic areas	Working guidelines
RESEARCH AND MONITORING	Natural and Environmental Aspects Socio Cultural Aspects	<ul> <li>Increment and upgrade protected area scientific knowledge</li> </ul>
		<ul> <li>Systematize and upgrade scientific information to support management</li> </ul>



### **RESEARCH MAIN TOPICS:**

- Forest structure, dynamic, sanitary condition and restoration.
- Forest diffuse processes of declination related with Climate Change. Management guidelines.
- Alerce and Austrocedrus high genetic variability zones
- Huemul deer distribution, population tendencies and conservation.
- Big island frog conservation condition: main problems and hazards.
- Paleontological heritage: research, management lines and monitoring.
- Research on archaeological and historic values.
- PA inhabitants oral memory rescue: knowledge, practices and technnics.

### **MONITORING MAIN TOPICS:**

- Emblematic , critical and/or restricted distribution flora species.
- Water quality in aquatic environments under human use: Futalaufquen Lake and Rivadavia lake basin.
- Amutui Quimei environmental parameters and indicators.
- Fauna special value species.
- Huemul population conservation condition.
- Integral "Intact block" monitoring plan, including natural aspects and landscape and immaterial values: Natural World Heritage Site (UNESCO)
- Monitoring of brunt and disturbed areas.
- Monitoring of restoration processes after forest fires, livestock and exotic species extraction.
- Exotic species in terrestrial and aquatic environments.
- Rock art sites and historic heritage conservation .

### **FOCAL INTEREST TOPICS:** new information requirements

- Native fishes communities assessment in aquatic environments of LANP: management and conservation.
- Torrent duck populations.
- Big island frog hazards: management and conservation.
- Hydrological, nivo-glaciar and geomorphological characterization in natural basins.
- Native vertebrates species inventory and distribution.
- Identification and characterization of Alerce oldest populations and Guaitecas cypress communities.
- Distribution identification and characterization of *Nothofagus nítida*.
- Distribution identification and characterization of shrubs and herbaceous critical species.
- identification and characterization of main material heritage and historic sites



### Many thanks!!!!



