IUCN Conservation Outlook Assessment 2017 **(archived)**
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Please note: this is an archived Conservation Outlook Assessment for Península Valdés. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

# Península Valdés

## SITE INFORMATION

Country:
Argentina
Inscribed in: 1999
Criteria:
(x)

Site description:
Península Valdés in Patagonia is a site of global significance for the conservation of marine mammals. It is home to an important breeding population of the endangered southern right whale as well as important breeding populations of southern elephant seals and southern sea lions. The orcas in this area have developed a unique hunting strategy to adapt to local coastal conditions. © UNESCO

# SUMMARY

# 2017 Conservation Outlook

**Significant concern**

In terms of surface area the property is mostly comprised of terrestrial areas. It is important to appreciate that a century of private sheep ranching has strongly modified and degraded the Patagonian steppe. The state of the terrestrial areas has been stable since the inscription with no indications of major additional pressures in the foreseeable future. While an important conservation issue, the steppe areas are considered secondary in this assessment, as the justification of the World Heritage inscription was based on the conservation values of the coastal and marine areas. In terms of habitat availability and protection from persecution and disturbance within the property, the previously massively harvested marine mammals have good conservation prospects in this regard. However, a number of threats from pollution and marine traffic and overfishing in important feeding habitats of southern sea elephants add up to increasing concerns. Most importantly and most acutely, the abrupt and still unexplained increase in right whale mortality rates on the shores of Península Valdés have been raising major concerns in the scientific community. In light of the ongoing and anomalously high mortality rate of the main flagship species of the property, which explicitly contributes to the World Heritage justification, the overall situation is ranked as being of significant concern.

## Current state and trend of VALUES

**High Concern**
**Trend: Deteriorating**

The coastal areas critical for the conservation of marine fauna are the main basis for the property’s Outstanding Universal Value, remain well-protected overall besides occasional disturbance. The situation of the southern right whale is less promising, as the causes of an ongoing and unusually high mortality over several years remains unclear.

## Overall THREATS

**High Threat**

Compared to many other protected areas in the world, the current threats to the terrestrial and marine environments of the property, are not excessive. It is important to understand, however, that the former steppe vegetation of the peninsula has been modified by a century of sheep grazing and the removal or reduction of native mammal populations. This situation was accepted at the time of the inscription and has not fundamentally changed since. As inscribed, the World Heritage values are primarily restricted to the marine and coastal areas. Tourism has been growing with positive effects on the local economy but also side effects in terms of wildlife disturbance on land and sea, construction, challenges in terms of water and waste management. The most concerning, and indeed disturbing threat is the still poorly understood and highly anomalous mortality of the southern right whale, the flagship species of the property and its main tourism attraction.

## Overall PROTECTION and MANAGEMENT

**Some Concern**

The property has a remarkably detailed management plan, elaborated through a participatory process fully taking into account that most land of the peninsula is privately owned and managed. However, implementation is limited. The management effectiveness of terrestrial ecosystems and fisheries has been weak with little or no enforcement of any conservation provisions on private lands. An independent assessment of management effectiveness concluded that only 20 percent of the objectives stated in the 2001 management plan had been achieved. Annual operations plans have been initiated, but have never been approved or used to guide management; only 2 of the 80 ranches within the site have an approved management plan (Monjeau, 2011).

# FULL ASSESSMENT

## Description of values

### Values

### World Heritage values

#### ► High diversity and abundance of cetaceans and birds

**Criterion:(x)**

The mushroom-shaped Península Valdés forms two large gulfs (Golfo San José and Golfo Nuevo), which are protected from the harsh environmental conditions of the Patagonian Atlantic coast. Thereby marine and coastal conditions are created, which favor several cetacean species, such as the dusky dolphin (Lagenorhynchus obscurus, DD). The most spectacular manifestation of the importance for cetaceans are no doubt the globally important winter breeding and nursing aggregations of southern right whale (Eubalaena australis, LC). Some individuals of the resident orca (Orcinus orca, DD) populations have developed a sophisticated and spectacular hunting behavior named intentional stranding or beach-hunting, known only from the property and one other location worldwide, the Crozet Islands (Taylor et al., 2013; Bubas, 2009). The orcas take advantage of the peak of high tide to prey on seal pups resting ashore prior to returning to the water with the help of the highest waves of the tide. UNEP-WCMC (2011) notes 181 species of birds, including 66 migratory species, while also pointing out important nesting colonies of several species of marine and coastal birds.

#### ► Large breeding populations of pinnipeds

**Criterion:(x)**

The long coasts of the vast peninsula host the northernmost colonies of southern elephant seal (Mirounga leonina), the largest pinniped in the world

(Hofmeyr, 2015). With the exception of one small breeding colony just outside of the property, these are the only breeding population of this species in continental Argentina (Campagna et al., 1992), which otherwise breeds on the islands of the South Atlantic. There are also important populations of South American sea lions (Otaria flavescens). Both species have been slowly but steadily recovering from catastrophic historic decline due to massive commercial harvesting (Reyes et al., 1999). Some of the more easily accessible colonies of both species have become significant tourist attractions, along with the Magellanic penguin (Spheniscus magellanicus), which is breeding in several important colonies on the coasts of the property.

### Other important biodiversity values

#### ► Important remnants of Patagonian grasslands

The peninsula is privately owned and used in its vast majority. For roughly one century sheep farming has been the main land use, thereby strongly modifying the native vegetation. Nevertheless, the semi-natural terrestrial ecosystem continues to be an important remnant of the coastal Patagonian grasslands, which have been modified and overused even more intensively elsewhere. Thereby, the peninsula is a haven for native fauna and flora. The most conspicuous and easily observable mammals include guanaco (Lama guanicoe, LC), a camelid and the only native ungulate, the mara (Dolichotis patagonum, NT), endemic to Argentine Patagonia and the South American grey fox (Lycalopex griseus, LC). The mammalian apex predator is the once common puma (Puma concolor, LC), an occasional visitor only today (see Nabte et al., 2009, for a complete list of mammals). The most conspicuous steppe bird is the Lesser Rhea (Rhea pennata, LC).

## Assessment information

### Threats

## Current Threats

**High Threat**

The threats to the terrestrial areas are limited and localized. The coastal and marine areas - where the World Heritage status crystallizes - are facing multiple threats from tourism, urban development, industry and marine traffic. The most important threat is the still unresolved, very high mortality of the southern right whale over many years.

### ▶ Hunting (commercial/subsistence)

**Low Threat**
**Inside site, widespread(15-50%)**
**Outside site**

Native terrestrial mammals, especially the guanaco, fox, and puma, have been impacted by hunting and poisoning in addition to road kills (Monjeau, 2011; World Heritage Committee, 2010). Hunting is fairly common throughout the Peninsula, whereas poisoning appears to be limited to selected ranches only (Nabte, 2010). From a narrow World Heritage perspective, the threat is ranked as low due to the World Heritage focus on the marine values while noting that the removal of mammalian predators from terrestrial systems results in severe and complex ecosystem changes.

### ▶ Tourism/ visitors/ recreation

**High Threat**
**Inside site, localised(<5%)**
**Outside site**

Though visitor management is functional overall, increasing numbers of visitors have resulted in regular disturbance of the pinniped populations reproducing in the property (Monjeau, 2011; World Heritage Committee, 2014). It is important to understand that lactating mothers of elephant seals are fasting, i.e. they rely on blubber reserves for self-maintenance and nursing. Disturbance from human beings and dogs during this most sensitive phase can have devastating effects as energy reserves cannot be recovered. Studies have also shown that whale watching has some negative impacts on whale behavior elsewhere in Argentine Patagonia (Vermeulen et al., 2012). A pilot study on the effects of swim-with-whale programs at Peninsula Valdés

showed short-term effects on southern right whale behavior (Lundquist et al., 2013). Tourism itself, along with other threats, runs the risk of diminishing the very resource it depends on (Stefanski, 2014).

### ▶ Housing/ Urban Areas

**Low Threat**
**Inside site, localised(<5%)**
**Outside site**

Construction of housing and temporary shacks on the beaches currently is a relatively minor conservation issue. At the same time, it is an indication of less than rigorous management and it could grow to be much more extensive. This in turn constitutes a threat in terms of increased disturbance of pinnipeds during reproduction and nursing (Monjeau, 2011).

### ▶ Fire/ Fire Suppression

**Low Threat**
**Inside site, widespread(15-50%)**
**Outside site**

Regular anthropogenic fires to stimulate the growth of foraging grasses impoverish the native terrestrial ecosystems. The extent of biodiversity loss and degradation from wildfires is unknown (Monjeau, 2011).

### ▶ Housing/ Urban Areas

**High Threat**
**Inside site, localised(<5%)**
**Outside site**

The steady and largely unplanned growth of the small town of Puerto Pirámides has been triggered by tourism. Impacts beyond the direct footprint on the land include poorly managed waste and increasing demand for freshwater in a semi-desert environment. The poor waste management has been linked to the explosion of the populations of kelp gull (Larus dominicanus) which feed on skin and blubber pecked from the backs of living right whales (Marón et al., 2015). While very localized, the factor is therefore ranked as a high threat.

### ▶ Other

**High Threat**

**Inside site, widespread(15-50%)**
**Outside site**

Over the last years, disturbingly high mortality rates of southern right whale were observed in and near the property, with a sudden increase in 2005 (Wilson et al., 2015). Average numbers of 6 deaths p.a. during 1971 - 2004 jumped to 65 deaths p.a. during 2005 – 2014. The vast majority are calves, about 90 percent being younger than three months. Rowntree et al. (2013) reported 482 whales found dead on the shores of Península Valdés between 2003 and 2011. Sixty-one dead southern right whales were recorded at Península Valdés in 2011 (Sironi et al., 2012). The highest number of dead whales were found in 2012 (116, including 113 calves, i.e. 97 percent, Thomas et al., 2013). The high mortality is very unusual for several reasons as (i) mass mortality are generally rare in baleen populations (Rowntree et al., 2013); (ii) mortality occurred over the entire breeding season and were not grouped into short periods like most unusual mortality events; (iii) mortality is recurrent from year to year; and (iv) mortality is heavily biased towards newborn calves (Wilson et al., 2015). The situation has been raising major scientific and conservation interest and concern, including by the International Whaling Commission, which facilitated a major workshop in 2010 hosted by the Centro Nacional Patagónico (CENPAT) in Puerto Madryn, Argentina and a further workshop in California in 2013 (Thomas et al., 2013). Several hypotheses have been developed to explain the causes. Leading hypotheses include a decline in food availability, biotoxin exposure and infectious disease, perhaps jointly contributing as factors. Chemical contaminants were considered less likely by experts brought together at the workshops. Other factors, such as demography, orca attacks, disturbance from whale-watching activities, vessel strikes and fishing gear entanglement contribute to whale mortality but were ruled out as significant causes of the anomalous mortality events whereas kelp gull attacks are considered to be a contributing factor to some whale calf deaths (Thomas et al., 2013). Given that the important southern right whale population reproducing in the gulfs formed by the peninsula is a main justification for the World Heritage status, the still unexplained and highly anomalous mortality is a reason for major concern.

▶

### Water Pollution, Household Sewage/ Urban Waste Water, Industrial/ Military Effluents

**Data Deficient**
**Inside site, extent of threat not known**

The town of Puerto Madryn is located on the coast of one of the two gulfs which set the property apart from the rest of the Patagonian Atlantic coast. The town has been quickly growing due to the major aluminum smelter, and the fishing and tourism industries. Marine pollution through runoff, the discharge of liquid wastes, and oil pollution from transfer points and effluents from the aluminum industry in Puerto Madryn is growing as well ( World Heritage Committee, 2014; IUCN, 1999).

## ► Livestock Farming / Grazing

**Low Threat**
**Inside site, throughout(>50%)**
**Outside site**

Most of the peninsula is privately owned and has been used for sheep-farming since the relatively recent colonization of this part of Patagonia. Sheep grazing has caused major modifications in the steppe ecosystem and has degraded biodiversity (Blanco et al., 2017). The degree of biodiversity loss and degradation varies with grazing intensity, which is highest in the northeastern and southeastern portions of the property. Nabte et al. (2013) documented how the grazing competition and harassment by sheep farmers poses a severe challenge to the conservation of the property's only native ungulate, the guanaco, which is also under pressure from hunting. Sheep grazing also resulted in a major human-wildlife conflict leading to the local disappearance of the puma, the terrestrial apex predator of the peninsula. While it can be argued that the property has primarily been inscribed in recognition of the importance for marine mammals (World Heritage Committee, 1999 and 2014; IUCN, 1999), basic conservation expectations apply to the entire natural World Heritage property. Given the World Heritage focus on the marine mammals, the threat is ranked as low even though the high grazing intensity is a fundamental concern for the conservation of the remnants of the Patagonian steppe.

## ► Other

**High Threat**

**Inside site, widespread(15-50%)**

Seagull populations, in particular of kelp gull (Larus dominicanus) have been steadily and rapidly increasing, probably taking advantage of poor waste management practices at urban landfill and from large amounts of bycatch at sea and at fishery (Sironi et al., 2009). Kelp gulls were first observed to feed on skin and blubber of living whales when they surface (Marón et al., 2015). According to recent findings, the percentage of living mothers and calves with gull lesions increased from an average of 2 percent in the 1970s to 99 percent in the 2000s (Marón et al., 2015). This harassment, judged as a form of parasitism by some researchers, has caused the whales to modify their behavior, surfacing less completely and for shorter periods (Argüelles et al., 2016; Sironi et al., 2009). Besides the effects on the animals this has of course also implications for whale watching. While attempts to cull kelp gulls so far have not resulted in effective population control, a number of options have been proposed to manage the populations (Sironi et al., 2009). Gull harassment appears to be affecting the overall health and survival of newborn right whale calves at Península Valdés (Thomas et al., 2015) and may be a contributing factor to the massive increase in right whale mortality rates over the last years (Marón et al., 2015; Thomas et al., 2015).

### ► Fishing / Harvesting Aquatic Resources

**High Threat**
**Outside site**

Both the southern right whale and the southern elephant seal are only seasonally present in and near the property. Their main foraging areas are located far away from the property (Jonker et al. 1998). Lactating mothers of both species do not feed at all when in the area. Environmental change in their wide ranges and, in the case of the elephant seals, competition with fisheries are plausible reasons for concern in terms of food availability (Kovacs et al., 2012). As for fisheries, it is important to distinguish the near-shore commercial fishing, which is an important economic sector in Argentine Patagonia, and largely uncontrolled fishing elsewhere in the South Atlantic. While beyond the scope of this assessment, environmental change and intense commercial fishing must be considered as factors in the future of the property.

### ► Shipping Lanes

**High Threat**
**Inside site, localised(<5%)**
**Outside site**

The construction of a major commercial port in Puerto Madryn dates back to the 1970s as an integral part of the construction of the ALUAR (Aluminum Argentino) aluminum smelter. The smelter required both raw materials, primarily bauxite, and the shipping out of the aluminum products. Later on, in the 1980s, the port also became an important base of fisheries operations (fishing, factory and freezer vessels). In addition, the port serves many other transportation needs of the growing town and its hinterland (Puerto Madryn, Administración Portuaria, 2017). Every single ship to and from the port has to cross the entire Golfo Nuevo, which comes with threats in terms of disturbance, spill risks and vessel strikes (UNEP-WCMC, 2011; IUCN, 1999; Campagna et al., 1997).

## Potential Threats

**Low Threat**

Development of the coast and sections of the privately owned hinterland is a potential threat requiring attention. At this stage, it does not amount to a major threat besides localized issues near the main settlements.

### ► Tourism/ Recreation Areas

**Low Threat**
**Inside site, localised(<5%)**
**Outside site**

There are strong incentives to develop coastal areas in and around property. Such development would, among other effects, diminish the quality of sensitive bird breeding and marine mammal nursing habitat (UNEP-WCMC, 2011). The sale of ranches to subdivide for development of vacation homes is a further on-going threat (Monjeau, 2011).

### ► Water Pollution

**Data Deficient**
**Inside site, extent of threat not known**

**Outside site**

The IUCN evaluation (1999) noted potential threats of marine pollution from passing oil tankers.

## Protection and management

### Assessing Protection and Management

#### ► Relationships with local people

**Some Concern**

Relationships between and among governmental, non-governmental, and special interest groups have historically been difficult because of the establishment of a protected area on private land without adequate consultation in the perception of many of the land owners. Another direct conflict are the tensions between tourism and conservation, even though tourism is entirely based on the area's natural conservation values. The elaboration of the management plans, however, invested considerably in the involvement of a comprehensive range of stakeholders. Consequently, improvements in local relationships have been noted (Monjeau, 2011).

#### ► Legal framework

**Mostly Effective**

The property is one unit of the Provincial System of Protected Natural Areas (Provincial Law No. 4617) of Argentina's Chubut Provice. It was established in 1983 as a multiple-use reserve by Provincial Law No. 2161 (World Heritage Committee, 2014). A buffer zone of 5 nautical miles around the peninsula is an integral part of the property (UNEP-WCMC, 2011).

#### ► Enforcement

**Serious Concern**

Law enforcement is patchy as control and surveillance is limited, just as the implementation of the management plan. Illegal activities, such as poaching is difficult to control on the large, remote and privately-owned ranches. Tourists and dogs sometimes disturb or harass the colonies of marine

mammals and birds on the coast. The main and so far largely unaddressed question are the high seas fisheries. However, this is an issue of the absence of law rather than an enforcement issue.

### ► Integration into regional and national planning systems

**Some Concern**

The property is part of a regional system of protected areas but the tangible implications are limited for the site as management of functional linkages with other protected areas is minimal. The management planning process provides many helpful opportunities to coordinate with relevant sectors, such as fisheries, tourism and marine traffic and transportation (Monjeau, 2011).

### ► Management system

**Some Concern**

The Provincial Tourism Authority is responsible for the protection of the area, but decisions are agreed with representatives of all stakeholders, and implementation is carried out by a non-governmental management authority (UNEP-WCMC, 2011). The property has a remarkably detailed management plan, elaborated through a participatory process fully taking into account that most land of the peninsula is privately owned and managed. However, implementation is limited. Major emphasis is on tourism management, and environmental education and interpretation. Annual operations plans have been initiated, but have never been approved or used to guide management; only 2 of the 80 ranches within the site have an approved management plan (Monjeau, 2011).

### ► Management effectiveness

**Serious Concern**

An independent assessment of the management effectiveness found that only a modest 20 percent of the objectives outlined in the 2001 Management Plan had been achieved (Monjeau, 2011). One study found that threatened terrestrial mammals were least abundant in zones supposed to have the highest level of protection according to the management plan (Nabte, 2010). This likewise indicates limited management effectiveness.

## ► Implementation of Committee decisions and recommendations

**Data Deficient**

So far the World Heritage Committee has only taken two decisions, the original inscription decision and the more recent adoption of the Statement of Outstanding Universal Value. The latter (World Heritage Committee, 2014) does not imply any follow-up. On the occasion of the inscription decision (World Heritage Committee, 1999), detailed recommendations to the State Party were articulated: "(a) ensure that effective controls are in place over any possible pollution threat from the town of Puerto Madryn to the waters of Golfo Nuevo, (b) support the efforts of the relevant authorities to secure the equipment needed to respond quickly to any oil hazard from passing shipping so as to protect the marine conservation values of the area; (c) produce a tourism management plan as an integral element of the overall management plan; (d) encourage implementation of the Integrated Collaborative Management Plan, and in particular to ensure that farmers and other private owners of land can play a full part in the development of environmentally responsible tourism; and (e) work at the international level to ensure that the marine mammals concerned are protected throughout their range". While the degree of implementation cannot be assessed within the scope of this assessment, the recommendations remain valid and deserve to be recalled.

## ► Boundaries

**Serious Concern**

The boundaries of the property include the entire land area of the peninsula, superimposed on privately owned ranches, and a 5 nautical mile marine buffer zone. Given the conflicts between ranching and conservation, and the fact that it is the marine mammal concentrations that are the main basis for the property’s Outstanding Universal Value, there is a compelling logic to re-defining the boundaries. Many land areas not necessarily critical in terms of conserving the most particular conservation values, which center along the coast and the coastal waters, especially the two gulfs formed by the peninsula. At the same time, given the severe degradation of the Patagonian steppe elsewhere, the terrestrial parts of the peninsula do have important conservation values and re-opening the debate on boundaries may be

unhelpful (Nabte, 2010). It is also of certain concern that the marine area hosting the extraordinary and sensitive marine mammal populations, are not an integral part of the property but rather a "buffer zone", suggesting the usefulness of re-visiting the configuration and status of the marine area (Monjeau, 2011).

### ► Sustainable finance

**Serious Concern**

The provincial government, the National Tourism Organisation and visitor fees finance the management of the property. The budgets, however, are insufficient to implement the management plan. Only a small percentage of the visitor fees is re-invested in managing the resources underpinning tourism (Monjeau, 2011; UNEP-WCPA, 2011).

### ► Staff training and development

**Some Concern**

Staffing is modest and the limited number of administrative personnel and rangers receive occasional training only, offered by NGOs. There is no overall staff training and development program. The site would benefit from increase in staff numbers, as well as additional equipment and vehicles (Monjeau, 2011; World Heritage Committee, 2014).

### ► Sustainable use

**Data Deficient**

Resource use occurs across the entire land area in the form of sheep grazing. if defined as a use, tourism occurs along the few roads, in selective locations on land and in organized tours on sea. It is clear that the longstanding land use for wool production has resulted in impacts, including soil degradation and can thus hardly be called "sustainable" in the conventional interpretation of the term in the sense of maintaining productivity. Tourism has well-documented impacts but there are no signs of substantial exceedance of acceptable numbers and impacts. As no studies have been undertaken to determine if current and projected uses of the property’s resources are sustainable, no rating is proposed.

### ► Education and interpretation programs

**Mostly Effective**

Although there appears to be no systematic plan for environmental education or interpretation with activities being somewhat sporadic and isolated (Monjeau, 2011), non-governmental actors have developed a range of educational initiatives, such as the educational program “Bringing the Whales to your School”, which was developed by the Instituto de Conservación de Ballenas. The visitor centre at the entrance of the property is an excellent example of an attractive and informative meeting point exposing visitors to the history and attractions of the area.

### ► Tourism and visitation management

**Some Concern**

The Provincial Tourism Organisation trains the tour guides for private companies. Excellent centres exist both on the isthmus and in the nearby town of Puerto Madryn (UNEP-WCMC, 2011; World Heritage Committee, 2014). Local NGOs provide educational brochures to visitors, such as the Guide for Responsible Whalewatching, distributed annually by the Instituto de Conservación de Ballenas (www.icb.org.ar) in cooperation with the Administration of the Península Valdés Natural Area. From the broader perspective of environmental management, it is regrettable that the incremental pressure from tourism is not matched by corresponding investment in waste management etc.

### ► Monitoring

**Serious Concern**

Monitoring is restricted to individual activities by research institutions and non-governmental organizations. The work includes long time series of research on marine mammals published in respected peer-reviewed journals. The main concern, however, is the lack of any coherent overall monitoring of conservation outcomes (Monjeau, 2011).

### ► Research

**Mostly Effective**

Península Valdés has long been attracting scientific attention in the international research community, with extensive research concentrating on the colonial marine mammals and birds (UNEP-WCMC, 2011). The Southern Right Whale Research program (see projects section) started in 1970 and has since become the world's longest continuous study of a large whale based on tracking the lives of known individuals.

## Overall assessment of protection and management

**Some Concern**

The property has a remarkably detailed management plan, elaborated through a participatory process fully taking into account that most land of the peninsula is privately owned and managed. However, implementation is limited. The management effectiveness of terrestrial ecosystems and fisheries has been weak with little or no enforcement of any conservation provisions on private lands. An independent assessment of management effectiveness concluded that only 20 percent of the objectives stated in the 2001 management plan had been achieved. Annual operations plans have been initiated, but have never been approved or used to guide management; only 2 of the 80 ranches within the site have an approved management plan (Monjeau, 2011).

### ► Assessment of the effectiveness of protection and management in addressing threats outside the site

**Some Concern**

Management targets internal threats to the property with limited effectiveness. The threats stemming from outside the property, such as waste management, coastal development and fisheries in the feeding areas of the marine mammals spending only part of their life-cycles in the property, is not subject to any systematic management. This situation is not considered to be alarming as the external threats do not amount to fundamental threats at this stage.

### ► Best practice examples

Taking into account the overall history since the relatively recent "European" arrival, one cannot help but realize that the very same marine mammal

species protected today and attracting large numbers of visitors were commercially exploited in very large numbers. This resulted in the collapse of the populations, from which southern elephant seals and southern right whales are still recovering. For all the management shortcomings today, it is most encouraging that short-sighted and predatory resource use of mammals has given room to non-consumptive use of the very same species.

## State and trend of values

### Assessing the current state and trend of values

#### World Heritage values

▶ **High diversity and abundance of cetaceans and birds**

**High Concern**
**Trend:Deteriorating**

Well-documented, unusually high whale mortality affecting mostly calves under 3 months (Wilson et al. 2015) is a strong concern, which remains to be fully understood more than a decade after its discovery. McAloose et al. (2016) report that 605 dead southern right whales were found between 2003 and 2012. The authors noted ante-mortem gull parasitism as the most common gross finding, as well a ship strikes as one cause of death. At the same time, known or probable cause of death could not be established in the majority of cases, leaving the main question marks unanswered.

▶ **Large breeding populations of pinnipeds**

**Low Concern**
**Trend:Deteriorating**

The resting, breeding, calving and nursery sites of pinnipeds are protected and mostly respected by visitors despite reports of occasional disturbance from tourists and dogs. The main concern are thus the feeding grounds far away from the property, which are under increasing pressure from excessive fishing (Monjeau, 2011; UNEP-WCMC, 2011).

### Summary of the Values

► **Assessment of the current state and trend of World Heritage values**

**High Concern**

**Trend: Deteriorating**

The coastal areas critical for the conservation of marine fauna are the main basis for the property's Outstanding Universal Value, remain well-protected overall besides occasional disturbance. The situation of the southern right whale is less promising, as the causes of an ongoing and unusually high mortality over several years remains unclear.

► **Assessment of the current state and trend of other important biodiversity values**

**High Concern**

**Trend: Stable**

The terrestrial parts are a significantly large remnant of the Patagonian steppe. Most of the vegetation has been modified and degraded over many decades of sheep grazing, which is also one reason for the decline of native fauna (Monjeau et al., 2011; Nabte, 2010).

## Additional information

### Benefits

### Understanding Benefits

► **Importance for research, Contribution to education**

The unique and spectacular wildlife viewing opportunities in several locations of the property, including some publicly accessible areas, offer exceptional opportunities for environmental education. The excellent visitor center at the entrance of the peninsula and the likewise excellent Ecocentro Mar Patagonia

in nearby Puerto Madryn strongly contribute to the realization of this potential. There are high-quality research institutions in Puerto Madryn and a wealth of longstanding scientific cooperation at the nation and international level. Decades of work have produced an impressive body of literature on numerous aspects of marine biology, ecology and conservation.

► **Outdoor recreation and tourism, Natural beauty and scenery**

Tourism and recreation have become major factors in the local economy, including in the nearby town of Puerto Madryn, attracting visitors from all parts of the world.

► **Fishing areas and conservation of fish stocks, Livestock grazing areas**

The steppe is used in almost its entirety for grazing of sheep, horses and some cattle across most of the peninsula. Since colonization, livestock has been a main contributor to the livelihoods of the privately operated ranches. Fishing has become another pillar of the local economy since the 1980s.

► **Tourism-related income, Provision of jobs**

Tourism and recreation have become a main element of the local economy and help buffer the decline of the Patagonian sheep wool industry.

## Summary of benefits

The protected area has become a major factor in the local economy, directly and indirectly providing jobs and income for an important part of the local communities. The peninsula and in particular its important marine mammal populations are subject to intensive research. Last but not least, the property provides extraordinary opportunities for visitor experiences and education.

## Projects

## Compilation of active conservation projects

| № | Organization/ individuals | Project duration | Brief description of Active Projects |
|---|---|---|---|
| 1 | Fundación de Vida Silvestre, Argentina | | Building upon longstanding involvement in the conservation of the protected area predating its World Heritage inscription, Fundación Vida Silvestre Argentina (FVSA) operates the San Pablo de Valdés reserve within the property besides conducting and/or contributing to multiple other projects. |
| 2 | Fundación Naturaleza para el Futuro | | The project aims at contributing to the systematic management of domestic garbage, a challenge in the property and throughout the province of Chubut. |
| 3 | Programa de Arqueología Subacuática (PROAS) | | The project named "Relevamiento del patrimonio cultural subacuático de Península Valdés (Chubut)" uses non-intrusive techniques to better understand the magnitude and characteristics of underwater cultural heritage in the Peninsula Valdes and Puerto Madryn region. |
| 4 | Instituto de Análisis de Recursos Naturales | | Evaluation and actualization of the Management Plan for the Valdes Peninsula Natural Protected Area. |
| 5 | Instituto de Conservación de Ballenas / Ocean Alliance | | The Right Whale Research Program (Programa de Investigación Ballena Franca Austral) has been providing science based data to government authorities to inform sound decision-making to protect right whales and their habitat since 1970. Its right whale photo-id catalog, which is the most complete for the species in the world. |
| 6 | Southern Right Whale Health Monitoring Program (Universities and local NGOs ICB/OA, FPN) | | The programme monitoring of the health of the southern right whales of the Península Valdés started in 2003 and has since built the most complete dataset of biological samples for the species in the world, based on post-mortem examinations. It brings together a wide range of conservation actors and research institutions. |
| 7 | British Antarctic Survey | | Research project aiming at a better understanding of the alarming mortality rates of southern right whale. |
| 8 | Centro Nacional Patagonico (CENPAT-CONICET) | | CENPAT is the Puerto Madryn-based, multidisciplinary research center under Argentina's National Research and Technology Council (Consejo Nacional de Investigaciones Científicas y Técnicas). It is engaged in numerous research projects of direct relevance to the property. |

## Compilation of potential site needs

| № | Site need title | Brief description of potential site needs | Support needed for following years |
|---|---|---|---|
| 1 | Consolidation of the implementation of the management plan | The property has a remarkably detailed management plan, elaborated through a participatory process fully taking into account that most land of the peninsula is privately owned and managed. The implementation is limited, including as regards funding and initiatives investing in the implementation of the plan would be highly desirable. Independent assessment of the current management effectiveness for the property would be a helpful foundation. | |
| 2 | Consideration of protection status for elephant seal colony just outside of the property | The southern elephant seals of the peninsula are a spectacular conservation value and part of the attractiveness of the property. Scientifically, it is remarkable that there are no other breeding colonies of the species elsewhere in the South American mainland. It is unfortunate that a smaller colony of the species at the southern side of the entrance of the Golfo Nuevo does not have any effective protection. It may deserve to benefit from more active conservation and might even be considered as an extension area to the World Heritage property. | |

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