



Conserving the Baja California Peninsula

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The Baja California peninsula, 760 miles long and with an area of 89,100 sq. miles, is the world's second longest peninsula. It has almost two thousand miles of coastline, being bound on the west by the Pacific Ocean and on the east by the Gulf of California (or Sea of Cortéz), both of which are incredibly rich in marine life. Its geologic history has led to a uniquely varied environment with a wide range of habitats* and a high level of biodiversity.

While over 60% of the peninsula's landmass falls within the Sonoran Desert, there can also be found mangrove and dry tropical forests in the south as well as snow-capped mountains with pine forests in the northeast. The Gulf is host to the northernmost coral reef in the America's, while three shallow Pacific Ocean lagoon systems form refuges and provide nurseries for California gray whales (*Eschrichtius robustus*) at the southern range of their annual migratory path.

A small population of berrendo, or Peninsular Pronghorn antelope, an endangered, endemic subspecies (*Antilocapra americana* ssp. *peninsularis*) roams the vast, mostly unpopulated plains of the Vizcaíno Desert Region. The vestiges of yet another protected species, the borrego cimarrón or Peninsular Bighorn Sheep (*Ovis canadensis* ssp. *nelsoni*) are now restricted to the steep slopes of the Sierra San Francisco and Las Tres Vírgenes volcano complex.

While only few remnant populations remain of the original native cultures (Kumiai, Paipai, Cocopa and Kiliwa in northern Baja California and the Cochimí, Guaycura and Pericu of the southern regions), what has survived of the peninsula's prehistoric inhabitants is still evident in the hundreds of rock art sites dispersed throughout the peninsula. Baja's rock art reached its apex in the central region, where cave paintings in the "Great Mural" style (el estilo Gran Mural), estimated to be at least 7,500 years old, adorn isolated caverns and rock overhangs of the sierras.

For the most part, the peninsula is a rugged, uninhabited place, with little water and native species of flora and fauna that are well adapted to their present environment. It is the isolation and rugged wildness of Baja that has attracted so many visitors since the 1800's, many of whom were seeking monetary, scientific and spiritual riches. Others came looking for adventure or to settle Mexico's frontier. Ironically it is the peninsula's pristine nature and isolation that has both lured so many and simultaneously led to the growing exploitation of its resources and its environmental degradation.

Protected Areas & Species

The Baja Peninsula is host to a wide range of officially established protected natural areas, including three terrestrial and two marine National Parks, three Protected Natural Areas, various Wildlife Sanctuaries, and four Biosphere Reserves, of which the Vizcaíno Biosphere Reserve is the largest protected area in Latin America. The Vizcaíno is also recognized by UNESCO as a World Heritage Site for its cave paintings and whale and borrego sanctuaries.

In addition to antelope, bighorn sheep, and gray whales, there are a number of other threatened species on the peninsula that are federally protected: five of the world's seven species of sea turtles either nest on peninsular beaches or feed in its waters; a number of other whale species (e.g., Blue, Humpback, Finn) call the region home. Plants species and their habitats are also protected: over 100 species of cacti, about 80% of them endemic and found nowhere else on earth are under federal protection as are mangrove forests and portions of the arid tropical forest of the Cape Region.

Environmental protection has a long history in Mexico and conservation on the peninsula was well underway by the 1970's with the establishment of the gray whale sanctuaries on the Pacific Coast. Mexico's environmental laws, and more specifically the *General Law of*

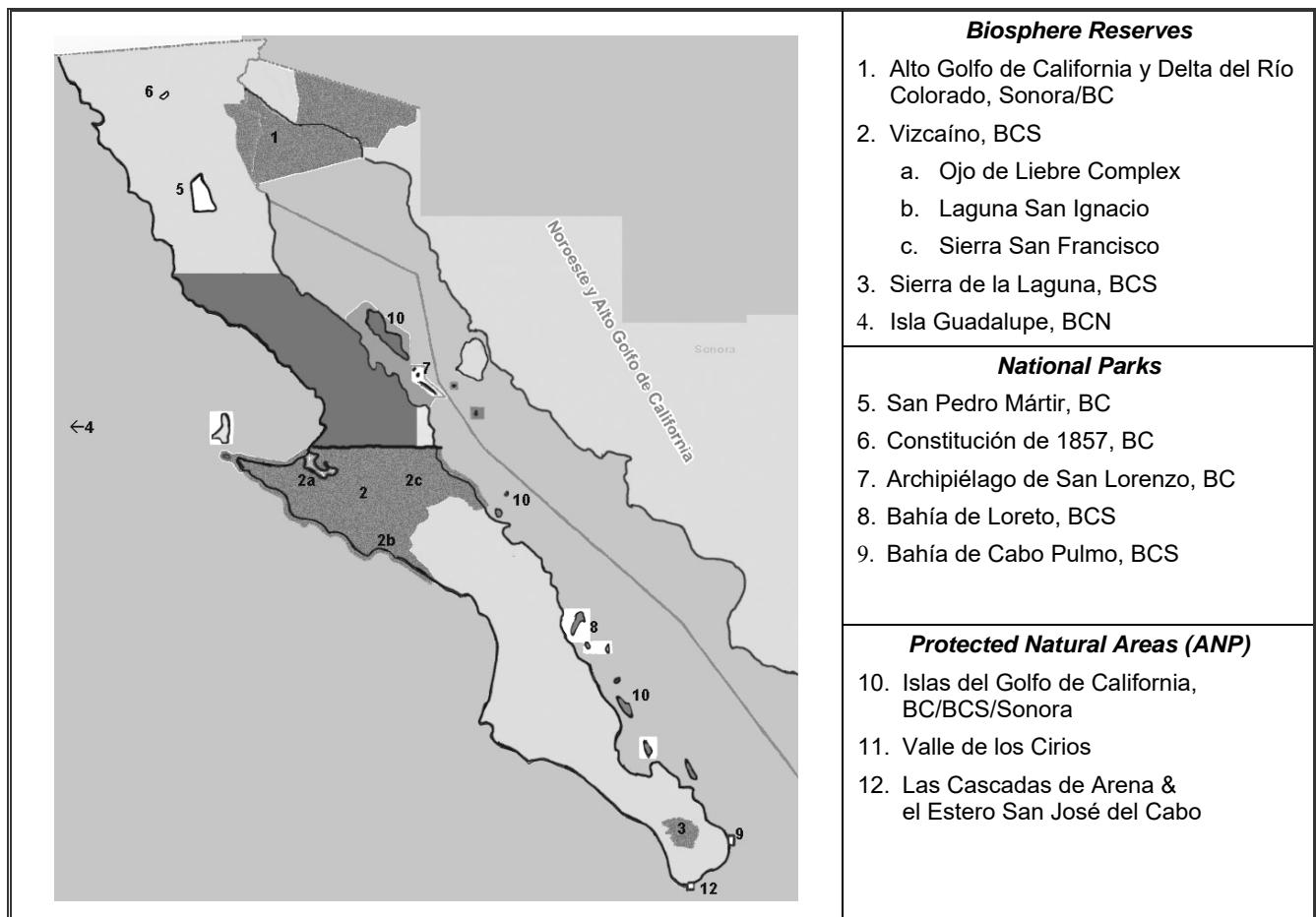
* Underlined text—see vocabulary list

Ecological Balance and Environmental Protection first passed in 1988 (and with several subsequent, significant amendments), are among the world's strongest and most forward-looking. However, like all laws, their effectiveness depends on the government's willingness and ability to apply and enforce the statutes and the influence of the business sector and local governments in bypassing or thwarting them.

A wide range of local and international non-profits groups (NGO's) have formed to address conservation issues and they have continued to be instrumental in conserving the wild peninsula and its flora and fauna. At all levels (from school children to adults, and from small, informal, grassroots groups to service providers to well-funded binational environmental groups) their active participation has been vital in identifying problems and seeking solutions that benefit both

the environment and the economic interests of the communities involved.

The intersection of governmental agencies with private sector businesses and local citizens groups has led to: a capture-captive breeding-release program aimed at increasing the number of berrendo; a stewardship-hunting program that maintains a healthy population of bighorn sheep; numerous hatcheries that annually release tens of thousands of baby sea turtles; the ongoing protection of the whale nurseries amidst pressures for industrialization of these areas; and a general overall increase in ecotourism. While problems do exist throughout the peninsula, such as a lack of sufficient governmental funding aimed at enforcement and some programs with questionable success, the overall trend is a positive one as all sectors come together to find creative solutions.



Vocabulario—Vocabulary



adapted; to adapt	adaptado <i>adj</i> ; adaptar <i>v</i>
bighorn sheep	borrego cimarrón <i>m</i>
biodiversity	biodiversidad <i>f</i>
Biosphere Reserve	Reserva de la Biósfera <i>f</i>
cactus, cacti	cacto, cactus <i>m</i> ; cactos, cactus <i>mpl</i>
capture-captive breeding and release program	programa de captura, reproducción en cautiverio y liberación <i>m</i>
cave (rock) paintings, rock art	pinturas rupestres <i>f</i> ; arte rupestre
citizens group or organization	grupo civil <i>m</i> o organización civil <i>f</i>
conservation; to conserve	conservación <i>f</i> ; conservar <i>v</i>
coral reef	arrecife <i>m</i>
degradation; to degrade	degradación <i>f</i> ; degradar <i>v</i>
dry (arid) tropical forest	bosque árido tropical
ecologist (a scientific profession)	ecólogo(a) <i>m,f</i>
ecotourism	ecoturismo <i>m</i>
endangered species	especie en peligro de extinción <i>f</i>
endemic (restricted to a particular range)	endémico(a)
environment	medioambiente <i>m</i> , medio ambiente <i>m</i>
environmental activist (not necessarily a scientist)	ecologista <i>mf</i>
exploit; exploitation	explotar; explotación <i>f</i>
fauna	fauna <i>f</i>
flora	flora <i>f</i>
grassroots; grassroots support	bases (de apoyo político) <i>fp</i> ; apoyo popular <i>m</i>
gray whale	ballena gris <i>f</i>
habitat, habitats	hábitat <i>m</i> , hábitats <i>mp</i>
hatchery	vivero <i>m</i>
involve oneself	involucrarse
mangroves; mangrove forest	manglar <i>m</i> ; bosque de mangles <i>m</i>
national park	parque nacional <i>m</i>
Non-governmental agency (NGO)	organización no gubernamental (ONG) <i>f</i>
peninsula <i>n</i> , peninsular <i>adj</i>	península <i>nf</i> , peninsular <i>adj</i>
pine forest	bosque de pinos <i>m</i>
pronghorn antelope	berrendo <i>m</i>
protect	proteger
protected natural area	área natural protegida (ANP) <i>f</i> (el área, las áreas)
refuge, sanctuary	refugio <i>m</i>
saltworks	salinera <i>f</i>
sanctuary, refuge	santuario <i>m</i>
sea (marine) turtle	tortuga marina <i>f</i>
service provider (e.g., tour company, guides)	prestador(a) de servicios <i>mf</i>
Sonoran Desert	desierto sonorense
threatened species	especie amenazada <i>f</i>
United Nations Educational, Scientific and Cultural Organization (UNESCO)	Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura <i>f</i>
volunteer	trabajar como voluntario(a)
(whale, bird, plant...) watching	avistamiento de (ballenas, aves, plantas...) <i>m</i>
World Heritage Site	sitio del patrimonio de la humanidad <i>m</i>

RESOURCES



Governmental Agencies/Entidades Gubernamentales

CONABIO Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (National Commission for the Knowledge and Use of Biodiversity)—responsible for managing protected areas
www.biodiversidad.gob.mx (portal w/ lots eco resources)

CONANP Comisión Nacional de las Áreas Naturales Protegidas www.conanp.gob.mx
(material didáctico en español <https://www.gob.mx/conanp/es/articulos/ninas-y-ninos?idiom=es>)

PROFEPA Procuraduría Federal de Protección al Ambiente (Federal Prosecutor for the Protection of the Environment)—Mexico's judicial branch of the environmental protection agency www.profepa.gob.mx

SEMARNAT Secretaría del Medio Ambiente y Recursos Naturales (Secretary of the Environment and Natural Resources)—Mexico's legislative branch of the environmental protection agency. www.semarnat.gob.mx
(digital library of resources—<https://www.semarnat.gob.mx/gobmx/biblioteca/index.html>)

Environmental NGO's/ONG's Ecologistas (en defensa del medioambiente)

ASUPMATOMA <https://www.asupmatoma.org> ;

EcoAlianza de Loreto <https://ecoalianzaloreto.org> (science-based local NGO)

Grupo Tortuguero www.grupotortuguero.org (*network of turtle activists, NGO's, ecotourism*)

Proesteros <http://proesteros.cicese.mx> (*Wetland conservation in northern BC*)

Sociedad de Historia Natural Niparáj, A.C. <http://www.niparaja.org> (*NGO in La Paz, BCS*)

TerraPeninsular <http://www.terrapeninsular.org> (*land purchase/conservation in northern BC*)

Tortugueros las Playitas <http://www.todostortugueros.org> (*adopt a baby sea turtle, volunteer*)

WildCoast www.wildcoast.org (*peninsula-wide activities, media blitzes*)

Ecotourism Providers/Prestadores de Servicios Ecoturísticos

Baja Discovery www.bajadiscovery.com (*whale watching*)

Kuyima www.kuyima.com (*whales, birds, turtles, Vizcaíno, cave paintings, kayaking, camping*)

Mario's Tours <https://www.bajagraywhales.com> (*whale tours, RV/camping in Guerrero Negro*)

Pachico Ecotours <http://www.pachicoecotours.com> (*whale watching at San Ignacio Lagoon*)

Environmental Education/La Educación Medioambiental

Baja California Field Studies Program <https://www.glendale.edu/academics/special-programs/baja-program>
(*Glendale Community College (short field courses at station at Bahía de los Ángeles)*)

Ocean Oasis www.sdnhm.org/oceanoasis/toc.html (Baja natural history info, teacher's manual eng/esp, DVD)

Protected Areas/Las Áreas Protegidas

Cabo Pulmo Baja Coastal Institute www.bcibaja.org (*research, conservation*)
www.cabopulmoamigos.org (*local NGO, ecotourism*)

Parque Nacional Bahía de Loreto (Facebook group)
https://www.facebook.com/pages/Parque-Nacional-Bahía-De-Loreto/21131210554949?ref=br_rs

Sierra de la Laguna Reserve
<https://www.unesco.org/en/mab/sierra-la-laguna>

Vizcaíno Reserve <https://simec.conanp.gob.mx/ficha.php?anp=116®=1>
https://www.parkswatch.org/parkprofiles/pdf/vibr_eng.pdf (*description of park*)
http://www.parkswatch.org/parkprofiles/pdf/vibr_spa.pdf (*descripción del parque*)