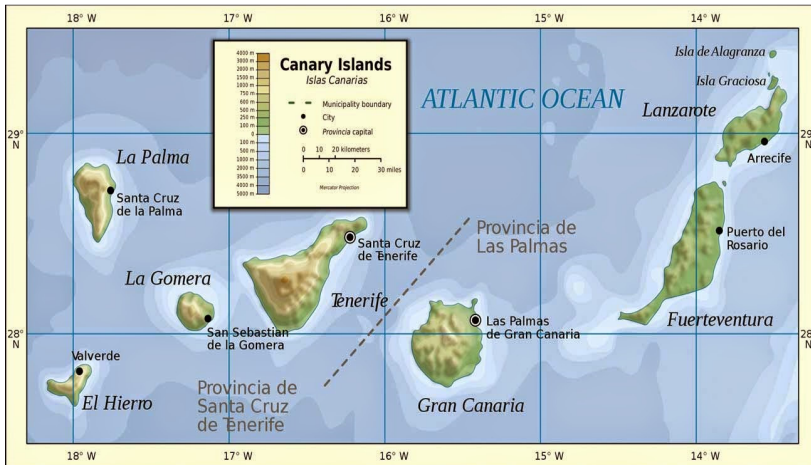


CANARY ISLANDS (MACARONESIA)



Current situation & main challenges

Socio-economic context

With over 2 million inhabitants, the archipelago of Canary Islands is the most populated European overseas entity. The archipelago's population density, around 283 inhab/Km², is far higher than the national average and with unequal distribution: the islands of Gran Canaria and Tenerife account for over 80% of the population⁽¹⁾.

The Canarian economy contributes, on average, with 4% to the national economy of Spain, and its GDP per capita is 19,238 € (2014, prov.), 14% lower than Spain's average but the highest of Macaronesia⁽¹⁸⁾.

The archipelago's economy is highly specialised in the services sector, where tourism has a prominent role, contributing with 31% to the Canarian economy and 36% to the total employment in the Canaries⁽¹⁹⁾. In 2014, the archipelago received about 11.5 million tourists⁽¹⁾. The primary sector plays a minor role in the islands' economy, accounting for 1.4% of the Canarian GDP⁽¹⁸⁾. Agriculture is centred around the production of banana, tomato, cucumber and flowers & plants⁽¹⁾.

Legal and political context

The Canary Islands is an autonomous community of Spain formed by seven major islands, divided into two administrative provinces, and four minor islands.

In addition to legislation regulating a large set of protected areas, national and regional catalogues of protected species have been implemented. Inclusion of species on these catalogues imply the application of protection measures that range from preventing the capture to active management through conservation or recovery plans, which may include designating critical areas.

In terms of Global Agreements, Spain has concluded or ratified the main Treaties and Conventions on Nature and Biodiversity Conservation, such as CBD, Bern Convention, CITES, Bonn Convention and Ramsar Convention. Other policy instruments of direct importance for biodiversity in the archipelago are the EC Birds and Habitats directives and the Natura 2000 network, the Man And Biosphere program and the network REDBIO.

Facts & figures

Geography

Total area:	497,784 km ²
Land area:	7,447 km ² (1.5%) ⁽⁴⁾
Protected land area:	3,190 Km ² (43%) ⁽²⁾
Total marine area:	490,337 km ² (98.5%) ⁽³⁾
Exclusive economic zone (EEZ):	456,237 km ² (93%) ⁽³⁾
Marine protected area (MPA and/or MMA):	1,122 Km ² (0.2%) ⁽⁵⁾

Overseas Regions
(Governance/Dependency):

ES

Socio-economic facts

Total population (2014):	2,104,815 ⁽¹⁾
Population density:	283 inhab/km ² ⁽¹⁾
GDP (2014, provisional):	40,753 million € ⁽¹⁷⁾
Main income sources (2014, prov.) ⁽¹⁷⁾ :	
1. Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storages; accommodation and food service activities (35%)	2. Public administration and defence; compulsory social security; education; human health and social work activities (21%)
3. Real estate activities (14%)	4. Industry-total (8%)

Biodiversity

Threatened ecosystems: Laurel forest – *laurisilva* (only 18% remains of its potential distribution)⁽⁶⁾
Other important ecosystems: xerophytic scrub, thermophilic forest, canarian pine forest, montane scrub, cliff vegetation, seagrass meadows of *Cymodocea nodosa* (*sebadales*, in Spanish)

Endemic species: 4,021 (4% marine) (21% of total spp)^(7,8)

Plants: *Pinus canariensis*; *Phoenix canariensis*; *Viola cheiranthifolia*; *Canarina canariensis*; *Echium wildpretii*.
Birds: *Fringilla teydea*, *Columba bollii*; *Columba junoniae*; *Chlamydotis undulata fuertaventurae*.
Arthropods: *Munidopsis polymorpha*.
Mammals: *Crociodura canariensis*; *Plecotus teneriffae*.
Reptiles: *Gallotia bravoana*; *Gallotia simonyi*; *Gallotia intermedia*.
Mollusca: *Plutonia machadoi*; *Parmacella tenerifensis*;

Threatened species: 395⁽⁹⁾
Gallotia bravoana; *Gallotia simonyi*; *Plecotus teneriffae*; *Crociodura canariensis*; *Bupleurum handiense*; *Napaeus isletae*; *Hipparchia bacchus*; *Evergoderes cabrerai*

Current conservation status

Threats and pressures on biodiversity

The Canarian biota has been extensively modified since the arrival of humans due to predation, direct destruction of habitats, over-exploitation of resources and the introduction of exotic species⁽¹⁰⁾. A heavy clearing of land for agriculture (particularly sugarcane) and urban development followed the arrival of the Europeans on the XVth century. Starting in the 1970s, coastal and low-elevation ecosystems have been the subject of intensive urban/tourism development and road construction, arguably making these areas the top priorities for conservation. In addition, many species were introduced, such as feral cats, *Rattus rattus*, *Pennisetum setaceum*, *Ageratina*, *Tradescantia fluminensis* and *Eschscholzia californica*. Today, there is an estimated total of 1,434 introduced species (invasive and non-invasive)⁽¹¹⁾.

At least one species of giant rat (*Canariomys bravo*), one species of giant lizard (*Gallotia goliath*), and two birds, the Canarian quail (*Coturnix gomerae*) and the shearwater (*Puffinus olsoni*), all endemic, were extinct in the pre-Hispanic period. Since the arrival of the Europeans, at least two further endemic vertebrate species went extinct, the lava mouse (*Malpaisomys insularis*) and an oystercatcher, *Haematopus meadewaldoi*. Two additional native vertebrate species, the red kite (*Milvus milvus*) and the Mediterranean monk seal (*Monachus monachus*) have totally disappeared from the Canaries.

The current high population density and the predominant economic model based on tourism, involving an intensive use of natural resources, still represent a clear threat to the biodiversity of the Canary Islands.

Current investments

- Approximately 43% of the Canarian land mass is officially safeguarded in a regional network of 146 protected areas of which four have the status of national parks (NP). Two of these, the Teide NP and the Garajonay NP, belong to the UNESCO World Heritage network. Today, all seven islands are totally (Lanzarote, Fuerteventura, La Palma, La Gomera & El Hierro) or partly (Gran Canaria & Tenerife) UNESCO Biosphere reserves, thus contributing to biodiversity conservation on the archipelago. In the marine sector, three Marine Reserves with Fishery Interest cover the northern Lanzarote coasts and its offshore islets, the south-eastern sector of El Hierro, and the south-western coast of La Palma, adding up to 0.15% of the total marine area.
- With regard to the EU Natura 2000 Network, 231 sites have been already designated (177 SAC and 54 SPA), covering 48% of the territory and 2% of the marine surface.
- National and regional catalogues of protected species have been implemented, which imply the application of protection measures that range from preventing the capture to active management through conservation or recovery plans, which may include designating critical areas.
- **Canarian Biodiversity Databank**: an Internet database for regional biodiversity outreach, a unique resource for fundamental research in systematics, biodiversity, education and conservation management in the Canary Islands. It also provides an original platform for biogeographical and macroecological research on islands.

Critical areas for action / Investment niches

- Improve ecological restoration of natural habitats⁽¹²⁾;
- Enhance coordinated research on local ecosystems and endemic species, as well as on invasive species^(12,13);
- Ensure long-term viability of the Biodiversity Databank, the SEGA programme for the monitoring of Canarian protected species, and conservation/recovery plans⁽¹³⁾;
- Extension of Recovery Plans to all threatened species;
- Comprehensive mapping of marine habitat and species distribution, following La Palma's example;
- Development of a List of the most dangerous Invasive Alien Species and eradication/control programmes⁽¹⁴⁾;
- Development of a RED LIST for the Canarian fauna and flora, integrating the Regional Catalogue of Protected Species with IUCN's recommended criteria.

Important (ongoing) conservation activities

Ecological restoration of Garajonay National Park and its surroundings, after the great fire of 2012: a partnership among TRAGSA and the University of La Laguna, aims both to develop the means to reduce the risk of wild fires in the Canary Islands and to support the natural regeneration of laurel forest habitats already affected by fire and their dependent species.

Budget: 1,511,494 € (2014-2018)

Activities: i) Ecological restoration of burned forest habitats of Macaronesian laurels and recovery of populations of threatened plant species affected by the fire in the Garajonay National Park and its surroundings; ii) to draft strategies to prevent and tackle forest fires more effectively and to restore the targeted habitats; iii) introduce measures to reduce the incidence of fires and facilitate the extinguishing fires should they occur.

Results (expected): i) strategy to prevent and tackle wild fires in the Canary Islands; ii) a strategy to support natural regeneration of affected laurel forest habitats; iii) long-term restoration of the affected priority habitats; iv) long-term recovery of the affected populations of endangered species.

Project of range expansion and population size of the priority species *Fringilla teydea polatzeki*: a partnership among TRAGSA, the Government of the Canaries and the *Cabildo* of Gran Canaria to increase the restricted wild blue chaffinch population of Gran Canaria (*Fringilla teydea polatzeki*)

Budget: 1,123,860 € (2015-2020)

Activities: i) release of 120 individuals of *F. teydea polatzeki* in the central summit from the captive breeding centre and also translocation of animals from the source population; ii) production of individuals in the captive breeding centre; iii) plantation of Canarian pines in the ecological corridors to allow connectivity between the most suitable pine forests for the species

Results (expected): an increase of the wild blue chaffinch population of Gran Canaria by up to 450 individuals, effectively doubling the size of the population; and a plantation of 80,000 Canarian pines in the ecological corridors in the central summit and Tamadaba.

Re-introduction of the endemic white-tailed laurel pigeon (*Columba junoniae*) in the island of Gran Canaria

Budget: 1,401,870€ (2013-2017)

Activities: i) development of management and action plans; Conservation actions (captive breeding of laurel pigeon; actions to improve forests of laurel; management of *pyrophytes* formations; release of the laurel pigeons into the wild; predator control in areas of release); ii) monitoring the impact of the project actions (population restoration and socio-economic impacts); iii) public awareness and dissemination of results.

Results (expected): captive breeding and release on Gran Canaria of 15-30 white-tailed laurel pigeons per year; creation of a viable population (75-100 pairs) of white tailed laurel pigeons on Gran Canaria through the project's captive breeding and release programme; restoration of 1,049 ha. of potential white-tailed laurel pigeon habitat in the area of Monteverde; and Raised awareness amongst local people of the laurel forests.

Useful links

http://ec.europa.eu/environment/nature/biodiversity/best/index_en.htm

<http://www.gobiernodecanarias.org/medioambiente/piac/temas/biodiversidad/>

<http://www.biodiversidadcanarias.es/atlantis/common/index.jsf>

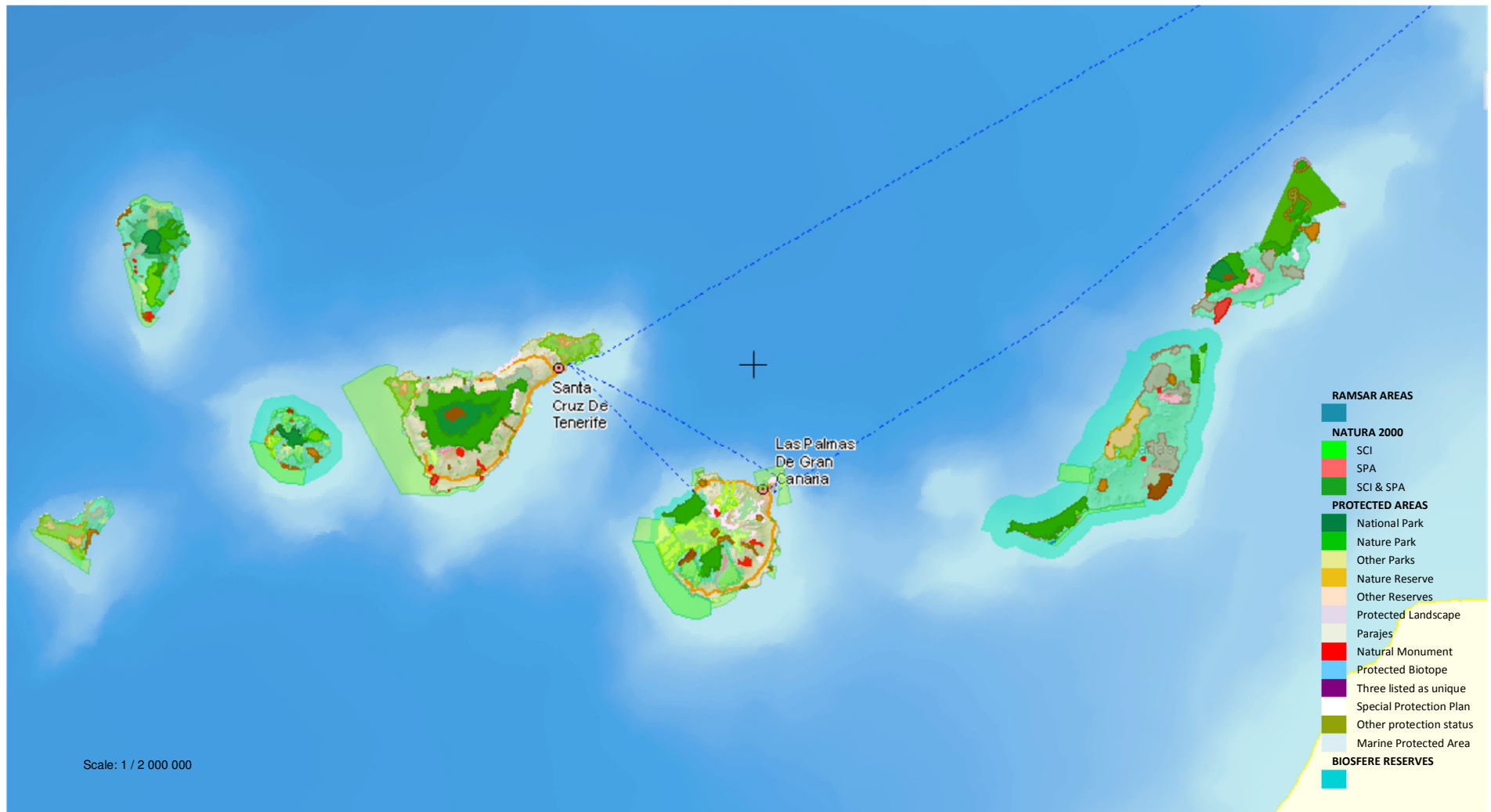
<http://www.gobiernodecanarias.org/cmavot/espaciosnaturales/categorias/index.html>



FRCT

FUNDO REGIONAL DE CIÊNCIA E TECNOLOGIA

Canary Islands: Areas under protection status



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