

The LIFE+ INDEMARES Project in brief

It is a LIFE+ (LIFE07NAT / E / 000732) project funded 50% by the European Commission, carried out from January 2009 to December 2014. It has integrated the work of institutions of reference in the field of management, research and conservation of the marine environment, with the contribution of other marine stakeholders. Coordinated by the Biodiversity Foundation, the project had nine other partners: the Ministry of Agriculture, Food and Environment; the Spanish Institute of Oceanography (IEO), the Spanish National Research Council (CSIC), ALNITAK, the Coordination for the Study of Marine Mammals (CEMMA), OCEANA, the Society for the Study of Cetaceans in the Canary Archipelago (SECAC), SEO/BirdLife and WWF Spain

It has contributed to the protection and sustainable use of biodiversity in Spanish seas through the study, characterisation and inclusion of sites in the Natura 2000 Network:

- 10 marine targeted areas, proposed to the EC to be designated as Sites of Community Importance (SCI), and eventually to be declared as Special Areas of Conservation (SACs).
- 39 Special Protection Areas (SPAs) designated, based on the inventory of marine Important Bird Areas (IBA).

Overall, the project brings more than 70,000 Km² to the Spanish Natura 2000 network, multiplying by 8 the protected marine area (which reaches more than 8% of territorial waters). Thus, Spain moves significantly forward in its compliance with the European Habitats and Birds Directives, by extending the Natura 2000 network to the entire marine environment. The project also contributes to achieving the target set by the Convention on Biological Diversity (CBD) of the United Nations, of which Spain is a signatory, to designate as protected at least 10% of the World's oceans.

Finally, INDEMARES has settled the basis for the future management plans of the Natura 2000 marine sites, by providing a proposal of management guidelines, and by initiating the participatory process to elaborate those plans.



INDEMARES



Marine Special Protection Areas (SPAs) in Spain

Preserving our birds, preserving our seas



Edited by: SEO/BirdLife 2014.
Photo front page: J. M. Arcos
Baleatic Shearwater - Puffinus mauretanicus
Audouin's Gull - Larus audouinii

What is Natura 2000?

Natura 2000 is the widest network of nature protection areas in Europe, and comes out from the main environmental directives of the European Union (EU). There are two types of Natura 2000 sites:

- Special Areas of Conservation (SAC)* according to the Habitats Directive, and
- Special Protection Areas (SPAs) according to the Birds Directive.

* SACs are designated by Member States after the initially proposed sites (Sites of Community Importance, SCI) are approved by the European Commission.

Slender-billed Gull - *Chroicocephalus genei*



Short-beaked common dolphin - *Delfinus delphis*



What are the goals Natura 2000? What are the implications for human activities?

The Natura 2000 network aims to preserve the natural values of each site while looking for the maximum compatibility with the human activities developed there, through management plans tailored to each case. These plans promote the uses that favour social and economic sustainability, while restrictions may involve activities that have a severe impact on the environment.

Loggerhead sea turtle - *Caretta caretta*



What condition is the Natura 2000 network in Spain?

Spain held 1449 SCIs and 598 SPAs designated up to 2013, mostly terrestrial or maritime-terrestrial spaces, covering about 27% of the land surface.

The marine environment, however, was largely neglected: 298 SCIs and 135 SPAs marine or maritime-terrestrial totalled only about 1% of the Spanish marine territory.

Most of the designated spaces do not have management plans in place, particularly those at sea.

INDEMARES: the leap to the marine environment

Until the achievement of the LIFE+ INDEMARES project, most of Natura 2000 marine areas in Spain were small and coastal, often marine stripes adjacent to eminent land sites.

Within the frame of INDEMARES, 10 new marine SCIs have been proposed to the European Commission, and 39 new marine SPAs have been designated by the Spanish Government, mostly large areas that add nearly 70,000 Km² to the Natura 2000 network in Spain.

This way, Natura 2000 extends its coverage to the entire marine environment, and multiply by eight its sea surface (passing to cover 8% of Spanish maritime territory)

Why protecting sites for seabirds at sea? What do we protect with the marine SPAs?

Attending to the conservation and the study of seabirds is important for two main reasons:

- 1) Seabirds represent the most threatened group of birds globally: over a third of the 346 known species are threatened, some to the brink of extinction.
- 2) Seabirds are easy to observe both at sea and in their breeding colonies ashore; and, as marine predators, they integrate information of what happens in the ecosystem. Therefore, they are excellent indicators of the marine environment.

Despite the high mobility that characterises seabirds, which allows them to travel thousands of miles throughout their annual cycle, they tend to use certain areas persistently, so that the identification of these areas as SPAs makes sense. According to the use that seabirds make of them, three different types of areas can be differentiated:

- Seaward extensions to the **breeding colonies**: areas that show high seabird density for being adjacent to the breeding sites. Seabirds may forage there, or just fly across in their commuting trips between the nest and distant foraging areas.

Cory's Shearwater - *Calonectris diomedea*



- **Migratory corridors**: areas that concentrate the flow of migrating seabirds. Straits and channels are the most obvious corridors, but other coastal areas can also act as such.

- **Foraging areas at sea**: unrelated to the breeding colonies, those areas tend to congregate seabirds for their high food availability.



Often, these areas are important not only for birds but also for many other marine biota, so the SPAs may act as an umbrella that contributes to the conservation of the marine ecosystem as a whole.

How were the new marine SPAs identified?

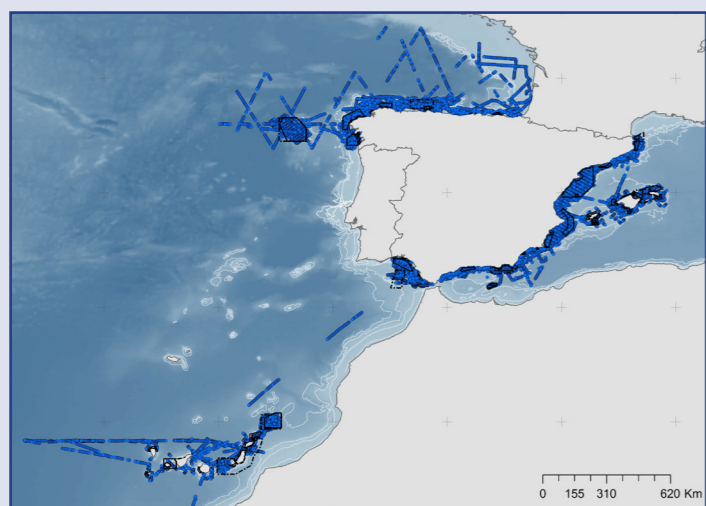
The new marine SPAs were based on the inventory of marine Important Bird Areas (IBA) elaborated by SEO/BirdLife within the frame of a LIFE project (LIFE04NAT/ES000049) that preceded INDEMARES.

INDEMARES has allowed strengthening the marine IBA inventory:

- Providing additional information, which allowed confirming the importance of the identified areas and their stability over time.
- Strengthening the coverage in areas of difficult access, and confirming two spaces that were proposed as just candidate marine IBAs in the previous project due to insufficient data: the *Banco de Galicia* and *Banco de la Concepción*.
- Studying in detail the use that seabirds make of the sites proposed, as well as their interaction with human activities (and, therefore, evaluating threats).

The identification of the marine SPAs was based on scientific criteria, combining information from different sources, mainly:

- Boat surveys conducting transect counts (over 60,000 Km travelled).

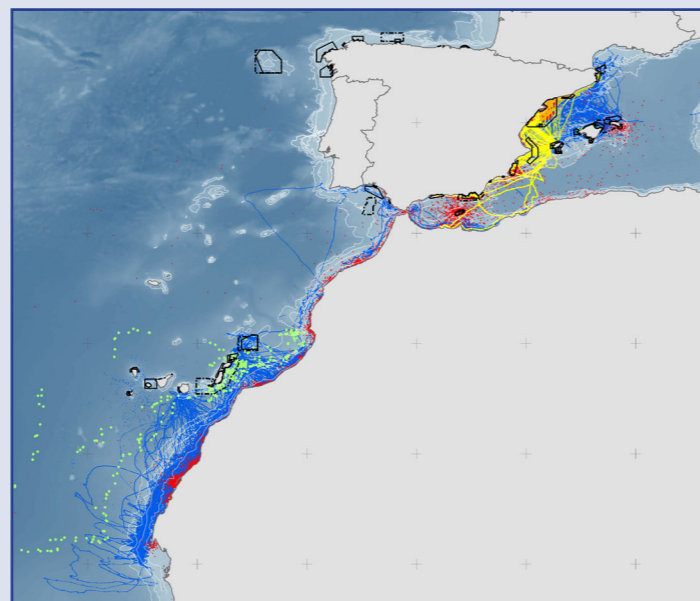


Boat survey coverage during the seabird transect counts conducted to identify the marine SPAs in Spain.

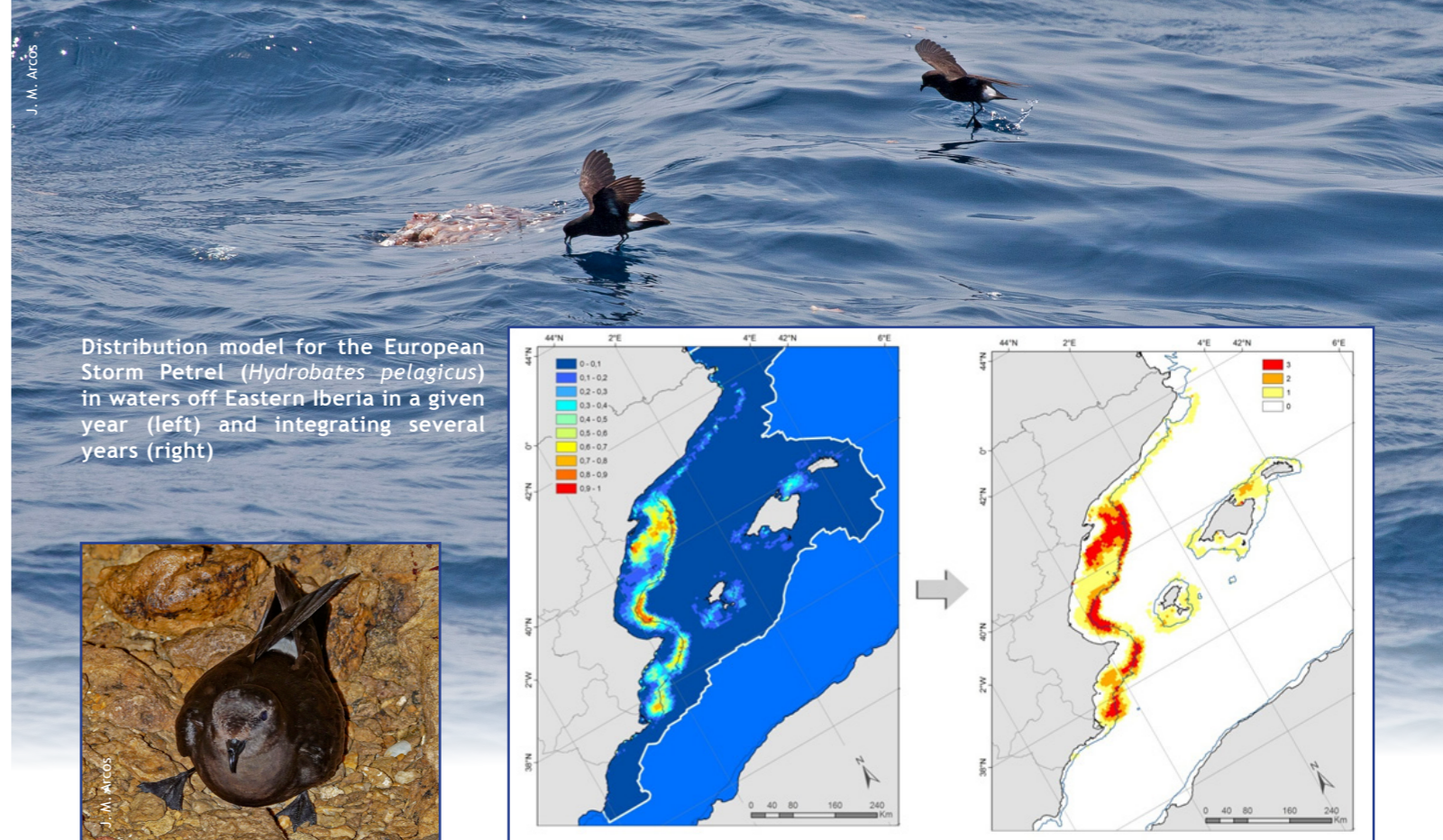
- Remote seabird tracking using different devices (GPS loggers, satellite transmitters and others; in total about 1000 marked birds of 6 species, and nearly one million locations).



Balearic Shearwater - *Puffinus mauretanicus*



Remote tracking seabird locations used to identify the marine SPAs.



Distribution model for the European Storm Petrel (*Hydrobates pelagicus*) in waters off Eastern Iberia in a given year (left) and integrating several years (right)



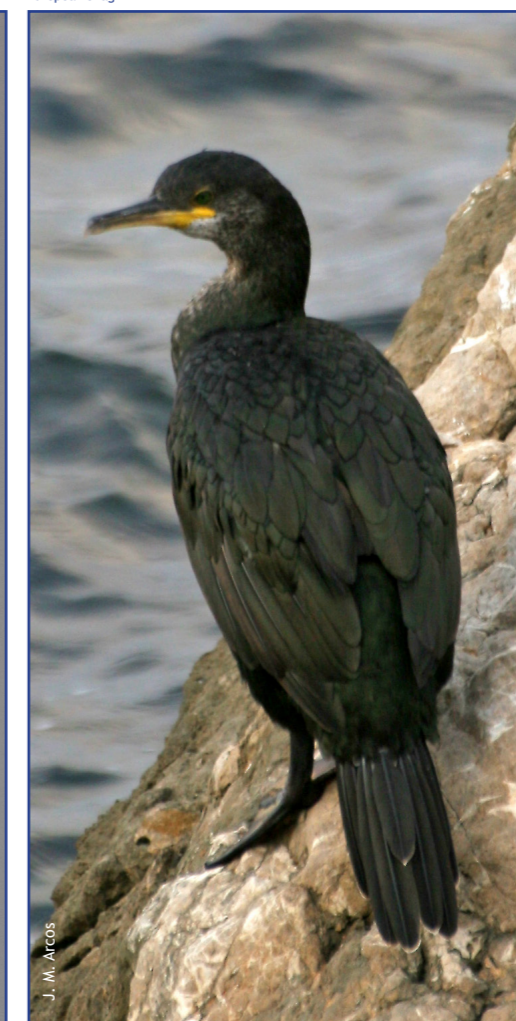
Among the techniques used to analyse these data, habitat modelling was a very useful tool, which allowed understanding why the identified areas were important, and helped to draw boundaries in an environment where these are not obvious.

The methodology developed for the identification of the marine IBAs, developed in coordination with BirdLife International and several experts, largely contributed to set a standard procedure for the identification of IBAs/SPAs in other EU countries, and IBAs elsewhere.

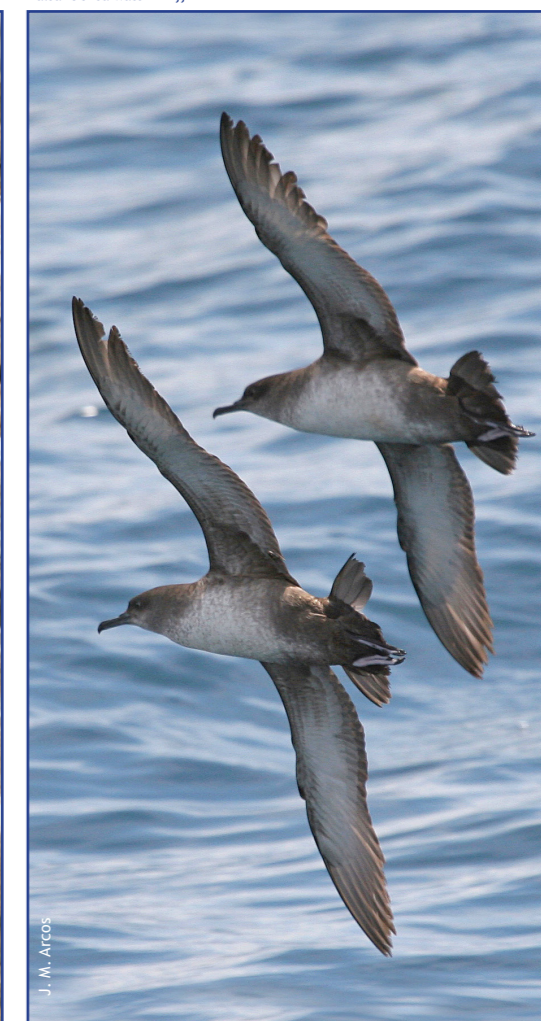
Audouin's Gull - *Larus audouinii*



European Shag - *Phalacrocorax aristotelis*



Balearic Shearwater - *Puffinus mauretanicus*



The Spanish marine SPA network in a glimpse?

With INDEMARES, the network of marine SPAs incorporated 39 new spaces and 49,124 Km², representing a 20-fold increase in area coverage. As a result, the SPA network is now formed by 174 sites and 51,788 Km², slightly more than 5% of the Spanish marine territory. It extends from the coast to cover a representative fraction of all the Spanish territorial waters, thus addressing for the first time the full protection of the pelagic seabirds, as well as that of more coastal species.

The SPA network holds wide seabird diversity, with over 40 regular species. Of those, 27 present significant regional or global numbers and provided the basis for the designation of the sites.

The priority 27 seabirds include the 16 species listed in Annex I of the Birds Directive (those considered particularly sensitive by European law) with breeding populations in Spain, which have been the main objective of the LIFE projects. In addition, 11 other species were taken into account due to their unfavourable conservation status according to other lists, and/or their migratory nature. These include breeding, wintering and migratory species.

The SPAs will contribute to the conservation of these birds, by specifically managing the threats at sea that they face, focused in the most sensitive areas. The SPA network includes seaward extensions to breeding colonies, migratory corridors and foraging areas at sea (both coastal and pelagic). INDEMARES has mainly contributed to the designation of areas offshore.

Geographical patterns of the SPA network, with attention to the Marine Strategies' Demarcations

Leaving aside the smaller and coastal sites previously designated, the new SPAs added 11 more sites in the Marine Demarcation of the Canary Islands, 8 in the North Atlantic, 3 in the South Atlantic, 3 in the Strait of

Gibraltar-Alboran Sea and 14 in the Levantine-Balearic. Each region has its own physical and biotic characteristics, and its particular seabird communities, which has significantly influenced the type of sites identified in each case. The Canary and Balearic Islands mainly host seabird extensions to breeding colonies, while peninsular waters are more relevant for foraging areas and, secondly, migration.

What does the designation of a marine SPA imply? Constraints and opportunities

Upon designation, a management plan will be developed for each SPA to govern the uses and activities, within two years.

Management actions will aim to minimise the identified threats to the seabirds and their habitats, and to either keep the relevant populations at current levels or recover them if appropriate.

The main philosophy is not based on prohibition, but on proper management of the human activities to ensure a minimum impact. It is also possible to promote the activities that are most compatible with the environment, which often are the activities with a wider social impact.

Broadly speaking, management actions might include:

- To conduct strict impact assessment studies of any activities carried out in the SPA.
- Implement actions to mitigate the impact of those activities that have a negative impact on the seabirds and/or their habitat, and to evaluate their efficacy,- to promote activities and uses that are respectful with the environment.
- Promote activities and respectful use of the environment.
- To raise awareness among the marine stakeholders and the general public about the need to manage those activities that have an impact on the seabirds and their environment, and to seek for agreed solutions through participative processes.

