MARINE IMPORTANT BIRD AREAS

Priority sites for the conservation of biodiversity

BirdLife INTERNATIONAL

BirdLife International Global Seabird Programme

Birdlife International established the Global Seabird Programme (GSP) to help improve the conservation status of the world's seabirds. The GSP undertakes varied work which includes the Save the Albatross Campaign, the Albatross Task Force, development of bycatch mitigation measures, working with Regional Fisheries Management Organisations to reduce bycatch, identification of marine Important Bird Areas as candidate Marine Protected Areas, and eradications of invasive species. The GSP supports BirdLife Partners to:

- Promote collaborative international action vital to arrest seabird declines
- Advocate the conservation of seabirds at national, regional and global levels
- Work directly with fishers and other stakeholders to reduce seabird bycatch and other threats to seabird populations.

BirdLife International is a partnership of people for birds and the environment. As a worldwide community, we are the leading authority on the status of birds and their habitats. Over 10 million people support the BirdLife Partnership of national non-governmental conservation organisations and local networks. Partners, operating in more than 100 territories, work together on shared priorities, programmes, and policies, learning from each other to achieve real conservation results. The BirdLife Partnership promotes sustainable living as a means of conserving birds and all other forms of biodiversity.

For more information, please contact:
BirdLife International, Wellbrook Court, Girton Road,
Cambridge CB3 0NA, UK.
Tel: +44 1223 277318 Fax: +44 1223 277200
Email: birdlife@birdlife.org Internet: www.birdlife.org

Compilers: Ben Lascelles, Alison Stattersfield, Lincoln Fishpool, Philip Taylor, Andrew Symes

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Overview

BirdLife International's Important Bird Area (IBA) programme has, for more than 25 years, been successful at setting priorities and focusing actions for site conservation on land and in fresh waters, and is now being adapted and extended to the marine environment.

Many seabird species are spectacularly mobile, travelling thousands of kilometres across international waters and multiple Exclusive Economic Zones and only return to land to breed. Given the long periods that seabirds spend at sea, the multiple threats they face there and the vast distances they cover, identifying a network of priority sites for their conservation in the marine environment is a challenge—but vital to ensure their future survival.

Wandering Albatross *Diomedea exulans* and Great-winged Petrel *Pterodroma macroptera*, two species of pelagic seabird in need of protection at sea © Ben Lascelles

In the terrestrial environment IBA networks have been shown to protect much other biodiversity besides birds, so are an excellent basis for the larger set of Key Biodiversity Areas—an extension of the approach to other fauna and flora. Marine IBAs can therefore make a vital contribution to initiatives aimed at improved protection and sustainable management of the oceans, including the designation of Marine Protected Areas (MPAs).

This booklet presents a summary of the methods being used to identify marine IBAs and indicates how they can contribute to the improvement of protected-area coverage.

Sooty Tern *Sterna fuscata* colony on Aride Island, Seychelles, an IBA for this species © John Tayleur

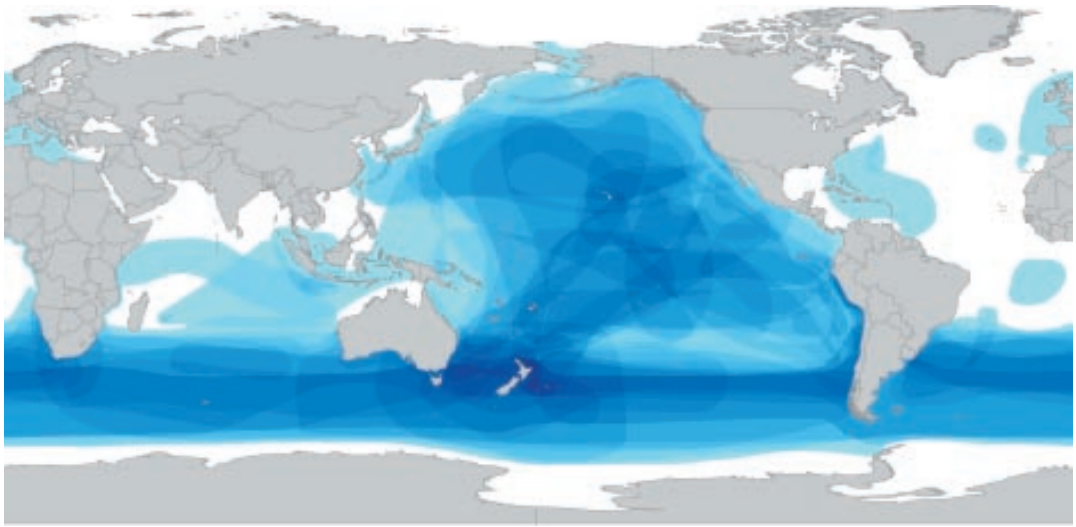
For further information about the marine IBA programme please visit **www.birdlife.org/seabirds**

Seabirds are highly threatened and have a global distribution

Many seabird populations are declining and are threatened with extinction. They face a wide range of threats, both on land and at sea, including being killed as bycatch in fisheries, predation by a range of introduced species and habitat loss owing to, for example, expanding coastal development. Global solutions are needed to protect those seabirds that spend much of their lives travelling vast distances across national and international waters.

Over 130 species of seabird are listed as threatened on the IUCN Red List for birds

10% of all Critically Endangered birds are seabirds, despite seabirds representing just 3% of the world's bird species. 28% of seabirds are listed as threatened on the IUCN Red List (compared to 13% for all extant birds), with albatrosses, penguins, gadfly petrels and shearwaters among the most threatened families. The southern oceans and the Pacific are particularly important areas for threatened seabirds, where their ranges span multiple Exclusive Economic Zones (EEZs) as well as many Areas Beyond National Jurisdiction (ABNJs).



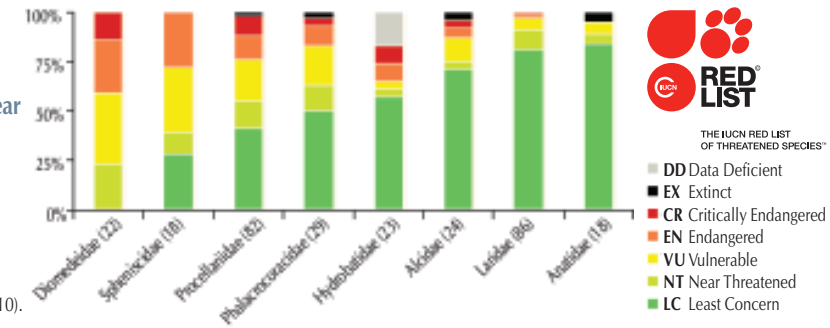
At-sea distribution of threatened seabirds around the globe

Each polygon represents the range map for one threatened species. Areas of darkest blue show the areas of the ocean where the ranges of the greatest number of threatened species overlap.

Source: Analysis of data held in BirdLife's World Bird Database (2010).

Albatrosses are the most highly threatened family, with all 22 species either Globally Threatened or Near Threatened. Penguins and shearwaters/gadfly petrels also contain a particularly high proportion of threatened species

Source: Analysis of data held in BirdLife's World Bird Database (2010).



Species factsheets for every seabird species can be found on BirdLife's Data Zone
www.birdlife.org/datazone/species/index

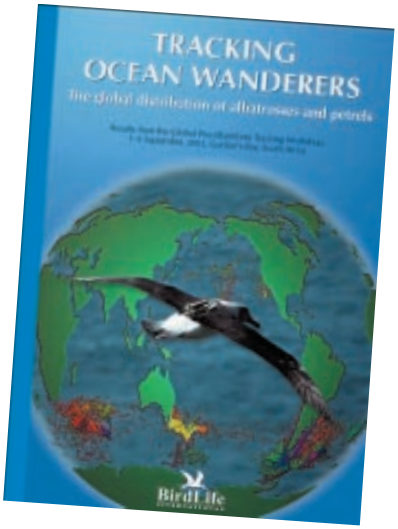
Tracking seabirds provides vital insights into their at-sea distributions

Advances in remote tracking technology have allowed devices to be attached to an increasing number of seabirds. The data that these devices collect provide critical information on their distribution at sea over space and time, and can be used to identify the most important sites for their at-sea conservation.

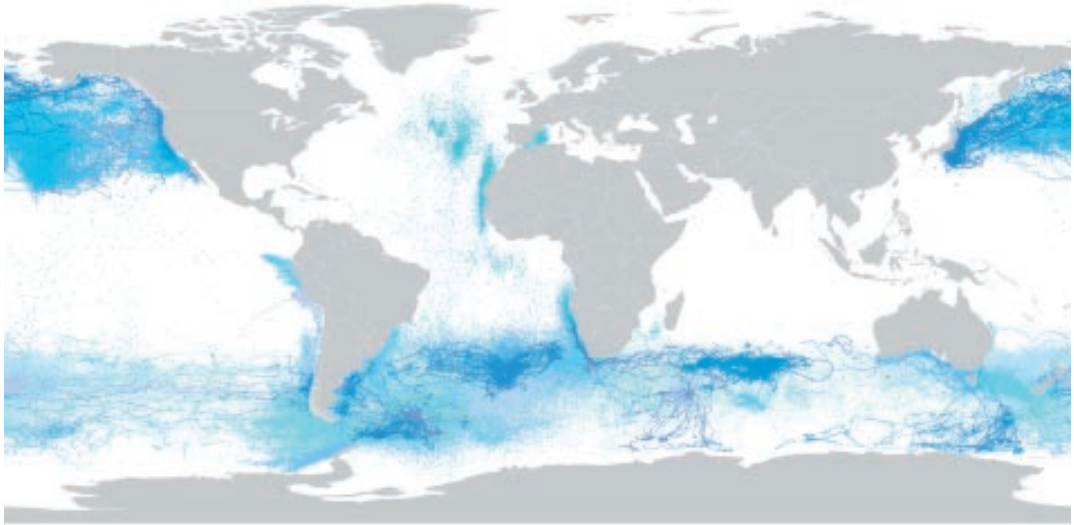
BirdLife's Tracking Ocean Wanderers Database is a vital tool for conserving seabirds in the marine environment

BirdLife's Tracking Ocean Wanderers (or Global Procellariiform Tracking) Database houses tracking data for many of the world's pelagic seabirds, with information on 30 species contributed by 33 scientists or research groups, making it the largest seabird tracking database globally. The database is used for both academic research and in a wide range of conservation applications enabling an understanding of seabird interactions with their marine environment, including, importantly, human fishing activities, on a scale that would otherwise be impossible.

In 2009, BirdLife convened an expert workshop to determine the best methodologies for analysing the tracking data for the purposes of marine IBA identification. These findings are now being used to identify a network of IBAs in both national EEZs and ABNJs.



In 2004, BirdLife International published *Tracking Ocean Wanderers*, a report using tracking data to show the distribution of albatrosses and petrels across the world's oceans



Map showing the distribution of tracking data held within BirdLife's Tracking Ocean Wanderers Database
Each shade of blue represents a different species
Source: Analysis of Tracking Ocean Wanderer's Database (2010).

To find out more about BirdLife's Tracking Ocean Wanderers Database visit
www.seabirdtracking.org

Important Bird Areas for seabirds have been identified on land; in the ocean gaps remain, especially on the high seas

Many seabird breeding sites and a number of significant coastal areas for non-breeding species have already been identified as IBAs. These sites may be considered candidate marine IBAs since, with appropriate alterations to their boundaries, they will form a network of marine sites critical for the future survival of many seabirds.

Over 2,000 candidate marine IBAs have been identified worldwide

IBAs are key sites for conservation—small enough to be conserved in their entirety and often already part of a protected-area network. So far, over 2,000 candidate marine IBAs from 158 countries and territories worldwide have been identified. More than 40 BirdLife Partners are actively engaged in work related to marine IBA identification and protection.

Gentoo Penguin *Pygoscelis papua* colony at Livingstone Island, Antarctica, a breeding site IBA for this species © Ben Lascelles

Location of candidate marine IBAs identified to date, showing the season of occurrence of the seabird trigger species present at each site

Source: Analysis of data held in BirdLife's World Bird Database (2008).

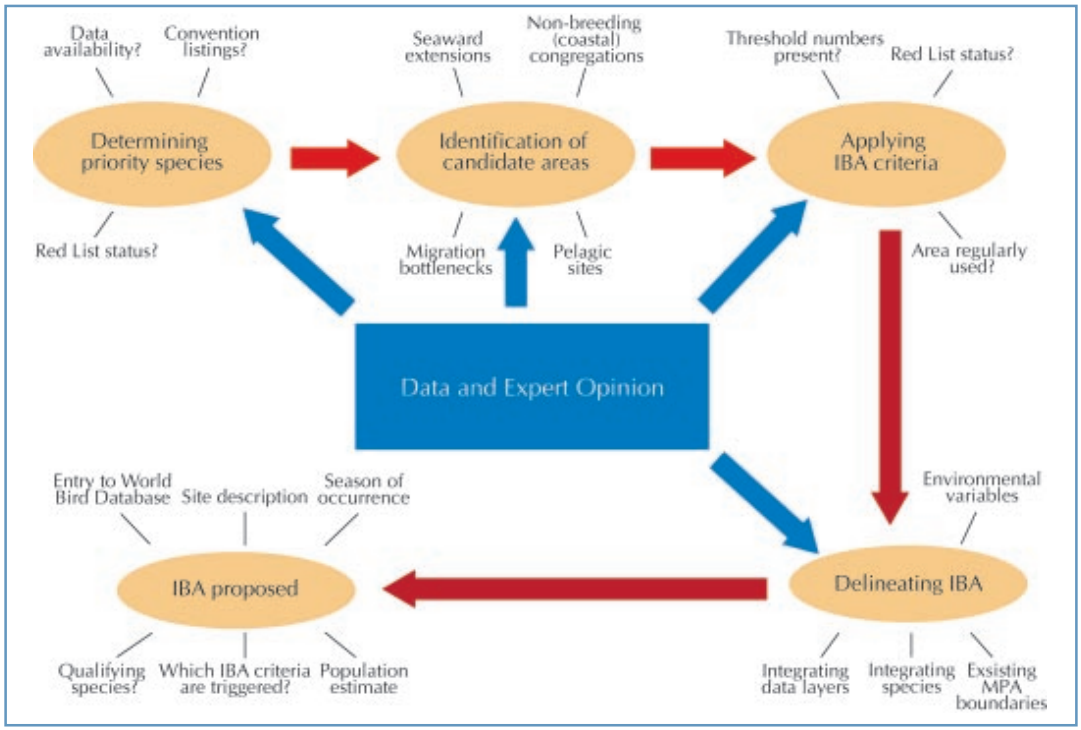
To view BirdLife's information about IBAs visit
www.birdlife.org/datazone/sites

Standardised techniques help to identify marine IBAs

A range of data sources are providing new insights into the behaviour of seabirds at-sea, and standardised methods are helping identify marine IBAs for them.

BirdLife's marine IBA toolkit provides guidance

BirdLife is compiling a toolkit to assist in the identification of marine IBAs and to standardise some of the methods and techniques involved. The toolkit provides guidelines on the use of a variety of data sources, including satellite tracking data, at-sea survey data, and habitat modelling. Use of this toolkit is helping to provide new insights into the behaviour of seabirds at-sea, helping to identify the most important areas for them, based on the number of birds using a site and with what frequency and duration.



Flow chart showing how data and expert opinion form a central part of marine IBA identification, and can be used to inform each stage of the process

Source: BirdLife International (2010) *Marine Important Bird Areas toolkit: standardised techniques for identifying priority sites for the conservation of seabirds at-sea.* Cambridge, UK: BirdLife International. Version 1.1: May 2010.

The marine IBA toolkit can be downloaded here
www.birdlife.org/eu/pdfs/Marine_IBA_Toolkit_2010.pdf

Global criteria are used to identify a network of IBAs

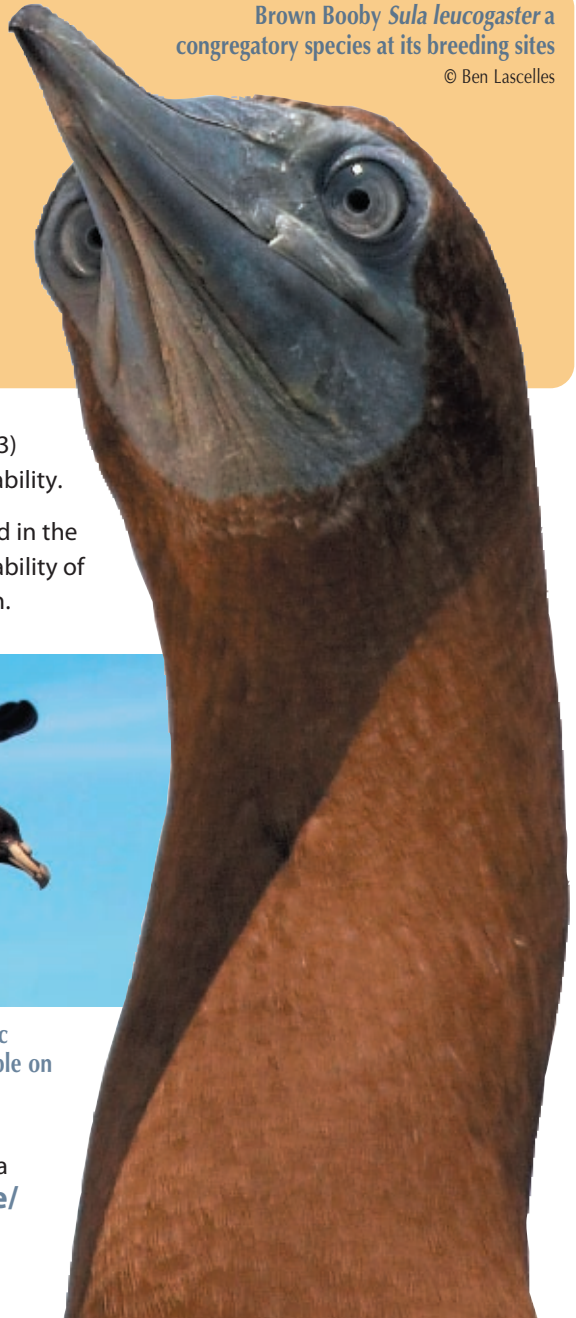
A set of quantitative, standardised, globally agreed criteria are used to identify a network of marine IBAs which, at a biogeographic scale, are critical for the long-term viability of naturally occurring seabird populations, across the range of those species for which this approach is appropriate.

Key seabirds identify key sites—marine IBAs

IBAs are identified using a standardised set of data-driven criteria and thresholds, ensuring that the approach can be used consistently worldwide. The four IBA criteria are based on threat and irreplaceability, the two main considerations used in planning networks of sites for biodiversity conservation.

The criteria relate to the presence of:

1. globally threatened bird species
2. restricted-range bird species (those with breeding ranges smaller than 50,000 km^2)
3. biome-restricted assemblages (communities of birds characteristic of a distinct biome)
4. large aggregations of one or more species, e.g. of migratory waterbirds (congregations).



Brown Booby *Sula leucogaster* a congregatory species at its breeding sites © Ben Lascelles

Criterion (1) refers to threat, while criteria (2), (3) and (4) all reflect different aspects of irreplaceability.

To date, only criteria (1) and (4) have been used in the identification of marine IBAs whereas the feasability of applying the other two are under investigation.

Parkinson's Petrel *Procellaria parkinsoni* an endemic breeding species to New Zealand, listed as Vulnerable on the IUCN Red List © Ben Lascelles

For further information on the IBA criteria visit **www.birdlife.org/datazone/sites/global_criteria**

Networks of marine IBAs are important for seabirds throughout the year

Many seabirds are highly migratory, and can travel up to 20,000 km in a year. During this time they use the marine environment in different ways, including for collecting food to feed their young, for moulting or for stopping to refuel on migration.

Four aspects of seabird lifecycles are captured by the IBA network

Studies have suggested that four major parts of seabird lifecycles may be captured by IBAs. Ensuring that a range of sites are identified that cover all these activities is critical if adequate networks are to be established.

Seaward extensions around breeding colonies

These extensions, which are used for feeding, maintenance behaviours and social interactions, are limited by the foraging range and depth of the species concerned. The breeding colonies themselves will in most cases have already been identified as IBAs.

Black-legged Kittiwake *Rissa tridactyla* © Ben Lascelles

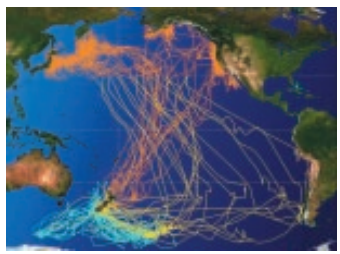
Non-breeding (coastal) concentrations

These include sites, usually in coastal areas, which hold feeding and moulting concentrations of waterbirds, such as divers, grebes and benthos-feeding ducks. They can also include concentrations of shearwaters or other Procellariiformes.

Common Eider *Somateria mollissima* © John Anderson

Migratory bottlenecks

These are sites where, because of their geographic position, seabirds become concentrated in the course of regular migration. These sites are normally determined by topographic features, such as headlands and straits, through or round which seabirds are obliged to fly.



Migratory movements of the Sooty Shearwater *Puffinus griseus*

Source: Scott A. Shaffer, et al. (2006) Migratory shearwaters integrate oceanic resources across the Pacific Ocean in an endless summer *PNAS 2006 103 (34) 12799-12802,* Fig.1.

Areas for pelagic species

These sites comprise marine areas remote from land at which pelagic seabirds regularly gather in large numbers. These areas usually coincide with specific oceanographic features, the biological productivity of which is invariably high.

Black-bellied Storm-petrel *Fregetta tropica* © Ben Lascelles

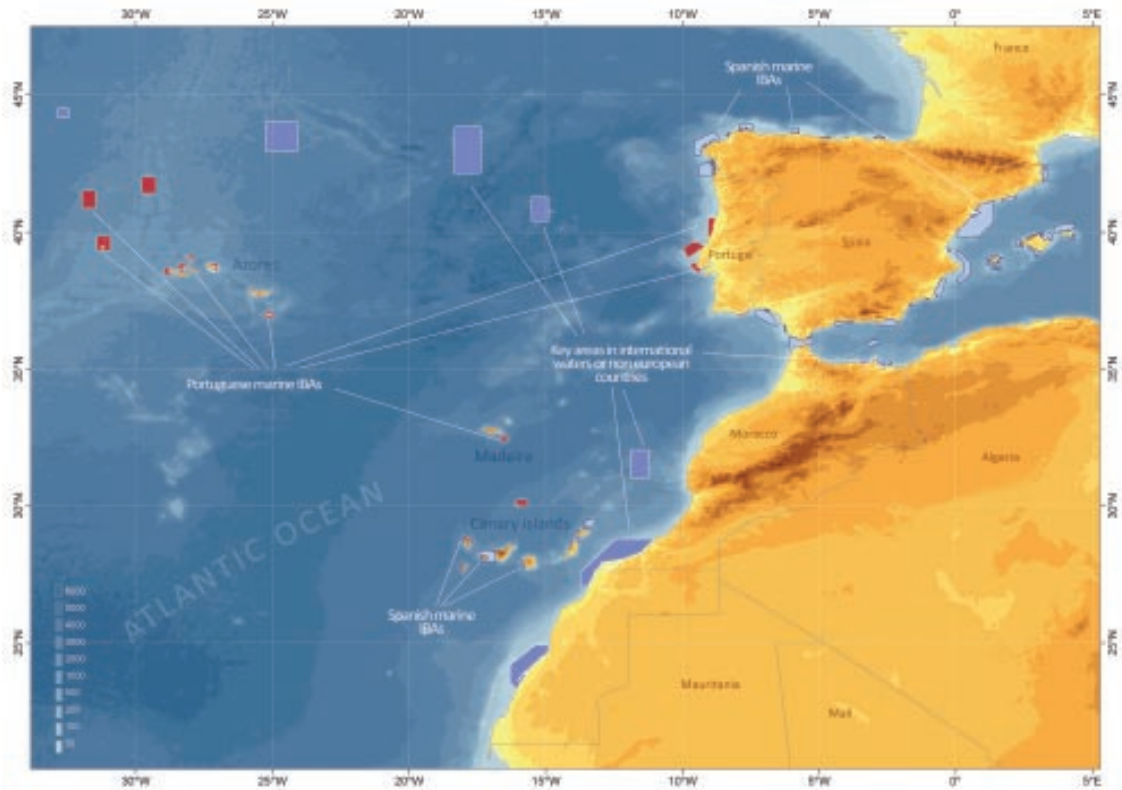
To find out more about how the IBA network is developing for seabirds contact **seabirds@birdlife.org**

Model projects point the way to identifying marine IBAs

Model projects are helping to establish consistent approaches to the identification of marine IBAs.

An example from Iberia

SEO (BirdLife in Spain) and SPEA (BirdLife in Portugal) have undertaken European Union LIFE-funded projects to inform the future designation of marine IBAs as Special Protection Areas (SPAs) under the European Union's Birds Directive. These projects have mapped seabird distributions at sea using remote sensing methods and from information gathered during boat/aerial surveys. They have applied standardised methods and criteria to identify marine IBAs for seabird species in the coastal and pelagic waters of Iberia and Macaronesia.



A network of IBAs identified around the Iberian Peninsula and in Macaronesia

Front covers of recently published directories of marine IBAs

Sources: Ramírez, I., Geraldes, P., Meirinho, A., Amorim, P. and Paiva V. (2008) *Áreas Importantes para as Aves Marinhas em Portugal – Important Areas for seabirds in Portugal*. Projecto LIFE04 NAT/PT/000213. Lisboa: Sociedade Portuguesa Para o Estudo das Aves. Lisboa. (In Portuguese and English). Arcos, J. M., Bécares, J., Rodríguez, B. and Ruiz, A. (2009) *Áreas Importantes para la Conservación de las Aves marinas en España*. LIFE04NAT/ES/000049. Madrid: Sociedad Española de Ornitología (SEO/BirdLife). (In Spanish).

The recently published marine IBA inventories can be accessed here:
Portugal **http://lifeibasmarinhas.spea.pt/y-book/ibasmarinhas/**
Spain **www.seo.org/avesmarinas/flash.html#/1/**

An example from the Americas

ProNatura (BirdLife in Mexico), National Audubon (BirdLife in the US) and Bird Studies Canada (BirdLife in Canada) are working together on an ambitious collaborative project to identify a network of marine IBAs extending from Barrow in Alaska to Baja in Mexico. Expert consultation and data collected from at-sea surveys, tracking studies and habitat modelling are being used to define the most significant sites for over 100 species of seabirds using the California and Alaska Currents. The project is identifying a network of priority sites whose management will be essential for the successful conservation of North Pacific seabirds.

Existing data on seabirds collected under the 'Barrow to Baja' initiative
Source: Data kindly provided by Audubon California.

Brown Pelican *Pelecanus occidentalis*, a widespread resident of the North American Pacific coast
© Ben Lascelles

Databases of existing IBAs identified in North America
USA **www.audubon.org/bird/iba/index**
Canada **www.bsc-eoc.org/iba/IBAsites**

Management and protection of sites is a vital next step

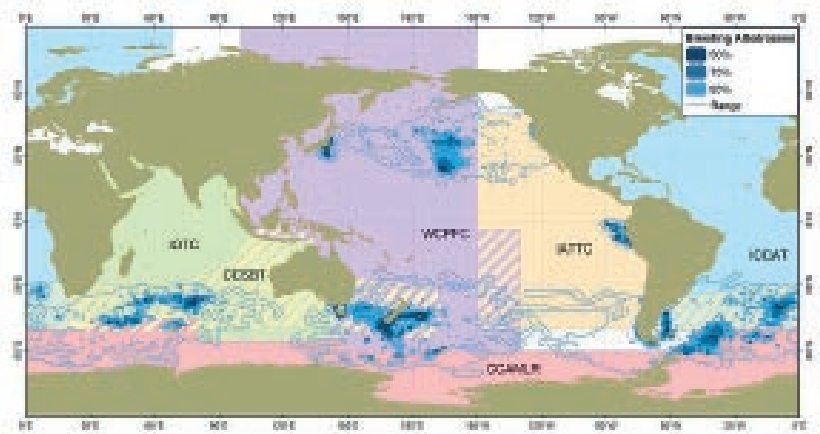
Designation and appropriate management of marine IBAs as Marine Protected Areas (MPAs) can play a vital role in fulfilling commitments to national and international obligations relating to the management of marine resources, and will go a long way towards safeguarding the future of many seabirds.

There are many conventions and agreements that require the designation of MPAs; marine IBAs can help

Accurate knowledge of the location of marine IBAs can be used to inform marine spatial planning through the designation of MPAs, and help identify areas where shipping, renewable energy, fisheries, and oil spills are likely to have the greatest impacts on biodiversity. For example, the EU Birds Directive obliges all Member States to classify the most suitable areas for certain species as Special Protection Areas (SPAs). In several rulings, the European Court of Justice has highlighted the exceptional value of BirdLife's IBA inventories as the best scientific evidence available for selecting SPAs. BirdLife continues to advocate for the designation of all IBAs in the EU as SPAs.

Marine IBA data can inform the designation of MPAs and contribute in other ways to a range of policy mechanisms, including:

- The EU Birds Directive and Natura 2000 network
- The Agreement on the Conservation of Albatrosses and Petrels (ACAP)
- The Convention on the Conservation of Migratory Species of Wild Animals (CMS)
- United Nations Convention on the Law of the Sea (UNCLOS)
- The Nairobi and Abidjan Conventions
- The Bucharest, Barcelona, Helsinki, and OSPAR Conventions
- Agreement on the Conservation of Nature and Natural Resources for the Member States of the Association of South East Asian Nations (ASEAN)
- Regional Fisheries Management Organisations (RFMOs).



Overlap between the foraging ranges of albatrosses and RFMOs
Coloured contours indicate the relative amount of time birds spend in a particular area, i.e. they will spend 50% of their time within the '50%' contour.
Source: State of the World's Birds www.birdlife.org/sowb.

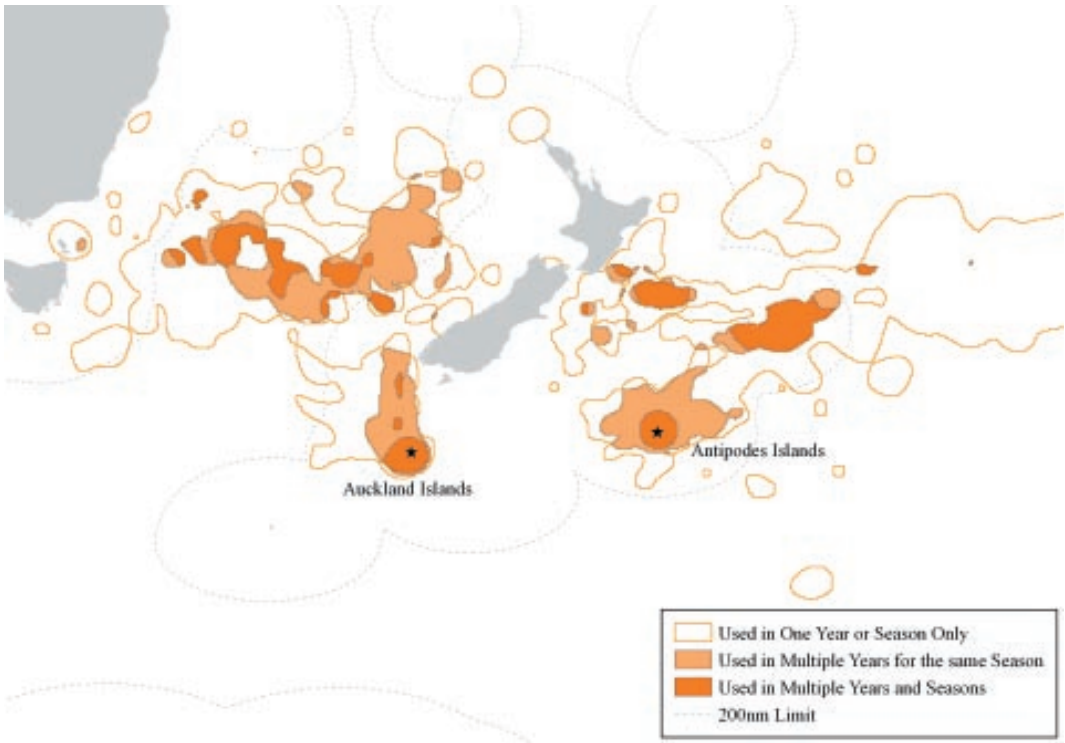
For more information on BirdLife's policy work visit
www.birdlife.org/action/science/conventions/index

Marine IBAs can help to meet the marine targets set by the Convention on Biological Diversity

The Convention on Biological Diversity (CBD) has set a target of establishing comprehensive networks of Marine Protected Areas (MPAs) by 2012. Marine IBAs will be a key reference for government efforts to achieve their obligations under this target.

Marine IBAs are 'Ecologically or Biologically Significant marine Areas'

In 2008, the Conference of the Parties to the Convention on Biological Diversity (CBD) adopted criteria and guidance for 'identifying Ecologically or Biologically Significant marine Areas (EBSAs) and designing representative networks of marine protected areas in open ocean waters and deep sea habitats'. The seven criteria agreed, and the properties and components required for identifying such networks, closely match those required for IBAs. As such there is considerable overlap and congruence between the criteria used to identify marine IBAs and those adopted by the CBD to identify EBSAs in Areas Beyond National Jurisdiction. This is particularly so for criteria relating to vulnerability and irreplaceability. Marine IBAs (defined on the basis of seabird data) are likely to be strong candidates for the identification of, or inclusion within, EBSAs.



Candidate marine IBA and EBSA for the Antipodean Albatross *Diomedea antipodensis* in the Tasman Sea, showing areas of 'regular use' during different life-history stages

Source: Data kindly provided by Kath Walker (Department of Conservation, New Zealand) and David Nicholls (Chisholm Institute, Australia), and held in BirdLife's Tracking Ocean Wanderers Database.

BirdLife has been working with the Global Ocean Biodiversity Initiative (GOBI) to provide technical guidance on the best ways to identify EBSAs – **www.gobi.org**

The future of the marine IBA programme

BirdLife's marine IBA programme plans to increase coverage and advocacy, so as to complement the terrestrial and freshwater programme. It aims to ensure that a complete network of seabird sites, covering activities at all key stages of life and annual cycles, is developed. These sites will be publicised and promoted to worldwide audiences: public, media and decision-makers.

The BirdLife Partnership will continue to provide relevant information on marine IBAs to policy makers.

Future work will also seek to:

- Engage in work to identify marine IBAs in areas of the world that have yet to be covered
- Continue to improve methods for identification and delimitation of marine IBAs
- Determine congruence with other wildlife for those marine IBAs already identified
- Monitor seabird populations at marine IBAs as a contribution to identifying biodiversity indicators
- Provide new examples and case studies for promotion as 'Ecologically and Biologically Significant Areas (EBSAs)' under the Convention on Biological Diversity
- Promote networks of Marine Protected Areas (MPAs) under existing policy agreements
- Promote the need for international collaboration to address effectively marine conservation issues and the sustainable management of the oceans.

Arctic Tern *Sterna paradisaea* © Ben Lascelles

For further information about BirdLife's work visit **www.birdlife.org**

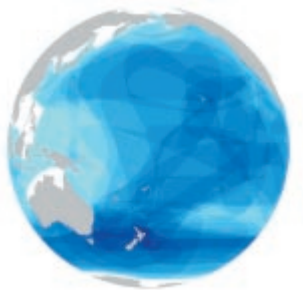
How you can help and get involved

BirdLife manages a number of databases and review processes to ensure that the information it uses is the most up to date and relevant for its advocacy work.

BirdLife International—the IUCN Red List authority for birds

The IUCN Red List is the most comprehensive global approach for evaluating the conservation status of plant and animal species. As the official Red List Authority for birds, BirdLife International collates information from the published literature and from a worldwide network of experts to evaluate the status of each species using the IUCN Red List categories and criteria. Information on Globally Threatened birds is used to focus global conservation efforts and to guide BirdLife's priorities for action. It is therefore essential that data on Globally Threatened birds are kept up to date and regularly reviewed and revised. Species that are under review are discussed on the BirdLife Globally Threatened Bird Forums – these are open to all, and you can provide vital help by visiting the forums and contributing information that may be relevant to the reassessment process.

www.birdlifeforums.org

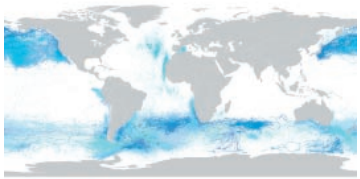


Density of threatened seabirds in the Pacific

The Tracking Ocean Wanderers Database

Holding over 4,500 satellite tracks from 30 species provided by 33 seabird scientists and growing, the Tracking Ocean Wanderers Database is a vital tool for conserving birds in the marine environment. The database is used for both academic research and in a wide range of conservation applications where it allows an understanding of seabird interactions with their marine environment, including, importantly, human fishing activities on a scale that would otherwise have been impossible. The database is also supporting the BirdLife Partnership in the identification of marine Important Bird Areas. Please contribute your data to help BirdLife's work in conserving the world's seabirds and seas.

www.seabirdtracking.org

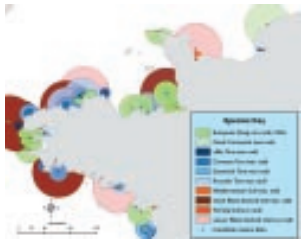


Map of all tracks held within the Tracking Ocean Wanderers Database

The Seabird Foraging Range Database

BirdLife is compiling a database of seabird ecology and foraging ranges, and using this information to identify marine IBAs, inform Protected Area designation and input to marine spatial planning. The database can be used to determine key foraging habitats around breeding colonies in a consistent way, based on foraging distance and habitat preferences shown in the published literature. To assist with this, BirdLife has been creating fact sheets to illustrate the contents of the database on a species by species basis and summarise the published literature. These fact sheets are now available to review and edit online. It is hoped that the seabird community will help to complete similar factsheets for a majority of the worlds seabirds.

www.seabird.wikispaces.com



Foraging distributions around seabird IBAs in northern France

Contact
seabirds@birdlife.org
for further information

BirdLife International is a partnership of 114 national conservation organisations and the world leader in bird conservation. BirdLife's unique local to global approach enables it to deliver high impact and long term conservation for the benefit of nature and people.

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