



Application of the Birds Directive in Spanish airports

Enrique de Castro García
Airport Focal Point / AESA
París-Orly, November 21st, 2024

1. Introduction
2. Protection of biodiversity in Spain
3. Situation at Spanish aerodromes
4. Others

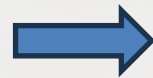


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MINISTRY OF TRANSPORT



No derogation competences



MINISTRY OF ENVIRONMENT

Birds Directive – Derogation process



Regional Governments



However, during wildlife oversight inspections to airports, **CAA biologists** check the validity of wildlife management permits



Source: Alfonso Herrera



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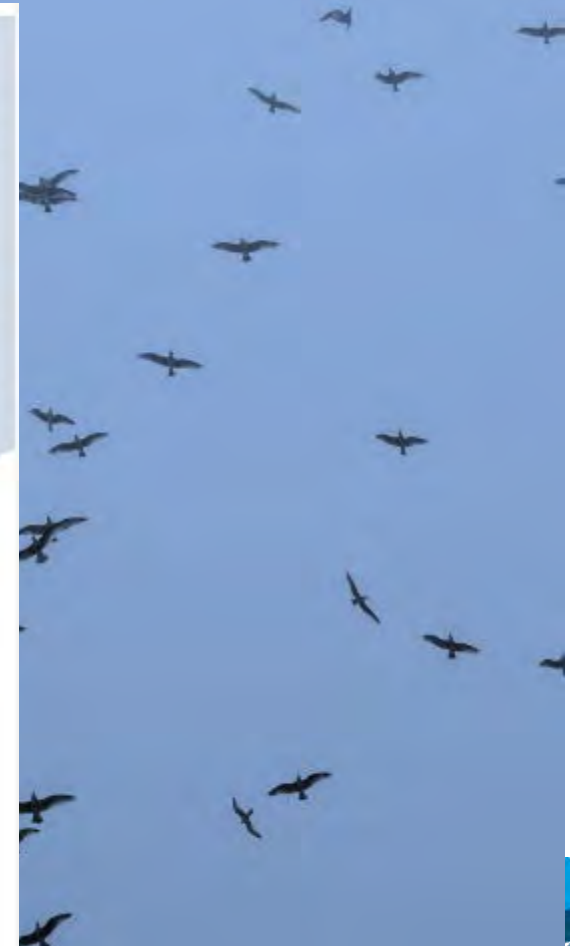
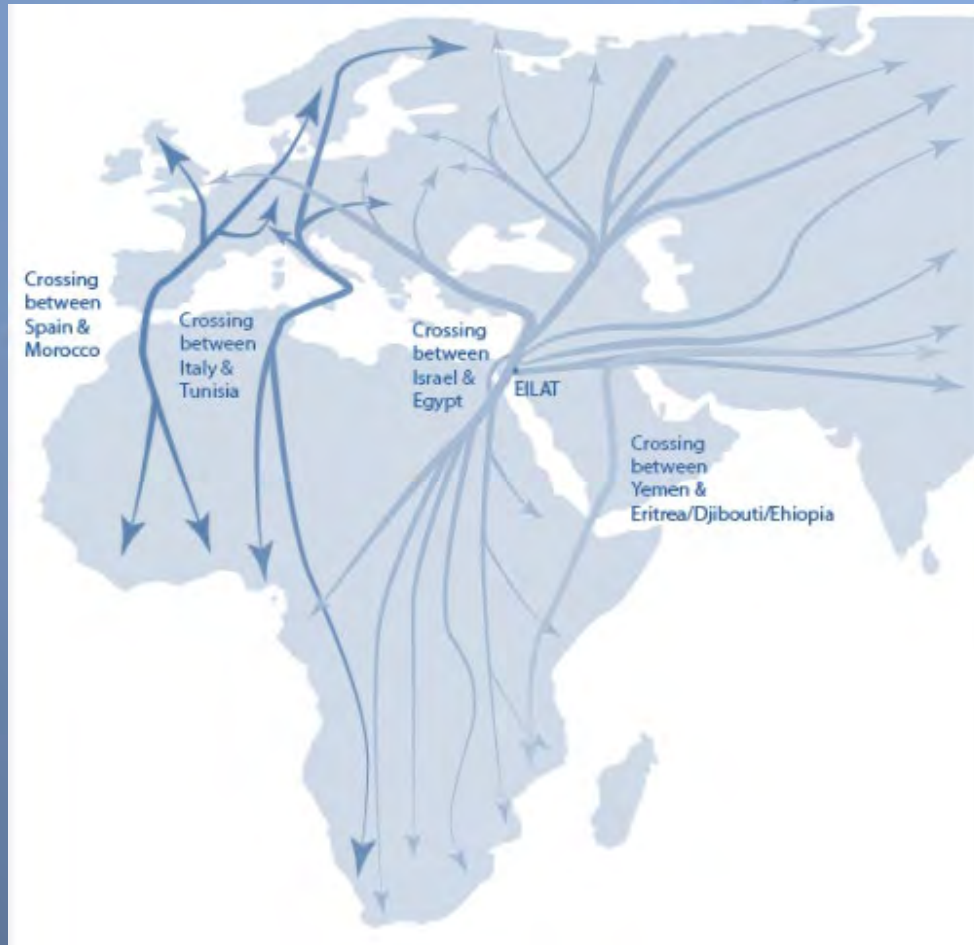


- Wildlife in Spain is **rich and abundant**
- **Great diversity** of **habitats** and ecosystems
- **Strict laws** for protection of the environment

- ✓ Migration corridor
- ✓ 6000 km of Coastline
- ✓ Great Biodiversity



- Abundance of birds
- Natural **migration route** between Europe and Africa
- Large migration flows of soaring birds and waterbirds



- There is an important **migratory corridor** between Northern Europe and Africa



Source: Esri Deutschland



Almost **6000 km** of coastline



About 30 aerodromes close to the coast

Spain

The largest number of **UNESCO Biosphere Reserves**

One of the countries with the **greatest biodiversity in Europe**

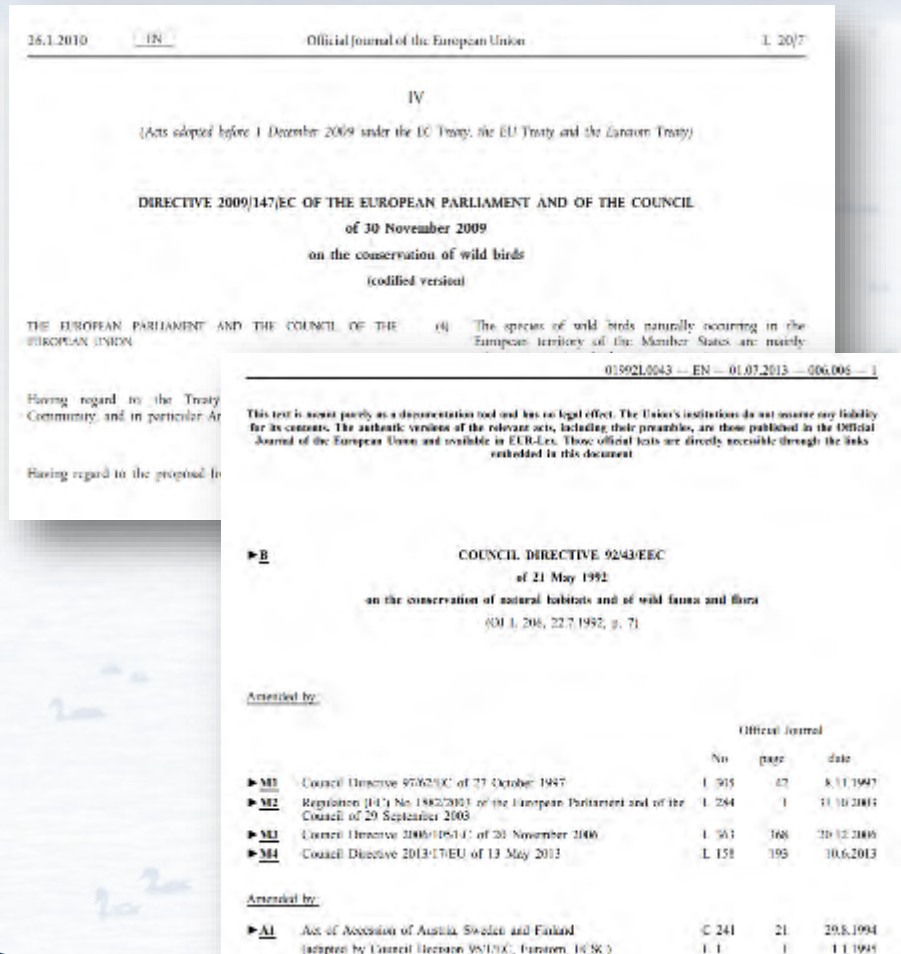
Natural paradise in the European Union

Extensive network of **National Parks** across its territory

- Spain has the largest area protected by the **Natura 2000 Network** in Europe, as well as numerous National Protected Areas.



- The **Birds and Habitats Directives** have been transposed in Spain by **Law 42/2007**, of December 13, on Natural Heritage and Biodiversity



- And the species mentioned in the Directives are protected by **Royal Decree 139/2011**, of February 4th, for the development of the **List of Wild Species under Special Protection Regime** and the **Spanish Catalogue of Endangered Species**.

Article 4

1. The species mentioned in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.

In this connection, account shall be taken of:

- (a) species in danger of extinction;
- (b) species vulnerable to specific changes in their habitat;
- (c) species considered rare because of small populations or restricted local distribution;
- (d) other species requiring particular attention for reasons of the specific nature of their habitat.



1. 20/12

EN

Official Journal of the European Union

26.1.2010

ANNEX I

GAVIIFORMES

Gaviidae

Gavia stellata
Gavia arctica
Gavia immer

PODICIPEDIFORMES

Podicipedidae

Podiceps auratus

PROCELLARIIFORMES

Procellariidae

Pterodroma maxima
Pterodroma fusc
Bubula bubula
Calonectris diomedea
Puffinus puffinus mauritanicus (*Puffinus mauritanicus*)
Puffinus yelkouan
Puffinus assimilis

Hydrobatidae

Phaethon rubricauda
Hydrobates pelagicus

PHOENICOPTERIFORMES

Phoenicopteridae

Phoenicopterus ruber

ANSERIFORMES

Anseridae

Oxyanus brevirostris (*Oxyanus columbianus brevirostris*)
Oxyanus oxyanus
Anser albifrons flavirostris
Anser erythropus
Branta leucopsis
Branta rufoides
Tadorna ferruginea
Maremmenae angustirostris
Aythya nyroca
Polysticte stellaris
Mergus albellus (*Mergus albellus*)
Oxyanus leucostictus

FALCONIFORMES

Falconidae

Falco tinnunculus

- SIG-GD-ITR01-F09 Ed. 02

15/39

- The **Birds and Habitats Directives** have been transposed in Spain by **Law 42/2007**, of December 13, on Natural Heritage and Biodiversity

Article 61. Derogations

Like the Birds Directive, **Law 42/2007** also allows for derogations for aviation safety reasons.

Artículo 61. Excepciones.

1. Las prohibiciones establecidas en este capítulo podrán quedar sin efecto, previa autorización administrativa de la comunidad autónoma o de la Administración General del

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BOLETÍN OFICIAL DEL ESTADO LEGISLACIÓN CONSOLIDADA

Estado, en el ámbito de sus competencias, si no hubiere otra solución satisfactoria, y sin que ello suponga perjudicar el mantenimiento en un estado de conservación favorable de las poblaciones de que se trate, en su área de distribución natural, cuando concurra alguna de las circunstancias siguientes:

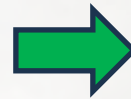
- a) Si de su aplicación se derivaran efectos perjudiciales para la salud y seguridad de las personas.
- b) Para prevenir perjuicios importantes a los cultivos, el ganado, los bosques, la pesca y la calidad de las aguas. Salvo en el caso de las aves, también se podrá aplicar esta excepción en caso de perjuicio importante a otras formas de propiedad.
- c) Por razones imperiosas de interés público de primer orden, incluidas las de carácter socioeconómico y consecuencias beneficiosas de importancia primordial para el medio ambiente. Esta excepción no será de aplicación en el caso de las aves.
- d) Cuando sea necesario por razón de investigación, educación, repoblación o reintroducción, o cuando se precise para la cría en cautividad orientada a dichos fines.
- e) En el caso de las aves, para prevenir accidentes en relación con la seguridad aérea.
- f) Para permitir, en condiciones estrictamente controladas y mediante métodos selectivos, la captura, retención o cualquier otra explotación prudente de determinadas especies no incluidas en el Listado de Especies Silvestres en Régimen de Protección Especial, en pequeñas cantidades y con las limitaciones precisas para garantizar su conservación.
- g) Para proteger la flora y la fauna silvestres y los hábitats naturales.

e) In the case of birds, to prevent accidents related to aviation safety.

- The competence for protecting, managing and monitoring biodiversity lies with **Regional Governments** (Environmental Councils)



MINISTRY OF ENVIRONMENT



Birds Directive – Derogation process



Source: <http://director.io/pmazagomez/variobanderas/comunidades.htm>

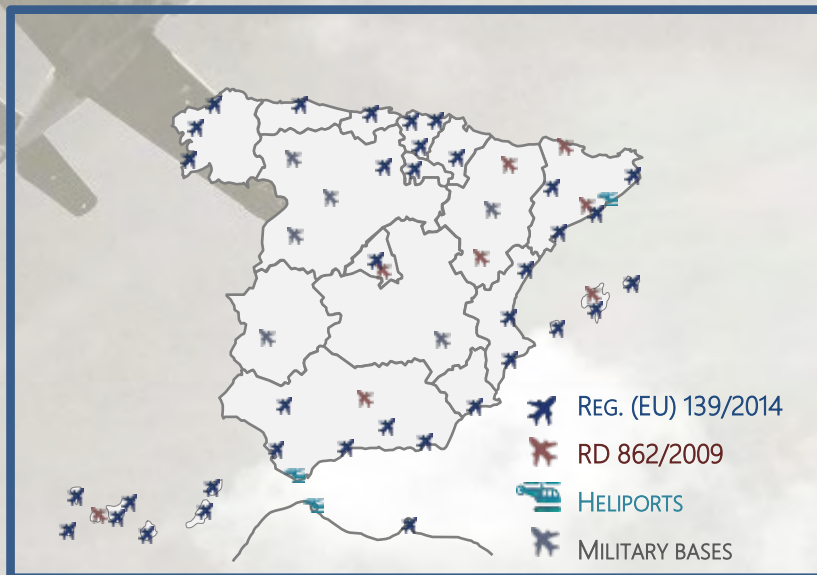


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Certified aerodromes

- 50 public and commercial use aerodromes
- 3 heliports



General Aviation aerodromes

More than 300 general aviation facilities (fire extinction, sanitary, private aerodromes, etc.)



3. Aerodromes

Spanish aerodromes

- The diversity of Spain's terrain and climate implies **diverse ecosystems** at different airports → specific local conditions and problems.



E.g. Almeria airport, with a very arid climate and characteristics



Source: Google Maps



3. Aerodromes

Spanish aerodromes

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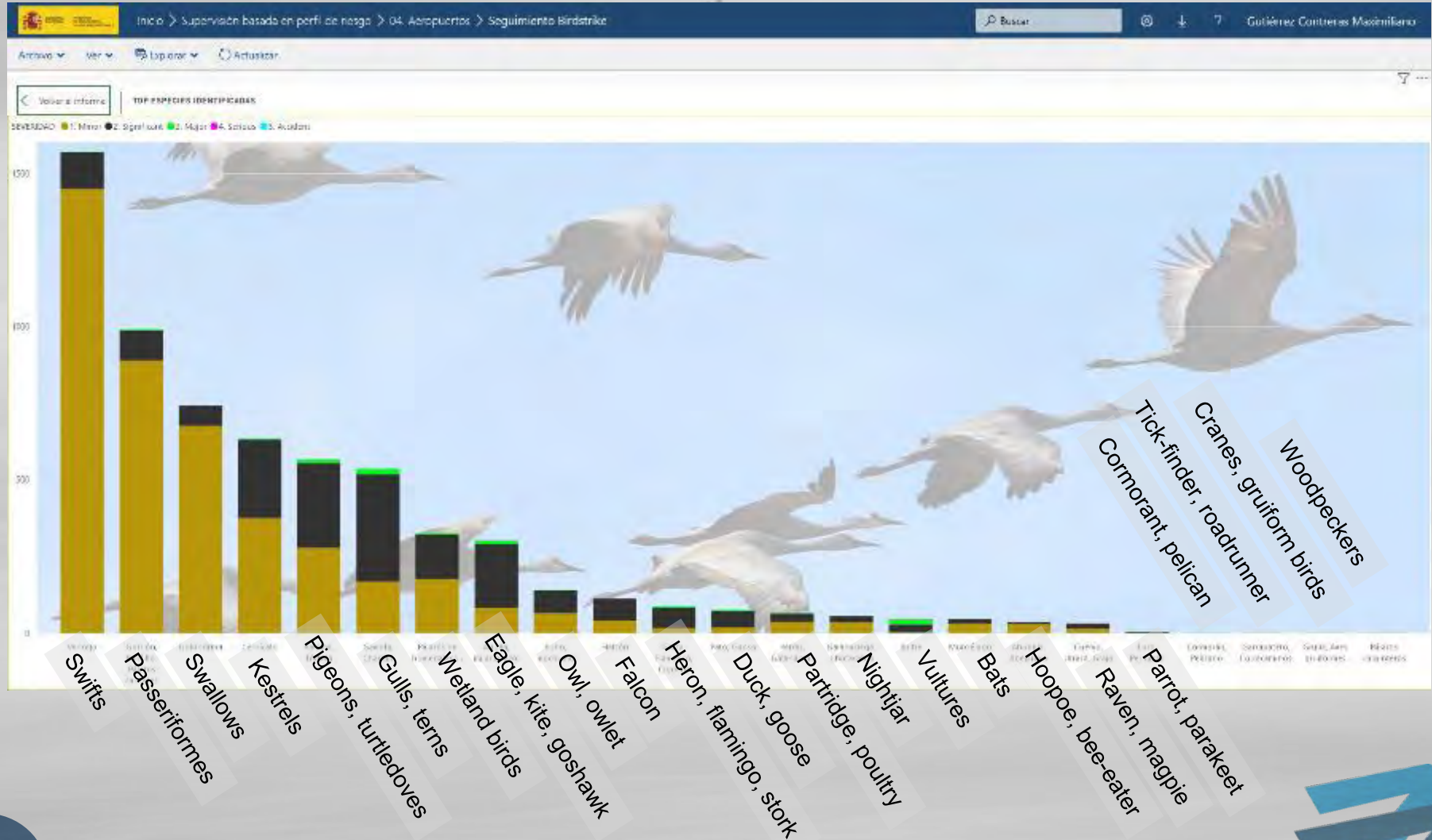
Eg. Santander airport, with a humid climate, surrounded by wetlands.



Hazardous wildlife

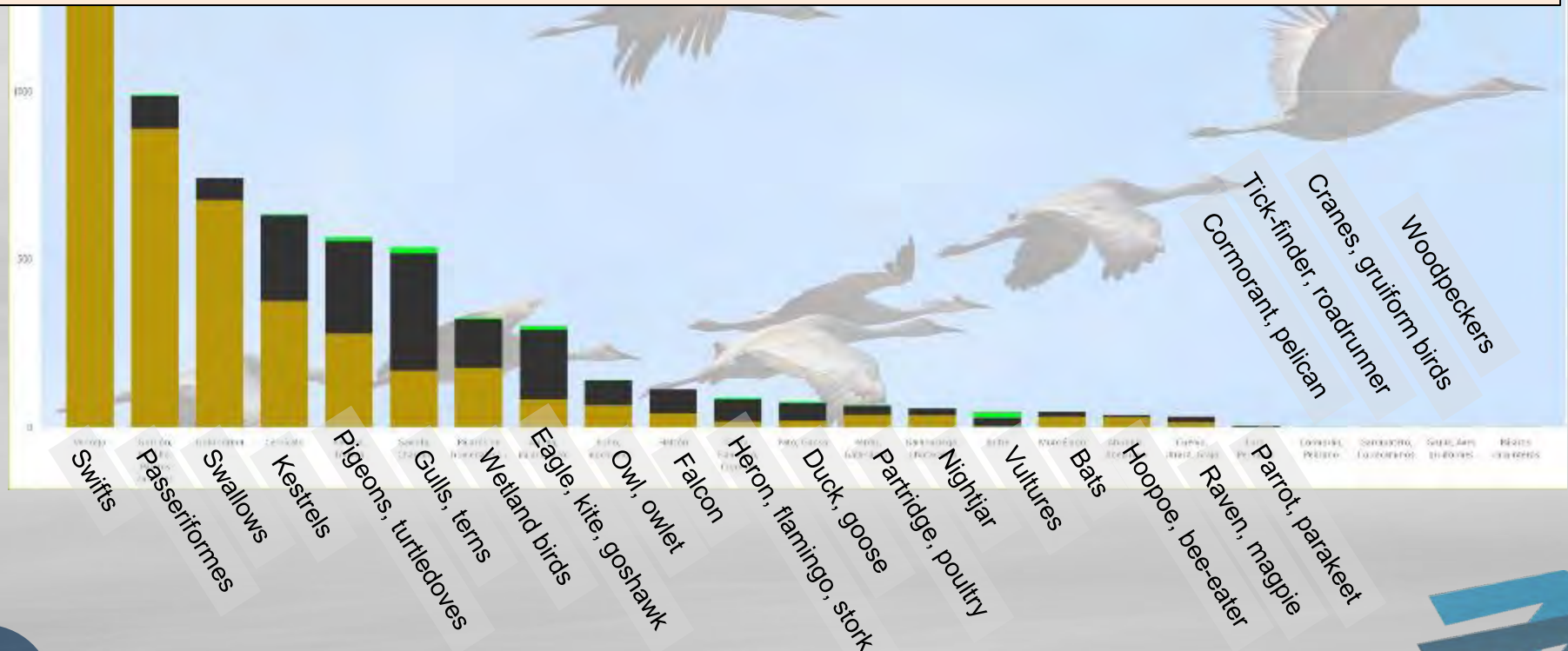
Hazardous wildlife

- Wildlife strikes (known species) at Spanish airports between 2017-2024.



- Wildlife strikes (known species) at Spanish airports between 2017-2024.

- A high proportion of small birds
- Significant, major, serious and accidents → seagulls, medium-sized raptors, storks, waterfowl, ducks and, above all, vultures
- Most problematic species → seagulls, pigeons, storks, kestrels, vultures, etc.



- Although Spain is a country with a great hunting tradition, wildlife control at airports is very strict → **dispersal measures** predominate, and death measures are hardly applied



Source: Alfonso Herrera



Source: Maximiliano Gutiérrez



- Shooting is **very punctual** (with problematic individuals, hazardous flocks of pigeons, or **to train falcons**) → priority is given to **trapping** and **extraction** (translocation or delivery to environmental authorities)




Source: Enrique de Castro



Source: Maximiliano Gutiérrez

- **Derogations** to manage protected wildlife take the form of permits issued by the **Environmental Council** of the **Regional Government**.

Ref: 10/12603/9/10

 Comunidad de Madrid

Dirección General de Biodiversidad y Recursos Naturales
CONSEJERÍA DE MEDIO AMBIENTE,
ORDENACIÓN DEL TERRITORIO
Y SOSTENIBILIDAD

AENA: Aeropuerto Adolfo Suárez Madrid-Barajas

Jefe de la División de Seguridad Operacional,
Calidad y Medio Ambiente
Terminal T2 – 5ª planta
Avda. de la Hispanidad s/n – 28042 Madrid

En relación con el escrito ref: 10/441524.9/19, en la que solicita renovación de la autorización para el manejo de fauna silvestre, medidas que se encuadran dentro del plan de actuaciones que la División de Seguridad Operacional, Calidad y Medio Ambiente del Aeropuerto Adolfo Suárez Madrid-Barajas está desarrollando con el fin de mejorar las condiciones de seguridad aérea

- Teniendo en cuenta que el objetivo es conseguir una mejora de las condiciones de seguridad en el tráfico aéreo
- Vista la Ley 2/1991 de 14 de febrero para la Protección y Regulación de la Fauna y Flora Silvestres en la Comunidad de Madrid,
- Vista la Ley 42/2007, de 13 de diciembre, del Patrimonio Natural y de la Biodiversidad,
- Visto el informe del Servicio de Especies Protegidas.

La Dirección General de Biodiversidad y Recursos Naturales ha resuelto **AUTORIZAR** las actuaciones solicitadas, de acuerdo con el siguiente

CONDICIONADO

AUTORIZADO:
División de Seguridad Operacional, Calidad y Medio Ambiente del Aeropuerto Adolfo Suárez Madrid-Barajas, quien designará expresamente al personal autorizado del servicio de control de fauna contratado.

LOCALIZACIÓN
Recinto aeroportuario del Aeropuerto Adolfo Suárez Madrid-Barajas y su entorno de influencia en los casos que en la presente autorización así se determine.

La verificación de este documento se puede consultar en www.aena.es/seguridad. En caso de cualquier duda, dirigirse al servicio de atención al usuario. 100.001.000.001.000.002

E.g. Permit from the Regional Government of Madrid to Madrid-Barajas airport in which aviation safety is mentioned as the basis for the authorization to manage certain species



- **Derogations** to manage protected wildlife take the form of permits issued by the **Environmental Council** of the **Regional Government**.

GOIB

57 estableix, entre d'altres prohibicions genèriques per als animals, la de «donar-los mort, capturar-los, perseguir-los o molestar-los».

3. No obstant l'expressat en els apartats anteriors, l'article 61 estableix tota una sèrie d'excepcions, en concret, el seu apartat 1 assenyala que «les prohibicions que estableix aquest capítol podran quedar sense efecte, prèvia autorització administrativa de la comunitat autònoma o de l'Administració General de l'Estat, en l'àmbit de les seves competències, si no hi ha cap altra solució satisfactòria, i sense que això suposi perjudicar el manteniment en un estat de conservació favorable de les poblacions de què es tracti, en la seva àrea de distribució natural, quan concorri alguna de les circumstàncies següents: [...] e) En el cas de les aus, per prevenir accidents en relació amb la seguretat aèria [...]».

4. La Directiva 2009/147/CE del Parlament Europeu i del Consell, de 30 de novembre de 2009, relativa a la conservació de les aus silvestres, es refereix a totes les espècies d'aus que viuen normalment en estat salvatge en el territori europeu dels Estats membres i té per objectiu la protecció, l'administració i la regulació d'aquestes espècies i de la seva explotació. En el seu article 5, s'assenyala que els estats membres prendran les mesures necessàries per establir un règim general de protecció de les espècies d'aus silvestres, el qual inclourà, en particular, la prohibició de «a) matar-les o capturar-les de forma intencionada, sigui quin sigui el mètode emprat». En qualsevol cas, en l'article 9.1 s'estableix que «els estats membres podran introduir excepcions als articles 5 a 8 si no hi ha cap altra solució satisfactòria, pels motius següents: a) [...] - en favor de la seguretat aèria [...]».

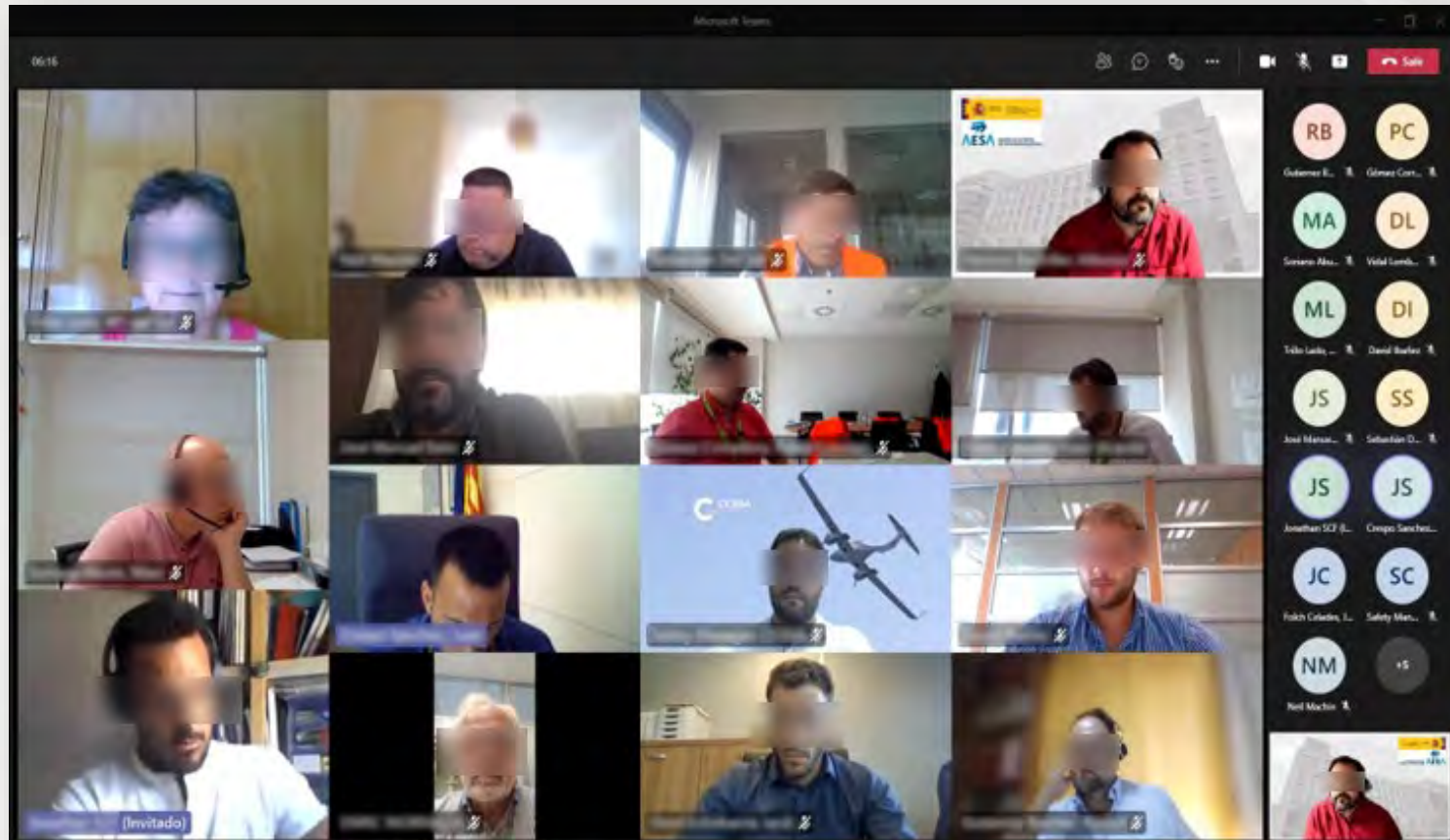
E.g. Permission from the Regional Government of the Balearic Islands to Palma de Mallorca airport, with reference to the articles of Law 42/2007 and the Birds Directive, to apply derogations to the regulations for wildlife protection for aviation safety reasons



- At the end of the permit period, each airport operator sends a report with the results to the Regional Government
- The Ministry of the Environment collects the data from all the Regional Governments, and every year this information is sent to the European Union



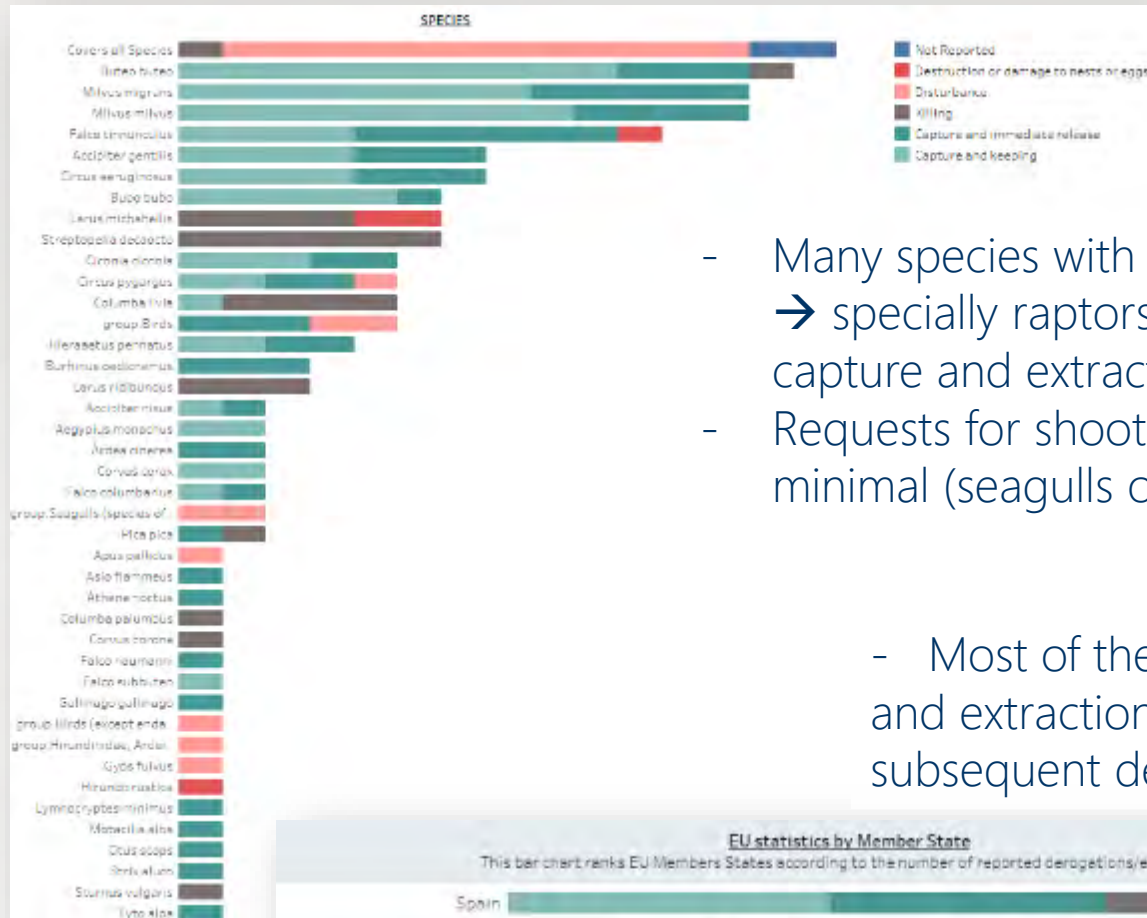
- The **Regional Governments** attend to the annual **local wildlife committees** of each airport → to supervise the application of derogations (actions taken, results, etc.).



2. Biod protection

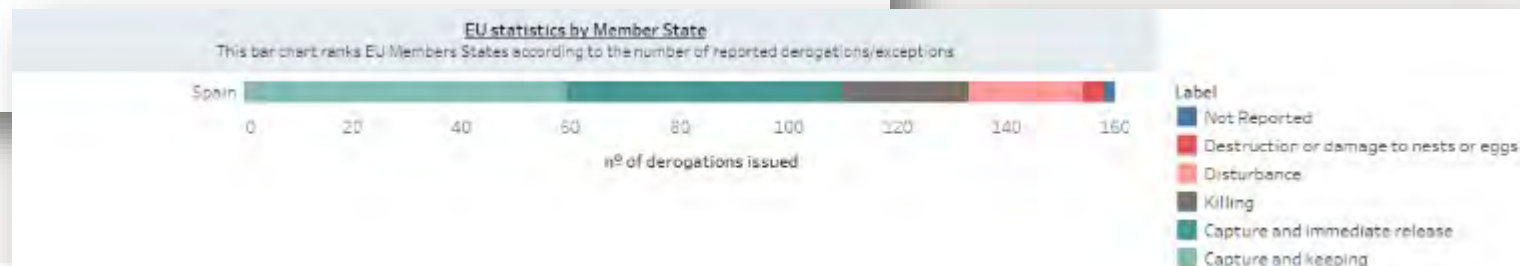
Permits / derogations

- This European Environment Agency summary shows the derogations granted to Spain since 2015, for aviation safety reasons



- Many species with management authorization → specially raptors (the vast majority through capture and extraction (green color))
- Requests for shooting (dark grey color) are minimal (seagulls or common pigeons)

- Most of the derogations are for capture and extraction (either by translocation or for subsequent delivery to the authorities)



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- Since the 2010s, there has been an increase in the number of birdstrikes with **vultures** in Spain → with **general aviation** and with **commercial aviation**



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- More than 90% of the European vulture population is found in Spain.



Griffon vulture (*Gyps fulvus*)



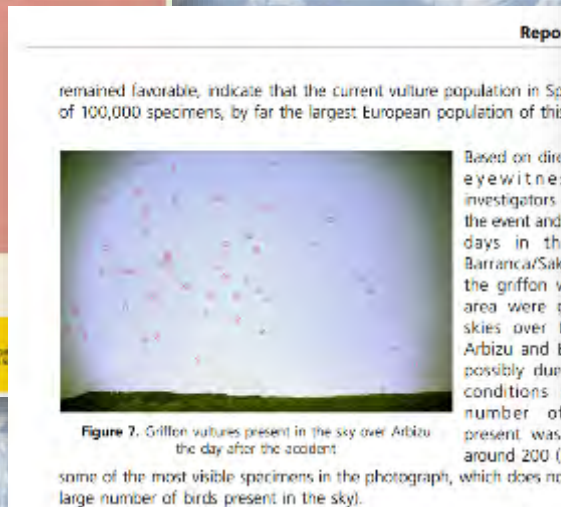
Black vulture
(*Aegypius monachus*)



- The aeronautical sector called for action → to remove vulture colonies and to reduce population
- Civil Aviation Accident and Incident Investigation Commission → **safety recommendation**



Civil Aviation Accident and Incident Investigation Commission



4. SAFETY RECOMENDACIONES

The investigators have concluded that the planning of this long-distance visual flight was deficient, especially in terms of the crew's evaluation of the weather conditions along the route and the conditions at the alternate aerodromes in the event of potential diversions and changes to their flight plan. As a result, a safety recommendation is issued to the Aeroclub of Creil-Senlis-Chantilly.

REC 04/2018: It is recommended that the Aeroclub of Creil-Senlis-Chantilly, where the crew were based, incorporate documentation and improve the training of the pilots at the club in the area of preparing long-distance visual flights, primarily in the following two areas: evaluating weather conditions en route and conditions at the alternate aerodromes in the event of potential diversions and flight plan changes.

In light of the large increase in and abundance of griffon vulture populations in the Iberian Peninsula in the last decades, of the great concern over the potential risk that this poses to general aviation and of the recent catastrophic accidents in Spain involving small aircraft, which have underscored the catastrophic potential that a bird strike has for said aircraft, the following safety recommendation is issued to Spain's Ministry of Agriculture and Fishing, Food and the Environment:

REC 05/18: It is recommended that the Ministry of Agriculture and Fishing, Food and the Environment boost and coordinate actions to minimize the excessive concentration and proliferation of griffon vulture (*Gyps fulvus*) colonies with the autonomous communities and for the whole of the on Spanish territory affected.



- AESA → high-level multidisciplinary **working group**:
 - Habitat management analysis
 - Airport operators – external entities coordination
 - Measures: vulture marking studies (Aena)



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- **Resolution** of June 28, 2021, of the General Directorate of Biodiversity, Forests and Desertification, by which the Agreement with AESA and AENA, S.M.E., SA, is published, **to carry out a study of the behavior of vultures that allows taking measures to avoid the confluence of these birds with aviation.**

- AESA-Aena-Ministry of Environment coordination to know the behavior and movements of vultures using GPS transmitters.
- Project conducted by Aena



Thank you for your attention!

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