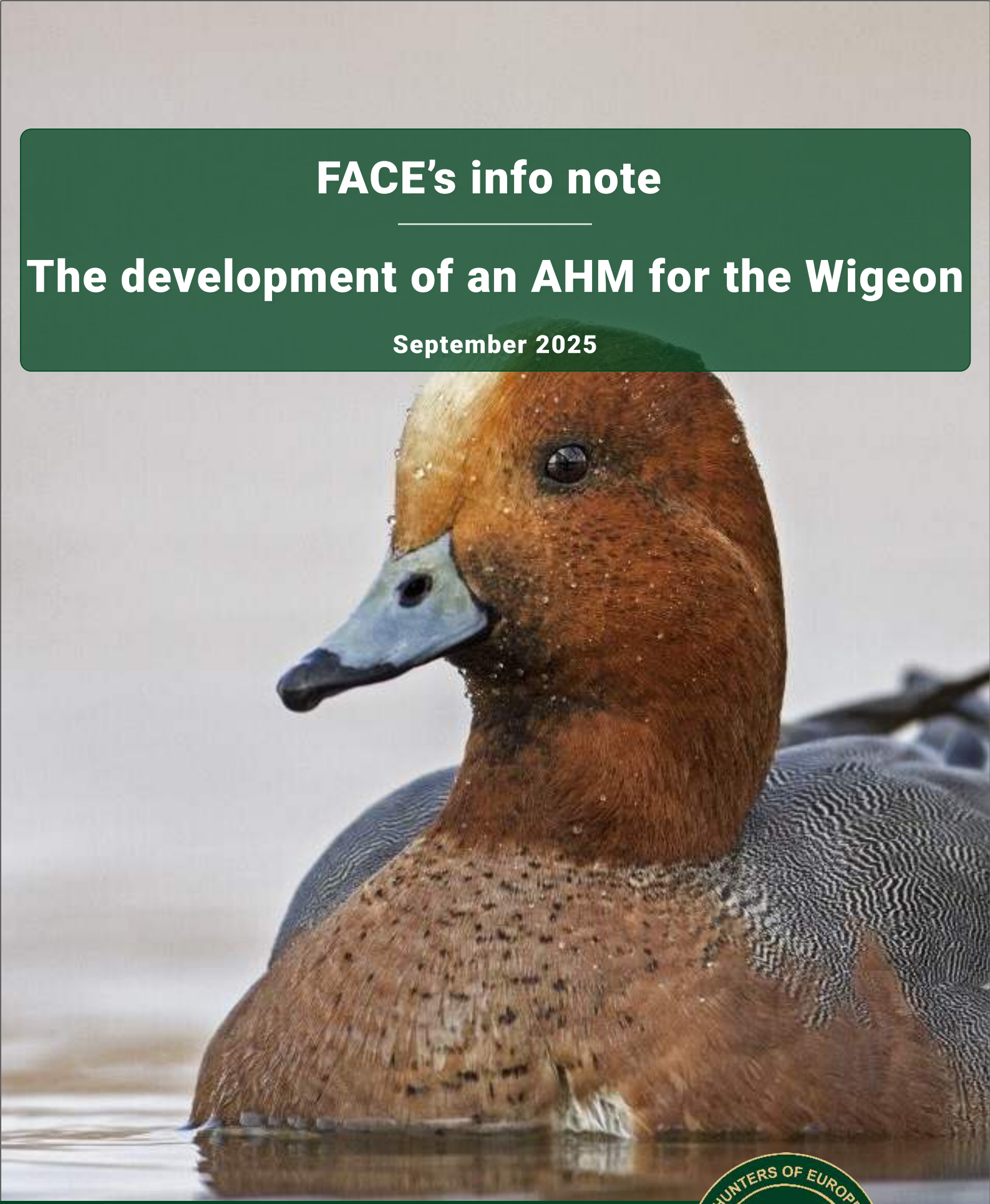
FACE's info note

The development of an AHM for the Wigeon

September 2025



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Key takeaways

- Assessing the sustainability of Wigeon hunting in the EU should be performed at flyway population level.
- The Wigeon has two flyway populations covering the EU, and they have been increasing and stable over the last decade. In addition, the EU wintering population has been largely increasing over the last 40 years.
- Given the population trends, there is no urgent requirement to adjust harvest levels in the EU for the conservation of the species.
- The conservation priority appears to be to increase reproductive success on EU breeding grounds (e.g., nest success and breeding female survival).

What is Adaptive Harvest Management?

Adaptive harvest management is a modern response to ensuring sustainable harvest of wild resources, such as game species. It provides a systematic approach to setting hunting regulations that allows for adapting over time based on management objectives, resource monitoring and data analyses. Scientific data is used to inform decisions and improve resource management in the face of uncertainty by learning from management outcomes and reducing the uncertainty. See FACE's info note on Adaptive Harvest Management.

Following the European Commission's work over the past few years in the framework of the EU Task Force on the Recovery of Birds, three species have been selected for the development of EU Adaptive Harvest Management plans (AHM): the Common Quail (*Coturnix Coturnix*), the Common Pochard (*Aythya ferina*) and the Eurasian Wigeon (*Mareca penelope*). These plans are currently being developed.

This FACE info-notes draws on the key parameters to be taken into account during the AHMs development phase for the Wigeon.

Ecological considerations

At flyway level, Wigeons wintering in the EU are part of two populations, the "Western Siberia & NE Europe/NW Europe" population and the "W Siberia & NE Europe/Black Sea & Mediterranean" population.

The "Western Siberia & NE Europe/NW Europe" population is the main Wigeon population wintering in the EU with an estimated population size of 1.3 to 1.6 million individuals (in late winter, *i,e.*, after most harvest has taken place, but before breeding). This large population has been steadily increasing since the 70's until now. Hence the long-term trend is increasing, as well as the short-term trend.

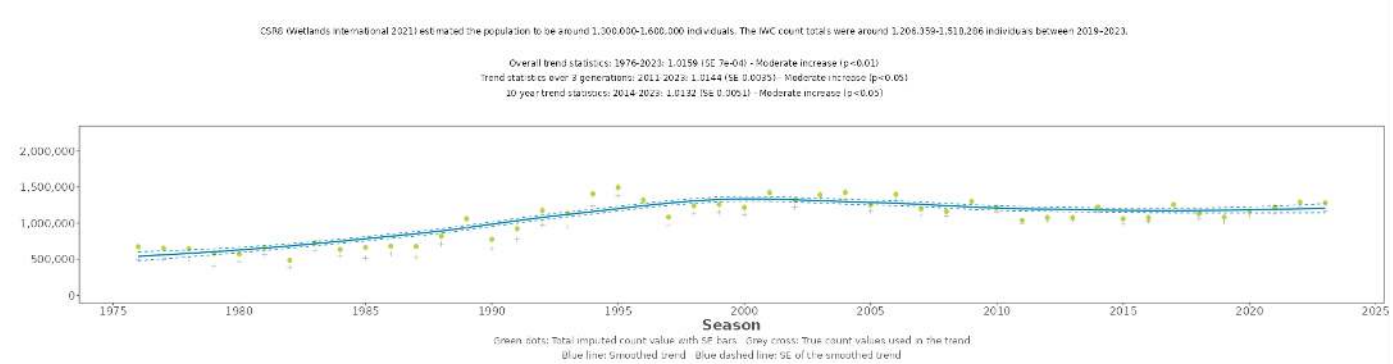

Figure 1: Wigeon "Western Siberia & NE Europe/NW Europe" population trend. Source: Conservation Status Report 9.

The smaller "W Siberia & NE Europe/Black Sea & Mediterranean" population is estimated at 420.000 to 540.000 individuals (in late winter, *i.e.*, after most harvest has taken place, but before breeding). It is deemed to be stable over the last 10 years but to have an overall moderate decrease.

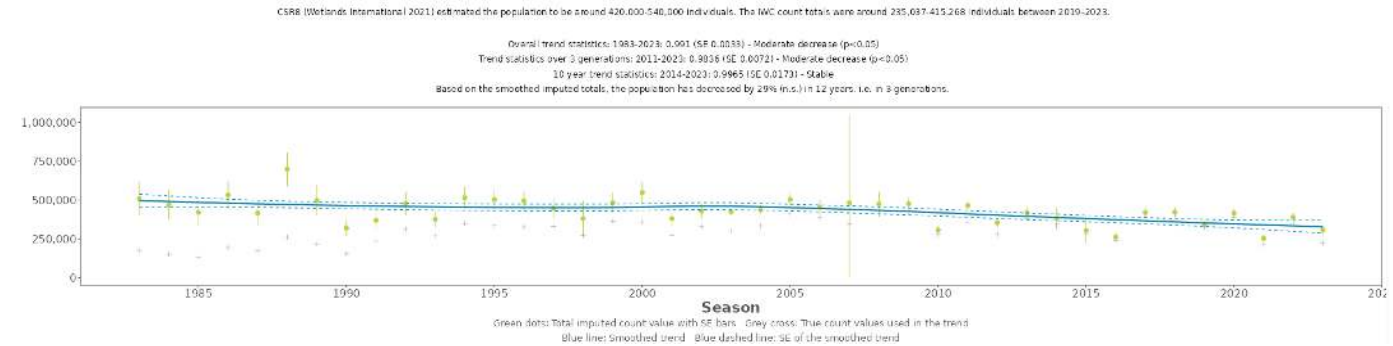

Figure 2: Wigeon "W Siberia & NE Europe/Black Sea & Mediterranean" population trend. Source: Conservation Status Report 9.

Both populations overlap in winter in the EU, but it is, however, important to highlight that, as is the case for other migratory ducks, these populations are management units in practice rather than biological populations (i.e., biologically distinct populations). Most of the harvest by EU hunters concerns the large and increasing "northern" population (or management unit).

Another important source of information is the EU wintering trend, based on the arbitrary geographical area of the EU (*i.e.*, the trend of Wigeon numbers present in the EU in winter). This trend has been steadily increasing since the 80's, so well that the level is currently at around 300% of the levels of Wigeon wintering in the EU 40 years ago. This is consistent with the data reported by Member States under the Birds Directive (Article 12) resulting in a secure EU wintering status and an increasing EU wintering long-term trend, although the short-term trend in this dataset appears to be decreasing.

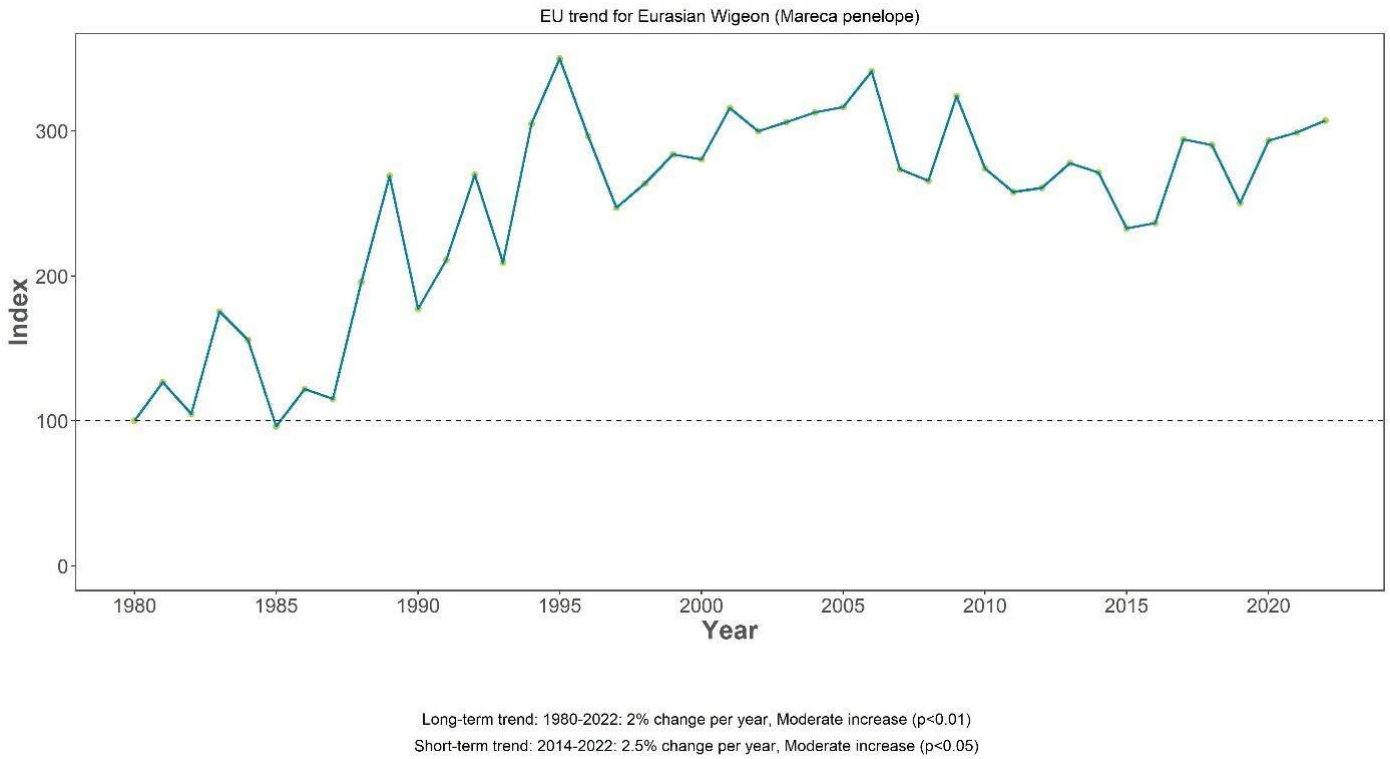

Figure 3: Wigeon's EU wintering trend. Source: International Waterbird Census, Wetlands International.

These trends at flyway level and at EU level in winter are the most relevant information when assessing the sustainability of hunting, as hunting occurs in winter, when migrants are present. It is therefore adequate to rely on the wintering trends to assess the outcome of management actions by comparing the predictions with observations.

While the flyway and EU wintering trends are increasing, this is not the case for the EU breeding trend. This is an important conservation issue linked to the availability of quality breeding habitats within the EU and other limiting factors, but not to hunting practices. However, the EU is at the edge of the Wigeon's breeding range, and represents only a fraction of its breeding population (see Wigeon's distribution map, Figure 4).

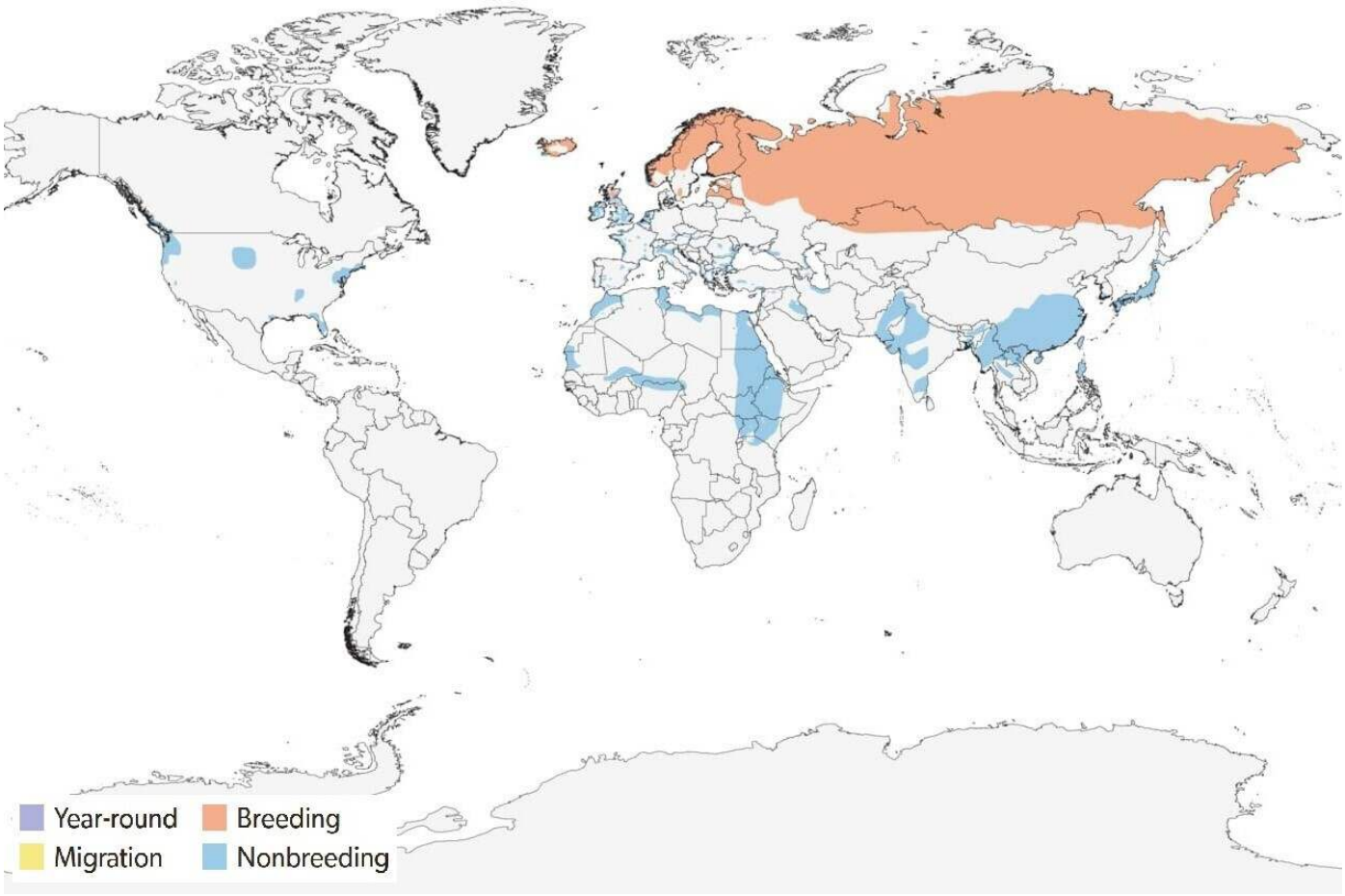

Figure 4: Wigeon's distribution map. Source: Cornell Lab of Ornithology.

Therefore, the trend of breeding Wigeons in the EU represents only a small subset of the Wigeon breeding population trend. Most Wigeons wintering in the EU breed in Russia, where the breeding population is deemed to be increasing. The EU breeding trend is therefore not adequate to assess the harvest management actions outcome.

As this is a habitat issue, further regulating hunting will not address the pressures affecting these birds breeding in the EU. The actions required would typically be wetland restoration and nest protection. If well-designed, some key European policies can make a difference in the coming years, and hunters have been long-standing actors in the conservation and restoration of habitats for waterbirds across the EU (for example, see here) and regarding predation management, especially from Invasive Alien Species (for example, see here).

In addition, natural population fluctuations should be acknowledged, as a variety of factors can impact population trends. For example, competition for resources and space takes place between all species and one species might increase at the expense of another, even positive changes in land use (such as cleaner waters flowing into the sea) can negatively impact bird species (those depending on mussels for example). One should not expect all bird species to increase at the same time.

Technical considerations

The models developed for the Wigeon's AHM will be required to forecast the effect of different harvest scenarios on the species population trend. In addition to the population trends, it is important to identify the main drivers of population dynamics. As a r-selected species (i.e., species typically relying on short life cycles and high productivity, in contrast to K-selected species, *i.e.*, long-lived with low productivity), the most important factor for the Wigeon's population dynamics is expected to be productivity during the breeding season. As hunting's potential effects are related to survival outside of the breeding season, hunting is not expected to be a major driver of population dynamics. Survival of breeding females is an important parameter of breeding success, this parameter can therefore also be expected to be an important driver of population dynamics. The development of the AHM will be required to clarify this.

The importance of breeding success in the Wigeon's population dynamics is a critical piece of information when discussing international conservation efforts priorities for this species as it indicates that the priority is to invest in the conservation and restoration of quality breeding habitats in EU Member States where significant numbers of Wigeons are breeding (see Wigeon's breeding abundance in Europe, Figure 5), as well as to take action towards key factors limiting the Wigeon's breeding success, such as predation of breeding females and nests or chicks by invasive species such as the Raccoon dog or native predator species. This could directly contribute to addressing the Wigeon's unsecure EU breeding status (the main issue, as the EU wintering status is secure).

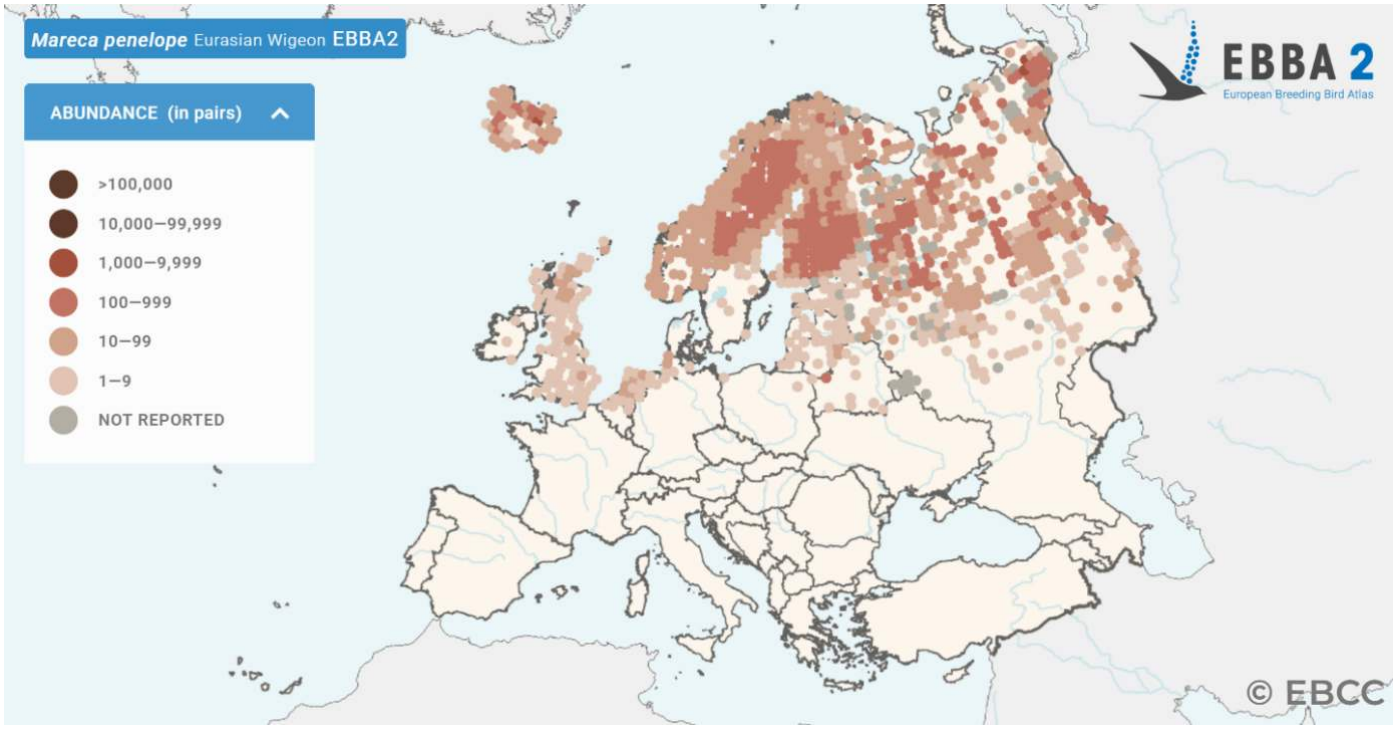

Figure 5: Wigeon's breeding abundance and distribution in Europe. Source EBBA2.

Conclusions

The main ecological points to keep in mind in the future Adaptive Harvest Management are that the Wigeon is increasing at flyway level and in the EU during winter and that the priority issue for its conservation in the EU is its unsecure EU breeding status. However, the EU breeding status is not related to hunting as the vast majority of Wigeons do not breed in the EU. Coupled with the fact that the most important driver of population dynamics is expected to be breeding success, evidence indicates that the priority lies in habitat conservation and restoration, as well as tackling limiting factors during the breeding season.

While adjusting harvest might be a management option, the Wigeon's good population trends indicate that there is no urgency in managing harvest. Therefore, a moratorium for this species is not scientifically justified.

As a science-based organization, FACE welcomes the development of Adaptive Harvest Management for the Wigeon as a way forward in ensuring sustainable hunting but stresses that these key insights must be taken into consideration by all actors taking part in this plan to ensure sound decision-making and buy-in from stakeholders.