Native Irish Honey Bee Society Apis mellifera mellifera



Visit our website for more information and to become a member:

www.NIHBS.org

The Native Irish Honey Bee Society who we are & what we do Ireland's only native honey bee, Apis mellifera mellifera (Amm), is also called the Black Bee, the Brown Bee or the European Dark Honey Bee.

Amm was once the native honey bee subspecies in large parts of Europe, originating near the Pyrennees and moving northwards after the Ice Age (see orange area of the map).



Now it is almost extinct across that whole range except for a few pockets, preserved by conservationists.

How come? Honey bees mate freely in the open air, and anyone can buy or import nonnative subspecies, which may then mate with native stock, outside the control of the beekeeper.

The resulting bees are no longer *Amm*, but hybrids that have lost their special, locally evolved characteristics and may become aggressive.

In this way, *Amm* has been progressively degraded and supplanted throughout most of Europe.

In Ireland, since the Ice Age, Amm has been honed by thousands of years in our particularly changeable oceanic climate. DNA analysis and scientific studies have confirmed the Irish Amm strain to be both pure and distinct, equipped with a unique suite of morphological and physiological characteristics, behaviours and responses that allow them to thrive here, despite the weather.

However, when cross bred with imported sub-species or hybrids, native bee populations gradually lose these special features, which have been shaped over millennia and have allowed them to adapt optimally to their environments. The characteristics of subsequent generations become increasingly erratic and unsuitable for beekeeping. In particular, these "hybridised" bees can become aggressive and prone to excessive swarming.

There is a growing need for beekeepers to select and develop socially acceptable bees that are not aggressive and have low swarming tendencies. This island is fortunate to still have significant reserves of pure populations of *Amm*, but honey bee imports are having a very serious negative effect. Ireland has a duty to protect this valuable genetic and cultural part of our biodiversity.

Recent research has shown that hybridisation increased from < 5% in 2018 to >12% in 2023, with some areas having >30% hybrids¹.

Due to the worsening hybridisation situation, the work of beekeepers and bee breeders who have been improving their bees for years is being destroyed overnight.

Surveys have shown that Amm is preferred by 90% of Irish beekeepers, including commercial honey producers. Indeed, Department of Agriculture researchers showed that Irish Amm produced an average of 70 lbs (32 kgs) of honey per annum over the years 1966-77.

Anyone who loves bees, no matter what association or organisation they belong to, can understand the potential dangers. All representative beekeeping organisations on the island, FIBKA, UBKA, IBA and INIB support NIHBS' Statement Against Imports².



Apis mellifera mellifera can be distinguished from other subspecies by its stocky body, overall dark coloration, plus abundant thoracic and sparse abdominal hair, which is brown.

There can be heavy dark pigmentation of the wings. Overall, when viewed from a distance, these bees should appear blackish or rich dark brown.

^{1.} https://doi.org/10.1080/00218839.2023.2262872.

^{2.} Statement-Against-Imports-2023.pdf (nihbs.org)

Consequences of Imports & the need to conserve *Amm*

In effect, hybridisation caused by the importation of non-native honey bees is causing the gradual extinction of the native Irish honey bee.

Such hybridisation is unavoidable when honey bees of other subspecies are brought into an area. The mating of honey bees occurs in the air, often miles from the hive and out of the control of the beekeeper, and as a result, foreign drones (male honey bees) can mate with native queens and the resulting generations are no longer true to type.

Importing honey bees also risks bringing in previously unknown diseases: The varroa mite was introduced with illegally imported bees, and decades later Irish beekeepers are still dealing with the resulting consequences.

Another unforeseen consequence of honey bee importation is the risk of bringing in novel variants of known bee pathogens - which are more virulent than those we currently deal with. In addition these may well have already developed resistance to treatments yet to be licensed in Ireland.



Conservation

Realising the need for conservation and recognising the potential for native honey bee improvement, beekeepers in the Galtee/Vee Valley of Co. Tipperary founded the Galtee Bee Breeding Group (GBBG) in December 1991. Their objective was "to promote the conservation, propagation and improvement of the Native Honey Bee." They were later joined by likeminded beekeepers from every county, eventually leading to the establishment of the Native Irish Honey Bee Society (NIHBS).

NIHBS' first objective was to establish areas within Ireland to preserve *Amm*, and today, there are more than 240 of these Conservation Areas (CAs) across the island, with each county represented.

Originally organised only by beekeepers' associations, CAs have now also been declared by a fantastic variety of individuals and organisations, all dedicated to providing a sustainable future for our native Irish honey bee.

Establishing a CA is a simple process:

- 1. First, it is confirmed that the area is a suitable option.
- Then a written undertaking is given that the CA will only permit the presence of native honey bees.
- Participants are asked to support the work and aims of NIHBS.
- 4. When the undertaking has been received, signage is arranged, and photographs plus a profile are published on the NIHBS website. This encourages others to participate and acknowledges the conservation effort being made by participants.

For more information contact: nihbs.conservation@gmail.com

Legal Protection

To protect our native honey bee from extinction, as well as against imported pests and diseases, a legal prohibition on non-*Amm* imports is imperative.

The Department of Agriculture, Food and the Marine (DAFM) claims that trade in honey bees within the EU cannot be prevented due to the principle of free movement of goods. However, Article 36 of the EU Treaty specifically allows for trade restrictions on health grounds. A European Court ruling has confirmed that extinction by hybridisation represents a real and substantial threat to the health of Amm.

In the Republic of Ireland, legislation to prohibit imports of non-native honey bees was introduced into the Seanad and received full cross-party support. However, the bill has been paused until the completion of a review commissioned by DAFM into the threat facing *Amm*.

In the meantime, to prevent further worsening of the hybridisation problem, under the precautionary principle an interim ban on imports is urgently required. If hybridisation continues at the current rate, there may soon be nothing left to preserve!

Precedents for the legal protection of native honey bee subspecies exist in EU and other countries as evidenced by conservation areas in Slovenia (the entire country), Denmark, France, Switzerland, Corsica, Malta, Italy, Sweden, Norway, Belgium, Netherlands, Canary Islands, Scotland and the Isle of Man.

NIHBS is an active member of SICAMM, the International Association for the Protection of the Dark European Honey Bee, which works to conserve the remaining populations of *Amm* across Europe.



Characteristics of the Native Irish Honey Bee include:

- Rapid response to changeable weather
- Foraging at low temperatures, even in the rain
- Frugal over-wintering
- Rapid spring build up
- Good, dependable honey production
- Low-swarming behaviour
- Docility

Apis mellifera mellifera, like all honey bees, live in highly organized colonies with a queen bee, worker bees, and drones.

Each member of the colony has specific roles and responsibilities.

Bee Improvement & Queen Rearing

The primary aim of NIHBS is "to promote the conservation, study, improvement and reintroduction of Amm throughout the island of Ireland."

Towards this aim and to reduce the demand for imported queens and bees, a Queen Rearing Group Scheme (QRGS) has been set up.

Under the QRGS scheme.

- NIHBS has established over 40 queen rearing groups throughout the island of Ireland since 2021
- New groups are welcome and will be given training and support
- NIHBS runs an online course via Zoom in all aspects of queen rearing over 8 weeks in February and March each year
- A team of experienced beekeepers provides practical training to help members produce high quality Amm queens
- Ongoing mentoring support is available to the participating groups
- Groups are encouraged to set up local *Amm* conservation areas
- Material from the online course is available on the NIHBS website for participating groups.

Open Days:

Bee Improvement and queen rearing open days are held regularly throughout the country and are well attended by both new and experienced beekeepers.

At these workshops, experienced beekeepers provide practical hands-on demonstrations and freely share their knowledge and skills.

What can the public do to help our native bees?



Engage with the All-Ireland pollinator plan and the "10 ways to help pollinators"

Encourage family and friends to plant bee friendly plants in their gardens

Be aware that bees need flowers and allow wildflowers to grow, especially dandelion, gorse and willow

Encourage farmers to avoid agricultural intensification

Retain and protect hedgerows and "scrub"

Buy local honey produced by native Irish honey bees

Become a member of NIHBS

Become a Patron of NIHBS





Where to buy Native bees & queens:

NIHBS maintains a list of reputable suppliers of native stocks on our website in order to ensure the quality of queens and nuclei. All suppliers sign a voluntary undertaking confirming that, to the best of their knowledge, their bees are Amm and agreeing to provide samples for DNA analysis if required.

The Native Irish Honey Bee Society (NIHBS) was founded in 2012 based on a huge desire by beekeepers for an all-Ireland organisation to conserve our native honey bee. The first chairperson, Pat Deasy, stated "We must plan for the future; if we don't, there will be no native honey bee. Now is the time to act for the generations to come."

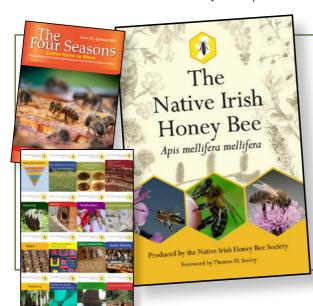
Membership is open to all who are interested in *Amm*, irrespective of whether they are:

- A member of a local bee breeding group;
- An individual beekeeper interested in breeding;
- Anyone with an interest in conserving our native Irish honey bee;

The society is run entirely by volunteers and funded by membership subscriptions and supporter donations, sales of NIHBS publications and a small grant from the Department of Agriculture. Meetings are held online to save time and the costs of travel and accommodation.

We organise an annual conference for members with talks and updates from national and international honey bee experts and scientists.





NIHBS Publications

NIHBS members receive an informative vibrant, quarterly magazine, "The Four Seasons / Ceithre Ráithe na Bliana".

NIHBS has also published a book "The Native Irish Honey Bee, Apis mellifera mellifera," as well as a series of information leaflet and booklets, to assist beekeepers work in a sustainable way with their native bees.

Check out our latest set of Greeting Cards. All publications can be bought online from the NIHBS shop.

When buying honey Look out for this label!

Available only to NIHBS members, this label assures buyers that the honey is local & produced by Amm bees.

