

Wild Honey Bees Receive New IUCN Red List Status

Wild honey bee (Apis mellifera) populations have been reclassified as Endangered in the EU

Galway, Ireland (11 October 2025) — Led by Honey Bee Watch, a team of 14 bee scientists and experts recently reassessed the status of wild Western honey bees (*Apis mellifera*) in the European Union for The IUCN Red List of Threatened Species[™], resulting in the previous Data Deficient designation (www.iucnredlist.org/species/42463639/42463665) being updated to the threatened Endangered classification. This reassessment was made possible by new information that informed an estimated population decline in free-living colonies in the European Union that meets the threshold for the Endangered Category of the IUCN Red List.

Prior to the 2014 Data Deficient classification, the scarcity of studies on wild colonies, coupled with evidence derived from threats causing managed stocks' mortalities, led scientists and others to assume that wild honey bee populations had gone completely extinct in Europe. Professor Grace McCormack (University of Galway, IE), one of the project's assessors, has been leading a study on native free-living honey bees in Ireland for the last eight years. "What astonished me when we started was the depth of the assumptions that wild honey bees were extinct — yet with no evidence. For such a globally important species, there was so little information."

This confusion and knowledge gap led several researchers to start investigating the prevalence and distribution of free-living colonies, meaning those that choose their own nesting site, which live without human intervention, and whose study may reveal the presence of self-sustaining wild populations. Such colonies were subsequently found — and are currently being studied — throughout Ireland and the UK; in national parks in France; forests of Germany, Switzerland, and Poland; up and down Italy; in the capital city of Belgrade in Serbia; and all over: in tree cavities, in chimneys and soffits, castles and hollow statues, even abandoned mailboxes.



Without a network to connect their independent research projects, these studies were pursued in relative isolation. Seeing an opportunity to bring the wild honey bee community together, Honey Bee Watch was born in 2020 so that participants could share resources, communicate regularly to discuss common challenges and solutions, and advance this niche field as a unified group.

Professor Denis Michez and Dr. Mira Boustani (University of Mons, BE), lead authors of the European Red List of Bees report that is in preparation, invited Honey Bee Watch to reassess the Red List status of wild *Apis mellifera*, as part of a larger study of more than 2,000 bee species, many of which had also previously been labeled as Data Deficient. The two-year process involved assembling a team to review extant literature on the subject, identify researchers studying honey bees living in the wild in Europe, collect data on such colonies, and, within the Task Force, organize protracted debates, discussions, and workshops.

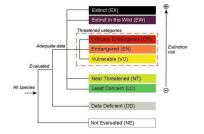
Dr. Arrigo Moro (Honey Bee Watch and University of Galway, IE), main coordinator for the Red List reassessment of *Apis mellifera*, remarked, "Despite the common misconception viewing the Western honey bee only as a managed species, wild populations of this important pollinator remain an integral part of Europe's native wildlife, alongside other wild bees. Based on crucial data on estimated population decline and current evidence on threats severely affecting the survival of colonies in the wild, wild populations of *Apis mellifera* have been assessed as Endangered in EU27 countries. This new designation represents a crucial first step for empowering future research and conservation measures for wild honey bee populations in Europe."

Implications of the Endangered classification

Per IUCN, the Endangered Category is applied when a species is considered to be facing a "very high risk of extinction in the wild." In the case of wild *Apis mellifera*, the criterion cited was an estimated population reduction over the past



ten-year period, derived from the data analyzed by Kohl and Rutschmann (https://doi.org/10.32942/X2SW5M) and through evidence on the effects of several threats such as parasites, pests, predators, pathogens, pesticides, and hybridization. This new designation only applies to EU27 (the 27 member nations of the European Union), whereas at the wider pan-European level, wild Apis mellifera's status remains Data Deficient because of the paucity of data on the distribution, survival rates, and population trends of colonies living in the wild within this larger region.



Changing the species' status, even for only a portion of the continent, paves a path towards meaningful conservation, as conveyed by Professor Simon G. Potts, co-chair of the IUCN SSC Wild Bee Specialist Group (University of Reading, UK). "Species listed as Data Deficient can remain effectively invisible in many conservation planning processes. Reclassing them into scientifically supported Red List categories [such as Endangered], informed by population trends, habitat extent, and threat levels, ensures they are integrated into conservation priorities. With clearer status, conservationists can focus efforts where they matter most."

This game-changing reassessment will potentially shine new light on wild honey bees and their plight, and possibly propel their study and conservation along a new trajectory, hopefully leading to policies that protect threatened populations. However, more research is needed to ensure that geographic areas currently lacking robust data (such as the Balkans, the Baltic region, Scandinavia, and European Russia) can be studied more extensively, that current research projects can invest in long-term monitoring and sampling to infer demographic and genomic parameters, and that findings can be translated into sociopolitical and socioeconomic impacts that safeguard wild populations and benefit others who are dependent on honey bees.



One objective of Honey Bee Watch and its research partners is to more deeply study wild honey bee populations, with the aim of devising nature-based solutions that help lower mortality rates among managed colonies and improve beekeeping's sustainability too. Despite the number of managed colonies increasing in recent years, largely through the manual splitting of hives, the apicultural sector still suffers from alarming die-offs. For example, between June 2024 and March 2025, in the United States, commercial beekeepers sustained average losses of 62%, totaling more than 1.6 million managed colonies.

Protecting the precious genetic reservoir and ecological heritage of wild honey bees — which have been around for millions of years — is an investment in the species' future, bolstering the planet's biodiversity as well as humanity's food security, as we depend on this particular species and other pollinators to pollinate one-third of the food we eat.

The Apis mellifera IUCN Red List report can be viewed at www.iucnredlist.org/species/42463639/277757621.

Assessors: Arrigo Moro (main coordinator, University of Galway and Honey Bee Watch, IE), Patrick Kohl (University of Hohenheim, DE), Benjamin Rutschmann (Agroscope, CH), Jovana Bila Dubaić (University of Belgrade, RS and Honey Bee Watch, IE), Keith Browne (University of Galway and Honey Bee Watch, IE), M. Alice Pinto (Polytechnic Institute of Bragança, PT), Fabrice Requier (UMR EGCE, CNRS-IRD-Université Paris-Saclay, FR), Steve Rogenstein (Honey Bee Watch, IE), Raffaele Dall'Olio (BeeSources, IT and Honey Bee Watch, IE), Andrzej Oleksa (Kazimierz Wielki University, PL), Pilar De la Rúa (University of Murcia, ES), Grace McCormack (University of Galway, IE), Paolo Fontana (Edmund Mach Foundation, IT) & Per Kryger (Aarhus University, DK)

Coordinators: David Allen (IUCN), Mira Boustani (University of Mons, BE), Denis Michez (University of Mons, BE)

Contributors of data: BEEtree-Monitor, DE; Blenheim Palace and Estate, UK; Boomtreebees, IE; Boughton Estate Honeybee Conservation Project, UK; Edmund Mach Foundation, IT; Galway Honey Bee Research Centre, University of Galway, IE; Honey





Bee Wild, LU; Honungsbiföreningen, SE; Instituto Politécnico de Bragança, PT; Kazimierz Wielki University, PL; Nature Research Centre, LT; Office pour les insectes et leur environnement (OPIE), FR; Resilient Bee Project, IT; Slovak University of Agriculture in Nitra, SK; UMR EGCE, CNRS-IRD-Université Paris-Saclay, FR; University of Belgrade, RS; University of Sussex, UK; University of Würzburg, DE; Wild Bees Project, FR

-END-

Media inquiries and interviews:

Steve Rogenstein (Honey Bee Watch): +49-151-294-97335, honeybeewatch.info@gmail.com

Images

Native Irish honey bees living in an abandoned mailbox, © Arrigo Moro
The IUCN Red List Categories used for regional and national Red List assessments, © IUCN Red List
Wild Western honey bee colony (*Apis mellifera*) living in a tree cavity in France, © Fabrice Requier

###

About Honey Bee Watch

Honey Bee Watch is a global coalition of bee scientists, experts, beekeepers, and concerned citizen scientists, tasked with better understanding the biological, behavioral, and environmental factors that bolster survival among free-living honey bees. The aim is to find nature-based solutions that lead to lower mortality rates among managed colonies, improving the sustainability of beekeeping practices, and conservation measures to protect threatened wild populations. www.HoneyBeeWatch.com

About The IUCN Red List of Threatened Species™

The IUCN Red List of Threatened SpeciesTM (or IUCN Red List) is an invaluable resource to guide conservation action and policy decisions. It is a health check for our planet — a barometer of life. It is the world's most comprehensive information source on the global conservation status of animal, fungus, and plant species. It is based on an objective system for assessing the risk of extinction of a species, should no conservation action be taken. Species are assigned to one of eight categories of threat, based on whether they meet criteria linked to population trend, population size and structure, and geographic range. Species listed as Critically Endangered, Endangered, or Vulnerable are collectively described as "threatened." The IUCN Red List is not just a register of names and associated threat categories, but a rich compendium of information on the threats to the species, their ecological requirements, where they live, and information on conservation actions that can be used to reduce or prevent extinctions. When an animal, fungus, or plant changes Red List Category for genuine reasons, this reflects a change in the extinction risk for that species. It is therefore a key indicator for tracking conservation successes and failures. www.iucnredlist.org

About IUCN

IUCN (the International Union for the Conservation of Nature) is a membership Union uniquely composed of both government and civil society organizations. It provides public, private, and non-governmental organizations with the knowledge and tools that enable human progress, economic development, and nature conservation to take place together. Created in 1948, IUCN is now the world's largest and most diverse environmental network, harnessing the knowledge, resources, and reach of more than 1,400 Member organizations and some 16,000 experts. It is a leading provider of conservation data, assessments, and analysis. Its broad membership enables IUCN to fill the role of incubator and trusted repository of best practices, tools, and international standards. IUCN provides a neutral space in which diverse stakeholders, including governments, NGOs, scientists, businesses, local communities, indigenous peoples organizations, and others, can work together to forge and implement solutions to environmental challenges and achieve sustainable development. www.iucn.org