

New bee checklist lets scientists link important information about all bee species

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In time for National Pollinator Week, June 22 through June 28, biologists have completed an online effort to compile a world checklist of bees. They have identified nearly 19,500 bee species worldwide, about 2,000 more than previously estimated. There is a current crisis known as "colony collapse disorder," an unexplained phenomenon that is wiping out colonies of honey bees throughout the United States. This has highlighted the need for more information about bee species and their interactions with the plants they pollinate.

"At a time when biological diversity is suspected to be declining at an alarming rate, it is important to have a solid baseline from which to measure future trends," said Michael Ruggiero, senior scientist for the Integrated Taxonomic Information System at the National Museum of Natural History, who led the recently completed project. "This is very exciting because bees are critical for pollinating flowering plants, including most non-cereal food crops."

"Honey bees are the most economically important pollinators and are currently in the news because of colony collapse disorder," said John S. Ascher, a collaborator on the project from the American Museum of Natural History in New York. "Only about 500 bee species produce honey. Most species, however, do not produce honey or live in hives, yet they are crucial pollinators of crops and native plants."

Taxonomy is the science of species classification. The bee checklist includes currently accepted scientific names, synonyms and common

names; a current, complete and authoritative taxonomic checklist is key to linking all information about species. The scientific name acts as the common denominator to connect like information. Taxonomic information is not fixed and throughout time biologists reclassify species as a result of new discoveries or new research.

"The bee checklist acts as a taxonomic 'Rosetta Stone' that will enhance communication, information exchange and data repatriation about bees. The completed checklist is a first step in modeling and forecasting future population trends," said Ruggiero.

Compiling the checklist has taken more than five years and the efforts of leading bee taxonomists on six continents. The checklist, coordinated by the staff of the Integrated Taxonomic Information System, a public-private partnership hosted at the National Museum of Natural History, is available at www.itis.gov. Major supporters of the project were the Global Biodiversity Information Facility, based in Copenhagen, Denmark, which is dedicated to making global biodiversity data accessible anywhere in the world, and the U.S.-based National Biological Information Infrastructure, a broad, collaborative program to provide increased access to data and information on the nation's biological resources.

Source: Smithsonian

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