NBII Pollinators Project

The Pollinators Project coordinates efforts to address the need for information and technology to support monitoring, management, and conservation of pollinators.

Introduction

Alarming reports of collapsing bee colonies and declining populations of other pollinator species have forced us to pay attention to the plight of pollinators and what their disappearance might mean to agricultural and natural ecosystems worldwide. Pollinators provide an essential ecological service to over 90 percent of the world's wild and cultivated flowering plants and an estimated one-third of the food consumed by humans. Yet our knowledge of pollinators and the threats they are facing is limited. Successful monitoring, management, and conservation of pollinators and their habitats depend on the availability and accessibility of pollinator data and information.

Serving Up Pollinators

As part of a 3-year partnership with the Ecological Society of America <www.esa.org> that was initiated in 2007, the National Biological Information Infrastructure (NBII) Pollinators Project developed the Pollinators Web site <http://pollinators.nbii.gov/>. The Pollinators Web site consists of a variety of sections that provide information on the topics of Conservation; Educational Resources; Initiatives and Organizations; Farming and Gardening for Pollinators; Featured USGS-NBII Projects; Learn about Pollination; News; Pollinator Species; References; Research; and What Can You Do. Visitors to the site can also learn about many other sub-topics including pollination syndromes, threats to pollinators, and recommended conservation practices. In addition, they can find resources to help them identify and report sightings of pollinator species as well as opportunities to participate in volunteer pollinator monitoring programs. The Web site benefits pollinators by increasing public awareness and providing more exposure of online resources about pollinators. The target audience for the site currently includes educators, students, gardeners, and concerned citizens.

Partners, Products, and Pollinator Networks

The NBII Pollinators Project supports pollinator and pollination science by facilitating and promoting data digitization, data exchange standards and networks, and increased access to pollinator data in general through the Internet and other technologies. In addition to its partnership with the Ecological Society of America, the NBII Pollinators Project is also an active participant in several international pollinator conservation initiatives.

The NBII is a Partner of the tri-national North American Pollinator Protection Campaign (NAPPC) <www.nappc.org>, providing guidance and expertise in the field of biological informatics for pollinator data and as the Co-Lead of the NAPPC Databases and Collections Task Force. The Task Force works to develop and enhance pollinator data networks and specimen collection data management.

Photo credit: Elizabeth Sellers, NBII

A European honeybee (Apis mellifera) *gathers pollen from an aster flower in Texas.*

The NBII Pollinators Project also provides extensive support for the Pollinator Information Network for the Americas, a thematic network of the Inter-American Biodiversity Information Network, including hosting the network's official Web site <http://pollinators.iabin.net>. The NBII and the Pollinator Information Network for the Americas are currently developing three new tri-lingual tools for increasing communication within the pollinator

Photo credit: Elizabeth Sellers, NBII

A European honeybee (Apis mellifera) *forages on a chrysanthemum flower in Virginia.*

Successful development and exchange of pollinator information and technology products will benefit other important issues such as plant conservation, invasive species management, and bird conservation.

and pollination communities and for enabling and exchanging pollinator data. Each tool includes an Internet-based interface and architecture and is available in English, Portuguese, and Spanish.

• The **Pollinator and Pollination Contacts Database** <http://pollinators.iabin.net/experts> is a searchable online database of researchers and pollinator and pollination practitioners indexed by the discipline, taxonomic scope, and/or geographic scope of their particular field of knowledge.

• The **Pollinator Data Digitizer** or data entry tool <http://pollinators.iabin.net/digitizer> can be used to digitize pollinator specimen, observation, and plant-pollinator interaction records in a format that is compliant with the Darwin Core standard for the exchange of observation and specimen records and the interaction extension to the standard.

• The **Pollinator Data Portal** <http://pollinators.iabin.net/dataportal> provides online access to searchable pollinator observation and specimen records; experts; and other data. This data portal was developed based on and in compliance with the Global Biodiversity Information Facility portal architecture and standards.

The NBII Pollinators Project continues to support these and other efforts to manage and conserve pollinators and pollinator information. If you are interested in collaborating with the NBII Pollinators Project on pollinator data digitization, standardization, and exchange, please contact the Project Manager.

Background

The NBII <www.nbii.gov> is a broad, collaborative program to provide increased access to biological data and information. The NBII works on standards, tools, and technologies that make it easier to find, integrate, and apply biological resources information. The NBII employs the Internet and other digital technologies for communication and collaboration, education, and data and technology transfer.

One of several globally and ecologically significant thematic components of the NBII, the Pollinators Project coordinates efforts to address the need for information and technology to support the monitoring, management, and conservation of pollinators and pollinator habitats. Successful development and exchange of pollinator information and technology products will benefit other important issues such as plant conservation, invasive species management, and bird conservation. They also provide opportunities for cooperation among NBII partners working on these and other functional and taxonomic groups.

Photo credit: Elizabeth Sellers, NBII

A two-spotted bumblebee (Bombus bimaculatus) *forages on a bergamot flower in an eastern tall-grass prairie plot in Virginia.*

For More Information

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