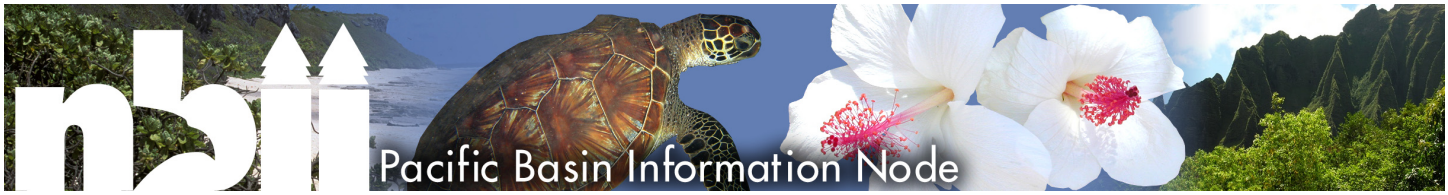

PBIN Image Service: High-quality Images of Hawaii's Environment

Imagery can often provide that necessary visual clue to help us understand complex biological and ecological issues.

Background

The Pacific Basin Information Node (PBIN), as part of the National Biological Information Infrastructure (NBII), collects and makes available high-quality images and associated information related to Hawaii's environment. Images are organized and displayed online through the PBIN Image Service, a Web-based application that provides a rich suite of features.

The service was established to meet the demand of scientists, resource managers, and the general public for readily accessible environmental imagery; and to function as a permanent digital archive for the large collections of photographs and associated information that scientists and naturalists collect over their careers.

An image gallery of Hawaiian species is a valuable resource because it helps users learn to recognize and appreciate the plants and animals in their environment.

The Importance of Environmental Imagery

The expression, "a picture is worth a thousand words," conveys very simply the importance of visual imagery. Environmental imagery can often provide that necessary visual clue to help us understand complex ecological and biological issues, as well as better connect us with the environment. Images of Hawaiian species help the community learn to recognize and appreciate the plants and animals in their environment and come to respect the importance of those species. In practical terms, images are used in the environmental sciences for many purposes:

- identifying species
- vouchering museum specimens,
- monitoring environmental conditions,
- monitoring environmental change,
- documenting environmental damage,
- restoring the environment, and
- educating the general public.

Photo credit: James E. Margos, USFWS

Slender antler coral (*Pocillopora cf. capitata*)

Image Gallery display includes:

- description and notes on the photo subject,
- family, scientific and common names,
- location information,
- photographer and copyright information, and
- photo properties data.

The Image Gallery

The gallery will be populated with any imagery related to Hawaiian environmental issues. Images are organized into albums that represent broad ecological themes and species types, such as "Plants of the Hawaiian Islands" and "Corals of the Hawaiian Islands."

Initially, the gallery has been populated through legacy projects. These are projects that have been designed to digitize photographic collections held by prominent scientists and managers that have been active in Hawaii for many decades.

Photo credits: green sea turtle - Sky Harrison, USGS; yellow hibiscus and red 'ohia lehua - David Eickhoff; Kamehameha butterfly - USFWS; brown moray - Pam Fuller, USGS

From left to right: green sea turtle; yellow hibiscus; Kamehameha butterfly; red ohia lehua; brown moray


Photo credit: David Eickhoff

Awikiwiki flower

This process is extremely valuable because it is making a previously non-digital data set digital and available online to the scientific community and the public.

The image gallery is also designed to be a user-based content management system. Scientists, naturalists, or photographers who would like to contribute digital images to the gallery have the ability to manage their own collections from within the service. An account (username and password) and a private workspace are created for each contributor. This allows the user to upload their images and associated information at their own pace and as the information becomes available.

Technical Functions

The Image Gallery has a rich suite of features. In addition to the user-based management features described earlier, the gallery provides the following tools:

- free text searching of image attribute information,
- advanced search capabilities,
- slideshow function,
- automated creation of Web format and thumbnail images,
- automated extraction, storage, and display of image EXIF header information,
- automated upload of image attribute information (metadata), and
- file moderation system that allows gallery administrators to "approve" images for public consumption.

Technical Information

The Image Gallery is run by MediaGallery 2.0 created by Aurigma Inc., an advanced online image management solution based on ASP.NET and SQL Server. The gallery "look and feel" has been customized by PBIN staff.

The Future

Future efforts will focus on building the gallery content and enhancing technical features to accommodate distributed display of images held on many different servers. PBIN has targeted 10-15 image collections held by various photographers and agencies for inclusion in the gallery.


Photo credit: Angela K. Kepler

Laysan albatross and chick


Photo credit: James E. Maragos, USFWS

Forceps fish

Images from certain collections will be used to build complementary PBIN services, such as the taxonomic services, species information sheets, and other derivative products.

For More Information

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Find us on the Web at: <http://pbin.nbii.org>.

Find the Image Gallery at: <http://pbin.nbii.gov/images/index.html>.

The National Biological Information Infrastructure (NBII) <www.nbii.gov> is a broad, collaborative program to provide increased access to data and information on the nation's biological resources. The NBII links diverse, high-quality biological databases, information products, and analytical tools maintained by NBII partners and other contributors in government agencies, academic institutions, non-government organizations, and private industry. NBII partners and collaborators also work on new standards, tools, and technologies that make it easier to find, integrate, and apply biological resources information. Resource managers, scientists, educators, and the general public use the NBII to answer a wide range of questions related to the management, use, or conservation of this nation's biological resources.