



The NBII Library of Images From the Environment (*LIFE*) Acceptable Image Standards

The mission of the National Biological Information Infrastructure (NBII; www.nbii.gov) is to make data and information about our nation's biological resources easily accessible to help support research, natural management, education, and decision-making. At the request of users, the NBII Library of Images From the Environment (NBII *LIFE*; <http://life.nbii.gov>) was created to enable the sharing of images (including photographs, illustrations, and graphics) of our environment that are: 1) accurate, high quality, and clear; 2) well-documented; 3) searchable by taxon, region, or keywords; 4) freely available; and 5) following other standards. Thus, the NBII *LIFE* requires that contributed images meet those criteria in order to ensure that a consistent level of scientific excellence is displayed within the library. This document details the NBII *LIFE*'s overall requirements for images, as well as specific directions for photographs, illustrations, and graphics.

Overall Requirements:

- *Content of images:* Almost any image of the natural world (animals, plants, habitats, environmental issues, resource management, research, climate, geology, genomic, and more) is welcome. The only requirements are that: 1) the natural environment must be the primary subject (vs. family pictures with the Grand Canyon out of focus in the background); and 2) the image and its information (i.e., *metadata*) must correctly reflect the context in which the image was created. Examples:
 - The metadata must mention if a photograph was taken in a studio or in a recreated environmental setting.
 - Images of sensitive subjects, such as improper animal-handling techniques, should be accompanied by explanations in the metadata.
 - Any species within the image must be identified by an expert in that field, or by using a credible resource, such as *The Sibley Guide to Birds* by David Allen Sibley, 2000. We will soon have a starter list of identification resources on the website for consultation. Additional validation of the species' name is conducted during submittal, using www.itis.gov.
- *Formatting standards:* We strongly encourage the submission of images taken with digital cameras or scanners at a high resolution (>3000 pixels along the longest dimension), and submitted either in an archival TIFF format (preferred), or in JPEG. Medium to lower quality photographs (300-3000 pixels on the longest dimension) in JPEG are acceptable. Newly created images should meet at least the medium resolution requirement of >1200 pixels on the longest dimension in order to support long-term preservation. All images saved using JPEG should use the least amount of compression from your camera and or from photo-editing software. We do not accept images in proprietary formats (e.g., *.psd, .gif or .raw).
- *Metadata standards:* The NBII requires that each image be submitted with as much detailed information as possible. Required information includes the title, photographer's or artist's name, a description, species identification when relevant, keywords, and copyright information. Additional metadata such as location, date, and time are strongly encouraged. The more detailed information that you provide, the more valuable an image can become to a greater variety of users.
- *Copyright:* The NBII *LIFE* only accepts images that are made freely available, at all resolutions, for all nonprofit, educational, or scientific use, and preference is given to public domain images (i.e., also free for commercial and derivative use.)

Photographs:

- *Source:* We will accept digital photographs from nearly any digital camera with the exception of low-resolution phone cameras. Additionally, we will accept photographs scanned from transparency films and from printed photographs, although the former is strongly preferred.
- *Editing:* Photographs must not be digitally altered unless it was necessary for the repair of a damaged original, and at no time should the content be altered (i.e., blurring or cloning of areas, tinting, etc.). Scratch repair, contrast adjustment, and cropping are allowed, but because common methods can create unintended, large-scale data loss, the methods must be cleared first with our technical director. If photographs taken before 2008 have already been altered, a copy of the original photograph should be submitted, if available. In all cases, the alteration must be explained within the metadata.

Illustrations and Graphics:

- *Source:* We also accept digital illustrations and graphics that have been photographed, scanned utilizing a quality scanner, or generated utilizing graphics software. Scanning printed material is not easy and often generates visual anomalies within the scanned image file that resemble checkered, herringbone, moiré or interference patterns. These technical problems are common but we can help with avoiding these issues; please contact our technical director.
- *Copyright:* Any illustration or graphic that appears in print is usually the property of either the artist or the publication itself. Only the owner of the picture's copyright can legally reproduce it or grant permission for its use, unless the publication has fallen out of copyright (defined by originating country.) If you are not the owner, you must provide written permission by the copyright holder for any scan of copyrighted material, along with the owner's statement that this is being made available for all non-profit purposes. For montages, please obtain proper permission and provide credit for *all* copyrighted portions of the image.
- *Editing:* Illustrations and graphics generated digitally may be edited digitally as long as the date and versioning are made clear, and as long as any copyright is respected and any editing that alters the content is explained in the metadata. Illustrations that are created by other means, printed, and then photographed or scanned, must not be digitally altered unless it was necessary for the repair of a damaged original, and at no time should the content be altered (i.e., blurring or cloning of areas, tinting, etc.) unless done by the copyright holder. Scratch repair, contrast adjustment, and cropping are allowed, but because common methods can create unintended, large-scale data loss, the methods should be cleared first with our technical director. If illustrations or graphics created before 2008 have already been altered, the alteration must be explained within the metadata, and a copy of the original illustration or graphic submitted, if available.

The NBII *LIFE* encourages the submission by any contributor of digital images and associated metadata that meet these standards. We understand that images are made for different reasons; thus we are interested in working with contributors depending on their specific case. More information on the NBII *LIFE*, on our standards, and on how to contribute images, is available in other documents, available upon request.

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