



PHOTO GALLERY

All photographs in this section are provided by authors of papers in our scientific journals and are used by permission. All rights reserved.

Editor's note: The scientific article connected to the Photo Gallery feature by Amano et al. in the July 2006 issue of the Bulletin, will be published in November Ecological Monographs 76(4), and not, as earlier anticipated, in November Ecology 87(11).

FEEDING PREFERENCES IN A NEOTROPICAL LEPIDOPTERAN



Inga umbellifera

The major resource for folivorous herbivores is young, expanding leaves. Tropical rain forest herbivores have selected for diverse forms of leaf development, including delayed chloroplast development (white or light pink young leaves) and leaves that double in area in a single day (with a vertical or hanging orientation).



Inga oerstediana

Species of *Inga*, an abundant and diverse genus of trees, show the full range of developmental types as well as surprisingly diverse defensive chemistry. On Barro Colorado Island, Panama (BCI), with 11 common species of *Inga*, many caterpillar species attack only 1–4 species of *Inga*. In the case of such specialized herbivores, it has proved difficult to investigate the relative importance of developmental traits and food quality in determining host choice. One species of caterpillar on BCI, in the Gelechiidae, attacks young leaves of 10 species of *Inga* at different rates, allowing just such a test. Despite large differences in leaf chemistry among *Inga* species, the caterpillar grew well on most species. The study indicates that the availability of young leaves, competition from other herbivores, and to some extent parasitism rates, determine preferences among *Inga* species. Young leaves of the 11th species, *I. acuminata*, are not attacked by the gelechiid, nor do its young leaves support growth in laboratory experiments. In the case of *I. acuminata*, host chemistry likely determines host choice.



Two examples of *Inga umbellifera*



Inga goldmanii



Lycaenid on *Inga*

These photographs illustrate the article, "Food quality, competition, and parasitism influence feeding preference in a Neotropical lepidopteran" by Thomas A Kursar, Brett T. Wolfe, Mary Jane Epps, and Phyllis D. Coley, tentatively scheduled to appear in *Ecology* 87(12), December 2006.