

Digitized collection data to give scientists new tools for research

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From bumblebees to blister beetles, the world-class University of Kansas entomology collection numbers 5 million insects pinned in drawers, each one with a tiny printed or handwritten label.

This week the staff and students of the Biodiversity Institute's Entomology Division celebrated the capture of the data associated with 1 million of those insects. The information has been entered into a web-accessible and searchable database called Specify. The data will help scientists study insect evolution and ecology, the transmission of insect-borne diseases, insects as essential plant and crop [pollinators](#), and the impact of climate change on these essential insect functions.

"For 15 years, it's been a priority at the Biodiversity Institute to bring this enormous volume of essential [biological data](#) on the planet's insects into currency for science and society," said Leonard Krishtalka, Biodiversity Institute director. "Serving this data on the web paves the way for powerful research and [knowledge discovery](#) in order to inform smart public policy."

Since the late 1990s, a team of 50 undergraduate students and staff has been painstakingly digitizing the biological data associated with insect collections from both previous and current expeditions to the world's forests, grasslands, deserts, rivers and lakes. The process involves photographing the data labels, adding a bar code for each specimen and entering the information accurately into the Specify database.

Specify was developed with research funding from the National Science Foundation, which also has funded part of the insect digitization project. Specify is also being used by 475 [biodiversity](#) collections worldwide, encompassing tens of millions of plant and animal records now available to the global research, educational and policy communities.

Provided by University of Kansas

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