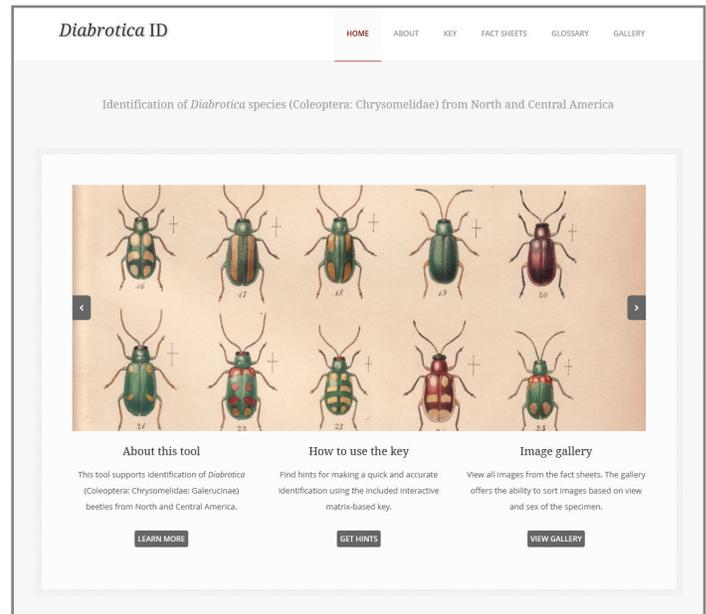


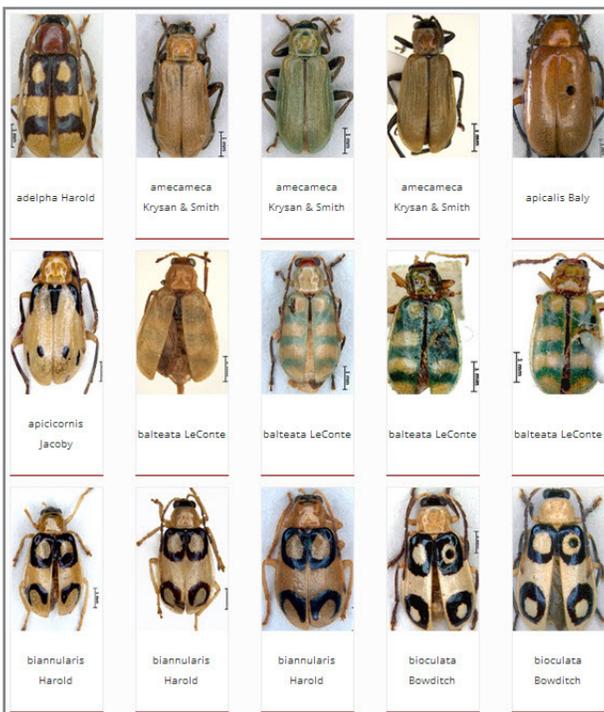
# Diabrotica ID

Authors: A. Derunkov, A. Konstantinov, A. Tishechkin, L. Hartje, and A.J. Redford

CPHST is pleased to announce the release of its newest identification tool, “*Diabrotica* ID: Identification of North and Central American *Diabrotica* Beetles”, developed through collaboration among CPHST, USDA-Agricultural Research Service, and University of Maryland. The tool is designed to allow identification of *Diabrotica* species that originate from North and Central America to users lacking an expertise in taxonomy of *Diabrotica*, one of the most speciose and economically important leaf beetle genera in the New World (Coleoptera: Chrysomelidae). Many *Diabrotica* species feed on flowers, leaves, and roots of a wide variety of agricultural crops, vegetables, fruits, and ornamentals and are vectors of viral and other lethal plant diseases. A single species, *D. virgifera*, costs approximately one billion dollars to the U.S. economy annually.



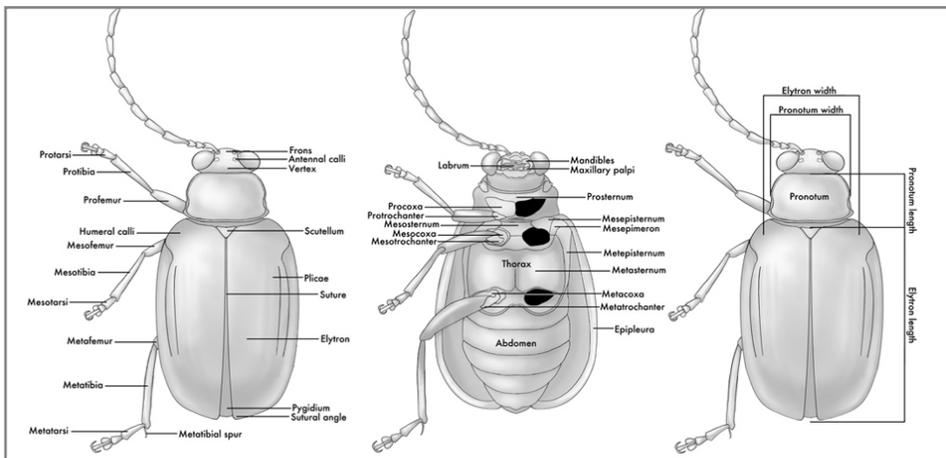
<http://idtools.org/id/beetles/diabrotica>



Screenshot of a portion of the gallery page

Species identification in *Diabrotica* remains a problem because of a lack of modern treatments and keys. Therefore, a project was launched to provide a synopsis of North and Central American *Diabrotica* and prepare a richly illustrated, morphologically based, interactive key to species.

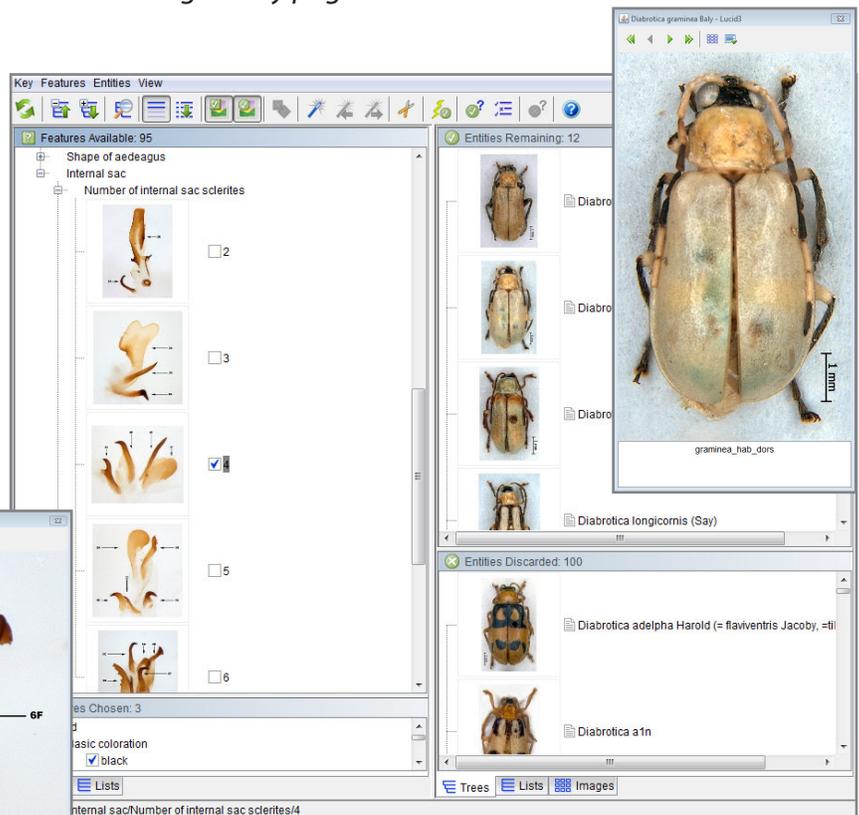
The first, essential step of this project focused on documenting all available type specimens of all 123 *Diabrotica* species and subspecies known from North and Central America (Smith and Lawrence 1967). As a result, we found several new synonyms, new combinations, a need to restore an original combination and revised species status, and discrepancies in the type specimen gender attribution and identifications. We also found several undescribed species that are abbreviated in this tool, but will be described in the near future. After all these changes we recognized 112 valid *Diabrotica* species and subspecies in North and Central America. Each species is fully illustrated, treated with a fact sheet, and included in the key.



Screenshot of *Diabrotica* anatomy illustration featured on glossary page

*Diabrotica* ID features all the functionality you've come to expect from ITP identification tools. For example, a glossary is included for users less familiar with beetle anatomy terminology, and it also features detailed illustrations of the terms to help clarify terms even further. Glossary terms are highlighted in the fact sheets and can be easily looked up by hovering your cursor over the term.

*Diabrotica* ID offers you a number of other resources to support the identification of this important group of beetles. The image gallery is filterable, offering the ability to view only particular types of images. The interactive key includes access to helpful images to make the key more easily used by non-experts. Fact sheets are included, with a variety of images to support identification, detailed diagnostic, distribution and host plant information, and tips on potentially similar species. The fact sheets can also be searched from any page in the tool, allowing quicker access if you know what you're looking for. The tool also offers users some detailed tips on how to best navigate the key for a quick identification on the "How to use the key" page.



Screenshot of key showing enlarged images of a feature (left - six internal sac sclerites) and an entity (right - *D. graminea*)

The developers of *Diabrotica* ID would appreciate any comments about the value and usefulness of this tool and learning of any problems you encounter when accessing or using the tool. Please contact Alex Konstantinov (email [alex.konstantinov@ars.usda.gov](mailto:alex.konstantinov@ars.usda.gov)) with any comments or questions about tool content, or Amanda Redford (email [amanda.j.redford@aphis.usda.gov](mailto:amanda.j.redford@aphis.usda.gov)) with accessibility or functionality issues in the tool.

To learn about Lucid key development software, visit [www.lucidcentral.org](http://www.lucidcentral.org). For information concerning other CPHST-developed identification tools for plant protection and quarantine, contact Amanda Redford.

To find other identification aids for beetles in the family Chrysomelidae, visit [ID Source - Chrysomelidae](#). To view other tools developed by the CPHST ITP team, visit [ID Source - ITP](#).