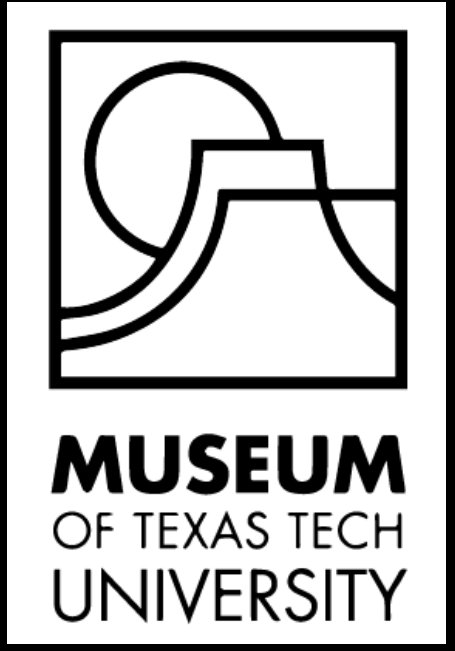




# The Importance of Proper Preservation and Labeling Techniques in Insect Specimens: Curation of the Mantodea specimens of the Invertebrate Zoology Collection, Museum of Texas Tech University

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## Background

The order Mantodea is a comparatively small order of insects, with just over 2,400 described species. They are characterized by their triangular heads, raptorial front legs, and strong mandibles. Some species are economically important as biological pest control while others are invasive pest species that outcompete and predate on native species. Biological collections house specimens and their associated information so that they can be used for different kinds of investigations. Proper preservation of specimens allows for diagnostic features to stay intact to facilitate their identification. Properly labeling specimens ensures that information associated with each specimen is preserved as well. Among other things, digitization allows us to provide remote access to specimen data. Information on specimens lets us investigate different biological aspects of species including geographic and seasonal distributions and allows recognition of shifts in these patterns.

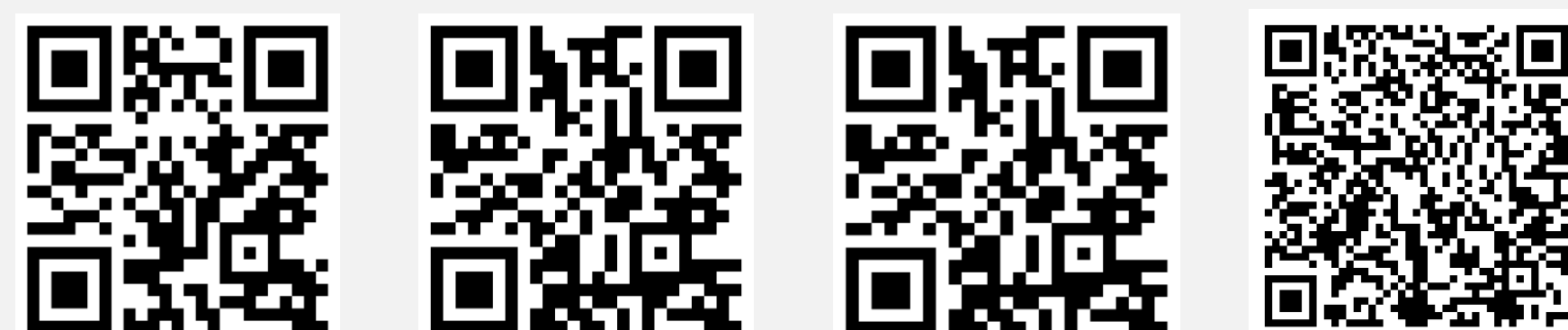
## Labels, Sorting, and Digitization

Proper labels include the specific locality, date of collection, name of the collector, and insect's scientific name. Remarks such as capture method and host plant should be included if possible.

Specimens must be identified, sorted, organized, and digitized to be accessible for research on different topics including:

- Species and distribution
- Seasonality
- Habitat and diet
- Diversity

## Links of interest



NSRL IZC iNaturalist ecdysis



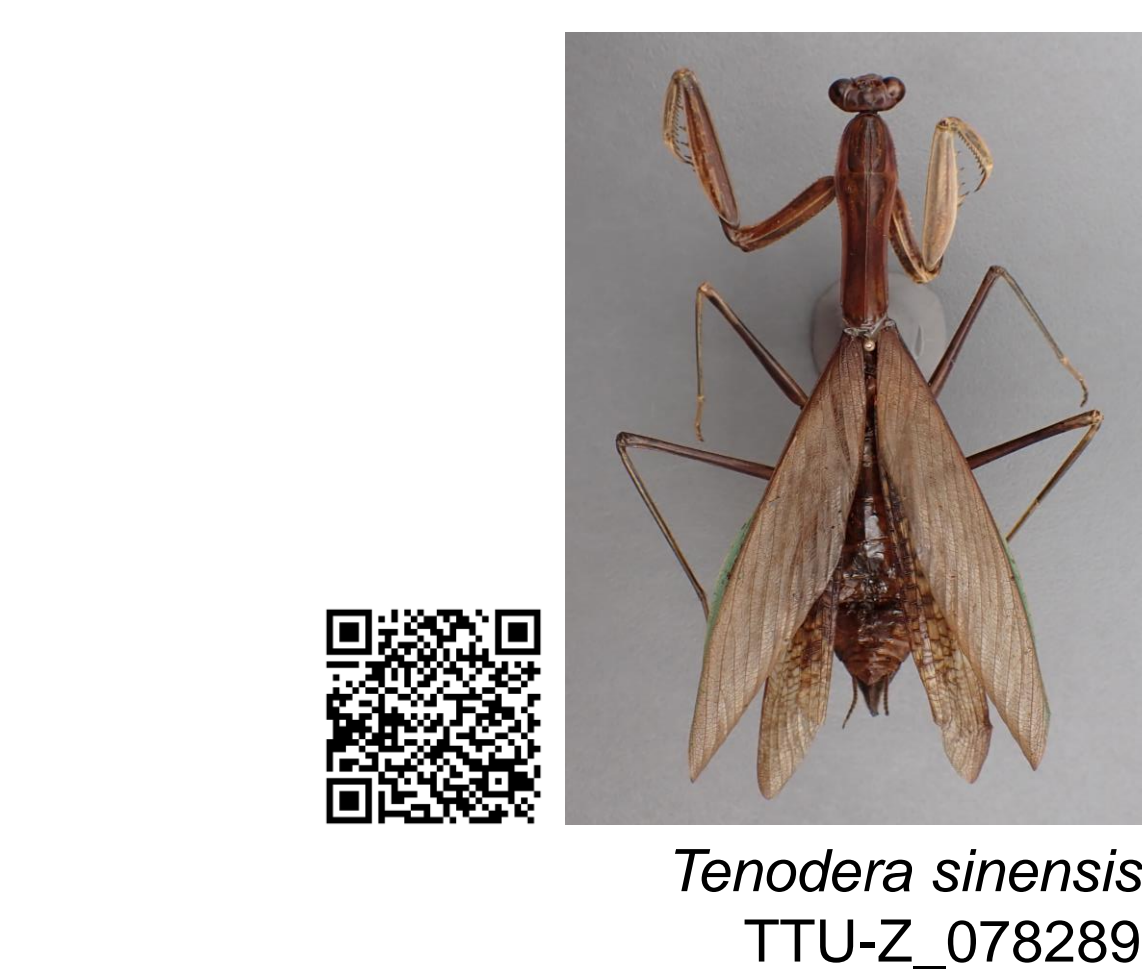
ID	Family	Scientific Name	Collector	Number	Date	Country	State/Province	County	Locality	Year	Image
TTU-Z_0001	Mantodea	<i>Stagmomantis limbata</i>	...	...	...	...	...	...	...	...	...
TTU-Z_0002	Mantodea	<i>Litaneutria minor</i>	...	...	...	...	...	...	...	...	...
TTU-Z_0003	Mantodea	<i>Mantis religiosa</i>	...	...	...	...	...	...	...	...	...
TTU-Z_0004	Mantodea	<i>Tenodera sinensis</i>	...	...	...	...	...	...	...	...	...
TTU-Z_0005	Mantodea	<i>Brancsikia freyi</i>	...	...	...	...	...	...	...	...	...

Repair damaged specimens

Replace old unit trays

Identify and sort specimens in alphabetical order by taxonomic name

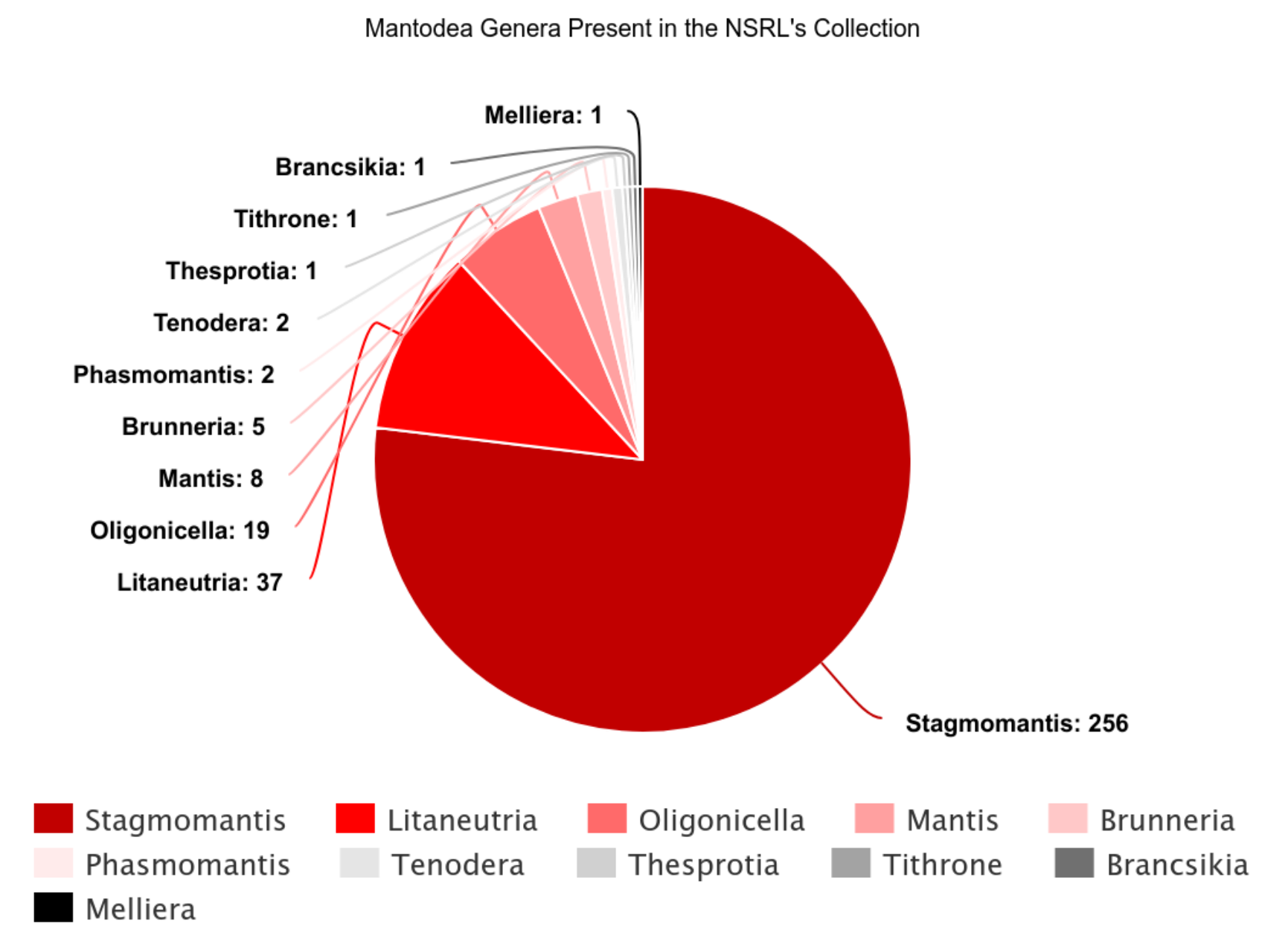
Record label information into ecdysis portal



## Diversity of Mantodeans in the Invertebrate Zoology Collection

The Museum of Texas Tech University's Invertebrate Zoology Collection holds:

- About 4.6 million invertebrate specimens
- 347 mantodean specimens representing 12 species across 11 genera
- Mantodean specimens representing 9 countries



## References

Anderson, K. 2018. Praying Mantises of the United States and Canada. Independent. 291 pp.  
[BugGuide](#) [iNaturalist](#) [BioLib](#)

## Acknowledgements

I would like to thank my advisor and curator of the Invertebrate Zoology Collection, Dr. Jennifer Girón.