

Milwaukee Public Museum

Mollusk Collection

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Collection Overview

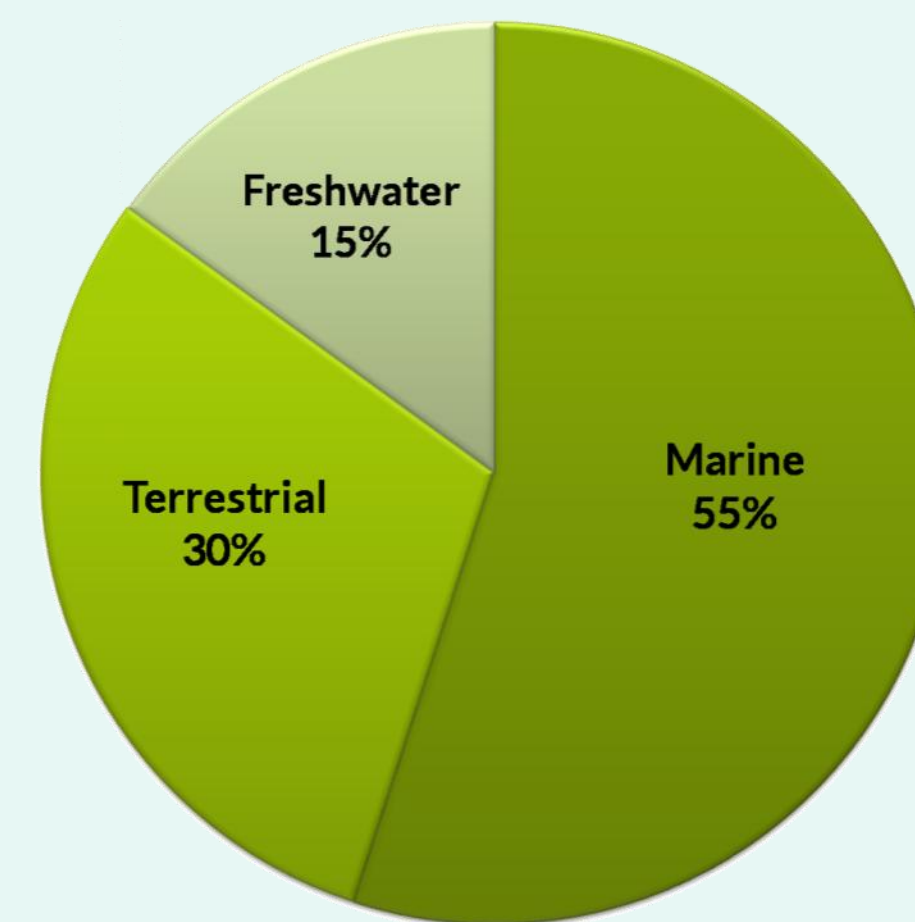
~187,000 specimens (clams, snails & related)

- . Bivalvia: ~34,000 bivalves
- . Gastropoda: 151,000+ specimens

Geographic Breadth: Worldwide/ 50% North American

Taxonomic Breadth: 200 families

Habitat by Lot



State of Curation

- . 100% curated/no bulk backlog
- . >98% recorded in catalog ledgers, Access, or Excel
- . 90% dry shell
- . <1% in a publicly accessible database
- . 0% georeferenced

Unionidae

3,017 lots/7,388 specimens
149 species (~12 extinct)

Foreign Distribution (~30 species)

Brazil	Iraq
Canada	Japan
China	Malaysia
Cuba	Nicaragua
England	Norway
France	Panama
Germany	South Africa
Guatemala	Sumatra
India	Syria

Collection Storage



Domestic Distribution

30 U.S. States
Top 5:
Wisconsin
Tennessee
North Carolina
Alabama
Michigan

Freshwater Mussels Digitization

Data Entry

Volunteers enter label and catalog data into the Google form.

Goals

- . Develop a workflow to digitize dry shells.
- . Experiment with single-stage data gathering workflows.
- . Experiment with alternative data gathering methods.
- . Experiment with new imaging techniques for mussels lots.
- . Digitize the Harold Mathiak collection of WI mussels (collected ca. 1970-1980), and the more recent material from the same field sites, collected by a MPM Research Fellow.

Equipment

Light box
Nikon D810
Desktop computer
Sandbox platform & gridded tray

Software

Lightroom
DigiCamControl
Google Forms
Axiiell EMu Collections Management Database

Staff & Support

1 Vertebrate & Invertebrate Collection Manager

1 Digitization Manager
6 Digitization Volunteers

1 Research Fellow
1 Research Assistant

Mussels Data Entry

Numbers

Cabinet and Drawer Number
Type the cabinet and drawer number separated by a period, ex. "1.2" or "4.17".
Your answer:

Barcode Number *
Format: Invernum (scan barcode or type in below. Please include the lot with the number).
Your answer:

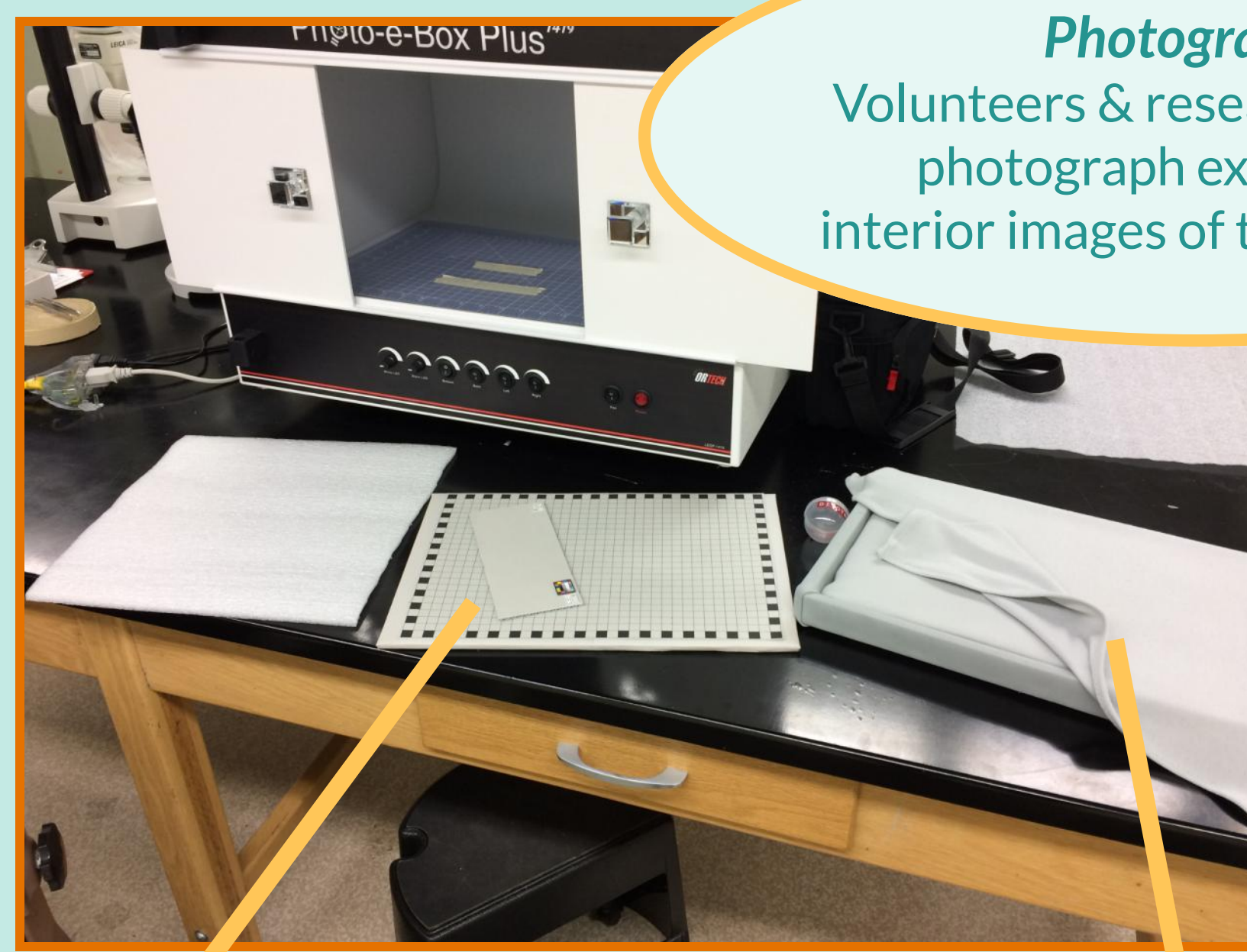
Catalogue Number
FORMAT: Invernum add an "M" prefix to your catalogue numbers. Use the catalogue ledger to search the correct number by making sure the number and label date match the ledger. If you cannot match the label date with the ledger, list the number in "Other Number".
Your answer:

Catalogue Date
FORMAT: MM/DD/YYYY This will only come from the Catalogue ledger. If there is no catalogue number, skip this field.
Your answer:

Accession #
Label on either the label or in the catalogue ledger.

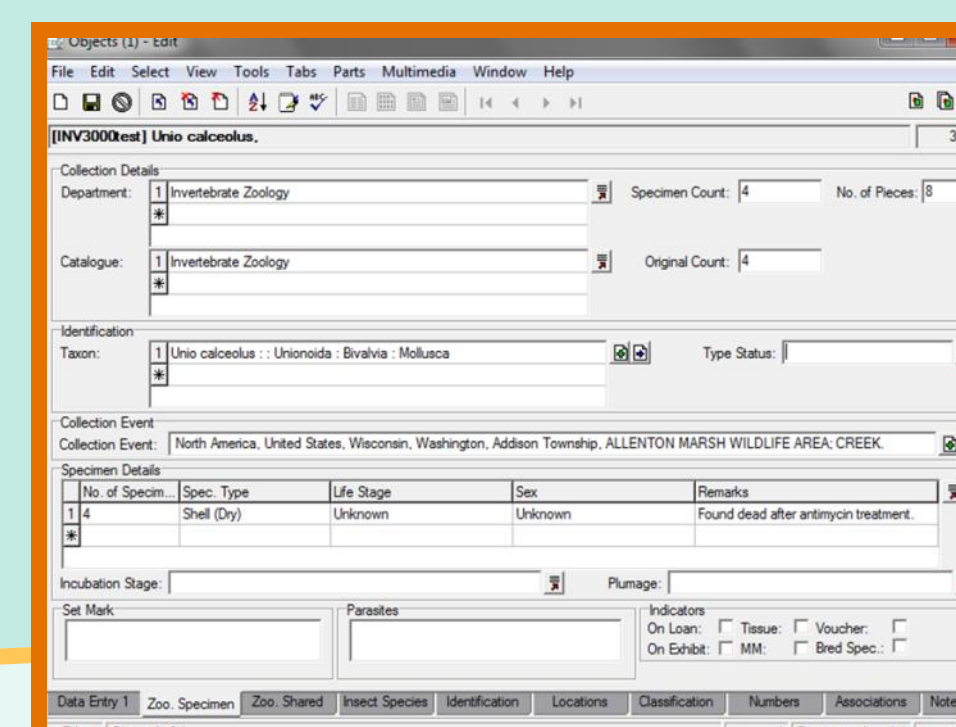
Photography

Volunteers & research assistant photograph exterior and interior images of the specimens.



Exteriors captured on a gridded tray

Interiors captured on a sandbox platform



Data Processing and Ingestion

Specimens return to storage.
Data is cleaned and imported into MPM database (EMu).
All images are processed for archives & database.
Select images are processed for Zooniverse.

Research

Using historical MPM collections and recently collected specimens, current projects seek to quantify how the number, species composition, chemistry, and morphology of mussels change with ecological conditions, environmental stressors, watershed land use, and time.
In development: a Zooniverse citizen science project that invites the public to participate in measuring key features of valve shape.

