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A. Collection Management

(1) Curation and Record Keeping

The collection is maintained by the Principal Investigator (Prof. Dustin Gilbert) within his academic research laboratory, located at Room 248, Institute for Advanced Materials and Manufacturing, 2641 Osprey Vista Way, Knoxville, TN 37920. To date, all specimens have been obtained through donation from collaborators or legally collected sources. To the best of our knowledge, all specimen were collected following all legal and permitting requirements, and ethical guidelines. Received specimen are entered into the accession database for long-term record keeping. Each specimen is assigned a unique identifier upon receipt, in addition to the identifier that is provided from the original source. The following information is recorded in a master electronic database (Excel format):

- Unique specimen ID (Our lab)
- Taxonomic identification
- Any label provided by originating collection (Their lab)
- Sex and Mass
- Who provided the identification
- Current Location
- Originating collection (donor name and institution)

Then, if information is provided by the originating collection, that is also recorded in the accession excel page including:

- Date of original collection
- Name of collector
- Latitude and Longitude of collection
- Any associated permit or export documentation

The database is saved on a lab computer and backed up on the lab's cloud drive. The inventory database is converted to pdf and made accessible to the public through PI Gilbert's faculty webpage.

Samples are permanently curated and stored at the University of Tennessee's Institute for Advanced Materials and Manufacturing, Room 248, in a cabinet to the left of the door. Specimen are measured then stored in their measurement holder, along with their receipt and original tags; no specimen are destroyed during measurement. The building is humidity and temperature controlled to 70 °F. Building and room access is restricted to qualified researchers, with room access controlled by assigned key and building access being open during normal business hours and by key card off-hours.

(2) Access and Loan Policy

Specimens are maintained solely for non-commercial academic research and educational purposes. Access to the collection will be granted upon written or emailed request to PI Gilbert, through mutual

coordination during normal work hours. Loans or transfers requires written request and PI approval and will be considered on a case-by-case basis. Loans and transfers will only be considered for academic and research purposes; any requests for commercial purposes will be immediately rejected. Loan timeframes are up-to 2 years. Loan records are documented in the electronic database, including recipient institution, dates, and specimen identifiers.

Donations for destructive measurements requires written justification and approval from PI Gilbert. Destructive use will be considered on a case-by-case basis and is recorded in the database record.

The current inventory is posted and will be updated every 6 months on PI Gilbert's faculty webpage.

(3) Permanent Records

All specimen records, donor documentation, and loan history are permanently retained in the electronic database and backed up the lab cloud drive. Origination paperwork is kept with the specimen and the new identification tag, in the cabinet at the Institute for Advanced Materials and Manufacturing in Room 248. No specimen leaves the laboratory without documentation.

(4) Type of Research and Research Products

The collection supports non-commercial academic research in:

- Biodiversity and phylogenetic studies
- Magnetoreception research in insects
- Functional morphology and biomineralization
- Educational use within university coursework

Research products from this research program and any loan or donation recipients will be generated and made available to the public through public oral presentations, posters, and publications. Publications will be made publicly accessible either through Open Access publishing or publication on a pre-print database such as ArXiv. Data both from this research program and from loan or donation recipients will be curated in a publicly accessible database or made available, within a reasonable time period of <2 weeks, upon written request by the public.

(5) Legal Acquisition and Ethics

All current specimens have been received as donations from collaborators or legally collected sources. Documentation of donor identity and origin information is retained for each specimen. The laboratory complies with applicable U.S. Fish and Wildlife Service and CITES regulations, as well as any legal obligations by other state and federal entities such as the Forest Service, the Environmental Protection Agency, or the US Department of Agriculture, and will obtain required import and/or export permits prior to any international transfer of specimens. All research is conducted under university oversight. This lab, its research and the collection curation is conducted consistent with the University of Tennessee's Ethical Research Guidelines, outlined here: (<https://research.utk.edu/research-integrity/wp-content/uploads/sites/6/2022/10/RCR-Guide-to-Resources-10.5.2022.pdf>)

(6) Labeling and Accuracy

Each specimen container is labeled with its unique identifier. Labels correspond directly to entries in the electronic database. Identifications are reviewed and updated as necessary.

(7) Digitization

All specimen records are fully digitized in electronic spreadsheet format. Records are backed up on institutional servers and secure cloud storage.

FWS CITES Requirements are posted in 50 C.F.R. § 23.48.