**Smithsonian Institution**

**National Museum of Natural History**

**Paleobiology Collections Defragmentation Project:**

**Collections packing, moving, and organization services**

**Statement of Work**

**09/09/2024**

**This project requires five individuals to perform the following Statement of Work together and concurrently. You are submitting a bid for one of the five people.**

**1. INTRODUCTION**

**1.1 BACKGROUND**

The National Museum of Natural History (NMNH) Department of Paleobiology’s mission is to increase public and scientific understanding of the biological and environmental history of Earth through the study of fossil animals, plants, and protists. In addition to performing scientific research, we assemble and curate fossil collections that are studied by scientists from around the country and the world, we exhibit extraordinary fossils in the public spaces of our museum, and we help train future generations of paleontologists.

The National Fossil Collection contains over 40 million fossil specimens. The collection is about 64% fossil invertebrates and microfossils, 18% fossil vertebrates, and 18% fossil plants by volume. These fossils and rock samples record the history of life on Earth over the last 3.5 billion years. The collection contains specimens collected by the first North American paleontologists and is the reference collection for most of the paleontological research conducted by the United States Geological Survey since the late 1800s. The collection database contains occurrence data for over 799,700 specimen records, over 134,000 of which are primary and secondary types. Based on current estimates, the collection would be digitally represented by 14 million occurrence records if fully databased. Whereas the collection’s origins are rooted in 19th-century paleontological research, the collection continues to grow in scope and accessibility and continues to be a primary resource for researchers worldwide.

**1.2 PURPOSE**

The Department of Paleobiology (Paleo) Collections Defragmentation Project (Defrag Project) will implement a decades overdue, long-term comprehensive physical curation strategy. The project will resolve pervasive physical organization deficiencies that limit the collections’ accessibility and care. The Paleo collections were shuffled and condensed multiple times over previous decades due to short-term, short-sighted priorities and projects. The Defrag Project will ensure the collections are out of imminent risk due to below-grade storage and will allow a physical organization to be realized among the near 11,000 collection cabinets distributed among three separate facilities. This project requires five individuals to perform the same Statement of Work together and concurrently.

**2. SCOPE OF WORK**

**This Scope of Work is for one individual contractor; the Defrag Project requires five individuals to perform the same Scope of Work together and concurrently.**

The contractor shall provide up to 2080 hours of technical professional, non-personal services for a consecutive 12-month project to pack, stage, move, and organize fossil collections and associated material within and between NMNH facilities in support of the Paleobiology Collections Defragmentation Project. Material handling equipment and supplies will be provided by NMNH. Items to be packed, staged, and moved will be determined by NMNH staff, and items will be packed using NMNH guidelines for packing methods.

**2.1 TASKS**

Work will cover the tasks listed below and may be performed individually or as part of a team. Tasks are defined by the Contractor Officer Technical Representative (COTR) and/or the Technical Point of Contact (TPOC). See Appendix 1 for the NMNH Paleobiology Specimen Handling Guidelines for Contractors and Appendix 2 for the Procedures for Moving Specimen Drawers and Oversized Specimens, which apply to all tasks.

* Pack specimen drawers and cases on carts, rolling cases, or pallets
* Move collection drawers, collection cases, oversized specimens, furniture associated with the collection
* Load and unload packed collection units onto trucks for transport between Smithsonian Institution (SI) facilities
* Label cases, drawers, and other units as needed for before, during, and after movement
* Inventory and/or collect drawer level data following guidance from NMNH staff and following NMNH data protocols
* Re-house specimens for transport and for long-term storage
* Clean collections drawers, cases, and storage areas to include sweeping and vacuuming
* Document the placement and movement of items and units
* Document condition of the specimens, indicating whether future conservation intervention is necessary or an upgrade in housing is needed
* Light carpentry to construct or repair items such as rolling carts or temporary specimen crates
* Remove trash to the designated trash area
* Prepare packing and rehousing material and supplies such as cutting foam or sorting specimen trays

**2.2 DELIVERABLES**

The contractor shall provide a written status report to the COTR and TPOC on the last Friday of every month. The monthly report shall contain a listing of completed tasks, including the number of cases and/or drawers moved or inventoried.

**3. PERFORMANCE STANDARDS**

The Contractor shall complete tasks and deliverables as defined by the COTR and/or the TPOC. Any and all changes shall be communicated to the Contractor in writing from the COTR and/or TPOC(s). Contractor must notify the COTR and/or TPOC immediately of any problem or situation that impedes completion of any tasks.

**3.1 PERIOD OF PERFORMANCE**

The Contractor is estimated to begin work as soon as possible after contract is awarded and after Smithsonian security clearance has completed satisfactorily.

* The project is expected to take 12 months to complete, with the possibility of renewal for one optional period of 12 months. Execution of the renewal options is at the sole discretion of the Smithsonian.
* The Contractor shall provide up to 40 hours of service on a weekly basis. The specific work schedule will be determined by mutual agreement between the COTR and the contractor.
* Total number of hours shall not exceed 2080 hours during the performance period.
* Work shall begin on or about September 1, 2024 and end by September 1, 2025.
* Performance shall begin upon receipt of a “Notice to Proceed” from the Smithsonian unless a different date is agreed upon with the SI.
* The project schedule is subject to all Smithsonian and NMNH COVID-19 requirements, restrictions, and guidelines.

**3.2 REQUIRED SKILLS AND QUALIFICATIONS**

* Experience in packing, moving, and unpacking fragile material
* Ability to safely and repeatedly throughout a work day lift and carry 30 pounds independently and lift 50 pounds with another person
* Experience with material handling equipment such as pallet jacks and moving dollies
* Strong problem solving, organization, and time management skills
* Strong oral communication skills
* Strong attention to detail
* Able to perform repetitive tasks with a zero or low error rate
* Experience working on one or more museum collection move or collection improvement projects
* Experience working in a fast-paced team environment
* Ability to work safely at height on ladders and lift equipment

**3.3 DESIRED SKILLS**

* Experience with museum housing methods and techniques
* Experience working with fossil specimens and collections
* Knowledge of the geologic time scale and stratigraphy as used in fossil collections organization
* Experience using hand tools for minor carpentry repair
* Experience with arranging or rearranging museum collections based on pre-defined organization schemes

**3.4 PACKING OF PALEONTOLOGICAL SPECIMENS AND OBJECTS**

3.4.1 Contractor Responsibilities:

* Work shall be completed in a professional manner according to standard industry practices and the packing guidelines described in Appendix 1. All proposed packing methods must be approved by the Contracting Officer Technical Representative (COTR) or technical point of contact (TPOC) before work begins.
* Pack, strap, and label packed units and pallets (with guidance and assistance from NMNH staff technical experts and using NMNH tracking methods).
* Packing must provide adequate cushioning for individual objects and must not be abrasive to object surfaces.
* Maintain an organized workspace, keeping supplies and equipment organized and tidy.
* Provide all necessary personal protection equipment (PPE) such as safety shoes and nitrile gloves.
* Comply and work within the facility constraints for working hours, health, security, and safety site precautions and procedures. Work is subject to all Smithsonian and NMNH COVID-19 requirements, restrictions, and guidelines applicable to contractors.

3.4.2 NMNH Responsibilities:

* Provide technical expertise and guidance, respond to inquiries and coordinate access.
* Provide supplies and equipment necessary for the project.
* Determine packing order of collections.
* Maintain inventory and tracking system of pallets, cases, drawers, and shipping manifests.

**3.5 COMMUNICATION**

The Contractor shall be in contact with the COTR and TPOC throughout all phases of the contract, meeting as needed by phone, video conference, or email. The COTR is the primary point of contact for all communications, unless otherwise directed by the COTR. The COTR shall perform inspection and acceptance of all workmanship and work performed by the Contractor with acceptance in writing.

The Contracting Officer Technical Representative (COTR)

Matthew T. Miller

Collections Services Manager

Smithsonian Institution

National Museum of Natural History

PO Box 37012

MRC 121

Washington, DC 20013

Phone: 202.633.1344

Email: [millermt2@si.edu](mailto:millermt2@si.edu)

The Technical Point of Contact (TPOC)

Amanda Millhouse

Deputy Collections Manager, Vertebrate Paleontology

Smithsonian Institution

National Museum of Natural History

PO Box 37012

MRC 121

Washington, DC 20013

Email: [millhousea@si.edu](mailto:millhousea@si.edu)

The Technical Point of Contact (TPOC)

Mary Behlke

Paleo Defrag Project Manager

Smithsonian Institution

National Museum of Natural History

PO Box 37012

MRC 121

Washington, DC 20013

Email: [behlkem@si.edu](mailto:behlkem@si.edu)

**3.6 INVOICE AND PAYMENTS**

Contractor shall submit deliverables and invoices monthly. Multiple payments shall be made as follows upon completion and acceptance of all work as required and receipt of proper invoices referencing this purchase order number.

**3.7 OPTIONS**

The Smithsonian reserves the sole option to extend this contract to engage the contractor in providing similar services for one optional period of 12 months. The option to extend depends on the following conditions:

* COTR accepts and approves the option to extend
* Funds are available for payments
* Services remain the same
* Contractor’s base period bid includes bids for the optional periods

Written modifications to the contract will be issued to exercise any of the options, listed below. If the Smithsonian exercises its right to extend the period of performance under this contract, the exact number of hours will be determined based on the available funding, and all other terms and conditions shall remain unchanged.

* Option period 1: 12 months – October 1, 2024 to October 1, 2025

**4. GENERAL CONDITIONS**

**4.1 PLACE OF PERFORMANCE**

Contractor shall perform work at the Smithsonian Institution, National Museum of Natural History, Washington, DC and the Smithsonian Museum Support Center in Suitland, MD for work that is required to be on site. Access to Smithsonian facilities is subject to SI and NMNH COVID-19 requirements, restrictions, and guidelines.

**4.2 WORK HOURS**

Contractor shall perform all work Monday through Friday between 8:00-5:00, excluding Federal holidays. Adjustment to hours shall be made in advance upon mutual agreement of the COTR and the Contractor.

**4.3 SMITHSONIAN AND CONTRACTOR PROVIDED PROPERTY**

NMNH shall provide access to all collections, materials, supplies, datasets, software, and application resources required to accomplish the tasks, including Remote Desktop (RDP). NMNH is not responsible for providing equipment for work performed off-site.

**4.4 ACCESS TO SI’S COMPUTER/DATA NETWORK**

If deemed appropriate by the Smithsonian, contractor personnel and/or representatives may be given a network login account and access to the Smithsonian’s computer / data network. In order to gain access to SI’s computer network, contractor personnel will be required to read Smithsonian Directive 931 Use of Computers and Networks and sign an affirmation that they agree to comply with the provisions of SD 931, to act in a responsible manner, and to respect and maintain the security of all systems to which they have access. All contractor personnel with network access are required to complete a short on-line computer security training program annually. Contractor personnel with SI network access are required to complete a background clearance and obtain an SI Security Credential (badge) if required.

**4.5 DATA USE, DISCLOSURE OF INFORMATION, AND HANDLING OF SENSITIVE INFORMATION**

The Contractor shall maintain, transmit, retain in strictest confidence, and prevent the unauthorized duplication, use, and disclosure of information. The Contractor shall provide information only to employees, Contractors, and subcontractors having a need to know such information in the performance of their duties for this project. Information made available to the contractor by the Smithsonian for the performance or administration of this effort shall be used only for those purposes and shall not be used in any other way without the written agreement of the Contracting Officer.

If public information is provided to the contractor for use in performance or administration of this effort, the contractor except with the written permission of the Contracting Officer may not use such information for any other purpose. If the contractor is uncertain about the availability or proposed use of information provided for the performance or administration, the contractor will consult with the COTR regarding use of that information for other purposes.

The contractor agrees to assume responsibility for protecting the confidentiality of Smithsonian records which are not public information. Each employee of the contractor to whom information may be made available or disclosed shall be notified in writing by the contractor that such information may be disclosed only for a purpose and to the extent authorized herein. Performance of this effort may require the Contractor to access and use data and information proprietary to a Smithsonian or Contractor which is of such a nature that its dissemination or use, other than in performance of this effort, would be averse to the interests of the Smithsonian and/or others.

Contractor and/or Contractor personnel shall not divulge, or release data or information developed or obtained in performance of this effort, until made public by the Smithsonian, except to authorized Smithsonian personnel or upon written approval of the COTR. The Contractor shall not use, disclose, or reproduce proprietary data that bears a restrictive legend, other than as required in the performance of this effort. Nothing herein shall preclude the use of any data independently acquired by the Contractor without such limitations or prohibit an agreement at no cost to the Government between the Contractor and the data owner that provides for greater rights to the Contractor.

All data received, processed, evaluated, loaded, and/or created as a result of this statement of work shall remain the sole property of the Smithsonian unless specific exception is granted by the COTR.

**4.6 GENERAL LIABILITY INSURANCE ENROLLMENT**

Contractor shall maintain Commercial General Liability coverage for 1) bodily injury, property damage, products and completed operations and contractual liability; and 2) advertising injury and personal injury pertaining to all activities performed by Contractor as part of this contract.

Minimum Per Occurrence Limit: $1,000,000.00. Smithsonian Institution will be listed as additional insured. The purpose of this agreement is to clarify the relationship between you and the Smithsonian and our respective responsibilities for any injury or damage to persons or property that might occur during your installation work. For the purposes of this installation, you are an independent contractor. You agree that you are responsible for your acts or omissions and agree to release, hold harmless, and covenant not to sue the Smithsonian Institution, its Regents, officers, employees, and agents from any and all liability for personal injury, death, property damage, or loss of any kind or nature whatsoever arising from your acts or omissions. The Smithsonian falls with the purview of the Federal Tort Claims Act (FTCA), which is the exclusive remedy for claims against Smithsonian for bodily injury, death, and property damage due to negligence of Smithsonian or its employees is the Federal Tort Claims Act. The Smithsonian is not responsible for the conduct of independent contractors.

**4.7 INDEPENDENT CONTRACTOR, NOT AN EMPLOYEE**

It is understood that Contractor is undertaking the work hereunder as an independent contractor, not as an employee of the Smithsonian Institution, and neither Contractor nor Contractor’s employees are eligible for Smithsonian Institution benefits, including coverage under FECA (workers compensation) and FTCA (Federal Tort Claims Act), or coverage under any Smithsonian Institution workers compensation, medical, liability, or other insurance policy, or for legal protections afforded to employees under law applicable to employment relationships.

1. Contractor is responsible for providing, at Contractor’s own expense and as necessary, disability, unemployment, workers compensation and other insurance, including adequate liability and property insurance, training, permits, and licenses for Contractor and for Contractor’s employees.
2. b) Contractor is responsible for paying all taxes and income taxes, including estimated taxes, incurred as a result of the payments by the Smithsonian Institution to Contractor for performance of this Agreement. Contractor agrees and acknowledges that the Smithsonian Institution assumes no responsibility whatsoever for the acts, errors and/or omissions of Contractor beyond those which the Smithsonian Institution is responsible for at law.

**4.8 WARRANTIES AND REPRESENTATIONS**

Contractor warrants the following: (1) He or she has full right and authority to enter into this Agreement; (2) he or she has full right and authority to grant all of the rights granted herein; (3) he or she is not under any obligation to any other party which may interfere with the performance of his or her obligations hereunder or conflict with or injure the work performed under this contract; and (4) he or she has not previously assigned, pledged or otherwise encumbered any rights herein granted to Smithsonian. Contractor represents that he or she has diligently taken prudent, responsible and customary measures to ensure that the materials provided by the Contractor contain no matter that is libelous or in violation of the copyright, patent right, or any property or personal right of any person or entity nor a violation of any statutory copyright, nor are otherwise contrary to law.

**4.9 RESPONSIBILITY FOR SMITHSONIAN PROPERTY**

Contractor assumes full responsibility for and shall reimburse and indemnify the Smithsonian for any and all loss or damage of whatsoever kind and nature to any and all Smithsonian property, including any equipment, supplies, accessories, or parts furnished, while in Contractor's custody and care, or resulting in whole or in part from the negligent acts or omissions of the Contractor, any subcontractor, or any employee, agent, or representative of the Contractor or subcontractor.

**4.10 NO WAIVER OF RIGHTS**

Neither the Smithsonian's review, approval, acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any cause of action arising out of the Contractor's performance of this contract.

**4.11 INDEMNIFICATION**

Contractor shall defend, hold harmless, and indemnify Smithsonian Institution, its Regents, directors, officers, employees, volunteers, licensees, representatives and agents, and the Government of the United States, against any and all claims, loss and expense (including attorney's fees and litigation expenses), from loss or liability or injury to any persons (including employees or agents of the Contractor or his subcontractors) and from loss of or damage to any property (including property owned by Smithsonian) arising out of any act or omission of the Contractor, his employees, agents or subcontractors in the performance of this contract.

**4.12 ORDER OF PRECEDENCE**

In the event of any inconsistency in this purchase order, unless otherwise provided herein, the inconsistency shall be resolved by giving precedence in the following order:

1. All purchase order terms and conditions including any attachments provided by the Smithsonian Institution;
2. All documents from the contractor including the Contractor’s quote.

**APPENDICES:**

APPENDIX 1 – Specimen Handling Guidelines for Contractors

APPENDIX 2 – Contractor Procedures for Moving Specimen Drawers and Oversized Specimens

**APPENDIX 1 – Specimen Handling Guidelines for Contractors**

General rules

1. No food or drink (including water, chewing gum, and candy) may be brought into areas with collection specimens.
2. Secure or remove any loose items which may come into contact with the specimens (i.e. Work ID badges, jewelry, clothing/neckties/scarves). Remove rings and any dangling jewelry (i.e. bracelets, long necklaces) before handling.
3. Hands must be washed prior to handling specimens. Gloves may need to be used in certain situations. Hands may need to be washed again and gloves may need to be changed as they become soiled. Hands should always be washed after the work has been completed.

**Handling Paleontological Specimens and Specimen Trays**

* Always handle specimens and trays with both hands.
* Specimens must be kept in trays, and specimen trays must be kept in drawers.
* Use trays and carts to transport specimens when removed from drawers (e.g. when decompressing an overcrowded drawer), never place a specimen on the floor or unstable/uneven surfaces.
* Note any specimens in need of repair or showing Bynes disease damage and bring them to the attention of Paleo staff through an Incident Report (see below section on Incident Reporting).

**Movement of Drawers into and out of Cabinets**

* All drawers should have a drawer location barcode.
* Drawers with specimens should be in cabinets or palletized at the end of the workday.
* All cabinets need to be kept closed and locked when not actually removing or returning drawers.
* Unless a drawer is empty, two people must handle drawers when moving in and out of cabinets.
* When moving a rolling cabinet, the open side should face the person pushing the cabinet.

**Incident Reporting and Damage Triage**

**Incident Reports**

* Are filed using the form included at the end Appendix 1.
* Must be filed in the cabinet of any instance where individuals working in or visiting the working space cause accidental or purposeful damage to any fossil specimens.
* Are the first step in a chain of action that involves many departments and individuals.
* Are the most basic method we have available of tracking damage to fragile, unique, and valuable pieces of publicly owned resources.

**Working as a team to prevent accidents and damage**

* The incorporation of best practices in handling fragile museum objects with your normal workflow will help to reduce accidents and ensure not only the safety of the specimens, but the safety of your colleagues.
* NMNH Paleobiology department staff are available to work with you to develop a best fit scenario for working around delicate specimens. Please do not hesitate to contact us and ask for assistance if uncertainty arises.
* Help to prevent accidents by sharing information with Paleo staff and your co-workers.
* Educate staff in advance regarding potential risks to specimens resulting in certain activities. Maintain a proper safety buffer around specimens in your work zone. Enforce best practices among your coworkers in regard to personal safety and specimen safety.
* Discourage activities like taking ‘selfies’ with specimens, touching objects for the sake of curiosity, or leaving equipment stored too close to specimens. Inform groups ahead of time of the access limitations they will need to observe during their visit.

**Filing incident reports**

* An incident report must be filed as soon as possible after an incident occurs, after activities causing the incident are halted and the safety of your colleagues has been assured.
* Please complete all portions of the form “Smithsonian Institution NMNH Fossil Incident Report Form” thoroughly and in detail. Write legibly and be sure to take down the names of all present at the time the incident occurred.
* Report forms need to be turned in ASAP to project manager Mary Behlke and Deputy Collections Manager Amanda Millhouse.
* Photographs of accident sites and/or damage should be emailed ASAP to Paleobiology department Deputy Collections Manager Amanda Millhouse via her e-mail, at millhousea@si.edu. Please be sure to include enough in the pictures to give some context to the damage observed.
* If worksite accident has also resulted in injury, medical incident report forms must also be filed.

**Triaging damaged specimens**

* Triage is a contractor responsibility when damage to specimens results in fragments spreading into work areas, movement pathways, or other areas where further work would result in more damage to the specimen or a risk to personal safety.
* Triage in other cabinets, stabilization, and repair of damaged specimens is the responsibility of the Paleo staff.
* A triage kit containing necessary supplies will be located in your work area.
* Remember to complete an incident report form and take photographs of damaged areas before performing triage, not after, unless there is an imminent danger to worker safety.
* When moving specimen fragments into storage boxes:
  + Keep associated fragments together in the same box if possible. For example, all of the pieces that go back to a certain rib should be stored in the same box, but not mixed with fragments that fit back to another rib.
  + Labels must be placed in all boxes, indicating which animal the pieces came from, and if possible, region of the body (i.e. lower arm, fourth right rib, etc.)
  + Boxes should be stored near or underneath the damaged specimen, and out of movement paths or work areas.
* Discontinue work around the damaged specimen if is believed that further work in the area will result in further damage. Allow time for the Paleo staff to perform stabilization and wait to receive the all-clear to continue.
* Specimens known to contain hazardous material such as those with pyrite disease will be clearly labeled. DO NOT attempt to handle or triage parts of specimens known to contain hazards.

**Smithsonian Institution NMNH Fossil Incident Report Form**

Name of person reporting incident: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Affiliation:\_NMNH/Contractor\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Time of incident: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Specimen catalog (USGS or USNM) number/Locality number/Other number(s):

Specimen name/description of specimen:

Specimen drawer location:

Description of incident – list individuals present, what was happening when the specimen broke, and where the incident occurred:

Description of damage to specimen – include area(s) of body damaged, approximate number of fragments created, etc. Please be specific:

Description of triage measures taken (please include details on any treatment done to the specimen):

Photos of damage emailed to Deputy Paleo Collections Manager, Amanda Millhouse (millhousea@si.edu)

Please email Amanda Millhouse once you have completed this form and deliver the hard copy to Mary Behlke or Amanda Millhouse as soon as possible.

**APPENDIX 2 – Contractor Procedures for Moving Specimen Drawers and Oversized Specimens**

**Moving drawers from one cabinet into another cabinet**

1. Check the collections movement spreadsheet (contains the drawer inventory information) and verify that all cabinet destination labels match.
2. Verify that all drawers have a barcode that matches their destination labels.
3. Load all drawers from a cabinet into a rolling cart in the order of the collections movement spreadsheet, which will not always match the original drawer order (requires two people to move drawers).
   1. When drawers are combined, write the drawer number in marker on the tray packaging and is note on the drawer label.
   2. If drawers are overfilled and separated, note on the drawer label and collections movement spreadsheet.
   3. Combined drawers, missing for CO2 drawers, or any other anomaly should be written in the comments section of the collections movement spreadsheet.
4. Update the collections movement spreadsheet with drawer inventory data (includes data found on the specimen drawer labels, such as updates to scientific name, collector/donor information, locality data for collections events, etc.).
5. Push rolling cabinet to destination and unload drawers in the final order reflected on the collections movement spreadsheet.
6. Verify placement of drawers and drawer locations.
7. Submit spreadsheet to Defrag Project Manager at the end of each day.

**Moving procedures for Oversize Collections**

1. Check the collections movement spreadsheet (contains the drawer/shelf inventory information) and verify that all cabinet destination labels match.
2. Verify that all specimens and shelves have a barcode that matches their destination labels.
3. Assemble a transport container if necessary.
   1. Fill any cavities in the bottom of the container with foam and place a flat layer of foam on the bottom.
4. Place object (or object in transport container) on a padded move cart (requires two people).
5. Remove the destination label on the shelf and place on the cart. The destination label on the cart must match where the objects are placed in EG-22.
6. On the collections movement spreadsheet record barcode of objects and shelves as well as data found on the specimen labels, such as updates to scientific name, collector/donor information, locality data for collections events, etc.
7. Roll cart to destination and unload specimens on the destination shelves in the final order reflected on the collections movement spreadsheet.
8. Verify placement of specimens and shelf locations.
9. Submit the spreadsheet to the Defrag Project Manager at the end of each day.

**Moving drawers from a cabinet onto pallets for staging (minimum of two cabinets per pallet)**

1. Check the collections movement spreadsheet and verify that all cabinet and drawer labels match the spreadsheet.
2. Verify that all drawers have a barcode that matches their destination labels.
3. Update the collections movement spreadsheet with drawer inventory data (includes data found on the specimen drawer labels, such as updates to scientific name, collector/donor information, locality data for collections events, etc.).
4. Get a 40” x 48” wooden pallet from the stock provided.
5. Pull top drawer in cabinet and place on pallet.
6. Pack the drawer with bubble wrap, foam, stretch wrap, etc. using methods devised and demonstrated by SI based on degree of complexity of cabinet contents.
7. Any drawer labels on the outside should be placed in the drawer in Ziploc bag (provided by NMNH staff).
8. If objects extend above the height of the drawer, place an appropriately sized wooden drawer on top upside down as capper and fill the capper drawer with foam as needed to ensure collections will not move around. If not, the next drawer can be placed directly on top.
9. Pull the last drawer left in cabinet and place on top.
10. Repeat the pack out procedure for a second cabinet.
11. Once all drawers are packed, place a cap drawer on top.
12. The cabinet label and destination label should be taped on top of stack with painter’s tape.
13. After two stacks of drawers (2 cabinets) are placed on a pallet, strap the pallet with metal banding in both directions.
14. Label the pallets with pallet labels that include the cabinet and destination information.
15. Move the pallets to the designated staging area.
16. Update the collections movement spreadsheet with the cabinets and pallets packed and submit to the Defrag Project Manager at the end of each day.