

**University of Colorado Museum of Natural History
Paleontology Section
Curation Services Agreement Instructions**

NOTE: THIS DOCUMENT IS ONLY FOR NON-STATE OF COLORADO (HISTORY COLORADO) CURATION SERVICES AGREEMENTS. FOR STATE OF COLORADO CURATION SERVICES AGREEMENTS SEE THE CONDITIONS ON THE AGREEMENT FOR INSTRUCTIONS.

Agreement Submittal

Collecting on Public Lands

The Paleontology Section of the University of Colorado Museum of Natural History (CUMNH) is a repository for several government agencies. The Paleontology Section can only accept *fossil specimens* collected from public lands managed by a government agency if it has a repository agreement or some other form of agreement from that government agency. Table 1 lists the government agencies with which the CUMNH Paleontology Section has current repository agreements with. If the Paleontology Section does not have a repository agreement with the agency from which the PI plans to request a collecting permit, then a Curation Services Agreement cannot be granted until a repository agreement with that agency has been established.

Wyoming Game and Fish (State Lands in Wyoming)	Bureau of Land Management – Colorado	Bureau of Land Management – Wyoming
National Park Service – Florissant Fossil Beds National Monument	National Park Service – Glen Canyon National Recreation Area	United States Forest Service – Nationwide

Table 1. List of government agencies with which the Paleontology Section has current repository status for fossil specimens.

Collecting on Private Lands

If part of the PI's project involves private land, then the PI must obtain a signed Deed of Gift from the private landowner before specimens collected from that private land can be accepted. The PI must use CUMNH's Deed of Gift form and not one they have created. The CUMNH must approve all conditions and restrictions put on the Deed of Gift by the private landowner. The PI may not act on CUMNH's behalf in negotiating those conditions or restrictions. In addition to the Deed of Gift, the PI is encouraged to obtain a signed letter from the private landowner giving permission for the PI to collect on their lands.

CUMNH Curator Approval and Limits and Conditions on Specimens

Final agreement approval is at the discretion of the curators. If a curator approves the agreement, then the PI may submit any paleontological specimens that fall under that curator's care (Table 2).

Curator	Type of Specimens Cared For
Curator of Invertebrate Paleontology	Fossil Invertebrates and Fossil Plants
Curator of Paleontology	Fossil Eggshells, Fossil Tracks, and Trace Fossils
Curator of Fossil Vertebrates	Fossil Vertebrates

Table 2. The types of specimens that each curator is responsible for.

If a curator denies the agreement, then the PI may not submit any paleontological specimens that fall under that curator's care. For example, if the Curator of Invertebrate Paleontology denies the agreement, then the PI can't submit any fossil invertebrates or fossil plants to the CUMNH Paleontology Section. A written statement from the curator will be attached to the Curation Services Agreement giving reasons why they denied the agreement.

Curators may also put limits or conditions on the types of specimens that will be accepted due to space limitations, scope of current collections growth, etc. A written statement from the curator will be attached to the Curation Services Agreement if any limits or conditions apply.

Submission of Specimens and Materials

Fossil Preparation Prior to Submission

The PI may, but is not required to, prepare the specimens before submittal to the CUMNH Paleontology Section. Fossil preparation in this case should only be performed to ensure the specimen's safety during transport to the CUMNH Paleontology Section. Unless otherwise agreed to in writing, fossil preparation for proper specimen collections storage will be completed at the CUMNH Paleontology Section. Specimens needing significant fossil preparation and conservation work, or a reversal of fossil preparation work done by the PI before they can be placed into collections storage may incur a fee to be paid by the PI (see the Fees section below).

The PI must submit a fossil preparation plan for each specimen it plans on preparing to the appropriate collection manager and curator before the work can begin. All preparation work to be completed by the PI should be done by a qualified fossil preparator using appropriate, reversible, and nondestructive techniques. The use of nonreversible materials, methods, and destructive techniques may be allowed on a case-by-case basis. Fossil preparation records must be submitted to the CUMNH Paleontology Section upon completion of the fossil preparation.

Sediment collected from localities should be screenwashed and fully dried before submittal to the CUMNH Paleontology Section. The PI may, but is not required to, pick the sediment for fossils. All picked fossils must be submitted to the CUMNH Paleontology Section. The left-over barren sediment that has been sorted should be disposed of by the PI. Otherwise, sediment sorting will be completed at the CUMNH Paleontology Section. If sediment collected from localities was not screenwashed by the PI prior to submittal or if a significant amount of sediment needs to be sorted, then a fee will be charged to the PI (see the Fees section below).

Research Quality Imaging and Replication of Specimens Prior to Submission.

Unless otherwise agreed to in writing, destructive analysis, CT scanning, 3D scanning, molding and casting, 3D printing, or other imaging and replication of the specimens prior to their submittal to the CUMNH Paleontology Section is not permitted. Basic images made by the PI of the specimens for documentation, inventory, and/or condition reporting purposes is allowed.

Required Items and Data

To create a complete accession and catalog record for the specimens, the PI will provide all the items and data as outlined below:

1. All specimens collected.
 - a. The PI is allowed to assign an inventory number to the specimen to help with organization. An explanation of the inventory numbers used should be provided. PIs should refrain from marking the specimen with its inventory number in any fashion.
 - b. Each specimen should have a label associated with it that contains at minimum the following data:
 - i. The specimen's inventory or field number (if used).
 - ii. The name of the project the specimen is associated with.
 - iii. Which permit or Deed of Gift the specimen was collected under.
 - iv. A taxonomic identification (to the lowest level possible).
 - v. The number and type (e.g., tooth, leaf, shell, burrow, eggshell, etc.) of items associated with the specimen.
 - vi. The collector(s) name and collection date.
 - vii. The locality name or number the specimen was collected from.
 - viii. Any special conservation or storage considerations for its long-term preservation.
 - c. The PI can, and is encouraged to do so, provide more specimen data than what is listed above.
2. The signed permit(s).
 - a. All specimens collected from public lands managed by government agencies must be done with the knowledge and consent of the appropriate government agency. This permission must be in the form of a signed collecting permit from the government agency.
3. The signed Deed of Gift(s) (if applicable).
 - a. All specimens collected from private lands must be done with the knowledge and consent of the private landowner. This permission must be in the form of a signed Deed of Gift from the private landowner.
 - b. In addition to the Deed of Gift, the PI is encouraged to obtain a signed letter from the private landowner giving permission for the PI to collect on their lands.
4. Receipts for deposit forms from the government agency (if applicable).

5. Locality and other site records.
 - a. The PI must provide accurate and complete locality records for the specimens to be submitted. Table 3 below lists the minimum amount of data required for a locality record to be considered complete.
 - b. The PI can, and is encouraged to do so, provide more locality data than what is in Table 3.
6. Field notes of the collectors involved in collecting of the specimens.
 - a. The PI doesn't need to provide the entire field notebook of the collector that collected the specimens. However, sections of the field notebook that detail the prospecting for and collecting of the specimens should be provided.
7. Permit and/or project reports (final and/or annual).
 - a. Depending on timing, the permit and/or project reports may or may not be complete when the specimens are submitted to the CUMNH Paleontology Section. If this is the case, then the PI should send copies of these reports once they are finished.
8. Photographs taken in the field of the specimens and localities.
 - a. Field photographs help link specimens to localities and can help provide a visual idea of where a locality is in relation to the surrounding landscape.
 - b. PIs should label or rename photos with the name or number of the locality and provide information on the subject and view direction depicted in each photograph.
9. Maps.
10. Other related records, documents, and data that were collected or produced as part of the approved Curation Services Agreement.

Data	What to Provide
Locality Name	The name of the locality.
Locality Field Number (if used)	The number assigned to the locality while in the field.
Government Agency Locality Number (if known)	The number assigned to the locality by the government agency.
Locality Found By/ Collectors	The name or names of the individuals who discovered or collected the specimens at the locality.
Date of Discovery/ Date(s) of Collection	The date the locality was found or the dates the specimens were collected.
Locality Dimensions (if recorded)	The length, width, depth, height, and/or area of the locality.
Geographic Coordinates	The Latitude and Longitude, decimal degrees preferred, or UTM coordinates for the locality. Provide the datum the coordinates were collected in and the UTM Zone if providing UTM's.
Minimum and Maximum Elevation (if recorded)	The minimum and maximum elevation, preferably in meters, for the locality. Also, if possible, include a description of the general terrain (e.g., slope, steepness, hilly, flat, etc.) of the locality.
GPS Accuracy	The GPS's accuracy, preferably in meters, at the time the elevations and geographic coordinates were collected.

Locality Description ¹	Provide details on where a locality is in relation to a feature or how to relocate the locality from a feature. The feature should be a stable reference point that will remain unchanged for a long time after collection occurred and are easy to find on maps (e.g., permanent landmarks, established towns and cities, trailheads, etc.). Avoid using vague terms (e.g., near, center of, offset with no distance (i.e., west of town)) in the description.
Lithology	The lithology the specimens were collected in (e.g., sandstone, claystone, siltstone, etc.) or indicate if the fossils were collected from an anthill or were found as float (not in situ).
Stratigraphy	The group, formation, member, and/or unit the specimens were collected in. Also, if possible, include a stratigraphic position description (e.g., a locality's location in relation to stratigraphic boundaries or marker beds).
Geological Age	The period, epoch, and/or age of the rocks the specimens were collected in. Also, if possible, include biostratigraphy zones (e.g., NALMAs, ammonite zones, etc.).
Fossils Collected or Observed	The kinds of fossils collected or observed from the locality.

Table 3. The minimum amount of data required for a locality record to be considered complete.

Delivery of Specimens and Material

The PI must notify a collection manager at least two weeks prior to delivering specimens and materials. PIs can either mail the items to the address below or may hand deliver the items to the CUMNH Paleontology Section offices on the 2nd floor of the Bruce Curtis/Museum Collection Building (MCOL) on the campus of CU Boulder in Boulder, Colorado.

Mailing Address: CU Museum of Natural History
265 UCB
Boulder, CO 80309-0265

The PI is responsible for all the costs related to the delivery of specimens and materials. When mailing or hand carrying specimens, it is the PIs responsibility to pack them in a manner so that they do not break or become damaged during transport. The CUMNH Paleontology Section will not be responsible nor pay any insurance costs on specimens that are received broken or damaged while in transport. The PI may incur a fee if the CUMNH must repair specimens received damaged or broken (see Fees section below).

Digital copies of the records and documents sent via email or a cloud-based file transfer system (e.g., Microsoft OneDrive, Google Drive, Dropbox, etc.) is preferred over mailing physical copies of these items.

The CUMNH Paleontology Section does acknowledge that some records and documents provided may contain information that is confidential or contains personal identifying information, which includes but it not limited to, full names, mailing addresses, physical addresses, phone numbers, etc. The CUMNH Paleontology Section will never release personal

¹For more information on why a locality description is needed as well as geographic coordinates, please consult “Chapter 2: Elements for Describing a Location” in Chapman, A.D. and Wieczorek, J.R. (2020) *Georeferencing Best Practices*. Copenhagen. GBIF Secretariat. <https://doi.org/10.15468/doc-gg7h-s853>

identifying information to anyone. However, certain confidential records may be disclosed to students, researchers, and government agencies with legitimate projects or requests. The PI should inform the CUMNH Paleontology Section of the confidential nature or what personal identifying information is contained within the records and documents provided. The CUMNH Paleontology Section will then work with the PI on what can and cannot be shared.

PIs are discouraged from submitting bulk samples, non-diagnostic redundant material (i.e., specimens with low scientific value), and specimens in poor condition. The CUMNH Paleontology Section can't afford to permanently store and maintain these types of materials. If a collection manager and curator deem a specimen to be of little or any use, then it will be disposed of (see the Disposal of Unwanted Specimens section below).

Evaluation of Specimens and Materials for Acquisition

The collection manager and curator will evaluate the fossil preparation and conservation needs of the specimens before they are accessioned and cataloged. If a specimen or a locality record lacks any data as listed above and the PI can't provide the missing information, then the specimen or all the specimens collected from that locality will be disposed of (see Disposal of Unwanted Specimens section below).

Any approved fossil preparation completed by the PI before the specimens were submitted to the CUMNH Paleontology Section will be evaluated to make sure that appropriate, reversible, and nondestructive techniques were used. Specimens needing significant fossil preparation and conservation work, or a reversal of fossil preparation work done by the PI before they can be placed into collections storage may incur a fee to be paid by the PI (see the Fees section below). Additionally, if sediment collected from localities was not screenwashed by the PI prior to submittal or if a significant amount of sediment needs to be sorted, then a fee will be charged to the PI (see the Fees section below).

A fee for specimens that need any special handling and storage requirements may be assessed on a case-by-case basis (see the Fees section below).

Specimens deemed acceptable by the appropriate curator and collection manager will be accessioned into the CUMNH Paleontology Section's collections through the formal accessioning process, as outlined in the CUMNH Paleontology Section's Collections Procedures Manual. A copy of the signed Curation Services Agreement and all the records and documents provided will be attached to the accession record.

Disposal of Unwanted Specimens

Several laws and regulations do give the CUMNH Paleontology Section authority to dispose of unwanted specimens collected from public lands managed by government agencies (e.g., 43 CFR § 49.200). Furthermore, specimens collected from private lands become the property of the CUMNH Paleontology Section via the signed Deed of Gift. Therefore, any specimens submitted to the CUMNH Paleontology Section that:

1. Were deemed not acceptable by a collection manager and curator.
2. Are outside the limits or conditions of acceptable specimens as stated on the Curation Services Agreement.

3. Are unwanted bulk samples.
4. Are non-diagnostic redundant material (i.e., specimens with low scientific value).
5. Are in poor condition.
6. Are of little use in collections.
7. Specimen record lacks necessary data.
8. Locality record lacks necessary data.

Will be dealt with in the following order:

1. Placed into the CUMNH Paleontology Section's teaching collection.
2. Placed into the CUMNH Public Section's education collection.
3. In coordination with the PI and the appropriate government agency:
 - a. Transferred to a different repository.
 - b. Transferred back to the PI.
 - c. Transferred to the appropriate government agency.
 - d. Destroyed.

The collection manager will annotate the accession record with a list of all specimens that were disposed of and explain where they went and why they were not acquired. This way a record will exist for why the inventory of collected specimens supplied by the PI does not match the inventory of accessioned specimens.

Fees

PIs who work for a museum, educational or research institution, or some other non-profit organization will not be charged any fees.

PIs who work for a paleontology monitoring, environmental consulting firm, or some other for-profit company will be charged fees for the accession and locality documentation creation and specimen curation, preparation (if necessary), and storage. These fees are assessed so that the CUMNH Paleontology Section can assure the proper long-term storage and care of the specimens provided. Table 4 outlines the fees that will be charged.

Description	Fee
Administrative Fee	\$80/accession
Specimen Curation	\$15/specimen
Specimen Storage	\$220/drawer

Table 4. Fees that are charged for the proper curation and storage of specimens.

For the specimen curation fee, a specimen in this case is anything that is 30 by 35 cm or smaller and does not require special repair, stabilization, preparation, conservation, or curation. Larger specimens will incur additional fees (see below). Specimens needing significant fossil preparation and conservation work, or a reversal of fossil preparation work done by the PI before they can be placed into collections storage may incur a fee to be paid by the PI. Additionally, if sediment collected from localities was not screenwashed by the PI prior to submittal and/or there is a significant amount of sediment that needs to be sorted, then a fee will be charged to the PI. In

some cases, the PI may be charged a fee for the repair and stabilization of any specimen broken or damaged during delivery. Any additional fees will be negotiated with the PI.

For the specimen storage fee, the fee will be assessed if the specimens fill at least a $\frac{1}{4}$ or more of a cabinet drawer. If the number of specimens fills less than a $\frac{1}{4}$ of the cabinet drawer, then a reduced fee will be negotiated with the PI. Specimens that do not fit in a standard museum cabinet will be subject to additional fees. A fee for specimens that need any special handling and storage requirements may be assessed on a case-by-case basis. Any additional fees will be negotiated with the PI.

An invoice will be sent to the PI after the specimens have been curated and stored and/or any additional fees have been negotiated. Payment will be due within 30 days upon receipt of invoice.