

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife
Honolulu, Hawai'i 96813

May 23, 2025

Chairperson and Members
Board of Land and Natural Resources
State of Hawai'i
Honolulu, Hawai'i

Land Board Members:

SUBJECT: *Request Delegation of Authority to the Chairperson to Negotiate, Approve, Execute, Amend, Extend, and Terminate a Memorandum of Agreement Between the Department of Land and Natural Resources, Mid-Pacific Institute, and Bishop Museum for a Collaborative Project to Digitally Replicate Native Species for Educational Purposes, Subject to Approval by the Department of the Attorney General as to Form*

Purpose

This submittal seeks the Board's approval to delegate authority to the Chairperson of the Board of Land and Natural Resources to enter into a Memorandum of Agreement (MOA) with Mid-Pacific Institute and Bishop Museum. The agreement will support a collaborative project to scan and digitally replicate native Hawaiian species for educational use.

Project Overview

The Division of Forestry and Wildlife proposes a partnership with Mid-Pacific Institute and Bishop Museum to implement an educational initiative focused on digitally preserving native species. Under this initiative:

- DLNR and Bishop Museum would grant supervised access to selected specimens, particularly rare or extinct species, for scanning by Mid-Pacific Institute staff and students.
- Students would use 3D scanning technology to create digital models of the specimens.
- These models would be developed into various educational products, including rotatable digital models, animations, and content for augmented reality (AR) or virtual reality (VR) platforms.

Each partner would benefit from access to the digital outputs:

- DLNR would receive copies of all scans involving its specimens and may use the products for educational purposes.

- Bishop Museum would receive similar access for its contributions.
- Mid-Pacific Institute would retain rights to use, modify, and distribute the materials for educational use and would incorporate the project into its curriculum to provide students with hands-on experience in digital technologies.

No funding would be exchanged. All services and access would be provided in-kind. A formal MOA is proposed to establish each partner's roles and responsibilities.

Discussion

This initiative supports DLNR's mission by increasing accessibility to native species information, particularly for rare or no longer extant species. The use of AR and VR technologies offers new ways to engage students and the public in conservation and biodiversity education.

Mid-Pacific Institute has provided a draft MOA, included as Exhibit A. DLNR requests legal review by the Department of the Attorney General.

Recommendation

That the Board:

1. Authorize the Chairperson to negotiate, approve, execute, amend, extend, and terminate a Memorandum of Agreement with Mid-Pacific Institute and Bishop Museum to collaboratively implement a project to scan and digitally replicate native Hawaiian species for educational purposes, subject to approval by the Department of the Attorney General as to form.

Respectfully Submitted,



David G. Smith, Administrator
Division of Forestry and Wildlife

APPROVED FOR SUBMITTAL:



DAWN N.S. CHANG, Chairperson
Board of Land and Natural Resources

Exhibit A: Draft MOU

Exhibit A: Draft Memorandum of Understanding Between the Department Of Land And Natural Resources, Mid-Pacific Institute, and Bishop Museum for the Collaborative Implementation of a Project to Scan and Digitally Replicate Native Species for Educational Purposes

This Memorandum of Understanding (“MOU”), effective _____, 2025 (“Effective Date”) is between the Department of Land and Natural Resources, whose address is 1151 Punchbowl Street, Honolulu, HI 96826 (“DLNR”); Bishop Museum, whose address is 1525 Bernice Street, Honolulu, HI 96817; and Mid-Pacific Institute, whose address is 2445 Ka’ala Street, Honolulu, HI, 96822 (“Mid-Pacific”).

Background

A. Mid-Pacific desires to provide Museum Studies, Motion Graphics, and Computer Science students with hands-on experience working with artifacts and opportunities to leverage 3D scanning technology and develop an Augmented Reality (“AR”) Application. Mid-Pacific, DLNR, and Bishop Museum desire to establish a collaborative project where Mid-Pacific students will 3D scan specimens, create animations, and develop an Augmented Reality (“AR”) application to enhance public engagement with these artifacts.

Understandings

Accordingly, the parties have a mutual understanding of the following.

1. **Objectives.** Mid-Pacific aims to provide Museum Studies, Motion Graphics, and Computer Science students with experience in artifact handling, 3D scanning technology, and AR application development. DLNR and Bishop Museum aim to enhance public engagement with these artifacts and support preservation efforts. The collaboration ensures that Mid-Pacific students will develop their skills and supports DLNR and Bishop Museum’s preservation and community engagement efforts. The 3D scanning and AR application development work that will be performed is called the “Project” in this MOU.

2. **Collaboration.** Josh Atwood of DLNR, Molly Hagemann of Bishop Museum, and Brian Grantham of Mid-Pacific shall be the primary points of contact. The parties shall work together on the planning, execution, and post-processing phases of the Project. DLNR and Bishop Museum shall supervise the handling and preparation of living snails and archival birds for scanning; provide Mid-Pacific students with the necessary supplies and training for proper handling; provide available metadata on artifacts; and coordinate working space, as needed. Mid-Pacific shall be responsible for providing the 3D scanning equipment and student volunteers; executing the scans and providing raw and processed data; AR application development; and coordinating any Mid-Pacific working space, as needed.

3. **Duration.** The term of this MOU shall be _____, 2025 to _____, 2025. The parties may extend this timeline for the Project by written agreement. Either party may terminate the Project before its completion by providing the other party thirty (30) days written notice.

4. **Ownership of Work Product.** The Project involves creating 3D scans of DLNR and Bishop Museum selected live snails and archival birds, as well as developing an AR application. Mid-Pacific shall provide DLNR and Bishop Museum with the raw and processed 3D scans of these artifacts at no cost to Mid-Pacific. Mid-Pacific shall retain ownership rights to the digital scans of the artifacts. Mid-Pacific shall maintain ownership rights to the AR application, including but not limited to its software, animations, and interactive elements. The AR application will be published under Mid-Pacific's App Store and Google Play accounts.

5. **Use of Work Product.** DLNR and Bishop Museum grant to Mid-Pacific a perpetual, non-exclusive, royalty-free license to use, modify, and distribute the Project's 3D scanned data for educational purposes, including integration into the AR app, subject to the following:

- a. Mid-Pacific shall not redistribute or grant licenses to external entities.
- b. Mid-Pacific shall credit DLNR and Bishop Museum as the owners of their respective scans in all uses of the Project's 3D scans.

6. **No Partnership or Joint Venture.** This MOU is not intended to create a formal partnership or joint venture between DLNR, Bishop Museum, and Mid-Pacific.

7. **Insurance and Indemnification.** Each party represents that it has a general liability insurance policy providing not less than \$1,000,000 of coverage. Each party shall name the other as an additional insured and will provide the other party with a certificate of insurance upon the other party's request. DLNR and Bishop Museum shall indemnify and hold harmless Mid-Pacific, its employees, and students from any claims arising from the use of DLNR and Bishop Museum property, except where such claims result from the gross negligence or willful misconduct of Mid-Pacific.

8. **Damages.** Mid-Pacific shall take all reasonable precautions to ensure the careful and proper handling of DLNR and Bishop Museum property during the Project. In the event of any damages resulting from Mid-Pacific's negligent handling of DLNR and Bishop Museum property, Mid-Pacific, DLNR, and Bishop Museum agree to collaborate in good faith to assess the situation and determine a fair and equitable resolution, taking into consideration the educational context of the Project.

9. **Administration of the MOU.** This MOU is governed by the laws of the State of Hawai'i and represents the entire understanding of the parties. This MOU may be modified by a written instrument signed by both parties. If a dispute arises over the understandings and obligations set forth by this MOU, the parties agree to work collaboratively and in good faith to reach a resolution. If a resolution is unsuccessful, the parties agree to resolve the dispute through mediation. The undersigned individuals represent that they have the authority to sign this MOU and to bind their respective institutions to its understandings and obligations.

The parties have signed this MOU as of the Effective Date and agree to the terms as set forth above.

DLNR

By:

Mid-Pacific Institute

By: Elizabeth Cleary

Bishop Museum

By:

DRAFT