



December 19, 2025

The Honorable Ronald D. Kouchi  
President and Members of the Senate  
Thirty-Third State Legislature  
State Capitol, Room 409  
Honolulu, Hawaii 96813

The Honorable Nadine K. Nakamura  
Speaker and Members of the  
House of Representatives  
Thirty-Third State Legislature  
State Capitol, Room 431  
Honolulu, Hawaii 96813

Dear President Kouchi, Speaker Nakamura, and Members of the Legislature:

For your information and consideration, I am transmitting a copy of Bishop Museum's FY25 Operational Report, as required by Act 398, Section 3, Session Laws of Hawaii 1988, codified as section 6E-40, Hawaii Revised Statutes.

If you have any questions or concerns, please feel free to call me at (808) 848-4187 or via email at: [janet.bullard@bishopmuseum.org](mailto:janet.bullard@bishopmuseum.org).

Me ke aloha pumehana,

Janet Bullard  
Vice President of Advancement and Marketing Communications  
Acting Director of Government Relations  
Acting Director of Marketing



BISHOP MUSEUM

**State of Hawai‘i Museum  
of Natural and Cultural History**

**Annual Report to the  
Hawai‘i State Legislature**

Fiscal Year 2025

# Message from President and CEO



**Kris Helgen**  
President & CEO

Firstly, let me express my sincere mahalo to the State Legislature and Administration for your support of Bishop Museum. I have been in a period of deep learning about our Museum culture and the precious and fragile place in which we live. I am listening and better understanding every day, the important work we do at Bishop Museum to perpetuate the legacy of our ali'i, how everything we do is connected to 'āina, and how active research is critical to the understanding and preservation of our beautiful home. Warm mahalo to Dee Jay Mailer for ensuring a smooth transition and welcoming me with such warmth and grace.

Bishop Museum is known globally for its vast collection and its expertise in cultural and scientific research. With over 25 million objects in our collections, we rank amongst the largest in the world. I am humbled to serve at this world-renowned and highly reputable institution with a kuleana to preserve the legacy of the people of Hawai'i and the Pacific and the preservation of our environment so that the knowledge we hold is here for future generations. I take this responsibility seriously and am committed to continuing the good work that takes place here every day by a team of highly talented and dedicated staff.

I have been a visiting researcher at the Museum since 2002, where I studied in the mammal collection while I was a student at Harvard University. I became a research associate here in 2007 and have frequently visited and conducted research here ever since. I have

worked in museums most of my career, most recently coming from the Australian Museum Research Institute, where I served as their chief scientist and director. I also spent a decade at the Smithsonian Institution as the curator of mammals.

Although I was not here in FY25, the staff at Bishop Museum continues to do amazing and important work in service to our community. Not only do they continue to care for our most precious and irreplaceable cultural treasures, they are also conducting active research to preserve our unique island environment. I am impressed by the breadth of talent we have here and the valuable work they are doing on a daily basis.

With the current political climate and the loss of federal grants, state funding support is now more critical than ever. Like other nonprofits, we have lost federal grant funding and are dealing with uncertainty on a daily basis. We are doing our best to retain grant-funded employees but are unsure if we will be able to sustain this in the long-term. We remain committed to taking care of our staff.

We are grateful for the support of our State Legislature and the Administration. The funding we receive from the State allows us to better support our dedicated and talented staff as well as our ability to safely and properly care for our irreplaceable collections and continue vital research to address biodiversity loss and support the state's biosecurity efforts. ♦



The Cultural Resource division is actively conducting and sharing collection-based research through exhibitions, digital platforms, accesses, presentations, and partnerships. As part of Bishop Museum's commitment to the Lahaina cultural recovery, 3 staff members participated in a conservation effort at the Lahaina Jodo Mission to clean and care for items that survived the Maui wildfires. Supporting Lahaina through the sharing of staff skills and expertise was among the most meaningful collaborations of FY25.

This year's *Kapa Symposium 2025: He Ku'ina Aloha* was co-organized by Kamalu DuPreez and Sarah Kuaiwa and was devoted to kapa genealogies of the 20th and 21st centuries. Cultural Resources facilitated 3 Living Cultures sessions with accompanying oral histories: 1). with the British Museum for the *Ka 'Ula Wena* exhibition loans, during which time the team hosted six groups over the course of three days for cultural practitioners, researchers, and Kamehameha School students; 2). Surfboard shapers who reference the collection for their wooden board designs; and 3). Kapa makers who are integral to the revitalization of this art form.

Curators are planning exhibitions and co-authoring publications with counterparts at the Anchorage Museum, Te Papa, Victoria University of Wellington, and National Park Service. Additionally, Cultural Resources team members authored 34 stories on *Mau ka Leo*. One exhibition opened in FY25, *Kū a Lanakila! Expressions of Sovereignty in Early Territorial Hawai'i, 1900–1920* curated by Sarah Kuaiwa, Curator for Hawai'i and Pacific Cultural Resources.

Curator of Archaeology, Pūlama Lima conducted site visits to archaeological sites on West Moloka'i and led a lithics 'ulumaika'i workshop for students in the 5th and 6th grades from Ke Kula Kaiapuni o Kualapu'u. Two Cultural Resource staff members were awarded fellowships: Healoha Johnston with the Center for Curatorial Leadership Fellowship 2025 cohort; and Sarah Kuaiwa with the Winterthur Museum, Garden & Library 2025 cohort. Marques Marzan, the Cultural

Advisor and Wayne Pitluck and Judith Pyle Curator for Cultural Resilience led Hawaiian protocol as part of the reopening of the Michael C. Rockefeller Wing at the Metropolitan Museum of Art. We also partnered with the governments of French Polynesia, Commonwealth of the Northern Mariana Islands, and Guahan for large-scale collection research and the forthcoming Te Rangi Hiroa Curator and Caretaker Fellowship program

We established a satellite photography station to digitize 3-dimensional items in the arts, humanities, and social science collections. This in part supported the photography/digitization of 2,795 pieces in the collection in FY25. Physical stewardship of the collection included the conservation of 12 collection pieces; and an NEH funded project organized by Kayla Annen to bring an expert to the Museum to conduct an environmental assessment of Hawaiian Hall, provide interdepartmental training for case access and maintenance, draft an assessment report, and deliver a lecture for museum professionals attended by 50 people from local museums, state and federal agencies, and heritage centers. Cultural Resources completed the relocation of more than 2,000 collection pieces to a new storage location on campus, led by Stephanie Lambert, to enable greater access to and care of the collections. Providing access to the collections for lineal descendants, non-profit organizations, university students and faculty, and museum professionals is a significant part of our work as stewards of the public trust. In total, Cultural Resources hosted 336 people in the collection during 88 collections accesses. ♦



## Cultural Resources

# Library and Archives

After a significant supply-chain delay, construction work directly impacting Library & Archives collections areas concluded in late September 2025. While the department suspended normal public access hours to accommodate this work, staff maintained our services and outreach through fulfillment of information requests, digital reproduction orders, off-site presentations, and a limited number of collections access visits to support Museum work and partnerships.

Library & Archives remained closely involved in the Museum's transition to the Axiell EMu Collections Management System (CMS), which celebrated its live launch in Q1. The Library & Archives collections managers and digital assets manager continue to collaborate with Informatics and collections departments to work within the design of EMu, import more data sets and multimedia, and standardize data entry across collections. New catalog data contributed by the ongoing *Ho Mai ka 'Ike* project (funding provided by the Institute for Museum and Library Services) provided a robust model for manuscript data migration into EMu.

Work has also continued on the *He Aupuni Palapala* project, generating new text-searchable images of Hawaiian language newspapers to be freely published on OHA's Papakilo Database. *He Aupuni Palapala* continued to share project updates and engaging content from Hawaiian language newspapers, publishing 72 articles on social media (Nūhou Monday) in Q1. Between June and August 2025, project staff inventoried and condition-assessed 15,000 nūpepa pages. Under the guidance of paper conservator Liane Naauau (University of Hawai'i), project technicians learned to safely unfold deep creases in fragile pages that previously covered text. These and other repaired pages were then re-digitized, and the newly captured images significantly increased legibility. *He Aupuni Palapala* initiated the delivery of nūpepa pages to OHA and DL Consulting for Optical Character Recognition (OCR) work at the end of September. To date, 11,208 nūpepa pages have been delivered, and 4,592 more will be delivered by the end of December, totaling 15,800 pages. When OCR work is complete, OHA will upload pages from 27 different nūpepa titles to Papakilo Database. Twelve of these titles will be accessible online for the very first time. ♦

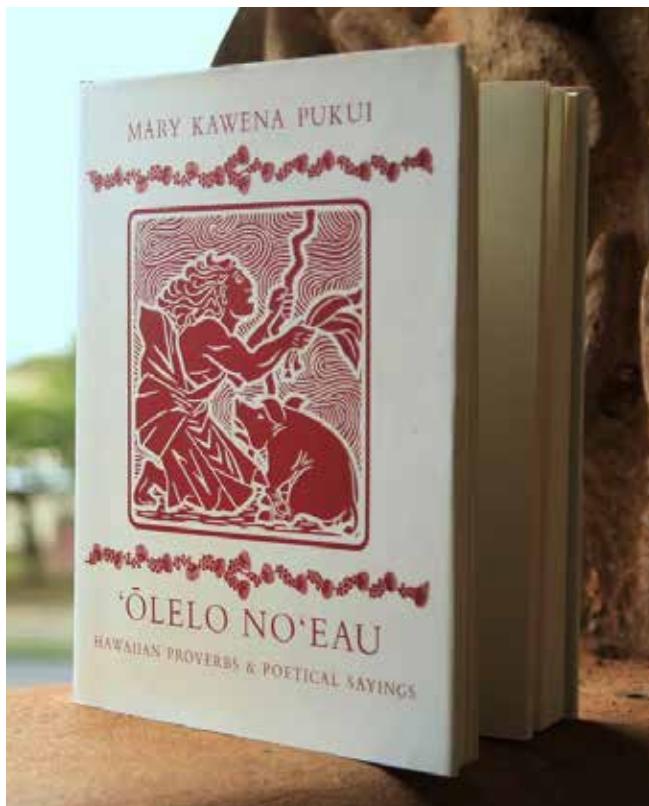
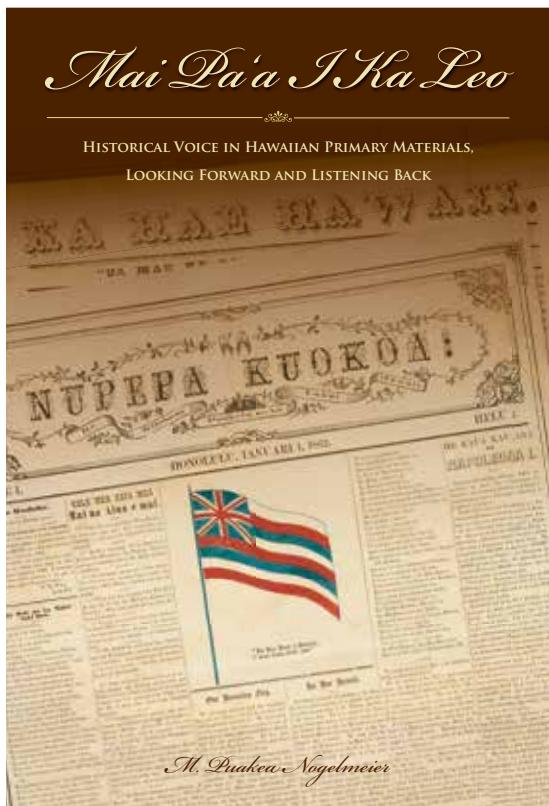


Bishop Museum Press, Hawai‘i’s oldest book publisher and one of the first scholarly publishers in the Western Hemisphere, was established in 1892 as a means of accomplishing one of the Museum’s core objectives—to disseminate the findings of research related to the Museum’s early natural science and cultural collections. Over 129 years later, Bishop Museum Press continues its legacy of excellence and service to Hawai‘i and the world, having published over 1,200 titles and distributed over 1,000,000 books in 72 countries worldwide.

During FY 2025, Bishop Museum Press published a reenvisioned version of *Arts and Crafts of Hawaii* (Sir Peter Buck, Te Rangi Hiroa), along with reprinting *Mai Pa‘a I Ka Leo: Historical Voices in Hawaiian Primary*

*Materials, Looking Forward and Listening Back* (Marvin Puakea Nogelmeier), *Canoes of Oceania* (A.C. Haddon and James Hornell), and *‘Ōlelo No‘eau: Hawaiian Proverbs & Political Sayings* (Mary Kawena Pukui).

Ongoing work includes a project with the University of *of the Hawaiian Islands* (Dan Palmer and Miles Thomas). Additional titles of focus in FY25 were *Sites of Oahu* (Elspeth P. Sterling and Catherine C. Summers), *Sacred Hula: The Historical Hula ‘Ala‘apapa* (Amy K. Stillman), *Folktales of Hawai‘i: He Mau Ka‘ao Hawai‘i* (Mary Kawena Pukui with Laura C.S. Green), *Nā Mele Welo: Songs of our Heritage* (Mary Kawena Pukui), and *Ka Mo‘olelo Hiwahiwa o Kawelo* (Ho‘olumāhiehie; tr. Hiapokeiki-kane Kichie Perreira). ◆



## Bishop Museum Press

# Natural Sciences

## Botany

Bishop Museum's botany program is actively engaged in the early detection of new invasive species on O'ahu to help detect and control these plants while populations are still small. This summer, the team conducted seventeen field surveys. This fieldwork led to the significant discovery of ten plant species newly recorded as naturalizing on the island. While some invasive populations, were deemed too widespread to control, the team successfully eradicated individuals and small populations of other high-threat species like *Miconia calvescens* and *Cyathea cooperi*. These efforts are crucial for managing invasive species before they become widespread and intractable problems. In September 2025, the Botany Department proudly released the updated *Hawaiian Native & Naturalized Vascular Plants Checklist*, a comprehensive list of all 3,132 wild plants found across the Hawaiian Islands. This vital document, the first major update since 2012, reveals the dynamic and ever-changing nature of our islands' flora. At the heart of this massive undertaking is the Bishop Museum's herbarium, a library of over 157,000 carefully preserved plant specimens. Each specimen is a physical record, providing verifiable proof of which plants grow, and where, from the highest peaks to the most remote atolls. This incredible collection is the

foundation that allows our botanists to accurately identify every species, ensuring the checklist is built on a solid base of scientific evidence. This new checklist documents approximately 280 species that have been recorded in the wild since the last update. This includes not only the exciting discovery of new native species but also a significant number of new non-native and potentially weedy species. By precisely identifying what grows here and tracking these changes, the checklist becomes an indispensable tool. It provides the critical, science-based information that conservationists and land managers need to protect Hawai'i's unique native biodiversity and manage the growing challenge of invasive species.

The project to image, database, and preserve the plant specimens housed in the Bishop Museum's *Herbarium Pacificum* is proceeding on schedule and continues to achieve key milestones. This initiative has significantly improved the accessibility, preservation, and documentation of our botanical collections, supporting both research and conservation efforts.

As of this reporting period, a total of 528,830 specimens have been fully databased. Approximately 50 specimens were repaired or remounted during the reporting period. Between April and September 2025 10 accessions were completed totaling 768 specimens all of which have been processed and filed (includes mounting, data entry, barcode and image). 8000 images were taken, 2,557 data entries were completed, and 1,040 specimens were annotated with a new identification or the taxonomic name was brought up to its current designation. The herbarium's outreach program visiting Kahala Nui assisted living complex where residents have the opportunity to volunteer mounting herbarium continues. All digitization will be accessible to our federal and state collaborators who seek such information as images and locality occurrence data. ♦



## Entomology

The Entomology Collection continued its commitment to make the collections accessible to researchers and the public by providing specimen images, specimen loans, and access to the collection upon request. Additionally, in collaboration with the Informatics Department, Entomology transferred >150,000 digitized specimen records from the pre-existing Specify database to a new EMu database. This tool will increase the ease of digitizing specimen records moving forward, further increasing accessibility of the collections to the public once uploaded to the web.

In collaboration with researchers at the University of Hawai'i at Mānoa (UH), and with funding support from the Institute of Museum and Library Services (IMLS), Entomology continued to curate and study specimens in the Hawaiian Cave Arthropod collection. Collection information from over 3000 specimens was digitized and over 1500 specimens were imaged. The field notebooks kept by the Bishop Museum Entomology researchers who collected the cave specimens, which

date back to the 1980's, were scanned to make accessible to other cave arthropod researchers. Further, we continue to grow the cave arthropod collection by accessioning specimens collected by UH researchers. This living collection is an irreplaceable biological record of the arthropod communities inhabiting Hawaiian lava tubes, both in the past and present-day.

The Entomology Collection also completed several large logistical projects. In August of 2024, five collaborators from the Smithsonian National Museum of Natural History (NMNH) came to Bishop Museum to work alongside Entomology staff to prepare a return of specimens to NMNH. The >150,000 bee fly (family Bombyliidae) specimens were secured and packed into cabinets and loaded onto 7 shipping pallets. Further, collections staff assisted with a remodel of Pauahi second floor. Space that had been devoted to Entomology researchers was rearranged to facilitate the relocation of the Informatics Department into the new shared space. ♦



## EXCORE

EXCORE (Center for the Exploration of Coral Reef Ecosystems) had a very busy year in FY25. In July-August 2024, EXCORE researchers Brian Greene and Richard Pyle were invited to join a group of four other well-known marine researchers and explorers (including Dr. Sylvia Earle, world-famous National Geographic underwater photographer David Doubilet, his partner and respected researcher, conservationist and photographer Jennifer Hayes, and expedition organizer Michael Aw) on a live-aboard dive expedition to Indonesia. The main purpose of the expedition was to produce a documentary film and companion book entitled “SOULS” (“Stories of Our Underwater Legends”), featuring the six “Legends” telling their stories and thoughts about protecting ocean habitats. Both the film and the book were released in late 2024, and screened at numerous ocean conservation events around the world. This also led to the publication of a 34-page Article in the January, 2025 issue of Ocean Geographic magazine written by Richard and Brian, telling the story of Biodiversity, Bishop Museum and EXCORE.

In January–February 2025, the team was invited to participate in a deep coral-reef survey expedition to Rapa Nui (Easter Island), funded by the Universidad Católica del Norte (Chile). Although several days of diving were lost due to bad weather, the expedition ended up as a success, with many great video clips of the endemic marine life inhabiting deep coral reefs at Rapa Nui.

That expedition was followed by a trip to San Diego to work with Gates Underwater Products to finalize a custom underwater housing for a new state-of-the-art camera system (RED V-RAPTOR® [X] 8K VV Cinema camera; used for Hollywood movies), which records 8K video at 120 frames per second. This custom housing and advanced camera and lens system is the most advanced underwater camera system in the world, and



is being used by Brian Greene to document coral-reef biodiversity in exquisite detail.

In March, the team travelled to the Philippines for a scouting trip to establish connections and logistics for a future research expedition to the region. Shortly returning from that trip, they embarked on a trip to Taiwan, invited by Academia Sinica to visit Green Island (off southern Taiwan) to repeat a series of deep rebreather dives they had conducted at this tiny island twenty years earlier, in 2005. Besides being an excellent dive trip, the EXCORE team established strong collaborations with the researchers at Green Island, and future expeditions are already being planned.

After returning from Taiwan, the team worked closely with the Museum’s Exhibits department to finalize the development of the *Explore EXCORE* exhibit, which opened August 24, 2025. This exhibit showcases the purpose and work of EXCORE, to document biodiversity on coral reefs. They also worked with the Exhibits team on permanent displays feature EXCORE in the Museum’s Science Adventure Center. Most of this activity has been featured in several issues of *Ka ‘Elele, the Journal of Bernice Pauahi Bishop Museum.* ♦

## Ichthyology

The Museum's Ichthyology (fish) collection continued work on several ongoing projects, while continuing to maintain the collection, host visitors, and process incoming and outgoing material. The largest project is a grant from the National Park Service, *Saving Americas Treasures*. With funding from this grant, the collection is able to provide long overdue storage upgrades to better protect our existing specimens and accommodate future collecting expeditions that continue to study our marine ecosystems, as well as increasing accessibility of our specimens, their data, and their stories, to researchers and the public to help preserve and share the knowledge that is held in our collection.

Many of our fluid-preserved specimens are housed in containers that are no longer suitable for long-term storage. We have identified and upgraded over 100 of these containers to meet industry standards. One major ongoing project includes digitizing an extensive collection of photograph slides taken by the late John Randall from the late 1960s through early 2000s. This project aims to make underwater and full-color images of Indo-Pacific reef fishes accessible in a database for public access. During FY25, we completed Phase 1 of this effort, digitally scanning nearly 23,000 images, and began Phase 2, which involves databasing the scanned images so that all the metadata on each slide is digitized and images are linked to their physical specimens. So far, nearly 9,000 images have been databased.



Another aspect of the *Saving Americas Treasures* grant is to develop a collection of fish larvae, which represent a critical life-stage of all marine (and many freshwater) fishes. We have partnered with NOAA and the Smithsonian Institution to successfully transfer 380 of the most valuable of larval specimens to the Bishop Museum collection so that they can receive better long-term care.

The Ichthyology team worked with four researchers from Clemson University to generate standard measurements and photographs from 1,145 specimens. These specimens now have data comparable with other institutions like the Smithsonian Museum of Natural History and Australian Museum, and can now be integrated into research projects using global datasets of fish specimens in museum collections. In March, Ichthyology staff started working with a 3D model artist to make 3D-printed versions of fish for outreach events and exhibits to engage with the public while reducing risk of damage to our scientific specimens. This work has resulted in 6 unique models that were printed and painted into 11 different species, and these models have already been used in outreach events and exhibits. Additional models are still in production.

In addition to these project activities, the Ichthyology collection accessioned 35 new specimen lots, processed 53 transactions (loans and exchanges), and improved the storage containers for 128 lots of specimens. They also supported nearly 100 visiting researchers and members of the general public and provided 37 tours of the collection totaling 173 visitors and 19 staff. They also worked closely with the Museum's exhibits team for content in the Science Adventure Center, and provided additional outreach to the public in many different ways. ♦

# Natural Sciences

## Invertebrate Zoology

The Invertebrate Zoology (IZ) Department continued to serve the community, provide the most comprehensive resource for Hawai'i's marine biodiversity and fulfil the museum's mission to preserve, document, understand, and share the stories of natural and cultural history of Hawai'i and the Pacific.

The IZ collection welcomed several visiting researchers, teachers, student groups, and members of the public into the collection. These visits supported student projects, developed new collaborations with local and national partners and provided unique behind-the-scenes experiences to connect the community with Hawai'i's undersea biodiversity.

The collection added 2,381 new specimen lots from 10 new accessions from Hawai'i and the Pacific. Notable new material includes over 30 deep sea invertebrates collected from national deep-sea expeditions (NOAA Ocean Exploration, Nautilus Ocean Exploration Trust) to Papahānaumokuākea Marine National Monument and five new suspected marine invasive species vouchered to support research conservation work by our partners. We continue to maintain and update the "Checklist of Hawai'i Marine Invertebrates", the most comprehensive list of marine invertebrates found in Hawai'i—currently 4,330 species—accessible from the museum's website.

The team continue to play a crucial and collaborative role in the multi-agency Hawai'i Invasive Octocoral Working Group (HIOWG). In 2025, the HIOWG broadened its scope to include several new marine invasive species that were detected in Hawaiian waters this year, all of which have been vouchered into the IZ collection. In August, we were honored to host the first-ever Marine Invasive Species Learning Exchange. More than 50 participants representing more than 20 conservation organizations from across the Pacific and Atlantic gathered to share resources and address the

spread of invasive species threatening marine ecosystems in the United States and its territories.

The collection has been vital in a grant-funded effort (NFWF Coral Reef Stewardship) to create a genetic reference database of cnidarians that will be used as an aid to identify potential invasive species. It is currently being used to develop eDNA detection tools for the invasive pulse coral.

The team participated in the multi-year research project to document marine biodiversity in American Samoa using Autonomous Reef Monitoring Systems (ARMS). This project is investigating the differences between shallow and mesophotic coral reef ecosystems and how deeper reefs might provide some refuge for shallow coral reefs at risk due to stressors like warming ocean temperatures. This year's successful retrieval and processing of 45 ARMS units resulted in over 1300 specimens and corresponding images which have been processed and cataloged into the IZ collection and will be used in conjunction with metabarcoding and eDNA work being conducted by HIMB.

The staff have been working with the Museum's Exhibits department in the development of a display on marine invasive species and a coral reef ecosystem display in the tank of the Science Adventure Center. ♦



## Malacology

The Malacology Department plays a central role in Hawai‘i’s efforts to conserve native biodiversity, support state and federal partners, and strengthen community understanding of our islands’ most threatened and vulnerable species. Throughout FY25, our work was defined by deep collaboration, internally with PCMB and Cultural Resources, and externally with DLNR, HIDOE, UH partners, conservation nonprofits, and local communities, anchored in a shared commitment to safeguard Hawai‘i’s unique natural heritage for future generations.

The first half of the year was centered on continuing NSF-supported biodiversity education and research, which brought teachers and students into direct partnership with Malacology, Cultural Resources, and PCMB staff. Participants learned how scientists document species, assess threats, understand the ecological requirements needed for recovery, and develop this content for K-12 place-based learning opportunities. Their work culminated in the year’s Hō‘ike; a vibrant community showcase where interns presented their research to representatives from the Governor’s Office, HIDOE, DLNR, and other partners. The Hō‘ike demonstrated how collaborative research empowers our keiki, strengthens agency capacity, and creates a shared language across science, culture, and education.

Fieldwork remained a major component of the department’s impact, updating collections and assessing extant species in the wild. Malacology staff conducted surveys on O‘ahu, Maui, Moloka‘i, and Hawai‘i Island, documenting endangered kāhuli populations, identifying invasive predators, and monitoring habitat conditions. These data feed directly into the management decisions of DLNR-DOFAW, SEPP, HIDOA, and partner programs dedicated to stabilizing and recovering native snail species and managing impacts of non-natives. Our work provides critical information used by

agencies to evaluate species status, guide predator control efforts, and prioritize conservation actions.

Community engagement continued to expand, reflecting the Museum’s leadership in connecting science with local values. Malacology developed new K-12 curriculum materials, led NSF BIORETS teacher workshops, trained agency staff across the state in biodiversity surveys and taxonomy, and developed a major public program that has become a hallmark of conservation efforts by the museum, the annual Kāhuli Festival. Throughout the year, thousands of residents, students, and educators engaged with Hawai‘i’s native snails through hands-on activities, storytelling, and live-animal demonstrations, building a foundation of stewardship grounded in both science and culture.

Collection stewardship, an essential part of the Malacology’s mission, advanced substantially in FY25. The Museum’s Malacology Collection, including the living collections housed in **Pūpū Ola: Kāhuli Captive Rearing Center** with more than 12,000 individuals from 43 endangered species, is one of the most important scientific resources for Pacific malacology and conservation. Together, the more than 6 million specimens along with living snails provide authoritative identifications, life history data, historical baselines, and distribution data for thousands of species, while also helping conserve and expand our understanding of the remaining kāhuli and their role in ecosystem functions. Staff, volunteers, interns, and visiting researchers rehoused specimens, accessioned new material, updated taxonomic records, and prepared data for integration into the database systems like PILSBRy. These efforts ensure that researchers, managers, and community partners have access to accurate, verifiable information that strengthens conservation outcomes statewide, and allows for management planning.

Through research, teaching, field partnerships, and care for irreplaceable collections and living snails, the Malacology Department helps move Hawai‘i toward a sustainable future, one where communities and agencies work together to ensure biosecurity to protect the species and ecosystems that define our islands. While operational support enables this work to remain strong and responsive, the true impact comes from the partnerships that carry these efforts forward and the shared responsibility we embrace for our keiki and the generations still to come. ♦



# Natural Sciences

## Pacific Center for Molecular Biodiversity (PCMB)

The Pacific Center for Molecular Biodiversity (PCMB) serves as Hawai‘i’s hub for molecular biodiversity research, biobanking, and genomic analysis, core tools that support species biodiversity discovery and analysis, conservation, invasive species detection, wildlife disease screening, and long-term resource management across the state. FY25 marked a year of significant progress through partnerships with DLNR, UH, HIDOE, SEPP, federal agencies, and local schools, all aligned around securing a resilient future for Hawai‘i’s ecosystems and communities.

Much of early FY25 centered on ongoing NSF-funded training programs designed to build Hawai‘i’s science and conservation workforce capacity. Teachers and student interns worked side-by-side with PCMB and partner scientists to learn DNA sequencing, eDNA workflows, microbiome analysis, and cryobanking procedures. These experiences contributed to work presented at the annual Hō‘ike, where interns shared their findings to representatives of the Governor’s Office, HIDOE, DLNR, and conservation partners. The event showcased how collaborative, hands-on research prepares our youth to become the next generation of scientists, educators, and resource stewards.

A defining achievement of the year was the launch of the collaborative partnership between Bishop Museum and the San Diego Zoo Wildlife Alliance Frozen Zoo, the goal of which is to expand PCMB’s current biobanking initiative into **Waihona Ola: Repository of Life** and the Pacific’s leading genomics conservation resource. This partnership strengthens the state’s ability to preserve cells, tissues, DNA, microbes, and other biological materials that are essential for species recovery and future research. It represents the kind of inter-island and inter-institutional collaboration needed to ensure that Hawai‘i’s biodiversity is protected far into the future.

PCMB processed and accessioned thousands of samples from endangered snails, forest birds, native bats, fish, insects, plants, and microbial communities. Staff supported eDNA efforts aimed at early detection of invasive species, worked with partners on rapid response strategies, and provided molecular identifications used in research and management planning. These services directly support DLNR, DOH, UH, NOAA, and community-based conservation initiatives statewide.

Education and outreach remained a guiding thread across the year. PCMB supported K-12 curriculum development, delivered NSF BIORETS teacher training, mentored undergraduate and graduate students, and contributed to major public events, including preparations for the Kāhuli Festival, where molecular tools were shared with community audiences. These programs make genomics approachable and meaningful to local families, teachers, and keiki.

PCMB also worked closely with the Informatics initiatives for integration of biobank metadata, improved tracking for specimens and genomic resources, and modernization of data systems that will ensure that agencies and partners can rely on accurate, accessible information to guide conservation decisions.

Together, these efforts strengthen Hawai‘i’s capacity to address biodiversity loss, respond to invasive species, and maintain the biological resources needed to support ecosystem health. While operational support helps keep this work strong, the real impact comes from sustained partnerships with state agencies, community organizations, and educators, all united in the shared responsibility to steward Hawai‘i’s living heritage for the generations ahead. ♦

## Vertebrate Zoology

Throughout FY2025, the Vertebrate Zoology (VZ) Collections continued to serve the people of Hawai‘i by supporting scientific research on native biodiversity and the drivers of species' evolution and health, as well as fostering a deeper connection between people and place through community outreach and education.

As part of a major effort to improve the quality of Collections data available to state and federal agencies, as well as the broader scientific community, VZ staff and volunteers have been focused on digitally scanning old reference records, including specimen catalogs and documents dating back to the Museum's founding. Adding critical data from these records to the existing database allows for more powerful comparisons of bird, mammal, reptile, and amphibian specimens from different time periods. Researchers use this data to track the impacts of environmental changes and understand shifts in populations and diseases.

Digitization efforts also included the completion of a project to image all of the Hawaiian forest bird study skins, totaling over 5,000 specimens and nearly 20,000 images. While not yet publicly accessible online, the images have already supported scientific and artistic projects aimed at conserving and raising awareness about Hawai‘i's unique avian fauna. In collaboration with the Museum's Informatics Department, VZ staff is working toward linking these images to specimen records and increasing their availability to a broader audience.

VZ Collections made 26 specimen loans in service of research projects both within and outside Hawai‘i, demonstrating the utility of these valuable resources on a global scale. The Collections welcomed 114 visitors from around the world, facilitating visiting researcher activity and providing 25 tours in the collection spaces. VZ staff also provided over 200 hours of training for students and practitioners in how to prepare animals

for scientific and cultural purposes. This includes supporting the Papahānaumokuākea Native Hawaiian Cultural Working Group's Hui 'Ohi Manu subcommittee in its efforts to prepare native seabirds, namely Möli (Laysan albatross) and Ka'upu (Black-footed albatross) for featherwork and Makahiki ceremonies.

During FY2025, the VZ Collections partnered with DLNR's Division of Forestry and Wildlife in their *Makahiki o Nā Manu Nahele: Year of the Forest Birds* campaign, which celebrated the ecological role that native forest birds serve in Hawaiian ecosystems, as well as the inextricable part they play in Native Hawaiian culture. This year-long campaign coincided with the opening of the Museum's *Lele o Nā Manu: The Splendor and Loss of Hawai‘i's Birds*, which was the culmination of a nearly decade-long collaboration between the VZ Collections and Japanese master craftsman, Haruo Uchiyama. The exhibit features 47 of Mr. Uchiyama's life-like wood carvings, including a complete set of historically-known Hawaiian honeycreepers mounted atop an original mural painted by local artist, Patrick Ching. This is the first time in the Museum's history that this extraordinary example of adaptive radiation has been represented so completely in a long-term display. By visually representing the scope of their beauty and diversity, the carvings keep these critically endangered birds alive in the hearts and minds of the Museum's visitors. ♦



# Public Programs & Education

The Public Programs Division delivered an impactful year of educational engagement, cultural programming, and visitor experiences that strengthened the Museum's role as a hub for learning and community connection.

## Education

Throughout FY25, the Education team welcomed over 16,000 students and teachers for school-based field trips, reinforcing the Museum's commitment to life-long learning. A major milestone was the completion and opening of the Kamāla'ulahiwa 'Ohana Learning Center (Keiki Garden) in Q4. This innovative space integrates traditional aloha 'āina concepts with 21st-century technology, featuring aquaponics systems and interpretive materials. Programming for school groups and families is underway to maximize its educational potential. Additionally, the Museum advanced its Hawai'i Alive digital resource initiative, securing funding and hiring key staff, including a Senior Curriculum and Education Consultant, to bridge collections with classrooms globally. ♦



## Exhibitions

We showcased a dynamic range of exhibitions that celebrated Hawaiian heritage and global connections. Highlights included: *Faith and Philanthropy: Queen Emma Kaleleonālani's Visit to England* (Q1) and *Kū a Lanakila* (Q2), exploring expressions of Hawaiian sovereignty; *Ka 'Ula Wena* maintenance and interpretive enhancements (Q2); Hawai'i Triennial 2025 (*ALOHA Nō*) (Q3), featuring contemporary artists engaging themes of care, resistance, and transformation; and *Expedition Dinosaur: Into the Deep* (Q4), an immersive experience drawing parallels between prehistoric marine ecosystems and Hawai'i's aquatic habitats, open through January 2026. ♦

## Public Programs & Events

The Division curated a robust calendar of programs that celebrated cultural heritage, science, and community: Q1 featured Museum After Hours spotlighting *Lele o Nā Manu*, *Welo Ka Hae Hawai'i*, *'Ula Nōweo* Reflection Series, and the 48th Annual Honolulu



Intertribal Powwow. Q2 included the Kāhuli Festival (800+ attendees), Hawaiian 'Ukulele Experience (1,000 attendees), and Lā Kū'oko'a celebration (600+ attendees), alongside a special FIFO screening. Q3 delivered signature events such as the Hokule'a 50th Anniversary celebration (1,500+ guests), Mālama Hāloa Kalo Festival & Symposium (4,000+ guests), and Museum After Hours: Traditions of the Pacific. Q4 introduced the Nāna i ke Kumu series honoring Mary Kawena Pukui, Celebrate Micronesia Festival (1,550+ attendees), and the Science & Sustainability Festival (2,000+ attendees), reinforcing the Museum's leadership in cultural and environmental stewardship. ♦

## Visitor Experience

The Museum welcomed over 175,000 visitors across the fiscal year, excluding school and private groups. Attendance peaked in Q1 with 53,000 visitors and remained strong through Q4 (49,000+), reflecting sustained community interest in exhibitions and programs. ♦



## Events & Facility Rentals

Recurring events such as the Kaiwi'ula Night Market and Grow Aloha plant adoption initiative anchored community engagement each quarter. Notable rentals included Hawaiian Airlines May Day (Q4), Kamehameha Schools' 100th Ho'olaule'a (Q3), and Hawai'i's Finest Anniversary Concert (Q2), showcasing the Museum as a premier venue for cultural and social gatherings.

FY25 was marked by innovation, collaboration, and cultural continuity. From the opening of the Kamāla'u-lahiwa 'Ohana Learning Center to landmark exhibitions and festivals, the Public Programs Division advanced its mission to connect people with Hawai'i's rich heritage and the broader Pacific through immersive experiences and educational excellence. Looking ahead, the Division will build on these successes to deepen community partnerships, expand digital learning, and deliver programs that inspire stewardship and pride for generations to come. ♦



# Informatics

The Informatics team has successfully launched the Axiell EMu Collections Management System (CMS) as the institution's centralized collections database. This milestone represents the culmination of several years of planning and development to create a modern data architecture for the Cultural Resources and Library & Archives departments. By consolidating collections data into a single platform, the Museum now has the ability to manage, preserve, and integrate information about our collections much more effectively.

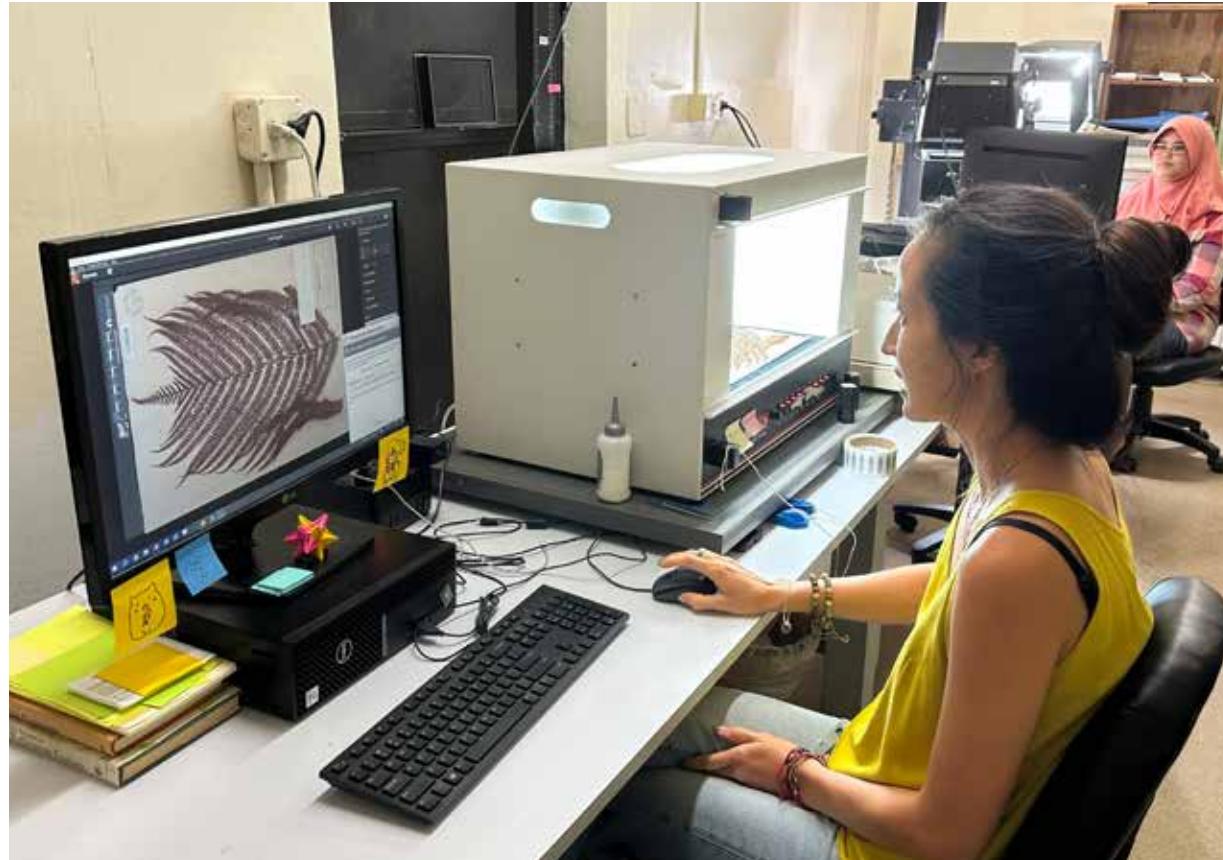
Over the past year, more than 35 staff members across Registration, Ethnology, Archaeology, Library, Archives, and Entomology have been trained to use the new CMS. The system currently houses over half a million records: 78,000 objects representing the material culture of Hawai'i and the Pacific in Ethnology; 178,000 records in Library & Archives, including books, serials, photographs, art and graphic materials, sound recordings, and manuscripts; and 193,000 specimens in Entomology, comprising pinned and fluid-preserved insects. These collections are supported by integrated authority files, including 25,000 subject and keyword terms, 26,000 scientific names, and 8,000 geographic locations. This level of standardization ensures consistency, improves data quality, and enables interoperability with global research networks.

The CMS introduces new capabilities for tracking the complete life history of collection items, including accession details, conservation treatments, exhibit and loan history. The system also provides support with integrated pest management, allowing collections managers to centralize data to help protect collections from damage caused by insects and other pests. Multimedia assets including high-resolution images, video, and audio recordings can be linked directly to collections, enriching interpretation and storytelling.

To support digitization and online access, two new positions were added to the Informatics team: a Collections Photographer and Asset Manager, and a Full Stack Web Developer. The photographer is leading efforts to digitize three-dimensional objects, design photography stations for vertebrate, invertebrate, and entomology collections, and assist with oral history documentation. These recordings, stored in the CMS and linked to collections, provide invaluable context for future research and interpretation. The web developer is building a new dynamic online collections and knowledge platform to deliver integrated, user-friendly access to data that supports research, education, and engages communities globally. This new site will also integrate directly with our *Mau ka Leo* storytelling platform, which celebrated its 250th story this year, offering engaging narratives that highlight the cultural and scientific significance of our holdings. ♦



The IT Department underwent a significant transition with the departure of its core IT team. As a search commenced for a replacement in the leadership role, the team was supplemented by a new Help Desk hire, and a contracted team of 5 engineers from DataHouse Consulting. The augmented IT team remained committed to multiple projects to refresh and rebuild the Museum's server and network infrastructure, and providing support to the Informatics team as the Digital Futures project progressed. The infrastructure projects will continue throughout FY2026, as the Digital Futures project will require significant processing, storage, and bandwidth demands as more of the Museum adopts the system and adds additional modules.



The IT team also prepared for the pending end of support for the Windows 10 operating system, inventorying and planning for the required update that will affect a large number of staff. The transition to also prompted additional system assessments and updates to ensure compatibility with Windows 11.

State operational funding has allowed for long overdue improvements to our IT infrastructure. Specifically, secure storage and redundancy, campus WiFi improvements, cybersecurity measures, and improved workflow systems have helped to modernize the workplace environment. ♦

## Information Technology

# Operations

Fire suppression work continues in Pākī and Pauahi buildings. Planning for the warehouse facility is ongoing with groundbreaking anticipated in November. This is the final project funded through the state's CIP appropriation.

Financial support for our utility costs is critical as these costs are not covered by grant funding or any other sources of funding. With valuable and irreplaceable collections stored across all buildings on our 15-acre campus, utilities, including water for fire prevention, electricity for collection environments and events are a major and ongoing financial burden.

In order to increase attendance and better tell our stories, we have been able to slightly elevate our marketing and advertising expenses. We are in our second year of contracting with a marketing agency who has helped us to refresh our brand, update our creative content, and manage our digital advertising. We have been able to elevate our visibility in both the local and visitor markets to support efforts around regenerative tourism.

Insurance costs were also covered by State Funding, which is very much appreciated as insurance costs continue to increase and coverage for our collections, property and staff is significant.

State funding allows the museum to continue to support our current staff, one of our most valuable assets, and make modest wage adjustments to bring our lowest-paid staff members to parity with local peers in the industry. Focused on our existing staff, we have not increased hiring at this time. Many staff continue to fill multiple roles until we are financially able to build capacity. Over the past year, we have seen a welcome boost in community events that bring additional modest revenue to the Museum, to cover reductions in federal grant funding. With the loss of federal grant funding, we may eventually lose some very talented grant-funded team members. We have tried to sustain them for as long as possible, but the future remains uncertain. As of this writing, FY25 audited financials are not yet complete and will be available upon request in early 2026. ♦



## State Budget Summary

FY25 STATE SUBSIDY	FY25 Budget	%	FY25 Actual Expenses
<b>IT RELATED</b>			
DR Fortress	\$761,430.95	11%	761,430.95
Luhina	33,252.00		33,620.00
The Drala Project - Vmware licenses	100,368.00		88,372.89
Adobe	38,238.73		38,238.73
Docusign	12,084.88		14,995.82
Cabling and IBM Storage	7,787.34		8,652.60
3i Networking Switch Replacement	405,000.00		413,750.00
AI Cybersecurity/IT Readiness Assessment	148,500.00		147,114.54
	16,200.00		16,686.37
<b>UTILITIES</b>	\$1,213,567.24	18%	1,213,567.24
HECO	960,000.00		960,706.04
Clearway Energy	58,000.00		57,293.96
Hawaiian Telcom	9,700.00		9,700.00
Board of Water	80,000.00		80,000.00
Hawaii Gas	6,000.00		6,000.00
Charter Communications (Oceanic)	32,000.00		32,000.00
Integrated Comtel	19,800.00		19,800.00
<b>MAINTENANCE</b>			
Centric Elevator	31,000.00		31,000.00
Sandwich Isle	2,828.52		2,828.52
Time Payment Corp	690.48		690.48
West Oahu Aggregate	1,398.24		1,398.24
HSI Mechanical	2,360.00		2,360.00
Pacific Rim Fire	1,740.00		1,740.00
Xtermco	1,050.00		1,050.00
Christopher Otis - Aquarium Maintenance	7,000.00		7,000.00
<b>OTHER OPERATING EXPENSES</b>	\$1,366,935.61	20%	1,366,935.61
Advertising	137,186.21		137,186.21
Exhibit Rental (Rental Fees and Shipping Costs)	379,975.00		379,975.00
Shipping and Mailing	19,800.00		19,800.00
Contracted Services	327,825.00		327,825.00
Supplies	125,000.00		125,000.00
Equipment Rental	34,126.00		34,126.00
Printing and Duplicating	81,900.00		81,900.00
Insurance	207,123.40		207,123.40
Trustee/custody and investment management fees (FHB)	54,000.00		54,000.00
<b>SALARIES</b>			
Non- Grant Funded Salaries	\$3,408,066.20	50%	3,408,066.20
<b>TOTAL</b>	\$6,750,000.00		6,750,000.00

If there are any further questions, please contact Janet Bullard at 808.848.4187 or via email at: janet.bullard@bishopmuseum.org.



BISHOP MUSEUM

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