

Ka‘Elele

The Messenger

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WINTER 2022





Exhibitions

Through Feb. 19, 2023

Taxonomy: Our Lives Depend On It

J. M. Long Gallery

Bishop Museum presents an interactive, multimedia exhibition that explores the importance of taxonomy — the identification and naming of plants and animals — and the important role it plays in our everyday lives. The exhibit features a variety of media including images, video, and interactives to tell our visitors stories of taxonomy and the people who do taxonomic work. *Taxonomy* will also showcase one of the largest displays of plants and animals representative of Bishop Museum's Natural Sciences Collection of more than 20 million specimens, much of which is normally not accessible to the public.

Opens Nov. 19, 2022

Backyard Adventures

Castle Memorial Building

Our backyard is full of science. Seventeen interactive gallery experiences explore the biological interactions between plants and insects — from the zoology of nocturnal animals to the horticultural know-how that goes into growing vegetables, the exhibit inspires the next generation of scientists by encouraging youth to see their own backyard from new perspectives.

Above

Senior Curator of Ichthyology Dr. Richard Pyle, Exhibit Designer DeAnne Kennedy, and Senior Curator of Entomology Dr. Neal Evenhuis at the opening of *Taxonomy: Our Lives Depend On It* in the J. M. Long Gallery.

Events

NOVEMBER

Friday | Nov. 11, 2022

Museum After Hours

5:30-9 p.m.

Campuswide

Mondays + Fridays | Nov. 7-28, 2022

Building a Coral

Science Adventure Center

Saturday | Nov. 19, 2022

Backyard Adventures General Public Opening

Castle Memorial Building

Sunday | Nov. 27, 2022

Living Culture Series

Hale Ikehu

DECEMBER

Friday | Dec. 9, 2022

Museum After Hours

5:30-9 p.m.

Campuswide

Saturdays | Dec. 3-17, 2022

Malacology Workshops

Atherton Hālau

December 2022 | Dates to be announced

Living Culture Series

JANUARY

Friday | Jan. 13, 2023

Museum After Hours

5:30-9 p.m.

Campuswide

February 2023 | Dates to be announced

Living Culture Series

FEBRUARY

Saturdays | Feb. 4-18, 2023

Pacific Center for Molecular Biology Workshops

Atherton Hālau

Friday | Feb. 10, 2023

Museum After Hours

5:30-9 p.m.

Campuswide

MARCH

Friday | March 10, 2023

Museum After Hours

5:30-9 p.m.

Campuswide

Saturday | March 11, 2023

MaMO Exhibition General Public Opening

J. M. Long Gallery

March 2023 | Dates to be announced

Living Culture Series

APRIL

Friday | April 14, 2023

Museum After Hours

5:30-9 p.m.

Campuswide

Saturday | April 22, 2023

Science and Sustainability Festival

Campuswide

For details and program registration visit
bishopmuseum.org/events

KA 'ELELE | WINTER 2022

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COVER | LeRoy Lindsay, Hawaiian cowboy at Parker Ranch; Waimea, Hawai'i, ca. 1965. Photo by the Hawaii Visitors Bureau, Bishop Museum Archives. SP 96017.

Aloha & Mahalo



Aloha mai kākou,

As Chair of the Board of Directors of Bishop Museum, I am most pleased to have the opportunity to communicate directly with YOU, our Members, stakeholders, supporters, donors, and friends, in order to highlight a few of the many activities with which we have been recently involved, and express our deep appreciation for all that you do.

The Museum held its first annual benefit dinner since the beginning of the coronavirus pandemic. The occasion called for some creative thinking, and the Programs and Outreach Committee was more than up to the task. On August 27, we enjoyed Kaiao: An Intimate Gathering to Greet the New Dawn, a gathering of 100 participants. In lieu of a large tent on the lawn, guests were welcomed into Hawaiian Hall to the sweet sounds of Jeff Peterson and his ki hō'alu (slack key guitar), where curators were available to talk in small groups about select treasures in the Museum's collection. Kumu Blaine Kia and his hālau performed outside, and the dinner was set up just outside Hawaiian Hall. A wonderful multi-course dinner was provided by Chef Roy Yamaguchi, and entertainment was provided by the multiple Nā Hōkū Hanohano Award-winning group, Keauhou. Definitely a most remarkable evening, with a flow of positive feelings and comments.

In addition, we have had a number of very successful exhibits and events, including the opening of *The Healer Stones of Kapaemahu*, which received attention in the national press; *Taxonomy: Our Lives Depend On It*, an exhibition setting forth the incredible contribution of the Museum to research and the natural environment in which we live; and the exciting 46th Annual Honolulu Intertribal Powwow 2022, which included multiple indigenous tribes from the Continent and attracted over 2,700 visitors.

I especially want to take this opportunity to express our most sincere appreciation to the members of the State Legislature for the generous contribution to the kuleana of the Museum to preserve and protect its over 25 million cultural treasures and natural science specimens. This is most welcome for repair and maintenance of buildings and services, and for allowing us to support our staff by filling some long vacant positions and achieving pay equity for others. We will continue to seek to earn your support for Hawai'i's museum.

We also want to acknowledge the wonderful and continuing support of our Congressional delegation, who are continuing to tell our story and offer their support and understanding of the value of our irreplaceable collections and the ongoing research addressing biodiversity and conservation of our precious 'āina and across the Pacific.

Again, mahalo nui loa for being such an integral part of our amazing Museum.

Me ke aloha,
Wayne M. Pitluck
Chairman of the Board

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TAXONOMY

What Is It, and Why do Our Lives Depend on It?

by Dr. Richard Pyle





Taxonomy: Our Lives Depend On It exhibition in the J. M. Long Gallery

No, it's not the process of preserving an animal's body by stuffing and mounting it for display. Nor does it have anything to do with what we submit to the IRS before the April 15 deadline. So ... what, then, is "Taxonomy," and why has Bishop Museum just opened an entire exhibit on it in the J. M. Long Gallery? And why, exactly, do our lives depend on it, as the full title of the new exhibit suggests?

In short, taxonomy is the science of identifying, naming, and classifying organisms, and it forms the basic foundation for characterizing and understanding our planet's biodiversity. Biodiversity is the totality of all living things on Earth, from the tiniest bacteria to the largest whale, and everything in between (including humans). Biodiversity is, by far, the most valuable resource for the future of humanity that exists on planet Earth. Biodiversity provides all the oxygen we breathe, and is responsible for removing more carbon dioxide from the atmosphere than any other process. Biodiversity is the source of all of our food, both directly in the form of what we eat, and also indirectly in the form of pollinating our crops. Biodiversity is a major source of new drug discovery, and the cures for perhaps most (if not all) human diseases likely exist

Bottom Left

DeAnne Kennedy, exhibit designer at Bishop Museum, describing classification systems on the "Tree of Life," a timeline of the history of taxonomy throughout Hawai'i and the Pacific showcasing how technological advancements have improved the taxonomic process.

Bottom Right

The exhibit includes the largest public display of specimens from our Natural Science Collections in the Museum's history.

somewhere within the vast scope of living things. Global biodiversity is the world's most important library of information, each species representing one of millions of "books" containing secrets that are critical to our own survival.

After 250 years of painstaking work, taxonomists have cataloged and named a little more than two million species of life on Earth. How much do we have left to discover and document? The surprising answer is: We don't know. Some scientists have suggested that there are "only" about 10 million species total, and even by that very conservative estimate, we've so far only named about one-fifth (20%) of all life. Other estimates put the total species count at more than a hundred million—meaning that the catalog of global biodiversity may be only 2% complete! As we face what may be Earth's sixth great extinction event unfolding, it is now more urgent than ever to document all living things before they are lost forever.

Taxonomy represents the first and most important step in documenting biodiversity, and the scientists who dedicate their lives to it — taxonomists — are the librarians of the greatest library on Earth.

Taxonomy: Our Lives Depend On It

On exhibit through Feb. 19, 2023
J. M. Long Gallery

Hawai'i Master Naturalist:

Building Capacity for Conservation in the Islands

by Ken Hayes and Kelli DeLeon

Hawai'i has the dubious distinction of being home to nearly half of all plants and animals listed as endangered under the U.S. Endangered Species Act.

Stemming the tide of extinction requires knowledge of multiple aspects of biodiversity, and a well-trained workforce capable of implementing strategies for managing ecosystems for future generations. Unfortunately, conservation funding globally is inadequate to meet these needs, especially here in Hawai'i where so many plants, animals, and whole ecosystems are threatened with extinction. Hawai'i's conservation community relies heavily on an army of dedicated volunteers who work with state, federal, private, and nonprofit organizations to carry out the critical work of resource management. Traditionally, volunteers receive on the job training, which may or may not include broader training in the natural and cultural history of Hawai'i. A fundamental understanding of the natural and cultural history of the Islands is beneficial to effective conservation and resource management. While there are options for getting degrees in resource management and conservation at Hawai'i's many secondary education institutes, there are no opportunities for nontraditional students to receive basic training in these fields without enrolling in college. To help fill this need and broaden training opportunities in biocultural history and conservation, Bishop Museum, in cooperation with the Alliance of Natural Resource Outreach and Service Programs, is partnering with local agencies and community members to develop the Hawai'i Master Naturalist Program. Master naturalist programs offer nationally recognized, science-based outreach and service training for conservation volunteers in natural

resource management. There are more than 29 states with master naturalist programs, but one does not currently exist in Hawai'i.

Building on the deep connections of native Hawaiians with nature and an understanding of humans' dependence on healthy ecosystems, the Hawai'i Master Naturalist program will help contribute to reinvigorating the biocultural heritage and building the capacity for effective conservation and cultural education in our communities. The program will establish a broad Museum-based training curriculum in natural and cultural history, with Museum leaders and their partners teaching these courses and incorporating our extensive natural history and cultural collections in a place-based framework.

Training will include approximately 48 hours of classroom instruction and activities, in addition to field-based conservation training with experts in the field of resource conservation and cultural practices. Upon program completion, graduates will be certified and required to provide a minimum of 20 hours of annual volunteer service and stewardship with our approved partners aimed at conserving natural resources and fostering citizen science projects.

Those interested in finding out more can visit <https://www.bishopmuseum.org/hmnp/>. If you are interested in becoming a partner or being kept updated on the program as it develops, email hmnp@bishopmuseum.org.



- 1 Volunteer Jaime Tanino helping survey for nonnative snails in nursery habitats. Data from these studies are helping better control the spread of invasives and providing data to develop best sanitary practices to help ensure biosecurity in the Islands.
- 2 Partnering with the National Tropical Botanical Garden and other agencies throughout the Islands will allow the Hawai'i Master Naturalist program to provide training in conservation leadership and stewardship to a corps of volunteers across the Islands. The integration of indigenous knowledge and contemporary conservation approaches will provide effective engagement needed to conserve Hawai'i's biocultural resources for future generations.
- 3 Volunteers, interns, and staff from Malacology and PCMB celebrating another summer of training and capacity building for Museum research, conservation, and natural resource management.
- 4 Volunteers from Bishop Museum helping weed and maintain endangered snail enclosures on O'ahu. These snail enclosures are a critical tool in the effort to save Hawai'i's endemic land snails. These protective areas allow the release of captive reared native snails back into a semi-wild environment while researchers and resource managers find solutions for long term sustainability for these fragile ecosystems. Partners like the Department of Land and Natural Resources' Snail Extinction Program provide service opportunities for certified Master Naturalists.



Introducing Plants of Hawai‘i www.plantsofhawaii.org

by Timothy Gallaher

In spite of its extreme isolation, plants reached the Hawaiian archipelago, established, survived, and reproduced, radiating into many new species in various habitats and on different islands. Approximately 90% of Hawai‘i’s 1,370 native fern and flowering plant taxa (kinds of plants) are endemic—found nowhere else on Earth.

Since 1896, Bishop Museum botanists have been responsible for collecting and preserving information about all native and nonnative plants in Hawai‘i. The Museum holds over 700,000 botanical specimens, including material collected in Hawai‘i in 1779 during Captain James Cook’s ill-fated third voyage of the Pacific. Directed by Collections Manager Barbara Kennedy, the staff oversees the vital preservation of this vast repository and its associated data.

Our botanists have published many prominent publications about the flora of Hawai‘i, including *Manual of the Flowering Plants of Hawai‘i* (1990), providing complete descriptions of all native and naturalized (nonnative plants that spread on their own) flowering plants; *A Tropical Garden Flora*



A specimen of *Adenophorus tripinnatifidus* (with no known Hawaiian name) collected by research botanist Miles Thomas from Kaluanui in the northern Ko‘olau range on O‘ahu.



Top

A selection of plants found only in Hawai'i:

- 1 *Philonotis sullivantii*, a moss. Photo taken at Mt. Ka'ala, O'ahu.
- 2 An orange-flowered 'ōhi'a (*Metrosideros polymorpha*). Photo taken in Wai'anae, O'ahu.
- 3 The Hawaiian jewel orchid, *Anoectochilus sandwicensis*.
- 4 'Ama'u (*Sadleria cyatheoides*), an endemic Hawaiian fern.
- 5 'Olopū (*Viola chamissoniana* subsp. *trachelifolia*). Photo taken at Palikea, O'ahu.
- 6 *Gouania vitifolia*, a critically endangered climbing shrub.

Images 1, 4, & 5 by Miles Thomas. Images 2, 3, & 6 by Francis Joy.

Left

The home page of *Plants of Hawai'i*, where the public can easily search for information about our flora using scientific name, Hawaiian or English common names, island, or other plant characters.

(2005), describing plants in cultivation in Hawai'i and *Marine Red Algae of the Hawaiian Islands* (1999) and *Marine Green and Brown Algae of the Hawaiian Islands* (2004), authoritative resources for our marine algae (aka limu), both written by the late Dr. Isabella Abbott, renowned phycologist and Hawaiian ethnobotanist. Research Botanist Miles Thomas is currently revising *Hawai'i's Ferns and Fern Allies* (2003), which will be published soon in print and digital form.

Today, these books are critical primary resources about plants in Hawai'i for scientists, conservation workers, policymakers, and others. However, because of the ever-changing nature of Hawai'i's biodiversity, printed information naturally becomes quickly outdated. When *Manual of the Flowering Plants of Hawai'i* was published in 1990, the Hawaiian flora included 956 species of native and 861 naturalized flowering plants. Since then, 100 new native species have been described and over 760 introduced species

have become naturalized. Senior Research Botanist Clyde Imada has carefully curated information about new discoveries, name changes, and new-species introductions and has regularly published checklist updates of the native and naturalized plants.

To keep this information up-to-date and available to the public, we have launched a new website, *Plants of Hawai'i* (www.plantsofhawaii.org), which will host an updateable checklist and include thousands of field and specimen images, descriptions, and geographic distribution data for flowering plants. Data on cultivated plants and those that show signs of becoming naturalized will be added, and eventually, data and images will be added for ferns, mosses, liverworts, hornworts, and algae.

We have developed tools to help users build a species list by island, plant traits, or other criteria. Detailed distribution maps will be added soon.

As an essential tool for conservation workers and researchers, we also hope the easy-to-use interface will make this website a valuable resource for the general public. Best of all, regular updates will keep the data current!

Plants of Hawai'i was developed with funding from the Hawai'i Invasive Species Council and the Institute for Museum and Library Services.

By the way, we love volunteers; no experience is necessary! To get involved, please contact us at botany@bishopmuseum.org.



Mau ka Leo:

Safeguarding Hawai‘i’s Genealogy of Knowledge and Lived Experience

By Emma Bornstein, Leah Caldeira & Melissa Tulig

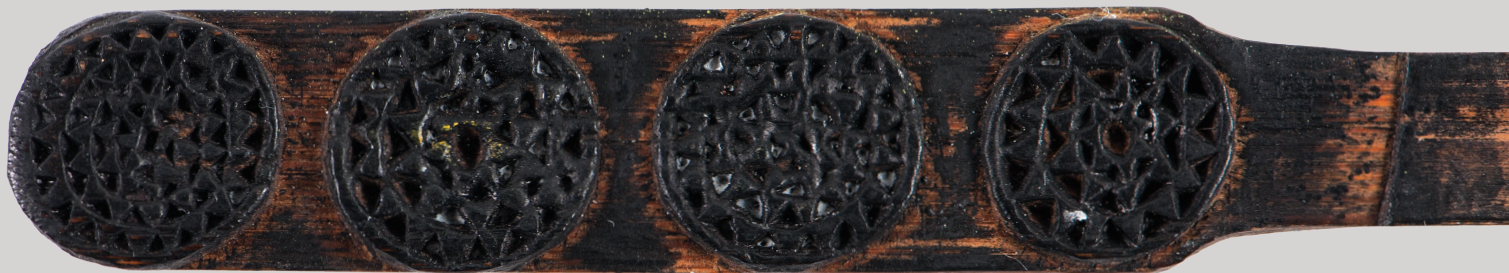
Above

Photograph of the original royal palace in Honolulu, ca. 1865. This palace was inhabited by Hawaiian royalty from 1846 to 1878, until it was demolished and replaced by the present 'Iolani Palace in the same location. Bishop Museum Archives. SP 45401.

Right

Pāpale 'ie, gifted to Princess Ka'ūlani by Princess Ruth Ke'elikōlani. It was made from wood shavings from the first 'Iolani Palace, which were woven into a braid and sewn to form a bonnet-style hat. Bishop Museum Ethnology Collection, Ka'ūlani Collection, 10398. Photo by David Franzen, © Bishop Museum; Bishop Museum Archives. Q 205655.





Detail of 'ohe kāpala, used to decorate kapa. The circular stamp design is believed to be a hā'uke'uke or wana (sea urchin) motif. Bishop Museum Ethnology Collection, 2008.052.200. Photo by David Franzen, © Bishop Museum; Bishop Museum Archives. Q 217086.



We must preserve the connections between the materials we care for and the people who contribute to their meaning.

Through its extensive collections, Bishop Museum aims to tell the stories of Hawai'i from the perspective of its Indigenous people. Our humanities collections contain three million cultural items, archaeological materials, historical photographs, works of art, audio recordings, books, and manuscripts, comprising more than half of the world's primary source material for Hawai'i and the Pacific. But with only 5% of our collections currently available online, they are mostly inaccessible.

Through our Digital Futures Initiative, Bishop Museum will digitize more of our collections and make content publicly accessible. Yet we recognize that digitization alone does not give sufficient context or meaning to these materials, nor does it explain how different items relate to each other in significant ways. Objects in our collections represent a piece of the collective history of the Hawaiian people — but it is the knowledge and stories behind these objects that bring them to life.

Many of these stories are held by the Museum's staff, curators, and collection managers, whose knowledge is rooted in the collections they care for. Their combined experiences have given them a deepened understanding of the contexts behind our cultural

treasures, and the Museum itself. Their perspectives are part of a genealogy of knowledge that's both institutional and cultural, both lived and inherited. From a heritage based on oral tradition, Hawaiians on staff are especially vital to the perpetuation of Museum history and Hawaiian culture, as they share what they alone retain. These are the voices of knowledge that must be stewarded and given a platform.

Through *Mau ka Leo*, a digital storytelling project, Bishop Museum will capture institutional and cultural knowledge held by staff, so that the collective voice(s) of the Museum can endure for future generations. In tandem with the centralization of our collections data through the Digital Futures Initiative, *Mau ka Leo* will document this knowledge as multimedia stories gathered from staff through various conversations, writings, and research. The project will offer a deeper insight into our materials that far exceeds what standard metadata can capture. This information will be made publicly accessible through a new online platform to be launched in January 2023.

Stories in *Mau ka Leo* will highlight the specific expertise of staff, as well as the cross-departmental connections between items. An exploration of kapa

tools will be shared by kapa maker and Cultural Resource Specialist, Kamalu du Preez. Her perspective into the nature inspirations behind 'ohe kāpala designs ties these objects to the natural science collections. Historian and Curator DeSoto Brown will share rare materials from the Archives which sometimes overlap with other departments in surprising ways. One story will feature photographs of the original 'Iolani Palace alongside hats made of materials from the palace's construction. With the ability to weave and connect these voices, the Museum's documented knowledge will expand its reach to better serve our community.

By sharing staff perspectives in an online platform, *Mau ka Leo* will celebrate the knowledge of ancestral presence by Native Hawaiians in all geographic spaces. It will allow us to honor the experiences of Bishop Museum staff, and to preserve untold stories that for too long have remained inaccessible.

Support for *Mau ka Leo* is provided by the National Endowment for the Humanities American Rescue Plan: Humanities Organizations program (ZDH-283709).



Hanging on the Edge of a Waterfall:

The Race to Document and Conserve Hawai'i's Highly Threatened Endemic Freshwater Snails **by Ken Hayes and Norine Yeung**

There are more than 750 species of land snails in Hawai'i, but few people know that our Islands are also home to a small radiation of endemic freshwater snails in the family Lymnaeidae (pond snails). Pond snails have a global distribution, including fossils discovered in Antarctica. As their common name implies, they are primarily associated with still waters (ponds, lakes, wetlands) where they feed on algae and lay eggs on submerged vegetation and other substrates (rocks, wood). Our rare, and often elusive, native lymnaeids do not live in ponds, but instead have adapted to seepy rock walls at the edges of waterfalls. Historically, scientists have recognized 4-5 species of lymnaeids in Hawai'i, with some restricted to a single island, like Newcomb's snail (*Erinna newcomb*) on Kaua'i, while others have been recorded as occurring on multiple islands (e.g. *Erinna aulacospira*, *Pseudisidora rubella*). Newcomb's snail is the only Hawaiian pond snail listed as threatened under the U.S. Endangered Species Act, and as vulnerable to extinction by the International Union for the Conservation of Nature. The lack of protection for other lymnaeids in part results from a lack of study of these snails for more than half a century. A Swedish researcher, Bengt Hubendick, was the last snail biologist to study Hawaiian pond snails from the Bishop Museum Malacology collection. In his 1952 publication in the Bishop Museum Occasional Papers, he wrote that the collections he examined "... have proved the Hawaiian lymnaeid fauna to be the richest in the world in relation to its restricted geographic range." Despite this bold proclamation, no extensive research into

Hawaiian lymnaeid biogeography, conservation, taxonomy, or general biology has ever been completed, leaving large gaps in our knowledge of Hawaiian lymnaeid evolution, diversity, and conservation.

Kenneth Hayes and Norine Yeung, researchers from Bishop Museum's Malacology collection and Pacific Center for Molecular Biodiversity, were awarded a two-year research grant by the U.S. Fish and Wildlife Service to begin filling some of these knowledge gaps for Hawaiian lymnaeids, and to update their taxonomy, distributions, and conservation status. The work involves extensive field surveys in remote reaches of valleys on the main Hawaiian Islands, accessed primarily via helicopter and extensive stream hiking. This work is made possible through the robust partnerships with state and private conservation agencies and their staff.

Although still in the early stages, the project has already revealed many misconceptions about lymnaeid biodiversity in Hawai'i. Using DNA sequences and shell morphology, Hayes and colleagues have now discovered more than 20 distinct lineages of endemic lymnaeids, many of which are restricted to waterfalls and seeps. The extensive taxonomic work needed to determine if these snails are new species, or merely genetically distinct populations of known species, is just beginning, but already the implications of these results for conservation are immense. For example, in the previous conservation assessment of Newcomb's snail it was

estimated that there were fewer than 10 populations and no more than 10,000 individuals, with no understanding of how they were related or connected. If it turns out that Newcomb's snail is a complex of distinct lineages or species, with little to no genetic connectivity among them, their conservation status is even more dire, with fewer individuals distributed over a handful of populations. The good news is that many of the lymnaeid populations discovered appear to be much larger than expected, with tens of thousands of individuals in some sites. Unfortunately, other species, for example the unique left-handed lymnaeids found only in Hawai'i, are in much worse shape, with only one on O'ahu and the other on Kaua'i, both with fewer than 30 individuals. Not only are these snails literally hanging on to the edge of waterfalls where they live, but they are also figuratively hanging on for survival, as climate change, impacts from invasive species, and alteration of their highly specialized habitat continues to negatively impact them. As all these impacts combine to reduce biodiversity, and by extension, ecosystem stability, in Hawai'i, we race to document and save them before it is too late.

Inset

An extremely rare left-colling *Pseudisidora producta*. Hawai'i is home to the only wholly left-handed species of lymnaeids. This is one of only three species seen in the last few decades.

Facing Page

Blue Hole Kaua'i (Wailua Headwaters) at the base of Mt. Waialeale on Kaua'i. In the lower middle of the photo is a team of researchers searching for native lymnaeids in one of the wettest spots in the Islands.





Revitalizing Public Programs: Culture, Science, and Beyond

Jeremy Frank, Collections Manager, gave visitors a peek through the stacks during August's Entomology tours.

By Taylour Chang

Winter programs revitalize enduring initiatives in a way that deepens our understanding of Public Programs for both Cultural Resources and Natural Sciences — during this pivotal time, we establish programmatic building blocks for future expressions of the Museum's knowledge core. This season marks just the beginning of an ongoing evolution of programs that will ultimately reimagine how the faces of both Culture and Science converge and go beyond longstanding dichotomies of worldviews.

In November, the Museum is excited to relaunch the Living Culture Series in collaboration with the “Building a Pacific Pipeline: Te Rangi Hiroa Curators and Caretakers Program.” In addition to connecting skilled cultural practitioners with a general public seeking to learn about cultural practices, we also invite practitioners to tell their own stories and share their ‘ike around objects in the collection to help build out Bishop Museum's documentation database so that the ‘ike kūpuna of the collection can be made more accessible to future generations. As the community plays a key role in the Museum's ongoing research and conservation work, we welcome feedback from practitioners, whose expertise will inform the Museum's future research, programs, and priorities.

Taxonomy: Our Lives Depend On It inspired a robust monthly series of diverse Natural Science programs. As the exhibit highlights

the legacy of Bishop Museum's international role in naming and classifying organisms, each month, we spotlight one of the Museum's natural science collections and how each collection makes the Museum a central hub for research and biodiversity in the Pacific. From behind-the-scenes tours with collection managers, building a coral reef in the Science Adventure Center, planting in the Nā Ulu Kaiwi'ula Native Hawaiian Garden, to learning about the Museum's live snail rearing initiatives, the programming paints a holistic picture of the breadth and depth of the Natural Science staff's ongoing research and community engagements.

2022

AUGUST SPOTLIGHT: ENTOMOLOGY

SEPTEMBER SPOTLIGHT: BOTANY

OCTOBER SPOTLIGHT: ICHTHYOLOGY

NOVEMBER SPOTLIGHT: INVERTEBRATE ZOOLOGY

DECEMBER SPOTLIGHT: MALACOLOGY

2023

JANUARY SPOTLIGHT: VERTEBRATE ZOOLOGY

FEBRUARY SPOTLIGHT: PACIFIC CENTER FOR MOLECULAR BIOLOGY

**For dates and program registration, visit
bishopmuseum.org/events**

Mahalo, Dr. Maly

Twenty Years of Service and Financial Support



Dr. Jacqueline Maly — or Keakelani, as she likes to be referred to — is a retired science professor at Windward Community College. She is also a long term volunteer and Docent at Bishop Museum since 2001, one of the longest serving Docents in Hawaiian Hall.

She starts every week at the Museum the same way. “Every Sunday, when I arrive, I greet Kāne,” she explains. Kāneikōkalo is a stone image in the Museum’s Hawaiian Hall.

Dr. Maly is a certified Hawaiian Hall Docent and has taken every docent training cohort since her first. She is also certified for Pacific Hall, which explores Moananuiākea, the wide expanse of Oceania.

“Watching the Museum grow over the years, and immersing myself more and more in the culture of our islands, has enriched me in unbelievable ways,” Dr. Maly shares. “Taking the (Museum’s) behind-the-scenes tours has led me to understand what a special treasure this place is and has become — not only for the cultural traditions it preserves but for the scientific storehouse it is.”

When Sputnik launched, the “space race” was on, and with it, the need to upgrade education. That led to the National Science Foundation offering grants to high school teachers. “I came to the University of Hawai‘i on one of those grants to study radiation biology. I fell in love with Hawai‘i, and the rest is history,” she says.

“Bishop Museum is a world-class institution and it needs to be handicap accessible.”

In 1962, Dr. Maly first visited Bishop Museum, and because of her long-term interest in astronomy, she volunteered to assist Mr. Bunton, the first planetarium manager. She later married Ted Maly, the masonry contractor who helped build the planetarium.

Dr. Maly has been both a longtime Bishop Museum volunteer and a donor. Her latest contributions improved accessibility for Museum employees and visitors with disabilities. “Bishop Museum is world-class institution and it really needs to be handicap accessible. That continues to be my goal.”

Achieving that goal involved installing an actuator system, or an automatic door opener, at the glass entry doors to the Hawaiian Hall Atrium. She has also provided funding for a similar system in the Science Adventure Center, as well as restructuring areas in the Museum’s parking lot for accessibility upgrades.

Dr. Maly’s motivation is fueled not just by her passion for cultural knowledge but familial ties as well. “My son, Kepā Maly, is fluent in the Hawaiian language. He and his wife restored the Lāna‘i Cultural Museum when they lived on that island, and he continues on their board of directors,” she shares. “He is well-known for his work in many areas of cultural preservation. I often say, ‘I became a Bishop Museum Docent to try and live up to my son’s reputation.’”

Mahalo to Dr. Maly for her years of service.

To further support Bishop Museum’s mission, gifts can be made at www.bishopmuseum.org/donate.



Kumu Hinaleimoana Wong-Kalu (far left), Native Hawaiian teacher, cultural practitioner, Qwaves filmmaker and co-curator of *The Healer Stones of Kapaemahu*, shared some behind-the-scenes stories of the research, curation, and design process for this extraordinary exhibition.

Members Enjoy Exclusive First-Access to our Dynamic Exhibitions

This summer saw the opening of two original exhibitions, *The Healer Stones of Kapaemahu* in June and *Taxonomy: Our Lives Depend On It* in July, which highlight historical topics and areas of research at Bishop Museum. Museum Members enjoyed early walkthroughs of the exhibitions led by co-curators and designers before their public openings.

These Member previews allow for connecting with our in-house and guest curators in an intimate group, and grant members access to the stories of how these exhibits came to be, and behind-the-scenes context to their stories.

***The Healer Stones of Kapaemahu* exhibition team:**

DeSoto Brown, Bishop Museum Historian and Curator for Archives

Kumu Hinaleimoana Wong-Kalu, Native Hawaiian teacher, cultural practitioner, Qwaves filmmaker and co-curator

Dean Hamer, Qwaves filmmaker and co-curator

Joe Wilson, Qwaves filmmaker and co-curator

Teora Morris, Bishop Museum Press Operations Manager

Michael Wilson, Bishop Museum Exhibit Designer

***The Taxonomy: Our Lives Depend On It* exhibition team:**

Richard L. Pyle, Ph.D., Senior Curator of Ichthyology | Director of XCoRE, Bishop Museum

Neal L. Evenhuis, Senior Curator of Entomology, Bishop Museum

DeAnne Kennedy, Exhibit Designer, Bishop Museum

Kapalikūokalani Maile, Education Programs Manager, Bishop Museum

Sam 'Ōhu Gon III, Senior Scientist and Cultural Advisor to The Nature Conservancy



Richard L. Pyle, Ph.D., senior curator of Ichthyology and director of XCoRE at Bishop Museum, describes some of the most published Bishop Museum Taxonomists at the "Wall of Heroes".



Kaiao:

An Intimate Gathering to Greet the New Dawn



On Aug. 27, 2022, Bishop Museum's supporters and community partners gathered to celebrate the Kaiao Dinner, "An Intimate Gathering to Greet the New Dawn." Billy Richards and Debbie Nakanelua-Richards served as event Honorary Co-chairs for this special and unique

event held in and around Hawaiian Hall. Guests enjoyed an exquisite three-course meal on our Great Lawn, prepared by Chef Roy Yamaguchi.

Grammy Award-winning guitarist Jeff Peterson entertained those inside Hawaiian Hall. Multiple Nā Hōkū Hanohano Award-winning group Keauhou performed during dinner, while Kumu Blaine Kamalani Kia with Hālau Ka Waikahe Lani Mālie greeted our guests as they arrived.

Seeing our guests interact with some of our Cultural and Natural Science curators throughout the Museum was especially wonderful. Each of the curators shared a special presentation from our collections or exhibitions with the attendees.



Library & Archives Digital Asset Manager **Nathanael Smith**

As Digital Asset Manager for the Library & Archives, my day-to-day work at Bishop Museum can vary greatly. However, nearly everything I do centers around finding ways to use technology to make our amazing collections easier to use. One way we accomplish this is digitization, which means photographing collections items using specialized equipment. Another is through organizing and maintaining our digital files and databases.

One newer aspect of my work is assisting patrons who visit the Library & Archives in person during our public access hours. When I started my current role, the pandemic prevented us from assisting researchers in person. But since reopening, I have been able to help visitors as they research everything from their family genealogy to the role Hawai'i played in 19th-century

international maritime trade. You never know what sort of questions will come up during public access. The depth and breadth of our collections allow for a variety of inquiries, giving me a greater respect for the significance of our collections to the community. It has been both challenging and rewarding.

All our work in Library & Archives is in service to our community and the astounding stories we at the Museum have the privilege of looking after. As Digital Asset Manager, I would ideally like our digital tools to be almost invisible, allowing the collection and the stories within to shine without technology getting in the way. That isn't always easy to achieve, but we keep working to fix the bugs, making things better, easier to use, and more accessible!

IN MEMORIAM

Honoring Adrienne L. Kaeppler

by Patrick V. Kirch, Ph.D., Bishop Museum Board member



In 1959, an aspiring anthropology student who had recently graduated with degrees in English and Music from the University of Wisconsin, Milwaukee, moved to Honolulu to take up graduate studies at the University of Hawai'i. In 1964, Adrienne Kaeppler began her doctoral research on the structure of traditional Tongan dance, and became the first recipient of a doctorate in Anthropology from UH Mānoa in 1967. This was the beginning of Adrienne's long and distinguished career in Polynesian anthropology, with an emphasis on dance, music, and material culture.

While a UH graduate student, Adrienne began working at Bishop Museum, first as an assistant to Edwin Bryan, Jr. in the Pacific Scientific Information Center. After graduating from UH, Adrienne was appointed Research Ethnologist, with responsibility for the Museum's extensive ethnographic collection from across Polynesia. Over the next few years, Adrienne extensively researched artifacts that had been collected on the three Pacific voyages of Captain James Cook in the late 18th century, which were dispersed across various museums and private collections, primarily in the United Kingdom and Europe. This exhaustive research culminated in the unprecedented Bishop Museum exhibit, *Artificial Curiosities*, bringing more than 400 of these precious objects to the Museum in 1978.

Kaeppler was lured away from Bishop Museum to become the Pacific Islands Curator at the Smithsonian's National Museum of Natural History, a position she held until her death at age 86. However, Adrienne continued her collaboration with scholars at Bishop Museum, and in 1993 Bishop Museum Press published "Hula Pahu," her authoritative study of traditional Hawaiian drum dances.

Over the course of her long career, Adrienne published more than 300 scholarly articles and books, on topics ranging from music and dance, to kinship and social organization, to traditional arts and crafts such as barkcloth and basketry. She also continued to research the artifacts collected by Captain Cook and other early European explorers. Adrienne's accomplishments were recognized by numerous awards and accolades, including Commander of the Royal Household Order of the Kingdom of Tonga.

Above

Adrienne Kaeppler researching in Bishop Museum Library, Honolulu, O'ahu, Hawai'i, ca. 1971.
Bishop Museum Archives. SP 215942.



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Our backyard is full of science. Seventeen interactive gallery experiences explore the biological interactions between plants and insects — from the zoology of nocturnal animals to the horticultural know-how that goes into growing vegetables, the exhibit inspires the next generation of scientists by encouraging youth to see their own backyard from new perspectives.



Bishop Museum inspires our community and visitors through the exploration, celebration, and perpetuation of the extraordinary history, culture, and environment of Hawai'i and the Pacific.

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If you have questions about this issue of *Ka 'Elele*, please contact the Bishop Museum Institutional Advancement Division at 808.847.8281.

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Welehu ka malama, liko ka 'ōhi'a.

Welehu is the month [when] the 'ōhi'a trees are putting forth leaf buds.

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