



Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve

RESERVE ADVISORY COUNCIL MEETING

RAC Virtual Meeting via GoToWebinar

September 22, 2021

9:00 AM – 1:00 PM

Attendees:

Council Members: William Ailā, Audrey Newman, Bonnie Kahapea-Tanner, Don Schug, Halealoha Ayau, Linda Paul, Kanoe Morishige, Judith Cucco, Mark Hixon, Pelika Andrade, Bill Walsh, Nakoā Goo, Thorne Abbott, Bob Leinau, Doug Fetterly, Mark Hixon, Heather Howard, Paul Badgley, Jance Fukawa, Josh DeMello, Maile Norman, Ka‘aleleo Wong, Hōkū Ka‘aekuahiwi, Dan Polhemus, Amanda Boyd, Cynthia Vanderlip

Staff and Others: Jennifer Crawford, Athline Clark, Eric Roberts, Kristina Kekuewa, Justin Umholtz, Malia Evans, Alyssa Miller, Virginia Branco, Camille Jones, Brian Hauk, Jason Leonard, Andy Collins, Keo Lopes, Kilo Ka‘awa-Gonzales, Michelle Burt, Randy Kosaki, Phillip Howard, Wayne Sentman, Barb Mayer, Dave Raney, Tammy Harp

Welcome (Paul)

The meeting opened with a welcome by Vice-Chair Paul, and an opening protocol conducted by Malia Evans.

Roll call, Introductions, Review and Approval of Agenda (Ailā Jr.)

Roll call was taken by Jennifer Crawford. Review and approval of the agenda was conducted by Chair Ailā, Jr.. Representative Cucco moved to accept the agenda, and Representative Paul seconded the motion. The agenda was adopted unanimously with one addition by Clark.

Review & approval of June 30, 2021 Meeting Minutes (Ailā Jr.)

Review and approval of the meeting minutes were conducted by Chair Ailā, Jr.. Representative Cucco suggested amending the minutes to correct typographical errors. Representative Paul moved to accept the minutes as amended, and Representative Cucco seconded the motion. The minutes for the June 30 meetings were adopted unanimously.

Review & Summary of Previous Issues, Action Items and Status (Clark)

- State of Hawai‘i Action: Keep RAC informed on 30x30 Initiative -*This item was covered during agency updates*
- ONMS Action: Keep RAC informed of NFWF funding and activities - A report/brochure summarizing research accomplishments under NFWF was sent to all in August
- NMFS Action: Keep RAC informed of any changes to the Magnuson-Stevens Fishery Conservation and Management Act- *This item was covered during agency updates*

New items

RAC Coordinator Jennifer Crawford departure. Jenny bids aloha to the RAC after 4 years. She introduced Camille Jones, who will be filling this position. ONMS and the RAC expressed their sincere appreciation for all of Jenny’s years of service and support for Papahānaumokuākea. ONMS presented Jenny with a remembrance photo of Mokumanama and Oli Mahalo by Kalani Quiocho and Malia Evans.

Monument Co-Trustee/Management Agency Updates/Highlights

NOAA -Office of National Marine Sanctuaries (Clark)

Superintendent Clark presented highlights from the last quarter, including:

- OHA released Mai Ka Pō Mai for the Monument; this is a landmark document



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- OHA + NMSF hosted a TV series on 'Voices of PMNM' shown on 3 local TV channels
- Blue Beacon collaborative conservation that celebrates and preserves the cultural heritage of indigenous communities
- Blue Beacon 15th anniversary celebration included American Samoa, PMNM, and Palau
- Introduction of Kilo Ka'awa-Gonzales, a Sea Grant Gordon-Grau fellow working on the Lalo resilience strategy
- Randy Kosaki was a crew member on the Polynesian Voyaging Society voyage to Nihoa, Mokumanamana and Lalo with Hōkūle'a and Hikianalia. The crew discovered a new shipwreck site at Lalo
- Eight page permitted activities summary for 2020 (SOAP) was published, with an associated story map in collaboration with PIRO and the Monument permit coordinators. Copies and the link to the story map were sent to all RAC members
- Field Team acquired a new ROV to do hull inspections of vessels to ensure they are free of invasive species before entering the Monument
- "Third Thursday by the Bay," by Mokuapapa Discovery Center- several great PMNM talks by experts including impacts of climate change, and presentation on songbirds in PMNM
- Celebrated GIYS events: storytelling session with Caren Loebel-Fried about albatross; co-hosted a talk on banks and seamounts
- Continued to do virtual presentations/lessons to school groups this summer, continuing into this fall
- Honoring Dr. Kem Lowry, a long time RAC member, who passed away in August- his many accomplishments were providing support for the Mai Ka Pō Mai effort and leading a RAC initiative to create a PMNM evaluation strategy for the Monument's management plan
- NOAA-ONMS's update presentation is posted on the RAC page of the PMNM website at: <https://nmspapahanaumokuakea.blob.core.windows.net/papahanaumokuakea-prod/media/archive/new-about/council/meetings/2021/pdfs/onms-agency-update-9-2021.pdf>

NOAA-National Marine Fisheries Service Report (Ka'aekuahiwi-Pousima)

- Magnuson Stevens Fishery Conservation and Management Act updates: amendments for reauthorization are in progress- Congress members Huffman and Case are moving this forward; potential implications for essential fish habitat
- Current NMFS activities in the Monument: protected species field camps for Hawaiian monk seal (HMS) monitoring and enhancement activities in September
- FY22 HMS research and rehabilitation will be part of the ESA recovery grant for the Monument
- Hōkū Ka'aekuahiwi-Pousima from NMFS announced she is departing the RAC after serving as the Fisheries rep for 7 years

US Fish and Wildlife Service - National Wildlife Refuges Report (Boyd)

- Lisianski/Kapou vegetation survey found *Pisonia grandis*- species was previously unknown at Lisianski
- Albatross reproductive success is low this year at three locations with late fledging activity
- Marine debris team completed a cleanup at Midway Atoll
- The Midway Sand Island seawall project to protect the runway was successfully completed- contractors completed a greater distance with the rock material than anticipated
- New radar system was installed at Midway- its main use is to monitor Bonin petrels and establish baseline population estimates while also providing data for managers; for example, inform timing for flights
- Holthuijzen *et al.* published an article on arthropod communities and the mouse diet at Midway
- Nihoa *Cenchrus echinatus* removal project - hoping to eradicate this species at Nihoa over 2 years



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- Seabird protection project (mouse eradication) to take place in 2022- planning is ongoing
- Information on this project can be found at:
https://www.fws.gov/refuge/Midway_Atoll/Seabird_Protection_Plan.html

Questions to FWS-NWRs:

- Deputy Superintendent Roberts (from public chat): Can you confirm the species of albatross you were referring to? A: Both Laysan and black-footed albatross
- Rep. Leinau: What family is the invasive plant in? A: *Cenchrus echinatus* - is probably Poaceae. New species located at Lisianski is *Pisonia grandis* an indigenous plant (found throughout the Pacific)
- Rep. Fetterly: How do seawalls fit within the Monument? The seawall protects the runway at Midway that is used for emergency landings for all flights across the Pacific

US Fish and Wildlife Service - Ecological Services Report (Polhemus)

Summary:

- 2021 has begun cooler than record-hot 2020, due to a displaced polar vortex pattern in the late winter and spring, but summer was still record hot
 - The Northern Pacific Ocean carried excess heat content through winter, but this heat remained to the northeast of the Monument
- ENSO-neutral conditions are waning, and a transition to La Niña is underway- ENSO-neutral conditions should continue through the fall, with La Niña developing in the early winter months
- There is low likelihood of any thermal stress to the Monument coral reefs this year, except possibly in the Midway/Kure sector
 - The next major period of thermal risk will come in late 2022, during the transition out of La Niña into the next potential El Niño episode
 - Tropical cyclone formation is generally low during ENSO-neutral regimes, and not heavily favored during the La Niña that is now starting to develop- only remnant systems have passed through the Hawaiian Islands this year
- Sea level continues to rise at 3-5 mm per year; this trend is increasing
- Inundation is a long-term problem that will not go away, and may increase over time depending on future melting trends in Greenland and Antarctica
- Dr. Polhemus's update presentation is posted on the RAC page of the PMNM website:
<https://www.papahanaumokuakea.gov/new-about/council/meetings/2021/>

Questions to FWS-ES:

- Rep. Leinau: Will the sunspot cycle have any effect on the coral in the Monument? A: Not likely. The next La Niña will have more of an effect.

State of Hawaii DLNR-DAR Report (Rossa)

- 30x30 Initiative: DAR is holding public scoping meetings for Miloli'i FMA, Kipahulu CBSFA, and Maunalua Bay FMA
- Working on improving public outreach to protect Marine Managed Areas
- Published a management plan guidance for new MMA development and assessment of existing MMAs, a link to this document will be provided by DAR
- Talk story sessions across the state (virtual)
- Herbivore Rules - public scoping analysis, and developing O&E Capacity for public
- Continuing work on other fishery rules including MLCB- Pūpūkea boundary, oama rules, lay nets etc.



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The state has completed its ocean acidification report; a link to the document is on the PMNM website:
<https://www.papahanaumokuakea.gov/new-about/council/meetings/2021/>

Questions to DLNR-DAR:

- Question (Chair Ailā) What is the timing of EIS for Aquarium rules: A: DAR will check and report back.

State of Hawaii DLNR-DOFAW Holanikū Report (Vanderlip)

- Continuing habitat restoration/*Verbesina encelioides* control- few areas of *V. encelioides* remain; an estimated fewer than 6,000 plants will be removed in 2021
- DLNR continues to control big headed ant on Green Island
- Mosquitoes were officially eradicated as of 2021 with checks and prevention measures continuing
- We continue to collect marine debris, more than 10K lbs per year
 - stockpile on pier for the next marine debris cruise to collect
 - detangled a molted female Hawaiian monk seal from an entanglement of marine debris
 - also will collect the marine debris that birds throw up
- Kure's Laysan duck (LAYDU) adult estimated population is 81
- Second LAYDU translocation is postponed to Fall 2022
- Winter camp crew deploys September 30- recruitment for summer camp will start in January 2022
- DOFAW's presentation is available at the PMNM website at:
<https://nmspapahanaumokuakea.blob.core.windows.net/papahanaumokuakea-prod/media/archive/new-about/council/meetings/2021/pdfs/kure-update-9-2021.pdf>

OHA Report (Wong)

- August 2021 Makani Olu Voyage to Lalo, supporting Walaka impacts study (Kane) and intertidal research at La Perouse, Nihoa (Andrade)
 - 'Opihi size is larger at La Perouse
 - Ground truthing surveys, GPS data points in the East, and Gin for analysis of island geomorphological change due to Walaka, with core/sediment sampling at Tern
 - In-water data collection for creating 3D models of surrounding reefs
- Cultural Working Group - upcoming meetings with Ke'eamanu Hui regarding collection and distribution of hulu; Nomenclature Hui was asked to name limu species outside of PMNM as well with a research journal article in progress
 - There will be a workshop in November 2021; agenda to include Mai Ka Pō Mai and management plan, etc.
- OHA and ONMS signed an MOA for funding, which will be used in part to support Native Hawaiian involvement and access to the Monument

Questions to OHA:

- Barb Mayer Question: Will the 10 years of 'opihi data be peer reviewed & published? Looking forward to good news regarding populations. A: Rep. Andrade- some data has been published but methodologies have shifted over the years. Some publications are now in progress. Contact Pelika, Kim, or Brad for more information.
- Brad Wong: OHA has a Papakilo database and is looking into how to best utilize it to share more research on PMNM.

2021 Summer Research Expedition Presentation (Hauk & Leonard)

- Cruise 1: Brian Hauk, Chief Scientist. This expedition had several components:
 - Conducted *Chondria tumulosa* research at Manawai; included oceanographic water sampling to collect data on water quality and nutrients
 - *C. tumulosa* was observed growing in dense mats
 - *C. tumulosa* smothers benthic organisms, including corals and other photosynthetic organisms



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- Team discovered floating mats of *C. tumulosa* → difficult to see how it is spreading and how far
- *Chondria* 'highways' were observed- linear distribution caused by currents - can be seen from satellite imagery
- Researchers are developing methodologies to study the alga more effectively
- Recovered and redeployed some SURTASS acoustic equipment at FFS, in partnership with HIHWNMS
- Found abandoned lifeboat on the southwest corner of Manawai
 - mitigated potential entrapment hazards
 - provided information to the marine debris team
- Marine Debris: observed that shipping container spill debris has made its way to Lalo
- Cruise 2: Jason Leonard, ONMS Coordinator
 - Coral Reef Monitoring and expanding knowledge of limu
 1. Conducted photogrammetry monitoring
 2. Observed that Lalo reefs are slowly making a comeback from Walaka
 3. Documented corals and sharks coming back; at least 35 seen
 4. Kapou: fish coming back to area after heavy bleaching event
 - areas slowly making a comeback (reefs, fish, etc)
 - Expanding baseline of limu knowledge
 1. multiple undescribed species including a newly discovered genus of limu
 - sent to 4 labs for identification and preservation
 - nutrient studies of habitat of limu
 - presence surveys conducted to monitor for *Chondria tumulosa*
 1. matching areas from satellite imagery to find *Chondria* highway
 2. Also found areas of abundant *Hypnea (musciiformis?)*
- Surveyed and documented a shipwreck site located at Lalo (Hikianalia reef)
 - document the reef using photogrammetry
 - rough and remote area- one in a million find
 - expanded the known size of the shipwreck and found a huge coral head- critically important to the biodiversity in the area, especially after Walaka
 - Kim Jefferies: professional photographer and videographer, provided documentation for the cruise
 1. Providing a library of photos and videos that can be used for outreach
- Noted first record of Sargassum (frog) fish in the Monument
- Historically not found in this part of the world, likely present in PMNM because of floating marine debris
- See presentation on RAC webpage:
<https://www.papahanaumokuakea.gov/new-about/council/meetings/2021/>

Questions:

- Rep. Paul: what species keep *Chondria tumulosa* in check? A: Brian Hauk: ecology of this species is unknown. So far, there are no known natural predators. Sea hares observed eating it but that is the only species. Some fish were observed spitting it out. Further studies are in progress to understand among other things why *Chondria tumulosa* is not palatable.

PMNM Permitting Update (Howard)

- SOAP (Permitted Activities Report) 2020 was completed- document and story map provide the details of the 2020 permits
 - There were 19 applications, 8 issued (many were canceled /delayed due to COVID).
- Permits for 2021
 - 20 applications received, 2 withdrawn, 18 issued
- Upcoming/In Progress Permitted Actions in PMNM:
 - Biweekly flights to Midway



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- R/V Sette trip to conduct NMFS field team pickup
- M/V Searcher to support FWS Nihoa trip
- M/V Imua to conduct FWS Midway and Kure field camps staff swap-outs
- E/V Nautilus Ocean Exploration Trust
- USCGC Juniper and C-130 support for Midway buoy maintenance
- See presentation on RAC webpage:
<https://www.papahanaumokuakea.gov/new-about/council/meetings/2021/>

Questions:

- Representative Paul - what user feedback is collected on the permitting process (suggestions, complaints). Any MMP permitting process amendments needed? A: Permittees are required to file a report after they return from the Monument.
- Representative Schug- Does the PSSA notification rule apply to vessels fishing on the portion of Middle Bank outside of the Monument? A: Phillip Howard & Andy Collins: It applies if they intend to transit through the PSSA. Other criteria: they also have to be a US vessel, or a foreign vessel over 300 gross tons and coming from a US Port for this to apply. Triggers for notification requirements. USCG is exempted from vessel inspection requirements.
- Representative Newman: Are most permits issued to managing agencies of PMNM? What percentage is issued to external entities? A: Phillip Howard: Most applications are from external stakeholders. 90 percent of the 2021 permits are external. Many work in collaboration with agencies.

Subcommittee Updates

Planning, Evaluation, Sanctuary Subcommittee (PESS) (Paul)

- Met on September 13th and completed a subcommittee work plan
 - added to the RAC outreach list created by the Research Subcommittee
- PESS has begun to identify critical issue areas that the RAC might want to address during scoping:
 - sanctuary boundaries, sanctuary regulations (including fishing), and permitting issues
 - will bring a set of recommendations to the RAC regarding sanctuary and the management plan
- The PESS is working in close collaboration with the Research Committee
- Encourage all RAC members to review the management plan, and look at the sanctuary information on the PMNM website
 - Preliminary information and fact sheet for early outreach is available at:
<https://www.papahanaumokuakea.gov/new-news/2021/07/12/sanctuary-design>^[P]_[SEP]
and
<https://nmspapahanaumokuakea.blob.core.windows.net/papahanaumokuakea-prod/media/archive/new-news/pdfs/sanctuary-design-one-pager.pdf>

Research Subcommittee (Schug)

- Public scoping contact list was created by the Research Subcommittee → 2 dozen people listed so far (RAC members and alternates are encouraged to add to this list)
 - help to identify and list subject matter experts who can offer valuable input for the sanctuary designation process
- Research committee is compiling documents on Middle Bank in its Google drive library
- ONMS hasn't decided if a sanctuary boundary with Middle Bank will be analyzed in the EIS, as alternatives won't be identified until after the public scoping process is completed
 - One of multiple alternatives the agencies must analyze with any boundary meeting the goals and objectives of the sanctuary



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RAC Operations

RAC Fall 2021 Recruitment and Officer Elections

- The next round of recruitment starts in October
- Recruiting for 9 seats: Native Hawaiian Primary, Research Primary, Conservation Primary, Commercial Fishing Primary, 2 Native Hawaiian alternates, Native Hawaiian Elder alternate, Citizen at Large Alternate, and Commercial Fishing alternate
- Regarding the rotation process, in most cases the RAC members can reapply
- Officer elections are coming up as well at the end of the year

Superintendent Clark reminders on Subcommittees and Working Groups:

- Any recommendations on MMP, Sanctuary, etc. by subcommittees or working groups must be forwarded for vote by the entire RAC before being confirmed
- Workplans don't require a RAC vote but usually are presented to the RAC for their blessing
- Still need a Chair for the Education Working Group- volunteers sought

Kūpuna Council /Working Group (Clark) *this item was deferred to a subsequent meeting*

Proposal: create a working group council to retain the Monument's brain trust:

- Experienced former RAC members who can provide mana'ō during sanctuary designation
- Opportunity for continued connections among past and present RAC members- there will be continued discussion on this at the next meeting

Joint Advisory Council Working Group HIIWNMS-SAC proposal - *this item was deferred to a subsequent meeting*

Announcements:

- Chair Ailā will attend the ONMS RAC-SAC Chairs Committee meeting on 9/30/21- forward any of your thoughts regarding NMS designation to him
- Clark- maybe propose the concept of an indigenous advisory group across the sanctuary system

Public Comment:

Tammy Harp:

- Attended a presentation on the seafood industry where longliners were presented as traditional fishers
- Concerned about the scope of the fishery, representation as a Native Hawaiian issue and sustainability issues
- SPACEX large booster rocket might be landing 62 nm NW of Kauai
 - Unsure if this is the same area where the ballistic missile defense training/shutdown is done?
- Regarding Kūpuna Council: sounds good, keep us in loop, there are a lot of Kūpuna with good mana'ō

Joshua DeMello

- WESPAC meeting agenda tomorrow will cover longline fishery and Pacific region fisheries
- Q: Representative Ailā - customary exchange discussion tomorrow? A: no

Summary of Action Items

- 'Opihi data - interested individuals please contact Pelika Andrade
- Kūpuna council discussion deferred to a subsequent meeting
- Send any items for consideration at the SAC Chairs meeting to Chair Ailā
- DAR to provide links to documents (planning guidance and acidification report)
- ONMS to re-send a link to the NFWF project accomplishments report
- Review PESS workplan at next meeting



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Schedule Next Meeting

- Propose to schedule the next meeting during the public scoping process in order to incorporate RAC comments into the process
 - RAC agreed to work through RAC leadership to schedule this meeting
- New RAC member selection clearance process is lengthy, and might not be completed until next year

Closing Remarks (Ailā, Jr.)

Chair Ailā thanked the RAC for their dedication and commitment, and wished everyone good health and safety.