



## **Education Committee Meeting**

Wednesday, May 29, 2024 1-4 p.m. (HST), 12-3 p.m. (SST) /

Thursday, May 30, 2024 9 a.m.-noon (ChST)

### **1. Welcome and Introductions**

**Craig Severance**, Education Committee chair, opened the virtual meeting at 1:12 p.m. (HST). Members in attendance were **Asapmar Ogumoro** (CNMI PSS), **Christina Tudela** (CNMI DLNR), **Ariel Jacobs** (NMFS PIFSC), **Frank Camacho** (UOG), **Scott Bloom** (NMFS PIRO), **Aufa'i Areta** (ASCC), **David Field** (HPU), and **Jay Gutierrez** (DAWR).

Others in attendance were **Amy Vandehey**, **Felix Reyes**, **Mark Mitsuyasu** (Council staff); **Diane Tom-Ogata** (Public, HI Farrington HS teacher), **Alex Min** (Public)

### **2. Review of the Last Education Committee Recommendations and Meeting**

#### **a. Council Education Committee Memorandum of Understanding Update**

Council staff provided an update since the last Education Committee meeting held August 31, 2023.

- **MOU Addendum:** The MOU was signed a few years ago and needs to be revised to update membership. Most member signatures were collected, only missing **David Field's** (HPU), which needs administrative approval. The Dean will confirm when ready.
- **Progress for the 2 scholarship students:** [**Christine Tominiko** (AS) finished 1st year of MS degree at UHH, and is doing a summer internship with HI DAR on an estuary monitoring project, and is due to graduate in fall 2025. **Motusaga Vaeoso** (AS) is in her final year of an MS degree at UOG, focusing her thesis work on coral reef health and sustainability. She plans to defend around the end of 2024].
- **Regarding the availability of funds for taking on new scholarship students at the graduate level from the three territories, the primary focus is on graduate students who are within any year of their masters or doctoral program. They would have to go through the open scholarship application process. Undergraduates could also be considered, contact Amy with questions/suggestions. Staff said the number of scholarships was not yet determined but they could be from any of the three territories. The funding is potentially for two years.**



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- Committee members noted some current undergraduates who might qualify at UHH and UHM, and can follow up. The scholarship subcommittee and Council will make any award decisions.
- Staff said the new fisheries graduate program is in development at University of Hawaii, Manoa, with a target for the first cohort of students to start in fall 2026. The Council had supported an effort to develop such a program back when the PFRP was active. This will be a multidisciplinary program and four new faculty are being hired with two more expected next year.

**b. Working Group Reports**

Severance and staff shared the reports and recommendations from the 3 working groups that met since the last Education Committee meeting in August 2023, as directed by the Council.

**i. Input on Education Initiatives in Council 2025-2028 Program Plan**

This group met in February 2024. COVID-19 forestalled much of the education and outreach effort. The Council scholarship program made efforts to ensure students made progress and to make sure graduates stay within fisheries. The Island Coordinators are encouraged to work closely with the students. The Council's Advisory Panels are also encouraged to engage more in education and outreach (E&O). To get funding for these efforts, one idea is to try and link the process to the IRA.

- Severance added that even with the challenges, many of the activities in the 2020-2024 plan had been successfully completed.

- Recommendations: See slides

**ii. Incorporate Fisheries Science into K-12 and Higher Education Classrooms**

- This working group met in November 2023 and discussed strategies to effectively connect students with fisheries science.
- The EduComm had previously looked into creating a potential formal curriculum, but later decided it is best to focus on enrichment for schools and teachers. One idea was to make sure there is integration with teacher professional development, including summer sessions and during the school year. There are opportunities to speak with teachers and bring in new materials. They discussed the importance of having subject matter experts working with teachers. There needs to be a place-based curriculum



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for each grade level and for the different locations. They suggested having content experts and elders with knowledge to help the curriculum to be culturally relevant and accurate and identify materials on what is already done and what needs to be added. A big priority to make sure what is being developed is engaging with students, making sure cultural value and traditional knowledge is cross linking with STEM subjects. There is a need for a Chair to steer the working group.

- Diane Tom-Ogata (public attending the mtg), a science teacher at Farrington High School, said she would like to be a part of the dialogue and help in any way. She has worked with Iolani schools and NOAA. She incorporates fisheries and aquaculture into her marine science courses.
- Recommendations - see slides

**iii. Review Course Articulation Agreements Between 2-year and 4-year Higher Education Programs to support the Council Scholarship Program**

- The working group met in January 2024.
- Severance shared an overview of the role of the Education Committee, including the history on how the scholarship program started and the development of the first MOU. There are articulation agreements in place between the sending and receiving institutions. The issue is if a student has a two-year college degree with some Marine Science are they adequately prepared to enter into a four-year program. It is more a matter of preparation rather than ability. Success requires all students to meet regularly with advisors to assess and to assure progress. Under the scholarship contract the students sign, they must work for their local fishery management agency for the same amount of time as they received scholarship funds. He noted occasional issues with student health and adaptation. High tuition at Hawaii Pacific University is one issue, yet they have resolved to seek additional student support. The Northern Marianas College rep was not available to speak to those agreements.
- Recommendations: See slides



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**c. Marine Resource Education Program in Pacific Islands Update**

Staff summarized the progress of the scoping and potential implementation for MREP in the region. Lauren O'Brien met with many people across the Western Pacific region and heard broad support for the program. The next step is to bring together a 15-20 person Exploratory/Steering Committee across the Council jurisdictions made up of mostly fishermen and fishery users across the region, with support from NMFS and Council staff (AV). They are looking at meeting for the first time in late July 2024, with the first workshop to take place in winter 2025.

Staff noted that the committee will be working out what should be covered in the training. There will be an application process. The program will pay for the training travel.

**3. Council 2025-2028 Program Plan Update**

Staff (Mitsuyasu) provided an overview of the new program plan and discussed the revised incorporation of E&O activities across each island area. He presented on the 5-year Administrative Award and Program Plan starting in 2025, including the plan drivers, carrying forward the Council's Mission Statement, Seven Guiding Principles, and governance with Advisory groups. He also noted that the Council will continue to meet four times a year. The biggest change that will happen with the upcoming new plan is how the Council manages program areas. Activities will be organized by FEP, with each of the territories having its own program. He described the 2025-2028 Program Plan themes and highlighted five theme areas. E&O is integrated into all the plan areas. He provided details on the Pelagic Management Objectives. The Council's IRA proposal shows that the Council will get funds, but they have not yet been received.

- Staff noted the committee's work on the Program Plan was good. Transition to the new plan should be seamless. Funding for the scholarship program has transitioned over the years and SFF funding will fade away so there is a need to keep an eye out on how to sustain the program. The Marine Education Training (MET) funds through PIRO are no longer being received due to cuts. The Education Committee should be thinking of different ways to partner with the communities to try and identify funds.
- Bloom noted there was no new info on funding for MET. A lot of the funding that now flows under EEJ is analogous, just under a different name.



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- Staff said under priority 4 (Engaging Pacific Island communities), and under the agency review perspective, they need to look at climate change and others as a source.
- Severance added the real challenge in the revamping of the plans is getting adequate interactions and feedback from the islands and the region. The different communication styles, meeting times and organizational makeup, at different levels of hierarchy in the Marianas and American Samoa is a challenge.

#### **4. Other Business**

- Camacho said in his new capacity at UOG (Interim Associate Director, Western Pacific Tropical Research Station), he will see how he can move things forward with curricula at the K-12 and at the undergraduate level. He noted that UOG Sea Grant is fully funded.
- Staff asked committee members to share initiatives they are working on and advise if they need help or input from other members from other regions.
- Three Committee members noted the availability of internships on their respective campuses.
- Ogumoro said he works with K-12 schools and is working closely with 7-8 grades and organizations to do marine science experiential or project learning. One example is the Friends of the Marianas Solving for X. Five to six students per club do ocean-related activities.
- Areta said in the ASCC, they have a special relationship with UH Manoa, working with Sea Grant funding. They also have a relationship with StarKist cannery, helping the local tilapia farmers. StarKist donates fish to the fishermen and participants use the aquaculture lab to make their own fish feed at no charge. Under the extension program, there is also the 4-H youth development program. Participants visit the local DMWR to learn about fishing. He also noted that in meetings where chiefs are present, and with the American Samoa culture being strong, the non-titled participants tend to be quiet. Internships on aquaculture are offered. Maybe it's time to offer the same in fishing.
- Areta said Kelley Anderson Tagarino, UH-American Samoa Sea Grant Agent and marine science instructor, has a program called QUEST where students learn how to use SCUBA and do transects under water. Support for this program will continue.

#### **5. Public Comment**

- None.



## 6. Discussion and Recommendations

Regarding the Council's 2025-2028 Program Plan, the Education Committee endorses the following recommendations:

1. Making a focused effort to tailor the important ongoing efforts of the Council's 2020-2024 Education and Outreach Plan and consider new suggestions to each archipelago in the 2025-28 Program Plan.
2. Increasing collaborative education and outreach efforts between the relevant federal and state agencies to enhance the messages, avoid duplication and leverage resources.
3. Seeking additional funding sources to continue the Scholarship Program, including providing vocational training opportunities, such as engine repair, boat building and boat repair, fiberglass work, etc.
4. Supporting greater involvement of the Council Island Coordinators and Advisory Panel members in education and outreach initiatives.
5. Considering key education and outreach efforts for Inflation Reduction Act funding.

**Regarding the incorporating fisheries science into classrooms, the Education Committee endorses the following recommendations:**

1. Conducting a curriculum gap analysis
  - a. Identify existing materials and areas needing new content
  - b. Gather and share existing curriculum materials
2. Looking at learning objectives/standards from the Council-sponsored Hawaii high school summer course on fishery and marine resource management
3. Compiling a list of key terms and concepts and curriculum ideas for sustainable fisheries management
4. Planning and supporting professional development (PD) sessions for instructors, utilizing summer sessions and PD days during the school year
  - a. Involve local experts, elders, and community partners in curriculum development and classroom activities



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- b. Develop hands-on activities and content that relate to local cultural practices and ecosystems, making learning engaging and relevant

**Regarding course articulation agreements, the Education Committee endorses the following recommendations:**

1. Continuing and enhancing the scholarship program at both the undergraduate and graduate levels, and suggests compiling a list of other available funds and sharing it to support students through graduation.
2. Working more closely with appropriate campus personnel on specific articulation agreements and course equivalencies between campuses to support streamlining course transfers (e.g., ASCC MSC 150).
3. Supporting the Council's scholarship student selection committee's recommendation to have an assigned advisor for every student and expectations for regular contact, and recommends encouraging peer-to-peer connections among recipients.
4. Encouraging the Council Island Coordinators to be a bridge for students with their home community and the respective fishery management agency. This can include scouting and supporting applicants and employment opportunities, and helping students access local research opportunities.

**The meeting adjourned at 3:22 p.m. (HST)**

**WPRFMC Education Committee Working Group on Education Program Planning  
February 14, 2024, 3:30 p.m. HST**

**Members present:** Craig Severance, Chair (UHH), Scott Bloom (PIRO), Frank Camacho (UOG)

Attendees: Mark Mitsuyasu (WPRFMC), Amy Vandehey (WPRFMC)

**Meeting purpose:** Discuss broad goals and objectives for Council education initiatives to be included in the 2025-29 Program Plan, considering existing Magnuson-Stevens Act (MSA) authorities

**1. Review of Current FY 2020-2024 Program Plan - E&O Section**

The Chair said the draft Council 2025-29 Program Plan is organized by island area instead of by programs (as is the current plan), with education and outreach spread over each area. Discussion then focused on the lack of clear understanding by many fishermen and others of the Council process, and the relationships and responsibilities of different agencies. Members also noted COVID-19 caused a severe immediate and lasting impact on E&O efforts. Resurrecting in-person events and improving distribution of outreach materials was planned and is critically important. Members pointed out that communication preferences vary by region, so efforts need to be tailored to each region.

The working group reviewed the 2020-2024 Program Plan that had been color-coded with areas classified as completed, partially completed and not completed. Members agreed that a great deal of the areas under the old plan had been successfully completed, and suggested some initiatives to include/not include in the new plan.

**2. New Ideas**

People interested in fisheries management need to understand how the Council, NOAA Pacific Islands Regional Office, NOAA Pacific Islands Fisheries Science Center, local agencies, and other NOAA offices interact, given their different jurisdictions and institutional cultures. It's important to break down barriers to effective cooperation and collaboration. This means education about each other (inreach), as well as for the broader public.

Members suggested finding ways to involve Council Scholarship Program graduates in the Council process. They recommended encouraging Council Island Coordinators to participate more in E&O efforts, assist with scholarship applications, and help graduates find suitable jobs. They also emphasized the need for the Council's Advisory Panel members to engage more in E&O, particularly focusing on fellow fishermen.

The MSA Marine Education and Training (MET) provisions provide program authority and opportunities, and new ways to get E&O funding are needed. These could be linked to Inflation Reduction Act funding opportunities.



### **3. Recommendations**

The Council Education Program Planning Working Group recommends:

1. Making a focused effort to tailor the important ongoing efforts of the Council's 2020-2024 Education and Outreach Plan and new suggestions to each archipelago in the 2025-29 Program Plan.
2. Increasing collaborative education and outreach efforts between the relevant federal and state agencies to enhance the messages, avoid duplication and leverage resources.
3. Seeking additional funding sources to continue the Scholarship Program, including providing vocational training opportunities.
4. Supporting greater involvement of the Council Island Coordinators and Advisory Panel members in education and outreach initiatives.
5. Considering key education and outreach efforts for Inflation Reduction Act funding.

Meeting ended @ 4:40 p.m.

## **WPRFMC Education Committee Working Group Meeting on Incorporating Fisheries Science into K-12 and Higher Education Classrooms**

November 6, 2023 (HST)

**Members present:** Asapmar Ogumoro (CNMI), Christina Tudela (CNMI), Kelsey McClellan (CNMI), Ali Bayless (PIFSC), Sylvia Calvo (Guam), Craig Severance (HI), Amy Vandehey (WPRFMC), Magdalene Augafa (AS), Maria Vaofanua (AS)

**Meeting purpose:** To share successful strategies people have used to effectively connect students with fisheries science.

**Discussion summary:** Council staff described Education Committee's past efforts on this topic. Initially, the Committee aimed to create curriculum modules but found it difficult to integrate new content into the already packed school schedules. Consequently, the focus shifted towards creating and sharing enrichment materials for schools, which might be more feasible and effective.

Working group members said that professional development (PD) for teachers would be a good strategy to use. Engaging teachers through PD sessions, which take place in the summer in Guam and CNMI, and also during the school year, was highlighted as a way to ensure teachers are comfortable and knowledgeable about the new materials. Members discussed the importance of having experts collaborate with teachers to develop curriculum using fisheries resources.

The meeting underscored the need for place-based curriculum standards tailored to different education levels, from K-5, to college. The idea is to involve community partners, content experts, and elders in the development process to ensure that the curriculum is culturally relevant and accurate.

A significant part of the discussion focused on conducting a curriculum gap analysis to identify existing materials and determine what new content is needed. This will involve collecting and organizing existing resources into a shared Google Drive for easy access and review.

Engaging students and making learning interactive and hands-on were also prioritized. Members proposed using cultural values and traditional knowledge as hooks to engage students and suggested integrating learning across various subjects like science, math, and language arts. Technology and creative projects should be used to make learning relevant and interesting.

Note: This working group still needs someone to volunteer as chair.

**Next Steps and Recommendations:**

The Education Committee Working Group recommends:

1. Conducting a curriculum gap analysis
  - a. Identify existing materials and areas needing new content
  - b. Gather existing curriculum materials and upload them to a [shared Google Drive folder](#)
2. Looking at learning objectives/standards from Council-sponsored Hawaii high school summer course on fishery and marine resource management
3. Compiling a list of key terms for sustainable fisheries management
4. Planning and developing professional development sessions for teachers, utilizing summer sessions and PD days during the school year
  - a. Involve local experts, elders, and community partners in curriculum development and classroom activities
  - b. Develop hands-on activities and content that relate to local cultural practices and ecosystems, making learning engaging and relevant

# **WPRFMC Education Committee Working Group on Course Articulation Agreements Between 2- and 4-year Higher Education Programs in WPR to Support the Council Scholarship Program**

January 26, 2024, 2 p.m. HST

**Members present:** Craig Severance, Chair (HI), Aufai Areta (AS), Pauline Chinn (HI), David Field (HI)

**Attendees:** Kelley Anderson Tagarino (ASCC), Amy Vandehey (WPRFMC)

## **1. Overview of Course Articulation Agreements / Scholarship Student Experience**

The Chair sketched the history of the scholarship program's development with the initial pilot program between UH Hilo and American Samoa CC with the AS Coral Reef Advisory Group (CRAG) connection. This was followed by Council involvement and development of the first MOU to build capacity in in the territories and commonwealth marine resource agencies through the feeder institutions (ASCC, Northern Marianas College) and recipient institutions (UHH, UH Manoa, Hawaii Pacific Univ., Univ. of Guam). This has been primarily an undergraduate program. All campuses have articulation agreements, if a student has an articulated A.S. degree, most core courses should be accepted at 4-yr institutions. Originally the scholarship program expected to fund four additional semesters to finish a degree. It often may take longer due to course availability, sequencing with prerequisites and advising, dropping courses, etc.

Effective advising is critical to keeping students on track to graduate. The Education Committee developed an advising contract to address this. Students can come underprepared for transition to 4-yr institutions, lacking study skills, and sometimes needing prep courses to do upper division courses. The chair suggested the program could be prepared to give extra semesters (if funds are available) to give students flexibility. He noted that stress and depression have been issues for a few students and institutional counseling may not be culturally appropriate or effective for students from territories.

A working group member said that sometimes good advisors could ensure university admission folks accepted the courses that were articulated. It was noted that all the campuses have articulation agreements between the relevant 2- and 4-year institutions along with course equivalent lists.

## **2. Student Status Update and Funding Availability**

Council staff summarized the current scholarship student status and pointed out the uncertainties of funding, including a recently announced further restriction on NOAA funding. -Issues of possible tuition waivers, fee reductions etc. were discussed along with the issue of flexibility in post-scholarship employment obligations.

## **3. Current Challenges and Opportunities**

### **A. ASCC and UH Hilo**

Positive comments were made about the American Samoan students who have completed or are currently in the program, and it was noted that such students upon return to the territory could also contribute to the Marine Science Program at ASCC. Issues of

transition and cultural adjustment were observed. It was suggested that the Council Island Coordinator could assist with students, encouraging applications and finding appropriate employment.

**B. ASCC and UH Manoa**

The UHM rep. said that most undergraduate issues were covered above but STEM-related fields and that the teacher training program could focus more on marine science, potentially developing place-based lessons utilizing traditional ecological knowledge (TEK). The ASCC rep. said that there were 2 AS students in marine science at UHM now, one with a prestigious NOAA EPP/MSI fellowship. The UHM rep. said that there would be a biosecurity conference in AS in summer 2024 and that collaborations would be fruitful.

**ASCC and HPU**

The HPU rep. pointed out the importance of ensuring the admissions office did accept the articulated courses, and suggested that success depends a lot on the individual student, and may not be directly related to articulation issues. Previous committee discussion about HPU tuition costs being higher than other universities, and efforts to manage that differential for student benefit were noted. The HPU rep. said the university offers an M.S. in biology, an oceanography degree (more fisheries-oriented) and a new B.A. in marine affairs.

**NMC and Receiving Institutions**

The NMC rep. was not available.

**4. Next Steps and Recommendations**

The Education Committee Course Articulation Working Group recommends:

1. Continuing and enhancing the scholarship program at both the undergraduate and graduate levels, and suggests compiling a list of other available funds to support students through graduation.
2. Working more closely with appropriate campus personnel on specific articulation agreements and course equivalencies between campuses to support streamlining course transfers (e.g., ASCC MSC 150).
3. Supporting the Council's scholarship student selection committee's recommendation to have an assigned advisor for every student and expectations for regular contact, and recommends encouraging peer-to-peer connections among recipients.
4. Encouraging the Council Island Coordinators to be a bridge for students with their home community and the respective fishery management agency. This can include scouting and supporting applicants and employment opportunities, and helping students access local research opportunities.

Meeting ended @ 3:40 p.m.