Western Pacific Regional Fishery Management Council

181st Meeting of the Western Pacific Regional Fishery Management Council

March 10 to 12, 2020

YWCA Atherton Hall, Honolulu, Hawai‘i

National and International Outreach and Education Report

1. Implementing the Aha Honua Declaration

At its 181st meeting, the Council directed staff to continue to work with Ocean Networks Canada (ONC), Pacific Islands Ocean Observation System (PacIOOS), First Stewards and others to implement the Aha Honua Declaration presented by the indigenous delegation at OceanObs ’19 as well as the OceanObs ’19 Declaration presented by the conference as a whole.

Ocean Obs 19 was the first time this decennial conference proactively involved the indigenous community. It made a profound impact on both the science and indigenous participants, which have indicated a mutual desire to work collaboratively moving forward. The impact on the indigenous participants can be viewed in a short video produced by ONC, which is available at https://youtu.be/-umhkhuLLgA.

The Aha Honua calls on the ocean observing community to undertake the following:

- **Formally recognize the traditional knowledge of Indigenous peoples** worldwide as well as the articles within the **UN Declaration on the Rights of Indigenous Peoples** (see appendix A).

- **Establish meaningful partnerships** with Indigenous communities, organizations, and Nations **to**

  - **learn and respect each other’s ways of knowing**;

  - Negotiate paths forward to **design, develop, and carry out ocean observing initiatives**; and

  - Share **responsibility and resources**.

The Aha Honua also commits the indigenous communities to the following:

- Work with the ocean observing community to advance the **UN Sustainable Development Goals (SDG)** and the goals of the **UN Decade of Ocean Science for Sustainable Development.**

The **Sustainable Development Goals** are a universal call to action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. The 17 Goals

were adopted by all UN Member States in 2015, as part of the **2030 Agenda for Sustainable Development,** which set out a 15-year plan to achieve the Goals. The most pertinent goal to ocean observation is **SDG14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development** (see Appendix B).

The **UN Decade of Ocean Science for Sustainable Development (2021-2030)** offers a framework to strengthen connections and weave partnerships among all communities working to study, conserve and sustainably use the ocean and its resources. Through stronger international cooperation, the Decade aims to bolster scientific research and innovative technologies to ensure science responds to the needs of society and to provide opportunity to create a new foundation to strengthen the management of our oceans and coasts for the benefit of humanity. Ocean Science includes physical, geological and chemical oceanography as well as marine biology. In addition to conservation and management activities, Ocean Science can support business operations (shipping industry, fisheries and aquaculture, etc.) and coastal communities by predicting and mitigating disaster risks.

The **Intergovernmental Oceanographic Commission (IOC) of UNESCO** is tasked by the UN General Assembly to work with all interested stakeholders to design the Decade of Ocean. A primary focus of the IOC is to enable its Member States **to build the scientific and institutional capacity** needed to achieve the **SDG14 to conserve and sustainably manage ocean and marine resources by 2030**.

The Aha Honua was presented by Kitty Simonds, Council executive director, to Vladimir Ryabinin, executive secretary of IOC, at Ocean Obs 19.

Over the past few months, Council staff has met with PacIOOS and ONC on several occasions to discuss next steps to move the indigenous outcomes of Ocean Obs 19 forward in the Western Pacific Region. Based on those meetings and discussion amongst the Council staff, it appears that a working group may be the best next step forward. Participants could include both indigenous and Western ocean observation members in the Western Pacific Region. Some suggestions follow:

- **Indigenous participants from the Western Pacific Region who participated in Ocean Obs 19**: Brenda Asuncion, Charles Kaʻaiʻai, Paulokaleioku Timmy Bailey, Keeuamoku and Uilani Kapu, Kaimi Hermosura, Kalei Nuuhiwa, Cecilio Raiukiulipiy, Erika Radewagen and Kamealoha Hanohano Smith

- **Certain indigenous experts on the Council's Social Science Planning Committee:** Judy Amesbury, Deborah Cabrera, Noelani Puniwai and Craig Severance

- **Ocean observation members on the Council's Plan Team:** Tom Oliver, John Marra

- **Other Western ocean observation community members:** PacIOOS, the National Weather Service, and the University of Hawaiʻi School of Ocean and Earth Science and Technology

In the meantime, Council staff is engaged in literature search on the issue of indigenous traditional knowledge as it relates to ocean observation/science.

2. International Pacific Marine Educators Network (IPMEN) 2020 Conference

Plans are moving forward for hosting of the 2020 IPMEN conference in Honolulu. The Council was instrumental in the establishment of IPMEN in 2007, is the gold sponsor for this year's conference and is chairing the conference. IPMEN meets every two years, and, after the initial meeting in Honolulu in 2007, has met on the even years in Australia, Fiji, Chile, Indonesia, Japan and Taiwan. NMFS Pacific Islands Fisheries Science Center is a bronze sponsor, and several other organizations are committed to providing sponsorship or support, including the National Marine Educators Association, Asia Marine Educators Association, Australia Marine Educators Network, Hawaii Pacific University, Hawaii Institute of Marine Biology, Tokyo University of Marine Science and Technology and National Taiwan University, to name a few.

The conference will take place July 9 to 12 at the Hawaii Pacific University campus at Aloha Tower. The theme is One Ocean, Many Connections. Strands include land and sea, traditional and modern ways, communities and science, local actions and global engagements, and international networks. Five field trips are scheduled, including to the Honolulu fish auction. The event will open with a cultural ceremony and close with a dinner. A meet and greet between IPMEN and the board of the National Marine Educators Association is also scheduled. An option to participate virtually may be forthcoming, pending funding.

For more on the conference, go to https://ipmen.net/about.

3. National Marine Educators Association (NMEA) 2020 Conference

The NMEA 2020 conference is scheduled to take place July 13 to 17, immediately after the IPMEN conference. The NMEA conference location is the Ala Moana Hotel. Council staff has been assisting on the program/speakers, field trip and cultural committees of the OCEANIA chapter of NMEA, which is hosting the conference. One of the field trips will be the Honolulu fish auction, which Council staff will escort.

Council staff also continues to co-chair the NMEA Traditional Knowledge Committee, which offers a $1,500 scholarship for an expert in traditional knowledge to attend the annual NMEA conference. Eight highly qualified individuals applied for this year's scholarship. The winner is Kaimi Hermorsura of Kaua'i, who was one of the indigenous participants at Ocean Obs 19.

For more on the conference, go to https://www.marine-ed.org/conference/2020.

4. Communicating Ocean Science Camp

A post-NMEA conference event is the Communicating Ocean Sciences Camp on Maui from July 18 to 22. Participants will receive three credits from the University of Hawai'i as they learn how to apply current learning theory and pedagogical practices in formal and informal learning environments to improve communication and instructional skills.

For more on the camp, go to https://www.oceaniaeducators.org/maui-workshop-2020.

5. Ocean Literacy

A key discussion within the international marine education community is the ocean literacy (OL) concepts and principles (see Attachment C), which were developed in the United States and have been adopted worldwide, including the United Nations. Many view it as a common language and a catalyst for engaging the public in the SDG14 goal. Below are some recent OL developments.

a. UN OCEAN CONFERENCE PREPARATORY MEETING: Stakeholders at the preparatory meeting held Feb. 4-5, 2020, in New York City, were provided an opportunity to propose agenda topics for the UN Ocean Conference to be held June 2-6, 2020, in Lisbon. One proposed topic was Global Ocean Literacy. Council staff was asked to suggest key points to include under this topic and suggested fisheries and traditional knowledge. According to the Global Ocean Science Report on the Current Status of Ocean Science around the World (UNESCO 2017) only 26 percent of ocean science facilities specialize in fisheries and less than half of ocean data centers provide data on fisheries.

b. OCEAN LITERACY SUMMIT: Immediately after the UN Ocean Conference in Lisbon, Portugal, the United Nations and Portugal are hosting an Ocean Literacy Summit. Council staff has been invited to the Summit and has been participating in the organizational meetings being held at 5 a.m. Hawai‘i by teleconference. Major funding is expected to come from a UK business. Discussions are ongoing on whether to have the Summit be a virtual or partially virtual event, considering the coronavirus epidemic.

c. IMPROVING OCEAN LITERACY WORLDWIDE: A commentary titled “Improving Ocean Literacy Worldwide” by Meghan Marrero (Mercy College/NMEA), Diana Payne (University of Connecticut) and Harry Breidahl is under review by the journal *Frontiers in Marine Science.* The piece acknowledges the contributions of the Western Pacific Regional Fishery Management Council in the formation of IPMEN and cites the special edition of the NMEA journal *Currents* about the first IPMEN conference, organized and hosted by the Council, written by Council staff and funded by the Council.

APPENDIX A

Declaration on the Rights of Indigenous Peoples

- Seventeen of the forty-five articles of the Declaration deal with indigenous culture and how to protect and promote it, by respecting the direct input of indigenous peoples in decision-making, and allowing for resources, such as those for education in indigenous languages and other areas.

- Fifteen of the forty-six articles of the Declaration are about indigenous peoples' participation in all decisions that will affect their lives, including meaningful participation in a democratic polity.

- The Declaration confirms the right of indigenous peoples to self-determination and recognizes subsistence rights and rights to lands, territories and resources.

- The Declaration recognizes that indigenous peoples deprived of their means of subsistence and development are entitled to just and fair redress.

- Essentially, the Declaration outlaws discrimination against indigenous peoples, promotes their full and effective participation in all matters that concern them, as well as their right to remain distinct and to pursue their own visions of economic and social development.

APPENDIX B

Sustainable Development Goals

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

14.4 *By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics*

14.5 *By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information*

14.6 *By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation16*

14.7 *By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism*

14.a *Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries*

14.b *Provide access for small-scale artisanal fishers to marine resources and markets*

14.c *Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want"*

APPENDIX C

ESSENTIAL PRINCIPLES OF OCEAN SCIENCES

1. The Earth has one big ocean with many features.
2. The ocean and life in the ocean shape the features of Earth.
3. The ocean is a major influence on weather and climate.
4. The ocean made Earth habitable.
5. The ocean supports a great diversity of life and ecosystems.
6. The ocean and humans are inextricably interconnected.
7. The ocean is largely unexplored.

Commentary: Improving Ocean Literacy Worldwide

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Commentary: Improving Ocean Literacy Worldwide

The ocean literacy campaign began in the United States as a way to effect change in the science standards to better incorporate ocean science content into formal classroom education (Schoedinger, Uyen Tran, & Whitley, 2010). Since 2005, the ocean literacy campaign has spread around the world connecting our one global ocean.The focus has expanded from improving ocean literacy in US schools to involving multiple audiences (e.g., business professionals, scientists, policy makers, fishers) through various means (e.g, formal and informal education, Blue Growth strategies).

The development of the definition of ocean literacy and the Essential Principles and Fundamental Concepts was a collaborative effort of formal and informal educators, scientists, government professionals, and others interested in defining what people should know about the ocean (Cava, Schoedinger, Strang, & Tuddenham, 2005). Many involved in this initial effort are members of the National Marine Educators Association (NMEA).

This commentary discusses the role NMEA plays in fostering international ocean literacy networks, how the networks have fostered ocean literacy around the world, and what organizations can do to improve global ocean literacy for a sustainable future.

Founded in 1976, NMEA is a membership-based organization of nearly 1000 members, including primary and secondary teachers, professors, scientists, government professionals, and informal educators. NMEA supports 16 independent regional chapters throughout the United States, and since its inception has sought to achieve its mission of “making known the world of water, both fresh and salt.” NMEA hosts an annual conference, taking place in a different region of the US each summer.

In recent years NMEA conferences have attracted professionals from around the world. International participation has inspired the formation of similar networks of marine educators. A key component of this process has been the open and collaborative mindset so prevalent at NMEA gatherings. While this mindset can be credited with inspiring international delegates, their exposure to the concept of ocean literacy also offered an adaptable framework for international networks.

One example of an international network inspired by NMEA is the founding of the International Pacific Marine Educators Network (IPMEN). The initial concept for this group began as an outcome of a two day meeting, the One Ocean Marine Forum (OOMF), on the Hawai’ian island of Maui in July, 2005. OOMF was, in turn, the result of an informal international meeting at the 2000 NMEA conference in Long Beach, CA. At that time, a small group of marine educators from Australia joined some NMEA members in planning a Pacific Ocean forum that would follow the NMEA conference in Hawai’i.

While the success of OOMF was a direct result of collaboration between NMEA and its Australian counterpart, Marine Education Society of Australasia (MESA), further development was supported by the Western Pacific Regional Fishery Management Council. As a result, IPMEN formed at a second meeting in Hawai’i in February, 2007 (Spalding, 2008). Since 2008, IPMEN has met every two years at a different Pacific venue (www.ipmen.net). While IPMEN conferences focus on the development of a Pacific marine science education network and traditional knowledge, ocean literacy and the continued support of NMEA have been important components.

Another result of the NMEA collaborative mindset is the establishment of the European Marine Science Education Association (EMSEA). The inspiration for EMSEA was a direct result of the three founders meeting at the 2011 NMEA conference in Boston, MA. EMSEA now hosts annual conferences and is an instrumental partner in the European Union funded Sea Change and ResponSEAble projects. Similarly, the Asian Marine Educators Association (AMEA) was established in 2015 as the founders attended the 2015 NMEA conference in Newport, Rhode Island. Networks have formed in other regions as well, including Canada, the Mediterranean, and Africa. NMEA members have also assisted in the development of these organizations.

Although strong national and regional networks exist, the real question is, "How can the networks best collaborate to ensure behavior change to protect our one global ocean?" Of course, there are many elements to consider related to ocean literacy, including making ocean literacy efforts culturally relevant and listening to the voices of diverse groups in different regions. We can build upon existing successful models. For example, the EU Sea Change Project (http://www.seachangeproject.eu/) brought together 17 institutions from nine different countries. Sea Change sought to improve citizens' ocean literacy and take "direct and sustainable action towards a healthy ocean, healthy communities, and ultimately a healthy planet" (European Commission, 2015). In December 2017, UNESCO hosted the "Ocean Literacy for All" International Conference. This event brought together scientists, educators, politicians, and others from 34 countries on four continents to discuss the importance of ocean literacy for different sectors and share ideas for paving the way forward to advance ocean literacy worldwide. A key element of this gathering was the financial support for attendees from developing nations, including those in South Asia, Africa, and South America.

Similarly, the authors of this paper suggest all ocean literacy related networks can work together in pursuit of three P's: People, Products, and Partnerships. The organizations featured here exemplify the three P's and the importance of face-to-face meetings. Ocean literacy is a critical component of the formation and continued work of these networks. For instance, IPMEN, EMSEA and AMEA hold regionally-based conferences on either an annual or biennial basis. NMEA's role in the collaborative mindset that was so important to the formation of several organizations continues today. Planning groups are currently working towards the NMEA 2020 and IPMEN 2020 conferences, to be held jointly in Honolulu, Hawai'i. The next challenge, however, is to develop better ways to network and share resources between conferences and to ensure that a wide variety of voices are included.

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