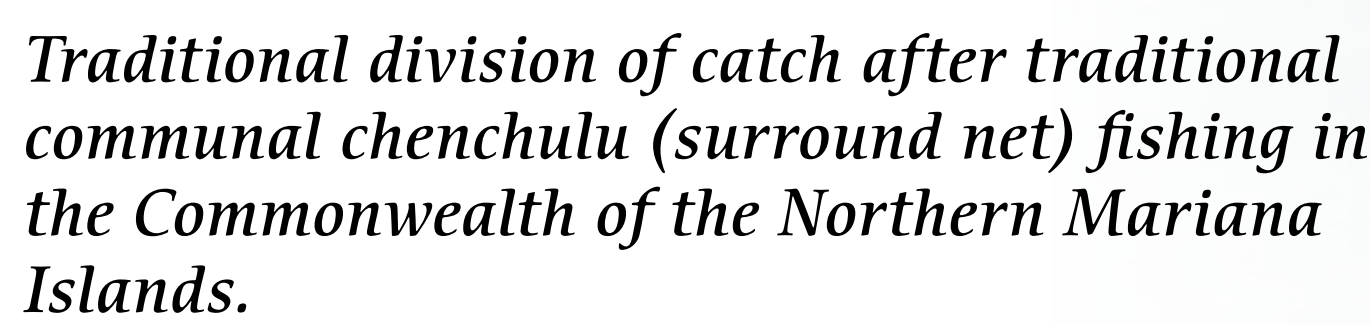


*Photo by Leana Peters,  
George Washington  
High School, Guam,  
winner of the Council's  
2007 high school pho-  
to essay contest "Thru  
the Eyes of Our Elders  
to the Hands of Our  
Youth"*



**In 1976**, Congress passed what is now known as the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The Act established the U.S. exclusive economic zone out to 200 miles from shore, promoted domestic fishing and established eight regional fishery management councils to prepare and maintain fishery management plans and enable public participation in the preparation of them.

Originally settled by Chamorro, Samoan, Hawaiian and Carolinian, these islands are rich in traditional ecological knowledge (TEK) based on observation and passed inter-generationally for millennia prior to becoming a part of the United States. The Western Pacific Council acknowledges the value of the region's TEK. One of the Council's Guiding Principles is to "recognize the importance of island cultures and traditional fishing practices in managing fishery resources and foster opportunities for participation."



## Incorporating TEK in Resource Management

**One of the most successful endeavors** by the Western Pacific Council to incorporate TEK into natural resource management emerged from its hosting the *Ho'ohanohano I Na Kupuna Puwalu* (Honor Our Ancestors Conference) series in 2006-2007. The Council's goal was to engage Native Hawaiian communities in the development of the Fishery Ecosystem Plan for the Hawai'i Archipelago. The series was implemented by the Council in partnership with the Association of Hawaiian Civic Clubs and with support from the Office of Hawaiian Affairs, Kamehameha Schools/Bishop Estate, the State of Hawai'i, the Hawaii Tourism Authority and numerous community organizations throughout Hawai'i. The *Puwalu* gathered *na kupuna* (elders), cultural practitioners, educators, policymakers and community-based activists from every district of the Hawaiian Islands.

The participants proposed the development of 'Aha Moku councils (district councils) that would manage natural resources through implementation of site-specific cultural conservation and utilization practices and an 'Aha Moku council system to increase native community participation in policymaking through a consultation process. *Moku* are traditional political districts that included adjacent *ahupua'a*. *Ahupua'a* are traditional land divisions that contain the natural resource needs of its residents and often span from the mountains out into the sea.

As a result of the *Puwai*, the Hawai'i State Legislature in 2007 established the 'Aha Moku Kiole Advisory Committee to identify the best practices for traditional resource management. They include regulatory changes toward an adaptive management process, non-regulatory process through a code of conduct, education, community consultation, and eligibility criteria for natural resource managers in the 'Aha Moku system. To be eligible the managers must be identified by the community as possessing cultural, generational knowledge of natural resources. In 2012, the Hawai'i Legislature established the 'Aha Moku Advisory Committee to advise its Department of Lands and Natural Resources.

The Western Pacific Council and partners have continued the *Puwalu* series over the years to further the 'Aha Moku councils and the 'Aha Moku system. At the eighth *Puwalu*, *Ka Holomua Ana O Ka Aha Moku* (Moving the Aha Moku Forward), held in 2016, participants reported on the progress of their 'Aha Moku organizations and supported the development of an Association of Aha Moku Island Councils.

Efforts to incorporate TEK in the other US Pacific Islands have included support for community-based fishery management plans, community-based monitoring, traditional fishing practices, traditional lunar calendars and participation of indigenous communities in local fisheries.

**Education is an essential part** of incorporating TEK into contemporary resource management. Acceptance of regulations and codes of conduct involve active educational efforts. Adaptive management requires training in resource monitoring and reporting and an understanding of geography, geology, life histories and biology. Training is also needed if communities participate in enforcement to ensure proper conduct and protection for all involved.

The Puwalu participants recognized the need to educate the community at all levels, from adults to *'opio* (youth) to *malihini* (visitors), including regulators and managers.

To facilitate the incorporation of TEK in the classroom, Puwalo participants identified a cultural protocol for educators wishing to engage *na kupuna* and *oihana* (cultural professionals). They also identified the challenges of teaching TEK in the classroom.

### ***Na Hana Kuponu (The Proper Procedures)***

### ***Kekipa ana e kahui ana (vising and meeting procedures)***

Ho'omakukau ana (preparing for the call and interview)  
 Ke kahea (proper introduction or call to the informant)  
 Ka ho 'okupu (appropriate gift presented to the informant)  
 Ke kukakuka ana e kahuilana (discussion and negotiation)  
 Kapanina e ho'okupu (closure)

***Ka 'ike* (sharing knowledge and understanding procedure)**

Ka ho'omakaukau ana (preparation for sharing)  
 Kea o mai ana (sharing knowledge)  
 Ka malama ana (agreement on how the knowledge will be protected)  
 Kea o aku ana (instructions to the guest and sharing of knowledge)



The Western Pacific Council continues to support TEK education by engaging classrooms and teachers in annual art and/or photo essay contests and traditional lunar calendars, involving traditional practitioners as part of the Council's annual summer courses in marine resources and management, and supporting communities in resource monitoring and TEK-related events, such as the annual Chamorro Lunar Calendar Festival.

The lunar calendar is one of the best examples of place based learning. Each district has compiled knowledge through observation of the natural

cycles and seasons and the activities of living organisms within the environment. This TEK was incorporated to efficiently fish, farm and work with the natural rhythms of the environment in a sustainable manner.

The Council's 2012 calendar includes an observation log so students and other observers can record and compare correlating plant, animal and environmental activities, such as weather, within each lunar phase and lunar month of the season. The data log also contains areas to include Western science, such as pH, dissolved oxygen, etc. Learning the lunar and seasonal cycles and their traditional names helps us to understand and reconnect with our environment.



luni 24 - iulai 22, 2017

*Excerpt from the 2017 Amerika Samoa Lunar Calendar.*