World Oceans Day leads to legislative strides for ocean protection

On June 8, 2021, World Oceans Day, nine not-so-small steps toward ocean protections in Hawai‘i made one giant leap to improve our marine resources. Governor Ige signed nine bills into law that will elevate effective management of nearshore areas and ultimately contribute to Holomua: Marine 30x30. This legislative victory will benefit resource users statewide by increasing funding sources for management and policies for protection. It demonstrates one of many ways DAR can implement management strategies to progress and support Hawai‘i’s commitment to marine management.

**HB1016 Commercial Marine Vessel Licenses:** A single commercial marine vessel license will fulfill the requirement for all people aboard a vessel for any commercial activity including fishing charter services or taking of marine life for commercial purposes. This tacks onto any existing rules and protocols established for that specific commercial use. The bill encourages increased and accurate reporting to DLNR and better monitoring of commercial take of marine species.

**HB1017 Crustaceans:** Take of female spiny lobsters, Kona crabs, and Samoan crabs is now allowed due to a repeal of a statute that prohibited their take. Species-specific statewide rules are created to align with known pono practices regarding resource use but for these crustaceans, sex specific regulation was concluded to be no longer necessary for proper harvesting of these species.

**HB1018 Lay Net Permits:** Lay nets are one of the more indiscriminate fishing methods used in Hawai‘i catching a wide variety of reef fish in large quantities. While many local fishers use lay nets responsibly, permits and associated rules will help to monitor their use and establish consequences for those not complying with pono practices.

**HB1019 Ocean Stewardship Special Fund:** The Ocean Stewardship Special Fund will collect $1 per person from each commercial tour operation to generate revenue for protection, restoration, and management of nearshore resources. This fee allows visitors to support the active management and restoration of our nearshore waters and help offset some of the impacts that they have on marine resources.

**HB1020 Adaptive Management:** A process was established granting authority to BLNR to bypass the lengthy rule-making process and temporarily implement management measures as needed in response to rapidly changing conditions of the environment. This helps Holomua: Marine 30x30 to establish effective management strategies that can be iterative and adjusted as necessary.

**HB1022 Natural Resource Inspections:** The Division of Conservation and Resources Enforcement (DOCARE) officers now have the authority to inspect coolers. This increases officers’ ability to enforce existing regulations and thereby, encourages pono harvesting practices of resources.

**HB1023 Nonresident Recreational Marine Fishing License:** Any nonresident looking to fish in Hawai‘i will now be required to purchase a recreational fishing license. Funds collected will support fishing opportunities through the Federal Sport Fish Restoration Program. Similarly to the Ocean Stewardship fund, this generates revenue from visitors to support the active management and restoration of our nearshore waters.

**HB553 Shark Protection:** Any capturing, entangling, or killing of a shark in state waters is prohibited with certain exemptions. This will eliminate inconsiderate treatment of sharks in nearshore waters.

**SB772 Special License Plates:** Special nature themed license plates will be issued and funds acquired will be used for conservation and restoration efforts.
Evaluating our MMAs

Holomua: Marine 30x30 is focused on building effective networks of Marine Management Areas by island groups to achieve its 30% goal. To ensure these networks are effective and MMAs are serving the community, DAR is establishing a framework of principles and indicators to track ecological and social change with management. Design principles will serve as guidelines to determine how each MMA contributes to its island network. Indicators refer to things that can be measured to reveal the presence or condition of something—in this case, biological/ecological conservation or improvement or social/cultural enhancement.

Socio-cultural Design Principles and Indicators—How are we designing new MMAs to strengthen connection to place?
The Holomua: Marine 30x30 Team worked closely with a UH graduate student to hold 4 online workshops with known kūpuna, cultural practitioners, community members, and resource users to share what social and cultural value nearshore resources hold to them and determine how to measure that value for their nearshore place. The workshops were divided up by Oʻahu, Maui Nui, and Kauaʻi with Hawaiʻi Island, followed by a fourth session including all invited participants to review all indicators. The indicators developed will be used to evaluate MMAs from a social and cultural perspective by showing the benefits that nearshore resources provide to communities. They will allow us to track whether resource use for cultural and social purposes, people’s connections to place, are improving with management.

Fig. 1. Common thoughts and themes from the socio-cultural workshop.

Ecological Design Principles: DAR biologists, in collaboration with subject experts, have developed a robust set of ecological design principles that aim to maximize ecological objectives by taking into account key biological and physical processes (including resilience to climate change) to guide the design of the MMA island networks. Design principles are guidelines that provide scientific advice on how to create a network of marine management area (MMAs) networks that are effectively managed so that each will achieve its objectives, with the MMAs working connectively and on their own.

Biological Indicators: DAR is working with monitoring partners and collaborators to use biological indicators to measure the condition of nearshore ecosystems in Hawaiʻi and to identify areas most likely to benefit from management. A set of eight indicators (including fish biomass and percent coral cover, as examples) was developed by the Hawaiʻi Monitoring and Reporting Collaborative (HIMARC) with input from over 30 subject experts and resource managers in Hawaiʻi. The HIMARC database includes monitoring data from seven major monitoring programs (including DAR), encompassing over 10,000 underwater surveys, used to estimate the condition of these indicators, accounting for variability in both environmental and human variables affecting nearshore waters. Additional indicators may be included for specific MMAs, as needed.

DAR will be using these principles and indicators to ramp up place-based planning contributing to Holomua: Marine 30x30’s goal.

Marine Management Area (MMA) Updates

DAR is preparing for a public hearing regarding updated rules for Kahului Harbor in Maui. The hearing is scheduled to occur on July 14, 2021. An amendment to include the Kapo‘o tidepools as part of the Pūpūkea Marine Life Conservation District (MLCD) passed unanimously at the 6/10/21 BLNR hearing. View the BLNR hearing here. A testimony summary for the Moʻomomi Community Based Subsistence Fishing Area (CBSFA) is available here. However, DAR is still having internal discussion as to next steps with the process. View the public hearing here.
Statewide Herbivore Management: A New Direction

DAR has determined that our nearshore coral reefs are in a state of crisis. There is an impending tragedy of coral reef loss due to climate change impacts such as warming ocean temperatures, coral bleaching, and ocean acidification. The best available data, direct observation from scientists and citizens, and a sufficient number of devastating occurrences in Hawaii and throughout similar coral reef ecosystems form the basis of this concern. Herbivore fish are those that eat seaweed and algae and keep the reefs and corals healthy and resilient to these impacts. The most common herbivores are uhu (parrotfish), nenue (chubs, and rudderfish), manini, kole, puualu, umaumalei, kala, and palani (surgeonfish). They have a key role on Hawaii’s reefs and their preservation ensures more generations of corals, more generations of fish, and more generations of resource users who can subsist off of nearshore resources. DAR is certain that action is required to prevent further degradation of coral reefs and has been taking small steps to move herbivore management forward.

Mahalo to all of our passionate local resource users, community groups, partners and collaborators for participating in DAR’s scoping meetings to achieve statewide herbivore management. As a preliminary step to the rule-making process, our scoping events took place in November and December. These were followed by six additional targeted meetings with fishers statewide in March, in effort to get feedback on future scoping materials. Following the first round of meetings, our DAR team regrouped and made the decision to reach out to key fishers across the state in response to a lack of representation of this critical user group in the previous set of meetings. These follow up meetings were privately coordinated to primarily be sharing sessions with close fisher networks to review data and materials to be presented at the second official round of public meetings. However, we underestimated the anticipation and eagerness of fishers to be involved.

The recent meetings had an enthusiastic turnout with upwards of 100 people in both the O‘ahu and Kaua‘i online gatherings, which doubled and sometimes tripled the amount of participants from our first round of meetings. We are grateful for the fishers who took it upon themselves to spread the word and rally a large presence to give us the most accurate depiction of how herbivore regulations will affect those who rely on the resource most. DAR was especially pleased to host local resource users of all ages, from young ones who are still learning to seasoned fishers with a wealth of place-based knowledge. As a government agency, our intention is to work with the people of Hawai‘i to manage, conserve, and restore the state’s aquatic resources and ecosystems for present and future generations. Scoping sessions are one of our best tools to work with the public to ensure a better future for Hawai‘i’s nearshore marine resources. A few of the meetings continued well past their scheduled time, demonstrating the need to open more lines of communication between state entities and local resource users in the future.

During the meetings, it was evident that not enough information was disseminated regarding the herbivore management effort and therefore, a lot of issues of concern were brought up. The topics under discussion included concerns regarding the rigor and extent of monitoring data used to inform herbivore regulations, extent and impact of mauka issues impacting the nearshore, conflicting views of nearshore fisheries, mismanagement of marine resources, and long-withstanding distrust between communities and DAR. Both rounds of sessions highlighted the differences in people’s experiences with herbivores from different islands and we heard the need for considering some of these rules at a place-based level, as opposed to statewide. Following many hours of these meetings, DAR staff took the time to debrief and discuss how best to move forward given the feedback we were given.

Under guidance from external facilitation experts, DAR would like to take this time to re-evaluate its approach to address the needs and concerns of the people of Hawai‘i rather than proceed with our original timeline and the presented list of herbivore species proposed for potential regulation. Therefore, the second round of scoping meetings scheduled for June 2021 will now be delayed until DAR feels like we have appropriately readied ourselves for this to move forward in a way that works for everyone. This delay does not denote DAR’s abandonment of this effort. We will continue to promote the benefits that herbivorous fish, such as uhu (parrotfish), provide to nearshore reefs. These species play key roles on the reef to enhance resiliency and recovery in the face of impacts such as climate change and land-based sources of pollution enhancing resiliency and recovery. However, we do not feel it would be right to proceed with our current timeline given the criticisms and concerns received.

Mahalo to all of the participants in these scoping meetings for investing your time into sharing your mana‘o with us. DAR still believes herbivore management is necessary for the protection of our coral reefs and has decided to do more listening before proceeding on possible herbivore administrative rules. Over the next couple of months, DAR staff will be hosting monthly talk story sessions on each island to not only discuss herbivore management, but to provide more information about Holomua: Marine 30x30, and get feedback from the community about the condition of our marine resources. Please be patient with us as we adjust our plan in the hopes that we can all work towards bridging gaps between community and DAR, creating a brighter future for our keiki, nearshore resources, and Hawai‘i.

See additional information about the effort here: [Herbivore Management](#) and sign up to be notified of future events [here](#).