State of Hawai'i DEPARTMENT OF LAND AND NATURAL RESOURCES Division of Aquatic Resources Honolulu, Hawai'i 96813

December 8, 2022

Board of Land and Natural Resources State of Hawai'i Honolulu, Hawai'i

REQUEST FOR APPROVAL TO HOLD PUBLIC HEARINGS TO AMEND HAWAII ADMINISTRATIVE RULES CHAPTER 13-95, "RULES REGULATING THE TAKING AND SELLING OF CERTAIN MARINE RESOURCES," TO INCREASE THE MINIMUM SIZE FOR MANINI, ESTABLISH A MINIMUM SIZE LIMIT FOR TAKE, POSSESSION, OR SALE OF KOLE, ESTABLISH A BAG LIMIT FOR KALA, UPDATE REGULATIONS FOR UHU TO MIRROR THE CURRENT ISLAND-WIDE UHU REGULATIONS FOR THE ISLAND OF MAUI, ALLOW THE TAKE OF FEMALE PĀPA'I KUALOA (KONA CRAB) WITHOUT EGGS, EXTEND THE PĀPA'I KUALOA (KONA CRAB) CLOSED SEASON FROM MAY THROUGH SEPTEMBER, AND MAKE OTHER NON-SUBSTANTIVE HOUSEKEEPING AMENDMENTS FOR CLARITY AND CONSISTENCY WITH OTHER CHAPTERS.

Submitted for your consideration and approval is a request to hold statewide public hearings to amend Hawaii Administrative Rules (HAR) chapter 13-95, "Rules Regulating the Taking and Selling of Certain Marine Resources." The proposed amendments include:

- 1. Increasing the minimum size for manini (Convict Tang) from five inches to six inches;
- 2. Establishing a minimum size of five inches for kole (Goldring Surgeonfish);
- 3. Establishing a bag limit for kala (Bluespine Unicornfish) of two per person per day with a possession and sale exception for commercial marine dealers;
- 4. Prohibiting the take of any uhu 'ele'ele¹ or uhu uliuli;²

¹ "Uhu 'ele'ele" means any fish known as *Scarus rubroviolaceus* or any recognized synonym that has reached its terminal phase, indicated by a change in coloration from a predominantly brownish-red or yellowish-gray body with reddish fins, to a predominantly green or blue-green body color with a green beak. See **Exhibit 4**, HAR §13-95-1, Definitions.

² "Uhu uliuli" means any fish known as *Chlorurus perspicillatus* or any recognized synonym that has reached its terminal phase, indicated by a change in coloration from a grayish brown body with a broad white band at the base of the tail, to a blue-green body with a dark band across the top of the snout and the lack of a white tail band. See **Exhibit 4**, HAR §13-95-1, Definitions.

- 5. Increasing the minimum size for uhu pālukaluka³ and uhu 'ahu'ula⁴ from twelve to fourteen inches;
- 6. Establishing a minimum size of ten inches for all other uhu;
- 7. Establishing a bag limit of two uhu per person per day with a possession and sale exception for commercial marine dealers;
- 8. Allowing the take of female pāpa'i kualoa (Kona crab) without eggs;
- 9. Extending the current closed season (May-August) for pāpa'i kualoa to May-September; and
- 10. Making other non-substantive housekeeping amendments for clarity and consistency with other chapters including adding new definitions, amending old definitions, and other stylistic and grammatical corrections throughout the chapter.

HISTORY

Coral reefs represent one of the most iconic ecosystems in Hawai'i. Nearshore reefs provide a broad suite of ecosystem services, social benefits, and economic support to the State. Corals provide key habitat for important food fishes, protect shorelines from coastal erosion, support the local economy through tourism and recreation, and are central to Hawaiian culture, history, and sense of place.

The overall health of Hawai'i coral reefs, along with the ecosystem services those reefs provide to the State, are threatened by many factors at both local and global scales including the ongoing climate crisis, land-based sources of pollution, physical damage from ocean activities, marine debris, and unsustainable fishing practices. At the broadest scales, the current climate crisis is intensifying and driving mass coral bleaching events worldwide, often with severe consequences for the coral reefs of Hawai'i. A global bleaching event from 2014-2017 was one of the most devastating of such events on record for the State, resulting in mortality rates of 50% in West Hawai'i and 20-30% on Maui. The future of these vital ecosystems will depend on their ability to withstand and recover from events like coral bleaching.

Herbivores play a vital role in ensuring reefs maintain naturally strong resilience. Maintaining high biomass of herbivores like uhu, kala, manini, and kole is essential for supporting healthy coral populations as these species prevent overgrowth from algae, allowing corals to recover following bleaching or other mortality events. The Division of Aquatic Resources (DAR) has set a goal of sustainably managing herbivore populations through responsible harvesting practices in order to promote coral reef resilience. DAR's management objectives are laid out in the four pillars of the Holomua Marine 30x30 initiative: Place-based Planning, Pono Practices, Monitoring, and Protection and

³ "Uhu pā lukaluka" means any fish known as *Scarus rubroviolaceus* or any recognized synonym that has not rea ched its terminal phase. Uhu pā lukaluka have a predominantly brownish-red or yellowish gray body with reddish fins. The terminal phase of these fish are known as uhu 'ele'ele. See **Exhibit 4**, HAR § 13-95-1. Definitions.

⁴ "Uhu 'ahu'ula" means any fish known as *Chlorurus perspicillatus* or any recognized synonym that has not reached its terminal phase. Uhu 'ahu'ula have a grayish brown body with reddish fins and a broad white band at the base of the tail. The terminal phase of these fish are known as uhu uliuli. See **Exhibit 4**, HAR §13-95-1, Definitions.

Restoration.⁵ Protection of key herbivore species at the statewide level is a key component to achieving DAR's sustainable management goals within the Pono Practices pillar.

In order to meet the need for statewide sustainable management of Hawai'i marine herbivore species, DAR developed and scoped an initial set of herbivore rules that included new or amended size and/or bag limits for numerous herbivore species including uhu, a variety of surgeonfishes, nenue (Sea Chub), and all reef-associated species of sea urchins. As part of the initial scoping period, DAR solicited feedback from the public through numerous scoping events, meetings, and face-to-face discussions. DAR held 10 initial statewide scoping sessions in November of 2020 to gather preliminary feedback and comments on herbivorous fishes and invertebrates. The scoping notes from the initial statewide scoping sessions in November of 2020 are attached as Exhibit 1. In addition to the initial scoping sessions, DAR also deployed a variety of alternative engagement mechanisms, via phone, e-mail, and mail, in order to ensure maximum community involvement. Following the initial outreach period, DAR staff diligently compiled the extensive feedback collected. DAR then underwent a thorough review and revision of the proposal in response to the feedback in order to better align with the needs of fishers expressed in the initial scoping period while still achieving DAR's goal to sustainably manage herbivores.

In response to the feedback from the initial scoping, DAR reduced the scope of the proposed rules to include regulations for uhu, kole, kala, manini, pākuʻikuʻi (Achilles Tang), umaumalei (Orangespine Unicornfish), nenue, wana, ʻina (Rock-Boring Urchin), and hāwaʻe (Collector Sea Urchin) and commenced another, targeted round of 6 scoping sessions in March of 2021 with specific stakeholder groups (e.g. DAR's Fishers Working Group). The scoping notes from the targeted scoping sessions in March of 2021 are attached as **Exhibit 2**. Based on the feedback from the targeted scoping, DAR developed a comprehensive Herbivore Management Plan, 6 including a statewide herbivore management strategy, and further refined and significantly reduced the scope of the proposal to the four species included in the draft proposal before the Board today.⁷

DAR conducted a secondary series of follow-up, virtual public scoping sessions via Zoom on the updated proposal in December of 2021 and also collected feedback via an online form. The scoping notes from these follow-up scoping sessions and from the online form responses are attached as **Exhibit 3**. The proposal received broad support among participants in the December 2021 scoping sessions. However, some participants expressed concern over the impacts of the proposal to the commercial uhu and kala fisheries, prompting additional, targeted scoping sessions with commercial uhu and kala fishers and dealers. The scoping notes from this final targeted scoping are attached as **Exhibit 4** and the results are discussed in the "Additional Considerations" section of this submittal.

⁵ For more information on the four pillars of the Holomua Marine 30x30 initiative, visit https://dlnr.hawaii.gov/holomua/about/.

⁶ More information on the Herbivore Management Plan, including a PDF of the plan, can be found at https://storymaps.arcgis.com/stories/382eaa3e594d4e1ba19ac9a57b363a27.

⁷ Many fishers raised the issue that there are important regional differences for a number of these species. In order to account for these differences, DAR has opted to pursue a smaller set of species for rules at the statewide level with this current proposal and plans to address the remaining species at regional and/or place-based scales in the future.

The rules proposed here are the final result of this extensive public scoping process combined with substantial consultation with scientific experts. This proposal is supported by sound science and clear ecological value. Based on the feedback from the December 2021 scoping sessions, DAR has decided to move forward with the rules package as it was scoped in December 2021. In the "Additional Considerations" section of this submittal, DAR provides an analysis of the impacts to the commercial uhu and kala fisheries and markets, as well as some viable alternative management measures that would reduce the impact on commercial fisheries and markets, should the Board find it necessary to modify the draft rules prior to holding public hearings.

PURPOSE AND OVERVIEW OF PROPOSED AMENDMENTS

(1) Manini⁸

Current Rule: Minimum size of 5 inches

Proposed Rule: Increased minimum size of 6 inches

The current minimum size for manini is 5 inches. 9 However, the length at maturity for the species ranges from 5-6.1 inches. Increasing the minimum size will ensure that more individuals within these populations are able to reach maturity and reproduce prior to being harvested.

(2) **Kole**¹⁰

Current Rule: None

Proposed Rule: New minimum size of 5 inches

The length at maturity for kole differs for males and females with females reaching 50% maturity at 3.3 inches and males reaching 50% maturity at 3.9 inches. A 5-inch minimum size will ensure that many individuals of both sexes are able to reach maturity and reproduce prior to being harvested. Additionally, the maximum length of female kole is around 5 inches. Therefore, this rule would effectively protect almost the entire female population.

(3) Kala¹¹

<u>Current Rules</u>: Minimum size of 14 inches; No daily bag limit

Proposed Rules: Maintain minimum size of 14 inches; New bag limit of 2 per

person per day

A stock assessment by the National Oceanic and Atmospheric Administration (NOAA) in 2017 indicated that kala are currently fished at an unsustainable level. One measure of sustainability is the spawning potential ratio (SPR) which compares egg production in fished populations with estimated egg production if there was no fishing

⁸ See Exhibit 4, HAR §13-95-5, Manini.

⁹ Unless otherwise noted, all minimum lengths refer to the fork length (the straight line measurement from the tip of the snout to the middle of the trailing edge of the tail.

¹⁰ See **Exhibit 4**, HAR §13-95-25, Kole.

¹¹ See **Exhibit 4**, HAR §13-95-11, Kala.

pressure. An SPR value of 0.3 is often used as an acceptable threshold between unsustainable and sustainable with values less than 0.3 considered unsustainable. The 2017 assessment indicated an SPR of 0.03 for kala, one tenth the value considered the minimum for sustainability.

The rules proposed here would establish a take and possession limit of 2 kala per person per day. Placing strict limits on take will help to address the currently low reproductive output of the species and allow stocks to replenish while still allowing for subsistence levels of harvest.

(4) Uhu¹²

<u>Current Definition</u>: "Any fish known as *Scarus dubius*, *Scarus psittacus*, *Scarus*

rubroviolaceus, Chlorurus sordidus, Chlorurus perspicillatus,

or any recognized synonym."

Proposed Definitions: "Any fish belonging to the family Scaridae or any recognized

synonyms. Uhu is a general term for parrotfish." Separate definitions and rules for uhu 'ahu'ula/uhu uliuli (*chlorurus perspicillatus*) and uhu pālukaluka/uhu 'ele'ele (*Scarus*

rubroviolaceus)

<u>Proposed Rule</u>: New bag limit of 2 per person per day for all uhu

(A) Uhu 'Ahu'ula or Uhu Uliuli (*Chlorurus perspicillatus*)

Current Rules: Minimum size of 12 inches

Proposed Rules: No take of uhu uliuli; Increased minimum size of 14 inches

for uhu 'ahu'ula

(B) Uhu Pālukaluka or Uhu 'Ele'ele (Scarus rubroviolaceus)

Current Rules: Minimum size of 12 inches

Proposed Rules: No take of uhu 'ele'ele: Increased minimum size of 14

inches for uhu pālukaluka

(C) All Other Uhu

Current Rules: Minimum size of 12 inches (for *Scarus dubius*, *Scarus*

psittacus, and Chlorurus sordidus only)

Proposed Rules: Decreased minimum size of 10 inches for Scarus dubius,

Scarus psittacus, and Chlorurus sordidus; New minimum

size of 10 inches for all other uhu (Scaridae family)

The proposed daily bag limit of 2 reflects the outsized ecological role uhu play as "scrapers." ¹³ Similar to kala, a bag limit of 2 fish per person per day puts a strict limit on the take of this species while still allowing fishers to harvest for subsistence purposes.

¹² See **Exhibit 4**, HAR §13-95-1, Definitions, and HAR §13-95-16, Uhu.

¹³ Uhu are commonly referred to as scrapers because their method of feeding involves using their beak-shaped teeth to scrape limu down to the bare substrate. This effectively clears space on the reef and opens up habitat for corals to settle and grow.

This bag limit has been in place for Maui since 2014 and initial data have indicated that uhu biomass has been increasing since that time. ¹⁴

The only current statewide regulation for uhu is a minimum size of 12 inches and only includes 5 uhu species. The introduction of separate size limits for the large-bodied ¹⁵ and small-bodied ¹⁶ uhu species will better match the life histories of each species. Large-bodied uhu reach reproductive maturity between 13.6 and 13.8 inches and small-bodied species reach maturity at sizes between 5.5 and 9.6 inches. Therefore, minimum size limits of 14 inches for large-bodied species and 10 inches for small-bodied species will allow sufficient numbers of all species to reach reproductive size.

All species within the uhu family are sequential hermaphrodites meaning individuals can change sex from female to male throughout their life. Effective management of these species requires rules that specifically address this particular mode of reproduction. Smaller individuals within this family, referred to as initial phase uhu, ¹⁷ include both males and females and generally have a mottled brown coloration. The largest individuals are terminal phase ¹⁸ males with a bright blue/green coloration. Since fishing disproportionately affects larger fishes, male uhu that have reached their terminal phase are subject to increased fishing pressure. This additional pressure can lead to a range of consequences including skewed sex ratios, sperm limitation, various social and behavioral changes, and a reduction in the size at which females are triggered to change into males, which reduces the overall size of both terminal phase males and initial phase females. This, in turn, can cause a reduction in reproductive output. Prohibiting the take of large-bodied uhu that have reached the terminal phase would offer protection to the more heavily targeted and largest individuals of these species and provide a measure of stability to the population as a whole.

(5) Pāpa'i Kualoa (Kona Crab)¹⁹

Current Rules: Closed season May – August; Prohibited taking of females;

Prohibited taking of crabs with eggs; Prohibited taking with a

spear; Prohibited possessing or selling of speared crabs

Proposed Rules: Extended closed season May – September; Allowed taking of

females without eggs; All other rules remain the same

According to the latest Kona crab stock assessment in 2018,²⁰ the Main Hawaiian Island (MHI) stock is neither being overfished nor experiencing overfishing. This was a

¹⁴ Unpublished internal reviews of DAR marine monitoring data.

¹⁵ Large-bodied uhu is a term that collectively refers to uhu 'ahu'ula (initial phase *Chlorurus perspicillatus*), uhu uliuli (term inal phase *Chlorurus perspicillatus*), uhu pālukaluka (initial phase *Scarus rubroviolaceus*), and uhu 'ele'ele (term inal phase *Scarus rubroviolaceus*).

¹⁶ Small-bodied uhu is a term that collectively refers to all other uhu species within the family Scaridae (excluding the 2 large bodied species).

¹⁷ "Initial phase uhu" means any uhu that has not reached its terminal phase.

¹⁸ "Terminal-phase uhu" means any uhu characterized by the presence of bright green or blue markings or a predominantly green or blue body coloration, often with bright pink, orange, or yellow patches. See **Exhibit 4**, HAR §13-95-1, Definitions.

¹⁹ See **Exhibit 4**, HAR §13-95-51, Pāpa'i kualoa (Kona crab).

²⁰ Kapur MR, Fitchett MD, Yau AJ, Carvalho F. 2019. 2018 Benchmark Stock Assessment of Main Hawaiia n Islands Kona Crab. NOAA Tech Memo. NMFS-PIFSC-77, 114 p.

significant change in outlook compared to the preceding stock assessment, ²¹ which found that MHI Kona crab were both overfished and experiencing overfishing in 2007. The differing views of stock health resulted from improvements to the stock assessment methodology itself. In short, the improved stock assessment provided a more accurate view of a population likely not at risk.

Today, the MHI commercial Kona crab fishery is managed under a federally established annual catch limit (ACL) of 30,802 pounds. Comparatively, ten-year (2012-2021) average annual reported commercial harvest of MHI Kona crab is 4,109 pounds, or approximately 13% of the current ACL. Commercial reports show that effort and participation in the fishery is in a steady state of decline despite what appears to be a healthy stock. Waning interest in this fishery is thought to largely be the result of the current suite of restrictions, most notably the prohibition on female retention. Kona crab in the MHI generally have a near 1:1 sex ratio 22. While this male to female ratio can differ between time and location, on average it means that based on sex alone, about 50% of the catch will need to be thrown back. Including the release of undersized males, many fishers report discard rates in excess of 80%. While DAR does not have noncommercial Kona crab catch data (non-commercial fishers are not required to submit catch reports), both commercial and non-commercial fisheries use the same gear (Kona crab nets) and therefore likely have similar discard rates. Many Kona crab fishers today, whether fishing for home consumption, profit, or both, are not finding the effort worthwhile.

The MHI Kona crab stock is healthy, and current levels of harvest are far below the limits of sustainability. DAR believes that the current prohibition on the take of female Kona crab provides little conservation benefit in light of the best scientific information available. By allowing the take of female Kona crab, we will be improving the ability of fishers to feed themselves and their communities while also following the guidance of the regularly updated and improved stock assessment. Extension of the closed season by one month is a measure originally suggested by members of the fishing community that regularly observed berried females (carrying eggs externally) in their catch during the month of September. DAR supports this trade-off and believe that it may offer added protection for egg-carrying females at a vulnerable time.

(6) Other Housekeeping Amendments

As part of the Pono Practices pillar of the Holomua Marine 30x30 initiative, DAR is taking this opportunity to update the entire chapter by:

- Adding definitions for previously undefined terms in order to ensure clarity throughout the chapter;
- Amending certain definitions in order to ensure the most accurate usage of scientific, common, and Hawaiian names and terms are included; and
- Amending ambiguous or outdated legal terminology throughout the chapter.

²¹ Thomas LR, Lee H-H, Piner K. 2015. Characterization and Assessment of the Main Hawaiian Island Kona Crab (*Ranina ranina*) Fishery. Honolulu: Western Pacific Regional Fishery Management Council. 35p.

Wiley J, Pardee C, Lentes G, Forbes E. 2020. Unaccounted mortality and overview of the Hawaiian Kona crab *Ranina ranina* (Linnaeus) fishery. Fish Res 226: 105517.

The proposed rules drafted in Ramseyer format have been reviewed and approved as to form by the Department of the Attorney General and are attached as **Exhibit 5**.

ADDITIONAL CONSIDERATIONS

EFFECTS ON COMMERCIAL UHU AND KALA FISHERS AND MARKETS

The proposed rules will likely have significant impacts on commercial uhu and kala fishers, markets, and consumers. The most relevant available data shows both uhu and kala harvest are currently driven by targeted fisheries, which means that setting a statewide bag limit of two fish per person per day for uhu and kala will likely have a dramatic effect on total landings. The degree of impact to individual commercial fishers will vary; those that primarily target uhu and kala will be most impacted and those that catch and sell uhu and kala as secondary catch will be less affected. For the top commercial uhu and kala fishers, the uhu and kala fisheries may no longer be economically viable as a reliable source of income and they will have to shift to other fisheries to maintain profitability. Markets will also be impacted by the proposed rules. Significant declines in the amount of uhu and kala harvested will push local markets to supplement with imported uhu and kala or increase purchases of other local species as alternatives. Consumers, as a result, will find significantly decreased access to fresh, locally-harvested uhu and kala at the markets and will have to turn to imported uhu and kala or other local alternatives. A complete analysis of the effects the proposed rules will have on the commercial uhu and kala fisheries and markets is attached as **Exhibit 5**.

COMMERCIAL UHU AND KALA FISHERIES MANAGEMENT ALTERNATIVES

Available Management Options:

Commercial uhu and kala fishery management strategies based on established fishery management principles are available as alternatives to the proposed rules. Specific regulatory tools that could be used in the management of these commercial fisheries include:

- Temporal Restrictions²³
- Spatial Restrictions²⁴
- Size Restrictions²⁵

²³ Temporal or sea sonal fishery restrictions are commonly used in fishery management to limit effort, minimize by catch and protected species interactions, and protect target species when they are especially vulnerable to capture.

²⁴ Spatial or area-based fishery restrictions can be used to protect critical habitat, provide refugia from fishing, address specific place-based concerns or problems, and prevent unwanted interactions with non-target species.

²⁵ Size-based fishery restrictions are typically used to ensure that a sufficient proportion of a target population is reaching sexual maturity and therefore sustaining the biomass. Along with minimum size limits, size restrictions can also include maximum size limits intended to protect the largest, often most fecund mature adults.

- Gear Restrictions²⁶
- Commercial Bag Limits
- Annual Catch Limits (ACLs)
- Limited Entry Permitting Programs

Fisheries restrictions like those noted can be relatively ineffective when used by themselves because they may only address one part of, but often not the entire, problem. For example, while an area-based closure to fishing can be effective in protecting marine life within the bounds of the reserve, fishing pressure is often displaced elsewhere thereby not addressing unsustainable fishing practices at a broader scale. Effective management of Hawai'i's commercial uhu and kala fisheries would likely require a combination of management tools to address unsustainable fishing practices and ensure sustainability while still allowing some commercial take. Management alternatives can range from relatively simple to extremely complex and restrictive.

Potential Management Alternatives:

Annual Catch Limit (ACL)

Total limits on commercial fishing, such as an ACL, put a cap on the maximum amount of commercial harvest before the season is closed. Management under an ACL requires commercial fishers to provide regular and timely reports so that harvest can be tracked in real time. Typically, an ACL is set following a stock assessment which establishes the amount of sustainable take. Stock assessments are updated and re-run at set intervals to evaluate stock health and set new harvest limits.

A management plan centered around an ACL informed by a regularly updated length-based stock assessment would provide state managers the ability to set conservative harvest levels based on the best and most current scientific information available. Managers would begin with the amount of harvest deemed by the stock assessment to be sustainable and then weigh the uncertainties, ecological importance, social and cultural importance, and other factors before setting the ACL; For example, the stock assessment would set an initial maximum allowable take; Then, a subsequent evaluation of additional, contributing factors, such as cultural and economic concerns, would reduce that number to create the actual level of take allowed. Additional rules pertaining to season, area, size, gear, and life cycle (in the case of uhu species) could be added to address specific concerns and fine-tune the management plan. Commercial fishers harvesting uhu and/or kala would need to report catch weekly to allow tracking of the fisheries in real time. When the ACL is about to be reached, the fishery would be shut down and commercial sale prohibited. Accountability measures could be put in place to deter exceeding the ACL and correct such occurrences. One example of such a measure would be to require fishery managers to deduct each ACL overage from the following year's ACL. This is essentially how the Hawai'i Deep-7 fishery is managed.

²⁶ Gear-based restrictions are used to limit or prohibit the use of gears that may be too effective, inherently destructive, prone to bycatch and unwanted species interactions, or otherwise detrimental to the sustainability of the fishery.

Commercial Bag Limit

A simple alternative would be to set a higher, yet conservative, commercial bag limit for uhu and kala. A daily bag limit specifically for commercial fishers could be used to allow commercial harvest to continue while capping the maximum per-person harvest per day. These limits would only apply to those possessing a Commercial Marine License or an additional permit to harvest the species. This alternative would allow more commercial fishers to maintain their activity, albeit at lower levels of current daily take since, at present, there is no bag limit for either uhu or kala. Despite the simplicity of this option, it lacks an absolute maximum take level that the fishery is held to.

Limited Entry Permitting Programs

A limited entry fishery is one in which the number of entrants (typically fishers or vessels) is limited. Limited entry fisheries may also use Individual Fishing Quotas (IFQs) to divide the allowable catch into catch shares to be allocated among the fishery permit holders. Though many limited entry fisheries exist worldwide, including the Hawai'i Longline Fishery, DAR is unsure if the Department currently has the authority to establish limited entry commercial fisheries in State waters. DAR is currently working with the Department of the Attorney General and the Hawai'i State Legislature to explore potential authority options for establishing a limited entry fishery.

The ability to turn the commercial uhu and kala fisheries into limited entry commercial fisheries would provide the state a high level of control. By limiting participation to a low number of permittees, the State could create a tag-based fishery in which every fish would need to be tagged during transport and sale. Though this may appear extreme, limited entry tag-based commercial fisheries have been used elsewhere with success. The most realistic alternative option, however, is a management regime similar to the Hawai'i Deep-7 fishery and other federally/co-managed fisheries in Hawai'i utilizing ACLs combined with additional complementary management measures.

RECOMMENDATIONS:

That the Board:

- 1. Authorize and approve the holding of statewide public hearings to amend Hawaii Administrative Rules chapter 13-95, Rules Regulating the Taking and Selling of Certain Marine Resources; and
- 2. Delegate to the Chairperson the authority to appoint hearing officers to conduct the public hearings.

Respectfully submitted,

myn

BRIAN J. NEILSON, Administrator Division of Aquatic Resources

APPROVED FOR SUBMITTAL

Sgame Q. Cose

SUZANNE D. CASE, Chairperson Board of Land and Natural Resources

Attachments:

Exhibit 1	Scoping Notes: Initial Statewide Public Scoping Meetings (2020)			
Exhibit 2	Scoping Notes: Targeted Scoping Meetings (March 2021)			
Exhibit 3	Scoping Notes: Statewide Public Scoping Meetings Round 2 and			
	Online Feedback Form Responses (December 2021)			
Exhibit 4	Scoping Notes: Targeted Scoping Meetings with Commercial Uhu			
	and Kala Fishers and Dealers (May 2022)			
Exhibit 5	Proposed Rules (Ramseyer Format)			
Exhibit 6	Commercial Uhu and Kala Fisheries and Markets Potential			
	Impacts Analysis			

"RULES REGULATING THE TAKING AND SELLING OF CERTAIN MARINE RESOURCES" HAWAII ADMINISTRATIVE RULES CHAPTER 13-95

SCOPING NOTES: INITIAL STATEWIDE PUBLIC SCOPING MEETINGS (2020)



East Hawai'i Herbivore Scoping Meetings

November 12, 2020, 5:30pm – 7:30pm via Zoom : 13 attendees December 10, 2020, 5:30pm – 7:30pm via Zoom: 16 attendees

<u>Purpose of Meeting:</u> Statewide meetings were held to listen, learn, and collect input from various stakeholders about how best to manage key herbivorous species throughout Hawai'i. DAR presented concerns for climate change-induced threats to our coral reefs, such as warming ocean temperatures causing catastrophic coral bleaching events, and the key roles that healthy populations of herbivores contribute to reef resilience and recovery.

General Comments:

Sparked by the discussion on surgeonfish, there was support for local subsistence fishing to feed families and neighbors, but participants shared it is hard to enforce without DOCARE having cooler inspection authority and with a lack of officers. Most participants agree that there should be more enforcement in regards to taking urchins as well as surgeonfish, but that public education and accountability should be of high focus. Some felt education to increase compliance was more important than increased enforcement. There was support for a ban on aquarium fishing, scuba spearfishing, and night spearfishing. Participants noted massive diving areas at Hamakua, South Kona, Kapoho have no life present (no fish, coral, algae, etc.).

Urchins:

Wana and hā'uke'uke are most prized by communities. Communities will harvest long-spine wana in Keaukaha and Puhi bay and have seen a decrease in the hā'uke'uke urchin in North Kohala. Harvest typically occurs in August – October, when the urchins are full of eggs. It was shared that replenishment efforts should be taken and that urchin breeding and outplanting, similar to O'ahu, could be put in place on Hawai'i Island. Participants suggested limits on urchins be measured in volume of wana, not the individuals.

Nenue:

Participants felt that nenue populations vary, but acknowleged their importance for controlling algae. They are heavily fished along South Point and the southeast portions of Hawai'i Island. It was expressed that rough ocean conditions benefit the populations and prevent them from being overharvested, but that there should be a size limit for the fish and management should be placed in common access areas. Participants emphasized a need for public education and enforcement in many common access areas.

Surgeonfish

For surgeonfish, many of the participants supported bag limits, but some opposed them statewide due to the needs of different local families and communities. Yellow tangs and reef has noticeably declined (most likely due to aquarium trade). For kole, they suggested no take for aquarium purposes but keeping their bag limit to 20 due to size differentials and seasonal changes.



Uhu:

Participants suggested banning night spearfishing on uhu and adopting Maui regulations, placing restrictions on uhu to prevent the take of males. They recommended a gear restriction on commercial take of the species, a quota due to it's low population, and an adjusted slot limit of a minimum of 14" but the maximum be much larger.

Public feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.



West Hawai'i Herbivore Scoping Meetings

November 10, 2020, 10:00am – 12:00pm via Zoom : 44 registered (number attended unknown) December 3, 2020, 5:30pm – 7:30pm via Zoom: 45 attendees

<u>Purpose of Meeting:</u> Statewide meetings were held to listen, learn, and collect input from various stakeholders about how best to manage key herbivorous species throughout Hawai'i. DAR presented concerns for climate change-induced threats to our coral reefs, such as warming ocean temperatures causing catastrophic coral bleaching events, and the key roles that healthy populations of herbivores contribute to reef resilience and recovery.

General Comments:

Participants supported a ban or regulation on night diving. Many of the participants emphasized education and the importance of public engagement to inform the public about types of regulations made and where they are applied. Participants preferred place-based regulations and increasing the incorporation of indigenous knowledge, referencing the positive results of Mauis uhu regulations. Participants requested to see water quality data along with the presented species rules and studies. In addition, efforts should be monitored and successful existing efforts should be pushed forward, such as the program in Hilo for raising mullets and moi.

Urchins:

The majority would like to see increased public education on urchins and do not believe that closed seasons would benefit populations because the open harvest months would be during their spawning time, when they have eggs. Urchins are a seasonal fishery with no current commercial harvesting. The surveys show that wana populations are doing well with urchins littering the bottom of Kohala. They requested the bag limits to be double and place-based regulations implemented. Due to the number of urchins differing by area, they should be relocated from abundant areas to less abundant places and see how they do. A diver who frequently sees overtake of wana supported more education for the local population and additional regulations. Protections on wana may help increase control on invasive species such as ta'ape and roi.

Nenue:

Regarding nenue, participants shared that most take is due to local and recreational fishers, not commercial harvest. DAR acknowledge the decline of 12% in this species is not as much of a decline as other speices, but is noticeable in the Miloli'i area. Place-based regulations and bag limits were supported.

Surgeonfish

Participants expressed seeing declines in westside populations of surgeonfish. They supported a ban on aquarium take, with some suggesting action to stop airlines from transporting live fish. Some suggested a recreational fishing license to provide a source of money for the state and water resource management.



Uhu:

Participants suggested a regulation for bigger uhus, so they can remain the better breeders in the large gene pool. Most participants agreed to a bag limit on uhu. Some wanted to increase regulations for commercial fishing.

Public feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.



Maui Herbivore Scoping Meetings

November 10, 2020, 5:30pm – 7:30pm via Zoom: 20 attendees November 24, 2020, 5:30pm – 7:30pm via Zoom: 17 attendees

<u>Purpose of Meeting:</u> Statewide meetings were held to listen, learn, and collect input from various stakeholders about how best to manage key herbivorous species throughout Hawai'i. DAR presented concerns for climate change-induced threats to our coral reefs, such as warming ocean temperatures causing catastrophic coral bleaching events, and the key roles that healthy populations of herbivores contribute to reef resilience and recovery.

General Comments:

Current regulations are supported by the majority of participants, but many voiced support for place-based regulations with managed areas, not no-take areas. Participants suggested putting a moratorium on commercial sale of herbivores, establishing fines for commercial sales, and banning commercial sale of reef fish completely. Participants supported banning night diving and scuba spearfishing. Participants suggested using a permit process for fishers and the money raised being used to pay for enforcement and education. Increased DAR presence to train local volunteers, more baseline data and community engagement for stewardship, and more education on the role of herbivores in comparison to other species was voiced to be needed. Opposition to rules stems from people who feel that they are already exhibiting pono harvesting practices and should not have rules made on them. Participants expressed a need for baseline scientific data on how herbivore populations are doing in specific areas and that management areas could be a good way to enforce regulations. There is a concern that resource users don't like to be told what to do, but if you can show the data as it aligns with their observations, they are more likely to comply. Participants felt that aquarium take should be regulated more strongly than subsistence take with separate bag limits for each.

Urchins:

Participants witness some urchin species, such as the collector urchin, being heavily harvested by a particular ethnic group (gathered by the 5-gallon bucket and boiled to be eaten). They feel regulations or bag limits on wana are needed to prevent overharvest from becoming a substantial problem. A majority of participants think populations are in good condition, but could be better managed. It was mentioned that individual bag limits are hard to manage and that fishing licenses for these species could be hard to implement as well.

Nenue:

Nenue is targeted by surround net fishers and harvested in vast quantities within Maui Nui. Throw nets can also wipe out schools very quickly. Participants suggested the mesh size be larger and were willing to sacrifice traditional throw netting to allow the population to recover. It was suggested to eliminate throw netting on nenue for 1-2 years or to close an area for a certain period. Participants shared that education will reach irresponsible recreational fishers, but may not reach large-scale commercial fishers.



Surgeonfish and Uhu:

Participants proposed establishing a bag limit of 20 surgeonfish per person per day instead of by each species. However, participants also felt bag limits should depend on the health of the species. They agreed that Maui's current rules are good, but the rest of the state should also adopt them. They referred to Maui's Kahekili Herbivore FMA as an example. Some felt the ban on blue uhu on Maui were ineffective.

Public feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.



O'ahu Herbivore Scoping Meetings

November 17, 2020, 5:30pm – 7:30pm via Zoom: 38 attendees December 2, 2020, 5:30pm – 7:30pm via Zoom: 33 attendees

<u>Purpose of Meeting:</u> Statewide meetings were held to listen, learn, and collect input from various stakeholders about how best to manage key herbivorous species throughout Hawai'i. DAR presented concerns for climate change-induced threats to our coral reefs, such as warming ocean temperatures causing catastrophic coral bleaching events, and the key roles that healthy populations of herbivores contribute to reef resilience and recovery.

General Comments:

While there are concerns for statewide regulations from fishermen, the majority of participants are in favor of banning night diving and increased funding for enforcement. It was suggested that Hawaii follow mainland management practices and step up enforcement, inspections, and fishing licenses. In addition to strengthened enforcement, participants voiced a need to increase education efforts.. Generally, fishers did not see much of a problem in shortage of fish and expressed frustration with being singled out. There was mention of focusing regulations on gear restrictions, managing aquarium take, and applying Maui rules statewide. They also felt that managers should look at the impacts of global warming and the Hawaiian monk seals to be responsible for fish depletion.

Urchins:

Urchin harvesting is mostly non-commercial subsistence take. Participants see healthy populations of urchins, but mention that runoff issues in Maunalua Bay, Kāne'ohe bay, and Waimea Bay could be detrimental. Participants felt that place-based regulations may help in certain areas during certain times of the year and would be in favor of a permit with a quick and easy process for urchin take. Some suggested that since wana are only collected for special occasions and not on a regular basis, perhaps a process to extend the bag limit for special occasions would be a possible option. Some stated concerns about statewide rules in general and suggested urchin species be separated out for management.

Nenue:

Regarding nenue, participants wanted to see more monitoring data from DAR and more studies and research about proper harvesting practices. They supported place-based regulations as the best option to manage the fish. Some expressed the need for better enforcement on regulations and rules for harvesting nenue and suggested gear restrictions as a potential tool. An alternative bag limit of 10 was suggested.

Surgeonfish:

Across all surgeonfish, participants requested more education about what is causing declines. They suggested implementing rules per species and not across all surgeonfish. It was also suggested that management of herbivores be split between recreational, commercial, and aquarium use. Due to kole being used for large gatherings, bag limits were too restrictive. Participants said slot limits would not be



effictive for spears or net throws, so bag limits, seasonal restrictions, or place-based regulations are the most reasonable tools.

Uhu:

Participants unanimously agreed that uhu are overfished. There was wide support for a ban on night diving for uhu, in addition to Maui's rule on no take of blues. Some suggested they be regulated through place-based management and protected in areas with heavy algal growth. A few participants did express support for a slot limit on uhu. Participants supported a restriction of 2 uhu per day, even for commercial harvesting.

Public feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.



Kaua'i Herbivore Scoping Meetings

November 17, 2020, 5:30pm – 7:30pm via Zoom: 8 attendees December 1, 2020, 5:30pm – 7:30pm via Zoom: 32 attendees

<u>Purpose of Meeting:</u> Statewide meetings were held to listen, learn, and collect input from various stakeholders about how best to manage key herbivorous species throughout Hawai'i. DAR presented concerns for climate change-induced threats to our coral reefs, such as warming ocean temperatures causing catastrophic coral bleaching events, and the key roles that healthy populations of herbivores contribute to reef resilience and recovery.

General Comments:

Participants agree that public education and communication with local fishermen and harvesters should be promoted. They recommended doing in-field interviews with fishers to supplement these meetings because they may be unaware of their occurrence and that more community members that gather attend these meetings. They have seen lots of tourists present in Hanapepe where fishers harvest wana and emphasize that the blame should not be put on subsistence gatherers. In addition, there were concerns about night divers and suggested a night diving restriction, but also mentioned the need for more enforcement. They suggested DAR recognize and understand historical trauma natives have experienced and include those sentiments in their decision-making moving forward. Fishers do not see themselves as the problem, which causes more resentment towards the agency.

Urchins:

Participants have witnessed overharvesting of urchins in the summertime leading to a seasonal decline along with general declines observed on the east and north shore. Participants expressed an interest in DAR's data on urchin population declines. Currently, Hā'ena has rules in place for bag limits and they suggested focus be placed on education through place-based programs like Makai Watch. Urchins are mainly place-based and participants supported bag limits, sharing they only take enough to eat and are looking at ways to use wana to repopulate reefs.

Nenue:

Participants felt nenue are more difficult to catch, which makes their populations more plentiful. They expressed that the main concern was netting of schools. They suggested a one rod and reel gear restriction or a netting restriction to address efficient gear concerns. Participants also felt that a bag limit of 2 was too little and suggested a weight limit in lieu of a bag limit or a bigger bag limit of 4-6 nenue.

Surgeonfish:

The surgeonfish topic sparked participants to share that they haven't seen any aquarium fishers on the north shore, but that two used to rotate areas. They think surgeonfish should be managed in a place-based way, because fish in the north shore differ from those in the south shore and different species are caught at different times of the year. Some participants spoke about the problems of netting taking large amounts



in a small amount of time. In addition, only few adult kala are seen, but some community members have seen increases in Hā'ena. Participants observed rarities in lau'ipala as well as manini and kole on the east side. However, nenue and manini populations seem to be doing well in the north.

Uhu:

Participants expressed concern for uhu populations and suggested the no-take of male uhu rule be adopted and additional place-based management. Some suggested implementing seasonal closures based on their spawning seasons. However, they also noted that more education is needed to share the effectiveness of the no-take rule on blue uhu and slot limits.

Public feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.

"RULES REGULATING THE TAKING AND SELLING OF CERTAIN MARINE RESOURCES" HAWAII ADMINISTRATIVE RULES CHAPTER 13-95

SCOPING NOTES: TARGETED SCOPING MEETINGS (MARCH 2021)



Hawai'i Island Fishers Herbivore Scoping Event

March 2, 2021, 5:30pm – 7:30pm via Zoom: 18 attendees

<u>Purpose of Meeting:</u> Targeted meetings were held with key fishers and their close networks to receive feedback about the presentation materials representing herbivore species data, scientific justification for management, and potential rule options. The feedback received at this meeting is intended to help DAR improve messaging, better communicate the herbivore management effort, and facilitate effective discussions at the next round of scoping to a wider range of stakeholders.

General Comments:

Participants requested a greater emphasis be placed on mauka to makai approaches, with other impacts to the nearshore, besides fishing, being highlighted. They suggested DAR be involved in land management and planning meetings to actively address land-use changes.

Some participants felt the science did not represent what they observe as fishers; for example, how the map graphics showed Hamakua to have more fish than Kona, which some believed to be false. They requested more local, seasonal, and life history studies on fish populations be done by DAR instead of relying on literature sources from other areas. They pointed to incomplete data sets due to non-commercial catch not being fully reported and incomprehensive data collection methods.

Participants shared that rules and regulations should align with place-based kuleana of local resource users and their cultural practices. They voiced that many fish are needed for cultural gatherings, and that their native Hawaiian gathering rights should not be hindered in these circumstances. It was suggested that cultural accommodations be made for herbivores that are occasionally harvested in larger quantities, such as manini, kole, and wana. Support for a ban on commercial sale of fish to prioritize home consumption and subsistence was mentioned.

A few participants stated support for a ban on night scuba spearfishing and night diving due to a lack of cultural ethics in the practice. They made supportive comments regarding ease of enforceability for night diving regulations. However, concerns about targeting a specific type of fishery potentially dividing the overall community were also expressed. They felt more fishing should not be taken away following the strict regulation on aquarium trade recently implemented. In addition, some felt that rules in existence are not enforced and do not feel more rules are needed.

Participants voiced support for place-based management and specific to West Hawai'i, suggested that the established FRA zones are integrated in upcoming plans pertaining to Holomua: Marine 30x30. Some expressed opposition to the initiative due to a lack of trust. One participant felt that Ka'ūpūlehu should be opened back up and that a closed area for 10 years was too long. They all generally agreed that all islands are different and should be managed in different ways.



Participants generally opposed most of the rules presented at this meeting. The main reason for opposition to bag limits was the data and science used to justify regulations. Participants felt there was a lack of fishers in the last round of meetings and suggested DAR conduct more outreach to spearfishing communities moving forward.

Urchins:

Participants opposed bag limits for urchins due to the species being a prominent food item for kupuna who are unable to gather for themselves and rely on others to collect for them. As a prized cultural food item, participants felt that a bag limit would violate their gathering rights.

Nenue:

A participant suggested that DAR propose a slot limit for nenue.

Surgeonfish:

It was mentioned that multiple individual's bag limits will be needed to cover cultural events that attract large gatherings. Typically, manini, kole, and pākuʻikuʻi are served in large quantities at these types of events and participants suggested a bag limit exemption process for these circumstances. Participants felt a bag limit of 20 for surgeonfish, kole in particular, was too small. They opposed a bag limit of 2 for black kole, pākuʻikuʻi, and umaumalei for various reasons. They noted that black kole are less abundant in other areas so a bag limit of 2 may work elsewhere, but that it should be raised to 10 or 15 among this fishing community. Because pākuʻikuʻi travel in schools, participants believed it would be difficult to catch only 2. They felt the bag limit of umaumalei was too small and noted that communities typically like to eat the smaller sized individuals. The only comment regarding kala was that they can be observed in schools along the shorelines of Makaʻeo.

Uhu:

Participants acknowledged that uhu have a key role on our reefs and are important for corals. However, they opposed a bag limit of 2 for the large-bodied species and proposed the small-bodied uhu minimum size be lowered to 8 inches instead of the presented 10 inches.

Targeted stakeholder feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.



Maui Fishers Herbivore Scoping Event

March 4, 2021, 5:30pm –7:30pm via Zoom: 7 attendees

<u>Purpose of Meeting:</u> Targeted meetings were held with a key stakeholder group of fishers, and their close networks to receive feedback about the presentation materials representing herbivore species data, scientific justification for management, and potential rule options. The feedback received at this meeting is intended to help DAR improve messaging, better communicate the herbivore management effort, and facilitate effective discussions at the next round of scoping to a wider range of stakeholders.

General Comments:

Participants requested land-based impacts on the nearshore be addressed and enforced, such as erosion and runoff, tourism, and sunscreen use. Within the presentation, they suggested adding a breakdown of other natural resource violations and investigations by DOCARE, in addition to the DAR-related ones shown. Participants did not think the HIMARC graphics reflected negative impacts accurately because it is hard to compare different data types, such as catch reports to erosion. They also recommended the graphs be separated by what negatively affects recruitment and what negatively affects adult herbivores. They pointed out how areas shown to exhibit low fish biomass could have multiple factors influencing the decline, such as lack of a reef structure to hold fish, runoff, or tourism. It was expressed that future messaging needs to be improved to communicate how the herbivore management effort is in response to climate change and coral bleaching, not declines in fish populations.

Some participants opposed all bag limits for restricting native gathering rights and subsistence fishing when land-based impacts are causing more damage. They vocalized that locals should be making their own rules for their places, emphasizing that they already self regulate and sustainably harvest around natural regulations like wave action. However, other participants supported bag limits to address take by fishers that do not exhibit pono behavior. A participant shared background from the previous rule-making effort for the Maui rules and how it was pushed forward by fishers who recognized the need for fishing regulations in addition to addressing land-based impacts. However, other participants did not agree with the process and felt other fishers should have been more involved.

With any new rules, participants requested they be kept simple and easy to remember for optimal compliance. It was said throughout the presentation that there were too many minimum sizes to remember. Participants opposed a ban on night diving or scuba spearfishing. They recommended a license requirement to fish. They suggested not creating regulations for additional fish such as pualu, naenae, and palani, to prevent overregulation.

Urchins:

Participants opposed a bag limit of 5 for wana.



Nenue:

Participants opposed the size minimum for being too small, given that they typically take at 8 lbs. With a bag limit of 5, participants did not think a size minimum was necessary.

Surgeonfish:

Participants requested to keep the manini size minimum at 5 inches because Maui communities are already aware of the regulation and participants felt 6 inches is too big. There was a wide variety of opinions, with support for a bag limit of 20 manini, opposition to any bag limit on manini, and a proposal to have a larger manini bag limit for commercial fishing or 'ohana sharing. Opinions about kole regulations were also diverse, with support for a 20 kole bag limit, opposition for a kole minimum size, support for a "hand size" kole minimum size, and opposition for any kole bag limit. Participants thought that rules on black kole would be over-regulation. They acknowledged that pāku'iku'I populations are decimated and suggested making a no-take rule on the fish for commercial, aquarium, or spearing, or alternatively, to not regulate and allow the species to continue declining. Participants opposed a minimum size for umaumalei, but supported a bag limit of 2 due to frequent take for commercial markets and aquarium purposes. Participants opposed a slot limit for kala.

Uhu:

Participants suggested to eliminate the no-take rule on blue uhu for large bodied species. They supported a bag limit of 2 for the large-bodied species, but opposed the minimum size for the small-bodied. In addition, they proposed a ban on nightdiving for uhu.

Targeted stakeholder feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.



O'ahu Fishers Herbivore Scoping Event

March 9, 2021, 5:30pm – approximately 11:00pm via Zoom: ~ 90 attendees

<u>Purpose of Meeting:</u> Targeted meetings were held with a key stakeholder group of fishers, and their close networks to receive feedback about the presentation materials representing herbivore species data, scientific justification for management, and potential rule options. The feedback received at this meeting is intended to help DAR improve messaging, better communicate the herbivore management effort, and facilitate effective discussions at the next round of scoping to a wider range of stakeholders.

General Comments:

Participants opposed regulations and had concerns with the data used to justify the presented rules. They expressed a need for DAR to incorporate fishers perspectives since they are out there every day, monitoring the reef, and living off the resource. Participants speculated that the data did not accurately represent nearshore resources and was adjusted to justify regulations. They expressed that the monitoring map was misleading. They recommended increased data collection and statewide studies because place-based science may not apply to statewide management - what works in one area may not work in another. For example, West Hawai'i data should only support a rule in West Hawai'i. Participants requested to be updated about CBSFA and place-based management efforts more regularly and that community-based management efforts be supported.

Participants emphasized that many other factors besides fishing affect the ocean, including land-based threats such as development, watersheds, water diversions, and tourism, and suggested management focus be shifted to alternative impacts. Participants shared that fishers (commercial and subsistence) have been historically blamed for declines, when they are typically fishing sustainably, taking only what they need, and managing the resource on their own; hence why there are still many fish. It was mentioned that DLNR targets commercial fishers, while commercial fishers are the only ones who can put food on the shelves in markets for the public that cannot fish. Generally, there is longwithstanding distrust between fishers and DAR from previous rulemaking efforts where management was not successful.

Participants believe herbivore regulations will target and restrict cultural practice. For instance, feeding kūpuna or providing kole for large cultural gatherings. They are concerned it would remove generational practices and the passing down of traditional and resource knowledge, in addition to hurting local fishing communities and taking away livelihoods. It was suggested that bag limits be made in accordance to number of people in each family. With this effort, participants voiced a need to balance management of valued native limu with harmful invasive limu.

Participants had additional recommendations to adjust regulations. They mentioned that if more species are limited, other species (turtle) or areas should be opened back up to fishing. They opposed slot limits because it is difficult for spearfishers to catch and release if the fish doesn't fall into the right size limits. Participants suggested fishing for recreational and commercial purposes have different bag limits. It was



also suggested that DAR create an annual bag limit list for each fisher per week. Few participants requested rules be implemented for more fish while others did not think other fish were targeted enough for rulemaking. For compliance, it was suggested that rules have a consistent unit of measure. Few expressed opposition for a ban on nightdiving.

Participants agreed that more regulation and enforcement is needed on new and existing rules. However, increased funding for enforcement was both supported and opposed. They questioned funding sources possibly being from biased conservation organizations. Participants think DAR makes management decisions based on social conflicts and are wary of the negative impacts that can be caused by regulations made without proper science. There was shared concern about the Holomua: Marine 30x30 plan.

Urchins:

Participants opposed wana regulations. They voiced that a bag limit of 5 wana would not be enough. A larger bag limit of 15 wana was proposed.

Nenue:

Participants opposed nenue regulations and requested that more data be collected about the species before creating rules. They expressed that many are still seen on the reef and a bag limit would eliminate commercial fishing for the species.

Surgeonfish:

Participants observe abundant populations of kole and manini and opposed bag limits of 20 for being too low. An alternative bag limit of 50 was proposed for kole. Participants opposed the bag limit of 2 for black kole and thought the data justifying the rule was not adequate. Some participants opposed pākuʻikuʻi regulations, but some proposed an increased bag limit to 10 per person per day. Participants differed in their observation of kala, some observing declines while some observing plentiful populations. There was opposition to kala bag limits as well as support for kala regulations with adaptive planning and a suggestion to implement a permit for harvesting large kala for cultural purposes.

Uhu:

Participants opposed the size minimums of uhu due to some not growing past 12 inches and smaller ones tasting better. Participants agreed that a ban on blue uhu would be reasonable because typically the red uhus taste better. Some participants opposed any uhu bag limit or opposed the bag limit of 2, while some supported uhu regulations, stating that they are an improvement from previously proposed rules. A bag limit of 5 was suggested in addition to a bag limit of 5 only applying to recreational divers.

Targeted stakeholder feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.



KUA Community Networks Herbivore Scoping Event

March 11, 2021, 4:00pm –6:00pm via Zoom: 19 attendees

<u>Purpose of Meeting:</u> Targeted meetings were held with a key stakeholder group of fishers, and their close networks to receive feedback about the presentation materials representing herbivore species data, scientific justification for management, and potential rule options. The feedback received at this meeting is intended to help DAR improve messaging, better communicate the herbivore management effort, and facilitate effective discussions at the next round of scoping to a wider range of stakeholders.

General Comments:

The group had many suggestions regarding the rules presented. Slot limits were supported, but feasibility with spearfishers was discussed due to the inability to catch and release with a spear. It was suggested that spearfishers be exempt from slot limits. Time-limited rules and incorporating adaptive management strategies were discussed and supported. Participants requested to include opihi and lobster in the plan, since they also eat limu.

The group voiced that it would be good to have regulations in place to manage fish before they decline and the populations become a problem, allowing people time to shift their eating habits, target different fish, and adaptively manage. They also inquired about the flexibility to manage at a place-based level to better tailor management towards individual areas.

Participants made suggestions regarding how DAR can present information related to this effort moving forward. The group supported a broad increase in education regarding pono fishing practices. They suggested maps of pollution concentrations from septic systems be added to the presentation and a deeper explanation of the roles each herbivore plays on the reef. They recommended a list of literature and data that DAR is using to justify this effort be publicly available for transparency.

Urchins:

Participants opposed the bag limit of 5 per person per day for being too low and suggested seasonal protections be implemented to correspond with spawning cycles. Though there are not that many people who collect wana, a few will typically gather to share with a bigger group. Participants supported implementing a bag limit to prevent overtake and additionally proposed a regulation against commercial take of wana.

Nenue:

Participants supported nenue regulations. They also expressed concern for current efforts to farm-raise nenue due to possible impacts on the natural populations and cycles if released.



Surgeonfish:

There was support for manini and kole regulations (size minimums and bag limits), with participants sharing that the species are highly fished and targeted. It was even mentioned that a bag limit of 20 for kole would be too much. Participants suggested incorporating spawning cycles of kole into regulations. Participants supported the bag limit of 2 for black kole, given that the yellow-eye has a bag limit of 20. Moloka'i fishers shared that not much black kole are seen on their island. Upon bringing up pāku'iku'i, they mentioned it is mostly caught by aquarium fishers and the group supported regulation. Umaumalei regulations were also supported.

Uhu:

Participants supported large-bodied and small-bodied uhu regulations in addition to a ban on nighttime take of uhu. They shared that large uhu taste bad, but have now become a trophy fish for most divers and require protection. Participants suggested communicating how scrapers contribute to vital sand production in future presentations.

Targeted stakeholder feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.



Kaua'i Fishers Herbivore Scoping Event

March 11, 2021, 5:30pm −approx. 11:00pm via Zoom: ~ 90 attendees

<u>Purpose of Meeting:</u> Targeted meetings were held with a key stakeholder group of fishers, and their close networks to receive feedback about the presentation materials representing herbivore species data, scientific justification for management, and potential rule options. The feedback received at this meeting is intended to help DAR improve messaging, better communicate the herbivore management effort, and facilitate effective discussions at the next round of scoping to a wider range of stakeholders.

General Comments:

Many participants spoke about the need to address land-based threats to marine resources such as land-based sources of pollution, injection wells, septic systems, contaminated rivers and streams, and development causing erosion and runoff. They suggested the state expand collaborations to other land-based agencies, the City and County, the planning office, and other players to address these issues. Other threats such as tourism, invasive species, and sunscreen were also emphasized as examples of nearshore impacts that are unrelated to fishing and need regulation. Therefore, participants felt that it was unfair to regulate fishers and that by implementing management strategies affecting them the most, they are being blamed for the state of our reefs.

Participants expressed distrust with DAR and concerns that the science and data presented was inaccurate or misinterpreted to promote herbivore management. They are wary of data from environmental groups that may be biased towards conservation perspectives and wanted to see more data on decline of corals, given that ecological shifts also happen naturally. Fishers voiced a need for more local or species-specific studies and suggested biologists speak to more fishers to improve accuracy of data sets. In addition, they suggested bridging cultural and modern science by talking to kupuna.

The group shared a common sentiment that place-based science should not be used to justify statewide efforts, and that place-based rules would be a better option. They suggested that rules have a sunset clause and that areas are opened back up to balance out any closed areas. They shared how previous management strategies by the state have been unsuccessful, such as the BRFAs, and opposed closed areas. Participants emphasized a need for adaptive management, where rules should be less restrictive or closed areas opened back up if conditions improve. Restoration efforts were suggested, such as revitalizing fishponds or managing the native and invasive limu simultaneously.

Participants voiced how fishers already know how to sustainably harvest their marine resources and questioned why protections are being sought after for fish that are currently abundant. Some participants opposed all bag limits for restricting the gathering rights of Hawaiians and their ability to put food on the table. The group mentioned residents of Ni'ihau, who rely on the resources for survival.



A few opposed all bag limits, but were open to size restrictions. Some recommended that regulations be seasonal and not per individual per day. A few participants opposed night regulations because they single out a specific type of fisher, but a ban on nightime spearfishing was also proposed. Some agreed that netting should be further restricted.

There were requests to clarify the purpose, intention, and messaging for this meeting and the broader herbivore management effort. Participants shared concerns with funding sources of Holomua: Marine 30x30, such as nonprofits and environmental groups, who could be being biased towards conservation. It was suggested that future slides be in 'ōlelo Hawai'i and English.

Turtles were also mentioned as herbivores needing protection, but there was no other fish to be added.

Urchins:

Participants opposed a bag limit for wana and emphasized that a bag limit of 5 would be too small since most are only taking one species, wana haula, and bringing them back for kupuna. A seasonal regulation was suggested, such as 30 wana for every 3 months, to account for how people do not eat wana every day, but will collect it occasionally as part of their heritage, tradition, and lifestyle. Setting a yearly take was also proposed. Some suggested the bag limit be increased to 25-50 per person. However, it was also brought up that 5 wana per person per day could work due to multiple people typically being in the water and participating in different parts of the gathering practice.

Nenue:

Most participants opposed regulations for nenue and suggested waiting until more local studies are done with stocks of nenue still being abundant. Some opposed a bag limit, while some supported an 8 inch size minimum. It was said that it wasn't worth it to just take 5 nenue at a time.

Surgeonfish:

Participants opposed the manini size minimum for being too large. They questioned why regulations are being made for kole when populations are currently sustainable. They opposed having any bag limits on kole, sharing that kole is frequently needed in large quantities for parties, funerals, and other cultural events and a bag limit would not allow fishers to provide for these types of gatherings. 60 kole per person per day was proposed for an alternative bag limit. It was suggested that kole bag limits be set depending on the size of the family. There was some back and forth about whether black kole can be found on Kaua'i, but it was said that a bag limit of 2 would be hard for throw netters when there's a school. A few supported size limits over bag limits for umaumalei, while some felt that bag limits were unnecessary due to a lack of decline in the fish stocks. Some opposed a maximum size and bag limit for kala, but there was support for a 12 inch size minimum. Participants had a difference in opinion about kala fish stocks, with some having observed no decrease, while others see less kala now than before. There was both support and opposition for pāku'iku'i regulations.



Uhu:

Uhu was an exception to most oppositional feedback, with support for a bag limit of 2 for the large bodied species and support for night regulations on the fish. It was agreed upon that there is a decline in uhu populations. However, some felt that 10 inch size minimums for the small-bodied species were too large and suggested an 8 inch size minimum instead. Despite support, there was a request to allow shooting on large-bodied blue uhu and a proposed increase in the bag limit to 5.

Targeted stakeholder feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.



Native Hawaiian Gathering Rights Association Herbivore Scoping Event

March 17, 2021, 5:30pm –7:30pm via Zoom: number of attendees unknown

<u>Purpose of Meeting:</u> Targeted meetings were held with a key stakeholder group of fishers, and their close networks to receive feedback about the presentation materials representing herbivore species data, scientific justification for management, and potential rule options. The feedback received at this meeting is intended to help DAR improve messaging, better communicate the herbivore management effort, and facilitate effective discussions at the next round of scoping to a wider range of stakeholders.

General Comments:

Participants opposed presented regulations due to bag limits and size minimums hindering their culture and livelihoods and their already healthy fish populations in their areas. They did not agree that regulations should be enforced on people who have managed their resources for generations. However, they suggested closed seasons allowing for rest and reproduction and supported a ban on nighttime fishing. In addition, they voiced a need for enforcement at night.

Participants shared a willingness to work with DLNR to manage resources in a way that will work for their place. They emphasized how local communities such as those in Moloka'i, take care of their own resources in their own way. They did not agree with statewide management due to different fisheries issues on each island. They spoke about a need to feed 'ohana and put food on the table, which makes it difficult to follow bag limits and size minimums. In addition, they did not want to cause divides in the fishing community by regulating various forms of gathering.

Many felt that management should focus on restoration, mālama, and pono practices of nearshore resources and promote education about proper standards of conduct. They observed limu declining due to foreign harvesting practices. Participants requested traditional and customary practices based on generational knowledge be incorporated into management conversations, procedures, and strategies.

Participants viewed discrepancies between the data presented and what they observe in their nearshore environments. They added that the data was not specific enough to each place and the issues that may occur there regarding locations, gathering, and gear. Participants requested data come from non-biased collectors and include influence of 'ike and Hawaiians. It was recommended that a hui be created for each moku to advise on any place-based rules and ensure customary and traditional knowlege is included in monitoring data. They encouraged leaning on those who spend most of their time in those nearshore areas for their expertise.

Participants brought up other issues to the ocean besides fishing, such as runoff, sediment, currents, development, tourism, and invasive species that also impact the fisheries. They requested to see more community voices come to the table to avoid overregulation and blame on fishers. Participants suggested DAR restart the roi round up to get more support from fishers. In addition, they suggested monk seals are depleting fish populations. Some fishers voiced opposition for fencing to manage mauka impacts.



T T				
	re	hı	ns	•
\mathbf{v}	1 (ш	113	•

No comments.

Nenue:

No comments.

Surgeonfish:

No comments.

Uhu:

Participants opposed the ban on blue uhu.

Targeted stakeholder feedback above was compiled and summarized by DLNR Division of Aquatic Resources. DAR will be considering the input from these meetings in the next steps of our process.

"RULES REGULATING THE TAKING AND SELLING OF CERTAIN MARINE RESOURCES" HAWAII ADMINISTRATIVE RULES CHAPTER 13-95

SCOPING NOTES: STATEWIDE PUBLIC SCOPING MEETINGS ROUND 2 AND ONLINE FEEDBACK FORM RESPONSES (DECEMBER 2021)



Department of Land and Natural Resources (DLNR) Division of Aquatic Resources (DAR)

Herbivore Scoping Meeting Notes

December 11, 2021, 9:00-11:00 am via Zoom: 20 attendees

Purpose of Meeting

Statewide meetings were held to listen and collect public input on proposed changes to the Statewide Herbivore Management Strategy, which included amendments to existing regulations and new proposed regulations. DAR addressed the degradation of our nearshore coastal areas and reefs, and emphasized the importance of abundant herbivore populations for both the people of Hawai'i and the health of coral reefs. The proposed amendments to herbivorous fish species included kala (Bluespine unicornfish, *Naso unicornis*), several species of uhu (parrotfish), kole (Goldring surgeonfish, *Ctenochaetus strigosus*), and manini (Convict tang, *Acanthurus triostegus*).

General Comments

Concerns were raised about whether slot limits for the larger species might be more effective as opposed to just minimum size limits, as larger adults have more reproductive output and can remove larger quantities of algae from reefs. Participants asked about how they can actively help maintain reefs, such as physically removing invasive limu (algae), as the majority agreed that community involvement and support will be critical for the protection and conservation of our reefs and fish populations. General questions included why seasonal or rotational closures were not proposed, how these new regulations would be enforced, and what were the factors causing reef degradation and lower fish populations here in Hawai'i (please refer to the FAQ for responses to these questions). Several supported the prohibition of aquarium collecting and felt that subsistence fishers should be prioritized over aquarium/commercial fishers, while some argued that the minimum size limits proposed for manini and kole would essentially shut down aquarium fishing because consumer demand for smaller fishes (under the size limit) drives aquarium collection. There were also suggestions to ban SCUBA spearfishing, prohibit the commercial sale of all reef fish, and to increase engagement with local markets that sell nearshore reef fish.



Kala

DAR proposed a minimum harvest size limit of 15 inches and a bag limit of 2. The size limit proposed is an increase from the current minimum size limit of 14 inches.

Participants asked questions relating to the life history characteristics of kala, including their maximum sizes, how long it takes to reach maturity, growth rates, spawning seasons, and reproductive output differences at different sizes. Some supported slot limits (a combination of minimum and maximum size limits) for kala, and there were also comments suggesting that place-based rules might be more appropriate than statewide regulations. One participant from Maui stated that kala populations are really low there, and that it is only commonly observed at 'Āhihi Kīna'u Natural Area Reserve.

Uhu

DAR proposed to align statewide regulations with the current Maui regulations for uhu. This includes increasing the minimum harvest size limit for large-bodied species from 12 inches to 14 inches (please refer to the table below for a species list) and a ban on the take of blue large-bodied uhu. A decrease in the minimum harvest size limit for small-bodied uhu from 12 inches (current statewide minimum) to 10 inches was also proposed, and a bag limit of 2 which would apply to all species combined.

Comments on uhu included whether a no take rule of blue uhu would be permanent or if it would be lifted when populations become sustainable, and whether research has shown any success or changes in uhu populations on Maui as a result of their unique rules. Participants also expressed that social media seems to have taken on an influential role on promoting the overfishing of uhu, due to fishers posting photos and boasting their catch.

	Hawaiian Name	Common Name	Scientific Name
Large- bodied uhu	Uhu 'ele'ele (male) or pālukaluka (female)	Redlip parrotfish	Scarus rubroviolaceus
	Uhu uliuli (male) or 'ahu'ula (female)	Spectacled parrotfish	Chlorurus perspicillatus
Small-bodied uhu	Pōnuhunuhu	Star-eye parrotfish	Calotomus carolinus
	Uhu	Yellowbar parrotfish	Calotomus zonarchus
	Uhu	Bullethead parrotfish	Chlorurus spilurus
	Lauia	Regal parrotfish	Scarus dubius
	Uhu	Palenose parrotfish	Scarus psittacus



Manini

DAR proposed raising the minimum harvest size limit from 5 inches to 6 inches, based on updated life history information on the size at maturity. DAR is not currently proposing a statewide bag limit for this species; this will be reassessed once a stock assessment is completed.

Proposed regulations for manini were questioned and most were hesitant to support because there is currently insufficient data and no stock assessments available for manini. While there was little comment on the proposed minimum size limit amendment for manini, there was a suggestion for a bag limit of 20-25.

Kole

DAR proposed a minimum harvest size limit of 5 inches for kole. DAR is not currently proposing a statewide bag limit; this will be reassessed once a stock assessment is completed.

Questions raised for kole included why there was a difference between the minimum size proposed and the size at sexual maturity, whether slot limits might be more effective since the larger adults are able to reproduce more, and why DAR is proposing new rules on a previously unregulated species. A comment was provided regarding how most people prefer the smaller-sized kole for consumption, and therefore a minimum size limit would affect those with that preference. There was also a suggestion to ban the taking of kole using SCUBA or hookah, and only allow take while free diving.

For more species specific information such as life history traits, spawning periods, and other details for kala, uhu, manini, and kole, please visit the Holomua Marine 30x30 <u>Importance of Herbivores</u> webpage.



Department of Land and Natural Resources (DLNR) Division of Aquatic Resources (DAR)

Herbivore Scoping Meeting Notes

December 13, 2021, 12:00-1:45 pm via Zoom: 51 attendees

Purpose of Meeting

Statewide meetings were held to listen and collect public input on proposed changes to the Statewide Herbivore Management Strategy, which included amendments to existing regulations and new proposed regulations. DAR addressed the degradation of our nearshore coastal areas and reefs, and emphasized the importance of abundant herbivore populations for both the people of Hawai'i and the health of coral reefs. The proposed amendments to herbivorous fish species included kala (Bluespine unicornfish, *Naso unicornis*), several species of uhu (parrotfish), kole (Goldring surgeonfish, *Ctenochaetus strigosus*), and manini (Convict tang, *Acanthurus triostegus*).

General Comments

Several participants felt that these proposed regulations take away Native Hawaiian customary and traditional gathering rights, as fishing for subsistence and as a part of culture is different than recreational or commercial fishing. A few participants expressed the need and opportunity to educate fishers and the younger generation on pono and sustainable fishing practices. Some commented that size limits promote wasteful practices such as throwing away undersized dead fish just to avoid citations. There were also suggestions to improve collaboration between DAR and other state agencies such as the Department of Health to address land-based pollution and water quality issues, as declines in fish populations and coral reef health may not necessarily be solely due to fishing pressure. Overall the majority of participants supported some type of regulation on the proposed species, whether it be bag and/or size limits, or banning the take of uhu at night. However, some expressed concern that most rules are not a one-size-fits-all solution, and that different places or islands need specific place-based regulations. Questions were also raised regarding whether gear restrictions would be used, if these proposed regulations would be permanent, if artificial reefs could be used to create new habitats for fish, and how long it would take to see the effects of these new management strategies. Please refer the FAQ document posted on the Holomua: Marine 30x30 website here for responses to these questions and more details.



Kala

DAR proposed a minimum harvest size limit of 15 inches and a bag limit of 2. The size limit proposed is an increase from the current minimum size limit of 14 inches.

It was mentioned that kala is one of the top species cited for undersized catch violations, and there was concern voiced about the efficacy of a minimum size limit when there is a lack of compliance and/or enforcement. Questions were raised about how a bag limit would affect commercial fishers and whether a slot limit (having a minimum and maximum size limit) would be more effective. There were also suggestions to change the minimum size limit to match the current regulations for 'ōpelu kala (16").

<u>Uhu</u>

DAR proposed to align statewide regulations with the current Maui regulations for uhu. This includes increasing the minimum harvest size limit for large-bodied species from 12 inches to 14 inches (please refer to the table below for a species list) and a ban on the take of blue large-bodied uhu. A decrease in the minimum harvest size limit for small-bodied uhu from 12 inches (current statewide minimum) to 10 inches was also proposed, and a bag limit of 2 which would apply to all species combined.

Suggestions provided for uhu included an increase in educational and outreach efforts, especially with identification of the different species and life stages. Prohibiting the take of uhu at night was also brought up, and banning spearfishing for uhu. There was also conversation about ways to reduce illegal commercial catch and sales, such as looking for puncture wounds at markets. Several also commented that the difference in size limits are impractical and that stronger enforcement is needed.

	Hawaiian Name	Common Name	Scientific Name
Large- bodied uhu	Uhu ʻeleʻele (male) or pālukaluka (female)	Redlip parrotfish	Scarus rubroviolaceus
	Uhu uliuli (male) or 'ahu'ula (female)	Spectacled parrotfish	Chlorurus perspicillatus
Small-bodied uhu	Pōnuhunuhu	Star-eye parrotfish	Calotomus carolinus
	Uhu	Yellowbar parrotfish	Calotomus zonarchus
bodie	Uhu	Bullethead parrotfish	Chlorurus spilurus
mall-l	Lauia	Regal parrotfish	Scarus dubius
์ เ	Uhu	Palenose parrotfish	Scarus psittacus



Manini

DAR proposed raising the minimum harvest size limit from 5 inches to 6 inches, based on updated life history information on the size at maturity. DAR is not currently proposing a statewide bag limit for this species; this will be reassessed once a stock assessment is completed.

Based on observations, a participant shared that the majority of manini caught are about seven inches, which would be over the minimum size limit proposed and therefore would not be a concern. Some participants asked why bag limits were not proposed for manini. Please refer to the <u>FAQ</u> for more information.

Kole

DAR proposed a minimum harvest size limit of 5 inches for kole. DAR is not currently proposing a statewide bag limit; this will be reassessed once a stock assessment is completed.

Questions were raised regarding why bag limits were not proposed for kole, and why DAR is proposing new rules on this previously unregulated species. Please refer to the <u>FAQ</u> for more information.

For more species specific information such as life history traits, spawning periods, and other details for kala, uhu, manini, and kole, please visit the Holomua Marine 30x30 <u>Importance of Herbivores</u> webpage.



Department of Land and Natural Resources (DLNR) Division of Aquatic Resources (DAR)

Herbivore Scoping Meeting Notes

December 15, 2021, 5:30-7:30 pm via Zoom: 90 attendees

Purpose of Meeting

Statewide meetings were held to listen and collect public input on proposed changes to the Statewide Herbivore Management Strategy, which included amendments to existing regulations and new proposed regulations. DAR addressed the degradation of our nearshore coastal areas and reefs, and emphasized the importance of abundant herbivore populations for both the people of Hawai'i and the health of coral reefs. The proposed amendments to herbivorous fish species included kala (Bluespine unicornfish, *Naso unicornis*), several species of uhu (parrotfish), kole (Goldring surgeonfish, *Ctenochaetus strigosus*), and manini (Convict tang, *Acanthurus triostegus*).

General Comments

Overall, those who provided comments were in support of bag limits rather than proposed increases in size limits. However, it was expressed that illegal fishers would not change and that these rules would hurt fishers that do follow the rules, which is not fair. Enforcement issues were brought up, and the need to create harsher punishments or consequences for illegal fishing was suggested. Participants expressed an interest to work collaboratively with DAR to more actively manage and protect our resources, and they wanted an increased focus towards sustainable practices. The need to increase outreach, specifically towards fishers and local markets, was identified as an opportunity. Comments included the possibility of allowing the harvest of turtles again, re-opening some of the Bottomfish Restricted Fishing Areas, and exploring the use of artificial reefs to create more habitats for fish. Concerns were also shared about the high populations of non-native fish such as ta'ape, roi, and to'au, commercial and aquarium fishing, and the need for DAR to improve announcements of public meetings. There was some confusion about what the Holomua: Marine 30x30 initiative is and the current status. There were also a variety of climate change and land-based pollution questions raised, which involved topics including coral bleaching, urban runoff, coastal development, and sewage input. The justification for these proposed new herbivore regulations and the scientific data available for support were also questioned; please refer to the FAO for responses and more details. For more information on specific justifications and scientific data available for the proposed species, please review the Sustainable Herbivore Management Plan.



Kala

DAR proposed a minimum harvest size limit of 15 inches and a bag limit of 2. The size limit proposed is an increase from the current minimum size limit of 14 inches.

Suggestions given for kala included increasing the minimum size limit of kala (*Naso unicornis*) to match the current regulation for 'ōpelu kala (Sleek unicornfish, *Naso hexacanthus*), and to implement a slot limit in order to keep the larger kala in our oceans. There was also a suggestion to include umaumalei (Orangespine unicornfish, *Naso lituratus*) as part of the regulated species. Questions raised included how much of a difference an increase in one inch would really make on a reproductive scale, where the research suggesting a decrease in kala populations is coming from, and whether the proposed amendments would apply towards recreational and/or commercial fishers. Kala is one of the top species cited for undersized catch violations, and observations were shared that the majority of cases/violations occur at night. Some participants also shared that specific locations such as the north shore of islands still have healthy and sustainable populations of kala, due to high surf conditions preventing access, and some fishers stated that invasive fish species are eating juvenile kala.

<u>Uhu</u>

DAR proposed to align statewide regulations with the current Maui regulations for uhu. This includes increasing the minimum harvest size limit for large-bodied species from 12 inches to 14 inches (please refer to the table below for a species list) and a ban on the take of blue large-bodied uhu. A decrease in the minimum harvest size limit for small-bodied uhu from 12 inches (current statewide minimum) to 10 inches was also proposed, and a bag limit of 2 which would apply to all species combined.

Banning the take of uhu at night was consistently brought up in all three scoping sessions, with emphasis that night diving should still be allowed for all other non-regulated species. Suggestions to prohibit the commercial sale of uhu in markets were discussed, and using weight in pounds rather than size in inches in the regulations was recommended, as fishers are generally more familiar with weight standards.

	Hawaiian Name	Common Name	Scientific Name
Large- bodied uhu	Uhu 'ele'ele (male) or pālukaluka (female)	Redlip parrotfish	Scarus rubroviolaceus
	Uhu uliuli (male) or 'ahu'ula (female)	Spectacled parrotfish	Chlorurus perspicillatus
Small-bodied uhu	Pōnuhunuhu	Star-eye parrotfish	Calotomus carolinus
	Uhu	Yellowbar parrotfish	Calotomus zonarchus
	Uhu	Bullethead parrotfish	Chlorurus spilurus
	Lauia	Regal parrotfish	Scarus dubius
	Uhu	Palenose parrotfish	Scarus psittacus



Manini

DAR proposed raising the minimum harvest size limit from 5 inches to 6 inches, based on updated life history information on the size at maturity. DAR is not currently proposing a statewide bag limit for this species; this will be reassessed once a stock assessment is completed.

Requests for further research were made, as currently there is no stock assessment for manini in Hawai'i. Questions included why DAR is proposing regulations on an abundant species (based on fisher observations), whether seasonal closures would work instead, the ability of amendments to be modified in the future, how throw net fishers would be affected, and what is the definition of a sustainable stock. Some participants expressed that catching manini is good practice for the keiki, and it is commonly used as a gateway in the beginning to learn how to spearfish and develop skills. A few supported bag limits instead of increasing the minimum size limit, and observations were shared regarding how low manini populations could possibly be due to food competition from turtles.

Kole

DAR proposed a minimum harvest size limit of 5 inches for kole. DAR is not currently proposing a statewide bag limit; this will be reassessed once a stock assessment is completed.

There was opposition to the new minimum size limit proposed, and concerns for the impact to aquarium collectors were voiced. In general, there was support for bag limits on kole instead, with a recommended limit of 20-25.

For more species specific information such as life history traits, spawning periods, and other details for kala, uhu, manini, and kole, please visit the Holomua Marine 30x30 <u>Importance of Herbivores</u> webpage



Department of Land and Natural Resources (DLNR) Division of Aquatic Resources (DAR)

Online Herbivore Feedback Form Responses

Three virtual scoping sessions were held on December 11th, 13th, and 15th of 2021 to discuss new updates to the Statewide Herbivore Management Strategy, which included amendments to existing regulations and the proposal of new regulations. An online feedback/survey form was provided as an alternative method to provide comments, and was shared through various methods including email, social media, flyers, and the DAR Holomua: Marine 30x30 website. A total of 33 comments were submitted online. This document summarizes the overall responses from these submissions, and are not a representation of DAR. Frequently asked questions (FAQ) from the scoping sessions are also available on the website here, and summary notes from the meetings are posted on the Participate in the Process webpage.

Kala

The majority of survey participants (75%) expressed concern for the status of kala in Hawai'i, with these specific comments:

- Concern for the use of commercial gill nets vs. commercial bag nets was shared
- Support for slot limits
- Decrease in kala observed on Kaua'i, West Hawai'i, and South Shore of O'ahu
- Allow commercial take with a Total Allowable Catch (TAC) limit
- Ban lay nets
- Catch of undersized kala is one of the top cited resource use violations

78% of participants supported an increase in minimum size limit for kala from 14 inches to 15 inches, with additional comments below:

- Some opposed a minimum harvest size limit increase but supported a bag limit instead
- General support for some kind of regulation that would lead to a decrease in catch
- Support for these regulations for commercial catch, but not for recreational and subsistence fishing
- Too many commercial lay nets observed
- Just keep the current rule



73% of participants supported a bag limit for kala, with specific comments, including:

- Support for regulations that would result in a decrease of catch numbers, including a ban
- Suggestions for bag limit of 3-4, two participants suggested a bag limit of one instead of the proposed limit of two
- No support if commercial fishers are exempt from these rules
- Support for an annual catch limit, as opposed to a bag limit that is per person per day
- Provision for commercial catch to have different limits than non-commercial

Uhu

92% of survey participants expressed concern for uhu populations, with these specific comments:

- Decrease in abundance observed on Kaua'i and in general elsewhere
- Concern with commercial night divers and SCUBA leading to unsustainable harvests
- Concern with unsustainable harvests using lay nets
- No take of uhu at night should be implemented
- Keep minimum harvest size limit with added maximum size limit of 16 or 17 inches (slot limit)
- Full no take for 1-2 years (ban)
- No commercial sale of uhu with puncture wounds
- Should have commercial take with TAC limits

79% of participants supported an increase in a minimum size limit for uhu, with specific comments:

- Support for a complete ban of taking uhu
- Keep current minimum harvest size limits but add a maximum size limit (slot limit)
- Suggestion for minimum harvest size limit of 15 inches

88% of participants supported a bag limit for uhu, with specific comments:

- Suggestion of bag limit of 3 per person per day
- Suggestion of bag limit of 4 per person, if freediving
- Suggestion of bag limit of 1 per person
- Support a complete ban of uhu
- Suggestion that it should not be allowed to take or possess uhu at night



74% of participants supported the no take of blue uhu (identical to the Maui rules):

• Observation from Kaua'i- Blue uhu are rarely ever sighted

Manini

Just over half the survey participants (52%) had concerns over manini, with specific comments:

- Decreased abundance observed on Kaua'i
- General decrease in sizes observed
- Suggestion to ban laynets
- Concerns stated about laynets
- Suggestion to add a bag limit

78% of participants supported a minimum size limit increase for manini:

- Suggestion to ban take of manini
- Suggestion to increase minimum harvest size limit to 7 inches
- Observation provided- Rarely see any 6 inch manini

Kole

59% of survey participants showed concerns about kole populations:

- Seeing smaller kole and not that many large ones
- Seeing fewer kole
- Decreased abundance reported on Kaua'i
- Plenty still present in West Maui
- Suggestion to include a bag limit
- Concern raised: Why is DAR proposing regulations with no stock assessment?

74% of participants supported a 5 inch minimum size limit of kole:

- Suggestion to ban take of kole
- Suggestion that there should be no take of kole using spear
- Suggestion to include bag limits
- Suggestion of 4 inch minimum harvest size limit instead

"RULES REGULATING THE TAKING AND SELLING OF CERTAIN MARINE RESOURCES" HAWAII ADMINISTRATIVE RULES CHAPTER 13-95

SCOPING NOTES: TARGETED SCOPING MEETINGS WITH COMMERCIAL UHU AND KALA FISHERS AND DEALERS (MAY 2022)



SCOPING NOTES: TARGETED SCOPING MEETINGS WITH COMMERCIAL UHU AND KALA FISHERS AND DEALERS (MAY 2022)

I. BACKGROUND

Following a recommendation by the Fishers Working Group, the Department of Land and Natural Resources' (DLNR's) Division of Aquatic Resources (DAR) reached out directly to the top uhu and kala commercial fishers and dealers in the state to receive feedback on the proposed rules. Participants were chosen based on their catch or sales in the past five years. The following is a summary of the outreach and responses received:

OutreachEngagementInvited via Letter:38Attended Meeting (In-Person):7Invited via E-Mail:35Written Comments/Responses:3Invited via Phone:15Verbal Comments (via Phone):7

II. MEETING DETAILS

Location: Kalanimoku Building

1151 Punchbowl Avenue, Room 132

Honolulu, Hawai'i, 96813

<u>Date/Time</u>: May 18, 2022, 5:00 – 7:00 p.m.

DAR Staff: Brian Neilson, DAR Administrator

David Sakoda, DAR Fisheries Program Manager

Luna Kekoa, DAR Recreational Fisheries Program Manager

Bryan Ishida, Commercial Fisheries Biologist

Agenda:

5:00 p.m. Personal Introductions (*All Attendees*)

Welcome and Background Information (Bryan Ishida)

Explanation of the Holomua Marine 30x30 Initiative (*Luna Kekoa*)

Explanation of Proposed Herbivore Rules (*Luna Kekoa*)

Agenda Continued:

5:30 p.m. Overview of Commercial Uhu and Kala Catch Trends (*Bryan Ishida*)

Questions and Answer (Bryan Ishida)

6:00 p.m. Open Comment Period (Bryan Ishida)

7:00 p.m. Adjourn

¹ Engagement not double-counted if individual provided comments multiple ways i.e., via in-person and phone call.

² This number represents the number of calls that were answered.



III. MEETING NOTES

Attendance:

The meeting, though not high in number was attended by the state's current top kala highliners and former top statewide uhu highliner. The current uhu highliner could not attend and was given a phone interview instead. Gear types represented included net and dive. Only one dealer was able to attend in person and opted to join the fisher meeting instead the separate proposed dealer-only meeting. All attendees were Oahu based.

Regarding the Proposed Limits:

The meeting attendees all stated that the proposed bag limits of two uhu and two kala would lead to the virtual shutdown of the commercial fisheries of both. They said that they could not even cover trip expenses with two uhu and kala per day, and therefore the trip would simply not be worth it. The dealer in attendance noted that the proposed limits would not allow him to meet demand, and the drastic change would prevent him from regularly keeping these species stocked. Some fishermen expressed skepticism that the proposed rules would be effective, stating that some legal fishermen will continue to fish and sell illegally. They also added that such rules would be hard to enforce and that the non-commercial divers would continue to take the majority of uhu and kala each year unaffected.

Regarding Uhu and Kala Population Trends:

The fishermen questioned the stock assessment and whether the visual surveys are capturing the fish in their actual habitat used. They noted that both uhu and kala congregate in high numbers in depths beyond the limits of typical surveys, including depths that commercial fishers will not commonly dive at. One West Oahu-based fisherman noted that kala seemed somewhat diminished in recent years in the areas he frequents, but not to the extent shown in the stock assessment. He attributed lowered kala numbers on the West side of Oahu largely to the lack of fresh water meeting the ocean in the region. One Windward Oahu-based kala fishermen stated that he saw no difference in the Windward Oahu population of Kala in the time that he has been fishing. The other fishermen agreed that this sounded correct because there was still fresh water flowing to the ocean on the Windward side of Oahu. The fishermen noted that uhu were still congregating in their typical aggregations, many of them in waters unfished or unknow to non-commercial fishers. One prominent uhu fisherman pointed to his own records, saying that they show no sign of lowered catch over time. The fishermen in attendance typically spoke only of the areas they fished, noting that there were differences between regions of Oahu.

Regarding Issues Other Than Fishing:

The group noted multiple threats to fish populations, but the focus of discussion was mainly concerning the flow of fresh water to the ocean. The group agreed that the flow of fresh water to the ocean was a key component of the ecosystem, and that cutting off the flow had

2



major impacts on fish populations. A longtime West Oahu fisherman detailed the changes he has seen following the shut-down of the sugar cane industry. Changes included collapse of limu populations along the Ewa coastline and changes in fish abundance. He and others noted that though once known for fresh water, the Waianae coast was lacking any regular input. He added that ama'ama were once present on the West side of Oahu, but now without freshwater are absent. Others added that when freshwater does meet the ocean, the quality of the water is an issue. They raised concern that contaminants including waste, chemicals, and the byproducts of wastewater treatment were hurting fish populations. There was unanimous agreement that this was a significant issue.

The group also identified tourism as a problem. One Windward Oahu fisherman cited rampant overuse of the Kaneohe Bay area by commercial kayak operations. They spoke of kayak tours and individual tourists walking on the reefs at low tide, stepping on live corals and limu beds that they themselves gathered from. They expressed frustration that the problem seems out of hand and unregulated. The same individuals also noted additional illegal and destructive activity on the inside reef along the Windward coast including anchoring of a yacht in Kaneohe Bay, use of a PWC in shallow areas, and abandonment of boats that ran aground on reefs. Other fishermen pointed to the increasing presence of tour boats along the Waianae coast, stating that it was a problem there too.

The presence of monk seals was also noted as a problem. One fisherman spoke of the abundance of seals he encounters when night diving along Kaena Point. He specifically said that they were voracious consumers of uhu. The group also noted the monk seal's tendency to destroy various fishing gears.

Regarding Impacts Specifically to Markets:

The dealer in attendance noted that he is personally unable to tell the uhu species apart from each other, and that species-specific regulations would be an issue. He said that the only way ensure legality was to measure everything. One fisherman added that we need to be careful when changing size limits on species because of the impact it may have on fishers. He cited the opelu kala minimum size of 16" as being an issue because they are infrequently seen that big. Another fisherman cited this size limit specifically as the reason that some fish trappers went out of business.

Actions Proposed by the Group:

Artificial reefs were noted as a positive step forward to enhance fish populations and replace damaged refs. When asked what depth would be optimal, one fisherman stated 60-90' would be best. Stock enhancement via hatchery activity was also brought up. One fisherman specifically suggested that we resume hatchery activity for propagation purposes at the Anuenue facility. Lastly, the Windward Oahu fishermen adamantly suggested that tourists needed to be regulated better.



Other comments:

When asked if the fishermen in the room grew up in fishing families, all agreed. One family was represented by three generations at the meeting.

IV. WRITTEN AND VERBAL COMMENTS

Additional comments received via phone call or email largely reflected the sentiments voiced at the in-person meeting. Mainly, that the proposed bag limits would both make it impossible for either fishery to continue in any meaningful way. A representative of another Windward Oahu kala fishing family noted few remining fishers still targeting these species, and the proposed limits would shut them down altogether thereby destroying the practice. The uhu highliner interviewed via phone gave a detailed overview of his operation. He said that he only fishes at depths not used by other fishers, and that it was the inshore spearfishers that were the problem. He cited specifically the non-commercial nighttime spearfishers on the inshore that indiscriminately take all fish they come across. He said that the difference between commercial and non-commercial fishers is that commercial fishers know what they are doing, specifically knowing what to catch and when. The fisherman added that he had a big family, and that without these fisheries he would struggle to pay his bills.

Additional comments from dealers were limited. A Hawai'i Island dealer that occasionally sells reef fish replied that they already had in-house limits on the amounts of these species they would buy, so the changes would not likely affect them. An Oahu based dealer voiced concern that existing restrictions make it hard for them and their staff to police what was coming in i.e., there is a need to go through every fish to ensure that its legal. They voiced some frustration stemming from a previous DOCARE violation for an undersized fish that they did not know was in the pile. They said that if the risk of violation becomes too great, they would just switch to imported reef fish (specifically uhu).

"RULES REGULATING THE TAKING AND SELLING OF CERTAIN MARINE RESOURCES" HAWAII ADMINISTRATIVE RULES CHAPTER 13-95

PROPOSED RULES (RAMSEYER FORMAT)

Amendment and Compilation of Chapter 13-95 Hawaii Administrative Rules

(date of adoption)

1. Chapter 13-95, Hawaii Administrative Rules, entitled "Rules Regulating the Taking and Selling of Certain Marine Resources", is amended and compiled to read as follows:

"HAWAII ADMINISTRATIVE RULES

TITLE 13

DEPARTMENT OF LAND AND NATURAL RESOURCES

SUBTITLE 4 FISHERIES

PART V PROTECTED MARINE FISHERIES RESOURCES

CHAPTER 95

RULES REGULATING THE TAKING AND SELLING OF CERTAIN MARINE RESOURCES

§13-95-1	Definitions
§13-95-1 . 1	Licenses, permits, and other exemptions
§13-95-2	Penalty
§13-95-3	Severability
§13-95-4	Āholehole
§13-95-5	Manini

```
§13-95-6
            Moano
§13-95-7
            Kūmū
            'Ama'ama (striped mullet)
§13-95-8
§13-95-9
            Awa
            'Ō'io
$13-95-10
            Kala
$13-95-11
            Kala 'ōpelu
§13-95-12
§13-95-13
            'Ōpakapaka
$13-95-14
            'Ula'ula koa'e (onaga)
§13-95-15
            Uku
$13-95-16
            Uhu (parrotfish)
            \Ahi
$13-95-17
$13-95-18
            'Ōpelu
§13-95-19
            Akule
$13-95-20
            'Iao
§13-95-21
            Nehu
$13-95-22
            Ulua
$13-95-23
            Moi
$13-95-24
            Weke 'ā
§13-95-25
            Kole
$$13-95-26 to 49 (Reserved)
§13-95-50
            Pāpa'i kūhonu (white crab)
§13-95-51
            Pāpa'i kualoa (Kona crab)
§13-95-52
            Samoan crab
§13-95-53
            Ula (spiny lobster)
            Ula pāpapa (slipper lobster)
§13-95-54
$13-95-55
            He'e (tako)
§§13-95-56 to 69 (Reserved)
§13-95-70
            Stony corals
§13-95-71
            Live rocks
```

§13-95-1 Definitions. As used in this chapter, unless otherwise provided:

"'Ahi" means any fish known as Thunnus albacares or Thunnus obesus or any recognized synonym. 'Ahi refers to both yellowfin tuna (T. albacares) and bigeye tuna (T. obesus).

["Aholehole"] <u>"Āholehole"</u> means any fish known as Kuhlia xenura or Kuhlia sandvicensis or any recognized synonym. Āholehole are also known as āhole, Hawaiian

flagtail, reticulated flagtail, or zebra-head flagtail.

"Akule" means any fish identified as Selar crumenophthalmus or [other] any recognized synonym. [This fish is] Akule are also known as [pa'a'a, halalu, hahalalu, and] pā'ā'ā, halalū, hahalalū, goggle-eyed scad, or big-eyed scad.

"'Ama'ama" means any fish known as Mugil cephalus or any recognized synonym between eight and twelve inches in length. Individuals of this species at other life stages are known as pua, kahaha, or 'anae. All life stages of this species are generally known as striped mullet.

"'Anae" means any fish known as Mugil cephalus or any recognized synonym greater than twelve inches in length. Individuals of this species at other life stages are known as pua, kahaha, or 'ama'ama. All life stages of this species are generally known as striped mullet.

"Awa" means any fish known as ${\it Chanos\ chanos\ }$ or any recognized synonym. Awa are also known as milkfish.

"Break" means to hit with, or to apply sufficient force to reduce to smaller pieces or to crack without actually separating into pieces.

"Carapace length" means the straight line measurement from the tip of the rostrum to the middle of the trailing edge of the body or carapace, not including the <u>abdomen or tail</u>.

"Commercial marine licensee" means a person who has been issued a commercial marine license pursuant to section 13-74-20 and section 189-2, HRS.

"Damage" means to scrape, smother, poison, or otherwise cause any physical or physiological harm to the living portion of a stony coral or live rock.

"Day" means a twenty-four hour period.

["He'e"] "He'e" means any mollusk known as Octopus cyanea, Octopus ornatus, or any recognized synonym. He'e are also known as octopus or tako.

"Initial-phase uhu" means any uhu characterized by a dull red, brown, or gray body coloration and the absence of bright green or blue markings.

"Hook-and-line" means a fishing line to which one or more hooks or other tackle are attached. A hook-and-line may include a fishing rod or reel or both to cast and retrieve the line.

"'Iao" means any fish known as Atherinomorus insularum or any recognized synonym. 'Iao are also known as Hawaiian silverside or Hawaiian Islands silverside.

"Kahaha" means any fish known as Mugil cephalus or any recognized synonym between four and eight inches in length. Kahaha are also known as pahaha.

Individuals of this species at other life stages are known as pua, 'ama'ama, or 'anae. All life stages of this species are generally known as striped mullet.

"Kala" means any fish known as Naso unicornis, Naso brevirostris, Naso annulatus, or any recognized synonym. Kala are also known as bluespine unicornfish, short-nosed unicornfish, spotted unicornfish, or whitemargin unicornfish.

"Kala 'ōpelu" means any fish known as Naso hexacanthus or any recognized synonym. Kala 'ōpelu are also known as 'ōpelu kala or sleek unicornfish.

["Kona crab" means any crab known as Ranina ranina or any recognized synonym.]

"Kole" means any fish known as Ctenochaetus strigosus or any recognized synonym. Kole are also known as kole tang, spotted surgeonfish, goldring surgeonfish, or yellow-eyed tang.

["Kumu"] "Kūmū" means any fish known as Parupeneus porphyreus or any recognized synonym. Kūmū are also known as whitesaddle goatfish.

"Length" means the straight line measurement from the tip of the snout to the middle of the trailing edge of the tail.

"Live rock" means any natural hard substrate to which marine life is visibly attached or affixed.

"Manini" means any fish known as Acanthurus triostegus sandvicensis or any recognized synonym. Manini are also known as convict tang or convict surgeonfish.

"Mitigation" means activities carried out in accordance with this chapter in order to avoid,

minimize, restore, or compensate for losses of certain marine resources due to authorized activities.

"Moano" means any fish known as Parupeneus multifaciatus or any recognized synonym. Moano are also known as banded goatfish, five-barred goatfish, manybar goatfish, or multibarred goatfish.

"Moi" means any fish known as *Polydactylus* sexfilis or any recognized synonym. Moi are also known as six-fingered threadfin or yellowthread threadfin.

["Mullet" means any fish known as Mugil cephalus or any recognized synonym.]

"Nehu" means any fish known as *Encrasicholina* purpurea or any recognized synonym. Nehu are also known as Hawaiian anchovy.

"Net" means any of various fishing devices of mesh material made into various shapes, such as but not limited to, a bag, sack, pouch, or curtain, used to entangle, surround, or concentrate aquatic life.

["Oio"] "'Ō'io" means any fish known as Albula glossodonta or Albula virgata or any recognized synonym. 'Ō'io are also known as roundjaw bonefish, shortjaw bonefish, Indo-Pacific bonefish, sharpjaw bonefish, or smallmouth bonefish.

["Opelu kala" means any fish known as Naso hexacanthus or any recognized synonym.]

"'Ōpakapaka" means any fish known as

Pristipomoides filamentosus or any recognized synonym.

'Ōpakapaka are also known as Hawaiian pink snapper,
pink snapper, kinme himedai, or ohimedai.

"'Ōpelu" means any fish of the genus Decapterus.
'Ōpelu are also known as mackerel scad.

"Pāpa'i kualoa" means any crab known as Ranina ranina or any recognized synonym. Pāpa'i kualoa are also known as pāpa'i kua loa, Kona crab, frog crab, or spanner crab.

"Pāpa'i kūhonu" means any crab known as Portunus sanguinolentus or Portunus hawaiiensis or any recognized synonym. Pāpa'i kūhonu are also known as pāpa'i kuahonu, kūhonu, kuahonu, blood-spotted swimming crab, white crab, or haole crab.

"Pua" means any fish known as Mugil cephalus or any recognized synonym between zero and four inches in length. Pua are also known as pua 'ama, pua 'ama'ama, pua po'olā, or pua 'o'olā. Individuals of this species at other life stages are known as kahaha, 'ama'ama, or 'anae. All life stages of this species are generally known as striped mullet.

"Renewable energy projects" means projects developed by renewable energy producers, as the term is defined in section 171-95, Hawaii Revised Statutes, that reduce the consumption of non-renewable energy resources or produce renewable energy.

"Samoan crab" means any crab known as *Scylla* serrata or any recognized synonym. The Samoan crab is a type of swimming crab and is also known as mud crab or mangrove crab.

"Sell" means to solicit and receive an order for; to have, or keep, or offer, or expose for sale; to deliver for value or in any other way than purely gratuitously; to peddle; to keep with intent to sell; and to traffic in.

"Spear" means any device or implement that is designed or used for impaling aquatic life. Spears may include but are not limited to spear gun shafts, arbaletes, arrows, bolts, Hawaiian slings, tridents, or three-prong spears.

"Speared" means [to capture aquatic life by stabbing with a spear or other such pointed device. The presence of any puncture wound on the external surfaces of the aquatic life, which are fresh and does not show signs of healing, shall be evidence that the aquatic life was speared.] pierced, impaled, penetrated, stuck, or run through by a sharp, pointed implement.

["Slipper lobster" means any crustacean of the species Scyllarides squammosus or S. haanii, or recognized synonyms. These animals are also known as rock lobster, mole lobster, shovel-nosed lobster, or ula papapa.

"Spiny lobster" means any crustacean of the genus Panulirus. These animals are also known as lobster,

Hawaiian spiny lobster, red lobster, green lobster, or ula.

"Stony coral" means any invertebrate species belonging to the Order Scleractinia, characterized by having a hard, calcareous skeleton, that are native to the Hawaiian Islands.

"Striped mullet" means any fish known as Mugil cephalus or any recognized synonym. The various life stages of striped mullet are known as pua, kahaha, 'ama'ama, or 'anae.

"Take" means to fish for, catch, capture, confine, or harvest, or to attempt to fish for, catch, capture, confine, or harvest, aquatic life. The use of any gear, equipment, tool, or any means to fish for, catch, capture, confine, or harvest, or to attempt to fish for, catch, capture, confine, or harvest, aquatic life by any person who is in the water, or in a vessel on the water, or on or about the shore where aquatic life can be fished for, caught, captured, confined, or harvested, shall be construed as taking.

"Terminal-phase uhu" means any uhu characterized by the presence of bright green or blue markings or a predominantly green or blue body coloration, often with bright pink, orange, or yellow patches.

"Uhu" means any fish [known as Scarus dubius, Scarus psittacus, Scarus rubroviolaceus, Chlorurus sordidus, Chlorurus perspicillatus, or any recognized synonym.] belonging to the family Scaridae or any recognized synonyms. Uhu is a general term for parrotfish.

"Uhu 'ahu'ula" means any fish known as Chlorurus perspicillatus or any recognized synonym that has not reached its terminal phase. Uhu 'ahu'ula have a grayish brown body with reddish fins and a broad white band at the base of the tail. The terminal phase of these fish are known as uhu uliuli. Both uhu 'ahu'ula and uhu uliuli are known as spectacled parrotfish or fantail uhu.

"Uhu 'ele'ele" means any fish known as *Scarus*rubroviolaceus or any recognized synonym that has
reached its terminal phase, indicated by a change in

coloration from a predominantly brownish-red or yellowish-gray body with reddish fins, to a predominantly green or blue-green body color with a green beak. Both uhu 'ele'ele and uhu pālukaluka are known as redlip or ember parrotfish or whiptail uhu.

"Uhu pālukaluka" means any fish known as Scarus rubroviolaceus or any recognized synonym that has not reached its terminal phase. Uhu pālukaluka have a predominantly brownish-red or yellowish gray body with reddish fins. The terminal phase of these fish are known as uhu 'ele'ele. Both uhu pālukaluka and uhu 'ele'ele are known as redlip or ember parrotfish or whiptail uhu.

"Uhu uliuli" means any fish known as Chlorurus perspicillatus or any recognized synonym that has reached its terminal phase, indicated by a change in coloration from a grayish brown body with reddish fins and a broad white band at the base of the tail, to a blue-green body with a dark band across the top of the snout and the lack of a white tail band. Both uhu uliuli and uhu 'ahu'ula are known as spectacled parrotfish or fantail uhu.

"Uku" means any fish known as Aprion virescens or any recognized synonym. Uku are also known as uku palu, green jobfish, gray jobfish, blue-green snapper, Hawaiian blue-green snapper, gray snapper, slender snapper, or aochibiki.

"Ula" means any spiny lobster of the genus
Panulirus. Ula are also known as lobster, Hawaiian
spiny lobster, spiny lobster, red lobster, or green
lobster.

"Ula pāpapa" means any crustacean of the species Scyllarides squammosus or Scyllarides haanii, or any recognized synonym. Ula pāpapa are also known as ula 'āpapapa, slipper lobster, ridgeback slipper lobster, or shovel-nosed lobster.

"'Ula'ula koa'e" means any fish known as Etelis coruscans or any recognized synonym. 'Ula'ula koa'e are also known as koa'e, onaga, long-tail red snapper, ruby snapper, scarlet snapper, or hamadai.

"Ulua" means any fish known as Caranx ignobilis, Caranx lugubris, Caranx melampygus, Caranx sexfasciatus, Carangoides equula, Carangoides ferdau, Carangoides orthogrammus, or any recognized synonym. The young of these species are also known as [papio.] pāpio.

["Weke"] "Weke 'ā" means any fish known as Mulloidichthys flavolineatus or any recognized synonym. [These fish] Weke 'ā are also known as [goatfish, yellowstripe goatfish, weke a, and the] goatfish or yellowstripe goatfish. The young of this fish [is] are known as [oama.] 'oama. [Eff 12/03/98; am 1/11/02; am 12/09/02; am 12/19/02; am 5/01/14; am 10/19/18; am and comp 1/31/21; am and comp] (Auth: HRS §\$187A-3.5, 187A-5, 190-3)

\$13-95-1.1 Licenses, permits, and other exemptions. Notwithstanding the provisions of this chapter, the department may issue the following licenses and permits to exempt persons from the provisions of this chapter:

- (1) Licenses issued pursuant to sections 187A-3.5, 188-44, 188-57, or 189-6, HRS;
- (2) Permits issued pursuant to sections 187A-6, 188-23, 188-37, 188-68, or 190-4, HRS; or
- (3) As may be otherwise provided by law. [Eff 12/19/02; am 5/01/14; comp 1/31/21; comp] (Auth: HRS §\$187A-3.5, 187A-6, 188-44, 188-45, 188-57, 188-68, 190-3) (Imp: HRS §\$187A-3.5, 187A-6, 188-23, 188-37, 188-44, 188-45, 188-57, 188-68, 190-4)

\$13-95-2 Penalty. (a) A person violating any section of this chapter may be subject to any applicable criminal or administrative penalties or both. Unless otherwise expressly provided, the remedies or penalties provided by this chapter are cumulative to each other and to the remedies or

penalties available under all other laws of this State.

- (b) For the purpose of calculating the administrative penalties for violations of this chapter, if a fine per specimen may be applicable, fines per specimen may be imposed on the following basis:
 - (1) For finfish, each individual;
 - (2) For invertebrates, not including stony corals or live rock, each individual;
 - (3) For solitary (having a single polyp) stony corals, each individual;
 - (4) For colonial stony corals:
 - (A) Each damaged head or colony less than one square meter in surface area; or
 - (B) For a colony greater than one square meter in surface area, each square meter of colony surface area and any fraction remaining constituting an additional specimen;
 - (5) For live rocks, each individual; but if the violation involves greater than one square meter of bottom area, on the basis of each square meter of bottom area. [Eff 12/03/98; am 5/01/14; comp 1/31/21; comp

] (Auth: HRS §\$187A-5, 190-3) (Imp: HRS §\$183C-7, 187A-5, 187A-12.5, 187A-13, 188-53, 188-70, 189-4, 190-5)

- \$13-95-4 [Aholehole.] Aholehole. It [shall be] is unlawful for any person to take, possess, or sell any [aholehole] Aholehole less than five inches in length. [Eff 12/03/98; am 12/19/02; comp 1/31/21; am and comp] (Auth: HRS §187A-5) (Imp: HRS §187A-5)
- \$13-95-5 Manini. It $[shall\ be]$ <u>is</u> unlawful for any person to take, possess, or sell any manini less than [five] <u>six</u> inches in length. [Eff 12/03/98; am 12/19/02; comp 1/31/21; am and comp] (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)
- \$13-95-6 Moano. It [shall be] is unlawful for any person to take, possess, or sell any moano less than seven inches in length. [Eff 12/03/98; am 12/19/02; comp 1/31/21; am and comp] (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)
- \$13-95-7 [Kumu.] Kūmū. It [shall be] is unlawful for any person to take, possess, or sell any [kumu] kūmū less than ten inches in length. [Eff 12/03/98; am 12/19/02; comp 1/31/21; am and comp] (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)
- \$13-95-8 [Mullet.] 'Ama'ama (striped mullet).

 (a) It [shall be] is unlawful for any person to take, possess, or sell any [mullet] pua, kahaha, or 'ama'ama less than eleven inches in [length.] length except as provided in subsection (b) of this section.
- (b) It is unlawful for any person to wilfully fish for, or attempt to take by any means whatsoever,

from any of the waters within the jurisdiction of the State, or to sell, or have in possession any [mullet] pua, kahaha, 'ama'ama, or 'anae during the months of December, January, February, and March; provided that any owner or operator of a fish pond may lawfully catch [the young mullet known as] pua during the closed season, for the purpose of stocking the owner's or operator's pond; and provided further that any owner or operator of a fish pond or any commercial marine dealer may lawfully sell [pond raised mullet] pond-raised pua, kahaha, 'ama'ama, or 'anae during the closed season after first procuring a license to do so pursuant to sections 13-74-40 or 13-74-43. 12/03/98; am 12/19/02; comp 1/31/21; am and comp] (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)

- \$13-95-9 Awa. It [shall be] is unlawful for any person to take, possess, or sell any awa less than nine inches in length. [Eff 12/03/98; am 12/19/02; comp 1/31/21; am and comp] (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)
- §13-95-10 [Θ io.] \bullet io. It [\circ hall be] \circ is unlawful for any person to take, possess, or sell any [\circ io] \bullet io less than fourteen inches in length. [Eff 12/03/98; am 12/19/02; comp 1/31/21; am and comp] (Auth: HRS §187A-5) (Imp: HRS §187A-5)
- \$13-95-11 Kala. (a) It [shall be] is unlawful for any person to take, possess, or sell any kala less than fourteen inches in length.
- (b) It is unlawful for any person to take more than two kala per day or possess more than two kala at any one time; provided that a commercial marine dealer may possess and sell more than two kala if in

- compliance with section 189-11, HRS. [Eff 12/03/98;
 am 12/19/02; comp 1/31/21; am and comp]
 (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)
- \$13-95-12 [Opelu kala.] Kala 'opelu. It [shall be] is unlawful for any person to take, possess, or sell any [opelu kala] kala 'opelu less than sixteen inches in length. [Eff 12/03/98; am 12/19/02; comp 1/31/21; am and comp] (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)
- \$13-95-13 [Opakapaka.] 'Opakapaka. (a) It [shall be] is unlawful for any person to possess with the intent to sell, or offer for sale, any [opakapaka] 'Opakapaka less than one pound in weight.
- (b) It [shall be] is unlawful for any person to take with spear or possess any speared [opakapaka]

 'opakapaka less than one pound in weight. [Eff
 12/3/98; comp 1/31/21; am and comp
]
 (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)
- \$13-95-14 [Onaga.] 'Ula'ula koa'e (onaga). (a)

 It [shall be] is unlawful for any person to possess with the intent to sell, or offer for sale, any
 [onaga] 'ula'ula koa'e less than one pound in weight.
- (b) It [shall be] is unlawful for any person to take with spear or possess any speared [onaga] 'ula'ula koa'e less than one pound in weight. [Eff 12/3/98; comp 1/31/21; am and comp] (Auth: HRS §187A-5) (Imp: HRS §187A-5)
- §13-95-15 Uku. (a) It [shall be] is unlawful for any person to possess with the intent to sell, or offer for sale, any uku less than one pound in weight.

- (b) It [$\frac{\text{shall be}}{\text{shall be}}$] is unlawful for any person to take with spear or possess any speared uku less than one pound in weight. [Eff: 12/3/98; comp 1/31/21; am and comp] (Auth: HRS §187A-5) (Imp: HRS §187A-5)
- \$13-95-16 [Uhu.] Uhu (parrotfish). [It shall be unlawful for any person to take, possess, or sell any uhu less than twelve inches in length.] (a) It is unlawful for any person to take, possess, or sell any uhu 'ele'ele or uhu uliuli at any time.
- (b) It is unlawful for any person to take, possess, or sell any uhu pālukaluka or any uhu 'ahu'ula less than fourteen inches in length.
- (c) Any other department size restriction notwithstanding, subject to subsections (a) and (b), it is unlawful for any person to take, possess, or sell any other uhu less than ten inches in length.
- (d) It is unlawful for any person to take more than two uhu of any variety per day or possess more than two uhu of any variety at any one time; provided that a commercial marine dealer may possess and sell more than two uhu if in compliance with section 189
 11, HRS. [Eff 12/03/98; am 12/19/02; comp 1/31/21; am and comp] (Auth: HRS §187A-5) (Imp: HRS §187A-5)
- \$13-95-17 [Ahi.] 'Ahi. (a) It [shall be] is unlawful for any person to possess with the intent to sell, or offer for sale, any [ahi] 'ahi less than three pounds in weight.
- (b) It [$\frac{\sinh l \cdot be}{\sinh l \cdot be}$] $\frac{is}{\sin l \cdot ahi}$ for any person to take with spear or possess any speared [$\frac{\sinh l}{\sinh l}$] $\frac{\sinh l}{\sinh l}$ less than three pounds in weight. [Eff: 12/3/98; comp 1/31/21; am and comp] (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)

\$13-95-18 [Opelu.] 'Opelu. It [shall be] is unlawful for any person at any time, to fish for or take, or be engaged in fishing or taking [opelu] 'Opelu with fish or [animal bait] animal bait, also known as "chop-chop", within the waters off the coast of South Kona, [island of Hawaii,] Hawai'i Island, between the [Kiilae-Keokea] Ki'ilae-Keokea boundary and the [Kapua-Kaulanamauna] Kapu'a-Kaulanamauna boundary, except with [hook and line.] hook-and-line. [Eff 12/3/98; comp 1/31/21; am and comp

[Auth: HRS §187A-5) (Imp: HRS §187A-5)

- \$13-95-19 Akule. (a) It [shall be] is unlawful for any person to take any akule measuring less than eight and one-half inches in length, with a net during the months of July, August, September, and October.
- (b) It is unlawful for any person, other than marine seafood dealers, to possess or sell more than two hundred pounds of akule measuring less than eight and one-half inches in length per day during July, August, September, and October; except as may be otherwise provided by law. [Eff 12/03/98; am 1/11/02; comp 1/31/21; am and comp] (Auth: HRS §187A-5) (Imp: HRS §187A-5)
- \$13-95-20 [$\overline{1ao}$.] $\underline{1ao}$. (a) It [$\underline{shall be}$] \underline{is} unlawful for any person at any time to sell, offer for sale, or trade, any dried or cured [\underline{iao}] \underline{iao} taken from the waters within the jurisdiction of the State.
- (b) It is unlawful for any person to fish for, catch, or take in or from any of the waters within the jurisdiction of the State any [iao; provided that the department may issue licenses pursuant to section 13-74-22, to take [iao] iao for use as bait only. [Eff: 12/3/98; comp 1/31/21; am and comp] (Auth: HRS §187A-5) (Imp: HRS §187A-5)

- \$13-95-21 Nehu. (a) It $[\frac{\text{shall be}}{\text{shall be}}]$ $\underline{\text{is}}$ unlawful for any person at any time to sell, offer for sale, or trade, any dried or cured nehu taken from the waters within the jurisdiction of the State.
- (b) It is unlawful for any person to fish for, catch, or take in or from any of the waters within the jurisdiction of the State any nehu; provided that the department may issue licenses pursuant to section 13-74-22, to take nehu for use as bait only and as [maybe] may be otherwise allowed under chapter 13-90. [Eff 12/3/98; comp 1/31/21; am and comp] (Auth: HRS §187A-5) (Imp: HRS §187A-5)
- §13-95-22 Ulua. (a) It is unlawful for any person to take or possess any ulua less than ten inches in length.
- (b) It is unlawful for any person to sell any ulua less than sixteen inches in length.
- (c) It is unlawful for any person to take or possess more than twenty ulua measuring more than ten inches in length per day; provided that a commercial marine licensee may take, possess, and sell more than twenty such ulua; and further provided that a commercial marine dealer may possess and sell more than twenty such ulua with receipts issued for the purchase pursuant to section 189-11, Hawaii Revised Statutes. [Eff 12/19/02; comp 1/31/21; comp

 [(Auth: HRS §187A-5) (Imp: HRS §187A-5)

Historical Note: Section 13-95-22 is based substantially upon Chapter 87 of Title 13. [Eff 5/26/81; am 1/25/82; R 12/19/02] Chapter 87 of Title 13 was based substantially upon Regulation 19 of the Division of Fish and Game, Department of Land and Natural Resources, State of Hawaii. [Eff 3/28/58; am 10/6/58; R 5/26/81]

- §13-95-23 Moi. (a) It is unlawful for any person to take, possess, or sell any moi less than eleven inches in length.
- (b) It is unlawful for any person to take, possess, or sell more than fifteen moi per day during September through May; provided that a commercial marine dealer may possess and sell more than fifteen moi with receipts issued for the purchase pursuant to section 189-11, Hawaii Revised Statutes.

Historical Note: Section 13-95-23 is based substantially upon Chapter 88 of Title 13. [Eff 5/26/81; am and comp 12/20/86; R 12/19/02] Chapter 88 of Title 13 was based substantially upon Regulation 20 [Eff: 3/20/58; am 10/6/58; am 7/9/59; am 5/4/68; R 5/26/81] and Regulation 21 [Eff: 3/28/58; am 10/6/58; am 7/9/59; R 5/26/81] of the Division of Fish and Game, Department of Land and Natural Resources, State of Hawaii.

- \$13-95-24 [Weke.] Weke 'ā. (a) It is unlawful for any person to take or possess more than fifty [weke] weke 'ā less than seven inches in length per day.
- (b) It is unlawful for any person to sell any $[\frac{\text{weke}}]$ $\frac{\text{weke}}$ $\frac{\text{weke}}$ less than seven inches in length. [Eff 12/19/02; comp 1/31/21; comp] (Auth: HRS §187A-5) (Imp: HRS §187A-5)

Historical Note: Section 13-95-24 is based substantially upon Chapter 88 of Title 13. [Eff 5/26/81; am and comp 12/20/86; R 12/19/02] Chapter 88

of Title 13 was based substantially upon Regulation 20 [Eff: 3/20/58; am 10/6/58; am 7/9/59; am 5/4/68; R 5/26/81] and Regulation 21 [Eff: 3/28/58; am 10/6/58; am 7/9/59; R 5/26/81] of the Division of Fish and Game, Department of Land and Natural Resources, State of Hawaii.

<u>\$13-95-25</u> <u>Kole.</u> It is unlawful to take, possess, or sell any kole less than five inches in length. [Eff and comp] (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)

\$\$13-95-26 to 13-95-49 (Reserved)

- \$13-95-50 [Kuhonu erab.] Pāpa'i kūhonu (white crab). (a) It [shall be] is unlawful for any person to possess with the intent to sell, or offer for sale, any [kuhonu erab] pāpa'i kūhonu less than four inches in length or in width across or along its back.
- (b) It is unlawful for any person to [catch or take from any bays, harbors, or other waters of the State, or to expose or offer for sale, or to hold in possession with the intent of exposing or offering for sale, or to kill, take, possess, or sell any [kuhonu crab] pāpa'i kūhonu [while] with eggs. Any [kuhonu crab] pāpa'i kūhonu with eggs caught must immediately be returned to the waters from which the crab was taken. The possession of any [kuhonu crab, pāpa'i kūhonu, showing indications of [the] its eggs having been scraped or removed [therefrom, shall be] is prima facie evidence of [the] a violation of this section.
- (c) [No person shall] It is unlawful for any person to pursue, take, or kill any [kuhonu crab] pāpa'i kūhonu in the State with a spear.

(d) [No person shall] It is unlawful for any person to offer for sale any speared [kuhonu crab.] pāpa'i kūhonu. [Eff 12/3/98; comp 1/31/21; am and comp] (Auth: HRS §187A-5) (Imp: HRS §187A-5)

\$13-95-51 [Kona crab.] Pāpa'i kualoa (Kona crab). (a) It is unlawful for any person to take, possess, or sell any [Kona crab] pāpa'i kualoa less than four inches in carapace length.

- (b) It is unlawful for any person to take, possess, or sell any [Kona crab] pāpa'i kualoa taken from the waters within the jurisdiction of the State [during the months of May, June, July, and August.] from May through September.
- (c) The possession of any [Kona crab] pāpa'i kualoa from May through September by any person [during the months of May, June, July, and August shall be] is prima facie evidence that the person is guilty of a violation of this section; provided that any commercial marine dealer may sell, or any hotel, restaurant, or other public eating house may serve [Kona crab] pāpa'i kualoa lawfully caught during the open season by first procuring a license to do so pursuant to section 13-74-41.
- (d) It is unlawful for any person to take, possess, or sell any [Kona crab] pāpa'i kualoa with eggs. Any [Kona crab] pāpa'i kualoa with eggs caught must immediately be returned to the waters from which the crab was taken. The possession of any [Kona crab,] pāpa'i kualoa showing indications of [the] its eggs having been scraped or removed [therefrom, shall be] is prima facie evidence of [the] a violation of this section.
- (e) It is unlawful for any person to pursue, take, or kill any $[\frac{\text{Kona crab}}{\text{crab}}]$ pāpa'i kualoa in the State with a spear.
- (f) It is unlawful for any person to possess or sell any speared [Kona crab.] pāpa'i kualoa.

[(g) It is unlawful for any person to take or kill any female Kona crab.] [Eff 12/03/98; am 12/19/02; am and comp 1/31/21; am and comp] (Auth: HRS §187A-5) (Imp: HRS §\$187A-5, 188-57)

- §13-95-52 Samoan crab. (a) It is unlawful for any person to take, possess, or sell any Samoan crab less than six inches in width measured across the carapace or back.
- (b) It is unlawful for any person to take, kill, possess, or sell any Samoan crab with eggs. Any Samoan crab with eggs caught must immediately be returned to the waters from which the Samoan crab was taken. The possession of any Samoan crab, showing indications of [the] its eggs having been scraped or removed [therefrom, shall be] is prima facie evidence of [the] a violation of this section.
- (c) It is unlawful for any person to pursue, take, or kill any Samoan crab in the State with a spear.
- (d) It is unlawful for any person to possess or sell any speared Samoan crab.
- (e) It is unlawful for any person to take or kill any female Samoan crab. [Eff 12/3/98; am and comp 1/31/21; am and comp] (Auth: HRS \$187A-5) (Imp: HRS \$187A-5)

Historical note: Subsection 13-95-52(a) is based substantially upon chapter 84 of title 13. [Eff 5/26/81; am 1/25/82; R 1/31/21] Chapter 84 of Title 13 was based substantially upon Regulation 14 of the Division of Fish and Game, Department of Land and Natural Resources, State of Hawaii. [Eff 11/25/41 (Governor's approval date); am 7/28/47; am and ren 3/28/58; R 5/26/81]

§13-95-53 [Spiny lobster.] Ula (spiny lobster).

- (a) It is unlawful for any person to take, kill, possess, or sell any [spiny lobster] ula less than three and one-fourth inches in carapace length, measured in a straight line along the carapace or head, from the ridge between the two largest spines above the eyes to the rear edge of the carapace.
- (b) It is unlawful for any person to take, kill, possess, or sell any [spiny lobster] ula taken from the waters within the jurisdiction of the State during the months of May, June, July, and August.
- (c) The possession of any [spiny lobster] ula by any person during the months of May, June, July, and August [shall be] is prima facie evidence that the person is guilty of a violation of this section; provided that any commercial marine dealer may sell, or any hotel, restaurant, or other public eating house may serve [spiny lobster] ula lawfully caught during the open season by first procuring a license to do so pursuant to section 13-74-41.
- (d) It is unlawful for any person to take, kill, possess, or sell any [spiny lobster] ula with eggs. Any [spiny lobster] ula with eggs caught must immediately be returned to the waters from which the [spiny lobster] ula was taken. The possession of any [spiny lobster,] ula showing indications of [the] its eggs having been scraped or removed [therefrom, shall be] is prima facie evidence of [the] a violation of this section.
- (e) It is unlawful for any person to pursue, take, or kill any [spiny lobster] ula in the State with a spear.
- (f) It is unlawful for any person to possess or sell any speared [spiny lobster.] ula.
- (g) It is unlawful for any person to possess or sell any [spiny lobster] ula in a condition where the body is mutilated, or the carapace and tail are separated.
- (h) It is unlawful for any person to take or kill any female [spiny lobster.] ula. [Eff 12/3/98; am and comp 1/31/21; am and comp]

(Auth: HRS §\$187A-5, 188-53) (Imp: HRS §\$187A-5, 188-57)

Historical note: Subsections 13-95-53(a) and (g) are based substantially upon Chapter 89 of Title 13. [Eff 5/26/81; am 6/6/83; am 6/25/84; am and comp 2/6/87; am and comp 5/5/88; am and comp 8/14/89; R 1/31/21] Chapter 89 of Title 13 was based substantially upon Regulation 22 of the Division of Fish and Game, Department of Land and Natural Resources, State of Hawaii. [Eff 3/28/58; am 10/6/58; am 7/9/59; am 7/18/59 (Governor's approval date); am 9/17/60 (Governor's approval date); am 8/4/78; R 5/26/81]

- \$13-95-54 [Slipper lobster.] Ula pāpapa (slipper lobster). (a) It is unlawful for any person to take, kill, possess, or sell any [slipper lobster] ula pāpapa less than two and three-fourths inches in tail width, measured in a straight line across the widest spot of the tail between the first and second abdominal segments.
- (b) It is unlawful for any person to take, kill, possess, or sell any [slipper lobster] ula pāpapa taken from the waters within the jurisdiction of the State during the months of May, June, July, and August.
- (c) The possession of any [slipper lobster] ula pāpapa by any person during the months of May, June, July, and August [shall be] is prima facie evidence that the person is guilty of a violation of this section; provided that any commercial marine dealer may sell, or any hotel, restaurant, or other public eating house may serve [slipper lobster] ula pāpapa lawfully caught during the open season by first procuring a license to do so pursuant to section 13-74-41.
- (d) It is unlawful for any person to take, kill, possess, or sell any [slipper lobster] ula pāpapa with eggs. Any [slipper lobster] ula pāpapa with eggs caught must immediately be returned to the waters from

which the [slipper lobster] ula pāpapa was taken. The possession of any [slipper lobster,] ula pāpapa showing indications of [the] eggs having been scraped or removed [therefrom, shall be] is prima facie evidence of [the] a violation of this section.

- (e) It is unlawful for any person to pursue, take, or kill any $[slipper\ lobster]\ \underline{ula\ p\bar{a}papa}$ in the State with a spear.
- (f) It is unlawful for any person to possess or sell any speared [slipper lobster.] ula pāpapa.

Historical note: Subsections 13-95-54(a) and (g) are based substantially upon chapter 89 of title 13 [Eff 5/26/81; am 6/6/83; am 6/25/84; am and comp 2/6/87; am and comp 5/5/88; am and comp 8/14/89; R 1/31/21] Chapter 89 of title 13 was based substantially upon regulation 22 of the Division of Fish and Game, Department of Land and Natural Resources, State of Hawaii. [Eff 3/28/58; am 10/6/58; am 7/9/59; am 7/18/59 (Governor's approval date); am 9/17/60 (Governor's approval date); am 8/4/78; R 5/26/81]

\$13-95-55 [He'e.] He'e (tako). It [shall be] is unlawful for any person to take, possess, or sell any [he'e] he'e less than one pound in weight. [Eff 12/19/02; comp 1/31/21; am and comp]

(Auth: HRS \$187A-5) (Imp: HRS \$187A-5)

Historical Note: Section 13-95-55 is based substantially upon Chapter 86 of Title 13. [Eff 5/26/81; R 12/19/02] Chapter 86 of Title 13 was based substantially upon Regulation 18 of the Division of Fish and Game, Department of Land and Natural

Resources, State of Hawaii. [Eff 3/28/58; am 10/6/58; R 5/26/81]

§13-95-70 Stony corals. (a) Except as otherwise provided in this section or authorized by law:

- (1) Subject to subsections (b) and (c), it is unlawful for any person to take, break, or damage any stony coral, except as provided in sections 171-58.5 and 205A-44, HRS;
- (2) It is unlawful for any person to damage any stony coral by any intentional or negligent activity causing the introduction of sediment, biological contaminants, or pollution into state waters;
- (3) It is unlawful for any person to sell any stony coral; except that stony coral rubble pieces or fragments imported for the manufacture and sale of coral jewelry, or dead stony coral obtained through legal dredging operations in Hawaii for agricultural or other industrial uses, may be sold.
- (b) No liability shall be imposed under subsection (a)(1) of this section for inadvertent breakage, damage, or displacement of an aggregate area of less than one half square meter of coral if caused by:
 - (1) A vessel with a single anchor damage incident, in an area where anchoring is not otherwise prohibited, and not more frequently than once per year; or
 - (2) Accidental physical contact by an individual person.
- (c) The [Department] department may authorize damage to stony corals for the development or operation of renewable energy projects and shall require mitigation to offset any stony coral losses.
- (d) Any person found in violation of any provision of this section pursuant to a criminal

prosecution shall be subject to penalty as provided under section 187A-13, HRS. Any person found in violation of any provision of this section pursuant to civil or administrative action shall be subject to penalty as provided under section 187A-12.5, HRS. [Eff 12/03/98; am 12/09/02; am 5/01/14; am 10/19/18; comp 1/31/21; am and comp [(Auth: HRS §§187A-5, 189-6, 190-3) (Imp: HRS §§187A-6, 187A-12.5, 187A-13, 189-6, 190-1, 190-3, 190-5)

§13-95-71 Live rocks. (a) Except as otherwise provided in this section or authorized by law:

- (1) Subject to subsections (b) and (c), it is unlawful for any person to take, break, or damage any live rock;
- (2) Subject to subsection (b), it is unlawful for any person to damage any live rock by any intentional or negligent activity causing the introduction of sediment, biological contaminants, or pollution into state waters; and
- (3) It is unlawful for any person to sell any live rock.
- (b) No liability shall be imposed under subsections (a)(1) or (a)(2) of this section for inadvertent breakage, damage, or displacement of an aggregate area of less than one square meter of live rock bottom cover.
- (c) The [Department] department may authorize damage to live rock for the development or operation of renewable energy projects and shall require mitigation to offset any live rock losses.
- (d) Any person found in violation of any provision of this section pursuant to a criminal prosecution shall be subject to penalty as provided under section 187A-13, HRS. Any person found in violation of any provision of this section pursuant to civil or administrative action shall be subject to penalty as provided under section 187A-12.5, HRS."
 [Eff 12/03/98; am 12/09/02; am 5/01/14; 10/19/18; comp

1/31/21; comp] (Auth: HRS §\$187A-5, 189-6, 190-3) (Imp: HRS §\$187A-6, 187A-12.5, 187A-13, 189-6, 190-1, 190-3, 190-5)

- 2. Material, except source notes and other notes, to be repealed is bracketed and stricken. New material is underscored.
- Additions to update source notes and other notes to reflect these amendments and compilation are not underscored.
- These amendments to and compilation of chapter 13-95, Hawaii Administrative Rules shall take effect ten days after filing with the Office of the Lieutenant Governor.

I certify that the foregoing are copies of the rules, drafted in Ramseyer format pursuant to the requirements of section 91-4.1, Hawaii Revised Statutes, which were adopted on _, and filed with the Office of the Lieutenant Governor.

> SUZANNE D. CASE Chairperson, Board of Land and Natural Resources

APPROVED AS TO FORM:

Deputy Attorney General

"RULES REGULATING THE TAKING AND SELLING OF CERTAIN MARINE RESOURCES" HAWAII ADMINISTRATIVE RULES CHAPTER 13-95

COMMERCIAL UHU AND KALA FISHERIES AND MARKETS POTENTIAL IMPACTS ANALYSIS



COMMERCIAL UHU AND KALA FISHERIES AND MARKETS POTENTIAL IMPACTS ANALYSIS

I. FORECASTED IMPACTS TO UHU AND KALA COMMERCIAL LANDINGS

Though uhu and kala¹ are sometimes caught incidentally (opportunistically captured while fishing for other, or mixed species), the bulk of reported commercial landings for both species are via direct targeting, i.e., they were the primary or one of the primary species sought during the fishing trip. Because of this, fishing trips that capture two or fewer uhu or kala make up a very small percentage of the total commercial catch (**Figure 1**). In the past ten years (2012-2021) just 2% of commercial kala and 4% of commercial uhu landings were caught during trips in which two or fewer fish were caught. Therefore, by limiting commercial catch to two fish per person per day, a substantial portion of the existing commercial fishery including virtually all the highliner activity will be discontinued.

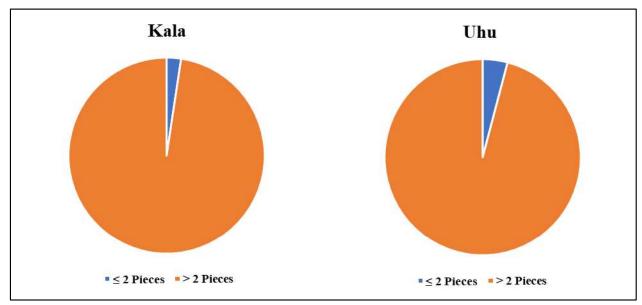


Figure 1. Proportion of uhu and kala catch from trips in which \leq than two pieces, or > than two pieces were caught, 2012-2021. *Trips with missing weight or count data not considered.

To initially gauge the potential impact of these proposed regulations on uhu and kala fisheries, we took the straightforward approach of modifying previous reported commercial catch data to see what landings would look like if catch per trip had been limited to two fish per person per day. When the proposed two-fish limits were retroactively applied to the past five years (2017-2021) of commercial catch data, the impacts were significant and varied between specific species and their fisheries. Annual commercial uhu spearfishing landings decreased by an average of 80% while kala annual spearfishing landings decreased by an average of 50% after

.

¹ HAR §13-95-1 defines "kala" as "any fish known as *Naso unicornis*, *Naso brevirostris*, *Naso annulatus*, or any recognized synonym. Kala are also known as Bluespine Unicornfish, Short-Nosed Unicornfish, Spotted Unicornfish, or Whitemargin Unicornfish."



the proposed two-fish limit was applied (**Figures 2 & 3**). The difference between the two can be explained, in part, by the fact that the uhu spearfishing fishery is more heavily dominated by highliners² making large catches. Conversely, highliners are less prominent in the kala spearfishing fishery thereby making the loss of their activity less impactful. It's important to note, however, that many of the fishers who take kala while spearfishing do so incidentally while targeting uhu at night. That is, drop out or decreased effort in the uhu fishery may affect the kala fishery because they are linked. Modifying the net based uhu and kala fisheries presented additional uncertainties in that unlike dive effort reports, net effort reports do not include the number of fishers participating. For the sake of this exercise, we set the average number of fishers per net trip as two individuals, i.e., max of four uhu and four kala per trip. When modified, annual uhu net catch decreased by an average of 83% and kala net annual catch decreased by an average of 92% (**Figures 4 & 5**). The larger impact to the kala net fisheries makes sense in that direct targeting of large aggregations of kala with surround nets drives this sector of the commercial fishery.

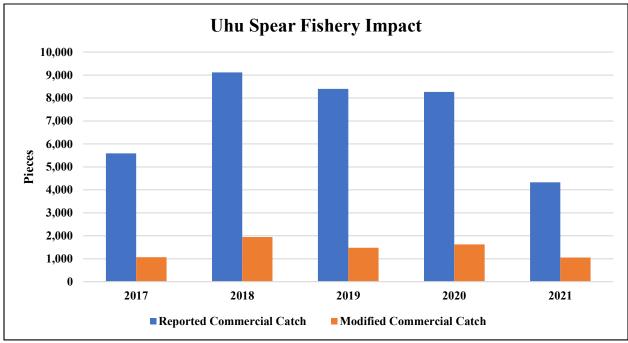


Figure 2. Estimated impacts of a two-fish bag limit on commercial uhu spearfishing catch, 2017-2021. *Does not include Maui data.

² "Highliner" is an industry term used when referring to the fishers who catch the most compared with other fishers within a given fishery.



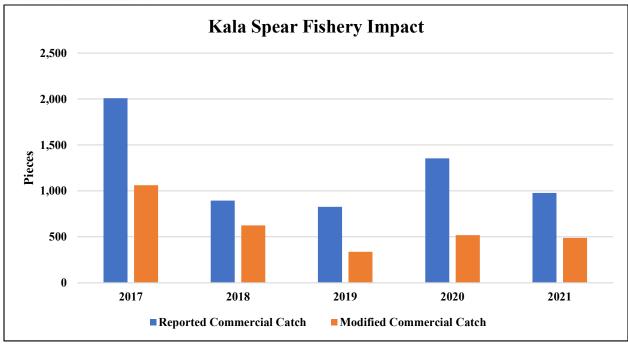


Figure 3. Estimated impacts of a two-fish bag limit on commercial kala spearfishing catch, 2017-2021.

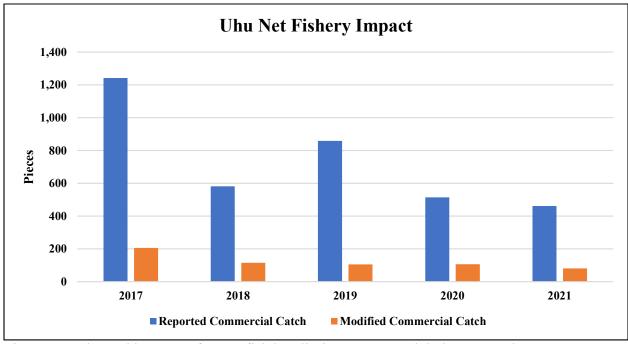


Figure 4. Estimated impacts of a two-fish bag limit on commercial uhu net catch, 2017-2021. *Does not include Maui data.



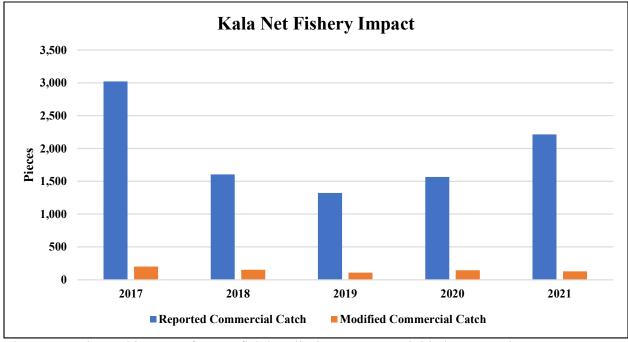


Figure 5. Estimated impact of a two-fish bag limit on commercial kala net catch, 2017-2021.

This simple analysis gives a general idea of what we may expect, yet leaves out some key considerations. In particular, it assumes no change in fisher effort, i.e., it assumes that fishers will continue to fish at their normal rate albeit restrained by the new restrictions. In reality, some fishers (including prominent highliners) will likely drop out of these fisheries altogether finding them no longer economically viable. While it is possible that new entrants may enter the fishery following implementation of the rules, the loss of highliner activity will likely be far more impactful. Also, it does not factor in potential impacts of other parts of the proposed rule packages including the no-take of terminal-phase uhu,³ which may also negatively impact commercial catch. In short, when all factors are accounted for, the actual negative impacts may be greater, not less than predicted. To check the veracity of these estimates, we looked at the results of the Maui Island Fisheries Rules for uhu (HAR §13-95.1-21) implemented in late 2014 which included uhu rules that mirror those currently being proposed statewide. Between 2014 and 2015, the amount of commercial uhu spearfishing catch reported in Maui waters decreased by 85%, or just above the 80% average decrease seen after modifying previous catch reports (Figure 6).

4

³ The proposed amendments to HAR §13-95-1 provide a definition for "terminal-phase uhu" as "any uhu characterized by the presence of bright green or blue markings or a predominantly green or blue body coloration, often with bright pink, orange, or yellow patches."



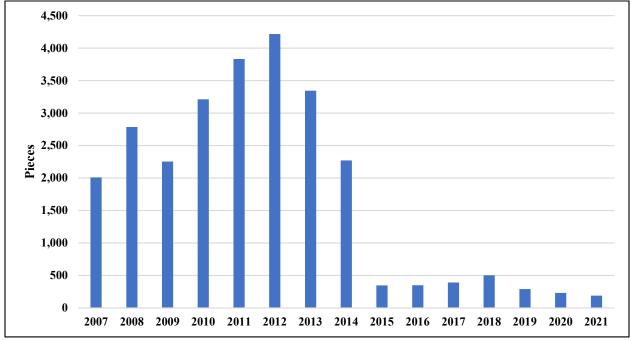


Figure 6. Reported commercial uhu landings in Maui nearshore waters, 2007-2021.

II. IMPACTS TO COMMERCIAL UHU AND KALA FISHERS, MARKETS, AND CONSUMERS

Statewide annual ex-vessel values for Hawai'i's uhu and kala fisheries have fluctuated over the past ten years depending on landings (**Figure 7**). The ten-year average ex vessel value of the commercial uhu fishery is \$264,669, while the kala fishery averaged \$44,120 in total reported dealer sales per year. While we do not have a record of retail sales, it is assumed that the total values of these fisheries are much greater.



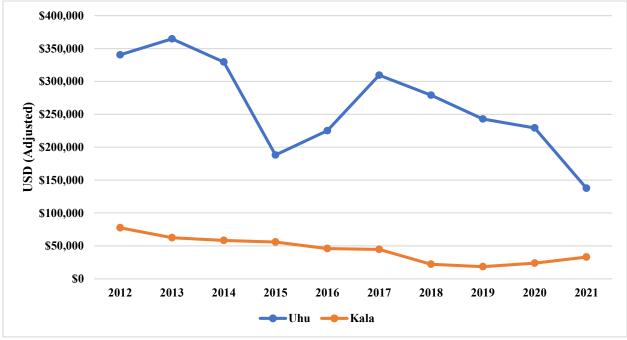


Figure 7. Reported ex-vessel values of commercial uhu and kala fisheries, 2012-2021.

Participants in Hawai'i's commercial uhu and kala fisheries typically do not target these species alone. This is true of most non-longline commercial fishers in Hawai'i who opportunistically move between fisheries depending on seasonal patterns of weather, demand, and abundance. Uhu and kala commonly act as an important secondary fishery utilized when a primary species is seasonally not targeted. Examples include targeting uhu and/or kala when akule are not seasonally abundant inshore or when 'ahi and other pelagic species are not biting offshore. Though not common, there are also individuals that target these species primarily. Impacts of these proposed rules will be especially hard felt by these fishers. In the past five years, average annual earnings from uhu and kala per reporting commercial marine license holder were \$3,754.67 and \$834.39, respectively. However, when limited to the top-ten highliners per year, average uhu and kala earnings were \$19,501.65 and \$2,876.96, respectively. Impacts to individual fishers will vary from relatively insignificant to extreme. For one full-time professional fisher and uhu highliner, parrotfishes make up 60% of their dealer reported income from fishing in the past five years. A current top kala highliner derives about 40% of their total earnings through commercial fishing from kala sales. To these fishers and others like them, the proposed rules will present significant economic hardships.

Uhu and kala make up by weight about 26% of the local inshore species purchased by Hawai'i's registered seafood dealers (**Figure 8**). This number can vary, with some prominent dealers having uhu and kala make up greater than 30% of their inshore species bought. To get an idea of what the impact of these rules may be on local markets, we can again look to the results of the Maui rules implemented in late 2014 (**Figure 9**). Between 2014 and 2015, registered Maui Dealers reported an 85% decrease in pounds bought from commercial fishers and an 84% decrease in ex-vessel value (total dollar amount paid to commercial fishers for their catch). For



many businesses, especially those specializing in these species, the impact to overall fresh local fish supply will be noticeable.

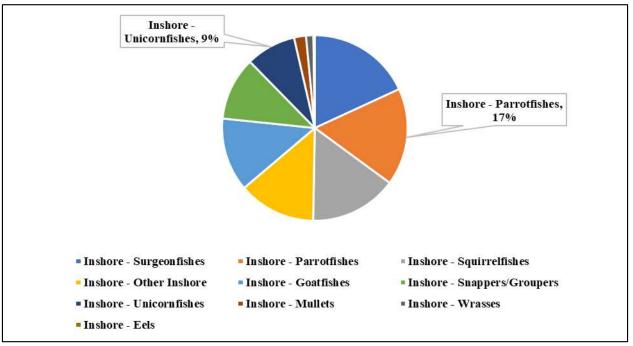


Figure 8. Composition of nearshore species purchased (lbs.) by registered seafood dealers, 2012-2021. *Scads and jacks not included.



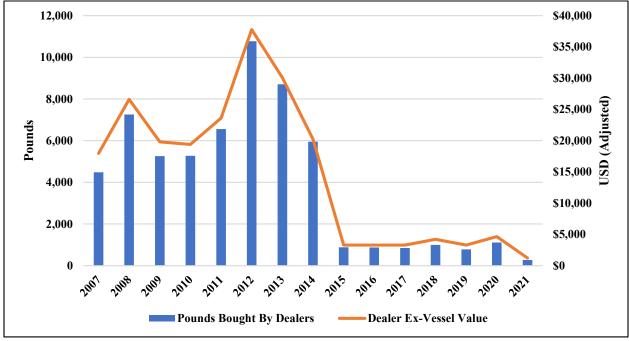


Figure 9. Reported uhu purchased from commercial fishers and ex-vessel value from registered Maui seafood dealers, 2007-2021.

Should the proposed rules be implemented, prices will likely increase accordingly to reflect the low supply and increased demand. However, the extent to which retail prices increase may be limited depending on the species. Uhu, which in Hawai'i are widely preferred by consumers, will likely see a marked price increase for high quality fish. Local consumers will be willing to pay a premium for fresh uhu, but may opt for other local alternatives such as uku⁴ and Deep 7⁵ when their prices begin to near. Kala conversely may not see a substantial price increase. Compared to uhu, kala have a much more limited market as they have a stronger tastes that many consumers do not prefer. Kala are also more a value-based fish, offering local consumers a relatively inexpensive way to consume fresh island fish. Price-minded consumers may have little tolerance for rising costs at the market and may quickly turn to imports or local alternatives if kala falls outside of their budget. For both uhu and kala, it is likely that markets

⁴ The proposed amendments to HAR §13-95-1 provide a definition for "uku" as "any fish known as *Aprion virescens* or any recognized synonym. Uku are also known as uku palu, green jobfish, gray jobfish, blue-green snapper, Hawaiian blue-green snapper, gray snapper, slender snapper, or aochibiki."

⁵ "Deep 7" collectively refers to the following 7 bottomfish species that are regulated under HAR Chapter 13-94:

^{1) &#}x27;Ula'ula koa'e or onaga (*Etelis coruscans*);

^{2) &#}x27;Ula'ula or ehu (E. carbunculus);

³⁾ Kalekale (Pristipomoides sieboldii);

^{4) &#}x27;Ōpakapaka (P. filamentosus);

^{5) &#}x27;Ūkīkiki or gindai (*P. zonatus*);

⁶⁾ Hāpu'u (Epinephelus quernus); and

⁷⁾ Lehi (Aphareus rutilans).



will move to supplement the effective loss of both fisheries by increasing imports (including frozen uhu) or purchases of other local species.

III. CONCLUSION

The proposed rules will likely have significant impacts on commercial uhu and kala fishers, markets, and consumers. The most relevant available data shows both uhu and kala harvest are currently driven by targeted fisheries, which means that setting a statewide bag limit of two fish per person per day for uhu and kala will likely have a dramatic effect on total landings. The degree of impact to individual commercial fishers will vary; those that primarily target uhu and kala will be most impacted and those that catch and sell uhu and kala as secondary catch will be less affected. For the top commercial uhu and kala fishers, the uhu and kala fisheries may no longer be economically viable as a reliable source of income and they will have to shift to other fisheries to maintain profitability. Markets will also be impacted by the proposed rules. Significant declines in the amount of uhu and kala harvested will push local markets to supplement with imported uhu and kala or increase purchases of other local species as alternatives. Consumers, as a result, will find significantly decreased access to fresh, locally-harvested uhu and kala at the markets and will have to turn to imported uhu and kala or other local alternatives.