

STATE OF CALIFORNIA
FISH AND GAME COMMISSION
INITIAL STATEMENT OF REASONS FOR REGULATORY ACTION

Add Section 29.06
Title 14, California Code of Regulations
Re: Purple Sea Urchin

I. Date of Initial Statement of Reasons: November 5, 2018

II. Dates and Locations of Scheduled Hearings

(a) Notice Hearing: Date: October 17, 2018
 Location: Fresno, CA

(b) Discussion Hearing: Date: December 12, 2018
 Location: Oceanside, CA

(c) Adoption Hearing: Date: February 7, 2019
 Location: Sacramento, CA

III. Description of Regulatory Action

a) Statement of Specific Purpose of Regulation Change and Factual Basis for Determining that Regulation Change is Reasonably Necessary:

The addition of Section 29.06 increases the recreational take of purple sea urchin. This is one of several actions taken by the Department that is necessary to protect the historic and valuable ocean habitat on the northern California coast. Unchecked, the purple sea urchin has impacted the recovery of kelp beds off the coast of northern California, thus causing the ensuing decline of abalone and other important marine life dependent on this unique ecosystem.

Background

Severe environmental conditions over the past several years have caused a collapse of the bull kelp (*Nereocystis luetkeana*) forest in the waters of the northern California coastline. The combination of unprecedented environmental and biological stressors has led to severe impact on marine life that inhabit kelp forest, including widespread starvation and death of abalone (*Haliotis spp.*). In 2016 and 2017, more than 25 percent of abalones assessed (> 6,000 abalone per year) in nine creel surveys at key fished sites in Sonoma, Mendocino, and Humboldt counties had shrunken foot muscle due to starvation. Starved abalones have increased chance of mortality and severely reduced fecundity.

The Fish and Game Commission (Commission) voted to close the red abalone fishery for the 2018 season in December 2017. Since then, the poor condition of the kelp forests has continued to persist. In August 2018, after considering stakeholder input, the Commission agreed to consider extending the closure.

Recovery of the abalone fishery will not be possible without the prompt recovery of the bull kelp forests and the return of sufficient food to support abalone survival and reproduction.

Kelp recovery has been severely limited (<10% remaining in Sonoma and Mendocino counties) in part due to the proliferation of purple sea urchins (*Strongylocentrotus purpuratus*). Unlike abalone, sea urchins are generally resilient to food shortage and can survive longer without food, and grazing pressure from surviving sea urchins may prevent kelp recovery even as ocean condition rebounds. The urchin population boom is further exacerbated by the absence of important predatory sea stars (*Pisaster spp.*), which were severely impacted by the sudden onset of the disease sea star wasting syndrome in 2013. Sea stars have since been recovering at a very slow pace, providing only marginal if any top-down control on purple sea urchin.

The red abalone population has not recovered as of 2018, which indicates a similar lack of recovery for the kelp forests. Red abalone density has dropped from 0.2 abalone m⁻² in 2017 to 0.08 abalone m⁻² in 2018 at the Department's Fort Ross index survey site. Density has remained mostly unchanged at the Department's Van Damme survey site (2017 – 0.14 abalone m⁻²; 2018 – 0.16 abalone m⁻²).

Emergency Rule 29.11 Implemented

The default recreational take limit for all marine invertebrates is 35 individuals (Section 29.05, Title 14, California Code of Regulations (CCR)), and is well below levels that would impact current purple urchin population abundances. Commission thus adopted Section 29.11, Title 14, CCR, effective May 10, 2018, as an emergency rule to significantly increase the recreational daily bag limit for purple sea urchin to 20 gallons and exempts the species from any recreational possession limit. The new limits only apply to purple sea urchins taken while skin or SCUBA diving off the coast of Sonoma and Mendocino Counties.

The higher take limit of 20 gallons was adopted to catalyze a growing recreational interest in harvesting purple sea urchins along the northern California coast to reduce destructive grazing pressure in urchin barrens, supporting recovery of the kelp forest ecosystem.

As an emergency rule, Section 29.11, readopted in October 2018, is due to sunset on February 7, 2019. The Commission anticipates that recreational interest in purple sea urchins will increase, and a standard rulemaking is necessary to continue to allow the higher take limit. Furthermore, bull kelp, the dominant kelp in northern California, is an annual species. Any restoration attempt would yield observable results only after it has been conducted for over a year. As such, both the goal of supporting a growing recreational interest and the goal of restoring habitat require the new regulation Section 29.06 for at least the next two or more years.

Department staff has collaborated with other stakeholders in three successful coordinated recreational harvest events in 2018 since the emergency rule was first

adopted. Each restoration event attracted 75-100 divers and collected 60,000-80,000 purple urchins at each two-day event respectively. Conversations with stakeholders suggest that generally 4-6 such events could be held each year.

Option 1: New Take Limit for Humboldt, Mendocino, and Sonoma Counties

Proposed Regulation

This regulatory proposal would add Section 29.06, Title 14, CCR. The new regulation would provide for a daily recreational bag limit of 40 gallons of purple sea urchins while diving off waters of Humboldt, Mendocino and Sonoma counties. The proposal would exempt all recreational possession for recreationally taken purple sea urchin.

Rationale

Adding Section 29.06 through standard rulemaking would ensure that interests in the recreational take of purple sea urchin in northern California continues to develop. The regulations would promote the continued involvement of recreational divers in efforts to restore the severely impacted kelp forest ecosystems in northern California.

The proposed regulatory package is part of a larger strategy of controlling the purple sea urchin population in northern California. It was determined through dives conducted in 2018 that when coordinated in conjunction with other tools, such as incentivizing commercial sea urchin divers to target purple sea urchins, the higher bag limit of 40 gallon will contribute to reduction efforts without adversely affecting the long-term health of the purple sea urchin population.

The original emergency rule applied only to the coasts of Sonoma and Mendocino counties because these two counties constitute the core range of the northern California red abalone fishery and suffered the most bull kelp loss. Observations of abalone body condition during abalone creel surveys (2016 and 2017) as well as recent reports from recreational divers in Humboldt County suggest that purple urchins may be affecting that region as well. The continued deterioration in the north coast has prompted the Department to recommend extending the higher take limit to the coast off Humboldt County.

The proposed regulation retains the condition that only urchins taken while skin or SCUBA diving qualify under the higher limit. This is to ensure that foot traffic does not increase in the intertidal zone, where other marine life are vulnerable to being trampled on. The proposed regulation also retains the exemption from possession limit, facilitating the transportation of a large amount of purple sea urchins as may be harvested during coordinated events.

Option 2: New Take Limit for Del Norte, Humboldt, Mendocino, and Sonoma Counties

Proposed Regulation

This regulatory proposal under this option is the same as Option 1, except that the new recreational bag limit will also be extended to purple sea urchins taken off the coast of Del Norte County.

Rationale

The northward trend of the deteriorating kelp condition suggests that the higher recreational take limit and possession limit exemption may be warranted in Del Norte County as well.

(b) Goals and Benefits of the Regulation:

The proposed regulation would add a recreational bag limit for purple sea urchin and exempts such take from any possession limit so long as the urchins are taken while skin or SCUBA diving in Sonoma, Mendocino, and Humboldt Counties, as well as potentially Del Norte County. The regulation is necessary to both maintain a developing recreational interest in purple sea urchin as well as help reduce grazing pressure in a vulnerable ecosystem.

(c) Authority and Reference Sections from Fish and Game Code for Regulation:

Authority: Sections 200 and 205, Fish and Game Code.

Reference: Sections 200 and 205, Fish and Game Code.

(d) Specific Technology or Equipment Required by Regulatory Change: None

(e) Identification of Reports or Documents Supporting Regulation Change:

Fish and Game Commission. (Commission 2017). Initial Statement of Reasons for Regulatory Action to Amend Section 29.15, Title 14, California Code of Regulations, Re: Abalone Regulations.

<http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=161274>

Fish and Game Commission. (Commission 2018). Initial Statement of Reasons for Regulatory Action to Amend Section 29.15, Title 14, California Code of Regulations, Re: Abalone Regulations.

<http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=161271>.

(f) Public Discussions of Proposed Regulations Prior to Notice Publication:

April 2018 Commission Meeting, Ventura, CA

August 2018 Commission Meeting, Fortuna, CA

IV. Description of Reasonable Alternatives to Regulatory Action

(a) Alternatives to Regulation Change:

No alternatives were identified by or brought to the attention of Commission staff that would have the same desired regulatory effect.

(b) No Change Alternative:

Without regulatory change, the current Section 29.11 will eventually sunset. The daily recreational bag limit for purple sea urchin would default back to 35 sea urchins per person per day. The default bag limit would be too low to encourage recreational divers to go to northern California to seek purple sea urchins, and the take of urchins would be too low to support kelp forest recovery.

V. Mitigation Measures Required by Regulatory Action

The proposed regulatory action will have no negative impact on the environment; therefore, no mitigation measures are needed.

VI. Impact of Regulatory Action

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following initial determinations relative to the required statutory categories have been made:

(a) Significant Statewide Adverse Economic Impact Directly Affecting Businesses, Including the Ability of California Businesses to Compete with Businesses in Other States:

The proposed action will not have a significant statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states. Option 1: New Take Limit for Humboldt, Mendocino, and Sonoma Counties, and Option 2: New Take Limit for Del Norte, Humboldt, Mendocino, and Sonoma Counties would both create permanent incentives for more tourists to travel to coastal northern California and help stimulate local economy.

(b) Impact on the Creation or Elimination of Jobs Within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California; Benefits of the Regulation to the Health and Welfare of California Residents, Worker Safety, and the State's Environment:

The Commission does not anticipate any impact on the creation or elimination of jobs, the creation of new business, the elimination of existing businesses or the expansion of businesses in California because the proposed regulation is not likely to substantially increase or decrease recreational fishing opportunities within California. The proposed regulation, (both Option 1 and Option 2) is expected to increase interests in recreational diving in northern California that previously did not exist, which may provide a small increase in

economic stimulus to local economies.

The Commission anticipates benefits to the health and welfare of California residents (from both Option 1 and Option 2) through the vigorous activity required to pursue purple sea urchin. The Commission does not anticipate any benefits to worker safety because the proposed regulation will not affect existing working conditions. The Commission anticipates some benefit (from both Option 1 or Option 2) to the state's environment through the restoration of kelp forest habitats to foster and support a diverse balance of species.

(c) Cost Impacts on a Representative Private Person or Business:

The agency is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action (for both Option 1 and Option 2).

(d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State: None.

(e) Nondiscretionary Costs/Savings to Local Agencies: None.

(f) Programs Mandated on Local Agencies or School Districts: None.

(g) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4, Government Code: None.

(h) Effect on Housing Costs: None.

VII. Economic Impact Assessment

(a) Effects of the Regulation on the Creation or Elimination of Jobs Within the State:

The Commission does not anticipate impacts on the creation or elimination of jobs within the state because the proposed action (Option 1: New Take Limit for Humboldt, Mendocino, and Sonoma Counties, and Option 2: New Take Limit for Del Norte, Humboldt, Mendocino, and Sonoma Counties) is anticipated to provide a partial substitute for the economic stimulus formerly brought by the recreational abalone fishery that has been closed due to low population density counts. Whether the purple sea urchin fishery will attract as many repeat participants as abalone is not known yet, but the purple sea urchin fishery activity is not anticipated to induce substantial, long-term changes in the demand for labor.

(b) Effects of the Regulation on the Creation of New Businesses or the Elimination of Existing Businesses Within the State:

The Commission does not anticipate any new businesses, or elimination of existing businesses, because the proposed regulation (both Option 1 and

Option 2) is not likely to substantially increase or decrease recreational fishing opportunities within California.

- (c) Effects of the Regulation on the Expansion of Businesses Currently Doing Business Within the State:

The Commission does not anticipate any effects from this action (both Option 1 and Option 2) to be substantial enough to induce the expansion of businesses currently doing business in the state.

- (d) Benefits of the Regulation to the Health and Welfare of California Residents:

The Commission anticipates benefits to the health and welfare of California residents (from both Option 1 and Option 2) through the vigorous activity required to pursue purple sea urchin.

- (e) Benefits of the Regulation to Worker Safety:

The Commission does not anticipate any benefits to worker safety because the proposed regulation (both Option 1 and Option 2) does not affect existing working conditions.

- (f) Benefits of the Regulation to the State's Environment:

The Commission anticipates some benefit (from both Option 1 or Option 2) to the state's environment through the restoration of kelp forest habitats to foster and support a diverse balance of species.

- (g) Other Benefits of the Regulation: None.

Informative Digest/Policy Statement Overview

The addition of Section 29.06 increases the recreational take of purple sea urchin to 40 gallons. This is one of several actions taken by the Department that is necessary to protect the historic and valuable ocean habitat on the northern California coast. The recent increase in population of the purple sea urchin has led to significant losses of ocean habitat. Unchecked, the purple sea urchin has decimated kelp beds leading to the decline of abalone and other important marine life dependent on this unique ecosystem.

As an emergency rule, Section 29.11 increased recreational take of purple sea urchin to 20 gallons. This provision is due to sunset on February 7, 2019. In order to maintain recreational interest in purple sea urchins, to the end that will benefit kelp and abalone recovery, a standard rulemaking is necessary to allow a higher take limit.

Furthermore, bull kelp, the dominant kelp in northern California, is an annual species. Any restoration attempt would yield observable results only after it has been conducted for a year or more. As such, both the goal of supporting a growing recreational interest and the goal of restoring habitat require the new regulation 29.06 for at least the next two or more years.

The addition of Section 29.06 extends the higher take limit to Humboldt, Mendocino, Sonoma, and possibly Del Norte counties.

Benefits of the Regulations

The regulation would maintain a developing recreational interest in purple sea urchin as well as help reduce grazing pressure in a vulnerable ecosystem.

Consistency and Compatibility with Existing Regulations

The proposed regulations are consistent with Section 29.05, Title 14, CCR. Commission staff has searched the CCR and found no other regulations that address the recreational take of purple sea urchin and therefore finds that the proposed regulations are neither inconsistent nor incompatible with existing State regulations. The Legislature has delegated authority to the Commission to adopt regulations necessary to regulate the recreational take of fish, including purple sea urchins (FGC Section 205). No other state agency has the authority to regulate the recreational take of purple sea urchin.