

CALIFORNIA FISH AND GAME COMMISSION
STATEMENT OF PROPOSED EMERGENCY REGULATORY ACTION FOR
READOPTION OF EMERGENCY REGULATIONS

Readoption of Section 29.11
Title 14, California Code of Regulations
Re: Purple Sea Urchin

Date of Statement: September 18, 2018

I. Emergency Regulation in Effect to Date

The California Fish and Game Commission (Commission) approved an emergency rulemaking, Section 29.11, which became effective on May 10, 2018. The emergency addresses concerns over the impact of purple sea urchin overpopulation along the northern California coast. The emergency rulemaking increased the daily recreational bag limit for purple sea urchins taken through skin or scuba diving off the coast of Mendocino County and Sonoma County to 20 gallons. It also exempts the possession of purple sea urchin from any recreational possession limit.

The rule was originally adopted to catalyze a growing recreational interest in harvesting an overpopulated purple sea urchin and to help restore northern California kelp forests. Adopting Section 29.11 as an emergency rule was necessary due to the speed at which the purple sea urchin were negatively impacting the northern California kelp forests, the primary habitat of the red abalone.

The staff of the California Department of Fish and Wildlife (Department) has also been working with other stakeholders in several restoration efforts. Studies have so far been conducted in Ocean Cove, Sonoma County, and Albion Cove, Mendocino County. On both occasions, roughly 100 recreational divers participated and removed approximately 60,000 purple sea urchins from barren habitats. More studies have been planned, and Department staff will continue to track the effect of these removal events.

II. Request for Approval of Readoption of Emergency Regulations

The current emergency rule, Section 29.11, will expire on November 7, 2018, unless it is readopted for an additional 90 days through February 5, 2019. Department and Commission staff are currently working towards a standard rulemaking to adopt provisions similar in scope to the Emergency Section 29.11.

One of the primary goals of the restoration effort is to restore healthy stands of Bull kelp (*Nereocystis luetkeana*) and to study the species' response to urchin removal. Bull kelp is the dominant kelp species in northern California, and is a relatively slow-growing perennial species. Any restoration attempt would yield observable results only after it has been conducted for over a year, within that time the Department will have the non-emergency Section 29.11 in place.

III. Statement of Facts Constituting the Need for Readoption of the Emergency Regulatory Action

The recreational red abalone (*Haliotis rufescens*) fishery is one of California's most important fisheries, generating millions of dollars in tourism revenue for the northern California coast. Severe environmental conditions over the past several years have triggered a cascade of ecological changes that greatly impacted abalone populations and led to closure of the fishery.

The combination of unprecedented environmental and biological stressors has caused the bull kelp forest, the primary source of food for abalone, to shrink to only 10% of its historical coverage along the coasts of Sonoma and Mendocino counties. The loss of the kelp forest has led to widespread starvation of abalone. In 2016 and 2017, more than 25 percent of the abalones assessed (greater than 6,000 abalone per year) in the nine creel surveys at key fished sites in Sonoma and Mendocino counties had shrunken foot muscles due to starvation. Starved abalones have an increased chance of mortality and severely reduced reproduction further limiting their recovery.

Additionally, the kelp forest recovery is severely hindered due to the increased abundance of purple sea urchin (*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 conditions rebound. The urchin population boom is further exacerbated by the absence of important predatory sea stars (*Pisaster spp.*), which were severely impacted by the onset of the sea star wasting disease in 2013. With the sea star population still recovering from the epidemic, there will be little top-down control on the urchin population in northern coastal waters in the immediate future.

The most recent Department dive survey indicates that the abalone population in northern California remains in a persistently poor state. The poor state of the kelp forest ecosystem is further corroborated by anecdotal observations from recreational divers and commercial divers that have recently visited the area. Red abalone density at the Fort Ross survey site has dropped from 0.2 individuals/m² in 2017 to 0.08 individual/m² in 2018. Density at the Van Damme survey site only rose marginally from 0.14 individuals/m² in 2017 to 0.16 individual/m² in 2018, which is still less than 20% of the density of that site at the turn of the century.

Habitat loss critically impacting red abalone has been documented along the north coast by Department staff:

1. A dramatic decline in sea stars, important sea urchin predators, due to sea star wasting disease 2013-2015.
2. A dramatic decline (greater than 93 percent) of the kelp canopy in Sonoma and Mendocino counties in 2014.
3. A dramatic increase (greater than 60 times) in the density of purple sea urchins since 2014, increasing competition with abalone for food as well as suppressing recovery of kelp beds.
4. Persistent warm seawater conditions in Sonoma and Mendocino counties, particularly in 2014 and 2015.
5. Continued decline in overall average abalone densities in spite of significant take reductions implemented in 2014, ultimate closure of the fishery in 2018.

Health and reproductive loss critically impacting red abalone has been documented along the north coast by Department staff:

1. Visual abalone body health scores for abalone taken in the fishery during the spring of 2016 and 2017 show that more than 25 percent of abalone were shrunken in body mass at sites in northern California.
2. Reproductive condition index declined by greater than 50 percent at Van Damme State Park and Fort Ross in 2017, with increasing impact to reproduction evident in shrunken abalone (60 abalone per site).
3. Department staff and the public have observed weak abalone washed up on shore and easy to remove from the rocks as well as many new shells of all size classes, indicating increased natural mortality.
4. Low numbers of larval abalone observed in plankton surveys in Sonoma and Mendocino counties in 2015.
5. Small numbers of newly settled abalone observed in coralline-covered rock samples from Sonoma and Mendocino counties in 2015.
6. Few juvenile (less than 21 millimeters) red abalone observed in artificial reefs in Van Damme State Park since 2015.
7. Preliminary result from 2018 abalone survey shows that abalone densities continue to decline.

Prior Commission Actions

In December 2017, the Commission closed the red abalone fishery for the 2018 season. Since then, the poor condition of the kelp forests has persisted. In August 2018, Commission and stakeholders agreed to potentially extend the closure by another two years. 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.

Also in December 2017, the Commission considered alternatives to increasing or removing the take restrictions on the recreational purple sea urchin harvest, with the goal of supporting possible restoration of naturally occurring kelp along the environmentally impacted areas. In April 2018, the Commission adopted the emergency rule to significantly increase take of purple sea urchin and the emergency regulation went into effect on May 10, 2018.

Existence of an Emergency and Need for Immediate Action

The Commission considered the following factors in determining whether an emergency exists: The magnitude of potential harm; the existence of a crisis situation; the immediacy of the need; and whether the anticipation of harm has a basis firmer than simple speculation. All available information points to a highly volatile and adverse condition for northern California kelp forests and the resident abalone populations, and extraordinary measures must continue to help restore important but vulnerable habitat.

Proposed Action by the Commission

The Commission proposes the readoption of Section 29.11 that is the same as previously adopted.

IV. 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 determinations relative to the required statutory categories have been made:

- (a) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State: None.
- (b) Nondiscretionary Costs/Savings to Local Agencies: None.
- (c) Programs Mandated on Local Agencies or School Districts: None.
- (d) 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.
- (e) Effect on Housing Costs: None.

V. Readoption Criteria

1) Same as or Substantially Equivalent

Pursuant to Government Code Section 11346.1(h), a readoption may be approved only if the text is “the same as or substantially equivalent to an emergency regulation previously adopted by that agency.” The language proposed for this rulemaking is the same as the language of the original emergency regulation.

2) Substantial Progress

Government Code Section 11346.1(h) specifies “Readoption shall be permitted only if the agency has made substantial progress and proceeded with diligence to comply with subdivision (e) [of Sections 11346.2 through 11347.3, inclusive].” A rulemaking in compliance with these sections is currently ongoing and scheduled for public hearing and adoption in February 2019

VI. Authority and Reference

The Commission proposes this emergency action pursuant to the authority vested by sections 200, 205, and 399 of the Fish and Game Code and to implement, interpret, or make more specific sections 200, 205, and 399 of said code.

IV. Section 399 Finding

Pursuant to Section 399 of the Fish and Game Code, the Commission finds that the adoption of this regulation is necessary for the immediate conservation, preservation, or protection of birds, mammals, reptiles, or fish (abalone).

Informative Digest

The California Fish and Game Commission (Commission) adopted Section 29.11, Purple Sea Urchin, as an emergency rulemaking raising the recreational limit of purple sea urchins taken off the coast of Mendocino and Sonoma Counties, effective on May 10, 2018.

The emergency rule is due to expire on November 7, 2018, if a readoption is not filed. Readoption will extend the regulation for 90 days through February 5, 2019. This is necessary to ensure that the Department can continue to evaluate kelp forest ecosystem restoration efforts. The Department and Commission are currently working towards a standard rulemaking to adopt provisions similar in scope to the Emergency Section 29.11. A public hearing will be scheduled for February 2019.

Proposed Regulatory Action:

The regulation temporarily raises the daily bag limit for purple sea urchins taken while skin-diving or SCUBA diving in Sonoma and Mendocino counties to twenty (20) gallons. The proposal would also allow unlimited possession of recreationally taken purple sea urchin.

Benefits of the Regulation to the State's Environment:

The Commission anticipates benefits to the State's environment by the sustainable management of California's ocean resources. The increased take for the recreational purple sea urchin harvest, with the goal of supporting restoration of naturally occurring kelp along the environmentally impacted areas, is critical to the recovery of the red abalone and the rest of the northern California kelp forest ecosystem.

Consistency and Compatibility with Existing State Regulations:

The Legislature has delegated authority to the Commission to promulgate sport fishing regulations (Fish and Game Code, sections 200 and 205) as well as authority to promulgate corresponding emergency regulations as necessary (Fish and Game Code, Section 399). No other state agency has the authority to promulgate such regulations. The Commission has conducted a search of Title 14, California Code of Regulations (CCR) and determined that the proposed regulation is neither inconsistent nor incompatible with existing State regulations, and that the proposed regulation is consistent with other sport fishing regulations and marine protected area regulations in Title 14, CCR.