

State of California
Fish and Game Commission
Initial Statement of Reasons for Regulatory Action

Amend Subsection 27.60(b) and Section 28.00
Title 14, California Code of Regulations (CCR)
Re: California Grunion Limit and Season Changes

I. Date of Initial Statement of Reasons: October 26, 2021

II. Dates and Locations of Scheduled Hearings

(a) Notice Hearing

Date: October 14, 2021

Location: Webinar/Teleconference

(b) Discussion Hearing

Date: December 16, 2021

Location: Webinar/Teleconference

(c) Adoption Hearing

Date: February 16, 2022

Location: Sacramento

III. Description of Regulatory Action

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

BACKGROUND

California grunion (*Leuresthes tenuis*, herein referred to as grunion) are a unique and iconic resource in California. They are endemic to California, only being found from central Baja California to the San Francisco Bay area. Due to their unique behavior of flopping up onto the beach to spawn, Californians for generations have gone to the beaches near midnight to watch these “grunion runs” and capture these fish. In 2019, the Fish and Game Commission (Commission) received a petition (#2019-014) to increase restrictions on the take of grunion in the recreational fishery. The Commission granted this petition in concept at its February 2020 meeting, which began the process of reviewing recreational regulations for take of grunion and writing an Enhanced Status Report. Data provided by the initial petition and in the subsequent review of materials by the Department of Fish and Wildlife (Department) have shown that the population of grunion may be declining, and that it is necessary to reduce take of grunion to protect its population.

There is no quantitative assessment of population size for grunion, and the limited data available indicate a relatively small population size when compared to other forage fish species. They are rarely caught by commercial fishers and are not caught with hook-and-line; grunion are only caught by hand when spawning on the beach in the middle of the night. The

California Recreational Fisheries Survey (CRFS) only samples fishing activities during daylight hours, so there is no long-term fishery-dependent data on catch and effort for grunion. The only available long-term data set is from the Grunion Greeters, a citizen scientist-based organization that qualitatively categorizes the abundance of grunion spawning on the beaches throughout California. Obtaining accurate quantitative estimates of grunion abundance is difficult since many grunion will make repeated trips from the water to the beach and back during a spawning run, and they only spawn in the middle of the night. A recent study (Martin et al. 2019), using data from the Grunion Greeters, has shown that the number of grunion spawning on beaches has declined significantly in the past decade. This population decline is most likely a result from a combination of environmental factors and human disturbances including habitat loss, beach grooming, fishing, sand nourishment projects, and coastal pollution (Martin et al. 2006; Martin and Adams 2020).

The Department acquired a portion of these data, including the maximum Walker scores recorded per grunion run series by the Grunion Greeters, from the twelve most frequently monitored beaches between 2004 and 2020 (Figure 1). The Walker Scale is a qualitative assessment of the abundance of spawning grunion on a beach. It is scored as follows: W0 is no spawning fish, W1 is less than 100 spawning fish at different times in one or several locations, W2 is 100 – 500 fish spawning at different times in one or several locations, W3 is hundreds of fish spawning in several locations or over a broad area, W4 is thousands of fish together for less than an hour, and W5 is fish covering the beach lasting for over an hour (Martin et al. 2019). The top beaches are: Coronado, Mission/Pacific, La Jolla, Oceanside, Doheny, Newport, Cabrillo, Topanga, Malibu, Ventura, East Beach (Santa Barbara), and Goleta. As these twelve beaches were surveyed the most consistently over time, they may more accurately show the status of the grunion population than beaches that are less frequently monitored. About a third of the monitored grunion runs from 2004-2011 had less than 100 fish. From 2012 through 2020, it was documented that at least half of the monitored runs had less than 100 grunion spawning on these same beaches. The years 2016 and 2017 documented similar runs to the mid-2000s, but from 2018-2020 the number of observed spawning grunion decreased again. It should be noted in 2020 there were very few monitored grunion runs, mostly due to beach closures and safety concerns during the COVID-19 pandemic.

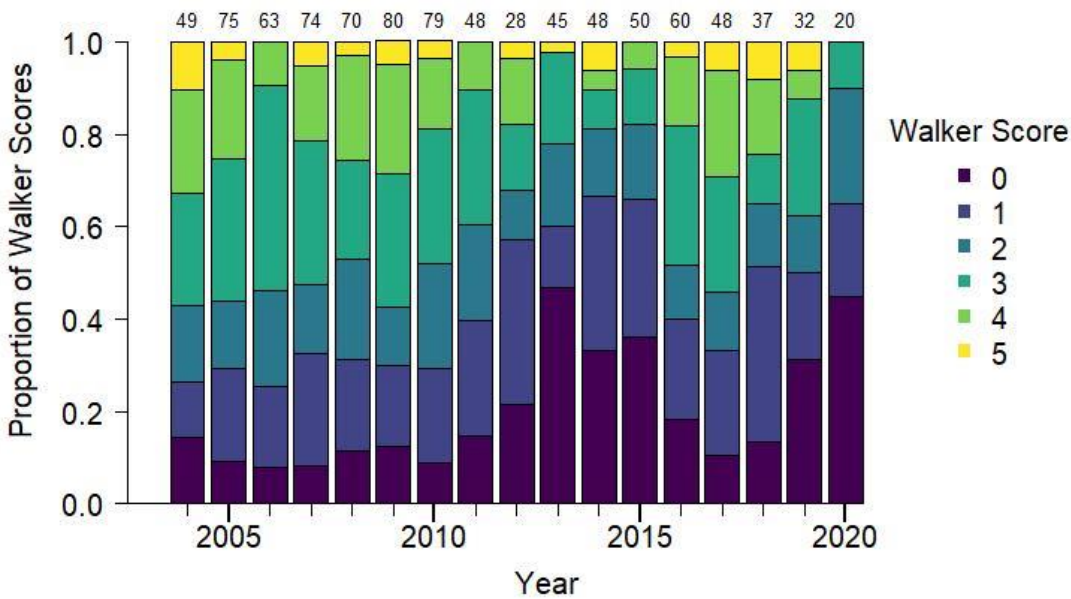


Figure 1. Proportion of Walker scores for the most surveyed beaches (n=12) by year from 2004 through 2020. The number on the top of each bar denotes the number of surveys conducted in that year. Walker score values: W0 is no spawning fish, W1 less than 100 spawning fish at different times in one or several locations, W2 is 100 – 500 fish spawning at different times in one of several locations, W3 is hundreds of fish spawning in several locations or over a broad area, W4 is thousands of fish together for less than an hour, and W5 is fish covering the beach lasting for over an hour. Years 2004-2018 data are from Martin et al. 2019, 2019-2020 Martin unpublished data, graphic and analysis by CDFW.

Grunion are primarily taken to be consumed or used as fishing bait. They are vulnerable to overexploitation because they form concentrated spawning groups along California beaches. Grunion surf the waves onto the beach and as the water recedes, females dig more than half their body into the wet sand to deposit their eggs while males wrap around them and release milt to fertilize the eggs. Grunion sometimes form dense spawning aggregations on the beach, which allows fishers the opportunity to catch tens to hundreds of them in a short period of time very easily from shore, without use of any equipment. The fishery for grunion is almost entirely recreational. There is no established commercial fishery, and a directed commercial fishery for grunion may not be started since they are a designated forage fish (Section 111, Title 14, CCR).

The Department has recently collected limited data on the amount of grunion collected by individuals. Participation can vary from just a few individuals at a beach to hundreds chasing and collecting grunion. Not surprisingly, the amount of take is dependent upon the size of the grunion run, but take over 100 fish is not uncommon. If the level of take is not reduced, the population of grunion could become depleted and unsustainable. Regulations put into place in the 1920s, which closed the season from April through June and eliminated the use of gear, helped recover stocks of grunion at that time. This season closure was relaxed in the late 1940s once stocks had rebounded.

CURRENT REGULATIONS

The current regulations for recreational fishing state that grunion does not have a bag or possession limit (subsection 27.60(b), Title 14, CCR), the fishery is open from June 1 through March 31 (Section 28.00, Title 14, CCR) and no appliances of any kind may be used to take grunion and no holes may be dug in the beach to entrap them (Section 29.00, Title 14, CCR).

PROPOSED REGULATORY CHANGES

The proposed regulations will close the recreational fishing season from April 1 to June 30, effectively shortening the open season for recreational fishing to July 1 through March 31, and create a recreational bag and possession limit of 30 grunion.

Amend Subsection 27.60(b); Limit.

Subsection 27.60(b) will be amended to exclude grunion from the list of finfish for which there is no limit. The purpose of this amendment is to allow the establishment of a bag and possession limit for the species.

Amend Section 28.00; Grunion, California.

Section 28.00 will be amended to close the take of grunion from April 1 to June 30 and to establish a bag and possession limit of 30 fish. The purpose of this proposed amendment is twofold: first, to prevent take of the grunion during the peak of their spawning season (April-June), and second, to reduce the level of take to an number of fish that is useful for consumption and bait purposes, but which prevents excessive take or waste of fish. This will help ensure a more sustainable fishery, so that future generations can partake in grunion runs.

(b) Goals and Benefits of the Regulation

Under the Marine Life Management Act (MLMA), it is the policy of the state to ensure the conservation, sustainable use, and restoration of California's living marine resources for the benefit of all citizens of the state (Fish and Game Code Section 7050). The main goal of the proposed amendments is to protect the existing population of grunion. This will be accomplished by ensuring sustainable take of the species. Amending the regulations to establish a bag and possession limit of 30 will allow more fish to remain in the population and spawn multiple times. Increasing the seasonal closure to include June will allow grunion more opportunities to spawn uninterrupted, as human activities (e.g. chasing grunion, excessive use of flashlights, splashing in the nearshore surf zone) can halt a spawning run. These activities would be greatly reduced by closing the month of June to take, as that is during the height of their spawning period and will provide the greatest protection to their spawning activities.

Increasing the population size of grunion will benefit the residents of California because maintaining a large grunion population will ensure a sustainable fishery that all can participate in and enjoy in the future. These runs are culturally important and increase interest and involvement in the outdoors. Increasing the population size of grunion will also have positive impacts on the California marine ecosystem, since they are a key forage fish for an array of marine life including California halibut, kelp bass, California corbina, white seabass, and other prized game fishes.

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

Section 27.60

Authority cited: Sections 200, 205, 265, 7071 and 8587.1, Fish and Game Code.
Reference: Sections 205, 255, 7071, 7120 and 8587.1, Fish and Game Code.

Section 28.00

Authority cited: Sections 200, 205, 265 and 275, Fish and Game Code.
Reference: Sections 200, 205, 255, 265, 270 and 275, Fish and Game Code.

(d) Specific Technology or Equipment Required by Regulatory Change

None.

(e) Identification of Reports or Documents Supporting Regulation Change

Martin, K. L., Pierce, E. A., Quach, V. V., & Studer, M. 2019. Population trends of beach-spawning California grunion *Leuresthes tenuis* monitored by citizen scientists. ICES Journal of Marine Science, 77(6): 2226-2233.

Martin, K. L., 2019. Petition #2019-014 to the California Fish and Game Commission for Regulation Change: Increase Restrictions on California Grunion.

(f) Identification of Reports or Documents Providing Background Information:

Martin, K. L., & Adams, L. C. 2020. Effects of repeated sand replenishment projects on runs of a beach-spawning fish, the California grunion. Journal of Marine Science and Engineering, 8(3): 178.

(g) Public Discussions of Proposed Regulations Prior to Notice Publication

In June of 2020, the Department contacted 95 California Native American Tribes via letter regarding possible regulation changes for grunion; six Tribes responded. Half of the Tribes that responded did not traditionally fish for grunion and deferred to Tribes that fished for them. The other half were in favor of regulations that protected grunion. One phone discussion was held on June 25, 2020 with a representative from the Rincon Tribe. They requested that Tribes be given the opportunity to apply for special permits that would allow for the harvest beyond limit regulations to practice their ceremonies. Special permits are outside the scope of this regulatory change, but tribal take may be considered at a later date pursuant to a Memorandum of Understanding. The Department is exploring options outside of this rulemaking. Due to the delayed timeline of this rulemaking, staff sent an additional re-notification letter to tribes on August 23, 2021.

The Department posted a grunion fishery questionnaire on its website in July 2020 to gather information from those who participate in the fishery. As of August 16, 2021, only 23 questionnaires have been completed. All but three respondents reported that their mean take was less than 50 grunion per night, and most fish for grunion in March, June and July. A vast majority of respondents fish for grunion two or more times per year. When asked about an appropriate limit, 50 grunion was the most common answer. Respondents were mixed on the need for an additional seasonal closure with close to 40% opposing any additional seasonal closures.

The Department discussed grunion and possible regulation changes at the Marine Resources Committee meeting on November 10, 2020. The Committee concluded that the Commission should review potential regulation amendments for grunion, including a bag and possession limit for grunion and an additional month closure for the recreational fishery. Initially the Commission requested a proposal that included a bag and possession limit of a range of 10-20 fish rather than a specific number of fish so as to incorporate both the original petition's and the Department's suggested limits. However, the Commission later rejected this range - expanded to 10-50 by the Department following further analysis of the grunion fishery - at its hearing to authorize publication of a notice of intent to amend regulations in favor of a bag and possession limit of exactly 30 grunion.

No other public meetings were held prior to the notice publication. The 45-day comment period provides adequate time for review of the proposed amendments.

IV. Description of Reasonable Alternatives to Regulatory Action

(a) Alternatives to Regulation Change

Shorten the existing open season from June 1 through March 31 (Section 28.00, Title 14, CCR) by two additional months.

Adding an additional two months of seasonal closure while keeping the unrestricted bag and possession limit was considered but rejected. While this alternative would enhance certain aspects of protection for grunion, it would only allow fishers two months of access to the fishery as grunion typically spawn from March through August. This limited season would likely concentrate the number of fishers, and when coupled with unrestricted take, could negatively impact the grunion population leading to an unsustainable fishery. Take levels have been observed to be correlated with the size of spawning runs with fishers often taking hundreds of grunion during large runs. We do not know enough about grunion population dynamics to discount the possibility that these large runs are central to their overall population success. Since these large runs are unpredictable in time and space, it makes more sense to have a bag limit throughout the open season for grunion.

Shorten the open season from June 1 through March 31 (Section 28.00, Title 14, CCR) to September 1 through March 31 north of Point Conception.

This alternative was also brought forward by the initial petition #2019-014, and was suggested to provide extra protection for grunion that occur north of Point Conception. This is based on a few surveys that documented spawning activities in this area during recent years. Available data suggest the proposed statewide regulation changes would adequately protect grunion in all regions, and there is no need to make a more complex regulation.

Change the current no bag or possession limit (CCR, Title 14, subsection 27.60(b)) to a bag and possession limit of 10.

The potential limit of 10 was put forward by the initial petition, #2019-014. This alternative was considered but is not believed to be the best option for this fishery. While a bag and possession limit of 10 grunion would provide additional protection, we

do not believe it would allow for a satisfying recreational take for consumption or bait, the two primary purposes for grunion hunters. We believe a limit of 30 allows a satisfying recreational take for consumption or bait purposes, while still providing protection for grunion.

(b) No Change Alternative

If proposed amendments are not adopted, the grunion population may continue to decline and the fishery may not be sustainable.

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. No equipment may be used in the take of grunion (Section 29.00 Title 14, CCR), so the proposed amendments to the regulations will not result in the loss of revenue for tackle shops or other small businesses. The proposed amendments to the regulations might result in a slight increase in sales for tackle and bait stores since some fishers might need to purchase bait or lures to replace grunion as a source of bait during the month of June.

(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 impacts on the creation or elimination of jobs, the creation of new business, the elimination of existing businesses or the expansion of businesses in California. The Commission does not anticipate any benefits to the health and welfare of California residents or worker safety.

The new regulations will benefit the environment by increasing the abundance of grunion. Grunion and their eggs are prey for many game fishes, birds, and other marine organisms, especially when they congregate for their spawning runs. Thus, increasing the grunion population should have positive impacts on the environment.

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

While many recreational grunion fishers (representative private persons) will not incur any change in costs, those who wish to substitute the bait uses of grunion that may no longer be harvested in June with another source of bait would incur new costs. The discretionary cost to fishers to purchase alternative forms of bait or artificial lures from tackle stores to replace grunion constitute the initial costs for an individual. A typical lure that imitates a grunion costs up to \$20.00, while frozen bait costs much less. Such lures generally last several years, so that the cost would be a one-time cost and not an annual cost. Bait and fishing tackle stores (representative businesses) would incur no new costs, but they would be the recipients of individual grunion fisher's expenditures on lures or bait.

(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

There is no perceived effect on the creation or elimination of jobs within the state by amending regulations for grunion because there is no directed commercial fishery for grunion. Additionally, no equipment may be used in the recreational capture of grunion, so there should be no loss of income for businesses selling fishing gear and no creation or loss of jobs resulting from these regulations.

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

There is no anticipated creation of new businesses or elimination of existing business within California due to the proposed amendment to the regulations for grunion. No equipment may be used in the capture of grunion, so sales will not necessarily change for existing businesses. The proposed shortening of the season may prompt some grunion fishers to purchase alternatives to grunion for bait use during the closure period. This is anticipated to result in small increases in sales for bait and tackle stores that would be absorbed by existing retail capacities.

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

The effects of the regulations should have little impact on the expansion of businesses currently doing business within the state. The new amendments to regulations might result in a slight increase in sales for bait and tackle stores since some fishers might need to replace grunion as a source of bait. These potential sales are expected to be minimal, so expansion of businesses within the state should not be affected by adoption of the proposed regulations.

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

These regulations are designed to reduce the take of grunion, which should not have direct, immediate benefits for the health and welfare of California residents. There could be some indirect health and welfare benefits as a result of these regulations. For example, increased populations of grunion will provide more opportunities to observe their unique spawning behavior, which some may deem an enjoyable outdoor activity.

(e) Benefits of the Regulation to Worker Safety

These regulations will have no benefits for worker safety. The regulations are designed to reduce the take of grunion, which has no impact on worker safety, since there is no active commercial fishery for grunion.

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

Regulations supporting the recovery and increase of grunion populations will benefit the state's environment. Grunion are low in the food web and are prey for many marine game fishes (e.g. California halibut, kelp bass, white seabass), marine birds (great blue heron, snowy egret, California least tern), and marine mammals (California sea lion, harbor seal, common bottlenose dolphin). In addition, shore birds and some surf fishes eat their eggs. By increasing the population of grunion, other species in the environment should benefit, thus improving the state's environment.

(g) Other Benefits of the Regulation

Grunion are endemic and culturally significant to Californian. Many non-consumptive users go to California's beaches at night to observe their spawning behavior. The proposed regulations will help protect and increase the grunion population will allow the continuation of current and future generations of Californians to observe and catch these fish.

Informative Digest/Policy Statement Overview

Under current regulations grunion does not have a bag or possession limit (subsection 27.60(b), Title 14, CCR), and the grunion fishery is open from June 1 through March 31 (Section 28.00, Title 14, CCR). Grunion may only be taken recreationally from June 1 through March 31 (Fish and Game Code Section 8381) and no directed commercial fishery may be developed for grunion (Section 111, Title 14, CCR).

The proposed regulatory changes will establish a bag and possession limit of 30 grunion for recreational fishers and close the month of June to take of grunion, shortening the open season by one month, from July 1 through March 31, for recreational fishing.

Benefit of the Regulations:

The proposed regulatory action is designed to address concerns over the health and long-term sustainability of the grunion fishery. Grunion are an endemic and culturally iconic species known for their spawning behavior, where they “run” onto beaches. Recent data have shown that the abundance of grunion has declined over the past decade. Past regulations enabled recovery of the grunion population, and the proposed regulations should likewise help to protect and recover the grunion population, thereby benefitting the sustainability of the fishery. These proposed regulations will further benefit future Californians by preserving grunion populations for all to observe and enjoy.

Consistency and Compatibility with Existing Regulations:

The proposed regulations are neither inconsistent nor incompatible with existing state regulations. Section 20, Article IV, of the California Constitution specifies that the Legislature may delegate to the Fish and Game Commission such powers relating to the protection and propagation of fish and game as the Legislature sees fit. The Commission has reviewed its own regulations and finds that the proposed regulations are neither inconsistent nor incompatible with existing state regulations. The Commission has searched the California Code of Regulations and finds no other state agency regulations pertaining to the commercial take of grunion.

Proposed Regulatory Language

Subsection (b) of Section 27.60, Title 14, CCR, is amended to read:

§27.60 Limit

...*[There is no change to subsection (a)]*

(b) There is no limit on the following species: anchovy, ~~grunion~~, jacksmelt, topsmelt, Pacific butterfish (pompano), queenfish, sanddabs, skipjack, jack mackerel, Pacific mackerel, Pacific staghorn sculpin, round herring, Pacific sardine, petrale sole and starry flounder.

...*[There is no change to subsections (c) through (c)(6)]*

Note: Authority cited: Sections 200, 205, 265, 7071 and 8587.1, Fish and Game Code.

Reference: Sections 205, 255, 265, 7071, 7120, and 8587.1 Fish and Game Code.

Section 28.00, Title 14, CCR, is amended to read:

§28.00. Grunion, California. ~~May be taken June 1 through March 31.~~

(a) It shall be unlawful to take grunion from April 1 through June 30.

(b) Limit: 30.

Note: Authority cited: Sections 200, 205, ~~249~~, 265 and 275, Fish and Game Code.

Reference: Sections 200, 205, 255, 265, 270, and 275, Fish and Game Code.