

STAFF SUMMARY FOR DECEMBER 11-12, 2019

9. DELTA FISHERIES POLICY AND STRIPED BASS POLICY**Today's Item**Information Action

Discuss and consider adopting an FGC Delta Fisheries Management Policy and an amended Striped Bass Policy.

Summary of Previous/Future Actions

- | | |
|---|------------------------------------|
| • Delta Fisheries Forum | May 24, 2017 |
| • WRC vetting of draft policy | Sep 2018 – May 2019 |
| • FGC accepted WRC recommendation to schedule | Jun 12-13, 2019; Redding |
| • Discussion of draft policy and postponement of consideration | Aug 7-8, 2019; Sacramento |
| • Update on progress with stakeholder discussions | Oct 9-10, 2019; Valley Center |
| • Today's discussion and potential adoption of draft policies – update on progress | Dec 11-12, 2019; Sacramento |

Background

An effort to review existing policy and potentially adopt a new policy concerning fisheries management in the Sacramento San-Joaquin Delta (Delta) has been underway since 2017. This year, effort has focused on WRC vetting and FGC discussion of a draft Delta Fisheries Management Policy. See Exhibit 1 for a detailed background.

In Aug 2019, FGC received a revised draft Delta Fisheries Management Policy, vetted through the WRC, for discussion and potential adoption. Following extensive public comment at the meeting, FGC accepted a staff recommendation to postpone further discussion of the draft policy until the Dec 2019 meeting. The purpose of the delay was to continue stakeholder discussions with FGC staff and DFW regarding both the draft policy and existing FGC Striped Bass Policy, and to invite a broader array of participants. Staff provided an update on progress at FGC's Oct 2019 meeting.

Responsive to FGC direction, staff has held three meetings and one conference call with DFW and a broad group of stakeholders and organizations representing fishing and water interests. The current policy drafts presented for discussion today (exhibits 2 and 3) represent the current state of those discussions.

Noteworthy changes to the draft Delta Fisheries Management Policy (Exhibit 2) from previous drafts include:

- Addition of definitions for “the Delta” and “Delta fisheries”;
- Refinement of the meaning of “best available science”; and
- Considerations for balancing and prioritizing recovery of various Delta fish species.

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With respect to revising the existing Striped Bass Policy, significant disagreements still remain, primarily centered around the vision for striped bass management; staff has presented three versions for consideration today – two from stakeholders and one from staff (Exhibit 3).

Suggested changes to the Striped Bass Policy reflected in all three current drafts include:

- Agreement to remove the current adult population goal of 3 million; and
- Addition of further activities DFW is encouraged to undertake in support of striped bass, including monitoring.

Today, DFW will provide a verbal presentation on the state of the science regarding Delta fisheries, to provide context for FGC consideration of the new draft policy options.

Significant Public Comments

1. The Congressional Sportsman's Foundation applauds the work so far on the policies, and requests that FGC adopt an objective standard for striped bass restoration (Exhibit 4).
2. A fisheries student states that striped bass are not a main culprit for the decline of Central Valley salmonids. He urges the protection of salmon, steelhead, and striped bass (Exhibit 5).
3. A scientist states that predation is a minor factor in juvenile salmonid mortality and criticizes current striped bass regulations (Exhibit 6).
4. An angler provides some striped bass data and asserts that current striped bass limits should be maintained or increased (Exhibit 7).

Recommendation

FGC staff: Authorize staff to continue discussions with stakeholders on the draft Delta policy and potential amended FGC Striped Bass Policy.

Exhibits

1. [Staff summary from Aug 2019 FGC meeting \(for background purposes only\)](#)
2. [Draft Delta Fisheries Management Policy, revised Dec 3, 2019](#)
3. [Draft revised FGC Striped Bass Policy \(3 versions\), revised Dec 3, 2019](#)
4. [Letter from the Congressional Sportsman's Foundation, dated Nov 27, 2019](#)
5. [Letter from Jacob Stout, dated Nov 27, 2019](#)
6. [Letter from Dr. Cynthia Le Doux-Bloom, dated Nov 25, 2019](#)
7. [Email from Michael Evert, received Nov 27, 2019](#)

Motion/Direction (N/A)

STAFF SUMMARY FOR AUGUST 7-8, 2019
(For background purposes only)

11. DELTA FISHERIES MANAGEMENT POLICY

Today's Item

Information

Action

Discuss the potential adoption of a Delta Fisheries Management Policy and compatibility of the FGC Striped Bass Policy.

Summary of Previous/Future Actions

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|---|----------------------------------|
| • Delta Fisheries Forum | May 24, 2017; Sacramento |
| • WRC discussion | Sep 20, 2018; WRC, Sacramento |
| • WRC discussion | Jan 10, 2019; WRC, Ontario |
| • WRC discussion and recommendation | May 16, 2019; WRC, Sacramento |
| • FGC accepted WRC recommendation to schedule | Jun 12-13, 2019; Redding |
| • Today's discussion | Aug 7-8, 2019; Sacramento |

Background

In Jun 2016, FGC received a regulation change petition (Tracking Number 2016-011) from the Coalition for a Sustainable Delta and others requesting to increase the bag limit and reduce the minimum size limit for striped bass and black bass in the Sacramento-San Joaquin Delta (Delta) and rivers tributary to the Delta. The expressed intent of the petition was to reduce predation by non-native bass on fish that are native to the Delta and listed as threatened or endangered under the federal or California endangered species acts, including winter-run and spring-run Chinook salmon, Central Valley steelhead, and delta smelt.

While the regulation change petition was formally withdrawn prior to FGC action, FGC requested that WRC schedule a discussion to explore the issue more comprehensively; the request also included a review of the existing FGC Striped Bass Policy that was adopted in 1996 and focuses on restoring and maintaining striped bass for recreational fishing opportunity (Exhibit 6). FGC staff was directed to hold a half-day forum focused on the State's vision for managing fisheries in the Delta for the benefit of native fish species and sport fisheries, implementation of the State's vision, and soliciting stakeholder input on potential actions FGC could consider related to this topic.

Held in May 2017, the forum was publicized and open to the public. The forum included a state agency panel discussion, an overview of FGC's policies and regulations for sport fisheries in the Delta, and a full group discussion. The discussion included two presentations by representatives for the original petition, consistent with direction provided by FGC. One of the recommendations that emerged from that forum was FGC adoption of a policy for fisheries management in the Delta that would provide science-based guidance to balance native fish needs with sport fishing opportunities in management decisions. The Coalition for a Sustainable Delta offered a proposed draft policy which, together with stakeholder and DFW input, formed the basis for the initial draft policy.

At its Sep 2018, Jan 2019, and May 2019 meetings, WRC discussed the draft policy and in May developed a recommendation that FGC schedule consideration of the draft policy. At its Jun

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(For background purposes only)

2019 meeting, FGC received the draft Delta Fisheries Management Policy advanced from WRC (Exhibit 5). At that meeting and following, stakeholders raised several significant issues with the draft policy. Following considerable public comment regarding the draft policy and current Striped Bass Policy, FGC accepted WRC's recommendation and directed staff to add the draft policy to the Aug 2019 meeting for discussion.

At this time, staff believes that additional discussions between stakeholders and staff of DFW and FGC are warranted to explore how to resolve the identified issues before FGC considers the draft Delta Fisheries Management Policy and any potential changes to the FGC Striped Bass Policy. Postponing discussion would allow dialogue to proceed and give additional stakeholders the chance to participate in ongoing discussions. Staff recommends that FGC consider new draft policies (based on discussions with stakeholders) at its Dec 2019 meeting in Sacramento, which will facilitate participation by stakeholders from in and around the Delta. If approved, FGC staff will provide a progress update at FGC's Oct 2019 meeting.

Significant Public Comments

1. The American Sportfishing Association and Coastside Fishing Club ask FGC to focus on the root causes of poor Delta health and oppose any effort to reduce long-term recreational fishing opportunities (Exhibit 1).
2. The California Sportsfishing League emphasizes the economic importance of striped bass, states that predation from non-native game fish in the Delta is a "red herring", and opposes a repeal of the FGC Striped Bass Policy. The league states that reductions in fishing opportunity run counter to the State's R3 project and ask that discussions be scheduled near the greater Sacramento area (Exhibit 2).
3. The Northern California Guides and Sportsmen's Association states that predation on salmonid species is a minor stressor. The association asks that the item be tabled until Dec to allow for ongoing discussions to ensue, and that any further FGC conversations take place in the vicinity of the potential impacts of the draft Delta Fisheries Management Policy (Exhibit 3).
4. The Congressional Sportsman's Foundation states that striped bass contribute to a healthy Delta ecosystem and that predation is not a significant factor driving Delta fish population abundances. They oppose the repeal of the Striped Bass Policy (Exhibit 4).

Recommendation

FGC staff: Postpone discussion of the draft policy to the Dec 2019 FGC meeting to allow FGC and DFW staff time to work with stakeholders on ways to address the issues that have been raised.

Exhibits

1. Letter from the American Sportfishing Association and Coastside Fishing Club, received Jul 25, 2019
2. Letter from the California Sportsfishing League, received July 25, 2019
3. Letter from the Northern California Guides and Sportsmen's Association, received July 25, 2019

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(For background purposes only)

4. Letter from the Congressional Sportsman's Foundation, received July 25, 2019
5. Draft Delta Fisheries Management Policy, revised Aug 1, 2019
6. FGC Striped Bass Policy, adopted Apr 5, 1996

Motion/Direction

Moved by _____ and seconded by _____ that the Commission postpones discussion of the draft Delta Fisheries Management Policy and Commission's Striped Bass Policy until the December 2019 meeting.

California Fish and Game Commission

Developing a Delta Fisheries Management Policy

December 3, 2019 version of draft Delta Fisheries Management Policy
tracked against the August 1, 2019 draft version

It is the policy of the Commission that:

The Sacramento-San Joaquin Delta has faced, and continues to experience, declines in pelagic fishes and anadromous salmonids. This policy is intended to guide management decisions that could affect fish species and other aquatic resources. The Delta, for the purposes of this policy, means the Sacramento-San Joaquin Delta as defined in Section 12220 of the California Water Code. "Delta fisheries" includes listed species, species of greatest conservation need, native species, and game fish. It is the policy of the Fish and Game Commission (Commission) that:

- I. The Commission and Department of Fish and Wildlife (Department) shall seek to collaborate and coordinate with other agencies whose actions may affect with jurisdiction over species and other resources in the Sacramento-San Joaquin Delta (Delta) and its tributaries as the Department manages Delta they manage fisheries, state and federally listed fish species, such as salmonids and smelt, and other aquatic resources. The Commission and Department will provide feedback to other agencies on any actions in the Delta that could have significant, adverse impacts to California's fisheries.
- II. The Commission and Department shall strive to manage these resources holistically, sustainably, and consistent with the direction of the legislature to protect, restore, and enhance the Delta ecosystem.
- III. The Department shall rely on credible the best available science (as defined by Section 33 of the Fish and Game Code) to develop strategies and recommendations for managing Delta fisheries, and listed species in the Delta. Using this information, the Department shall strive to improve habitat conditions (such as water temperature for and flows, water quality, and food) and manage other stressors (such as disease, predation and prey availability, and competition) alleviate threats to promote recovery of Delta fisheries (where applicable), listed species.
- IV. Recognizing that listed species have highest priority, theThe Department shall manage Delta fisheries listed fish species to protect and enhance each species' abundance, distribution, and genetic integrity to support their each species' resiliency and (where applicable) recovery.
- V. The Department shall manage Delta fisheries in a manner that provides for maximizing sustainable recreational angling opportunities while avoiding or minimizing adverse effects to native and listed species, species of greatest conservation need, and recovery activities.
 - I. ~~Based on current best available science and evaluations of past management of Delta fisheries, the Commission and Department shall not develop or enhance fisheries in the~~

~~Delta which may pose a direct threat to the survival of, or significantly limit, recovery of a listed species.~~

- VI. To the extent feasible, the Commission and the Department shall support scientific research on habitat or species improvement projects and investments to help ~~advance~~ the policy goals set forth herein. The Department should determine and identify clear, objective-based~~consider identified~~ research needs when developing research and recovery project plans, making research investments, making research and recovery funding decisions, and when reviewing and/or authorizing research projects. ~~The Department may consider the permitted scientific sampling of non-native fish outside sport fishing size and bag limits to advance scientific research to support native species in the Delta, where statutorily permitted and practical.~~ Where feasible, the Department should encourage and permit recreational anglers to contribute to scientific research of native and non-native species on predator-prey relationships to help inform efforts to protect and enhance Delta fisheries; such studies should be carefully considered in light of the overall population goals for, and effect on, both the study target and related ~~native~~ species.

Clean version of draft Delta Fisheries Management Policy
as revised December 3, 2019

It is the policy of the Commission that:

The Sacramento-San Joaquin Delta has faced, and continues to experience, declines in pelagic fishes and anadromous salmonids. This policy is intended to guide management decisions that could affect fish species and other aquatic resources. The Delta, for the purposes of this policy, means the Sacramento-San Joaquin Delta as defined in Section 12220 of the California Water Code. "Delta fisheries" includes listed species, species of greatest conservation need, native species, and game fish. It is the policy of the Fish and Game Commission (Commission) that:

- I. The Commission and Department of Fish and Wildlife (Department) shall seek to collaborate and coordinate with other agencies whose actions may affect species and other resources in the Delta and its tributaries as the Department manages Delta fisheries and other aquatic resources. The Commission and Department will provide feedback to other agencies on any actions in the Delta that could have significant, adverse impacts to California's fisheries.
- II. The Commission and Department shall strive to manage these resources holistically, sustainably, and consistent with the direction of the legislature to protect, restore, and enhance the Delta ecosystem.
- III. The Department shall rely on credible science (as defined by Section 33 of the Fish and Game Code) to develop strategies and recommendations for managing Delta fisheries. Using this information, the Department shall strive to improve habitat conditions (such as water temperature and flows, water quality, and food) and manage other stressors (such as disease, predation and prey availability, and competition) to promote recovery of Delta fisheries (where applicable).
- IV. Recognizing that listed species have highest priority, the Department shall manage Delta fisheries to protect and enhance each species' abundance, distribution, and genetic integrity to support their resiliency and (where applicable) recovery.
- V. The Department shall manage Delta fisheries in a manner that provides for maximizing sustainable recreational angling opportunities while avoiding or minimizing adverse effects to native and listed species, species of greatest conservation need, and recovery activities.
- VI. To the extent feasible, the Commission and the Department shall support scientific research on habitat or species improvement projects and investments to help the policy goals set forth herein. The Department should determine and identify clear, objective-based research needs when developing research and recovery project plans, making research investments, making research and recovery funding decisions, and when reviewing and/or authorizing research projects. Where feasible, the Department should encourage and permit recreational anglers to contribute to scientific research of native and non-native species to help inform efforts to protect and enhance Delta fisheries; such studies should be carefully considered in light of the overall population goals for, and effect on, both the study target and related species.

California Fish and Game Commission

Revising the Striped Bass Policy

December 3, 2019 versions of draft revised Striped Bass Policy
tracked against currently-adopted version

Stakeholder Draft Version 1:

It is the policy of the Commission that:

- I. The Department of Fish and ~~Game~~ Wildlife shall work toward stabilizing and then restoring the presently declining striped bass fishery of the Sacramento-San Joaquin Estuary. This ~~goal~~ is consistent with Commission policy that the Department shall emphasize programs that ensure, enhance, and prevent loss of sport fishing opportunities.
- II. The Department shall ensure that actions to increase striped bass abundance are consistent with the Department's long-term mission and public trust responsibilities including those related to threatened and endangered species and other species of special concern. Recognizing issues associated with potential incidental take of these species, the department's goal is to restore the striped bass population to a healthy, self-sustaining growing population and robust recreational fishery. An appropriate target objective is to restore the population to 1 million adults within the next 5 to 10 years. an appropriate interim objective is to restore the striped bass population to the 1980 population level of 1.1 million adults within the next 5-10 years.
- ~~III.~~ ~~The long-term striped bass restoration goal, as identified in the Department's 1989 Striped Bass Restoration Plan, is 3 million adults.~~
- ~~IV.~~ ~~III.~~ The Department shall work toward these goals through any appropriate means. Such means may include actions to help maintain, restore, and improve habitat; beneficial to striped bass, reduce impacts of invasive aquatic vegetation, improve water quality, reduce loss of striped bass, pen-rearing of fish salvaged from water projects and diversions, fish screens, and artificial propagation and assess the status and population of striped bass in the Delta.

Stakeholder Draft Version 2:

It is the policy of the Commission that:

- I. The Department of Fish and ~~Game~~ Wildlife shall ~~work toward stabilizing and then restoring the presently declining~~ monitor and manage striped bass fishery ~~of in the Sacramento-San Joaquin Estuary~~. This goal is consistent with Commission policy that the Department shall emphasize programs that ensure, enhance, and prevent loss of ~~sport fishing~~ recreational angling opportunities.
- II. The Department shall ensure that actions to increase striped bass abundance are consistent with the Department's long-term mission and public trust responsibilities including those related to threatened and endangered species and other species of ~~special concern~~ greatest conservation need. In light of the foregoing, the Department will seek to achieve a sustainable striped bass population in order to maintain or increase recreational angling opportunities, taking into account the availability of habitat to support the species as well as the need to avoid taking any action that would result in incidental take of listed species.
- III. ~~The long-term striped bass restoration goal, as identified in the Department's 1989 Striped Bass Restoration Plan, is 3 million adults.~~
- IV. ~~III.~~ The Department shall work toward these goals through any appropriate means. Such means may include actions to help maintain, restore, and improve habitat; beneficial to striped bass, reduce impacts of invasive aquatic vegetation, improve water quality, reduce loss of striped bass, pen-rearing of fish salvaged from water projects and diversions, fish screens, and artificial propagation and assess the status and population of striped bass in the Delta.

Commission Staff Draft Version:

It is the policy of the Commission that:

- I. The Department of Fish and ~~Game~~ Wildlife shall ~~work toward stabilizing and then restoring the presently declining~~ monitor and manage the striped bass fishery of the Sacramento-San Joaquin Estuary. ~~This goal is consistent with Commission policy that the Department shall emphasize programs that ensure, enhance, and prevent loss of sport fishing opportunities.~~
- II. The Department shall ensure that actions to increase striped bass abundance are consistent with the Department's long-term mission and public trust responsibilities including those related to threatened and endangered species and other species of greatest conservation need, special concern. Recognizing issues associated with potential incidental take of these species, ~~an appropriate interim objective is to restore the striped bass population to the 1980 population level of 1.1 million adults within the next 5-10 years.~~ the Department shall strive to maintain a healthy, self-sustaining striped bass population in support of a robust recreational fishery.
- III. ~~The long-term striped bass restoration goal, as identified in the Department's 1989 Striped Bass Restoration Plan, is 3 million adults.~~
- IV-III. The Department shall work toward these goals through any appropriate means. Such means may include actions to help maintain, restore, and improve habitat; beneficial to striped bass, reduce impacts of invasive aquatic vegetation, improve water quality, reduce loss of striped bass, pen-rearing of fish salvaged from water projects and diversions, fish screens; and artificial propagation and assess the status and population of striped bass in the Delta.



Mr. Eric Sklar, President
California Fish and Game Commission
1416 Ninth Street, Suite 1320
Sacramento, CA 95814

November 27, 2019

RE: Striped Bass and Delta Fisheries Management Policies

Dear President Sklar and Members of the Fish and Game Commission:

The Congressional Sportsmen's Foundation (CSF) is supportive of the amendments made to the Delta Fisheries Management Policy with the statutory definition of "credible science" included. However, CSF has remaining concerns over the amendments to the Striped Bass Policy.

Established in 1989, the Congressional Sportsmen's Foundation (CSF) works with the Congressional Sportsmen's Caucus, the largest, most active bipartisan caucus on Capitol Hill with nearly 250 Members of Congress from both the House and Senate. Fifteen years ago, CSF extended the legislative network from Washington, DC to states across the country, establishing the bipartisan National Assembly of Sportsmen's Caucuses, which today is made up of 49 state legislative caucuses, and includes over 2,500 legislators. Ten years ago, CSF established a bipartisan Governors Sportsmen's Caucus, which includes more than half the governors from throughout the country. Together, this collective force of bipartisan elected officials works to protect and advance hunting, angling, recreational shooting and trapping for the nearly 40 million sportsmen and women who spend \$90 billion annually on our outdoor pursuits.

The California Outdoor Sporting Caucus joined the National Assembly of Sportsmen's Caucuses in 2004 to represent the interest of the Golden State's 1.82 million hunters and anglers, who spend \$3.5 billion annually and support more than 56,000 jobs within the state.

CSF commends the ongoing efforts of the Commission and the California Department of Fish and Wildlife (Department) to work with stakeholders to update these policies responsibly to manage Delta resources holistically and sustainably to protect and enhance the Delta ecosystem. However, CSF is concerned that without objective standards for working toward stabilizing and then restoring the presently declining striped bass fishery of the Sacramento-San Joaquin Estuary, under section I, the policy is ineffective.

In 1996, the Commission recognized the importance of the Striped Bass recreational fishery in the Sacramento-San Joaquin Estuary by implementing measurable objectives in the form of restorative population levels and time frame achievement markers. While population targets in numbers of fish are

The Sportsman's Voice in the Nation's Capitols

difficult to estimate and hard to achieve on a consistent basis, there are other methods to estimate population abundance and sustainability that could be used as management criteria. CSF appreciates the intent of the policy to stabilize and restore the striped bass populations, but the 2019 draft Striped Bass Policy lacks any measurable objectives and without such markers, limits the Commission's ability to ensure these polices are being upheld.

Thus, CSF respectfully requests that the Commission consider adopting an objective standard for stabilizing and then restoring the presently declining striped bass fishery, to ensure that both the Commission and the Department can effectively manage striped bass that contribute to a healthy Delta ecosystem and provides an economically valuable and recreationally important fishery.

CSF thanks the Commission for its continued dedication to managing the Delta fisheries resources holistically, including managing for stiped bass and species of greatest concern that contribute to a productive, sustainable and economically viable recreational fishery.

Sincerely,



Chris Horton
Senior Director Fisheries Program
Congressional Sportsmen's Foundation



Aoibheann Cline
Western States Coordinator
Congressional Sportsmen's Foundation

The Sportsman's Voice in the Nation's Capitols

Jacob Stout

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27 November 2019

Mr. Eric Sklar
President
California Fish and Game Commission
1416 Ninth Street, Suite 1320
Sacramento, CA 95814

RE: Comments on Proposed *Amendments to Striped Bass Policy*

Dear President Sklar and Commissioners:

My name is Jacob Stout, I'm a 24-year-old angler from West Sacramento. My passion for these local waters borderlines on the deranged. That passion has taken me to study Fisheries Management at Humboldt State University. I have dedicated my entire life to protect the integrity of the fisheries I grew up fishing.

I've been fishing these waters my entire life and striped bass have been one of the most incredible species I've ever had the privilege to enjoy. I'm also speaking on behalf of my friends and family and community when I tell you how important these fish are. That being said, it's also a controversial species that I still have much to learn about. I've seen the boils of striper feasting as the hatchery trucks dump their salmonids in the water. I've also seen returning adult "jack:" salmon down the throat of 40lb stripers. So, I already understand the concern that salmonids, another cherished fishery of mine, are negatively affected by stripers.

However, I do not believe that Striped bass are a main culprit for the decline of salmonids in the Central Valley. Nor do I believe that the science supports the hypothesis that reducing the striped bass population will increase juvenile salmonid survival. The Central Valley is a disturbed ecosystem that has been dammed, diverted, and irrigated extensively. I spend many hours on the water and have seen thousands of salmon and steelhead in irrigation canals where they die with no hope of successful reproduction. My home is on the Deep Water Ship Channel where I personally witness thousands of fish every year swim in circles in "the locks" where they are either caught by hook and line or they die and decompose with no hope of successfully spawning.

I urge you to prioritize the protection of these species (salmon, steelhead, and stripers). Please spend our tax dollars ensuring these species have more high quality spawning, rearing and transitional habitats. Please don't let stripers become a scapegoat. Please hold water management agencies accountable for their impacts on species of the California Central Valley. Thank you.

Sincerely,

Jacob Stout
HSU AFS Vice President
HSU Freshwater Fisheries Biology Junior









Dr. Cynthia Le Doux-Bloom

25 November 2019

Mr. Eric Sklar
President
California Fish and Game Commission
1416 Ninth Street, Suite 1320
Sacramento, CA 95814

RE: Comments on Delta Fisheries Management Policy and Striped Bass Policy

Dear President Sklar and Commissioners:

Since 1989, I have been employed by the State of California's Departments of Fish and Wildlife and Water Resources as a biologist, associate biologist, and lastly as a senior environmental scientist. I became an American Fisheries Society, Certified Fisheries Professional in 2004. I was elected to several fish-related Board of Directors, and currently sit on the Salmonid Restoration Federation Board since 2014. I earned my undergraduate degree in Biology at UC Santa Cruz, my masters at San Jose State University via Moss Landing Marine Laboratories, and my doctorate in Animal Biology at UC Davis studying sub-adult Striped Bass distribution, habitat use, and movement patterns in the Sacramento-San Joaquin Estuary.

Science shows that the Delta's native fish decline is not largely due to predation by Striped Bass.

This is the first letter that I have written to the Fish and Game Commission (FGC) over my 30-year career. I convey this fact as a measure of my concern, disappointment, and frustration with the FGC on another misguided attempt to amend the Striped Bass Policy (4/5/1996) and failure to meet the commitments made in 1996 to restore the declining population. The FGC must make decisions based upon the decades of defensible science and expert scientists' testimonies reporting that the population declines in the Delta's native fishes are a result of over-allocation of water between competing interests, and not predation by the "Scapecfish" Striped Bass.

The Striped Bass population has been declining since at least the early 1990s as evident in the Striped Bass Policy which (1). recognized "the decline in the Striped Bass fishery in the Sacramento-San Joaquin Estuary" and "emphasized programs to prevent loss of sport fishing opportunities"; (2). committed to "restore the adult population to 1.1 million adults within 5-10 years; and (3). committed to the "long-term restoration goal of 3 million adults." More recent studies have shown that multiple fish species' populations have declined in Delta, including Striped Bass (Sommer et al. 2007; and others).

Predation is one of several much larger factors attributing to juvenile salmonid mortality as they migrate to the Pacific Ocean. Entrainment (e.g., suctioned up along with 10 million acre-feet of water) into the Central Valley and State Water Projects, elimination of floodplain rearing habitat, smaller water diversions, lack of food availability, and poor water quality are widely recognized factors influencing juvenile salmonid mortality. Predation on juvenile salmonids by piscivorous avians, and aquatic and marine mammals remains relatively unstudied in the Sacramento-San Joaquin Estuary. Populations of

pelicans, cormorants, mergansers, river otters, harbor seals, and sea lions have increased since the 1960s and 70s due to changes in pesticide regulations, hunting regulation, and Marine Mammal Protection Act, while the Striped Bass population has continued to decline.

Relevant Striped Bass Reproductive Life History and Female Age at Sexual Maturity

Striped Bass is an anadromous (spawn in rivers, young rear in estuarine and marine habitats, adults use all habitats), iteroparous (spawns multiple times over life time), long-lived (>20 years) fish. Females and males become sexually mature at different ages and lengths. Most females reach sexual maturity at five or six years old at approximately 20 inches in length, while males mature at 2 years old at approximately 8.5 inches in length (Moyle 1976; CDFG 1989). Striped Bass do not have external body characteristics to distinguish males from females. The sex of mature fish can be determined once captured by applying pressure near the fish's vent to expel sperm or eggs. In late spring, when river water temperatures warm near 65F, females broadcast spawn eggs which can be fertilized by many males.

Fishing Regulation inherently reduce the Striped Bass Population Due to Female Sex-Bias Size Length

The current California Striped Bass Fishing regulation catch size is 18 inches in length. Age at Length studies have shown that Striped Bass reaching 18 inches can be three years old, but generally under six years old. Since female Striped Bass reach sexual maturity at approximately 20 inches, the current 18 inches regulation removes females from the population prior to reaching sexual maturity. This results in a reduction of females to perpetuate the population. The average six-year-old female produces 500,000 eggs while a 15-year-old female (> 46 inches) can produce three million eggs. Removing three to five-year-old sexually immature females from the population potentially equates to eliminating millions of future juvenile Striped Bass from the population.

The current California fishing regulation continues to contribute to the decline of the population and inhibits restoration of the population - completely contrary to the mandate of the Striped Bass Policy. Amending the Striped Bass Policy is unnecessary because the current fishing regulation has and continues to reduce the reproductive potential of the population. If the goal of the Striped Bass Policy is to "restore the adult population" then the catch length should be increased to at least 26 inches and a maximum catch length (e.g., 39 inches or greater released) should be explored.

Among the U.S. East Coast States (e.g., CT, DE, MA, ME, NC, NH, NJ, NY, and VA) where Striped Bass populations have also declined and the Policy goals are to restore the population, the minimum catch length is 28 inches with a bag limit of two fish per day. Additionally, some States also have a maximum catch length of 38 inches with fish over this length being released. These fishing regulations are ensuring that all females have the opportunity to become sexually mature and spawn at least once prior to being removed from the population. Additionally, the maximum catch length is protecting larger females which have the highest fecundity (e.g., greatest number of eggs).

Negative Societal Impacts and Workforce Implications from Further Reducing Fishing Opportunities

I retired from State Service earlier this year, and now teach and conduct research on anadromous fishes as a retired annuitant at Humboldt State University's Department of Fisheries Biology. Rarely a day goes by when I am not asked by students about how a "girl became a fisheries scientist, especially way back then..." Laughing, I usually answer by asking, "Why do you want to be a fisheries biologist?". The answer is always the same regardless of gender, ethnicity, age, socio-economic status, year of undergraduate or

graduate education, or where raised – they all reply, “I love fishing”. It’s my answer, also. Family traditions turn into adolescent passions which lead to careers in the Natural Resource fields.

Like many of my students, I spent a lot of time with my family fishing for Striped Bass because the fishery is open year-around, and unlike the other two fisheries that are open year-round (e.g., Black Bass and White Sturgeon), fisherpersons have a high likelihood of catching a Striper nearly anywhere, anytime in the Sacramento-San Joaquin Estuary.

The FGC recognized an overall social disconnect from nature and wildlife in its first-ever set of six core values. Further reducing the Striped Bass population by increasing the bag limits and decreasing catch length will not reduce the social disconnect from nature and wildlife, in fact it negatively impacts society – Especially families who spend their bonding time while fishing on the riverbank or boat, most likely for Striped Bass.

Concluding Remarks

Scientific studies have shown that the Delta’s native fish decline is not largely due to predation by Striped Bass, the Striped Bass population continues to decline, and other piscivorous predator populations have increased in the Sacramento-San Joaquin Estuary.

Current California fishing regulation inherently reduces the Striped Bass population due to the female sex-bias size length which removes females prior to sexual maturity and first spawning. The fishing regulation contributes to the decline of the population and inhibits its restoration.

The continued discussion around increasing or removing the bag and size limits on Striped Bass is perceived by some (e.g., Coalition for a Sustainable Delta) as a “low-cost, no brainer” solution to increasing the survival of native fishes in the Delta. In reality, amending the existing Striped Bass Policy is very costly to society (e.g., family integrity) and contributes to the “brain drain” of California’s future Natural Resources workforce, and will not result in the recovery of the Delta’s native fishes. The FGC should remain committed to the mandates in the Striped Bass Policy of restoring the adult population made over two decades ago.

Lastly, I suggest that the FGC investigate the concept of separately managing the 140-year-old Sacramento-San Joaquin Estuary Striped Bass population and the transient populations straying into other watersheds (e.g., Carmel, Russian, Eel and Klamath rivers). If the FGC is interested in my idea, I would gladly discuss my proposal.

Sincerely,



Dr. Cynthia Le Doux-Bloom

Literature Cited

- California Department of Fish and Game. 1989. Striped bass restoration and management plan for the Sacramento-San Joaquin Estuary Phase I. 39 p.
- Moyle, P.B. 1976. Inland Fishes of California. University of California Press, Berkeley. Los Angeles, CA.
- Sommer, T. et al. 2007. The collapse of pelagic fishes in the upper San Francisco Estuary. *Fisheries* 32(6):270-277.

From: Michael Evert [REDACTED]
Sent: Wednesday, November 27, 2019 3:44 PM
To: FGC
Subject: Comments on item #9 on the Dec. 11th FGC agenda

November 26, 2019

To: Fish and Game Commission Members

Re: Dec. 11th Fish and Game Commission Meeting.
Agenda Item #9 – Delta Fisheries Management Policy & Striped Bass
Policy

Dear Commissioners - Maintain today's striper limit!

I ask that the current limit on striped bass (2 fish over 18") be retained. This fishery has been around for over 100 years and is one of the three primary fisheries in the SF Bay and Delta, along with our salmon and halibut. The striped bass and salmon fisheries have co-existed for decades, until the last several years.

Why the decline? Overfishing? Water exports?

My current personal fishing experiences in the last 5 years have been poor (declining size of striped bass), and the poor results of the annual F&G Trawl Netting Survey in the Delta tells us that the striper fishery has crashed.

If we don't retain the current limits for stripers, the striped bass fishery will quickly be gone, resulting in serious negative consequences to remaining struggling salmon and halibut fisheries which will then be overfished.

Below are examples of the results of the Annual Dept. of Fish and Game's Fall Trawl Netting Survey in the Delta to determine the health of our fisheries:

1967: 18,677 juvenile stripers netted.

1998: 1,224 juvenile stripers netted.

2011: 272 juvenile stripers netted.

2018: Only 72 juvenile stripers netted.

So what is happening?

Please recognize that removing the current striped bass limit will result in the elimination of the striped bass.

This will result in enormous economic losses to businesses in the Delta and the SF Bay, such as guides, boat dealers, boat repair shops, bait shops, RV parks and launch ramps, motels, restaurants, gas stations - you name it.

This is a big deal!

Keep today's limit! An even better solution to improve the striper fishery would be to change the current keep limit from two fish per day to ONE fish per day.

Always,
Michael Evert, a fisherman