Committee Staff Summary for November 6-7, 2024 MRC

5. Recreational Barred Sand Bass Fishery

Today's Item **Information ☐** **Action ☒**

Receive and discuss Department's update on the recreational barred sand bass fishery, barred sand bass working group outcomes, and recommendations for potential regulation changes; develop potential committee recommendation.

Summary of Previous/Future Actions

- Department update and discussion on the recreational barred sand bass fishery and considerations for potential regulation changes — July 17-18, 2024; MRC
- **Today receive an update and recommendations for potential regulation changes** — **November 6-7, 2024; MRC**

Background

The barred sand bass fishery is an historic recreational fishery in southern California that is open year-round and managed collectively with kelp bass and spotted sand bass. Current regulations include a five-fish bag limit (in any combination of the three species) and a minimum size limit of 14 inches (35.6 centimeters); these were established in 2013 due to concerns about the status of kelp bass and barred sand bass stocks.

Population Trends, Management Response, and Stakeholder Engagement

While no formal stock assessment exists for barred sand bass, abundance estimates suggest a severely depressed population in southern California. The presumed decline is likely due to a combination of environmental conditions, poor recruitment, and fishing pressure on easily targeted spawning aggregations.

The Department has analyzed available data for the species. Fishery-dependent data indicate continued declines in barred sand bass, except for the past year, with spawning aggregations becoming much smaller or difficult to find. Fishery-independent data over the past several years have shown a pulse of fish entering the fishery, corroborated by the fishery-dependent data showing a slight increase in catch. However, there has been no sizeable recruitment pulse seen behind the entry fish, suggesting that current regulations established in 2013 (lower bag limit and increased size limit) are insufficient to protect the stock, especially if the observed year class of juveniles enters the fishery and fishing effort increases.

Due to population concerns, the Department began discussions with the recreational fishing community and academic community about potential changes to barred sand bass fishery regulations. The Department also requested the Commission refer the topic to MRC and committed to bring a range of recommendations for MRC discussion.

July 2024 MRC Meeting

At the July MRC meeting, the Department presented an overview of the available data for barred sand bass, highlighted outreach to date regarding the types of potential management changes under consideration, and described additional collaboration with sport fishing

associations and researchers to help recover barred sand bass populations while minimizing impacts to recreational fishing. The Department committed to forming a working group of researchers, recreational fishery representatives, and stakeholders to jointly develop a recommendation for recreational fishery regulations to bring to the November 2024 MRC meeting for discussion, and to support developing a potential recommendation for Commission consideration.

Update

Following the July MRC meeting, the Department convened and has worked closely with a group of sport fishing associations and researchers, including facilitating two meetings. The goals of the working group are to improve shared understanding of the current status of the barred sand bass population and fishery; develop a shared understanding of the current need for a conservation measure; identify information gaps and strategies to collaborate on future data collection; and support an open, collaborative process to share information on the species and fishery.

Today, the Department will present additional details regarding barred sand bass life history and fishery analyses reviewed with the working group, present the outcomes of the working group and its collaboratively-developed options for regulation changes, and provide recommendations for discussion and potential committee recommendation (Exhibit 1). The Department supports a management measure for a period of three years, during which time Department staff would continue to work with stakeholders to fill priority research gaps and develop a long-term conservation strategy to protect barred sand bass spawning aggregations.

Significant Public Comments

1. A sport fishing association representative, who is also a member of the Department's barred sand bass working group, supports the recommended barred sand bass sub-bag limit of four as a three-year, interim, conservation measure (Exhibit 2). They also support utilizing sport fishing organizations to fill knowledge and data gaps. In addition, they share observations about the fishery, including barred sand bass migration and spawning behavior, the relationship between catch rate and regulations, and shifts in fishing effort.
2. A representative of a recreational fishing advocacy organization shares the Department's concern about the health of the barred sand bass population and urges the Commission to take steps to allow it to recover (Exhibit 3). Rather than changing bag or size limits, they propose closing some of the known spawning aggregation sites in southern California to barred sand bass fishing for a specific period or closing barred sand bass fishing during spawning months, as there are other sport fishing opportunities available in the summer. Alternatively, they suggest the regulation changes could be a combination of some fraction of the spawning season combined with size and bag limit adjustments.

Recommendation

Commission staff: Support the Department's recommendation to advance a regulation for the barred sand bass fishery, with a regulation sunset date, and public notice in December as

discussed today. Support continuation of the Department's work with stakeholders to fill data gaps and develop a long-term conservation strategy for barred sand bass.

Department: Support developing an interim regulation of a year-round bag limit of four barred sand bass, with no more than five bass in combination, with a sunset date after three years, while the Department continues to work with stakeholders to fill priority research gaps and develop a long-term conservation strategy based on best available science to protect barred sand bass spawning aggregations.

Exhibits

1. Department presentation
2. Email from Merit McCrea, Sportfishing Association of California, received October 24, 2024
3. Email from Matt Band, Allwaters Protection & Access Coalition, received October 24, 2024

Committee Direction/Recommendation

The Marine Resources Committee recommends that the Commission: (1) schedule a rulemaking with notice in December 2024 to set a year-round bag limit of four barred sand bass, with no more than five bass in combination, and a regulation sunset of three years, as recommended by the Department; and (2) support the Department's efforts to continue to work with stakeholders to fill priority research gaps and develop a long-term conservation strategy based on best available science to protect barred sand bass spawning aggregations.

Update: Regulation Change Considerations for Barred Sand Bass

7 November 2024

Presented to:

Marine Resources Committee

CA Fish and Game Commission

Presented by:

Armand Barilotti

Environmental Scientist
CDFW Marine Region

Life History

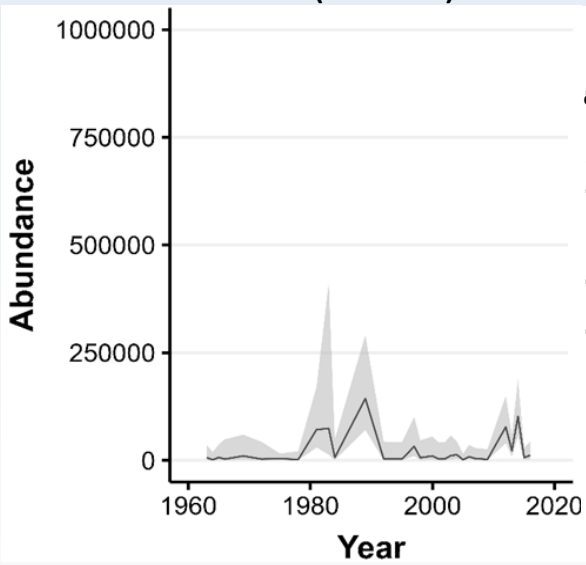
- Barred sand bass (*Paralabrax nebulifer*, referred as BSB hereon).
- Range: southern Baja California, Mexico to Santa Cruz, California; rare north of Pt. Conception.
- Habitat: coastal rocky reef, soft bottom, and bays.
  - Preference for ecotone where reef meets soft bottom.
- Size: up to 67 cm (26.4 in) and 6 kg (13 lb).
- Mature by 27 cm (10.6 in) and 5 years old.
- Life span: up to 25 years.
- Small home range:
  - 2,682–240,000 m2 (0.66 – 59 ac).
- Migrate to form spawning aggregations in summer months over soft bottom habitat.

Photo Credit M. Haggerty, CDFW

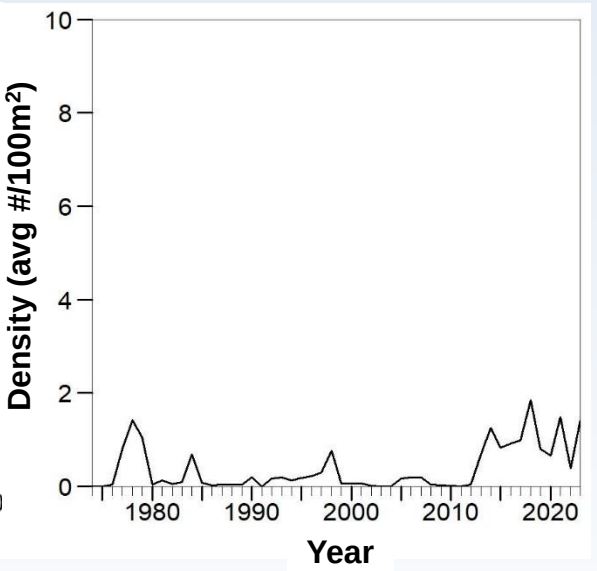
BSB Spawning and Recruitment

- Spawning peaks June through August.
- BSB show minimal annual recruitment.
- Sporadic recruitment from Mexico.
  - 4 major recruitment events in last 60 years .
  - Can occur when upwelling in northern Baja CA is interrupted during warm water years.
- Kelp Bass have higher (~6x) annual baseline recruitment.

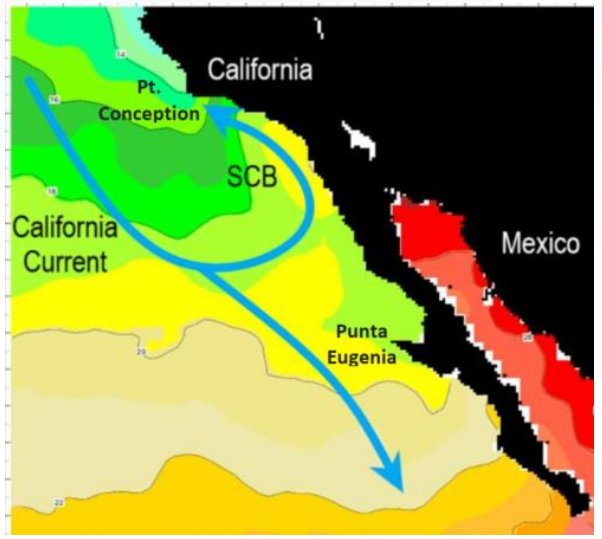
CalCOFI (larvae)



VRG King Harbor (BSB < 20 cm)



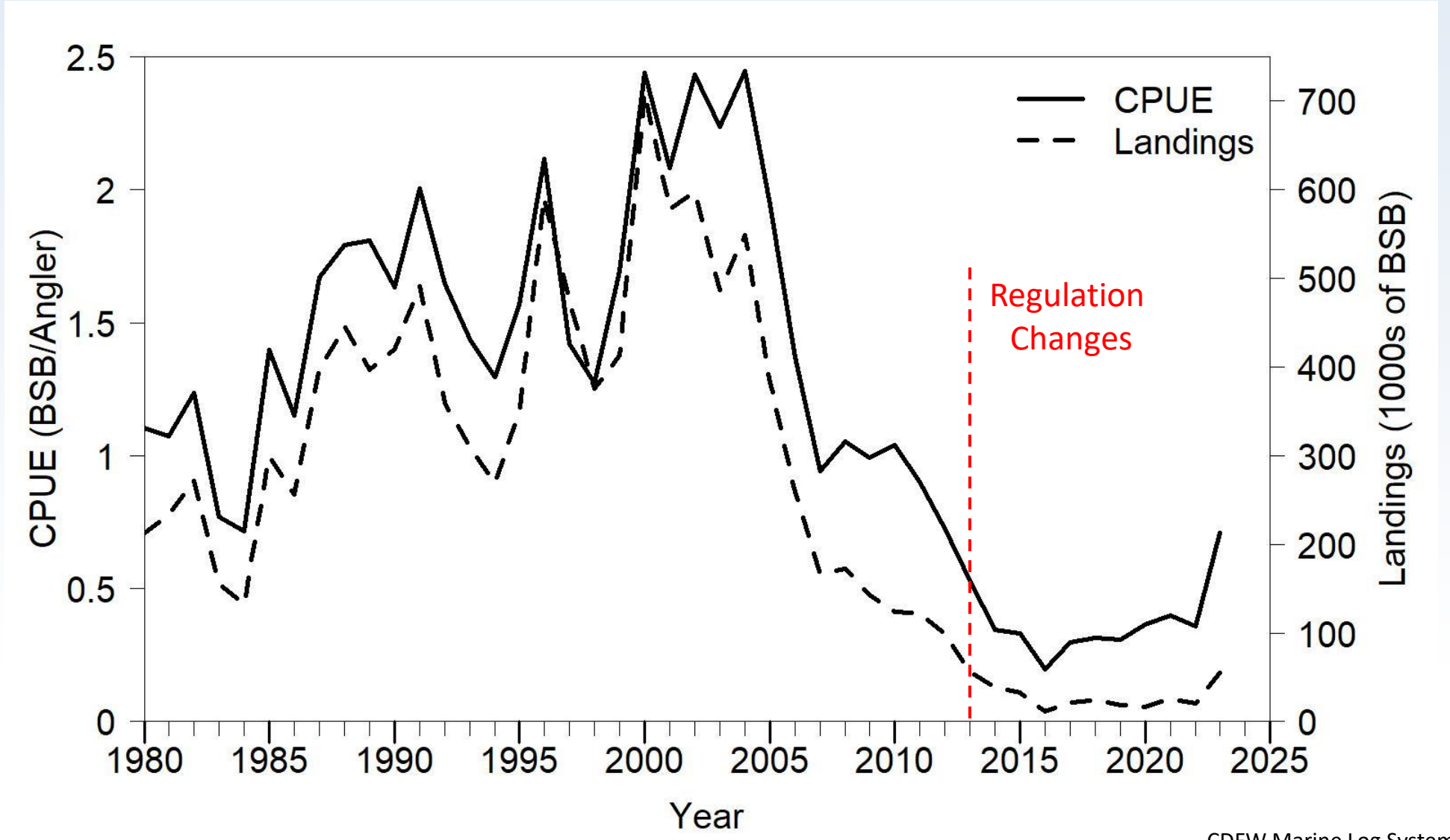
Jarvis Mason et al. 2024



Current Bass (*Paralabrax sp.*) Regulations

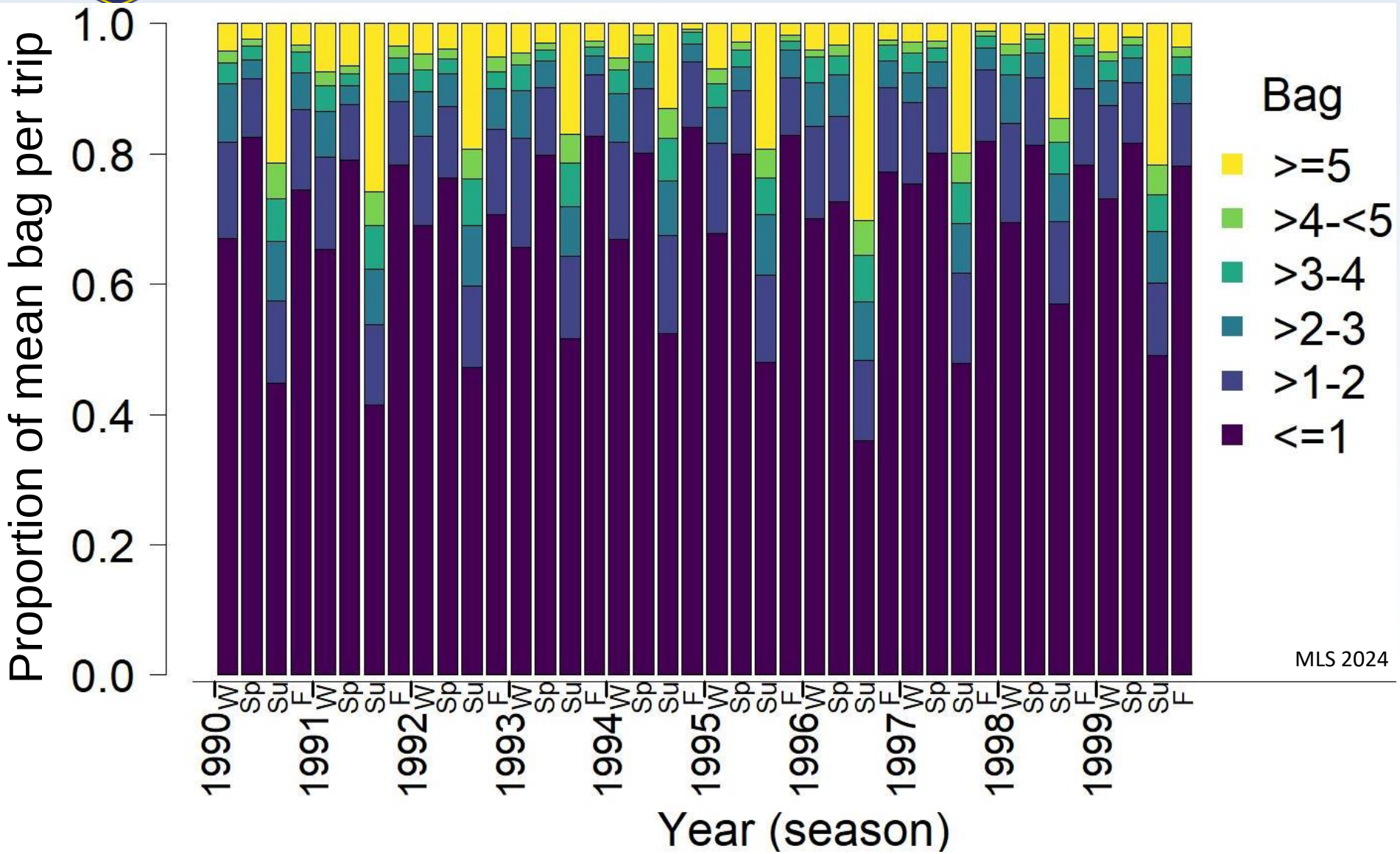
- CCR, Title 14, Section 28.30. Kelp Bass, Barred Sand Bass (BSB) and Spotted Sand Bass
    a. Minimum size: Fourteen inches total length or 10 inches alternate length.
    b. Limit: Five in any combination of species.
- Effective March 1, 2013
  – Enacted to help protect and recover BSB & kelp bass.
  – Seasonal closure for BSB was recommended by CDFW but rejected by the Fish and Game Commission.

BSB CPFV Landings 1980 - 2023



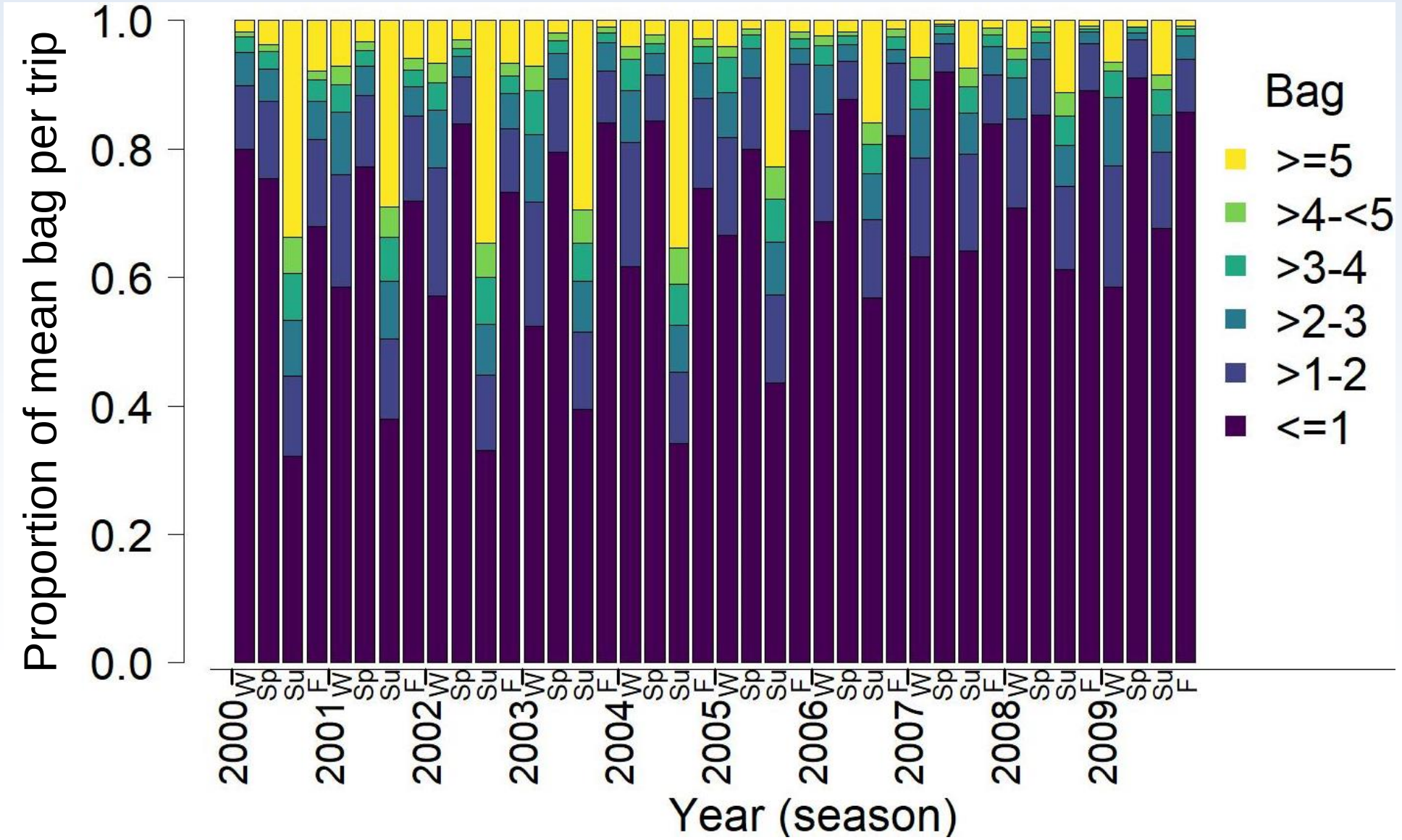
CDFW Marine Log System (MLS) 2024

1990s Mean BSB Bag per Trip

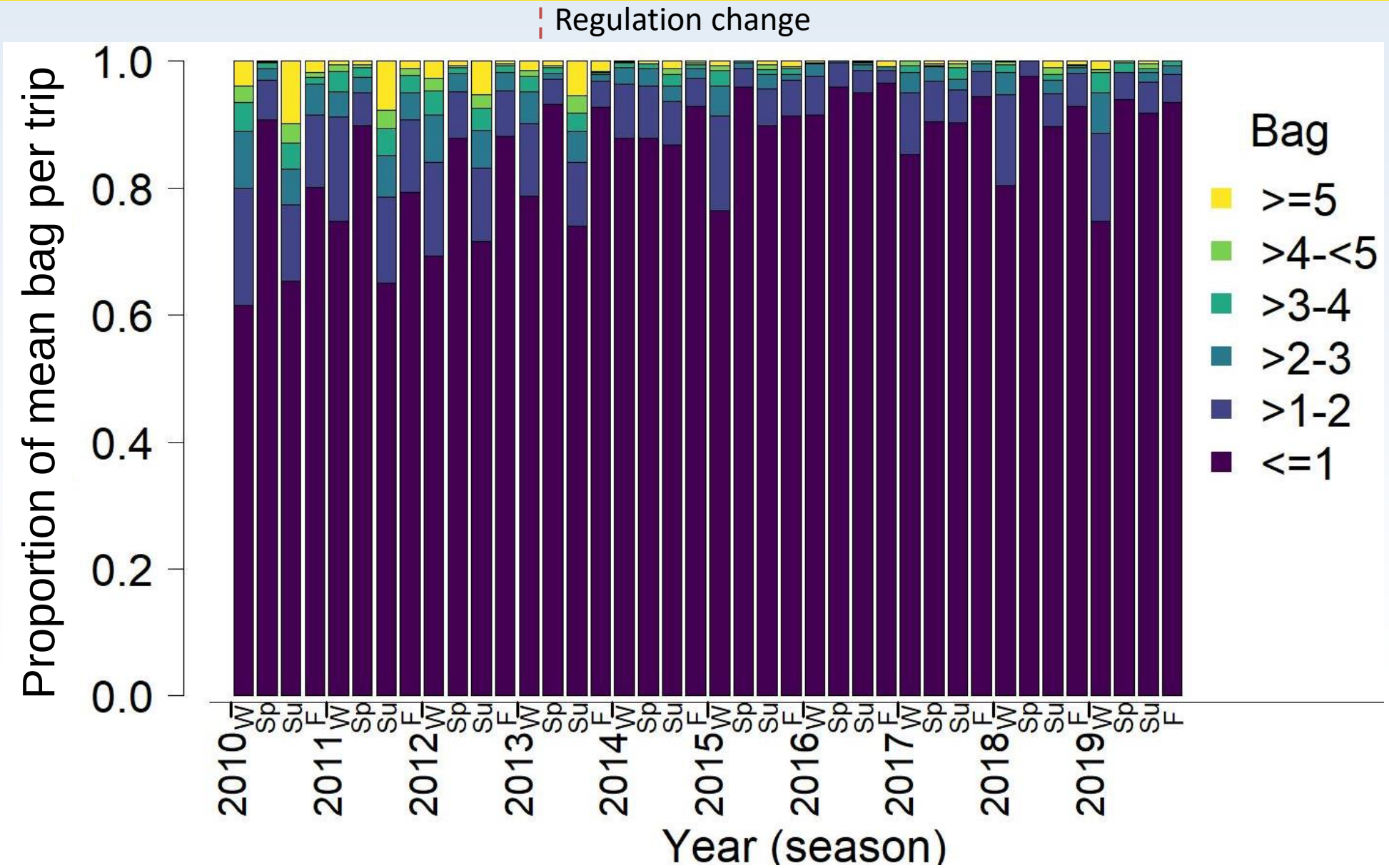


- Bag = # BSB / # anglers
- W = Dec – Feb
- Sp = Mar – May
- Su = June – Aug
- F = Sept - Nov

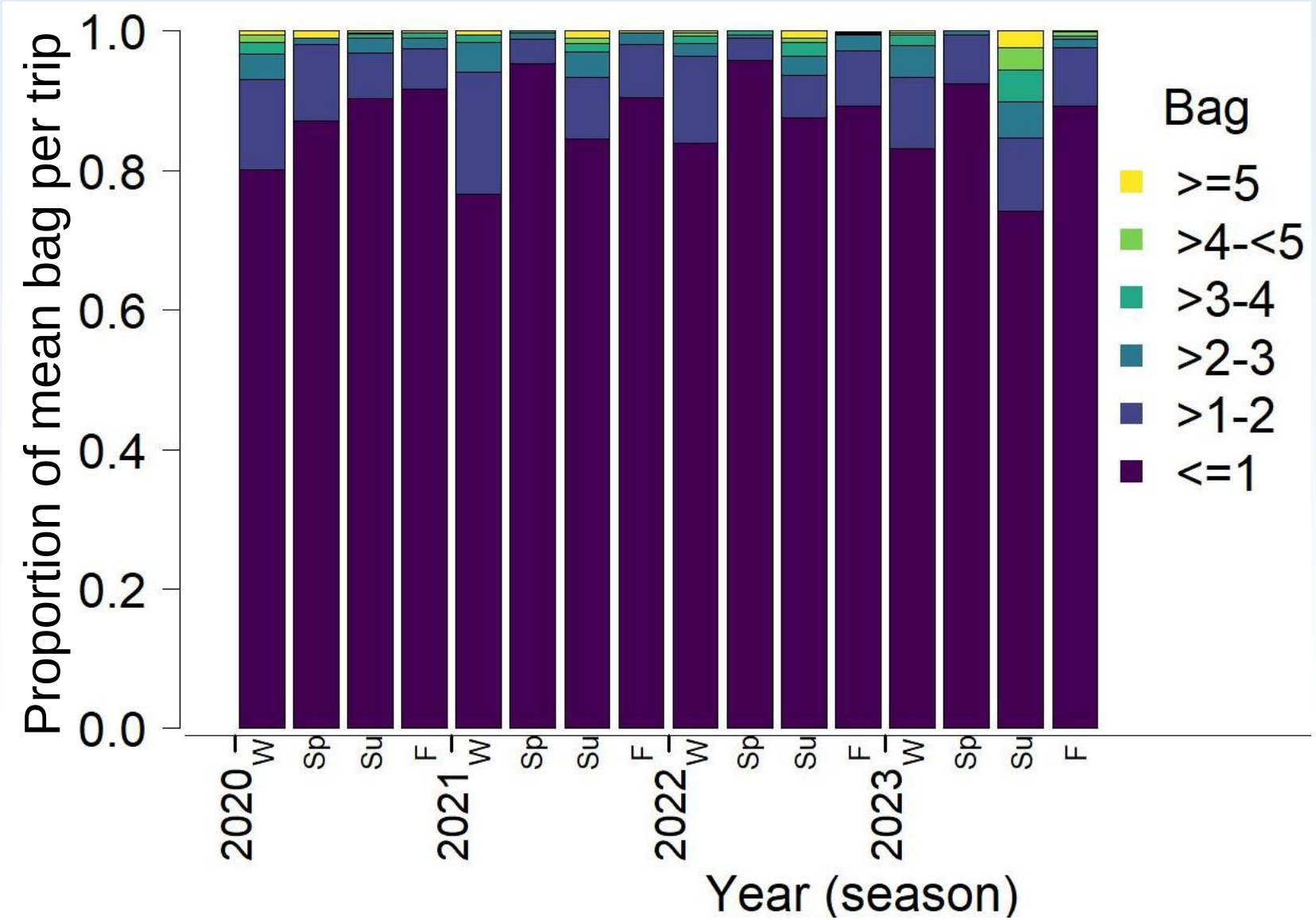
2000s Mean BSB Bag per Trip



2010s Mean BSB Bag per Trip

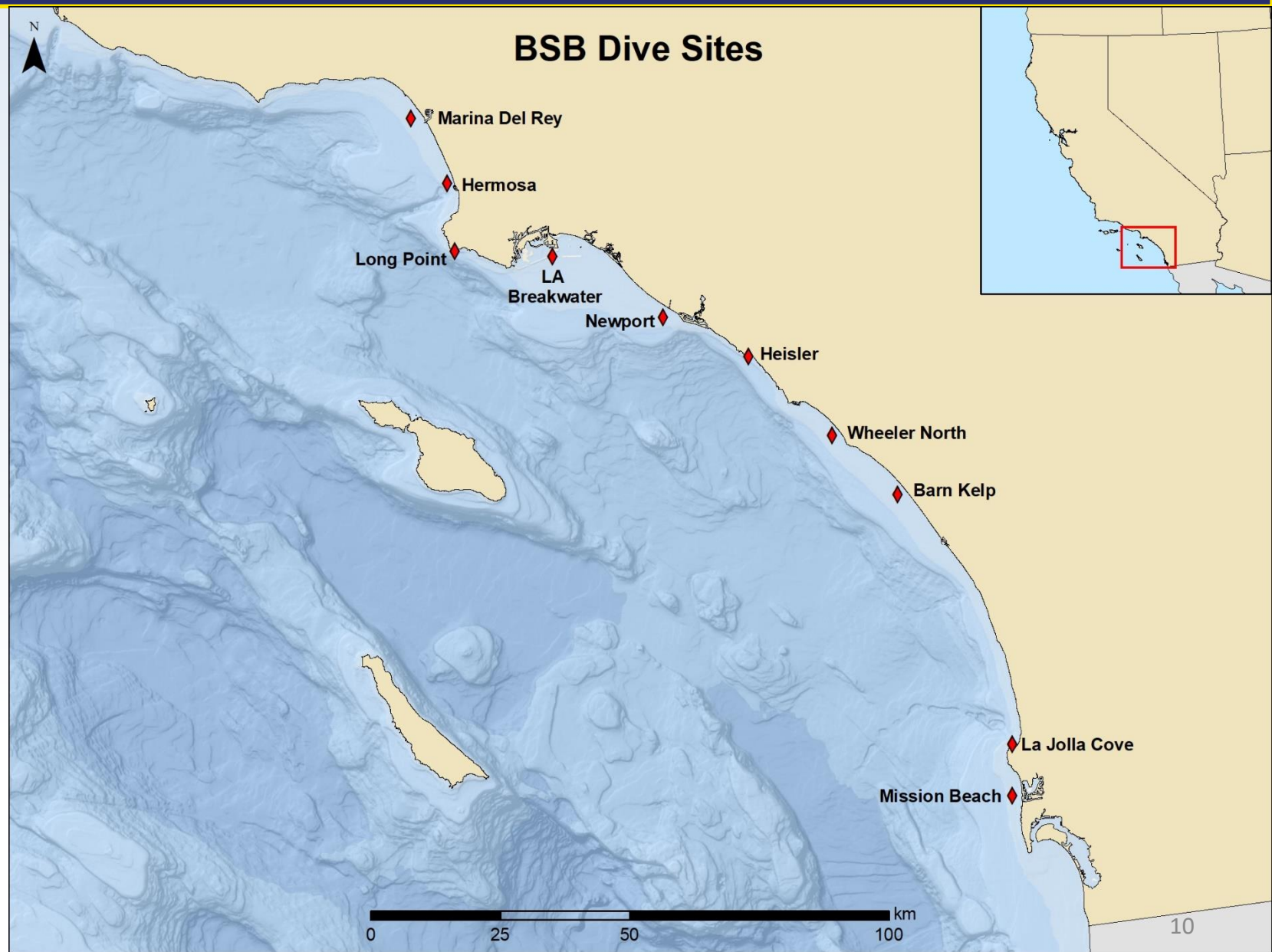


2020s Mean BSB Bag per Trip

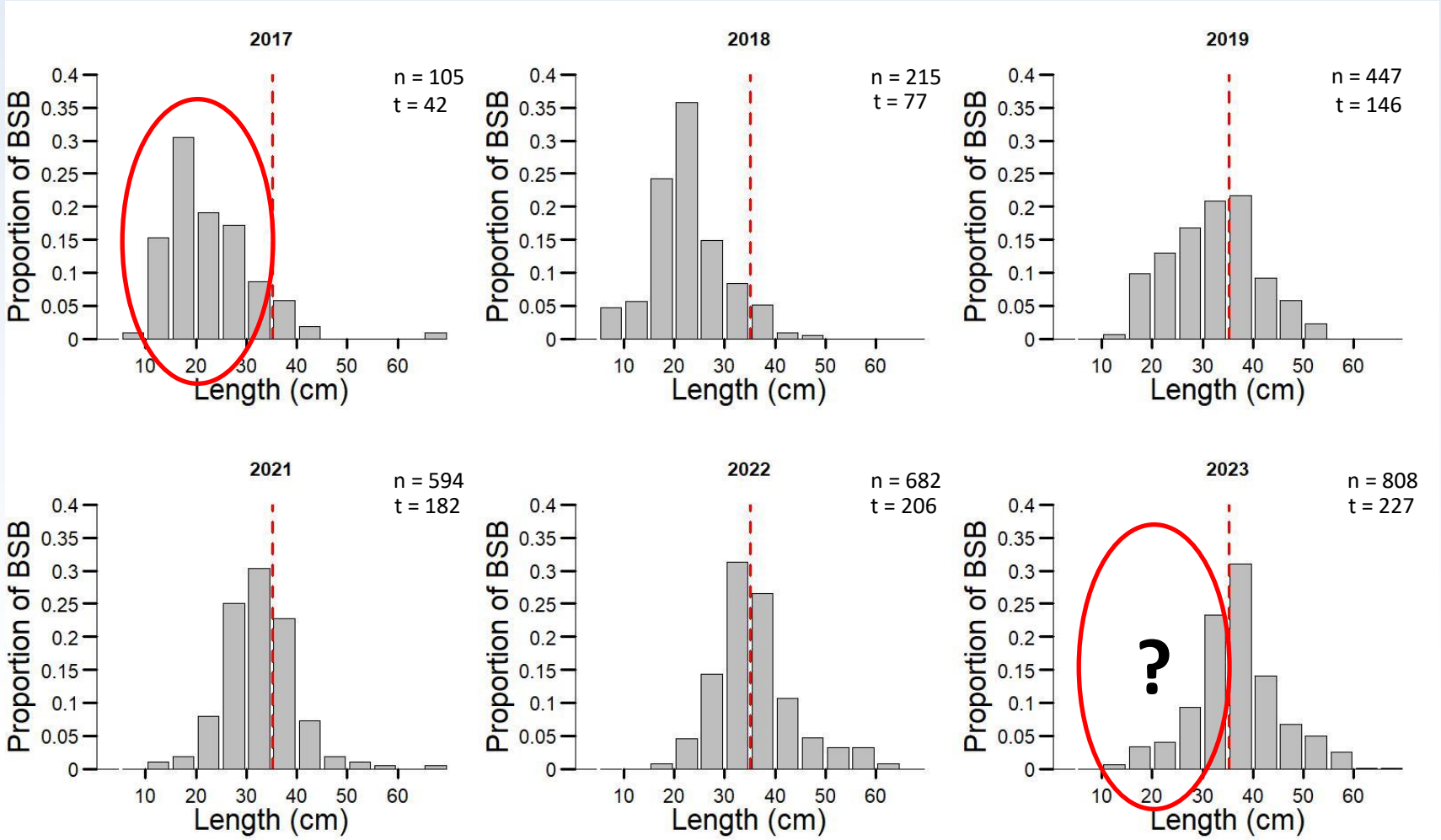


CDFW BSB Dive Surveys 2017 - 2023

- 10 sand/reef ecotone sites from San Diego to Santa Monica Bay.
  - 6 artificial reefs.
  - 4 natural reefs.
  - 3 MPAs.
- Survey Sept – Nov.
  - Sample each site monthly.
  - Minimum of 3 transects per site visit.



CDFW BSB Dive Surveys 2017 – 2023 (cont.)



- No sizeable recruitment pulse behind these legal fish as seen in previous years.
- With less recruitment, increased fishing success on these spawning aggregations is potentially unsustainable.

CDFW unpublished data 2024

Outreach

Engagement category	Stakeholder Group	Format	Date
Presentation & discussion	Fishing industry (SAC, CCA CA)	Remote	Feb. 20, 2024
Presentation & discussion	BSB Researchers	Remote	Feb. 21, 2024
Presentation & discussion	Fishing industry	Remote	Apr. 30, 2024
Tribal notification	Tribal leaders and representatives	Letter	Jul. 8, 2024
Working group meeting	Fishing industry, BSB researchers, CDFW	Hybrid	Sept. 4, 2024
Working group meeting update	Fishing industry, BSB researchers, CDFW	Remote	Oct. 7, 2024

BSB Working Group

- Goals:
  - Improve understanding of the current status of the BSB population and fishery.
  - Develop a shared understanding of the current need for a conservation measure.
  - Identify information gaps and strategies to collaborate on future data collection.
  - Support an open collaborative process (now and in the future) to share information on the species and fishery.

Potential Regulation Options

- Adopt an interim regulation for the next three years to explore more management procedures with MSE.
- Table shows potential regulation options and how they would have changed the 2023 BSB CPFV landings (55,409 BSB landed in 2023).

BSB bag limit options	% BSB saved	# BSB saved
5 year-round (no change)	0%	0
4 year-round	3.5%	1,990
3 year-round	11.2%	6,227
3 June-Aug, 5 Sept-May	10.5%	5,836
0 June-Aug, 2 Sept-May (original proposal)	76.1%	42,151

Recommendation and Next Steps

- Year-round bag limit of 4 BSB, with no more than 5 bass in combination, with a sunset of 3 years
- Notice = December 10-11, 2024
- Discussion = February 2025
- Adoption = April 2025, effective by June 1, 2025
- Continue to work with stakeholders to fill priority research gaps and develop a long-term conservation strategy that is based on best available science to protect BSB spawning aggregations.

Thank You

Armand Barilotti
Environmental Scientist
Southern California Fisheries Research
and Management Project
Department of Fish and Wildlife
Marine Region
Email: AskMarine@Wildlife.ca.gov

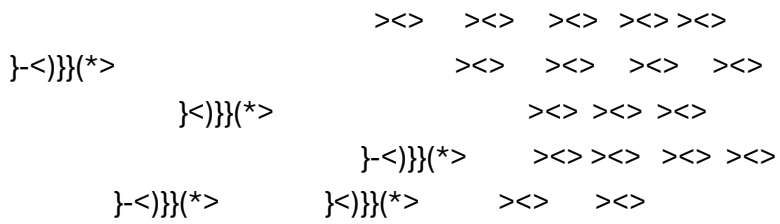
Enhanced Status Report:
https://marinespecies.wildlife.ca.gov/barred-sand-bass/true/

From: Merit McCrea <[redacted]>
Sent: Thursday, October 24, 2024 04:53 PM
To: FGC <FGC@fgc.ca.gov>
Cc: Ken Franke <[redacted]>
Subject: Fw: Written Public Comment for upcoming MRC meeting 11/6 & 7 Agenda item 5

This written public comment is intended as written comment only. I do not intend to present it on the floor at the MRC meeting (way too much).

Hopefully people will have the opportunity to take a look in the coming days.

Merit McCrea
[redacted] (UCSB, MSI)



SAC supports:

- Sandbass sub-bag limit reduction to 4 sandbass within the 5-fish combined Paralabrax bass limit.
- We support a 3-year window for this interim conservation measure.
- SAC desires to support efforts to fill any gaps in scientific knowledge/data, such as trans-boundary tagging studies, life history data collection, age/size composition data and young-of-year/recruitment data)

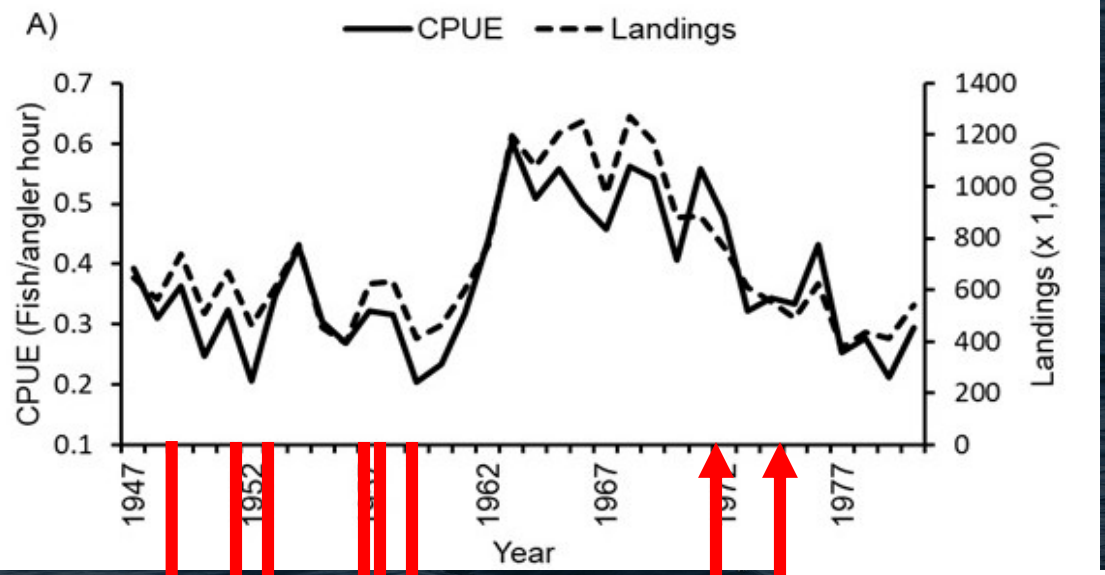
The following slides represent our current observations

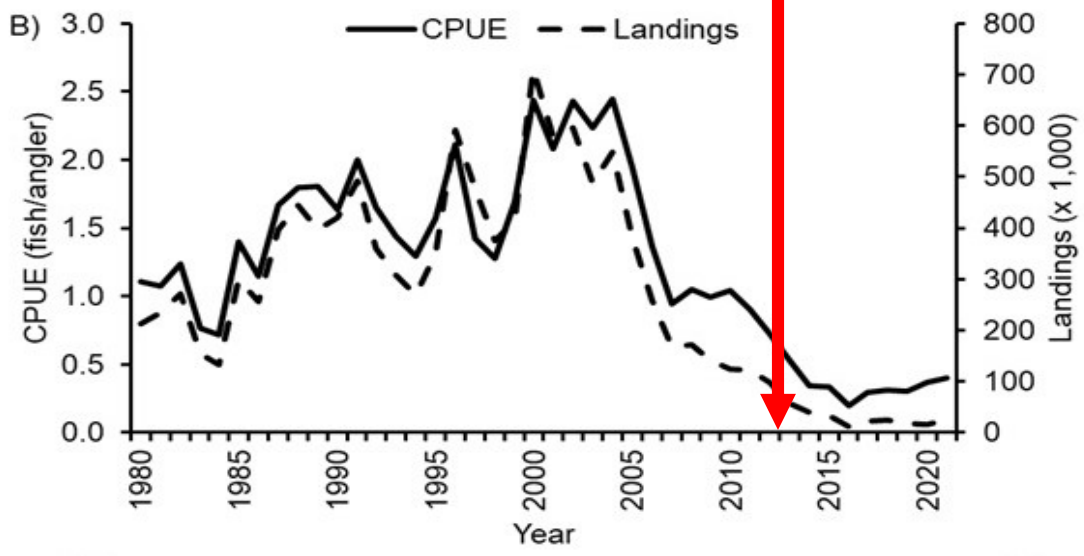
- With many skippers having experience fishing sand bass during high catch seasons in the 1980s and 1990s our common hypothesis has been Southern California is at the northern extreme of sand bass range.
- High catch seasons were predominantly a result of large masses of adult fish following foraging opportunities and immigrating concurrently with other semi-migratory species (bonito, barracuda) from farther south during warm water events.
- It seemed some portion of these immigrating sand bass would remain to populate inshore reefs following such events.
- However, we recognize this pattern has not been nearly as evident during more recent warm water events.

Catch rate and regulations

5 bass in aggregate
14-inch minimum length

CDFW data show the average released fish is 12.3 inches with the mode at 13





15 in ag
10 in ag
15 in ag

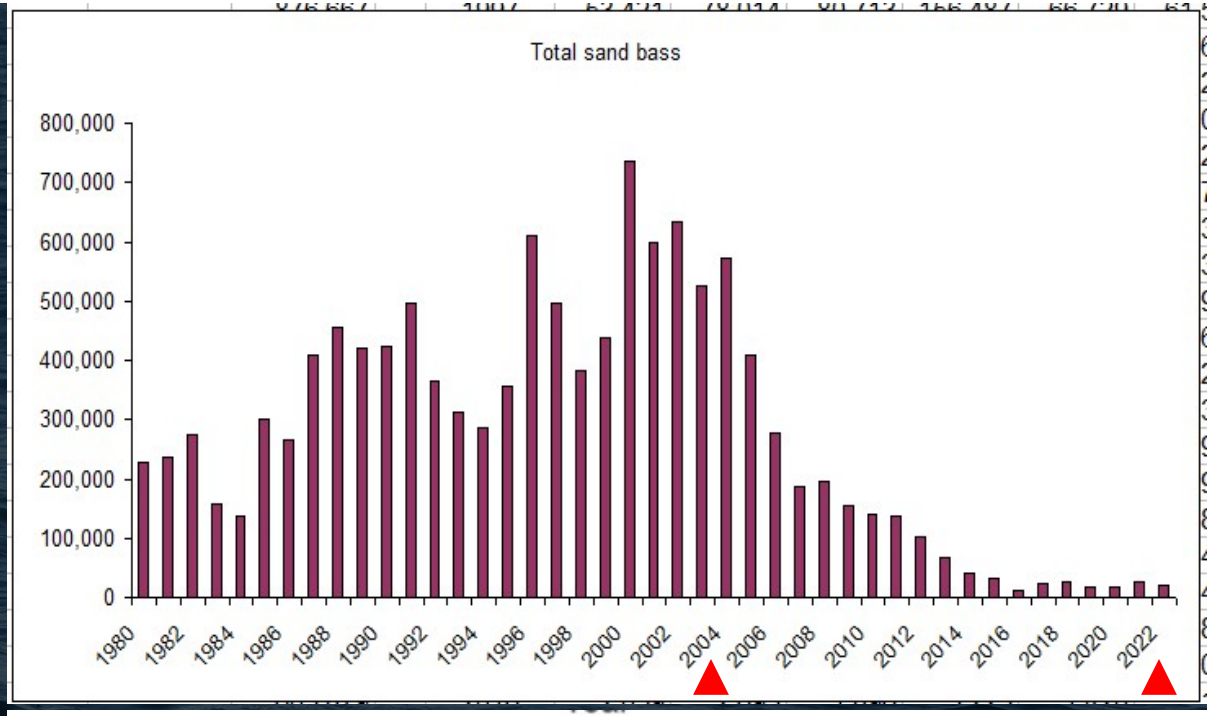
Rec only, 10.5in

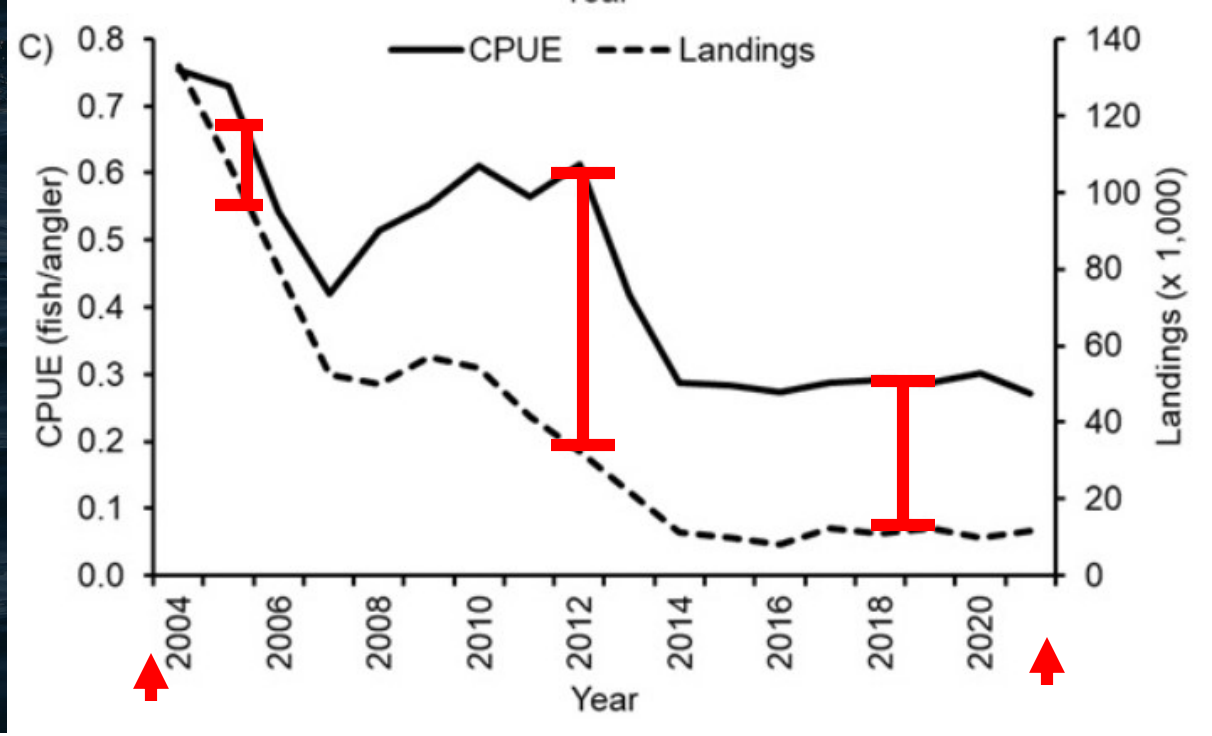
15 in ag, 12-inch min

10 of 20 fish 12-inch min

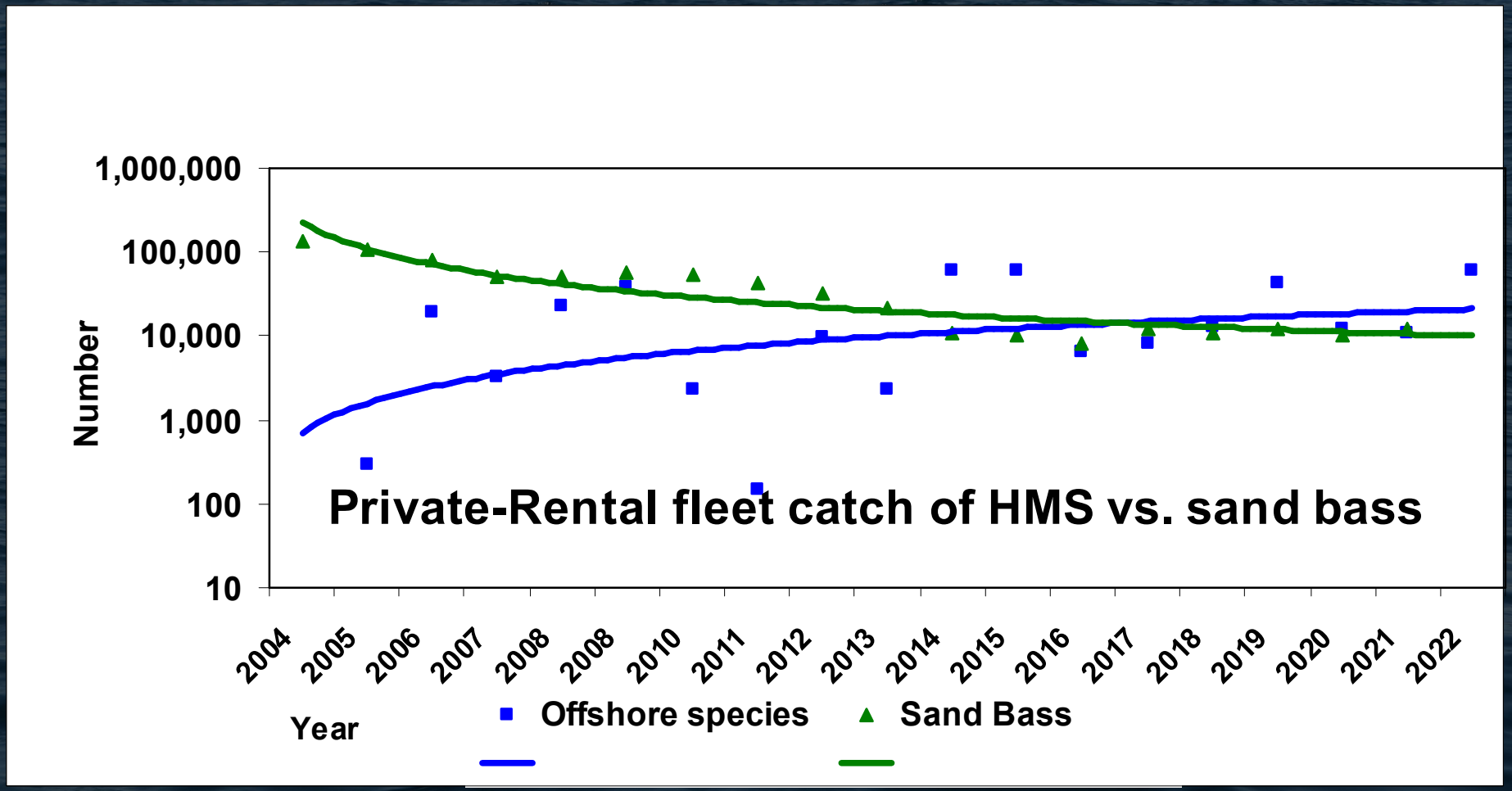
10 bass in combination, 12 inch min.
40 years – 10 fish, 12 inches !

- In recent years there has been less effort for sand bass and a greater spread between catch rates and total landings
- Some of this may be due to declining participation as well as effort shift



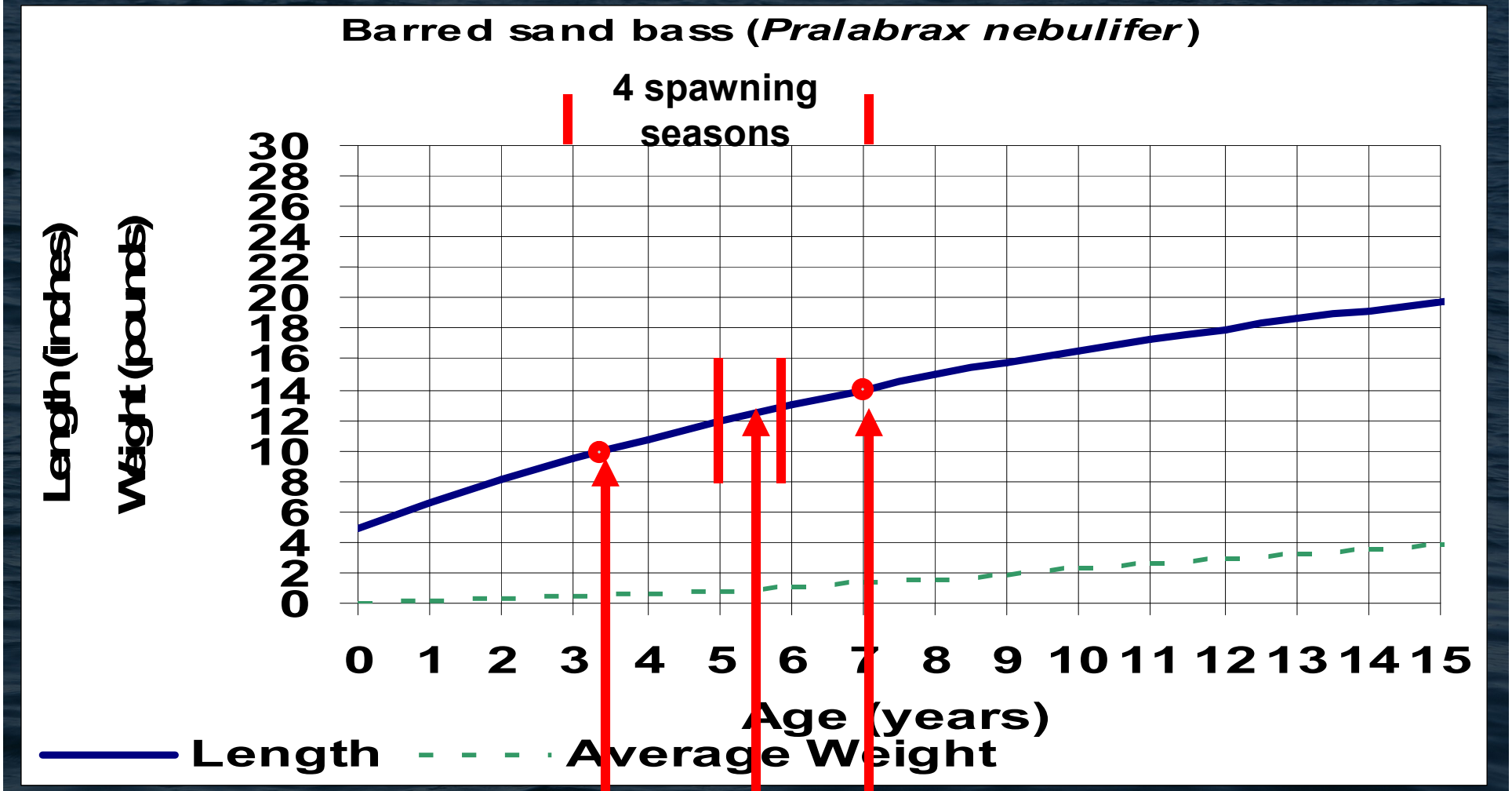


Effort shift to large pelagics within range



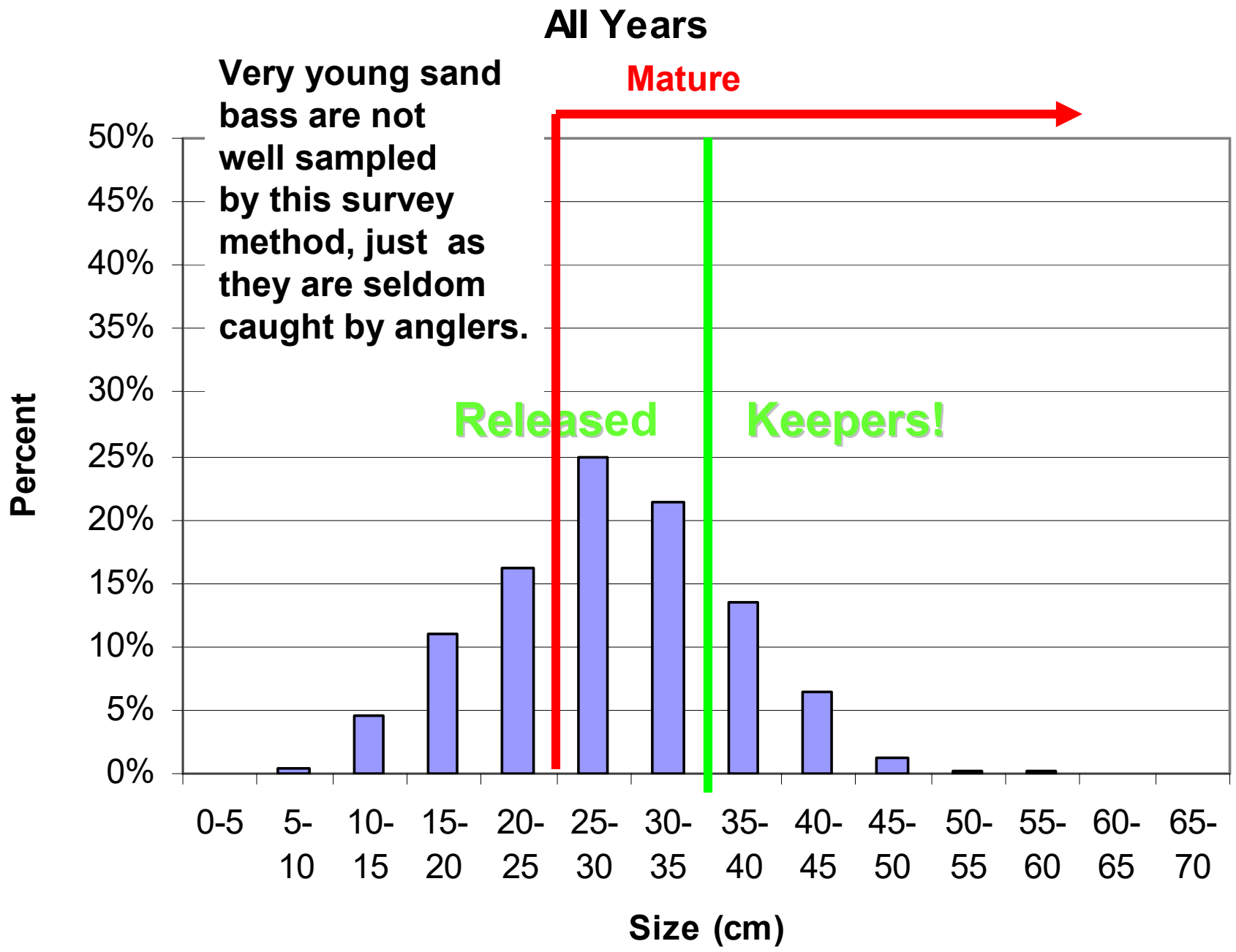
Large pelagic species include bluefin, yellowfin and skipjack tunas and dorado
Data from RecFIN and DFW sand bass (marinespecies.wildlife.ca.gov)

Barred sand bass length, weight and maturity at age



PISCO and Vantuna PNEB data

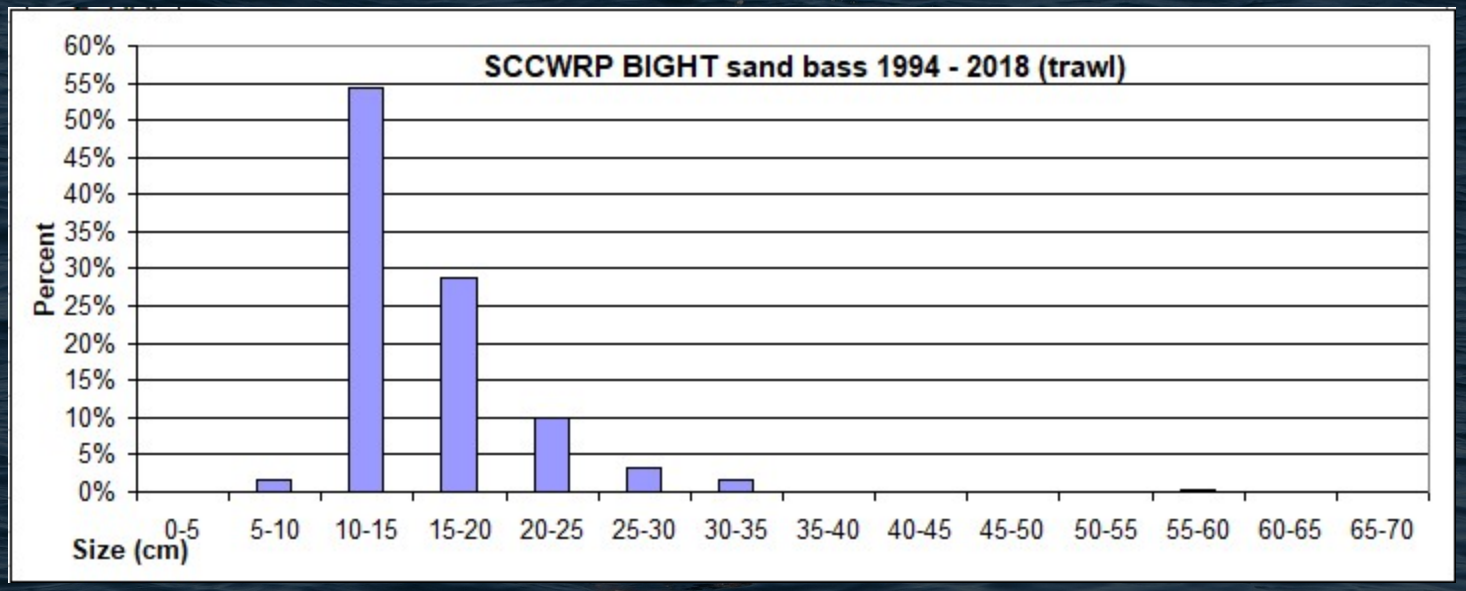
- 30 survey sites from Gaviota to La Jolla
- 3,560 total sandbass records
- 2001 – 2023
- Over the entire 23-year period just 77 fish less than 20cm were seen by the UCSB PISCO research dive team at the northern sites while 497 were seen by the Vantuna Research Group at the southern sites -- mostly along the PV coast.

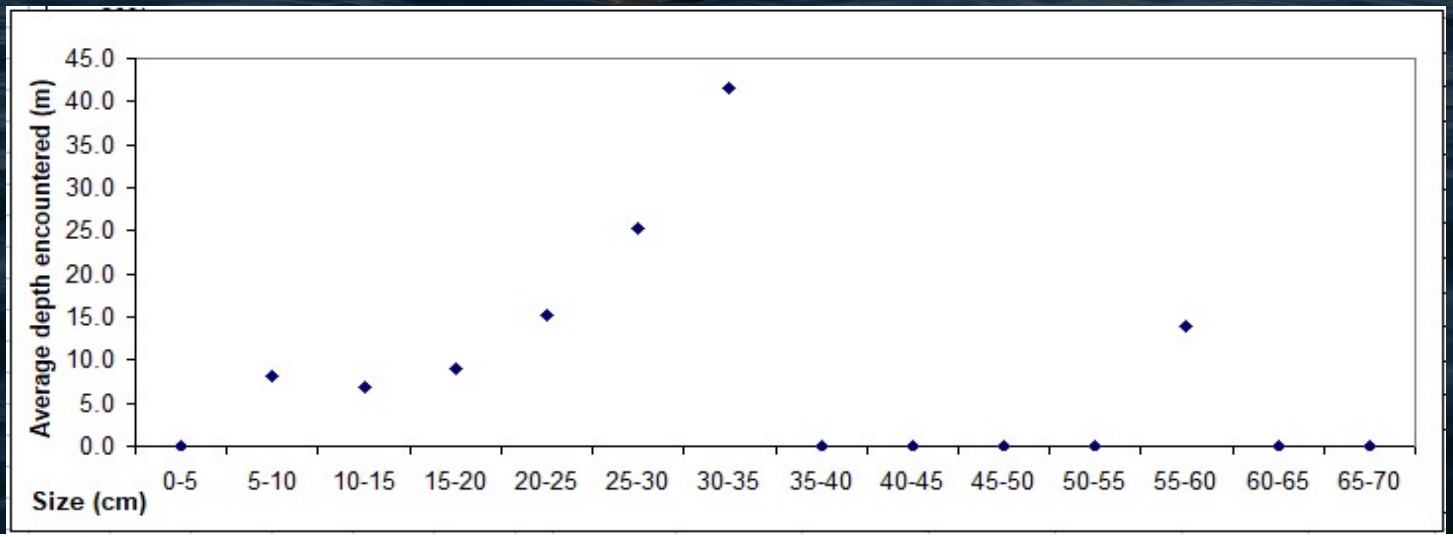

All Years
Very young sand bass are not well sampled by this survey method, just as they are seldom caught by anglers.
Mature
Released
Keepers!
Percent
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
0-5
5-10
10-15
15-20
20-25
25-30
30-35
35-40
40-45
45-50
50-55
55-60
60-65
65-70
Size (cm)

Potential for existing data sources on younger sand bass year-class strength

- Further research into NPDS and other near-shore, turbid waters sampling efforts might shed additional light on local (California) recruitment strength.
- New methodologies might be possible to develop that could capture data on incoming sand bass year class strength.

SCCWRP BIGHT trawl sand bass data
Average depth encountered 10.5m
Mostly inside harbors
Total number of fish = 529

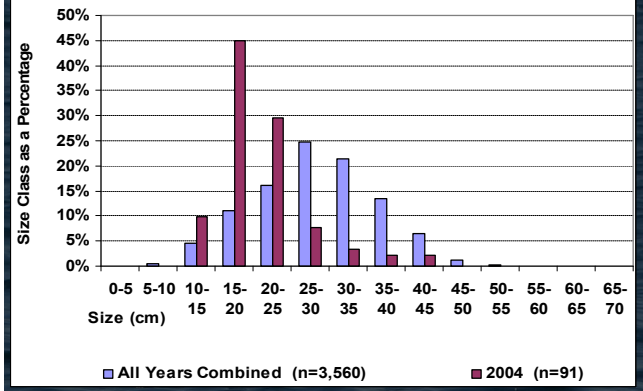




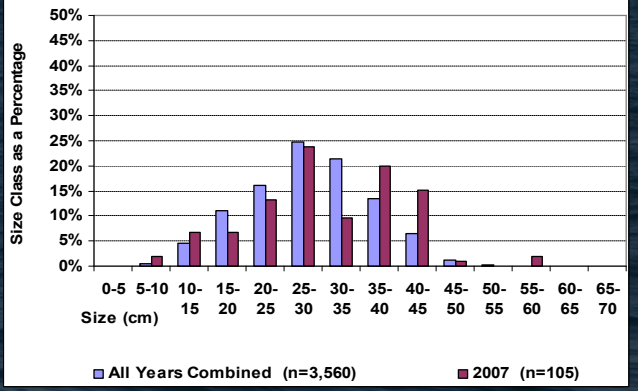
PISCO/Vantuna sand bass dive data by year against the all-years composit

- These data are similar in form to those gathered in the past six years by CDFW divers.
- A primary difference is CDFW divers targeted edge habitats along the interface between hard and soft substrate while PISCO/Vantuna divers targeted hard bottom habitat in general.

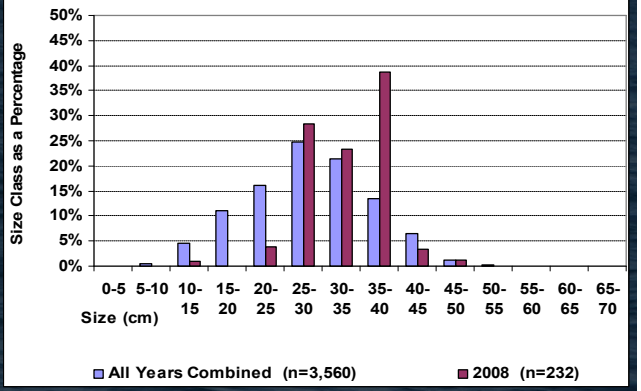
2004



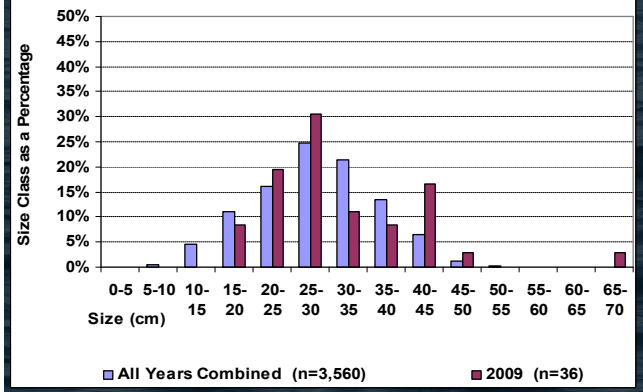
2007



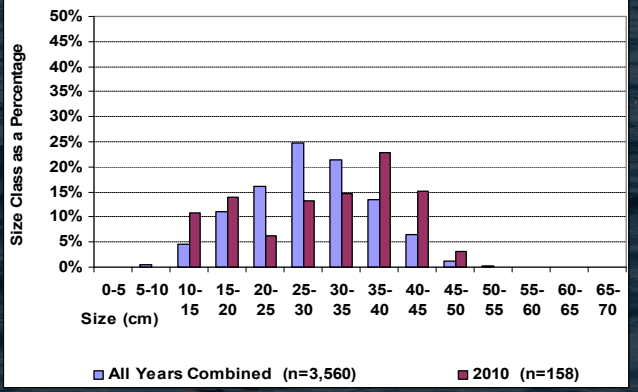
2008



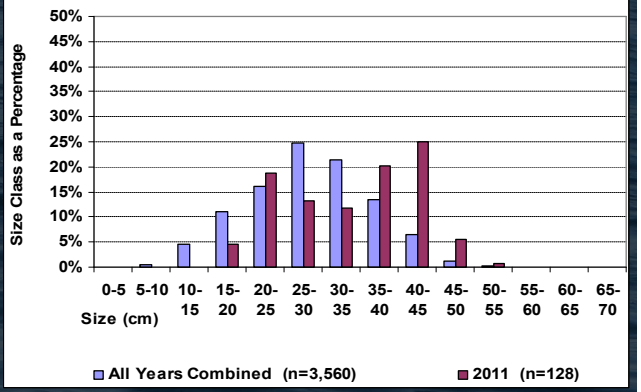
2009



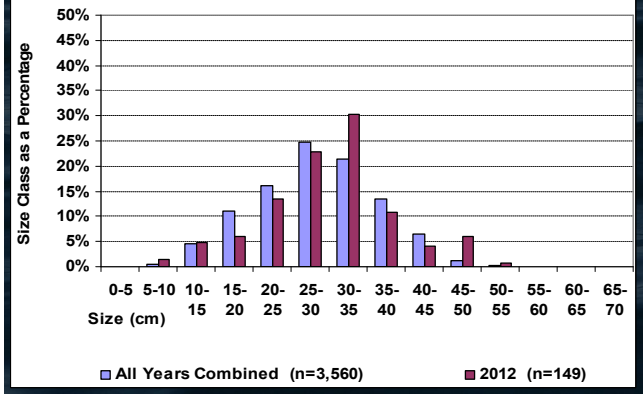
2010



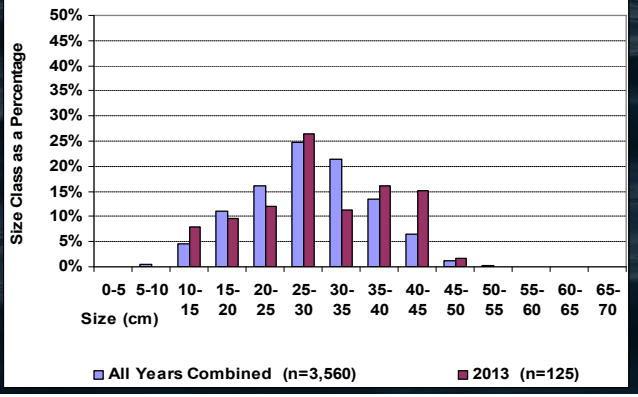
2011



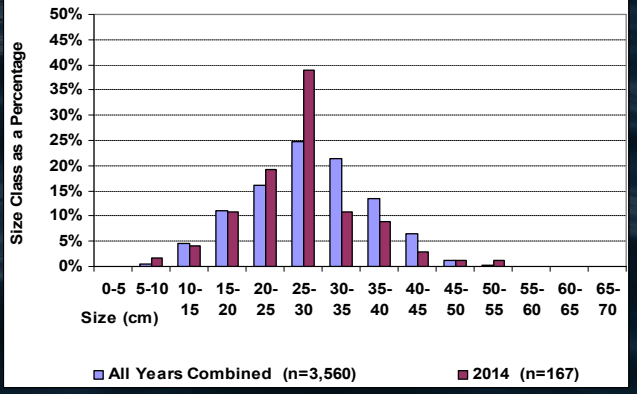
2012

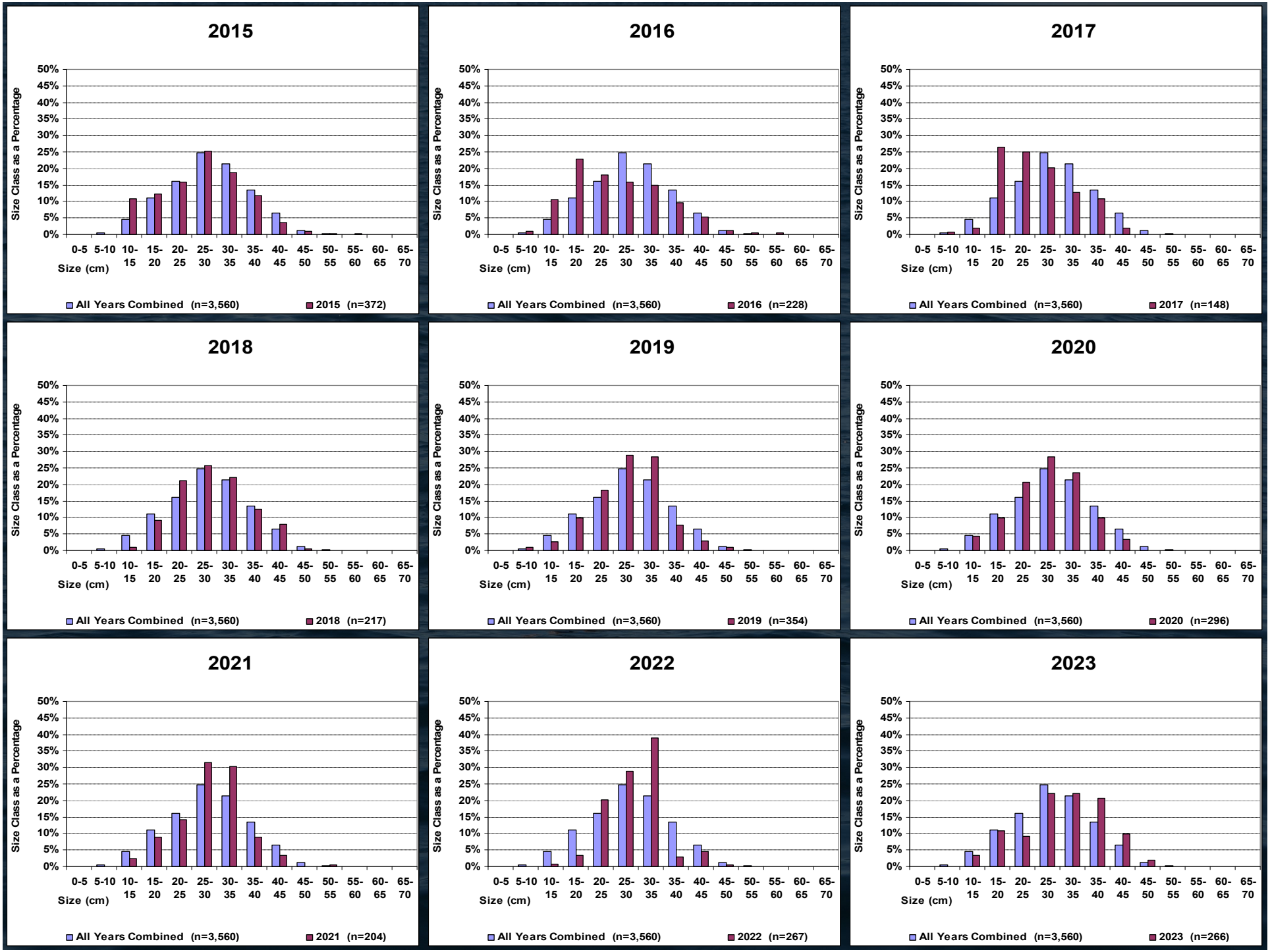


2013



2014




2015
Size Class as a Percentage
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
0-5 5-10 10-15 15-20 20-25 25-30 30-35 35-40 40-45 45-50 50-55 55-60 60-65 65-70
Size (cm)
All Years Combined (n=3,560)
2015 (n=372)
2016
All Years Combined (n=3,560)
2016 (n=228)
2017
All Years Combined (n=3,560)
2017 (n=148)
2018
All Years Combined (n=3,560)
2018 (n=217)
2019
All Years Combined (n=3,560)
2019 (n=354)
2020
All Years Combined (n=3,560)
2020 (n=296)
2021
All Years Combined (n=3,560)
2021 (n=204)
2022
All Years Combined (n=3,560)
2022 (n=267)
2023
All Years Combined (n=3,560)
2023 (n=266)

On sand bass spawning:

1. There is evidence for site fidelity between seasons.

2. Sand bass appear to spawn at a wide variety of locations, opportunistically .

3. The primary assumption sand bass aggregate to a just a handful of specific sites expressly for spawning appears to remain anecdotal.

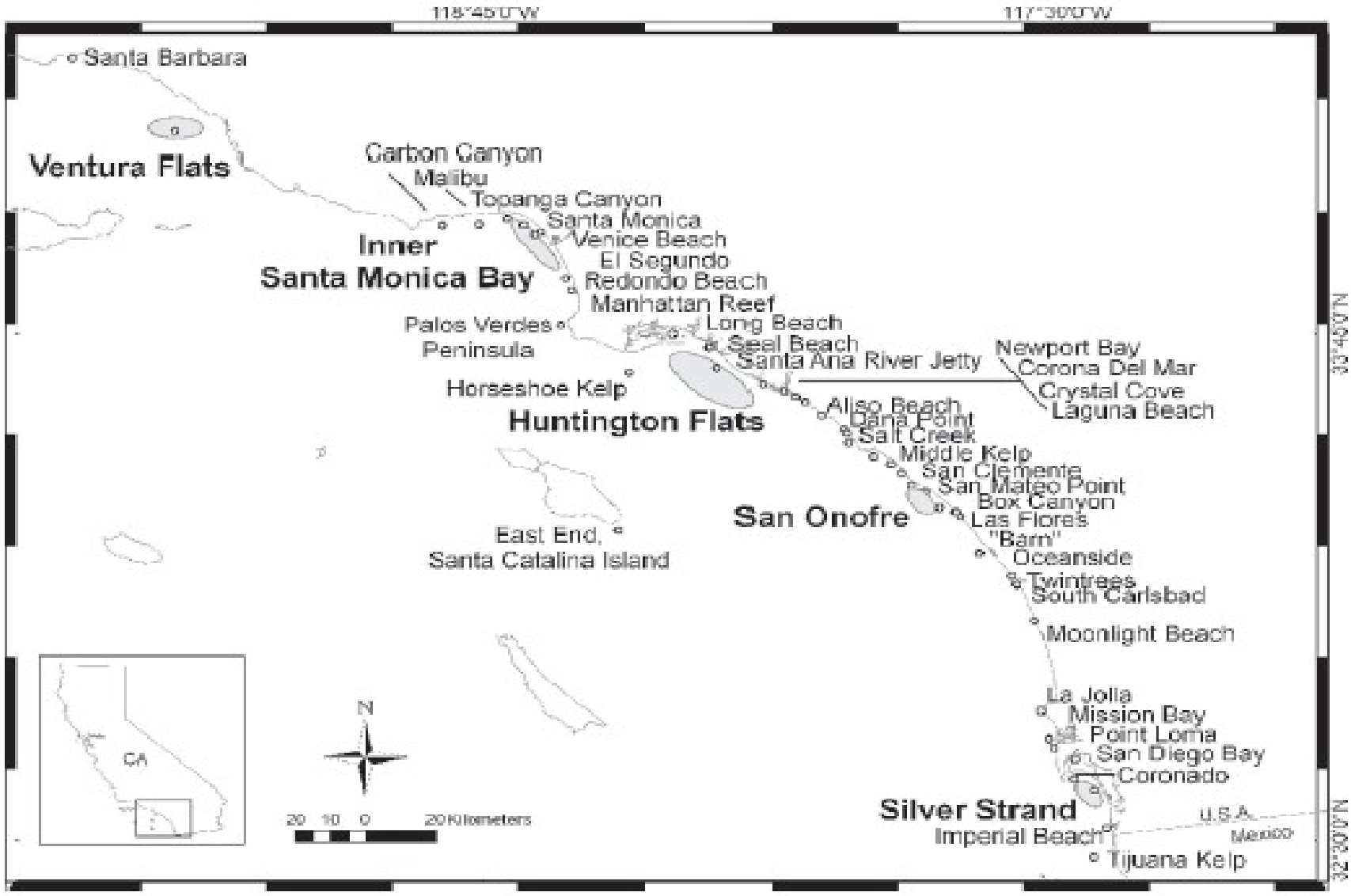
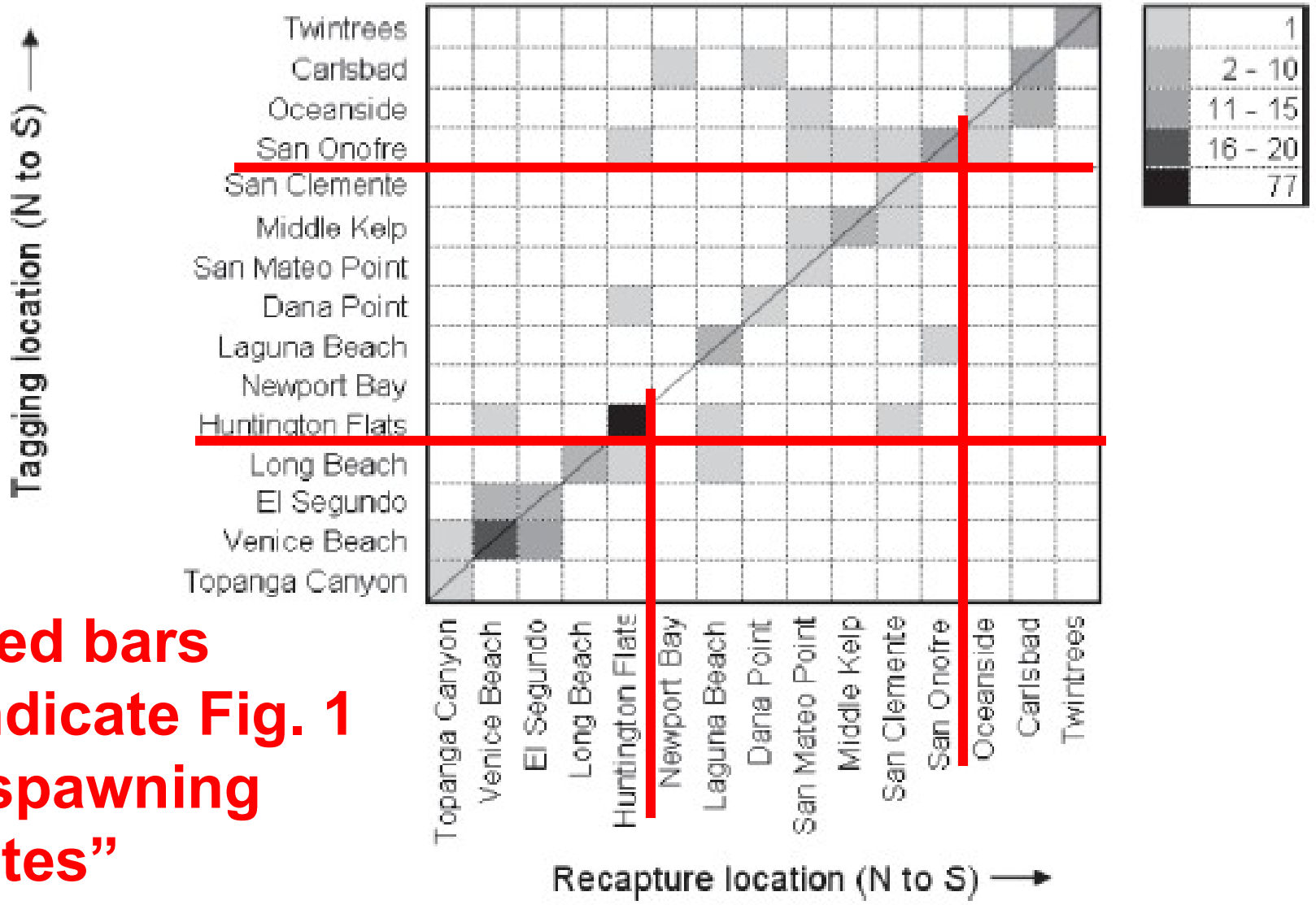
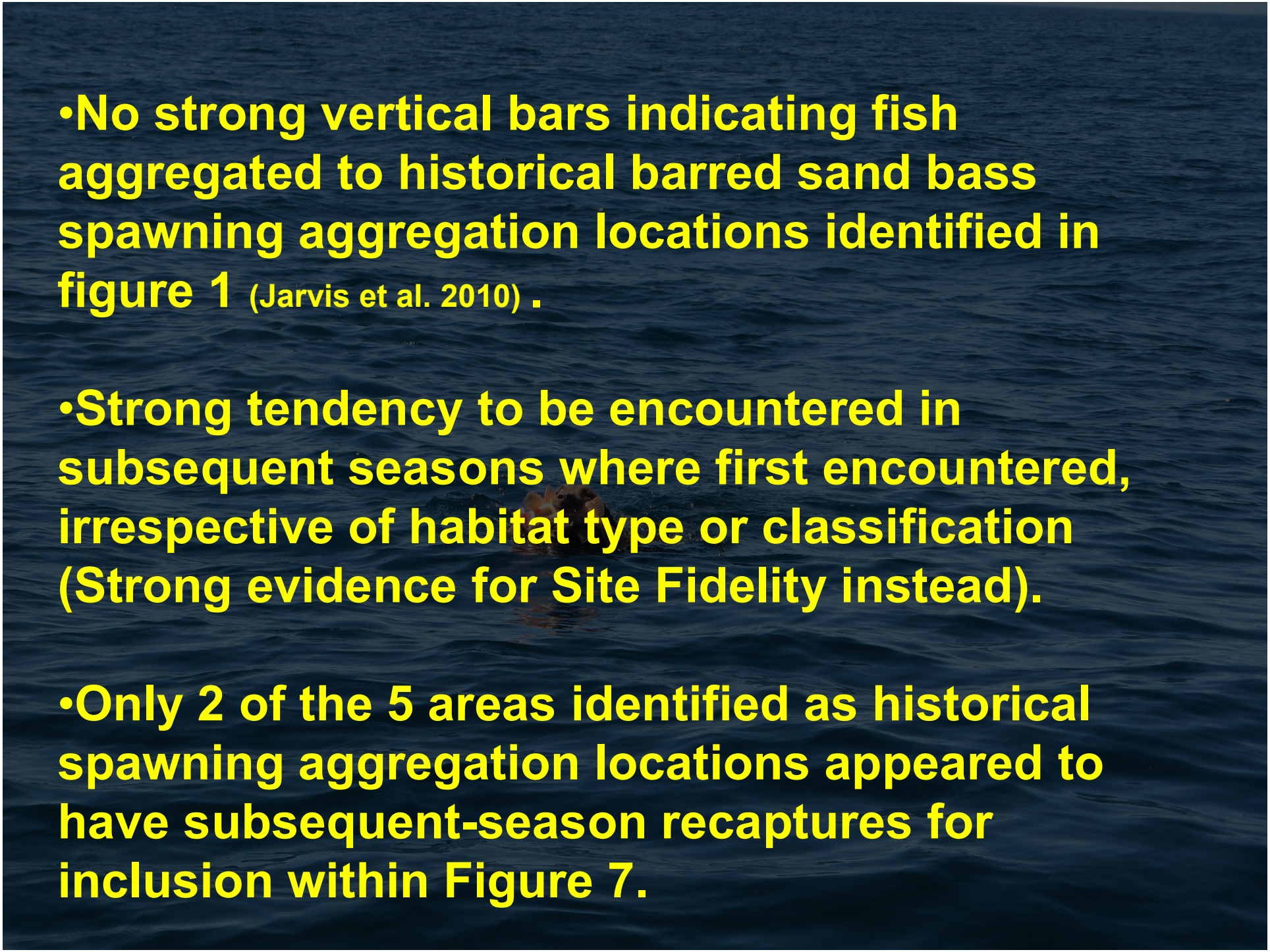


Fig. 1. Map of barred sand bass tagging locations in southern California, historical California Department of Fish and Game tagging project (1960s and 1990s). Shaded ellipses and bolded text identify historical barred sand bass spawning aggregation locations.



Red bars indicate Fig. 1 "spawning sites"

Fig. 7. Recapture matrix plot of barred sand bass tagged during peak spawning season and recaptured in subsequent peak spawning seasons, historical California Department of Fish and Game tagging project (1960s and 1990s). Shaded, darker boxes along the diagonal line indicate a higher degree of breeding site fidelity.



- No strong vertical bars indicating fish aggregated to historical barred sand bass spawning aggregation locations identified in figure 1 (Jarvis et al. 2010) .

- Strong tendency to be encountered in subsequent seasons where first encountered, irrespective of habitat type or classification (Strong evidence for Site Fidelity instead).

- Only 2 of the 5 areas identified as historical spawning aggregation locations appeared to have subsequent-season recaptures for inclusion within Figure 7.

It’s clear that sand bass bite much better during the summer months.

- Warmer waters and longer days spur growth and spawning.
- With that, foraging activity reaches a peak.
- Reducing the bag limit to 4 fish acts as a cap to the harvest when sand bass are most susceptible to being caught.
- Should the sand bass bite continue to improve the precautionary reduction to a 4-fish sand bass bag limit will restrain the catch level while additional scientific data are gathered and analyzed.

From: Matthew Bond <[redacted]>
Sent: Thursday, October 24, 2024 08:37 AM
To: FGC <FGC@fgc.ca.gov>
Cc: Christopher Killen <[redacted]>
Subject: Nov. 7th 2024 MRC Meeting Agenda Item 5

Dear President Murray and Commissioner Sklar,

We are writing to express that we share the Department's concern about the health of the Barred Sand Bass (BSB) population and urge the commission to take reasonable steps aimed at allowing its abundance to recover in order to ensure the health of the species, the marine ecosystems they inhabit, and to allow for future sustainable fishing once stocks are deemed recovered.

This stance is based on the facts that recent landings are severely down, surveys show low abundance, and spawning aggregations appear smaller and less frequent.

Around this last point is where we feel regulatory action for the Commission may be best focused. BSB all come together to spawn at specific places and during certain seasons. When landings data and surveys are done at these times and in these areas, the majority of BSB in a given region are aggregated, abundance estimate data may be overstated. Simply stated, the fishing vessels whose passengers' bags are being surveyed know where ALL the BSB aggregate and go fish there. The resulting biomass counts most likely aren't representative of reality.

We hate to see a loss in fishing opportunity. But it seems BSB need help to recover in the short term to allow for possible continued sustainable fishing in the future. Simply applying a seasonal or spawning ground protection program; closing or limiting effort where and when they aggregate, still leaves good fishing opportunity outside those times and places.

Given the obvious need for BSB recovery measures, the worst case scenario is a half measure where some fishing opportunity is lost to limited overall effect on the fishing community's future ability to enjoy Southern California marine fishing. We anticipate a result similar to what we saw when the commission cut bag limits in half and raised the size limit in 2013; no dramatic benefit to offset loss in total allowable species bag limits according to CDFW figures.

Sadly, it doesn't seem that the past bag reduction and size limit increase had the protective impact on the BSB's biomass we needed. We propose a different mechanism for the Commission to consider now. A focus on regulations around when and where BSB spawn should be explored. We believe this is what will drive better health in this fishery. We ask that the Commission consider the following:

- Closing two or three of the five known spawning aggregation sites in Southern California to BSB fishing for a handful of years to support fishing after a period of time sufficient enough for stocks to recover. BSB caught incidentally while fishing for other species would need to be immediately released. The department would continue to do annual stock assessments and reopen the closed areas once a healthy spawning biomass is observed.
- Another option is to close BSB fishing in the months they spawn — June to September. Or a fraction of that timespan in combination with size and bag limit adjustments. These months in Southern California offer some of the most bountiful fishing opportunities because of the influx of warmer water species, like white seabass, bonito, mackerel, yellowtail, and California barracuda. The minimal impact of not being able to take BSB will be muted even more during these months.

We are committed to a thriving subsistence and recreational fishery in California. And we are committed to healthy and abundant oceans. We again urge the Commission to take a hard look at what the Department's biologists are telling us about the current status of the BSB fishery and take necessary steps to protect it.

Respectfully,

Matt Bond
Allwaters PAC