

Amendment 46 Draft Options

# Gray Triggerfish Rebuilding Plan



# What's the issue?

- A rebuilding plan was established by the Council in 2013 which aimed to rebuild the stock by the end of 2017.
- A Standard Assessment (SEDAR 43 2015) determined the population is not rebuilding on schedule
- The gray triggerfish stock remains overfished, but is no longer undergoing overfishing



# Proposed Actions

**Action 1:** Modify the rebuilding plan

**Action 2:** Establish sector ACLs and ACTs

**Action 3:** Recreational Management Measures

- Modify Fixed Closed Season
- Modify Bag Limit
- Modify Minimum Size Limit

**Action 4:** Commercial Management Measures

- Modify Fixed Closed Season
- Modify Trip Limits



# Action 1: Modify the Rebuilding Plan

**Alternative 1:** No action

**Alternative 2:** Prohibit harvest starting in 2017 until the stock is rebuilt in 6 years, or by end of 2022.

**Alternative 3:** Modify the rebuilding plan to rebuild the stock in 8 years, or by the end of 2024.

**Alternative 4:** Modify the rebuilding plan to rebuild the stock in 9 years, or by the end of 2025.

**Alternative 5:** Modify the rebuilding plan to rebuild the stock in 10 years, or by the end of 2026.



# Action 2: Annual Catch Limits and Annual Catch Targets

**Alternative 1:** No action

**Alternative 2:** Prohibit harvest starting in 2017 until the stock is rebuilt (6 years, 2022)

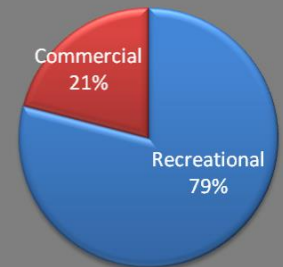
**Alternative 3:** Use SSC's recommended rebuilding period of 8, 9, or 10 years. 8% com & 20% rec buffers

**Option a:** corresponds with annual **increasing** ABC's recommended for 2017 through 2019 that are estimated to rebuild the stock in 8-years

**Option b:** "... " in 9-years

**Option c:** "...." in 10-years

Gray Triggerfish Allocation



# Action 2: Annual Catch Limits and Annual Catch Targets cont.

- 8% com & 20% rec buffers between the ACL and ACT

**Alternative 4:** Use SSC's recommended rebuilding period of 8, 9, or 10 years.

**Option a:** corresponds with mean ABC yield streams held for 2017 through 2019 that are estimated to rebuild the stock in 8-years

**Option b:** "... " in 9-years

**Option c:** "...." in 10-years



# Actions 3-5: Recreational Management Measures

## Current management measures:

- June 1- July 31 closed season
- 2 gray triggerfish per angler within 20 reef fish aggregate bag limit
- 14 inch FL minimum size limit

## Considering currently:

- Modifying the fixed closed season
- Modifying bag limits
- Modifying size limits



Photo: Steve Cone

# Action 6 & 7: Commercial Management Measures

## Current management measures:

- June 1- July 31 closed season
- 12 – gray triggerfish commercial trip limit
- 14 inch FL minimum size limit

## Currently considering:

- Modifying closed season
- Modifying commercial trip limits





# Life history and reproductive biology

- Oldest fish recorded 16 years, typically maximum age is 11 years
- Males significantly larger than females
- Both sexes reproductively mature by age-2, at 250 mm FL (10 inches FL)
- Peak spawning June-July, fecund May-August



Photo credit: Steve Szedlmayer

# Information on reproductive biology

## Atypical spawning behavior:

- Males establish territories and build demersal nests in the sediment
- Males form harems with 1-5 females around reefs
- Females defend nest for 24-48 h and aerate eggs

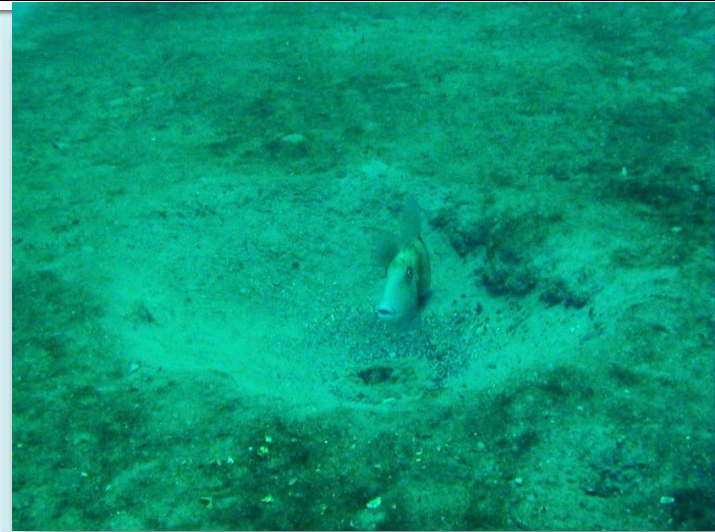


Photo credit: Steve Szedlmayer

After hatching: Larvae and juveniles spend 4 to 7 months in the pelagic zone, closely associated with *Sargassum* spp. mats, before recruiting to benthic habitat

# Considerations for rebuilding times

- The SSC recommended new yield streams for 8, 9, and 10 year rebuilding periods and corresponding OFLs and ABCs
- 9 and 10-year yield streams are currently higher than status quo (longer rebuilding times assume higher recruitment)
- Overfished status since 2008
- Magnuson-Stevens Act – specify a time period for rebuilding the fishery (i.e., as short as possible taking into consideration needs of communities)



# Decision Points

- What rebuilding period is the Council leaning towards?
- What corresponding ACLs and ACTS is the Council leaning towards?
- These decisions will determine the changes in recreational and commercial management measures needed to reach rebuilding goals



# Questions?



Photo credit: Troy Frady

