

Stone Crab



Final Public Hearing
July 22, 2020



Florida Fish and Wildlife Conservation Commission

Version 1

This is a final public hearing to amend the Florida Fish and Wildlife Conservation Commission's (FWC) recreational and commercial stone crab regulations in Chapter 68B-13, Florida Administrative Code (FAC), to modify the stone crab season, post-season trap retrieval period, minimum size limit, trap construction requirements, and allowance for the possession of whole stone crabs on the water.

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Unless otherwise noted, images throughout the presentation are by FWC.

Background

- One of Florida's oldest and most valuable commercial fisheries
- Popular recreational fishery
- Unique fishery, only claws harvested
- Long-term decline in annual commercial harvest
- Likely undergoing overfishing
- Some regulations have not changed since 1970s

Biology

- Live approximately 7-8 years
- Mature before entering fishery
- Spawn throughout spring and summer



Photo courtesy of Heidi Thoricht



Florida's stone crab fishery is one of the oldest and most valuable commercial fisheries in the state with an average annual dockside value near \$30 million. Stone crab also supports a popular recreational fishery. The stone crab fishery is unique in that only claws are harvested and the rest of the crab is returned to the water. Both claws may be taken if they meet the minimum size limit.

Commercial stone crab landings show a long-term decline in average annual stone crab harvest over the last 20 years and multiple FWC stock assessments indicate that the stone crab fishery has been overexploited and has likely been undergoing overfishing since the late 1990s. Some regulations for harvest of stone crab have not changed since the 1970s.

Stone crabs can live for about seven to eight years. Stone crabs are mature, and may have spawned more than once, before entering the fishery around age two or three. Spawning occurs throughout spring and summer, from approximately March or April through October. However, recent data from FWC's Fish and Wildlife Research institute (FWRI) indicates stone crabs are spawning earlier in the spring than in the past and more egg-bearing females, which cannot be harvested, are being caught in traps at the end of the harvest season.

Management Approach

Increase stone crab population and build resiliency in the fishery

- Reduce harvest and increase spawning stock biomass
- Decrease interaction with egg-bearing females
- Reduce mortality of undersize crabs
- Reduce release mortality



Combination of management changes will yield largest positive benefit

Collaborative management

- Management changes informed by industry recommendations

May 2020: Draft Rule presentation

- Approved with direction to continue gathering feedback and evaluating options
 - Proposed final rules updated since draft rule hearing

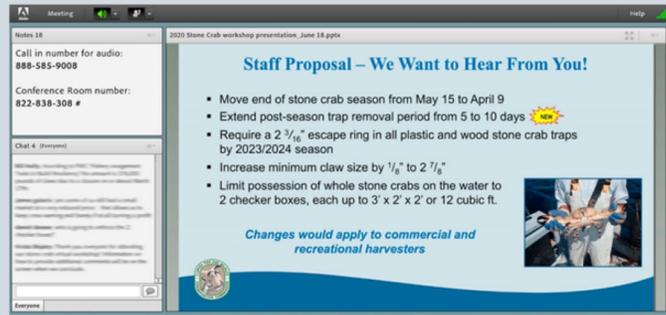


To increase the stone crab population and build resiliency in the fishery, staff recommends moving forward with a suite of management changes that, in combination, are intended to achieve the following goals: reduce harvest, increase spawning stock biomass, decrease the fishery's interaction with egg-bearing female crabs late in the season, reduce mortality of undersized crabs, and reduce mortality of crabs after they are released. A combination of management changes will provide the largest positive benefit to the stone crab population and the fishery.

Staff has worked closely with the commercial stone crab industry to develop management options that would benefit the stone crab population while having minimal economic impacts to the fishery. In early 2020, members of the commercial stone crab industry recommended a suite of management changes. These industry recommendations and additional public feedback were considered when developing the draft management changes that were proposed at the May 2020 Commission meeting. Although the Commission approved the draft proposal, Commissioners directed staff to continue gathering feedback and to continue evaluating options before returning for a final public hearing. The proposed final rules that will be presented today have been updated based on public feedback since the May draft rule hearing.

Public Engagement Since Draft Rule Hearing

- 2 virtual public workshops
- Virtual small group meetings
- Many individual conversations with industry
- Saltwater Comments webpage
- Input from Industry-led commercial stone crab panel



Public feedback summarized on following slides



Since the May 2020 draft rule hearing, staff has continued to gather feedback on potential management changes via two virtual public workshops; virtual small group meetings; individual phone calls and emails with stakeholders; online comments submitted through FWC's Saltwater Comments webpage; and from an industry-led commercial stone crab panel.

Public feedback on each management option is summarized on the following slides.

Modify Season

Goal: Reduce annual harvest, interaction with egg-bearing crabs, and release mortality

May 2020 draft rule proposal: Modify end date from May 15 to April 9

Updated proposal for recent public comment

- Modify end date from May 15 to April 9
- Extend post-season trap removal period from 5 to 10 days



Recent feedback

- Commercial: broad opposition
 - Economic concerns about reduced harvest
 - Importance of sales around Easter
 - Suggestions to start season earlier
- Recreational: Support for ending early to protect egg-bearing females



In order to reduce annual harvest, reduce the fishery's interaction with egg-bearing female crabs at the end of the season, and reduce release mortality associated with warmer water temperatures, staff proposed at the May draft rule hearing to shorten the stone crab season. The specific proposal was to move the end date of the season from May 15 to April 9. During and after the draft rule hearing, staff heard concerns about potential conflicts with the end of the spiny lobster season on March 31 and the difficulty associated with removing both lobster traps and stone crab traps at the same time. Considering this feedback, staff presented an updated proposal for public comment that also included extending the post-season stone crab trap removal period from 5 days to 10 days.

Members of the stone crab industry were broadly opposed to ending the stone crab season on April 9 and to extending the post-season trap retrieval period. Industry expressed concerns about potential economic impacts from reduced harvest and the importance of being able to continue to sell stone crab claws around the Easter holiday. Many industry members that were opposed to the proposed season change suggested that they would support ending the season early if it ended on April 26 or May 1. Some commercial harvesters suggested starting the season earlier if the season end date is moved to April 9 to compensate for expected economic losses.

Recreational harvesters generally supported shortening the season because it would provide additional protection for egg-bearing female stone crabs.

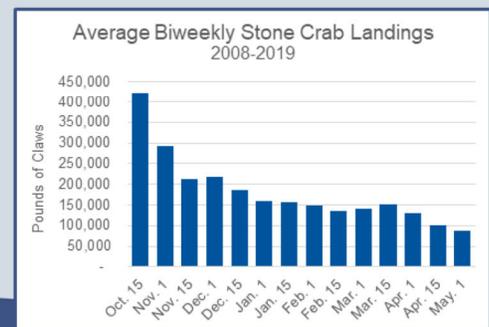
Modify Season (Continued)

Considerations

- Shifting season earlier will not achieve management goal
 - Highest harvest at start of season
 - Higher release mortality because of warmer water temperatures
- Current season in place since 1971 to avoid interaction with egg-bearing crabs
- Stone crabs spawning earlier
- Spiny lobster season ends March 31; must remove traps by April 10

Proposed final rules

- End season on April 15 
- Extend trap removal period to 10 days 



As with all management decisions, there are a variety of things to consider about this proposal. Shifting the stone crab season earlier to compensate for modifying the end of the season would be contrary to the goals of reducing harvest and release mortality, because harvest pressure is highest at the beginning of the season and warmer water temperatures at the end of the summer would result in higher release mortality.

The current stone crab season has been in place since 1971 and the original purpose was to avoid interactions with egg-bearing female stone crabs. However, egg-bearing female crabs are being found earlier in the year now and the current season is no longer achieving that purpose.

Staff has heard concerns from some industry members about the potential difficulty of removing lobster and stone crab traps simultaneously if the stone crab season end date is moved to April 9. Lobster harvesters have 10 days after the season ends on March 31 to have their traps removed from the water; however, lobsters found in traps after the season ends cannot be harvested. Prior to the 2018/2019 season, lobster harvesters only had 5 days after the season to remove their traps from the water. At industry request, the Commission extended the spiny lobster post-season trap removal period to 10 days to allow more flexibility for the harvesters, especially in cases of poor weather. Stone crab harvesters are currently only allowed five days after the season to remove their traps from the water.

Considering the management approach and goals for this fishery along with the public comment received to date, the proposed final rules would shorten the stone crab season by ending it on April 15 (update from draft rule hearing) and would extend the trap removal period from 5 to 10 days (new since draft rule hearing).

Require Escape Rings

Goal: Reduce mortality of undersized crabs and other bycatch

May 2020 draft rule proposal

- Require an escape ring in all traps by 2023/2024 season

Recent feedback

- Continued support from commercial industry
 - Many using voluntarily
 - Report improved efficiency
 - Some concern about cost
- Mixed feedback from recreational harvesters



Proposed final rule: Require a 2 ³/₁₆" escape ring in all plastic and wood stone crab traps by 2023/2024 season



To reduce mortality of undersized crabs caught in traps and bycatch of other species, the May draft rule proposal included requiring an escape ring that is at least 2 ³/₁₆" in diameter in all plastic and wood stone crab traps by the start of the 2023/2024 season (escape rings are already required in wire stone crab traps). FWRI research concluded that a single 2 ³/₁₆" escape ring in plastic stone crab traps was effective at allowing the escape of undersized stone crabs and other bycatch without significantly compromising the catch of crabs with legal-size claws. Escape rings are simple and cost-effective devices (\$1-3 each) that can be installed in existing traps.

This proposal continues to receive support from commercial harvesters, many of whom already use escape rings voluntarily and have reported improved efficiency in their operations with no reduction in legal catch. Commercial harvesters also support allowing three years to install escape rings in existing traps. Since the draft rule hearing, there has been increased concern about the cost of installing escape rings in existing traps, especially in consideration of reported economic losses associated with COVID-19. There have been multiple requests for a grant or subsidy program to alleviate the cost of adding escape rings to existing traps.

Staff has received mixed feedback on escape rings from recreational harvesters, with most of the opposition related to concerns about potential effort and expense associated with installing rings in their existing traps.

The proposed final rule would require a 2 ³/₁₆" escape ring in all plastic and wood stone crab traps by the 2023/2024 stone crab season.

Increase Minimum Claw Size

Goal: Increase spawning potential and protect portion of crabs from harvest for an additional season

May 2020 draft rule proposal

- Increase minimum claw size by $\frac{1}{8}$ " , to $2\frac{7}{8}$ "

Recent feedback

- General support from commercial harvesters
 - Continued concern about reduced harvest of medium-grade claws
- Recreational feedback mixed



Photo courtesy of William R. Tipton, Jr.

In order to increase spawning potential and protect a portion of crabs from harvest for an additional season, the May draft rule included increasing the minimum claw size limit by $\frac{1}{8}$ " , from $2\frac{3}{4}$ " to $2\frac{7}{8}$ ".

Based on the feedback received, the commercial industry is generally supportive of this proposal. Staff has continued to hear concerns about reduced harvest of medium claws and the potential short-term economic impacts related to this proposal.

Feedback from recreational harvesters was mixed and varied by region. Of those recreational harvesters who opposed the size limit increase, many believe the size increase would eliminate a large portion of their individual catch.

Increase Minimum Claw Size (Continued)

Considerations

- Current claw size limit established in 1973
- Expected to have short-term reduction in harvest of medium claws
- Harvest of medium claws higher later in season; varies regionally
- $\frac{1}{8}$ " increase suggested by industry as compromise
- May protect a portion of mature crabs from harvest for an additional season

Proposed final rule: Increase minimum claw size limit by $\frac{1}{8}$ " to $2\frac{7}{8}$ "



The current minimum size limit was established in 1973 and was intended to allow females to spawn for at least two seasons before they entered the fishery.

Although the proposed size limit increase is expected to reduce harvest of medium-grade claws, that reduction is expected to be short-term with the fishery adjusting within a couple years as crabs grow larger. Harvest of medium-grade claws is generally higher later in the season but varies regionally, so the potential harvest reduction may affect areas differently.

When staff first began discussing the potential management changes with industry, the initial proposal included increasing the minimum claw size limit by $\frac{1}{4}$ ", from $2\frac{3}{4}$ " to 3". Staff received significant opposition to the $\frac{1}{4}$ " claw size increase from the commercial industry and the current $\frac{1}{8}$ " increase was suggested by industry participants as a compromise that they could support. Although the $\frac{1}{8}$ " increase is not expected to have as much benefit as a $\frac{1}{4}$ " increase, this proposal is expected to protect a portion of mature crabs from harvest for an additional season, allowing them additional time to spawn and increasing the spawning potential of the stock.

The proposed final rule would increase the minimum claw size by $\frac{1}{8}$ ", from $2\frac{3}{4}$ " to $2\frac{7}{8}$ ".

Limit Possession of Whole Crabs

Goal: Reduce release mortality

May 2020 draft rule proposal

- Limit possession of whole crabs on the water to 2 checker boxes, each up to 3' x 2' x 2' or 12 cubic ft.

Recent feedback

- Broad support from commercial harvesters
- Some opposition from harvesters in SW Florida
- Some requests to allow up to 6 checker boxes



To reduce release mortality, the May draft rule proposal limited possession of whole crabs onboard a vessel to two checker boxes with a maximum size of 3' x 2' x 2', or 12 cubic feet.

Temporarily holding live stone crabs onboard a vessel at sea is allowed as long as the crabs are kept in shaded containers and wet with seawater every 30 minutes. There is currently no limit on the amount of whole stone crabs that can be possessed or how long they can be held. Commercial stone crab traps are typically fished in lines of 50-100 traps and are pulled by crew members while the vessel is underway at idle speed. When a trap is brought on deck, crabs with claws that are close to the size limit may be placed in checker boxes on deck until claws can be measured for compliance with the regulations. This proposal is intended to reduce the amount of time crabs are out of the water, thereby reducing mortality, while still allowing a harvester to pull a line of traps and set aside a portion of the crabs in their traps that may be close to the size limit to be measured.

While there has been broad support from the commercial industry for this proposal, there is some opposition from a small portion of commercial harvesters, primarily from southwest Florida. These harvesters report that in order to comply with this proposal they would need to bring additional crew and have requested up to 6 checker boxes be allowed. Recently, staff has also received feedback from a few industry participants that would like to prohibit the use of checker boxes in the future.

Limit Possession of Whole Crabs (Continued)

Considerations

- Temporary possession of whole crabs allowed since 1985
- Most harvesters only keep crabs until they finish working a line of traps
 - Some harvesters hold for much longer
- Using checker boxes reported to increase efficiency
- Checker box size informed by industry
- Consider phasing out in future
- Not expected to impact recreational fishery

Proposed final rule: Limit possession of whole stone on the water to 2 checker boxes



The allowance to temporarily possess whole stone crabs was implemented in 1985. While the majority of harvesters measure and remove legal claws at the end of each trap line, some hold whole crabs onboard for several hours or until they begin returning to shore. A crab's chance of survival is dramatically reduced the longer it is held onboard because of increased stress and injuries from crushing and fighting with other crabs.

Most harvesters report that using a small number of checker boxes allows them to work their traps more efficiently and the proposed checker box size was informed by current practices in the commercial fishery. However, there have been recent requests to eliminate the use of checker boxes. Although staff is not recommending it today, the Commission may wish to consider prohibiting possession of whole stone crabs in the future.

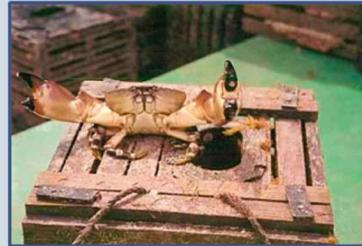
Because recreational harvesters are only allowed two gallons of stone crab claws per vessel per day, this proposal is not expected to affect current recreational fishery practices.

The proposed final rule would limit possession of whole stone crabs on the water to no more than two checker boxes, each up to 3' x 2' x 2' or 12 cubic feet.

Proposed Final Rules

- *Move end of stone crab season from May 15 to April 15* 
- *Extend the post-season trap removal period from 5 to 10 days* 
- *Require a 2 ³/₁₆" escape ring in all plastic and wood stone crab traps by 2023/2024 season*
- *Increase minimum claw size by 1/₈" to 2 ⁷/₈"*
- *Limit possession of whole stone crabs on the water to 2 checker boxes, each up to 3' x 2' x 2' or 12 cubic ft.*

Changes apply to commercial and recreational harvesters



Based on public input, staff updated the proposal presented in May for the final public hearing. Updates to the proposal are indicated on the slide.

The proposed final rules would modify 68B-13, FAC, to shorten the stone crab season by moving the end of the season from May 15 to April 15; require a 2 ³/₁₆" escape ring in all plastic and wood stone crab traps by the 2023/2024 season; increase the minimum claw size by 1/₈" to 2 ⁷/₈"; and limit the possession of whole stone crabs on the water to two checker boxes, each up to 3' x 2' x 2' or 12 cubic feet in volume. These final rules would apply to both commercial and recreational harvesters.

Final Considerations

Long-term declining trend in commercial landings

- Likely undergoing overfishing



Changes needed to improve stone crab stock and fishery

- Some regulations in place since 1970s
- Proposals developed in coordination with industry
 - Some opposition to magnitude of proposed changes
 - Final rules updated based on public feedback
- Combination of changes will have largest positive benefit

Proposed rule package a significant step in improving the fishery

- Stock assessment expected within 3 years
- Consider additional rule changes if needed in future



There are several things to consider related to potential management changes for this fishery. As mentioned earlier in the presentation, commercial landings show a long-term declining trend and, based on previous FWC stock assessments, this fishery likely undergoing overfishing under current regulations.

Based on all available information, including commercial landings and stone crab biology, changes are needed to improve the stone crab stock and the fishery. Some regulations, such as the stone crab season and minimum claw size, have been in place since the 1970s and are no longer achieving the intended goal of the regulation. The stone crab industry has recognized that changes are needed and this proposal was developed in coordination with industry, although the magnitude of staff's proposed changes has been perceived by some industry participants as too restrictive. The final rule proposal has been modified from the approved draft rule proposal to incorporate public feedback since the draft rule hearing.

Staff believes that implementing this combination of proposed management changes is a necessary step toward improving the fishery now. Staff recognizes that these changes could have an effect on the economics of the fishery, but these changes are being proposed as a long-term investment in the fishery's future. A new stock assessment is expected within three years that will develop and use new bioeconomic models to evaluate management strategies to promote stock resiliency and improve the economic outlook of the fishery. Based on the results of the updated assessment, additional management changes could be considered in the future if needed.

Staff Recommendation

Approve proposed final rules to improve stone crab population and build resiliency in the fishery

- Modify stone crab season to end April 15 instead of May 15 
- Extend post-season trap removal period from 5 to 10 days 
- Require a 2 ³/₁₆" escape ring in all plastic and wood stone crab traps by 2023/2024 season
- Increase minimum claw size limit by ¹/₈" to 2 ⁷/₈"
- Limit possession of whole stone crabs to 2 checker boxes

Make rules effective Oct. 1, 2020; advertise changes to the proposed rules via a Notice of Change



Staff recommends approving the proposed final rules to improve the stone crab population and build resiliency in the fishery. Specifically, staff recommends shortening the stone crab season to end on April 15 instead of May 15 (update from the approved draft rule); extending the post-season stone crab trap retrieval period from 5 days to 10 days (new since the draft rule hearing); requiring a 2 ³/₁₆" escape ring in all plastic and wood stone crab traps by the 2023/2024 season; increasing the minimum claw size limit by ¹/₈" to 2 ⁷/₈"; and limiting the possession of whole stone crabs to two checker boxes. This combination of proposed final rules is expected to provide a positive benefit to the stone crab population with limited economic impacts to the fishery. These proposed final rules would apply to the commercial and recreational fisheries.

If approved and directed, staff recommends making the rules effective October 1, 2020. Staff would advertise the changes to the approved draft rules via a Notice of Change.

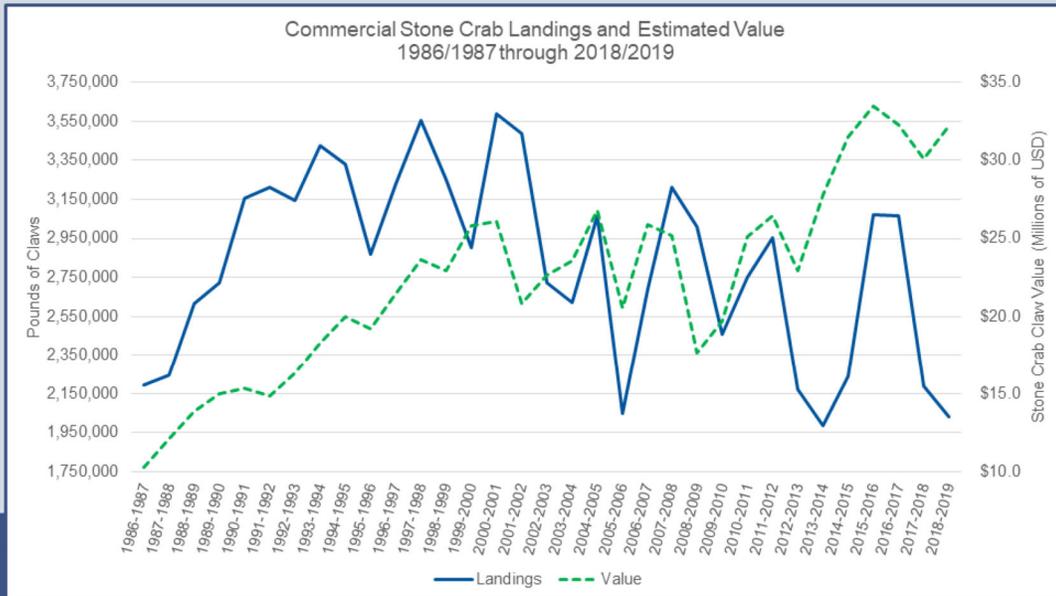
Staff has evaluated the proposed final rules under 68-1.004, FAC, and found them to be in compliance.

The following slides are considered backup material and are not anticipated to be part of the actual presentation



Commercial Landings Trend

- Commercial landings cyclical, declining trend since 2000



Although commercial stone crab landings (blue, solid line) are cyclical with regular high and low landing years, the landings show a long-term decline in average annual stone crab harvest since 2000. Increasing market price (green, dotted line) for stone crab claws has masked the declining landings and has helped offset the increased costs associated with harvesting from a declining population.

Current Regulations

- Season: Oct. 15 to May 15
- Minimum size limit: 2 ¾" claw
- Harvest of egg-bearing females prohibited

Recreational

- Bag limit: 1 gallon of claws per person or 2 gallons per vessel
- Gear: traps, dip or landing net

Commercial

- Bag limit: none
- Gear: traps
 - Live crabs not immediately returned to water must be kept damp in shaded "checker boxes"



Management Options Considered

Management changes proposed for public feedback

- Shorten season
- Require escape rings in all traps
- Increase minimum claw size
- Limit possession of whole crabs

Additional options considered but not proposed

- Prohibit removing 2 claws
- Allow purchase of partial trap certificate allotment
- Modify trap reduction program
- Reduce trap certificates



Proposals would apply to commercial and recreational fisheries

Staff considered a variety of management options when developing the rule proposal. The initial proposal that staff sought feedback on included a combination of management changes expected to have a high conservation benefit with minimal negative impacts to the fishery. This initial proposal included shortening the stone crab season, requiring escape rings on all stone crab traps within three years, increasing the minimum claw size, and limiting the possession of whole stone crabs while on the water.

Several other management options were also considered, but are not being proposed at this time. These additional options included prohibiting the harvest of both claws from a stone crab, allowing commercial stone crab harvesters to purchase a portion of their trap certificate allotment each year, modifications to the trap reduction program, and a one-time reduction in the total number of trap certificates available to the fishery.

The proposed management changes presented on the following slides would apply to both the commercial and recreational stone crab fisheries.