

# Regulatory Amendment 37 – Decision Tool Instructions

## Commercial Decision Tool

*This Decision Tool was created to analyze spawning season closure alternatives for Regulatory Amendment 37 to the Snapper Grouper Fishery Management Plan. The amendment aims to reduce the discarding of black sea bass in the South Atlantic Region. The tool was created to review temporal closures, to determine their impacts on the magnitude of landings and season duration for the commercial sector. The tool incorporates commercial sector level landings data by month for the South Atlantic. The tool allows users to compare average landings rates with different variance levels to represent increased effort in response to changing management measures.*

### **1) Select one or multiple months to implement a temporal (spawning season) closure.**

- You can either use the drop down boxes in **Row 11** to select the number of days each month you want to close, or type the number into the box directly.
- Unlike the appendix document, this tool allows you to look at the impact of closing multiple months, including months not currently evaluated in the alternatives proposed in Action 4 of Regulatory Amendment 37.
- After a selection is made, this will zero out the landings in the table, indicating that landings are no longer expected during that month.

### **2) Select the year range used for the landings projections (3 or 5 year average)**

- Pick either a 3 year or 5 year landings average to populate the table showing the landings values in the table in the middle of the tool (**Row 14**).
- Three landings values are presented, the average, the average +1 standard error, and the average +2 standard errors. These help show variance in the landings values. Only variance higher than the average is shown, as there may be increased effort or landings after a period of fishing closure.

## **Results**

- By changing the selections described above, the workbook will automatically update the results in the bottom half of the decision tool. For each landings scenario, an approximate closure date and number of available fishing days is listed.
- The figure shows the landings values from the table in gray, light blue and dark blue, to match the color shading in the landings tables and closure boxes.
- The horizontal lines represent the current 5 year average landings (red dotted line) that was used to calculate the proposed ACT (50% of the 5 year average landings - black dashed line).
- The intersection of the landings lines with a horizontal line will show the approximate date / month the fishery would close, based on the selections made.

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## Recreational Decision Tool

*This Decision Tool was created to analyze bag limit, size limit, and spawning season closure alternatives for Regulatory Amendment 37 to the Snapper Grouper Fishery Management Plan. The amendment aims to reduce the discarding of black sea bass in the South Atlantic Region. The tool was created to review management measures that reduce per person harvest limits, reduce discarding by allowing smaller fish to be harvested, and explore temporal closures to determine their impacts on the magnitude of landings and season duration for the recreational sector. The tool incorporates recreational sector level landings data by month for the South Atlantic. The tool allows users to compare average landing rates with different variance levels to represent increased effort in response to changes in management measures.*

### **1) Select one or multiple months to implement a temporal (spawning season) closure.**

- You can either use the drop down in **Row 11** to select the number of days each month you want to close, or type the number into the box directly.
- Unlike the appendix document, this tool allows you to look at the impact of closing multiple months, including months not currently evaluated in the alternatives proposed in Action 4 of Regulatory Amendment 37.
- After a selection is made, this will zero out the landings in the table, indicating that landings are no longer expected during that month.

### **2) Select the year range used for the landings projections (3 or 5 year average)**

- Pick either a 3 year or 5 year landings average to populate the table showing the landings values in the table in the middle of the tool (**Row 14**).
- Three landings values are presented, the average, the average +1 standard error, and the average +2 standard errors. These help show variance in the landings values. Only variance higher than the average is shown, as there may be increased effort or landings after a period of fishing closure/

### **3) Select one of the bag limit alternatives**

- Pick one of the five bag limit alternatives proposed (**Row 16**).
- You can either select the number of fish per person or type in the number of fish allowed for the alternative
- You cannot enter a number other than those proposed in the regulatory amendment.
- Lower bag limit alternatives will result in a **reduction** in the catch rate.

### **4) Select one of the size limit alternatives**

- Pick one of the 3 size limit alternatives proposed (**Row 18**)
- You can either select the size of fish or type in the number associated with the minimum size limit for the alternative
- You cannot enter a number other than those proposed in the regulatory amendment
- Lower size limit alternatives will results in an **increase** in the catch rate.

## **Results**

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- By changing the selections described above, the workbook will automatically update the results in the bottom half of the decision tool. For each landings scenario, an approximate closure date and number of available fishing days is listed.
- The figure shows the landings values from the table in gray, light blue and dark blue, to match the color shading in the landings tables and closure boxes.
- The horizontal lines represent the current 5 year average landings (red dotted line) that was used to calculate the proposed ACT (50% of the 5 year average landings - black dashed line).
- The intersection of the landings lines with a horizontal line will show the approximate date / month the fishery would close, based on the selections made.
- The recreational decision tool gives you the ability to combine the temporal spawning closure alternatives with the bag and size limit alternatives proposed (the combination of all three management action is not available in the appendix at this time).