

A quick start to exploring strip closure options in the Turtle Group region

GFS is provided with data from the Turtle Group region that you can use to explore strip closure options. As GFS is a flexible tool, there are a number of ways you can approach this task. What follows is a suggested path for exploring closure options. As you become more familiar with GFS, you may develop your own procedure, or even use your own data for other regions. Consult the GFS User's Manual or the on-line help for full details of how to use the features described below.

Important

GFS does not incorporate all of the factors necessary to assess a strip closure and should not be regarded as a closure assessment tool. Rather, it is a tool for viewing data relevant to fisheries management, and can be used to display some of the differences between closure options.

Step 1

Use PrawnEd to develop a basic understanding of the fishery, including which species are most important, life history details, and meteorological information. In particular, examine the distribution of effort through time and keep this in mind when viewing data from GFS Analyses. See the User's manual for help on using PrawnEd.

Step 2

Start GFS. Choose Open Project from the File menu and select *TurtleG.prj* from the project list in the Samples subdirectory of the GFS home directory.

Step 3

Click the Analyses tab to view a list of available analyses. Choose the *Turtle Group Species Composition* analysis and click the Open button. The Thematic Analysis dialog will appear.

Step 4

Click the Add Closure button. A map zoomed to the Turtle Group region will appear. Use the scroll bars and/or the Display menu and/or the Zoom Tool to set the map view that you require. Use your mouse to draw a closure on the map. You need to draw a polygon (not just a line). Double click or press Escape to finish drawing the closure. To draw another closure, choose *Turtle Group Species Composition* from the Window menu to return to the Thematic Analysis dialog and click Add Closure again. You can add as many closure options as you like.

Step 5

Choose *Turtle Group Species Composition* from the Window menu to return to the Thematic Analysis dialog. Click the Closure Graph button. The map will reappear with a graph showing a comparison of prawn densities inside and outside each closure option. The options will be labelled sequentially in the order they were created. The Time Control and the Legend will also appear on the screen. Move these to appropriate positions by grabbing their title bars. The Legend can also be resized.

Step 6

Click Play on the Time Control to run the display through time. The comparison of closure options will change with time. If a bar remains at zero, it is likely that there were no sampling sites within the area you have defined for that closure. You can stop the analysis by clicking the Stop button, and change the rate at which the analysis proceeds through time by clicking the Rate buttons. You can repeat the analysis by clicking on the date display in the Time Control and changing it to the beginning of the data set (in this case, January 1993), and then clicking Play again.

Step 7

The above analysis compares prawn densities inside and outside closure options. You can also look at species and size composition. Choose *Turtle Group Species Composition* from the Window menu (you must close the closure graph to access the menus). Click the Show Data button. The map will appear with the Legend and the Time Control. Click the Play button on the Time Control. This will display data through time. Data appears in the form of coloured circles. The colour of the circle indicates the dominant data group (species), while the size of the circle shows the relative density of prawns at each site. Sites that were not sampled on a particular date will appear as an X. At any time you can double click on a circle to display a graph (the Thematic Object Details dialog) of the complete species composition at that site. You can also double click on the closure line to display a comparison of species composition inside and outside the closure. Explore these options.

Step 8

Repeat the above procedure using one of the size analyses (eg *Brown Tiger Prawn Size*). This will give you a better appreciation of the size distribution of prawns through the Turtle Group region in relation to closure options. Repeat for other species.