

First TUFMAN Training Workshop (TTW-1)
3-7 December 2012
SPC, Noumea, New Caledonia

Session 9.0
Mapping with TUFMAN
-
Exercises

Exercise 1 – Using TUFMAN mapping module

In this exercise, you will be asked to generate a map from TUFMAN, update it in Mapinfo, then export it into a Word document

Step 1: setting TUFMAN map parameters

You are asked to map

- the purse seine catch in metric tons for the 3 main tuna species
- for vessel belonging to the national fleet
- for 2011
- aggregated by Year and quarter (4 maps)
- aggregated by 1 degree square

The 4 maps should show an embedded legend, in order to be able to export it into the word document

The title of each map should be “Purse Seine tuna catch (in metric tons) for 2011”

Step 2: exporting maps (Mapinfo)

Once in Mapinfo, each maps should be exported a JPEGs in order to be able to import them from your Word document

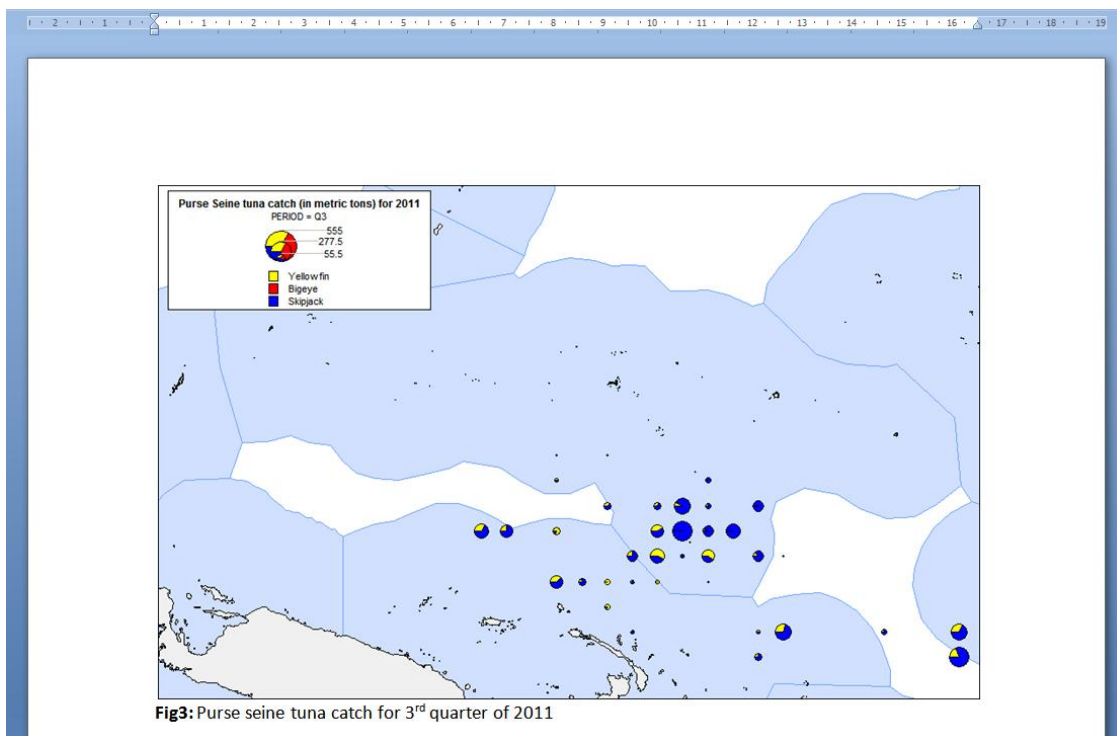
Select each map after each other and save them as JPEG

Hint: File menu -> save window as..

Step 3: importing maps in MsWORD

Create a new Word document and import the 4 Maps (JPEGs), with a small text line below describing each map.

Hint: Insert tab -> Picture



Exercise 2 – Mapping from an EXCEL file

In this exercise, you will be asked to generate a map from an excel file, and customize it in Mapinfo. Most of the required tasks are further explained into part 6 of the reference document.

You will be here required to map the yellowfin catch of “CN VESSEL 32593” (longline) during its trip running from the 8th of June 2007 to the 19th of June 2007.

Step 1: TUFMAN Excel file generation

At TUFMAN level, you will have to create your excel file running the following report:

- Catch and Effort report #8: “**Vessel trip catch by species and set**”

Select the required parameters (gear, vessel, trip), then click on “*RUN and OPEN in EXCEL*”

Step 2: Creating decimal positions in EXCEL

In excel:

- insert 2 columns, LATD & LOND after the last one.
- Grab the formulae to convert geographic latitude (Lat) to decimal latitude (latd). Same for the longitude.

Note that you can either find the formulae in the main reference document, or copy and paste from the sample file:

\\172.19.4.11\studentshare\Examples\Decimal_Lat_and_Lon_formulae.xls

- **Lond** =ABS(IF(RIGHT(<LONGITUDE CELL>,1)="E",0,360)-(LEFT(<LONGITUDE CELL>,3)+MID(<LONGITUDE CELL>,4,2)/60))
- **Latd** =IF(RIGHT(<LATITUDE CELL>,1)="N",1,-1)*(LEFT(<LATITUDE CELL>,2)+MID(<LATITUDE CELL>,3,2)/60)

Please ensure that the formulae refer to the right lat & lon cells

- Save the updated excel file in one of your folders

Step 3: Importing the Excel file in Mapinfo


- Open Mapinfo and import (*File menu -> open*, then indicate to Mapinfo the structure of the EXCEL map file – as described in reference document)
- Create points for the Excel file: indicate which column represent the positions (latd/lond) (*Table menu -> Create Points*)
- Display the map showing the points (*Windows menu -> New Map Window option*)

Step 4: Mapinfo: add coast lines and EEZ layers

- Add the following new layers : dma_reg_lt_green, EZPAC_Lightgrey (*File-> Open*)

Note that these layers are available from

\\172.19.4.11\studentshare\Examples\Mapinfo_Main_Layers

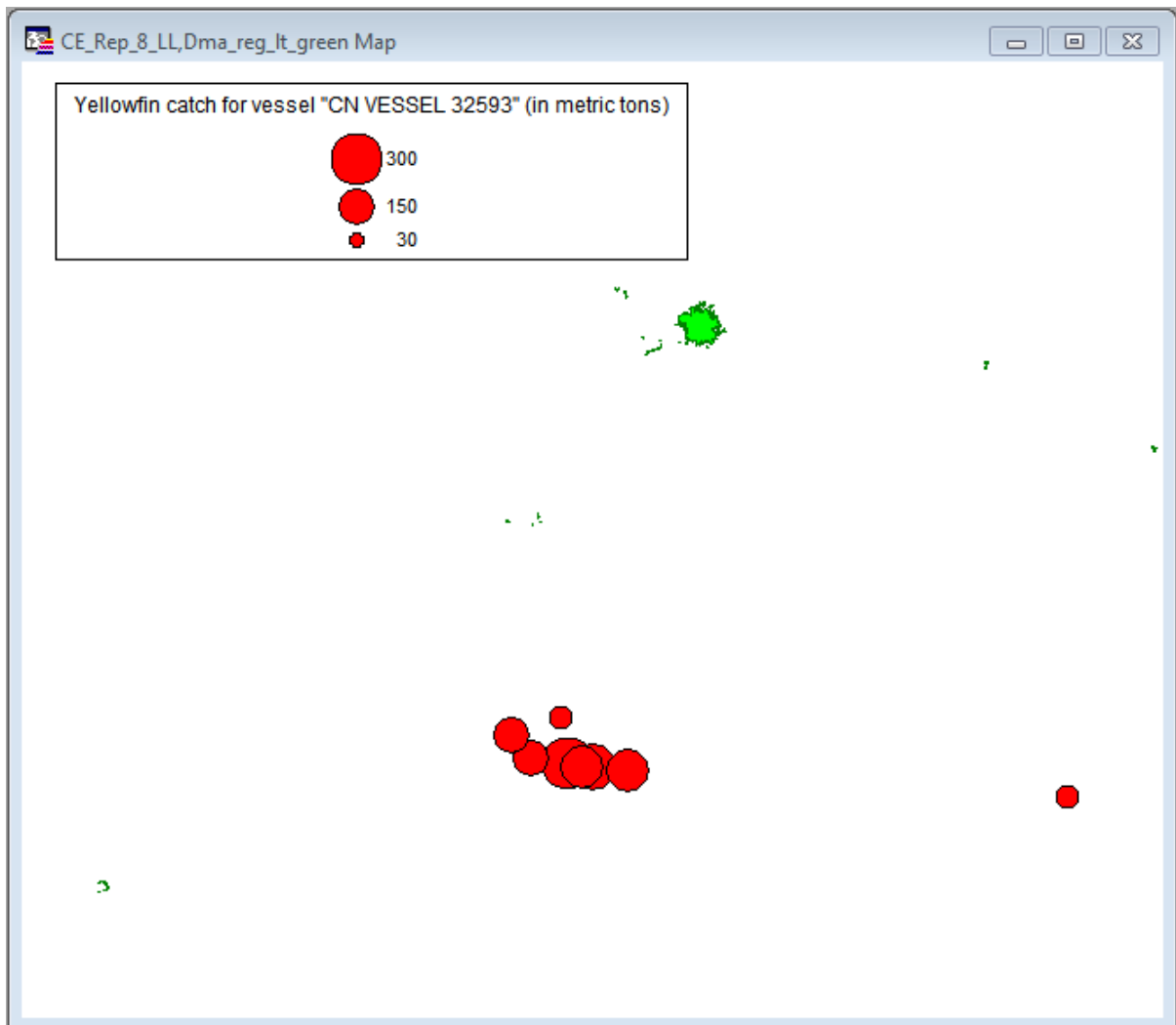
- Use the zoom out  button in the main floating toolbar to extend the view and see some of the coast lines

Step 5: Mapinfo: Create thematic map (simple circles)


- Follow the steps described in the reference document to create a **thematic map** (*Map menu -> Create Thematic map*):
 - Choose “Graduated”
 - Choose the yellowfin catch field: YFT_MT

Step 4: Embedding the legend into the map

- Run the Legend.mbx program and create your embedded legend (*File-> Run Mapbasic program, then Tools->Legend Manager -> Create embedded legend*).
- Double click on the circles of the external legend (not the embedded one) to edit its title (*Legend button -> Title*) : “Yellowfin catch for vessel “CN VESSEL 32593” (in metric tons)”



Step 6 (optional) : Create thematic map (pies)

- Follow the steps described in the reference document to create a **thematic map** (*Map menu -> Create Thematic map*):
 - Choose “Pie charts”
 - Choose YFT_MT and BET_MT
- Click on the layer control button  in the main floating toolbar. Select precedent thematic mapping layer and click on remove. This should remove it from the map.
- Double click on the pies in the legend to edit it
- Change the title (*legend button*)

- Click on Style button, and update the “Pie dimensions” with the following: Diameter 0.4 for a sum of 1000. Your pies should have a more viewable dimension.

