

Project CROOS

Lab - to-Liaison Protocol

On-line Version: 25 September 2007

Downloading GPS units & Checking Waypoints

Objective 1: to save the GPS data, labeling it with the fisherman's last name and the day's date (the date of the day you are downloading the data). This will be saved as two file types 1. as a Garmin File, and 2) as a text file. Save this data in the folder labeled with the date you will be sending the data into the laboratory.

Objective 2: to check sample quality, and check that sample envelopes can be matched to waypoints recorded in GPS data

1. Count the number of envelopes turned in by the fishermen. Check for sample quality, completeness of data, and that waypoint numbers were written on all envelopes.
2. Turn on computer
3. Double-click the MapSource icon on desktop to open GPS software to open the software. Wait for it to open
 - a popup window "Locked Maps Detected" might show up. If so, place the arrow over the screen-button "Skip" and hit enter
4. Plug USB cable into computer and then to GPS unit (look under the black plastic flap on back of GPS).
 - If a popup window says "Found New Hardware", select "Yes" (usually middle option), then "Next", and "Finish"
5. Turn GPS on.
6. Make sure you are starting with a blank file in the MapSource GPS software. If you already have a file open it will overwrite the data for the file you have open. If you have a file open, start a new file by going to "File" and select "New"
7. Find button that says "Transfer" - this is located on the menu bar at the top of the MapSource window
8. Use arrow to highlight button that says "Receive from Device"
 - a. hit enter
 - b. Make sure the computer has identified the GPS. If not, make sure the GPS is turned on and then click "Find device."
9. Make sure all boxes are checked before you transfer data. Put arrow over "Receive" and hit enter
 - a. If you get an error message, check that the GPS is turned on
 - b. The data should download from the GPS and the GPS will turn itself off when it has finished
 - c. Unplug GPS and cable and set aside
10. When computer indicates transfer is finished click on "ok"
 - a. You can select one of four tabs in the software. To check waypoints, move the arrow over the second tab, "Waypoints".
 - b. Check for whether the number of waypoints matches the number of samples you received
 - c. If not, check if more than one fish was recorded with the same waypoint

11. Next you will save the file you just downloaded, first as a Garmin file (the automatic file format, and then as a text file. Microsoft Excel can't read a Garmin file, which is why the data needs to be saved two different ways.

- Go to “**File**”
- “**Save as**”
- Click on the “Desktop” icon to find your folder (if it is on your desktop)
- **Open the CROOS_Data folder** (highlight it and double-click)
- Inside the CROOS_Data folder, **open the folder labeled with the date you will be sending samples to the laboratory**
- Name the file you will be saving:
In the popup window “File Name:” **type the last name of fishermen and today's date**, (it automatically saves it as a ‘.gdb’)
- Press “Save”
This saves the file as a Garmin .gdb file

Next you will save the same file, but this time you will save it as a **text file** instead of the Garmin file.

- Go to “**File**”
- “**Save as**”
- In the “Save as Type:” drop-down menu select “**Text (Tab-delimited)**”. This will place a .txt in the file's name.
- Press “**Save**”

To check your work, open the folder (on the desktop) that you just saved the samples to. You should see the two files that you just saved. One should have the extension **.gdb**, and one should have the extension **.txt**

You won't see both files if you open the folder while in the Garmin program – you must open the file from your desktop

Example: You should have two files:

Miller052507.gdb
Miller052507.txt

After you have checked that both files are in the Folder you just saved to, close the Garmin Software. You are now ready to clear the GPS tracks and waypoints from the fishermen's GPS unit and restock the fishermen's kits.

Delete all waypoints and track logs:

- Turn the GPS unit on
- Hit “Page” button to get to Trip Computer screen
- Press the “Menu” button
- Select “Reset”, press “Enter”
- Move arrow to highlight the following boxes, pressing “Enter” for these 3
 - “Clear Track Log”
 - “Delete Saved Tracks”
 - “Delete all Waypoints”
- Use arrow to move to box that says “Apply” and press “Enter”
- Move arrow to highlight “OK” and press “Enter”

The GPS unit is ready for the next trip

If you want to check and make sure the waypoints are deleted:

- Press the ‘Find’ button
- Select ‘Waypoint’ and press ‘Enter’
- The GPS should say ‘None Found’. If there are still waypoints present, repeat the steps above

Restock Fishermens At-sea collection kit

Inside each tacklebox there should be:

- ~ 65 Envelopes (20 per day, 3 days of sampling per fishermen)
- ~ 75 zip-ties
- 2 scissors
- 2 tweezers
- 1 measuring tape
- 2 pencils
- 1 GPS
- 4 batteries
- ~ 10 rubber-bands

You are now ready to take the next fisherman’s GPS unit, re-open MapSource and repeat the process.

Converting Fishermen's GPS .txt file to Excel File & Data Entry

1. Open file "Liaison_Macro.xls" (on your desktop)

Popup window may show up – select "Enable Macro" to allow the macro to run

Once Excel is open:

From the Excel program, go to "**File**" (top left side of toolbar)

- "**Open**"

- Navigate to the folder that holds the file you want to open. Double click the folder to open it (the .txt file won't show up until the next step)

- **At bottom of drop-down menu "Files of type" select "all files"**

the .txt file should now be visible - if it is not showing up, be sure you checked "select all files"

- Select the fisherman's text file that you want to open

- Select "**Open**"

In next Popup window, make sure "**Delimited**" is checked

- "**Finish**"

The text file will be open in the Excel program

Now you are ready to run the Macro

2. Press the "Control" and then "z" button simultaneously (be sure to press control first). Tap it only once - if you tap it twice, the Macro will run twice!

This sorts the data and makes columns for data entry

3. Now the file needs to be saved as a Microsoft Excel File

- Go to "**File**" (top left side of toolbar)

- "**Save as**"

- In bottom of popup window "**Save as type:**" select "**Microsoft Excel**"

- **Click on 'Save'**

This saves the file with all the formatting changes as an Excel file.

This file should automatically save in the same folder as the txt file. It should have the same name but a different extension (.txt is a text file, .xls is an excel file).

Data Entry:

Go to far-left column and type the last name of the fishermen in the first open cell (Cell A2)


- After you've typed in the name, press enter
- Move the arrow on the screen over the far right hand bottom part of the cell you just typed the fishermen's name in. When you see the arrow change into a small cross, double click to fill in all the cells in this column with the person's name

Go to the Barcode_ID column

- Arrange all your envelopes so they are in the same order as the waypoints
 - Scan first envelope. Make sure the waypoint written on the envelope matches the waypoint for the barcode you just scanned in
 - Press the down arrow on your keyboard
 - Scan the next barcode
- Repeat until finished

If there is an extra waypoint, either type in "extra" in the "Barcode_ID" column (where you would be scanning the barcode) or delete the entire row

To delete the entire row

- Move your arrow to the far left cell of the row you want to delete (to the left of their name)
- When your arrow changes to looks like this: 
- Press the left-mouse button (or left keypad button) to highlight the entire row
- On the top toolbar, go to "Edit" (to the right of "File" on the top toolbar) and select "Delete"
 - o If you delete the wrong column go back to "Edit" and select "Undo Delete"

Save your work again by going to **File, Save** (it should already be an Excel file format from when you saved it before)

Enter data for all the envelopes.

DOUBLE CHECK:

Waypoints match the Barcode Number

Data entered for the envelope matches the barcode

Data Entry Codes & Fractions to Decimals

Convert Fractions to Decimals for all numbers

Fractions to Decimals: $\frac{1}{4} = 0.25$ $\frac{1}{2} = 0.5$ $\frac{3}{4} = .75$

- Depth_Capt
- Fork Length
- Hatch_Marks
 - o 0 = No Mark,
 - o 1 = Ad Clip (Adipose Fin Clip)
 - o 2 = Vent Clip (Ventral Fin Clip)
 - o 3 = Dye-Mark
 - o 5 = Other (pit-tag or something else not on this list- type the tag type in the notes section
 - o 9 = NO DATA

- Notes (white salmon, anything else noted by the fishermen)
- Temp (ignore for now)

Save your work again.


Close the file

Place the Sample Envelopes that you just entered in the “ready to send to the laboratory” box.

Done with those samples!

If you are ready to mail your samples to the laboratory, proceed to page 10 for instructions on how to copy your data folder to the USB, move this data folder into the “Backup” folder, and make a new folder with the NEXT date you will be sending samples to the laboratory.

Troubleshooting data entry in Excel:

1. **If one waypoint has more than one fish assigned to it:**
 - a. Move your arrow to the far left cell of the row you want to copy (to the left of their name)
 - b. When your arrow changes to look like this: 
 - c. Press the left-mouse button (or left keypad button) to highlight the entire row
 - d. With your cursor over the highlighted row, right click once
 - e. Click on 'Copy'
 - f. Highlight the row below the one you are copying (steps a. through c.)
 - g. With cursor over the highlighted row, right click once
 - h. Click on 'Paste'
 - i. If you need to make more repeat the steps.
2. **If you accidentally enter two barcodes in one cell:**
 - a. Highlight the cell with the two barcodes
 - b. On your keyboard press 'Backspace'
 - c. Re-enter the barcodes
3. **If the envelope time doesn't match the GPS waypoint time:**
 - a. Check the envelope before and after and see if they match the waypoint times
 - b. Check the lat and long (if the fisherman wrote them down on the envelope) to see if they match
 - c. If it is within a few minutes, it is fine
 - d. Remember to tell the fisherman to write the time from the GPS waypoint on his envelope, not the time from his clock
4. **If the GPS was not cleared and he has a lot of extra waypoints:**
 - a. In the excel file you can highlight the rows with the extra waypoints, right click once, and click 'Delete'
 - b. If you don't feel comfortable deleting, enter 'extra' in the barcode ID space and leave a note in the notes column that says it was a previous trip that wasn't cleared on the GPS
5. **If there is CWT information on the envelope:**
 - a. Enter the CWT number in the notes column for that fish
6. **If you make a mistake, or delete something you didn't want to:**
 - a. Don't panic
 - b. Go to 'Edit' in the menu and click on 'Undo'

Instructions on how to copy a Folder to USB Drive

- Open the CROOS_Data folder so you can see the Folder with the data you are going to be copying
- Highlight the folder you want to copy
 - o Go to “File” (on the top toolbar)
 - Select “Copy”
- Put the USB Drive in your computer
- Open the USB Drive Folder so the window comes up on the computer screen (you may need to shrink the window so you can see the Croos_Data Folder window and the USB window)
 - o Go to “File”
 - Select Paste

The folder should appear in the window of the USB drive

Now you are ready to eject the USB drive and send the samples to the laboratory

Instructions to eject the USB drive

- Move your screen-arrow to the right-hand side of the lower toolbar and place it the safely eject USB icon (this icon has a green arrow facing to the left)
- Click the left-mouse button (or keypad button)
- A popup window will show up with “Safely Remove Hardware and select “Stop”
- Select the “USB drive” on the list of drives
- Select OK

Some computers are different – highlight the eject USB drive icon, left-click the icon, highlight the USB drive you want to eject and click

Instructions on how to move a folder into the Backup Section

- After you have copied the folder you just copied to the USB, you are ready to move this folder to the backup folder.
- In the window with the Croos_Data folder, highlight the folder you want to move to the backup folder.
- Drag this folder into the “Backup” folder
- It should disappear from the CROOS_Data window.
- Make a new folder for samples you will be receiving (you may have already done this step)
 - o Label this folder as the next date you will send data to the laboratory
- Don’t put any data in the “Backup” folder unless it has been sent to the laboratory

Place USB in the box with the samples that you are sending to the laboratory.

Port	Port Liaison Contact Information	Hours
Garibaldi		
Newport		
Winchester Bay		
Coos Bay / Charleston		
Port Orford		
Brookings		

Role	Name	
Fleet Liaison		
OSC Administrator		
OSC / Oregon Sea Grant		
CROOS Science Coordinator/Data Analyst		