

How to digitize survey routes:

1. CREATE A NEW SHAPEFILE FOR STORING YOUR TRACK ROUTES:
 - a. Open ArcCatalog and navigate to the folder where you want your survey route shapefile to be saved (for Lolo folks, it's
T:\FS\NFS\Lolo\Program\2600Wildlife\GIS\WildlifeData\WinterCarnivoreSurveys)
 - b. Right click in the view box on the right and click New-> Shapefile
 - c. Give it a name (e.g. 2011_WinterCarnivoreSurveyRoutes), and under Feature Type select Polyline
 - d. In the Description box click Edit, which will open up a box with Spatial Reference Properties
 - e. Click Select
 - f. Double click Projected Coordinate Systems
 - g. Double click State Plane
 - h. Double click NAD 83 (NOT NAD 83(Feet))
 - i. Select NAD 1983 StatePlane Montana FIPS 2500.prj
 - j. Click Okay a few times, until you're back at the ArcCatalog window
2. GET SET UP TO ADD YOUR TRACK ROUTES IN ARCMAP:
 - a. Open ArcMap and bring in whatever background data you need to show roads/trails that you have surveyed, as well as any other reference data you need (for Lolo folks, open WildlifeBaseMap.mxd in T:\FS\NFS\Lolo\Program\2600Wildlife\GIS\Maps, then Save As a new .mxd in
T:\FS\NFS\Lolo\Program\2600Wildlife\GIS\WildlifeData\WinterCarnivoreSurveys called (year)_WinterCarnivoreSurveys
 - b. Zoom in to the general area where your surveys began
 - c. Set the scale to 1:24,000 (in the standard toolbar, there should be a scale box and 1:24000 is one of the dropdown options); readjust your view if needed to capture all or at least a good part of your survey route in the view
 - d. Click the Add Data button and navigate to the shapefile you just created in step 1 above
 - e. Open ArcToolbox and select Data Management Tools, then Fields, then Add Field
 - i. Under Input Table select the shapefile that you created and just added in (e.g. 2011_WinterCarnivoreSurveyRoutes)
 - ii. Under Field Name type in SurveyID
 - iii. Field Type select TEXT
 - iv. Leave the rest of the boxes as is and hit OK
 - f. From the Editor Toolbar click Start Editing (Make sure you have the Editor tool bar turned on; if not, go to View->Toolbars and select Editor)
 - i. Scroll down to find the location of your shapefile and click Okay (if you get a message about spatial reference, go ahead and click okay)
3. START TRACING—AT LAST!

- a. Make sure the Editor toolbar is turned on (go to Customize, Toolbars, Editor)
 - b. From the editor toolbar, select Start Editing, and select the layer you want to edit
 - c. A Box will show up on the right of your screen that says Create Features; click the name of the layer you want to edit
 - d. Select the "Line" under Construction Tools
 - e. Zoom to the grid cell of interest:
 - i. Selection-> Select By Attributes
 - ii. Layer: FisherGrids_edit
 - iii. Enter your query: ID=(grid cell #), OK
 - iv. Selection-> Zoom to Selected Features
 - f. Move your mouse to the starting point of your track survey route; you should be seeing a cross
 - g. Single click to start drawing, and continue single-clicking along your route; when you're done with that route, double click your last point to end the tracing
 - h. Now right click on the shapefile in the Table of Contents and select Open Attribute Table
 - i. The line you just digitized will be highlighted in this table. Under SurveyID, enter the survey id information exactly as it appears on your datasheet (e.g. 1372_020711)
 - j. Close the Attribute Table, and repeat steps a-e for each survey route you need to enter
 - k. Go to Editor and Hit Save Edits after each grid cell you enter in!
4. WHAT IF I MESS UP?
- a. If you double click too soon and end the route, just go to the Attribute Table and right click the row in the table that corresponds to your goofup, and hit Delete Selected
 - b. If you mess up a route while you're digitizing it, go ahead and end it by double clicking, then deleting the row in the Attribute Table as described above
 - c. If your route runs off the screen, do not double click while digitizing, but go up and get the PAN tool (the little hand) and drag your map to show where you need to go, then pick up the Pencil tool and continue digitizing
5. SAVE YOUR WORK!
- a. After each survey route or so that you digitize in, go up to the Editor toolbar and click Save Edits
 - b. Once you've digitized in all of your survey routes, click Save Edits, and then Stop Editing under the Editor toolbar