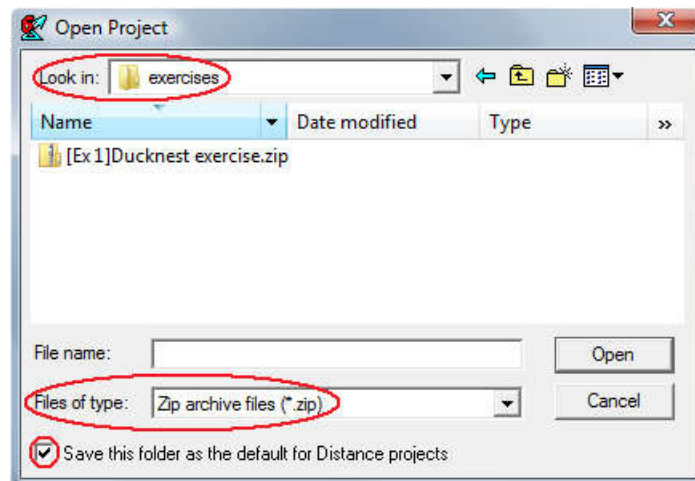


Introduction to Distance Sampling

Line transect estimation using Distance: Ducknests

GETTING STARTED ON THE COMPUTER

- Download and install the Distance software from distancesampling.org, if you have not already. Once you have installed it, run Distance.
- Back in your favourite web browser, download the workshop exercise projects from the Introduction to Distance Sampling workshop web site. The projects are archived as compressed (.zip) files. Copy the directory containing the compressed Distance workshop projects to the My Distance Projects folder under My Documents, or to a location of your choice (to make it easier to find for subsequent exercises).
- We are going to work with a project called “Ducknest exercise”. It contains the same data you previously analysed by hand. Back in the Distance software, select **File** followed by **Open project**. Under “**Files of type**” choose **Zip archive files (*.zip)**.
- Next to “**Look in:**”, browse for the exercises directory (or wherever you have saved the exercises). **Note:** Distance includes some sample projects. The Sample Projects folder is the default folder Distance opens when instructed to open a new project, and contains a different duck nest data set, so make sure that you are looking in the right place!
- You can change the default folder to one of your choice by checking the box next to “Save this folder as the default for Distance projects”. If you do this, the next time you open a project, Distance will look in the folder you specified – containing all the exercises relevant to this workshop. The Sample Projects folder will still exist in Distance, and you may want to look at those projects at a later date.

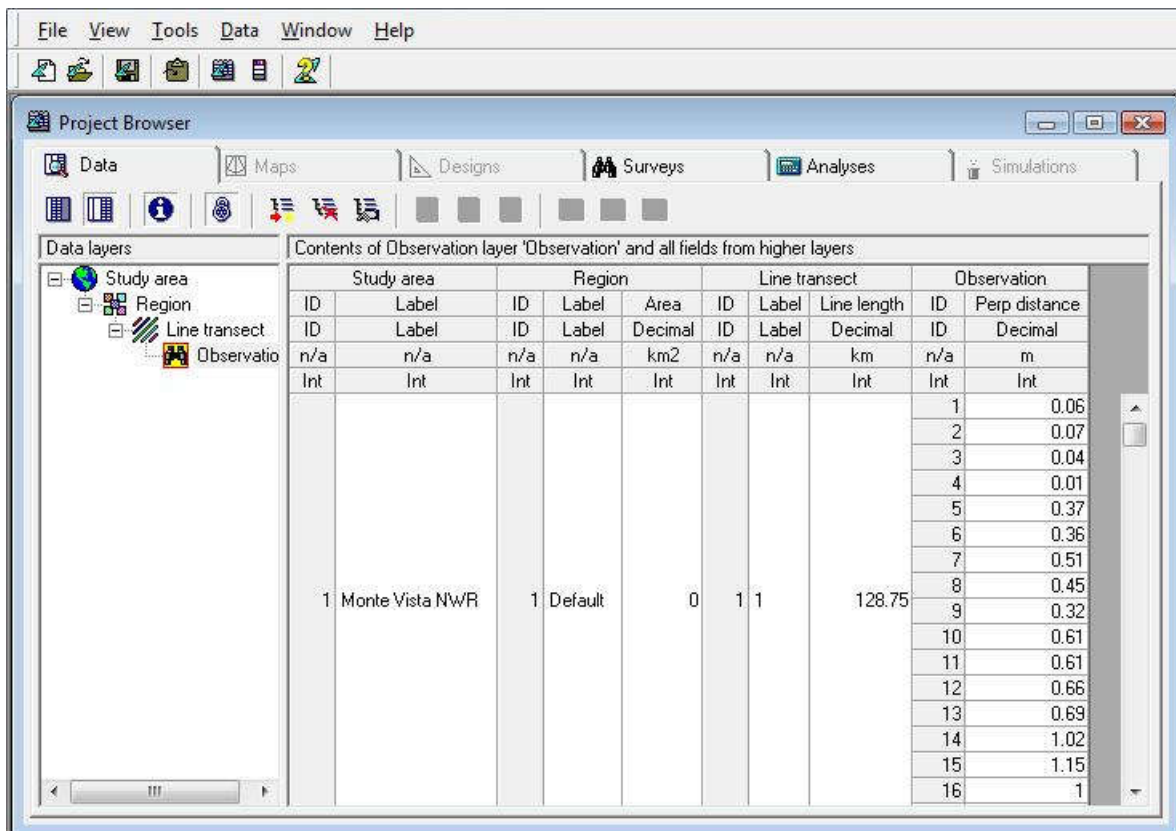


- Double click on **Ducknest exercise.zip**. Click **OK** to unpack the project into the current directory and open it. Next time you open the project, you can open the file *Ducknest exercise.dst* directly.

Examining the data

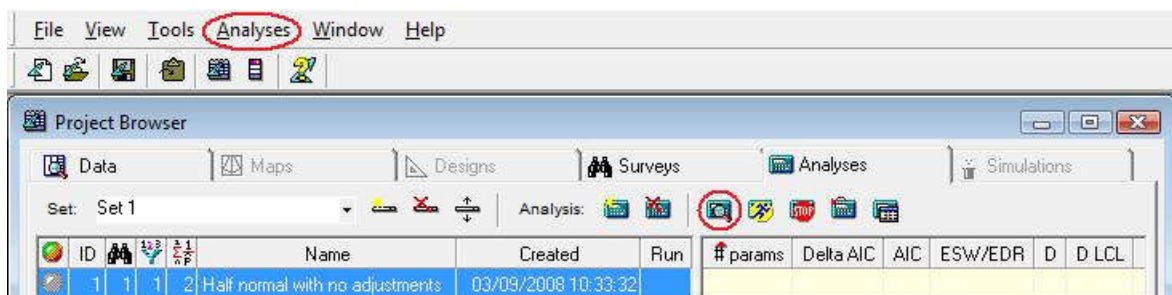
- Click on the **Data** tab of the **Project Browser** to show the **Data Explorer**. Look at the data structure, and in particular how the distance data have been entered. (You will need to click

on **Observation** in the left hand pane of the Data Explorer to see this.)



Studying the first analysis

- Now click on the **Analysis** tab of the **Project Browser** to show the **Analysis Browser**. You should see one analysis listed, called “Half-normal no adjustments.” Double-click on the grey status button for this analysis to open the **Analysis Inputs** tab for this analysis (you can do the same thing by clicking the 3rd button after “Analysis:” on the Analysis Browser menu bar, or by choosing **Analyses** then **Analysis Details...** from the menu bar at the top).



- A grey status icon indicates that this analysis has yet to be run. Click on the **Run** button in order to run the analysis. The **Results** tab should turn green.
- Click on the **Results** tab to see the results, and use the **Next >** button to move through the pages of results, looking at each page and trying to relate the analysis given here to the one you did by hand. (**Note:** These are the analysis details (Inputs/Log/Results) for one analysis – you can resize this window so that you can view details from multiple analyses when you have more than one analysis to compare).

File View Tools Analysis - Results Window Help

Project Browser

Data Maps Designs Surveys Analyses Simulations

Set: Set 1

ID	Name	Created	#params	Delta AIC	AIC	ESW/EDR	D	D LCL	D UCL	D CV	
1	Half normal with no adjustments	03/09/2008 10:33:32	29/0	1	0.00	928.14	2.09	49.697	44.203	55.873	0.059

Analysis 1: [Half normal with no adjustments] Set: [Set 1]

Estimation Options Listing

Parameter Estimation Specification

Encounter rate for all data combined
 Detection probability for all data combined
 Density for all data combined

Distances:

 Analysis based on exact distances
 Width: use largest measurement/last interval endpoint

Estimators:

 Estimator 1
 Key: Half-normal
 Adjustments - Function : None

Comments:

Inputs
Log
Results