Parametric nest distribution

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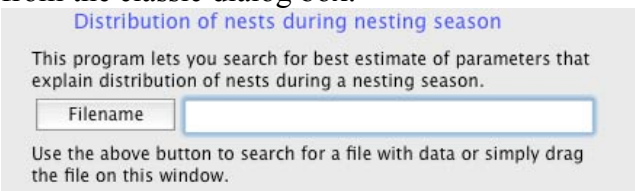
Open a file

To open a file, just drop it on the icon of pnd (the image icon is a Wayana painting – Amerindians from French Guiana).
Or drag and drop file onto a window of pnd software.
Or click on filename button from the File panel and choose the file you want to open from the classic dialog box.



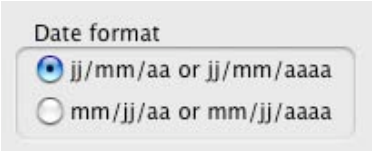
File format

Data are to be entered as text file such as :
Date1<tab>Number
Date2<tab>Number
Etc…

Example :

1/01/1987	11
2/01/1987	9
3/01/1987	10
4/01/1987	7
5/01/1987	7
6/01/1987	8
7/01/1987	17
8/01/1987	13
9/01/1987	13

From the first window you can choose to interpret date format as US or european format :



If the nest number is unknown for a particular date, or enter the date without number associated or simply remove the line. The software will complete the missing dates

Example :

Date	days	Obs number	Esti number	SD^2
9/08/87	220	0		
	221			
	222			
	223			
	224			
	225			
	226			
	227			
	228			
	229			
	230			
	231			
	232			
	233			
	234			
	235			
	236			
	237			
	238			
	239			
	240			
	241			
	242			
1/09/87	243	6		

Important :
The dates are converted to number of day with 0 being the first date of the time series. To perform interannual comparison, you must use an identical first date from year to year.
Then, or the first date of your file is your reference date or enter this date to the field First Date from the File Panel

If your file has been correctly read, the software displays you the Data panel.
Just check all the data are correctly entered.

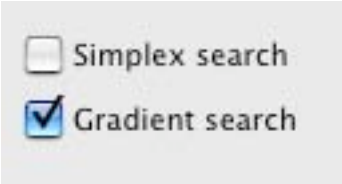
Model fit

Choose the Model panel. Various parameters values are indicated. If it is the first time you open a file (for example from excel spreadsheet, the program estimates a crude set of parameters).

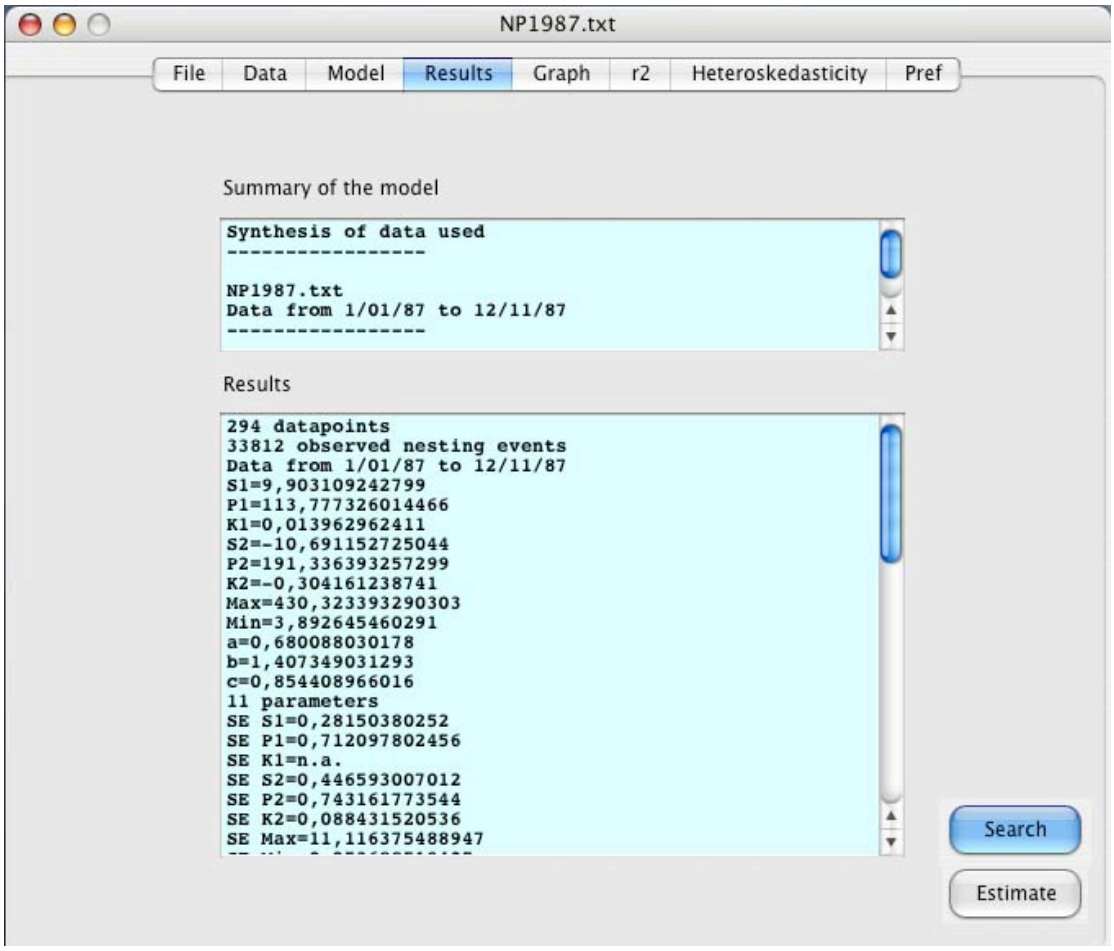
Uses the button Estimate to calculate likelihood using the current set of parameters and search to search for the best set of parameters that described your data.

Two search algorithms are avalaible :
Simplex search
Gradient search

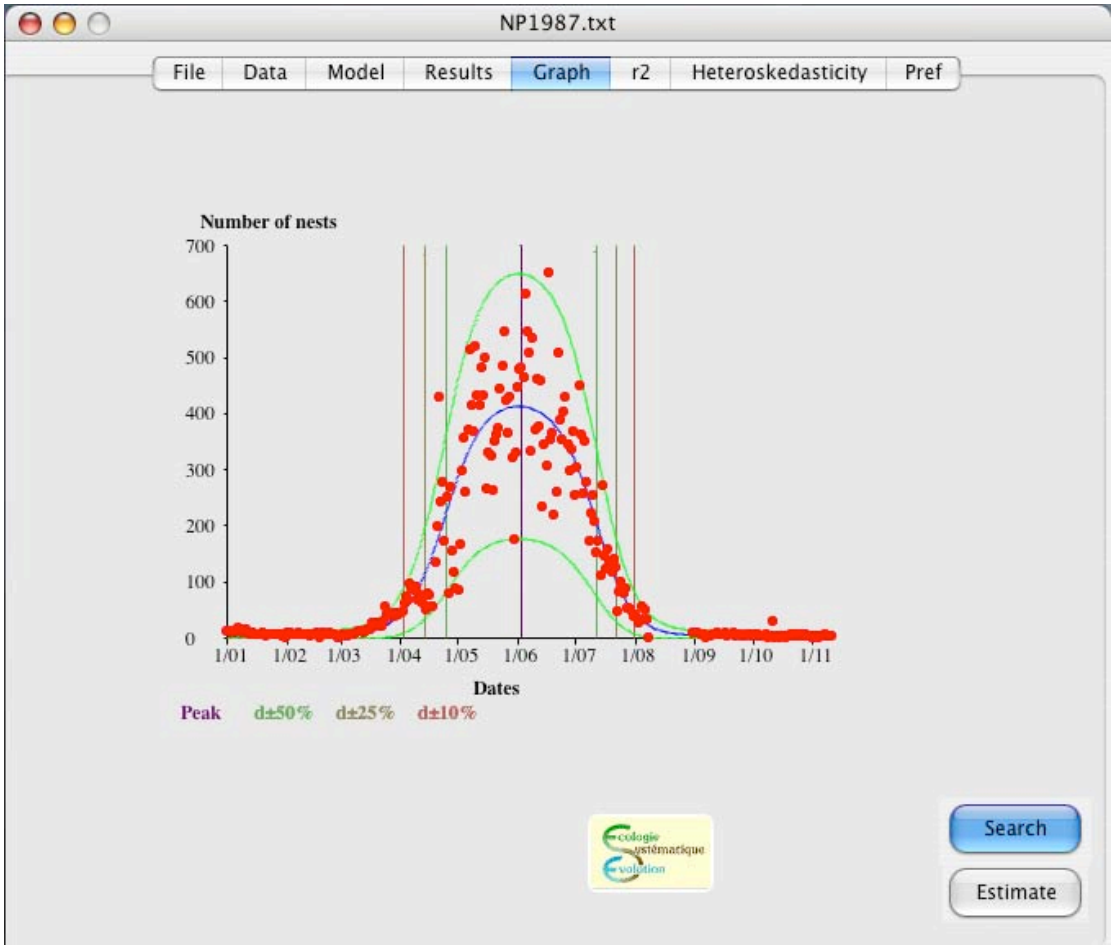
Always uses at least gradient search.



When finished the software shows you the best parametric description of nest counts along with various informations.



Graphical results are also shown.


NP1987.txt
File
Data
Model
Results
Graph
r2
Heteroskedasticity
Pref
Number of nests
700
600
500
400
300
200
100
0
1/01
1/02
1/03
1/04
1/05
1/06
1/07
1/08
1/09
1/10
1/11
Dates
Peak
d±50%
d±25%
d±10%
Search
Estimate