TreeDyn Hands on 1

The purpose of this first hands on TreeDyn is simply to show very simply current operations you are probably familiar with using an other tree manipulation program such as njplot for example.

In this document you will learn :

- How to open a newick file
- How to change the root of a tree
- How to swap clusters

- How to resize a tree

- How to search for leaves containing a series of characters
- How to label these leaves in a particular color
- How to label terminal branches of these leaves with a particular color

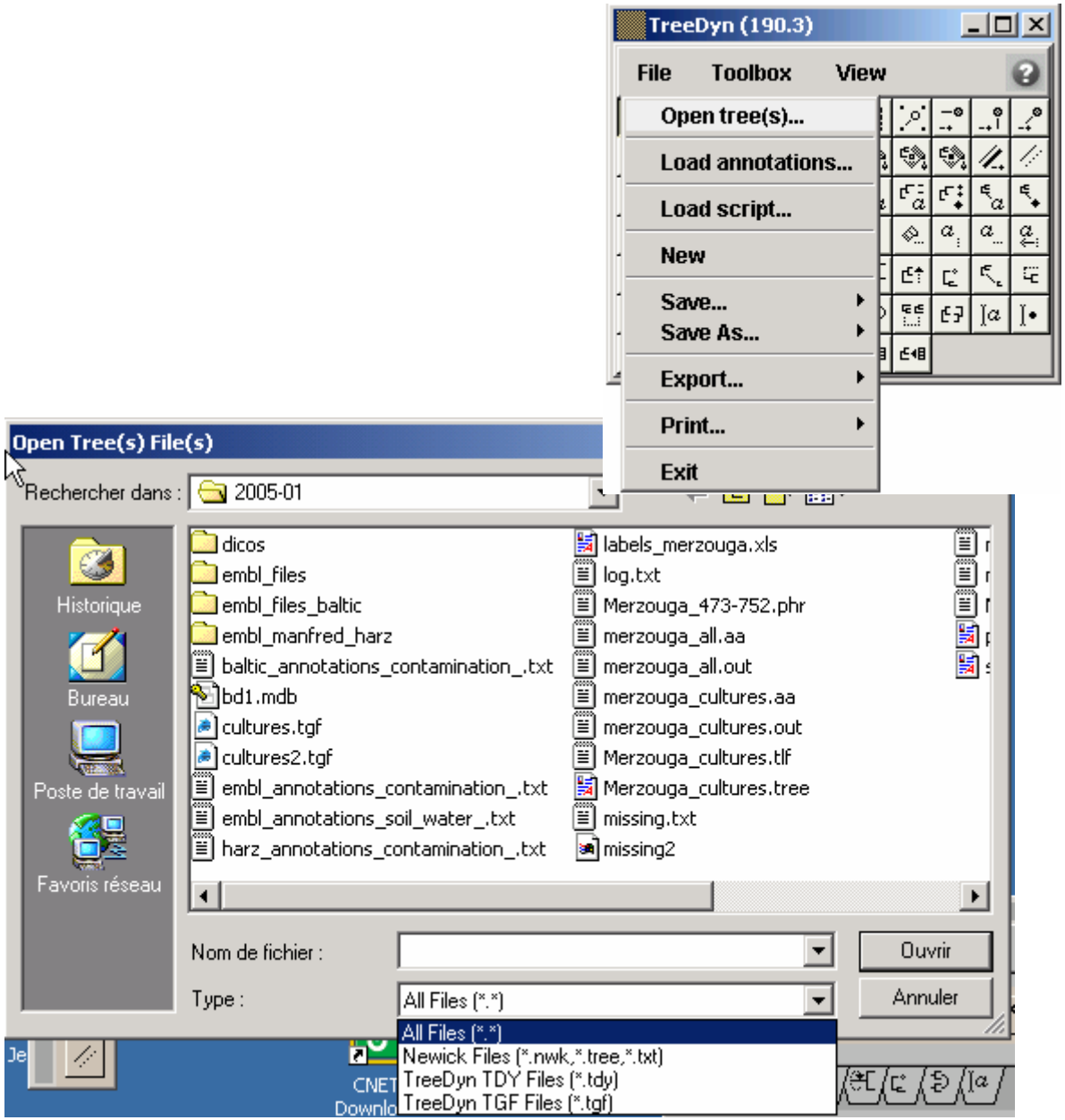
- How to save and print your work

Open a file, newick format

Drop down menu File
Choose Open

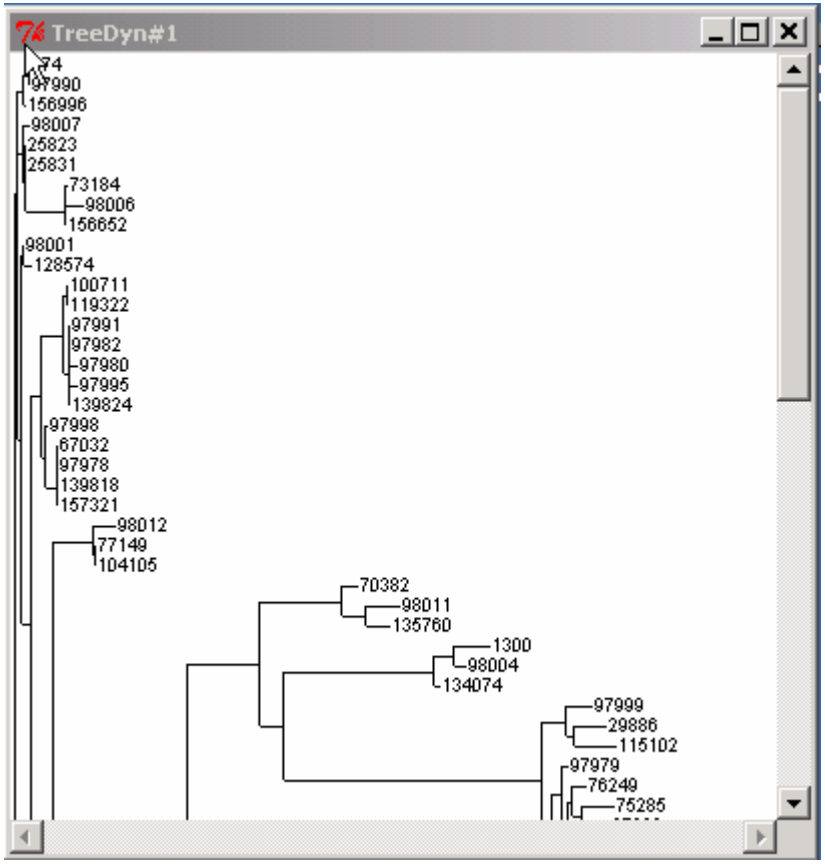
Select your file with the file selector

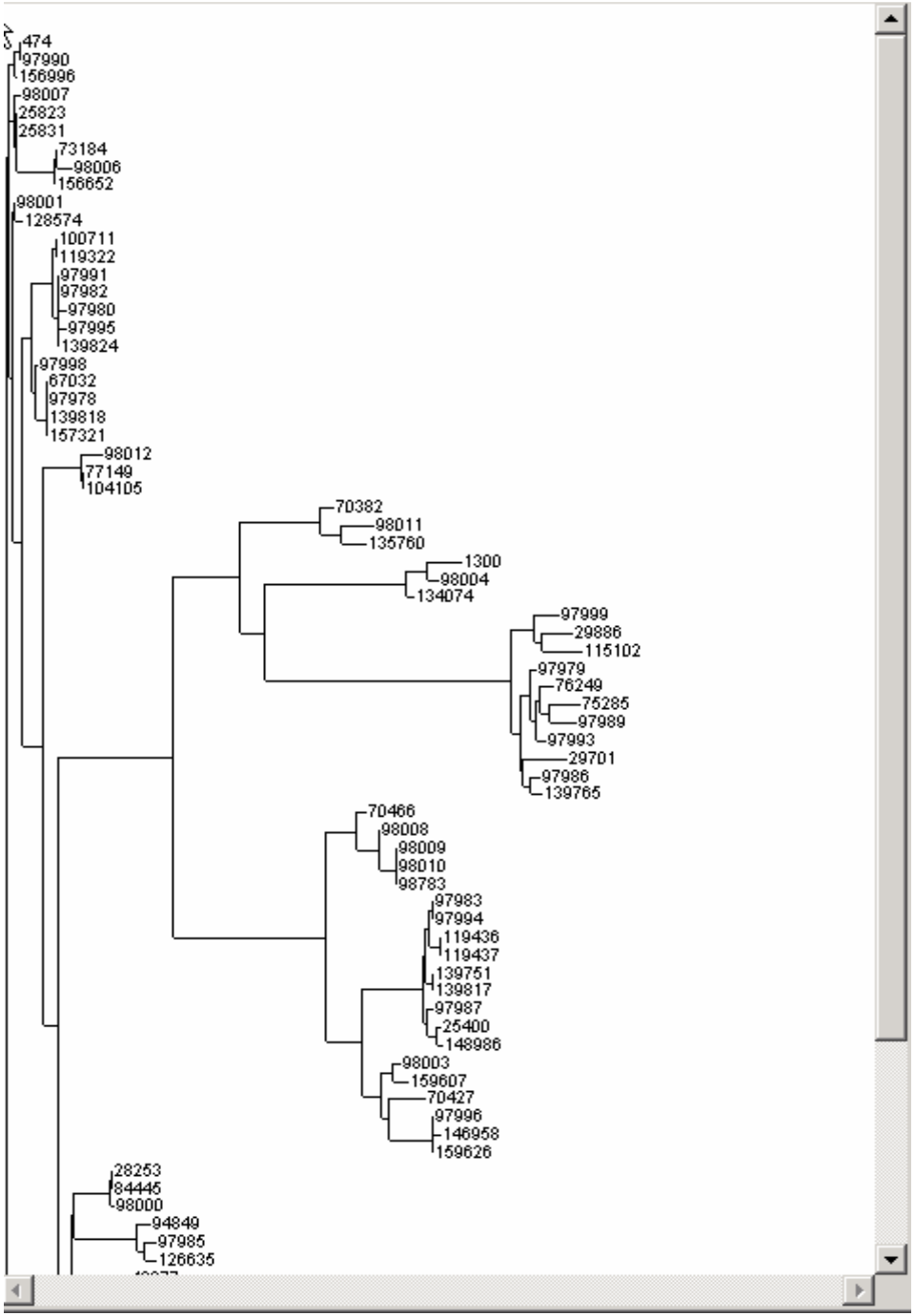
Clic on "Open" (ouvrir in french)



Resize the window to fit your needs

Treedyn automatically sizes the tree so that labels can be read (figure below).
You can first resize the window, as shown on the right

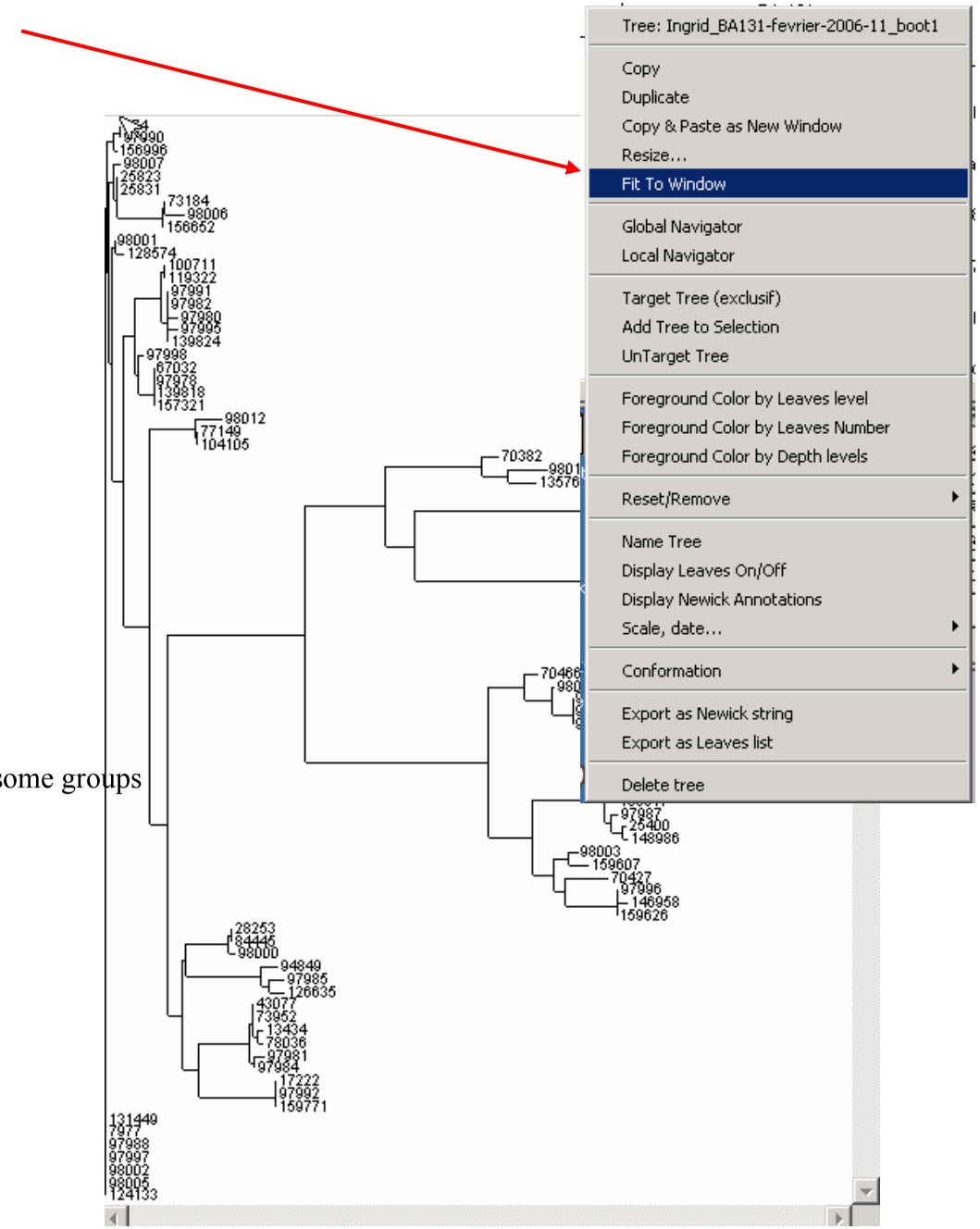




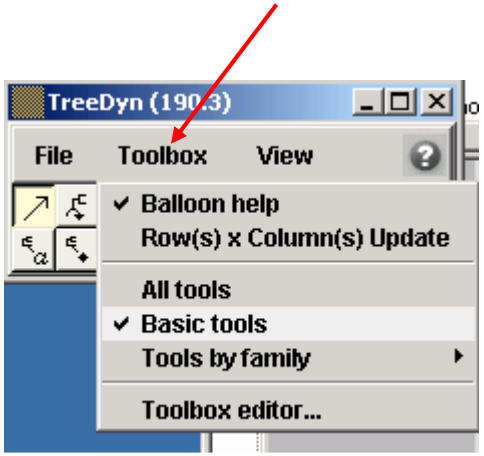
Fit tree to window

Next, right clic on the tree to open a dialog window
Choose Navigation, Fit to window
But see "note" next slide !

This produces the tree on the right.

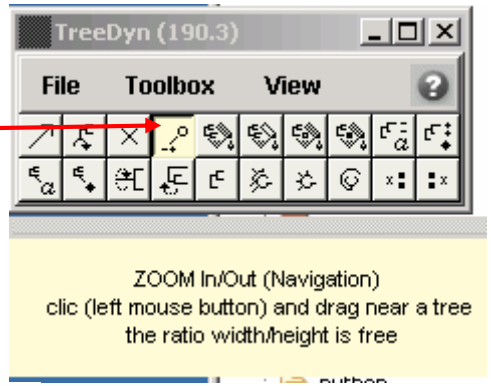


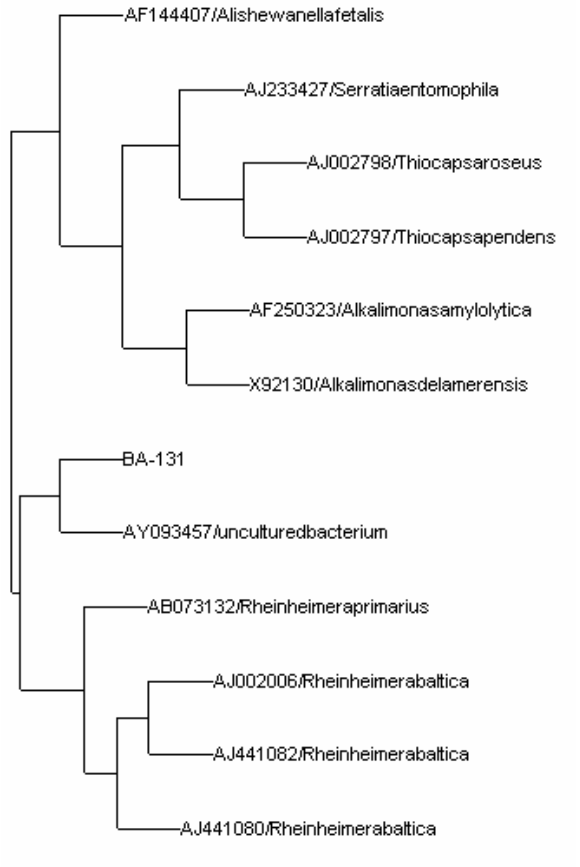
Now we want to choose a different root and swap some groups
First, choose the proper panel : the basic toolbox



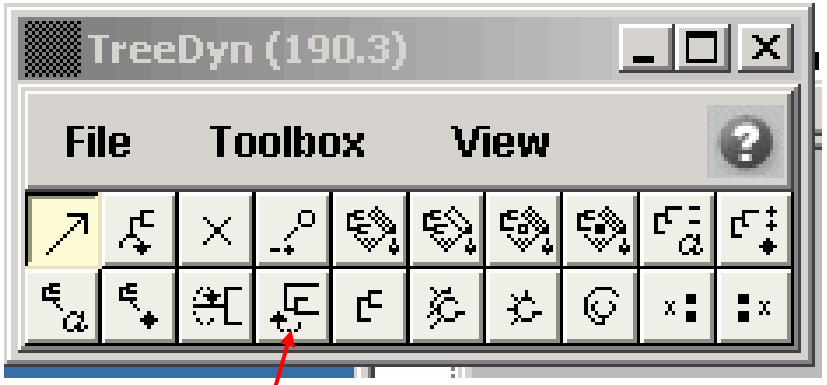
Resizing a tree

TreeDyn contains a series of tools for tree resizing.
The simplest is shown here
Example :

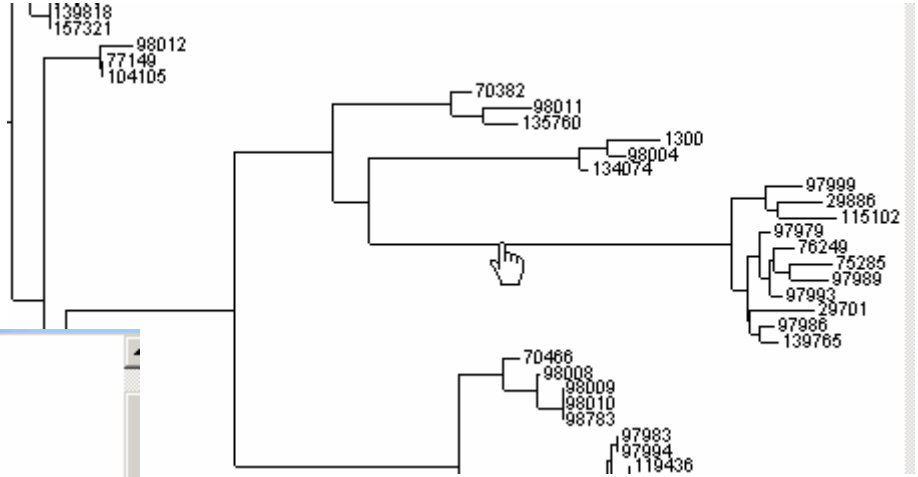


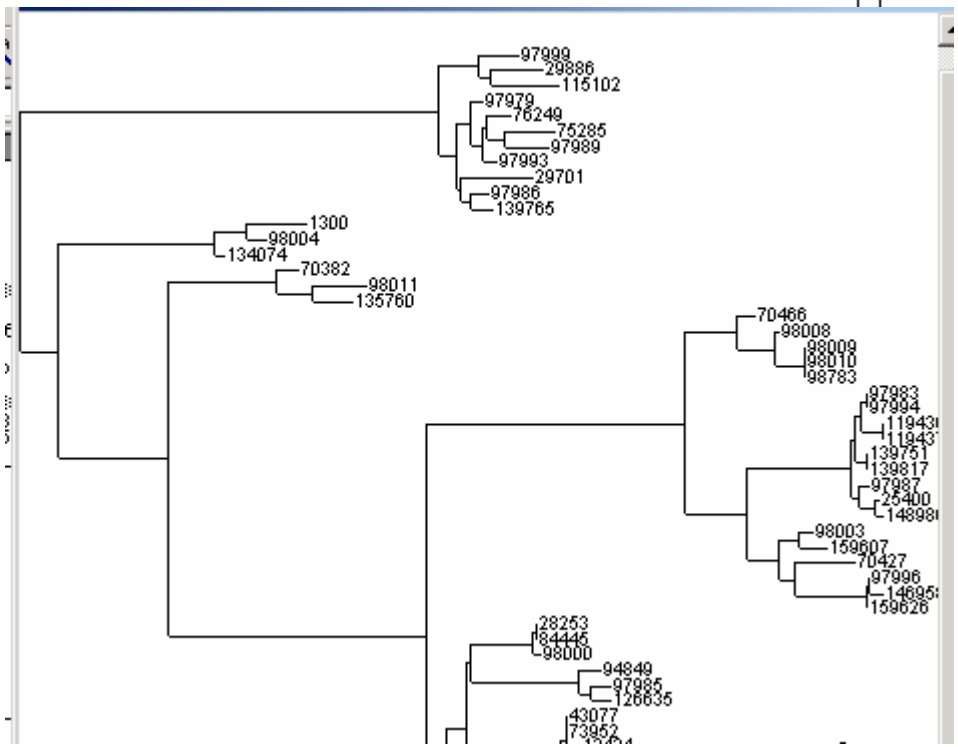


Next choose the tools to re-root



Select the branch leading to the outgroup chosen, the arrow turns into a hand, clic on the branch

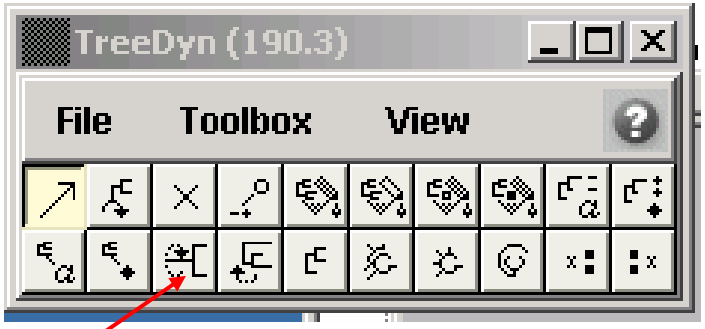




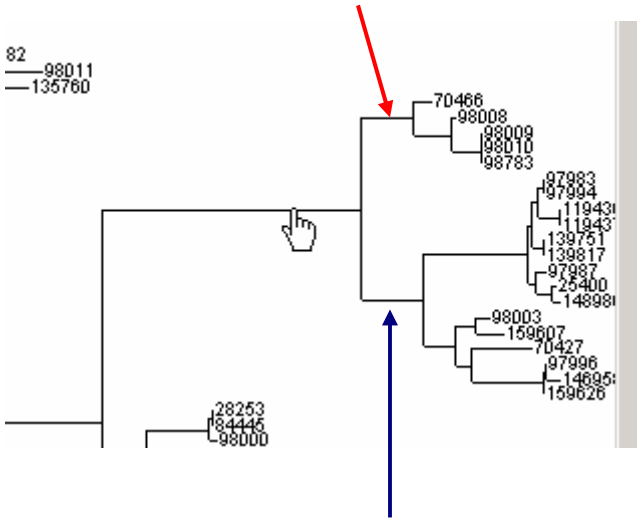
The root is now located in a different place.

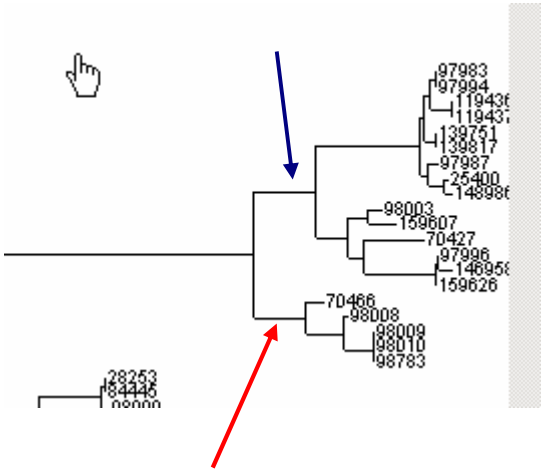
Lets swap two clusters

This time, we choose the this tool of panel



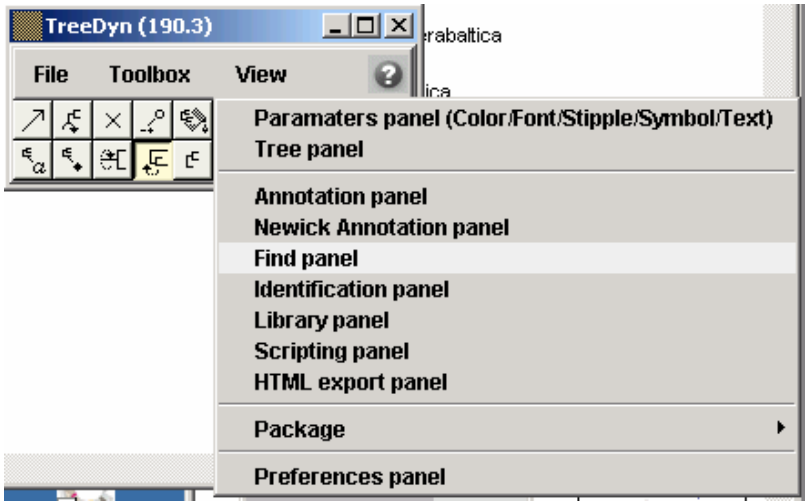
Select a particular internal branch
Clic on it, the two clusters defined by this internal branch are interchanged.

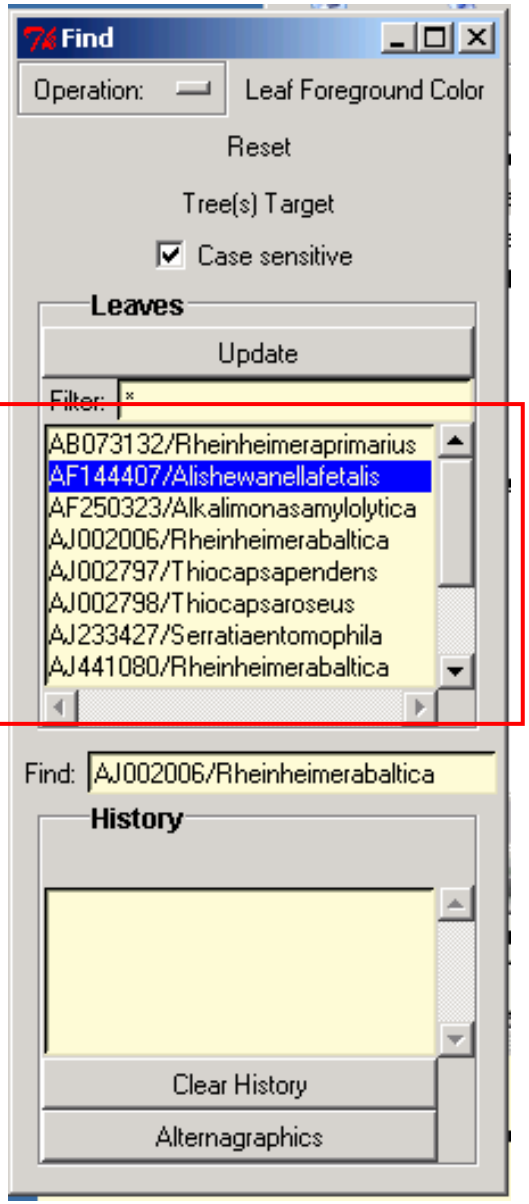




Search for a leaf or a set of leaves.

DropDown menu View, Select Find Panel as shown below
This open the Find panel as shown on the right





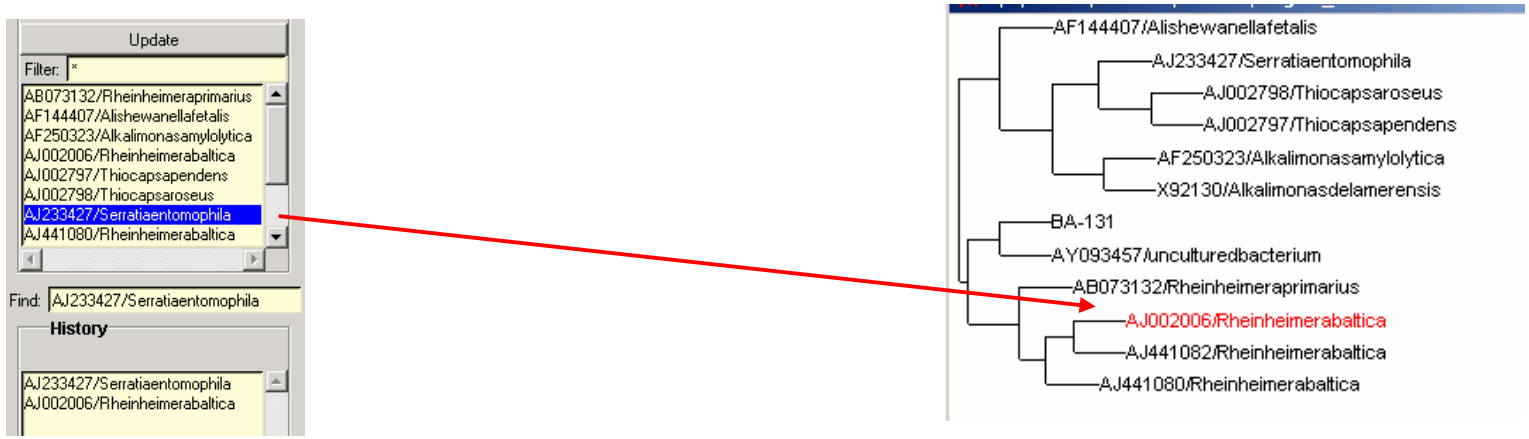
This panel allows to locate where a particular leaf is in the tree.

In this exemple, every leaf label is listed as indicated (red)

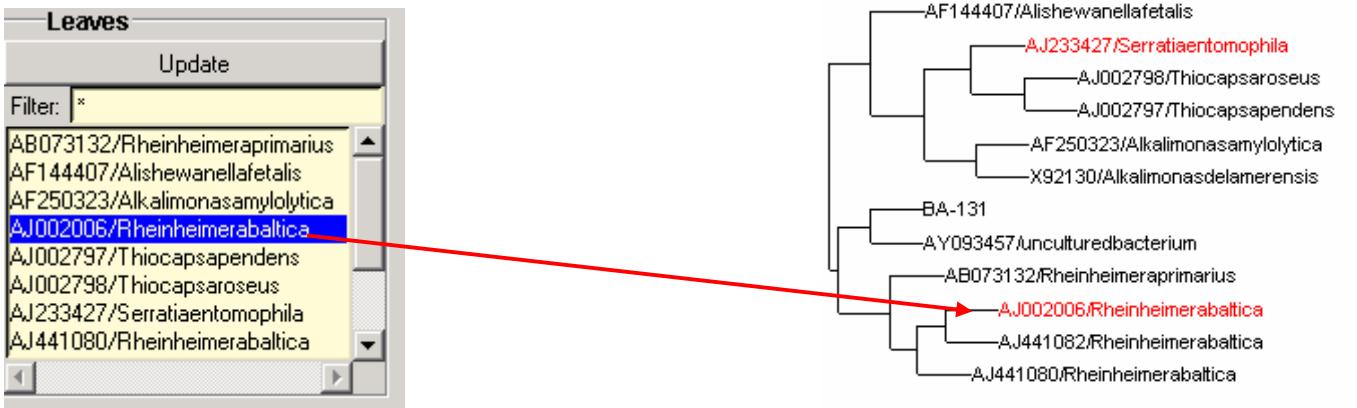
Simply double clic on a label to higlight the leaf (in red by default)

Search for one leaf

I have double clicked on AJ….

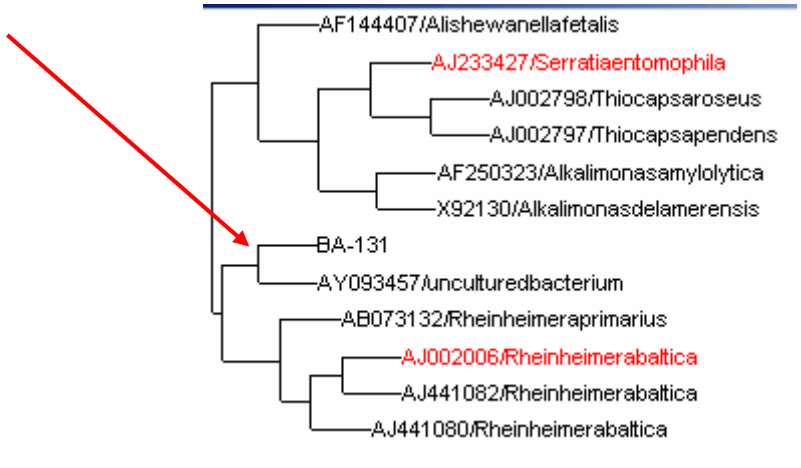


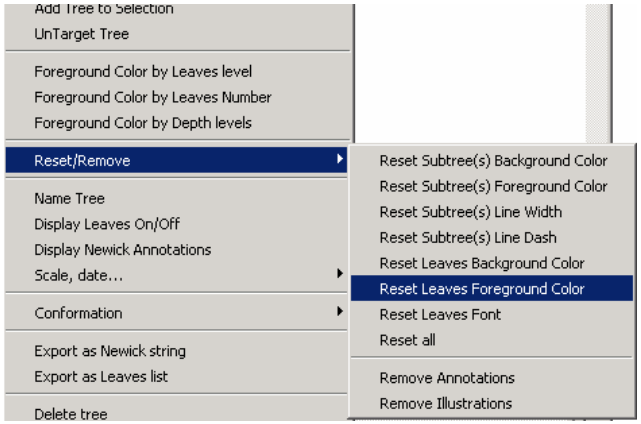
By default, if you double click on an other leaf label, the previous highlights remains and the second one is identified (red by default)

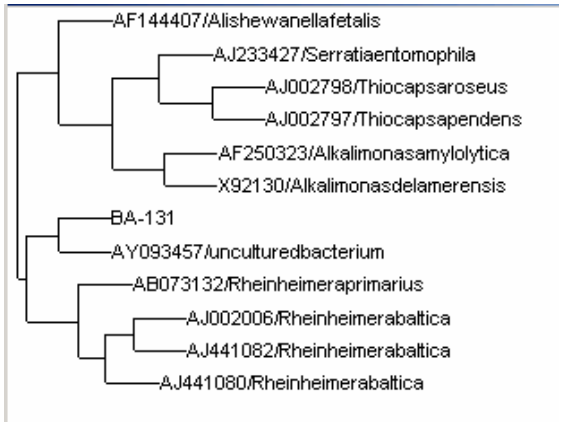


Remove the highlights

Right clic here

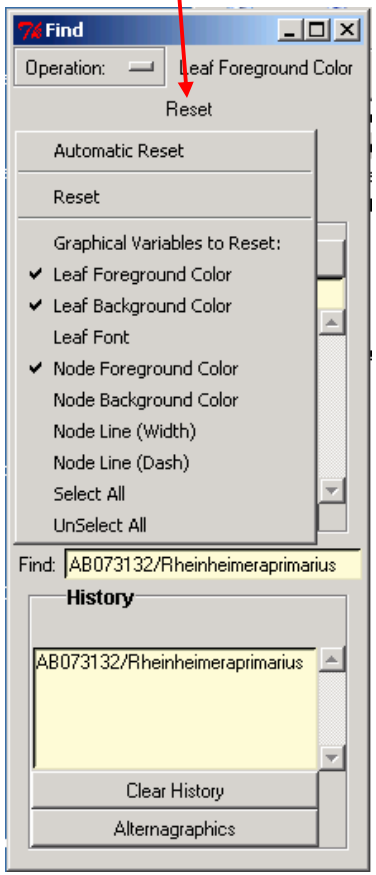




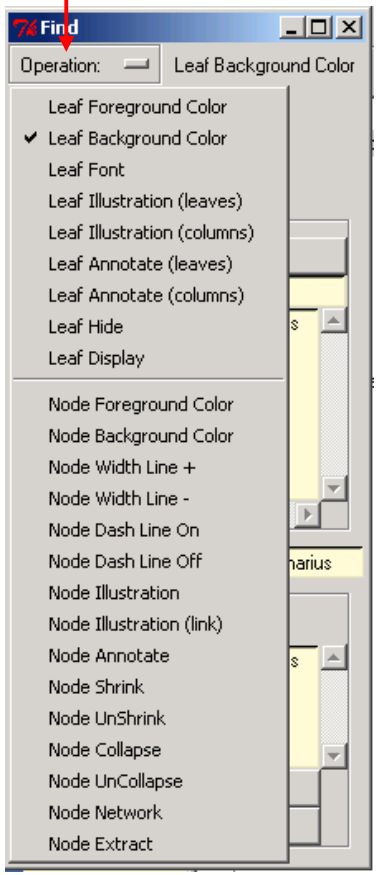


Alternative

Directly from the find panel,
Use the drop down menu
accessible from Reset

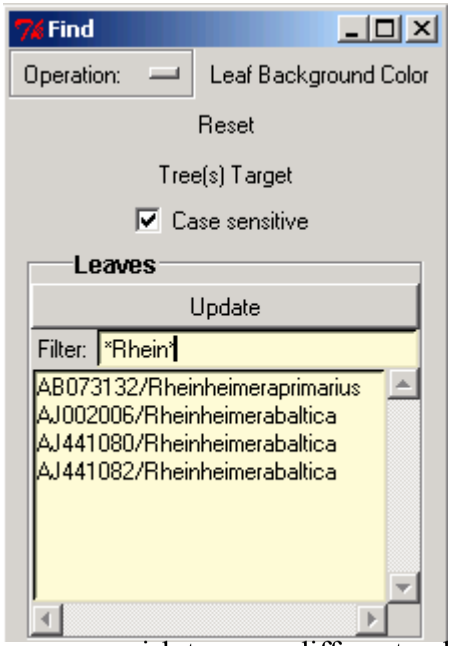


Note that instead of leaf foreground color, you can higlight
Leaf background color !



Search for several leaves

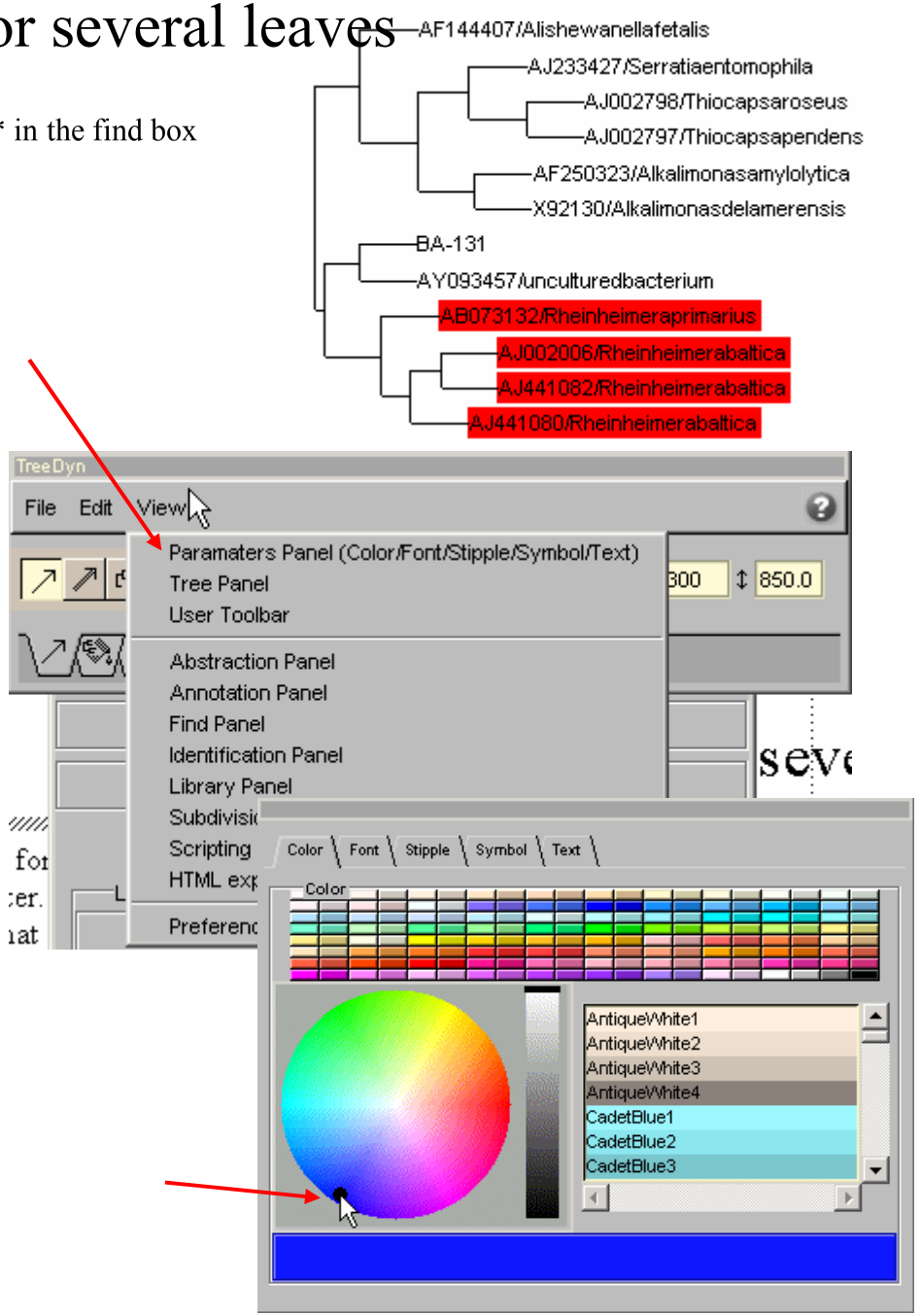
Search for every leaf whose label contains rhein : enter *rhein* in the find box
Hit Enter. All such leaves are now in red (by default).
Note that *9 also works,as well as 1?3 and 9*8 !!!



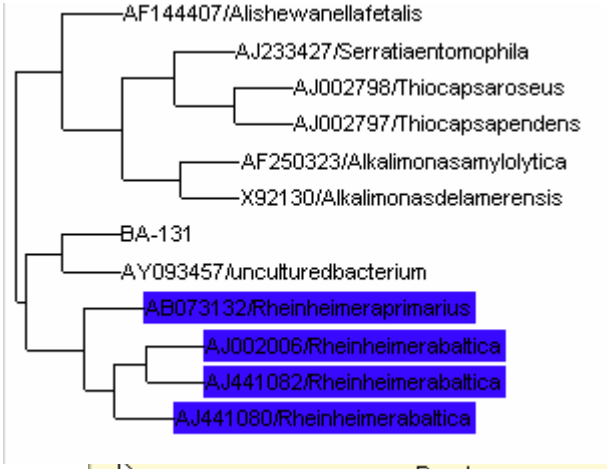
Now, we may wish to use a different color than red.

From the drop down menu View, select "Parameters Panel".
As shown on the right.

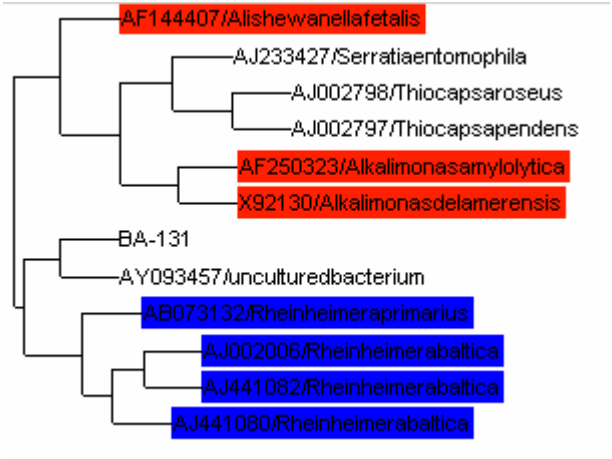
This opens the color selector
Choose a different color, either by clicking on the proper color (top) or by dragging the black dot to the proper place (red arrow)
Now I have selected blue.

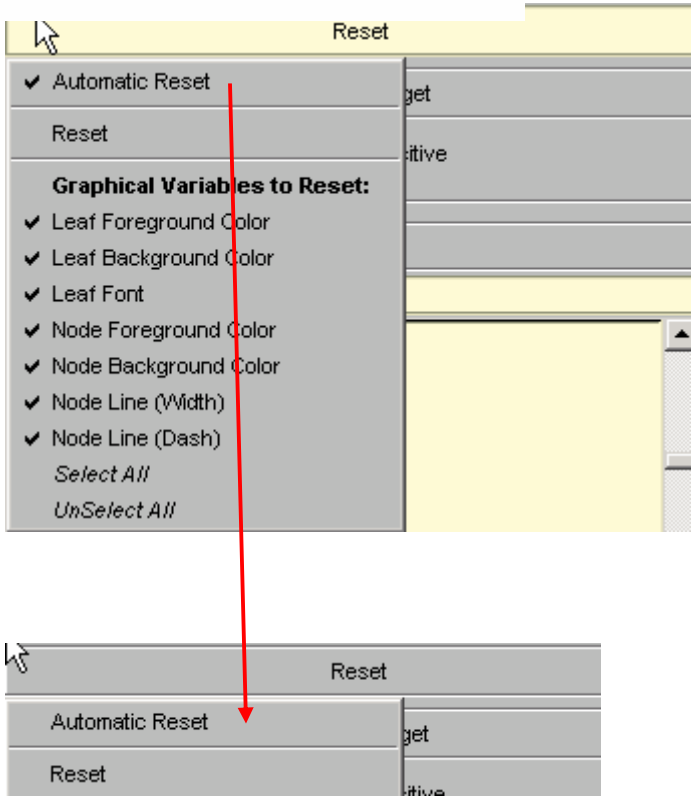


Going back to the Find panel and looking for 13* will now turned these leaves in blue



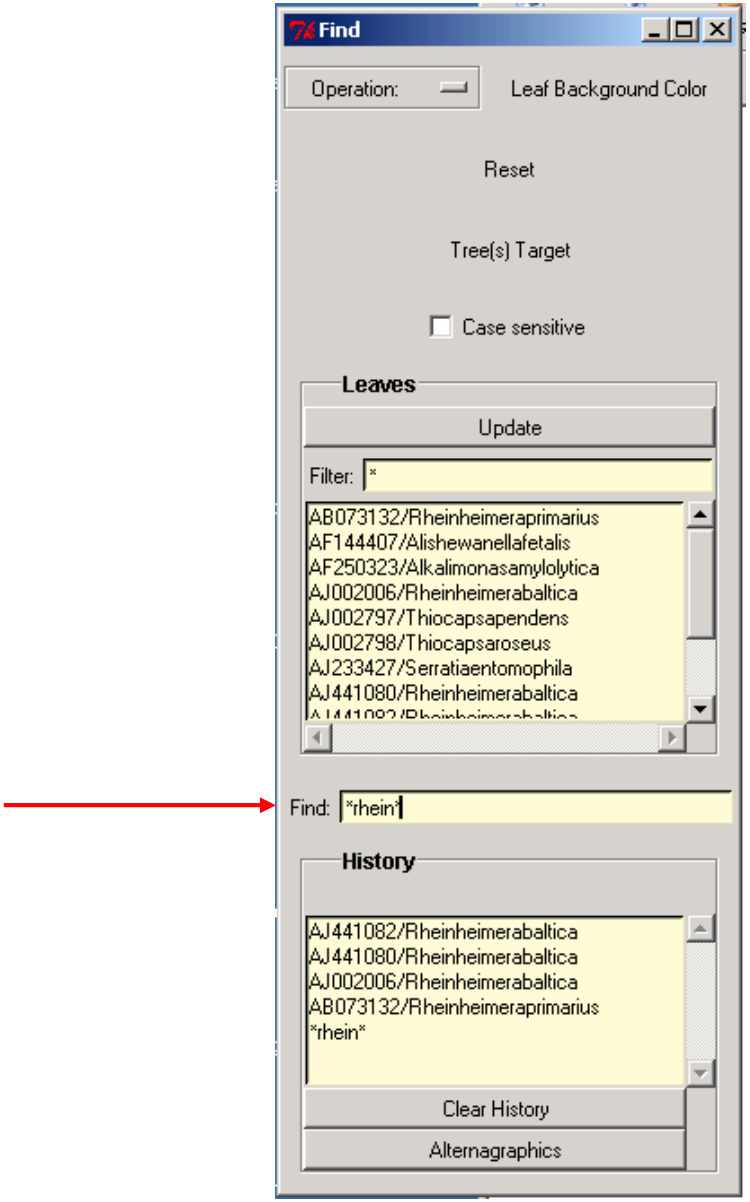
Good enough, but we want to conduct several searches, and have the result of each search in a different color.
In the find panel, if you clic on reset (see on the right), you can see the option "automatic reset". In fact when selected this option erase the result of the previous search before diplaying the next result.
Inactivate the "automatic reset"
Now if I search first for *rhei* and then for *ali*, I obtain the result below



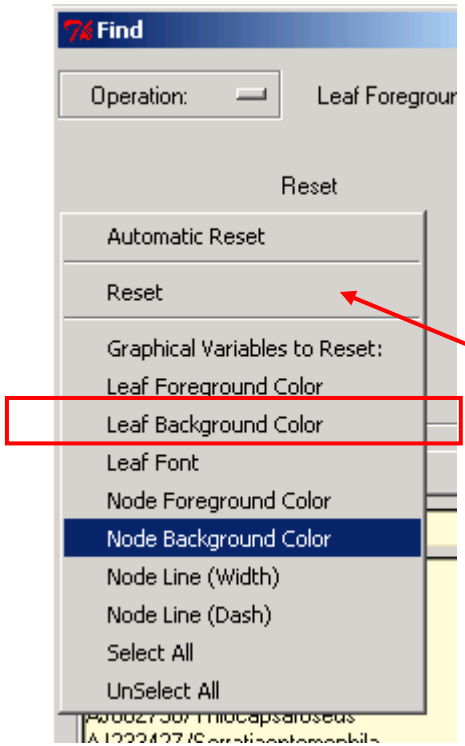


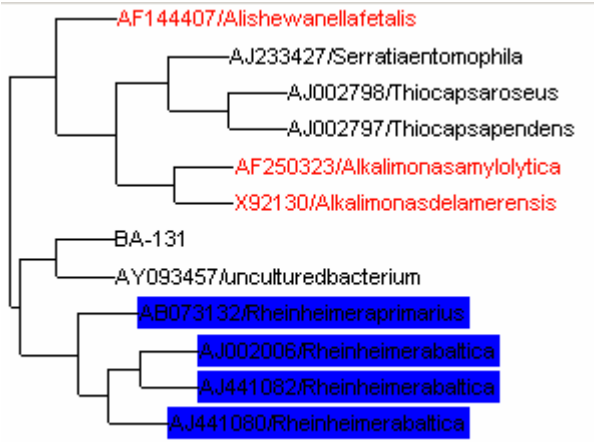
Highlight every target at once

If you use find instead of filter,
Every leaf that verify the criteria will be highlighted

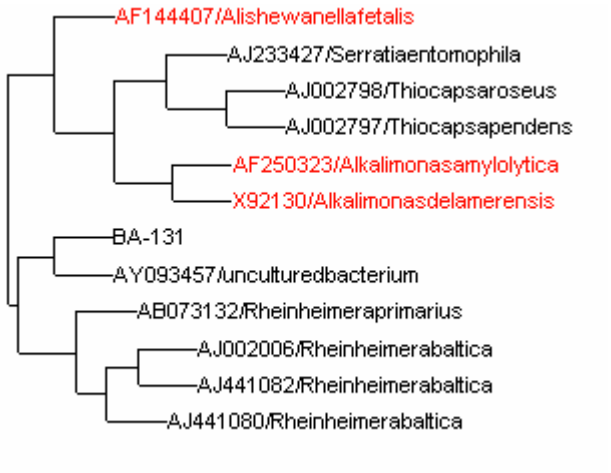


Reset



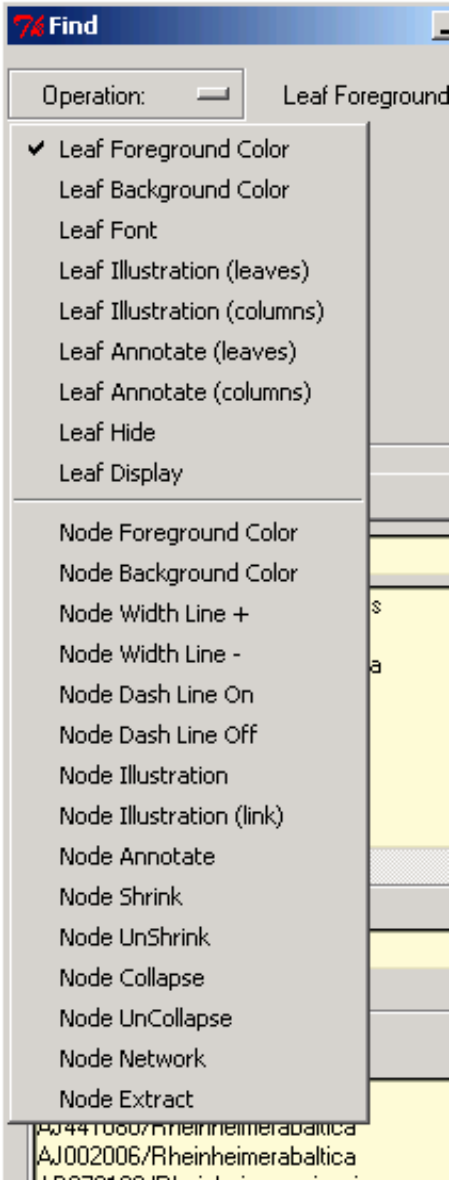


First choose the operation you want, then apply

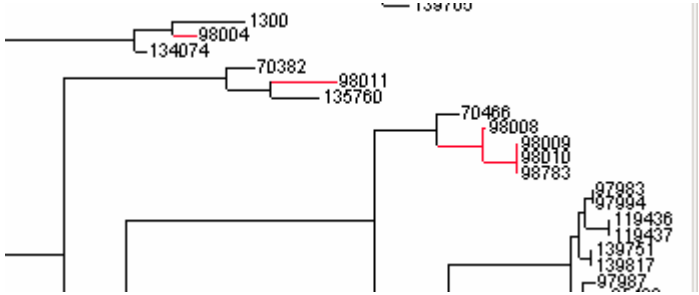


Highlights other features in a tree

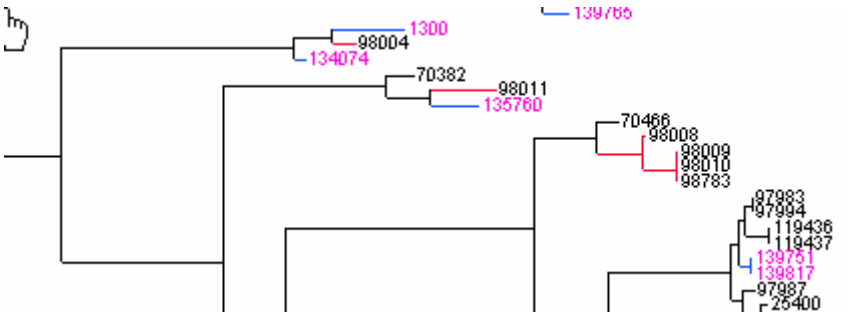
In the find panel, hit the "operation button as shown below, and select for example "Node Foreground Color"



Use of the find panel as before, produces the following



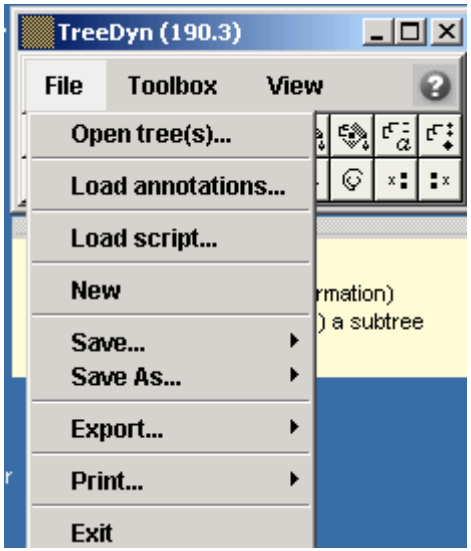
Finally you can combined different colors and operations.

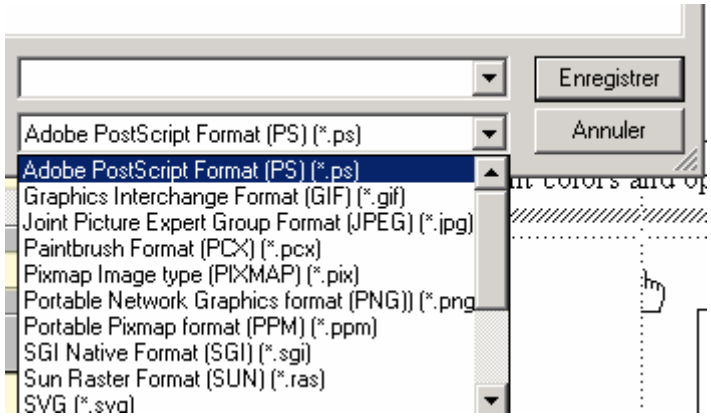


Save and export

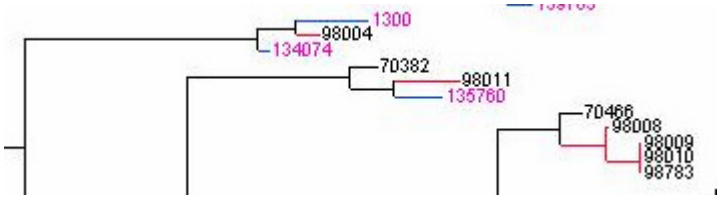
Use drop down menu File, Save or Save as to save the tree with its conformation and colors in internal treedyn format.

Use drop down menu File, Export to export in many formats, including ps for making pdf file and various image formats





Below is an excerpt of a tree saved as jpeg and opened with paint in windows.



Finally, there is a print to print directly to your printer or producea ps or pdf file.