2.7.3 Viewing trees in FigTree

Viewing trees in FigTree

FigTree is a very useful program for viewing and printing trees, including for publication quality graphics. Download the program, launch it, and then open 'colo10chronotrees.nex' (your tree block of 10 trees).

Chances are that the tree will need formatting, and many options exist in FigTree for doing this.

First, using the options in the left panel, let's change the "Tip Labels" to be larger and italicized (choose the "font" option, select Arial with font size 12 and italicized). Now you can actually see the names, which is obviously important.

Next, let's add branch lengths to the tree. Use the "Branch Labels" option to show the branch lengths with two significant digits. Notice that you could also show node ages by selecting that option in the pull-down menu.

Further options are available for adjusting the line weight (under appearance) or the scale bar. In terms of the "layout" options, it is possible to show the tree in different formats. Try the unrooted tree option (the button to the far right under "Layout"). A bit hard to see... we can fix that by adjusting the "zoom" dial. You may also want to remove the branch lengths, as they appear to be cluttering our picture somewhat. Take a minute to identify the outgroup and where the root of the tree should be based on this outgroup.

Let's go back to the rooted tree layout by clicking the button to the far left under "layout." For kicks, make the branches more "curved" with the curvature option at the top-left.

Remember that we downloaded 10 trees, and it is often interesting to compare the trees. To scroll among the trees, use the "Prev/Next" arrows at the top. Notice that the tree number is given in the panel at left, under "Current Tree." Do you see any major differences in the topologies or branch lengths? You may need to "rotate" the branches around to make the trees more comparable; see the button at the top. Or, under "Trees," select "Order Nodes" to give more consistent representation of trees across the tree block. You should see that it is the mainly the branch lengths that differ (rather than topological differences).

Note that it is also possible to reroot the tree or even to collapse nodes, which is useful for representing large trees in Powerpoint or in publications. Give some of these options a try with your file.

Finally, let's print a high quality image of tree 8 by selecting that tree, and then going to the menu "File -> export graphic" and saving the tree as an 'eps' file. Notice that all major options are provided for saving different file types. Open your beautiful creation in the program of your choice.

References

Arnold, C., L. J. Matthews, and C. L. Nunn. 2010. The 10kTrees Website: A New Online Resource for Primate Phylogeny. Evolutionary Anthropology 19:114-118.

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