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THE RED PANDA AND CSERHATI (3): A PHYLOGENY IS A MOBILE

This post may be superfluous, but anyway.

How to read a phylogeny? A phylogeny looks a bit like a number of bifurcating square rakes, with names on the right. Names on the right is the easiest layout. We could also put the names on the left, but that is a bit more difficult to read. Or we could put the names at the top, but then we might run into trouble with the page width.

Therefore, a set of left to right bifurcating branching rakes is the most convenient layout on paper.

Hang branching rakes from the ceiling and you have a mobile: a mobile can rotate round any vertical axis.





A phylogeny can rotate round any horizontal axis.



Figure 1. Identical phylogeny in four layouts. (Rode panda -= red panda; stinkdieren = skunks; marters = mustelids; wasberen = procyonids).

The figure gives the same phylogeny four times. The sequence of animal groups on the right is just the layout.

How to read such a phylogeny?



Figure 2 Road map

Pick any species.

Start going left along its line

Go to the left along that line until arriving at a vertical line.

Follow the vertical line until you find the first line branching on the right.

Go along that line to the right.

At the end of that line you'll find the sister group to your chosen species. The sister group might itself be a species, or it might be a group of species.

Warning: don't go with the lay-out! Here, declaring the marten family the sister group of the red panda would be a gross mistake!