First, try to reduce passive voice a little! Most of the time this is okay, but sometimes it makes it a bit hard to read. For example, instead of “phylogenetic analysis was done…”, maybe try to either change that to active voice or swap out “done” for a different verb.

Also, sometimes you switch between present and past tense in the conclusion when I think it's best to pick one or the other. For example, you said “As is expected, branch lengths were shorter on all branches”. It might work better to just say “As was expected…” and explain why you expected to see this.

You might want to explain AIC score in your methods, too - I can't quite remember what this means.

Finally, I would maybe increase the size of the text in your figures. At this point it is very small and makes the figures hard to read. Although I can zoom in on the computer, in a printed figure, this might not be possible.

Why did you choose to partition the way you did? This might be worth explaining as well.