

The Potential Role of Boron in the Modulation of Gut Microbiota Composition: An In Vivo Pilot Study

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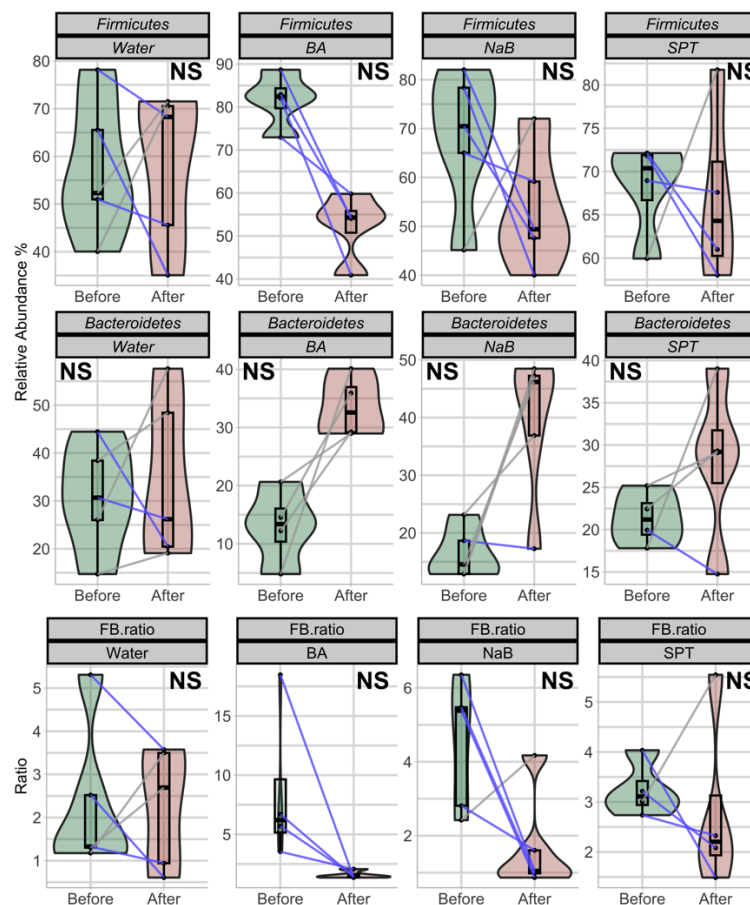


Figure S1. Time-wise changes in relative abundance of *Firmicutes*, *Bacteroidetes*, and in *Firmicutes/Bacteroidetes* (FB) ratio for each treatment group.

Data were represented by mixed violin and box plots for each time points. Subject-specific changes before and after treatment are shown by red, blue or gray lines to represent increased, decreased or even values, respectively. Results of significant tests were stated on the figures based on p.adj values. NS: non-significant. Water (n = 5), BA: boric acid (n = 4), NaB: sodium pentaborate pentahydrate (n = 5), SPT: sodium perborate tetrahydrate (n = 4).

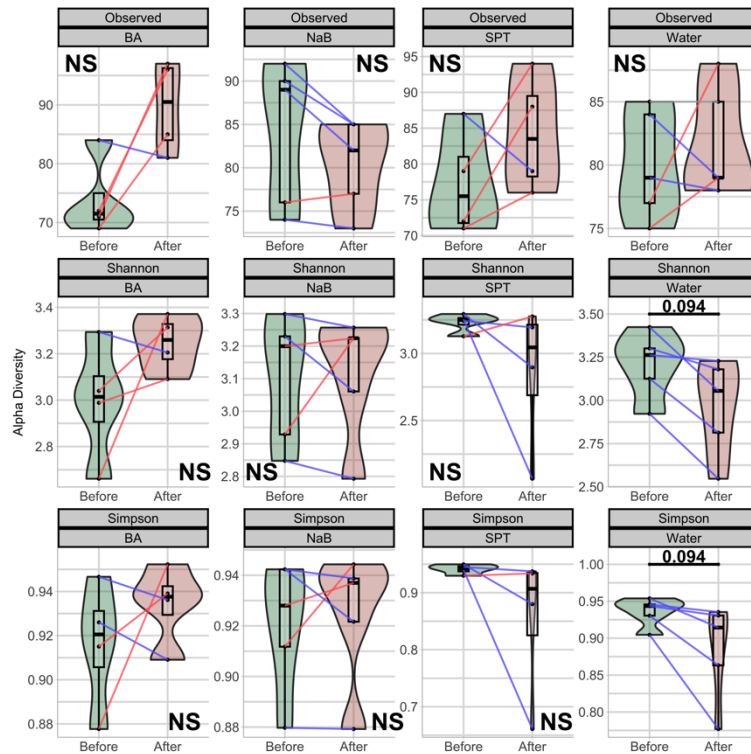


Figure S2. Time-wise changes in observed features, Shannon and Simpson indices in each treatment group for genus level.

Data were represented by mixed violin and box plots for each time points. Subject-specific changes before and after treatment are shown by red, blue or gray lines to represent increased, decreased or even values, respectively. Results of significant tests were stated on the figures based on p.adj values. NS: non-significant. Water (n = 5), BA: boric acid (n = 4), NaB: sodium pentaborate pentahydrate (n = 5), SPT: sodium perborate tetrahydrate (n = 4).

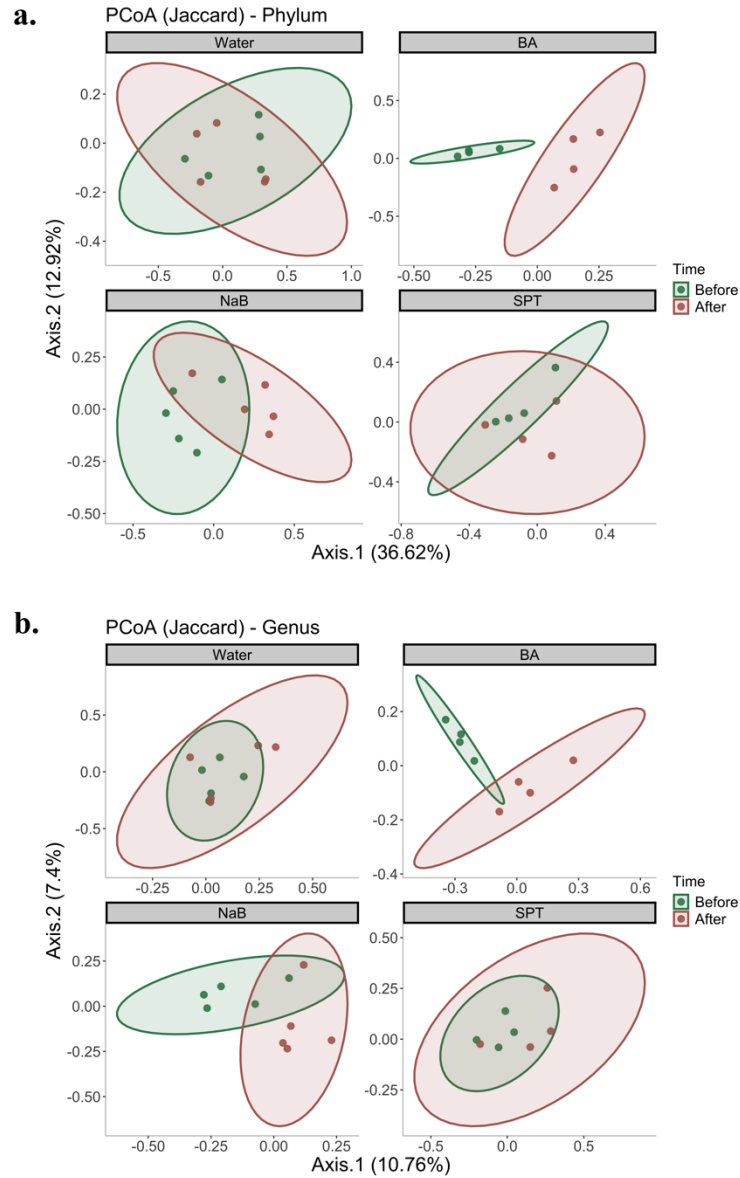


Figure S3. PCoA plots of beta diversity in (a) phylum and (b) genus level compositions based on Jaccard dissimilarity before and after treatments.

BA: boric acid, NaB: sodium pentaborate pentahydrate, SPT: sodium perborate tetrahydrate, and control group supplied with water. For beta diversity, the time points were represented by different colours for before and after treatments. Points represent each mouse sample. Ellipses correspond to 95% confidence intervals for each of the treatment groups. Water (n = 5), BA: boric acid (n = 4), NaB: sodium pentaborate pentahydrate (n = 5), SPT: sodium perborate tetrahydrate (n = 4).

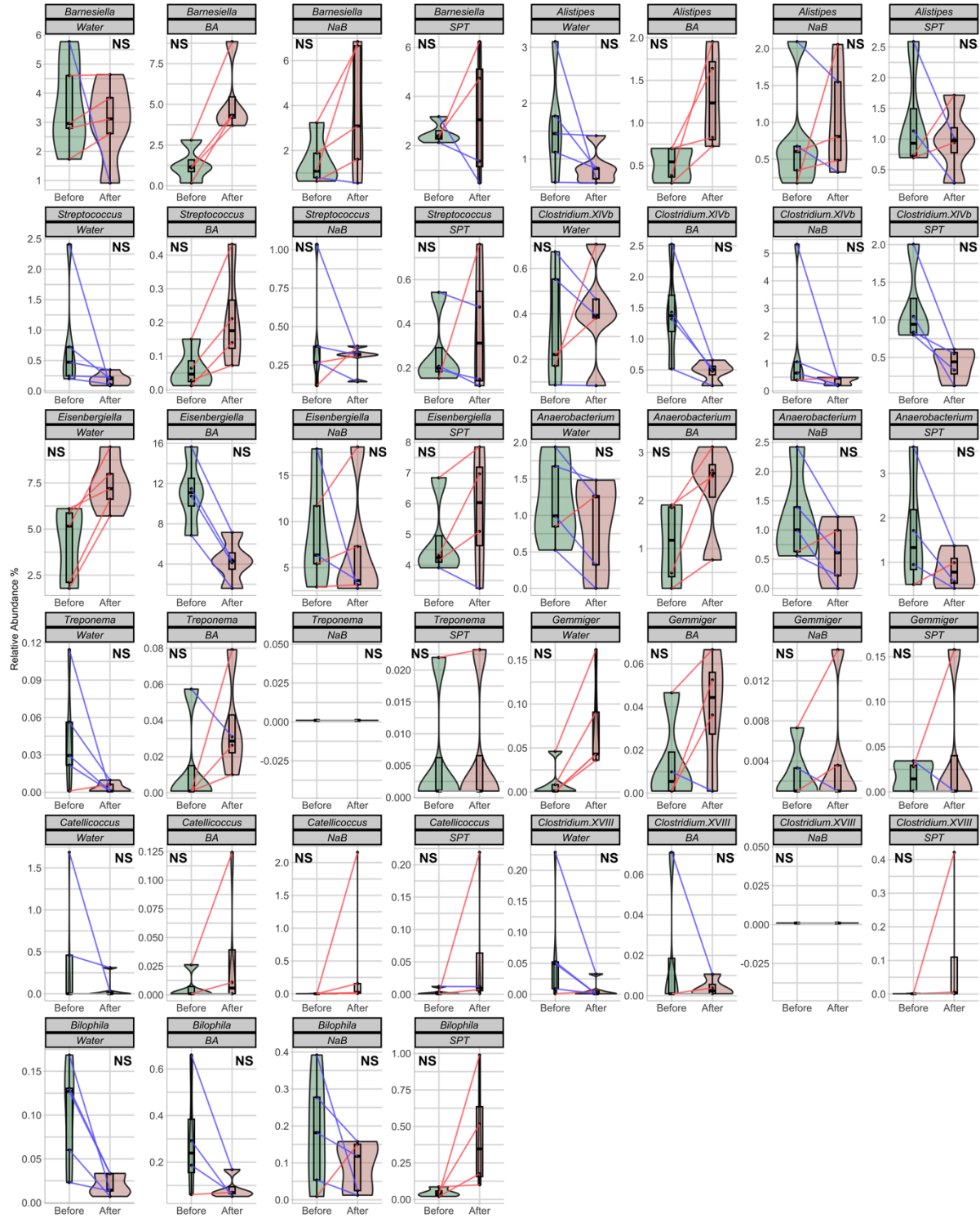


Figure S4. Time-wise changes in relative abundance of the eleven genera in each treatment group.

Data were represented by mixed violin and box plots for each time points. Subject-specific changes before and after treatment are shown by red, blue or gray lines to represent increased, decreased or even values, respectively. Results of significant tests were stated on the figures based on p.adj values. NS: non-significant. Water (n = 5), BA: boric acid (n = 4), NaB: sodium pentaborate pentahydrate (n = 5), SPT: sodium perborate tetrahydrate (n = 4).