Methods

* Square root transformed N to normalize
* Attempted but reversed transformations that did not significantly improve normality for 2 other features.
* NMDS with BC, k 1-10 to determine loss per added dimension
* Ordination plots (ordiplot) of 2-dimension NMDS, one for each response variable, colored by category.
* 95% confidence ellipse using ordiellipse.

Results

* Chose to log transform N.
* NMDS at 1 dimension had stress of 0.0758. Stress fell below optimal target of 0.05 (to 0.0481) when adding a second dimension.
  + Show plot of stress values.
* Ordination plot for contour shows no discernable differentiation between soil contour groups.
  + Show contour ordination plot.
* Ordination plot for depth shows apparent differentiation between 95% confidence ellipses for soil depths that are not adjacent.
* However, adjacent depths cannot be differentiated with 95% confidence.
* Dimension 1 is much more important than dimension 2.
* Stress < 0.05 means we can be relatively confident in this result.

Appropriate description of the analyses carried out, as

they would be described in a peer‐reviewed journal

article. Displays proper balance between detail and

brevity. Proper spelling and grammar.

Organization, style, &

clarity of results (0‐10

pts)

0‐9 pts (improvement feedback)

You will receive specific feedback on improvement areas

related to satisfactory (7‐9 pts), marginal (3‐6 pts), or

unsatisfactory (0‐2 pts) proficiency ratings.

10 pts

Accurately described results of analyses as they would

appear in a peer‐reviewed journal article, including

statistics, P‐values, and degrees of freedom either in text

or table form. Displays proper balance between detail

and brevity. Proper spelling and grammar.