Setup data for R package:vegan

Asked 1 year, 4 months ago   Modified 1 year, 4 months ago

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I'm using vegan to determine biodiversity metrics from animal count data. The objective is to see if there are differences between years of the counts(i.e if species numbers have been decreasing or increasing depending on the year for example). Data is setup in a matrix format like this:
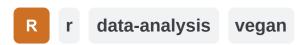
	Year	AC	AS	ASh	BI
	<chr>	<dbl>	<dbl>	<dbl>	<dbl>
1	2007	2029	NA	0	NA
2	2011	610	NA	0	NA
3	2019	1085	NA	0	0
4	1999	1911	NA	2	NA
5	2015	1425	NA	0	0
6	2009	937	NA	2	2

Years are a character everything else is numeric so NA should be omitted by R.

I setup the data as shown above but get errors for most formula outputs in vegan. I used NA rather than 0 if a species was not listed on the data for a given year but showed up another year. I'm not sure how much this

makes a difference in the case of vegan since its not regression data. I'm mostly curious if anyone has used vegan in a similar ecology question and has tips for setting up data for R, or if using either NA or 0 makes a difference in how R . I've not used vegan before but hit a wall with what to do.

I'm trying to do alpha diversity metrics right now(species richness, shannon, abundance curves, etc.) I've either gotten error messages or 1 NA NA NA NA....

R   **r**   **data-analysis**   **vegan**

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edited Jul 27, 2023 at 7:56

Gavin Simpson
175k ● 25 ● 404 ● 459

asked Jul 25, 2023 at 16:12

user390865
21 ● 2

Could you clarify "NA should be omitted" - in the image of your data, the third column is all `NA`, so what should be omitted, the column or rows? It helps if you edit your question to include reproducible data, images of data and code are heavily discouraged for these reasons – jpsmith Jul 25, 2023 at 16:20

When loading excel data into R, I changed a column to numeric; I assume it will cause R not read any count labeled as 'NA' as its not a number. I used NA rather than zero when a species wasn't found because zeros can impact results in

say a Poisson model for example. However I'm not working with regressions so I'm not sure if marking the count to zero makes a difference in say analyzing species richness or abundance. – user390865 Jul 25, 2023 at 17:47

1 Answer

Sorted by: Highest score (default) ⇕

You can't have `NA` in your data; the original methods don't handle missing data and the R functions therefore propagate the `NA` as with any other R function.

It's not clear to me how you are differentiating the `0` s from what you have coded as `NA` anyway, for example the final column in the image you included in your question. If you want to make progress you'll need to convert the `NA` to `0` s also.

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answered Jul 27, 2023 at 9:11

Gavin Simpson
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