

Practical Stats Newsletter for March 2021

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In this newsletter:

- A. 30 Days Left
- B. NADA2 is now available on the CRAN site
- C. NADA2 Workshop in April at the Natn. Monitoring Conference

A. 30 Days Left

....to register for our online training courses, at <https://practicalstats.teachable.com/>

Our two online courses will be accepting registrations through March 31, 2021. Starting April 1, new course registration will be closed. All who have registered will continue to have complete access and support from me for one year from their signup date.

Our Nondetects And Data Analysis (NADA) course is a complete coverage of data analysis with nondetects and 'remarked data': summary statistics, regression, group testing, trend analysis and even some multivariate methods, all without substituting fabricated numbers like $\frac{1}{2}$ the detection limit. One year's access to the materials costs \$795.

Our Applied Environmental Statistics courses cover methods from simple statistics through trend analysis. They are also an introduction to using R software, the most widely used statistics software in the world. They are available in two parts, each \$650 USD for a 1-year access for one person. Or get both courses together in a bundle for \$1200 USD. See our online training site at the link above.

B. NADA2 is now available on the CRAN site

The NADA2 package for R is now available at <https://cran.r-project.org/package=NADA2> .

NADA2 goes well beyond estimating summary statistics in providing methods for data analysis of data with one or multiple detection limits. Without substituting any fraction of the detection limit(s), using NADA2 you can:

- Compute confidence, prediction and tolerance intervals
- Test for exceedances of a standard
- Perform matched pair (before/after, upstream/downstream, etc.) tests
- Test for group differences -- parametric, nonparametric and permutation tests
- Compute correlation coefficients and regression
- Draw QQ and partial plots to guide whether to transform x and y variables in regression
- Build multiple regression models and find models with the least error
- Perform parametric and nonparametric trend analyses
- Cluster groups of censored multivariate data
- Draw NMDS plots of censored multivariate data
- Test for group differences and trends of censored multivariate data

..... and much more.

NMDS shows left-right trend of DDT concs

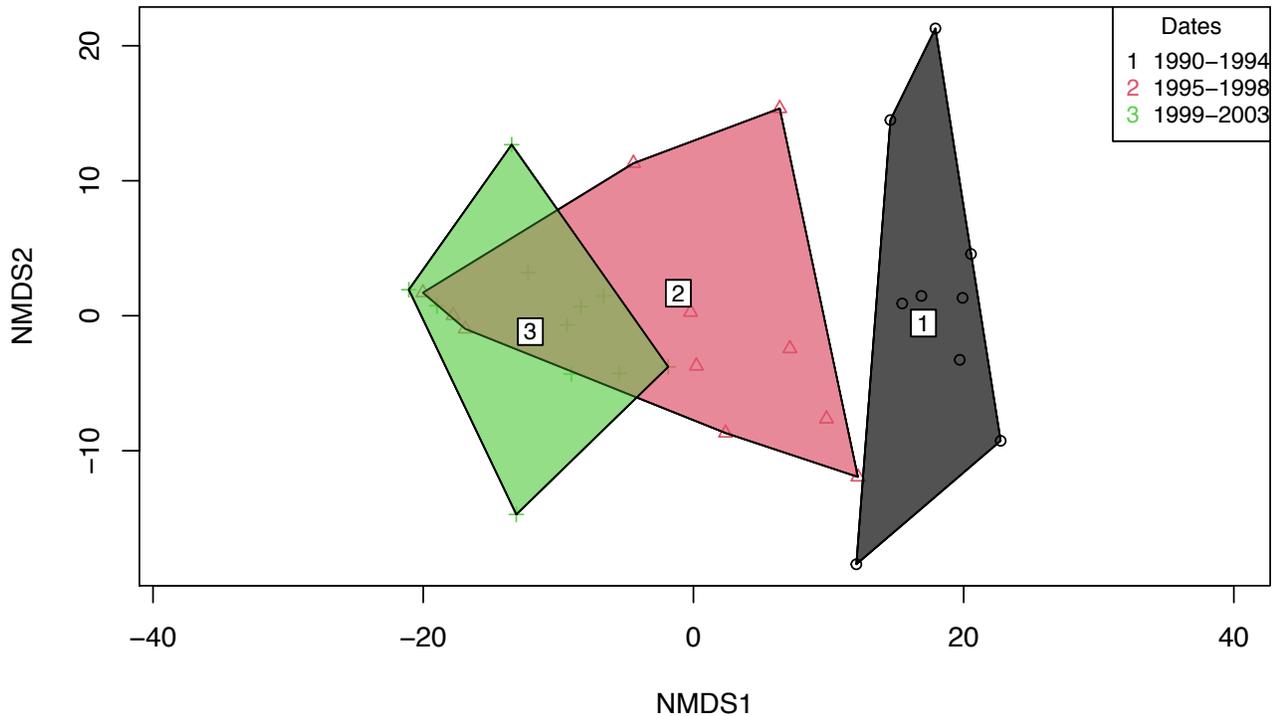


Figure 1. NMDS of DDT and its metabolites in fish showing a trend in the pattern of concentrations over time. Trend analysis (finding significance) and graphics were performed with methods from the NADA2 package.

C. NADA2 Workshop in April at the Natn. Monitoring Conference

The capabilities of the NADA2 package for R statistical software will be demonstrated in a workshop I'll conduct at the 12th National Monitoring Conference (<https://www.nalms.org/2021nmc/>) during the week of April 19-23, 2021. The conference will be held entirely online. There is no extra charge beyond the conference registration fee to attend the workshop. Training on the use of the NADA2 package is still available through our online *Nondetects And Data Analysis* course until March 31st.

'Til next time,

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Practical Stats LLC
-- Make sense of your data