Text and figure taken from How to measure response diversity manuscript:

The first step of any ecological study should be to define the variables of interest (Fig. 1), so the above definition will be used throughout.



**Figure 1. Proposed workflow for empirical studies of response diversity**. Generally, we suggest that most empirical studies of response diversity should follow the general workflow outlined in the left panels. First, the definition and goal of response diversity should be explicit (Step I). The goal of response diversity is usually to predict ecological stability. Step II is to decide on a methodological approach (*e.g.*, functional traits, binary species interaction terms, performance-environment relationships, *etc*.). Step III should establish the specifics of the study: what will be the response and predictor variables, which species/communities/functions are of interest? Step IV is to choose the most appropriate structure for the data (will traits be normalised, will derivatives of performance-environment relationships be calculated, *etc*.). Step V determines the specific metric of response diversity to use: which functional diversity metric will be used for response traits, or how will the range of performance-environment relationships be captured? Step VI then actually sees the analyses take place, bearing in mind constraints such as community composition, environmental context, and spatiotemporal scale. The final step (VII) is to interpret the results and ensure that the goal has been achieved. This usually involves relating response diversity to stability, since establishing its relationship to stability is often the implicit or explicit goal of empirical response diversity studies. The right panels show an example workflow using the reanalysis of Leary & Petchey (2009) conducted herein (see main text for details), including: the specific definition adopted throughout (I), the choice to use a performance-environment framework (II), the variables from the original study (III), the choice to take the first derivatives of these variables (IV), the use of two complimentary metrics (dissimilarity and divergence) and the original study’s correlation-based approach (V), the calculation of different response diversity metrics (VI), and finally the result as it relates to the original study (VII) and an analysis relating response diversity to stability.