

Reply to Galls on smaller leaves do not refute the Plant Vigour Hypothesis

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The “Plant Vigour Hypothesis” (PVH) (Price, 1991) predicts that insect herbivores will choose preferentially large and more vigorously growing plants or plant modules, and that offspring performance will be greater on these more vigorous plants or plant modules. In our study (Santos et al., 2011) we have adopted the same methodology used in other studies in which the authors used only the size of plant modules to test the PVH (e.g., Cornelissen et al., 1997; Gonçalves-Alvim et al., 1999; Cornelissen and Fernandes, 2001; Santos et al., 2008). We should point out that even P.W. Price in a similar study used young leaves of *Palicourea rigida* (Rubiaceae) to test the PVH (Vieira et al., 1996). Therefore, we used the tools commonly used to test the Plant Vigour Hypothesis. The review of the methods used by Cornelissen et al. (2008) is particularly an important source regarding that. Elsewhere, Faria and Fernandes (2001) have shown and discussed the importance of the relative rate of growth to test this hypothesis.

In fact, nutrients are important variables to explain the PVH that was not measured in the *Miconia prasina* leaves (Santos et al., 2011). However, several studies that corroborate the PVH do not provide any evidence that the modules of the most vigorous plants have more resources for herbivores than less vigorous plants. In order to completely test the PVH it is necessary to evaluate the relative rate of growth of the plant module, nutrients, and even secondary compounds at the time of gall induction, because galling insect larvae may alter the nutritional content of the attacked organ. Particularly in our study, the expectation was to test further the nutritional content in *Miconia* leaves in different types of experiments. The system provided by *Miconia* and its galling herbivores may prove to be an ideal system to further test the Plant Vigour Hypothesis.

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