RETRACTION NOTE



## Retraction Note to: $CO_2$ effects on plant nutrient concentration depend on plant functional group and available nitrogen: a meta-analysis

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## Retraction Note to: Plant Ecol (2012) 213:505–521 DOI 10.1007/s11258-011-9998-8

This article has been retracted at the request of the authors because of multiple and unintentional data entry errors. After concerns were raised on the forum PubPeer (Duval et al. 2012) related to the open access online data sets compiled by lead author Duval, co-authors Blankinship, Dijkstra, and Hungate compiled a review dataset by consulting the original literature and re-extracting data from all the papers used in the original meta-analysis. In this effort, they found

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multiple and unintentional errors in the published dataset that could significantly change conclusions made in the paper regarding the generality of elevated  $CO_2$  effects on plant nutrient concentrations.

Specific errors were attributable to inadvertently reversing the elevated and ambient CO<sub>2</sub> treatments in the original dataset, errors in transcribing numbers from published tables to the original dataset, incorrectly treating element stocks as element concentrations, and incorrectly assigning plant parts to proper categories. In others cases, figures were scanned inaccurately. In still others, data were selected arbitrarily in a manner not described in the methods (e.g., one crop variety was selected from a paper describing responses of multiple crop varieties). There was no evidence of bias in these errors. They were unintentional. Because these errors may influence the conclusions made in the paper, and because the published online datasets are demonstrably incorrect, the authors requested that the paper be retracted.

## Reference

Duval BD, Blankinship JC, Dijkstra P, Hungate BA (2012) CO<sub>2</sub> effects on plant nutrient concentration depend on plant functional group and available nitrogen: a meta-analysis.
Plant Ecol 213:505–521. PubPeer. https://pubpeer.com/publications/A01632233DC4B68C65A8B770E3908E.
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