



Corrigendum: Quantification and Localization of Formylated Phloroglucinol Compounds (FPCs) in *Eucalyptus* Species

Bruna Marques dos Santos^{1,2}, Juliane F. S. Zibrandtsen^{1,2†}, Disan Gunbilig^{1,2}, Mette Sørensen^{1,2}, Federico Cozzi^{3†}, Berin A. Boughton^{4,5}, Allison Maree Heskes^{1,2,6} and Elizabeth Heather Jakobsen Neilson^{1,2,6*}

¹ Section for Plant Biochemistry, Department of Plant and Environmental Sciences, University of Copenhagen, Copenhagen, Denmark, ² VILLUM Center for Plant Plasticity, Department of Plant and Environmental Sciences, University of Copenhagen, Copenhagen, Denmark, ³ Section for Molecular Plant Biology, Department of Plant and Environmental Sciences, University of Copenhagen, Copenhagen, Denmark, ⁴ School of BioSciences, University of Melbourne, Parkville, VIC, Australia, ⁵ Metabolomics Australia, School of BioSciences, University of Melbourne, Parkville, VIC, Australia, ⁶ Center for Synthetic Biology 'bioSYNergy', Department of Plant and Environmental Sciences, University of Copenhagen, Copenhagen, Denmark

OPEN ACCESS

Edited and reviewed by:

Judy Simon,
Universität Konstanz,
Germany

*Correspondence:

Elizabeth Heather Jakobsen Neilson
en@plen.ku.dk

Specialty section:

This article was submitted to
Functional Plant Ecology,
a section of the journal
Frontiers in Plant Science

†Present address:

Juliane F. S. Zibrandtsen,
Syngenta Ltd, Manchester,
United Kingdom.
Federico Cozzi,
BIOMIN Research Center
Technopark, Tulln an der Donau,
Austria.

Received: 03 July 2019

Accepted: 29 July 2019

Published: 28 August 2019

Citation:

Marques dos Santos B,
Zibrandtsen JFS, Gunbilig D,
Sørensen M, Cozzi F, Boughton BA,
Heskes AM and Neilson EHJ (2019)
Corrigendum: Quantification
and Localization of Formylated
Phloroglucinol Compounds
(FPCs) in *Eucalyptus* Species.
Front. Plant Sci. 10:1052.
doi: 10.3389/fpls.2019.01052

Keywords: *Corymbia*, *Eucalyptus*, formylated phloroglucinol compounds, macrocarpal, MALDI-mass spectrometry imaging, sideroxylonal, specialized metabolites

A Corrigendum on

Quantification and Localization of Formylated Phloroglucinol Compounds (FPCs) in *Eucalyptus* Species

by Dos Santos BM, Zibrandtsen JFS, Gunbilig D, Sørensen M, Cozzi F, Boughton BA, Heskes AM and Neilson EHJ (2019) *Front. Plant Sci.* 10:186. doi: 10.3389/fpls.2019.00186

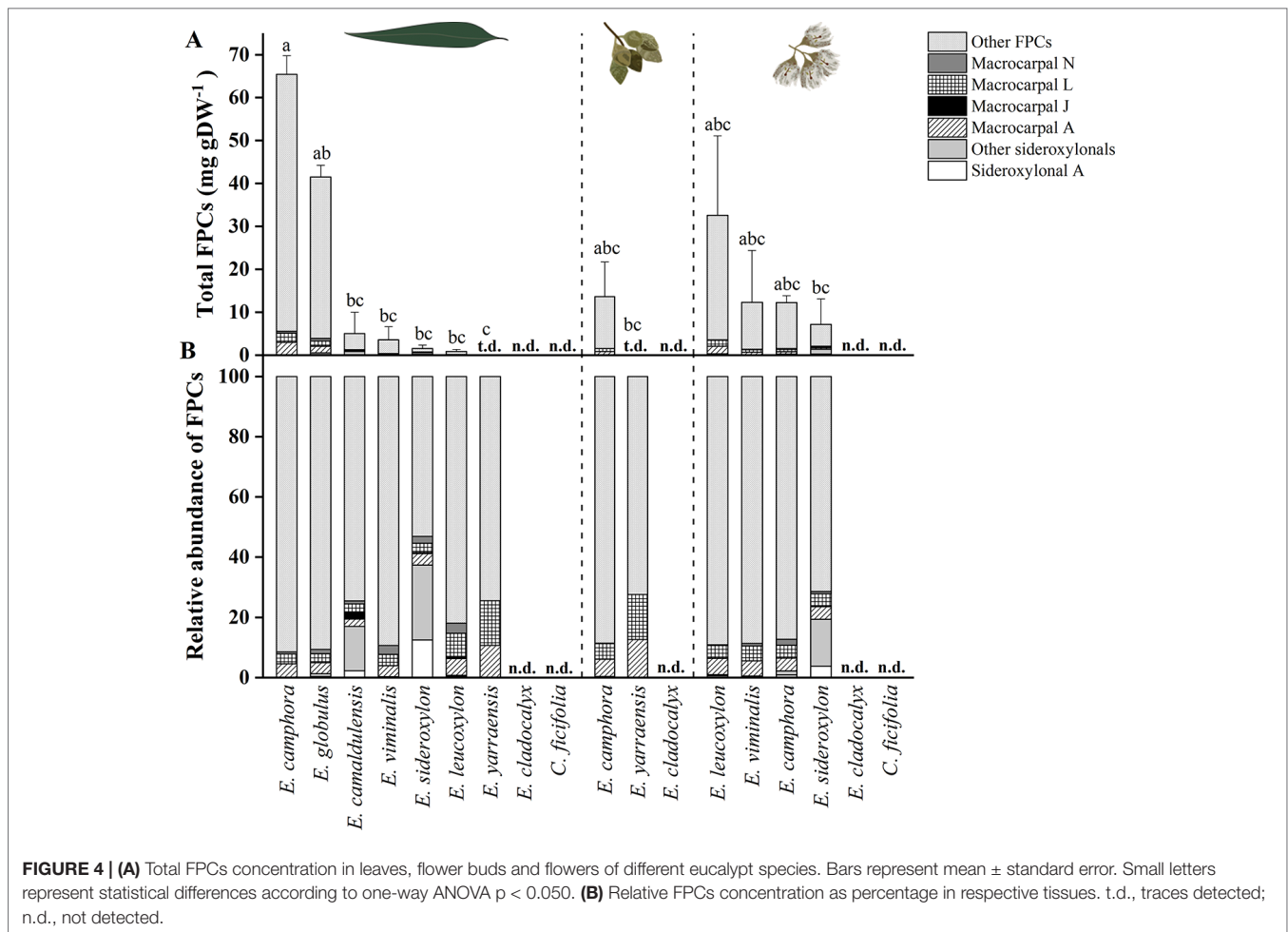
ERROR IN FIGURE/TABLE

In the original article, there was a mistake in **Figure 4** and **Supplementary Table S2** as published. There was an error during the FPCs quantification process, whereby the ratio of injection volume between sample and standard was accidentally inverted. This error has resulted in the overestimation of FPCs concentration reported, but does not alter the biological significance of the results. The corrected **Figure 4** appears below, and **Supplementary Table S2** has been replaced in the original article.

Furthermore, in the original article, there was an error in the results section where the number of total FPCs for different tissues of two species are cited.

A correction has been made to the *Results* section, sub-section *Detection and Quantification of FPCs*, paragraph four:

“From all species analyzed, *E. camphora* and *E. globulus* had the highest concentration of total FPCs in leaves, with 65 and 41mg g⁻¹ DW, respectively (**Figure 4**, **Supplementary Table S2**). *Eucalyptus camphora* also had high concentration of FPCs in flower buds and flowers, with 13 and 12mg g⁻¹ DW, respectively. Interestingly, three *Eucalyptus* species showed a tendency to accumulate more FPCs in flowers compared to the leaves. *Eucalyptus leucoxylon*, *E. sideroxylon*, and *E. viminalis* contained ~40, 5, and 3 times more total FPCs in the flowers compared to leaves, respectively **Figure 4**, **Supplementary Table S2**. *Eucalyptus yarraensis* presented very low



amounts of FPCs in leaves and flower buds, and it is the only species that does not contain any sideroxytonals. *Eucalyptus cladocalyx* and *C. ficifolia* did not show any traces of this class of specialized metabolites in the tissues analyzed.”

In addition, there was an error in the discussion where the number of total FPCs concentration is cited again.

A correction has been made to the *Discussion* section, sub-section *Qualitative and Quantitative FPCs Variation in Eucalyptus*, paragraph three:

“*Eucalyptus camphora* and *E. globulus* presented high concentrations of total FPCs in expanded leaves, with 65 and 41 mg g⁻¹ DW, respectively. These concentrations are in a similar

range to previous reports. For example, the concentration of sideroxytonals have been reported to reach up to 52 mg g⁻¹ DW in *E. melliodora* (Wallis et al., 2002) and up to 100 mg g⁻¹ DW in *E. loxophleba* ssp. *lissophloia* (Wallis and Foley, 2005).”

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fpls.2019.01052/full#supplementary-material>

REFERENCES

- Wallis, I. R., and Foley, W. J. (2005). The rapid determination of sideroxytonals in *Eucalyptus* foliage by extraction with sonication followed by HPLC. *Phytochem. Anal.* 16, 49–54. doi: 10.1002/pca.810
- Wallis, I. R., Watson, M. L., and Foley, W. J. (2002). Secondary metabolites in *Eucalyptus melliodora*: Field distribution and laboratory feeding choices by a generalist herbivore, the common brushtail possum. *Aust. J. Zool.* 50, 507–519. doi: 10.1071/ZO02029

Copyright © 2019 Marques dos Santos, Zibrantsen, Gunbilig, Sørensen, Cozzi, Boughton, Heskes and Neilson. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.