



## Corrigendum to “Decomposition of aquatic pioneer vegetation in newly constructed wetlands” [Ecol. Eng. 114 (2018) 154–161]



Ciska C. Overbeek<sup>a,\*</sup>, Harm G. van der Geest<sup>a</sup>, E. Emiel van Loon<sup>b</sup>, Arne D. Klink<sup>a,2</sup>, Seth van Heeringen<sup>a</sup>, Sarah F. Harpenslager<sup>c,3</sup>, Wim Admiraal<sup>a</sup>

<sup>a</sup> Department of Freshwater and Marine Ecology, Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam, P.O. Box 94248, 1090 GE Amsterdam, The Netherlands

<sup>b</sup> Department of Computational Geo-Ecology, Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam, P.O. Box 94248, 1090 GE Amsterdam, The Netherlands

<sup>c</sup> Department of Aquatic Ecology and Environmental Biology, Institute for Water and Wetland Research, Radboud University, P.O. Box 9010, 6500 GL Nijmegen, The Netherlands

The authors regret that the paper “Decomposition of aquatic pioneer vegetation in newly constructed wetlands” contains erroneous data. In this corrigendum we like to report the corrections in the paper and also list changes in the Supplementary Material.

An error did arise in the data-processing phase of the research, due to which incorrect values were used for six sediment quality variables (K, Na, Ca, total Fe, total Mn, total P). Fortunately, the errors appear to have a minor impact on the results and do not influence the general findings of this study. Below, changes are underlined showing both the original and corrected text.

In the *Abstract*:

1. Seventh sentence “When both litter characteristics and environmental conditions were tested simultaneously and litter was decomposed in its original environment, 37% and 23% of the variation could be explained after 6 and 12 months, respectively.” **This should be replaced with** “When both litter characteristics and environmental conditions were tested simultaneously and litter was decomposed in its original environment, 37% and 25% of the variation could be explained after 6 and 12 months, respectively.”

In the *Materials and methods* section:

1. Table 1, part SEDIMENT, values for K, Na, Ca, total Fe, total Mn and total P

	Volgermeerpolder	Weerribben
<b>SEDIMENT</b>		
K <sup>+</sup> (mmol/l FW)	<u>20 (5–59)</u>	<u>3 (2–4)</u>
Na <sup>+</sup> (mmol/l FW)	<u>4 (1–7)</u>	<u>0 (0–0)</u>
Ca <sup>2+</sup> (mmol/l FW)	<u>298 (79–823)</u>	<u>39 (23–57)</u>
Total Fe (mmol/l FW)	<u>82 (21–221)</u>	<u>16 (11–20)</u>
Total Mn (mmol/l FW)	<u>2 (1–4)</u>	<u>0 (0–0)</u>
Total P (mmol/l FW)	<u>4 (1–10)</u>	<u>1 (1–1)</u>

**This should be replaced with**

	Volgermeerpolder	Weerribben
<b>SEDIMENT</b>		
K <sup>+</sup> (mmol/l FW)	<u>18 (13–28)</u>	<u>2 (2–3)</u>
Na <sup>+</sup> (mmol/l FW)	<u>7 (3–10)</u>	<u>1 (0–1)</u>
Ca <sup>2+</sup> (mmol/l FW)	<u>444 (290–665)</u>	<u>25 (17–32)</u>
Total Fe (mmol/l FW)	<u>107 (80–129)</u>	<u>10 (8–12)</u>
Total Mn (mmol/l FW)	<u>3 (2–3)</u>	<u>0 (0–1)</u>
Total P (mmol/l FW)	<u>7 (5–8)</u>	<u>1 (1–1)</u>

DOI of original article: <https://doi.org/10.1016/j.ecoleng.2017.06.046>

\* Corresponding author.

E-mail address: [c.c.overbeek@uva.nl](mailto:c.c.overbeek@uva.nl) (C.C. Overbeek).

<sup>1</sup> Present address: Nelen & Schuurmans, Zakkendragershof 34-44, 3511 AE Utrecht, The Netherlands.

<sup>2</sup> Present address: Eurofins AquaSense, H.J.E. Wenckebachweg 120, 1114 AD Amsterdam-Duivendrecht, The Netherlands.

<sup>3</sup> Present address: School of Biological and Chemical Sciences, Queen Mary University, Mile End Road, E1 4NS London, United Kingdom.

<https://doi.org/10.1016/j.ecoleng.2019.01.021>

Available online 06 February 2019

0925-8574/ © 2019 Published by Elsevier B.V.

In the *Results* section:

1. Section 3.2 *Dimension reduction*, second and third sentence “For sediment quality (Table 1) the first component also contained 62% of the variation. Almost all sediment quality variables were equally important, except for Olsen-P and the sediment C:N ratio which were about half as important (Supplementary Material C).” **This should be replaced with** “For sediment quality (Table 1) the first component contained 67% of the variation. Almost all sediment quality variables were equally important, except for the sediment C:N ratio which was about half as important (Supplementary Material C).”
2. Section 3.4 *Combined effect of litter characteristics and environmental conditions on decomposition*, second paragraph “After applying an all-possible-subsets regression (with up to four predictor variables), four models described  $\text{Frac\_D}_6$  best (the averaged model over these four was characterized by  $R_{\text{adj}}^2 = 0.368 \pm 0.004$  and  $R_{\text{val}}^2 = 0.346 \pm 0.006$ , Supplementary Material D.3). The compound-variable for litter characteristics was obligatory present in all models. Microbial Community Metabolic Diversity (CMD) was also present in all models, while the compound-variables for water and sediment quality and fraction detritivorous macroinvertebrates (DET) were each present in one of the models. When predicting  $\text{Frac\_D}_{12}$  with the model ensemble from  $\text{Frac\_D}_6$  about 19% of the variation could be explained ( $R_{\text{val,t2,with,t1}}^2 = 0.187 \pm 0.008$ ), while only 4% of the variation could be explained when predicting the fraction of decomposition of vegetation originating from the Weerribben ( $R_{\text{WR,t1}}^2 = 0.039 \pm 0.020$ ).” **This should be replaced with** “After applying an all-possible-subsets regression (with up to four predictor variables), five models described  $\text{Frac\_D}_6$  best (the averaged model over these four was characterized by  $R_{\text{adj}}^2 = 0.372 \pm 0.005$  and  $R_{\text{val}}^2 = 0.328 \pm 0.027$ , Supplementary Material D.3). The compound-variable for litter characteristics was obligatory present in all models. Microbial Community Metabolic Diversity (CMD) was also present in all models, while the compound-variables for water and sediment quality and fraction detritivorous macroinvertebrates (DET) were present in 40, 40 and 20% of the models, respectively. When predicting  $\text{Frac\_D}_{12}$  with the model ensemble from  $\text{Frac\_D}_6$  about 19% of the variation could be explained ( $R_{\text{val,t2,with,t1}}^2 = 0.189 \pm 0.009$ ), 15% of the variation could be explained when predicting the fraction of decomposition of vegetation originating from the Weerribben ( $R_{\text{WR,t1}}^2 = 0.145 \pm 0.150$ ).”
3. Section 3.4 *Combined effect of litter characteristics and environmental conditions on decomposition*, third paragraph “Also four models were present in the model ensemble with  $\text{Frac\_D}_{12}$  as response variable ( $R_{\text{adj}}^2 = 0.232 \pm 0.003$ ,  $R_{\text{val}}^2 = 0.178 \pm 0.028$ , Supplementary Material D.4). The compound-variable for litter characteristics was still obligatory present in all models. The compound-variable for water quality was also present in all models. In this case the variables DET, CMD and the compound-variable for sediment quality were each present in one of the models. When predicting the decomposition rate in the Weerribben only 3% of the variation could

be explained ( $R_{\text{WR,t2}}^2 = 0.025 \pm 0.006$ ).” **This should be replaced with** “Four models were present in the model ensemble with  $\text{Frac\_D}_{12}$  as response variable ( $R_{\text{adj}}^2 = 0.246 \pm 0.007$ ,  $R_{\text{val}}^2 = 0.198 \pm 0.032$ , Supplementary Material D.4). The compound-variable for litter characteristics was still obligatory present in all models. The compound-variable for water quality was also present in all models. In this case, the compound-variable for sediment quality was present in 75% of the models, while the variables DET and CMD were each present in one of the models. When predicting the decomposition rate in the Weerribben only 4% of the variation could be explained ( $R_{\text{WR,t2}}^2 = 0.043 \pm 0.011$ ).”

In the *Discussion and conclusion* section:

1. Third paragraph, second sentence “In the in-situ experiment, water quality variables became dominant predictors (together with litter characteristics) in this second phase, explaining 23% of the variation in decomposition rates.” **This should be replaced with** “In the in-situ experiment, water quality variables and to a lesser extent sediment quality variables became dominant predictors (together with litter characteristics) in this second phase, explaining 25% of the variation in decomposition rates.”
2. Fourth paragraph, first sentence “Models based on data from the constructed wetland Volgermeerpolder could not predict decomposition rates in the developed wetland Weerribben for both time periods and experiments.” **This should be replaced with** “Models based on data from the constructed wetland Volgermeerpolder could only to a limited degree predict decomposition rates in the developed wetland Weerribben for the first six months of decomposition in the in-situ experiment, but not for the other time periods and experiments.”

In the Supplementary Material:

1. ESM\_A, tab *SED*: the values in columns Z – AW (K, Na, Ca, total Fe, total Mn and total P) changed
2. ESM\_C, tab *PCA*: the values columns E and F (Eigenvalue and loading sediment quality variables) changed
3. ESM\_D, tab *D.3\_Frac\_D6\_Exp1&2* and *D.4\_Frac\_D12\_Exp1&2*: values in columns *meanOutput* and *sdOutput* changed, because of not taking 0-values into account in calculating mean and sd
4. ESM\_D, tab *D.3\_Frac\_D6\_Exp1&2*: the number of models and values changed
5. ESM\_D, tab *D.4\_Frac\_D12\_Exp1&2*: the number of models and values changed

The authors would like to apologise for any inconvenience caused.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ecoleng.2019.01.021>.