CORRECTION



## Correction to: Impacts of low salinity exposure and antibiotic application on gut transport activity in the Pacific spiny dogfish, *Squalus acanthias suckleyi*

Alyssa M. Weinrauch<sup>1,4</sup> · Erik J. Folkerts<sup>2,4</sup> · Tamzin A. Blewett<sup>2,4</sup> · Carol Bucking<sup>3,4</sup> · W. Gary Anderson<sup>1,4</sup>

Published online: 13 August 2022 © Springer-Verlag GmbH Germany, part of Springer Nature 2022

Correction to: Journal of Comparative Physiology B (2020) 190:535–545 https://doi.org/10.1007/s00360-020-01291-4

The authors note that subsequent analysis has demonstrated the metric for measurement of plasma ammonia is incorrect and has artificially elevated the expected values as found in Table 1, owing to an incorrect protocol for deproteination. Subsequent analysis demonstrates that trends remain the same (i.e., unaltered across the measured treatments), but values are an order of magnitude lower than those reported.

Plasma ammonia should be measured upon first thaw to prevent loss of total ammonia through volatilization (confirmed in experiment 1 - 'thawed' vs 'never thawed'). Thus, because our samples had been thawed multiple times for other measurements we were unable to measure the exact samples from the study.

However, using fresh plasma from other experiments we validated the ammonia electrode protocol with the two different methods for deproteinization. The new protocol follows published protocols and yields plasma ammonia concentrations in line with previously published samples (see experiment 1). The old protocol consistently yields values an order of magnitude above that of previously published values, potentially owing to the acid hydrolysis of protein within the samples which would liberate more 'free N' in the measured suspension. Further, we tested the effects of spiking pooled dogfish plasma samples with known values of ammonia and differences were detected using both methods when 25 and 50  $\mu$ M ammonium chloride was added to the samples (see experiment 2). Thus, we hypothesize that we

The original article can be found online at https://doi.org/10.1007/ s00360-020-01291-4.

Alyssa M. Weinrauch Alyssa.Weinrauch@umanitoba.ca

- <sup>1</sup> Department of Biological Sciences, University of Manitoba, Winnipeg, MB R3T 2N2, Canada
- <sup>2</sup> Department of Biological Sciences, University of Alberta, Edmonton, AB T6G 2E9, Canada
- <sup>3</sup> Department of Biology, York University, Toronto, ON M3J 1P3, Canada
- <sup>4</sup> Bamfield Marine Sciences Centre, Bamfield, BC V0R 1B0, Canada

would have detected differences in the plasma samples from the original study if salinity had an effect on plasma ammonia. However, we cannot definitively conclude the effects of altered salinity on plasma ammonia concentrations in the Pacific spiny dogfish (*Squalus suckleyi*).

## Experiment 1

Sample ID	New protocol (µM ammonia)	Old protocol (µM ammonia)
1-never thawed	141	1051
1-never thawed	137	1098
1-never thawed	114	1400
1-never thawed	233	967
2-never thawed	115	1384
3-thawed 1 before	59	1277
3-thawed 1 before	90	1567
3-thawed 1 before	97	1029
3-thawed 1 before	57	1260

## Experiment 2

Sample ID	New protocol (µM ammonia)	Old protocol (µM ammonia)
No spike	204	986
25 μM NH <sub>4</sub> Cl spike	241	1040
50 μM NH <sub>4</sub> Cl spike	270	1111

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.