Erratum and addendum

Diel activity cycles of freshwater gastropods under natural light: Patterns and ecological implications

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Received 10 April 2011; Accepted 23 August 2011

Key words: Gastropods / circadian rhythms / lake littoral ecology

Erratum

Galba truncatula (O.F. Müller, 1774) was misidentified in Lombardo et al.’s (Annales de Limnologie – Int. J. of Lim., 46 [2010], 29–40, DOI: 10.1051/limn/2010004). The taxon in question has been recently identified as Stagnicola (= Lymnaea) fuscus (C. Pfeiffer, 1821) on the basis of:

- a closer examination of shell morphology using Gloër & Meier-Brook (2003), performed in our laboratory;
- the molecular procedure based on Internal Transcribed Spacer 1 (ITS-1) sequencing, performed at the Institute of Evolutionary Sciences (Université Montpellier 2) by comparing known sequences from other lymnaeids from the publicly available GenBank database, and producing a phylogeny by maximum likelihood. Extractions were performed using DNA Mini Spin Columns (AllPrep DNA/RNA Mini Kit®, Qiagen, Chatsworth, CA). The nuclear Internal Transcribed Spacer 1 (ITS-1) gene was amplified using the published primers Lym1657/F (5’CTGCCCTTTGTACACACCG3’) and RIXO1/R (5’TGGCTGCGTTCTTCATCG3’). PCR amplification is fully described in Correa et al. (2010).
- DNA sequencing was performed in both strands by GATC Biotech (Konstanz, Germany). Maximum likelihood trees were built using PhyML software (Guindon & Gascuel, 2003) with default parameters. Bootstrap values, indicating the confidence of a phylogenetic identification, strongly supported the molecular identification of S. fuscus. Bootstraps values were 91% for the placement of the sequenced snail species within the S. fuscus clade and 100% for the S. fuscus - L. palustris divergence.

The taxonomic re-examination has used living specimens from our long-term laboratory cultures, the same cultures that provided the experimental snails in Lombardo et al. (2010). The renaming of S. fuscus follows the nomenclature in Bank (2011) and does not affect the results and their discussion in Lombardo et al. (2010), except for direct comparisons with some literature on G. truncatula, which no longer apply.

Addendum

We have added a statistical analysis, a Fisher’s Combined Probabilities test (CPT) to test for the probability of experiment-wide Type I errors in the t-tests of Tables A1 and A3. Such a test has been recommended as a more reliable test than any Bonferroni or Bonferroni-like procedure by Gotelli & Ellison (2004). Highly significant CPTs for such test-rich Tables ($\chi^2_{\text{Table A1}} = 419.324$, $df = 96$; $\chi^2_{\text{Table A3}} = 992.783$, $df = 264$; $p < 0.00001$ for both) indicated that our approach was appropriate and reliable, with a very low experiment-wide probability of committing Type I errors, and a confirmation of no need for Bonferroni corrections (Gotelli & Ellison, 2004).

Acknowledgements. We are indebted to Dr. Philippe Gayral and Dr. Marion Ballenghien of Université Montpellier 2 for the molecular-based, definitive identification of S. fuscus. The untimely passing of Dr. Marco Giustini in February 2010 has left a vacuum in our Ecology Lab. We thank Dr. Maurizio Biondi, former Head of the Department of Environmental Sciences at the University of L’Aquila, for supporting and implementing the dedication of our Ecology Lab to the late Dr. Giustini. Marco, we will miss you and your dedication,
warmth, generosity, friendship, and passion for all kinds of aquatic “bugs”.

References


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