

Response to DeVaney. 2010. "Biodiversity and Biodisparity"

Biodiversity, biodisparity, and bioequivalence

*Thomas Kirchhoff*¹

Key Words: *biodiversity; concepts; distance; equivalence*

The meaning of 'biodiversity' is notoriously unclear. DeVaney (2010), based upon Gould (1989), has proposed to distinguish between 'biodiversity' and 'biodisparity': one should speak of 'biodiversity' when referring to similarity or equivalence of biological entities, and of 'biodisparity' when referring to their distance or uniqueness. I recommend refining DeVaney's proposal because I judge it basically useful but inconsistent and impracticable in the given formulation.

His proposal is terminologically inconsistent because it opposes a relatively generic term 'biodiversity' to a relatively specific term 'biodisparity.' Instead, one has to oppose 'biodisparity' to an equally specific term like 'bioparity' or 'bioequivalence,' while retaining 'biodiversity' as an ambivalent generic term. Thus, one has to proceed as in the case of 'stability' where the insight into the term's ambiguity led to the distinction of types of stability like 'resistance' and 'resilience' (Harrison 1979).

DeVaney's proposal might be impracticable because it defines 'diversity' as a technical term with disregard to its broad range of colloquial meanings. Biology's technical language requires the ambiguous, amalgamating term 'biodiversity' to express interest in both distance and similarity at the same time. Even if the explicit interest is, e.g., in bioequivalence of species with regard to the stability of a particular ecological process, there should be an implicit interest in biodisparity also; for bioequivalence might increase process stability only if the species differ in their response to environmental conditions.

Therefore, I propose the use of 'biodisparity' and 'bioparity,' or 'bioequivalence' and 'bioinequality' to designate the two opposing perspectives on biodiversity.

Responses to this article can be read online at:
<http://www.ecologyandsociety.org/vol15/iss4/resp2/responses/>

LITERATURE CITED

- DeVaney, L. A.** 2010. Biodiversity and biodisparity. *Ecology and Society* 15(2):r1. [online] URL: <http://www.ecologyandsociety.org/vol15/iss2/resp1/>.
- Gould, S. J.** 1989. *Wonderful life: the Burgess Shale and the nature of history*. Norton & Company, New York, New York, USA.
- Harrison, G. W.** 1979. Stability under environmental stress: resistance, resilience, persistence, and variability. *The American Naturalist* 113(5):659-669.

¹FEST e.V., Protestant Institute for Interdisciplinary Research