| F1000 Prime   |  | Article Recommendations    | Q Advar                       |
|---|--|----------------------------|-------------------------------|
| Article Recommendations   | Rankings F1000Prime Rep                          | orts F1000 Faculty Blog    | MyF1000 Sign o                |
| 5 Wkhup down<br>Sunday J, Bates A,<br>Nat Clim Chang. 20                          | cdrudqfh#dqg#kh#jore<br>, Dulvy N.<br>012 May 23 | do#hglwulexwlrq#ci#lqlpdov | 7                             |
| Alerts for similar articles   |  |                            | Save to MyF1000/Follow Export |
| Expand All Recommendations  | Recom  | mendations:                |                               |
| 21 Nov 2012   |  |                            | Score:                        |
| 21 Nov 2012<br>Boris Worm<br>F1000 Ecology<br>Dalhousie Unive<br>Halifax, NS, Car | n<br>ersity,<br>nada.                            |                            | 5                             |

This is a very comprehensive study of the effects of temperature on the latitudinal distribution of animals on land and in the sea. The study only considers ectotherms, as they cannot regulate their internal temperature. Interestingly, there is a fundamental difference between the two realms: marine species fill their thermal niches, i.e. their distribution is tied closely to their temperature tolerance, whereas land species tend to 'underfill' their equator-bound ranges, such that there is a thermal buffer to warming temperature. In contrast, they 'overfill' their poleward range, often extending into regions beyond their thermal tolerance. Behavioral mechanisms like hibernation may explain the latter, whereas the reasons for the equator-ward underfilling are less clear. In any case this observation, if general, would mean that the biogeographical effects of climate change should be more easily predicted in the ocean (at least for individual species) than on land. Empirical data on observed range shifts seem to support this assertion.

Disclosures None declared

Add Comment

No comments yet.

## **Comments:**

| Library Resources | Article Recommendations | Articles (beta access only) | Articles          | Posters           |
|-------------------|-------------------------|-----------------------------|-------------------|-------------------|
| Press Office      | F1000Prime Reports      | F1000Trials Faculty         | Advisory Panel    | Upcoming meetings |
| F1000 Updates     | F1000Prime Faculty      | About/Contact               | Blog              | For Depositors    |
| About/Contact     | Blog                    |                             | Submit            | For Societies     |
|                   | Subscribe               |                             | Author Guidelines | Register          |
|                   | About                   |                             | Register          | About/Contact     |
|                   | Contact                 |                             | About/Contact     |                   |

© 2000-2013 Faculty of 1000 Ltd. ISSN 2051-9796 | Legal | Partner of HINARI • CrossRef • ORCID

The F1000.com website uses cookies. By continuing to browse the site, you are agreeing to our use of cookies. Find out more »