Expanding Wallace species distribution modeling software as a tool for assessment and reporting by Biodiversity Observation Networks (BONs)

Wallace: A flexible platform for reproducible modeling of species niches and distributions

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Wallace software

Open-source, flexible, reproducible
https://wallaceecomod.github.io/
Expanding Wallace

1. Develop two new R packages to calculate biodiversity change indicators using GEO Remote Sensing data & add them to Wallace as modules
2. Integrate Wallace with BioModelos
3. Create interactive web-based training and workshop materials
New modules: Mask SDM

- New R package `maskRangeR`
  - Now on CRAN
- Estimates a species’ current range
- Post-processing of SDMs:
  - RS products (e.g. forest cover)
  - User-defined polygons (e.g. protected area, land cover)
  - Expert-defined areas
New modules: Calculate indicators

- New R package changeRangeR
- Biodiversity indicators
  - IUCN’s AOO, EOO
  - Range size
  - % suitable land cover
  - PA representativeness
- Changes over time and space
- Multispecies diversity
  - Richness and endemism

Galante et al. in prep.
Wallace and BioModelos

Module: BioModelos payload
1. Choose the species you want to submit to BioModelos.
2. Retrieve the API key that you want to download occurrence data.
3. Enter your email if you are not yet registered as a BioModelos user - you can register on their website https://biomodelos.humboldt.org.co/
4. For CC License, choose the copyright license under which you agree to share your model with BioModelos users. You can read more about different licenses here https://creativecommons.org/licenses/
5. Check the box beside "Agreement" if you agree that BioModelos can publish your model as a part of the next Atlas of Biodiversity of Colombia.
Training Materials

Network of Conservation Educators and Practitioners

ncep.amnh.org
Inclusion & co-creation
Questions? Want to beta-test? Please contact me or visit the Wallace website.

wallaceecomod.github.io

- Software note
- Tutorial
- Google group
- Wallace e-mail
- Github
- Youtube webinar

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