

R Pillay *et al.* – Supporting Information

WebPanel 1. Methods

Geographic range maps

We filtered all geographic range map datasets with three successive International Union for Conservation of Nature (IUCN) Red List of Threatened Species (IUCN 2020) spatial attributes to remove extinct species and records based on uncertain data. First, we retained only species known to be “Extant”, while discarding polygons representing parts of a species range where it was reported to be “Possibly extant”, “Possibly extinct”, “Extinct”, and “Presence uncertain”. Second, we filtered the list of extant species to retain only those that are “Native” and “Reintroduced”, while discarding polygons representing parts of a species range where it was reported to be “Introduced”, “Vagrant”, “Origin uncertain”, and “Assisted colonization”. Third, we filtered the list of species from the second step above to retain only “Resident” and “Non-breeding” parts of the range for mammals (the only ones remaining for mammals after the first two filters above). For birds, we retained “Resident”, “Breeding”, “Non-breeding”, and “Passage” parts of the range, while discarding “Seasonal occurrence uncertain”. With respect to migratory birds, this “Non-breeding” attribute captures the wintering grounds of a species or parts of the range to which the species migrates during the nonbreeding season. For amphibians, we retained “Resident” parts of the range, which was the only category remaining after applying the first two filters above. The final list of amphibians from the IUCN Red List after this third filter included 6607 species, but this did not comprise all known amphibians; therefore, we included 659 additional species from González-del-Pliego *et al.* (2019), after cross-verification to omit synonyms and extinct species. Because we obtained the reptile database from a source other than the IUCN Red List (Roll *et al.* 2017), we were unable to perform the same suite of filters on reptiles. However, our analyses showed that ten species from this list are now regarded as extinct and these species were therefore discarded.

WebReferences

- González-del-Pliego P, Freckleton RP, Edwards DP, *et al.* 2019. Phylogenetic and trait-based prediction of extinction risk for data-deficient amphibians. *Curr Biol* **29**: 1557–63.
- IUCN (International Union for Conservation of Nature). 2020. The IUCN Red List of Threatened Species (v2020-1). Gland, Switzerland: IUCN. www.iucnredlist.org. Viewed 20 Nov 2020.
- Roll U, Feldman A, Novosolov M, *et al.* 2017. The global distribution of tetrapods reveals a need for targeted reptile conservation. *Nat Ecol Evol* **1**: 1677–82.