

PREDICTS Newsletter



Projecting Responses of Ecological Diversity In Changing Terrestrial Systems

NHM joins PREDICTS!

Andy Purvis, the principal investigator of the PREDICTS project, and his research group have moved from Imperial College London to the Natural History Museum in London. Andy officially starts as a Research leader for the Museum on the 4th November and his group are already settling into their new lab in the Darwin Centre, and the database is now hosted on NHM's intranet. We are very excited to be here!

What's in the database? Assessing the coverage of the PREDICTS data

We have spent much of the last month assessing the degree of taxonomic and biogeographic coverage that has been achieved by the PREDICTS database. As of the beginning of October 2013 we have compiled below just over one million biodiversity measurements representing more than 24,000 species and 67 countries. 15 of the world's 17 megadiverse countries are represented. We have measurements from every major biome and from 23 of the world's 35 recognised biodiversity hotspots. A massive thank-you to everyone who has contributed their data and to all of the PREDICTS team who have worked so hard to get collate them!

The figure shows the number of species for which we have data, split by high-level taxonomic group. Groups where we have fewer than 100 species represented are not shown. Filled circles and crosses show the estimated numbers of extant and described species respectively - these data are taken from Chapman (2009). Text within the bars shows

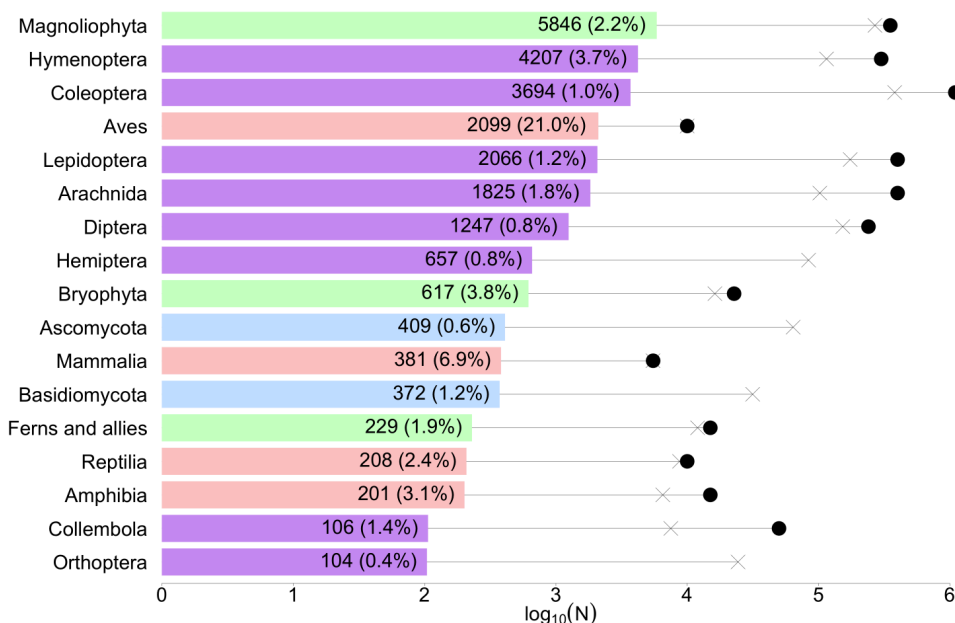
the number of species represented in the database, and the percentage of described species.

We are currently preparing a manuscript that will introduce the PREDICTS database and illustrate its taxonomic and biogeographic coverage. Alongside the paper, we will make public meta-data that shows the sampling locations and taxonomic groups present within the database. We will, of course, offer authorship on this paper to everyone whose data we have managed to

incorporate so far, and who said we could share it. Sorry to those whose data we have not yet managed to upload into our database - we will add these over the coming months. The entire database will be made public at the end of the project in 2015, at which time we intend to publish a second manuscript on which all data contributors will be authors.

Dr Lawrence Hudson, Natural History Museum

Chapman, A.D (2009) *Numbers of Living Species in Australia and the World*. 2nd Edition. Report for the Australian



Is bigger better in the face of anthropogenic change?

I have been an intern at UNEP-WCMC since July of this year. In this time I have made a variety of contributions to the PREDICTS project, but I think the most interesting of these is my current investigation into organism traits. Across the conservation arena there are countless attempts to characterise the responses of nature to human pressures, but the majority of these focus on biodiversity metrics as the response variable - overlooking important details, particularly the kinds of species that are being lost. By considering simple size metrics of resident species (or their derivatives, such as seeds) across habitats that have been

impacted by humans to a greater or lesser extent, I am hoping to address this gap on a large scale. This includes both the large spatial scale intrinsic to the PREDICTS database, combined with a larger taxonomic scale than has been considered previously. With respect to the latter, we are very grateful for the TRY database as a source of plant trait data, the PanTHERIA database for its mammal trait data, to Dr. Stuart Butchart (BirdLife International) for providing bird mass data, and to [Cooper *et al.* \(2008\)](#) for publishing the amphibian snout-vent lengths. Analyses thus far have proved to be very interesting!

Rebecca Senior, Intern at UNEP WCMC

Cooper, N., Bielby, J., Thomas, G.H. & A. Purvis (2008). *Macroecology and extinction risk correlates of frogs*. *Global Ecology and Biogeography* 17:211-221.

Congratulations to PREDICTS Masters students!

Congratulation to the MSc and MRes students (Dominic Bennett, Susy Echeverria-Londoño, Daniel Ingram, Yaun Pan, Callum Martin, Morgan Garon, Sylvester Choimes and Stewart Jennings) who worked on the PREDICTS project and have recently completed their projects brilliantly! For more information about the students' project research please visit the [Outputs](#) page on our website

New interns

Welcome to Leejiah Doward and David Laginha Pinto Correia who have recently joined the PREDICTS project and will be working as interns with us for the next few months.



Science Uncovered

On the 27th September, members of the PREDICTS team along with researchers from UCL's Centre for Biodiversity and Environment Research (CBER), ran a stall at the Natural History Museum's "Science Uncovered" event, as part of European Researchers' night. The stall covered issues relating to environmental change and biodiversity loss. A highlight of the night was a game developed using the PREDICTS model and several scenarios of climatic warming and land-use change, testing the public's perceptions of present and future biodiversity loss. Participants were asked to make a guess about future environmental change under two scenarios – a low-emissions scenario in which land-use decisions are based primarily on the agricultural value of the land, and a high-emissions scenario in which emissions pricing influenced land-use decisions. The game proved very popular, with nearly 50 players during the night, competing to achieve the best score. We hope to make this game available online soon. (See [Claire's blog](#) for further details).

Claire Asher, UCL



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Thanks to Domenico Tozzi for producing the PREDICTS logo.

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