

SFU Press Releases Collection

These archival copies have been generated from web press releases maintained and originally written by SFU Communications and Marketing. Where possible, an effort has been made to preserve the public comments left on the website as well as any included photos or other images. All textual content should be faithful to the original press releases; contact numbers have been removed but they have not otherwise been altered in any way. However, this collection of documents spans multiple generations of web authoring software and not all formatting will be exact.

MEDIA RELEASE

World ranking tracks birds' evolutionary distinctness

April 10, 2014

[Tweet](#) [Facebook](#) [Pinterest](#) [Email](#) [Print](#)

Contact:

Arne Mooers, 778.782.3979; 604.818.1627 amooers@sfu.ca

Marianne Meadahl, PAMR, 778.782.9017; Marianne_Meadahl@sfu.ca

Journal: <http://at.sfu.ca/okqABo>

A team of international scientists, including a trio from [Simon Fraser University](#), has published the world's first ranking of evolutionary distinct birds under threat of extinction. These include a cave-dwelling bird that is so oily it can be used as a lamp and a bird that has claws on its wings and a stomach like a cow.

The research, published today in *Current Biology*, shows that Indonesia, Australia and New Zealand all score high on responsibility for preserving irreplaceable species. The researchers examined nearly 10,000 bird species and identified more than 100 areas where additional protection efforts would help safeguard avian biodiversity.

"We used genetic data to identify the bird species that have the fewest relatives on the 'Tree of Life', that is, which species score highest on the 'evolutionary distinctness' index," explains SFU biologist Arne Mooers, one of the six authors of a study that was seven years in the making.

The index was created by former SFU PhD student Dave Redding, another of the trio, and was applied to an updated version of the first global tree of birds, published in 2012 by the group in *Nature*.

The researchers, led by Mooers and Walter Jetz at Yale University, combined the index with data on extinction risk and maps of where every bird in the world lives. The result is a snapshot of how the entire Tree of Life of birds is distributed on the planet, and where on earth the tree is most at risk of being lost.

"Given that we cannot save all species from extinction, these distinct species are of special conservation concern, since they are truly irreplaceable - they have no close relatives that share their DNA," Mooers says.

Jeff Joy, another SFU team member, adds: "Many of these distinct species are also incredibly cool—the number-one bird lives in caves and is so oily you can use it as a lamp, the number three-bird has claws on its wings and a stomach like a cow, while still another, the Abbott's Booby, breeds only on Christmas Island."

Mapping where distinct species are on the planet also gives insight into which areas and countries steward disproportionate amounts of bird evolution. The data also offer some insight into large-scale processes affecting biodiversity, Mooers says.

"We also found that if we prioritize threatened birds by their distinctness, we actually preserve very close to the maximum possible amount of evolution," says Mooers. "This means our method can identify those species we cannot afford to lose and it can be used to preserve the information content represented by all species into the future. Both are major goals for conservation biology."

The new rankings will be used in a major conservation initiative called the [Edge of Existence](#) program at the London Zoo. The zoo has already identified several species like the huge monkey-eating Philippine eagle that are at once distinct,

endangered, and suffer from lack of attention.

Funding came from several sources, including NSERC, NERC, NSF, NASA, and the Yale Institute for Biospheric Studies.

Simon Fraser University is consistently ranked among Canada's top comprehensive universities and is one of the top 50 universities in the world under 50 years old. With campuses in Vancouver, Burnaby and Surrey, B.C., SFU engages actively with the community in its research and teaching, delivers almost 150 programs to more than 30,000 students, and has more than 125,000 alumni in 130 countries.

-30-

Simon Fraser University: Engaging Students. Engaging Research. Engaging Communities.

[Comment Guidelines](#) 

- [For the Media](#)
- [For Faculty and Staff](#)
- [About SFU](#)
- [SFU News](#)

[Admission](#)
[Programs](#)
[Learning](#)
[Research](#)
[Community](#)
[About](#)

[Maps + directions](#)
[Library](#)
[Academic Calendar](#)
[Road Report](#)
[Give to SFU](#)
[Emergency Information](#)

CONNECT WITH US

[Facebook](#)
[Instagram](#)

CONTACT US

Simon Fraser University
8888 University Drive

[Twitter](#)
[YouTube](#)

Burnaby, B.C.
Canada V5A 1S6

[Terms and conditions](#)
© Simon Fraser University