

## Genetic 'barcoding' reveals a slew of new species

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Six new bat species and 15 new bird species have been discovered in the trial run of an ambitious plan to genetically "barcode" all life on Earth.

All the new species had previously been misclassified because they looked and sounded the same as other species. Only when the animals' DNA had been screened did it become clear that they belonged to distinct species.

Researchers scanned the DNA of 643 bird species in North America - some 93 per cent of all species breeding in the region - and 87 bat species in Guyana to test the barcoding approach.

"A complete registry of all life on Earth is now within reach," says Paul Hebert of the University of Guelph in Ontario, Canada, a co-author of two papers on the research published in the journal *Molecular Ecology Notes*.

Hebert and his colleagues screen the same *cytochrome c oxidase* gene in every animal, as it is one of only two genes shared by all higher organisms. The precise sequence of the gene varies in each species, however. It acquires more mutations than usual because it is located in cells' energy-generating mitochondrial DNA rather than that of the nucleus, but mitochondrial DNA is also less likely to become scrambled. This makes it ideal for barcoding species, says Hebert (*New Scientist*, 26 June 2004, p 32).

The new species included *Platyrrhinus helleri*, a frog-eating bat. "That's my favourite," says Hebert.

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**IQ QUESTION:**  
Which does not belong in the group?

U   E   A

S   O

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