Elusive bay cat caught on camera

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Pardofelis badia. Credit: Copyright Oliver Wearn

The world's least known cat has been caught on camera in a previously unsurveyed rainforest by scientists from the Zoological Society of London (ZSL) and Imperial College London.

Until now, the bay cat (*Pardofelis badia*) had been recorded on camera traps just a handful of times in its Borneo forest home and was only photographed in the wild for the first time in 2003. But more images of

this animal have been captured than ever before, together with evidence of four other wild cat species, in a heavily logged area of forest where they were not expected to thrive.

This is only one of four forest areas in all of Borneo – the third largest island in the world - which has so far been reported to have all five species, including the Sunda clouded leopard (*Neofelis diardi*), leopard cat (*Prionailurus bengalensis*), flat-headed cat (*Prionailurus planiceps*) and marbled cat (*Pardofelis marmorata*).

ZSL and Imperial College London PhD researcher Oliver Wearn says: "We discovered that randomly placed cameras have a big influence on the species recorded. This is something I was taught in school – I remember doing a project on which plant species were most abundant on our playing field, and being taught to fling quadrats over my shoulder in a random direction before seeing what plants lay within it, rather than placing it somewhere that looked like a good place to put it – the same principle applies here."

Pardofelis badia. Credit: Copyright Oliver Wearn

Camera traps have transformed how information is collected for many species of mammals and birds, including some of the most charismatic species in existence, like tigers. Many of these species are exceedingly good at spotting, and avoiding, conservationists who spend time in the field seeking them. Camera traps, on the other hand, sit silently in the forest often working for months on end come rain or shine.

Oliver Wearn added: "The cameras record multiple sightings, sometimes of species which we might be very lucky to see even after spending years in an area. For example, I've seen the clouded leopard just twice in three years of fieldwork, whilst my cameras recorded 14 video sequences of this enigmatic cat in just eight months."

All five cat species mentioned are charismatic and important

components of the forest ecosystems, and predators of a wide range of other animals. They are also highly-threatened: four of the five species are listed as threatened with global extinction on the IUCN Red List. Almost nothing is known about the habits of the mysterious bay cat, but it is thought to be at risk of extinction due to widespread loss of its habitat on Borneo.

Dr Robert Ewers from the Department of Life Sciences at Imperial College London, leads the SAFE tropical forest conservation project in Borneo, where the bay cats were seen. He says: "We were completely surprised to see so many bay cats at these sites in Borneo where natural forests have been so heavily logged for the timber trade. Conservationists used to assume that very few wild animals can live in logged forest, but we now know this land can be home for many endangered species.

"Our study today shows solid evidence that even large carnivores, such as these magnificent bay cats, can survive in commercially logged forests," Dr Ewers added.

ZSL and Imperial College London conservationists will continue to study the effects of logging on wildlife populations, looking more broadly than just the highly charismatic cats, towards other mammal species, both large and small. More detailed work aims to gather the information palm oil producers need to make their plantations more mammal-friendly, and assess whether saving patches of forest within such areas might be a viable option for saving Borneo's mammals.

More information: dx.plos.org/10.1371/journal.pone.007759

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