Cull invasive mammals to save island species, experts urge

Move 'would save 10% of all endangered birds, mammals, amphibians and reptiles'

Patrick Barkham, The Guardian Wed 27 Mar 2019

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Nearly 10% of the world's bird, mammal, amphibian and reptile species currently on the brink of extinction could be saved by killing invasive mammals such as cats and rats on 169 islands, according to a new study.

Islands comprise just 5.3% of the Earth's landmass yet have experienced 75% of known bird, mammal, amphibian and reptile extinctions since 1500. More than a third of species currently classified as "critically endangered" on the IUCN Red List are found on islands, with many particularly vulnerable to just eight species – including feral pigs, dogs, goats and mongooses – introduced by humans.

Research <u>published in the journal Plos One</u> identifies the disproportionate impact programmes to remove non-native species from islands can have in slowing the global rate of extinction.

"Eradicating invasive mammals from islands is a powerful way to remove a key threat to island species and prevent extinctions and conserve biodiversity," said lead author Dr Nick Holmes of Island Conservation.

Scientists identified 3,990 "negative interactions" between 1,184 species of highly threatened vertebrates and non-native mammals on islands, finding that 83% were caused by eight mammals, including three species of rat. On the island of Floreana, the Galápagos penguin, dark-rumped petrel and medium tree finch are threatened with extinction by six invasive species.

While locals are sometimes at first sceptical about the feasibility of removing hundreds of thousands of rodents from their islands, scientists said techniques were now proven: there have now been more than 1,200 invasive mammal eradication attempts, with a success rate of 85%.

The researchers identified 169 islands where eradication programmes were politically feasible before 2030 and could save 9.4% of the world's critically endangered bird, mammal, amphibian and reptile species, ranking them in order of their priority for restoration.

These include the uninhabited Gough Island, a UK world heritage site in the south Atlantic, where house mice introduced by 19th-century seal-hunters have evolved to twice their

normal size and <u>eat seabird chicks alive</u>, including those of the Tristan albatross. Half the 1,000 albatross chicks hatched each year are eaten by mice. The mice have even attacked adult albatrosses on their nests.

<u>In a £9m project</u>, the Tristan da Cunha authorities and the RSPB, with international partners including Island Conservation, plan to eradicate the mice. Helicopters will drop poison pellets on the island during the southern hemisphere winter of 2020 when food is short. Some Gough moorhens, the only bird judged at risk from the poison, will be taken into captivity during the operation as a precaution.

Jonathan Hall, the RSPB's head of UK overseas territories, said: "This is about as cost-effective, high-impact species extinction prevention spending as one can find – as close as we can get to a silver bullet. For governments aiming to meet biodiversity targets, this is a really excellent tool for <u>saving</u> species from extinction. People are often surprised at just how successful and doable these projects are – funding them is the biggest limitation."

According to Hall, eradication programmes must always be a last resort but he said local people were rarely opposed to the removal of non-native species on animal welfare grounds. "It's key to work with these communities and make sure they are involved and providing leadership and receiving the benefits, including ecotourism," he said.

While eradication projects are usually undertaken to save charismatic birds or mammals, a host of smaller invertebrates and plants also benefit. Hall said: "There's normally a flagship species for which these projects are done but actually they are whole ecosystem restorations."