

Study: Elephants thought extinct may have survived

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Pygmy elephant with radio collar. Credit: Cede Prudente

The Borneo pygmy elephant may not be native to the island of Borneo after all. Instead, the population could be the last survivors of the Javan elephant race – accidentally saved from extinction by the Sultan of Sulu centuries ago, suggests an article co-authored by World Wildlife Fund (WWF).

The origins of the pygmy elephants, found only on the northeast tip of the island in part of the Heart of Borneo, have long been shrouded in mystery. Their looks and behavior differ from other Asian elephants and scientists have questioned why they never dispersed to other parts of the island.



But today's paper, published in the peer-reviewed Sarawak Museum Journal, supports a long-held local belief that the elephants were brought to Borneo centuries ago by the Sultan of Sulu, now in the Philippines, and later abandoned in the jungle. The Sulu elephants, in turn, are thought to have originated in Java, an Indonesian island that is across the Javan Sea from Borneo.

"Just one fertile female and one fertile male elephant, if left undisturbed in enough good habitat, could in theory end up as a population of 2,000 elephants within less than 300 years," said Junaidi Payne of World Wildlife Fund, one of the paper's co-authors. "And that may be what happened in practice here."

Javan elephants became extinct sometime in the period after Europeans arrived in Southeast Asia. Elephants on Sulu, never considered native to the island, were hunted out in the 1800s.

"Elephants were shipped from place to place across Asia many hundreds of years ago, usually as gifts between rulers," said Mr. Shim Phyau Soon, a retired Malaysian forester whose ideas on the origins of the elephants partly inspired the current research. "It's exciting to consider that the forest-dwelling Borneo elephants may be the last vestiges of a subspecies that went extinct on its native Java Island, in Indonesia, centuries ago."

If the Borneo pygmy elephants are in fact elephants from Java, an island more than 800 miles south of their current range, it could be the first known elephant translocation in history that has survived to modern times, providing scientists with critical data from a centuries-long experiment. Their possible origins in Java make them even more a conservation priority.

Scientists solved part of the mystery in 2003, when DNA testing by Columbia University and WWF found that the Borneo elephants were



genetically distinct from Sumatran or mainland Asian elephants, leaving either Borneo or –under this new theory– Java as the most probable source.

The new paper, "Origins of the Elephants Elephas Maximus L. of Borneo," shows that there is no archaeological evidence of a long-term elephant presence on Borneo, thus making Java the possible source.

There are perhaps just 1,000 of the elephants in the wild, mostly in the Malaysian state of Sabah. WWF has captured and placed satellite collars on 11 elephants since 2005 to track them since they had never been studied before. The study has shown they prefer the same lowland habitat that is being increasingly cleared for timber, rubber and palm oil plantations.

By satellite tracking of some of these elephants, WWF unknowingly may have been investigating the history of a very old experiment: the introduction of elephants from one island, where they eventually went extinct, to another, where they are still alive, said Michael Stuewe, elephant biologist for World Wildlife Fund.

"Unraveling the secrets of this experiment would be invaluable for conservation as it would guide our efforts with many species that are facing extinction today," Stuewe said. "I can only hope that the fierce competition Borneo's elephants face from commercial plantation industries for the forests they call their home does not interfere with their very survival."

Source: World Wildlife Fund

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