

**International Conference on Biodiversity for Life: Sustainable Development of Indonesia
Biodiversity 2019**

Jakarta, Indonesia

A comparative perspective on orangutans (*Pongo pygmaeus wurmbii*) as seed dispersers

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Seed dispersal is a process essential for the maintenance and regeneration of tropical forests. Many primates are important seed dispersers, and orangutans are predicted to be important seed dispersers as they are large-bodied and highly frugivorous. However, minimal previous research has been conducted on orangutan seed dispersal behavior. Here, we present our preliminary analyses on orangutan (*Pongo pygmaeus wurmbii*) seed dispersal behavior. Our data were collected in Gunung Palung National Park in West Kalimantan from August 2018 to August 2019. We collected 549 wild Bornean orangutan fecal samples, of which 75.2% of the fecal samples contained intact seeds. Dispersed seeds ranged in length from 0.1mm to 32.5mm. Next, we used a comparative perspective to understand orangutan seed dispersal effectiveness by placing orangutans in the context of the other apes. Orangutans disperse seeds with similar frequency as some populations of chimpanzees and gorillas. Overall, orangutans appear to be effective seed dispersers based on quantitative seed dispersal measures. Orangutans appear to have a vital ecological role in tropical forests, thus we advocate for the conservation of wild orangutans and the forests they inhabit.

Keywords: Apes, Ecology, Orangutans, Seed Dispersal

Funders: National Science Foundation (BCS-1638823); National Geographic Society; US Fish and Wildlife Services (F19AP00798; F18AP00898); Disney Wildlife Conservation Fund

Blackburn A, A Rizal, TW Susanto, T Mitra Setia, and CD Knott. (2019). *A Comparative Perspective on Orangutans (Pongo pygmaeus wurmbii) as Seed Dispersers*. International Conference on Biodiversity for Life: Sustainable Development of Indonesia Biodiversity. National University, Jakarta, Indonesia.