

# Dispersal of *Terminalia* seeds by the Northern Cassowary in the lowland forest of Papua, Indonesia

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## ABSTRACT

The northern cassowary (*Casuarius unappendiculatus*) is an endemic large ratite bird in New Guinea and considered as the main frugivorous bird in the lowland forest. Many trees in the rainforests of New Guinea which have large fruits like *Terminalia* spp may be depending on the cassowaries for dispersal of their seeds. We investigated the dispersal of *Terminalia* seeds through collecting the cassowary droppings along a set of transects in five distinct habitats, ranging from undisturbed primary forest to logged forest and forest garden. We identified five *Terminalia* species and found a total of 529 seeds in cassowary droppings during the survey in 2011 and 2012. Four species are endemic to New Guinea region. *Terminalia* seeds were encountered in all habitats studied except in forest garden, and the number of seeds was significantly different between habitats. The highest number of seeds was obtained from secondary forest, intermediate number in primary forest and natural forest, and the lowest was in logged forest. These results suggest the importance of *Terminalia* fruits as food resources for the cassowaries and the birds as keystone species for seed dispersal of *Terminalia* trees.

**Key words:** Northern Cassowary, *Terminalia* species, seed dispersal, Papua Indonesia.