

Manu ai niu (Coconut rhinoceros beetle) (108)

Aotelega

- Salalau lautele. Asia i Saute ma Sautesasae, Oseania. I luga o le niu, ae o isi ituaiga o pama e osofa'ia, e aofia ai le betel nut, sago palm ma le suauu pama. O fa'i, *Pandanus*, suka ma la'au fern o lo'o i ai fo'i i latou. O se fa'ama'i taua.
- O manu matutua e felelei i le po, fa'afefe i pale, fa'aleagaina laulauu, mafua ai fa'ailoga iloga.
- **Metotia fa'ale-aganu'u:** elieli ma ulufia ogalauu pa'u'u po'o ogatotonugalemu o moemoe launiu ma faaleagaina ai ma una'ia le pala:
- **Metotia faaleaganu'u:** susunu pe faatamaia laau pau'u, faaoga legume e toto I luga o laau mate e nana ma pala ai; faaoga otaota ma vaovao mo faapalaga;
- Liuliu faaputuga otaota o manu ma penu ili ma 'ave'ese lave; faaoga uaea e tape ai manu matutua ua ulufia a'a.
- **Biopesticides:** *Oryctes rhinoceros nudivirus*; *Metarhizium anisopliae* (faga spray e faga ai nofoaga e o loo tautuufua ai manu ainiu). Manatua, o lesi ituaiga manu ai niu fou faalafua o le OrNV ua maua nei i Guam, Palau, Papua Niu Kini ma Solomona Islands. Ae e lei oo mai I samoa
- **Faaogaina o vaila'au:** le talafeagai ma le tamaoaiga; o lo'o maua se pheromone e mata'itu/pulea le faitau aofa'i.

Igoa masani: Manu Ai Niu.

Igoa Faasaienisi: *Oryctes rhinoceros*. E tele fa'afitauli ua iloa I atumotu o le Pasefika.



Photo 1. Characteristic damage done by the coconut rhinoceros beetle, *Oryctes rhinoceros*, showing V or wedge-shaped sections missing from the fronds eaten by the adults as they tunnel into the crowns of mature palms. (Solomon Islands)

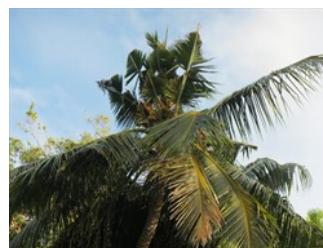


Photo 2. Severe damage to young fronds by adult coconut rhinoceros beetle, *Oryctes rhinoceros*. (Palau)



Photo 3. The damage from *Oryctes rhinoceros* in Solomon Islands is so severe that palms are dying from the attack.



Photo 4. Close up of characteristic shape

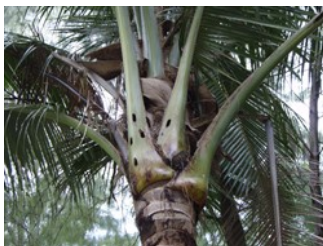


Photo 5. Holes made by adult coconut rhinoceros beetle, *Oryctes rhinoceros*, in the base of fronds. Presumably, the holes were made when the leaves were much younger as the beetle tunnelled into the crown of the palm. (Palau)



Photo 6. Larvae of coconut rhinoceros beetle, *Oryctes rhinoceros*, in a rotten coconut trunk. A favourite breeding site, especially in still standing but decaying palms (Fiji).



Photo 7. Larvae of coconut rhinoceros beetle, *Oryctes rhinoceros*, under a log of unknown tree species.



Photo 8. Close-up of the larva of a coconut rhinoceros beetle, *Oryctes rhinoceros*. Note that the C-shape grubs or larvae grow up to 100 mm.



Photo 9. The adult is jet-black, up to 40 mm long with a prominent horn. Both male and female beetles vary in size, and size cannot be used to distinguish the sexes.



Photo 10. Close-up of the head end of the coconut rhinoceros beetle, *Oryctes rhinoceros*. Male (right), female (left).



Photo 11. Underside of adult coconut rhinoceros beetle, *Oryctes rhinoceros*, to show the fuzzy group of hairs at the rear end of the female (left) compared to the male (right).



Photo 12. Close-up of the hind end of the coconut rhinoceros beetle, *Oryctes rhinoceros*. Female, with abundant hairs at the tip (left); male (right).



Photo 13. The grub or larva of a coconut rhinoceros beetle, *Oryctes rhinoceros*, infected by the fungus *Metarhizium* (Guam). The green areas are where the fungus is sporulating.



Photo 14. Trapping coconut rhinoceros beetle, *Oryctes rhinoceros*. Breeding sites are heaps of old fronds or other organic matter; they are covered by a gill net, and the beetles get caught in the mesh when entering or leaving the heaps.



Photo 15. Bucket traps for coconut rhinoceros beetles, *Oyctes rhinoceros*, with chicken-wire covers and pheromone (Fiji).



Photo 16. Bucket traps for coconut rhinoceros beetles, *Oyctes rhinoceros*, placed above ground. About 2 m above ground is ideal.



Photo 17. Bucket trap with catch of coconut rhinoceros beetles, *Oryctes rhinoceros*.



Photo 18. An artificial breeding site inoculated with spores of *Metarhizium anisopliae*, in order to infect larvae of the rhinoceros beetle, *Oryctes rhinoceros* (Fiji).

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