Pacific Pests, Pathogens, Weeds & Pesticides - Online edition

Manumanu Meca Ni Niu (108)

Kena I Vakamacala

- E kune ena ceva kei Esia kei na wasa Pasifika. E vakacacana na niu kei na vuvale ni niu me vaka na betel nut, sago palm kei na oil palm, jaina, voivoi kei na dovu. E okati me dua na manumanu meca bibi toka o koya.
- E dau vuka ena bogi, kana e vusona ka laurai e na drauna na kena vakacaca.
- **Tataqomaki Taumada (Cultural control)**: Me vakarusai na kau musu; soqoni na benu me i vakabulabula ni qele(compost); vukivukica na i varovaro ni kau (sawdust) ka vakarusa na yavato,
- **Manumanu Yaga (Biocontrol):** Vakayagataki ni virus (*Oryctes rhinoceros nudivirus) kei na* faqasi *(Metarhizium anisopliae).* Gadrevi mo ni kila ni sa tiko talega e dua na kena mataqali virus (OrNV) vou ka sa tiko mai Guam, Palau, Papua New Guinea kei Solomoni.
- **Wainimate ni Tatarovi (Chemical control):** E dau vakayagataki na baca (pheromone) me vesuka ka vakamatea na manumanu ni niu.

Common name: Coconut rhinoceros beetle

Scientific name: *Oryctes rhinoceros.* Several strains are recognised in Pacific islands.

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, *Orytes rhinoceros*. (Palau)

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

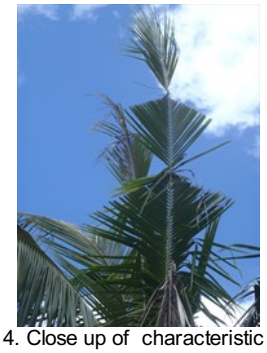

Photo 4. Close up of characteristic shape of fronds eaten by adult coconut rhinoceros beetle, *Oryctes rhinoceros*. (Palau)

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, *Orytes 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, *Orytes rhinoceros*, under a log of unknown tree species.

Photo 8. Close-up of the larva of a coconut rhinoceros beetle, *Orytes 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).