

# **Investigation of *Scaevola taccada* (nanasu) Dieback in Tumon Bay**

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On June 8, 2017, Phoebe Wall was contacted by Ilene Quitugua, Guam Visitor Bureau, and Landscape Management Systems (LMS) to investigate dieback of *Scaevola taccada* (nanasu in Chamorro; naupaka in Hawaiian). These plants are grown as ornamentals throughout Tumon Bay. Plant samples were collected to determine if the dieback is a result of insect attack. A species of bark beetle (subfamily Scolytinae) and several species of termites were extracted from the original samples. It was originally thought that the termites were the probable cause of the dieback, but it is now thought that the bark beetles (plus possible fungal symbionts) are the primary pest with the termites moving in as the plants die.

On June 12, 2017 Wall and Moore collected a second batch of samples with the assistance of Benson from LMS. Many bark beetles, apparently from a single species, were collected from these samples. Insect specimens were preserved and photographed and are currently awaiting identification by specialist taxonomists. Species determination of the insects will facilitate recommendation of control actions.

## **1 Damage Symptoms**

### **1.1 Description**

Plants suddenly wilt and die.

### **1.2 Images**

A Flickr album is available at: <https://www.flickr.com/photos/62580975@N02/albums/72157682123826633>

## **2 Bark beetles**

### **2.1 Description**

Numerous minute bark beetles were extracted from dead and dying branches. All appear to be from a single species. This beetle is small, 1.2 mm body length, and it has a mass of golden colored hair on its face.



Figure 1: Early onset symptoms.

## 2.2 Identification

An iNaturalist observation was posted at: <https://www.inaturalist.org/observations/6632409>

Specimens sent to Dr. Jiri Hulcr, University of Florida on June 15, 2017.

## 2.3 Images

A Flickr album containing images and a couple of videos is available at: <https://www.flickr.com/photos/62580975@N02/albums/72157682026200944>

## 2.4 Notes

1. *Scolytogenes nubilus* ex *Scaevola* in Caroline Islands and Marshall Islands.  
[http://www.barkbeetles.info/regional\\_chklist\\_target\\_species.php?lookUp=8545&image=USNMENT01066624\\_Cryphalomorphus\\_nubilis\\_dorsal&curPage=0](http://www.barkbeetles.info/regional_chklist_target_species.php?lookUp=8545&image=USNMENT01066624_Cryphalomorphus_nubilis_dorsal&curPage=0)
2. **The bark and ambrosia beetles of Kiribati, South Pacific (Col., Scolytidae and Platypodidae).** RA Beaver - Entomologist's Monthly Magazine, 1990.  
Three species of Coleoptera, the scolytids *Xyleborus perforans* and *X. similis* and one platypodid *Crossotarsus externedentatus*, are recorded from Kiribati. Another scolytid, *Ptilopodius tarawai* sp. nov., is described from dead shoots of *Scaevola*.
3. In Insects of Micronesia 18(1) there is one species of scolytid collected from *Scaevola*: *Cryphalomorphus nubilus*.

## 3 Termites

### 3.1 Description

At least three termite species were collected from dead nanasu twigs. In addition to the common *Coptotermes* and *Nasutitermes* is a very small species (alate body length 4.4 mm).

### 3.2 Identification

An iNaturalist observation record is available at: <http://www.inaturalist.org/observations/6554162>

Awaiting response from a taxonomist.

### 3.3 Images

A Flickr album containing images is available at:



Figure 2: Bark beetle.



Figure 3: Alate termite.