

Distribution of the Yellow Crazy Ant in Samoa: Survey July 10th to 24th 2006

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Summary

1. During a recent survey around Upolu, Savaii and Nuutele the Yellow Crazy Ant was both observed and collected as samples in different locations.
2. The field survey reveals the extend distribution of the Yellow Crazy Ant through out Samoa.
3. 11 sites were visited in Savaii and 12 in Upolu and 1 in Nuutele; no survey was done on Nuulua due to weather conditions. On Upolu and Savaii the sites were located approximately 15km around the island. One or two sites or stations fall inland.
4. Potential sites for experimentations were also been identify during the survey. Sites which were heavily infested by the Yellow Crazy Ant.

Background

Yellow Crazy Ant has been a target for field research and surveys in the past years by MNREM: DEC staff and other Ant experts. Most of the studies were done mainly around the two off shore islands of the Aleipata district; Nuutele and Nuulua. Nuulua Island was heavily infested by the YCA, for Nuutele a few surveys were conducted but none was found on sites. There drew a conclusion that Nuutele was YCA free.

In July 10th to 24th 2006 twenty seven surveys were conducted on both Upolu and Savaii to look into the extend spread of this invasive ant and to document any heavily infested sites and to revisit Nuutele as a spot check.

.This report identifies, methods used, areas in which the survey took place and places where YCA were found and which sites had high abundance in Upolu, Savaii and Nuutele.

Yellow Crazy Ant

Anoplolepis gracilipes A generalized feeder, predated on small insects and other invertebrates. It is identified in the field with its behavior as a fast moving ant with yellow long legs, slender body, relatively small head etc.

Field Survey

Methods

Bait Card:

Used 10X10cm laminated cards to assess forager density, bait traps with tuna, honey and nuts to determine the abundance and richness of ants on the forest floor,

100M Transect:

Transects to examine the population of YCA and other ants on plants

- 100m measuring tape.

Locations

- GPS: Datum WGS 72
- Stations are approximately 15km apart. This is consistent throughout Upolu and Savaii except Nuutele.

Results

Sites visited:(refer to fig 1)

Upolu

The sites surveyed in Upolu were; Taumeasina Ecological Reserves, Lemafa, Salelesi, Saanapu, Malaemalu, Samusu, Aufaga, Siumu, Falelatai, Vailima National Reserves, Leauvaa and Faleolo.

Savaii

On Savaii we surveyed at; Salelologa Reserves or new township area, Saipipi, Samalaeulu, Between Aopo and Letui, Saleia, Falealupo reserve, Taga, Between Asau and Aopo, Siuvao, Salailua, Papa I Puleia and Saleaula lava fields.

Nuutele

Two surveys were conducted on Nuutele; one at Vini beach and another at island ridge.

Sites where the YCA were found and reached High abundance (refer fig 2)

In Upolu; with the exception of Salelesi and Falelatai, the Yellow Crazy ants were present at all of these sites. However they only reached high abundance at Vailima National reserve, Saanapu, Malaemalu and Taumeasina.

In Savaii the Yellow Crazy Ants were present only in Salelologa new township area, between Letui and Aopo, Falealupo reserve, Taga and Saleaula lava fields. All these sites had high abundance of the Yellow Crazy Ant apart from Salelologa. Nothing was uncounted in Siuvao, Samalaeulu, Papa I Puleia, Salailua, Between Asau and Aopo, Saleia and Saipipi.

In Nuutele vini beach and island ridge were been surveyed and nothing was found.

Taking into account the previous visit to Nuutele by DEC staff Yellow Crazy Ant samples were collected from Nuutele Beach and it is estimates of about less than 50m square is been infested by the yellow crazy Ant.

Potential Sites for Experimentation

To do control experimentations of the Yellow Crazy ant and its impact on other ant species few sites are recommended for this kind of activities. The sites between Letui and Aopo, Taga in Savaii and Nuutele beach on Nuutele Island.

These sites are recommended due to the fact that these are three different types of environments and different elevations. Also these three sites are further from any residential areas.

Awareness

Majority of Sites visited falls into private lands or family lands only a few falls into forest plots where no residential areas were close too. Before any ant survey was conducted consultations with families for permission to use there lands always comes first. Permission to do the survey was never a problem but the majority of the families or people we talked to about the Yellow Crazy Ant have no knowledge what so ever about this ant and its impact on our environment. A few people has some idea of the new ant which was becoming a nauseous around there homes or in gardens and don't know what it calls and where it comes from. And some had mistaken the YCA with our large Loi Poto.

Conclusion

Yellow crazy ant is indeed a problem to other countries and is becoming an issue in our homes. This survey identifies the spread of the Yellow Crazy Ant around Samoa and the majority of the people visited during these surveys most certainly have no background understanding about this ant and its impact on our environment.

Recommendations

- Survey sites were approximately 15km apart; it would be feasible to plan another round to cover in between these sites and to revisit the sites.
- For other surveys to be conducted on Manono and Apolima Islands, Namua etc so that we can get a total coverage of Samoa on YCA distribution.

With all of these done, proper analysis of the pattern on YCA distribution can then be determine.

Appendix

