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Title of Presentation	Invasion of Guam by the Coconut Rhinoceros Beetle, <i>Oryctes rhinoceros</i> (Linnaeus 1758)
Abstract (150 word limit)	<p>Introduction: <i>O. rhinoceros</i> (coconut rhinoceros beetle; CRB), a major pest of coconut and other palms was first detected on Guam in 2007. Adults damage and sometimes kill palms when they bore into crowns to feed on sap. Grubs feed on decaying vegetation. Massive amounts of decaying vegetation generated by typhoons, agricultural activities, or war may initiate a positive feedback cycle whereby palms killed by adults become breeding sites producing even more adults. Method: Eradication was attempted, but failed when the CRB population spread to all parts of the island by 2010. Attempted implementation of classical biological control using <i>Oryctes nudivir</i> (OrNV), the preferred biocontrol agent for CRB, also failed. <i>Metarhizium majus</i> was successfully introduced, spread naturally, and is killing about 20% of grubs before they become adults. Improved pheromone traps equipped with solar-powered ultraviolet light emitting diodes catch more than 10 times as many beetles as standard pheromone traps for CRB. Fish gill nets are being draped over piles of green waste to trap beetles attempting to leave or enter these potential breeding sites. Dogs and radio-tagged CRB were used to discover cryptic breeding sites. However, island-wide population suppression by these methods has recently been overwhelmed by massive numbers of adults emerging from abundant breeding sites created by Typhoon Dolphin which visited Guam in May 2015. Results/Conclusion: Without an effective density-dependent biocontrol agent, such as an OrNV isolate which is highly pathogenic for the CRB-Guam biotype, many if not most palms on Guam will be killed by CRB.</p>
Preferred Presentation Type	Oral presentation
Preferred Session	Sustainable environments
Logistic/equipment requirements	projector, beer keg

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