***I. Release sites and experimental conditions***

Tagged CRB were radio tracked after release at at two locations on Guam: Triton Farm University of Guam, Dededo (13°31'56.8"N 144°52'24.0"E) and Asan Beach National Park, Hagåtña (13°27'57.5"N 144°42'39.4"E). Triton Farm is an inland experimental farm comprised of agricultural, residential, and forested areas that include coconut palms and organic detritus. Asan Beach National Park is bordered by coastal terrain and swamp and includes both field and forested regions with an abundance of coconut palms. Thus, both sites feature accessible terrain that provides a variety of potential breeding sites as well as adult food sources. At each study location, a grassy, open area was chosen for CRB release.

Weather conditions during the experiment were mainly clear with occasional periods of rain and overcast skies. Temperature ranged from XX°C to XX°C while humidity was XX% to XX%. (Figure XX weather conditions table?) Beetles were generally tracked at night under clear skies with the exception of one evening during which light showers occurred.

***II. Oryctes rhinoceros capture and specimen selection***

CRB were wild-caught in pheromone traps and collected within one week of capture. These beetles were placed in a tub containing moist peat moss and fed fresh banana slices.

Only *O. rhinoceros* capable of flight were selected for radio tagging and release. After a rest period of at least three days, captured beetles were flight tested one day prior to experimentation. The flight test chamber was a large 121 l lidded plastic bin. Within the chamber, about 30 beetles were placed in another smaller open container half filled with moist peat moss atop an upside down 19 l bucket. Beetles could only exit the smaller open container by flying out of it; therefore, any beetle found on the bottom of the flight chamber container the next morning was considered flight-capable. CRB were stored and transported in plastic bins containing 4 to 6 inches of damp peat moss.  The period between tagging and release ranged from 0 to 6 days.

***III. Specimen preparation***

After beetles demonstrated flight capacity, they were marked with a unique four-digit code engraved on one elytrum using a laser engraver (Fenix Flyer, Synrad Inc., Mukilteo, WA, United States). The sex, mass, and elytral dimensions of each beetle were then recorded.   Both male and female specimens were used.

Prior to transmitter attachment, the beetle pronotum was abraded to improve adhesion. Transmitters were then affixed to the pronotum with hot melt glue (product xxxx company location xxx model number xxx)(Figure XX) and steady pressure was applied as the adhesive hardened. Each glue-on transmitter (model A2414; Advanced Telemetry Systems; Isanti, Minnesota) had a mass of approximately 0.3 g and was secured with minimal amounts of adhesive: between XXX and XXX g were used.

***IV. Tracking equipment***

Transmitters were activated by the removal of a magnet and had a maximum battery life of 45 days with a warranty guarantee of 22 days. Two frequency bands were chosen ranging from 148.641 to 148.992 and 164.032 to 164.409. These frequencies were recorded in conjunction with beetle identification numbers.

*Oryctes rhinoceros* were tracked using a three-element folding Yagi antenna (model 13863; Advanced Telemetry Systems; Isanti, Minnesota) attached to a radio receiver (model R410, Advanced Telemetry Systems; Isanti, Minnesota). A total of four units were used so that multiple beetles could be tracked simultaneously: two receivers were programmed with frequency bands from 148.641 to 148.992 and two with bandwidths 164.032 to 164.409.

Handheld GPS units (model XXX, Garmin, XXX) were used to map flight patterns. During tracking, a waypoint including geographic coordinates was taken at the starting location and landing point or point of signal loss for each beetle.

***V. Beetle release and tracking procedure***

In field-testing, flight did not appear to be impeded by transmitters. Beetles were transported to release sites in plastic storage bins. The lid of the enclosure was removed at dusk (about 19.30) and the container was closed at about 21:30. Once the containers were opened, CRB activity was carefully monitored using an infrared camera (Name Company, name camera model). Observation under the infrared camera revealed that beetles would heat up just prior to flight, presumably indicating the warming of flight muscles in preparation for takeoff. Thermally active beetles observed emerging from the peat moss were briefly viewed under a red light (Light company, model number) to record identification number and determine the bandwidth and frequency of the radio transmitter. The unique radio frequency of each beetle was then entered into a receiver on the appropriate bandwidth as beetles took flight.

CRB were pursued on foot following release and were tracked until a landing site was determined or until the transmitter signal was lost. In either case, a waypoint was recorded at the landing site or the last point of signal reception using a GPS unit.

Landing sites were visited on the following morning, and attempts were made to more precisely determine the location of each beetle. While the exact locations of *O. rhinoceros* tracked to coconut trees could not be determined due to the density of the coconut crowns, efforts were made to dig up beetles that buried into soil or compost. Beetle locations were monitored over several days, and beetles and or transmitters were recovered when possible.