

Year 1 Research Project: Predation by the Square-Necked Grain Beetle, *Cathartus quadricollis*, on Coffee Berry Borer

Year 1 Project Objectives:

1. Determine the geographical distribution of *Cathartus* by surveying for its presence/absence on farms in coffee growing areas of Hawaii Island.
2. Measure population trends throughout the coffee growing season by intensively sampling three farms.
3. Determine susceptibility of *Cathartus* to *Beauveria bassiana* infection by inspection of cherry samples from managed coffee farms.
4. Conduct feeding assays to demonstrate predation rates on coffee berry borer.
5. Develop molecular methods to verify predation of CBB by *Cathartus* for use in feeding ecology studies.
6. Mass rear *Cathartus* on cracked corn and cornmeal for release on farms where it does not occur (if requested by growers).
7. Test effectiveness of the *Cathartus* aggregation pheromone using traps with lures in *Cathartus*-infested and uninfested coffee farms.
8. Disseminate information on *Cathartus* predation to coffee farmers through educational events such as workshops, field days, and farm visits,
and via talks at grower meetings and extension publications.