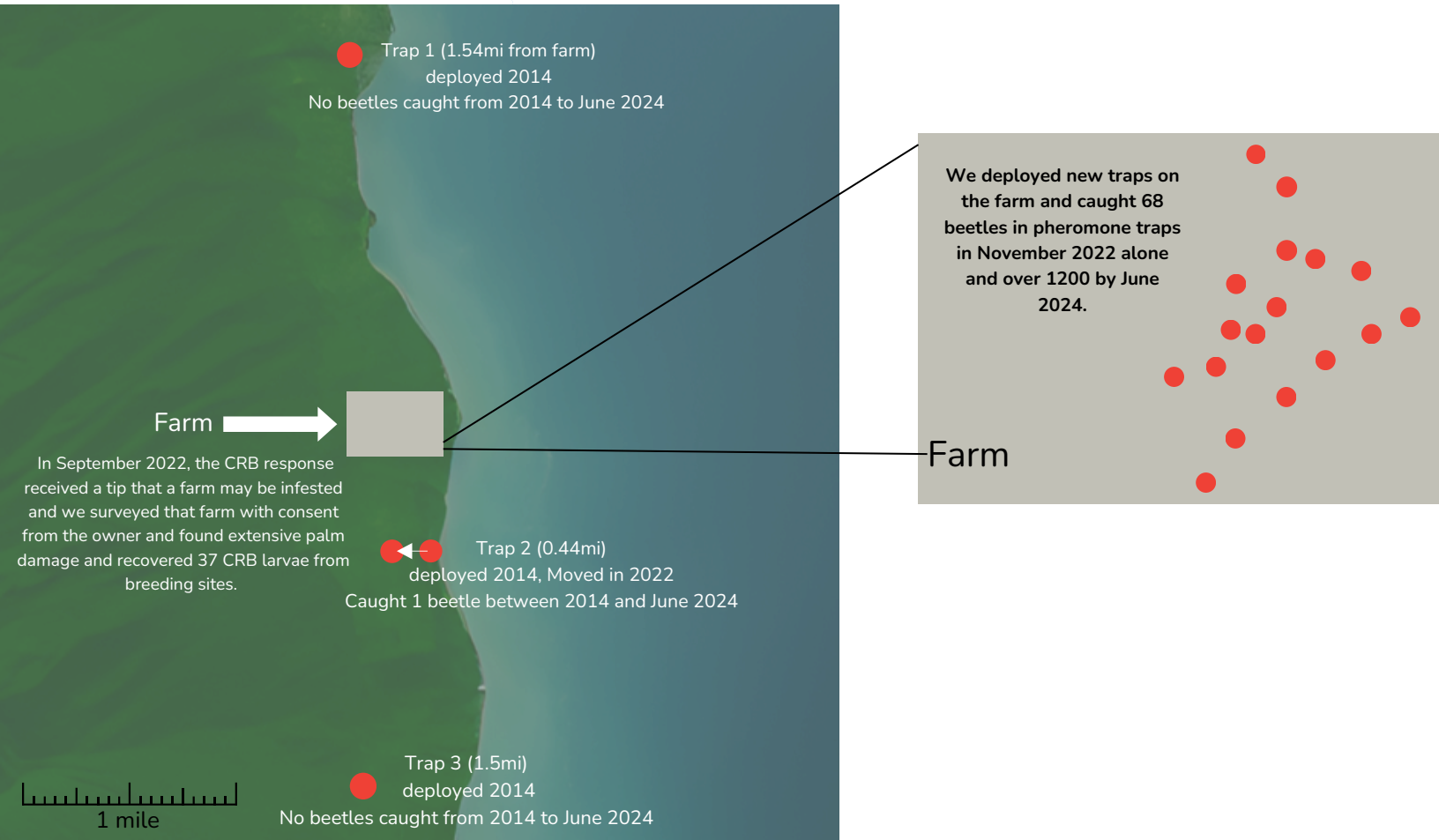
Oahu Trapping example

There are many examples on Oahu that demonstrate the short range of the pheromone lures but the most compelling example is from the windward coast. Traps were placed along the windward coast in 2014 to monitor for unknown populations and most of those remain deployed as of June 2024.

In September 2022, a tip led the CRB response team to inspect a farm suspected of infestation. The inspection revealed significant palm damage and 37 CRB larvae from breeding sites. Subsequently, new pheromone traps were set up on the farm, capturing 68 beetles in November 2022 and over 1,200 by June 2024.

Prior to placing these new traps, the nearest traps on either side of the farm were 0.44 miles and 1.54 miles away. Between September 2014 and June 2024, these traps caught only one and zero beetles, respectively. Additionally, in late 2022, there was no CRB damage observed in the palms near these traps.

This demonstrates that pheromone traps are not able to attract a significant number of beetles from 0.44 miles away (<2400 feet) even when there are no competing traps nearby. This limitation is why we deploy a large number of traps for effective monitoring and detection. Ideal coverage is greater than one trap every ½ mile. The two-mile spacing on the windward coast was inadequate to detect beetles that had been present for several years.



Kauai Trapping example

The first detection of the Coconut Rhinoceros Beetle (CRB) on Kauai occurred at the Lihue airport in Port of Entry traps that had been monitoring for CRB for several years. Following this initial discovery, additional traps were strategically placed around the island at high-risk sites to assess the extent of the infestation. Within days of deployment, many of these new traps began capturing CRB, signaling that multiple infestations were already established across different areas.

Early detection of CRB is crucial for effective management. Relying solely on visible palm damage and conducting manual surveys of potential breeding sites can be a lengthy process, often taking several months before clear signs of infestation are evident. This delay underscores the importance of using CRB traps for early detection and intervention. Traps enable us to identify and address infestations before they cause significant damage, thereby improving our chances of successful management and control.