ABSTRACT

Early detection of potentially invasive pests is critical to avert significant economic and environmental damage that may result from their successful introduction and establishment in the U.S. Recent advances in affordable USB (universal serial bus) compliant digital microscope cameras and internet platforms for disseminating information in real time have created the potential for enhanced training for insect pest identification. Using the palm weevil genus *Rhynchophorus* as a test group, we conducted real time training demonstrations which suggested that remote identification training is possible with the U.S. government internet-based portal “FoodShield” which employs Adobe Connect software, along with an open conference call line to reduce audio feedback. A training module was developed employing easy to use keys with photographs of diagnostic characters for species of *Rhynchophorus* that were distributed with an observation kit (containing image capture software, a digital microscope, a stand, and a specimen holder) to remote participants along with number-coded but unidentified voucher specimens of *R. cruentatus*, *R. palmarum* and *R. ferrugineus* prior to the training evaluations. The screen-sharing features of the portal allowed each test participant to project back images of diagnostic features of their unknowns for confirmation that they were correctly identifying their voucher specimens.

Key Words: insect identification, invasion prevention, palm weevils.

RESUMEN

Palabras Clave:
Suppl. Fig. 1. Compendium diagram for identifying 3 species of *Rhynchophorus* that could be found in the Caribbean and were included as unknowns in the demonstration kit showing the dorsum of the male and scutellum of both sexes.
Suppl. Fig. 2. Compendium diagram for identifying 3 species of *Rhynchophorus* that could be found in the Caribbean and were included as unknowns in the demonstration kit showing the lateral and ventral view of the head of both sexes.