FF-IPM DS-Alert System Platform Entry Mockup

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Introduction

We have created a system for officers of National Plant Protection Agencies to receive automatic alerts if an e-Trap detects a specified exotic species.

At present the alert system is designed to monitor and report on the detection of *Bactrocera* species based on image analysis data. This system aims to provide timely notifications to stakeholders about new occurrences of *Bactrocera* flies in specific locations. It utilizes Google APIs to manage and share data, integrates with email services for notifications, and employs data analysis techniques to filter and validate findings.

The system can be extended in the future to provide alerts about the detected presence of species other than *Bactrocera*. For the moment however, all *Bactrocera* species are exotic to the European Union, and hence, are of biosecurity concern. The lures used in the e-Traps are general in nature, and attract *Ceratitis capitata* (Medfly) as well as many *Bactrocera* species, including *B. dorsalis* and *B. zonata*, which were focal species for the FF-IPM project. Hence, the main task that the automated image analysis system is designed to do is identify *C. capitata* and *Bactrocera* species in the images, and distinguish them from "other".

Because the discovery of exotic species in a new location can have important economic and other consequences, it is important that sensitive detection data are handled confidentially with national plant protection organisations. For this reason, this system requires users to be registered, and is only open to employees of relevant NPPOs and the official reviewers of the FF-IPM project.
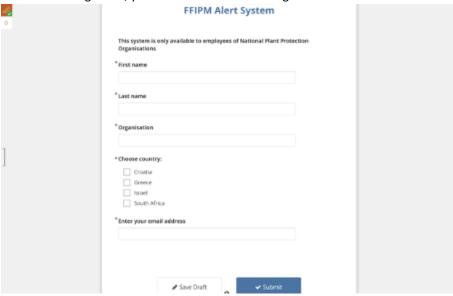
Some features of the system:
- On-line registration system.
- Automated image analysis system identifies flies.
- An expert manually reviews any images that the system identifies as including *Bactrocera*, and provides an assessment (approved or not approved).
- Images corresponding to confirmed records are included in automated emails sent to registered users of the system, along with a link to the web mapping system so that you can see where the fly was detected, and the trapping context.

Usage Instructions

1. **Subscribing to Alerts:**

○ To start receiving alerts, you need to subscribe through this KoboToolbox form.

○ https://ee.kobotoolbox.org/x/WnwlChHV
○ Fill out the form with your details, including your email and countries of interest, to ensure you receive relevant alerts.

2. **Receiving Approved Alerts:**
   ○ Following the review and approval process by reviewers, you will receive email alerts about new *Bactrocera* fly appearances in areas of your interest. These alerts are sent only for records that have been approved by reviewers.
   ○ Alert emails include essential details such as country, image ID, label, start and end dates, and the count of detected flies, alongside links to images of the detected flies. These images serve as visual evidence, further enhancing your understanding of the scope and specifics of each detection.

3. **Accessing Further Information:**
   ○ Included in the alert emails is a link to the FF-IPM mapping system. You can use this link for enhanced visualization of the locations, and to access more detailed information about each detection.

4. **Unsubscribing from Alerts:**
   ○ If you decide to unsubscribe from receiving alerts, look for the „unsubscribe here" link provided in the footer of each alert email. Upon clicking the link, you will be taken to the unsubscribe form. Here, you are required to enter the email address to which the alerts have been sent and select the country or countries from which you wish to unsubscribe. After providing your email and specifying the countries, submit the form to finalize your unsubscribe request.