

Name	Counterpart	Title
Damayanti Buchori	Z02	Developing an insect database through citizen science using <i>iNaturalist</i> as a mapping tool

Research summary

iNaturalist is a free access networking platform for scientists, biologists, and nature enthusiasts to share about worldwide biodiversity mapping. Observations from iNaturalist can also contribute to biodiversity science by being shared with open science projects such as the Global Biodiversity Information Facility (GBIF) and the Encyclopedia of Life (EOL), accessed through a smartphone or a website. iNaturalist contributors are worldwide public, not exclusively for researchers and experts. Therefore, this platform may create extensive community awareness of local biodiversity and promote further exploration of the local environment which could be accessed by people in other parts of the world. This platform also could provide young researchers and citizen scientists who are interested in entomology to study, document, and contribute to insect data mapping in Jambi, in the EFForTS study plots in particular.

Moreover, insect diversity surveys are very important since they showed a declining population which suppressing by Anthropocene. We already documented several groups of insects, such as ants (Nazarreta *et al.*, 2021), butterflies (Panjaitan *et al.*, 2021), beetles (Kasmiatun *et al.*, 2022), spiders (Junggebaeuer *et al.*, 2021), and wasps (Azhar *et al.*, 2022) in book references. Synchronization between books and *iNaturalist* platform would provide a novelty in describing the distribution of beneficial insects in a digital platform that is easy to access from any place and device. Although iNaturalist has many benefits, there is still a lack of Indonesian researchers who optimize this platform. We would like to bridge the problem by providing iNaturalist workshops including general training and field work to young researchers, entomologists, and students who are interested. These kinds of activities are expected to create future generations who have an awareness of local biodiversity and participate in worldwide biodiversity conservation actions. The name of this training is '**E-Capture (EFForTS-Conserving and Mapping of Biodiversity in Nature): Exploring Nature using iNaturalist**'.

The aim of this activity is to give general training and workshop about iNaturalist and further develop the citizen science movement for insect biodiversity conservation through training on the identification of important insect predators and pollinators (i. e. ants, bees, butterflies, dragonflies) and training on iNaturalist platform (field sampling, identification, and develop database). In addition, to develop citizen science movement on insect biodiversity conservation. As a result, participants will be able to use the iNaturalist app to map observations and document various species in Jambi. By optimizing the platform, we will have the newest and most updated digital maps of pollinator and predator insects in Indonesia.

This training was held over two days, with details as follows:

1. Training at EFForTS study plot

This training was held at one of the EFForTS plots in Humusindo, Bungku. A total of 21 EFForTS assistants participated in this training. The training began with a presentation about the introduction of *iNaturalist* by Naufal Urfi Dhiya'ulhaq. All participants were also taught to create an iNaturalist account. Then, the training continued with a practical section in the field to collect various documentation of plants and insects in this plot. Furthermore, the results were uploaded to iNaturalist along with the species name and the coordinates of the location where they took the picture.

2. Training at the University of Jambi

The training began with a short course from two speakers, i.e. Dr. Jochen Drescher (who talked about insects and the results of EFForTS-Z02 research in Jambi), and Naufal Urfi Dhiya'ulhaq (who talked about the introduction of *iNaturalist* app). This course was moderated by Dr. Purnama Hidayat from IPB University. After this, all participants moved to UNJA forest to collect insect specimens and take pictures of the species they found. Then they went back to the room (Aula Hakim Lubis) to upload all the documented species to iNaturalist. Small species have been observed

under a microscope before being documented. About 30 participants from various backgrounds, including UNJA students, lecturers, EForTS assistants, and the general public, attended this training.



Picture 1. E-capture workshop at Humusindo.



Picture 2a+b. E-capture workshop at UNJA.

References

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