Implementation of acoustics to fill the gaps of bat biodiversity information for Southeast Asia

Joe Chun-Chia Huang – National University of Malaysia (Universiti Kebangsaan Malaysia)
HIGH BAT DIVERSITY IN SE ASIA
LACK OF BAT SPECIES DATA IN GBIF

SE Asia vs. Global

Bat species 340/1,400 (24.3%)

Data coverage: 46k/ 2 M (2.3%)*

*Records with unknown family are excluded
PROJECT OBJECTIVES

• Short-term
  1. To assemble existing species data embedded in acoustic recording
  2. To identify the current data gaps

• Long-term
  1. To facilitate implementation of acoustic techniques to support bat biodiversity research
  2. To develop sustainable relationships between country- and region-based databases with the GBIF platform.
BAT CALLS CONTAIN SPECIES INFORMATION

Fawn leaf-nosed bat (*Hipposideros cervinus*)

© Adrià López-Baucells
DATA SOURCES

Asian Bat Call Database
- Species occurrence data attached with reference recordings of bat calls

SEABCRU database
- 40k clean data from literatures, museums & GBIF
- 2,000-2,500 new data from ABCD

Formatting
- DwC
- GUANO
- CC-BY license
- Unique identifier
- ABCD sharing policy
- SEABCRU policy

c. 3,900 records from 11 SE Asian countries to GBIF from 2007-2019
PROJECT TIMELINE

2019 May, project began

2019 July 27-28, Phuket, Thailand
SEABCRU data quality control workshop

2019 July 28, Phuket, Thailand
IBRC data quality control workshop
(https://ibrc2019.com/draft-schedule/)

2019 November, Malaysia
Main workshop on data assembling

2019 October - midterm report

2020 January, online
Webinar training on data assembling

2020 April - Final report

Design standard datasheet
Designing tools & bridging databases
Data cleaning & archiving
Preparing manuscripts for publication
Preparing species data to publish on GBIF
Releasing tools

GBIF
PROJECT SUSTAINABILITY

- ABCD is fund for 2019-2021
- Independent projects by partners
- Proposals for new funding are preparing
- Developing call classifiers to acquire species data