Cave-Dwelling Bats in Indonesia: Conservation Status, Threats & Needs

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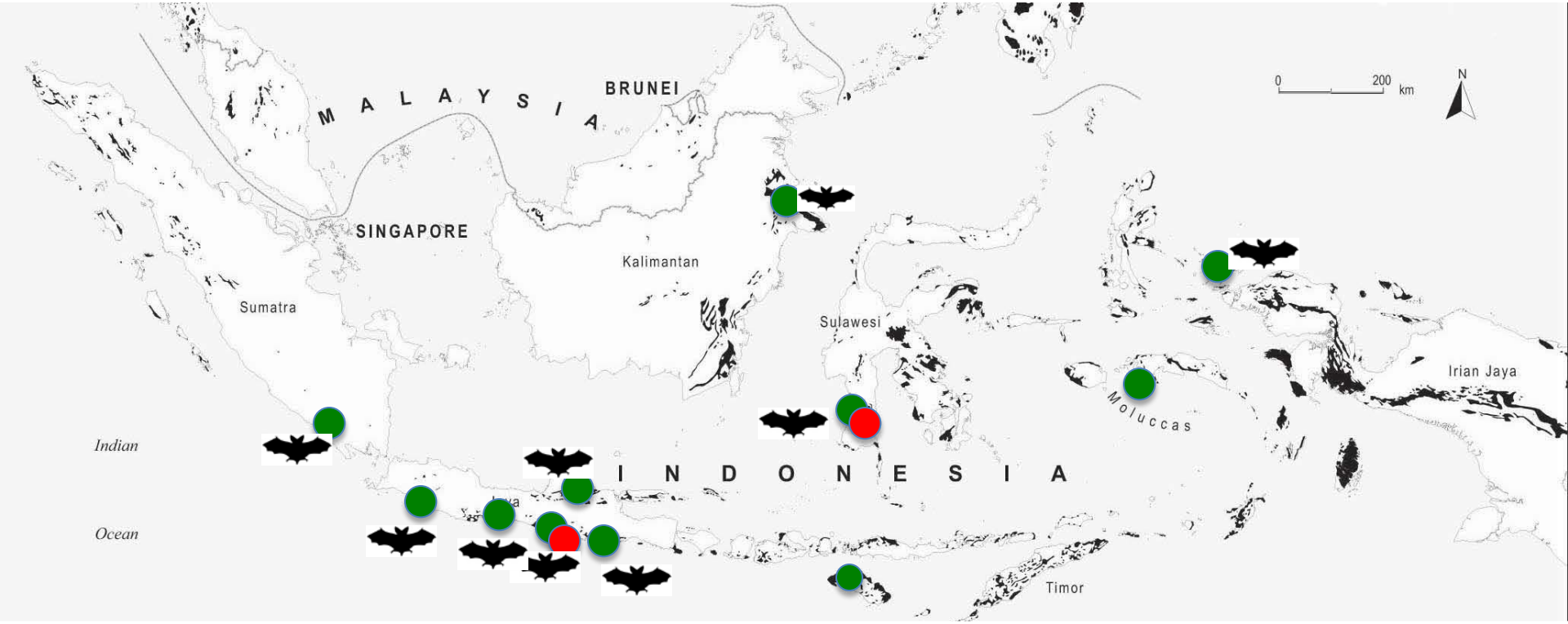
Karst and Caves



National Karst Area: 150.000 km^2 (Surono et. al. 1999), 20% of national territory (Tjahyo et.al. 1999)

Caves surveyed

Bats surveyed

Priority area for cave bat surveys

Karst area in Indonesia

- Leuser (Aceh)
- Perbukitan Bohorok (Northern Sumatra)
- Payakumbuh (West Sumatra)
- Bukit Barisan, including Baturaja (Southern Sumatra)
- Southern Sukabumi (West Java)
- Gombong (Central Java)
- Pegunungan Kapur Utara, (Kudus, Pati, Grobogan, Blora and Rembang Jawa Tengah)
- Pegunungan Kendeng (East Java)
- Pegunungan Sewu, Malang Selatan and Tuban (Central and East Java)
- Blambangan, East Java
- West Flores,
- Karst Sumba (NTT)
- Karst West Timor (NTT)
- Pegunungan Schwaner (West Kalimantan)
- Pegunungan Sangkulirang - Tanjung Mangkaliat (East Kalimantan)
- Perbukitan Maros Pangkajene (South Sulawesi)
- karst Wowolesea (Northeast Sulawesi)
- Muna Island
- Kepulauan Tukangbesi
- Seram Island (Maluku)
- Halmahera Island (North Maluku)
- Karst Fakfak (West Papua)
- Biak Island dan Lorentz Mountain (Papua)
- Waigeo-Raja Ampat (West Papua)

Indonesian Cave Bats: What we know

1. Major Cave Bat Colonies

- Ngerong cave in Tuban limestone area
- Lalay cave in Sukabumi limestone area (big colony of *Chaerephon plicatus*)

2. Cave Bat Species Richness

- 36 species in Sangkulirang limestone area
- 24 species in Waigeo limestone area
- 15 species in Maros limestone area
- 20 species in Tuban limestone area
- 4 species in Sukabumi limestone area
- 6 species in Malang Selatan limestone area
- 18 species in Gunungsewu limestone area
- 13 species in Menoreh limestone area
- 13 species in Bukit Barisan limestone area

3. Priority Cave Bat Species for Conservation

- *Nycteris javanica* (Vulnerable status in IUCN redlist)
- *Coelops frithi*

Current Threats to Cave Bats

Type of Threat	Occurrence	Urgency	Importance
Mining (cement industries)	2	3	5
Bat hunting	2	2	4
Local phosphate mining	1	2	3
Stone mining for building material	1	2	3
Cave tourism	1	2	3

Occurrence: 1= Localized; 2= Widespread; 3= Nationwide.

Urgency: 1= Low; 2= Medium; 3= High.

Importance: For conservation attention

Current or Recent Cave Bat Research

Type of Research	Location	MajorAims	Contact Person/ Institution
Ecology	Maros (South Sulawesi)	Species diversity	MZB-LIPI (Sigit W)
Ecology	Gunungsewu, Menoreh, Sukabumi & Tuban Karst areas (Java)	Baseline data of the cave and karst biodiversity	MZB-LIPI (Sigit W) & BSG (Faculty of Science, University of Yogyakarta), Matalabiogama (faculty of Biology, Gadjah Mada University)
Ecology	Malang Selatan (East Java)	Cave fauna inventory	MZB-LIPI (Sigit W) & Impala (Brawijaya University
Ecology	Sangkulirang karst area	Bat survey	Agustinus Suyanto (MZB-LIPI) and Matt Struebig
Ecology	Waigeo karst area	Biodiversity survey	MZB-LIPI (Sigit W)
Ecology	Bukit Barisan Selatan	Cave bat diversity and its roosting characteristic	MZB-LIPI (Sigit W) & WCS-Indonesia Program

Current Cave Bat Conservation Activities

Type of Activity	Location	MajorAims	Contact Person/ Institution
Workshop	Yogyakarta	Sharing data and information from some institutions which do research in karst ecosystem to support karst management	LIPI, BKSDA Yogyakarta
Workshop and training	Malang-East Java	Training on karst biodiversity	MZB-LIPI and Impala (Brawijaya University)

Future Needs for Cave Research & Conservation in Indonesia

Action or support needed	Importance	Justification
Inventory and monitoring cave biodiversity, including bat.	1	To develop the baseline data of cave biodiversity for long term used in cave and karst management. So many cave and karst area have not surveyed yet.
Workshop &Training	2	Developing participation and capacity of local stakeholders
Public awareness program (campaign and education)	3	Increasing public awareness on conservation of karst areas and caves
	4	
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