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**Acceptance of Abstract for the 2nd International Conference on
Science and Technology (ICST2017)**

A Joint Conference of University of Mataram and University of Malaya

Dear **Siti Rabiatul Fajri**
IKIP Mataran

Thank you for submitting an abstract to the 2nd International Conference on Science and Technology (ICST 2017) which will take place at the University of Mataram, Jalan Majapahit 62 Mataram, NTB, Indonesia from 23rd to 24th August 2017.

On behalf of the local organizing committee, we are delighted to inform you that the abstract titled "**NEW RECORD Phoniscus atrox IN THE DEVELOPED ECOTOURISM AREA OF SOUTH LOMBOK ISLAND NTB**" ID number : **085** has been accepted for oral/poster presentation.

Guidelines for oral and poster presentations are available on <http://icst2017.unram.ac.id>. We would like to remind you that the deadline for *registration payment (in which regular rates apply)* is on **15th August 2017**. Registration with payment received after that date will be subjected to IDR 200.000 surcharge on the regular registration fee rates. Should you, however, have difficulty in meeting the aforementioned deadline, please inform us well in advance so that we can re-schedule you payment due individually.

We look forward to your valuable contribution to make ICST 2017 a successful event.
Thank You

Your faithfully,



2nd ICST 2017
THE EMERGENCE OF SCIENCE
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Dr. ret. net. Lalu Rudyat Telly Savalas
Chair of the 2nd ICST 2017

NEW RECORD *Phoniscus atrox* IN THE DEVELOPED ECOTOURISM AREA OF SOUTH LOMBOK ISLAND NTB

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ABSTRACT *Phoniscus atrox* has entered the IUCN Red List with Near Threatened (NT) in Indonesia and Malaysia. The purpose of this study was to ascertain the identification of *Phoniscus atrox* as a new record. The study was carried out in the area of southern ecotourism development of Lombok Island NTB from February-April 2017. A modified net and quadrant for cave ceiling was used to collect bat sample. The results showed that *Phoniscus atrox* was found in one of the ecotourism development sites in the southern of Lombok Island, namely Buwun Cave, Prabu Village, Central Lombok. *Phoniscus atrox* has never had any previous reports found in caves in Indonesia. But it has been reported to be found in the primary forests of Sumatra.

Key Word: *Phoniscus atrox*, Ecotourism, South Lombok Island

INTRODUCTION

Phoniscus atrox is a Near Threatened bat species (NT) because it has a population close to 30% for the last 15 years. This occurs due to significant deforestation, thus approaching the qualification for vulnerability under Criterion A2c. This rate of decline is expected to continue due to ongoing deforestation (Huston and Kingston, 2008).

Phoniscus atrox was first reported to exist by Miller (1965). However, Hill (1965) mentions that the taxonomy of *Phoniscus* is uncertain because some experts estimated that *Phoniscus* is very similar to *Kerivoula* (Ryan, 1965, Koopman, 1993, 1994). But,

others consider *Phoniscus* and *Kerivoula* are separated (Le Souef and Burrell, 1926, Miller, 1931, Tate, 1941, Medway, 1969, Lekagul and McNeely, 1988; Corbet and Hill, 1992; Flannery, 1995; Simmons, 2005).

Morphological characteristics that can show *Phoniscus* and *Kerivoula* are separated components from the same genus is the tragus. Tragus in *Phoniscus* has a wider and curved shape while *Kerivoula* has a narrower tragus with pointed tip (Corbet and Hill, 1992). In addition, Suyanto (2002) adds tragus color to *Phoniscus* is more pale or tends to white while *Kerivoula* color is similar to the color of the ear.

The distribution of *Phoniscus atrox* has been reported in several countries in Peninsular Malaysia (Struebig et al 2006), Vietnam and Thailand as new records (Thong et al, 2006), while in Indonesia, it has been reported in the check list for Bukit Barisan National Park in South Sumatra (O'Brien and Kinnaird 1996). Furthermore, Huston and Kingston (2008) reported re-existence in Sumatra (Indonesia), and Sabah in Borneo Malaysia. More recently by Miranti (2013) *Phoniscus atrox* is in the forest area of Batang Toru in the western part of North Sumatra.

Phoniscus atrox is one type of bat that has never been reported on the island of Lombok by previous bat researchers (Kitchener, 2002). But by 2014, According

to Fajri, et al (2014), the presence of *Phoniscus atrox* has been reported to exist, but it can not be ascertained.

Thus, this study aims to re-identify bats of *Phoniscus atrox* species based on their morphological characteristics

METHODS

The study was conducted from February to April 2017 in 4 caves in the ecotourism development area of the southern island of Lombok. The four caves are Gale Gale (Central Lombok), Buwun Cave (Central Lombok), Kenculit Cave (Central Lombok), and Giant Cave (East Lombok) The following is a map of the research location in Figure 1.

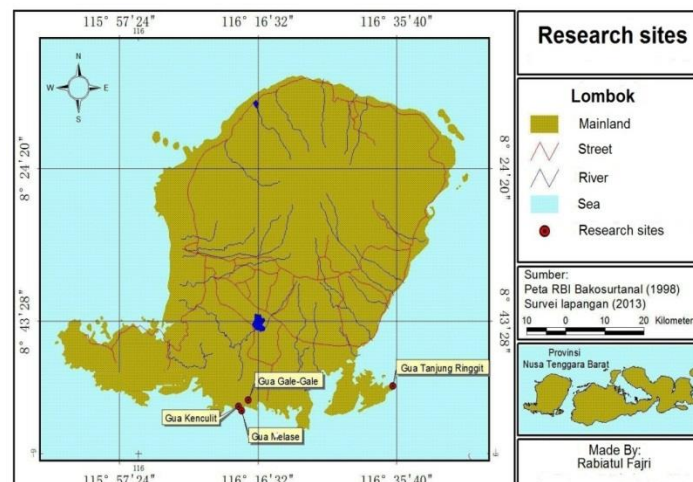


Figure 1: Research Site

The tools used to collect bat samples are the Mist Net, the harp net and the modified quadrant, the slider, paraffin tub, and the digital camera. The research material used for anesthesia of bats and bat collection is 4% formalin. The captured bats are then identified in the FMIPA Biology Laboratory of Mataram University to determine their type and morphological measurements. Identification refers to the book of Indonesian bat (Suyanto, 2001).

RESULTS

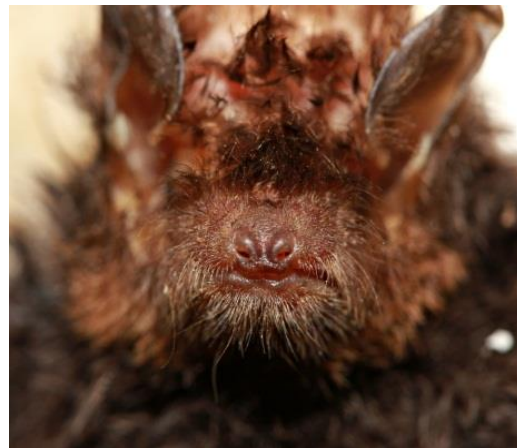
Diagnosis. The morphological characteristics of *Phoniscus atrox* located in the ecotourism development area of the

southern part of Lombok Island is relatively small, has a very well developed tragus. In addition, it has a pointy molar bulge, and a tail with the entire tail immersed in the interpellal skin membrane. The shape of the nose is not tubular, has no nose leaves and has no folds around the nose. The right and left ears are separated by white and dreary tragus. On the wing and leg fingers, there is no thickening of the skin under the wing fingers and the third wing finger no longer than the first wing fingers.

Below are some pictures as a marker of the morphological characteristics of *Phoniscus atrox* located in the ecotourism development area of southern Lombok Island at figure 2.



(a)



(b)



(c)



(d)

Figure 1: (a) Tragus develops, (b) Tubular nose shape and has no nose leaves (c) tragus is white and the tragus with a deep notch near the base (d) The tail with the entire tail is immersed in the intercellular skin membrane

Ecology. In this study, *Phoniscus atrox* was found in one cave located in the area of ecotourism development of the southern region of Lombok Island, which is located in Buwun Cave in the village of Prabu. In the cave is not only inhabited by *Phoniscus atrox*, but there are also other species such as *Rhinopoma microphyllum*, *Miniopterus pusillus*, and *Hipposideros ater* *Eonicteris speleae* and *Rhinolophus acuminatus*.

Buwun Cave is a cave far from human reach even not known by human existence. *Phoniscus atrox*, has never had any previous reports found in caves in Indonesia even caves in other countries in the world. However, in some forests it has been reported as in primary forest of Sumatra (Suyanto, 2001; Miranti (2013)). The

presence of *Phoniscus atrox* in Thailand is also found in degraded forests at 150 dpl (Thong, at al., 2006 and Hutson et al. (2008)).

Phoniscus atrox has been listed on the IUCN Red List with Near Threatened (NT) or almost extinct in Indonesia and Malaysia (Fleming & Paul, 2009). This becomes interesting because *Phoniscus atrox* is found in Buwun cave located in ecotourism development area south of Lombok Island.

Phoniscus atrox in Buwun cave is collected using Mist net, Harp net and quadran modification. *P. atrox* perched at the end of the cave, forming colonies of more than 20 individuals / colonies. Based on 30 samples examined there were 6 individual females and 24 male individuals.

CONCLUSION

Phoenix atrox was found recently in Lombok island especially in the area of Ecotourism development in the south part of Lombok.

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