

University of Wollongong  
**Research Online**

---

Faculty of Science, Medicine and Health -  
Papers: part A

Faculty of Science, Medicine and Health

---

1-1-2012

**Fossils of Stegodon and Varanus komodoensis Sumba and Flores: a  
Pleistocene landbridge**

Erick Setiyabudi  
*Geology Museum Bandung*

Iwan Kurniawan  
*Geological Survey Institute, Indonesia*

Gerrit Van Den Bergh  
*University of Wollongong, gert@uow.edu.au*

Follow this and additional works at: <https://ro.uow.edu.au/smhpapers>



Part of the [Medicine and Health Sciences Commons](#), and the [Social and Behavioral Sciences Commons](#)

---

**Recommended Citation**

Setiyabudi, Erick; Kurniawan, Iwan; and Van Den Bergh, Gerrit, "Fossils of Stegodon and Varanus komodoensis Sumba and Flores: a Pleistocene landbridge" (2012). *Faculty of Science, Medicine and Health - Papers: part A*. 2037.  
<https://ro.uow.edu.au/smhpapers/2037>

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: [research-pubs@uow.edu.au](mailto:research-pubs@uow.edu.au)

---

# Fossils of *Stegodon* and *Varanus komodoensis* Sumba and Flores: a Pleistocene landbridge

## Abstract

Abstract of a paper that presented at the 2012 Ikatan Ahli Geologi Indonesia Annual Meeting.

## Keywords

CAS

## Disciplines

Medicine and Health Sciences | Social and Behavioral Sciences

## Publication Details

Setiyabudi, E., Kurniawan, I. & Van Den Bergh, G. Dirk. (2012). Fossils of *Stegodon* and *Varanus komodoensis* Sumba and Flores: a Pleistocene landbridge. IAGI Digital proceedings of 2012 Annual meeting (pp. 1-1). Indonesia: IAGI.

## **FOSSILS OF STEGODON AND VARANUS KOMODOENSIS SUMBA AND FLORES: A PLEISTOCENE LANDBRIDGE?**

**Erick Setiyabudi(1), Iwan Kurniawan(1), Gerrit Dirk van den Bergh(2,3)**

**1)Geology Museum Bandung, Jl. Diponegoro No 57, Bandung ; 2)Centre for Archaeological Science, University of Wollongong, Australia ; 3)Netherlands Centre for Biodiversity NATURALIS, Leiden, the Netherlands \*Corresponding author: erick\_91119@yahoo.com**

The only well-documented fossil from the island is a *Stegodon* mandible described by Sartono (1979) of Pleistocene age. Therefore, we report on the initial results of a recent field survey in Sumba, which was conducted to study deeper aspects about the fossil land faunas from Sumba. The aim was two-fold: 1) collect more fossil material from stratigraphic context, and 2) to date the new and previous reported fossil sites on two sites: Watumbaka and Lewapaku. At Watumbaka we relocated the original finding spot of the *Stegodon sumbaensis* mandible described by Sartono (1979), but we did not find additional vertebrate fossils. At Lewapaku dwarf *Stegodon* fossils was found, which could be attributed to *Stegodon* cf. *sumbaensis*, fragment and an isolated tooth attributable to *Varanus komodoensis*, fragments belonged to a giant murine rodent, and a single long bone fragment clearly belonged to a bird. The Lewapaku Fauna based on those limited materials, bears resemblance to the 900.000 years old Tangi Talo Fauna from the Soa Basin in Flores. Both sites have common similarity of small-sized *Stegodon* and *Varanus komodoensis*, but so far no remains of giant murine rodents. However, on Sumba a fossil bone attributed to a giant tortoise fossil has been reported from a coastal terrace deposit. Similarities between the Pleistocene fossil faunas from Flores and Sumba make it tempting to assume land connections between the two islands. All taxa so far found on both islands belong to groups that are excellent overseas island colonizers, and the faunal similarities could be explained by assuming independent migration events and local evolution.

**Keywords:** Sumba, Flores, Pleistocene, *Stegodon*, *Varanus komodoensis*.