Q 1

O. & PINTO, I. & BRUFORD, M. W. & JORDAN, W. C. & NICHOLS, R. A. (2002): The double origin of Iberian peninsular chameleons .- Biological Journal of the Linnean Society, London; 75: 1-7. PINHO, C. & FER-RAND, N. & HARRIS, D. J. (2006): Reexamination of the Iberian and North African Podarcis phylogeny indicates unusual relative rates of mitochondrial gene evolution in reptiles.- Molecular Phylogenetics and Evolution, Chicago; 38: 266-273. Posada, D. &. Crandall, K. A. (1998): Modeltest: testing the model of DNA substitution.— Bioinformatics, Oxford; 14: 817–818. Swofford, D. L. (2002): PAUP*. Phylogenetic analysis using parsimony (*and other methods). Version 4.0. Sinauer Associates, Uderland, Massachusetts. WADE, E. (2001): Review of the False Smooth snake genus Macroprotodon (Serpentes, Colubridae) in Algeria with a description of a new species.- Bulletin National History Museum London (Zoology), London; 67 (1): 85-107

KEYWORDS: mitochondrial DNA, cytochrome b, *Macroprotodon*, evolution, systematics, Iberian Peninsula, North Africa

SUBMITTED: April 1, 2005

AUTHORS: Raquel VASCONCELOS, Centro de Investigação em Biodiversidade e Recursos Genéticos (CIBIO\UP), ICETA, Campus Agrário de Vairão, 4445-661 Vila do Conde, Portugal. D. James HARRIS, Centro de Investigação em Biodiversidade e Recursos Genéticos (CIBIO\UP), ICETA, Campus Agrário de Vairão, 4445-661 Vila do Conde, Portugal and Faculdade de Ciências da Universidade do Porto, Praça Gomes Teixeira 4099-002 Porto, Portugal < james@mail.icav.up.pt >

Death adders (*Acanthophis laevis* complex) from the island of Ambon (Maluku, Indonesia)

Death adders of the genus Acanthophis Daudin, 1803 are widely distributed in most of Australia, New Guinea and adjacent islands, and the islands of Maluku, Indonesia. In Maluku, death adders have been reported from the Tanimbar islands (Timor Laut of the older literature), the Aru islands, Kai Kecil, Kai Dulah, and Kai Besar, Obi, Seram, Haruku, and Saparua (DE ROOIJ 1917; DE HAAS 1950; KLEMMER 1963; SUPRIATNA 1995; How & KITCHENER 1997; ISKANDAR & COLIJN 2001; HOSER 2002). Surprisingly, no published record of *Acanth*ophis existed from Ambon, in spite of the fact that this island of 771 km² served as the principal regional basis for European colonialism, travel, commerce, and research throughout the centuries. Since the 1990s, numerous death adders have been shipped from Ambon to exporters' facilities in Java



Fig. 1: Adult death adder (*Acanthophis laevis* complex) from Negeri Lima, Ambon (Central Maluku regency, Maluku province, Indonesia).

Photograph by U. KUCH.

and Bali by the live animal trade. As a consequence, it has become accepted that these snakes do occur on the island (WÜSTER et al. 2005). However, most if not all death adders shipped from Ambon had actually been collected on different Maluku islands, namely Seram, but also Obi, Yamdena, and others (BAADILLA, pers. comm.), and the presence of these elapids on Ambon itself remained unsubstantiated. In this communication we report on a death adder from Ambon, which local collectors found in the vicinity of the village Negeri Lima in April 1998. Negeri Lima is situated in the northeast of Ambon's hilly and less densely populated Hitu peninsula (Central Maluku regency, Maluku province, Indonesia). The snake was photographed (fig. 1), and color slides were deposited in the herpetological slide collection of the Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main, Germany (SMF-F 235). Villagers of Hitu peninsula recognized this snake as belonging to a local species that was however said to be secretive and only very rarely encountered.

The viper-like elapid snakes of the genus *Acanthophis* are characterized by considerable taxonomic and nomenclatural confusion. While the prevailing opinion through many decades was that this genus contains between two and four species or subspecies (e.g., KLEMMER 1963; STORR et al. 1986), there is currently a trend to more fully appreciate the species diversity of death adders. This has resulted in the resurrection of old names from synonymy and

the description of several new taxa (e.g., Wells & Wellington 1985; Hoser 1998, 2002; Aplin & Donnellan 1999).

In the past, death adder populations in Maluku have been referred to as A. antarcticus (Shaw & Nodder, 1802), A. (a.) laevis MACLEAY, 1878, or A. praelongus RAMSAY, 1877 by various authors (DE ROOIJ 1917; KLEMMER 1963; SUPRIATNA 1995; How & KITCHENER 1997; MONK et al. 1997; ISKAN-DAR & COLIJN 2001). Recently, Hoser (2002) proposed the new name A. groenveldi for death adders from Seram, which on biogeographical grounds are likely to share close relationships with the population on Ambon. As further studies on the phylogeography and taxonomy of Indonesian death adders are required, we refrain from assigning a specific name to the snake from Ambon at this time, and provisionally refer to it as a member of the A. laevis complex (WÜSTER et al. 2005).

The curious absence of these medically important, dangerously venomous snakes from earlier faunal lists of Ambon may have several reasons and may not just be a collecting artefact. Although Ambon may have served as a mere stop-over for many expeditions rather than being the final destination and main collecting site, it seems reasonable to suspect a correlation between the apparent rarity of death adders in Ambon, their cryptic dorsal pattern and coloration, and the fact that considerable parts of the island (especially the Timor Peninsula) have experienced centuries of continuous disturbance including extensive habitat conversion, and have traditionally supported a relatively numerous human population (about 222,000 before 1990 [Monk et al. 1997]).

ACKNOWLEDGMENTS: We are grateful to Bulquiny Baadilla (formerly of Paso, Ambon) and his collectors for providing the specimen, logistical support, and assistance in the field.

REFERENCES: APLIN, K. P. & DONNELLAN, S. C. (1999): An extended description of the Pilbara Death Adder, Acanthophis wellsi Hoser (Serpentes: Elapidae), with notes on the Desert Death Adder, A. pyrrhus BOULENGER, and identification of a possible hybrid zone.- Records of the Western Australian Museum, Perth; 19: 277-298. DE HAAS, C. P. J. (1950): Checklist of the snakes of the Indo-Australian Archipelago (Reptilia, Ophidia).- Treubia, Bogor; 20: 511-625. DE ROOIJ, N. (1917): The reptiles of the Indo-Australian Archipelago; II. Ophidia. Leiden (E. J. Brill), 334 pp. Hoser, R. (1998): Death adders (genus Acanthophis): an overview, including descriptions of five new

species and one subspecies.- Monitor, Ardeer (Victoria); 9: 20-30, 33-41. HOSER, R. (2002): Death adders (genus Acanthophis): an updated overview, including descriptions of 3 new island species and 2 new Australian subspecies.- The Crocodilian, Journal of the Victorian Association of Amateur Herpetologists, Geelong (Victoria); 4: 5-11, 16-22, 24-30. How, R. A. & KITCHENER, D. J. (1997): Biogeography of Indonesian snakes.- Journal of Biogeography, Oxford; 24: 725-735. ISKANDAR, D. T. & COLIJN, E. (2001): A checklist of Southeast Asian and New Guinean reptiles - Part I. Serpentes. Jakarta (Biodiversity Conservation Project, Indonesian Institute of Sciences, Japan International Cooperation Agency, The Ministry of Forestry, The Gibbon Foundation and Institute of Technology Bandung), 195 pp. KLEMMER, K. (1963): Liste der rezenten Giftschlangen: Elapidae, Hydropheidae, Viperidae und Crotalidae; pp. 255-464. In: Die Giftschlangen der Erde. Behringwerk-Mitteilungen, Sonderband. Marburg (Elwert). MONK, K. A. & DE FRETES, Y. & REKSODIHARJO-LILLEY, G (1997): The ecology of Nusa Tenggara and Maluku. Singapore (Periplus), 923 pp. Storr, G. M. & Smith, L. A. & JOHNSTONE, R. E. (1986): Snakes of Western Australia. Perth (Western Australian Museum), 187 pp. SUPRIATNA, J. (1995): Ular berbisa di Indonesia. Jakarta (Penerbit Bhratara), 75 pp. WELLS, R. W. & WELLING-TON, C. R. (1985): A classification of the Amphibia and Reptilia of Australia.- Australian Journal of Herpetology, Supplementary Series, Katoomba (New South Wales); 1: 1-61. Wüster, W. & Dumbrell, A. J. & Hay, C. & Pook, C. E. & Williams, D. J. & Fry, B. G. (2005): Snakes across the Strait: trans-Torresian phylogeographic relationships in three genera of Australasian snakes (Serpentes: Elapidae: Acanthophis, Oxyuranus, and Pseudechis) .- Molecular Phylogenetics and Evolution, San Diego; 34 (2005): 1-14.

KEY WORDS: Reptilia: Squamata: Serpentes: Elapidae: Acanthophis laevis complex; Acanthophis groenveldi; geographical distribution; island record; venomous snakes; Ambon; Maluku; Indonesia

SUBMITTED: April 1, 2005

AUTHORS: Ulrich Kuch, Sektion Herpetologie, Forschungsinstitut und Naturmuseum Senckenberg, Senckenberganlage 25, D-60325 Frankfurt am Main, Germany < u.kuch@em.uni-frankfurt.de >; Jimmy A. McGuire, Museum of Vertebrate Zoology, 3101 Valley Life Science Building, University of California, Berkeley, CA 94720-3160, USA; Frank Bambang Yuwono, P.T. Vivaria Indonesia, Jl. Dr. Makaliwe Raya 24, Grogol, Jakarta 11450, Indonesia.

Evidence for oviparity in the extinct bolyeriid snake *Bolyeria multocarinata* (Boie, 1827)

The snake family Bolyeriidae consists of only two species classified in two genera whose current distribution is restricted to Round Island, a small offshore island north of Mauritius in the western Indian Ocean. Of the two species *Casarea dussumieri* (SCHLEGEL, 1837) is threatened but still ex-

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Herpetozoa

Jahr/Year: 2006

Band/Volume: <u>19_1_2</u>

Autor(en)/Author(s): Kuch Ulrich, McGuire Jimmy A., Yuwono Frank Bambang

Artikel/Article: Death adders (Acanthophis laevis complex) from the island of

Ambon (Maluku, Indonesia) 81-82