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

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## 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 *Acanthophis* existed from Ambon, in spite of the fact that this island of 771 km<sup>2</sup> 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; ISKANDAR & 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]).

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

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### 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-

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