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DESCRIPTION OF A NEW SPECIES OF *CYLINDROPHIS* (SERPENTES: CYLINDROPHIIDAE) FROM YAMDENA ISLAND, TANIMBAR ARCHIPELAGO, INDONESIA

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ABSTRACT. - A new species of *Cylindrophis* closely related to *Cylindrophis ruffus* is described from Yamdena, Tanimbar Archipelago, Indonesia.

KEYWORDS. - Serpentes, *Cylindrophis*, new species, Indonesia, Taxonomy.

INTRODUCTION

When McDowell (1975) reviewed the *Cylindrophis* of eastern Indonesia he relied on the collections of the British Museum of Natural History, American Museum of Natural History and, to a lesser extent, on certain European museums whose *Cylindrophis* collections had grown little since Malcolm Smith (1943) described *Cylindrophis ruffus burmanus*. Despite the paucity of new material McDowell (*loc. cit.*) was able to establish the distinctiveness of *C. melanotus*, which in the past had been treated a race of *C. ruffus*. He also synonymised *C. heinrichi* Ahl 1935 and *C. celebensis* Smith 1927 with *C. melanotus*.

Demonstrating the integrity of *C. melanotus* (McDowell loc. cit.) will probably prove to be the first step in the dismemberment of *C. ruffus ruffus*. Establishing the existence of *C. r. ruffus* as a polymorphic subspecies has probably been delayed because of the paucity of specimens and the reluctance of few past workers to report the sex of specimens. This, together with a propensity for some authors to copy meristic data and generalised colour descriptions from the literature, rather than provide new data, has forestalled a much needed critical examination of variation in *C. ruffus*. For example, compare the short, stout *C. ruffus* with narrow pale bands in plate 7 (Cox 1991) with the gracile example of *C. ruffus* with broad pale bands in plate 7 (Cox 1991).

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Recently, there has been a renewed interest in cylindrophid systematics. Stuebing and Goh (1993) reported the discovery of a specimen of *Anomocilus leonardi* in the Sabah Museum collected in 1981, and Stuebing (1994) described *Cylindrophis engkariensis*, a new species from Sarawak, Borneo. Even more recently Iskandar (1996) has reported the finding of *C. aruensis* on Damar Island (7°09'S, 128°40'E). According to Iskandar this indicates the type locality of *C. aruensis* is in error. Iskandar also suggests that the species on Babar Island previously assigned to *C. boulengeri* is an undescribed species. These findings are part of a wide ranging review of *Cylindrophus* now in preparation (Iskandar in litt. 19/8/98). These new discoveries uphold McDowell's observation that "except for Celebes, no island east of Borneo supports more than a single species of *Cylindrophis* and the various Moluccan and Lesser Sunda forms of that genus appear to be the result of local differentiation, probably from *C. rufus*...". (See Fig. 1).

Welch (1988) records *C. boulengeri* from Timor. We have not been able to confirm that record. McDowell (in litt. 19/4/97) was not aware of any *Cylindrophis* from Timor at the time of his revision; David and Vogel (1996) do not record any *Cylindrophis* from Timor and furthermore, the considerable joint collecting efforts of the Western Australian Museum and Museum Zoologicum Bogoriense on that island have not produced any specimens of *Cylindrophis*.

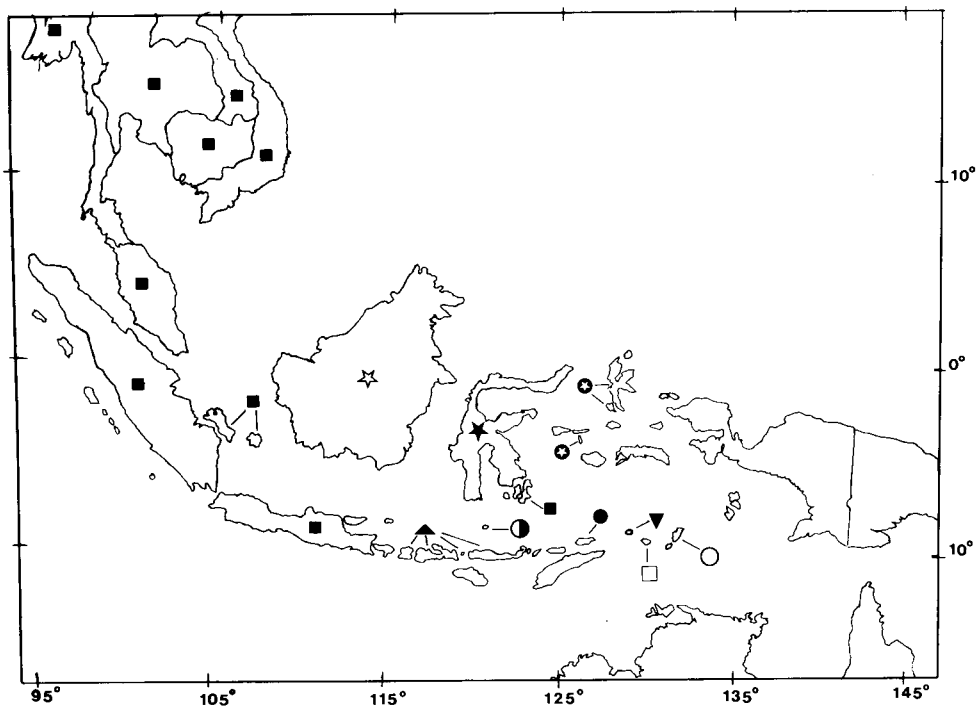

Fig. 1. Distribution of *Cylindrophis* in south east Asia based on the literature and this paper: *C. aruensis* Damar I. (▼), *C. boulengeri* Wetar I. (●), *C. isolepis* Jampea I. (◑), *C. melanotus* and *C. r. ruffus* Sulawesi (★), *C. melantous, C. engkariensis* and *C. lineatus* Borneo (☆), *C. opisthorhodus* Lombok, Sumbawa, Komodo Flores Is (▲), *C. r. ruffus* Thailand, Kampuchea, Laos, Vietnam, West Malaysia, Sumatra, Java and, not indicated in Figure, Riau Archipelago, (■), *C. yamdena* Yamdena I. (○), *Cylindrophis* sp. nov. 1 of Iskandar (1996) Babar I. (□), *C. melanotus* Halmahera, Batjan and Sanana Is (✪).

The potential complexity of a *C. ruffus* species- group is further highlighted by the recent collection of the first specimens of a pale form of *Cylindrophis* from Yamdena Island, Tanimbar Archipelago, Indonesia (the *Cylindrophis* sp. 2 of Iskandar *loc. cit.)* by a joint Western Australian Museum, Museum Zoologicum Bogoriense expedition in 1993. These five specimens share characters with all species of *Cylindrophis,* are especially close to *C. ruffus* but are nevertheless considered distinctive enough to be described as a new species.

If *C. aruensis* is restricted to Damar Island (Iskandar *loc. cit.*) this new species from Tanimbar, and not *C. aruensis*, represents the eastern limit of *Cylindrophis.*

TAXONOMY

Genus *Cylindrophis* Wagler

Cylindrophis yamdena, new species
(Figs. 2-4)

Material examined. - Holotype. - Western Australian Museum R112252 a male (SVL 610mm, tail 18mm) collected at Latdalam, Yamdena Island in 7°59'S, 131°09'E, Tanimbar Archipelago, Indonesia by R.E. Johnstone, D.J. Kitchener & R.A. How on 23 Apr.1993. See Figs. 2 & 3). The holotype and some paratypes will ultimately be lodged with Museum Zoologicum Bogoriense.

Paratypes. - WAM R109947 (f), 109971 (f), 109972 (m), 109980 (f) all from Latdalam, Yamdina Island, Indonesia.

Diagnosis. - Distinguished from other Indonesian *Cylindrophis* with enlarged ventrals as follows: from *C. melanotus* by having fewer ventrals (179-193 v 224-245); *C. opisthorhodus* by having fewer midbody scale rows (20 or 21 vs 23) and its larger size (up to 610mm snout-vent length vs less than 250mm snout-vent length); from *C. lineatus* by lacking white or black longitudinal dorsal bands and having fewer ventrals (210-215 v 179-193) and from *C. r. ruffus* by its paler adult coloration (pale orange-brown body without transverse dorsal bars, orange-brown subcaudals) versus a black or dark brown back with paler transverse bars and bright red subcaudals.

Description. - Body cylindrical, head angular in profile (crown high, snout depressed).

Tail short (2.4-3.2% of SVL) and terminating in a blunt point.

Ventrals 179-193, slightly wider than adjacent dorsals (Figure 4); anal divided; subcaudals 6-8 Midbody scale rows 21, reducing to 18 or 19 at the tail and increasing to 22 or 23 at the neck.

Rostral triangular, equilateral; nasals entire, in short to moderate contact the nostril pierced close to and equidistant from the first and second labials. Internasals and prefrontals fused. eye small, its diameter half the length of the suture between the third and fourth upper labials. No preocular, one postocular. Supraoculars larger than the parietals. One anterior and two posterior temporals. Upper labials 6, first smallest, third largest. Mental triangular, as wide as the rostral. Lower labials 6, first pair in contact, third the largest, sixth the smallest. Two pairs of chin shields, both pairs in contact, anterior pair throughout their length, posterior pair a third their length.

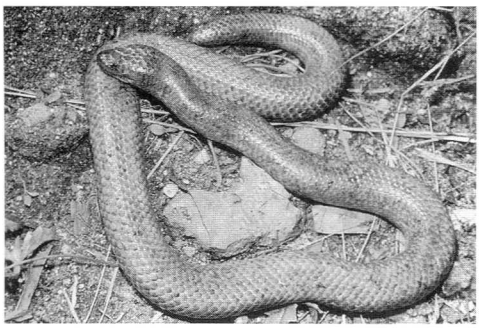

Fig. 2(a). Holotype of *Cylindrophis yamdena*, new species, photographed in life.

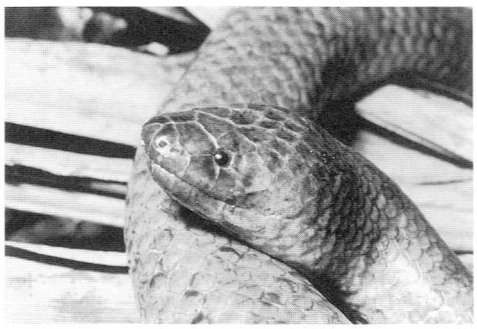

Fig. 2(b). Head of holotype of *Cylindrophis yamdena*, new species photographed in life.

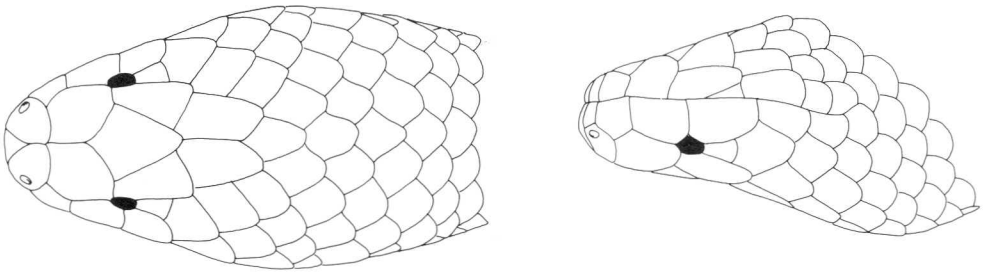

Fig. 3. Head of holotype of *Cylindrophis yamdena*, new species.

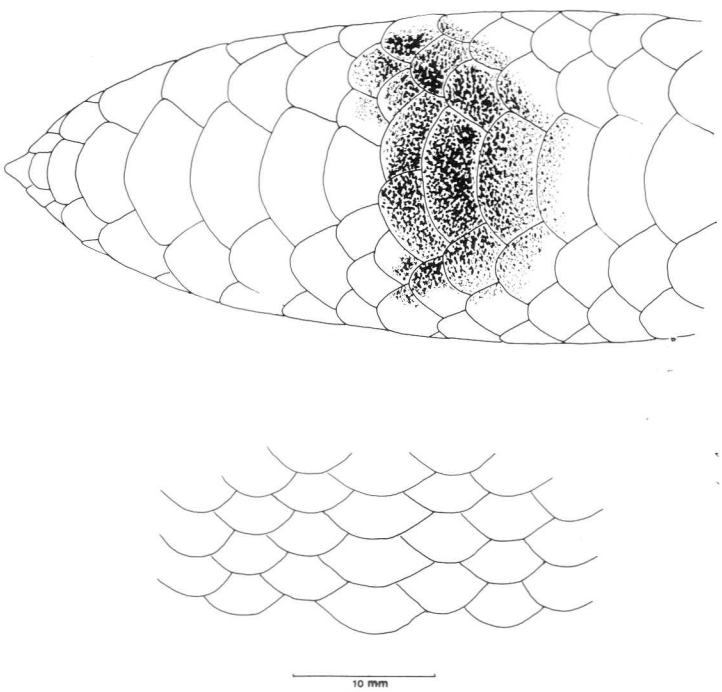

Fig. 4. Above. Black Cloacal-subcaudal pigment in holotype of *Cylindrophis yamdena*, new species and, below, size of ventrals in holotype of *Cylindrophis yamdena*.

Maxillary teeth 12, dentary teeth 13, pterygoid teeth 8, palatine teeth 10 (WAM109972). Colour varies with age. The pattern of the smallest specimen (109947) is the most concise. The head is iridescent brownish-grey with the margins of the head shields and nape scales pale edged. The back is iridescent brownish-grey (purplish-brown in life) and the ventral surface has irregular, alternating greyish-white and brownish-grey bars one to four scales wide, usually ascending to mid flank, sometimes asychrous medially. Undersurface of tail from cloaca to fourth subcaudal blotched pink and black. (Brownish-orange and black in life.)

A medium-sized (500mm) specimen (109971) is iridescent light brownish-grey on the back with the snout darker and the throat whitish. Ventral bars are diffused but discernible. A crescent of five ventral scales anterior to the preanal, the preanal and anal are black and the subcaudals are greyish-brown.

The holotype (the largest specimen) has a light greyish-brown back (light orange-brown in life) with sparse, irregular black flecks. The venter is light brown with irregular, mottled greyish-white bars. Crescent of black precloacal scales black as in 109971 (Figure 4). Subcaudals mottled pinkish-white (in spirits).

There are no prominent gular markings on any of the specimens.

Distribution. - Known only from Latdalam, Yamdena, Indonesia. See Fig. 1.

Remarks. - The feature of *C. yamdena* that most readily distinguishes it from *C. rufus* is the intensity of the subcaudal pigment. In the smallest specimen it is orange-brown, fading to pink in spirits. In the largest specimen (the holotype) it is pinkish-white. Subcaudal pigmentation in the live holotype was not recorded but the fact that it is pinkish-white (rather than pink, as in smaller specimens) suggests that orange brown is as intense as the pigment gets. White ventral bars are only prominent on one specimen (R109947). The bars asychrous medially, 44 on one side and 46 on the other. On the remaining three paratypes the white bars are narrow and vague and in the holotype they are totally absent, the dorsal and ventral surface being the same pale colouration.

Males (N=2) [185.5 ± 0.71] and females (N=3) [186.3 ± 7.0] showed no significant difference in ventral scale counts.

The indigenous name for this species is "Naranwahlu".

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