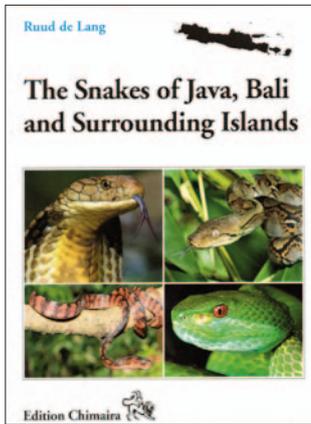


The Snakes of Java, Bali and Surrounding Islands

Ruud de Lang

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The Greater Sunda Islands of Sumatra, Java and Borneo have snake faunas of particular interest. By virtue of size, these islands support many species and furthermore being in the shallow seas of the Sunda shelf they have at various times been connected or isolated from adjacent land masses. Consequently, the Greater Sundas possess a range of species with affinities to either the Malayan fauna,

which mostly favour humid tropical climates, or to the continental Asian fauna that is more tolerant of tropical, but seasonally dry, climates. With an overlay of time this has created islands with distinctive blends of similarity and difference (endemism). In recent years, academic interest has focused on the affinities of the faunas of not just these islands but throughout the whole Indonesia archipelago.

For many years, the most comprehensive source of information on reptiles of the Archipelago was the two volume series by the Dutch herpetologist Nelly (Pertonella) de Rooij; her second volume covers snakes (De Rooij, 1917). In the 1980/90s, this essential reference was difficult to obtain and I recall having to make do with bits photocopied from relevant sections. Things have changed. Starting from just before the new millennium there has been a flurry of books/field guides on the snakes of the region; so that now there are texts covering Papua New Guinea, Sumatra, Borneo, Sulawesi, Bali, the Lesser Sunda Islands, and the Moluccas. The missing piece to the puzzle was a field guide to Java. It is therefore fitting that the latest volume is a guide to the snakes (excluding sea snakes) of Java and Bali by the Dutch herpetologist Ruud de Lang. The inclusion of Bali is logical since the fauna of this island has strong affinities with its neighbour Java; both are on the Sunda shelf and so are on the same side of the Wallace line. Some smaller islands off the coast of Java are also included but, as might be expected, have rather limited snake faunas.

I was delighted to receive a free copy of this field guide as a result of contributing some photos and data on East Java species. On first opening, the most striking feature is the wealth of photographs. There are 288 of them to illustrate 91 snake species and some associated habitats. The photos are generally of a high standard and beautifully reproduced, six are full page illustrations and 13 presented as double page spreads. Some of the species photographs are rare such as the two Java endemics, the brown blind

snake (*Argyophis fuscus*) known from a single specimen, and Frustorfer's mountain snake (*Tetralepis frustorferi*) for which there appears to be no other photographs take in life. The first part of the guide deals with the geographical and biogeographical features of the area but dwells more on island affinities than on the origins of the diverse fauna. It provides details of conservation organisations, and presents a checklist of species. This is followed by an identification key that links to the species accounts that occupy the greater part of the text. It is a pity that an Indonesian language version of the key was not included, as it was with the guides to the Lesser Sundas (De Lang, 2011) and Bali (McKay, 2006).

The species accounts vary widely in detail depending on how well a species is known. Clearly, there is still a lot that keen field naturalists could contribute to our knowledge. Interestingly, scattered throughout the book there are text boxes with pictures and biographical details of five European herpetologists who have devoted their energies to Javanese snakes. Notable by her absence is Nelly de Rooij, but then her data came from examining pickled specimens in the Museum of Zoology in the University of Amsterdam. Apparently she never set foot in Indonesia, unlike Ruud de Lang who has travelled extensively in pursuit of his passion but also has to hand the Leiden Museum's extensive collections of Indonesian snakes that date back to the colonial era.

Towards the end of the guide there are three useful tables. One of geographical names and co-ordinates of the many places quoted in the text, which are also plotted as numbers on a series of maps. The second table shows the distribution of species in Java by province (West, Central and East) and by other islands. The third table gives details of lepidosis and pupil shape. Taken together with the rest of the text this presents a wealth of information and offers a good chance of fulfilling Ruud de Lang's stated objective that "...this guide makes it possible to identify all snake species known today from the area. It is meant to be of value to professionals as well as amateurs". As expected the taxonomy of some of the species described has potential for change and warnings are given about uncertainty of *Ahaetulla* species, the difficulty of separating *Trimeresurus albolabris* from *T. insularis* in Central Java, and possible new species of *Dendralaphis*. There is also a short listing of species of doubtful presence in the area.

In the guide's Foreword it is stated that "... snake enthusiasts will hopefully recognise species that are unknown when they are found..." and it suggests that "many snakes may have successfully evaded the damaged environments and still survive somewhere on the

island waiting to be discovered by science". This claim is not too farfetched and can be demonstrated with reference to two species; the Indochinese sand snake (*Psammophis indochinensis*) and the eastern Russell's viper (*Daboia siamensis*). In continental Asia, both species are known from central Thailand, they are not part of the fauna of peninsula Malaya nor are they known from Sumatra. However, both have been recorded from Java but only from a relatively small patch of northern East Java where there is a seasonally dry climate. *Daboia siamensis* was confirmed in Java only in the 1930s despite being very noticeable for its behaviour when disturbed, inflating the body and producing a loud continuous hissing, and being a serious cause snakebite morbidity. Further populations of this species are known from some of the Lesser Sunda islands, at a distance of at least 700 km to the east of the Javanese locality, where there are similar seasonally dry climates. What the new guide reveals is that there is a tentative record of *D. siamensis* from one location in west Bali. This turns out to be more or less the same location from which *P. indochinensis* it is also known in Bali. Given an active snake trade in Indonesia, the record of *D. siamensis* on Bali needs confirmation, but Bali aside the two species have remarkably similar distributions. These are presumably based on shared habitat preferences that relate to seasonal climates. *P. indochinensis* is not known

from any of the Lesser Sunda Islands. Is it possible that one day it may also be recorded from the very same far flung Lesser Sunda islands as *D. siamensis*? *Psammophis indochinensis* may yet surprise us, it was only recorded for the first time from Cambodia in 2011 (Hartmann et al., 2011).

The Snakes of Java, Bali and Surrounding Islands is a 'must have' for anyone interested in the fauna of south-east Asia or snakes in general. Prices vary but typically around £54 (€61.00).

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