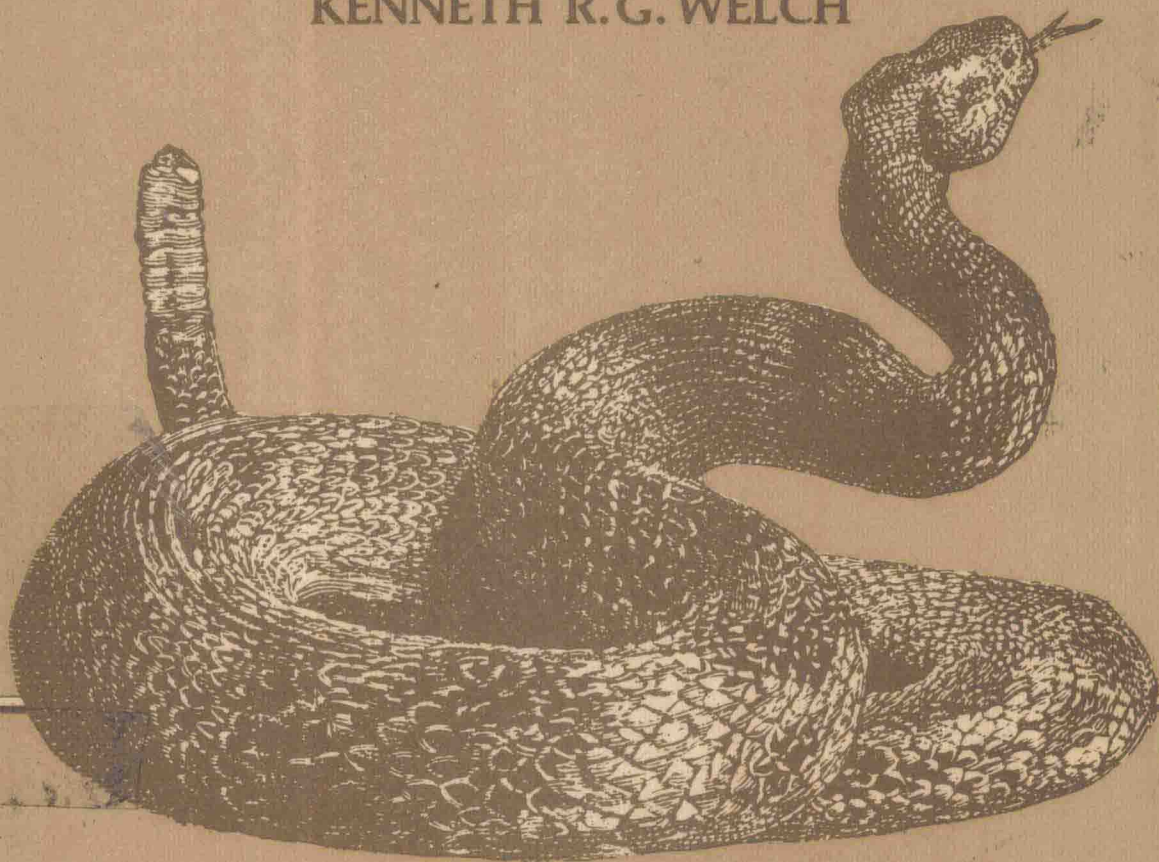


VENOMOUS SNAKES *of the* WORLD

A Checklist

KEITH A. HARDING
and
KENNETH R. G. WELCH



PERGAMON PRESS

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A CHECKLIST

PREFACE AND ACKNOWLEDGEMENTS

Because of their medical importance, venomous snakes have in general attracted more attention from researchers than their harmless allies. However, only one world checklist of species has previously been published (Klemmer, 1963). This work, which we have not seen, appeared in a German publication sixteen years ago, since when many important revisions have taken place at all levels and several new forms have been described. The need for an up-to-date summary has prompted us to compile this book, which is not intended as a treatise on venomous snakes, but merely as a simple and concise guide to present nomenclature and distribution. Because of its wide scope and the somewhat unstable state of snake classification, it will rapidly become outdated, but every effort will be made to ensure that future editions keep abreast of developments. Comments and criticisms, as well as new material for inclusion in the next edition, will be most gratefully received by us in care of the Publishing Manager (Life Sciences) at Pergamon Press, Headington Hill Hall, Oxford, OX3 0BW, England.

We wish to thank C.J. McCarthy of the Department of Zoology, British Museum (Natural History) for supplying citations and type details for twelve forms, Martin J. Richardson of Pergamon Press for many helpful discussions, and Jenny Drummond for re-typing the manuscript.

Keith A. Harding
Kenneth R. G. Welch

13th August, 1979

INTRODUCTION

This checklist is divided into two sections: the first dealing with basic taxonomy, and the second with geographical distribution. The taxonomic section is arranged phylogenetically by families, subfamilies and tribes, with genera and species listed in alphabetical order. Classification (see Table 1) follows Smith, Smith and Sawin (1977), with three families (Elapidae, Hydrophiidae and Viperidae) consisting entirely of venomous snakes, and three subfamilies (Natricinae, Dispholidinae and Atractaspidinae) containing species capable of causing life-threatening envenomation in man from the predominantly harmless Colubridae. Other less dangerous, though technically venomous Colubrids, including members of the subfamily Aparallactinae, have been omitted.

In Section 1, information given is restricted to the original description reference and type species for genera, and the original description reference, original citation (where necessary), type locality and brief details of present known distribution for species and subspecies. Short taxonomic references are grouped together at the end of Section 1 and all other references are listed in the main Bibliography which follows Section 2. We have endeavoured to include all the latest taxonomic revisions and range extensions. Synonymies, which are not included in this checklist, may be found in the following important regional works: Broadley (1968) for Africa, Hoge and Romano (1971) for Central and South America, Klemmer (1968) for Europe and North Africa, Leviton (1968) for Asia and Indonesia, and Klauber (1972) and Schmidt (1953) for North America.

Section 2 gives details of geographical distribution based on political boundaries. A faunal list is given for each country or island group, to which recognized common names have been added for those species which have them. Vernacular names have been avoided due to their inconsistent usage. The sea snakes have been added to appropriate lists according to the shores off which they occur and not dealt with separately, by seas, as is sometimes the case. The final lists are arranged, as far as possible, so that neighbouring countries appear in succession. Finally, references to literature facilitating identification of species have been added to each faunal list.

The Bibliography provides a useful guide to important literature on venomous snakes.

TABLE 1 Classification of Venomous Snakes

	Class	REPTILIA	Reptiles
	Order	SQUAMATA	Snakes and Lizards
	Suborder	SERPENTES	Snakes
	Infraorder	ALETHINOPHIDIA	Spectacled Snakes
	Superfamily	COLUBROIDEA	Advanced Snakes
Family	COLUBRIDAE ¹	Colubrid Snakes	
Subfamilies	NATRICINAE ²	Natricine Water Snakes	
	DISPHOLIDINAE	African Rear-Fanged Snakes	
	ATRACTASPIDINAE	Burrowing False Vipers	
	Series	PROTEROGLYPHA	Fixed Front-Fanged Snakes
Family	ELAPIDAE	Palatine Erectors	
Subfamily	BUNGARINAE	Cobras	
Tribes	BUNGARINI	Kraits	
	NAJINI	Cobras, Mambas and African Coral Snakes	
Subfamily	ELAPINAE	Coral Snakes	
Tribes	ELAPINI	American and North Asiatic Coral Snakes	
	MATICORINI	South Asiatic Coral Snakes	
	LATICAUDINI	Sea Kraits	
Family	HYDROPHIIDAE	Palatine Draggers	
Subfamily	OXYURANINAE	Australasian Venomous Snakes	
Subfamily	HYDROPHIINAE	True Sea Snakes	
Tribes	EPHALOPHINI	Ephalophine Sea Snakes	
	HYDRELAPINI	Hydrelapine Sea Snakes	
	AIPYSURINI	Aipysurine Sea Snakes	
	HYDROPHIINI	Hydrophine Sea Snakes	
	Series	SOLENOGLYPHA	Movable Front-Fanged Snakes
Family	VIPERIDAE	Vipers	
Subfamily	VIPERINAE	Pitless Vipers	
Tribes	VIPERINI	True Vipers	
	AZEMIOPINI	Fea's Viper	
	CAUSINI	Night Adders	
Subfamily	CROTALINAE	Pit Vipers	
Tribes	LACHESINI	Bushmasters	
	CROTALINI	Viviparous Pit Vipers	

¹Predominantly harmless family with three subfamilies containing venomous representatives.

²Predominantly harmless subfamily with two dangerous genera.

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TAXONOMY

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PART 1

Family COLUBRIDAE

Subfamily NATRICINAE

Genus *BALANOPHIS* Smith 1938 p. 583. Single species.

Type species: *Tropidonotus ceylonensis* Gunther

Balanophis ceylonensis (Gunther)

Tropidonotus chrysargus var. *ceylonensis* Gunther 1858 p. 71

Type locality: Ceylon

Distribution: Sri Lanka.

Genus *RHABDOPHIS* Fitzinger 1843 p. 27. Twelve species.

Type species: *Rhabdophis subminiatus* Fitzinger

Rhabdophis auriculatus (Gunther)

Tropidonotus auriculatus Gunther 1858 p. 80

Type locality: Philippine Islands

Distribution: Philippines.

Rhabdophis callichroma (Bourret)

Natrix chrysarga callichroma Bourret 1934 p. 155

Type locality: Ba-vi, Tong-King

Distribution: Vietnam.

Rhabdophis chrysargoides (Gunther)

Tropidonotus chrysargoides Gunther 1858 p. 71

Type locality: Sine patria

Distribution: Indonesia (Java and Sulawesi)

Rhabdophis chrysargus (Schlegel)

Tropidonotus chrysargus Schlegel 1837 p. 312

Type locality: Java

Distribution: Thailand, Malaya and Kampuchea.

Rhabdophis himalayanus (Gunther)*Tropidonotus himalayanus* Gunther 1864a p. 265

Type locality: Nepal

Distribution: Burma, India (Assam and Sikkim), Bhutan and Bangladesh.

Rhabdophis murudensis (Smith)*Natrix murudensis* Smith 1925 p. 5

Type locality: Mt. Murud, Borneo (5,500-6,000 ft)

Distribution: Borneo.

Rhabdophis nigrocinctus (Blyth)*Tropidonotus nigrocinctus* Blyth 1856 p. 717

Type locality: Pegu, Burma

Distribution: Burma.

Rhabdophis nuchalis (Boulenger)*Tropidonotus nuchalis* Boulenger 1891 p. 281

Type locality: Ichang, Upper Yangtse-Kiang

Distribution: Burma, western China, south-eastern Tibet and Vietnam.

Rhabdophis spilogaster (Boie)*Tropidonotus spilogaster* Boie 1827 p. 535

Type locality: Philippines

Distribution: Philippines.

Rhabdophis subminiatus (Schlegel)*Tropidonotus subminiatus* Schlegel 1837 p. 313

Type locality: Java

Distribution: India (Assam and Sikkim), Bhutan, Burma, Bangladesh, southern China, Thailand, Laos, Malaysia, Kampuchea, Vietnam, Taiwan and Indonesia.

Rhabdophis swinhonis (Gunther)*Tropidonotus swinhonis* Gunther 1868 p. 420

Type locality: Formosa

Distribution: Taiwan.

Rhabdophis tigrinus (Boie)*Tropidonotus tigrinus* Boie 1826 p. 205

Type locality: Japan

Distribution: China, Japan, Korea, Taiwan, Vietnam and Thailand.

Subfamily DISPHOLIDINAE

Genus DISPHOLIDUS Duvernoy 1832 p. 150. Single species.

Type species: *Dispholidus lalandii* Duvernoy*Dispholidus typus typus* (Smith)*Bucephalus typus* Smith 1829 p. 441

Type locality: Old Latakoo, South Africa

Distribution: Africa south of the Sahara (Savannah areas).

Dispholidus typus kivuensis Laurent 1955 p. 127

Type locality: Uvira, Lake Tanganyika, Kivu District, Ruanda-Urundi

Distribution: Zambia (Abercorn), Rwanda and Kenya (Eldoret and Subukia).

Dispholidus typus punctatus Laurent 1955 p. 129
Type locality: Dundo, Angola
Distribution: Angola, Zaire and Zambia.

Genus THELOTORNIS Smith 1849 p. 19. Single species.
Type species: *Thelotornis capensis* Smith

Thelotornis kirtlandi kirtlandi (Hallowell)
Leptophis kirtlandii Hallowell 1844 p. 62
Type locality: Liberia
Distribution: Somali Republic, Kenya, Tanzania, Uganda, Zaire, Angola, Congo, Gabon, Equatorial Guinea, Cameroun, Nigeria, Togo, Benin, Ghana, Ivory Coast, Liberia, Sierra Leone, Guinea and Guinea-Bissau.

Thelotornis kirtlandi capensis Smith 1849, p. 19
Type locality: Kaffirland and the country toward Port Natal
Distribution: Tanzania, Zambia (Abercorn), Malawi, Mozambique, southern Zimbabwe-Rhodesia, South Africa (north and east Transvaal, eastern Natal and northern Namibia) and southern Botswana.

Thelotornis kirtlandi oatesi (Gunther)
Drytophis oatesi Gunther 1881 p. 330
Type locality: Matabeleland, Rhodesia
Distribution: Angola, Zaire, northern Botswana and northern Zimbabwe-Rhodesia.

Subfamily ATRACTASPIDINAE

Genus ATRACTASPIS Smith 1849 p. 71. Fifteen species.
Type species: *Atractaspis inornatus* Smith

Atractaspis aterrima Gunther 1863a p. 363
Type locality: West Africa
Distribution: Guinea, Guinea-Bissau, Ivory Coast, Ghana, Gabon, Zaire, Rwanda, Uganda and Tanzania.

Atractaspis battersbyi de Witte 1959 p. 350
Type locality: Bolobo, Congo
Distribution: Zaire.

Atractaspis bibroni Smith 1849 p. 51
Type locality: Eastern districts of the Cape Colony
Distribution: Kenya, Tanzania, Mozambique, Malawi, Zambia, Angola, South Africa, Botswana, Zimbabwe-Rhodesia and Swaziland.

Atractaspis boulengeri boulengeri Mocquard 1897 p. 16
Type locality: Lambarene, Gabon
Distribution: Gabon.

Atractaspis boulengeri matschiensis Werner 1897a p. 404
Type locality: Cameroun
Distribution: Cameroun.

- Atractaspis boulengeri mixta* Laurent 1945 p. 332
Type locality: Mayombe, Lower Congo
Distribution: Zaire.
- Atractaspis boulengeri schmidtii* Laurent 1945 p. 333
Type locality: Route Aketi-Buta, Uele, Congo
Distribution: Zaire.
- Atractaspis boulengeri schultzei* Sternfeld 1917 p. 489
Type locality: Mbio, Moyen-Congo
Distribution: Congo (Moyen-Congo).
- Atractaspis boulengeri vanderborghii* Laurent 1956a p. 310
Type locality: Manguretshepa, Kivu, Congo
Distribution: Zaire (Kivu).
- Atractaspis coalescens* Perret 1960 p. 130
Type locality: Bangwa, Cameroun
Distribution: Type locality only.
- Atractaspis congica congica* Peters 1877 p. 616
Type locality: Chinchoxo, Cabinda
Distribution: Cameroun, northern Angola and Zaire.
- Atractaspis congica leleupi* Laurent 1950a p. 351
Type locality: Kundelungu, Katanga, Congo
Distribution: Zaire (Kundelungu Mountains, eastern Katanga).
- Atractaspis congica orientalis* Laurent 1945 p. 330
Type locality: Lualaba, Katanga, Congo
Distribution: Zaire (Katanga) and Zambia (Abercorn).
- Atractaspis corpulenta corpulenta* (Hallowell)
Brachycracion corpulentum Hallowell 1854 p. 99
Type locality: Liberia
Distribution: Cameroun, Gabon, Congo and Zaire.
- Atractaspis corpulenta kivuensis* Laurent 1958 p. 127
Type locality: Bibugwa River, Kivu, Congo
Distribution: Zaire (Orientale and Kivu).
- Atractaspis corpulenta leucura* Mocquard 1885 p. 15
Type locality: Assinie, Ivory Coast
Distribution: Ivory Coast and Ghana.
- Atractaspis dahomeyensis* Bocage 1887 p. 196
Type locality: Zomai, Dahomey
Distribution: Guinea, Ivory Coast, Ghana, Benin, Nigeria and Cameroun.
- Atractaspis engaddensis* Haas 1950 p. 52
Type locality: En-Geddi on the western side of the Dead Sea
Distribution: Israel, Egypt, Jordan and Lebanon.
- Atractaspis engdahli* Lonnberg and Andersson 1913a p. 5
Type locality: Kismayu, Somalia
Distribution: Somali Republic.

Atractaspis irregularis irregularis (Reinhardt)*Elaps irregularis* Reinhardt 1843 p. 264

Type locality: Gabon

Distribution: Guinea, Liberia, Nigeria, Cameroun, Gabon, Sierra Leone, Ivory Coast, Ghana, Togo, Benin and Equatorial Guinea.

Atractaspis irregularis angeli Laurent 1950b p. 25

Type locality: Mount Bizen, Eritrea

Distribution: Ethiopia (Eritrea).

Atractaspis irregularis bipostocularis Boulenger 1905a p. 190

Type locality: Fort Hall, near Mount Kenya, Kenya

Distribution: Kenya, north-western Tanzania, Uganda, Rwanda and eastern Zaire.

Atractaspis irregularis parkeri Laurent 1945 p. 316

Type locality: Kanungu, Congo

Distribution: Cameroun, Zaire and northern Angola.

Atractaspis irregularis uelensis Laurent 1945 p. 320

Type locality: Bambesa, Uele, Congo

Distribution: Zaire (Uele), north-western Uganda and Sudan (Mongalla).

Atractaspis leucomelas Boulenger 1895a p. 16

Type locality: Ogaden, Ethiopia

Distribution: Ethiopia and the Somali Republic.

Atractaspis microlepidota microlepidota Gunther 1866 p. 29

Type locality: Probably West Africa (in error)

Distribution: Southern Sudan, Ethiopia, Kenya and Somali Republic.

Atractaspis microlepidota andersoni Boulenger 1905b p. 180

Type locality: El Kubar, Aden

Distribution: Yemen and South Yemen.

Atractaspis microlepidota magretti Scortecci 1928 p. 308

Type locality: Mandafena, Eritrea

Distribution: Ethiopia (Eritrea) and southern Sudan.

Atractaspis microlepidota micropholis Gunther 1872a p. 36

Type locality: Unknown

Distribution: Mauritania, northern Nigeria, Mali and Niger.

Atractaspis reticulata reticulata Sjostedt 1896 p. 516

Type locality: Ekundu, Cameroun

Distribution: Cameroun.

Atractaspis reticulata brieni Laurent 1956b p. 256

Type locality: Ipamu, Congo

Distribution: Zaire.

Atractaspis reticulata heterochilus Boulenger 1901 p. 13

Type locality: Albertville, Congo

Distribution: Cameroun, Gabon, Equatorial Guinea and Congo.

Atractaspis scorteccii Parker 1949 p. 109

Type locality: Haud, Somalia

Distribution: Somali Republic.

PART 2

Family ELAPIDAE

Subfamily BUNGARINAE

Tribe BUNGARINI

Genus BUNGARUS Daudin 1803a p. 187. Twelve species.
Type species: *Pseudoboa fasciata* Schneider

Bungarus bungaroides (Cantor)

Elaps bungaroides Cantor 1839 p. 33

Type locality: Cherra Pungi, Khasi Hills, Assam, India

Distribution: Burma, India (Assam, Cachar and Sikkim).

Bungarus caeruleus caeruleus (Schneider)

Pseudoboa caerulea Schneider 1801 p. 284

Type locality: Vizagapatam, Andhra Pradesh, south India

Distribution: Sri Lanka, India and Bangladesh.

Bungarus caeruleus sindanus Boulenger 1897 p. 73

Type locality: Sind, West Pakistan

Distribution: Pakistan (North-east Baluchistan and Sind) and India (Punjab and Bombay).

Bungarus candidus (Linnaeus)

Coluber candidus Linnaeus 1758 p. 223

Type locality: Habitat in Indiis

Distribution: Vietnam, Malaysia, Indonesia (Bali, Sulawesi, Java and Sumatra) and south-eastern Thailand.

Bungarus ceylonicus ceylonicus Gunther 1864a p. 344

Type locality: Ceylon

Distribution: Sri Lanka (low elevations).

Bungarus ceylonicus karavala Deraniyagala 1955 p. 69

Type locality: Gurutalava, near Valimada (C.P.)

Distribution: Sri Lanka (above 2,500 ft).