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APPENDIX 1

Worldwide distribution of medically important venomous snakes

Venomous snakes are widely distributed especially in tropical countries, from sea level to altitudes of up to 4 900 metres (*Gloydius himalayanus*). The European adder (*Vipera berus*) enters the Arctic Circle, and the Argentine Yaranata (*Bothrops ammodytoides*) occurs to 47 °S and is the most southerly occurring venomous snake. No other venomous species occur in cold regions such as the Arctic, Antarctic and north of about latitude 51 °N in North America (Newfoundland, Nova Scotia).

This Appendix lists venomous snake species considered to represent the greatest threat to public health in various countries, territories and other areas or regions around the world. Only species that fall into one of the two categories listed below are shown, and category listings are in alphabetical order according to taxonomic family, genus and species. The intention in categorizing these medically important snakes into two groups is to provide users of the Guidelines with a prioritized listing. Species listed in Category 1 within a country, territory or area should be considered as being of highest priority for antivenom production on the basis that available knowledge implicates them as being responsible for the greater burden in that particular setting.

Definitions of Category 1 and Category 2 are:

CATEGORY 1: Highest medical importance

Definition: Highly venomous snakes which are common or widespread and cause numerous snakebites, resulting in high levels of morbidity, disability or mortality.

CATEGORY 2: Secondary medical importance

Definition: Highly venomous snakes capable of causing morbidity, disability or death, for which exact epidemiological or clinical data may be lacking; and/or which are less frequently implicated (due to their activity cycles, behaviour, habitat preferences or occurrence in areas remote to large human populations).

There are numerous other venomous species that rank as lesser threats in countries, territories and other areas listed here, and interested readers should refer to herpetological references in these guidelines. It should be noted that over time, as more information becomes available, new species may be added to these lists, and/or some species, currently defined within Category 1 or Category 2 may be re-ranked.

It should also be noted that the organization of countries, territories and other areas in this Appendix does not follow the WHO regional organization, but is instead arranged biogeographically in alphabetical order of country, territory or geographical area. This approach was necessary to reflect the geographical distribution of major groups of venomous snakes throughout the world. For example, the venomous snakes of the eastern Indonesian Province of Papua have bio-geographical origins in Australo-Papua, and are evolutionarily distinct from the venomous snakes of Asian origin that occur west of Wallace's Line which runs south of the Philippines, between Borneo and Sulawesi, and between Bali and Lombok separates the biogeographical regions of Asia and Australia. For this reason, we have listed the medically important snakes of Indonesian Papua in the Australo-Papuan region, rather than the South-East Asian region.

Users of this Appendix should also recognize that the relative risk of injury from a particular species may vary from one country, territory or area to another. For this reason, some species that have been listed under Category 1 in one country, territory or area may have been listed under Category 2 in another country territory or area, as a reflection of the different risk posed by that species in different locations. Assignment to Category 1 or Category 2 was based in some cases on the relative importance of a species as a cause of snakebite. In Europe for example, the overall incidence of snakebite is trivial compared to that in West Africa or India, but where a European species (such as *Vipera berus*) is a major (or sole) cause of envenoming where it occurs, this warrants ranking it as a medically important species in that setting.

AFRICA AND THE MIDDLE EAST

Island populations

Off the coast of Africa, there are no medically important snakes in Mauritius, Réunion, Rodrigues, the Comoros, the Canary Islands, the Cape Verde Islands or the Seychelles. The islands that do have venomous snakes include the Lamu group, Zanzibar, Pemba and Mafia Islands, the Bazaruto Archipelago and Inhaca Island, São Tomé, Príncipe, Bioko (Fernando Po) and Dahlak Islands. The venomous snakes on these islands tend to be similar to those on the adjacent mainland. A colubrid, *Madagascarophis meridionalis*, and perhaps other species of the same genus, are the only terrestrial snakes of possible, if minimal, medical importance found in Madagascar.

North Africa

Algeria:

Cat 1:	<u>Elapidae</u> : <i>Naja haje</i> ; <u>Viperidae</u> : <i>Cerastes cerastes</i> ; <i>Daboia mauritanica</i> ¹
Cat 2:	<u>Viperidae</u> : <i>Daboia deserti</i> ¹ ; <i>Echis leucogaster</i> ; <i>Macrovipera lebetina</i> ; <i>Vipera latastei</i>

Egypt:

Cat 1:	<u>Elapidae</u> : <i>Naja haje</i> ; <u>Viperidae</u> : <i>Cerastes cerastes</i> ; <i>Echis coloratus</i> (east), <i>Echis pyramidum</i> ;
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis engaddensis</i> (Sinai); <u>Elapidae</u> : <i>Naja nubiae</i> ¹ ; <i>Walterinnesia aegyptia</i> (Sinai); <u>Viperidae</u> : <i>Pseudocerastes fieldi</i>

The Libyan Arab Jamahiriya:

Cat 1:	<u>Elapidae</u> : <i>Naja haje</i> ; <u>Viperidae</u> : <i>Cerastes cerastes</i> ; <i>Echis pyramidum</i>
Cat 2:	<u>Viperidae</u> : <i>Daboia deserti</i> ¹

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

Morocco:

Cat 1:	<u>Elapidae</u> : <i>Naja haje</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Cerastes cerastes</i> ; <i>Daboia mauritanica</i> ¹
Cat 2:	<u>Viperidae</u> : <i>Echis leucogaster</i> ; <i>Vipera latastei</i>

Tunisia:

Cat 1:	<u>Viperidae</u> : <i>Daboia mauritanica</i> ¹
Cat 2:	<u>Elapidae</u> : <i>Naja haje</i> ; <u>Viperidae</u> : <i>Cerastes cerastes</i> ; <i>Daboia deserti</i> ¹ ; <i>Echis leucogaster</i> ; <i>Macrovipera lebetina</i> ; <i>Vipera latastei</i>

Western Sahara:

Cat 1:	<u>Viperidae</u> : <i>Cerastes cerastes</i>
Cat 2:	<u>Elapidae</u> : <i>Naja haje</i> ; <u>Viperidae</u> : <i>Bitis arietans</i>

Central sub Saharan Africa

Angola:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis jamesoni</i> , <i>Dendroaspis polylepis</i> ; <i>Naja anchietae</i> ¹ , <i>Naja melanoleuca</i> , <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> , <i>Bitis gabonica</i> ¹
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> , <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i> , <i>Thelotornis kirtlandii</i> (north); <u>Elapidae</u> : <i>Naja christyi</i> ¹ (Cabinda), <i>Naja mossambica</i> (south), <i>Naja nigricincta</i> ¹ (south-west); <i>Pseudohaje goldii</i> ; <u>Viperidae</u> : <i>Atheris squamigera</i> ; <i>Bitis nasicornis</i> (Cabinda)

Burundi:

Cat 1:	<u>Elapidae</u> : <i>Naja nigricollis</i> ; <i>Naja melanoleuca</i> ; <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> , <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis mossambicanus</i> ¹ ; <u>Elapidae</u> : <i>Dendroaspis jamesoni</i> ; <u>Viperidae</u> : <i>Bitis gabonica</i> ¹ , <i>Bitis nasicornis</i>

The Central African Republic:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis jamesoni</i> , <i>Dendroaspis polylepis</i> ; <i>Naja haje</i> , <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> , <i>Bitis gabonica</i> ¹ ; <i>Echis ocellatus</i> , <i>Echis pyramidum</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Naja annulata</i> ¹ , <i>Naja melanoleuca</i> ² ; <i>Pseudohaje goldii</i> ; <u>Viperidae</u> : <i>Atheris broadleyi</i> , <i>Atheris squamigera</i> ; <i>Bitis nasicornis</i> ¹

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

² The medical importance of this species may be higher in the primary forest zone of the south-western Central African Republic, and in some secondary forest mosaic zones elsewhere in the Central African Republic.

Chad:

Cat 1:	<u>Elapidae</u> : <i>Naja haje</i> , <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> (south); <i>Echis ocellatus</i> (south)
Cat 2:	<u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Naja katiensis</i> , <i>Naja nubiae</i> ¹ ; <u>Viperidae</u> : <i>Cerastes cerastes</i>

The Congo:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis jamesoni</i> , <i>Naja melanoleuca</i> ; <u>Viperidae</u> : <i>Bitis gabonica</i> ¹ , <i>Bitis nasicornis</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Naja annulata</i> ¹ , <i>Naja christyi</i> ¹ , <i>Naja nigricollis</i> ; <i>Pseudohaje goldii</i> ; <u>Viperidae</u> : <i>Atheris squamigera</i> ; <i>Bitis arietans</i>

The Democratic Republic of the Congo:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis jamesoni</i> , <i>Naja melanoleuca</i> , <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> , <i>Bitis gabonica</i> ¹ , <i>Bitis nasicornis</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> , <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i> , <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja anchietae</i> ¹ (Katanga pedicle), <i>Naja annulata</i> ¹ , <i>Naja christyi</i> ¹ , <i>Naja haje</i> (north); <i>Pseudohaje goldii</i> ; <u>Viperidae</u> : <i>Atheris squamigera</i>

Equatorial Guinea:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis jamesoni</i> , <i>Naja melanoleuca</i> ; <u>Viperidae</u> : <i>Bitis gabonica</i> ¹ , <i>Bitis nasicornis</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Naja annulata</i> ¹ ; <i>Pseudohaje goldii</i> ; <u>Viperidae</u> : <i>Atheris squamigera</i>

Gabon:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis jamesoni</i> , <i>Naja melanoleuca</i> , <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis gabonica</i> ¹ , <i>Bitis nasicornis</i>
Cat 2:	<u>Viperidae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Naja annulata</i> ¹ ; <i>Pseudohaje goldii</i> ; <u>Viperidae</u> : <i>Atheris squamigera</i> ; <i>Bitis arietans</i>

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

Rwanda:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis jamesoni</i> ; <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> , <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja annulata</i> ¹ , <i>Naja melanoleuca</i> ; <i>Pseudohaje goldii</i> ; <u>Viperidae</u> : <i>Bitis gabonica</i> ¹ , <i>Bitis nasicornis</i>

East sub Saharan Africa

Djibouti:

Cat 1:	<u>Viperidae</u> : <i>Echis pyramidum</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis fallax</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Naja pallida</i> ; <u>Viperidae</u> : <i>Bitis arietans</i>

Eritrea:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja haje</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis pyramidum</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Naja nubiae</i> ¹ ; <u>Viperidae</u> : <i>Echis megalocephalus</i>

Ethiopia:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja ashei</i> ¹ (south-east), <i>Naja haje</i> , <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis pyramidum</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis fallax</i> , <i>Atractaspis irregularis</i> (Mount Bizen); <u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Naja melanoleuca</i> , <i>Naja pallida</i> ; <u>Viperidae</u> : <i>Bitis parviocula</i>

Kenya:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis angusticeps</i> , <i>Dendroaspis polylepis</i> ; <i>Naja ashei</i> ¹ (north & east), <i>Naja haje</i> , <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis pyramidum</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> , <i>Atractaspis fallax</i> , <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis mossambicanus</i> ¹ , <i>Thelotornis usambaricus</i> ¹ (east coast); <u>Elapidae</u> : <i>Dendroaspis jamesoni</i> ; <i>Naja melanoleuca</i> (west & coastal forest), <i>Naja pallida</i> (north & east); <i>Pseudohaje goldii</i> ; <u>Viperidae</u> : <i>Atheris squamigera</i> ; <i>Bitis nasicornis</i> , <i>Bitis gabonica</i> ¹ (west)

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

Malawi:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis angusticeps</i> , <i>Dendroaspis polylepis</i> ; <i>Naja annulifera</i> ¹ , <i>Naja mossambica</i> , <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i> , <i>Thelotornis mossambicanus</i> ¹ ; <u>Elapidae</u> : <i>Naja melanoleuca</i> ; <u>Viperidae</u> : <i>Proatheris superciliaris</i>

Mozambique:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis angusticeps</i> , <i>Dendroaspis polylepis</i> ; <i>Naja annulifera</i> ¹ , <i>Naja mossambica</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> , <i>Bitis gabonica</i> ¹
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i> , <i>Thelotornis mossambicanus</i> ¹ ; <u>Elapidae</u> : <i>Hemachatus haemachatus</i> , <i>Naja melanoleuca</i> ; <u>Viperidae</u> : <i>Proatheris superciliaris</i>

Somalia:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja ashei</i> ¹ (south); <i>Naja haje</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> , <i>Echis pyramidum</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis fallax</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis mossambicanus</i> ¹ ; <u>Elapidae</u> : <i>Naja pallida</i> , <i>Naja melanoleuca</i> ; <u>Viperidae</u> : <i>Echis hughesi</i> (north)

The Sudan:

Cat 1:	<u>Elapidae</u> : <i>Naja haje</i> , <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis pyramidum</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis fallax</i> , <i>Atractaspis irregularis</i> (south); <u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Dendroaspis jamesoni</i> (south), <i>Dendroaspis polylepis</i> (south); <i>Naja melanoleuca</i> (south), <i>Naja nubiae</i> ¹ , <i>Naja pallida</i> (south-east); <u>Viperidae</u> : <i>Bitis gabonica</i> ¹ (south), <i>Bitis nasicornis</i> (south); <i>Cerastes cerastes</i>

Uganda:

Cat 1:	<u>Elapidae</u> : <i>Naja ashei</i> ¹ (north-east), <i>Naja haje</i> (north), <i>Naja nigricollis</i> ; <i>Dendroaspis jamesoni</i> , <i>Dendroaspis polylepis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> , <i>Bitis gabonica</i> ¹
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Naja melanoleuca</i> ; <i>Pseudohaje goldii</i> ; <u>Viperidae</u> : <i>Atheris squamigera</i> ; <i>Bitis nasicornis</i>

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

The United Republic of Tanzania:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis angusticeps</i> , <i>Dendroaspis polylepis</i> ; <i>Naja mossambica</i> (including Pemba Island), <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> , <i>Atractaspis fallax</i> (north), <i>Atractaspis irregularis</i> (north-east); <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i> , <i>Thelotornis kirtlandii</i> (Mahali and Udzungwa Mountains), <i>Thelotornis mossambicanus</i> ¹ , <i>Thelotornis usambaricus</i> ¹ (East Usambara Mountains); <u>Elapidae</u> : <i>Naja ashei</i> ¹ (reported in north-east), <i>Naja annulata</i> ¹ , <i>Naja haje</i> (north), <i>Naja melanoleuca</i> (west and coast, including Mafia Island), <i>Naja pallida</i> ; <u>Viperidae</u> : <i>Atheris squamigera</i> ; <i>Bitis gabonica</i> ¹ (west and south-east), <i>Bitis nasicornis</i> (north); <i>Proatheris superciliaris</i>

Zambia:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja anchietae</i> ¹ , <i>Naja annulifera</i> ¹ , <i>Naja mossambica</i> , <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> , <i>Bitis gabonica</i> ¹
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i> , <i>Thelotornis kirtlandii</i> , <i>Thelotornis mossambicanus</i> ¹ ; <u>Elapidae</u> : <i>Naja annulata</i> ¹ , <i>Naja melanoleuca</i>

South sub Saharan Africa

Botswana:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja anchietae</i> ¹ (west), <i>Naja annulifera</i> ¹ (east), <i>Naja mossambica</i> , <i>Naja nivea</i> (south-west); <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i>

Lesotho:

Cat 1:	<u>Elapidae</u> : <i>Naja nivea</i> ; <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Elapidae</u> : <i>Hemachatus haemachatus</i>

Namibia:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja anchietae</i> ¹ , <i>Naja nivea</i> (central & southern), <i>Naja mossambica</i> (north-east), <i>Naja nigricincta</i> ¹ ; <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i> ; <u>Elapidae</u> : <i>Naja nigricollis</i> (Caprivi)

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

South Africa:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis angusticeps</i> (Natal), <i>Dendroaspis polylepis</i> ; <i>Naja annulifera</i> ¹ (north-east), <i>Naja nivea</i> , <i>Naja mossambica</i> (north-east); <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i> ; <u>Elapidae</u> : <i>Hemachatus haemachatus</i> ; <i>Naja melanoleuca</i> (Natal), <i>Naja nigricincta</i> ¹ (north-west); <u>Viperidae</u> : <i>Bitis gabonica</i> ¹ (Natal);

Swaziland:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja annulifera</i> ¹ <i>Naja mossambica</i> ; <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i> ; <u>Elapidae</u> : <i>Hemachatus haemachatus</i>

Zimbabwe:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja anchietae</i> ¹ (west), <i>Naja annulifera</i> ¹ , <i>Naja mossambica</i> ; <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis bibronii</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis capensis</i> , <i>Thelotornis mossambicanus</i> ¹ ; <u>Elapidae</u> : <i>Dendroaspis angusticeps</i> (east); <i>Hemachatus haemachatus</i> (Nyanga Mts); <i>Naja melanoleuca</i> (east); <u>Viperidae</u> : <i>Bitis gabonica</i> ¹ (east)

West sub Saharan Africa

Benin:

Cat 1:	<u>Elapidae</u> : <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis ocellatus</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Dendroaspis jamesoni</i> ; <i>Naja katiensis</i> , <i>Naja melanoleuca</i> , <i>Naja senegalensis</i> ¹ ; <i>Pseudohaje nigra</i> ; <u>Viperidae</u> : <i>Bitis rhinoceros</i> , <i>Echis leucogaster</i> (far north)

Burkina Faso:

Cat 1:	<u>Elapidae</u> : <i>Naja nigricollis</i> , <i>Naja katiensis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis ocellatus</i>
Cat 2:	<u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja melanoleuca</i> , <i>Naja senegalensis</i> ¹ ; <u>Viperidae</u> : <i>Echis leucogaster</i>

Cameroon:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis jamesoni</i> ; <i>Naja haje</i> , <i>Naja nigricollis</i> , <i>Naja melanoleuca</i> ² ; <u>Viperidae</u> : <i>Bitis arietans</i> , <i>Bitis gabonica</i> ¹ , <i>Bitis nasicornis</i> , <i>Echis ocellatus</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja annulata</i> ¹ , <i>Naja katiensis</i> ; <i>Pseudohaje goldii</i> ; <u>Viperidae</u> : <i>Atheris broadleyi</i> (East Province), <i>Atheris squamigera</i>

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

² This large, highly venomous snake is common in forested areas of south-west Cameroon and a high burden of injury may be expected, although clinical data with direct attribution are not yet available.

Côte d'Ivoire:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis viridis</i> ; <i>Naja nigricollis</i> , <i>Naja melanoleuca</i> , <i>Naja senegalensis</i> ¹ ; <u>Viperidae</u> : <i>Bitis arietans</i> , <i>Bitis nasicornis</i> , <i>Bitis rhinoceros</i> ¹ ; <i>Echis ocellatus</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Naja katiensis</i> ; <i>Pseudohaje goldii</i> , <i>Pseudohaje nigra</i> ; <u>Viperidae</u> : <i>Atheris chlorechis</i>

The Gambia:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis viridis</i> ; <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis jogeri</i>
Cat 2:	<u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Naja katiensis</i> , <i>Naja melanoleuca</i> , <i>Naja senegalensis</i> ¹

Ghana:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis viridis</i> , <i>Naja nigricollis</i> , <i>Naja senegalensis</i> ¹ ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis ocellatus</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> , <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Naja katiensis</i> , <i>Naja melanoleuca</i> ² ; <i>Pseudohaje goldii</i> , <i>Pseudohaje nigra</i> ; <u>Viperidae</u> : <i>Atheris chlorechis</i> ; <i>Bitis nasicornis</i> , <i>Bitis rhinoceros</i> ¹

Guinea:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis polylepis</i> , <i>Dendroaspis viridis</i> ; <i>Naja katiensis</i> , <i>Naja nigricollis</i> , <i>Naja melanoleuca</i> , <i>Naja senegalensis</i> ¹ ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis jogeri</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Pseudohaje nigra</i> ; <u>Viperidae</u> : <i>Atheris chlorechis</i> ; <i>Bitis nasicornis</i> , <i>Bitis rhinoceros</i> ¹

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

² The medical importance of this species may be higher in the forested zone of southern Ghana.

Guinea-Bissau:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis viridis</i> ; <i>Naja nigricollis</i> , <i>Naja melanoleuca</i> , <i>Naja senegalensis</i> ¹ ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis jogeri</i>
Cat 2:	<u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Viperidae</u> : <i>Bitis rhinoceros</i> ¹

Liberia:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis viridis</i> ; <i>Naja melanoleuca</i> , <i>Naja nigricollis</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Pseudohaje nigra</i> ; <u>Viperidae</u> : <i>Atheris chlorechis</i> ; <i>Bitis nasicornis</i> , <i>Bitis rhinoceros</i> ¹

Mali:

Cat 1:	<u>Elapidae</u> : <i>Naja katiensis</i> , <i>Naja nigricollis</i> , <i>Naja senegalensis</i> ¹ ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis jogeri</i> (west); <i>Echis leucogaster</i> ; <i>Echis ocellatus</i>
Cat 2:	<u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Naja melanoleuca</i> ; <u>Viperidae</u> : <i>Cerastes cerastes</i>

Mauritania:

Cat 1:	<u>Elapidae</u> : <i>Naja senegalensis</i> ¹ (south-east); <u>Viperidae</u> : <i>Cerastes cerastes</i> ; <i>Echis leucogaster</i>
Cat 2:	<u>Viperidae</u> : <i>Bitis arietans</i>

The Niger:

Cat 1:	<u>Elapidae</u> : <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis leucogaster</i> , <i>Echis ocellatus</i>
Cat 2:	<u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Naja haje</i> (south-central), <i>Naja katiensis</i> , <i>Naja nubiae</i> ¹ ; <i>Naja senegalensis</i> ¹ (south-west); <u>Viperidae</u> : <i>Cerastes cerastes</i>

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

Nigeria:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis jamesoni</i> ; <i>Naja haje</i> (north-east), <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> , <i>Bitis gabonica</i> ¹ ; <i>Echis ocellatus</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Naja katiensis</i> , <i>Naja melanoleuca</i> ² ; <i>Naja senegalensis</i> (north-west); <i>Pseudohaje goldii</i> , <i>Pseudohaje nigra</i> ; <u>Viperidae</u> : <i>Atheris squamigera</i> ; <i>Bitis nasicornis</i> ; <i>Echis leucogaster</i> (north)

Sao Tome and Principe:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis jamesoni</i> ; <i>Naja melanoleuca</i>
Cat 2:	None

Senegal:

Cat 1:	<u>Elapidae</u> : <i>Naja katiensis</i> ; <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis leucogaster</i> ; <i>Echis jogeri</i>
Cat 2:	<u>Colubridae</u> : <i>Dispholidus typus</i> ; <u>Elapidae</u> : <i>Dendroaspis polylepis</i> ; <i>Dendroaspis viridis</i> ; <i>Naja melanoleuca</i> , <i>Naja senegalensis</i>

Sierra Leone:

Cat 1:	<u>Elapidae</u> : <i>Dendroaspis viridis</i> ; <i>Naja nigricollis</i> ; <u>Viperidae</u> : <i>Bitis arietans</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Naja melanoleuca</i> ³ ; <i>Pseudohaje nigra</i> ; <u>Viperidae</u> : <i>Atheris chlorechis</i> ; <i>Bitis nasicornis</i> , <i>Bitis rhinoceros</i> ¹

Togo:

Cat 1:	<u>Elapidae</u> : <i>Naja nigricollis</i> , <i>Naja senegalensis</i> ¹ ; <u>Viperidae</u> : <i>Bitis arietans</i> (south); <i>Echis ocellatus</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis irregularis</i> ; <u>Colubridae</u> : <i>Dispholidus typus</i> ; <i>Thelotornis kirtlandii</i> ; <u>Elapidae</u> : <i>Dendroaspis jamesoni</i> , <i>Dendroaspis viridis</i> ; <i>Naja katiensis</i> , <i>Naja melanoleuca</i> ; <i>Pseudohaje goldii</i> , <i>Pseudohaje nigra</i> ; <u>Viperidae</u> : <i>Atheris chlorechis</i> ; <i>Bitis nasicornis</i> , <i>Bitis rhinoceros</i> ¹

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

² The medical importance of this species may be higher in the southern rainforest belt of Nigeria, from Ibadan in the west to Oban and Eket in the east, and in the forested southern quarter of Sierra Leone.

³ The medical importance of this species may be higher in the forested southern quarter of Sierra Leone.

Middle East

Cyprus:

Cat 1:	None
Cat 2:	<u>Viperidae</u> : <i>Macrovipera lebetina</i>

Iran (Islamic Republic of):

Cat 1:	<u>Elapidae</u> : <i>Naja oxiana</i> ; <u>Viperidae</u> : <i>Echis carinatus</i> ; <i>Macrovipera lebetina</i> ; <i>Pseudocerastes persicus</i>
Cat 2:	<u>Elapidae</u> : <i>Walterinnesia morgani</i> ¹ (west); <u>Viperidae</u> : <i>Eristicophis macmahonii</i> (east); <i>Gloydius halys caucasicus</i> ; <i>Montivipera raddei</i> ; <i>Vipera</i> spp.

Iraq:

Cat 1:	<u>Viperidae</u> : <i>Echis carinatus</i> ; <i>Macrovipera lebetina</i>
Cat 2:	<u>Elapidae</u> : <i>Walterinnesia morgani</i> ¹ ; <u>Viperidae</u> : <i>Cerastes gasperettii</i> ; <i>Pseudocerastes fieldi</i> , <i>Pseudocerastes persicus</i>

Israel

Cat 1:	<u>Viperidae</u> : <i>Daboia palaestinae</i> ¹ ; <i>Echis coloratus</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis engaddensis</i> ; <u>Elapidae</u> : <i>Walterinnesia aegyptia</i> ; <u>Viperidae</u> : <i>Cerastes cerastes</i> , <i>Cerastes gasperettii</i> ; <i>Pseudocerastes fieldi</i>

Jordan:

Cat 1:	<u>Viperidae</u> : <i>Daboia palaestinae</i> ¹ ; <i>Echis coloratus</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis engaddensis</i> ; <u>Elapidae</u> : <i>Walterinnesia aegyptia</i> ; <u>Viperidae</u> : <i>Cerastes gasperettii</i> ; <i>Macrovipera lebetina</i> ; <i>Pseudocerastes fieldi</i>

Kuwait and Qatar:

Cat 1:	<u>Viperidae</u> : <i>Cerastes gasperettii</i>
Cat 2:	<u>Elapidae</u> : <i>Walterinnesia morgani</i> ¹ (Kuwait)

Lebanon:

Cat 1:	<u>Viperidae</u> : <i>Daboia palaestinae</i> ¹ ; <i>Macrovipera lebetina</i>
Cat 2:	None

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

Oman:

Cat 1:	<u>Atractaspididae</u> : <i>Atractaspis andersonii</i> (south-west); <u>Viperidae</u> : <i>Bitis arietans</i> (south-west); <i>Echis coloratus</i> (south-west), <i>Echis carinatus</i> , <i>Echis omanensis</i> ¹ (north)
Cat 2:	<u>Elapidae</u> : <i>Naja arabica</i> ¹ (south-west); <u>Viperidae</u> : <i>Cerastes gasperettii</i> ; <i>Echis khosatzkii</i> (south-west); <i>Pseudocerastes persicus</i>

Saudi Arabia:

Cat 1:	<u>Atractaspididae</u> : <i>Atractaspis andersonii</i> (south-west); <u>Viperidae</u> : <i>Cerastes gasperettii</i> ; <i>Echis coloratus</i> , <i>Echis borkini</i> ¹ (south-west)
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis engaddensis</i> (north-west); <u>Elapidae</u> : <i>Naja arabica</i> (south-west); <i>Walterinnesia aegyptia</i> (west), <i>Walterinnesia morgani</i> ¹ (central & south); <u>Viperidae</u> : <i>Bitis arietans</i> (south-west); <i>Cerastes cerastes</i> (south-west); <i>Pseudocerastes fieldi</i>

The Syrian Arab Republic:

Cat 1:	<u>Viperidae</u> : <i>Daboia palaestinae</i> ¹ ; <i>Macrovipera lebetina</i>
Cat 2:	<u>Viperidae</u> : <i>Pseudocerastes fieldi</i>

Turkey:

Cat 1:	<u>Viperidae</u> : <i>Macrovipera lebetina</i> ; <i>Montivipera xanthina</i> ¹
Cat 2:	<u>Elapidae</u> : <i>Walterinnesia morgani</i> ¹ (south); <u>Viperidae</u> : <i>Montivipera raddei</i> ¹ ; <i>Vipera ammodytes</i> ; <i>Vipera eriwanensis</i> ; <i>Vipera spp.</i>

The United Arab Emirates:

Cat 1:	<u>Viperidae</u> : <i>Echis carinatus</i> (east); <i>Echis omanensis</i> ¹
Cat 2:	<u>Viperidae</u> : <i>Cerastes gasperettii</i> ; <i>Pseudocerastes persicus</i>

West Bank and Gaza Strip:

Cat 1:	<u>Viperidae</u> : <i>Daboia palaestinae</i> ¹ ; <i>Echis coloratus</i>
Cat 2:	<u>Atractaspididae</u> : <i>Atractaspis engaddensis</i> ; <u>Elapidae</u> : <i>Walterinnesia aegyptia</i> ; <u>Viperidae</u> : <i>Cerastes cerastes</i> , <i>Pseudocerastes fieldi</i>

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

Yemen:

Cat 1:	<u>Atractaspididae</u> : <i>Atractaspis andersonii</i> ; <u>Elapidae</u> : <i>Naja arabica</i> ¹ ; <u>Viperidae</u> : <i>Bitis arietans</i> ; <i>Echis borkini</i> ¹ , <i>Echis coloratus</i>
Cat 2:	<u>Viperidae</u> : <i>Cerastes cerastes</i> , <i>Cerastes gasperettii</i> ; <i>Echis khosatzkii</i>

ASIA AND AUSTRALASIA

Central Asia

Armenia:

Cat 1:	<u>Viperidae</u> : <i>Macrovipera lebetina</i> ;
Cat 2:	<u>Viperidae</u> : <i>Montivipera raddei</i> ¹ ; <i>Vipera eriwanensis</i> , <i>Vipera</i> spp.

Azerbaijan:

Cat 1:	<u>Viperidae</u> : <i>Macrovipera lebetina</i>
Cat 2:	<u>Viperidae</u> : <i>Gloydius halys</i> ; <i>Vipera eriwanensis</i> ; <i>Vipera</i> spp.

Georgia:

Cat 1:	<u>Viperidae</u> : <i>Macrovipera lebetina</i> ; <i>Vipera ammodytes</i>
Cat 2:	<u>Viperidae</u> : <i>Vipera renardi</i> , <i>Vipera ursinii</i> , <i>Vipera</i> spp.

Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan and Turkmenistan:

Cat 1:	<u>Elapidae</u> : <i>Naja oxiana</i> (except Kazakhstan & Kyrgyzstan); <u>Viperidae</u> : <i>Echis carinatus</i> (except Kyrgyzstan); <i>Macrovipera lebetina</i> (except Kazakhstan & Kyrgyzstan); <i>Gloydius halys</i> (throughout)
Cat 2:	<u>Viperidae</u> : <i>Vipera renardi</i> (except Turkmenistan)

Mongolia:

Cat 1:	<u>Viperidae</u> : <i>Gloydius halys</i>
Cat 2:	<u>Viperidae</u> : <i>Vipera berus</i> , <i>Vipera renardi</i>

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

East Asia

China:

China Mainland

Cat 1:	<u>Elapidae</u> : <i>Bungarus multicinctus</i> ; <i>Naja atra</i> ; <u>Viperidae</u> : <i>Cryptelytrops albolabris</i> ¹ ; <i>Daboia siamensis</i> ¹ ; <i>Deinagkistrodon acutus</i> ; <i>Gloydius brevicaudus</i> ; <i>Protobothrops mucrosquamatus</i>
Cat 2:	<u>Colubridae</u> : <i>Rhabdophis tigrinus</i> ; <u>Elapidae</u> : <i>Bungarus bungaroides</i> (south-east Tibet), <i>Bungarus fasciatus</i> ; <i>Naja kaouthia</i> ; <i>Ophiophagus hannah</i> ; <u>Viperidae</u> : <i>Cryptelytrops septentrionalis</i> (south Tibet); <i>Gloydius halys</i> , <i>Gloydius intermedius</i> ¹ , <i>Gloydius ussuriensis</i> ; <i>Himalayophis tibetanus</i> (south Tibet); <i>Protobothrops jerdonii</i> , <i>Protobothrops kaulbacki</i> , <i>Protobothrops mangshanensis</i> ¹ ; <i>Vipera berus</i> (Jilin, western Xinjiang); <i>Vipera renardi</i> (western Xinjiang); <i>Viridovipera stejnegeri</i> ¹

Hong Kong, Special Administrative Region

Cat 1:	<u>Elapidae</u> : <i>Bungarus multicinctus</i> ; <i>Naja atra</i> ; <u>Viperidae</u> : <i>Cryptelytrops albolabris</i> ¹
Cat 2:	None

Taiwan Province

Cat 1:	<u>Elapidae</u> : <i>Bungarus multicinctus</i> ; <i>Naja atra</i> ; <u>Viperidae</u> : <i>Protobothrops mucrosquamatus</i> ; <i>Viridovipera stejnegeri</i> ¹
Cat 2:	<u>Viperidae</u> : <i>Deinagkistrodon acutus</i> ; <i>Daboia siamensis</i> ¹

The Democratic People's Republic of Korea:

Cat 1:	<u>Viperidae</u> : <i>Gloydius brevicaudus</i>
Cat 2:	<u>Viperidae</u> : <i>Gloydius intermedius</i> ¹ , <i>Gloydius ussuriensis</i> ; <i>Vipera berus</i>

Japan (including Ryukyu Islands):

Cat 1:	<u>Viperidae</u> : <i>Gloydius blomhoffii</i> (main islands); <i>Protobothrops flavoviridis</i> (Ryukyu Islands)
Cat 2:	<u>Colubridae</u> : <i>Rhabdophis tigrinus</i> ; <u>Viperidae</u> : <i>Gloydius tsushimaensis</i> (Tsushima); <i>Protobothrops elegans</i>

The Republic of Korea:

Cat 1:	<u>Viperidae</u> : <i>Gloydius brevicaudus</i>
Cat 2:	<u>Colubridae</u> : <i>Rhabdophis tigrinus</i> ; <u>Viperidae</u> : <i>Gloydius intermedius</i> ¹ , <i>Gloydius ussuriensis</i>

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.

South Asia

Afghanistan:

Cat 1:	<u>Elapidae</u> : <i>Naja oxiana</i> ; <u>Viperidae</u> : <i>Echis carinatus</i> ; <i>Macrovipera lebetina</i>
Cat 2:	<u>Elapidae</u> : <i>Bungarus caeruleus</i> (east), <i>Bungarus sindanus</i> (east), <i>Naja naja</i> (reported in south-east); <u>Viperidae</u> : <i>Eristicophis macmahonii</i> (south-west); <i>Gloydius halys</i> (north)

Bangladesh:

Cat 1:	<u>Elapidae</u> : <i>Bungarus caeruleus</i> , <i>Bungarus niger</i> , <i>Bungarus walli</i> ; <i>Naja kaouthia</i> ; <u>Viperidae</u> : <i>Cryptelytrops erythrurus</i> ¹
Cat 2:	<u>Elapidae</u> : <i>Bungarus bungaroides</i> , <i>Bungarus fasciatus</i> , <i>Bungarus lividus</i> ; <i>Naja naja</i> ; <i>Ophiophagus hannah</i> ; <u>Viperidae</u> : <i>Cryptelytrops albolabris</i> ¹ (far north-west); <i>Daboia russelii</i> ¹ (west)

Bhutan:

Cat 1:	<u>Elapidae</u> : <i>Bungarus niger</i> ; <i>Naja naja</i>
Cat 2:	<u>Elapidae</u> : <i>Bungarus caeruleus</i> , <i>Bungarus fasciatus</i> ; <i>Bungarus lividus</i> ; <i>Naja kaouthia</i> ; <i>Ophiophagus hannah</i> ; <u>Viperidae</u> : <i>Cryptelytrops erythrurus</i> ¹ ; <i>Daboia russelii</i> ¹ ; <i>Protobothrops jerdonii</i>

India:

Cat 1:	<u>Elapidae</u> : <i>Bungarus caeruleus</i> ; <i>Naja kaouthia</i> (east), <i>Naja naja</i> (throughout); <u>Viperidae</u> : <i>Daboia russelii</i> ¹ ; <i>Echis carinatus</i> ; <i>Hypnale hypnale</i> (south-west)
Cat 2:	<u>Elapidae</u> : <i>Bungarus bungaroides</i> , <i>Bungarus fasciatus</i> , <i>Bungarus lividus</i> , <i>Bungarus niger</i> , <i>Bungarus sindanus</i> , <i>Bungarus walli</i> ; <i>Naja oxiana</i> (west), <i>Naja sagittifera</i> (Andaman Islands); <i>Ophiophagus hannah</i> (south, north-east, Andaman Islands); <u>Viperidae</u> : <i>Cryptelytrops albolabris</i> ¹ , <i>Cryptelytrops erythrurus</i> ¹ , <i>Cryptelytrops septentrionalis</i> ¹ ; <i>Gloydius himalayanus</i> ; <i>Protobothrops jerdonii</i> , <i>Protobothrops kaulbacki</i> , <i>Protobothrops mucrosquamatus</i> ; <i>Trimeresurus gramineus</i> (south India), <i>Trimeresurus malabaricus</i> (south-west),

Nepal:

Cat 1:	<u>Elapidae</u> : <i>Bungarus caeruleus</i> , <i>Bungarus niger</i> ; <i>Naja naja</i> , <i>Naja kaouthia</i> ; <u>Viperidae</u> : <i>Daboia russelii</i> ¹
Cat 2:	<u>Elapidae</u> : <i>Bungarus bungaroides</i> , <i>Bungarus fasciatus</i> ; <i>Bungarus lividus</i> , <i>Bungarus walli</i> ; <i>Ophiophagus hannah</i> ; <u>Viperidae</u> : <i>Cryptelytrops septentrionalis</i> ¹ ; <i>Gloydius himalayanus</i> ; <i>Himalayophis tibetanus</i> ¹ ; <i>Protobothrops jerdonii</i> ;

¹ Recent nomenclatural change. Refer to Tables 1 and 2 for details of previous names.