

# Annotated checklist of semi-venomous and venomous snakes of Iraq

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(Received: 12 August 2015; Accepted: 3 May 2016)

This study includes a check-list of semi-venomous and venomous snakes in Iraq along with their distribution and classification. Collectively, from the family Colubridae, one genus, and three species, and Lamprophiidae, two genera, four species of semi-venomous snakes and from the families Viperidae five genera and six species, Elapidae one genus and two species, Hydrophiinae five genera, and eight species of venomous snakes are distributed in different geographic regions of Iraq.

**Key words:** Checklist, Snakes, Semi-venomous, venomous, Distribution, Iraq.

## INTRODUCTION

Iraq is one of the countries having distinctive biological diversity represented in the following ecosystems: Forest habitat of Kurdistan/ North of Iraq, Steppe habitat of central Iraq, Desert sandy habitat of central and southern Iraq, Freshwater environment, Marshlands of southern Iraq, Marine environment. This helps to diversity and the presence of snakes such as semi-venomous and venomous snakes in different environments. Because of this considerable ecological diversity, the fauna of Iraq including its reptiles are of great interest. Unfortunately, because of the tense political situation and the wars of the last decades only a few studies and surveys have been done on the Iraqi fauna. In this paper an annotated checklist to the semi-venomous and venomous snakes of Iraq is presented.

## MATERIAL AND METHODS

We have information about semi-venomous and venomous snakes in Iraq through research in numerous from 1920 to 2013. The available compilations of snakes occurring in Iraq are that of Corkill (1932), Khalaf (1959), Schimdt (1939) and Leviton et al. (1992) and others. This note refers to specimens collected by the authors as well as stored material in the collection of the Natural History Museum of Baghdad University, Iraq (NHMBU).

## TAXONOMIC ACCOUNT

### Semi-venomous snakes

#### Family: Colubridae

#### (Table 1)

#### Genus *Telescopus* (Wagler, 1830)

#### *Tarbophis fallax iberus* (Eichwald, 1831)

**Common name:** Mediterranean Cat Snake

**Distribution:** Costal Balkan, Mediterranean islands, east to Caucasus and Iran, south to Palestine (Disi et al., 2001). In Iraq specimens have previously been recorded from Baghdad and Mesopotamia.

**TABLE 1.** Distribution and IUCN status of semi-venomous snakes in Iraq.

| Family        | Species                        | Distribution in Iraq                        | IUCN status                            |
|---------------|--------------------------------|---|--|
| Colubridae    | <i>Telescopus fallax</i>       | Baghdad, Mandali, Khaniqin                  | Least Concern <a href="#">ver. 3.1</a> |
|               | <i>Telescopus tessellatus</i>  | Baghdad and Tigris-Euphrates area           | Least Concern <a href="#">ver 3.1</a>  |
|               | <i>Telescopus nigriceps</i>    | Rutba, Baghdad                              | Least Concern <a href="#">ver 3.1</a>  |
| Lamprophiidae | <i>Psammophis schokari</i>     | Amara, Rutba, Basra, Al-Najaf               | Least Concern ver 3.1                  |
|               | <i>Malpolon monspessulanus</i> | Baghdad, Tuz Khurmatu (Saladin), Mosul      | Least Concern <a href="#">ver 3.1</a>  |
|               | <i>Malpolon insignitus</i>     | Halabja, Sulaimaniya, Erbil, Zakho          | Vulnerable (VU) D2                     |
|               | <i>Malpolon moilensis</i>      | Baghdad, Basra, Sodom, Sheik Saad, Al-Najaf | Least Concern <a href="#">ver 3.1</a>  |

In 1928 and 1929 further specimens were taken in Baghdad and also in Mandali and Khaniqin (Corkill, 1932).

**Habits:** This is a nocturnal species that in Baghdad appears to be found in areas with vegetation. Captured specimens are very tranquil in disposition, although on one occasion a young one that had been mishandled and alarmed hissed with a vehemence that was altogether disproportionate with its size. A specimen was received with a half-swallowed sparrow still in its jaws (Corkill, 1932).

### ***Telescopus martini* (Schmidt, 1939)**

**Common name:** Soosan Tiger Snake

**Distribution:** Persia between the Zagros Mountains and the vast flat plains of Persian Mesopotamia" (reptile database). Iraq; type locality: Baghdad, and range known currently only from the Tigris-Euphrates area of Iraq (Leviton et al., 1992). Apparently this is probably the subspecies which is found in Iraq, instead of *Telescopus fallax biers* (Khalaf, 1959).

**Habits:** it was found to inhabit dry rocky areas, mountains, occasionally in residential areas (Latifi, 1991). Apparently it is a nocturnal species known to feed on birds. It is also arboreal, one individual being found coiled among dates at top of a palm (Corkill, 1932; Leviton et al. 1992).

### ***Telescopus nigriceps* (Ahl, 1924)**

**Common name:** Black headed snake

**Distribution:** Jordan, Palestine, Syria, Lebanon and Turkey (Amr & Disi, 2011). Type locality: central Mesopotamia. Known from central Iraq (Rutba and Baghdad; Leviton et al., 1992).

**Habits:** it was found to inhabit deserted rodent holes, steppe habitats with low shrubs and rocky terrain. This is a nocturnal snake. It feeds on lizards, bird eggs and small mammals (Disi et al., 2001). Where it coiled itself, with one third of its body highly elevated showing S-curved front, flattened and backwards widened head (Amr & Disi, 2011).

**Family:** Lamprophiidae

**Genus:** *Malpolon* (Fitzinger, 1826)

*Malpolon monspessulana* (Herman, 1809)

**Common name:** Montpellier Snake

**Distribution:** This snake occurs from North Africa via the Mediterranean and Adriatic regions, the Levant, Caucasus and Iraq to Persia, the Arabian Peninsula, southeastern Europe (from Yugoslavia), and Turkey, east to Iran and the Caspian (Leviton et al., 1992). It has been previously recorded from Baghdad. In 1928 and 1929 nine further specimens were taken. They came from Baghdad again (six of them), Tuz Khurmatu, Mosul, and Suwara Tuka in Kurdistan, north of Mosul, at an altitude of 2,000 ft. (Corkill, 1932).

**Habits:** This is a nocturnal frequenter of gardens or cultivation where bushes and trees occur. It feeds on small vertebrates (Corkill, 1932). The species is active during winter warm spells from which we can deduce that *M. monspessulana*, unlike some snake species, is not endogenously inactive during the winter months (Gibbons & Semlitsch, 1987).

*Malpolon monspessulana insignitus* (Geoffroy St. Hilaire, 1809)

**Common name:** Eastern Montpellier Snake

**Distribution:** North Africa and Southwest Asia Western Mediterranean coastal desert, Nile Delta and lower Valley and Siwa Oasis, from Algeria to Egypt, the Arabian Peninsula, southeastern Europe (from Yugoslavia), and Turkey, east to Iran and the Caspian Sea (Leviton et al., 1992). In Iraq Diana found one specimen in Erbil, three in Zakho (Schmidt, 1939). And in Bisan valley and Daray Mar, Halabj, Sulaimaniya province, as a part of mountainous region is of special interest. It rests just beyond high mountains of Hawraman (Lahony et al., 2013). One specimen was found smashed by car on the road to Biara village, Hawraman steppe (lower zone of Hawraman mountain), at 700 m elevation (Afrasiab & Mohammad, 2011).

**Habits:** Specimens are found in holes, usually at the roots of bushes or palms. They are most active at night or in shady places during the day (Leviton et al., 1992). Also they occur in orchards in mountain regions near streams and springs at an altitude of up to 900. The common color pattern of *M. insignitus* is also found in the same area but never enters orchards. Its habitat is among oaks in dry areas (Afrasiab & Mohammad, 2011).

*Malpolon moilensis* (Reuss, 1834)

**Common name:** Moila Snake

**Distribution:** North Africa from Algeria to Egypt, south to Sudan, Arabian Peninsula from Sinai south throughout the Peninsula and east to Jordan, Syria and Iraq. Gasperetti (1988) mentions two specimens from southwestern Iran. There is a specimen in the British Museum from Accra, Ghana (Leviton et al., 1992). In Iraq, Schmidt (1939) found three specimens in Baghdad. Specimens have been recorded from Sodom, Sheik Saad, and Shaiba, all in southern Iraq (Corkill, 1932). This species was found during a field trip in 1989 in the Rumaila Desert 80 km, west of Basra, south of Iraq (Afrasiab & Ali, 1989), and in Bahr Al-Najaf (Mohammad et al., 2013).

**Habits:** It occurs mostly in the arid, sparsely vegetated stony wadis. It is a rapid diurnal species, active in the hottest periods of the year. It feeds mainly on small mammals, such as gerbils, rats and mice, but accepts also birds, lizards and other snakes. Juveniles feed often on larger arthropods (Disi et al., 2001).

**Genus:** *Psammophis* (Fitzinger, 1826) *Psammophis schokari* (Forsk., 1775)

**Common name:** Schokari Sand Racer

**Distribution:** A continuous distribution from extreme western North Africa to Egypt, south to Chad, Ethiopia and Somalia, east across the Arabian Peninsula and southwest Asia to northwest India and north to central Former USSR (Leviton et al., 1992). The distribution includes N. Africa, Arabia, Syria, Palestine, Iraq, Persia, Baluchistan, Afghanistan, and Sind. In Iraq specimens have been recorded from Basra and Shaiba. In 1930 a specimen was found in Rutba (Corkill, 1932). One was found in Amara, and another in Rutba (Schmidt, 1939), and in Bahr Al-Najaf (Mohammad et al., 2013).

**Habits:** This snake is said to feed on birds and small rodents. It is found in dry sandy or stony places, or under dry scrub (Cokill, 1932). It is a shy and rapid diurnal or crepuscular snake, climbing well in small bushes and trees. It feeds mainly on lizards and small birds, but rodents and even amphibians are also accepted. The prey is either killed by chewing to get the venom into the wound (smaller lizards) or constricted with several body coils (rodents, birds, robust lizards) (Disi et al., 2001).

**TABLE 2.** Distribution and IUCN status of venomous snakes in Iraq

| Family                        | Species  | Distribution in Iraq  | IUCN status  |
|-------------------------------|--|---|--|
| Viperidae                     | <i>Macrovipera lebetina</i>                                    | Baghdad, Sulamainia, Mandali, Baqubah, Jebel Hamrin, Halabjah   | Endangered B1ab(iii,v) <u>ver 3.1</u>                        |
|                               | <i>Montivipera raddei kurdistanica</i>                         | Dahuk   | Near Threatened <u>ver 3.1</u>                               |
|                               | <i>Cerastes cerastes</i><br>* <i>Echis carinatus</i>           | Rutba, Basra, Najaf, Dohuk, Mosul<br>Diwaniyah, Nsiriyah, Basra | Least Concern <u>ver 3.1</u><br>LR-nt                        |
|                               | <i>Pseudocerastes persicus</i><br><i>Pseudocerastes fieldi</i> | North Iraq<br>Northwestern Iraq                                 | Least Concern <u>ver 3.1</u> Least<br>Concern <u>ver 3.1</u> |
|                               | Elapidae   | <i>Walterinnesia morgani</i>                                    | Baqubah, Mandali, Rutba, Basra                               |
| <i>Walterinnesia aegyptia</i> |  | Mosul   | Least Concern <u>ver 3.1</u>                                 |

\*Pawar et al., 2007

**Venomous snakes**  
**Family: Viperidae**  
**(Table 2)**

**Genus: *Macrovipera* (Laurenti, 1768)**

***Macrovipera lebetina* (Linnaeus, 1758)**

**Common name:** Levantine Viper

**Distribution:** It is distributed from Palestine, Lebanon, western Jordan, northern Syria, southern and central Turkey, along the Tigris-Euphrates drainage in Iraq; east to Afghanistan and Pakistan, from northern Baluchistan to borders of Kashmir, and north in Transcaucasia to the Kura Valley and in Transcaspia to the Fergana basin (Leviton et al., 1992). According to Corkill (1932), it is distributed from Morocco through N. Africa, the Cyclades, Cyprus, the Levant, Transcaucasia, Iraq, and Persia, to N. W. India. Previously specimens have been recorded in Iraq from Baghdad and Aushuru. In 1928, 1929, and 1930, seven further specimens were obtained in Iraq; they came from Sulamainia, Mandali, Mosul, Baqubah, Jebel Hamrin, Quaragan, and Barzan on the Zab River. It will be noted that all these records are contained in north-eastern quadrant of Iraq, where the country

commences its rise to Kurdish and Persian hills (Corkill, 1932). According to Schmidt (1939), it is found in Balad Sinjar and in Bisan valley and Daray Mar, Halabja, Sulaimaniya province, as a part of mountainous region is of special interest. It rests just beyond high mountains of Hawraman where the subspecies *Macrovipera lebetina obtusa* Dwinubsky (1832) occurs (Lahony et al., 2013).

**Habits:** In Iraq this snake is found in the broken country and hills north-east of Baghdad. It is venomous, and is probably responsible for the majority of snake-bite casualties occurring in the country. It is found of lying under stones. Nocturnal in habits like most vipers, or snakes of most families for that matter, it is lethargic and difficult to rouse from a state of torpidity during the day. This characteristic has doubtless given rise to belief that it is deaf and blind. The Blunt-nosed viper feeds mostly on small mammals (Corkill, 1932).

***Vipera raddei kurdistanica* (Nilson & Andren, 1986)**

**Common name:** Armenian Viper

**Distribution:** Iran, west of Lake Reza, iyeh (Urmia) in west Azarbaijan, along the border with Turkey in the provinces of Van and Hakkari, and likely in extreme northern Iraq (Leviton et al., 1992). Nilson and Andren (1986) observed that Reed and Marx (1959) spoke of a viper from the vicinity of Jarmo in northeastern Iraq and that Corkill (1932) had reported on a snake bite of a "horned viper" at Dahuk, north of Mosul that had been referred to as *Cerastes cerastes*. They noted that Joger (1984) thought that records might relate to *Pseudocerastes persicus*, but they argue that they more likely refer to the montane *Vipera raddei kurdistanica*, which has also raised supraoculars and is known to occur nearby (Leviton et al., 1992).

**Habits:** This species is generally found in rocky montane areas with sparse scrubby vegetation at elevations above 1000 m. Animals may occasionally be found at rocky sites within woodlands (Latifi, 1991).

**Genus: *Cerastes* (Laurenti, 1768)**

***Cerastes cerastes* (Linnaeus, 1758)**

**Common name:** Desert Horned Viper

**Distribution:** The distribution is in north.Africa, Arabia, Syria, Palestine, and Iraq (Corkill, 1932). Arabian Peninsula, Kuwait, Syria, Jordan, southwestern Iran; reported from the Arava Valley of southern Palestine (Leviton et al., 1992). In Iraq records are of six specimens, all hornless, taken in Basra and Shaiba areas (Joan, 1912; Corcill, 1932). In 1927 a horned specimen was taken at Nebr. A further horned specimen was sent in from Rutba in 1930 (Corkill, 1939). Recently it was found during a field in the Rumaila Desert 80 km, west of Basra, south of Iraq (Afrasiab & Ail, 1989), and in Bahr Al-Najaf (Mohammad et al., 2013).

**Habits:** This appears to be the most common viper of the Mesopotamian plains. It occurs in sandy or rocky ground, and occupies the holes of rodents. It is nocturnal lying buried in sand, with only the surface of head showing. When alarmed, it rubs its coils together and thus marks a warning rasping sound. Birds and small mammals are its usual prey. It can live for quite a time without food (Corkill, 1932).

**Genus: *Echis* (Merrem, 1820)**

***Echis carinatus* (Schneider, 1801)**

**Common name:** Saw-scaled Viper

**Distribution:** The distribution of this snake is from N. Africa via Syria, Arabia, Iraq, and Persia, to India, Bangladesh, S Afghanistan, Pakistan, Iran, S. Iraq, Oman (Corkill, 1932; Joger, 1984; Afrasiab et al., 2012). In Iraq a specimen has previously been recorded from Imam Hamza, Diwaniyah area, in 1923. In 1924 two more specimens were collected from Diwaniyah, and in 1927 at Khan Jadwhal, in the Dwaniyah area. None of these have been recorded from elsewhere in Iraq. Two

specimens (June 13, 2011) collected from the village of Said Dakheel near AL- Nsiriyah, southern Iraq (31°07'53"N, 46°26'10"E) (Afrasiab et al., 2012).

**Habits:** The saw-scaled viper is nocturnal, and is said to be found of lying under stones and bushes. It is insectivorous in repute. When alarmed it rubs its coils together like the Asp and a warning rasping sound is produced. It is, of course, dangerously venomous (Corkill, 1932); strictly associated with vegetated rocky Wadis. Chiefly nocturnal, but it is also found basking in the early morning (in spring and autumn). It feeds on small frogs, toads, small reptiles and small rodents, but Schleich et al. (1996) found in its stomach a scorpion, a spider, termites and small beetles (Masood, 2012). It favours hard ground covered by rocks and scattered vegetation, but does not avoid agricultural land. A nearly strictly nocturnal species, it is often encountered on roads during the night time. *Echis coloratus* uses a side-winding type of movement, often combined with serpentine locomotion (Disi et al., 2001).

**Genus: *Pseudocerastes* (Boulenger, 1896) *Pseudocerastes persicus fieldi* (Schmidt, 1930) Common name:** Field's Horned Viper

**Distribution:** Sinai, Palestine, Jordan, and southwestern Iraq. "From the Euphrates river (northwestern Iraq) westwards, between the true desert in the south and the steppe in the north, to Jordan and the extreme north of Saudi Arabia (Leviton et al., 1992).

**Habits:** Habitat is rocky areas; Nocturnal activity. Depending upon the availability of food, it has two ways in feeding strategies (sit & wait and active search feeding). It feeds on lizards, rodents and small birds (Masood, 2012). It is found in extremely arid regions with minimum vegetation. This viper avoids human habitations. It inhabits semi-desert with sandy soil and shrub vegetation that may be interspersed with rocks (but neither dune areas nor mountain slopes) (Amr & Disi, 2011).

***Pseudocerastes persicus persicus* (Dumeril, Bibron & Dumeril, 1854)**

**Common name:** Perisan Horned Viper

**Distribution:** This snake occurs in Oman, Iran, Pakistan, S. Afghanistan, N. Iraq, SE. Turkey and NW. Azerbaijan (Disi et al., 2001). According to Liviton et al.(1992), the range of this snake is from Iran, Pakistan to borderof Afghanistan; mountains of Oman and possibly northern Iraq. However, there is an isolated population west of the Zagros Mountains, near Kermanshah. There are records from northwest Azerbaijan, Iran, extreme southeastern Turkey, and mountains of northern Oman (Leviton et al., 1992).

**Habits:** *Pseudocerastes persicus* is a predominantly nocturnal species, but it can be observed during the daytime (especially in the spring). It hides in rocky crevices, under large stones and in rodent burrows. It uses several modes of movement, according to surface and situation: side winding, rectilinear and serpentine. Its food consists of rodents, birds, and lizards. This terrestrial snake inhabits desert and semi desert areas, although capable of sidewinding locomotion mode, it obviously avoids places with a predominant soft sand substrate (Disi et al., 2001).

**Family: Elapidae**

**Genus: *Walterinnesia* (Lataste, 1887)**

***Walterinnesia morgani* (Mocquard, 1905)**

**Common name:** Desert Cobra

**Distribution:** This snake has been taken in Persia and Iraq with recorded specimens having been labeled as Shaiba and Mesopotamia (Boulenger, 1920). In 1928, 1929, and 1930, five further specimens were secured from Mosul, Baqubah, Mandali, and Rutba (Corkill, 1932). According to Corkill (1932) *Walterinnesia morgani* is apparently uniformly distributed throughout Iraq. The range continues along the coastal regions along the Persian Gulf on the Saudi Arabian side down to

United Arab Emirates and inland in the surroundings of Riyadh and down to Wadi Qatan in the south west of Saudi Arabia. In the north it enters Turkey in the province Urfa (Nilson & Rastegar-Pouyani, 2007).

**Habits:** Flat plains and farmlands (Rastegar-Pouyani et al., 2010) it does not appear to be at all an aggressive snake. *Walterinnesia morgani* must, of course, be regarded as dangerously venomous (Corkill, 1939).

***Walterinnesia aegyptia* (Lataste, 1887)**

**Common name:** Desert Cobra

**Distribution:** From Egypt, through Palestine, Lebanon, Syria, Iraq, Kuwait, Jordan, Saudi Arabia to the foothills of Zagros Mountains of Khuzistan province, Iran (Leviton et al., 1992; Disi et al., 2001). According to Reed and Marx (1959) only the Mosul record of corkill (1932) places this species outside of desert habitats. The Mosul region of Iraq is steppe- grassland (Anderson, 1963; Leviton et al., 1992).

**Habits:** Dry stony wadis with scarce vegetation, desert and semi-desert habitats except of sandy areas, usually near water sources. Often near human settlements, in cultivated fields etc. *Walterinnesia aegyptia* hides under the rocks, in rocky crevices or rodent burrows (Disi et al., 2001). Zinner (1971) reported on its nocturnal foraging behavior in southern Palestine. This snake has poor eyesite and depends on olfaction to locate its prey. The Green Toad, *Pseudepidalea viridis*, and the Spiny-tailed Lizard, *Uromastyx aegyptia*, were recovered from its stomach (Amr & Disi, 1998; Disi et al., 2001; Amr & Disi, 2011).

**Subfamily: Hydrophiinae**

**Genus: *Enhydrina* (Gray, 1849)**

***Enhydrina schistosa* (Daudin, 1803)**

**Common name:** Beaked sea snake

**Distribution:** Coastal waters from the Persian Gulf south to the Seychelles, east to southern Vietnam and south to the north coast of Australia (Leviton et al., 1992). In 1929 four snakes were found preserved in spirit in the Agricultural College, Rustamiyah, and Baghdad. They were labeled "*Hydrophis cyanocinctus* Persian Gulf. They are occasionally seen in the dredgers off Fao (Leviton et al., 1992; Corkill, 1932).

**Habits:** This is a venomous snake, it may be taken in estuaries and even well upstream; Sea snake feed on fish and crustacean. They are viviparous (Corkill, 1932).

**Genus: *Hydrophis* (Latreille, 1801)**

***Hydrophis cyanocinctus* (Daudin, 1803)**

**Common name:** Annulated Sea Snake

**Distribution:** From the Persian Gulf to the Idzu Sea of Japan south to Sri Lanka and the islands of Indonesia (Minton, 1966; Leviton et al., 1992).

**Habits:** This species can be found in shallow seas over muddy bottom. It feeds mostly on eels, but also gobies and marine invertebrates (IUCN, 2014).

***Hydrophis gracilis* (Shaw, 1802)**

**Common name:** Slender sea snake

**Distribution:** From the Persian Gulf around the coasts of India, north along the Chinese coast to Hong Kong and south to Borneo and perhaps north Australia (Leviton et al., 1992).

**Habits:** This species occurs in mangrove swamps and around coastal reefs. This species forages on sand and specializes on feeding on eels. Habitat was either sandy or muddy bottom, maximum 5 km from shore and 30 m deep (IUCN, 2014).

***Hydrophis lapemoides* (Gray, 1849)**

**Common name:** Persian Gulf Sea Snake

**Distribution:** Persian Gulf and Makran coast; reported along the coasts of India and Sri Lanka to Orissa (Minton, 1966; Leviton et al., 1992). Indian Ocean, Persian Gulf coasts off Oman, United Arab Emirates, Iran, Pakistan, Sri Lanka, India Malaysia (Penang Island), Singapore, Thailand (www.reptile-data base). Native: Bahrain; Bangladesh; India; Iran; Iraq; Kuwait; Malaysia; Myanmar; Oman; Pakistan; Qatar; Saudi Arabia; Singapore; Sri Lanka; Thailand; United Arab Emirates (IUCN, 2014).

**Habits:** This is a little-known species, but it feeds on fish. One was collected off Pakistan at a depth of two fathoms (Minton, 1966). Found at depths of 27-30 m, over a gravel substrate (Rasmussen, 1993; IUCN, 2014).

***Hydrophis ornatus* (Gray, 1842)**

**Common name:** Ornate Reef sea snake

**Distribution:** Persian Gulf to the coasts of China and New Guinea (Leviton et al., 1992). Indian Ocean (Pakistan, Sri Lanka, India, Indonesia, New Guinea, Malaysia), Vietnam, Myanmar, South Chinese Sea (China: Coasts of Guangxi, Guangdong, Hainan, Hong Kong, Taiwan, Shandong) Persian Gulf (Oman, United Arab Emirates, Iran) through Indian Ocean East to seas surrounding Indoaustralian Archipelago Philippines, Gulf of Thailand Japan (Ryukyu) Australia (New South Wales, North Territory, Tasmania, Queensland, West Australia), New Caledonia/Loyalty Islands, Solomon Islands (McCoy, 2000).

**Habits:** This species is found in coral reefs, turbid inshore waters, and estuaries. It eats fish. The general reproductive strategy for the species includes small clutches (commonly 2-5 individuals) of relatively large offspring (commonly 19-34cm) (IUCN, 2014).

Reported to inhabit clear waters with coral reefs, as well as turbid rivers and estuaries. Active at night and day (Ineich & Laboute, 2002).

**Genus: *Pelamis* (Daudin, 1803)*****Pelamis platurus* (Linnaeus, 1766)**

**Common name:** Yellowbelly Sea Snake

**Distribution:** According to Joger (1984), "widespread in the whole of the Indian Ocean, including the Persian Gulf, but excluding the Red Sea; east to the Pacific." and east among the island of Indonesia, Micronesia, and western Polynesia; it has been collected among the Hawaiian Islands and along the west coast of the Americas from Ecuador and the Galapagos Islands, the Gulf of Panama to southern Baja California (Leviton et al., 1992).

**Habits:** Species is the most pelagic of the sea snakes, occurring in the open ocean well away from coasts and reefs. This species eats only fish. Those mistakenly seek shelter beneath the motionless snake that resembles drifting wood. Consequently, they forage to a depth of only about 2 m. This species is usually found in the 0-10 m range of the water column. This is the only marine snake not associated with the benthic community (IUCN, 2014).

**Genus: *Praescutata* (Wall, 1921)*****Praescutata viperina* (P.Schmidt, 1852)**

**Common name:** Viperine Sea Snake

**Distribution:** Pakistan west to the Gulf of Oman. (N.B. According to Joger [1984] "the location (Persian Gulf) of Smith (1926), was only Masqat." (Leviton et al., 1992).

**Habits:** The maximum size is approximately 97 cm TL (captured in a trawl in Goa, India; A. Lobo pers. comm. 2009). Feeds on spiny flatheads in India (A. Lobo pers. comm. 2009) and on eels and



gobies (Voris and Voris 1983). Found in muddy soft bottom habitats, an average of 3-4 large young and high reproductive effort (Lemen and Voris 1981). It generally occurs in slighter deeper waters (15 - 30m) (IUCN, 2014).

**Genus: *Lapemis* (Gray, 1835)**

***Lapemis curtus* (Shaw, 1802)**

**Common name:** Shaw's Sea Snake

**Distribution:** Coastal water from the Persian Gulf to the coast of China, the Philippines, and the Indo -Australian archipelago to the north coast of Australia (Leviton et al., 1992).

**Habits:** Known to be active during both day and night, this species is found to inhabit coral reefs; it also occurs in estuaries, and tidal zone regions with sandy or muddy bottoms (O'Shea, 1996). It is usually found at depths of 6 to 15 m, but it has been encountered in deeper waters (O'Shea, 1996; Leviton, 2003). *L. curtus* occurs in a wide range of tropical shallow-water habitats including gulfs, bays, and estuaries, over continental shelves and also over soft-sediments adjacent to coral reefs. It is associated with many soft-sediment types including sand, muddy sand, and mud. It sometimes ascends river, thus also occurs in freshwater habitats. *L. curtus* is a generalist feeder and its diet includes many species of benthic, demersal and pelagic fish, as well as squid and other crustaceans. This species typically occurs in depth ranges from 4 to 40 m, but has been seen as deep as 55 m (IUCN, 2014).

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