

An analysis of the data on the snakes rescued from Amravati region, Maharashtra

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ABSTRACT

Snakes form important component of biota. In the present work, a checklist from Amravati city of Maharashtra state was prepared on the basis of the information collected during the rescue operation from June 2013 to February 2016. A total of 1429 snakes comprising 26 species and 6 families were rescued in Amravati city. Out of which 18 species were non-venomous snakes, 3 species were semi-venomous and 5 were venomous species. . Rat snake and checkered kill back snakes were most rescued whereas the bronze back tree snake was the least rescued nonvenomous snake types. Semivenomous snake species were rarely rescued snake type. However among the venomous snakes , common krait, Russell's viper and spectacled cobra were the most encountered species.

Keywords : *Snakes, Checklist, Amravati City, Venomous And Nonvenomous Snakes.*

1 INTRODUCTION

Snakes are elongated, legless, carnivorous creature which comes under phylum chordata and class reptilia. They form important component of biota. They may be aquatic, burrowing and arboreal in habitat. About 3500 species of snakes are recorded on earth of which 375 are venomous [1]. India has about 278 species of which 58 species are poisonous [2] . They occupy deserts, forest, marshy& swampy places, lakes, streams and rivers [3] .

In the present work, Amravati city of Maharashtra state which is rich in snake diversity, was selected as the study area. A checklist from this city was prepared on the basis of the information collected during the rescue operation from June 2013 to February 2016. The captured snakes which were later released in their natural habitat, represented 26 species comprising 8 venomous and 18 non- venomous snakes.

The present study was aimed to evaluate the abundance and variation in number of snake species from the study area , in four consecutive years from 2013 to 2016.

II MATERIALS AND METHODS

The present study was restricted to Amravati city which is located at an altitude of 20°32'-21°46'N and latitude 76°37'-78°27'E in Maharashtra State, India. Amravati city has adjoining dense deciduous forest (Pohora forest) rich in various flora and fauna and home to various species of snakes.

A well-trained snake catcher (nature friend group) captured all the poisonous and non-poisonous snakes on the request of people (telephonic calls) from various locations of Amravati city. The snakes were handled very carefully and all possible precautions were taken not to disturb them. The snakes were captured using hooked aluminum sticks and immediately put into cloth bag. The caught snakes were taken to forest office, Wadali, Amravati for registration. After registration the snakes were identified with help of standard reference book and then photographed. After study, the snakes were immediately released safely in the forest without harming them.

Snake of any species protected under scheduled of the Indian Wildlife (protection) Act 1972, when captured, a proper panchnama was done and later the snake was released in presence of forest official.

III OBSERVATIONS AND RESULT

During the present study a total of 1429 snakes comprising 26 species and 6 families were rescued from Amravati city. Out of which 18 species were non-venomous snakes, 3 species were semi-venomous and 5 were venomous species (table` 1).

3.1 Non-Venomous Snake



Fig:3 Rat snake

Rat snake is commonly called as Dhaman. It occurs in many colour from light yellow to green to brown to black. It is one of the longest snake found in India(fig 3). In the present work it can be seen that the abundance of rat snake shows an increasing trend from the year 2013 to 2016.(table 1 and fig1)



Fig : 4 Checkered Keelback

Checkered keelback is commonly called as Pandiwad. Checkered keelback varies in colour from greenish to yellow. It has the characteristic black and white checkered pattern/patches on the whole body(fig 4). This snake also shows an increasing trend in number from year 2013 to 2016.(table 1 and fig. 1)



Fig .5 Striped keelback

Striped keelback is commonly called as Naneti. It light or dark brown in colour. The characteristic feature is the presence of two yellow stripes running down the body length (fig 5). This snake shows a decreasing trend in number from 2013 to 2016(table 1 and fig 1) .



Fig .6 Green Keelback

Green keelback is commonly called as Gawtya. It has stout body with characteristic green colour (fig 6). It is mainly found in grasses. This snake number was found to be decreased in 2014 and 2015 but it gradually increased in 2016(table 1 and fig 1).



Fig .7 Common wolf snake

It is commonly called as kavdya. The body colour is grey or brownish with yellow or white broad bands. It has the characteristic jet black colour with slightly protruding eyes with an invisible pupil(fig 7). This snake shows increasing trend in abundance from 2013 to 2016(table 1 and fig 1) .



Fig .8 Barred wolf snake

Barred wolf snake is commonly called as patteri kavdya. The body colour is glossy black or chocolate with white or yellow bands. The eyes are entirely black(fig 8). This snake is rarely found, but in 2016, four snakes were rescued.(table 1 and fig 1)



Fig .9 Indian trinket snake

Indian trinket snake is commonly called as Taskar. This snake is reddish, pink, or brown in colour. The body has characteristic two prominent dark stripes on posterior sides(fig 9). This snake shows an increasing number from 2013 to 2016.(table 1 and fig 1).



Fig .10 Montane Trinket snake

It is commonly called as pahadi taskar. It is slender bodied varying in colour from olive to tan to chocolate brown. The forebody is distinctly banded containing several rows of large yellow, oval or round spots. (fig 10). This snake shows slightly increasing trend from 2013 to 2016.(table 1 and fig 1) .



Fig :11 Banded racer

Banded racer is commonly called as dhulnagin. The body is light or dark brown in colour with head little wider than neck (fig 11). Its characteristic feature is, it flattens its body when alarmed causing it to be mistaken for a cobra. This snake increased in number steadily from 2013 to 2016.(table 1 and fig 1) .



Fig :12 Common kukri snake

It is commonly called as kukri. It is reddish or greyish brown in colour with black or dark brown bands(fig 12). Kukri snake get their name from their sharp, curved teeth perfect for holding strong prey such geckos. This snake number shows slightly decreased count in the year 2015, but the count again increased in the year 2016(table 1 and fig 1).

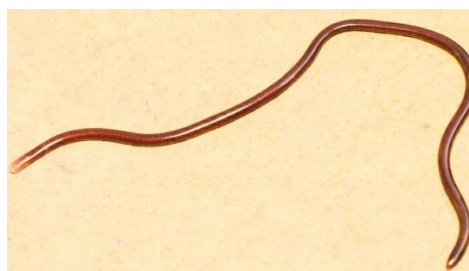


Fig :13 Worm Snake

Worm snake is commonly called as wala. It has shiny brown or black coloured body and the eyes are barely visible. This snake looks like a earthworm and its tail is similar to the blunt head, but bears tiny spines(fig 13). This snake is commonly found in swampy area. This snake shows increasing trend in number (table 1 and fig 1)



Fig.14 Beaked worm snake

It is commonly called as chanchu wala. It is glossy black in colour.(fig. 14).Stout is painted like beak. This snake share same habitat as of worm snake. This snake shows increasing trend in number(table 1 and fig 1).



Fig .15 Sand boa

It is commonly called as durkya ghonas. Its body is very thick and brown red or blackish in colour with dark colored irregular patches all over the body. The tail is very rough, thick and small in shape(fig 15). It has a characteristic habitat of burrowing in dry sandy plains or hills in India. This snake shows decreasing trend in number from year 2013 to 2016(table 1 and fig 1)



Fig .16 Red Sand Boa

It is commonly called as mandul. The colour of the body is reddish brown. The tail is blunt rounded and resembles the head (fig 16). It has characteristic habit of moving back with its tail when touched, so it is called don tondya {in Marathi} or two mouthed snake. This snake is rare but 3 snakes were recorded in the year 2016 (table 1 and fig 1)



Fig .17 Indian rock python

It is commonly called as Ajgar. It is one of the largest snake in India. It has a heavy body generally brown coloured with dark coloured patches on it(fig 17). The characteristic labial pits are thermoreceptors and help the snake to locate its warm blooded prey. Python number is found to be lowered in year 2014 and 2015, in comparison with year 2013 and 2016(table 1 and fig 1)



Fig .18 Dumerils Black headed

It is commonly called as kaaltondya. It has pale brown coloured body with a series of small round black spot along the vertebral line. It has a characteristic black coloured head(fig 18). This snake is rare and one snake was recorded in the years 2013, 2014 and 2016 respectively (table 1 and fig 1) .



Fig .19 Stout sand snake

It is commonly called as jaad reti sarp. Its body is greyish brown in colour with black edges. It is found in hot and arid habitats. It has large eyes with round pupils(fig 19). This snake shows decreasing trend in number from year 2013 to year 2016 (table 1 and fig 1).



Fig .20 Indian smooth snake

It is commonly called as gajra saap. It is very rarely found and only one snake was found in year 2016 (table 1 and fig 1). It has a shiny smooth scales(fig 20). It is grayish brown in colour. Its eyes has rounded pupil.

3.2 Semi Venomous Snake



Fig .21 Common cat snake

Cat snake is commonly called as manjraya. It is yellowish olive or pale grey coloured along the back with a darker pattern of zigzag marking (fig 22). The top of the snake has clear 'y' mark. This is very rare snake and only 1 snake was found in the year 2014 (table 1 and fig 2).



Fig .22 Vine snake

It is commonly called as Harntol saap. The body is uniform parrot green in colour with a thin white or yellow line separating the black scales from the belly scales. The snakes are long and thin (fig 23). This snake is rarely found and only 2 snakes were rescued in year 2013 and 2016 (table 1 and fig 2).



Fig .23 Indian egg eater

It is commonly called as bhartiya andi khau saap. The colour of body is glossy brown or black with bluish white flecks posteriorly and a middorsal creamy stripe(fig 24). It is a rare species of egg eating snake. This snake is rarely found and shows decreasing trend from the years 2013 and 2016 (table 1 and fig 2).

3.3 Venomous Snakes



Fig .24 Common krait

It is commonly called as Manayar. They are smooth glossy, bluish black, snakes. They have rounded head slightly distinct from the neck. There are 40 white cross bands along the upper surface(fig 25). This snake shows increasing trend from the year 2013 to year 2016 (table 1 and fig 2).



Fig .25 Wall sind krait

It is commonly called as wall sind manayar. It has black body with milky white bands(fig 26). Pale shiny yellow lower lip and neck is its characteristic feature. This snake shows increasing trend from the year 2013 to 2016 (table 1 and fig 2).



Fig .26 Saw scaled viper

It is commonly called as Fursa. It has a small brownish body. There is presence of arrow shaped mark on top of the head(fig 27). On disturbing it produces the characteristic saw like sound by rubbing scales on planks. This snake is rarely found but 8 snakes were rescued in year 2016 (table 1 and fig 2).



Fig .27 Russells Viper

It is commonly called as Ghonus. It is one of the highly venomous and aggressive snake found in India. The body colour is brown with oval shaped spots on whole body(fig 28). This is commonly found snake and it shows increasing trend from the year 2013 to 2016 (table 1 and fig 2) .



Fig .28 Spectacled Cobra

It is commonly called as Naag. The colour of the body varies from light brown to dark brown, grey or jet black. It has distinctive hood with a spectacle like mark on it(fig 29). Cobra is a commonly found venomous snake and it shows increasing trend from the year 2013 to 2016 (table 1 and fig 2).

Table no. 1: showing checklist, abundance and variation in number of rescued snakes in four consecutive years.

Sr No.	Scientific Name	Common Names	Family	2013	2014	2015	2016
Non-Venomous snake							
1.	<i>Ptyasmucosus</i>	Rat snake	Colubridae	39	67	69	107
2.	<i>Xenochropis piscator</i>	Checkered keelback	Colubridae	41	36	72	111
3.	<i>Amphiesmastolata</i>	Striped Keelback	Colubridae	11	7	5	1
4.	<i>Macropisthodon plumbicolour</i>	Green Keel Back	Colubridae	4	1	3	16
5.	<i>Lycodonaulicus</i>	Common wolf snake	Colubridae	16	11	28	44
6.	<i>Lycodon striatus</i>	Barred wolf snake	Colubridae	1	-	1	4
7.	<i>Coelognathus helena Helena</i>	Indian trinket snake	Colubridae	5	4	9	20
8.	<i>Coelognatus helena monticollaris</i>	Montane trinket snake	Colubridae	2	2	4	5
9.	<i>Argyrogenafasciolatus</i> Colubridae	Banded Racer	Colubridae	7	11	8	18
10.	<i>Oligodonarnensis</i>	Common Kukri Snake	Colubridae	8	10	7	17
11.	<i>Typhlopsbraminus</i>	Worm Snake	Typhlopidae	26	41	43	63
12.	<i>Rhinotypholusacutus</i>	Beaked Worm Snake	Typhlopidae	11	6	19	28
13.	<i>Eryxconicus</i>	Sand Boa	Boidae	-	2	1	1
14.	<i>EryxJohnii</i>	Red Sand Boa	Boidae	1	1	-	3
15.	<i>Python morulus</i>	Indian Rock Python	Pythonidae	7	4	2	11
16.	<i>Sibynophis subpunctatus</i>	Dumerils Black Headed	Colubridae	1	1	-	1
17.	<i>Psammophis longifrons</i>	Stout sand snake	Colubridae	9	5	2	3
18.	<i>Coronella brachyura</i>	Indian Smooth snake	Colubridae	-	-	-	1
Semi-Venomous Snake							
19.	<i>Boigatrigonata</i>	Common Cat Snake	Colubridae	-	1	-	1
20.	<i>Ahaetullanasuta</i>	Vine Snake	Colubridae	1	-	-	1
21.	<i>Ahaetullanasuta</i>	Indian egg-eater	Colubridae	-	2	1	1
Venomous snake							
22.	<i>Bungaruscaeruleus</i>	Common krait	Elapidae	15	13	17	28
23.	<i>Bungarussindanuswalli</i>	Wall sind krait	Elapidae	-	2	4	5
24.	<i>EchisCarinatus</i>	Saw Scaled Viper	Viperidae	1	-	1	8
25.	<i>Daboiarusselli</i>	Russells Viper	Viperidae	12	15	21	42
26.	<i>Najanaja</i>	Spectacled Cobra	Elapidae	17	27	31	37
			TOTAL	235	269	348	577

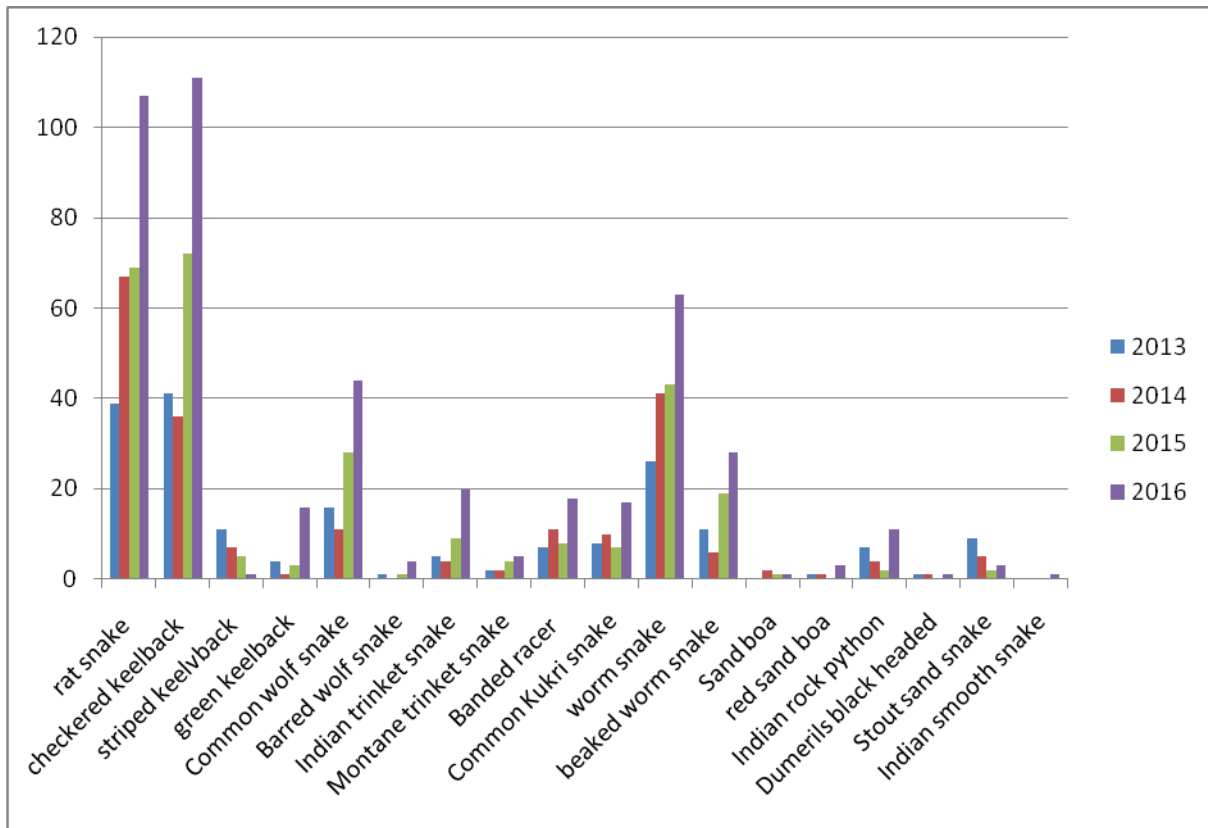


Figure 1 : Showing Variation In Number Of Nonvenomous Snakes From The Year 2013 To 2016

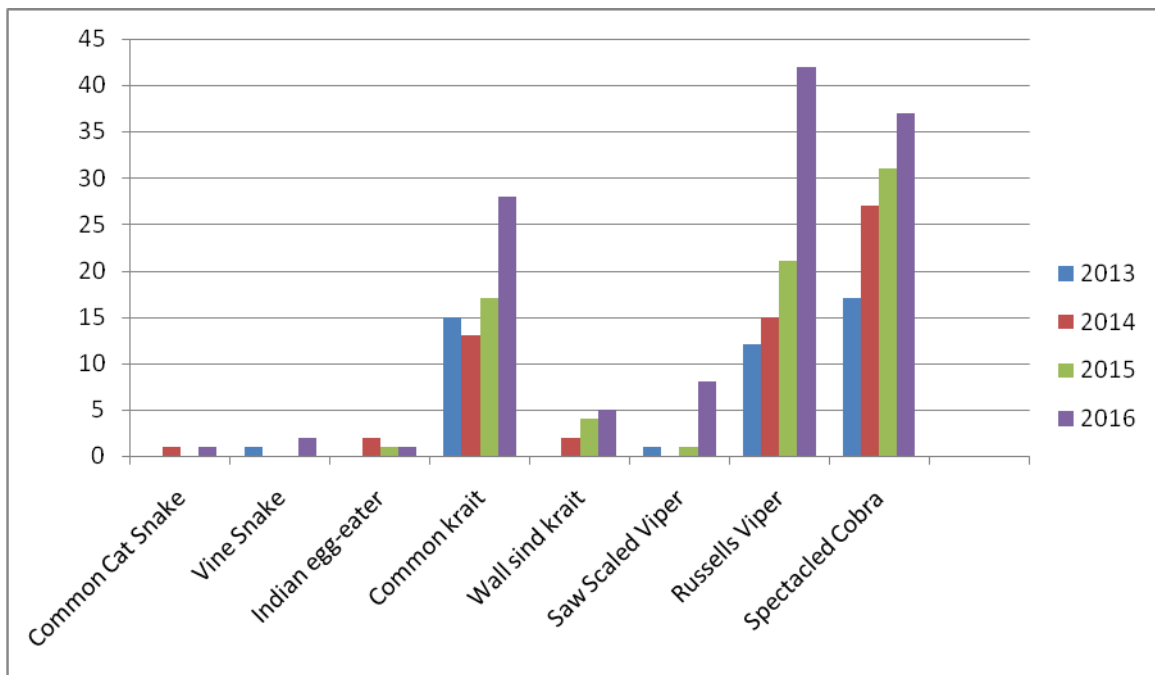


Figure 2 showing variation in number of semivenomous and venomous snakes from the year 2013 to 2016

IV DISCUSSION

In the present work a total number of 1429 snakes belonging to 6 families and 26 species were rescued from Amravati city areas. A similar study conducted in whole Amravati district including Melghat tiger Reserve, reported 18436 snakes comprising 52 species and 6 families [4].

Majority of snake species rescued were nonvenomous type, however 3 semivenomous and 5 venomous snake species were also rescued. Rat snake (282 in number) and checkered kill back snake (260 in number) were most rescued whereas the Indian Smooth snake (1 in number) was the least rescued nonvenomous snake types. Semivenomous snake species were rarely rescued snake type (8 in number). However among the venomous snakes, common krait (73 in number), Russell's viper (90 in number) and spectacled cobra (112 in number) were the most encountered species. A similar study was conducted in Malegaon Tehsil of Washim district which reported majority of nonvenomous snake species along with 3 species of venomous snakes viz: Spectacled cobra, Russell's viper and coral snake [5].

V CONCLUSION

In the present study it was seen that majority of nonvenomous and venomous snakes showed a steady increase in number throughout the study period. Similarly certain rare snakes (Indian Smooth snake, Vine snake, Wall sind krait) were encountered even in the urban locations. This indicates that probably due to anthropogenic activities like encroachment of forest areas adjoining cities, for Infrastructural developments and Industrialization have led to degradation of snake habitats. In addition scarcity of food and water and increasing temperatures, has led to migration and increase in density of these forest residing snake species in urban areas leading to human snake conflicts.

Acknowledgement

The authors are thankful to the Drakshavell Nature Friend Group (animal conservation group) for their valuable cooperation in snake rescuing operations and providing valuable information about the snake species.

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