DIVERSITY OF SCOLOPENDRID CENTIPEDES (CHILOPODA : SCOLOPENDROMORPHA) IN HIMALAYAN ECOSYSTEM AND ADJACENT AREAS—A REVIEW

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INTRODUCTION

The present paper deals with the species diversity represented by the Scolopendrid centipedes in the Himalayan ecosystem from Northwest to Northeastern Himalaya through Central Himalaya, Myanmar, Bhutan, Tibet to Bangladesh, in the east and Kashmir, Pakistan, Afghanistan and China in the north and Northwest (Map-1).

The majority of the species listed is, either based on the collection actually studied by the author or from the records of the distribution of the species available through literature. Barring a few recent collections from Northwestern Himalaya and Western Himalaya the majority of the old collection (studied by the author) dates back to the late 19th century or early 20th century (specially from NE States). Therefore, it cannot be said with a reasonable certainty if those species still exist in nature or not, owing to large-scale destruction of their natural habitat over the period of time. At the same time a large invasion of foreign elements cannot also be ruled out.

According to a latest report of the Center International De Myriapodologie, France (CIM Web, 2002) the Scolopendrid centipedes are known globally by 620 species referable to 34 genera and 3 families, of which India alone supports precisely 102 species, as check listed by Khanna (2001), roughly comprising 16.5% of the global diversity. These 102 species are spread over 8 genera of the family Scolopendridae and 3 genera of the family Cryptopidae, thus representing approximately 33% of the genera and 66% of the families.

While reviewing the literature the present author arranged the distribution of the species occurring in the Himalayan region, in the tabular form appended. The table includes not only the Indian species occurring in the Himalayan belt but also the species that occur in other South Asian Himalayan countries around, such as Pakistan, Afghanistan, China, Tibet, Bhutan, Myanmar, Nepal and Bangladesh, whose external boundaries either touch or lie in the mountain chain. The results of the tabulation of the distribution of the species are quite encouraging and interesting, so far, as the zoo-geographical pattern of the distribution of the species are concerned.



Map 1. : Showing the Himalayan ecosystem, the ranges and adjacent regions.

Out of a total of 75 species that found their distribution in the area, the Indian Himalayan belt represents 53 species, some of which extend to China, Myanmar, Bhutan, Nepal, Bangladesh or Pakistan, in the Himalayan belt. Some of the species are restricted in their distribution to Western Himalaya or Northwestern Himalaya, Central Himalaya or Eastern Himalaya. While some species have overlapping range of their distribution in the Himalayan belt, extending down to Deccan Plateau.

While Myanmar represents 25 species, Bhutan represents 3; Bangladesh and Pakistan one each; Nepal and China represents 11 and 15 species.

As can be seen from the table there are 6 species each exclusively representing Myanmar and China, 4 to Nepal and one each to Bhutan and Bangladesh. Distribution of some of the species which are exclusive to such countries in the Himalayan belt have, however, been recorded in the Indian subregion in Indo-gangetic plains or further south in Deccan Plateau, but not found distributed in the Indian chain of mountains.

Out of the 53 species that occur in the Indian chain of Himalaya, 29 species represents Western Himalaya; 27 species represents Northwestern Himalaya, 13 to Central Himalaya and 26 species represents North Eastern Himalaya.

It is further interesting that out of the 75 species, 31 species have their homes in Himalayas as their type localities. The author invites the discussions from the colleagues and scientific fraternity on the pattern of distribution, restricted patchiness or endemicity within Scolopendromorpha.

HIMALAYAN ECOSYSTEM AND ITS PHYSIOGRAPHY

The Himalaya is the highest and the youngest chain of mountains containing most of the world's highest eight thousander peaks. It extends un-interrupted from Pamir Knots in the extreme northwest in a smooth curve of about 2500 km to Arunachal Pradesh in the east covering around 500,000 km². The width of these mountains decreases from about 400 km in the west to about 150 km in the east. The traditional limits being Indus valley in the west to Brahmputra valley in the east. The entire system consists of sedimentary rocks. The Himalaya took about 6 or 7 million years to rise and erosion continued to lower the surface. It was after a substantial uplift that the mountains have attained the tremendous height while the climate has established in the Himalaya. In the eastern Himalaya, where the rise of mountains is abrupt and has more rainfall, the occurrence of humid fauna of the tropical areas has increased. On the western Himalaya even at a lesser altitude the fauna of sub-humid area is present. However, at greater heights in the eastern Himalaya the temperate fauna is prevalent.

GEOGRAPHICAL AND BIOGEOGRAPHICAL DIVISIONS OF THE HIMALAYA

Geographically the Himalaya is divided into :

- 1. The Punjab (Or the Northwestern Himalaya) (560 km) lying between river Sutlej to Mt. Nanga Parbat, west of which River Indus curves round south-westwards and includes the whole of the state of Himachal and Jammu and Kashmir.
- 2. The Kumaon (or the Western Himalaya) (320 km) lying between river Kali and the great defile of R. Sutlej and comprises Garhwal and Kumaon Himalaya.
- 3. The Nepal (or the Central Himalaya) (900 km) lying between River Kali in the west to river Tiesta in the east. The southern boundary of these Himalaya lies in the Terai while the spurs from the main Himalaya occupy the north. The division includes a part of Sikkim. In the Sikkim where the Assam Himalaya passes into Nepal Himalaya there is also a change of alignment, with the ranges on the west extending from east a little north of west.
- 4. The Assam (or the Eastern Himalaya) (720 km) comprises a portion between Namcha Barua Peak (7750 m), east of which R. Brahmputra curves southwards and R.Tiesta to the west. In this division there is a very little sub Himalayan tract so that Himalaya rises abruptly from the plains.

(Note : Collection made from the NE States like Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura and West Bengal (hills) have been included under Eastern Himalaya).

PATTERN OF DISTRIBUTION OF SPECIES

Ecology of nearly the whole of India, perhaps with the exception of higher Himalaya, above timberline particularly to the west of Nepal, is dominated by the rhythm of monsoon rainfall climate. The ecology of only high altitude is characteristically temperature dominated. The whole of the Indian sub-continent is not rich only in biological or ecological diversity but because it lies at the confluence of African, European and Indo-Malayan realms, the biota, therefore, includes, African, European, Eurasian and Mediterranean elements. The Palaearctic, Ethiopian, Indo-Chinese or Indo-Malayan and endemic fauna and flora meet and intermingle here giving rise to a characteristic distribution patterns, contributing to the outstanding peculiarities of the biogeographical evolution.

The very idea for the above concept also came from the theory of continental drift that the continents of south and north America, Africa, Peninsular India, Australia and Antarctica once united in one land mass (Gondwanaland) are now widely separated by southern Ocean and bear striking similarity of geological history and distribution of ancient and modern organisms.

SPECIES DIVERSITY IN HIMALAYAN ECOSYSTEM AND ADJACENT AREAS

(Chilopoda : Scolopendromorpha)

Sl. no	Name of the species	Status	Type Locality	Western Himalaya	NW Himalaya	Central Himalaya	Eastern Himalaya	Adjacent areas of Himalaya	Elsewhere, in India OUTSIDE INDIA	References		
1	2	3	4	5	6	7		9	10	11		
	Family : SCOLOPENDRIDAE Subfamily : SCOLOPENDRINAE Tribe 1 : SCOLOPENDRINI											
1.	SCOLOPENDRA morsitans Linn.	Cosmopolitan	India	+	+	+	+	+	Throughout	Khanna, 2001		
2.	Scolopendra amazonica Bucherl	Circumtropical	Amazona	+					Delhi, Goa, Gujarat, Kerala, Karnataka, MP, Rajasthan, and UP : BRAZIL, NORTH AND SOUTH AMERICA, AUSTRALIA AND SUDAN, BULGARIA, CROATIA, GENEVA, TURKEY, THAILAND, ROMANIA, ENTIRE MEDITER- RANEAN REGION			
3.	Scolopendra indica	Indian	Kulu (HP)	_	+	-	—	-	_	Meinert 1886, Attems, 1930		

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4.	S. mazbii Gravely	Indian	Upper Rohtang (HP)	_	+	_	_	-	-	Gravely, 1912
5.	S. pinguis Pocock	Indo-Malayan	Karenberg (Myanmar)	-	-	-	-	Myanmar	JAVA	Pocock, 1895
6.	<i>S.subspinipes de haani</i> Brandt	Indo-Malayan	?	+	_	_	+	Myanmar, Bangladesh, China	A & N Isls; MALAYA, SUMATRA, JAVA, THAILAND	Gravely 1910; Ahmed, 1980 & Khanna, 2001
7.	Scolopendra subspinipes subspinipes Leach			_	-	-	_	Myanmar, China		
8.	S.s.multidens Newport	Oriental	?	-	_	_	-	China	-	Attems, 1930
9.	S.septumspinosa Brandt	Oriental	?	-	1	-	_	China	_	Attems, 1930
10.	Scolopendra subspinipes mutilans Koch			-	-	-	_	China	_	-
11.	S. calcarata Porath	Oriental	?		-	-	_	China	-	Attems, 1930
12.	Scolopendra afer (Meinert)	Ethiopian	?	_	_	_	+	-	ZANZIBAR, AFRICA AND KILMANDZARO	Attems, 1930; Khanna (Unpublished record)
13.	Psiloscolopendra feae (Pocock)	?	Karenberg (Myanmar)	-	-	-	_	Myanmar	_	Attems, 1930
14.	CORMOCEPHALUS dentipes Pocock	Indian	Bengal ?	+	+	-	+	_	A & N Isls., Bihar, Delhi, Madhya Pradesh, Orissa, West Bengal, Uttar Pradesh.	Khanna, 1987, 1995a,b,c, 2001, Khanna and Kumar, 1984; Khanna & Tripathi, 1985 and Jangi & Dass, 1984
15.	Cormocephalus pygmaeus Pocock	Indian	Madras (T. N.)	+	+	+	+	Nepal, Myanmar	A&N Isls., Bihar, Maharashtra, Rajasthan, Uttar Pradesh, Tamilnadu, and West Bengal.	Khanna, 1994a, 1995; Khanna and Kumar, 1984, Khanna and Tripathi, 1984; Lewis, 1992; Vazirani and Khanna, 1976.

				Tribe 2	: Asana	adini		· · · · · · · · · · · · · · · · · · ·	×			
16.	ASANADA indica Jangi and Dass	India	Pune : Maharashtra	+	+	_	-	-	Delhi, Haryana, HP, Kerala, Maharashtra, Rajasthan, Uttar Pradesh	Jangi & Dass, 1984, Khanna, 1987, 1995,1997 & 2001		
17.	Asanada brevicornis Meinert	Palaearctic, Oriental, Ethiopian and Indo-Malayan extending to Australia	Kulu (HP)	_	+	-	-	Myanmar	A & N Isl., Delhi, Haryana, Gujarat, Rajasthan and Maharashtra; Australia, MYANMAR, REEF ISLAND, NEW GUINEA (MOROCCO)	Attems, 1930; Ahmed, 1980 : Jangi &Dass, 1984; Khanna, 2001		
	Subfamily : OTOSTIGMINAE											
			Tri	be 3 :	OTOST	rigmin	11					
18.	OTOSTIGMUS amballae Chamberlin	Indian	Ambala (Haryana)	+	+	+	_	Nepal UP	Haryana, HP and	Chamberlin, 1913, Khanna, 1987, 1994, 1995, 2001and Lewis, 1992		
19.	Otostigmus burn- murdochi Gravely	Indian	Kulu (H.P.)	-	+	-	-	-	-	Gravely, 1912		
20.	Otostigmus ceylonicus Haase	Oriental	Paradeniya, Sri Lanka	+	+	-	+	Myanmar, Bhutan	Maharashtra, Uttar Pradesh, SRI LANKA, SEYCHELLES	Attems, 1930; Khanna, 1994c and Khanna and Tripathi, 1986.		
21.	Otostigmus feae Pocock	-	Myanmar	-	-	-	-	Myanmar	-	Attems, 1930		
22.	Otostigmus glaber Chamberlin	Oriental	?	-		+	-	Nepal	INDONESIA, FIJI	Attems, 1930		
23.	Otostigmus geophilinus Haase	Indo-Malayan	Java	-	+	_	+	Mergui Archipe- lago (Myanmar)	OWENS ISLAND, JAVA, TIMOR	Khanna (in press, 2001) and Khanna and Tripathi, 1986		

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24.	Otostigmus kashmirensis Lewis	Palaearctic	Pahalgam (J & K)	-	+	-	-	-	_	Lewis, 1992; Khanna, 2001
25.	Otostigmus insularis Haase	Oriental	Sri Lanka	_	+		+	Bhutan	A & N Isl., West Bengal. SRI LANKA and SEYCHELLES	Gravely, 1910, 1912b : Khanna, 1994c and Khanna and Tripathi, 1986
26.	Otostigmus martensi Lewis	-	Nepal	-	_	+	-	-	-	Lewis, 1992
27.	Otostigmus metallicus Haase		Sangir Island, Sri Lanka	_		+	+	Sikkim	West Bengal, BORNEO, SRI LANKA	Khanna, unpublished record
28.	Otostigmus morsitans Haase	Indian	Madras (TN)	+	+		_	Myanmar	Uttar Pradesh, Tamilnadu; SRI LANMKA;	Attems, 1930; Khanna, in press, 1998 and 2001
29.	Otostigmus nudus Pocock	Indian	Madras (TN)	+	Ŧ	-	+	-	Tamilnadu and Uttar Pradesh	Khanna, 1987, 1994, 1995 and Khanna and Kumar, 1984
30.	Otostigmus oatesi Kraepelin	Indo- australian	"British Burma"	-	-	-	+	Myanmar	-	Khanna, 1994
31.	Otostigmus oweni Pocock	Indian	Mergui Archipelago (Myanmar)	-	_	_	+	Myanmar	-	Attems, 1930; Khanna, 1991
32.	Otostigmus p. politus Karsch	Indo- australian	Tienstein, Tsingtau, China	+	+	+	+	China, Myanmar	Delhi, Kerala, Maharashtra, Orissa, and West Bengal; SUMA- TRA, CHINA, NEW GUINEA, AUSTRALIA	Attems, 1930, Khanna, 1994c, 1997 and 2001
33.	Otostigmus p. quadrispinosus Khanna	Indian	Almora (Uttaranchal)	+	+	-	-	-	-	Khanna, 1987
34.	Otostigmus poonamae Khanna and Tripathi	Indian	Chamba (HP)	+	+	_	-	-	-	Khanna, 1985, 1987, 2001
35.	Otostigmus proponens Chamberlin	Indo-Malayan	Fulakowa, Solomon Isls.	-	-	-	+		-	Khanna, 1994c

36.	Otostigmus ruficeps Pocock	Oriental	Madras (Tamilnadu)	+	-	-	+	Uttar Pradesh, Tamilnadu	Tamilnadu; VIETNAM, JAVA, SUMATRA KAKATAU, BORNEO, SULAWESI, NEW GUINEA	Pocock, 1890; Attems, 1930; Khanna, 1994 and 2001
37.	Otostigmus rugulosus Porath	Oriental	Madras (Tamilnadu)	_	+	-	+	Myanmar	A & N Isls., MAURITIUS, SEYCHELLES, THAILAND	Gravely, 1910, 1912b; Attems, 1930 and Khanna, 1994c
38.	Otostigmus scaber	Indo- Australian	China		+	+	_	China, Myanmar, Nepal	A & N Isls., Kerala (Cochin) and Uttar Pradesh JAPAN, FORMOSA, THAILAND, MALAYA, SUMATRA, COCOS ISLAND	Gravely, 1910; Attems, 1930; Lewis, 1992
39.	Otostigmus spinosus Porath	Indo-Malayan extending to Australia	Borneo	-	-	+	-	-	West Bengal; JAVA, SUMA- TRA, BORNEO, NEW GUINEA	Attems, 1930; Khanna, 1994c
40.	Otostigmus sumatranus kraepelini Attems	Palaearctic	Chitral "NW Kashmir"	-	+	-	-	-	-	Attems, 1930; Khanna, in press; Khanna and Tripathi, 1986
41.	Otostigmus splendens Pocock	Indo-Malayan extending to Australia	Madras,Tamil- nadu	_	-	-	+	Myanmar	JAVA, SUMA- TRA, SULAWESI, NEW GUINEA	Attems, 1930; Khanna, 1994c
42.	RHYSIDA afra cuprea Kraepelin	Indian	Bhutan	+	+	+	+	Bhutan, Bangladesh, China	Delhi and West Bengal.	Gravely, 1910, Khanna, 1987 and 2001; Khanna and Tripathi, 1985
43.	Rhysida afra petersi Porath	Ethiopian	Bhutan	-		-	-	Bhutan	SOUTH AFRICA	Gravely, 1910; Attems, 1930

44.	Rhysida carinulata Haase	Indo- Australian	Australia	+	_	-	~	_	SUMATRA, CELEBES, NEW GUNINEA AND THURSDAY ISLANDS	Attems, 1930; Khanna and Kumar, 1984
45.	Rhysida ceylonicus Gravely	Oriental	Paradeniya (Sri Lanka)	-	+	-	_	-	SRI LANKA	Attems, 1930; Khanna and Tripathi, 1985
46.	<i>Rhysida corbetti</i> Khanna	Indian	Pauri (Uttaranchal)	+	_	-	1	. –	-	Khanna, 1987, 1994c and 2001
47.	Rhysida crassispina Kraepelin	Indian	Matheran (Maharashtra)	+	-	_	+	-	Maharashtra, Tamilnadu, Uttar Pradesh	Attems, 1930; Jangi and Dass, 1984; Khanna, 1994c, 1998 and 2001
48.	Rhysida lithobioiodes lithobioiodes (Newport)	Oriental	China	-	_	-	_	China, Myanmar	Bihar, Haryana, Tamilnadu and Uttar Pradesh	Attems, 1930
49	Rhysida lithobioiodes kumaonensis Khanna	Indian	Nainital (Uttaranchal)	+	1	ł	1	-	-	Khanna, 1994b and 2001
50.	Rhysida lithobioiodes shivalikensis Khanna	Indian	Dehra Dun (Uttaranchal)	+	-	-	-	_	_	Khanna, 1995b
51.	<i>Rhysida longicarinulata</i> Khanna and Tripathi	Indian	Sirmaur (Himachal Pradesh)	+	+	_	_	-	-	Khanna, 1995a, 2001 and Khanna and Tripathi, 1985
52.	Rhysida longipes longipes(Newport)	Cosmopolitan	?	_		+	+	Myanmar, Nepal, Pakistan	West Bengal, Gujarat, Delhi, Goa, Karnataka, Maharashtra, Madhya Pradesh, Uttar Pradesh, AUSTRALIA, EAST AND WEST AFRICA, MADAGASKAR, SEYCHELLES, MAXICO, CENTRAL AND SOUTH AMERICA PAKISTAN, SRI LANKA	Attems,1930 : Khanna,1994b, 1997 and 2001

53.	Rhysida longipes simplicior Chamberlin	Indian	Coonoor (Tamilnadu)	+	-	-		-	Delhi, Tamil Nadu	Chamberlin, 1920; Attems, 1930; Khanna, 1997, 2001
54.	Rhysida longipes punctata Khanna	Indian	Nainital (Uttaranchal)	+	-	-	1	-	Uttar Pradesh	Khanna, 2001
55.	<i>Rhysida monalii</i> Khanna and Kumar	Indian	Almora (Uttaranchal)	+	+	-	+		Maharashtra and Uttar Pradesh	Khanna, 2001 and Khanna and Kumar, 1984
56.	Rhysida nuda nuda (Newport)	Cosmopolitan	Paramata, NS Wales, Australia	+		_	+	Myanmar	Andhra Pradesh, Haryana, Karnataka, Maharashtra, MP, Orissa, Tamil Nadu, Uttar Pradesh; AUSTRALIA, SRI LANKA, NORTH AMERICA, PARAGUAY	Attems, 1930, Khanna, 1995a, b and 2001
57.	Rhysida nuda immarginata (Porath)	Cosmopolitan	Philippines	+	+	+	+	Myanmar	A & N Isls., Delhi Gujarat, MP, Maharashtra, Rajasthan and West Bengal; WEST AFRICA; MALAYA, SOUTH AMERICA, PHILIPPINES, VENEZUELA, GUATEMALA	Khanna, 1987, 1995a, b and 2001
58.	Rhysida stuhlmanni stuhlmanni Kreapelin	Ethiopian	Bogamoyo, Rio Quaqua, Ethiopia	-	-	-	+	-	KAPLAND, CAPE PROVINCE, EAST AFRICA, SOUTH AFRICA	Attems, 1930, Khanna, 1994b, 2001
59.	Rhysida stuhlmanni himalayanus Khanna	Indian	Kaladungi, Nainital (Uttaranchal)	+	-	_	-	-	-	Khanna, 1994b and 2001

60.	ETHMOSTIGMUS Platycephalus platycephalus (Newport)	Oriental, Palaearctic and Ethiopian	?	_	-	_		Myanmar	Kerala, Maharashtra; NEW GUINEA, NEW POMMERN, YORKLAND, SOLOMON ISLANDS, MOLUCAS, JAVA	Gravely, 1910; Attems, 1930, Jangi and Dass, 1984; Khanna, 2001
61.	Ethmostigmus platycephalus spinosus (Newport)	Oriental	?	_	_	-	_	Myanmar	Karnataka, Maharashtra, Tamilnadu; SRI LANKA	Gravely, 1910; Attems, 1930; Jangi and Dass, 1984 and Khanna, 2001
62.	Ethmostigmus pygomegas (Kohlrausch)	Indian	Sylhet (Bangladesh)	+	+	-	_	Bhutan, Bangladesh, Myanmar	A & N Isls. and West Bengal	Attems, 1930, Ahmed, 1980, Khanna, 1998 and 2001
63.	Ethmostigmus trigonopodus pygmanosoides Lewis		Myadugi, Nepal	Ι	Ι	-	_	Nepal	-	Lewis, 1992
64.	Ethmostigmus sulcidens (Kohlrausch)			Η	1	1	-	China	-	-
			Famil Subfamil	y 2 : y 1 :	CRYP CRYP	ropid <i>i</i> ropid <i>i</i>	AE AE			
65.	<i>CRYPTOPS doriae</i> Pocock	Indo-Malayan extending to Australia	Schwegoo (Myanmar)	+	-	+	-	Myanmar, Nepal, China	Maharashtra; VIETNAM JAVA, NEW GUINEA	Gravely, 1910; Attems, 1930; Khanna, 1997, 2001; Lewis, 1999
66.	Cryptops feae Pocock	Indian	Myanmar	-	-	-	_	Myanmar	-	Gravely, 1910; Attems, 1930
67.	Cryptops sitosior Chamberlin	India	Molta, Himalaya ?	?	_	?	?	?	-	Chamberlin, 1959

68.	Cryptops inermipes Pocock	Myanmar	?	-	-	-	-	Myanmar	-	Gravely, 1910
69.	Cryptops kempi Gravely	Indian	Siju Caves, Assam	-	-	-	+	-	-	Gravely, 1912
70.	Cryptops nepalensis Lewis		Nepal	-	-	-	-	Nepal	-	Lewis, 1999
71.	PARACRYPTOPS indicus Silvestri	Indian	Siju Caves, Assam	-	-	-	+	-	Rajasthan	Silvestri, 1924; Khanna, 1994c and 2001
72.	Paracryptops feae Pocock	Indian	Myanmar	-	-	-	-	Myanmar	-	Gravely, 1910
73.	MIMOPS orientalis Kraepelin	Oriental	China	-	-	-	-	China	-	Attems, 1930
	<u> </u>		Subfami	ily 2 :	SCOL	OPOCF	RYPTC	PINAE		
74.	OTOCRYPTOPS rubiginosus Koch	Oriental	China	-	-	-	-	China	JAPAN, BRAZIL, KOREA	Attems, 1930
75.	SCOLOPOCRYPTOPS brolemanni Kraepelin			-	-	-	-	China	-	Attems, 1930
				29	27	13	26			

*Distribution of species in India : 53; Myanmar : 25; China : 15; Bhutan : 3; Nepal : 13; Bangladesh : 1 and Pakistan : 1.

In early tertiary, the breakaway Gondwanaland in a northward drift first hit the Asian landmass at what is presently northeast India, served as the biogeographic gateway, "the Assam Gate", for dispersal and migration of much of the fauna and flora. The Northeast Zone is richest of biological resources, and has affinities with Indo-Chinese and Indo-Malayan regions in the east and southeast and many species are shared. From west came the Palaearctic and Ethiopian elements. Relatively young Himalayan mountain ranges opened up new southwards route of migration and acted as a two-way link between West Africa to South Asia. In peninsula there may be some cross over points between southern-Western Ghats and Eastern Hills. While Andamans have a biogeographic affinity with Myanmar, the Nicobar (with Great Nicobar, only 90 Kms of Sumatra) have more Indonesian and South Asian Elements.

The pattern of distribution tabulated for the Scolopendrid centipedes conforms to the above theory.

SUMMARY

The paper deals with the pattern of distribution of 75 species of Scolopendrid centipedes, recorded from the Himalayan ecosystem, including the bordering countries like Afghanistan, Pakistan, China, Myanmar, Bhutan, Nepal and Bangladesh. 53 species represents Indian Himalaya, comprising 29 from Western Himalaya, 27 from Northwestern Himalaya, 13 from Central Himalaya and 26 from Eastern Himalaya. Table depicts 6 species each exclusively representing Myanmar and China, 4 to Nepal and one each to Bhutan and Bangladesh. 31 species have their homes in Himalayas as their type localities. The table also contains the known distribution of the species in India, other than Himalayan belt or outside India beyond Himalayan countries. Efforts have been made to provide the type localities of the species, as far as possible, with status of zoogeographical distribution of the species.

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