

# FAUNA OF INDIA CHECKLIST

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## ARTHROPODA: ARACHNIDA: SCORPIONES

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**ZOOLOGICAL SURVEY OF INDIA**  
Ministry of Environment, Forest & Climate Change

# ARTHROPODA: ARACHNIDA: SCORPIONES

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**Introduction:** Scorpions are among the most ancient terrestrial arthropods, derived from amphibious ancestors that lived in the mid-Silurian, around 425 million years ago (Lourenço, 2016). They are also termed 'living fossils' by many authors as they have maintained their basic body structure during the course of evolution (Esposito and Prendini, 2019). Scorpions are often abundant in suitable habitats and are thus the important consumers in ecological food webs. In arid ecosystems, they are dominant predators, play a major role in controlling invertebrate populations, and are themselves important prey for other organisms (Prendini, 2012). They occur in savannas and grasslands, in deciduous, coniferous, and tropical rainforests, on high mountain slopes (above 5500 m elevation) in the Alps, Himalayas, and Andes; in some of the deepest caves (nearly 1000 m below the surface). Although most of the scorpions are terrestrial, some are arboreal or live in intertidal zones. Favoured habitats include deep burrows, spaces under tree bark, logs, stones, and in rock crevices.

**Global diversity:** Scorpions occur on all the continents except Antarctica but are most abundant and diverse in tropical and subtropical regions. Some species adapt well to human environments. Before the discovery of the ultraviolet light method, it was difficult for researchers to find these elusive nocturnal arthropods, limiting their studies (Polis, 1990). With the advancement of technological research, studies on scorpions have increased profoundly after the mid-twentieth century. Presently the known extant scorpion fauna is estimated to be 23 families and 2772 species worldwide (Rein, 2023).

**Diversity in India:** India falls in the neotropical region and has a diverse geography that extends from the high mountains of Himalaya in the north to the flood plains in the south, evergreen forests in the north-east to the arid region in the west. From the top of Himalayan Mountain ranges to the intertidal zones of Islands, scorpions are omnipresent. Tikader and Bastawade (1983) published a comprehensive book on the scorpions of India with description of 99 species with details on their taxonomy. Between 1983 and 2023, 52 scorpions were added to the checklist as a result of taxonomic revalidation and description of new species from different regions of India (see Kovařík 2004; Kovařík 2007; Bastawade et al. 2012; Kovařík 2019; Sulakhe et al. 2021). Currently, 153 species belonging to six families namely Buthidae, Chaerilidae, Hormuridae, Scorpipidae, Scorpionidae and Rugodentidae and 30 genera have been reported from the Indian subcontinent.

**Diversity in States:** Scorpions are found throughout India but are not explored (or are not reported) in a few north-eastern states like Manipur and Nagaland and union territories like Chandigarh, Dadra Nagar Haveli, Daman and Diu. The highest number of species are recorded from Maharashtra, Tamil Nadu, Karnataka and Kerala, which fall on the Western Ghats biodiversity hotspot. Table 1 depicts the scorpion species reported from various states of India and the number of Endemic species there of.

Table 1. Number of Scorpion species recorded from various states

Sl. No.	States	No. of species	No. of endemic species
1	Andhra Pradesh	16	2
2	Arunachal Pradesh	8	2
3	Assam	9	1
4	Bihar	3	0

Sl. No.	States	No. of species	No. of endemic species
5	Chhattisgarh	5	0
6	Goa	6	2
7	Gujarat	10	2
8	Haryana	2	0
9	Himachal Pradesh	13	3
10	Jharkhand	4	0
11	Karnataka	23	6
12	Kerala	23	7
13	Madhya Pradesh	22	1
14	Maharashtra	45	26
15	Manipur	0	0
16	Meghalaya	9	1
17	Mizoram	2	0
18	Nagaland	0	0
19	Odisha	15	0
20	Punjab	5	1
21	Rajasthan	16	7
22	Sikkim	3	0
23	Tamil Nadu	31	8
24	Telangana	13	2
25	Tripura	4	2
26	Uttarakhand	17	5
27	Uttar Pradesh	12	2
28	West Bengal	10	0
UT_1	Andaman & Nicobar Islands	5	1
UT_2	Chandigarh	0	0
UT_3	Dadra and Nagar Haveli and Daman and Diu	0	0
UT_4	National Capital Territory (NCT) of Delhi	1	0
UT_5	Jammu & Kashmir	5	2
UT_6	Ladakh	2	1
UT_7	Lakshadweep	0	0
UT_8	Puducherry	12	2
<b>INDIA TOTAL</b>		<b>153</b>	<b>87</b>

**Endemism:** In terms of uniqueness, more than half of the scorpion species reported from India are endemic. The reason being the variety of habitats and the degree of adaptability towards it. The highest endemism can be seen in areas near biodiversity hotspots of the country namely the Himalayas and the western ghats. Many remarkable species are found in these regions and reported from a single or few geographically close localities. This needs to be examined by systematic sampling across the country to evaluate the degree of endemism in scorpions.

**Habitat:** Habitat plays a major role in the distribution of species across a varied landscape. Indian Scorpions are found in high-altitude snow-covered habitats, in oceanic Islands, grasslands, deserts, rain forests and near human habitations. Whereas a few species are habitat generalists, some are habitat specialists. Their success depends on different morphological as well as ecological and environmental factors.

**Ecological Significance:** Scorpions are important consumers in ecological food webs and are found in abundance in suitable habitats. In arid ecosystems, they are found to be dominant predators and

important for controlling invertebrate populations (Prendini, 2006). Scorpions also served themselves as important prey for other organisms.

**Human Significance:** Scorpions, being ancient creatures, are related to humans both positively and negatively. Scorpions are considered a symbol of bravery in many cultures throughout the world. In the developing arena, scorpions are appreciated for their venom and their medicinal value. After the discovery of anti-cancer properties of scorpion venom (Mikaelian et al. 2020), the value has exponentially increased in the international market. Other than this, scorpions are also exploited as pets.

Scorpions are very useful in folk medicine for a variety of purposes. In the treatment of rheumatic pains, scorpion stings, piles, wounds, infections and inflammations, scorpions are used. Uses vary from direct sting from live scorpion to preparation of an extract by burning/frying the scorpion and using it. The ethnozoology related to scorpions are still awaiting to be unfolded in several parts of India.

**Gap areas:** The actual diversity of scorpions in India is yet to be fully explored, which is evident from the rate of species being described in the recent past. Scorpions' habit and the inherent fear could be the barriers in their exploration. However, gradual increase in taxonomic interest in this group and use of molecular taxonomy helped scorpologists to discover many cryptic as well as novel species during past decade. The information on scorpion diversity of the country is still believed to be inadequate and a systematic exploration may result in discovery of more species than the present estimated diversity.

### Checklist of Scorpiones of India

Sl.No.	Family	Species
1	Buthidae	<i>Androctonus cholistanus</i> Kovařík & Ahmed, 2013
2	Buthidae	<i>Androctonus finitimus</i> (Pocock, 1897)
3	Buthidae	<i>Baloorthochirus becvari</i> Kovařík, 1996
4	Buthidae	<i>Buthacus agarwali</i> Zambre & Lourenco, 2010
5	Buthidae	<i>Buthoscorpio chinmarensis</i> Aswathi, Sureshan et Lourenco 2015
6	Buthidae	<i>Buthoscorpio indicus</i> Lourenco 2012
7	Buthidae	<i>Buthoscorpio politus</i> (Pocock, 1899)
8	Buthidae	<i>Buthoscorpio rayalensis</i> Javed, Rao, Mirza, Sanap & Tampal, 2010
9	Buthidae	<i>Charmus brignolii</i> Lourenco, 2000
10	Buthidae	<i>Charmus indicus</i> Hirst, 1915
11	Buthidae	<i>Charmus sinhagadensis</i> Tikader and Bastawade, 1983
12	Buthidae	<i>Compsobuthus andresi</i> Lourenco, 2004
13	Buthidae	<i>Compsobuthus atrostriatus</i> (Pocock, 1897)
14	Buthidae	<i>Compsobuthus rugosulus</i> (Pocock, 1900)
15	Buthidae	<i>Compsobuthus satpuraensis</i> Waghe, Gangalmale & Khandekar, 2022
16	Buthidae	<i>Hemibuthus crassimanus</i> (Pocock, 1897)
17	Buthidae	<i>Himalayotityobuthus alejandrae</i> Lourenco, 2003
18	Buthidae	<i>Himalayotityobuthus martensi</i> Lourenco, 1997
19	Buthidae	<i>Hottentotta jabalpurensis</i> Kovařík, 2007
20	Buthidae	<i>Hottentotta keralaensis</i> Aswathi, Sureshan et Lourenco 2016
21	Buthidae	<i>Hottentotta pachyurus</i> (Pocock, 1897)
22	Buthidae	<i>Hottentotta penjabensis</i> Kovařík, 2007
23	Buthidae	<i>Hottentotta reddyi</i> Lourenco, 2015
24	Buthidae	<i>Hottentotta rugiscutis</i> (Pocock, 1897)
25	Buthidae	<i>Hottentotta stockwelli</i> Kovařík, 2007

Sl.No.	Family	Species
26	Buthidae	<i>Hottentotta tamulus</i> (Fabricius, 1798)
27	Buthidae	<i>Hottentotta vinchu</i> (Mirza and Ambedker, 2019)
28	Buthidae	<i>Isometrus amboli</i> Sulakhe, Dandekar, Padhye et Bastawade, 2020
29	Buthidae	<i>Isometrus kovařiki</i> Sulakhe, Dandekar, Mukherjee, Pandey, Ketkar, Padhye et Bastawade, 2020
30	Buthidae	<i>Isometrus longitelson</i> Deshpande, Gowande, Bastawade & Sulakhe, 2022
31	Buthidae	<i>Isometrus maculatus</i> (DeGeer, 1778)
32	Buthidae	<i>Isometrus nakshatra</i> Ketkar, Deshpande, Sulakhe & Thakker, 2022
33	Buthidae	<i>Isometrus sankeriensis</i> Tikader & Bastawade, 1983
34	Buthidae	<i>Isometrus tamhini</i> Sulakhe, Dandekar, Padhye et Bastawade, 2020
35	Buthidae	<i>Isometrus thurstoni</i> Pocock, 1893
36	Buthidae	<i>Isometrus wayanadensis</i> Sulakhe & Grover, 2022
37	Buthidae	<i>Janalychas albimanus</i> Henderson, 1919
38	Buthidae	<i>Janalychas granulatus</i> (Mirza, 2020)
39	Buthidae	<i>Janalychas keralaensis</i> (Mirza, 2020)
40	Buthidae	<i>Janalychas laevifrons</i> Pocock, 1897
41	Buthidae	<i>Janalychas tricarinatus</i> (Simon, 1884)
42	Buthidae	<i>Lychas biharensis</i> Tikader & Bastawade, 1983
43	Buthidae	<i>Lychas hendersoni</i> (Pocock, 1897)
44	Buthidae	<i>Lychas hillyardi</i> Kovařik, 1997
45	Buthidae	<i>Lychas kamshetensis</i> Tikader & Bastawade, 1983
46	Buthidae	<i>Lychas kharpadi</i> Bastawade, 1986
47	Buthidae	<i>Lychas mucronatus</i> (Fabricius, 1798)
48	Buthidae	<i>Lychas nigristeris</i> (Pocock, 1899)
49	Buthidae	<i>Lychas rackae</i> Kovařik, 1997
50	Buthidae	<i>Lychas rugosus</i> (Pocock, 1897)
51	Buthidae	<i>Lychas scaber</i> (Pocock, 1893)
52	Buthidae	<i>Odontobuthus odonturus</i> (Pocock, 1897)
53	Buthidae	<i>Orthochirus bastawadei</i> Zambre, Mirza, Sanap, Upadhye & Javed, 2011
54	Buthidae	<i>Orthochirus bicolor</i> (Pocock, 1897)
55	Buthidae	<i>Orthochirus flavescens</i> (Pocock, 1897)
56	Buthidae	<i>Orthochirus fuscipes</i> (Pocock, 1900)
57	Buthidae	<i>Orthochirus krishnai</i> Tikader & Bastawade, 1983
58	Buthidae	<i>Orthochirus pallidus</i> (Pocock, 1897)
59	Buthidae	<i>Reddyanus aareyensis</i> Mirza & Sanap, 2010
60	Buthidae	<i>Reddyanus acanthurus</i> Pocock, 1899
61	Buthidae	<i>Reddyanus assamensis</i> Oates 1888
62	Buthidae	<i>Reddyanus brachycentrus</i> Pocock 1899
63	Buthidae	<i>Reddyanus corbeti</i> Tikader and Bastawade 1983
64	Buthidae	<i>Reddyanus khammamensis</i> Kovařik 2003
65	Buthidae	<i>Reddyanus problematicus</i> Kovařik 2003
66	Buthidae	<i>Reddyanus rigidulus</i> Pocock 1897
67	Buthidae	<i>Reddyanus vittatus</i> Pocock 1900
68	Buthidae	<i>Thaicarmus guptai</i> Mirza, Sanap et Kunte, 2016
69	Buthidae	<i>Thaicarmus indicus</i> Kovařik, 1995
70	Buthidae	<i>Thaicharmus lowei</i> Kovařik, Soleglad & Fet, 2007
71	Buthidae	<i>Vachonus inexpectatus</i> Lourenco, 2015
72	Buthidae	<i>Vachonus rajasthanicus</i> Tikader & Bastawade, 1983
73	Chaerilidae	<i>Chaerilus andamanensis</i> Lourenco, Duhem & Leguin, 2011

Sl.No.	Family	Species
74	Chaerilidae	<i>Chaerilus assamensis</i> Kraepelin, 1913
75	Chaerilidae	<i>Chaerilus dibangvalleycus</i> Bastawade, 2006
76	Chaerilidae	<i>Chaerilus insignis</i> Pocock, 1894
77	Chaerilidae	<i>Chaerilus pictus</i> (Pocock, 1890)
78	Chaerilidae	<i>Chaerilus tricostatus</i> Pocock, 1899
79	Chaerilidae	<i>Chaerilus truncatus</i> Karsch, 1879
80	Hormuridae	<i>Chiromachetes agasthyamalaiensis</i> Khandekar, Thackeray, Pawar, Gangalmale & Waghe, 2022
81	Hormuridae	<i>Chiromachetes fergusonii</i> Pocock, 1899
82	Hormuridae	<i>Chiromachetes parakrami</i> Sulakhe, Deshpande, Dandekar, Ketkar, Gowande, Padhye & Bastawade, 2020
83	Hormuridae	<i>Chiromachetes ramdasswamii</i> Sulakhe, Deshpande, Dandekar, Ketkar, Gowande, Padhye & Bastawade, 2020
84	Hormuridae	<i>Chiromachetes sahyadriensis</i> Mirza, Sanap et Zambre, 2015
85	Hormuridae	<i>Chiromachetes tirupati</i> Lourenco, 1997
86	Hormuridae	<i>Iomachus laeviceps</i> (Pocock, 1890)
87	Hormuridae	<i>Iomachus malabarensis</i> Pocock, 1900
88	Hormuridae	<i>Iomachus nitidus</i> Pocock, 1896
89	Hormuridae	<i>Iomachus punctulatus</i> Pocock, 1897
90	Hormuridae	<i>Iomachus surgani</i> Bastawade, 1986
91	Hormuridae	<i>Liocheles australasiae</i> (Fabricius, 1775)
92	Hormuridae	<i>Liocheles nigripes</i> (Pocock, 1897)
93	Hormuridae	<i>Liocheles schalleri</i> Mirza, 2017
94	Scorpiopidae	<i>Scorpiops asthenurus</i> (Pocock, 1900)
95	Scorpiopidae	<i>Scorpiopidae Scorpiops affinis</i> Kraepelin, 1898
96	Scorpiopidae	<i>Scorpiops bhutanensis</i> (Tikader & Bastawade, 1983)
97	Scorpiopidae	<i>Scorpiops braunwalderi</i> Kovařík, 2000
98	Scorpiopidae	<i>Scorpiops dastychi</i> Kovařík, 2000
99	Scorpiopidae	<i>Scorpiops deccanensis</i> (Tikader & Bastawade, 1983)
100	Scorpiopidae	<i>Scorpiops demisi</i> Kovařík, 2005
101	Scorpiopidae	<i>Scorpiops feti</i> Kovařík, 2000
102	Scorpiopidae	<i>Scorpiops furai</i> Kovařík, 2020
103	Scorpiopidae	<i>Scorpiops grosseri</i> Kovařík, 2020
104	Scorpiopidae	<i>Scorpiops hardwickei</i> (Gervais, 1843)
105	Scorpiopidae	<i>Scorpiops kamengensis</i> Bastawade, 2006
106	Scorpiopidae	<i>Scorpiops kejvali</i> Kovařík, 2020
107	Scorpiopidae	<i>Scorpiops leptochirus</i> Pocock, 1893
108	Scorpiopidae	<i>Scorpiops lioneli</i> Sulakhe, Deshpande, Dandekar, Padhye & Bastawade 2021
109	Scorpiopidae	<i>Scorpiops longimanus</i> (Pocock, 1893)
110	Scorpiopidae	<i>Scorpiops maharashtraensis</i> (Mirza, Sanap et Upadhye, 2014)
111	Scorpiopidae	<i>Scorpiops montanus</i> Karsch, 1879
112	Scorpiopidae	<i>Scorpiops neera</i> Sulakhe, Deshpande, Dandekar, Padhye & Bastawade 2021
113	Scorpiopidae	<i>Scorpiops nagphani</i> Sulakhe, Deshpande, Dandekar, Padhye & Bastawade 2021
114	Scorpiopidae	<i>Scorpiops pachmarhicus</i> Bastawade, 1992
115	Scorpiopidae	<i>Scorpiops petersii</i> Pocock, 1893
116	Scorpiopidae	<i>Scorpiops phaltaensis</i> (Sulakhe, Sayyed, Deshpande, Dandekar, Padhye et Bastawade, 2020)
117	Scorpiopidae	<i>Scorpiops rohtangensis</i> Mani, 1959
118	Scorpiopidae	<i>Scorpiops satarensis</i> (Pocock, 1900)
119	Scorpiopidae	<i>Scorpiops spitiensis</i> Zambre, Sanap and Mirza, 2014

Sl.No.	Family	Species
120	Scorpiopidae	Scorpiopidae <i>Scorpiops solidus</i> Karsch, 1879
121	Scorpiopidae	<i>Scorpiops telbaila</i> Sulakhe, Deshpande, Dandekar, Ketkar, Padhye & Bastawade, 2020
122	Scorpiopidae	<i>Scorpiops tenuicauda</i> (Pocock, 1894)
123	Scorpiopidae	<i>Scorpiops tryznai</i> Kovařík, 2020
124	Scorpiopidae	<i>Scorpiops vrushchik</i> Sulakhe, Deshpande, Dandekar, Padhye & Bastawade 2021
125	Scorpionidae	<i>Chersonesometrus bastawadei</i> , Prendini & Loria, 2020.
126	Scorpionidae	<i>Chersonesometrus beccaloniae</i> (Kovařík, 2004)
127	Scorpionidae	<i>Chersonesometrus fulvipes</i> (C.L. Koch, 1837)
128	Scorpionidae	<i>Chersonesometrus hendersoni</i> Prendini & Loria, 2020
129	Scorpionidae	<i>Chersonesometrus madraspatensis</i> (Pocock, 1900)
130	Scorpionidae	<i>Chersonesometrus nathanorum</i> Prendini & Loria, 2020
131	Scorpionidae	<i>Chersonesometrus pelekomanus</i> (Couzijn, 1981)
132	Scorpionidae	<i>Chersonesometrus shivashankari</i> Prendini & Loria, 2020
133	Scorpionidae	<i>Chersonesometrus tristis</i> (Henderson, 1919)
134	Scorpionidae	<i>Chersonesometrus wroughtoni</i> (Pocock, 1899)
135	Scorpionidae	<i>Deccanometrus bengalensis</i> (C.L. Koch, 1841)
136	Scorpionidae	<i>Deccanometrus liurus</i> (Pocock, 1897)
137	Scorpionidae	<i>Deccanometrus obscurus</i> (Couzijn, 1981)
138	Scorpionidae	<i>Deccanometrus phipsoni</i> (Pocock, 1893)
139	Scorpionidae	<i>Deccanometrus ubicki</i> (Kovařík, 2004)
140	Scorpionidae	<i>Deccanometrus xanthopus</i> (Pocock, 1897)
141	Scorpionidae	<i>Gigantometrus swammerdami</i> (Simon, 1872)
142	Scorpionidae	<i>Heterometrus longimanus</i> (Herbst, 1800)
143	Scorpionidae	<i>Heterometrus glaucus</i> (Thorell, 1876)
144	Scorpionidae	<i>Javanimetrus cyaneus</i> (C.L. Koch, 1836)
145	Scorpionidae	<i>Sahyadrimetrus barberi</i> (Pocock, 1900)
146	Scorpionidae	<i>Sahyadrimetrus kanarensis</i> (Pocock, 1900)
147	Scorpionidae	<i>Sahyadrimetrus mathewi</i> Prendini & Loria, 2020
148	Scorpionidae	<i>Sahyadrimetrus rugosus</i> (Couzijn, 1981)
149	Scorpionidae	<i>Sahyadrimetrus scaber</i> (Thorell, 1876)
150	Scorpionidae	<i>Sahyadrimetrus tikaderi</i> Prendini & Loria, 2020
151	Scorpionidae	<i>Srilankametrus caesar</i> (C.L. Koch, 1841)
152	Scorpionidae	<i>Srilankametrus couzijni</i> , Prendini & Loria, 2020
153	Rugodentidae	<i>Rugodentus keralaensis</i> Bastawade, Sureshan & Radhakrishnan, 2005

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**A.** *Buthacus agarwali* Zambre & Lourenco, 2010; **B.** *Hottentotta jabalpurensis* Kovařík, 2007 with babies; **C.** *Janalychas biharensis* (Tikader & Bastawade, 1983) with babies; **D.** *Janalychas tricarinatus* (Simon, 1884); **E.** *Gigantometrus swammerdami* (Simon, 1872) courtship; **F.** *Deccanometrus bengalensis* (C. L. Koch, 1841) courtship; **G.** *Chersonesometrus fulvipes* (CL Koch, 1837); **H.** *Liocheles nigripes* (Pocock, 1897) with babies