

Diversity of Spiders of Barwani Region, (Madhya Pradesh)

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Abstract:

This study is based on the diversity of spider of barwani region Madhya Pradesh. The spider were collected from first week of October 2014 to third week of April 2017, A total of 150 spider specimens were collected from Barwani district out of which 68 species were identified (with the help of dissection) belonging to 36 genera and 20 families. Spider specimens were mostly collected in winter session..

Keywords: Spider, study, Diversity.

Introduction:

The word diversity means number of living organism present on Earth, and is considered at Different biological levels including genes, species and ecosystems. Generally diversity refers to understood in terms of the number of species or other taxa and can be considered at different spatial scales such as Whittaker's definitions of alpha, beta and Gamma diversity. diversity is not distributed evenly over the world, leading to Myers Concept of biodiversity hotspots. (Dr Natasha de Vere, EDIT Summer School 2008 Modern Taxonomy and Field Work).

Study Area:

Barwani district is one of the district of Madhya Pradesh state. It is formed on 25th May 1998. District is situated between Latitudes 21°37' to 22°22' North and Longitudes 74°27' to 75°30' east. It is situated on the south-west side of Madhya Pradesh as well as Holy River Narmada is its northern border. District is surrounded by Satpuda (in South) and Vindhyaachal (in North) forest ranges.

Material and Methods:

Spider were collected from four different geographical places of barwani district with different collecting methods. After the collection, specimens were preserved in 70% alcohol in plastic vials. Few hours later photographs were taken to the specimen's and dissect out the specimens with the help of Steriozome microscope it were classified with the help of related literature. Including recent world spider catalog version 2017, and National & International research paper on computer database.

Results:

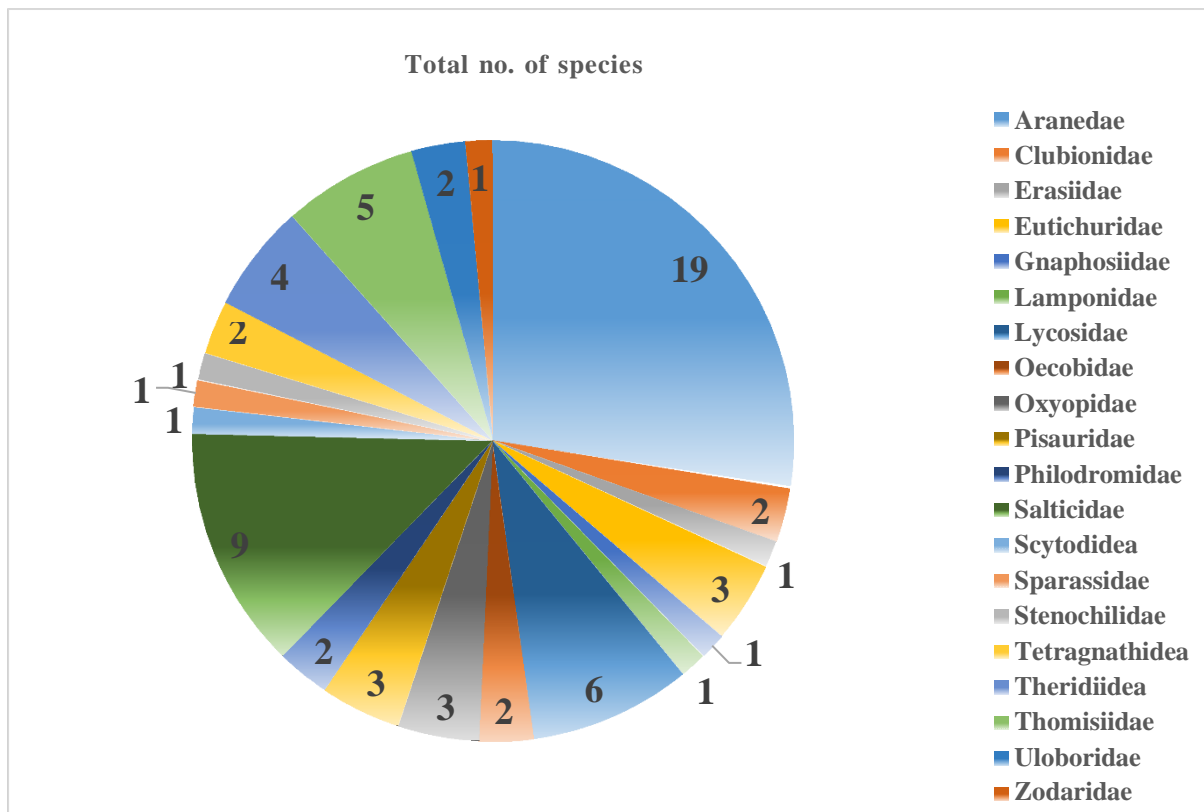
Spider specimens were mostly collected in winter session. The spider were collected from first week of October 2014 to third week of April 2017, A total of 150 spider specimens were collected from Barwani district out of which 68 species were identified (with the help of dissection) belonging to 36 genera and 20 families.

Checklist of Spider specimens from Barwani district (Madhya Pradesh) during 2014-2017

S.No.	Family Name	Species
1	Aranedae	1. Argiope aemula (Walckenaer, 1841) Female
		2. Argyrodes sp.Simon 1864 (female)
		3. Argyrodes sp.Simon 1864 (male)
		4. Araneus sp.(Female)

		5. Araneus sp. Unidentified.
		6. Araneidae Poltys sp. (C.L.Koch 1843) immature.
		7. Araneidae, Chlorizopes sp.immature
		8. Cyclosa hexatuberculata Tikader, 1982 (female)
		9. Cyrtophora citricola (Forsskål, 1775) (female)
		10. Cyrtophora sp. Simon 1864 (male)
		11. Cyrtarachne bengalensis, Tikader.
		12. Cyclolsa sp.
		13. Eriovixia hainanensis, 1990
		14. Neoscona nautica (L. Koch, 1875) Female
		15. Neoscona theisi (Walckenaer, 1841) Female
		16. Neoscona sp.
		17. Larina simon (1874)
		18. Thelacantha sp. (Holotype)
		19. Zygeilla sp. Tikader & Bal, 1980 (Male)
2	Clubionidae	1. Clubiona sp. Latreille, 1804 (Female)
		2. Clubiona sp. Latreille, 1804 (Male)
3	Eraisiidae	1. Stegodyphus Simon ,1873
4	Eutichuridae	1. Cheiracanthium sp. C.L.Koch, 1839 (Female)
		2. Cheiracanthium sp. C.L.Koch, 1839 (Male)
5	Gnaphosiidae	1. Haplodrassus sp.
6	Lamponidae	1. Lamponidae, Platnick, 2000 (Female)
7	Lycosidae	1. Evippa sp.Simon, 1882 (Female)
		2. Evippa sp. Simon, 1882 (Male)
		3. Hippasa,Pisaurina , Pocock 1900 (Female)
		4. Hippasa partita, O.LP. Cambridge, 1876 (Female)
		5. Pardosa sumatrana, Thorell, 1890 (Female)
		Pardosa burasantiensis, Tikader & Malhotra 1976 (Female)
8	Oecobiidae	1. Oecobius sp.Lucas, 1846 (Male, immature)
		2. Oecobius Sp. Lucas, 1846 (female)
9	Oxyopidae	1. Oxyopes Bharatae, Gajbe,1999
		2. Oxyopes Pankaji (Gajbe & Gajbe), 2000
		3. Oxyopes sp.Latreille,1804 (Male)
10	Pisauridae	1. Dendrolycosa sp.Doleschall, 1859 (Female)
		2. Hygropoda sp. Thorell, 1894,(female)

		Thalassius sp.nov. sen.Saha, Raychoudhari, 2010 (Female)
11	Philodromidae	1. iPhilodromus sp.walkenaer 1826 (Male)
		2. Philodromus sp.walkenaer 1826 (Female)
12	Salticidae (Jumping spider)	1. Hasarius sp. Simon, 1871 (Female)
		2. Hasarius sp. Simon, 1871 (Male)
		3. Menemerus sp. Simon, 1868 (Male)
		Myrmarachne plataleoides (O. P.-Cambridge, 1869) Female
		5. Phintella sp.
		6. Salticidae golden Brown Male
		7. Plexippus Paykulli, Audouin, 1826 (Male)
		8. Plexippus Paykulli, Audouin, 1826 (Female)
		9. Telamonia sp. Simon
13	Scytodidae	1. Scytodes sp.Latreille,1804 (Female)
14	Sparassidae	1. Olios sp. Walcknaer 1837 (Male)
15	Stenochillidae	1. Stenochilus crocatus ,simon 1884 (Female)
16	Tetragnathidae	1. Tetragnatha sp. Latreille,1804 (Male)
		2. Leucauge sp. White, 1841 (Female)
17	Therididae	1. Ariamnes Sp. Thorell, 1869 (female)
		2. Ariamnes Sp. Thorell, 1869 (male)
		3. Theridion sp.nov.walckenaer, 1805 (Female)
		4. Rhomphaea sp. L.Koch ,1872 (Male)
18	Thomosidae	1. Tmarus sp. Simon, 1875 (Female)
		2. Tmarus sp. Simon, 1875 (Male)
		3. Misumena sp. Latreille, 1804 Female
		4. Oxylate greenae (Tikader, 1980) Female
		5. Xysticus sp.
		1. Philoponella mello-Leitao 1917 (Female)
19	Uloboridae	2. Uloborus Sp. Latreille, 1806 (male)
20	Zodariidae	1. Zodariidae Thorell, 1881 (Male)



Acknowledgements

I would like to thank to my guide **Prof. (Dr.) Ravindra R. Kanhere, Pro Vice Chancellor of Indira Gandhi Open University, Delhi**, who had given best guidance, support to conduct my research work. And also thankful to **Dr. N.L.Gupta Principal of Govt. S.B.N. P.G. College Barwani** who had permit I to conduct my research work in Zoology research Laboratory and providing required facilities.

References

1. Arjun Shukla et al., "Preliminary study on faunal diversity of spider around river narmada, Jabalpur division (Madhya Pradesh)" international journal of current research vo 7, issue, 12, pp.23487-23489, December, 2015.
2. Anis Joseph R, Premila K.S "A study on the richness of spider fauna in rice ecosystem" Journal of Entomology and Zoology Studies 2016; 4(2): 425-430.
3. Akashay chakravarty "Spider diversity, distribution and conservation" Spinger science and business media singapoor"DOI: 10.1007/978-981-10-1518-2_8.
4. A.M. Heilingand M.E. Herberstein "Predator-prey coevolution: Australian native bees avoid their spider predators" Proc. R. Soc. Lond. B (Suppl.) 271, S196-S198 (2004) S196, 2004 The Royal Society DOI 10.1098/rsbl.2003.0138
5. B.M. Parmar et al. "Study of Spider Diversity from Vadnagar" lifesciences Leaflets ISSN No 2277 4297(print) 976 1098(online).
6. Banerji, D. K.; Nanda, P. K.; Bera, P. K. and Sen, S. C. "Seasonal abundance of some important spider groups in rice agro-ecosystem" Records of Zoological Survey of India 93(1-2): 275-281, 1993.
7. Banks, N. "New genera and species of near arctic spiders. Journal of the New York Entomological Society 12: 109-119. (1904).
8. Cambridge, F. O. P. "On a new spider from Calcutta" Annals and Magazine of Natural history (6) 10: 417-419 (1892).
9. Cambridge, O. P. "Araneida. In scientific results of the second Yarkand mission Calcutta": 1-115 (1885).
10. David H. Wise, "Predation by a commensal spider, argyrodes trigonum, Upon Its Host:

- An Experimental Study” J. Arachnol., 10:111-116, 1982.
11. Edmunds, M. & Prószyński, J. “On a collection of Myrmarachne spiders (Araneae: Salticidae) from peninsular Malaya.” Bulletin of the British Arachnological Society 12: 297-323. (2003).
 12. Franzini, P. Z. N., et al. “Combined analyses of genetic and morphological data indicate more than one species of Cyrtophora (Araneae: Araneidae) in South Africa” International Journal of Modern Biological Research 1: 21-34 (2013).
 13. G.Vankhede et al. “Spiders; Diversity, Distribution and Conservation” Springer Science and Business media Singapore. (2016)
 14. Ganesh Vankhede “WHY SPIDERS?” Indian Journal of Arachnology 5 (1-2): 17 December, (2016)
 15. Ganesh Vankhede “Diversity of Spiders and the free Economic Services by Them” National Conference on Biodiversity: Status and Challenges in Conservation - ‘FAVEO’ (2013)