GLOBAL RESEARCH ANALYSIS

ISSN No 2277 - 8160

Listed & Indexed with

ISSN Directory, Paris



Multi-Subject Journal

Volume : 1 | Issue : 2 | July 2012 | ₹ 250/-

GLOBAL RESEARCH ANALYSIS

ISSN No 2277 - 8160

GLOBAL RESEARCH ANALYSIS

Editor In-Chief :

Dr. Khansa Memon
SARA Publishing Academy

Dr. Ashok S. Pawar Associate Professor, Dept. of Economic Dr. Babaasaheb Ambedkar Marathwada.University, Aurngabad.(MS-India)-431004	**Dr.(Prof) Vijay Kumar Soni** Principal, Jai Meenesh College, Phagi, Jaipur, Rajasthan	**Dr. A.R. Saravankumar** Assistant Professor in Education DDE, Alagappa University, Tamilnadu
Dr. R. Ramachandran Commerce DDE Annamalai University Tamilna	**Dr. R Ganpathy** Assistant Professor in Commerce Directorate of Distance Education Alagappa University Karaikudi.	**Dr. Amit Bandyopadhyay** Assistant Professor Department of Physiology University of Calcutta
Dr. V. Kumaravel Professor and Head Vivekanandha Business School for Women Tiruchengode, Namakkal Dist	**Dr. K. Prabhakar** Professor, Department of Management Studies, Velammal Engineering College, Chennai - 600 066.	**Dr. Sunita J. Rathod** Maharashtra Education Service Group-B DIET Dist. Jalna

SUBSCRIPTION DETAILS

Period	Rate	Discount	Amount Payable
One Year (12 issues)	3000/-	Nil	3000/-
Two Years (24 issues)	6000/-	200/-	5800/-
Three Years (36 issues)	9000/-	300/-	8700/-
Five Years (60 issues)	15000/-	600/-	14400/-

You can download the Subscription form from website www.theglobaljournals.com. You will require to print the form. Please fill the form completely and send it to the Editor, GLOBAL RESEARCH ANALYSIS along with the payment in the form of Demand Draft/Cheque at Par drawn in favour of GLOBAL RESEARCH ANALYSIS payable at Ahmedabad.

- Thoughts, language, vision and examples in published research paper are entirely of author of research paper. It is not necessary that both the editor, and editorial board agrees with the author. The responsibility of the matter of research paper/article is entirely of author.
- Editing of the Global Research Analysis is processed without any remittance. The selection and publication is done after recommendations of atleast two subject expert referees.
- In any condition if any National/International University denies accepting the research paper published in GRA, then it is not the responsibility of Editor, Publisher and Management
- Only the first author is entitle to receive the copies of all co-authors
- Before re-use of published paper in any manner, it is compulsory to take written permission from the Editor-GRA unless it will be assumed as disobedience of copyright rules
- All the legal undertaking related to Global Research Analysis is subject to Ahmedabad Jurisdiction.
- The research journal will be send by normal post. If the journal is not received by the author of research paper then it will not be the responsibility of the Editor and publisher. The amount for registered post should be borne by author of the research paper in case of second copy of the journal.

Editor,
GLOBAL RESEARCH ANALYSIS
3, SUHANA, Near. Ruby Apartment, B/h NID, Rajnagar Road, Paldi Ahmedabad – 380007. Gujarat (INDIA)
Cell : +91 98247 02127, 8866 00 3636

INDEX

Sr. No.	Title	Author	Subject	Page No.
1	Application of One Way ANOVA and Tukey's HSD Post Hoc test to Ecological Data	T B Mruthunjay, Dr. Shankar P Hosmani	Biotechnology	1-3
2	"New Area and Management Through Value Based"	Dr. Pankaj. K. Trivedi	Commerce	4-5
3	E-Supply Chain Strategies	Dr. Vipul Chalotra	Commerce	6-7
4	Socio-economic and Cultural factors in health, health services and prevention: An over view	Jaibarath Mageshkar	Economics	8-9
5	A Discriminant Analysis on Demographic Factors and Satisfaction Level of Credit Card Users in Coimbatore City	Dr.Malarvizhi.V	Economics	10-12
6	Effects of Socio-Cultural Determinants on Fertility	Prof. Dr. K.J. Thankachan	Economics	13-15
7	"Need of Effective Communication Model in Teaching Learning Process"	Dr. Mujibul Hasan	Education	16-18
8	Awarness on Special Education for B.Ed Students	Dr. S. K. Panneer Selvam	Education	19-20
9	Quality Improvement in Elementary Teacher Education	Ramesh B. Sakhiya	Education	21-22
10	Mobile operating system: A Case study on Symbian and Android	Vidyasagar S.D.	Engineering	23-25
11	IIR Filter Design to remove noise from ECG signal	Aarti J Patel	Engineering	26-28
12	Assessment of Godavari River Water For Sustainable Utilization.	I. B. Ghorade, S. S. Patil, M.D. Wagh	Environment Science	29-32
13	Shiksha, Saksharta aur Media	Dr Subodh Kumar	Journalism	33-34
14	Television Viewing Behaviour of Rural Women	Dr. H.Ramakrishna	Journalism	35-36
15	Female Foeticide and PNDT Act: Issues and Challenges	Dr. Anu, Dr. Pawan Kumar	Law	37-38
16	Product Invasion from foreign Competitors Whether Indian Product will win this Competition?	Dr. Ashish Singh	Management	39-40
17	"Role of State Wise Employment Exchanges on Condition That Employment In India."	Mr. Vimal P. Jagad	Management	41-43
18	A Study for The Growth of Micro, Small, Medium Service Enterprises Thorugh Tourism Development	Prof. Nikita Gupta, Prof. Parag Gadve, Prof. Farha Hussain	Management	44-45
19	To Study The Need of Capacity Building for Rural Tourism	Prof. Parag Gadve, Prof. Nikita Gupta, Prof. Farha Hussain	Management	46-47
20	CRM and Information Technology	Prof KVSN Jawahar Babu	Management	48-49
21	Strategies for Seizing Rural Markets- A Checklist for Fmcg Firms	Prof KVSN Jawahar Babu, N Meena Rani	Management	50-52
22	Implementation of Adaptive Controller based on FPGA for Flow System	Ankit V Bhaiya, Prof. Vandana V. Patel	Management	53-55
23	"A Study of Evaluation of Operating Performance of Selected Mutual Fund in Global Era"	Mital R Menapara, Bhavesh P Chadamiya	Management	56-57
24	"Remarks on the Measurement, Valuation and Reporting of Intangible Assets"	Dinesh C. Dhoniya	Management	58-59

Sr. No.	Title	Author	Subject	Page No.
25	Corporate Social Responsibility: Micro and Macro level	Parul Jain	Management	60-61
26	Role of Management Schools in Transformation of Rural India	Dr. H.Ramakrishna	Management	62-64
27	A Study on Customer Experience in Modern Retail Stores with Reference to Big Bazaar, Hyderabad	N Meena Rani	Management	65-67
28	Impact of Satellite Television on Adolescent Girls of Silchar Town in Southern Assam	Dr Partha Sarkar	Mass Communication	68-70
29	Quality Assurance Procedure for Computerised Tomography Scanners(Test Followed In India)	Suresh Sukumar, Sushil Yadav	Medical Science	71-74
30	Magnetic Resonance Imaging of Routine shoulder protocols	Suresh Sukumar, Sushil Yadav	Medical Science	75-76
31	A Simple Teaching Module for Brain Sections: Integration of Traditional Teaching Methods and Modern Computer Technology.	Dr. Archana U. Shekokar, Vandana A. Tendolkar	Medical Science	77-78
32	Effects of Mand Training on Negative Behaviours and Verbal Behaviour Development: A Case Study	Prasanna V, Sunila John, B Rajashekhar	Medical science	79-81
33	Effectiveness of Videotaped/Photographs in Teaching Handling Techniques for Caregivers of Children with Spastic Cerebral Palsy	V.Guruprasad, KR.Banumathe, T. BalaKrishnan	Medical Science	82-84
34	Comparision of Thresholds of Single Frequeny and Muti Frequency Auditory Steady State Responses in Normal Hearing Adults	Sadanand Gore, Hari Prakash P	Medical Science	85-87
35	Clinical applications of Speech Evoked Cortical Auditory Potentials (SECAPs) in Pediatric Hearing assessment & Aural habilitation- A case report	Ayas Muhammed, Archana, Kishan, Hariprakash, Prajakta Prabhu	Medical science	88-89
36	Rudimentary horn pregnancy: A Case Report	Dr Ashwini Avinash Yelikar , Dr Vidya Vijender Ambatkar, Dr Kishore Hol, Dr G S Shekhawat	Medicine Science	90-91
37	A rare case: Typhoid fever with ARDS	Dr. Ramakrishna Ghubde, Dr. Archana Shekokar	Medicine Science	92-93
38	Motivation, Well-Being & Adjustment of Economic Downturn Survivors: An Empirical Study in a Manufacturing Industry	Vijaya.R, Dr.M.Y.Manjulat	Psychology	94-96
39	Diversity of cladocerans, copepods and ostracods of Kapsi Lake Kapsi, Akola (MS) India	P. P. Ade	Zoology	97-100
40	Study of macromolecular contents of different tissues of Channa punctatus under stress condition	Pooja S. Thakur	Zoology	101-102
41	Spider diversity of Katepurna Sanctuary District Akola (MS) India	Shegokar M.M.	Zoology	103-106

Volume : 1 | Issue : 2 | July 2012 • ISSN No 2277 - 8160

Research Paper Zoology

Spider diversity of Katepurna Sanctuary District Akola (MS) India

Shegokar M.M. Department of Zoology Shri Shivaji College , Akola

ABSTRACT

Spider diversity were studied during July 2011 to March -2012. During investigation 16 families 37 genera and 74 species were recorded from Katepurna Sanctuary . Prominent among them Salticidae (24%) Araneidae (19%) thombicidae (14%) and Lycosidae(5%) and Oxipidae (5%) were recorded from different area of Katepurna wild life sanctuary . Family ,generic and species diversity were observed .

KEYWORDS: Katepurna Sanctuary, spider diversity

Introduction

Spiders are predatory invertebrate animals that have two body segments, eight legs, no chewing mouth parts and no wings, air-breathing. They are classified in the order Araneae of the class Arachnida of the phylum Arthropoda. Spiders play an important role in stabilizing or regulating insect populations because they are one of the most numerous insectivores and exhibit a wide variety of lifestyles and foraging strategies. Additionally, spiders are an important food source for birds, lizards, wasps and other animals. The current global list of spider fauna is approximately 42,055 belonging to 3821 genera and 110 families (Platnick, 2011). The spider fauna of India is represented by 1520 spider species belonging to 377 genera and 60 families (Sebastian and Peter, 2009). Uniyal (2006) recorded a total of 19 species of spiders belonging to 10 families from Indian-Trans Himalayan region. Centre for Indian Knowledge System, Chennai has also conducted ecological studies of spiders in a cotton agro ecosystem of Guindy National Park. De (2001) listed 19 species of spider from Dudhwa Tiger Reserve in his management plan. Hore and Uniyal (2008a, 2008b) worked on the spider assemblage and the diversity and composition of spider assemblages in different vegetation types in Terai Conservation Area (TCA). Hore and Uniyal (2008) worked on spiders as indicator species for monitoring of habitat condition in TCA. Uniyal and Hore (2008) also studied on the effect of prescribed fire on spider assemblages in TCA. Biswas and Biswas (2004) contributed significantly to spider diversity by rendering comprehensive lists of new recorded spider species from Manipur and West Bengal. Siliwal, et al. (2005) prepared an updated Checklist of Indian spider and provided taxonomic reevaluation of described species, referred 1442 species belonging to 361 genera of 59 families from the Indian Region. Of the 1442 species, 1002 were endemic to the Indian mainland.

Quasin and Uniyal (2010) studied spider diversity from Kedarnath wildlife Sanctuary Recently, Vairale and Vankhede (2010) reported 517 spider species from Melghat Sanctuary. The knowledge on diversity and distribution of spiders in other sanctuaries is sparse as compared to other sanctuaries of the India listed above. Hence, it was felt to explore spider diversity in the Katepurna Sanctuary.

Materials and Methods

Collection:

Study area: Katepurna (20°25'0.54"N 77°10'50.14"E)WLS is spread over the 211.00 Sq.Km. areas and is in Mangarulpir and Malegaon Tahasils of Washim district. The river Katepurna flows through the sanctuary. The present study is undertaken since July 2011 to February 2012 to make checklist of families, genera and species of spiders in Katepurna Sanctuary. This is the only preliminary study; still the study is in progress. In near future, more faunal surveys are planned to study in detail the spider diversity.

Spider fauna was collected from Katepurna sanctuary (Yedashi bit, Wanoja bit, Phetra bit and from Wagha bit). Following methods are used for the collection of spider. Spiders were collected from different parts of Katepurna sanctuary with the help of insects nets, pitfall trap, stroking sticks umbrellas were used. Selected specimens were preserved in 70% alcohol, labeled and identified according to Tikader (1962,1973,1982). Before preservation the photographs were taken in different views to get the clear eye position pattern and shades of cephalothoraxes and abdomen, hair and spines pattern etc.

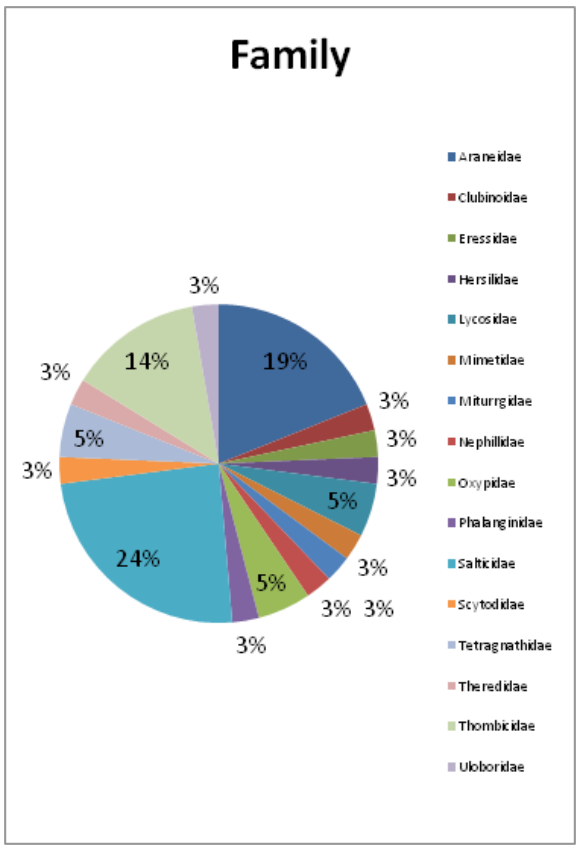
Identification:

Identification was done on the basis of morphometric characters of various body parts. They help was mainly taken from the keys and catalogues provided by Kaston (1978), Tikader and Biswas (1981),Tikader(1982), Davies and Zabka (1989), Plantnick (1989), Biswas and Biswas (1992), Barrion and Litsinger (1995), Gajbe (1987), Nentwig et al.(2003), Platnick (2004), and Vankhade et al (2008).

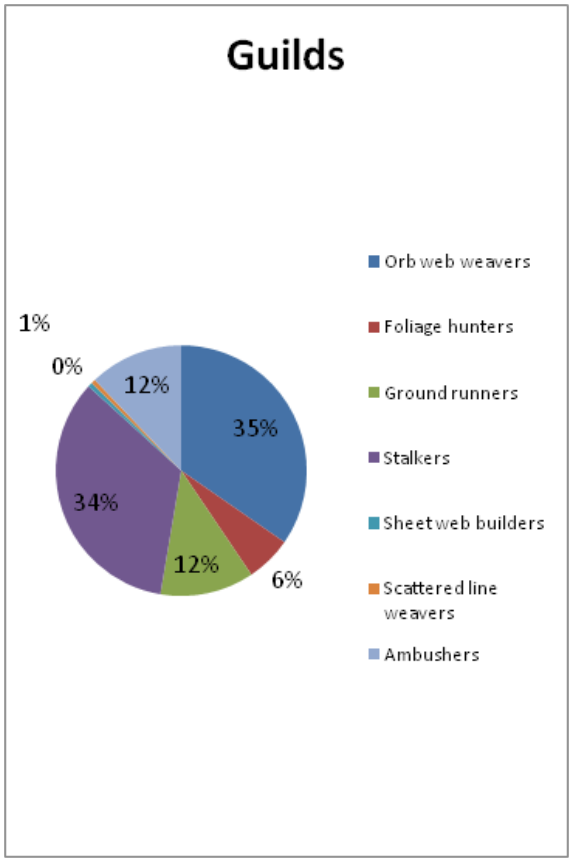
Result and Discussion

Table:-1. Spider families, genera and species recorded from Katepurna wild life Sanctuary (Vidharbha , India) during 2011 – 2012.

Sr. No.	Family	Genera	Species	Individuals	Guild
1	Araneidae	7	21	58	Orb web weavers
2	Clubinoidae	1	3	18	Foliage hunters
3	Eressidae	1	2	32	Orb web weavers
4	Hersilidae	1	1	1	Foliage hunters
5	Lycosidae	2	7	41	Ground runners
6	Mimetidae	1	1	2	Foliage hunters
7	Miturrgidae	1	1	1	Foliage hunters
8	Nephillidae	1	1	5	Orb web weavers
9	Oxyopidae	2	6	30	Stalkers
10	Phalanginidae	1	1	2	Ground runners
11	Salticidae	9	13	91	Stalkers
12	Scytodidae	1	1	2	Foliage hunters
13	Tetragnathidae	2	5	20	Orb web weavers
14	Theredidae	1	1	2	Scattered line weavers
15	Thomicidae	5	9	43	Ambushers
16	Uloboridae	1	1	8	Orb web weavers
	Total			354	



Graph:-1 Percent occurrence of spider species from Katepurna Wild life Sanctuary.



Graph :- 2 Guild structure of spiders collected from Katepurna Wildlife Sanctuary, India.

Table 2. Checklist of spiders collected from Katepurna wild life Sanctuary Sanctuary, India.

Family	Genus species	Individual	% Occurrence
	Aculepeira ceropegia Male	5	1.41%
	Agalenatea redii	1	0.28%
	Araneus marmoreus	1	0.28%
	Araneus mitificus	2	0.56%
	Araneus sp.	1	0.28%
Araneidae	Argiope pulluchella	5	1.41%
	Cyclosa sp	4	1.12%
	Cyclosa bifida	3	0.84%
	Cyclosa insulana	5	1.41%
	Cyclosa moonduensis	2	0.56%
	Cyclosa neilensis	4	1.12%
	Eriophora transmarine	2	0.56%
	Neoscona arabesca	2	0.56%
	Neoscona sp.	2	0.56%
	Phonognatha graeffei F	6	1.69%
	Phonognatha graeffei M	2	0.56%
	Phonognatha sp.	4	1.12%
	Unidetified	3	0.84%
	Zygeilla x – notate	2	0.56%
	Zygeilla sp1	1	0.28%
	Zygeilla sp2	1	0.28%
Clubinoidae			
	Clubiona sp	3	0.84%
	Clubiona recluse Female	10	2.82%
	Clubiona recluse male	5	1.41%
Eressidae			
	Stygodyphus sp 1	2	0.56%
	Stygodyphus sp2 (Male , female)	30	8.47%
Hersilidae			
	Hersilia sp	1	0.28%
Lycosidae			
	Lycosasp 1	2	0.56%
	Lycosasp 2	3	0.84%
	Lycosasp 3	4	1.12%
	Lycosasp 4	1	0.28%
	Paradosa sp 1	10	2.82%
	Paradosa sp 2	12	3.38%
	Paradosa sp 3 (female ,male)	9	2.54%

Mimetidae			
	Mimetus sp	2	0.56%
Miturrgidae	Cheiracanthium sp	1	0.28%
Nephillidae	Nephila sp (male female)	5	1.41%
Oxypidae			
	Hamataliwa sp	7	
	Oxyopes macilentus	4	1.12%
	Oxyopes sp1 male ,female	5	1.41%
	Oxyopes sp 2	3	0.84%
	Oxyopes sp 3	6	1.69%
	Oxyopes salticus	3	0.84%
Phalanginidae	Daddy longleg spider	2	0.56%
Salticidae			
	Hasarius adansoni Male female	10	2.82%
	Marpissa sp1	2	0.56%
	Marpissa sp2	25	7.06%
	Myrmarachne sp	7	1.97%
	Opisthoncus sp.1	2	0.56%
	Opisthoncus sp.2	2	0.56%
	Otiosus sp	3	0.84%
	Phidippus regius	3	0.84%
	Phidipus sp1		
	Phintella vittata (male Female)	12	3.38%
	Plexippus paykulli (male female)	8	1.41%
	Plexippus petersi (male female)	5	2.24%
	Telamonia dimidiata (Male female)	12	3.38%
Scytodidae	Scytodes sp	2	0.56%
Tetragnathidae			
	Leucauge blanda	6	1.69%
	Leucauge magnifica (male ,female)	5	1.41%
	Leucauge sp 1	4	1.12%
	Leucauge sp2 (male female)	2	0.56%
	Tetragnatha versicolar	3	0.84%
Theredidae	Achaearanea lunata	2	0.56%
Thombicidae			
	Diaea sp	2	0.56%
	Misumenops tricuspidatus	2	0.56%
	Misumessus oblongatus	4	1.12%
	Oxytate sp	5	1.41%
	Runcinia acuminate	6	1.69%
	Runcinia albostriata	2	0.56%
	Runcinia sp 1	2	0.56%
	Thomisus sp	20	5.64%
Uloboridae	Uloborus sp	8	2.24%
	Total 354		

Results

Present study on spider diversity were made during 2011- 2012 in Katepurna wild life sanctuary vidharbha, India. Spiders representing 16 families, 37 genera and 74 species were recorded from sanctuary during the study (Tables 1, 2 and fig. 1- 82). This represents 26.66 % of the total families reported from India (Sebastian and Peter, 2009). Araneidae was the dominant family constituting 21 species from 7 genera. The Salticidae was represented by 13 species from 9 genera. On species level, Phonognatha graeffei and Cyclosa insulana was the dominant species. Guild structure analysis revealed seven feeding guilds (Uetz et al. 1999). These are orb web weavers, stalkers, ground runners, foliage hunters, sheet web builders, scattered line weavers and ambushers (Table1).Orb web weavers constituted the dominant feeding guild representing 35 % of the total collection (Graph 2). They are followed by stalkers, foliage hunters and Ambushers constituting 34 %, 12% and 12% respectively of the total catch.

This study brought out the fact that Katepurna wild life sanctuary, the natural forest in Akola and Washim district which is on the verge of destruction due to rapid Agricultural industrial and development, is an abode of spiders in addition to the multitude of migratory birds nesting in this dry deciduous forest. This rich diversity of spiders is also indicative of the overall biodiversity of this sanctuary since spiders are considered to be useful indicators of the species richness and health of terrestrial ecosystems (Noss 1990) and amply emphasizes the need for preserving this forest patch intact from a biodiversity conservation perspective.

Most of the spiders from Araneidae are inhabitants of shrubs and grasses. In Neoscona abdominal variations are noted with respect to colour patterns. The genus Argiope, commonly known as "Signature spider" is mostly found in orb web built in grasses and sometimes webs are built on shrubs like Lantana camera. Spiders belonging to the families, Tetragnathidae, inhabit river and stream beds in Sanctuary. Spiders from Tetragnathidae are found to feed on insect larvae. They are seen sitting on their single silk thread which extends from exposed stone to nearby stone in the river bed. During rest, they are seen hanging in a straight line with extended legs parallel to silk thread.

The spiders collected in the largest numbers were Stygodyphus sp2 (8.47%) of total collection), Marpissa sp2 (7.06%), , Thomisus sp (5.64%). Paradosa sp 2 and Telamonia dimidiata (3.38%), Hasarius adansoni , Paradosa sp1,and Clubiona recluse (2.82%), Paradosa sp 3 (2.54%), and Uloborus sp and Plexippus paykulli, (1.41%) Table 2 . The major component of the spider population found in this ecosystem was the family Araneidae composed mainly of Aculepeira ceropegia, Argiope pulluchella, Phonognatha graeffei and the family Salticidae mainly composed of Marpissa sp2, Phintella vittata and Telamonia dimidiata. Besides the above, Thombicidae and Lycosidae were found in relatively large numbers. The families Salticidae and Araneidae constituted 24% and 19%, while Thomicidae and oxiopidae constituted 14 % and 5% of the total collection (Graph1).

Functional groups: The collected spiders can be divided into six functional groups (guilds) based on their foraging behaviour in the field (Uetz et al. 1999). The dominant guild was of the orb web builders (Graph 2) and it comprised of 30 species of spiders. Spiders of the families Araneidae, Tetragnathidae and Uloboridae fall under this category. Spiders of the category ground runners formed the next dominant guild in this ecosystem comprising of 13 species of spiders. Foliage runners (12 species), ambushers (8 species), scattered line weavers (6 species) and sheet web builders (3 species) are the other functional groups.

Family diversity: Out of the 60 families recorded in the Indian region, 16 families are discovered in Katepurna wild life sanctuary. This represents 26.66v % of the total families recorded in India. Araneidae was the dominant family in this biome, which is composed of 21 species of

7 genera. Salticidae was the next dominant family with 13 species of 9 genera, Lycosidae (7 species) and Thomisidae (8 species) was the order of dominance of the other major families in this ecosystem.

Generic diversity: Out of the 252 genera recorded from the Indian region (Siliwal et al. 2005), 37 genera are discovered in Katepurna sanctuary. Maximum generic diversity was found in Salticidae (9), Araneidae (7), and Thomisidae (5). The number of genera recorded here is higher than that of other major Indian spider studies viz., Wan wild life sanctuaryy- 30 genera (Bhatakar 2011),Andaman and Nicobar islands – 33 genera(Tikader1977), Hingolgarh Nature Education Sanctuary, Gujarat-34 genera Patel (2001),and lower than that of Sikkim – 41 genera and Calcutta – 47 genera (Tikader 1970,Tikader, Biswas 1981), Mannavan shoal – 57 genera (Sudhikumar et al. 2005), Mangalavanam forest Kochin -51 genera (Sebastian 2005), Madhya Pradesh and Chhattisgarh -69 genera (Gajabe 2003), Parabikulum Wildlife Sanctuary, Kerala-53 genera Patel (2003),Toranmal wildlife sanctuary -55 genera (Meshram 2011). Genera such as Araneus (Araneidae); Marpissa, Phintella, Telamonia (Salticidae); Lycosa, Paradosa (Erresidae); Oxyopes , Hamataliwa (Oxiopidae); Runcinia, Misumenops and Thomisu (Thomisidae) and Uloborus (Uloboridae) are frequently recorded in Katepurna wild life Sanctuary.

Species richness: A total of 74 species are discovered from a limited area of 20 km2. This number is very high compared with other regions like Andaman and Nicobar islands – 65 species, Sikkim – 55 species and Calcutta – 99 species (Tikader 1970, 1977 and Tikader, Biswas 1981). The above three studies were conducted over a period of one to two years while the present study was limited to five days.

Affinities: The present studies conducted in Katepurna wild life sanctuary revealed that the spider fauna of this ecosystem bears affinities with Oriental and Palearctic regions. The presence of species like Cyclosa bifida (Araneidae); Leucauge decorata and Nephila clavata (Tetragnathidae) bears oriental affinities. A small fraction of species, namely Araneus mitifica (Araneidae) show Palearctic affinities. Affinities with the island fauna of Sri Lanka are also pronounced. Argiope pulchella, Cyclosa insulana (Araneidae) are some of the species having Srilankan affinities discovered from Katepurna sanctuary .

Faunal similarity: Faunal similarity of spiders found in Katepurna sanctuary with other regions of India is also striking. Araneus mitificus (Araneidae); Telamonia dimidiate (Salticidae) and Nephila clavata (Nephilidae) are species commonly found in the spider fauna of Andaman and Nicobar islands (Tikader 1977). Species like Cyclosa insulana (Araneidae); Oxyopes sp (Oxyopidae); Leucauge decorata, (Tetragnathidae). Argiope pulchella (Araneidae); Leucauge decorata (Tetragnathidae); Phintella vittata and Telamonia dimidiate (Salticidae) are also found in Calcutta (Tikader 1981).Spider fauna of katepurna shows great similarities with above mention region .

Discussion

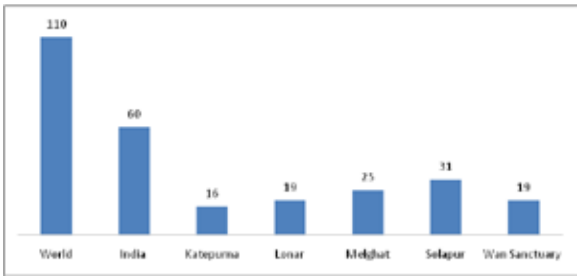


Fig. 3. Comparision of Spider Families of Katepurna wild life Sanctuary in Maharashtra with world, India,Lonar,Melghat Amravati region, Solapur, and Wan Sanctuary.

Present study was an attempt to record spider fauna from Katepurna wild life sanctuary in view of previous reports published by Tikader B.K. (1974) reported 14 families from different region of Maharashtra ; Hipargi et al. (2011) recorded 19 families from Lonar Crater Sanctuary, 25 from Melghat Sanctuary and 31 from Southern Tropical Thorn Forest and Meshram (2011) enlisted 20 families from Toranmal sanctuary and Bhatkar (2011) reported 19 families from Wan wild life Sanctuary.

The current global list of spider fauna is approximately 42,055 belonging to 3821 genera and 110 families (Platnick, 2011). The spider fauna of India is represented by 1520 spider species belonging to 377 genera and 60 families (Sebastian and Peter, 2009).Of about 1520 species reported from India (Sebastian and Peter, 2009), 74 species have been recorded from Katepurna sanctuary. It can be assumed that a high floral diversity sustains a high faunal diversity by providing diverse microhabitat especially for invertebrates. Unlike other ecologically important zones, there is no previous work to compare the spider diversity on this sanctuary. This indicates the need for further sampling in this area. Because of the complex interaction of various climatic factors like high rainfall and humidity, with topographical features Katepurna holds many smaller but diverse environmental niches. The presence of diverse habitats like forests, bushes and grasslands in this ecosystem is further evidence to this. This makes Katepurna an important centre of speciation in Satpuda region.

REFERENCES

1. Biswas, B. and K. Biswas, 2004. Araneae: Spiders. In: Fauna of Manipur, State Fauna Series10, Zoological Survey of India: 25-46.Barrion A. T., J. A. Litsinger 1995. Riceland spiders of South and Southeast Asia. CAB International, Wallingford, England, 736 p. | 2.Biswas, B. and K. Biswas. 1992. Fauna of West Bengal (Araneae: Spiders), State Fauna Series, 3: 357-500. | 3.Hore, U. and V.P. Uniyal, 2008. Use of Spiders (Araneae) as Indicator for Monitoring ofHabitat Condition in Terai Conservation Area, India. Indian Forester Vol. 134, No. 10: 1371-1380. | 4. Gajbe, U. A.1995a. Spiders Fauna of Conservation Areas: Fauna of Kanha Tiger Reserve, Madhya Pradesh. Zooological Survey of India, Publication: 27-30. | 5. Hore, U. and V.P. Uniyal, 2008. Use of Spiders (Araneae) as Indicator for Monitoring ofHabitat Condition in Terai Conservation Area, India. Indian Forester Vol. 134, No. 10: 1371-1380. | 6.Platnick, N. I. 2011. The world spider catalog, version 11.5. American Museum of Natural History, online at http://research.amnh.org/iz/spiders/catalog. DOI: 10.5531/db.iz.0001. | 7. Quasim, S. and V.P.Uniya, 2010. Preliminary investigation of spider diversity in Kedarnath Wildlife Sanctuary, Uttarakhand, India Indian Forester Vol: 136 Issue: 10 pp: 1340-1345 | 8. Tikader, B.K. 1974. Gazetteer of India, Maharashtra State, General Series: Fauna, Chapter 4 – Spiders, 295- 306. | 9.Tikader B. K. 1987. Handbook of Indian Spiders. Calcutta, Zoological Survey of India, 251 p. | 10.Uniyal, V.P. 2006. Records of Spiders from Indian Trans-Himalayan Region. Indian Forester. Vol.132. No. 12 (a): 117-181. | 11.Vairale A.B. and Vankhede G.N. 2010. Diversity and ecology of spiders in Satpuda, Ph.D. Thesis, Sant GadgeBaba, Amravati University., Amravati.334 |



Sara Publishing Academy

GLOBAL RESEARCH ANALYSIS

Multi-Subject Journal

Editor,

GLOBAL RESEARCH ANALYSIS

3, SUHANA, Nr. Ruby Apartment,
B/h NID, Rajnagar Circle, Paldi, Ahmedabad - 380007

Printed at Unique Offset, Novatsing Rupam Estate, Opp. Abhay Estate, Tavdipura, Shahibaug, Ahmedabad

Designed By : AdVoice Inc. +91 9824484447