IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Faunal Diversity Of The Padmabhushan Vasantraodada Patil, Mahavidyalaya Campus Kavathe Mahankal, Dist Sangli (Ms, India)

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Abstract

The current study aims to investigate the fauna in the campus area of PVP Mahavidyalaya Kavathe Mahankal which is situated in Sangli district of Maharashtra state. To evaluate the status of the faunal diversity of campus area survey was conducted. The campus supports a rich diversity of plants have significant biodiversity of invertebrates and vertebrates. A scientific study was carried out during last 7 years by regular study from years September 2017 to August 2023. Campus area shows good number of spider diversity during the month of September to December. This is because of availability of food and breeding ground. The grasses are favorable for spiders family Oxyopidae and philodromidae. During study we recorded three invertebrate classes , like Insecta, Arachnida and Chilopoda and julida (diplopoda), whereas various kinds of vertebrate animals classes Amphibia, Reptilia, Aves and Mammals. Some animals were common in occurrence while others were noticed only when keen field observations were made. Our effort resulted in the documentation of 60 spiders (Arachnida: Araneae -19 families), 97 insects (52 families), 01 pisces (01 family), 02 amphibians (04 families), 12 reptiles (07 families), 61 birds (36 families) and 07 mammals (06 families) species.

Keywords: Mahvidyalaya campus, Fauna, Diversity, Invertebrates, Vertebrates.

Introduction

Faunal diversity refers to the diversity of animals that are native to or indigenous to that particular place and that live there. It includes odonates (predators), coleopteran, hymenoptera (pollinators), herpetofauna, avifauna, fish, mammals, and butterflies. Animal diversity assessment describes their food, habitat, ecology, and their population. (Nerlekar, 2016) The fauna of any given region is usually explained in biological terms to include the genus and species of animal life, their preferred growing or breeding habits and their connection to one another in the environment as well. Species richness, representation and rarity form an important component in assigning biodiversity value to a terrestrial site which in turn provides a scientifically defensible framework for conservation (Regan et al. 2007). The diversity of life on earth is so enormous. Species diversity is the variety of living organisms found in natural habitat or surrounding environment (Krishnamurthy K.V., 2003). Biodiversity provides a variety of environmental services from its species that are essential at the global, regional, and local level. Biodiversity brings enormous benefits to mankind from direct harvesting of plants

and animals for food, medicine, fuel, construction materials and other uses to aesthetic, cultural, recreational and research values. There is a lot of demand for databases of plants and animals all over the world, especially from biodiversity rich countries (Rao et al., 2017). Biodiversity play important role to preserve biological resources for the wellbeing and the long-term survival of humans.

Spiders comprise one of the largest orders of animals. The spider fauna of India has never been studied in its entirety despite of contributions by many arachnologists. Review of available literature reveals that the earliest contribution and the pioneer workers of Indian spiders (Blackwell 1967, Tikader 1982, and Malhotra 1980). They described many species from India. Tikader (1987) also published the first comprehensive list of Indian spiders, which included 1067 species belonging to 249 genera in 43 families from the last three decades. Gajbe (1995, 2003) described 147 new spider species from different habitats of India.

Spiders belong to class Arachnida, order Araneae of Phylum Arthropoda. They vary in size, shape and behavior. They comprise one of the largest orders of animals. Review of available literature reveals that the earliest contribution by Blackwall (1867); Karsch (1873); Thorell (1895) and Pocock (1900) were the pioneer workers of Indian spiders. They described many species from India. Tikader (1980, 1982), Tikader, and Malhotra (1980a,b) described spiders from India. Tikader (1980) compiled a book on Thomisidae spiders of India, comprising two subfamilies, 25 genera and 115 species. Platnick in his World Spider Catalog (2005) has estimated that, there are about 38000 species worldwide, arranged in 110 families Bastawade (2004) described arachnid fauna of orders Araneae, Scorpionida and Solifugi from Melghat Tiger Reserve, Amravati, Maharashtra State. John Celab (2020) documented the spider fauna in the vicinity of asuburban lake (Araabath Lake) in Chennaiwas. Rajendra Singh and Garima Singh (2022) reported updared checklist of spiders fron Rajasthan . The only available comprehensive checklist of the butterflies from the Fergusson Campus was compiled by Kumar (1984) which included 90 species belonging to 8 families. Warudkar and Patankar (2013) provided brief remarks about the taxa in the campus Snakes inhabit a wide range of habitats such as fields, forests, farmland, vacant plots, and residential and commercial areas too. *Ptyas mucosa* Linnaeus, 1758 is one of the most common snakes found in the campus (Nerlekar A. N. et al., 2016). The scientific names, synonyms, taxonomical revisions of reptiles were checked using Uetz & Hosek (2014) and corrected further with recent references. Reptiles are cold blooded animals and inhabitant in most parts of the world. India has representatives of three orders of living reptiles such as Crocodylia, Testudines and Squamata (Aengals et al., 2018).

The updated faunal diversity report of the campus was not available till date. Hence, we undertook the task of assessing and reviewing the faunal diversity of the campus area of PVP College. Our aim was to evaluate the present and probable species richness and ecological factors. The information regarding habitat will be studied by actual spot visits in the areas and the standard methods of observation and classification will be followed with the help of existing literature

Materials and Methods

The techniques used for spiders and insects study was visual search. The study was carried out during early morning hours (6 hours to 9 hours) and day time (16 hours to 18 hours), from different habitats sharp eye vision. To document a comprehensive inventory of spiders and insects from PVP Mahavidyalaya was carried out during early morning hours. The observation were made from different parts of the microhabitats, like, rolled or folded leaves, plant branches, leaf litter, tree trunks, rock surface, grass blades, etc. The spidrs from Lycosids and Gnaphosids were photographed from the soil surface and also from the river beds. Each spider was identified mainly on the basis of morphological characteristics, epigyne and or palp structure after carrying out the necessary dissections and by using the literature (Kaston, 1978; Barrion and Litsinger, 1995; Tikader, 1987 and Mujumdar, 2007). The details of body parts of specimens were examined in 70% ethanol under a good quality stereo zoom microscope. The identification of species was carried out by the comparison of morphological features with the help of published literature, standard books and field guides.

Kehimkar (2008) was referred to for field Identification of butterflies which was further scrutinized and updated following recent nomenclature as per Kunte *et al.* (2015), whereas, Sharma, R.M. (2009)for field

guide for Insecta: Lepidoptera, Animal species were identified visually in the field with the help of field guides followed by photography. Photographs were taken with Canon 1000D, 4x Optical Zoom . Spider photography were done with Macro close up lens. For reptile- Standard literature like Daniel (2002), Smith (1935; 1943) was consulted for field identification. Whitaker and Captain (2008) was consulted specifically for snakes. The scientific names, synonyms, taxonomical revisions were checked using Uetz & Hosek (2014) and corrected further with recent references. The mammals were identified by Prater (2005) and Menon (2014). Identification and categorization of birds to their respective taxonomic groups were done by following field guide books. 'The book of Indian Birds by Salim Ali, A Field Guide to the Birds of India by Krys Kazmierczak, Birds by Herbert S. Zim, 'Birds of the Indian Subcontinent' Richard Grimmett *et.al,* Ali Whisteler (1983), Ali and Reliy (1983, 1974), Patil et al 2005, Rinivasula 2004 , salim Ali (Book of Indian birds).

Study area- PVP Mahavidyalaya , Kavathe Mahankal is selected for present study. The Mahavidyalaya was established in the year of 1978. PVP Mahavidyalaya , Kavathe Mahankal with its 13 acre campus is located centrally at Kavathe Mahankal city in the state of Maharashtra, India (Latitude 17.006298, Longitude 74.865372).Fig. 1

Figure 1: Google map showing location of study area.

Observations and Results

A total of 248 species of non chordates and chordates were observed and recorded under 09 major categories such as insects like Arachnida, Chilopoda, Diplopoda, Pisces, Amphibia, Reptilia, Aves and Mammals. The reported species were, 60 spider (Arachnid) species from 19 families; two species from buthidae and one species from Ixodidae (Table No.1); 97 species of insect belonging to 52 family; one Chilopoda species from family Scolopendridae one julus from family Julidae; (Table No.2); one guppy fish ftom pisces and four Amphibian species from Dicroglossidae and Bufonidae families (Table No.3); 12 reptilian species from Gekkonidae, Chamaeleonidae, Colubridae, Scincidae, Elapidae, Colubridae and Agamidae families(Table No.4); 61 species of birds belonging to 36 families(Table No.5); and 06 species of mammals belonging to 06 families (Table No. 6).

1) Arachnida (Araneae) - Table No. 1

Sr. No	Family		*Species*	Guild
1	Araneidae (Orb Web Spiders)	1	*Araneus mitificus* (Simon 1886) Female	Orb Weavers
		2	*Araneus mitificus (*Simon 1886) Female	
		3	*Araneus viridiventris* (Yaginuma 1969)	
		4	*Araneus himalayaensis* (Tikadar 1975)	
		5	*Araneus ellipticus (*Tikadar and Bal ,1981*)*	
		6	*Argiope aemula* (Walckenaer 1841) Female	
		7	*Argiope aemula* (Thorell1857) Male	
		8	*Argiope anasuja* Female (Thorell 1857*)*	
		9	*Cyclosa bifida* (Doleschall 1859) Female	
		10	*Cyclosa hexatuberculata* (Tikadar 1982) Female	
		11	*Larinia emertoni* (Gajbe and gajbe 2004*)*	
		12	*Larinioides sp.* (Clerck)	
		13	*Neoscona subfusca* (Walckenaer 1841)	
		14	*Neoscona mukerjei* (Tikader 1980) Female	
2	Clubionidae (Sac Spiders)	15	*Clubiona iridula* (Hirotsugu Ono 1989)	Foliage hunter
3	Corinnidae (Ant Mimicking Sac Spiders)	16	*Castianeira flavipes* (Gravely 1931)	Ground Runners
4	Dictynidae (Mesh Web Spider)	17	*Dictyna sp.* (Simon, 1905)	Web builders
5	Eresidae (Social Spiders)	18	*Stegodyphus sarasinorum* (Karsch, 1891) Female	Sheet web Weaver
		19	*Stegodyphus tibialis (*O. P. Cambridges 1869*)*	
6	Gnaphosidae (Ground /Mouse Spiders)	20	*Drassodes deoprayagensis* (Tikadar and Gajbe 1975)	Ground runner
7	Hersiliidae - (Two Tailed /Bark Spiders)	21	*Hersilia Savignyi (*Lucas 1836) Female	Goliage hunters
8	Lycosidae (Wolf Spiders)	22	*Archtosa indica* (Tikadar and Malhotra 1980)	Ground runner
		23	*Hippasa agelenoides* (Simon 1884)	
		24	*Hippasa greenalliae (*Blackwell 1867)	
		25	*Lycosa fuscana* (Pocock 1901)	
9	Miturgidae (Dark Sac Spiders)	26	*Cheiracanthium danieli* (Tikader 1975) Female	Foliage hunter
		27	*Cheiracanthium indicum* (O. P. Cambridge 1874)	
10	Oxyopidae (Lynx Spiders)	28	*Hamataliwa sp. (*Keyserling 1887*)*	Stalkers
		29	*Hamadruas sp. (*Thorell 1887)	
		30	*Oxyopes javanus* (Thorell 1887) Female	
11	Philodromidae (Running Crab Spiders)	31	*Tibellus sp.* (Tikadar 1960)	Foliage runners
		32	*Tibellus elongates* (Tikadar 1960)	
12	Pholcidae (Daddy Long Leg Spiders/Cellar Spiders)	33	*Artema atlanta* (Walckenaer 1837)	Space-Web builders
13	Salticidae (Jumping Spiders)	34	*Epeus albus (*Proszynski 1992*)*	
		35	*Hyllus semicupreus* (Simon 1885)	
		36	*Epeus albus* (Proszynski 1992)	
		37	*Hyllus semicupreus* (Simon 1885)	

		38	*Marpissa tigrina* (Tikadar 1965)	Stalkers
		39	*Marpissa muscosa* (Clerck 1757)	
		40	*Marpissa singhi* (Monga, Singh and Sadana 1989)	
		41	*Myrmarachne jajpurensis* (Proszynski 1992)	
		42	*Phintella vittata* (C. L. Koch 1846)	
		43	*Phintella versicolor* (C. L. Koch 1846)	
		44	*Plexippus paykulli* (Savingyny and Audouin 1825)	
		45	*Plexippus petersi* Female (Karsch 1878)	
		46	*Paraphidippus aurantius* (Lucas 1833)	
		47	*Portia labiata* (Thorell 1887)	
		48	*Telamonia dimidiata* (simon 1899) Female	
14	Scytodidae (Spitting Spiders)	49	*Scytodes allfredi* (Gajbe 2004)	Foliage runners
15	Sparassidae (Giant Crab Spiders)	50	*Heteropoda venatoria* (Linnaeus 1767)	Foliage runners
16	Tetragnathidae (Long-jawed orb weavers)	51	*Leucauge decorate* (Blackwall 1864) Female	Orb Weavers
		52	*Tetragnatha mandibulata* (Walckenaer 1841) (Male andFemale)	
17	Theridiidae (Comb Footed Spiders/Cob Web Spiders)	53	*Achaearanae mundulum* (L. Koch 1872)	Space-Web Spiders
		54	*Achaearanae triangularis* (Patel 2005)	
		55	*Ariamnes sp.* (Thorell 1869	
18	Thomisidae (Crab Spiders/Flower Spiders)	56	*Misumena greenae* (Tikadar 1965)	Ambushers
		57	*Misumena indra* (Tikadar 1963)	
		58	*Misumenops khandalaensis* (Tikadar 1965)	
		59	*Otylate elongate* (Tikadar 1980)	
19	Uloboridae (Cribellate Orb Weavers)	60	*Miagrammopes indicus* (Tikadar 1971)	Orb Weavers
20	**Order**- Opilions Sclerosomatidae	61	Harvestman - *Gagrella sp*	Hunting without silk
21	Buthidae (Scorpiones)	62	*Buthus tamulus*	Under stones
		63	*Palamnaeus sp.*	Under stones
22	Solifugae	64	*Solpuga sp.* (Sun Spider/camel spider)	Ground dweling
23	Acari- Ixodidae (Mites and Ticks)	65	*Ixodes sp.* (Tick)	Host

2) Insecta – Table No. 2

Order .	Family		Local name	Scientific name
Hymenoptera	Apidae	1	Small Honey bees	*Apis f lorea*
		2	Indian Honey bees	*Apis indica*
		3	Carpenter bees	*Xylocopa*
Blattodea	Blattidae	4	Cockroach	*Periplaneta americana*
Coleoptera	Coccinellidae	5	Ladybird beetle	*Illeis galbula*
Blattodea (Isoptera)	Termitidae	6	Termites	*Mastotermes Spp*

Hynemoptera	Vespidae	7	Wasp	*Vespula vulgaris*
Orthoptera	Gryllidae	8	House cricket	*Acheta domesticus*
Zgentoma	Lepismatidae	9	Silver fish	*Lepisma saccharina*
Ephemeroptera	Caenidae	10	May fly	*Caenis sp.*
Odonata (Dragaoflies and Damsenflies)	Lindeniidae	11	Common Club Tail	*Ictinigomphus rapax*
	Aeshnidae	12	Blue Tailed Green Darner	*Anax gutlatus*
		13	Blue Darner	*Anax immaculifrons*
	Libellulidae	14	Ruddy Marsh Skimmer	*Crocothemis servilia*
		15	Fulvous Forests Skimmer	*Neurothemis fulvia*
		16	Pied Pady Skimmer	*Neurothemis tullia*
		17	Common Picture wing	*Rhyothemis variegata*
		18	Crimson Marsh Glider	*Trithemis aurora*
		19	Ground Skimmer	*Diplocodes trivialis*
		20	Ditch jewel	*Brachythemis cantaninata*
		21	Wandering Glider	*Pantala flavescens*
		22	Asiatic Blood Tail	*Lathrecista asiatica*
		23	Black Stream Glider	*Trithemis festira*
		24	Blue Marsh Hawk	*Orthetrum glaucaum*
	Coenagrionidae	25	Golden dartlet	*Ischnura aurora*
		26	Senegal Golden Darlet	*Ischnura senegalensis*
		27	Yellow Striped Blue Dart	*Psuedogrion indicum*
Orthoptera	Acrididae	28	Spur-thorated Grasshopper	*Cyrtacauthacris tcotarica*
		29	Slant-faced Grasshopper	*Acrida sp.*
		30	Short Horned Grasshopper	*Shistocera sp.*
		31	Short Horned Grasshopper	*Acrida exaltata*
		32	Short Horned Grasshopper	*Acrida cinerea*
	Pyrgomorphidae	33	Painted Grasshopper	*Poekilocerus pictus*
	Tettigoniidae	34	Round Headed Katydid	*Holochlora albida*
Superorder: Dictyoptera (Mantids, Termites)	Mantidae	35	Praying Mantis	*Mantis religiosa*
	Empusidae	36	Violin Mantis	*Gongylus gongylodes*
	Blattidae	37	American Cockroach	*Periplaneta americana*
		38	Harlequin Cockroach	*Neostylopyga rhambifolia*
	Termitidae	39	Termite	*Odontotermes sp.*
Phasmida	Lonchodidae	40	Indian Walking Stick insect	*Carausius marasus*
Dermaptera	Labiduridae	41	Striped Earwing	*Labidura riparia*
Hemiptera	Pseudococcidae	42	Striped Mealyhug	*Ferrisia virgaty*
	Liviidae	43	Citrus psyllid	*Diapharina citri*
	Cicadidae	44	Cicada	*Platypleura sp.*
	Eurybrachidae	45	Leaf Hopper	*Eurybrachys tomentosa*
	Flatidae	46	Plant Hoppers	*Neodaksha sp.*
	Gerridae	47	Water Strider	*Gerris sp.*
	Lygaeidae	48	Seed Bug	*Spilastethus pandurus*
	Scutelleridae	49	Jewel Bug	*Chrysacaris stoili*
	Pentatomidae	50	Stink Bug	*Erthesina acuminata*
Coeoptera	Scarabaeidae	51	Elephant Dung Beetle	*Heliocopris bucephalus*
		52	Rhinoceros Beetle	*Oryctes rhinoceros*
		53	Flower Beetle	*Clinteria coerulea*

		54	Shining leaf chafers	*Trigonophorus delesserti*
	Lycidae	55	Net Winged Beetle	*Lycostomus praeustus*
		56	Red Flour Beetle	*Tribolium castaneum*
	Tenebrionidae	57	Red Flour Beetle	*Tribolium castaneum*
	Meloidae	58	Blister Beetle	*Mylabris pustulaty*
	Cerambycidae	59	Mango-tree Borer	*Batocera rutomaculata*
	Chrysomelidae	60	Tortoise Beetle	*Aspidimorpha milliaris*
		61	Red Pumpkin Beetle	*Aulocaphora faevicalis*
Diptera	Culicidae	62	Mosquio	*Culex sp.*
		63	Mosquito	Aedes aegyti
	Calloiphoridae	64	Blow Fly	*Chrysomya sp.*
	Sarcophagidae	65	Flesh Fly	*Sarcophaga lineaicollis*
Lepidoptera (Butterflies)	Papilionidae	66	Common rose	*Pachliopta aristolochiae*
		67	Crimson rose	*Atrophaneura Hector*
		68	Common mormon	*Papilio polytes*
		69	Tailed Jay	*Graphium agamemnon*
		70	Lime butterfly	*Papilio demoleus*
		71	Blue mormon	*Papilio polymnestor*
	Pieridae	72	Common lemon emigrant	Catopsilia pomona
		73	Three spot grass yellow	*Eurema blanda,*
		74	Caper white	*Belenois aurota,*
	Nymphalidae	75	Common tiger	*Danaus genutia*
		76	Plane tiger	*Danaus chrysippus*
		77	Danaid egg fly	*Hypolimnas misippus*
		78	Blue tiger	*Tirumala limniace,*
		79	Common Indian crow	*Euploea core*
		80	Common bush brown	*Mycalesis perseus*
	Lycaenidae	81	Red pierrot	*Talicada nyseus*
		82	Common silver line	*Cigaritis vulcanus*
		83	Pale grass blue	*Pseudozizeeria maha,*
	Hesperiidae	84	Chestnut bob	*Iambrix salsala*
		85	Indian palm bob	*Suastus gremius,*
		86	Indian dart	*Potanthus pseudomaesa,*
	Sphingidae	87	Oleander hawk moth	*Daphnis nerii*
	Arctidae	88	Tiger moth	*Amata passalis*
		89	Crokers frother moth	*Amerila astreus*
Hymenoptera (Ants, Bees, Wasps)	Pompilidae	90	Rusty Spider Wasp	*Tachypompilus furrugineus.*
	Formicidae	91	Black Crazy Ant	*Paratracchina longicarnis*
	Sphecidae	92	Sphecid Wasp	*Sphex sp.*
	Apidae	93	Oriental Honey Bee	*Apis cerena*
		94	Indian Rock Bee	*Apis dorsata*
		95	Carpenter Bee	*Xylocopa sp.*
Class- Chilopoda	Scolopendridae	96	Centipede (Gom)	*Scolopendra*
Class- Diplopoda Julida	Julidae	97	Millipede	*Julus sp.*

3) Pisces and Amphibians – Table No. 3

Family		Local name	Scientific name	Status
Pisces Poeciliidae	1	Mosquito killing guppy fish	*Poecilia reticulata*	
Dicroglossidae	2	Indian Bull Frogs	*Hoplobatrachus tigerinus* (Daudin 1802)	LC
	3	Indian cricket frog	*Fejervarya limnocharis* (Gravenhorst,1829)	LC
	4	Indian burrowing frog	*Sphaerotheca breviceps*	LC
Bufonidae	5	Asian common toad,	*Duttaphrynus melanostictus* (Schneider, 1799)	LC

4) Reptiles – Table No. 4

Family		Local name	Scientific name	Status
Gekkonidae	1	Wall lizard	*Hemidactylus frenatus*	LC
Chamaeleonidae	2	Chameleon	*Chameleon*	LC
Colubridae	3	Indian rat snake	*Ptyas mucosa*	LC
Scincidae	4	Indian skink	*Eutropis spp*	LC
	5	Common garden Skink	*Lampropholis guichenoti*	LC
Elapidae	6	Indian Cobra	Naja naja	LC
	7	Slender Coral snake	*Calliophis melanurus*	LC
Colubridae	8	Rat Snake / Dhaman	*Zamenis longissimus*	LC
	9	Green keelback	*Macropisthodon plumbicolor*	LC
	10	Banded kukri	*Oligodon arnensis*	LC
	11	Cat snake	*Boiga trigonata*	LC
Agamidae	12	Garden lizard	*Calotes versicolour*	LC

5) Aves (Birds) - Table No. 5 (R –Resident of local, LM- Local Migrant)

Sr No	Scientific Name	Common Name	Status
1	**FAMILY – Accpitridae**		
	ii) *Haliastur indus*	Brahminy kite	R
	iii) *Milvus migrans*	Indus Black kite	R
	viii) *Halcyon smyrnensis*	White throated kingfisher	R
	ix) *Alcedo atthis*	Common kingfisher	R
2	**FAMILY –Aegithinidae**		
	i) *Aegithinia tiphia*	Common iora	R
3	**FAMILY –Alaudidae**		
	ii) *Galerida malabarica*	Malabar creasted lark	R
4	**FAMILY-Apodidae**		
	i) Apus affinis	House swift	R
5	**FAMILY- Ardeidae**		
	iii) *Egretta garzetta*	Little egret	R
	iv) *Bubulcus coromandus*	Cattle egret	R
	vi) *Ardeola grayii*	Indian pond heron	R
6	**FAMILY- Bucerotidae**		
	i) *Ocyceros birostris*	Indian grey hornbill	R
7	**FAMILY- Capitonidae**		
	i) *Megalaima haemacephala*	Copersmith barbet	R

8	**FAMILY –Campephagidae**		
	i) *Pericrocotus cinnamomeous*	Small minivet	R
	ii) *Tephrodornis pondicerianus*	Common wood shrike	R
9	**FAMILY- Charadriidae**		
	i) *Vanellus malabaricus*	Yellow wattled lapwing	R
	ii) *Vanellus indicus*	Red wattled lapwing	R
10	**FAMILY –Cisticolidae**		
	i) *Prinia socialis*	Ashy prinia	R
	ii) *Prinia inornata*	Plain prinia	R
	iii) *Orthotomus sutorius*	Common tailor bird	R
11	**FAMILY- Columbidae**		
	i) *Streptopelia chinesis*	Spotted dove	R
	ii) *Columbo livia*	Rock pigeon	R
	iii) *Streptopelia* capicola	Ring necked dove	R
12	**FAMILY- Corcaciidae**		
	i) Coracias benghalensis	Indian roller	R
13	**FAMILY- Corvidae**		
	i) *Corvus splendens*	House crow	R
	ii) C*orvus* culminatus	Indian jungle crow	R
14	**FAMILY – Cuculidae**		
	i) *Cacomantis passerinus*	Grey bellied cuckoo	LM
	ii) Clamator jacobinus	Pied cuckoo	LM
	iii) *Eudynamys scolopaceous*	Asian koel	R
15	**FAMILY-Dicruridae**		
	i) *Dicrurus leucophaeus*	Black drongo	R
16	**FAMILY – Hirundinidae**		
	i) *Hirundo smithii*	Wire tailed swallow	R
	ii) *Hirund daurica*	Red -rumped swallow	R
17	**FAMILY- Laniidae**		
	i) *Lanius schach*	Long tailed shrike	R
18	**FAMILY- Leiothrichidae**		
	i) *Turdoides malcolmi*	Large grey babbler	R
19	**FAMILY-Emberizidae**		
	i) *Emberiza melanocephala*	Black headed bunting	M
20	**FAMILY-Estrildidae**		
	i) *Lonchura punctulata*	Scaly breasted munia	R
	ii) Euodica malabarica	Indian silver bill	R
21	**FAMILY –Muscicapidae**		
	i) *Copsychus saularis*	Oriental magpie robin	R
	ii) *Luscini brunnea*	Indian robin	R
	iii) *Saxicola torquatus*	Common stone chat	R
22	**FAMILY-Meropidae**		
	i) *Merops orientalis*	Green bee eater	R
23	**FAMILY -Motacillidae**		
	i) *Motacilla alba*	White wagtail	M
	ii) *Motacilla cinerea*	Grey wagtail	M

	iii) *Motacilla flava*	Yellow wagtail	M
24	**FAMILY –Nectariniidae**		
	i) *Leptocoma zeylonica*	Purple rumped sunbird	R
	ii) *Cinnyris asiaticus*	Purple sunbird	R
25	**FAMILY-Paridae**		
	i) *Parus major*	Great tit	R
26	**FAMILY –-Passeridae**		
	i) *Passer domesticus*	House sparrow	R
	i) *Ploceus philippinus*	Baya weaver	R
27	**FAMILY –Phasianidae**		
	i) *Pavo cristatus*	Indian peafowl	R
	ii) *Coturnix coturnix*	Common quail	R
28	**FAMILY - Picidae**		
	i) *Dendrocopos mahrattensis*	Yellow crowned woodpecker	R
29	**FAMILY- Psittacidae**		
	ii) *Psittacula krameri*	Rose ringed parakeet	R
30	**FAMILY-Rhipiduridae**		
	i) *Rhipidura albicoilis*	White throated fantail	R
31	**FAMILY - Sturnidae**		
	i) *Pastor roseus*	Starling /Rosy pastor	LM
	ii) *Acridotheres tristis*	Indian myna	R
	iii) *Sturnia pagodarum*	Brahminy myna	R
32	**FAMILY- Strigidae**		
	i) *Athene brama*	Spotted owlet	R
33	**FAMILY - Threskiornithidae**		
	ii)*Pseudibis papillosa*	Red naped ibis	R
34	**FAMILY- Tytonidae**		
	i) *Tyto alba*	Common Barn owl	R
35	**FAMILY-Upupidae**		
	i) *Upupa epops*	Common hoopoe	R
36	**FAMILY-Zosteropidae**		
	i) *Zosterops palpebrosus*	Oriental white eye	R

6) Mammals - Table No. 6

Order	**Family**		**Local name**	**Scientific name**
Rodentia	Muridae	1	Greater bandicoot rat	*Bandicota spp*
		2	Rat	*Rattus rattus*
	Sciuridae	3	Three striped squirrel	*Funambulus spp*
Carnivora	Herpestidae	4	Mongoose	*Herpestes spp*
	Canidae	5	Common Dogs	*Canis spp*
	Felidae	6	Common cat	*Felis catus*
Chiroptera	Pteropodidae	7	Indian flying fox	*Pteropus spp*

Discussion

The goal of the study was to identify and catalogue the many families, genera, and species of animals that can be found in the area, as well as their distribution and habitats. A total of 60 species of spiders belonging to 41 genera and 19 families were recorded from the study area during 2017- 2023. Among all these 19 families, high diversity was observed in the families Salticidae (9 species) Araneidae (7 species) > Lycosidae (3 species) > Thomisidae (3 species) (Table No.1). Thus the results indicate the dominance of ground dwelling spiders like Salticids. The favourable habitats resulting into ground dwelling spiders. Grasses are abundant and constitutes a conspicuous aspect of rainy season vegetation. These grasses are favourable for spiders from family Oxyopidae and philodromidae. Insects are most diverse, successful and dominant taxon of the animal kingdom. Because of these diverse characteristics, they became an important component of our ecosystem. (Prerana Prakhar 2021). They have significant influence on agriculture, human health and natural resources. This was the main reason for analyzing the status of insects' diversity across the campus area. Total 98 species, 85 genera from 52 families, from 18 orders of insects were obtained during the study (Table No 2). The Lepidoptera were having highest species diversity which was followed by odonata , Coleoptera, hemiptera , orthoptera . Biodiversity of insects were highest in gardens. The diverse habitats present in and around campus area provide a favorable climate for insects. According to the observational study, the presence of green areas, variety of vegetation and water facilities made it a significant home for various animal species. The study emphasizes the value of preserving or expanding green spaces at educational institutions to support biodiversity conservation efforts and provide habitat for animal species. During study we reported four amphibian species(Table No. 3). The probable reasons for the limited amphibian diversity inside the campus could be loss of habitat and loss of breeding grounds. There are no perennial water bodies inside the campus area, which can serve as potential breeding grounds for amphibian. Two small seasonal artificial tanks which the common Indian toads *D. melanostictus* and *H. tigrinus* for breeding purposes, Guppy f ish reported in Water lily tank. The reptile documentation of 12 species from 07 families were reported. (Table No. 4). All 07 species are Least Concern. most common snakes found in the campus area were Wall lizard (*Hemidactylus frenatus),* Garden lizard (*Calotes versicolour*),Indian skink (*Eutropis sp*) *and* Rat Snake (*Zamenis longissimus*). This study reported total of 61 bird species belonging to 25 genera and 36 families representing 18 orders have been reported from the college campus area during study (Table No 5). Many other birds play a role in the maintenance of the balance of nature by destroying harmful insects and dispersing seeds of plants. Birds like swallows select most safe place for colonial nest. For the conservation of these species community participation play very important role. Birds are known as ecological indicators of habitat quality (Morelli et al. 2014). 07 species of mammals belonging to 06 families were reported (Table No. 6). Every educational institute should preserve a list of flora and fauna found in the institute campus and upload it to the Mahavidyalaya website.

As seen from the results, such green campuses of our college can also support to protect faunal diversity. This research paper provides a baseline documents for monitoring future changes, and also helps ecological research. Some times threat to fauna because of habitat degradation in form of littering, fires and removal of herbaceous and arboreal vegetation . hence we are

ensuring protection of this diversity should be given priority. Activities like conducting field (outdoor) practicals, regular awareness drives in the campus might also serve the cause of conservation of the campus fauna.

Acknowledgements

Author thanks to Shakshan Prasarak Sansatha's secretary Shri Sudarshan Shinde, who have offered every possible support during the faunal study.

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