



MAR ATHANASIOS COLLEGE FOR ADVANCED STUDIES TIRUVALLA
(MACFAST)

MACFASTTM
Igniting wisdom since 2001

FORESTRY CLUB



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(MACFAST)
KERALA - 689101**



ABOUT FORESTRY CLUB

Forests are the cradle of myriad life forms on the earth and are the life sustaining system in many ways. They offer materialistic and spiritual solutions to many problems that exists in this world. For sensitizing the student community about our forest wealth and the importance of its conservation and for passing on thus acquired knowledge and experience to the society at large for helping the cause of conservation further, a Forestry Club was registered (Reg. No. SFPTA-42/17-18) under the auspices of Kerala State Forest and Wildlife Department, and started functioning in the college with the participation of students and faculty members. Fifty members are currently registered under the Forestry Club. "Look deep into nature and then you will understand everything better" – the quote by Albert Einstein is the motto of the Club and is upheld in all its activities. The co-ordinators of the Forestry Club activities are Dr. Nishad P.M., Associate Professor, Department of Computer Applications and Mr. Blessan Santhosh George, Assistant Professor, School of Biosciences. Prominent activities of the Forestry Club for the year 2019 are listed in the following sections.

Documentation of Campus Biodiversity

MACFAST, even though located amidst the busy township of Tiruvalla, has a campus that is rich in floral vegetation. The vegetation is dominated by *Anacardium occidentale*, *Racosperma auriculiforme*, *Racosperma mangium*, *Artocarpus heterophyllus*, *Artocarpus hirsutus*, *Mangifera indica*, Bamboo sp., *Cocos nucifera*, *Coryphaum brachyloba*, *Lagerstroemia microcarpa*, *Nephelium lappaceum*, *Ficus auriculata*, *Flacourtia jangomas*, *Azadirachta indica*, *Carica papaya*, *Cassia fistula*, *Syzygium jambos*, *Phyllanthus emblica*, *Sapindus emarginatus*, *Tectona grandis*, *Macaranga indica*, *Bauhinia racemosa*, *Averrhoa carambola*, *Albizia chinensis*, *Delonix regia*, *Muntingia calabura*, *Elaeocarpus serratus*, *Manilkara zapota* and *Artocarpus incises*. Apart from the vivid trees and other plant species that grow in the campus, open marshy/ paddy fields are located adjacent to the campus as well where aquatic weeds like *Eichhornia crassipes* and *Salvinia molesta* are found. Such a setting is ripe for the faunal biodiversity to flourish in all its grandeur.

The arduous yet rewarding mission of in-campus faunal biodiversity documentation is being led by Dr. Nishad P.M., Associate Professor, Department of Computer Applications. The results of the project shed light to the fact that rich biodiversity could be found in our backyards as much as it is present in the forests and other pristine ecosystems.

Avifaunal diversity of MACFAST

Avifaunal diversity of MACFAST campus and adjoining areas were carried out from the year 2016 till date. Ponds, grasslands, rooftops of buildings, playground and paddy fields were the major microhabitats included in the study. Birds were observed using Bushnell binocular (10 x 50), spotting scope (10x-45x) and identified by the birds' physical features with the help of field guides and reference books. A total of 135 species (published data is given in Table 1) from 14 orders and 45 families were recorded in course of the study till date in the campus spanning about 7.5 acres. As per the IUCN 2018, most of the birds recorded from the campus are included under the Least Concern category. However, three species reported in the survey - Painted Stork (*Mycteria leucocephala*), Oriental Darter (*Anhinga melanogaster*) and Blackheaded Ibis (*Threskiornis melanocephalus*) are categorized under Near Threatened category while two other species – Woolly-necked Stork (*Ciconia episcopus*) and Greater Spotted Eagle (*Clanga clanga*) are categorized under the Vulnerable category. Other interesting findings include Slaty-breasted Rail (*Lewinia striata*), Ruddy-breasted Crake (*Zapornia fusca*) and Gray-bellied Cuckoo (*Cacomantis passerines*). The main objective of the survey programme is to explore the in-campus biodiversity and thereby enhance the awareness among students and public to promote citizen science movement. The research data was made available to public through journal publication (Nishad and Greeshma, 2017).





Pacific Golden Plover (*Pluvialis fulva*)



Pied-billed Grebe (*Podiceps podiceps*)



Bronze-winged Jacana (*Metopides indicus*)



Wood Sandpiper (*Tringa glareola*)



Western Reef Heron (*Egretta alba*)



Clay-colored Ibis (*Plegadis falcinellus*)



Common Hawk-Cuckoo (*Hierococcyx varius*)

Table 1: Checklist of Birds from MACFAST College Campus, Thiruvalla, Kerala (Publication details Nishad, P. M., and P. Greeshma. "Birds in and around MACFAST campus, Thiruvalla, Kerala." *International Journal of Zoology and Research* 7.4 (2017): 1924.)

Order	Family	Sl. No	Common Name	Scientific Name	IUCN
Anseriformes	Anatidae	1	Lesser Whistling-Duck	<i>Dendrocygna javanica</i>	LC
		2	Cotton PygmyGoose	<i>Nettapus coromandelianus</i>	LC
		3	Indian Spot-billed Duck	<i>Anas poecilorhyncha</i>	LC
Phoenicopteriformes	Podicipedidae	4	Little Grebe	<i>Tachybaptus ruficollis</i>	LC
Columbiformes	Columbidae	5	Rock Pigeon	<i>Columba livia</i>	LC
		6	Spotted Dove	<i>Streptopelia chinensis</i>	LC
		7	Yellow-footed Pigeon	<i>Treron phoenicopterus</i>	LC
		8	Pompadour Green Pigeon	<i>Treron pompadora</i>	LC
Cuculiformes	Cuculidae	9	Greater Coucal	<i>Centropus sinensis</i>	LC
		10	Lesser coucal	<i>Centropus bengalensis</i>	LC
		11	Pied Cuckoo	<i>Clamator jacobinus</i>	LC
		12	Asian Koel	<i>Eudynamys scolopaceus</i>	LC
		13	Indian Cuckoo	<i>Cuculus micropterus</i>	LC
Gruiformes	Rallidae	14	White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	LC
		15	Baillon's Crane	<i>Zapornia pusilla</i>	LC
		16	Watercock	<i>Gallicrex cinerea</i>	LC
		17	Gray-headed Swamphen	<i>Porphyrio porphyrio</i>	LC
		18	Common Moorhen	<i>Gallinula chloropus</i>	LC
		19	Common Coot	<i>Fulica atra</i>	LC
elicaniformes	Ciconiidae	20	Asian Openbill	<i>Anastomus oscitans</i>	LC
		21	Woolly-necked Stork	<i>Ciconia episcopus</i>	VU
		22	Painted Stork	<i>Mycteria leucocephala</i>	NT
	Ardeidae	23	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	LC
		24	Grey Heron	<i>Ardea cinerea</i>	LC

		25	Purple Heron	<i>Ardea purpurea</i>	LC	
		26	Great Egret	<i>Ardea alba</i>	LC	
		27	Intermediate	<i>Ardea intermedia</i>	LC	
			Egret			
		28	Little Egret	<i>Egretta garzetta</i>	LC	
		29	Western ReefHeron	<i>Egretta gularis</i>	LC	
		30	Cattle Egret	<i>Bubulcus ibis</i>	LC	
		31	Indian PondHeron	<i>Ardeola grayii</i>	LC	
	Threskiornit hid ae	32	Glossy Ibis	<i>Plegadis falcinellus</i>	LC	
		33	Black-headed Ibis	<i>Threskiornis melanocephalus</i>	NT	
	Phalacrocor acid ae	34	Little Cormorant	<i>Microcarbo niger</i>	LC	
		35	Indian Cormorant	<i>Phalacrocorax fuscicollis</i>	LC	
	Anhingidae	36	Oriental Darter	<i>Anhinga melanogaster</i>	NT	
	Recurvirostr ida e	37	Black-winged Stilt	<i>Himantopus himantopus</i>	LC	
	Charadriidae	38	Red-wattled Lapwing	<i>Vanellus indicus</i>	LC	
	Jacanidae	39	Bronze-winged Jacana	<i>Metopidius indicus</i>	LC	
	Scolopacida e	40	Common Snipe	<i>Gallinago gallinago</i>	LC	
		41	Marsh Sandpiper	<i>Tringa stagnatilis</i>	LC	
		42	Wood Sandpiper	<i>Tringa glareola</i>	LC	
	Accipitriiformes	Accipitridae	43	Crested Serpent Eagle	<i>Spilornis cheela</i>	LC
			44	Eurasian Marsh- Harrier	<i>Circus aeruginosus</i>	LC
			45	Shikra	<i>Accipiter badius</i>	LC
			46	Brahminy Kite	<i>Haliastur indus</i>	LC
			47	Black Kite	<i>Milvus migrans</i>	LC
	Piciformes	Picidae	48	Common Goldenbacked Woodpecker	<i>Dinopium javanense</i>	LC

		49	Lesser Goldenbacked Woodpecker	<i>Dinopium benghalense</i>	LC
	Ramphastidae	50	White-cheeked Barbet	<i>Psilopogon viridis</i>	LC

Coraciiformes	Meropidae	51	Blue-tailed Beeeater	<i>Merops philippinus</i>	LC
	Alcedinidae	52	Common Kingfisher	<i>Alcedo atthis</i>	LC
		53	Stork-billed Kingfisher	<i>Pelargopsis capensis</i>	LC
		54	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	LC
		55	Pied Kingfisher	<i>Ceryle rudis</i>	LC
Psittaciformes	Psittaculidae	56	Rose-ringed Parakeet	<i>Psittacula krameri</i>	LC
		57	Plum-headed Parakeet	<i>Psittacula cyanocephala</i>	LC
Passeriformes	Artamidae	58	Ashy Woodswallow	<i>Artamus fuscus</i>	LC
	Oriolidae	59	Indian Golden Oriole	<i>Oriolus kundoo</i>	LC
		60	Black-hooded Oriole	<i>Oriolus xanthornus</i>	LC
	Dicruridae	61	Black Drongo	<i>Dicrurus macrocercus</i>	LC
		62	Greater Rackettailed Drongo	<i>Dicrurus paradiseus</i>	LC
	Aegithinidae	63	Common Iora	<i>Aegithina tiphia</i>	LC
	Corvidae	64	Rufous Treepie	<i>Dendrocitta vagabunda</i>	LC
		65	House Crow	<i>Corvus splendens</i>	LC
	Monarchidae	66	Indian Paradiseflycatcher	<i>Terpsiphone paradisi</i>	LC
	Dicaeidae	67	Pale-billed Flowerpecker	<i>Dicaeum erythrorhynchos</i>	LC
Nectariniidae	68	Purple-rumped Sunbird	<i>Leptocoma zeylonica</i>	LC	

	69	Little Spiderhunter	<i>Arachnothera longirostra</i>	LC
	70	Loten's Sunbird	<i>Cinnyris lotenius</i>	LC
Estrildidae	71	Scaly-breasted Munia	<i>Lonchura punctulata</i>	LC
	72	Black-headed Munia	<i>Lonchura malacca</i>	LC
	73	White-rumped Munia	<i>Lonchura striata</i>	LC
Passeridae	74	House Sparrow	<i>Passer domesticus</i>	LC
Motacillidae	75	White-browed Wagtail	<i>Motacilla maderaspatensis</i>	LC
	76	Grey Wagtail	<i>Motacilla cinerea</i>	LC
Cisticolidae	77	Common Tailorbird	<i>Orthotomus sutorius</i>	LC
	78	Ashy Prinia	<i>Prinia socialis</i>	LC
Acrocephalidae	79	Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i>	LC
Pycnonotidae	80	Red-vented Bulbul	<i>Pycnonotus cafer</i>	LC
	81	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	LC
Leiothrichidae	82	Jungle Babbler	<i>Turdoides striata</i>	LC
Hirundinidae	83	Barn Swallow	<i>Hirundo rustica</i>	LC
	84	Wire-tailed Swallow	<i>Hirundo smithii</i>	LC
Sturnidae	85	Rosy Starling	<i>Pastor roseus</i>	LC
	86	Chestnut-tailed Starling	<i>Sturnia malabarica</i>	LC
	87	Common Myna	<i>Acridotheres tristis</i>	LC
Muscicapidae	88	Oriental Magpie Robin	<i>Copsychus saularis</i>	LC

Butterflies of MACFAST Campus

Butterflies are very sensitive to the changes in the environment and are considered good ecological indicators; hence they are included in various conservation and biodiversity studies. The butterfly fauna of the MACFAST college campus was monitored from June 2017 to August 2018. The butterfly species were photo documented and species identification was

done with the help of field guides. A total of 75 species from 52 genera of butterflies belonging to five families and 13 subfamilies were identified, including one species which is endemic to the Western Ghats and 10 species protected under various schedules of the Indian Wildlife (Protection). A checklist of butterflies observed in and around MACFAST campus is given in Table 2.

Table 2: Checklist of butterflies of MACFAST Campus, Thiruvalla, Kerala. (Publication details Nishad, P. M., and P. Greeshma. "Butterflies of MACFAST Campus, Thiruvalla, Pathanamthitta District, Kerala, India." *ZOO'S PRINT* 34.11 (2019): 34-41.)

S.No	Common name	Scientific name
Papilionidae: Papilioninae		
1	Sahyadri Birdwing	<i>Troides minos</i>
2	Common Rose	<i>Pachliopta aristolochiae</i>
3	Crimson Rose	<i>Pachliopta hector</i>
4	Common Bluebottle	<i>Graphium sarpedon</i>
5	Tailed Jay	<i>Graphium agamemnon</i>
6	Lime Swallowtail	<i>Papilio demoleus</i>
7	Red Helen	<i>Papilio helenus</i>
8	Common Mormon	<i>Papilio polytes</i>
9	Common Mime	<i>Papilio clytia</i>
10	Blue Mormon	<i>Papilio polymnestor</i>
11	Lemon Emigrant	<i>Catopsilia pomona</i>
12	Mottled Emigrant	<i>Catopsilia pyranthe</i>
13	Small Grass Yellow	<i>Eurema brigitta</i>
14	Spotless Grass Yellow	<i>Eurema laeta</i>
15	Common Grass Yellow	<i>Eurema hecabe</i>
16	Three-spot Grass Yellow	<i>Eurema blanda</i>
Pieridae: Pierinae		
17	Indian Jezebel	<i>Delias eucharis</i>
18	Pioneer	<i>Belenois aurota</i>
19	Psyche	<i>Leptosia nina</i>

20	Common Gull	<i>Cepora nerissa</i>
21	Chocolate Albatross	<i>Appiaslyncida</i>
Nymphalidae: Satyrinae		
22	Common Evening Brown	<i>Melanitisleda</i>
23	Tailed Palmfly	<i>Elymnias caudata</i>
24	Bamboo Treebrown	<i>Lethe europa</i>
25	Common Bushbrown	<i>Mycalesis perseus</i>
26	Dark-branded Bushbrown	<i>Mycalesis mineus</i>
27	Long-branded Bushbrown	<i>Mycalesis visala</i>
28	Common Four-ring	<i>Ypthima huebneri</i>
29	Common Five-ring	<i>Ypthima baldus</i>
Nymphalidae: Heliconiinae		
30	Tawny Coster	<i>Acraea terpsicore</i>
31	Cruiser	<i>Vindula erota</i>
32	Rustic	<i>Cupha erymanthis</i>
33	Common Leopard	<i>Phalanta phalantha</i>
34	Tamil Yeoman	<i>Cirrochroa thais</i>
Nymphalidae: Limenitidinae		
35	Common Sailer	<i>Neptis hylas</i>
36	Commander	<i>Moduza procris</i>
37	Grey Count	<i>Tanaecia lepidea</i>
38	Baron	<i>Euthalia aconthea</i>
Nymphalidae: Biblidinae		
39	Angled Castor	<i>Ariadne ariadne</i>
40	Common Castor	<i>Ariadne merione</i>
Nymphalidae: Nymphalinae		
41	Yellow Pansy	<i>Junonia hierta</i>
42	Lemon Pansy	<i>Junonia lemonias</i>
43	Peacock Pansy	<i>Junonia almanac</i>

44	Grey Pansy	<i>Junonia atlites</i>
45	Chocolate Pansy	<i>Junonia iphita</i>
46	Danaid Eggfly	<i>Hypolimnas misippus</i>
47	Great Eggfly	<i>Hypolimnas bolina</i>
Nymphalidae: Danainae		
48	Glassy Tiger	<i>Parantica aglea</i>
49	Blue Tiger	<i>Tirumala limniace</i>
50	Dark Blue Tiger	<i>Tirumala septentrionis</i>
51	Plain Tiger	<i>Danaus chrysippus</i>
52	Striped Tiger	<i>Danaus genutia</i>
53	Common Crow	<i>Euploea core</i>
Lycaenidae: Polyommatainae		
54	Common Pierrot	<i>Castalius rosimon</i>
55	Banded Blue Pierrot	<i>Discolampa ethion</i>
56	Plains Cupid	<i>Chilades pandava</i>
57	Tiny Grass Blue	<i>Zizula hylax</i>
58	Lime Blue	<i>Chilades lajus</i>
59	Gram Blue	<i>Euchrysops cnejus</i>
60	Common Cerulean	<i>Jamides celeno</i>
61	Red Pierrot	<i>Talicerca nyseus</i>
Lycaenidae: Theclinae		
62	Slate Flash	<i>Rapala manea</i>
63	Monkey Puzzle	<i>Rathinda amor</i>
Hesperiidae: Pyrginae		
64	Common Snow Flat	<i>Tagiades japetus</i>
65	Water Snow Flat	<i>Tagiades litigiosa</i>
66	Tricolour Pied Flat	<i>Coladenia indrani</i>
67	Suffused Snow Flat	<i>Tagiades gana</i>
Hesperiidae: Hesperinae		
68	Bush Hopper	<i>Ampittia dioscorides</i>

69	Chestnut Bob	<i>Iambrix salsala</i>
70	Common Branded Redeye	<i>Matapa aria</i>
71	Grey-veined Grass Dart	<i>Taractrocera maevius</i>
72	Smaller Dartlet	<i>Oriens goloides</i>
73	Oriental Palm Bob	<i>Suastus gremius</i>
74	Pelopidas swift species	<i>Pelopidas</i> sp.
75	Parnara Swift species	<i>Parnara</i> sp.



Bamboo Treebrown



Banded Blue Pierrot



Chocolate Albatross



Common Bluebottle



Commander



Common Leopard



Common Cerulean



Common Mormon



Grey-veined Grass Dart



Indian Jezebel



Lemon Emigrant



Lemon Pansy

Dragonflies and Damselflies of MACFAST Campus

A study and documentation about dragonflies were also initiated in MACFAST campus. The research is mainly focusing on identifying different dragonfly species in MACFAST campus, helping in the conservation of such species, also the research and documentation helps us to understand more about each species. Around 30 species of dragonflies and damselflies were identified within the campus.



Common Clubtail



Rufous-backed Marsh Hawk

Moths of MACFAST Campus

Another ongoing study is about moths at MACFAST campus. The study again aims to identifying different moth species. The successful completion of the study may help the students and public in realizing the extent of moth diversity around us and thus appreciating the ways in which Nature operates. Also, the study helps to develop a new database on moths with emphasis on conservation aspects. More than 35 moth species are identified from our campus till date.



Creatonotos sp.



Orudiza protheclaria



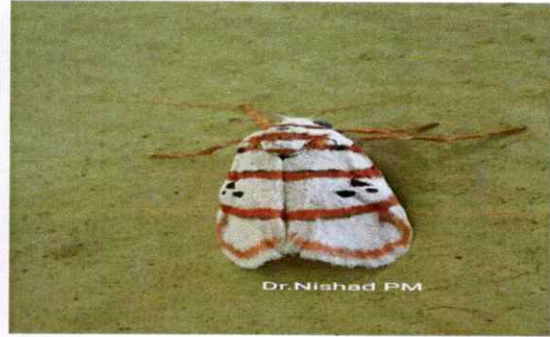
Spirama sp.



Erebus hieroglyphica



Miresa sp.



Cyana peregrina

Bugs and beetles of MACFAST Campus

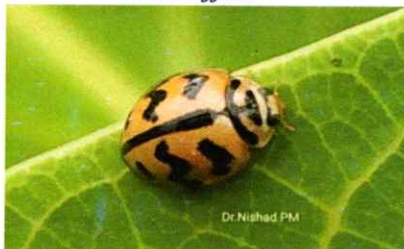
Another interesting study progressing in our campus is about bugs and beetles and have identified many interesting species in bugs and beetles from our campus. The documentation is envisaged to give insights into the lesser studied taxa of bugs and beetles. Each creature is very important. So, the research documentation definitely gives more knowledge to the students and community also the documentation will play important role in conservation of like species. As part of the project 32 different species of bugs and beetles were identified within the campus till date.



Oides affinis



June Beetles



Six-spotted Zigzag Ladybird



Coptops aedificator

Wild Mammals of MACFAST campus

Apart from the birds, butterflies and dragonflies, interestingly several rather uncommon mammals like Bengal monitor (*Varanus bengalensis*) and Jungle Cat (*Felis chaus*) has been spotted around the campus.



Bengal Monitor



Jungle Cat

These documentation projects are unique in its own account primarily because rich biodiversity is reported in the backyard of a college through patient and meticulous observation that could be otherwise seen in a well wooded countryside, forests or other known biodiversity rich ecosystems. The reports indicate persistent existence of birds, insects and other wildlife in and around the campus which showcases the fruitful efforts undertaken by the college in pursuing the idea of sustainable development. Through the project we have succeeded, to a greater extend, in educating our students that conservation has to begin from our backyard or gardens. The project motivates the students to understand the importance of conservation and also underlines that fact that one's hobbies can indeed play important role in conservation that can in turn possibly contribute to the greater knowledge domain.

FORESTRY CLUB ACTIVITIES

Great Backyard Bird Count (GBCC) 2019 - MACFAST secured 3rd position in Kerala and 10th position in India among best biodiversity campuses

MACFAST Forestry Club in association with Bird Count India & eBird India organized Campus Bird Count 2019 from February 14th to 18th at the MACFAST premises. The bird count was conducted during these days during early mornings and evenings. Event coordinators were Dr. Nishad P.M. and Mr. Blessan Santhosh George. Training sessions were organized in the campus on the previous day. The session aimed at promoting citizen science movement and to impart the basics of bird identification. About twenty five students of MACFAST Forestry Club actively participated in the bird count programme which was conducted in and around MACFAST Campus. The entire observation data at 15 min intervals in all these days were uploaded into the eBird portal and the summary was generated. A total of 3842 birds were spotted during the survey spanning 99 different bird species. Baya Weaver bird, Streaked Weaver bird, Common Snipe and Oriental Honey Buzzard were new sightings reported from the campus premises during the survey. MACFAST secured third position in Kerala and tenth position in India in GBCC 2019 in which more than 250 Universities and Colleges participated across India.



One day forest experience for students

MACFAST Forestry Club coordinated a one day trekking programme for the student members in the forest which is under the Njallore Forest Station, Pathanamthitta. The trekking was conducted on March 09, 2019 with the permission obtained from the Forest Range Office, Konni. The program, held with the support of Deputy Range Officer and staff members of Njallore Forest Station, was attended by twenty students and four faculty members. The students benefited from the trekking in that they were able to understand more about forests and to experience the joy in being closer to Nature. They were able to observe more than thirty bird species apart from butterflies, dragon and damsel flies and forest trees. Afterwards the participants of the one-day camp also visited Elephant Training Center situated at Konni, Pathanamthitta.



International Day of Forests celebrations and Bulbul Newsletter Release

The International Day of Forests was celebrated at MACAFST under the auspices of the Forestry Club on 28th March 2019. Ms. Sudha Gourilekshmi, Ecotourism Programme Officer, Shendurney Wildlife Sanctuary was the chief guest on the auspicious occasion and delivered a discourse on the topic "Perceiving Nature". A proficient orator, Ms. Gourilekshmi inspired the audience in their pursuit of understanding Nature. She was found often quoting from sacred texts and contemporary literary works for underscoring the importance of understanding Nature and the environment around us. She also urged the listeners to become lovers of Nature and beggars for knowledge. The MACFAST Forestry Club Newsletter "Bulbul", initiated and helmed by Dr. Nishad P. M., was launched during the event. Principal, Fr. Dr. Cherian J. Kottayil, Administrator, Prof. Varghese Abraham, Deputy Director, Prof. Saneesh Varghese and co-ordinator of the event, Mr. Blessan Santhosh George also delivered speeches in course of the programme. Ms. Remya R., Student member, proposed the vote of thanks.



In-campus Bird watching for general public

Coming to know about the bird diversity available in the college campus through press and other public platforms, queries are being received from general public including seasoned and amateur nature watchers alike for an opportunity for bird watching in the campus. Such a session was arranged on 14th March 2019 by the Forestry Club and was attended by Mr. Aneesh G.A.S (Bird watcher from Thiruvalla), Mr. Harikumar Mannar (eBird Editor and resident of Alappuzha District) and his daughter Ms. Devi. The event was also attended by members of the Forestry Club. The session proved to be a fruitful one where the guests had a satisfying experience and were able to observe 52 different bird species. They appreciated the efforts by the college in documenting bird diversity and the conservation efforts.



Baya Weaver Count

Members of MACFAST Forestry Club participated in the Baya Weaver Count on 19 June 2019 as part of Common Bird Monitoring Programme of BNHS. Indian Baya Weaver (*Ploceus philippinus*) is one of the four species of weaver birds or bayas in India and is a familiar and common bird in the country. This is the only species which has suspended pendulous nests built in colonies, usually above water bodies. However, these birds seem to be facing population decline due to the growing human population and development. The survey was conducted in two locations, Ponnvallikavu and Thymala, which are places nearby the college. At Ponnvallikavu, two male and three female Baya Weavers were spotted and eleven uncompleted nests and a single completed one were found in two coconut trees. At Thymala fourteen male and four female Baya Weavers with twenty three completed and twenty one uncompleted nests in four coconut trees were found by the team which was lead by Dr. Nishad P. M. The obtained data was submitted in BNHS portal.



Three day nature camp at Kattilapara, Shendurney Wildlife Sanctuary

Forestry Club of MACFAST organized a three day paid nature camp 18th – 20th July 2019 at Shendurney Wildlife Sanctuary with the support of Shendurney Ecotourism Project with the permission of Kerala Forest Department. On 18th July, the camp participants, including 13 students and 3 staff members, visited Thenmala Dam and its surroundings for an evening bird watching session after reporting at Shendurney Forest Information Center and attending a lecture by Ms. Sudha Gourilekshmi, Ecotourism Programme Officer. Accommodation for the participants was arranged at Kattilappara dormitory in Shendurney, 14 km away from Forest Information Centre. The next day a forest walk was arranged to the unique myristica swamps of Shendurney Wildlife Sanctuary accompanied by the staff of Kerala Forest Department. Evenings were spent on discussions and debate on environment related issues led by Dr. Nishad P. M. The camp concluded on 20th July 2020 after an early morning bird watching along the trail leading to the dormitory. The students were fascinated by the unique habitat of the myristica ecosystem and the experience of overnight stay inside a natural forest. In spite of rains they were able to spot many forest birds including the Malabar trogon and nesting of the endemic Malabar Whistling Thrush. The event was coordinated by Mr. Blessan S George.





National Wildlife Week Celebrations

The Forestry Club organized a debate competition open for all students of the college on 01 October 2019 as part of National Wildlife Week Celebrations. The debate topic was “Human and its Deeds are Anti-Nature”. Six teams of two members each spoke for and against the motion and winners were declared. Students among the audience were also given their turn to voice their views about the subject.



DEBATE
ORGANIZED BY
MACFAST
FORESTRY CLUB

**HUMAN & ITS
DEEDS - OF
NATURE OR
ANTI-NATURE**

OCTOBER 01, TUESDAY
5.15 PM - 6.45 PM
CONFERENCE HALL

OPEN TO ALL

Confirm your Participation:
9048297281 (Nishad P.M.)
7025403827 (Blessan S. George)



NATIONAL WILDLIFE WEEK
CELEBRATIONS
01-08 OCTOBER

Poster for the event

Appendix 1- Relevant Newspaper
Clippings

This verdant campus is a birds' paradise

Study on avifaunal diversity identifies 89 species from MACFAST campus at Thiruvalla



Painted storks, Blue-tailed bee-eater, Indian Paradise flycatcher, Oriental Magpie robin, Red-whiskered bulbul, and Common kingfisher spotted in a bird survey held on the lush green MACFAST campus at Thiruvalla.

RADHAKRISHNAN KUTTOOR
PATMANABHUTTA
 Setting a model to its peers, the Mar Athanasius College For Advanced Studies (MACFAST), Thiruvalla, has been developed into a lush green campus for the avifauna to flourish, making it a birdwatcher's paradise too.

F.M. Nishad, Associate Professor of Computer Science at MACFAST, and his wife, Geeshama Faleel, researcher in Wildlife Biology at the Kerala Forest Research Institute at Peechi, have conducted a study on

the avifaunal diversity on the college campus during March 2006 to June 2007.

Many trees
 Talking to *The Hindu*, Dr. Nishad and Ms. Geeshama said many indigenous fruiting trees and other roosting trees, which attracted a large number of birds, were found on the MACFAST campus.

Dr. Nishad said they could spot a total of 89 species, belonging to 12 orders and 38 families, during the study.

The couple used to spend

eight to 30 hours a day for birdwatching with the help of Bushnell binoculars and spotting scope and identified each bird with its physical features and with the help of field guides and reference books.

Among the birds surveyed, Passeriformes and Pelecaniformes, dominated the list with 31 and 14 species, respectively.

Near-threatened ones too
 Three species of near-threatened category, Painted stork (*Mycteria leucocephala*), Oriental

dartar (*Anhinga melanogaster*) and Black-headed ibis (*Threskornis melanoleuca*), and White-necked stork (*Ciconia episcopus*) from the vulnerable category were also recorded.

Pompadour Green Pigeon (*Treron pompadora*), Lesser coucal (*Centropus bengalensis*), Pied cuckoo (*Cacomor jacobinus*), ballon's Crane (*Zapornia pusilla*), White-browed Wagtail (*Motacilla madagascariensis*), Chestnut-tailed starling (*Sturnia malabarica*), and Indian

Paradise flycatcher (*Terpisphaera paradise*) were the important sightings during the survey, they said.

Migratory bird
 Indian Paradise flycatcher is a bird found to have been migrated to the college campus from the Himalayas during December-January. Painted storks were the other migratory birds spotted in the dusty fields bordering the campus, they said.

College Principal Fr. Pradeep Vazhatharamalayil told *The Hindu* that it took 10

years for the management to develop the campus into a model green campus, declaring it a biodiversity-rich zone.

Fr. Vazhatharamalayil said ponds, grasslands, rooftops, playground, and paddy fields were the major microhabitats of the study area.

Located about 3 km south of Thiruvalla town, the MACFAST campus presently houses varied microhabitats like ponds, grasslands, rooftop of buildings, playground, and paddy fields for the avifauna.

THE HINDU
 30/10/17

Appendix 2- Publications

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/320373866>

Birds in and Around Macfast Campus, Thiruvalla, Kerala

Article · October 2017

DOI: 10.24247/ijproct20173

CITATION

1

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Pm Nishad

Mar Athanasios College For Advanced Studies Tiruvalla

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Greeshma Paleeri

Kerala Research Institute 9 PUBLICATIONS

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Some of the authors of this publication are also working on these related projects:

Project

Behavioural studies [View project](#)

Project

Butterflies of MACFAST [View project](#)

BIRDS IN AND AROUND MACFAST CAMPUS, THIRUVALLA, KERALA

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ABSTRACT

Avifaunal diversity of MACFAST campus and adjoining areas were carried out during March 2016 to June 2017. Ponds, grasslands, rooftops of buildings, playground and paddy fields were the major microhabitats of the study area. Birds were observed using Bushnell binocular (10 x 50), spotting scope (10x- 45x) and identified using physical features with the help of field guides and reference books. A total of 88 species from 12 orders and 38 families were recorded during the study and among these, Passeriformes and Pelicaniformes, dominated the list with 31 and 14 species, respectively. Three species of Near Threatened category (*Mycteria leucocephala*, *Anhinga melanogaster*, *Threskiornis melanocephalus*) and *Ciconia episcopus* from Vulnerable category were also recorded. Pompadour Green Pigeon *Treron pompadora*, Lesser coucal *Centropus bengalensis*, Pied Cuckoo *Clamator jacobinus*, Baillon's Crake *Zapornia pusilla*, White-browed Wagtail *Motacilla maderaspatensis*, Chestnut-tailed Starling *Sturnia malabarica* and Indian Paradise-flycatcher *Terpsiphone paradise* were the important sightings, during the survey. The presence of indigenous fruiting trees along with large trees as roosting sites, attract more birds to the campus. **KEYWORDS:** Birds-Diversity- Macfast Campus-Thiruvalla-Kerala

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INTRODUCTION

Birds are always a fascinating creature, which adds up the beauty of nature. Avifauna of MACFAST campus and adjoining areas were studied from March 2016 to June 2017. Mar Athanasios College for Advanced Studies (MACFAST) (9° 22' 23" N & 76° 35' 4"E) in Pathanamthitta District is located about 3 km to the South of Thiruvalla town. The campus has varied micro habitats like ponds, grasslands, roof top of buildings, playground and paddy fields. The vegetation is dominated by *Racosperma auriculiforme*, *Anacardium occidentale*, *Artocarpus heterophyllus*, *Racosperma mangium*, *Nephelium lappaceum*, *Artocarpus hirsutus*, *Ficus auriculata*, *Flacourtia jangomas*, *Mangifera indica*, *Bamboo Sps.*, *Cocos nucifera*, *Azadirachta indica*, *Syzygium jambos*, *Phyllanthus emblica*, *Carica papaya*, *Cassia fistula*, *Sapindus emarginatus*, *Corypha umbraculifera*, *Lagerstroemia microcarpa*, *Tectona grandis*, *Macaranga indica*, *Bauhinia racemosa*, *Albizia chinensis*, *Delonix regia*, *Muntingia calabura*, *Averrhoa carambola*, *Elaeocarpus serratus*, *Manilkara zapota* and *Artocarpus incises*. Aquatic weeds like *Eichhornia crassipes*, *Salvinia molesta* were also present in water bodies near paddy fields.

METHODOLOGY

Birds were observed alone as well as in a team using Bushnell binocular (10 x 50), spotting scope (10 x-45 xs) and identified using physical features, with the help of field guides and reference books (Ali & Ripley 1978; Grimmett *et al.* 2011). Observations were made from 06.00 hrs to 10.00 hrs and 16.00 hrs to 19.00 hrs, once in

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Greeshma

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every week.

RESULTS

A total of 88 species from 12 orders and 38 families were recorded during the study (Table 1). Out of 500 species of Kerala (Praveen 2015), 17.6 % of bird species were reported from this region. Of these 12 orders, Passeriformes, Pelicaniformes dominated the list with 31 and 14 species, respectively (Figure.1).

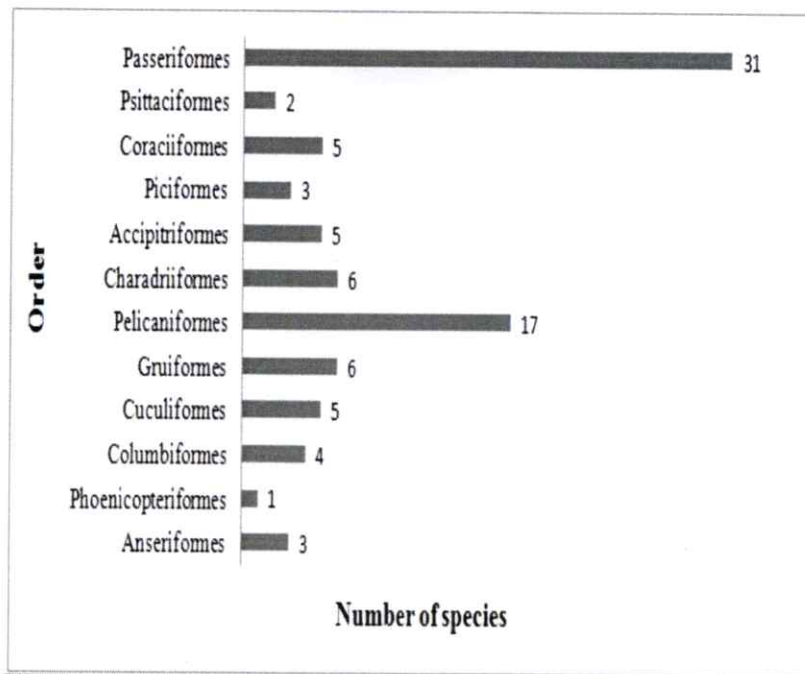


Figure 1: Number of Species Representing the Respective Orders from MACFAST Campus

Among the species recorded, 51% comprised of resident birds followed by 33% of local migrants and 16 % of migratory birds. Of these, 47 species were wetland dependent birds and 41 species terrestrial birds. Little cormorant *Microcarbo niger*, Indian pond heron *Ardeola grayii*, Grey-headed swamphen *Porphyrio poliocephalus*, White-throated Kingfisher *Halcyon smyrnensis*, Black Drongo *Dicrurus macrocercus* were the most abundantly seen resident birds. Three species of Near Threatened category (*Mycteria leucocephala*, *Anhinga melanogaster*, *Threskiornis melanocephalus*) and Woolly-necked Stork *Ciconia episcopus*, from Vulnerable category were also recorded. Pompadour Green Pigeon *Treron pompadora*, Lesser coucal *Centropus bengalensis*, Pied Cuckoo *Clamator jacobinus*, Baillon's Crake *Zapornia pusilla*, White-browed Wagtail *Motacilla maderaspatensis*, Chestnut-tailed Starling *Sturnia malabarica*, Indian Paradise-flycatcher *Terpsiphone paradise* were the important sightings. The paddy fields serve as an important foraging ground for several groups of birds like herons, ducks, cormorants, storks etc. Apart from foraging, hundreds of birds choose their resting place in this campus.

DISCUSSION AND CONCLUSIONS

During the study it was observed that the campus and adjoining areas had a rich variety of vegetation. The presence of indigenous fruiting trees, along with large trees as roosting sites, attract more birds to the campus. Least

Impact Factor (JCC): 3.8975

NAAS Rating: 3.10

Birds in and Around Macfast Campus, Thiruvalla, Kerala
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disturbances to the habitat and conservation awareness among the college people had led to the safe movement of birds all the time in the campus. Bird diversity at MACFAST campus and adjoining areas is unexplored yet and hence this work to record the avian diversity will form the base line information for future studies.

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APPENDICES

ACKNOWLEDGEMENTS

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Table 1: Checklist of Birds from MACFAST Collge Campus, Thiruvalla, Kerala

Order	Family	Sl. No	Common Name	Scientific Name	IUCN
Anseriformes	Anatidae	1	Lesser Whistling-Duck	<i>Dendrocygna javanica</i>	LC
		2	Cotton Pygmy-Goose	<i>Nettapus coromandelianus</i>	LC
		3	Indian Spot-billed Duck	<i>Anas poecilorhyncha</i>	LC
Phoenicopteriformes	Podicipedidae	4	Little Grebe	<i>Tachybaptus ruficollis</i>	LC
Columbiformes	Columbidae	5	Rock Pigeon	<i>Columba livia</i>	LC
		6	Spotted Dove	<i>Streptopelia chinensis</i>	LC
		7	Yellow-footed Pigeon	<i>Treron phoenicopterus</i>	LC
		8	Pompadour Green Pigeon	<i>Treron pompadora</i>	LC
Cuculiformes	Cuculidae	9	Greater Coucal	<i>Centropus sinensis</i>	LC
		10	Lesser coucal	<i>Centropus bengalensis</i>	LC
		11	Pied Cuckoo	<i>Clamator jacobinus</i>	LC
		12	Asian Koel	<i>Eudynamys scolopaceus</i>	LC
		13	Indian Cuckoo	<i>Cuculus micropterus</i>	LC
Gruiformes	Rallidae	14	White-breasted Waterhen	<i>Amauornis phoenicurus</i>	LC
		15	Baillon's Crake	<i>Zapornia pusilla</i>	LC

		16	Watercock	<i>Gallix cinerea</i>	LC
		17	Gray-headed Swamphen	<i>Porphyrio porphyrio</i>	LC
		18	Common Moorhen	<i>Gallinula chloropus</i>	LC
		19	Common Coot	<i>Fulica atra</i>	LC
elicaniformes	Ciconiidae	20	Asian Openbill	<i>Anastomus oscitans</i>	LC
		21	Woolly-necked Stork	<i>Ciconia episcopus</i>	VU
		22	Painted Stork	<i>Mycteria leucocephala</i>	NT
	Ardeidae	23	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	LC
		24	Grey Heron	<i>Ardea cinerea</i>	LC
		25	Purple Heron	<i>Ardea purpurea</i>	LC
		26	Great Egret	<i>Ardea alba</i>	LC

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Greeshma

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		27	Intermediate Egret	<i>Ardea intermedia</i>	LC
		28	Little Egret	<i>Egretta garzetta</i>	LC
		29	Western Reef-Heron	<i>Egretta gularis</i>	LC
		30	Cattle Egret	<i>Bubulcus ibis</i>	LC
		31	Indian Pond-Heron	<i>Ardeola grayii</i>	LC
	Threskiornithidae	32	Glossy Ibis	<i>Plegadis falcinellus</i>	LC
		33	Black-headed Ibis	<i>Threskiornis melanocephalus</i>	NT
	Phalacrocoracidae	34	Little Cormorant	<i>Microcarbo niger</i>	LC
		35	Indian Cormorant	<i>Phalacrocorax fuscicollis</i>	LC
	Anhingidae	36	Oriental Darter	<i>Anhinga melanogaster</i>	NT
Charadriiformes	Recurvirostridae	37	Black-winged Stilt	<i>Himantopus himantopus</i>	LC
	Charadriidae	38	Red-wattled Lapwing	<i>Vanellus indicus</i>	LC
	Jacaniidae	39	Bronze-winged Jacana	<i>Metopidius indicus</i>	LC
	Scolopacidae	40	Common Snipe	<i>Gallinago gallinago</i>	LC
		41	Marsh Sandpiper	<i>Tringa stagnatilis</i>	LC
		42	Wood Sandpiper	<i>Tringa glareola</i>	LC
Accipitriformes	Accipitridae	43	Crested Serpent Eagle	<i>Spilornis cheela</i>	LC
		44	Eurasian Marsh-Harrier	<i>Circus aeruginosus</i>	LC
		45	Shikra	<i>Accipiter badius</i>	LC
		46	Brahminy Kite	<i>Haliastur indus</i>	LC
		47	Black Kite	<i>Milvus migrans</i>	LC
Piciformes	Picidae	48	Common Goldenbacked Woodpecker	<i>Dinopium javanense</i>	LC
		49	Lesser Golden-backed Woodpecker	<i>Dinopium benghalense</i>	LC
	Ramphastidae	50	White-cheeked Barbet	<i>Psilopogon viridis</i>	LC
Coraciiformes	Meropidae	51	Blue-tailed Bee-eater	<i>Merops philippinus</i>	LC

	Alcedinidae	52	Common Kingfisher	<i>Alcedo atthis</i>	LC
		53	Stork-billed Kingfisher	<i>Pelargopsis capensis</i>	LC
		54	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	LC
		55	Pied Kingfisher	<i>Ceryle rudis</i>	LC
Psittaciformes	Psittaculidae	56	Rose-ringed Parakeet	<i>Psittacula krameri</i>	LC
		57	Plum-headed Parakeet	<i>Psittacula cyanocephala</i>	LC
Passeriformes	Artamidae	58	Ashy Woodswallow	<i>Artamus fuscus</i>	LC
	Oriolidae	59	Indian Golden Oriole	<i>Oriolus kundoo</i>	LC
		60	Black-hooded Oriole	<i>Oriolus xanthornus</i>	LC
	Dicruridae	61	Black Drongo	<i>Dicrurus macrocercus</i>	LC
		62	Greater Racket-tailed Drongo	<i>Dicrurus paradiseus</i>	LC
	Aegithinidae	63	Common Iora	<i>Aegithina tiphia</i>	LC
	Corvidae	64	Rufous Treepie	<i>Dendrocitta vagabunda</i>	LC
		65	House Crow	<i>Corvus splendens</i>	LC
	Monarchidae	66	Indian Paradiseflycatcher	<i>Terpsiphone paradisi</i>	LC
	Dicaeidae	67	Pale-billed Flowerpecker	<i>Dicaeum erythrorhynchos</i>	LC
	Nectariniidae	68	Purple-rumped Sunbird	<i>Leptocoma zeylonica</i>	LC
		69	Little Spiderhunter	<i>Arachnothera longirostra</i>	LC
70		Loten's Sunbird	<i>Cinnyris lotenius</i>	LC	

Impact Factor (JCC): 3.8975

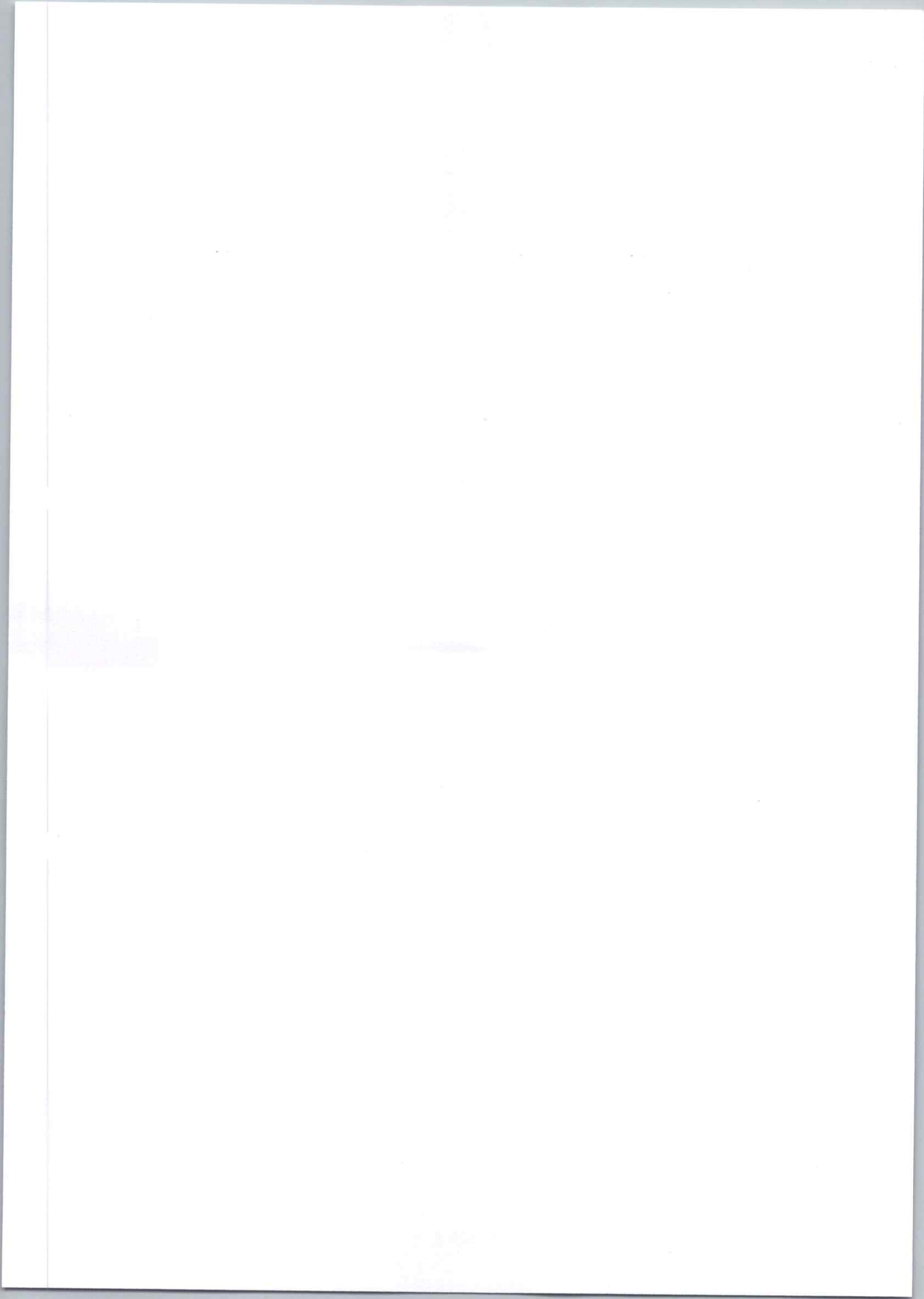
NAAS Rating: 3.10

Birds in and Around Macfast Campus, Thiruvalla, Kerala

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	Estrildidae	71	Scaly-breasted Munia	<i>Lonchura punctulata</i>	LC
		72	Black-headed Munia	<i>Lonchura malacca</i>	LC
		73	White-rumped Munia	<i>Lonchura striata</i>	LC
Passeridae	74	House Sparrow	<i>Passer domesticus</i>	LC	
Motacillidae	75	White-browed Wagtail	<i>Motacilla maderaspatensis</i>	LC	
	76	Grey Wagtail	<i>Motacilla cinerea</i>	LC	
Cisticolidae	77	Common Tailorbird	<i>Orthotomus sutorius</i>	LC	
	78	Ashy Prinia	<i>Prinia socialis</i>	LC	
Acrocephalidae	79	Blyth's Reed-Warbler	<i>Acrocephalus dumetorum</i>	LC	
Pycnonotidae	80	Red-vented Bulbul	<i>Pycnonotus cafer</i>	LC	
	81	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	LC	
Leiothrichidae	82	Jungle Babbler	<i>Turdoides striata</i>	LC	
Hirundinidae	83	Barn Swallow	<i>Hirundo rustica</i>	LC	
	84	Wire-tailed Swallow	<i>Hirundo smithii</i>	LC	
Sturnidae	85	Rosy Starling	<i>Pastor roseus</i>	LC	
	86	Chestnut-tailed Starling	<i>Sturnia malabarica</i>	LC	
	87	Common Myna	<i>Acridotheres tristis</i>	LC	

	Muscicapidae	88	Oriental MagpieRobin	<i>Copsychus saularis</i>	LC
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Butterflies of MACFAST Campus, Thiruvalla, Pathanamthitta District, Kerala, India

Butterflies are very sensitive to the changes in the environment and are considered good ecological indicators; hence they are included in various conservation and biodiversity studies (Gadgil 1996).

Butterflies are valuable pollinators and form an important part of the food chain components of reptiles, birds, and other predatory insects. Butterflies are diurnal creatures but some are active at night also. Approximately, 18,000 species of butterflies have been recorded from around the world. Of them, 1,501 species are from India, 334 species from the Western Ghats (Evans 1932; Gaonkar 1996; Kunte 2000) and 316 from Kerala (Palot et al., 2012). Some of the earlier works, which enriched the butterfly studies in Kerala include Ferguson (1891) who recorded 220 butterfly species from Travancore area, Mathew & Rahmathulla (1993) recorded 100 species from Silent Valley National Park, 119 species from Periyar Tiger Reserve (Palot et al., 1997), 124 species from Pambikulam Wildlife Sanctuary (Sudheendrakumar et al., 2000), and 71 species from Aralam Wildlife Sanctuary (Sreekumar & Balakrishnan, 2001). Fire, illegal trading of butterflies,

Table. Checklist of butterflies of MACFAST Campus, Thiruvalla, Kerala.

impact butterfly species. Diversity studies from representative habitats will give an outline of the ecological system of that area.

The butterfly fauna of the MACFAST college campus, Thiruvalla, Pathanamthitta district was monitored once a week from June 2017 to August 2018. The butterfly species were photo documented and species identification was done with the help of field guides by Mathew (2014), Kunte (2000), and the website of Butterflies of India (Kunte 2018).

The present study on butterfly diversity was carried out in the campus of Mar Athanasios College for Advanced Studies (MACFAST) (9.3730°N & 76.584°E from June 2017 to August 2018. The MACFAST campus is located about three kilometers south of Thiruvalla Town. The total area of the campus is about 7.5 acres, and the vegetation is dominated by *Anacardium occidentale*, *Racosperma auriculiforme*, *Racosperma mangium*, *Artocarpus heterophyllus*, *Artocarpus hirsutus*, *Mangifera indica*, *Bamboo sp.*, *Cocos nucifera*, *Corypha umbraculifera*, *Lagerstroemia microcarpa*, *Nephelium*

Bugs R' ALL

Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

	Common name	Scientific name
Papilionidae: Papilioninae		
1	Sahyadri Birdwing	<i>Troides minos</i>
2	Common Rose	<i>Pachliopta aristolochiae</i>
3	Crimson Rose	<i>Pachliopta hector</i>
4	Common Bluebottle	<i>Graphium sarpedon</i>
5	Tailed Jay	<i>Graphium agamemnon</i>
6	Lime Swallowtail	<i>Papilio demoleus</i>
7	Red Helen	<i>Papilio helenus</i>
8	Common Mormon	<i>Papilio polytes</i>
9	Common Mime	<i>Papilio clytia</i>
10	Blue Mormon	<i>Papilio polymnestor</i>
Pieridae: Coliadinae		
11	Lemon Emigrant	<i>Catopsilia pomona</i>
12	Mottled Emigrant	<i>Catopsilia pyranthe</i>

	Common name	Scientific name
Nymphalidae: Heliconiinae		
30	Tawny Coster	<i>Acraea terpsicore</i>
31	Cruiser	<i>Vindula erota</i>
32	Rustic	<i>Cupha erymanthis</i>
33	Common Leopard	<i>Phalanta phalantha</i>
34	Tamil Yeoman	<i>Cirrochroa thais</i>
Nymphalidae: Limenitidinae		
35	Common Sailer	<i>Neptis hylas</i>
36	Commander	<i>Moduza procris</i>
37	Grey Count	<i>Tanaecia lepidea</i>
38	Baron	<i>Euthalia aconthea</i>
Nymphalidae: Biblidinae		
39	Angled Castor	<i>Ariadne ariadne</i>
40	Common Castor	<i>Ariadne merione</i>
Nymphalidae: Nymphalinae		

Bugs R' ALL

November

Newsletter of the Invertebrate Conservation & Information Network of South Asia (ICINSA)

13	Small Grass Yellow	<i>Eurema brigitta</i>
14	Spotless Grass Yellow	<i>Eurema laeta</i>
15	Common Grass Yellow	<i>Eurema hecabe</i>
16	Three-spot Grass Yellow	<i>Eurema blanda</i>
Pieridae: Pierinae		
17	Indian Jezebel	<i>Delias eucharis</i>
18	Pioneer	<i>Belenois aurota</i>
19	Psyche	<i>Leptosia nina</i>
20	Common Gull	<i>Cepora nerissa</i>
21	Chocolate Albatross	<i>Appiaslyncida</i>
Nymphalidae: Satyrinae		
22	Common Evening Brown	<i>Melanitis leda</i>
23	Tailed Palmfly	<i>Elymnias caudata</i>

41	Yellow Pansy	<i>Junonia hierta</i>
42	Lemon Pansy	<i>Junonia lemonias</i>
43	Peacock Pansy	<i>Junonia almanac</i>
44	Grey Pansy	<i>Junonia atlites</i>
45	Chocolate Pansy	<i>Junonia iphita</i>
46	Danaid Eggfly	<i>Hypolimnas misippus</i>
47	Great Eggfly	<i>Hypolimnas bolina</i>
Nymphalidae: Danainae		
48	Glassy Tiger	<i>Parantica aglea</i>
49	Blue Tiger	<i>Tirumala limniace</i>
50	Dark Blue Tiger	<i>Tirumala septentrionis</i>
51	Plain Tiger	<i>Danaus chrysippus</i>
52	Striped Tiger	<i>Danaus genutia</i>

Bugs R ALL

Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

24	Bamboo Treebrown	<i>Lethe europa</i>
25	Common Bushbrown	<i>Mycalesis perseus</i>
26	Dark-branded Bushbrown	<i>Mycalesis mineus</i>
27	Long-branded Bushbrown	<i>Mycalesis visala</i>
28	Common Four-ring	<i>Ypthima huebneri</i>
29	Common Five-ring	<i>Ypthima baldus</i>

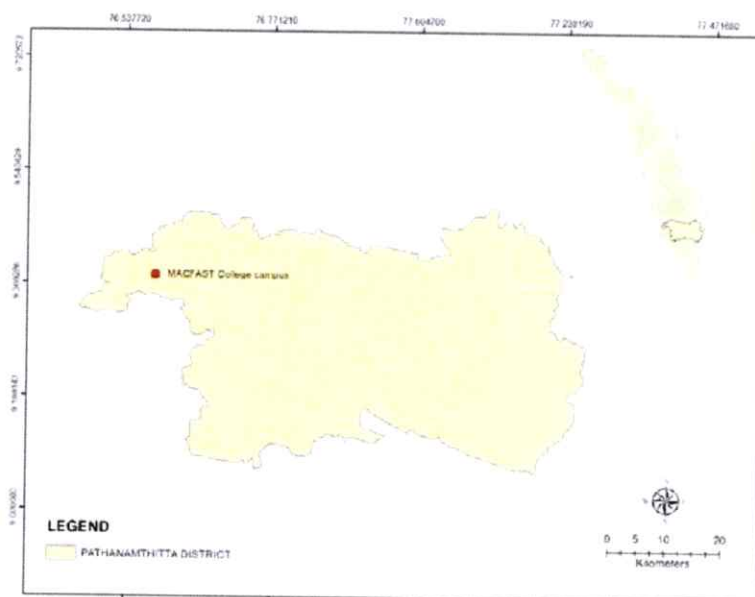
53	Common Crow	<i>Euploea core</i>
Lycaenidae: Polyommatae		
54	Common Pierrot	<i>Castalius rosimon</i>
55	Banded Blue Pierrot	<i>Discolampa ethion</i>
56	Plains Cupid	<i>Chilades pandava</i>
57	Tiny Grass Blue	<i>Zizula hylax</i>

	Common name	Scientific name
58	Lime Blue	<i>Chilades lajus</i>
59	Gram Blue	<i>Euchrysops cnejus</i>
60	Common Cerulean	<i>Jamides celeno</i>
61	Red Pierrot	<i>Talicauda nyseus</i>
Lycaenidae: Theclinae		
62	Slate Flash	<i>Rapala manea</i>
63	Monkey Puzzle	<i>Rathinda amor</i>
Hesperiidae: Pyrginae		
64	Common Snow Flat	<i>Tagiades japetus</i>
65	Water Snow Flat	<i>Tagiades litigiosa</i>
66	Tricolour Pied Flat	<i>Coladenia indrani</i>
67	Suffused Snow Flat	<i>Tagiades gana</i>

Hesperiidae: Hesperinae		
68	Bush Hopper	<i>Ampittia dioscorides</i>
69	Chestnut Bob	<i>Iambrix salsala</i>
70	Common Branded Redeye	<i>Matapa aria</i>
71	Grey-veined Grass Dart	<i>Taractrocera maevius</i>
72	Smaller Dartlet	<i>Oriens goloides</i>
73	Oriental Palm Bob	<i>Suastus gremius</i>
74	Pelopidas swift species	<i>Pelopidas</i> sp.
75	Parnara Swift species	<i>Parnara</i> sp.

Jappaceum, Ficus auriculata, Flacourtia jangomas, Azadirachta indica, Carica papaya, Cassia fistula, Syzygium jambos, Phyllanthus emblica, Sapindus emarginatus, Tectona grandis, Macaranga indica, Bauhinia racemosa, Averrhoa carambola, Albizia chinensis, Delonix regia, Muntingia calabura, Elaeocarpus serratus, Manilkara zapota and Artocarpus incises. Aquatic weeds like *Eichhornia crassipes, Salvinia molesta* were also present in water bodies near paddy fields.

A total of 75 species from 52 genera of butterflies belonging to five families and 13 subfamilies were identified from MACFAST Campus, including one species which is endemic to the Western Ghats and 10 species protected under various schedules of the Indian Wildlife (Protection)



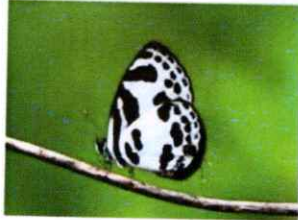
MACFAST Campus, Thiruvalla.
Photographs of butterflies recorded in the MACFAST Campus.

Bugs R' ALL

Invertebrate Conservation & Information Network of South Asia (ICINSA)
Newsletter of the



Bamboo Treebrown



Banded Blue Pierrot



Chocolate Albatross



Common Bluebottle



Bush Hopper



Chestnut Bob



Chocolate Pansy



Common Crow



Commander



Common Leopard



Common Cerulean



Common Mormon (female)



Common Five-ring



Common Four-ring



Common Grass Yellow



Crimson Rose



Common Mormon (male)



Common Pierrot



Common Sailer



Cruiser



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Baron



Danaid Eggfly



Dark Blue Tiger



Dark-banded Bushbrown



Gram Blue



Great Eggfly



Grey Count



Grey Pansy



Grey-veined Grass Dart



Indian Jezebel



Lemon Emigrant



Lemon Pansy



Lime Blue



Long-branded Bushbrown



Monkey Puzzle



Pioneer



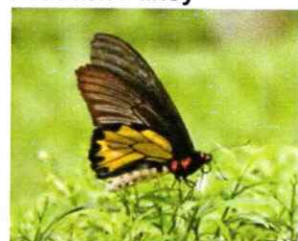
Mottled Emigrant



Oriental Palm Bob



Peacock Pansy



Plain Tiger



Red Pierrot

Plains Cupid

Sahyadri Birdwing

Psyche



Common Branded Redeye



Slate Flash



Tailed Jay



Tailed Palmfly



Yellow Pansy



Tawny Coster



Three-spot Grass Yellow



Rustic



Tamil Yeoman



Tiny Grass Blue



Striped Tiger



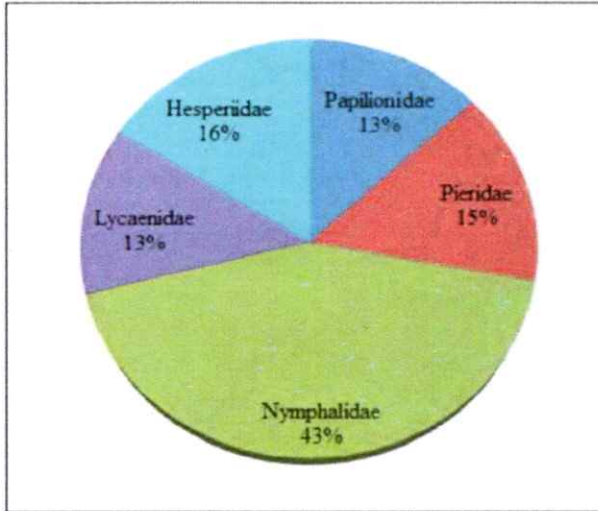
Glassy Tiger



Lime Swallowtail

Bugs R' ALL

Newsletter of the Invertebrate Conservation & Information Network of South Asia (ICINSA)



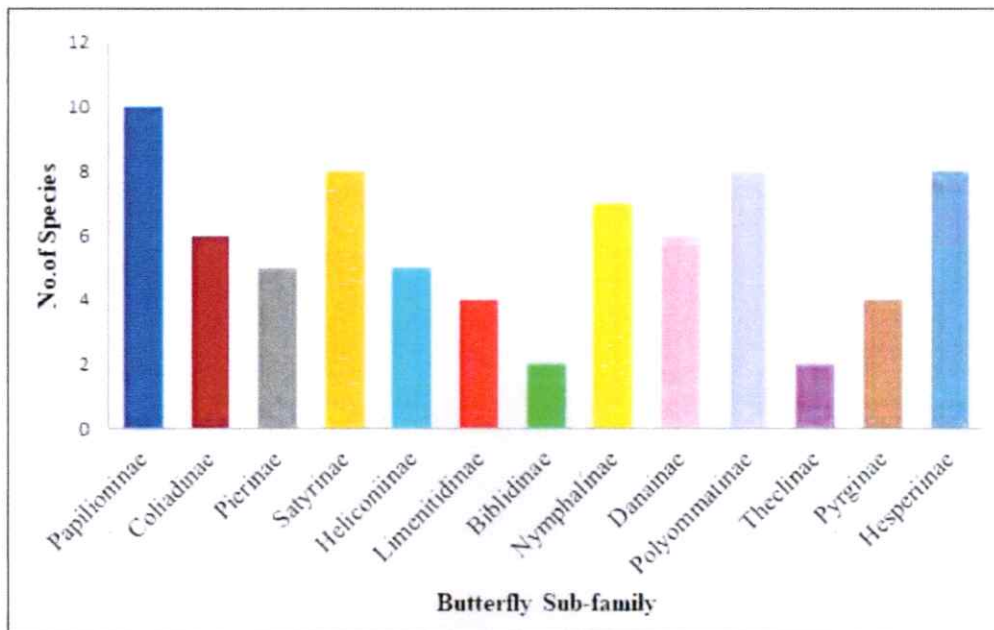
Family wise distribution of butterfly species in MACFAST campus.

Act, 1972. The sighted butterflies are listed in Table. Nymphalidae (brush-footed butterflies) were the most dominant family comprising of 32 species belonging to five subfamilies and it constituted 42.7% of the total butterfly species in the campus. The subfamily-wise distribution of butterflies of MACFAST campus is given.

Out of 316 species recorded from

Kerala, 75 species are recorded from the MACFAST campus, which implies that the small green campus is rich in butterfly diversity. Among the 75 species, *Pachliopta hector*, *Papilio clytia*, *Lethe europa*, *Castalius rosimon* are listed in the Schedule I of the Indian Wildlife (Protection) Act of 1972. Species such as *Euchrysops cnejus*, *Hypolimnas misippus*, *Tanaecia lepidea*, *Cepora nerissa*, *Appias lycida* are in Schedule II and *Euploea core* is under Schedule IV as per the Act. Sahyadri Birdwing *Troides minos*, an endemic species to the Western Ghats was also recorded from the campus. Six migratory butterfly species namely *Euploea core*, *Danaus chrysippus*, *Tirumalalimniace*, *Catopsilia pyranthe*, *Catopsilia*, *Pomona*, and *Papilio demoleus*, have also been recorded on this campus.

While comparing with the butterfly diversity of well-established butterfly gardens like Nilambur Butterfly Garden (with 50 species) (Revathy & Mathew 2013) and



Sub-family wise distribution of butterfly species in MACFAST campus.



Thumboormuzhi river garden (with 89 species) (Puthur et al. 2015), MACFAST campus, without a butterfly garden, exemplifies a potential habitat for the butterflies. This small urban landscape is an abode to 5% and 23.73% of the total butterfly species of India and Kerala respectively. As there is an urgent need for conservation programmes, setting up of a butterfly garden by planting more nectar plants and larval food plants is the main recommendation for the conservation of butterflies on the campus.

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BIRDS IN AND AROUND MACFAST CAMPUS, THIRUVALLA, KERALA

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ABSTRACT

Avifaunal diversity of MACFAST campus and adjoining areas were carried out during March 2016 to June 2017. Ponds, grasslands, rooftops of buildings, playground and paddy fields were the major microhabitats of the study area. Birds were observed using Bushnell binocular (10 x 50), spotting scope (10x- 45x) and identified using physical features with the help of field guides and reference books. A total of 88 species from 12 orders and 38 families were recorded during the study and among these, Passeriformes and Pelicaniformes, dominated the list with 31 and 14 species, respectively. Three species of Near Threatened category (*Mycteria leucocephala*, *Anhinga melanogaster*, *Threskiornis melanocephalus*) and *Ciconia episcopus* from Vulnerable category were also recorded. Pompadour Green Pigeon *Treron pompadora*, Lesser coucal *Centropus bengalensis*, Pied Cuckoo *Clamator jacobinus*, Baillon's Crake *Zapornia pusilla*, White-browed Wagtail *Motacilla maderaspatensis*, Chestnut-tailed Starling *Sturnia malabarica* and Indian Paradise-flycatcher *Terpsiphone paradise* were the important sightings, during the survey. The presence of indigenous fruiting trees along with large trees as roosting sites, attract more birds to the campus. **KEYWORDS:** Birds-Diversity- Macfast Campus-Thiruvalla-Kerala

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INTRODUCTION

Birds are always a fascinating creature, which adds up the beauty of nature. Avifauna of MACFAST campus and adjoining areas were studied from March 2016 to June 2017. Mar Athanasios College for Advanced Studies (MACFAST) (9° 22' 23" N & 76° 35' 4"E) in Pathanamthitta District is located about 3 km to the South of Thiruvalla town. The campus has varied micro habitats like ponds, grasslands, roof top of buildings, playground and paddy fields. The vegetation is dominated by *Racosperma auriculiforme*, *Anacardium occidentale*, *Artocarpus heterophyllus*, *Racosperma mangium*, *Nephelium lappaceum*, *Artocarpus hirsutus*, *Ficus auriculata*, *Flacourtia jangomas*, *Mangifera indica*, *Bamboo Sps.*, *Cocos nucifera*, *Azadirachta indica*, *Syzygium jambos*, *Phyllanthus emblica*, *Carica papaya*, *Cassia fistula*, *Sapindus emarginatus*, *Corypha umbraculifera*, *Lagerstroemia microcarpa*, *Tectona grandis*, *Macaranga indica*, *Bauhinia racemosa*, *Albizia chinensis*, *Delonix regia*, *Muntingia calabura*, *Averrhoa carambola*, *Elaeocarpus serratus*, *Manilkara zapota* and *Artocarpus incises*. Aquatic weeds like *Eichhornia crassipes*, *Salvinia molesta* were also present in water bodies near paddy fields.

METHODOLOGY

Birds were observed alone as well as in a team using Bushnell binocular (10 x 50), spotting scope (10 x-45 xs) and identified using physical features, with the help of field guides and reference books (Ali & Ripley 1978; Grimmett *et al.* 2011). Observations were made from 06.00 hrs to 10.00 hrs and 16.00 hrs to 19.00 hrs, once in

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every week.

RESULTS

A total of 88 species from 12 orders and 38 families were recorded during the study (Table 1). Out of 500 species of Kerala (Praveen 2015), 17.6 % of bird species were reported from this region. Of these 12 orders, Passeriformes, Pelicaniformes dominated the list with 31 and 14 species, respectively (Figure.1).

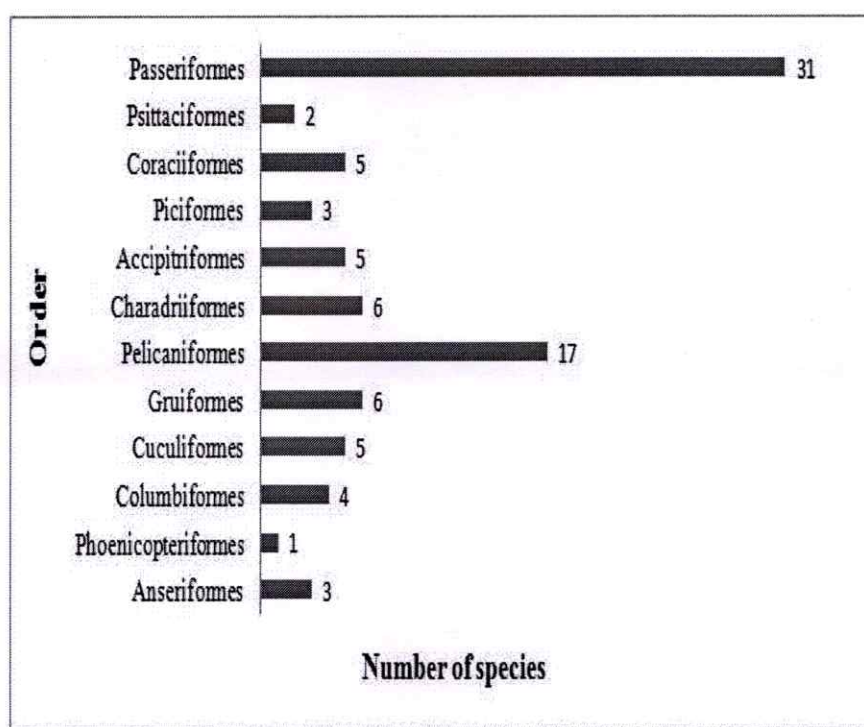


Figure 1: Number of Species Representing the Respective Orders from MACFAST Campus

Among the species recorded, 51% comprised of resident birds followed by 33% of local migrants and 16 % of migratory birds. Of these, 47 species were wetland dependent birds and 41 species terrestrial birds. Little cormorant *Microcarbo niger*, Indian pond heron *Ardeola grayii*, Grey-headed swamphen *Porphyrio poliocephalus*, White-throated Kingfisher *Halcyon smyrnensis*, Black Drongo *Dicrurus macrocercus* were the most abundantly seen resident birds. Three species of Near Threatened category (*Mycteria leucocephala*, *Anhinga melanogaster*, *Threskiornis melanocephalus*) and Woolly-necked Stork *Ciconia episcopus*, from Vulnerable category were also recorded. Pompadour Green Pigeon *Treron pompadora*, Lesser coucal *Centropus bengalensis*, Pied Cuckoo *Clamator jacobinus*, Baillon's Crake *Zapornia pusilla*, White-browed Wagtail *Motacilla maderaspatensis*, Chestnut-tailed Starling *Sturnia malabarica*, Indian Paradise-flycatcher *Terpsiphone paradise* were the important sightings. The paddy fields serve as an important foraging ground for several groups of birds like herons, ducks, cormorants, storks etc. Apart from foraging, hundreds of birds choose their resting place in this campus.

DISCUSSION AND CONCLUSIONS

During the study it was observed that the campus and adjoining areas had a rich variety of vegetation. The presence of indigenous fruiting trees, along with large trees as roosting sites, attract more birds to the campus. Least

Impact Factor (JCC): 3.8975

NAAS Rating: 3.10

Birds in and Around Macfast Campus, Thiruvalla, Kerala

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disturbances to the habitat and conservation awareness among the college people had led to the safe movement of birds all the time in the campus. Bird diversity at MACFAST campus and adjoining areas is unexplored yet and hence this work to record the avian diversity will form the base line information for future studies.

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APPENDICES

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Table 1: Checklist of Birds from MACFAST Collge Campus, Thiruvalla, Kerala

Order	Family	Sl. No	Common Name	Scientific Name	IUCN
Anseriformes	Anatidae	1	Lesser Whistling-Duck	<i>Dendrocygna javanica</i>	LC
		2	Cotton Pygmy-Goose	<i>Nettapus coromandelianus</i>	LC
		3	Indian Spot-billed Duck	<i>Anas poecilorhyncha</i>	LC
Phoenicopteriformes	Podicipedidae	4	Little Grebe	<i>Tachybaptus ruficollis</i>	LC
Columbiformes	Columbidae	5	Rock Pigeon	<i>Columba livia</i>	LC
		6	Spotted Dove	<i>Streptopelia chinensis</i>	LC
		7	Yellow-footed Pigeon	<i>Treron phoenicopterus</i>	LC
		8	Pompadour Green Pigeon	<i>Treron pompadora</i>	LC
Cuculiformes	Cuculidae	9	Greater Coucal	<i>Centropus sinensis</i>	LC
		10	Lesser coucal	<i>Centropus bengalensis</i>	LC
		11	Pied Cuckoo	<i>Clamator jacobinus</i>	LC
		12	Asian Koel	<i>Eudynamys scolopaceus</i>	LC
		13	Indian Cuckoo	<i>Cuculus micropterus</i>	LC
Gruiformes	Rallidae	14	White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	LC
		15	Baillon's Crane	<i>Zapornia pusilla</i>	LC

		16	Watercock	<i>Gallicrex cinerea</i>	LC
		17	Gray-headed Swamphen	<i>Porphyrio porphyrio</i>	LC
		18	Common Moorhen	<i>Gallinula chloropus</i>	LC
		19	Common Coot	<i>Fulica atra</i>	LC
elicaniformes	Ciconiidae	20	Asian Openbill	<i>Anastomus oscitans</i>	LC
		21	Woolly-necked Stork	<i>Ciconia episcopus</i>	VU
		22	Painted Stork	<i>Mycteria leucocephala</i>	NT
	Ardeidae	23	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	LC
		24	Grey Heron	<i>Ardea cinerea</i>	LC
		25	Purple Heron	<i>Ardea purpurea</i>	LC
		26	Great Egret	<i>Ardea alba</i>	LC

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		27	Intermediate Egret	<i>Ardea intermedia</i>	LC
		28	Little Egret	<i>Egretta garzetta</i>	LC
		29	Western Reef-Heron	<i>Egretta gularis</i>	LC
		30	Cattle Egret	<i>Bubulcus ibis</i>	LC
		31	Indian Pond-Heron	<i>Ardeola grayii</i>	LC
	Threskiornithidae	32	Glossy Ibis	<i>Plegadis falcinellus</i>	LC
		33	Black-headed Ibis	<i>Threskiornis melanocephalus</i>	NT
	Phalacrocoracidae	34	Little Cormorant	<i>Microcarbo niger</i>	LC
		35	Indian Cormorant	<i>Phalacrocorax fuscicollis</i>	LC
	Anhingidae	36	Oriental Darter	<i>Anhinga melanogaster</i>	NT
Charadriiformes	Recurvirostridae	37	Black-winged Stilt	<i>Himantopus himantopus</i>	LC
	Charadriidae	38	Red-wattled Lapwing	<i>Vanellus indicus</i>	LC
	Jacaniidae	39	Bronze-winged Jacana	<i>Metopidius indicus</i>	LC
	Scolopacidae	40	Common Snipe	<i>Gallinago gallinago</i>	LC
		41	Marsh Sandpiper	<i>Tringa stagnatilis</i>	LC
		42	Wood Sandpiper	<i>Tringa glareola</i>	LC
Accipitriformes	Accipitridae	43	Crested Serpent Eagle	<i>Spilornis cheela</i>	LC
		44	Eurasian Marsh-Harrier	<i>Circus aeruginosus</i>	LC
		45	Shikra	<i>Accipiter badius</i>	LC
		46	Brahminy Kite	<i>Haliastur indus</i>	LC
		47	Black Kite	<i>Milvus migrans</i>	LC
Piciformes	Picidae	48	Common Goldenbacked Woodpecker	<i>Dinopium javanense</i>	LC
		49	Lesser Golden-backed Woodpecker	<i>Dinopium benghalense</i>	LC
	Ramphastidae	50	White-cheeked Barbet	<i>Psilopogon viridis</i>	LC
Coraciiformes	Meropidae	51	Blue-tailed Bee-eater	<i>Merops philippinus</i>	LC

	Alcedinidae	52	Common Kingfisher	<i>Alcedo atthis</i>	LC
		53	Stork-billed Kingfisher	<i>Pelargopsis capensis</i>	LC
		54	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	LC
		55	Pied Kingfisher	<i>Ceryle rudis</i>	LC
Psittaciformes	Psittaculidae	56	Rose-ringed Parakeet	<i>Psittacula krameri</i>	LC
		57	Plum-headed Parakeet	<i>Psittacula cyanocephala</i>	LC
Passeriformes	Artamidae	58	Ashy Woodswallow	<i>Artamus fuscus</i>	LC
	Oriolidae	59	Indian Golden Oriole	<i>Oriolus kundoo</i>	LC
		60	Black-hooded Oriole	<i>Oriolus xanthornus</i>	LC
	Dicruridae	61	Black Drongo	<i>Dicrurus macrocercus</i>	LC
		62	Greater Racket-tailed Drongo	<i>Dicrurus paradiseus</i>	LC
	Aegithinidae	63	Common Iora	<i>Aegithina tiphia</i>	LC
	Corvidae	64	Rufous Treepie	<i>Dendrocitta vagabunda</i>	LC
		65	House Crow	<i>Corvus splendens</i>	LC
	Monarchidae	66	Indian Paradiseflycatcher	<i>Terpsiphone paradisi</i>	LC
	Dicaeidae	67	Pale-billed Flowerpecker	<i>Dicaeum erythrorhynchos</i>	LC
	Nectariniidae	68	Purple-rumped Sunbird	<i>Leptocoma zeylonica</i>	LC
		69	Little Spiderhunter	<i>Arachnothera longirostra</i>	LC
		70	Loten's Sunbird	<i>Cinnyris lotenius</i>	LC

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Birds in and Around Macfast Campus, Thiruvalla, Kerala

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Estrildidae	71	Scaly-breasted Munia	<i>Lonchura punctulata</i>	LC
	72	Black-headed Munia	<i>Lonchura malacca</i>	LC
	73	White-rumped Munia	<i>Lonchura striata</i>	LC
Passeridae	74	House Sparrow	<i>Passer domesticus</i>	LC
Motacillidae	75	White-browed Wagtail	<i>Motacilla maderaspatensis</i>	LC
	76	Grey Wagtail	<i>Motacilla cinerea</i>	LC
Cisticolidae	77	Common Tailorbird	<i>Orthotomus sutorius</i>	LC
	78	Ashy Prinia	<i>Prinia socialis</i>	LC
Acrocephalidae	79	Blyth's Reed-Warbler	<i>Acrocephalus dumetorum</i>	LC
Pycnonotidae	80	Red-vented Bulbul	<i>Pycnonotus cafer</i>	LC
	81	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	LC
Leiothrichidae	82	Jungle Babbler	<i>Turdoides striata</i>	LC
Hirundinidae	83	Barn Swallow	<i>Hirundo rustica</i>	LC
	84	Wire-tailed Swallow	<i>Hirundo smithii</i>	LC
Sturnidae	85	Rosy Starling	<i>Pastor roseus</i>	LC
	86	Chestnut-tailed Starling	<i>Sturnia malabarica</i>	LC
	87	Common Myna	<i>Acridotheres tristis</i>	LC

	Muscicapidae	88	Oriental MagpieRobin	<i>Copsychus saularis</i>	LC
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