

Departmental Annual Report - 3

Departmental Activities: Curriculum and Beyond

Department: Zoology

Year: 2019-20

Department Society and its Office Bearers:

Zoology Society, Synapse organizes various seminars, Symposium and workshops to create an holistic environment of learning beyond classrooms. Activities also include arranging Fresher's Welcome, Student Excursion, Bridge courses and Farewell party. Zoology Society released Department magazine 'Evolvere' that embodies the creative expression from students and teachers.

Office Bearers for 2019-20:

President	Vice President	General Secretary	Treasurer	Editors	Co-Editors	Event Manager
Apoorva Atri	Srijan Singh	Ayushi Das	Nandini Wadhwa	Devanshee Prakash and Era Stuti Sharma	Khushi Srivastava and Haripriya Malviya	Muskan Yadav and Shehjar Kaul Sahib

Staff Advisors:

Dr. Simran Jit

Dr. Yasha Yadav



Seminars/conferences/workshops conducted by the Department

The DBT **CTEP** sponsored DBT **Biotechnology Popularization was organized** on 02 August, 2019. The program highlighted various thrust areas of biotechnology like Medical. Animal and Pharmaceutical biotechnology, Bioengineering and Biomedical Devices. Some of notable speakers for this year's course included Dr. Tavpritesh Sethi, IIIT, Delhi; Dr. Anuj Sharma, Technical Officer - Antimicrobial Resistance; Health Laboratories, WHO.



Free Registration **Registration Link**

es: Poster Prese uldelines: Poster Presentation Poster Size: 80 cm width and 100 cm height tract with word limit of 250 wor nes New Roman Format, Font siz should be submitted latest by 29 July 2019 to il:dskc2008.miranda@gmail.com

Top Three Posters in each stream (Life es, Chemical Sciences and Physical es) will be given cash awards of Rs. 10, Rs. 3000 and Rs. 2000 each

Venue ar Hall, Mirar da Hous University of Delhi, Delhi-110007 Contact details : ail:dskc2008.miranda@gmail.co Focus Area

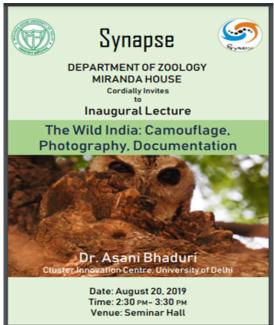
ABOUT MIRANDA HOUSE

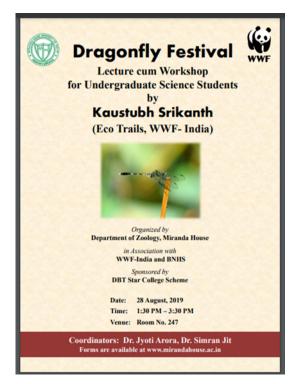
The workshops, online games, poster presentation and expert talk organized were on Robotics in Biotechnology and Antimicrobial Resistance Awareness. These themes provided a platform to students to enhance and update their concepts about these relevant fields.



The Academic Year 2019-2020 for the Zoology Department of Miranda House started with an extremely informative **Inaugural Lecture by Dr. Asani Bhaduri from Cluster Innovation Center, University of Delhi on 20 August, 2019.** He delivered an engaging and intuitive talk on **The Wild India: Camouflage, Photography and Documentation**. He talked about the adaptations and camouflage that the Fauna utilize to blend in their environment, increasing their chances of survival and finding a prey, through pictures and photographs of Indian Wildlife.

Participants-115





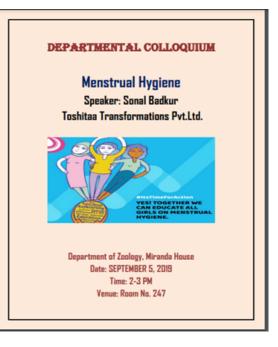
The Zoology Society in association with WWF-India and BHNS sponsored by DBT Star College Scheme organized, The Dragonfly Festival, *Lecture-cum Workshop* for Undergraduate Science Students by Mr. Kaustubh Srikanth, Eco Trails, WWF- India, on 28 August, 2019. Mr. Kaustubh Srikanth, helped students to identify common Odonates of Delhi, role played by them in the ecosystem. The dragonfly educators from WWF informed students about the ecological role played by these insects as a natural pest control agents of mosquitoes as well as mosquito larvae.



A Departmental Colloquium on *Menstrual Hygiene* by Ms. Sonal Badkur, Toshitaa Transformations Pvt. was organized by Zoology Society on 5th September, 2019.

This Intuitive talk followed by an interactive discussion related to menstrual hygiene and disposal of sanitary napkins using incinerators.

Participants-34



	000	T Star College Scheme Department of Zoology Miranda House	
h	ndiaAlliance Scier	nce Communication natureINDIA	
	and	Career Workshop	
		rship with Wellcome Trust/DBT India Alliance)	
	5	9:30 AM-4:30 PM	
		Room No. 247	
	Session I		
	Science Writing	Subhra Priyadarshini	
	Session II	Chief Editor, Nature India	
	Scientific	Dr. Sarah Igbal	
	Communication	Public Engagement Officer, India Alliance	
	Session III		
	Careers in Science	Sonia Sharma Institutional and Corporate Partnerships Manager, Nature Research	
	Coordinato	rs: Dr. Jyoti Arora, Dr. Simran Jit	
		ing Secretary: Dr. Yasha Yadav	
	tails are available at <u>www</u>		
	gister at <u>https://forms.gl</u> bmit Registration Fee of F	e/jhSJuCCm4m8f1nLX7 ts. 200/- at Department of Zoology, Miranda House	
La	st date: 5 September, 201	9. Limited seats only!	
Pa	rticipants are required to	bring their own laptops	

The Department of Zoology organized a Science Communication and Career Workshop in association with Nature India and Wellcome Trust/DBT India Alliance sponsored by DBT Star College Scheme on 09 September, 2019 at Department of Zoology, Miranda House, University of Delhi. Resource persons for the workshop included Subhra Priyadarshini, Chief Editor, Nature India; Dr. Sarah Iqbal, Public Engagement Officer, India Alliance and Sonia Sharma Institutional and corporate partnerships Manager, Nature Research. The workshop included sessions on popular science writing, presentation skills, science journalism, ethics in research, social media for budding scientists and careers in science. The workshop concluded with the launch of Nature India. Photo Exhibition projecting winning photo entries on diverse scientific themes. This one-day workshop was designed to equip young science students or researchers with tools and strategies for effective writing and communication skills from a science communication perspective.



Participants-45

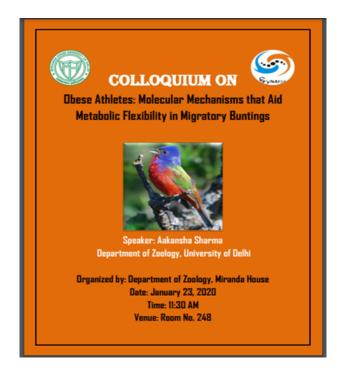


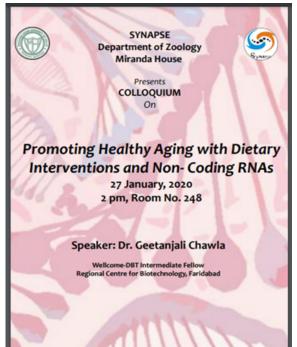
The Add on Course Medical Biotechnology organized the **Second Medical Biotechnology Colloquium** *Tailoring Medical Treatments on 16 October, 2019.* The Colloquium for undergraduate science students across all streams commenced with the inaugural lecture by Prof. Debi P Sarkar, Shanti Swarup Bhatnagar Award 1998, FNA, FNASc on Reconstituted Viral Envelopes. Thereafter, Dr. Debojyoti Chakraborty, IGIB talked about the Precision Medicine in the Personalized era. A hand-on workshop for students on Computer Assisted Drug Designing (CADD) was also conducted.



Another Colloquium on Obese Athletes: Molecular mechanisms that aid metabolic flexibility in migratory buntings was organized on 23 October, 2019. An alumna of department of zoology, Ms. Aakansha Sharma presented her research work on migratory buntings in the colloquium.

Participants-45





Another Department Colloquium on *Promoting Healthy Aging with Dietary Interventions and Non- Coding RNAs* **by Dr. Geetanjali Chawla,** Wellcome-DBT Intermediate Fellow, Regional Centre of Biotechnology, Faridabad was organized on 27 January, 2020.

She discussed how Aging is a risk factor for several non-communicable diseases includin neurodegeneration, cardiovascular diseases and cancer. Dietary restrictions like intermittent fasting and reducing the excess of protein in diet increases the life span of Fruit fly, something which can be applied to humans as well.

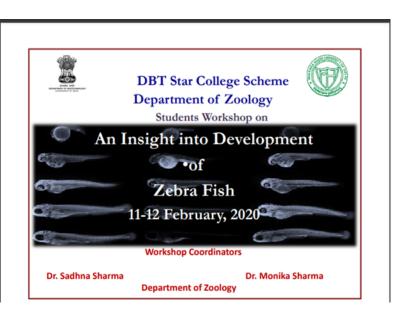
Several human diseases including late onset neurodegenerative disorders and cancer are associated with



aberrant expression of microRNAs and molecules that alter the function or abundance of miRNAs are emerging as potential therapeutic agents to treat disease. Participants-60

A DBT Star College Scheme sponsored another round of very informative Students Workshop on "An Insight into Development of Zebra Fish" was organized from 11-12 February, 2020, by Dr. Adita Joshi, IGIB, South Campus.

This workshop was designed to make students familiar to Zebra Fish as a model organism for studying various biological processes. Importantly, students could understand the importance of this wonderful, robust and easy to maintain model organism for studying embryonic development stages.



Students studied the development of Zebra fish beginning from breeding to development of complete fish through hands on sessions. This entire process of development of Zebra Fish was very unique, educative and thrilling for the students.

Participants-32



HANDS-ON WORKSHOP: ZEBRAFISH DEVELOPMENT







ANNUAL CAMPUS BIRD COUNT

Department of Zoology in association with MH Vatavaran, The Environment Society of Miranda House under the Great Backyard Bird Count India to document the diversity of birds found in the campus organized *the Campus Bird Count* on 14 February, 2020. The identification of birds was facilitated by Mr. Abhishek Gulshan, Founder, NINOX - Owl about Nature. A total of 18 species of birds were observed and the complete list was uploaded on the e-bird, a citizen science initiative to provide information about the distribution of different birds to the ornithologists and bird watchers throughout the world.

Participants-30



Yasha Yadav <yasha.yadav@mirandahouse.ac.in>

Wed, Sep 7, 2022 at 5:15 PM

Fwd:

Jyoti Arora <jyoti.arora@mirandahouse.ac.in> To: Yasha Yadav <yasha.yadav@mirandahouse.ac.in>

------ Forwarded message ------From: Jyoti Arora <jyoti.arora@mirandahouse.ac.in> Date: Thu, 13 Feb 2020 at 12:17 Subject: To: Jyoti Arora <jyoti.arora@mirandahouse.ac.in>

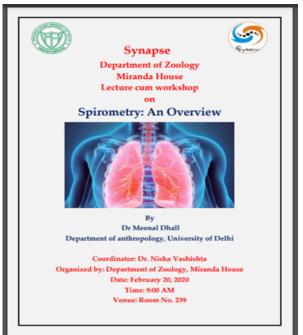
2 attachments



BIRD COUNT 2020_Page_1.jpg 194K

Poster wildlife.pdf 129K





The Zoology Society ,Synapse with DBT Star College Scheme organized a Lecture cum workshop on *Spirometry: An Overview* by Dr Meenal Dhall, Department of Anthropology, University of Delhi on February 20th , 2020.

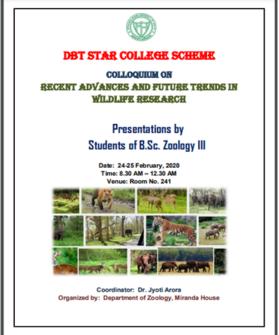
Dr Meenal Dhall discussed the use of spirometer to assess the integrated mechanical function of the lungs. She discussed with students how spirogram is to be interpreted when there is normal ventilatory lung function or in diagnosis of chronic obstructive pulmonary disease, asthma, etc. After the lecture, hands on workshop on use of spirometer were conducted for students and teachers.

Participants-39

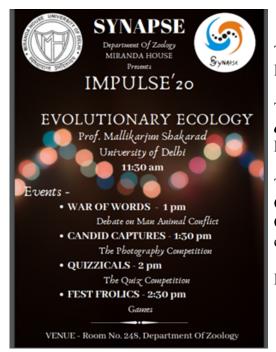
A Colloquium on *Recent Advances and Future Trends in Wildlife Research* was organized on 24-25 February, 2020 at Department of Zoology, Miranda House sponsored by DBT Star College Scheme.

The colloquium was successful in increasing awareness about recent advances in wildlife research. The approaches or management strategies that can address the future challenges in the field of wildlife conservation and management were also discussed based on recent investigations during the colloquium.

All the students of B.Sc. Zoology III enthusiastically participated and put forth their critical reviews on a recent paper published in the arena of wildlife research through oral presentations.







The Zoology Society , Synapse celebrated its annual festival Impulse on 26 February, 2020.

The event was inaugurated with the lecture on *Evolutionary ecology of Sociality in Wasps* by **Prof. Mallikarjun Shakarad**, **Department of Zoology**, **DU**.

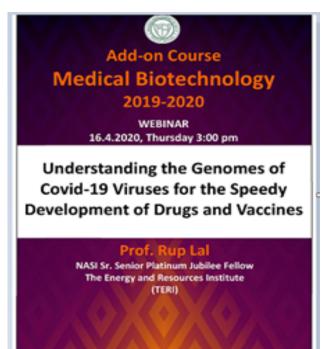
The cultural events included debate competition on Man Animal Conflict followed by photography competition themed on Bird Campus count and Animal Behavior and Quizzicals-quiz competition.

Participants-60

A DBT Star College Scheme sponsored another round of very informative Students Workshop on "Zebra Fish: Model organism study **Embryonic** to Development" was organized on 3 March, 2020, by Dr. Adita Joshi, IGIB, South Campus. This workshop was designed to make students familiar to Zebra Fish as a model organism for studying various biological processes. Importantly, students could understand the importance of this wonderful, robust and easy to maintain model organism for studying embryonic development stages.







To provide the students learning environment during COVID-19 Pandemic, The Zoology Society

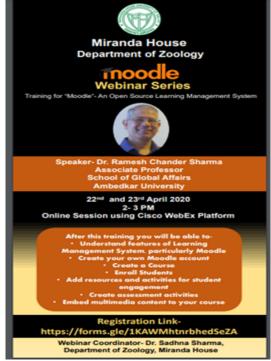
organized a Webinar "Understanding the Genomes of Covid-19 Viruses for the Speedy Development of Drugs and Vaccines" on April 16, 2020. Prof. Rup Lal, NASI Sr. Senior Platinum Jubilee Fellow, The Energy and Resources Institute (TERI) was invited for the talk.

The webinar addressed the research and development activity throughout the world to develop vaccine against the SARS- CoV-2, the coronavirus that caused the pandemic COVID-19.

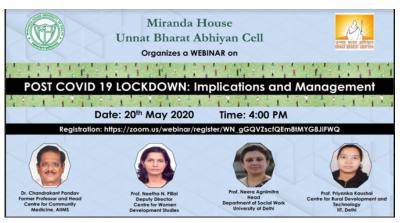
Through the webinar the participants could also understand the genetic code of the virus, its origins, and its evolutionary pathway. Participants-70

A DBT Star College Sponsored, Training for "Moodle"- An Open Source Learning Management System Webinar Series was organized on April 22-23, 2020. Dr. Ramesh Chander Sharma, Associate Professor, School of Global Affairs, Ambedkar University was the invited speaker.

Through the training the faculty participants could understand features of learning management system, particularly moodle, create their own moodle account and subsequently create a course on it, enroll students, add resources and activities for student engagement, create assessment activities and embed multimedia content to the course created on moodle.







Webinar on " *Post Covid 19 Lockdown: Implications and Management*", organized by **Unnat Bharat Abhiyan Cell**, Miranda House on 20 May, 2020.

Resource Person for the webinar included Prof. Priyanka Kaushal, Centre for Rural Development and Technology IIT, Delhi. Prof. Neera Agnimitra, Head of Department of Social work, University of Delhi, Prof. Neetha N. Pillai, Deputy Director, Centre for Women Developmental Studies and Dr. Chandrakant Pandey, Farmer Professor and

Head Centre for Community Medicine, AIIMS. Participants-154



Dr. Nisha Vashishta participated in the finalization workshop on life sciences resources for teachers in Higher education organized by National Resource Centre for Education, National Institute of Educational Planning and Administration, New Delhi on January 16-17, 2020



NATIONAL TESTING AGENCY Excellence in Assessment MHRD, Department of Higher Education, Government of India
ATTENDANCE CERTIFICATE
To Whomsoever it may Concern
This is to certify that Shri/Smt/Dr/Prof. Gyati Asasta (Name, Designation) of Miscand Nouse (Name of the Institution) has attended 5 Day Confidential Wop conducted between21Jam. 2019 and 25.Jam, Rel. by the National Testing Agency at its premises.
Senior Director NATIONAL TESTING AGENCY Add- Block C-201A8, Sector-62 IITK Outreach Centre, Gautam Buddh Nagar, Noida, Uttar Pradesh-201309

Dr. Jyoti Arora was Resource Person in MOOC Workshop to design summative assessment and develop a question bank for an online course for teachers teaching science at upper primary stage by DSEM, NCERT from 9-13 December, 2019



राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्	NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING
	6-09/2019-20/DESM SATION IN SCIENCE AND MATHEMATICS
	03 rd January, 2020
	CERTIFICATE
	yoti Arora, Assistant Professor, Department of , University of Delhi, Delhi attended the workshop
titled "Development of	Scripts for the Modules of Training Package in
Biology for teacher	teaching at Higher Secondary Stage for
	C format." and made valuable contribution as a
	programme was organized by Department of
	nd Mathematics, NIE, NCERT, New Delhi, from
30.12.2019 to 03.01.202	L ·
Dr. Pushp Lata Verma Programme Coordinator	Sh- Ai-K. Wazalwar Professor & Incharge Head
ষ্ঠী অসমিত মানা, নাই বিলেনি-110016 বৃশেষ 35566555. 26566556 কালা st-11-26866	SRI AUROBINDO MARG, NEW DELHI-110016 PHONY: 2004003, 2565408 FAX: 91-11-2685419 GRAMS: EDUSAN

Dr. Jyoti Arora was Resource Person in MOOC Workshop to design a training package for teachers at the higher secondary level and to write scripts for making videos for these modules by DSEM, NCERT from 30 December 2019- 3rd January, 2020.



Part B.2

Extension Activities organized

To acquaint B.Sc. (H) Zoology, First year Students with basic laboratory work and instrumentation **a Bridge Course on** *Laboratory Instrumentation: Principle, Usage and Applications* was organized from 05-09 August, 2019.

Participants-49



Summer Workshop for undergraduate Science students, Flavor of Research : Investigative Projects in Multidisciplinary Contexts held at the D.S. kothari Centre for Research and Innovation in Science Education Miranda House, University of Delhi.



Part B.3



Any other event organized as part of students' activities (not listed above)



The Department hosted the **Fresher's Party for the incoming batch of 2019-20.** The event saw huge participation. Participants-115



The department celebrated the *Teacher's Day* on 5 **September, 2019** by having a cake cutting ceremony for teachers.





An education filed visit to *Yamuna Biodiversity Park* was organized for the first and third year students of B.Sc. (H) Zoology on **18, September 2019** to correlate the ecological and behavioral aspects of animal behavior. Spotting peacocks and butterflies, learning about various plants and pollinators, walking in the thickets with the anticipation of encountering the unknown, this field visit had it all. It was a display of natural elements coming together harmoniously for sustenance of life.

Participants-65







On 23 September 2019, students and faculty attended the Inaugural Session of the 4th Steering committee meeting of *Global Snow Leopard and Ecosystem Protection (GSLEP) Program* held at Vigyan Bhavan, New Delhi.



On **27 September 2019**, B. Sc. (H) first year students of the Department participated in the *plantation drive* by Times of India in Nehru Ridge. Hundreds of saplings were planted by students and faculty during the drive.

Participants-49



The third year students of B. Sc. Zoology (H) along with faculty members visited **National Institute of Immunology to attend the DBT-BIRAC Leadership Dialogue Series lecture on "From the** *human genome project to precision medicine: A journey to advance human health*" on 8 January, 2020 delivered by Dr Eric Green, Director of NHGRI (National Human Genome Research Institute).





birac	Programme	ग्रन्द्रीय प्रतिरक्षाविज्ञान मंग्यान National Institute of Immunology		
Date: 8th January	2020	Contraction of the second		
Time: 12:00 - 1:1	5 pm	Leadership		
Venue: Auditoriu	m, National Institute of Immunology, New Delhi			
Time	Activity			
12:00-12:05 pm	Welcome Address			
	by			
	Dr. A. K. Panda, Director, National Institute of Immunology, New Delhi			
12:05-12:10 pm	Introduction to the Leadership Dialogue Series and the distinguished speaker			
	By			
	Dr. Renu Swarup, Secretary, Department of Biotechnology, Ministry of Science and Technology, Government of India and			
12:10-12:55 pm	Chairperson, BIRAC Leadership lecture			
12:10-12:55 pm	by			
	Dr. Eric Green			
	Director, National Human Genome Research Institute (NHGRI), National Institutes of Health			
	Titled			
	"From the Human Genome Project to Precision Medicine: A Journey to Advance Human Health"			
12:55- 1:05 pm	A moderated interaction of the audience with the Distinguished Speaker			
1:05-1:10 pm	Felicitation of Distinguished Speaker			
1:10-1:15 pm	Closing remarks			
1:15 pm	High Tea			
onwards				

Participation:-34 participants with faculty members participated in this event.

Students of II year of B.Sc(H) Zoology and B.Sc (Prog) Life Sciences were taken to **Indian Agriculture Research Institute field trip on 03 February, 2020** as a part of their course in Apiculture. Spotting the tiny master-pieces of nature at work, the honey bees as pollinators for countless vibrant flowers was a truly enthralling experience. From learning about various types of hives and procedures for honey production to uncovering numerous other bee products, the trip had it all.

