

Department of Zoology (NICHE)
Acharya Narendra Dev College
University of Delhi

## EDITORIAL

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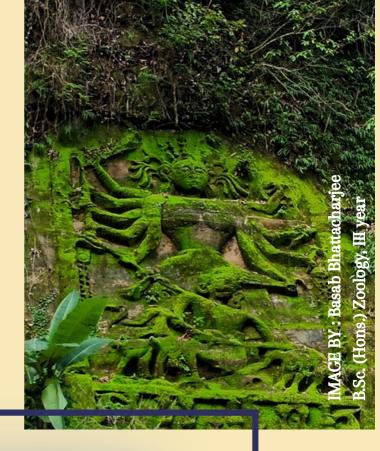
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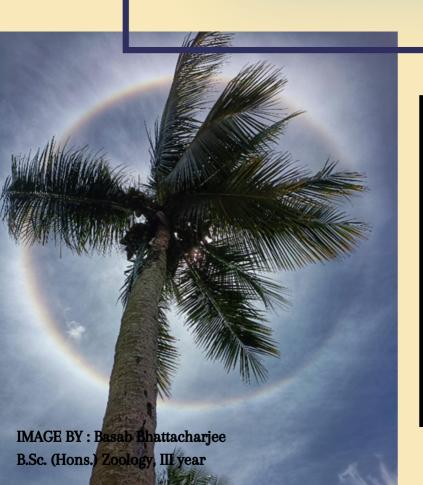
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<sup>\*</sup>Thoughts and views expressed in this magazine are not necessarily endorsed by the editorial committee.

- FACULTY
- PRINCIPAL'S MESSAGE
- STUDENTS' CORNER
- PUZZLE
- SYMBIOX' 23
- ANNUAL REPORT



## INSIDE



- STUDENTS'
  ACHIEVEMENTS
- STUDENTS'
   PARTICIPATION
- DEPARTMENTAL ACTIVITIES

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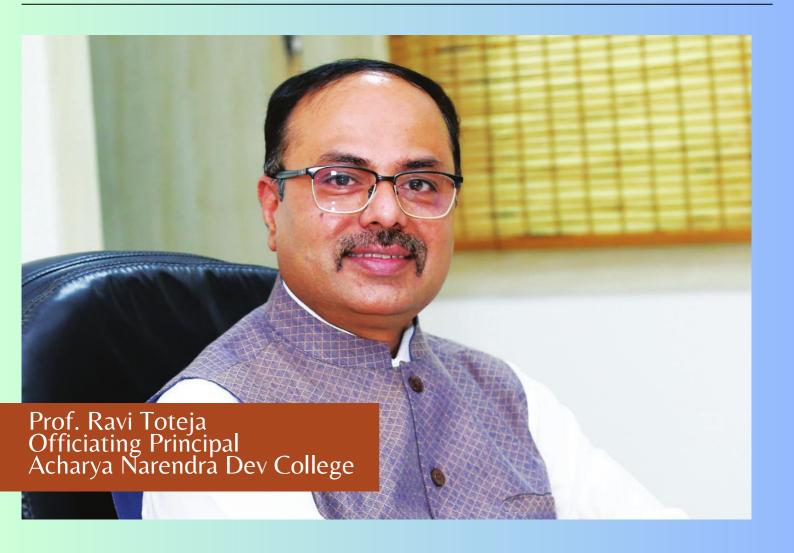
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Mrs. Sumitra Devi



Mr. Harshal Vishnoi



#### FROM PRINCIPAL'S DESK

Dear students, faculty members and non- magazine will serve as an excellent teaching staff members, I am pleased to resource for students, faculty members, announce that the Department of Zoology and anyone interested in the fascinating is launching its magazine which will world of Zoology. I would like to take the incredible showcase accomplishments, and initiatives of our Zoology department for their hard work talented students.

As the Principal of this college, I am magazine. delighted to see such enthusiasm and I would also like to encourage all passion from the Zoology department and students to submit their contributions I look forward to reading the magazine, to the college magazine and make it a The magazine will be a platform for huge success. students to updates on the latest development in the wish them all the best for their field of Zoology. I believe that this

research, this opportunity to congratulate the and dedication in putting together this

showcase their research I am excited to see what the Zoology essays, creative works and department has in store for us, and I upcoming endeavours.

#### TIC'S WORDS

It is with profound pleasure, humility and anticipation I congratulate my editorial team on release of third issue of Zoology Department Magazine, Camouflage. I was happy to see how each and every member was receptive enough to incorporate new ideas. The enthusiastic write ups of our young writers are indubitably sufficient to hold the interest and admiration of the readers. This issue is indeed a pious attempt to make our budding talents give shape to their creativity and learn the art of being aware because I believe that the success depends on our power to perceive, the power to observe and the power to explore.



We are sure that the positive attitude, hard work, sustained efforts and innovative ideas exhibited by our young buddies will surely stir the mind of the readers and take them to the surreal world of unalloyed joy and pleasure. It gives me immense pleasure to ensure that this magazine has successfully accomplished its objective. The reflection of the students' creativity and achievements is the epitome of the magazine. Students have put forth their ideas and thoughts that are too deep to be expressed and too strong to be suppressed. This magazine is before you due to the combined efforts of the editorial board, I take the opportunity to thank all the contributors as their contribution is the reason that makes this magazine endearing with our readers. I congratulate all the students whose articles are published in this issue of Camouflage.

Prof. Seema Makhija TIC Zoology Acharya Narendra Dev College

## Editor's Speak

From the very beginning writing fascinated always me, something which I can never say no to. And CAMOUFLAGE gave me the chance not to just stop as a writer but an editor, better to be the coordinator of a well established department's annual magazine. What else I could demand for? Though I'm an ambivert but this magazine gave me a better reason to interact with new people working with them. While dedicating myself to the magazine, I got the opportunity to enhance my skills both for the personal and professional life.

**Apart from this, it gave me a reason** to be proud on myself, smile wide with a sense of satisfaction and a full college vibe to plan things by your own and make them happen. Restoring pre-covid activities is not really easy but our small steps are leading us to achieve the same as previous with enhanced enthusiasm, this magazine is a process and outcome of the same. I thank my teachers for having faith on me and handing over this responsibility to me. I thank my colleagues, magazine editors and designers, for listening me patiently fulfilling demands mv everytime, for the same. 08



Anshika Sharma (III year) Coordinator

Without the support and trust of you all, I wouldn't be able to make this magazine reality by my own. To the cheerful readers, I hope that you'll enjoy the work and efforts of all - the writers, photographers, artists, faculty and of all those who willingly gave their pieces of talent for you. Looking for forward collaboration with you for the next edition... Till then enjoy reading, **ENJOY CAMOUFLAGE!** 

**CAMOUFLAGE** is the medium the which talents. through potential and achievements of the department of Zoology reflected. I feel honoured to be a part of this team. The experience that I got while working for the departmental magazine is something that I will hold with me forever. I got to learn so many things like teamwork, patience etc. It made me think out of the box to make this magazine a success. I hope that you will enjoy the magazine and appreciate the efforts of everyone involved.



Harshita Kushwaha (III year) Designer



Divya Pant (III year) Editor

Being a part of the departmental magazine of Zoology, CAMOUFLAGE T learned many things like team work, skills, patience etc. Working together, storming our mind for ideas, those discussions, we from learned lot it. a CAMOUFLAGE provided us the stage to show our skills and do something for our department. I feel honoured to be a part of this team. I hope that everyone will really enjoy the magazine.



# Students<sup>9</sup> Corner



POEM

#### AN ODE TO THE CITY

You were conquered You were caught, You were massacred right through your heart Do you remember how many times? Do you remember who was right? Someone built a castle, someone built a fort Now you're here, giving me a home I ask you for stories of war, stories of everything that led you this far. Do you welcome me like any of them at all? Do you think I am the better call? You are brown, you're pink, you're a tint of blue You became everything I have ever wanted you to. Each night when you shine your lights at me I wonder if someday, I'll be a part of your legacy too. Will you keep me on the right side? Will you tell everyone my love for you was one of a kind?

> Diya Bilahari B.Sc. (Hons.) Zoology II year



#### Daughters Are Divine

Daughters are a miraculous creation,
They are a mellifluous sensation.
Even if the sun sets, they still know how to shine,
Daughters are Divine.

Daughters are there in wide variation,
Literally, they are a major cause of your good reputation.
For fathers, daughters are their best valentine,
Daughters are Divine.

Daughters are the best gift with which a couple is paid, In the harsh sun for their parents, they are a soothing shade. They never hate, they think everyone to be 'mine', Daughters are Divine.

Not merely some but all the daughters are adorned with a beautiful golden heart,
They are really the best piece of art.
Oh! It's said true that they are more than a stone of Rhine,
Daughters are Divine.

To all the daughters dedicated I have this from my side,
Remember, daughters are the God's creation not to hide.
They are the elixir of life,
Fortunate are the men, because they get these daughters as their wife.

Yes! I am for my parents their darling daughter,
And nothing rubbish in this world will make me bother.
I know how to shine,
I know how to make everyone mine,
Cause I am one of all the daughters of this world who are divine.



#### DREAM

Beneath the exhausted side of my pillow
I have kept a dream.
I have never let anyone in on that secret
But today I'll let you be.

I dream of having a breeze in my hair
I dream of having a wind in my sail.

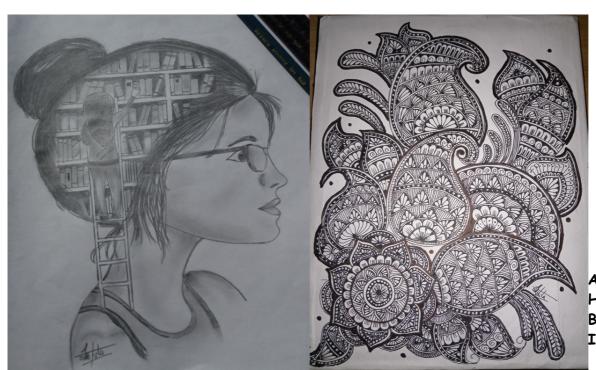
I dream of losing my voice, screaming so loud
To let everyone know that I am on top of the world.

I dream of having friends to travel the world with
I dream of having a family to come back to.
I dream of soaring over a lush green valley
I dream of singing in the darkest alleys.

I dream of being capable of making the nomads feel sheltered
I dream of knowing the thrill of being felt heard.
I dream of dancing and jumping in puddles
I dream of waking up to the winter sun's cuddles.

I dream of being able to be free I dream of having the power to dream.

> Diya Bilahari B.Sc. (Hons.) Zoology II year



Artwork By: Harshita Kushwaha B.Sc. (Hons.) Zoology III year

## POEM

#### FLOWERS

Even in the harsh sun, They shine bright at you. Even in the chilling cold, They give warmth to you.

They always smile whether it be hot or cold.
They are the most beautiful creation of the God,
Whenever you see them,
You feel to be in supreme abode.
When you see them,
They give you miraculous powers,

Sakshi Singh B.Sc. (Hons.) Zoology I year

But the gorgeous flowers.

They are none











#### FRIENDS

"A friend in need is a friend indeed"
Is a popular saying of old times,
But today,
Such friends are difficult to find.

You'll find friends who talk sweet and smile, But they are ready to assassinate your character when you are gone for a while.

They are friends until they need you,
And slowly fade away when their purpose is done with you

They will be your friends until you are at their side, But will become your foe when you criticize

Gone are the days when friendship was done without any purpose Now are the friends who will drag you to their ruckus.

They will remember you only in their hard times, And will push you aside after using you and your time.

It's better to get rid of such friends who were selfish and mean, And always remember to filter out such people who act like a slink...

> Harshita Kushwaha B.Sc. (Hons.) Zoology III year



#### HE WONDERED

He gazed and wondered,
As he stood rooted to the seashore in the dusk.

He wondered if he was dumb,
He wouldn't have to scream for his pains and tire his throat.
He wondered if he was deaf,
He wouldn't have to listen to the slangs and be upset.

He wondered if he was blind,
He wouldn't have to see his dear mother crying and cry for her.
He wondered if he was without legs,
He wouldn't have to run away from that beast man and save himself.

He wondered if he had no belly,

He never had to steal from the bar and sleep under the bridge

Whole night as a punishment in the chilly air.

He wondered if he had no hands,

He never had to bear the sticks and boils of hot water.

He cursed God and wondered if he was lifeless,
For he never had to feel the pain of burning bruises
And all the other miseries of this world
Which made his soul burst into tears.

Sakshi Singh B.Sc. (Hons.) Zoology I year



#### ज़िंदगी

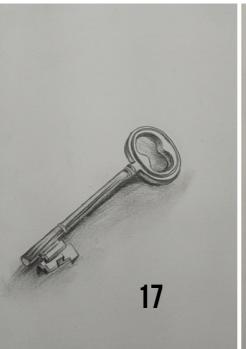
गुजरी थे ज़िंदगी एक ऐसे मुकाम से, अपने भी दूर हो गए थे जरा से ज़ुखाम से। पूरी कायनात में बीमारी की एक हवा हो गई थी, एक दूसरे से दूर रहना ही इसकी दवा हो गई थी।

कातिलाना समय का ये ऐसा दौर था, चारों ओर सिर्फ सन्नाटे का जोर था। सुबह उठते ही सिर्फ एक बात देती थी सुनाई मोहल्ले में किसके जाने की खबर है आई?

वक्त ने ऐसा सितम था ढाया, बूढ़े बाप ने जवान बेटे की लाश को उठाया। इस महामारी ने नन्हों के सर से माँ बाप का साया उठाया, खेलने कूदने की उमर में उन्हें अनाथ बनाया।

> शिवांश लाठी बी० एस सी० (विशेष) जंतु विज्ञान तृतीय वर्ष







Artwork By: Dhruv Bhasin B.Sc. (Hons.) Zoology, III year



#### LET ME CRY

Who is guilty?
Not me, not you but me.
Silence is screams
If the silent cry kills,
Let me cry aloud, I want to live.

Farthest star shines brightly, looks pretty; But slightly close its burning, how pity? If the silent cry ruins, Let me cry aloud, I want to rebuild.

Blanket is wet, heart is heavy, Silence! Feels like wordless mouth want to say something never spoken, Mouth is shut, feels like ocean eyes have some drops to drop. If the silent cry is a stone, Let me cry silently, I'll be a mirror.

If the silent cry scatters, Let me cry silently. If the silent cry pricks, Let me cry aloud, I want to be a rose.

The silent cry kills, Let me cry aloud, I want to live.

Rishika Pandey B.Sc. (Hons) Zoology Lyear





#### LET THEM GO

Letting go
Let them go,
Hide things behind that smile.
A smile,
That longs for them
Always and forever.

Little breeze with an aroma
Of them,
Just fading away little
By little.

As the twilight hits
And sun goes down,
They disappear.
The mist got them as they
were never yours.

As you turn back a water drop drips

Down that cold cheek

Hands are numb and

Your body can't move.

But you feel them behind

As if walking,

Like a shadow all around.

Your heart skips a beat,

Maybe they speak a bit.

Ankur Ghosh
B.Sc. (Hons.) Zoology
II year

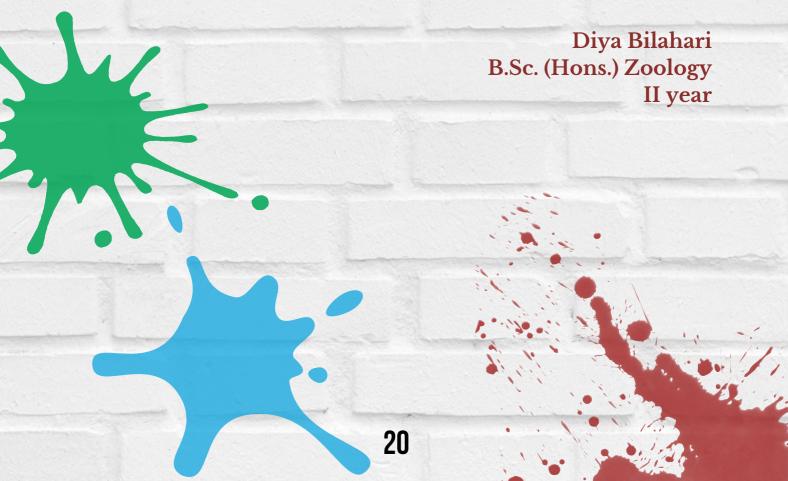


#### PEELING WALLS

Painting the peeling walls Keeps me busy these days, An act of restoration A shy improvisation.

The room looks old and uninviting, With walls like corpses longing to die. A new coat of paint, some glittery shine, I am sure will change its impending fate.

But every time I don't know why,
I can't help but peel them off again.
There was something about the walls, the way they were
Or the way I was before they changed.



### POEM

#### Quarantine: Teenagers And Their Boredom

Oh! This question is so boring, do lonely; No friends to chill out, no parties, no club hitting. It's so boring being in this jail like home. Hope this passes soon!

This is what I heard from half of the people I know, Let me ask, "Why to be bored?" There is more than a dozen of things we can do To make our quarantine a lifelong cherish able

memory.

Let's count.

It's time to oil your hairs well.

It's time to set your wardrobe right.

This is when you can know the secret of your mumma's round chapattis.

You have time to know how to drape a saree.

You can share time with threads and needle to create.

It's time to know the unknown.

Read and write as if you were to complete all the books in a week.

You can sing songs even if you are too bad at it.

Dance till your bones start weeping.

Have fun with paint and brushes.

Paint your nose, paint your fingers and be childlike.

Unfold an old dusty picture album.

Look at your photos and admire them.

It's time to learn to knot a tie and set your collar right there.

You can know to perfect the crèches of your pantaloons.

Learn to fold the handkerchief of the blazer pocket. But the most important of all, do yoga every day. Love the plants as if they are your own kids. Play with your younger siblings and try to find happiness in losing the game.

Utilise the hours in gaining knowledge from your elder ones.

Find the story behind the Panchatantra and Jataka Tales.

Stay with your grandparents,
Learn love from them.
Stay at home with your parents,
This is a quality time;
You can relive your childhood.
Just you need to do is to love yourself.
Be patient, be kind, be humble, be loving.
But laugh out loud till your belly hurts.
Know the nitty gritty of yourself.
Be a hotshot.

And always keep a smile on your face, a pretty one. Talk to your soul. Rejoice this self-isolation.

Pray to God.

Love to love other and be loved.

Sakshi Singh
B.Sc. (Hons.) Zoology
I year



#### THE PERSON I ADMIRE THE MOST

Saw a blurry face with two blurry eyes
Holding my hands, assuring if I am alright.
With a lot of thoughts in our hearts,
But felt so alive and free.

Walking with me, talking with me, Staring deep into my soul With those two mortal eyes Those love talks were different.

I started admiring her, not for her beauty,
Though she was the most beautiful.
I didn't start loving her because she always loved me,
But she made me feel LOVE.

An angel asked, "She or victory?" She is my triumph!

Growing old with her, her existence was paradise, 'Swasti' in the dark space, embraced me, protected me. She still makes me chase for her smile.

I started forgetting her, her face was getting blurry as 'DAY ONE

POV: An old person trying to recollect the memories of her mother.

Rishika Pandey B.Sc. (Hons.) Zoology I year





Silence speaks, maybe I don't,
People fake maybe emotions too.
People become snakes
Sometimes me too.

Friend or foe.

Maybe I'm both.

And I chose a tool,
Tool to bleed,
As I drank that ego
Of kindness.

Tender you are
More darker you get,
Selfish you are
More generous you are.

Maybe being complex
And silent
Means to hear and being unheard

Ankur Ghosh B.Sc. (Hons.) Zoology II year



#### ज़िंदगी और मौत का फर्क

ज़िंदगी भी तो आखिर दो दिन की मेहमान है, पर वो जो हमें इतनी नफरतों के बाद भी, गलतियों के बाद भी, खामियों के बाद भी कुबूल कर ले, वो मौत भी तो सोचो कितना बड़ा इनाम है।

अगर मौत हर कोशिश की मंज़िल है, तो ज़िंदगी वहाँ तक जाने का रास्ता है; माना ज़िंदगी का हर पड़ाव मुश्किल है, पर आखिर मौत भी तो भगवान का वास्ता है।

ज़िंदगी जो हर रोज़ नया सुलूक करती है, कभी कुछ छीन लेती है, तो कभी हम कुछ गँवा देते हैं; वहीं मौत जो एक झटके में आया करती है, उसको रोकने में हम दिनोंदिन खुद को कितना बर्बाद करते हैं।

इस सोच में मत रहो की मौत आज आएगी या कल, वरना बैठे–बैठे इसी सोच में गुज़रेगा हर पल; कल किसने देखा है, अपने आज में खुश रहो, खुशियों का इंतज़ार किस लिए, दूसरों की मुस्कान में खुश रहो।

अपनी ज़िंदगी को किसी की शर्तों पे ना जियो, क्योंकि मौत बिना किसी शर्त के आती है, एक ही तो ज़िंदगी है खुशी से जियो, क्योंकि शाम दुखों की हो या ज़िंदगी की, आखिर में ढल ही जाती है।

शिवांश लाठी बी० एस सी० (विशेष) जंतु विज्ञान तृतीय वर्ष





POINTREYE

#### WRECKED SHIP

So much lies
In the beauty of the wrecked ship,
Washed ashore, with a blanket of sand
It says, "The currents were strong that day
I had to give in".

Gems and stones, amongst the palace of bones,
The captain's hat beneath a vulture's claws.
'The king of the sea', it was made to be,
The names don't always mean it, so will be.

Had the wind been fine and the sea been kind,

It would still be soaring.
But that's just how life is
It is everyone's story.

Diya Bilahari B.Sc. (Hons.) Zoology II year 0000



## WILDLIFE

PHOTOGRAPHY





Gonocephalum sp. (Darkling Beetle)
Image Location: ZSI Dehradun
Abhay Gupta
B.Sc. (Hons.) Zoology
III year

**Crocothemis servilia** (Scarlet Skimmer) **Image Location :** Govindpuri, New Delhi

Abhay Gupta

B.Sc. (Hons.) Zoology

III year



Stromatium sp. (Teak trunk borer)
Image Location: Kaulagarh, Dehradun
Abhay Gupta
B.Sc. (Hons.) Zoology
III year



Spilostethus pandurus (Indian milkweed bug)
Image Location: ZSI Dehradun
Abhay Gupta
B.Sc. (Hons.) Zoology
III year



Sarcophaga sp. (Common flesh flie)
Image Location : Govindpuri, New Delhi
Abhay Gupta
B.Sc. (Hons.) Zoology
III year

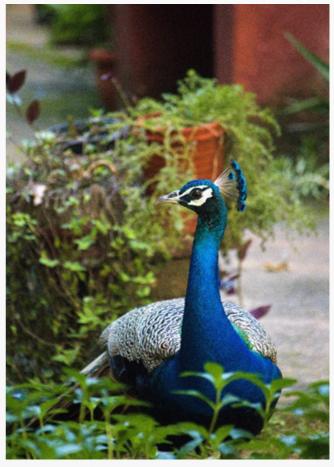
Graphium doson (Common Jay)
Image Location: Agartala
Basab Bhattacharjee
B.Sc. (Hons.) Zoology
III year





Funambulus palmarum (Indian palm squirrel)
Image Location: Delhi
Basab Bhattacharjee
B.Sc. (Hons.) Zoology
III year





Pavo cristatus (Indian peafowl)
Image Location: Delhi
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B.Sc. (Hons.) Zoology
III year



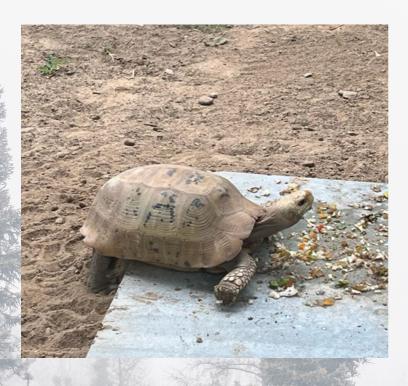
Psittacula kramari (Rose ringed parakeet)
Image Location : Delhi
Basab Bhattacharjee
B.Sc. (Hons.) Zoology
III year





Paraneetroplus synspilus (Flower horn)
Image Location: Dehradun Zoo
Dhruv Bhasin
B.Sc. (Hons.) Zoology
III year

Apis mellifera (Western Honeybee)
Image Location: ZSI Dehradun
Dhruv Bhasin
B.Sc. (Hons.) Zoology
III year



Indotestudo elongata (Elongated tortoise)
Image Location :Dehradun Zoo
Dhruv Bhasin
B.Sc. (Hons.) Zoology
III year



Astronotus ocellatus (Oscar)
Image Location :Dehradun Zoo
Dhruv Bhasin
B.Sc. (Hons.) Zoology
III year





• I am an ancient Greek philosopher. My theory is based on forms and describes five major biological processes – metabolism, temperature regulation, information processing, embryogenesis and inheritance. I am widely known as the Father of Zoology.

.....

• I am a Canadian-American physician and medical researcher. I am one of the first molecular biologist and pioneer in immunochemistry. I am best known for isolating DNA as a material of which genes and chromosomes are made along with Colin MacLeod and Maclyn McCarty.

.....

• I am a German physician and physiologist. I studied muscle contraction, discovered and named pepsin, discovered the organic nature of yeast, discovered Schwann cells and coined the term 'metabolism.' I am widely known for the extension of the cell theory to the animals.

••••••

• I am a British chemist and X-ray crystallographer. I worked on fine structure of coal and graphite and coined the terms graphitising and non-graphitising carbon. I studied the structure of tobacco mosaic virus and X-ray diffraction images of DNA and is referred as 'Dark lady of DNA.'

••••••

• I am a German-Czech biologist, meteorologist and mathematician. I founded the Austrian Meteorological Society in 1865. My most notable work includes plant hybridization experiments presented in *Versuche uber Pflenzenhybriden*. I am famously known as Father of Genetics.

••••••

• I am an English physician with contributions in anatomy and physiology as well. I described in detail the systematic circulation and properties of blood being pumped to the brain and rest of the body by heart in *De Motu Cordis*.

•••••

• I am a Swiss anatomist, physiologist and histologist. My noteable works include papers on Medusae and allied creatures, cephalopods, amphibian and mammalian embryos. I investigated smooth muscles, striated muscles, skin, bone, teeth, blood vessels and viscera. I am the first to notice and separate the mitochondria from cell structure.

.....

• I am a German physiologist and worked for immunology and opthalmology as well. I studied and worked with Robert Koch and Kitasto Shibasaburo. I am widely known as saviour of children as I discovered the diptheria antitoxin and received the first 1901 Nobel Prize of Physiology or Medicine for the same.

••••••

#### **SYMBIOX**

NICHE organized the departmental fest SYMBIOX'23 with great enthusiasm and zeal. The fest filled with enjoyment, laughter and words of wisdom of Dr. Komal Kamra. Dr. Kamra was the chief guest of the day who gave a light of hope and optimism to the students.



- COMPULSIVE LYRE The event was organized to test the craze of students for music and how keenly they observe eyes of various actors. The game was divided into 3 levels.
- WIZ ESCAPE Participants in pairs were locked inside a room. They had to solve clues and the first pair to escape the room wins.
- GAMEPLAY GALORE A small arena was created which included games like Bend your Butts, Balloon Stomping etc.

- STARE THE CHAIR Musical chairs !! Participants had to secure one seat as the music pauses. The one who fails to sit on one gets eliminated.
- MUDDLED GRID The students were expected to be in teams. Each team was given an envelope having different zoomed photo of the college. They had to unscramble the puzzle and identify the place and take a groupfie at that place.
- LENS THE BIOTA Biodiversity Exhibition.











# ANNUAL REPORT

The Department of Zoology @ ANDC is about to complete 30 years of its journey since its inception in 1994. Department is STAR STATUS DEPARTMENT since 2021. The course deals with a range of topics and provides a platform to recognize and appreciate animal diversity and complexity, through the classical as well as modern approach.

Department Society *Niche* organizes talks and several extra cocurricular activities throughout the year .Practical and hands-on training sessions are organized for the students. Students and teachers work jointly to organize these workshops. Most of the students are involved in some or the other project in diverse fields to nurture their talent. Many students do part of their project work with renowned scientists engaged in active research in reputed laboratories across the country.

The Department provides a conducive atmosphere for the overall personality development of the students. It organizes educational trips every year through which students are acquainted with the advanced technologies in the field. Students are also encouraged to participate in other activities organized by the colleges of the University of Delhi and other institutions. They have brought laurels not only in academics but in other fields too such as debating, sports, painting, sketching, quiz, dance, singing, etc. Zoology students graduate with excellent academic records and are well-placed in their careers.

#### **SCHOLARSHIPS AND AWARDS (2022-23)**

- **Krishna Toteja Memorial Scholarship**: Prof. Ravi Toteja, faculty member in Department of Zoology and officiating Principal of the college, has initiated this scholarship (academic session 2016-17 onwards) in the memory of his mother. One scholarship of Rs. 6,000/- (Rupees Six Thousand only) per year is awarded to a meritorious and needy girl student of B.Sc. (Hons.) Zoology. This year the scholarship is awarded to Shalini, B.Sc. (Hons.) Zoology, I Year.
- Merit Positions in the University of Delhi South Campus (UDSC) (Cumulative): Radhika Garg (2019-22) secured the third position with an overall 9.60 CGPA.

#### **WORKSHOPS, CONFERENCES AND TRAINING PROGRAMS**

- College organized an online workshop on **IPR- Patents & Designs filing** on August 27, 2022 in association with Rajiv Gandhi National Institute for Intellectual Property. Kumar Raju was the resource person.
- MICROSPHERE 2.0: An initiative to promote Microbial Literacy in school and UG Students was organized on September 17, 2022.
- In commemoration of centenary celebrations of University of Delhi, Acharya Narendra Dev College organized an Outreach Workshop on Cell and Molecular Biology Techniques on October 12-13, 2022 under the patronage of Prof. Ravi Toteja, Principal, ANDC. 24 B.Sc students and 26 M.Sc. students from GD Goenka University, Gurugram, Delhi were given complete hands-on training on cell and molecular biological techniques like Preparation of Competent cells and Transformation Experiment, making of mitosis slides, plasmid DNA isolation, polymerase chain reaction, agarose gel electrophoresis and restriction mapping.

- A hands on workshop on **Anti-Microbial Resistance and foldscope** was organised on October 11,under the aegis of DBT Star Scheme by the departments of Botany, Zoology and Biomedical Science. Dr Anupma Harshal W., Superheroes against Superbugs Fellow, Woman in STEM was the resource person. Students learnt how to make and use foldscope.
- **International** Conference **National** Soil • 7th of Contamination and Research (INSCR 2022) Modulating the **Environment with Microbes** was organized by Acharya Narendra Dev College, DU in collaboration with Deen Dayal Upadhyaya College (DU), Gargi College (DU), Kirori Mal College (DU), PG Department of Zoology, Magadh University (MU), Ramjas College (DU), Sri Venkateswara College (DU), Sri Guru Tegh Bahadur Khalsa College (DU), C.M.P. College (AU), Bhaskaracharya College of Applied Sciences, Shivaji College, Miranda House, KIIT Bhubenswar, Devbhoomi, U.K., Kolhan University, Jharkhand, PhiXgen Pvt. Ltd., Gurugram and College of Commerce, Arts & Science, Patna during November 07-11, 2022.
- In commemoration of Centenary Celebrations, Acharya Narendra Dev College and Maitreyi College, in collaboration with INSCR (Indian Network for Soil Contamination Research) organized an online **3rd International Symposium on Ciliate Biology 2022** (ISCB 2022) on November 08, 2022. Thirteen Speakers of International repute enlightened the gathering about their research work.



- One-week **Revisit Bootcamp 1.1** for **V-Lab Development workshop** was organized for the first year and second year students of all streams of the college during January 09-14, 2023. The bootcamp was mainly for those students who has shown interest in to be part of the V-Lab team, and for developing V-labs of their respective courses in future. This workshop exemplified Peer to Peer Learning.
- A **visit** to the **National Zoological Park**, New Delhi was organised by the department for I and II year students under their subjects on February 02, 2023. Delhi Zoological Park is home to large species of birds and multiple exceptional animals such as White Tiger, Royal Bengal Tiger, Gaur, Jaguar, Rhinoceros, Elephants, Asiatic Lion and lion-trailed monkey. This trip had been an amazing learning experience for the students to understand wildlife and conservation efforts.
- One day workshop on **Quantitative microbial ecology:**Opportunities and Way-ahead was organized on February 04,2023
  by the Zoology department of Acharya Narendra Dev College,
  University of Delhi (UoD) in association with Gargi College, UoD;
  IMiLI-SAC & PhixGen Pvt. Ltd. Organized a workshop on Microbial
  Ecology. This event was sponsored by International Society for
  Microbial Ecology (ISME).









• Department participated in Bani School Innovation Camp II (BaSIC V) and Biar Initiative - A School Outreach Program For Enrichment II (BISCOPE II). This was the second camp organized in commemoration of Centenary Celebrations of University to motivate and ignite young minds of Govt. Senior Secondary School (GSSS), Bani and Biar located in the Hamirpur District of Himachal Pradesh. This camp was organized on February 13-14, 2023 for students of classes VI-XI with an aim of uplifting the rural areas through propagation of scientific thoughts, promotion of student-teacher interactions and development of communication skills.



Organized a five day **Bootcamp on** V-Lab Development 2.2 and V-Development Lab (Building Blocks of Simulator) under the aegis of DBT STAR College Scheme during April 24-28, 2023. This workshop was organized for the First and Second year students of all streams of the college. The resource persons were Mr. Vaibhav Thapliyal, Mr. Shahnawaz Khan and Mr. Pankaj Sahu who were final year students of B.Sc.(Hons.) Physics, B.Sc.(Hons.) CS and B.Sc.(P) Physical Science with CS respectively from college.



41

- National workshop on **Skill enhancement of Non-teaching staff** (NWSENS-2022) was designed for holistic development of the non teaching staff, and covered topics like financial management, tax-filling, stock-keeping, computational skills, operation of GeM portal, basic laboratory skills for safe handling and usage of scientific equipments raging from pH meters, electrophoresis units, centrifuges, micro-pipettes, microscopes and spectrophotometers. It took place on July 13-20, 2023.
- Department of Zoology organized a national workshop on **Raising Awareness on Urban Air Quality, Climate Change, Health and e-Resillience** in collaboration with Environmental Pollution Laboratory (EPL), Department of Environmental Studies, University of Delhi, on November 28, 2023.









#### RESEARCH

• Being an active member of DBT Star College Scheme since 2017, department of Zoology is highly dedicated to promote research among undergraduates and develop a scientific mindset. This year also a number of students participated in Interdisciplinary Projects under ELITE and DBT STAR COLLEGE SCHEME.

TITLE	MENTOR	STUDENTS (2022-23)
Studying Sociological Impact of Madness and Maternity in selected literary works	Ms. Ankita Rasaily (English)	Parthib Kalita, Devika A.P., Pratikshya Panda, Ankisha Choudhary, Anushka Tomar (I year)
To study copper (Cu) toxicity on <i>Oxytricha</i> sp.	Prof. Ravi Toteja Prof. Seema Makhija (Zoology)	Khushboo (II year) Khushi Rani(BMS II year)
Tools and Techniques for species identification in ciliates.	Prof. Ravi Toteja Prof. Seema Makhija (Zoology)	Shailvi Swapnil (II year)
To study ethanol exposure on different developmental stages of Zebrafish ( <i>Danio rerio</i> ).	Dr. Monica Misra Ms. Bhumika Chauhan (Zoology)	Jasmine Negi Tannu Gond (II year) Bhawna Gurnani, Aru Chaudhary (LS II year)

# **SEEDBACK**

I am glad that I got the opportunity to do the ELITE internship program while doing the course in the college. Both, the course and internship, contributed in improving my skills. My ELITE project title was 'To study heavy metal toxicity in *Oxytricha species*'. In this project I got to know various things which were new to me. All the tools and equipments available in the lab made the project easy and feasible. Cooperation from teachers and lab staff is highly appreciable.

Apart from this college internship I also did an one month online training programme on 'Overview of space science and technology' organized by ISRO. The interactive training programme and interesting chapters were really worth it.

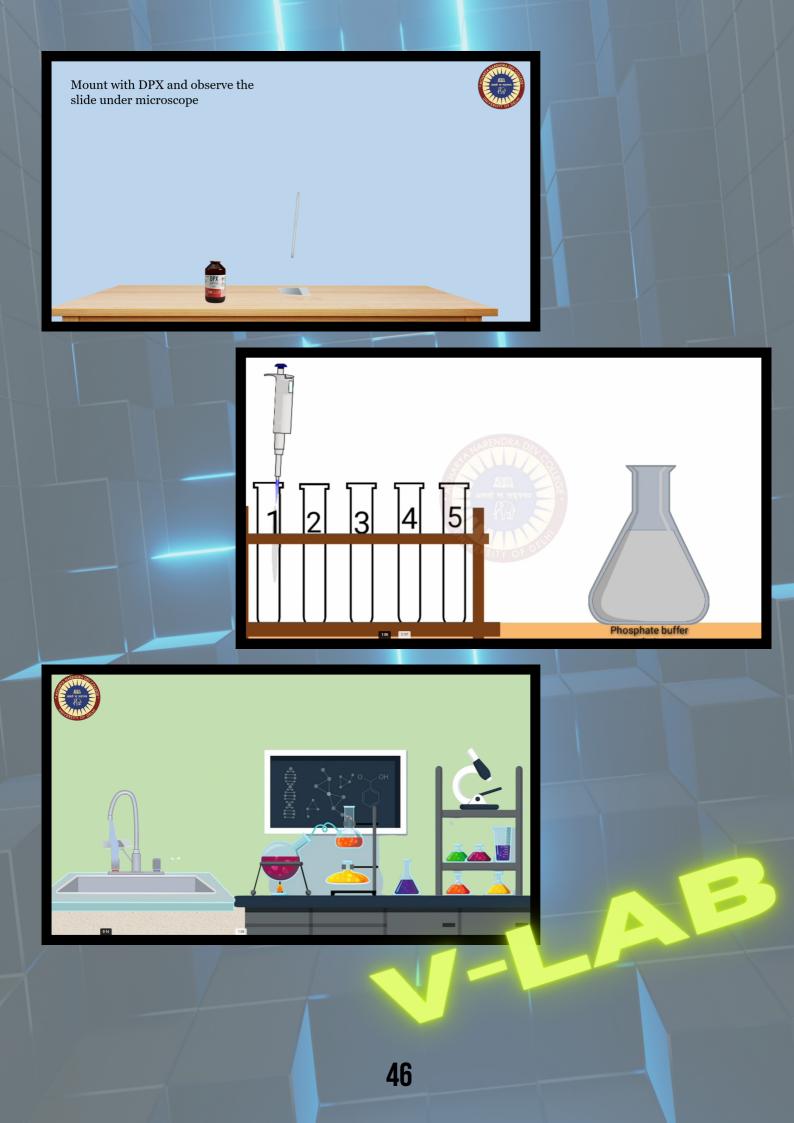
Khushboo B.Sc. (Hons.) Zoology III year

#### **VIRTUAL LABS**

Virtual Videos Created by Students /Creation of Animation and Development of Apps

TITLE	STUDENTS (2022-23)	LINK
Enzymatic activity of trypsin.	Rajkumar Jain (III year) Vaibhav Thapliyal (Physics III year)	https://www.vlab.andc ollege.du.ac.in/bioSc/z oology/tripsin/tripsin.h tml
Presence of DNA in ciliates.	Harshita Kushwaha Khushboo Sheelam Saroj (II year)	https://www.vlab.andc ollege.du.ac.in/bioSc/z oology/dna/dna.html
PAS Reaction by Mucopolysaccharide s	Harshita Kushwaha Khushboo Sheelam Saroj (II year)	https://www.vlab.andc ollege.du.ac.in/bioSc/z oology/pas/pas.html .
Proteins by Mercuric Bromophenol Blue.	Harshita Kushwaha Khushboo Sheelam Saroj (II year)	https://www.vlab.andc ollege.du.ac.in/bioSc/z oology/mbb/mbb.html





#### SERICULTURE SKILL DEVELOPMENT CENTRE

Given the promising employment and entrepreneurship opportunities in the sericulture industry, Department has established a Skill Development Centre in Sericulture. The primary goal is to provide students with comprehensive skills and knowledge in sericulture techniques. An additional course focusing on Sericulture will be introduced for undergraduate students, and a job-oriented program will be offered to unemployed graduates. This training aims to equip students to pursue a career in sericulture, enabling them to establish their own sericulture farms or silk production units. Moreover, it opens avenues for potential employment in other sericulture institutes or textile industries associated with silk.

Major Objectives: The Skill Development Centre for Sericulture aims to develop qualified professional manpower in Silk and Sericulture sector. Therefore, the course focuses on training and providing expert human resource to silk industry.

The SDC has following objectives:

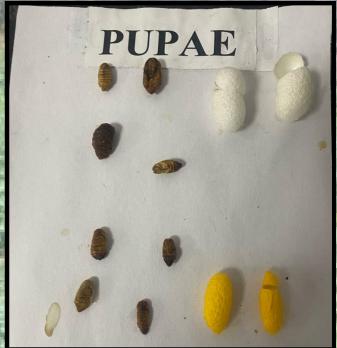
- To train the students in techniques of silk production.
- Recognize various species of silk moths in India, and Exotic and indigenous races.
- To give knowledge about mulberry cultivation, silkworm Rearing techniques to the students.
- To develop human resource empowered to handle the sericulture units/ corporate sector.
- To create awareness among youth about the opportunities and employment in sericulture.
- To increase the employability.
- To inculcate the entrepreneurship and capacity building among the students.
- To train the people from poor economic background.



सेरीकल्चर कौशल विकास केंद्र Sericulture Skill Development Centre













## Students' Achievement

#### **Achievement**

#### URL

#### SEPTEMBER 2023

Anshika Sharma (III year) won the first prize in ANTAR MAHAVIDYALA: SWARACHIT LAGHU KATHA LEKHAN PRATIYOGITA organized by Jesus And Mary College, University of Delhi, on the occasion of Hindi Diwas.

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# Students' Participation

#### **Participation**

#### URL

#### **JANUARY 2023**

Harshita Kushwaha (II year) participated as the resource person in V-LAB DEVELOPMENT Revisit Bootcamp 1.1 organized by Acharya Narendra Dev College under the aegis of DBT Star College Scheme.

https://drive.google.com/file/d/ 1vU1raNN1iL01stoXeShFiaM6\_ iyT7svx/view?usp=drivesdk

#### **FEBRUARY 2023**

Anshika Sharma (II year) attended the one day workshop on QUANTITATIVE MICROBIAL ECOLOGY: OPPORTUNITIES AND WAY AHEAD organized by Acharya Narendra Dev College in association with Gargi College, IMili-SAC & PhiXgen Pvt. Ltd

https://drive.google.com/file/d/ 1ziPg9A1rhP6-Q3cI\_t1LZH7MFNUlxcBc/view? usp=drivesdk

Dhruv Bhasin (II year) attended the one day workshop on QUANTITATIVE MICROBIAL ECOLOGY: OPPORTUNITIES AND WAY AHEAD organized by Acharya Narendra Dev College in association with Gargi College, IMili-SAC & PhiXgen Pvt. Ltd.

https://drive.google.com/file/d/
1u9TFYVKeW3pb9nyE1Fp8jU5
FWVZaLhoN/view?
usp=drivesdk

Harshita Kushwaha (II year) attended the one day workshop on QUANTITATIVE MICROBIAL ECOLOGY: OPPORTUNITIES AND WAY AHEAD organized by Acharya Narendra Dev College in association with Gargi College, IMili-SAC & PhiXgen Pvt. Ltd.

https://drive.google.com/file/d/ 1vFUTl4n7qX\_hCAmkvHlX8ry XCif9fOFJ/view?usp=drivesdk

Harshita Kushwaha (II year) participated in the PHOTOGRAPHY COMPETITION on the theme Nature at its Work organized by Department of Zoology, Shivaji College, University of Delhi.

https://drive.google.com/file/d/ 1vO71m6V5SrF9\_2mGaqeYkk2 oRcFq89Q6/view?usp=drivesdk Sunidhi Kumari (III year) participated in BIAR INITIATIVE: A SCHOOL OUTREACH PROGRAM II ( BIoSCOPE II) - A dream school initiative by the INSA Outreach Program organized under the aegis of IMiLI, ISME, FEMS, AMI and INSCR.

https://drive.google.com/file/ d/1SlhEQOX651dYnAFIWCkr LWiI-cuYYBli/view? usp=drivesdk

#### **MARCH 2023**

Abhay Gupta (II year) served as the volunteer in LEIOTHRIXX'23, annual cultural fest, Acharya Narendra Dev College.

https://drive.google.com/file/ d/1u3Ua2pr9LEUKjoloxoimZv eD9hgGhU24/view? usp=drivesdk

#### **JULY 2023**

Abhay Gupta (III year) completed the 40 days internship on TECHNIQUES OF COLLECTION, PRESERVATION AND IDENTIFICATION OF INSECTS at Zoological Survey Of India, Northern Regional Centre, Dehradun

https://drive.google.com/file/d/1tzS6GZSelSFkOu-uqwhd-ei5NskWZKQz/view?usp=drivesdk

Dhruv Bhasin (III year) completed the 40 days internship on TECHNIQUES OF COLLECTION, PRESERVATION AND IDENTIFICATION OF INSECTS at Zoological Survey Of India, Northern Regional Centre, Dehradun.

https://drive.google.com/file/ d/149XGuIUbvNwL-F6Q34jme8xyw49F5Pso/view? usp=drivesdk Dhruv Bhasin (III year) attended the webinar on CYBER CRIME AGAINST WOMEN: OPTING A FUTURISTIC APPROACH organized by Naksh Foundation and Nek Mission Foundation.

https://drive.google.com/file/d/ 1ZFZHU9jjNbW0luljo6GASibIz 6D6V6uG/view?usp=drivesdk

#### **AUGUST 2023**

Abhay Gupta (III year) attended the National Seminar on DRUGS AND DRUG LEADS FOR CANCER THERAPY – A SPECIAL FOCUS ON MARIBE DERIVED PIPELINE NATURAL PRODUCTS organized by Department of Marine Biotechnology, Faculty of Life Sciences, AMET University.

https://drive.google.com/file/d/
1tyBTlFSwNKnTow9NzEIG6prn
OkQRMomH/view?
usp=drivesdk

Abhay Gupta (III year) attended the webinar on BIODIVERSITY AND ITS CONSERVATION organized by Govt. Autonomous P.G. College, Satna(M.P.) in collaboration with NASI-Bhopal Chapter

https://drive.google.com/file/d/
1u9TFYVKeW3pb9nyE1Fp8jU5
FWVZaLhoN/view?
usp=drivesdk

#### **NOVEMBER 2023**

Anshika Sharma (III year) attended the workshop on RAISING AWARENESS ON URBAN AIR QUALITY, CLIMATE CHANGE, HEALTH AND E-RESILLIENCE organized by Environmental Pollution Laboratory in collaboration with Department of Zoology, ANDC.

https://drive.google.com/file/d/1WBG86cExJFDHV70DOgx7uCgN6033Jkno/view?usp=drivesdk

Abhay Gupta (III year) attended the workshop on RAISING AWARENESS ON URBAN AIR QUALITY, CLIMATE CHANGE, HEALTH AND E-RESILLIENCE organized by Environmental Pollution Laboratory in collaboration with Department of Zoology, ANDC.

https://drive.google.com/file/d/1WDrVy3oUFy3mmZjvmdkAE9tBd-5azODj/view?usp=drivesdk

Khushboo (III year) attended the workshop on RAISING AWARENESS ON URBAN AIR QUALITY, CLIMATE HEALTH **AND** CHANGE, E-RESILLIENCE organized by Environmental Pollution Laboratory in collaboration with Department of Zoology, ANDC.

https://drive.google.com/file/d/1WXLoEhC2FgjC1M9MVJ
6pW9wZJkSbDoik/view?
usp=drivesdk

Dhruv Bhasin (III year) attended the workshop on RAISING AWARENESS ON URBAN AIR QUALITY, CLIMATE https://drive.google.com/file/d/ CHANGE, HEALTH AND 1WBpiFtBla2EcUftZd-E-RESILLIENCE organized by MPxPBrQuKwwPjh/view? usp=drivesdk Environmental Pollution Laboratory in collaboration with Department of Zoology, ANDC. Sheelam Saroj (III year) attended the workshop on RAISING AWARENESS ON URBAN AIR QUALITY, CLIMATE https://drive.google.com/file/d/ 1Zc8tIuvnr6 5xjoK-CHANGE, HEALTH AND E-**ByG0B8EtUZDLA-w/view?** RESILLIENCE organized by usp=drivesdk Environmental Pollution Laboratory in collaboration with Department of Zoology, ANDC. Shivansh Lathi (III year) attended the workshop on RAISING AWARENESS ON URBAN AIR QUALITY, CLIMATE https://drive.google.com/file/d/ CHANGE, HEALTH **AND** E-1ZYZAtiHLuvW5OaavEX0ppJwr RESILLIENCE organized bv ELsMdTKP/view?usp=drivesdk Environmental Pollution Laboratory in collaboration with Department of Zoology, ANDC. Basab Bhattacharjee (III) year) attended the workshop on RAISING AWARENESS ON **URBAN AIR** https://drive.google.com/file/d/ QUALITY, **CLIMATE** CHANGE, 1Z\_avQbHE5MkVGwVYQyjMD6 AND E-RESILLIENCE HEALTH -a7jikif1I/view?usp=drivesdk organized by Environmental Pollution Laboratory in collaboration with Department of Zoology, ANDC.

## FIT INDIA ANDC LEAGUE SPORTS TOURNAMENT (2022-2023)

Acharya Narendra Dev College organized Fit India ANDC League Sports Tournament every year to develop the sportsmanship and promote the idea of healthy and active lifestyle. A number of disciples are included for both men and women competitions. This year Zoology Department with its utmost spirit and enthusiasm succeeded in winning most of the disciples and brought the trophy of OVERALL WINNER to the house. Students' put their best in the tournament and became the Champions.

#### FIRST POSITION

Women Volleyball – Jasmine Negi (II year),Twishi, Divya, Ritika, Manshi, Khushi Agrawal, Sunidhi, Preeti (III year)

#### Badminton

- Women single Twishi (III year)
- Mixed double Divya & Kaibalya Bhatra (III year)
- Men double Shivam Tyagi & Kailbalya Bhatra (III year)

#### **Athletics**

- Men (100m) race Kaibalya Bhatra (III year)
- Women relay race (4×200m) Manshi, Divya (III year),
   Deepa, Shaili (I year)

#### SECOND POSITION

Table tennis - Sachin (II year)

#### Badminton

- Women single Divya (III year)
- Mixed double Twishi & Shivam Tyagi (III year)

#### THIRD POSITION

#### Athletics

- Men relay race (4×200m) Mahip, Kaibalya Bhatra (III year), Jayanta Mondal, Ravinder (II year)
- Men (400m) Ravinder (II year)

























## Departmental Activities







### Acharya Narendra Dev College University of Delhi

NAAC grade "A" | NIRF Ranking 2022 #18 | DBT Star College organizes 5 day Bootcamp for



## V-Lab development 2.2 under the aegis of DBT Star College Status

Day 1- Intro to Web Dev

Day 2- Advance JS

Day 3- Designing with Figma

Day 4- Animating design with JS Day 5- Live project







Resource Person- Vaibhav Thapliyal, Mr. Vibhor Gupta,

Pankaj Sahu, Shanwaz Khan Prof. Ravi Toteja Convenors

Prof. Sharanjit Kaur Dr. Pooja Bhagat

**Nodal Coordinators** Prof. Seema Makhija Dr. Sumit Sahni

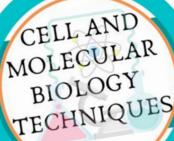
Register at- https://forms.gle/JRisnDfvSasav Dr. Vineet Singh



crediated Grade 'A' with Score-3.31 | NIRF 2022 All India Ranking-18 | DBT Star College Status

Under the aegis of DBT Star College Scheme and IQAC

Outreach Workshop



Patr

October 12-13, 2022

Restriction Mapping

Plasmid Electrophoresis **DNA** Isolation

Rashmi Sharma

Acharya Narendra Dev College

University of Delhi NAAC grade \*A\* | NIRF Ranking 2022 #18 | DBT Star College

organizes 5 day Bootcamp for

#### 3rd International Symposium on Ciliate Biology November 8, 2022 | New Delhi | Online Mode

with 7th Annual International Conference of Indian Network for Soil Contamination Research (INSCR)

Organized by







under the aegis of DBT Star College Scheme & IQAC

In Commemoration of Centenary Celebrations of University of D

#### Scientific Advisory Board Members

Dr GR Sapra Deptt of Zoology, DU Deptt of Zoolgy, DU

Dr Rup Lal Retd. Professor

Dr Komal Kamra Retd. Associate Professor Dr Rina Chaki Sr Professor 8

Dr Gaytha L. Langlois

Dr Alan Warren Professor, Bryant University Retd. Professor Rhode Island, USA Nat. History Museum, London

For Details Visit:

Professor Ravi Toteja, AND College Professor Seema Makhija, Al Professor Haritma Chopra, Maitreyi College Professor Renu Gupta, Mait

Date for Registration: October 15, 2022

Date of Abstract Submission: October 15, 2022

Come join the symposium, as a presenter (oral/poster), or as a participant, and interact with the best speakers, share



## V-Lab Development Building Blocks of Simulator)

under the aegis of DBT Star College Status 24-28 April 2023

Committee Room

Timing-10:00 AM - 12:00 PM

Day 1- Basics of Web Dev Day 2- Division of Simulator

Day 3- Working on parts Day 4- Uploading process Day 5- Live project

Resource Person - Vaibhav Thapliyal, Mr. Vibhor Gupta,

Prof. Ravi Toteja

Pankaj Sahu, Shanwaz Khan Convenors Prof. Sharanjit Kaur

Nodal Coordinators

Prof. Seema Makhija Dr. Sumit Sahni Dr. Vincet Single









## ACHARYA NARENDRA DEV COLLEGE Quantitative Microbial University of Delhi C Accreditation Grade 'A' | NIRF Ranking 2022 ...... NAAC Accreditation Grade 'A' | NIRF Ranking 2022 - #18 | DBT Star Status College

In Commemoration of Centanary celebrations of DU Invites you to attend a workshop under the aegis of DBT STAR College Scheme and IQAC on





Dr. Anupma Harshal W.



Dr. Archna Pandey

atron rof. Ravi Toteja ficiating Principal









Under the aegis of DBT-STAR College Scheme and IQAC TALK ON





## PROTEOMICS

Join us for an insightful exploration into the fascinating realm of proteomics

Event will be held on













Venue



Seminar Hall, Acharya Narendra Dev College





## One day Workshop on Ecology:

Opportunities and Way-ahead February 4, 2023

organized by



ACHARYA NARENDRA DEV COLLEGE

University of Delhi Under the aegis of DBT STAR COLLEGE SCHEME & IQAC

in association with





phixgen IMILI-SAC PhixGen Pvt. Ltd.

sponsored by **#ISME** 







### NATIONAL WORKSHOP

Raising Awareness on Urban Air Quality, Climate Change, Health and e-Resilience

Spansared by

Department of Science and Technology (DST) Government of India

Organised by

Environmental Pollution Laboratory (EPL)

Department of Environmental Studies, University of Delhi

In collaboration with

Department of Zoology

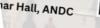
charya Narendra Dev College , University of Delhi NAAC ACCREDITED GRADE 'A' I NIRF 2023 ALL INDIA RANKING 21 | UNDER THE AEGIS OF IQAC & DBT STAR COLLEGE

ovember 28, 2023 0 am to 04:00 pm





Certificates & Refreshment



CLICK HERE



Quiz competition for participants



Prof. Chirashree Ghosh (Organising Secretary)

Prof. Seema Makhija (Co-organiser)

# Department of Zoology



III YEAR





I YEAR

