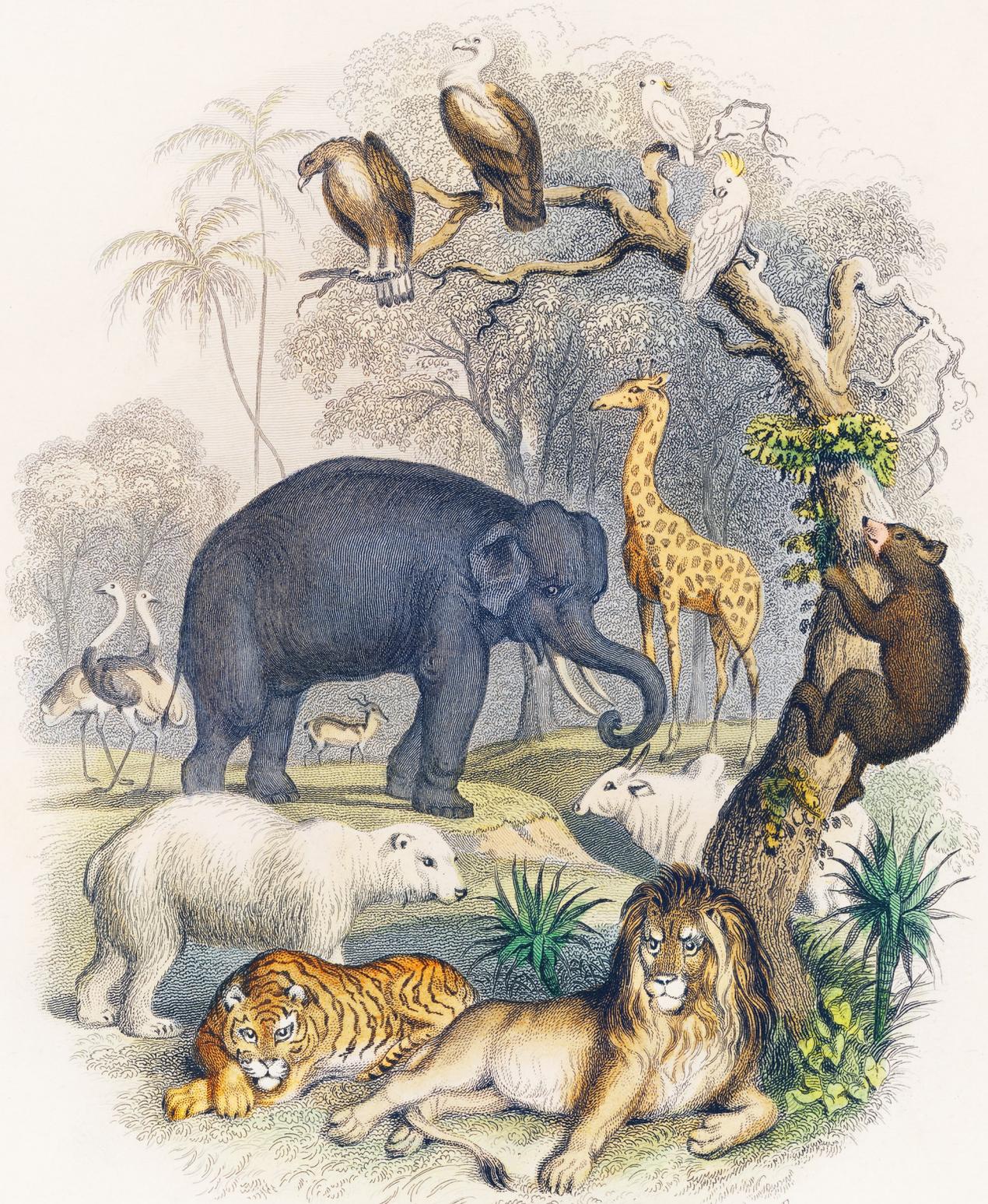


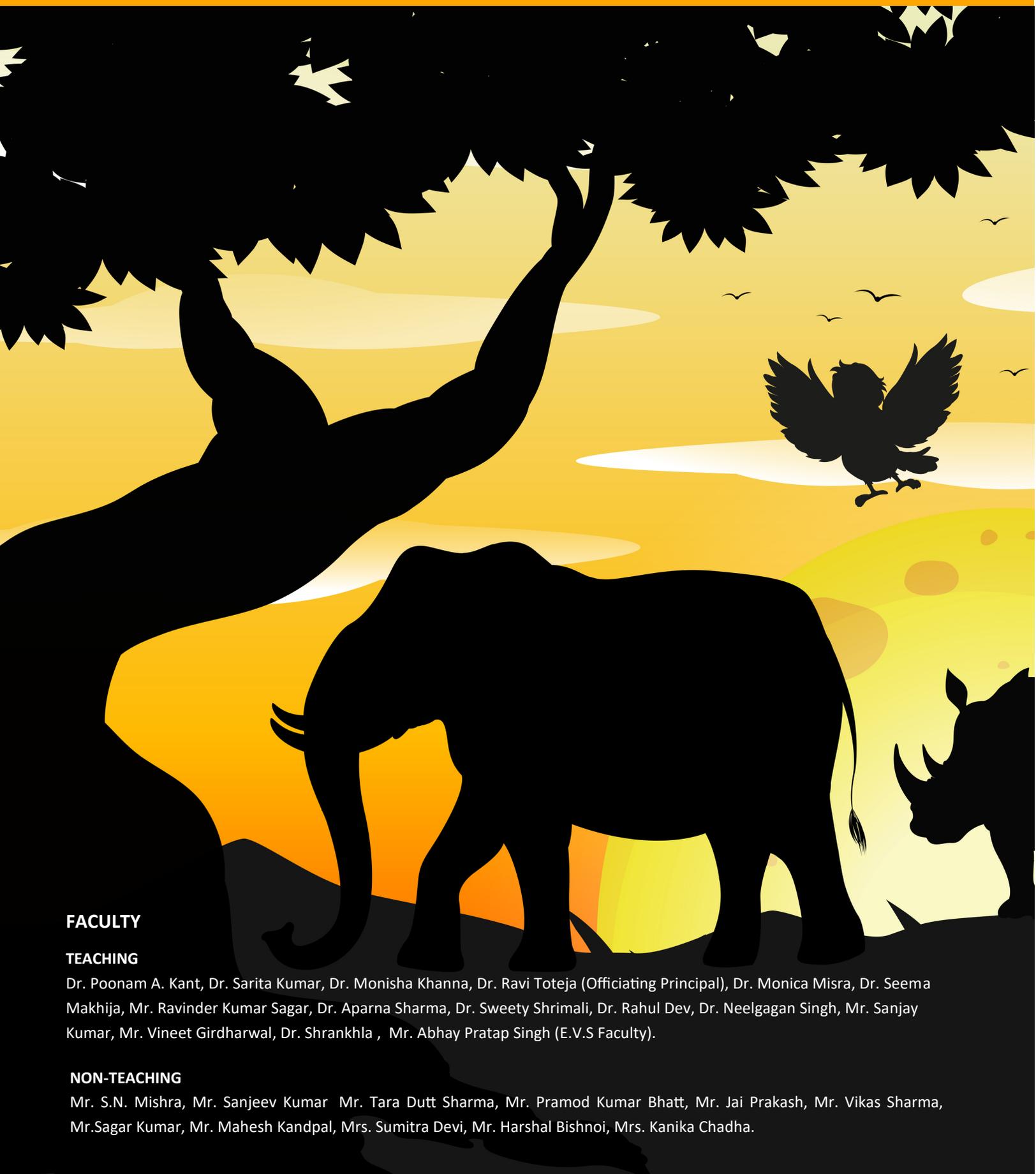
# CAMOUFLAGE

EDITION 2020



DEPARTMENT OF ZOOLOGY | ANDC

# DEPARTMENT OF ZOOLOGY



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# 25 YEARS OF CELEBRATION

# CAMOUFLAGE 2020

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\* The thoughts and views expressed in this magazine are not necessarily endorsed by the editorial committee.

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# Principal's Message



*"Excellence is a continuous process and not an accident."*

By Late Dr. A.P.J. Abdul Kalam

One cannot achieve excellence overnight but one has to continuously strive for it.

This is what we at ANDC aim for. All possible opportunities are provided to students in the college and it is up to the students to grab them for their maximum benefit. Bringing out of the Departmental magazine—"Camouflage" by the Zoology Department of our College is one such opportunity provided to the students of the Department. True to its name, this magazine is an open opportunity in disguise. I hope this magazine would help to serve as a platform for the students to express their views without any fear. This would give them confidence of putting their ideas across to others.

As we all know, the whole world is passing through a difficult and testing phase owing to the spread of Covid-19 pandemic. I hope and believe that release of this magazine during this time will help in shedding off some stress for the students and faculty and bring some relief to all of us.

I congratulate Dr. Sarita Kumar, Teacher-in-Charge of Zoology Department, who initiated the work on the magazine and made it a reality. Congratulations are also due to other staff members; both teaching and non-teaching for their support in this endeavor. I appreciate the hard work put in by every student who has contributed in bringing out this issue of camouflage.

May all our students soar high and bring glory to the world with their learning.

Happy reading!!!

**Dr. Ravi Toteja**  
Officiating Principal  
Acharya Narendra Dev College

## A BRIEF HISTORY OF DEPARTMENT OF ZOOLOGY..

**A** new college called ANDC, which was at that time unheard of, in North Campus as well as South Campus of the University of Delhi, started the Department of Zoology in 1994. I was among the first ones to join the Department in a college.....which was known as the one 'Running in Bhagat Singh College building'. Since then, it's been a long, quite challenging but very rewarding journey of 26 years for me. I still remember the day one when I walked in the Department; I was wondering where will we teach and how will we hold practical's. It was quite a challenging task to establish the whole Department as we did not have dedicated labs. We had to list, needed to buy everything; and that too in sharing with the Department of Botany. We had common labs, common museum, and even a common staff room. Each day was a 10-hour working day as after the classes we had to sit together to plan how to build rooms, setup labs & above all how and where to utilize the minuscule funds available to at least get the Department started.

The purchase planning started from dealers, followed by approaching distributors & even then we did not have sufficient funds for the initial set up. We refused to give up and decided to find ways to get the department operates in the same financial year. Hence started the process of calling, explaining, writing, faxing (yes at that time faxes were fastest & were yet to become widespread) and then meeting manufacturers or their representatives. I went to Agra (With one of my colleagues – Dr. Saumya Saxena who is no more) to search and buy museum stuff. We got it all done & the Department was up and running effectively its first batch – just eight students initially and we were left with only one student in the second year. The administration planned to declare it zero years and transfer that student in some another college but two students transferred from neighbouring college to our's and the batch survived. That girl stood second in South Campus.

Those were different times, with ANDC had an in-residence Principal. The focus was to discipline, teach, revise, mentor and ensure that all students do well in both- Theory & Practical examinations but only through classroom studies. No research/co-curricular or extra-curricular activities were held.

Then in 2003 came the second phase ... when the Central Facility was setup and multiple types of equipment were made available as a resource sharing. Finally, seed of research was planted in the college. The third phase started in 2005 with the co-curricular & extra-curricular activities being area of focus introducing the philosophy of *'Beyond the Classroom'*. The college started indulging in art, theatre and participating in various intra-college and University level activities & events.

Then finally, came the fourth phase of my journey, 'The research phase' wherein I setup the 'Insect Pest and Vector Control Laboratory (IP&VL)' for advanced research in Vector Control. This has been among the most rewarding experiences in my career...

3 Ph.D.'s awarded till date, 1 submitted, 6 Scholars registered for Ph.D. and 2 Post-Doctoral Research Scholars.

I can vouch the progress of Department from a 2-room set-up under the tin shed to the full Department of 15 staff members, a beautiful museum, a great central lab facility and a well-reputed, successful and focused research lab. Across all the above phases I have been fortunate and trusted by 3 Principals and 2 OSD's with a variety of administrative & functional responsibilities covering... various Committees.

Though I am a recipient of few awards -Delhi Govt. & the University of Delhi; the greatest award & reward has been ... this long & rewarding journey. A journey full of opportunities, deliverables and motivation; especially 2005 onwards; when the concept of 'Open' came. We learnt the concept of sharing and transparency which was missing from our professional life. We were hiding in a shell which finally broke. We were motivated to open up, learn and perform in diverse areas...free hand with enormous opportunities was provided to us.

Today when I look back, I feel happy & blessed to have got an opportunity not just to work hard myself but also to work with teams and together to deliver results. I feel proud to look back at the various landmarks we crossed & achieved personal and professional satisfaction. Glad to be a part of ANDC...which is known for not only work culture and academics but also the research, dramatics, schemes for students which are nowhere in any other University college and what more...

"From a 2-room Department under tin shed to full department of 12 staff members, a beautiful museum, a great central lab facility and a well reputed, successful and focussed research lab..."

Dr. Sarita Kumar, Department of Zoology, ANDC

## NATIONAL INTEGRATION CAMP BY MINISTRY OF YOUTH AFFAIRS AND SPORTS. GOVERNMENT OF INDIA

**N**IC in NSS stands for National Integration Camp. For this Camp, five to ten undergraduate students are chosen by Delhi University to represent our beloved diversified state Delhi.

Luckily I was one of them and it gives me immense pleasure to share this journey. One should always gain an experience whenever someone gets this kind of opportunity, it provides knowledge and chance of networking with people and that is wonderful.

Starting a long journey to Himachal Pradesh with entirely unknown peers for the first time in life might lead to give ups or Goosebumps. But thankfully it was only Goosebumps for me and I was on a wonderful journey. Travel can create beautiful bonds, All the Delhi University NSS volunteers became familiar with each other before reaching to Mandi, the Camp Site. National Integration Camp is organized by the Ministry of Youth Affairs and Sports Government of India, with a motive to inculcate Nation Pride and Unity in diversity. It was held at District Institute of Education and Training in Mandi District of Himachal Pradesh. Seeing the Volunteers from sixteen different states across India gave me, the wow feeling. All the previously reached volunteers and Programme Officers greeted us with a smile and we got introduced to each other before settling down to our common rooms.

During the time period of one week, various activities and competitions were organized with prayers in the morning and drills and cultural performances in the evening. Team Delhi enthusiastically participated in various competitions including Poster making, Slogan Writing, Mono-acting, Rangoli, Solo Dance, Debate, Culture Exchange Program, Essay Writing, Short Story Writing, Skit and Group Dance Competition. After getting all the volunteers information about it as in the camp various competitions were organized giving very limited time for preparation to participants, each individual of a team contributed with their ideas and performances. These activities allow one to know better about their cognitive ability as well as intellect.

Meals were entirely planned by Volunteers, and we cooked food items from different states with the help of respective state team thus exploring varied food items at a single place. New Delhi is the capital of India and in a way it is representative of all the diversity that our country offer. I chose to present the North Eastern part of Indian culture and got ready for performing "BIHU" with its ethnic clothing. I was awarded third prize in poster making competition. Delhi Team, from making Rangoli based on historical heritage of Delhi to nukkad natak '*Nasha of Yuva*' aced all the competition where we performed. We toured Mandi district and its mythological places on foot under the program '*Mandi Darshan*'. All days during our stay, started with an inspirational speech by renowned guests that inculcated pride in the beauty of our nation. I explored and learned a lot of things via this camp, which were very distant from my experiences. The camp contributed to my self –confidence, helped towards physical and mental well being and gave me lifelong loving lessons. The brain storming patriotic sessions conducted within camp, prepared volunteers to help other people and various communities in the society. The camp concluded successfully and it helped strengthening of peace and unity among volunteers.

Manisha Bishnoi, B.Sc. (H) Zoology- Part III

## MY JOURNEY AS A SPORTS COORDINATOR

**“Sports do not build character. They reveal it.”— Herwood Brown**

Sports are one of the most entertaining activities that also have innumerable benefits. In my opinion, sports are a way to gain immense thrill, build character and to learn many lessons of life which are not taught inside a classroom.

Now-a-days, we have such a fast paced lifestyle that we often neglect the importance of sports and physical activities in our daily lives. Sports not only instill values and virtues but also make us more disciplined and responsible. How hard we try but the benefits of sports cannot be forsaken.

Being on-ground teaches us teamwork, camaraderie, and cooperation. One learns to adjust and adapt with others. A person’s ability to work in a group is enhanced by participating in sports, which is very essential in current times. After stepping out of our institutions, one has to always work in a team at their workplace, research projects, or any type of field study, which all require some form of team work.

As an undergraduate student, I had to deal with so many assignments, presentations, group projects, exams and practical, all leading to increased mental stress. I believe sports can teach a person—how to deal with failures and disappointments in life. I learned that I am not always going to get my desired results, but no matter what, I have to work hard, preserve and not give up.

In my view, the best way to relax and get rid of your stress in a busy college life is to participate in sports. As the sports coordinator of the Department of Zoology, I have actively tried to encourage students to take part in various games of our intra-college tournaments. Every year we have students participating in several events such as Athletics, Cricket, Football, Volleyball, Badminton, Basketball, Kabaddi and Chess; and bring accolades to the Department.

Our Department has brought laurels in the several events. Some of which are:

\* The women's volleyball team has been winning the league as well as the knockout tournaments for twice in a row under the captaincy of Ms. Riya Bhartawal [B. Sc. (Hons.) Zoology Part—III].

\* In Badminton doubles (women), Ms. Surbhi Singh [B. Sc. (Hons.) Zoology Part—III], and Ms. Pamela Barua [B. Sc. (Hons.) Zoology Part—III] have been winning or securing the Runner up position for the last three years.

\* For the first time women's basketball team of the Zoology Department was formed this year, and we bagged the second position in the League tournaments of 2019-20.

\* In Relay Men 400m event, our team secured the second position in the league tournament of 2019-20.

I tried my best to inspire students to make sports and games a part of their college life and encouraged them to take part in more and more tournaments. There is a sportsperson in all of us, and I hope I've done my best to summon it.

**Pamela Barua, B.Sc. (H) Zoology - Part III**

**Sports Coordinator**

## THE RISE OF ANTI-VAXXING

**T**he discovery of the first vaccine against the dreaded small pox by Edward Jenner back in 1796 is probably one of the most significant medical revolutions in the modern world. This new medical innovation institutionalized to pave way for a novel approach- deadly diseases could now not only be prevented but by mass immunization could possibly be completely eradicated.

Since then, now more than 200 years later, small pox has been eliminated (100%). Polio and diphtheria (86%) vow to be the next, with whooping cough, neonatal tetanus and measles (60-65%) just behind them (Source- UNICEF). While the WHO works towards their pledge in attempting to curb the global healthcare crisis, their annual health report shows statistics that concretize the erraticism and the heterogeneous distribution of medical facilities between people- undeniably more prevalent throughout the developing and poorer nations. Because more number of people are adding to the count who are having no or minimal access to medical and healthcare facilities ,the efforts to provide for the same aren't met with the required magnitude. The World Health Organization has named vaccine hesitancy one of the top 10 global health threats of 2019.

UNICEF and WHO certified India as polio-free in the March of 2014. The government vaccine scheme which devised compulsory immunization for all children has been regarded a great success. The coverage rates in developing nation is around 80%, Although not complete, is an improving figure. Children in war torn countries like Syria continue to be at greater risk of infections.

Vaccines have saved thousands of millions of lives and have been instrumental in stabilizing and thereby increasing the global population. However, they have met with severe opposition from various social and some religious groups, who either believe the risks to outweigh the benefits and bear due to general misinformation or have taboo regarding immunizations.

The 'anti-vax' movement became popular after the Wakefield studies that went viral back in 1995. The study linked the MMR (Measles, Mumps, Rubella) vaccine to autism.

It was conducted by British gastroenterologist Andrew Wakefield, MD and associates, who published a cohort study in the Lancet showing that individuals who had been vaccinated with MMR were more likely to have bowel disease than individuals who hadn't and speculated that persistent infection with vaccine virus caused disruption of the intestinal tissue that, in turn, could have led to bowel diseases and autism. However, this hypothesis is now proven to be false. The errors in Wakefield's research were pointed out and his study, refuted. Later, a legal battle ensued, and his monetary interests and frauds came to light.

The use of thimerosal in childhood vaccines, another concern raised was the use of a mercury-containing preservative thimerosal in some vaccines. The dose of mercury present was found to be greater than the recommended value (as seen can be used and do away with respect to methyl mercury, which is found in fish and causative of neurodevelopmental disorders). Mercury was present in the form of ethyl mercury and wasn't believed to be hazardous. However, the fear pressured the Institute of Medicine for a review and in 2004, the committee rejected the links between thimerosal and neuropsychiatric disorders. The preservative was, nonetheless, eliminated and is no longer used today. Some influenza vaccines still use the preservative in multi-dose vials. Aluminum used in vaccines was also a focal point of controversy, but the amounts used were not implicated to cause any health problems.

Breakouts of vaccine preventable diseases have been on a high rise in the US, where much of the anti-vaccination movement is concentrated, followed by Europe and the Philippines. Measles rates have increased in the past few years and its highly contagious nature could catalyze its spread further. 'Herd immunity' is when a high proportion of a population who are immunized, restrict the spread of a disease to immunodeficient individuals, people who cannot be vaccinated such as patients undergoing chemotherapy, infants and the elderly. Unvaccinated individuals threaten to breakdown herd immunity and endanger these persons, who have a far greater chance of fatality on contamination.

A lot of anti-vax activists harbor sentiments stemming from personal experiences. It is true that sometimes some vaccines might have certain side effects, but those chances are close to 1 in a million. Also, doctors usually inquire of previous reactions to any vaccination and suggest discontinuing the same. A trend to distrust medical professionals, skepticism and repudiation of their knowledge is on the rise. The myriad of lives saved from vaccination and the revenue in medical cost saved, in turn, is tremendous.

Doctors and healthcare professionals are on a constant evaluation of the vaccines being administered and, on a lookout, as to how to introduce the weakened pathogen with greater safety. Not vaccinating your child isn't just putting them at risk of infection, but it also poses a far greater risk to other vaccinated/unvaccinated individuals and could possibly jeopardize the overall herd immunity of the community. The number of children who are now able to see their 5th birthdays are more than ever. In hindsight, it would be nothing short of foolish or retrogressive than to voluntarily return to conditions of a time before 1796.

**Sarah Parwez, B.Sc. (H) Zoology - Part II**

## 'LARGEST ANIMAL EVER DISCOVERED IN DEEP-SEA CANYON OFF AUSTRALIAN COAST

Underwater explorers found a Siphonophore in a submarine canyon off the coast of Australia. It was a 150 feet long (45 meters), translucent and stringy creature made up of smaller critters. It looked like a coral and according to them, the creature "*seems to be the largest animal ever discovered*". This Siphonophore was first introduced to the Internet by Schmidt Ocean Institute (SOI).

What is a siphonophore? It is a Cnidarian, made up of many little "zooids." Each zooid carried out a particular function making it a polymorphic individual. According to a research article published in the journal *Developmental Dynamics* in 2005; zooids reproduce asexually. As per the Monterey Bay Aquarium, the zooids link together in long chains, the colonies were already known to reach lengths of up to 130 feet (40 m). Each siphonophore is only as thick as a broomstick.

The Western Australian Museum researchers were on their one-month-long expedition of deep-sea canyons off Western Australia's Ningaloo coast onboard SOI's research vessel Falkor, when they found world's largest siphonophore. The researchers also discovered 30 new species of marine life in addition to the siphonophore.

The SOI co-founder Wendy Schmidt said there is so much we don't know about the deep sea and countless species never seen before. What happens in the deep sea affects life on land. The Ningaloo Canyons are just one of many vast underwater wonders we are about to discover that can help us better understand our planet. "Research is crucial to understand the connection and importance of protecting these ecosystems, he added.

The researchers used a remotely operated vehicle (ROV) called ROV Sebastian to explore and collect samples from deep ocean areas that hadn't been investigated before. Researchers using the same ROV discovered gardens and graveyards of coral in three submarine canyons off South Australia.

During this latest voyage through waters off western Australia, the researchers also discovered large colonies of glass sponges and other species. They also found the largest-ever example of the giant siphonophore genus *Apolemia*. The research was funded by the Schmidt Ocean Institute.

Rebecca Helm, an Assistant Professor at the University of North Carolina, Asheville who was not involved in the expedition that found world's largest siphonophore said she has seen siphonophores of about 20 centimeters to one meter, but never seen this large and one that hunts in such a remarkable way by making it to spiral to hunt.

Source- [www.livescience.com](http://www.livescience.com)

**Chirag Pulwani, B.Sc. Life Sciences — Part II**

# IKIGAI

Ikigai is a Japanese concept which means *'the reason for being'*. The reason which makes you wake every day in the morning.

Everyone in this world has one feeling in common, which is the boredom. People usually get bored off rapidly from most of the activities they do and feel dull, lethargic, confusion, time and energy wasted on meaningless tasks. *"We are what we repeatedly do. Excellence, then, is not an act but a habit—Aristotle"*. Imagine you're singing your favourite song and lyrics of the songs are being felt by every cell of your body. You are entirely fanatical to sing as well as you can. You know exactly how to move at each moment. There is no future, no past. There is only the present. You feel the emotions, melody, tune, rhythm, your body, and your consciousness united as a single entity. You are completely immersed in the experience, not thinking about or distracted by anything else. Your ego dissolves, and you become part of what you are doing. We've all felt our sense of time vanish when we lose ourselves in an activity we enjoy. We start playing computer games and before we know it, several hours have passed. What makes us enjoy doing something so much that we forget about whatever worries we might have while we do it? When are we happiest? These questions can help us discover our ikigai.

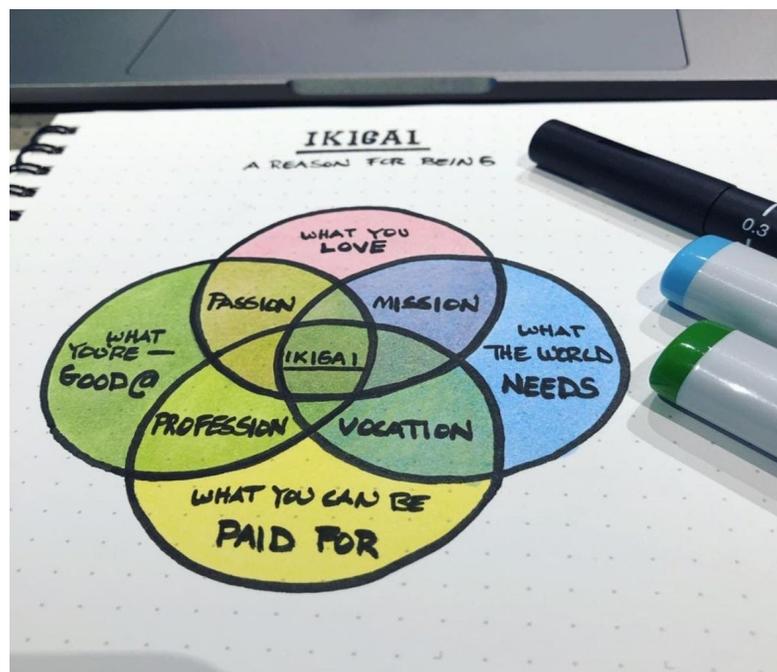
When we differentiate between a contented and a wretched man, the reason we realize is not the stressful life a 40 yr. old man is facing but the way he perceives his life. According to a study in Japan, those who lived 100 years on an average, revealed what made it possible was not unique diet, lifestyle or money but the practice called ikigai.

The practice is simple, *i.e.* to indulge in a task in which you feel times flows like water. There is no magic recipe for finding happiness, for living according to your ikigai, but one key ingredient is the ability to reach this state of flow and, through this state, to have an "optimal experience." In order to achieve this optimal experience, we have to focus on spending more time on those activities that bring us to this state of flow, rather than allowing ourselves to get caught up in activities that offer immediate pleasure- like eating too much, abusing drugs or alcohol, or stuffing ourselves with chocolate in front of the TV.

The seven conditions to achieve flow are:

- ⇒ Knowing what to do
- ⇒ Knowing how to do it
- ⇒ Knowing how well you are doing
- ⇒ Knowing where to go
- ⇒ Perceiving significant challenges
- ⇒ Perceiving significant skills
- ⇒ Being free from distraction

As a conclusion finding your ikigai involves asking oneself four questions i.e. what you love doing? What are you good at? What you can be paid for? What the world needs from you? Ultimately leads work and free time into spaces for growth.



Parth Aggarwal, Alumni

## JOURNEY FROM LAND TO OCEAN

**F**rom being born and brought up in land locked state of Haryana (Faridabad) to some of the remotest parts of India (Great Nicobar Island), my journey from land to ocean and in world of marine animals has been adventurous, extraordinary and not less than a fairy tale. After working on some of coolest and colourful-looking marine animals for my Ph.D. in Andaman and Nicobar Islands; presently I am working as Project Scientist-B in Centre for Marine Living Resources and Ecology (CMLRE), Ministry of Earth Sciences, Kochi. Studying Zoology (H) from Acharya Narendra Dev College (2007 to 2010) sparked my interest in animal world, paved the path and made me what I am today. It was critical teaching of the faculty members along with support of lab staff which made me understand the principles of zoology both theoretically and practically.

With an experience of more than six years in scuba diving, I did more than 600 dives in waters of Lakshadweep and Andaman & Nicobar collectively. I also sailed on FORV Sagar Sampada, which is the only fishery oceanographic research vessel in India. I have been to many uninhabited islands, dived around them, encountered with tribal jungle dwellers and sailed across Arabian Sea and Bay of Bengal. All of this, being from place like Faridabad and being a person who never even had witnessed



While safety stop after a dive

ocean till he was 20 years, was unexpected and out of dreams. I was interested in taxonomy and after seeing authors name behind scientific names of animals, I also wanted to be an authority of species. Studying zoology at ANDC was a precursor for me which later gave me fruits. Till date I have described nine species as new to science and two of them I named after my mother and father. From last seven years, I have been working on some the most colorful and vibrant animals one can find underwater. Commonly called as marine flatworms or Polyclads, these worms are an important coral reef associated animals falling under the Phylum Platyhelminthes. These animals are very soft and sensitive that even a slightest touch of hand can break them off. Their collection and preservation are daunting task thus making them difficult to work upon and this is the reason



*Pseudoceros vishnui* Dixit, Raghunathan & Chandra, 2017 (Named after my father Vishnu Dixit)



*Prostheceraeus fuscolineatus* Dixit, Raghunathan and Chandra, 2017 (Described from Andaman Islands)



*Pseudoceros agattiensis* Dixit, 2019 (recently described from Lakshadweep Islands)

why only few people work on these beauties around the world. However, with many failures and disappointments during collection/preservation of these animals, I was able to finish my Ph.D. in 2019 and had published many scientific papers in some the world's best taxonomic journals.



*Pseudoceros meenae* Dixit, Sivaperuman & Raghunathan, 2018 (Named after my mother Meena Dixit).

It was all because of my teachers in school and college, my parents and siblings who always supported me with their blessings and well wishes. I never thought that one day I will be seeing all those specimens in real which were shown to me in in preserved state during practical sessions in ANDC.

Finally, to those who are reading this, I just want

to say that dream big, try to achieve it and do whatever interests you most. Be it any field, hard work always pay off.



With a huge barrel sponge in

**Dr. Sudhanshu Dixit**  
(2007-2010 Batch)  
Project Scientist-B  
Centre for Marine Living Resources and Ecology  
(CMLRE)  
Atal Bhavan, Kochi

## ALL IS WELL

Hi!!

You would be getting a lot of advice from many quarters. Some articles published here would also try and give that precious advice to you. It's not bad getting advice. God knows how many times I felt that someone would point me to the right direction...

I am not here to give any advice *per se*. I am here to talk about a journey. A journey which you guys are undertaking right now. A journey which I took 14 years back (God was it so long ago), when I first crossed those iron gates and entered into a whole new world. A world full of freedom, happiness, friendship and of course love (I won't confirm or deny that it was for my friends or a more platonic one).

Ahh, I got distracted by that one. We were talking about our journey. People often read books to learn. I learn by experiences. And the time I spent at my college has been the best time of my life yet. I made lifelong companions on that journey. Companions who are still with me, who stood with me through times thick and thin. That journey which you all are part of right now, enriched my life in a way which is incomprehensible. I cannot express it in any words or languages I know. But I can feel it. Like a fragrance so heady that it remains with you your whole life. I am sure you guys can feel it too.

There is a lot of pressure on each one of you to be successful. To earn name, fame and money in your life. I understand that and I agree with it too. But somehow I feel that pressure moulds you in a way that may or may not be to your liking. The journey I took helped me remain sane through all those long nights, through situations I can't understand. This journey helped me remain the same boy I was when first entered into college. I learned everything I know from this journey. I was not the brightest or smartest but as they say ***"Help would always be given to those who deserve it"***.

It was so true for this place. I got help which made me who I am.

So friends, enjoy!!! All will be well... Enjoy this journey to the fullest for this is the most colorful and lively time of your life. This won't come back.

Make memories which would help you survive the onslaught which life would throw at each one of you. Make friends, fall in love, play, fight; do what you want and not what has to be done because someone else thinks it's correct. Just live through this journey, capturing moments in your hearts, for that lifelong collage. Yes you would make more memories along the way but these would always remain there as something very special.

I think I have also started sprouting advice to you at last. So before all this turns up too boring, I am signing off.

**Divey Sharma, Alumni**  
(2006-2009)

## CLIMATE CHANGE AND YOUTH

**W**hen a 15 year old, Swedish national Greta Thunberg demanded her right to just future, the world was stunned, awed and dismayed at the same time. The anger in her voice reverberated in highest platforms, where there was possibility for action yet she felt she returned unfulfilled. The sincerity in her effort, did compel her parents to alter their life style choices, she galvanised children in her school, people in her city and state and many more in a very short time. But, the history is witness to the fact that socio-political change takes time. Human history has fought and it is still fighting many changes like colonialism, racism, women suffrage and currently the rights of LGBTQ etc. In these examples time taken to change varied globally, a modest average would be around a century. But, now without action, it would hard to stall increase of global average temperature to 1.5°C, which would cause significant damage.

Therefore if it is a fight is between nature's resilience to anthropogenic change and people's tendency to change, currently our human race is losing. If the evidence is so glaring why isn't there action? The answer lays in details of the question like in all the social challenges above there no single factor response; here it is fighting perceptions, economic considerations, state and individual aspirations, environmental and developmental challenges. In order to expedite socio-political change, even psychological as it is easier to not act than work towards action, it would be imperative to address these details.

Having a strategy, a plan to implement, knowing your strengths and your opponents weakness are the key ingredients for any battle. In the complex world especially the geo-atmospheric system, it is not always easy to know this all, neither can you expect immediate or palpable returns. Hence, it is a tough battle. History always remain divided on what really worked, for example for Independence in India, though the popular believe is people's participation but insurgency and lack of funds with Britain after WWII are accepted reasons too.

However debilitating, the youth needs to create the enabling conditions for change, it may be through technological progress to cut down emissions maintaining the high standard of living for the developed world and to provide better standard of living for the developing without increasing emissions, or challenging perceptions through knowledge for adoption amongst masses and the toughest one generating enough economic impetus to sustain action. The world needs researchers and policy analysts to devise new pathways, conduct trials, study impacts, address gaps; implementers to take the knowledge to the field, apply subjective knowledge in discrepancies and platforms for these exchanges, robust governance structure to monitor implementation, entrepreneurs to apply the recent research on identified gaps and media to scale up voice for all.

What offers hope is the fact that the world has changed not only in terms of climate but positively too, with technological advances like AI, auto driven cars, advances in health care, lower child mortality rate etc., Hence, unless the young want to be boiling frogs and loose without fighting, with individual strengths, the future isn't dystopian.

**Pallavi Sharma, Alumni**

(2004-2007)

## ALL THINGS BEAUTIFUL

**B**eing a teacher by profession, I get to dispense a lot of advice to you, my longsuffering students. When I got to know that the Departmental magazine was collecting articles from the faculty, I got a naughty grin on my face thinking that here was another chance to dispense some more advice to these young people! And yes, it really is as bad as that sounds; for you my dear students, are once again stuck with having to hear from me; if not in person, then on paper at least!

So, what shall be my message to all you young and wonderful people who are about to embark on new adventures in life? Well, for once, it's not going to be anything academic! And now I can feel a sigh of relief emerging from you all, "Hallelujah! Thank God, it's not one of her get-serious-in-life lectures!" In fact, what I would like to discuss today is the life-affirming and healing benefits of art. We all have heard the quote by John Keats, "A thing of beauty is a joy forever." But the question is where to find beauty in a world that is so full of troubles and conflict? As a biologist our first response of course is to find it in life itself. Attracted to this wonderful and beautiful world of all living things that we call Biology, we set ourselves on the path to learn about the mysteries of all organisms. Surprisingly, while we are in the process of unraveling these fascinating mysteries, we realize that there's so much more allure and splendor in the field that many of us become life-long students of this magnificent realm (like yours truly).

But are there no other ways to find beauty? Of course, there are! Ours is a world with many options and I would advise you to develop a passion for many things. Beauty has different connotations to different people. Some find beauty in music, others in painting, while still others will vouch that good poetry, food, novel, or movie is the most beautiful thing.

As important as science is to me, I would feel starved without art. I find art to be exhilarating! There's a lot of scientific evidence that suggests that art is very important for our emotional & intellectual well-being. Therefore, I would implore you all to take a little time out and enjoy art. There are some forms of art that need a bit of patience for one to be able to appreciate it. In today's busy world, none of us seem to have that time. However, I would advise you to put in that effort because once you develop the taste for it, then the art will fill your world with beauty

and serenity throughout life. Thus, a little bit of time spent on developing a taste now can bring you a lifetime of happiness.

In the quest for beauty and joy, I have compiled my own personal list that I call '*All Things Beautiful*' and it is dearer to me than any treasure. Whenever I make a new addition to this list, I feel ecstatic for days because I have found one more gem to enjoy. These gems can be any beautiful work of art such as poetry, painting, music, novel, documentary or a movie. I can't tell you how many times reading a beautiful stanza from a poem or a song on my list has lifted up my spirits and provided inspiration during the worst of crises. And sometimes just staring at my favorite painting has made me realize that the world is so immensely beautiful and that I should cherish every moment of my existence. There also have been times when I found myself in a tight spot and was instantly reminded of my favorite character from a novel, movie or a play going through a similar problem, and that gave me the strength to go on. Novels are particularly time-consuming; but it is said that someone who doesn't read lives only a single life, while anyone who does read lives many different lives in many different places and many different eras. And what fun it is too!

Those who love and appreciate a lot of things get to live a fuller, more glorious and splendid life. So, here's wishing you all a life full of joy, good fortune and '*All Things Beautiful*'!

Dr. Sweety Shrimali, Department of Zoology, ANDC

# SYMBIOX

NICHE The Zoological Society of Acharya Narendra Dev College organized its Annual Departmental Fest "SymbioX" 2020, on February 19, 2020. The event was inaugurated with lamping of light by our honorable Dr. Ravi Toteja (Officiating Principal) and Dr. Sarita Kumar (Teacher-in-Charge) along with the students of the Department. Fest started with a singing event that was performed by one of our alumni Mr. Abhishek Singh. After this various events progressed as per schedule. There were total of eight different events planned and about 300 students took part in various events. Annual Departmental fest was very successful and students enjoyed themselves with pomp and splendour. Winners of the various events were given attractive prizes. Events that were organized are as follows:

1

## COMPULSIVE LYRES

This Contrafactual Zest was organized to test the craze for music of students, with a spicy pinch of fun. Contrafactum is the art of substituting the words in a song without causing a change in the music of the very same track.

2

## CRAYONS AND THE CREATURE

The participants took part in a team of 5 members. Participants had to imagine any animal individually and draw the ultimate creature fusing all the animals imagined by the members of one team.

3

## MUDDLED GRID

There were three individuals participating in a team. Each team's were given four envelopes containing four different zoomed photographs of the college campus. They had to unscramble the puzzle and identify the place and then go and take a selfie or groupie with that place.

4

## STARE THE CHAIR

The musical chairs competition. The participants had to secure one seat the moment the music pauses. The one who fails to sit on a chair gets eliminated.

5

## WIZ ESCAPE

The participants took part in pairs. They were locked inside a room. They had to solve the given clues and the first team to escape the room wins!

6

## GAMEPLAY GALORE

We created an arena that included four engrossing games. Bend your butt, balloon stomping, separation anxiety and knock your knees were the jolly games that students loved participating.

7

## SCREENS BATTLE

THEME- Decapods of Delhi University, (Where do you see Delhi University in the next 10 years?) the online Short Film Making Competition. The film length should not exceed more than 2 minutes.

8

## LENS THE BIOTA

The photography exhibition. Theme: "Biodiversity within the campus".







# विज्ञान तुम हो, प्रकृति हो तुम।

Anmol Singh B.Sc. (H) Zoology, Part- III

जब जब मैं इस अँधेरी रात में चाँद को देखता हूँ,  
तो वह तुम ही हो जो मुझे याद आती हो।

जब तट पर बैठे समुद्र की इन ऊँची लहरों को देखता हूँ,  
तो तुम ही हो जो इन लहरों को एक मतलब देती हो।

जब यह हवा के ठन्डे झोंके मेरी रूह को ताज़गी से भर देते हैं,  
तो तुम ही हो जो हर सांस में मेरे अंदर भर जाती हो।

जब यह चिड़िया चहचहा कर इन तन्हाईयों को भर देती है,  
तो तुम ही हो जो इन चिड़ियों की आवाज बनती हो।

यहाँ वहाँ,  
हर जगह बस तुम ही बसी हुई हो।

तेरी इन अदभुत रासों में खो जाना चाहता हूँ,  
तेरी इन रहस्य भरी बातों को सुलझाना चाहता हूँ मैं।

अब इसके अलावा कुछ और नहीं सूझता,  
बस तेरी यादों में खो जाना चाहता हूँ मैं।

मेरी पहली पसंद भी तुम,  
पहली मोहब्बत हो तुम।

विज्ञान तुम हो, प्रकृति हो तुम।



# ये गुजरते लम्हे

Naeem Ahmed B.Sc. (H) Zoology– Part II

हुआ सवेरा चिड़िया बोली,  
हमने भी फिर आंखे खोली।  
रिजल्ट का दिन था, दिल धक धक बोला,  
समय आने पर लैपटॉप खोला।  
आँखे बंद कर ध्यान लगाया।  
फूल गये हम खुशी के मारे,  
रिजल्ट आया जब मुताबिक हमारे।  
बाजार से जब पापा आये,  
बाँटने के लिये मिठाई भी लाये।  
घर में थी अब बड़ी खुशहाली,  
एडमिशन की अब शुरू हुई तैयारी,  
एंट्रेस के लिये थी मारा मारी।  
आखिर में जाकर मन को भाया,  
दिल्ली विश्विद्यालय में दाखिला पाया।  
नई उमंग थी नया जोश था,  
मौज मस्ती में ना अब हमें होश था।  
नये नये हमने दोस्त बनाये,  
एजुकेशनल ट्रिप पर सब घूम के आये।  
ट्रिप से जब वापस आये,  
फाइल वर्क हम इकठ्ठा पाये।  
इतना सारा काम देख कर हम चिंता में सूख गए,  
फिर लिखना हमको याद रहा बस उसको पढ़ना भूल गए।  
फिर आयी एग्जाम की बारी,  
सोचा अब कैसे करे तैयारी।  
फिर थोड़ा अपना दिमाग लगाया,  
वो सब ढूँढा जो टीचर्स ने था बताया।

रात भर जागे करी पढाई,  
तब जाके नैया पार लगाई।  
ज़िंदगी में है अफरा तफरी,  
सबको पड़ी है अपनी अपनी।  
फिर भी यादगार कुछ ऐसे लम्हे बनाये,  
चाहकर भी जिनको भूल ना पायें।  
फ्यूचर का कुछ पता नहीं है,  
आखिर में अब बस कहना यही है,  
कुछ ऐसा तुम काम करो,  
जग में रोशन नाम करो।

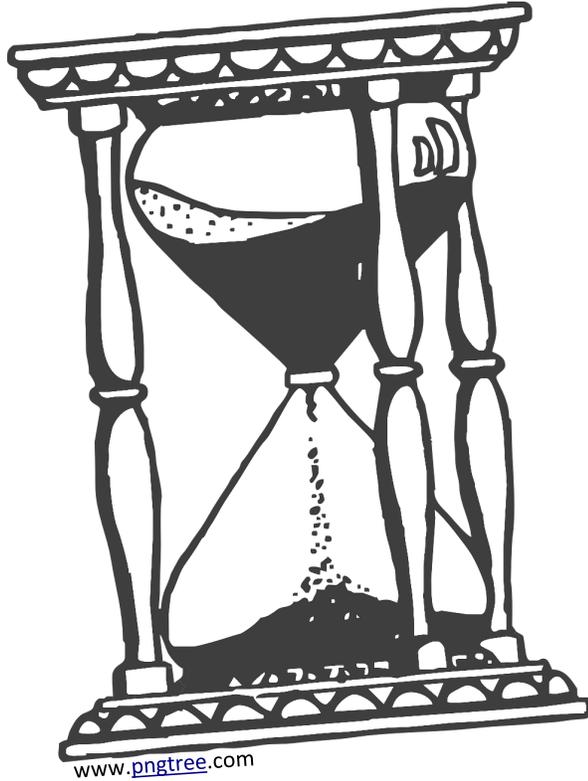


## “समय”

Pranjal Sharma B.Sc. (H) Zoology– Part III

लड़ता रह खुद से, ये समय भी चला जायेगा।।  
 कितना भी ज़ोर लगा ले, आखिर में अकेला रह जायेगा।।  
 इतना भागता है शानो-शौकत के पीछे, ये शरीर भी साथ नहीं जायेगा।।  
 अगर जीता लोगो का दिल तभी रहेगा तू याद, वरना अगले ही पल भुला दिया जायेगा।।  
 किसी ने सच ही कहा है खुश रह हर पल क्योंकि, क्या साथ लाया था और क्या साथ ले जायेगा।।

लगता है समय पर होता वही है।  
 होती है मुश्किल पर होता सही है।  
 मत हो परेशान अगर एक योजना हुई गलत तो।  
 ताक़त है तेरे बाजुओं में और इरादे मजबुत है तो रास्ते भी कई है।



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# "धरती की अब यही पुकार प्लास्टिक मुक्त करो हर हाल"

Radhika Garg, B.Sc. (H) Zoology – Part II

धरती भी है देख रही,  
यह क्या जमाना आया है |  
इंसान अपनी तकदीर को,  
खुद मिटाने आया है ॥

लेके थैली हाथ में,  
हिलाते - हिलाते जा रहा है |  
पता है उसको अंजाम इसका,  
फिर भी समझ नहीं पा रहा है ॥

प्लास्टिक कर रहा बर्बाद,  
नदियों को है बार-बार |  
गंगा, जमुना, सरस्वती कर रही पुकार,  
जल ही जीवन है, समझो एक बार ॥

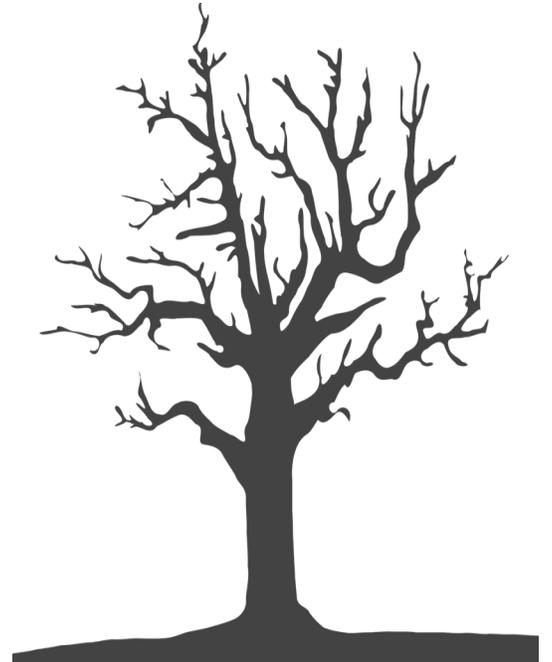
जिस मिट्टी से है जन्मे,  
जिस मिट्टी ने पाला है |  
कर रहे प्लास्टिक से,  
उसी मिट्टी का बार-बार तिरस्कार ॥

धरती की हरियाली में,  
सफेद प्लास्टिक की है चादर छाई |  
जीवन की है सांसे लुटाई,  
अब तो मुक्त करो प्लास्टिक से, समझो सब भाई ॥

जिंदगी की आधी उम्र,  
तुमने प्लास्टिक की वजह से है घटाई |  
प्लास्टिक कर रही प्रदूषण,  
तुम क्यों अपनी ज़िद पर अड़े हो भाई ॥

वृक्षों से ज्यादा,  
कर रहे प्लास्टिक की है मांग |  
समय का चक्र देखो चला है ऐसा,  
इंसान को अब जिंदगी की भी नहीं है मांग ॥

कितना करोगे तिरस्कार इस पवित्र धरती का,  
अब तो सुन लो पुकार इसका |  
हो जाएगी यह नष्ट अगर,  
कोसोंगे तुम अपने आप को हर एक पल ॥



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# लाइफ आज कल कुछ बदल सी गयी है

Dr. Swati Gupta , Scientist B, ECD , Indian Council of Medical Research

हवा साफ़ हो गयी है और ट्रैफिक काम हो गया है।  
 रास्ते खुल से गए हैं और भीड़ काम हो गयी है।  
 पशु-पक्षी खुल के जी रहे हैं और इंसान कैद हो गए हैं।  
 समय मिल गया ज़िन्दगी को फिर भी ज़िन्दगी थम सी गयी है।  
 लाइफ आज कल कुछ बदल सी गयी है।

वर्क फ्रॉम होम हो गया है होम वर्क खतम हो गया है।  
 कंप्यूटर पे क्लासेज हो गयी हैं और स्कूल की क्लासेज बंद हो गयी है।  
 बुक्स अब ई-बुक्स बन गयी हैं और लाइब्रेरी की बुक्स वीरान हो गयी हैं।  
 बॉस, टीचर, फ्रेंड्स अब ऑनलाइन मिलते हैं और फिजिकल एक्सिस्टेंस डिस्टन्सिंग में बदल गयी है।  
 लाइफ आज कल कुछ बदल सी गयी है।

क्यों बदली है ज़िन्दगी, ये कभी सोचा है ?  
 घटती प्रकृति, बढ़ती आबादी से संतुलन बिगाड़ा है।  
 चमगादड़ को खाने से कोरोना-वायरस पाया है।  
 भोजन शैली के बदलाव से हमने इस आपदा को बुलाया है।  
 कुछ गलत आदतों से हमने ज़िन्दगी कैद बनायी है।  
 लाइफ आज कल इसी वजह से बदली सी नज़र आयी है।

अब आओ पकड़ ज़िन्दगी का हाथ प्राकृतिक सामंजस्य लाएं।  
 लॉक-डाउन के बाद फिर पर्यावरण से मित्रता बढ़ाएं।  
 करके प्रकृति का सम्मान, दें अपनी कुछ गतिविधियों को विराम।  
 तभी मिलेगा हमें साफ़ हवा और नदियों का वरदान।  
 इस संकल्प से आगे बढ़कर स्वच्छ संतुलित पर्यावरण बनायें।  
 लाइफ आज कल की नए सिरे से बेहतरीन बनायें।

# MAA

Sahil Kaushik , B.Sc. (H) Zoology – Part I

LAKHON DARD SEHKAR, WO TUMHE PAATI HAI.  
 BACHPAN SE AB TAK KI APNI, POORI SHAKTI LAGATI HAI.  
 TAB JAAKAR KAHIN APNI SANTAAN KO, SEENE SE CHIPKATI HAI.  
 APNE BAACHE KI FIKAR ME, NA EK PAL WO SO PATI HAI.  
 HOTA HAI KISI BAAT KA DUKH USE, TOH SBSE CHUPKAR WO RO JATI HAI.  
 NA AANE DETI HAI MUSHKIL, APNE BAACHE PAR WO KOI.  
 BAACHE KO SOOKHE BISTARE PAR SULAKAR, KHUD GEELE PAR SO JATI HAI.  
 DARTI HAI WO IS DUNIYA SE, KUCH KAR NA DE KOI MERE LAAL KO.  
 PAR HO AGAR MUSIBAT KOI, TOH SABSE AGHE KHADI WO PAAATI HAI.  
 DOOKHTI NAHI ANKHEIN USKI, APNE LAAL KO SAWARTE SAWARTE.  
 ZYADA SUNDAR LAG RHA HO TOH, KHUD HI BURAI KARJATI HAI.  
 YE PYAAR USKA BADA NAMKEEN HAI.  
 GALAT BAAT PAR DAANT KAR, RAT KO APNE HI KANDHE PAR SULATI HAI.  
 APNA NAHI USKA SUKH DUKH KOI.  
 BACCHE KE RONE ME SAHARA, AUR KHUSHI ME MUSKURATI HAI.  
 AULAAD BADI HOKAR, USI MAA KO SATATI HAI.  
 JISKI VAJAH SE AAJ SABKUCH HAI, USI MAA KO BHULATI HAI.  
 AAJ USKO CHALNE MEIN TAKLEEF HAI.  
 UTNA BAIHNA NISHVAAR HAI.  
 PAR BAACHE KE AATE HI, SABSE PEHLE PAANI LEKAR WO AATI HAI.  
 ISILIYE WO MAA KEHLATI HAI.  
 ISILIYE WO MAA KEHLATI HAI..



# ONE WHERE I THANK MY STARS

Sakshi Tomar, B.Sc. (H) Zoology – Part II

(Somewhere between wanting to make this world a better place and finding my own place in this world, I realized how lucky most of us are ,to be loved and to be given the freedom to find our calling simply, because two people chose to bring us in this world to put us ahead of their interest, unlike more than half our country's population).

She was 4 years young and 8 bruises old.  
Her fate was determined by the no. of toys she sold.  
Her life was series of burns and scars.  
Nobody cared when she got hit by the moving cars.

I was 4 year young when I was taught.  
In a class I had enrolled novice.  
"You have the right to defend yourself"  
Don't let anyone tell you otherwise.

He was 8 year s old when he dropped out of school.  
He was forced to work with dangerous tool.  
He was one in a thousand who toiled in Sivakasi.  
To give us all a memorable Diwali.

At 8, I was introduced to a world of comics  
Felix, TinTin and Jaggernaut.  
I learned to always reach for the stars.  
And dreamt of becoming a doctor.

She was 12 and eldest of five.  
She strived to keep her family alive.  
After work ,she stayed up late.  
To learn ,with a chalk and a wooden slate.

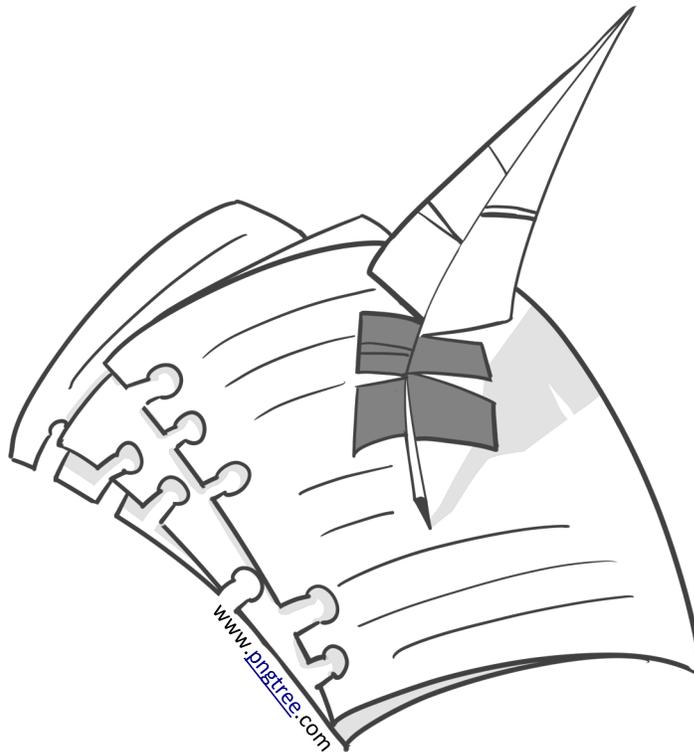
I was 12, when I got my first computer.  
And began my tryst with Internet.  
Teamed with my brother, I downloaded videogames.  
And spent Lazy afternoon playing ' Grand San Andreas'.

He was 16 and shipped to a foreign land.  
Where he'd lend a housewives a helping hand.  
All because his parent were assured.  
"A place to live and some food".

At 16 I topped school in Bio  
And aced my board with distinction  
I seamlessly transitioned from kid to adult  
With a lot of independence and conviction

They say your destiny is determined  
By the alignment of stars on your birth night  
I believe there is little truth in that  
If God chooses your parents right

Hope was a letter these kids could never send  
While love was a country I had to never defend



# THE ONE

Madhav Goel, B.Sc. (H) Zoology – Part II

The one who used to let go of everything,  
is now the one who stays.

The one who thought he would never find someone to spend  
the rest of life with, has now began the chase.

The one who didn't know anything about happiness,  
now has a smile all over his face.

The one who could never find a forever,  
has found an always.

The one who always shut up his heart,  
now listens to what his heart says.

The one who always tried to fit in,  
has stepped away from the race.

The one who used to see nothing good about life,  
is now full of praise.

The one who was always afraid to face the pain,  
now chooses to embrace.

The one who once thought that he wouldn't make it through,  
is now over his dark phase.

The one who wanted to grow old as soon as possible,  
now wants to relive the old days .

The one who thought that he would always be lost,  
has now found a dwelling place.

The one who always eluded love,  
now wakes up besides the love of his life to the sun's rays.

The one who used to cry all the time,  
now laughs with elegance and grace.

The one who was always busy running after fame and money,  
now spends time with the ones he can't replace.

The one who always considered himself lackluster in this  
game of life,  
has now realized that he's the ace.

The one who always despised sadness,  
has now realized that happiness won't exist without sadness  
just like predators won't exist without preys.

The one who resorted to different means to heal his wounds,  
has now realized that his wounds, only time can erase.

The one who didn't believe in miracles,  
is now the one who prays.

The one who didn't believe in karma,  
is now the one who receives and pays.

The one who used to wait for luck,  
now makes his own ways.  
The one who looks like a beast has a hidden beauty inside,  
just try to look beneath the surface.

The one who used to get too attached,  
has now learned to part ways.  
The one who never used to take any chances in life,  
now wants to be the one who burns out rather than the one  
who fades.

The one who thought that he had the ugliest eyes,  
for his parents had the prettiest gaze.  
The one who thought he was crazy,  
saw that everyone had some craze.  
The one who who trusted easily,  
now doesn't show a trace.

The one who thought he had ample amount of time,  
is now the one living in regret.

The one who blamed others for his fall,  
has now realized he himself was his biggest threat.

## QUARANTINE STARGAZING

I have always been interested in looking up at the sky and seeing the moon and stars. Their beauty has never failed to amaze me. As we studied in school about a few constellations, I would always try to locate them. There were a few that I saw frequently, but my passion for them rekindled recently. Since we have been in our houses for quite a while now, I thought it would be a good hobby. But it turned out to be so much more than that.

One day when I was standing in my balcony, I randomly looked up at the sky and saw a moving object. At first as everyone would assume, I thought it was a plane. But when I kept looking, I realized that it was a satellite. I was so excited that I took my phone and started searching for information to prove that I had in fact seen a satellite.

It was at that moment when I realized how amazed I was by the skies. Day after day, I identified constellations, planets, satellites, sitting in my balcony. It made me think how much we missed out on these little details on a daily basis. Maybe I would've continued to do so as well, but I think this quarantine has ignited an interest in my mind that is definitely not going to be over anytime soon.

In conclusion I'd say, let's try to focus on the beautiful things our universe has to offer and make the most of our lives !

Tanya Sharma , Alumni, 2016-2019

# WILDLIFE PHOTOGRAPHY

\*Subham Mohanty, B.Sc. (H) Zoology - Part III



*Malabar Gliding Frog (Rhacophorus malabaricus)*

*This frog is endemic to Western Ghats, It can make gliding jumps of 9-12 m, a maximum of about 115 times its length.*



**Dung Beetle**

*Dung beetles live in many habitats, including desert, grasslands and savannas, and native and planted forests. They are highly influenced by the environmental context, and do not prefer extremely cold or dry weather. They are found on all continents except Antarctica.*



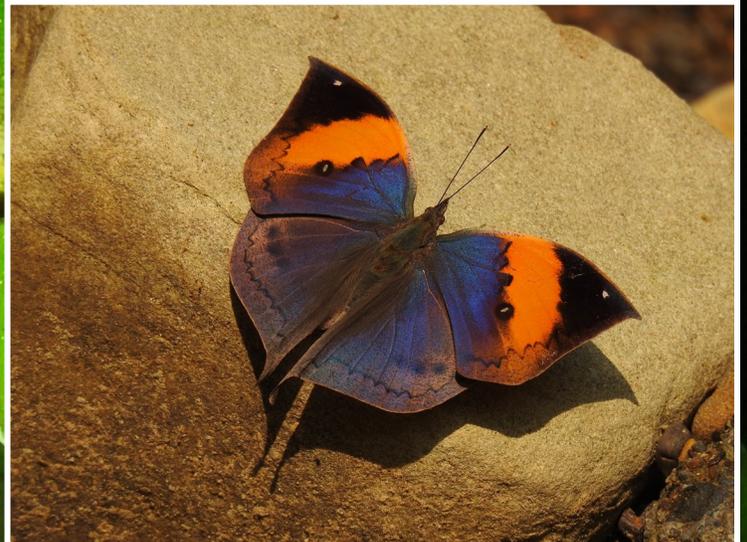
**Owl (*Ketupa zeylonensis*)**

*It inhabits waterside wooded areas from lowlands up into the mountains; feeds by dropping down into and wading around in creeks, lakes, and pools. It often gives deep echoing hoots, as well as various shrieks and higher-pitched hoots.*



**Northern Spotted Grasshopper (*Aularches miliaris*)**

*It swarms in October, the mating and egg-laying season, and collects on bushes and grasses. It is heavy and sluggish and able to make only short leaps. Outbreaks leading to this species damaging cultivated crops are uncommon.*



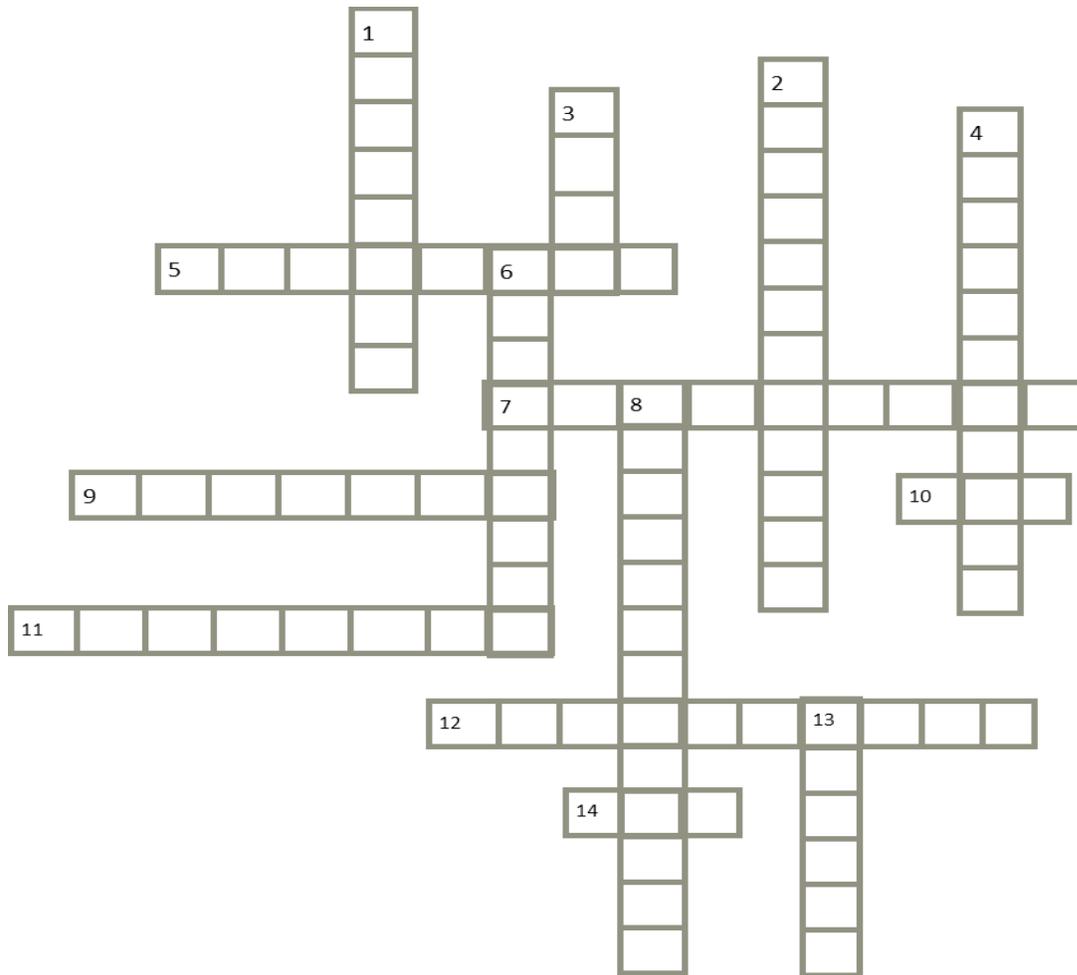
**Orange Oakleaf Butterfly (*Kallima inches*)**

*One of the amazing camouflage butterfly of Nymphalidae which was sighted in woods having good canopy and dry leaves. It shows flash coloration behavior as a anti-predatory tactic.*

CROSSWORD

PUZZLE

Sarah Parwez, B.Sc. (H) Zoology- Part II



**Down:**

- 1. The remains of *Homo sapiens* were first found here.
- 2. Semi autonomous organelle found in Animals.
- 3. Largest organ of the human body.
- 4. The protozoan which causes sleeping sickness
- 6. "Father of Zoology."
- 8. The arthropod whose blood is harvested for LAL tests to detect bacterial endotoxins.
- 13. The alternative form of a gene at the same locus.

**Across:**

- 5. The animal with the longest gestation period.
- 7. The animal which has a 'third eye'.
- 9. The phenomenon in which an inert drug having no therapeutic value is administered, and the body starts to heal.
- 10. The animal in which the role of pancreas in diabetes was first established.
- 11. The enzyme which unwinds the DNA helix.
- 12. The smallest cell.
- 14. Vaccine for Tuberculosis

Answer pg. 44

## ALUMNI TALK

**O**n the occasion of silver jubilee celebration of Zoology Department of Acharya Narendra Dev College, NICHE – The Zoological Society organized a talk. The talk was delivered by the Department's alumni Mr. Debadityo Sinha on the topic- '*Protecting wildscapes in contemporary India*'.



Mr. Debadityo Sinha

### ABOUT THE SPEAKER

Debadityo Sinha is a conservationist and founder of Vindhyan Ecology and Natural History Foundation (Vindhya Bachao) which works for protection of wildlife habitats in Mirzapur area of Uttar Pradesh. He is also a Senior Resident Fellow at Vidhi Centre for Legal Policy, a policy research think-tank based in New Delhi, Board Member of EKO-Energy network, Helsinki and trustee of Ganga Today, Uttarakhand.

Mr. Debadityo is known for successfully taking up sensitive issues of wildlife habitats of Mirzapur and River Ganga through research, advocacy and legal interventions in courts. He completed his B.Sc. (Hons.) in Zoology from Acharya Narendra Dev College, University of Delhi in 2009; his M.Sc. (Tech.) in Environmental Science from Banaras Hindu University in 2012 and a certificate course on Tropical Forest Restoration from Yale School of Forestry & Environmental Studies in 2016. His research and advocacy work has received support from reputed organizations like Worldwide Fund for Nature-India, Wildlife Trust of India, David Shepherd Wildlife Foundation, Earth Matters Foundation to name a few.

### HIGHLIGHTED TOPICS DISCUSSED:

- ◆ Brief introduction to wildlife.
- ◆ History of wildlife protection in India .
- ◆ Wildlife laws in India.
- ◆ Challenges conserving wildlife.
- ◆ Eco Tourism.
- ◆ Protected area concept and how it is understood by our country, and how it helps saving wildlife.
- ◆ His work in Mirzapur.
- ◆ Why Mirzapur?
- ◆ Results, challenges and contribution of his work in Mirzapur.



### QUIZ COMPETITION

The talk was followed by an interesting QUIZ COMPETITION by DAMS-Premier Institute for Life Sciences Examination. The institute aims to support and guide students for IIT/ JAM, TIFR, IISc, IISER, MSc Biotechnology, MSc DU, BHU entrance examination. Exciting prizes was distributed to the participants. Overall, the event received a lot of participation and appreciation from all the students who attended it.



## ALUMNI TALK

**M**s. Priyanka Dasgupta, alumni, Department of Zoology (2013-2016) delivered a talk on **'Science and Society: Public Understanding of Science and the Influence they have on each other'** on September 13, 2019. The talk elucidated the various ways science and society interact with each other through case studies like the spontaneous generation debate between Louis Pasteur and Felix Pouchet, or the experiments that became proof for Einstein's theory of relativity decades after its original trials. More such examples showed how science and technology, and the direction it takes is shaped majorly by the public understanding of it. The talk ended with a small interactive module stressing the importance of Science Communication and what one can do to improve their skill at it.

### ABOUT THE SPEAKER

Ms. Priyanka Dasgupta has done her B.Sc. (H) in Zoology from Acharya Narendra Dev College. She was the University of Delhi Topper for 2013-14. She was awarded the International POSCO Asia Fellowship 2014 by POSCO-TJ Park Foundation, Korea for excellence in academic achievement while in college. At ANDC, she worked on summer research projects like -

Psychoanalytic Study of Theatre activities on creativity and Random Association; the effect on the brain ( age group:17-21, human) and Green Synthesis of nanoparticles.

Apart from that she and her team under a mentor, Dr. Sarita Kumar also won the IEDC (Innovation and Entrepreneurship Development Cell Grant) working on the development and formulation of dermal Henna Remover. She was the top scorer in her subject from Acharya Narendra Dev Collge and was awarded the Science Meritorious Scholarship for all the 3 years of college. Her joint directorial short film- Dua on elderly care, also won the Yes-I am the Change, 48 hr filmmaking challenge in 2015. While in college she was the NSS-President, the founder of the college Debating Society-Tark, the Eco-Club Convenor, an Editor of the college magazine-Insight, a key member of Dhvani -the DramaSoc, the Zoology Department's Sports Coordinator and in the student



Ms. Priyanka Dasgupta

management committees of the annual fest- Accenture. She also won many Debate competitions while representing the college at prestigious stages like RBI (Debate on Economical Situation of India) and Delhi Secretariat (International Ozone Day) etc. For her involvement and all-around contribution, she was also conferred the first Student of the Year Award for 2015-16 from ANDC.

She then did her Masters in Zoology from the University of Delhi with a specialization in Genomics, Metagenomics and Epigenetics. Her dissertation work was on a new concept of hygiene based on recent human microbiome data. Then exploring the avenues of science Communication introduced to her at ANDC, she went on to work as a Science Communicator aboard the famed Science Express, a project by DST, MoEF and Ministry of Railways. During this time she won the Fame Lab-Talking Science Award for India (North).

She was also a writer at the International web forum and association- United4Social Change's India Chapter (Indians4SocialChange). Later her Science Fiction directorial short film was also selected for screening at the India International Science Film Festival 2017. In the same year, she also won the title for the EURAXESS -India Science Slammer for the year 2017-18. She went on to host events for EURAXESS-India and became a EURAXESS-India Ambassador. Later she was invited as a mentor to train and work with the next year's participants of the national level competition of the Science Slam she had previously won.

From there on she went to work at the Vikram Sarabhai Science Centre at Ahmedabad working as the core team for a novel project- "Mobile Science Lab" for the facilitation of effective science education in the aspirational districts of Gujarat.

She was last communicating science at the Centre for Research and Conservation, Royal Zoological Society of Antwerp, Belgium. She is now going to pursue another degree in Science Communication at Imperial College, London this coming year.

## ALUMNI TALK

**A**s a part of talk series under the 25th-anniversary celebrations of Zoology department of Acharya Narendra Dev College, NICHE – The Zoological Society organized a talk.

The talk was delivered by a very energetic and brilliant Alumna of the Department of Zoology, Ms. Pallavi Sharma (2004-2007 Alumni) on '***Bridging Science with Social Science through the lens of smart cities and climate change***' Pallavi Sharma is an experienced professional with a demonstrated history of working in the government and with academia in the urban sector. Strong analysis, organization and research skills. She has been a graduate from Acharya Narendra Dev College, University of Delhi, New Delhi. She has exceptional interactive skills and knowledge with MSc. Focused on Climate Science and Policy from TERI University in 2011. She has worked as a Research Associate at National Institute of Urban Affairs, where she worked on projects for smart cities data analysis and urban climate change resilience project under ACCRN (Asian Cities Climate Change Resilience Network). She has also been a project Associate at very reputed Indian Institute of Technology, Delhi under Center for Atmospheric Sciences. She has been a Guest Scientist at Potsdam Institute for Climate Impact Research, There she worked on the correlation of observed air temperature with land surfaces temperature of MODIS. She has been a student at Freie Universität Berlin for 3 months where she analyzed preparedness and level of Incorporation of plans for climate impacts in cities of Delhi and Berlin. She has also volunteered in climate change projects such as The Climate reality project where she worked on the development of the teacher training program on climate change.



Ms. Pallavi Sharma

### **ABOUT THE TALK:**

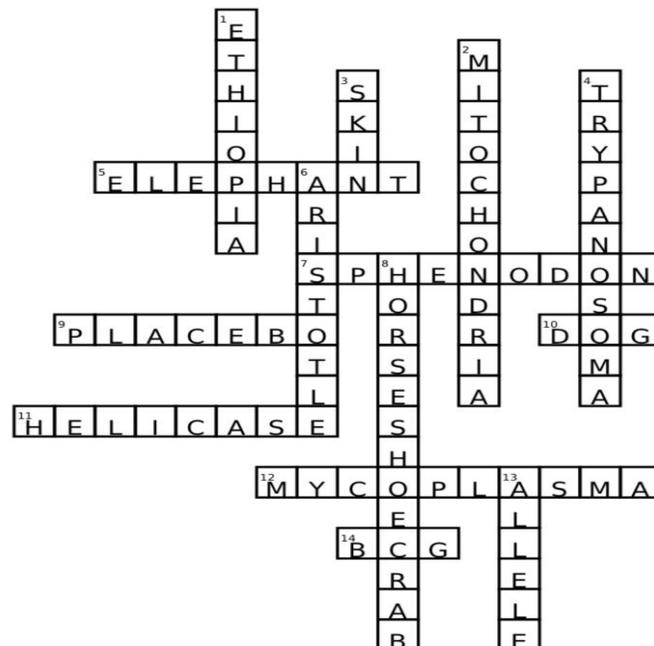
The talk was surrounded by the idea of a sustainable approach to climate change through smart cities. The idea of smart cities was discussed. Statistics showing the plethora of information regarding climate change in various parts of the nation was shared. Interactive graphics

were shown and explained to the audience. She has a very flexible yet serious approach to her career, She shared her journey with the audience and told them her shortcomings while striving for what she is today. She guided students to pursue their dreams and told them to find what works best for them.

### EXTEMPORE COMPETITION:

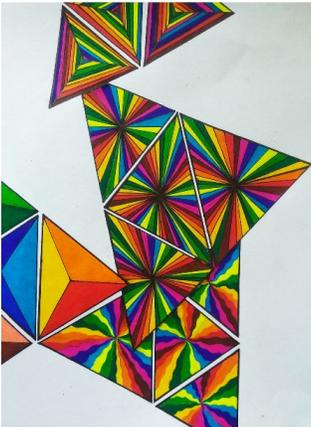
The talk was followed by an interesting Extempore Competition by Department of Zoology, at the seminar hall, The topics were related to the science in general and also to the climate change. Exciting prizes were distributed to the participants. Overall, the event received a lot of participation and appreciation from the students.

### Crossword Puzzle answer:-



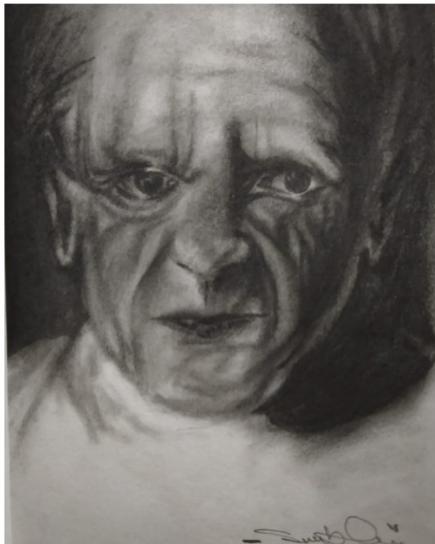
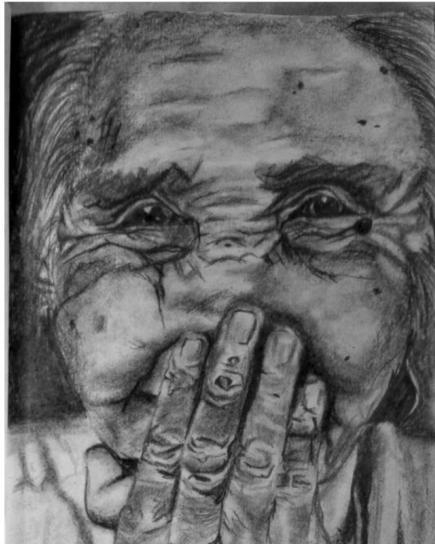
# ARTWORK

By Vikas Meena, Alumni, 2016-2019



# ARTWORK

By Surbhi Singh B.Sc. (H) Zoology – Part III



# SPORTS MEET



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# NICHE SOCIETY

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**DR. RAHUL DEV**  
TEACHER COORDINATOR

**DR. SARITA KUMAR**  
TEACHER-IN-CHARGE

**MR. ABHAY PRATAP SINGH**  
TEACHER COORDINATOR

**ABHISHEK MALIK**  
VICE PRESIDENT  
B.Sc.(H) Zoology  
Part-III

**PAMELA BARUA**  
PRESIDENT  
B.Sc. (H) Zoology  
Part-III

**SONI GUPTA**  
SECRETARY  
B.Sc. (H) Zoology  
Part-II

**AVANIJA TYAGI**  
JOINT SECRETARY  
B.Sc. (H) Zoology  
Part-I

**BHUMIKA MAKHIJA**  
TREASURER  
B.Sc. (H) Zoology  
Part-II

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## SYMBIOX 2020

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### DECORATION TEAM

Part-I	Part-II	Part-III
<ul style="list-style-type: none"><li>•Anjali Jhamb</li><li>•Avanija Tyagi</li><li>•Gunjan Grover</li><li>•Hafiza</li><li>•Harshita Khanna</li><li>•Khushi Goyal</li><li>•Radhika Garg</li><li>•Ritika Chandel</li><li>•Sejal Arora</li><li>•Trisha Nair</li><li>•Aditya Singh</li><li>•Ronak Verma</li><li>•Sahil Kaushik</li><li>•Virender Nehra</li></ul>	<ul style="list-style-type: none"><li>•Anjali Singh</li><li>•Lairikyengbam Eliza</li><li>•Rinyarin Keishing</li><li>•Rupam Kumari</li><li>•Soni Gupta</li><li>•Sanskriti Ojha</li><li>•Mukund Nagpure</li><li>•Naeem Ahmed</li><li>•Parikshit Sahotra</li></ul>	<ul style="list-style-type: none"><li>•Pamela Barua</li><li>•Surbhi Singh</li><li>•Abhishek Malik</li></ul>



## SPONSORSHIP TEAM

Part-I	Part-II	Part-III
<ul style="list-style-type: none"> <li>• Komal Goyal</li> <li>• Virender Nehra</li> <li>• Pulkit Singh</li> <li>• Shalini Sheoran</li> <li>• Radhika Garg</li> <li>• Aditya Singh</li> <li>• Ronak Verma</li> <li>• Sahil Kaushik</li> <li>• Avaniya Tyagi</li> </ul>	<ul style="list-style-type: none"> <li>• Soni Gupta</li> <li>• Vidushi Saxena</li> <li>• Mukund Ngpure</li> <li>• Naeem Ahmed</li> </ul>	<ul style="list-style-type: none"> <li>• Abhishek Malik</li> <li>• Pamela Barua</li> <li>• Riya Bhartwal</li> </ul>



## MANAGEMENT TEAM

Part-I	Part-II	Part-III
<ul style="list-style-type: none"> <li>• Virender Nehra</li> <li>• Aditya Singh</li> <li>• Shalini Sheoran</li> <li>• Pulkit Singh</li> <li>• Avaniya Tyagi</li> <li>• Radhika Garg</li> <li>• Ronak Verma</li> <li>• Sahil Kaushik</li> </ul>	<ul style="list-style-type: none"> <li>• Parikshit Sahotra</li> <li>• Naeem Ahmed</li> <li>• Mukund Nagpure</li> <li>• Bhavesh</li> <li>• Soni Gupta</li> <li>• Sanskriti Ojha</li> <li>• Shivam Sharma</li> <li>• Anshul Gautam</li> </ul>	<ul style="list-style-type: none"> <li>• Abhishek Malik</li> <li>• Pamela Barua</li> <li>• Pranjal Sharma</li> <li>• Yaduvinder Yadav</li> <li>• Surbhi Singh</li> </ul>



ACHARYA NARENDRA DEV COLLEGE  
(University of Delhi)

**NICHE**  
THE ZOOLOGICAL SOCIETY

**SYMBIOX 2020**

**COMPULSIVE LYRES**

@gata rahe mera dil

Time: 10:00 AM to 12 noon  
Venue: Seminar Hall

**19th FEBRUARY 2020**

CONTACT US :  
Komal- 8512095641

Pamela- 8209425237

ACHARYA NARENDRA DEV COLLEGE  
(University of Delhi)

**NICHE**  
THE ZOOLOGICAL SOCIETY

**SYMBIOX 2020**

**CRAYONS & THE CREATURE**

Release the beast within you, fuse with others to make

Time: 12 NOON TO 3PM  
Venue: Zoology labs  
Team of 5

**19th FEBRUARY 2020**

ACHARYA NARENDRA DEV COLLEGE  
(University of Delhi)

**NICHE**  
THE ZOOLOGICAL SOCIETY

**SYMBIOX 2020**

**LENS THE BIOTA**

SCAN THE BIODIVERSITY BY YOUR LENS

Send your Entries Before 14th February 2020 on nichezoology@gmail.com

Venue: Zoology Department

**19th FEBRUARY 2020**

CONTACT US :  
Mishra 97152114

**SYMBIOX 2020**

Entry fee: ₹60

**MUDDLED**

Solve your way

Time: 1:00 PM  
Venue: Room

**19th FEBRUARY 2020**

Pamela 8209425237

ACHARYA NARENDRA DEV COLLEGE  
(University of Delhi)

**NICHE**  
THE ZOOLOGICAL SOCIETY

**SYMBIOX 2020**

**GAMEPLAY GALLO**

**19th FEBRUARY 2020**

Entry fee: ₹10 for each

Virender 73579 60321    Sahil 99990 47005    Abhishek Mallik 97111 04694    Shalini 97280 5300

CONTACT US :

ACHARYA NARENDRA DEV COLLEGE  
(University of Delhi)

**NICHE**  
THE ZOOLOGICAL SOCIETY

**SYMBIOX 2020**

**SCREENS BATTLE**

A SHORT FILM MAKING COMPETITION

**19th FEBRUARY 2020**

TOPIC : DECAPOD OF DU

Give your entries at @ niche\_zoologicalsocietyandc

CONTACT US :  
Abhishek 9711104694    Anshika 8375063608    Bhumika 9643419454

ACHARYA NARENDRA DEV COLLEGE  
(University of Delhi)

**NICHE**  
THE ZOOLOGICAL SOCIETY

**SYMBIOX 2020**

**STADE THE CHAIR**

Wanna Beat? Grab a Seat. Musical Chairs

**19th FEBRUARY 2020**

Time: 10:00 AM onwards  
Venue: Infront of Zoology department

CONTACT US :  
Mishra 9643419454    Aditya 96220296

ACHARYA NARENDRA DEV COLLEGE  
(University of Delhi)

**NICHE**  
THE ZOOLOGICAL SOCIETY

**SYMBIOX 2020**

**WZ ESCAPE**

A CLUE HUNT GAME

Time: 2:00 PM to 4:00 pm  
Venue: Seminar Hall

ENTRY RS. 40 FOR TWO

**19th FEBRUARY 2020**

CONTACTS  
BHUMIKA +918543419454    PRANJAL +918440984679

**EVENT POSTERS**

# 25 YEARS OF CELEBRATION



“image by [Freepik](#)”

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