



ZOOLOGY BUZZ

Vol. 2

Department of Zoology St. Bede's College, Shimla - 2

2019

KING of the BIRDS : The Western Tragopan

The Western Tragopan (*Tragopan melanocephalus*), locally known as jujurana, meaning "King of the Birds", is the state bird of Himachal Pradesh. The beautiful but elusive bird captures the attention of any spectator with its colourful plumage and crimson neckline. They prefer a habitat that is the dense under storey of temperate, subalpine and broad-leaved forest. The Western Tragopan lives in small family parties and is believed to be primarily monogamous. They are shy and wary birds and hide quickly among their habitats in the dense vegetation, if disturbed.

The birds are sensitive to anthropogenic disturbance and avoid disturbed habitats (for instance, hydro-electric project development sites).

The Western Tragopan is a schedule-1 bird according to the Wildlife Protection Act and classified as vulnerable (VU) by the International Union for Conservation of Nature (IUCN).

The bird is considered the rarest of all living pheasants. Its range is very restricted and hence has been described as a range-restricted species, representing the endemic bird area D02 of Western Himalayan.

The various measures taken in Himachal Pradesh for the protection of the Western Tragopan are encouraging. Because of the improved conservation methods adopted, the density of this highly endangered, elusive pheasant in the Great Himalayan National Park at Kullu has increased to 6.5 birds per square kilometre whereas it was just 5 in 2010. A Sarahan Pheasantry had been started in 1992 which is the only place in the world to hold Western Tragopan in captivity. The pheasantry is at Sarahan amid thick pine and deodar forests in the Rampur-Sarahan area of upper Shimla district.

Though the conservation efforts faced a major set back in 2010 when three adult birds died and nine other pairs were infected with E.coli, that severely affected their organs including their reproductive system. After a gap of two years a ray of light was seen as the surviving pairs multiplied and seven new chicks were born. It is no less achievement, and the facility is now confident regarding the survival of the Western Tragopans in nature after being bred in captivity.

This gives us hope that the population of these wildlife species will increase and nature will not lose another precious member of its family.



Sandhya VI Sem.

—Sandhya Bhatt
VI Semester

Zoology Fascinating Facts

- A rhinoceros horn is made of compacted hair.
- Only female mosquitoes bite.
- In the U.S. 23 states have a butterfly as their state insect.

1. How do baby birds get oxygen inside their eggs?

Oxygen comes in through pores in the shell. Directly under the shell, there is a small pocket of air. The microscopic pores on the egg surface allow the CO₂ to escape and fresh air to get in, so a developing bird can breathe.

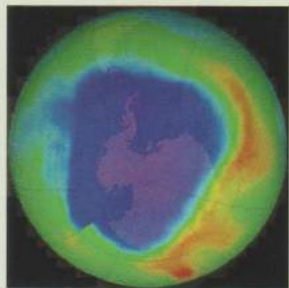


2. Why do cats have vertical pupils?

To better see in the dark. The sharpest image is produced by round pupils, and if cats weren't nocturnal, they probably would have round pupils like us. But the vertical pupil, in combination with horizontal eyelids, gives the cat greater and more accurate control in different types of lighting. A cat may adjust the amount of light by moving eyelids only.

3. What is the color of eyes of owls that hunt at night?

Black. Owl's eye colour depends on the time of day in which they hunt. The ones that hunt during daylight have yellow eyes. The ones that hunt at night but also at the evenings and mornings have orange eyes. Black eyes are typical to owls that hunt only at night.



4. Why is the ozone hole dangerous?

It increases UV radiation. In the ozone layer, ozone molecules absorb UV-B and UV-C radiation-short wavelength forms of ultraviolet that can disrupt organic molecules, producing cancerous changes in living cells.

5. Which mammals have the best sense of smell?

Bears. The area of nasal mucous membrane in a bear's head is 7 times greater than a bloodhound's (and one hundred times larger than in a human's). Polar bears have been seen to march up to 40 miles in a straight line to reach a prey animal they have detected.

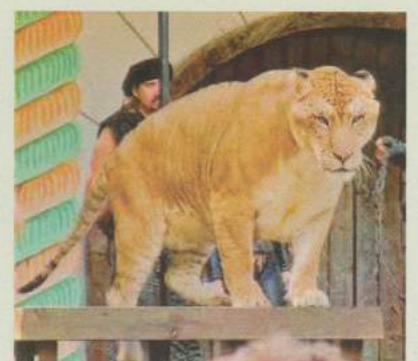


6. Which cats enjoy swimming?

Tigers living in the Southeast Asia are semi-aquatic. They spend much of their time in rivers and feed on fish. Young tigers like to play in the water, and adults often take a bath just to keep cool during hot days.

7. A liger is a hybrid cross between a male lion and a tigress. What are ligers best known for?

Large size. Ligers are the largest known cats in the world, reaching over 400 kg. In contrast, pumapards (hybrids between pumas and leopards) tend to exhibit dwarfism.



THIS MUCH WILL KILL YOU!!!



If you ever swallow a cherry pit, you shouldn't worry too much, just don't bite into one. One or two ground cherry pits contains enough cyanide to take you down.

Too much salt consumption can cause your cells to shrink, leading to a condition called Hypernatremia. 48 teaspoons of your favourite seasoning at once is enough to trigger this reaction, leading to seizures, coma or even death.



Eat 25 potatoes for the dose of poisonous solanine to bring about your demise. Potatoes turn green when they have been exposed to the sun, and the colour is due to the presence of chlorophyll, which isn't toxic. However the colour suggests that poisonous solanine is also present, which can make humans sick or even kill them.



It would take 70 coffees, 6 litres of water, or 85 chocolate bars to kill you too. 70 cups of coffee back to back could lead to caffeine overdose.



129 teaspoons of black pepper all at once could kill you. But it only takes two – three teaspoons of nutmeg at once to kill you, myristicin, which is found in nutmeg, is a psychoactive substance that can cause convulsions, heart palpitations, sickness and even death.



13 consecutive shots of your preferred alcohol could also be lethal. Because alcohol is a depressant, the area in the brain controlling life functions like breathing and heart rate begin to shut down.

Message From The Editors

The Zoology course we studied during these three years, inspired and equipped us with knowledge to face the future. Studying about the honey bee reminded me of this famous quote by Francis Bacon, "The men of experiment are like the ant, they only collect and use; the reasoners resemble spiders, who make cobwebs out of their own substance. But the bee takes the middle course: it gathers its material from the flowers of the garden and field, but transforms and digests it by a power of its own." Following the example of the bee, it is your own power that will help you succeed in life irrespective of the place where you are living.

Another thing that inspired us was the process of metamorphosis. "Just when the caterpillar thought the world was over, it became a butterfly." This famous Chuang Tzu quote, gave us the strength to not fear the change rather embrace it, and realise that it is not the end but a new beginning.

—Sandhya Bhatt, Preeti Sharma
VI Semester

DEPARTMENTAL ACTIVITIES

FIELD VISITS AND EDUCATIONAL TRIPS

A field visit is an important aspect of learning, which gives the students the chance to experience the theory they study in textbooks. It makes the learning experience enjoyable as well as gives the students an additional insight on the topics they study.

VISIT TO POULTRY FARM (CPDO CHANDIGARH)

Date of Visit- 4th AUGUST 2018

The students of 5th semester of Zoology Department, St. Bede's College went on an educational trip to the Central Poultry Development Organisation, Chandigarh. The students were acquainted with various aspects of poultry farming, under the guidance of their specialised staff. The students thoroughly enjoyed the visit and took a wide range of information regarding poultry farming.



VISIT TO CHHATBIR ZOO (CHANDIGARH)

Date of Visit - 4th AUGUST 2018

The students of 5th semester of Zoology Department, visited the Chhatbir Zoo, Chandigarh. The students were full of excitement and enthusiasm during the visit. The students spotted various animals including tigers, lions, bears, different felines, primates and reptiles. The Lion Safari was the most anticipated part of the visit. The students enjoyed the visit immensely. The project of the same was submitted in the department.



VISIT TO BILASPUR

Date of Visit 15th SEPTEMBER 2018

Experiencing the culture of Sericulture Industry.

Dr. Baldev Chauhan guided the students to the various places of interest during the visit.



Village Naswal

Date of Visit 15th SEPTEMBER 2018

The students of 5th and 3rd semester of Zoology Department, visited the Village Naswal (District – Bilaspur), where the farmers rear late age silkworm larva for cocoon production. The students visited the house of Mrs. Sandesh Kumari, a beneficiary, who is provided with subsidy by the Government of Himachal Pradesh, Department of Industries, for silkworm rearing.



13 Cocoons=1ounce; 1 ounce=28gms.

Office of Silk Seed Production

Date of Visit 15th SEPTEMBER 2018

On the same day the students went to the Office of Silk Seed Production, Ghumarwin (district Bilaspur). There the students saw various equipments and machinery involved in the early age silkworm rearing, and different varieties of Mulberry trees.

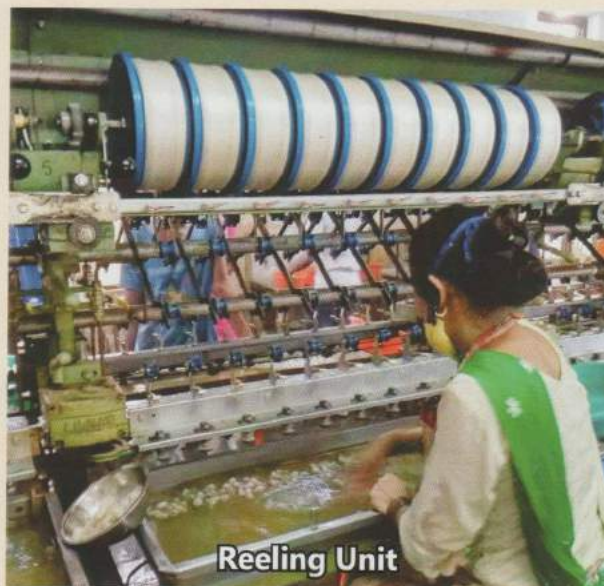


Silk Seed Production Officer Sericulture Division

Swami Vivekananda Govt. College, Ghumarwin, Bilaspur

Date of Visit 15th SEPTEMBER 2018

The students of 3rd & 5th semester attended a lecture on "Entrepreneurship in Sericulture", at Swami Vivekananda Govt. College, Ghumarwin, which was delivered by Dr. Baldev Chauhan. He also informed the students about the CIS Course (Certificate in Sericulture).



Reeling Unit

Reeling Unit - Village Hirapur

Date of Visit 15th SEPTEMBER 2018

The students went to a Reeling Unit in Village Hirapur (District - Bilaspur). It was truly a unique and informative experience for the students to see the silk cocoons being converted to silk threads.

ENVIRONMENT WEEK ACTIVITY ORGANISED BY-ZOO QUEST

THEME - MAKING REUSABLE GOODS FROM NON - BIODEGRADABLE MATERIALS

Date - 26th SEPTEMBER 2018

The Zoo Quest organised a competition on 26th September 2018, with theme of Reusing Non- biodegradable materials. The competition was judged by Dr. Shramja Munjal and Dr. Anjali Dewan.

The 1st, 2nd and 3rd position was grabbed by Pallavi Kalta, Nikita Sharma and Gargi Sud respectively.

The students actively participated in the competition with great enthusiasm.



Reuseable Goods

CAREER AND GUIDANCE PROGRAMME

Date - 18th DECEMBER 2018

Career and guidance counseling program was organized by the department of Zoology on December 18, 2018 where Mr. Vimal Bhutani, Director Biotech Sapiens Chandigarh was the resource person. Mr. Vimal guided the students of B.Sc. and M.Sc. about various competitive exams like CSIR-UGC NET, DBT, ARS, ICMR, ICAR, IIT-JAM. He discussed that a particular strategy is to be followed for preparing these exams. During his session he also gave some formulas and tips to understand the aptitude portion in the exam in a better manner. It was a fruitful session for the



Career And Guidance Programme

TEACHER'S CORNER

Dr. Shweta Thakur published three books and one research paper in peer reviewed journal.

BOOKS:-

- ◆ A text book on Animal Diversity (DSC 1A) for B.Sc. 1st year by R.D. Publications in July 2018.
- ◆ A textbook on Comparative Anatomy and Developmental Biology of Vertebrates (DSC 1B) for B.Sc. 1st year by R.D. Publications in July 2018.
- ◆ A textbook on Reproductive Biology for 6th semester by Truemann Publications in November 2018.

RESEARCH PAPER:-

A research paper on Evaluation of awareness campaign on the conservation of honey bees through statistical analysis in district Shimla (Himachal Pradesh, India) was published in International Journal of Entomology Research. ISSN: 2455-4758. Impact Factor: RJIF 5.24 on September 2018.

WORKSHOP

The Himalayan Forest Research Institute, Shimla hosted a three day workshop on "REHABILITATION OF MINEFIELDS AND BARREN LANDS", from the 12th to 14th of December, 2018. Sandhya Bhatt, student of 6th semester, B.Sc. attended the workshop.

The purpose of the workshop was to bring together people of different fields and enlighten them about the wastelands in our state and how to rehabilitate those areas.

The workshop also included a field trip to "Ambuja Cement Factory Mines, Darlaghat" and "Western Himalayan Temperate Arboretum, Potter's Hill, Shimla".

The workshop was an enlightening and informative experience.



Joys Of Nature

Take a moment
Put the worries behind
Take in the beauty around
Let it relax your mind

The sun is shining
The sky is blue
The birds are flying
And the breeze is so cool

Spare a still moment
Every once in a while
Take in the beauty around
Take it in with a smile

Nature is so beautiful
It blows our mind
You can loose yourself in it
Or find yourself at the same
time.....

—Nikita Sharma
VI Semester

STUDENTS' ACHIEVEMENTS

Warm congratulations to all the students who won accolades in various contests and competitions.

Bhavna Kashyap (3rd year) grabbed the third place in the National Youth Parliament (District Shimla) 2019, organised by the National Service Scheme (NSS) at the Center Of Excellence Govt. College, Sanjauli.



Preeti Sharma (3rd year) won the second place in the Shimla Fest 2018 (December) with her dance team in the Fusion Dance Category.

Muskaan Bharadwaj (3rd year) won a Prize of Appreciation on 30 December 2018, presented by The Student Welfare Association.

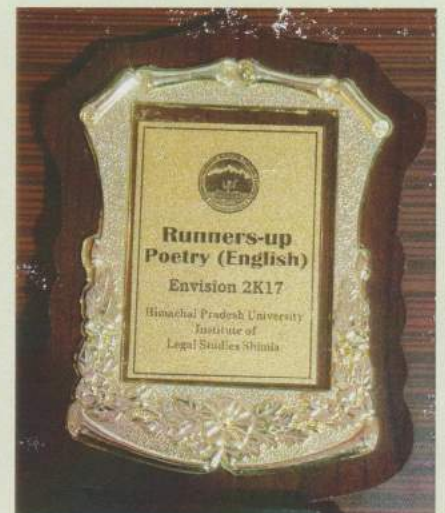


Gargi Sud and Pallavi Sharma (2nd year) were selected by the NCC Naval Unit Bilaspur in 2017. She won the second prize in the NCC Painting Competition whose theme was "Some Flora and Fauna for better Health", in 2018.

Aarushi Sharma (2nd year) won the second prize in a Poetry Competition, with the theme "Shooting Stars", organised by the University Institute of Legal Studies (U.I.L.S.), held in Himachal Pradesh University.

Riya Verma (2nd year) won the first prize in Collage Making, organised by the Department of Hindi, St. Bede's College, with the theme "Hindi Bhasha ka Mahatav", on Hindi Diwas (14th September, 2017).

Pallavi Kalta (1st year), Nikita Sharma (3rd year) and Gargi Sud (2nd year) won the 1st, 2nd and 3rd position respectively in the Zoo Quest hosted activity, with the theme of Making reusable goods from Non-biodegradable materials, on 26th September, 2018.



A SPLENDID SUPPLEMENT - ROYAL JELLY

Royal jelly is a gelatinous honey bee secretion that is used in the nutrition of the queen bees. Royal jelly contains a rich variety of nutrients including minerals like Calcium, copper, iron, potassium, vitamin B, 17 amino acids including 8 essential amino acids that the human body cannot produce.

Health Benefits of Royal Jelly

- ◆ Aids in weight loss
- ◆ Helps to prevent breast cancer
- ◆ Prevents premature aging of cells
- ◆ Promotes healthy digestion and improves liver function
- ◆ Regulates blood pressure
- ◆ Reduces stress on blood vessels and prevents heart diseases
- ◆ Eliminates wrinkles, prevents hair loss and macular degeneration
- ◆ Boosts cell regeneration, development and growth of muscles and bones.

Ivy Neha Chander
VI Semester

CANCER !



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