JUNE 2021

Zoo-Buzz

E-MAGAZINE BY DEPARTMENT OF ZOOLOGY



IN THIS ISSUE:

ANIMALS AROUND US

ZOOLOGY IN EVERYDAY LIFE

CAPSULE ARTICLES

INTERESTING FACTS

INFOGRAPHICS

AMAZING PHOTOGRAPHS

AND LOTS MORE...

UNDER DBT STAR COLLEGE STRENGTHENING SCHEME





SURENDRANATH COLLEGE

(24/2, M.G. ROAD, KOLKATA-700009, WEST BENGAL)

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Welcome to the very first issue of our "E-magazine" "ZOO-Buzz" of Department of Zoology, Surendranath College. We are really proud and exuberant to acclaim that we are ready with all new hopes and hues to bring out this issue, which is going to surely unfold the unrevealed talents of our department.

As we are passing through a serious condition of covid-19 and the threats of pandemic are still continuing, we have decided to publish this year edition of departmental magazine in the form of electronic soft copy by breaking our usual traditional wall-megazine.

On the drive of maintaining the tradition of our department as well as to bring some happiness, enthusiasm amongst the members of our zoo-famly in this boredom, home stuck situation, we have decided to make an event on this "E-magazine". Platform of publications may be changed but it will never hamper our true initiatives. Though we are in a crisis period but the indomitable enthusiasm and efforts of our entire team was more than enough for bringing out this issue, rather it will be better to say for carrying the legacy of department.

The enthusiastic write-ups, paintings, crafts of our buddies are indubitably sufficient to hold the interst and administration of the readers. The souvenir is indeed a pious attempt to make our budding talents give shape to their creativity and exploration. We are sure that positive attitude, innovative ideas exhibited by our young buddies will surely stir the mind of the readers and take the mind of the readers as well as take them to the surreal world unalloyed joy and pleasure. We have put relentless efforts to bring excellence to this treasure trove. The reflection of the students creativity is the epitome of the magazine.

Establishment of a strong bonding between senior-junior of the department under the strong guidance of eminent professors was also a hidden moto of this event.

The Herculean task of editing the magazine would not have been possible without the sincere support of the members of the Editorial board who sorted of the articles from the flood of articles we had got from our enthusiastic and inquisitive buddies, edited them and finally made a fair draft for publications.

The continuous support, valuable guidance of our eminent and respected was our main backbone of this "e-magazine" and last but not the list, we are thankful to our respected Principal sir Dr. Indranil Kar, who is our our constant support and here also has valuable guidance enriched us.

We heartily wish all the readers our best wishes and hope this e-magazine "ZOO-Buzz" will definitely bring some sort of happiness.



Souvik Khanra



Himadri Chakraborty



Rajdip Das



FROM PRINCIPAL'S DESK



Dr Indranil kar

I am elated to know that the Department of Zoology is releasing their first issue of emagazine. We, at Surendranath College is committed to inculcate love for knowledge and provide holistic education to the students. One of our primary objective is to promote and practice inclusive growth of the students, nurture and every student to their develop maximum potential in a caring environment. We encourage students to think deep and express their thoughts freely but in a responsible manner. **Departmental** periodicals such are one endeavour in this direction.

The Department of Zoology has been performing very well in academics as well as extra-curricular activities. Even in this pandemic situation apart from regular academic activities, the department has organized webinars, alumni meet and various cultural programs successfully. Such activities empower our students with a strong sense of responsibility and well being.

I congratulate the department for their upcoming issue of e-magazine and enthusiastically look forward to appreciate our students' creativity.

WHAT OUR TEACHERS SAY



Dr. Adity Sarbajna



Dr Subhadra Roy



Mrs Pritha Mondal



Mr Suman
Tamang (HOD)

"EDUCATION IS A SHARED COMMITMENT BETWEEN DEDICATED TEACHERS, MOTIVATED STUDENTS AND ENTHUSIASTIC PARENTS WITH HIGH EXPECTATIONS"

Today, the role of Department of Zoology, Surendranath college is not only to pursue the academic excellence but also to motivate and empower the students to be lifelong learners, critical thinkers, and productive members of an ever-changing global society. Converting every individual into a self-reliant and independent citizen. The world today is changing at such an accelerated rate and we as educators need to pause and reflect on this entire system of Education. "To Motivate the Late bloomers, To mold the Mediocre and To Challenge the Gifted" is the teaching notion.



Mr. Tarikul Islam Golder



Mrs Chaitali
Burman
PAGE



Dr Manish Kanti Biswas



Dr Subhadipa Majumder



WHAT OUR TEACHERS SAY

It gives us great joy to meet all the students through this E-magazine-a great way to communicate and be creative. We hope that all will like our magazine as we move on with our lives. We thank to all who contributed to this endeavour. There is something for everyone here. The variety and creativity of the articles in the e-magazine pages represent the talents of the students of the Department of Zoology, Surendranath college. We congratulate the entire team of students for their hard work and dedication for making this magazine. The reflection of the student's creativity is the epitome of the magazine. We are sure that the positive attitude, hard work, sustained efforts and innovative ideas exhibited by our young children will surely stir the mind of the readers and take them to the fantastic world of unalloyed joy and pleasure. "Success comes to those who work hard and stays with those who don't take rest on the laurels of the past" We are greatly assured that the management, teaching and non-teaching faculty of the college is working towards making this lockdown a meaningful and fruitful one. We remain grateful to all the well-wishers for their priceless support and cooperation at this moment. Our sincere advice to the students – Do not lose hope. Concentrate on the silver lining amidst the thickest and darkest cloud at present times. We, the faculty members of Department of Zoology, Surendranath College, hope to see you all soon- refreshed and rejuvenated.





Animals in everyday life-



Until one has loved animals, one's soul remains unawakened;

Anatole France

-Soyel Hassan, Sem-2



Introduction

Earth is home to many creatures, animals have been inhabitants of this planet along with humans.

There are variety of species under animal kingdom, animals have been companion to humans since time immemorial.

Diversity in animals:

Animals have been spread all over the world, according to their suitable environment and greater life expectancy, ranging from extreme hot to extreme cold climate, under various favourable conditions.

There is greater diversity among animals, from their feeding habits to locomotion and their way of communicating, and their day to day activitie and live peacefully with each other.

Animals play very important role in the ecosystem :-

- 1)helps plants in converting free nitrogen present in the air and nourishes the root.
- 2) maintain ecological balance.
- 3) provide us food require for survival.
- 4) predatory animals keep the animal population in control.

Conclusion

Many species are facing a global threat directly or indirectly from human due to urbanization environmental factors that are suitable for animals are decreasing day by day.

Cutting down of trees ,and urbanization causing loss of habitat for many animals and poaching of animals are also cause of wildlife destruction.

International organisations such as PETA,WWF, are constantly making efforts to aware people about conservation of animals, and Indian government has also taken some measures to stop extinction of animals.

Our motto must be " sustaining all life on earth" as stated by united Nations as sustainable development goals on world wildlife day which is celebrated every year on 3rd March.







As every species in this world wants to create it's own offsprings ,House flies are not different in that case. Photograph- Musca domestica -Pratyayee Dutta,4th Sem

Let's clean up . - Rajdip Das, 6th sem





So you mean to tell me , I'm not a real dinosaur ? -Susmita Manna,6th Sem

Indian Rat Snake or Oriental Rat Snake or Darash is a common species that found in parts of South and Southeast Asia. Scientific Name- Ptyas mucosa -Pratyayee Dutta,4th





Lord , help me be the person my chickens think | am . -Susmita Manna,6th Sem

Ring Necked parakeet is also called as Rose-ring Parakeet.They are from Psittacidae family. It has disjunct native ranges in Africa and the Indian Subcontinent. Scientific Name- P.krameri -Pratyayee Dutta,





Squirrels-Nature's Gardener



-Snigdha Sarkar, Sem2





Recent studies said that, squirrel have an important ecological role, especially in forest ecosystem. Their biggest contribution to the forest is in shaping plant composition. "They have a peculiar habit of taking seeds, which are their main source of nutrients and environment, and often when they go back and look for them, they effectively planting trees". MC Cleery said.

"Overtime, this behavior called caching, changes the composition of forests". "They will expand forest and change the type of trees that are there. In Florida, for example, they have an important role of maintaining the native long-leaf pine ecosystems".









Pink Fairy Armadillo -The Smallest Armadillo

Avinaba Das, Sem2



Kingdom-Animalia
Phylum-Chordata
Class-Mammalia
Order-Cingulata
Family-Dasypodidae
Genus-Chlamyphorus
Species-C. truncatus



Also known as the Pichiciego, the pink fairy armadillo is the smallest known species of armadillo. It lives in the sandy plains and dry grasslands of central Argentina and other parts of South America. Unique adaptations like an aerodynamic body shape, smooth dorsal shell, and sharp claws mean this creature is able to completely bury itself in sand in a matter of seconds and then nagivate underground with ease. Similar to a mole, the pink fairy armadillo will spend the vast majority of its life underground. It is also nocturnal, only emerging ocassionally at night to find food.

Did you know that?

- ~ It pumps blood through it's shell to regulate body temperature!
- ~At approximately 13cm in length, it is so small it can fit in your hand!
- ~It is also known as 'the sand swimmer' because of how quickly and easily they can navigate underground!
- ~The only armadillo species whose dorsal shell is not completely attached to its body!
- ~Rain presents life-threatening risks to the pink fairy armadillo.
- ~With very small eyes, the pink fairy armadillo finds its way around in a unique manner that does not require vision.
- ~Climate change could virtually eliminate the entire pink fairy population.

Interesting Facts



Spider have blue blood. It is cause by the oxygen bounded to hemocyanin, a molecule that contains copper rather than iron (like humans).

FACTS BY: BHAGYASHRI....SEM-6

READ TO KNOW

FINGER MONKEY - THE

SMALLEST PRIMATE

-SOMDEB BHATTACHARYA, SEM 6





SCIENTIFIC CLASSIFICATION:

Kingdom: Animalia

Phylum: Chordata

Class: Mammalia

Order: Primates

Family: Callitrichidae

Genus: Cebuella

Species: C. Pygmaea

FIG: Cebuella pygmaea (Finger Monkey)

Why the Name "Finger-Monkey"?

From the very name, it can be inferred that they are small in size. Most of their photographs show these tiny animals clinging to human fingers and gazing innocently with their wide eyes. Adult monkeys may have a body length of 5 to 6 inches, excluding a tail length of around 8 inches. Being the smallest monkey in the world, this animal is also known as pocket monkey. Finger monkeys (Cebue//a pygmaea) are, as a matter of fact, pygmy marmosets. They are also known by the names 'little lion' or 'tiny lion'.

Interesting Facts



he Peacock Mantis Shrimp can throw a punch at so MPH, accelerating quicker than a 2caliber bullet.

FACT BY: BHAGYASHRI..SEM6

Some Interesting Facts:

- An adult finger monkey has a furry body, generally tawny colored with black flecks. Its underbelly, however, is either cream or white in color.
- The black-ringed tail forms a major portion of finger monkey's 13-14 inch long body. The head and body together measure only about 5 inches. However, its tail can grow up to 8 9 inches.
- Finger monkey uses its sharp claws to move between the bigger branches or move up on trees. It spends most of the day making inch deep holes in the bark of trees with the help of sharp, lower incisors.
- These creatures are monogamous. Within the group they communicate by body language, scent marking, making high-pitched sounds, and grooming each other.
- Pygmy Marmosets can produce ultrasonic cries inaudible to humans. These cries are generally used to show antagonism.



EAGLE-BIRD

Md. Samiul Islam, Sem4



The eagle is one of the most powerful and largest of the birds of prey. Eagles have heavy heads and large hooked beaks to enable them to rip flesh from their prey. It is a lofty bird that is admired by many. People view the eagle bird as a symbol of power, transcendence, and freedom.

- It is one of the largest and most powerful birds of prey.
 The smallest eagle birds fly faster than most birds and more directly. They have larger wings compared to other small sized birds of different species.
- The eagle bird has outstanding Of all its senses, the eyesight is its biggest asset. It can detect prey from almost 2 miles away.
- "Eagle" is not the original name of the bird. Its origin is the Latin word Aquila which had its origin from the French word Aigle





Conclusion

Of all birds, the eagle comes out as a unique and bird. It is also essential in religion folklore and many other different cultures for illustrative purposes. That is a noteworthy bird that deserves appreciation.









Economic Importance Of Honey

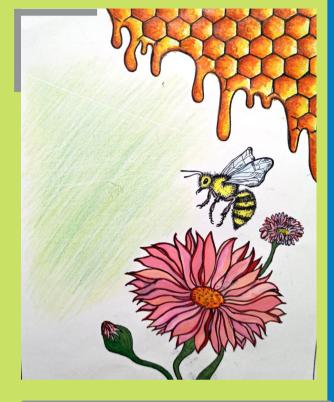


Bees

-Aslam Khan, Sem 4



Honeybees are of huge economic importance, vital for the pollination of many fruit, vegetable and seed crops. Also a wide variety of important products are made from the honey, beeswax, pollen, royal jelly and propolis that bees produce. Vital for the pollination of many fruit, vegetables, & seed crops · Variety of different products like honey, bee wax, pollen, royal jelly, propolis, bee venom Honey bees product. Although honey is often the first product to mind, bees also make or are indirectly involved in making other goods. These include honey based products (such as candy), beeswax, pollen (as a supplement), candles, propolis (or bee glue, used in cosmetics), as well as additional bees for sale to other parties. Whereas crop pollination is, by far, the most important and profitable of bee services, honey is the most well known and most profitable of the direct products resulting from the efforts of honey bees. Many millions of pounds of honey are produced each year in the United States and bring in billions of dollars of revenue. Natural honey is sweet, pleasant smelling, and delicious to many. It can also be artificially and naturally flavored with nuts and spices.



Artwork done by URMI KARMAKAR, 6th SEM





They are poisonous. Red eyed frogs will conceal their brightly colored flanks with their limbs and close their eyes to sleep. This posture help camouflage them against leaves and also reduce water loss.

FACT BY:MANAJ DAS...SEM 2

Interesting Facts



American Red Wolf: Red wolves are only large carnivore species solely native to the USA, truly a national freasure.

FACT BY: SUMAIYA HOSSAIN...SEM: 2





The dumbo octopus ,like other deep-sea octopuses , cannot produce ink. They lick ink sacs, You'll never find a dumbo octopus in a aquarium or a pet store.

FACT BY: MANAJ DAS..SEM 2

READ TO KNOW

INTEREVIEW WITH A KOALA

-Arun Jana, Sem 6





<u>Systematic</u> <u>position</u>

Kingdom: Animalia Phylum: Chordata

Class: Mammalia

Infraclass: Marsupialia

Order: Diprotodontia

Family:

Phascolarctidae

Genus: Phascolarctos

Species: P. cinereus

The koala or, inaccurately, koala bear is an arboreal herbivorous marsupial native to Australia.

AMAZING FACTS:

- 1) Koalas are found in the eucalyptus forests of eastern Australia having grey fur with a cream-coloured chest, and strong, clawed feet, perfectly adapted for trees!
- 2) Some people call them 'bears', these animals aren't bears at all they are in fact marsupials.
- 3) When an infant koala called a joey is born, it immediately climbs up to its mother's pouch. Blind and earless, a joey uses its strong sense of touch and smell, as well as natural instinct, to find its way.
- 4) Koala's grow up to become big eaters, shifting up to one kilogram of eucalyptus leaves in a day! They select the most nutritious and tastiest leaves from the trees.
- 5) These magnificent mammals get their name from "Aboriginal" meaning, 'no drink' as believed that koalas get almost all their moisture from the leaves they eat, and rarely drink water.
- 6) They have a long digestive organ called cecum which allows them to break down the tough and poisonous eucalyptus leaves which remain unharmed. They sleep 18 hours in a day.

Protection to prevent vulnerability:

Because of its distinctive appearance, the koala is recognised worldwide as a symbol of Australia. Koalas are listed as a vulnerable species by the IUCN.





Interesting Facts



The fingerprint of a Kola are so indistinguishable from humans that they have on occasion been confused at a crime scene.

FACT BY: SUMAIYA HOSSAIN...SEM-2



LION RESCUE A LITTLE GIRL FROM KIDNAPPERS

-SOMAIYA HOSSAIN, SEM 2



In 2005, a 12-year-old Kenya girl was kidnapped by four men while walking home from school. It's a far-too-common story that could have ended in tragedy - if not for the pride of lions who stepped in to save her.

A week after the abduction, the kidnappers were chased off by three lions who guarded the victim until police arrived to rescue her. Police say they found the girl "shocked and terrified" - and surrounded by lions. The massive beasts quickly disappeared when officers arrived.



She was bruised from being manhandled by the kidnappers, but the lions never laid a paw on her. Lion experts (and skeptics) say it's possible that the lions were planning to eat the girl themselves but were dissuaded by her crying, which sounds a lot like the sound a baby Lion cub makes. Either way, these lions should be celebrated as the heroes they truly are.

Interesting Facts



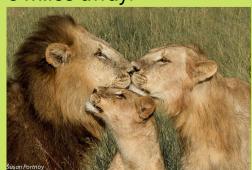
White lion are symbols of leadership and pride to local communities in the Timbavati region.

FACT BY:MANAJ DAS...SEM 2

FACTS ABOUT

LIONS:-

- •A good gauge of a male lion's age is the darkness of his mane. The darker the mane, the older the lion.
- A lion's roar can be heard from as far as
 5 miles away.



Parents Asmir Mondal, Sem2

To a child parents mean unconditional love, deep trust and Z+ security. Father's lap and mother's fringe is a bullet proof jacket for child." One day in the back garden of our house, two Dahuk birds were roaming with their young. At that time a Monitor Lizard came up from the side pond to eat the baby Dahuk birds.

Seeing this a bird gestured to another bird and said so

mething. Then he flew away and sat on Monitor Lizards head. When the Moni-tor Lizard try to bits him he flies away and sits on his tail. Head again and again tail. While Monitor Lizard is bussy to catching the Dahuk bird sitting on his back, another Dahuk bird runs with his cubs. After the Dahuk bird with it's young has moved to a safe distance, the Dahuk bird sitting on the back of the Monitor Lizard flies away and goes to its mates and children and disappears behind the bushes. And the Monitor Lizard that comes for dishonest purposes is staring wide-eyed.





Interesting Facts



Penguins black/white colouring acts as camouflage in the water:white when viewed from below(looking at the light above)and black when viewed from above(looking at the dark below).
FACT BY: SUMAIYA HOSSAIN..SEM 2

Interesting Facts



Spider was are built from proteinaceous silk and same spider re-build their webs by eating the silk then"recycling"it to make new webs.

FACT BY:MANAJ DAS...SEM 2





PEARL CULTURE

-ARPAN DAS, SEM 6





Pearls are the only Gemstone to come from a living creature.

The first artificial round Pearl was Created by Kokichi Mikimoto.

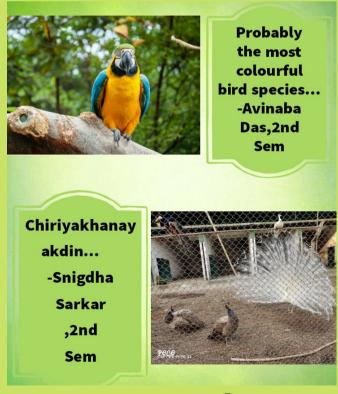
The world's most expensive Pearl is valued at \$100 Million.

La Peregrina, considered world's most famous Pearl.

Cleopatra used Pearls to win a bet.

The oldest Pearl ever found dates back 7,500 Years.

Pearl cultured, forms inner-sides precipated calcium-cabonate of nacre or "mother-of-pearl".







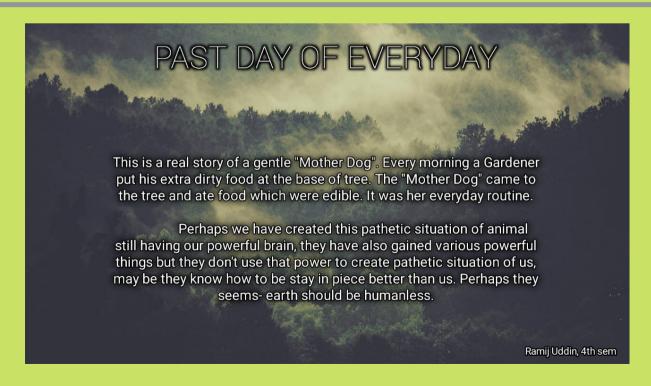
Sericulture

Samina Yasmin Sem 4



Sericulture provides gainful employment, economic development and improvement in the quality of life to the people in rural area and therefore it plays an important role in anti poverty programme and prevents migration of rural people to urban area in search of employment. Sericulture plays a major role in rural employment, poverty alleviation and earning. The art of silk production is called sericulture that comprises cultivation of mulberry, silkworm rearing and post cocoon activities leading to production of silk yarn. gainful Sericulture provides employment, economic development and improvement in the quality of life to the people in rural area and therefore it plays an important role in anti poverty programme and prevents migration of rural people to urban area in search of employment.





READ TO KNOW

ANIMALS WITH LONG

LIVES:





How long can a human being live? 50 years, 60 years, 70 years? The oldest person to have ever lived was a French lady named Jeanne Louise Calment.

who was 122 years, 164 days when she died in August 1997. Let us take a look at some animals that have impressive long lives:







☐ Red Sea Urchin: They can live for over 200 years, though most reach about 30.It is the largest of all sea urchins, with an average size of 13 cm.

☐ Bowhead Whale: Average live span is over 200 years. Because of its low

body temperature, it is able to live longer, as the lower an animal's body temperature, the longer it can live.

☐ Giant tortoise: They live well over 100 years. Lonesome George, the longest known surviving tortoise, died in June 2012. He was over a 100 vears old.

☐ Rougheye Rockfish: This fish can live upto 200 years, with the oldest one having lived 205 years!

☐ Long fin eel:They live well over 80 years. Female eel have records of reaching 106 years old.

☐ Elephant: Elephants can live upto 70 years. The oldest one 'Dakshavani'

from India had lived upto 89 years, died in February 2019.

☐ Ocean Quahog:People eat the ocean quahog. They are intelligent creatures and in order to avoid being spotted, they bury themselves deep into the seabed and can stay without food and oxygen for long periods of

time. They live over 400 years. Oldest one is caught from the coast oficeland in 2006.

Interesting Facts



Octopuses have 3 heart and 9 brains and also they are widely considered to be the most intelligent of all invertebrates.

FACT BY: KAJAL DAS..SEM4

Interesting Facts



Although it seems very delicate, it can carry objects 40 times its own weight

FACT BY: BHAGYASHRI..SEM6

Interesting Facts





Jellyfish and Lobsters are considered biologically immortal- They don't age and will never die unless they are killed.

FACTS BY: KAJAL DAS...SEM-4



Porcupine

Dipanjan Das, SEM 2



How do porcupines defend themselves?

If threatened, a porcupine will bristle, raising its quills. The quills are densest in an area on the porcupine's back called the rosette. the quills are coated in a grease secreted by the porcupine's skin. When the porcupine exposes its quills, it releases a musky odor unique to porcupines that serves as a warning.

the porcupine turns so that its head faces away from the attacker and chatters its teeth to make an audible warning. If that's not enough, he porcupine will use its muscular tail, covered in quills, to slap their attacker if they get too close.

Interesting Facts



Hippos secret a red, oily substance from their skin, that acts as a natural sunblock.

FACTS BY: BHAGYASHRI...SEM-6



Porcupines are the rodents with coats of sharp spines, or quills, that protect them against predatio. Porcupin rarely attack humans unless they are disturbed, they will not

Bite you or yours pets. They only use their spikes to attack an intruder. The Indian crested porcupine, or Indian porcupine, is a large species of hystricomorph rodent belonging to the old world porcupine family. The Indian crested porcupine is a large rodent, weighting 11-18 kg. their body measures between 70-90 cm, with the tail adding an additional 8-10 cm. the lifespan of wild Indian crested porcupine is unknown, but the oldest known captive individual was female that live to be 27.1 years old.

Do porcupines shoot their quills ?

porcupines do not shoot their quills out. That's a myth. Porcupine quills are held by their skin in a way that's makes them difficult to fall out unless pushed in first, usually by contact with an attacker. The tail moves so quickly that it can appear that it's shooting the quills out.



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SCAN OR TAP



Dolphins

-Ashmita Dey, Sem-2

Systematic position

Kingdom:Animalia

Phylum:Chordata

Class:Mammalia

Order:Artiodactyla

Infraorder:Cetacea

Parvorder: Odontoceti

Facts to know

Because dolphins are mammals, they need to come to the surface to breathe.

Interesting Facts



Clown fish start of as males and develop into females later on it their

Fact by: Kajal Das..sem 4

Introduction



Dolphin is the common name of aquatic mammals within the infraorder Cetacea. The term dolphin usually refers to the extant families Delphinidae (the oceanic dolphins), Platanistidae (the Indian river dolphins), named Iniidae (the New World dolphins), river and Pontoporiidae (the brackish dolphins), and the extinct Lipotidae (baiji or Chinese river dolphin). There are 40 extant species named as dolphins.

Fun facts of Dolphiins

- 1. Nearly 40 different dolphin species inhabit the waters of the world. While most species of dolphins live in coastal areas of tropical and temperate oceans.
- 2. Dolphins are carnivores with a variety of fish, squid, and crustaceans included in their list of prey. A dolphin that weighs 260 pounds (118 kilograms) eats approximately 33 pounds (15 kilograms) of fish per day.
- 3. Known for their playful behavior, dolphins are highly intelligent. They are as smart as apes, and the evolution of their larger brains is surprisingly similar to humans.
- 4. Dolphins belong to the scientific order called Cetaceans, which also includes whales their closest relatives. In the Delphinidae (dolphin) family, orcas are the largest species of dolphin.
- 5. They are highly social animals, primarily living in groups that hunt and even play together. Large pods of dolphins, called 'superpods' can be made up of 1,000 members or more





Panda Ant : The Ant but actually a Wasp!

-DISHA CHATTERJEE, SEM 2

Scientific name:

Euspinolia militaris

Systematic position-

Kingdom: Animalia

Phylum: Arthropoda

Class: Insecta

Order: Hymenoptera

Family: Mutillidae

Genus: Euspinolia

Species: E. militaris ading

Interesting Facts



Each year Deer grow a new set of antlers.

After the rut is over, they shed their antlers and grow a new set.

FACTS BY: KAJAL DAS....SEM-4

Being a Wasp why the insect entitled as Panda ant?



The panda ant has a fuzzy appearance and distinct black and white colourings, with white coat covering the head without eyes and black and white spots all over the body, similar to a panda which is how it gets its name. The reason for their identification as ants rather than wasps is the fact that they resembles the velvet ants.

Important Characteristics:

- The Panda ant exhibits sexual dimorphismmales are several times larger than females bearing wings and predominantly nocturnal while females are very active during day time and are wingless.
- •They are found in dry coastal regions of Chile, do not live in colonies, don't have any queen, drones or workers.
- •Their beautiful colouration serves as a warning to predators.
- The sting of this wasp is incredibly painful, so sometimes also referred to as 'cow killer ant'.





Wild life of Red Panda

Rekha Chowdhury, Sem 2

Introduction -

Systematic position -

Kingdom -Animalia
Phylum -Chordata
Class - Mammalia
Order Carnivora
Family - Ailuridae
Genus - Ailurus
Species- *A.fulgens*

Interesting Facts



An ant contains two stomachsone for itself, and one for other ants

FACT BY:AMINA PARVIN...SEM 2



Red Panda which is a small panda and they are called Firefox. They are found in Himalaya and South Chaina areas. International nature and

natural resources in dangerous species according to WHO.

Food Habitation -

Red panda's feed mainly on leaves and bamboos, fruites, insects, small lizards.



Importance-

- (a) These forest are intact and function properly, they can help to prevent global climate change and ensure healthy life for people.
- (b) Protect global diversity hotspot -Red panda are indicator of ecological health of Estern Himalayas forest. They are helping conservation of

landscape as an umbrella protect just like a ring.

Conclusions -

Increasing in deforestation of Red Panda's population. Stop, as the forest are being cut this poor animal are loosing their home. So, by avoiding cutting of trees we can contribute greatly towards conservation of this amazing species.



Platypus – a mammal with affinity of reptiles and birds-

-Payal Dutta, Sem6



Kingdom: Animalia

Phylum:Chordata

Class:Mammalia

Order:Monotremata

Family: Ornithorhynchidae

Genus: Ornithorhynchus

Species: O.anatinus

Interesting Facts



Squirrels are responsible for planting thousands of trees worldwide.

FACT BY:AMINA PARVIN...SEM 2

Interesting Facts



Manatees can get frostbite in water below 68 degrees Fahrenheit (20 degree C). Their fat is not designed to insulate them from the cold.

FACT BY:AMINA PARVIN...SEM 2



Why platypus lay eggs though it is a mammal?

The platypus is classed as a mammal because it has fur and feeds its young with milk. The platypus lay eggs instead of giving birth to live young. It flaps a beaver-like tail. But it also has bird and reptile features — a duck-like bill and webbed feet, and lives mostly underwater.

Some interesting facts:

A platypus has a body like an otter, a bill and webbed feet like a duck, and a tail like a beaver.

Platypuses are nocturnal. They sleep during the day and are active at night.

The platypus is one of only two types of egg-laying mammals. The other is a spiny anteater called an echidna.

They don't have a stomach.

Platypuses are one of just a few venomous mammals.

They live only in Australia

Essential facts

The platypus is one of the few living mammals to produce venom.



Zebra- The African Equines



-Loumit Sarkar, Sem- 6

Zebras are African equines with distinctive black-and-white striped coats. Zebras are primarily grazers and can subsist on lowerquality vegetation. They are preyed on mainly by lions and typically flee when threatened but also bite and kick. Zebras communicate with various vocalisations, body postures and facial expressions. Social grooming strengthens social bonds in plains and mountain zebras.





Some Interesting Facts

- 1.The zebra used to inhabit most of Africa's territory .But the number of these animals has dropped dramatically over the past century.
- 2. Different species of zebra have different conservation status: The Plain Zebra is not endangered, The Mountain Zebra is considered vulnerable and The Grevy Zebra is endangered.
- 3.Zebra are very social animal and live in large groups called Harems. While migration the come together to form large herds.
- 4. Baby zebra can stand up in just 6 minutes after birth, walks after 20mintues and gains enough strength to start running after 1hour.
- 5.If a zebra is attacked, it's family will come to its defence circling the wounded animal and attempting to drive off predators.
- 6. Contrary to popular belief ,zebras are actually black animals with white stripes. Scientists have come through this conclusion after analysing zebras at the embryonic stage of their development.
- 7.Like human fingerprint every stripe pattern is unique for zebras. They have the ability to memorize the pattern of their close relatives for life. It is believed that a foal can distinguish it's mother by her unique stripe pattern.
- 8.Zebra's have poor eye sight and ostriches have poor hearing. These two have formed a symbiotic relationship through communicating and warning each other of danger. Zebra's and ostriches look out for each other.



Meet the animal that never dies, an immortal jellyfish!

Kajal Das, Sem 4



It's called turritopsis dohrnii. It is a species of jellyfish discovered in 1883 and found in the Mediterranean Sea and around Japan. When the jellyfish reaches a certain age it can decide when its cells convert backwards meaning it can basically just choose to become young again i.e. polyp. In fact, since this phenomenon called transdifferentiation was first observed in the 1990s, the species has come to be called "the immortal jellyfish."

The jellyfish is bell-shaped, is only about five centimeters big, and has between 8 and 90 tentacles, the jellyfish are only biologically immortal – they still can be eaten by predators .Because they don't die and because of currents caused by big ships like ocean liners, the jellyfish are spreading all over the world. It also makes population counts really hard – there could be millions of these tiny animals!

Jellyfish don't have brains so aren't aware they're alive or that they have this incredible ability – it's just totally normal to them.

Instead of brains, they have a complex system of nerves that helps them survive, mostly via reflexes and things they detect with their tentacles.



Interesting Facts



Pandas don't have specific spots for sleeping, they simply fall asleep wherever they happen to be.

FACT BY: DIPANJAN DAS....SEM-2



THE CUTEST ANIMAL IN THE WORLD THAT YOU NEVER KNEW EXISTED

-Ishani Chowdhury, Sem-6

1. FENNEC FOX :-

- · Habitat :- North Africa
- Looking more like a cartoon than animal.
- It has adapted to a life of high temperature, sandy environments and little access to water.
- Its giant ears, twice the size of it's face, help it to hear prey crawling around underground and dissipate heat in the day time.



2. LONG-EARED JEROBA :-



- · Habitat :- China and Mongolia
- Looking like a very small rabbit than a rodent.
- Found in the grasslands and deserts between China and Mongolia.
- It's only bout 8cm long, but these huge ears make up a good portion of its body length, allowing it to hear predators very much and hop off on its powerful hind legs like an absurdly sweet miniature Kangaroo.

3. SLOW-LORIS:-

- Habitat :- South and South-east Asia
- In spite of its big, soutful eyes, teeny hands and super-slow movements, the Slow-loris is more dangerous than it looks.
- It is only the venomous primate, it has a toxic bite if threatened by predator their will leak a gland on its elbow and the oil secreted mixes with its saliva to produce a poison.

4. JAPANESE WEASEL:-

- · Habitat :- Japan
- Native to Japanese islands of Honshu, Kyushu and Shakily, the Japanese-Weasel, Mustela itatsi, hunts along rivers and in water, under the snow, chasing small rodents.
- The Weasel's fur coat turns white during winter months, allowing it to camoflouage itself in the snow.

6. RED-PANDA:-



5. MARGAY:-

- Habitat :- Central and South America
- Similar in the appearance to the ocelot and the oncilla, the margay cat is native to Central and South America.
- This nocturnal cat has adapted to a life spent mainly in trees.
- Only cat can rotate its hind legs about at 180°, allowing it to run head-first down trees like a squirrel and with can hang from branches with its back feet.
- A tail averages about 70% of its head and body length acts as a useful counterweight for balance.



Habitat:- South and Central Asia

- Largely known as adorable waddle due to short fronts legs and colorfulness.
- Contrary to popular belief, it is not actually part of the panda familyinstead it is more closely related to raccoons, shunks and weasels.
- It is listed as endangered as there are currently fewer than 10,000 individuals left due to habitat loss, poaching and inbreeding.





READ TO KNOW DEER -THAT YOU CAN KEEP AS PETS

-Himadri Chakraborty, Sem-6

• INFLUENCE TO MAKE DEER AS PET:-

- Interest in keeping deer as pets might have risen in popularity among the general public due to the old Disney film Bambi and the recent movie Frozen.
- In the United States, most captive deer are ranch-raised, and this can be considered a type of pet ownership. However, they are typically bred for their meat or for the purpose of providing hunting opportunities in large preserves.

1. SITKA-DEER:-

- This might be due to the calm nature of sitka deer which make them popular pets for a deer species.
- Nara Park, Japan is a famous landmark where deer from the adjacent park roam freely and are comfortable enough to approach humans.
- Sitka deer have been introduced to different areas as both an ornamental and game species.
- They have spots into adulthood
- They can live up to 25 years
- As a very social species, if they are kept alone, they will need a lot of attention and socialization.





2. MUNJATIC-DEER:-

- Unlike other deer species, this is exactly what they tend to be kept for and only obtainable one for their cleanliness, well mannerism and compactness.
- This is a very affectionate exotic pet.
- These deer actually have protruding "fangs", which are canine teeth.
- They also have scent glands on their head and that they enjoy rubbing on their owner.
- They and their dropping have very little odor.
- They maximum reach up-to a medium-sized Dog.

3.AXIS-DEER:-

- · Axis deer, also known and chital, cheetal, or spotted deer, originate from India.
- · They are sexually dimorphic because the females don't have antlers and are smaller than the males. These deer are very popular with hunters and are commonly ranch raised for the purpose.
- Populations of the deer were intentionally introduced to the Hawaiian islands of Molokai. Maui, and Lanai to increase hunting opportunities which has been damaging to the environment.
- In 1932, they were also introduced to Texas.
- Axis deer are a commonly ranched deer species, and their populations in the United States are highest in Texas.
- These deer are grazers that may browse for food if grass is not in sufficient quantities.
- They are disease-resistant in ranches and do not require de-worming or inoculations.



DEER -THAT YOU CAN KEEP AS PETS



-Himadri Chakraborty, Sem-6



5.WHITE-TAILED DEER:-

- White-tailed deer are naturally occurring in many areas of the United States, sometimes even being considered to be pets.
- Unfortunately, they are often victims of car collisions and can cause conflicts with humans for their incredible fence-jumping abilities that they use to raid ornamental plants and gardens.
- These deer are also farmed for meat, but many people keep them as outdoor pets. Some game farms even sell specimens that are completely white.
- White-tail deer can make great pets, but unfortunately, being native wildlife, they are illegal to own in most states, especially if they come from the wild.
- There have been numerous situations where people have stumbled upon orphaned fawns, raised them successfully, and then were subjected to animal control confiscating and killing their well-loved pet.
- If these deer cannot be released into the wild and if no licensed wildlife rehabilitator can take them (those who specialize in deer are less common) they will automatically be euthanized.
- Hand-raised deer can be very tame; however, males can become aggressive during rut.
- Mother white-tailed deer will often leave their fawns alone when they search for food, so make sure a seemingly abandoned fawn is actually abandoned
- Many human-raised deer will remain in the vicinity of their human caretakers. One deer, confiscated by animal control after someone reported the owners for keeping the native deer, was released into the wild only to walk the 50 miles back to its real home.



6.FALLOW-DEER:

- Native to Western Eurasia, fallow deer are also a commonly-ranched, spotted, and sexually dimorphic species (only the males have antlers).
- They are frequently kept in estates, parks, and zoos. T
- hey are a calm species that readily adapt to captive situations.
- They've been domesticated as early as 9th century BC. Because they can't breed with other deer species, they are less regulated in some states.
- They live 15-25 years
- Because they can jump up to 7 feet, 8-foot fences are needed to fence them in.
- They will thrive on any pasture that can support other commonly kept ungulates.
- Aside from being raised for their meat, fallow deer produce the renewable crop of antler velvet, which is popular in Asian markets.
- They cannot contract or transmit chronic wasting disease and are resistant to many diseases that devastate other deer species.



4. REIN-DEER:-

- Reindeer, also known as caribou, are the only deer species that have populations considered to be domesticated.
- While wild caribou are traditionally hunted for meat in some cultures,
- Domestic reindeer populations (sometimes called 'semidomesticated) are herded and provide milk, meat, hides, and transportation for people in Arctic regions.
- In the winter, they mainly eat lichens
- In captivity, they should be fed a commercial diet of grain and roughage. They are very sensitive to changes in their diet.
- They are the only animals except for some gastropods in which the enzyme lichenase has been found.
- The use of reindeer as semi-domesticated livestock in Alaska was introduced in the late 19th century by the U.S. Revenue Cutter Service as a means of providing a livelihood for Native peoples there.



?

IF YOU KNOW, YOU KNOW



Which dog doesn't have typical pink tongue?



What kind of animal is a dhole?





Which animal has 32 brains?





Which animal has green blood?



5

Name a poisonous fish?





Which animal enable to see its four legs due to their special placement of eye?





What is taurophobia?

Interesting Facts

The bullet ant's string is known for being the most painful sting of any insect. The pain, which has been compared to being shot with a

bullet, naturally dissipates after 24hours.



FACT BY:MANAJ DAS...SEM 2



Which is the only snake that builds nest?



Interesting Facts





If you lift a Kangaroos tail off the ground it can't hop. There are known cases where kangaroos have lost their tails and can still move around, but it took them a long time to adjust, and can only move small distances at a time!

FACT BY: SUMAIYA HOSSAIN..SEM 2



What is the name of the world's largest zoological reserve?





Which animal doesn't have vocal cord?





Pashmina shawl is made from the hair of which animal?





Which is the national aquatic animal of India?



(To Get The Answers Check Page No:-40)



READ TO KNOW

ONEIROLOGY - STUDY

ON DREAMS

-Anuska Mukherjee,sem6



•Definition:-

A dream is a succession of images, ideas, emotions, and sensations that usually occur involuntarily in the mind during certain stages of sleep. The scientific study of dreams is called oneirology.

•Mechanism Of Dream:-

Dreams mainly occur in the rapid-eye movement (REM) stage of sleep—when brain activity is high and resembles that of being awake. REM sleep is revealed by continuous movements of the eyes during sleep. The length of a dream can vary; they may last for a few seconds, or approximately 20–30 minutes. People are more likely to remember the dream if they are awakened during the REM phase.

Influences On Dreaming :-

One aspect of dreaming studied is the capability to externally influence the contents of dreams with various stimuli. Memories experience and drugs effects on the cycles and stages of sleep while not allowing the user to reach REM.

•Dreaming Disorders:-

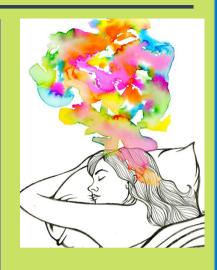
Dreaming disorders are difficult to quantify due to the ambiguous nature of dreaming.

Post-traumatic stress disorder (PTSD) -

Diagnostic symptoms include re-experiencing original trauma(s), by means of flashbacks or nightmares; avoidance of stimuli associated with the trauma; and increased arousal, such as difficulty falling or staying asleep, anger, and hypervigilance.

Schizophrenia -

The symptoms of schizophrenia involve abnormalities in the perception or expression of reality primarily focused on delusions and hallucinations.



Interesting Facts



Luna Moth doesn't have a mouth and cannot eat. It lives only for one week after leaving the cocoon, with the single purpose of mating.

FACT BY: MONOJ DAS..SEM 2



Otolaryngology-The study of animals ear, eye and throat.

-Nabanita Mandal, Sem6



A. Cicadas have their hearing organs in their stomachs.



C. Snakes do not have ears, but 'hear' vibrations through their skin that is touching the ground.



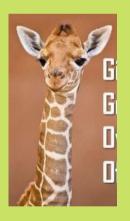
B. In some owl species, one ear is set higher than other.



D. Male mosquitoes hear with thousands of tiny hairs growing on their antennae.

Here are some of the most impressive feats of hearing found in the animal kingdom:

Here are some of the most impressive facts of animal's throat:



E. A giraffe's neck is too short to reach the ground. As a result, it has to awkwardly spread its front legs and kneel to reach the ground for a drink of water.

F. When a frog swallows food, it pulls its eyes down into the roof of its mouth ,to help push the food down its throat.



Here are some most impressive facts of animal's nose:



G. Lions can sense the fear in their prey or whatever else is around them.

- H. A dog's nose has two functions smelling and breathing.
 - a. Dogs have the ability to breath in and out at the same time.
 - b. Dogs can smell the passage of time etc.





I. The nose of the proboscis monkey evolved because of sexual selection.



Fisheries

By Supratim Pandey, Sem 6

Inland fishes

Inland fishes Inland fisheries are "any activity conducted to extract fish and other aquatic from inland organisms waters". Capture fisheries in inland waters have long provided important an source of food for mankind. It includes The Ganga River System, The Brahmaputra River System, etc.

Marine fisheries

Marine fisheries are conducted in all the oceans and seas of the world, including bays and estuaries. The capture and culture of aquatic organisms in salt water accounts for the bulk of the fishery products that reach world markets.

Types of Fish culture

Extensive fish culture

The fish farm consists of large sized ponds but the yield is modest, as no attempt is made to increase the production.

Semi-intensive fish culture

This is between the above two kinds and is a transitional stage. However, full potential of the ponds is not utilised

Mono-culture

Only one species of fish is cultured in a pond

Intensive fish culture

In this case the ponds are small size, but the total yield is very high and all the resources are utilised to obtain maximum protection of fish.

Cage culture

Fish is cultured in large cages, made of bamboo or steel, which are lowered into the river

Polyculture

More than one compatible species of fish are cultured spontaneously in a pond so as to utilise all the available niches



Fishing crafts and gears:

Crafts

Fishing crafts are most essential for catching the fish in large scale in water bodies. Crafts provides platform for fishing operations, carrying the crew and fishing gears. These boats are called by various names like "Machwa", "Satpati", "Nava", etc, and are modified as per local need.

Gears

A fishing gear is a device to catch the fish, prawns and crabs. Various types of traps, hook and nets are used all over the world, and are called by various names in India. It includes spear and harpoon, Dip net, Cast net, Purse net, Gill net, Seine net etc.

Factors influencing fish culture:

Physical factors

- a. Depth of water
- b. Temperature
- c. Light
- d. Turbidity

Chemical factors

- a. Dissolved oxygen
- b. Carbon dioxide
- c. pH level
- d. Hardness of water
- e. Dissolved inorganic and organic compounds

THROUGH THE LENSE



Norape ovina, the white flannel moth, is a moth of the Megalopygidae family. In the United States, it is found from Washington, D.C. south to Florida, west to Montana and Texas. Its range extends further south through Mexico, Guatemala and Panama to Venezuela, Suriname and Bolivia. This wingspan is 27–33 mm.



Papilio demoleus common and widespread swallowtail butterfly. The butterfly is also known as the lime butterfly, lemon butterfly, lime swallowtail, and chequered swallowtail. common names refer to their host plants. which are usually citrus species such the as cultivated lime.



Ampullariidae sp, common name the apple snails, is a family of large freshwater snails, aquatic gastropod mollusks with a gill and an operculum. This family is in the superfamily Ampullarioidea and is the type family of that superfamily.

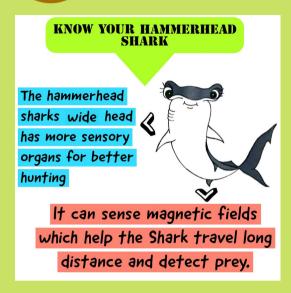


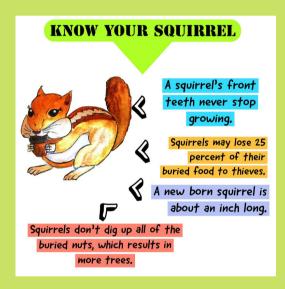
Omocestus viridulus, known in the British Isles as the common green grasshopper, is a Palearctic species in the subfamily Gomphocerinae

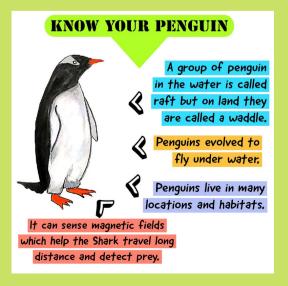


-Sonia Nath, Sem4

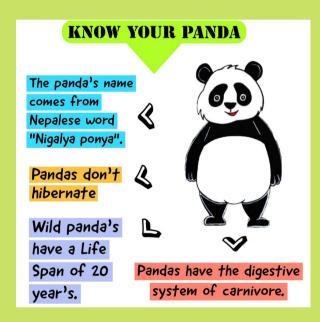
KNOW YOUR ANIMAL











Illustrations by :- Arijit Das & Manindra Mondal , 4th Sem Graphics arrangement:- Rajdip Das , 6th Sem



CHECKEN- DEE- DEE

By-Rekha Chowdhury, 2nd Sem

Way high up in the oak tree
Sites in a family
Agile and polite, cheerful cry
This sound touching of heats
Excited to going in these place
Then, joyful to meet you
When Winter comes in these place



-Dipanjan Das, Sem2



-Arpan Das, Sem6

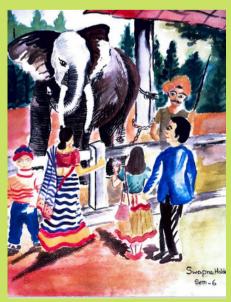


-Ishani Chowdhury, Sem6



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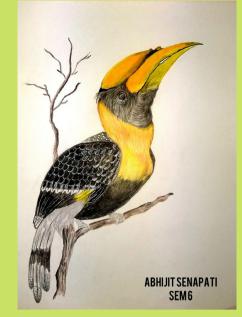
-Swapna Halder, Sem6

CREATIVE CORNER

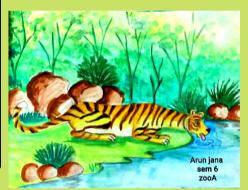
PANDA'S LOVE

-Arsha Zulfekar Khan, 2nd Sem

The soft grey Fur get course as they grow,
They belong to China as a treasure like gold;
Make their home from hollowed out logs,
And live their lives likes drama dialogues;
They grow with grace and a plump look,
And are so cute like a picture book;
Warm in appearance and lovely in nature;
The big eyed panda shines like a lazer,
They crawl, squeak and tumble on snow;
Lives on the mountain and stays alone,
I love the panda but now they are becoming rare;
O humans! Before killing them be aware.



-Abhijit Senapati, Sem6



-Arun Jana, Sem6



-Asmita Dey, Sem2



-Asmita Dey, Sem2





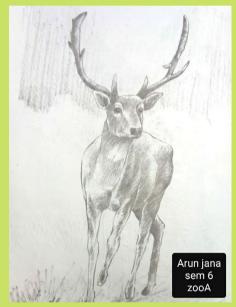
THE LION

By - Somaiya Hossain ,Sem 2

If you are attacked by a Lion
Find fresh underpants to try on
Lay on the ground quiet still
Pretend you are very ill
Keep this that day after day
Perhaps the Lion will go away



-Asmita Dey, Sem2



-Arun Jana, Sem6



-Asmita Dey, Sem2



-Anjali Mondol, Sem6



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1.Chow Chow 2. Wlid Dog 3.Leeches 4. Skinks 5. Stone fish(Synanceia verrucosa) 6.Donkey 7.Fear of Bull 8.King Cobra 9.Etosha National Park. **Namibia** 10.Giraffe 11.Changthangi goat 12.River **Dolphin**

