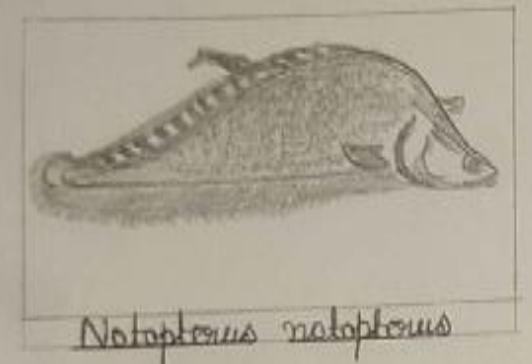


FAUNA - 2020

Threatened animals in Raniganj :-

Raniganj is a coal field area in West Bengal. Most of the people live on coal mines and industries. For some industries the place is getting contaminated. The place is getting very dry and the wetlands are getting less and less. Based on market and local survey, the population sizes of following animals are reduced by >50% in last 10 years even some species are out of sight.

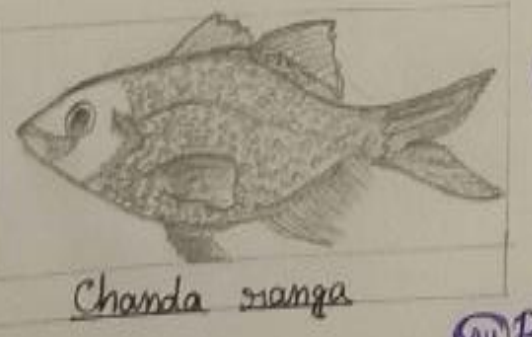


① *Notopterus notopterus*



Puntius ticto

- ④ *Colisa lalia*, ⑤ *Glossogobius aureus*
- ⑥ *Carassius auratus*, ⑦ *Ameletus leucostictus*



⑧ *Chanda vanga*



Passer domesticus

No conservation measure has not been taken till now in Raniganj are by our Government.

- Ankita Kanjilal, 4th Sem.

The Year 2020 : The International Year of Plant Health

The plants are the O₂ generating, food yielding, C-sequestering, soil erosion checking, global warming preventing, climate controlling, water & mineral cycle maintaining, pollutant cleaning & biodiversity enriching bio-machine in our environment & the keystone component in each ecosystem.

Over application of inorganic fertilizers & pesticides, pests & diseases, irregular & scanty of rainfall, global warming, sea-level rise & food & unplanned industrialization & urbanization damage the plant health.

Biological pest control, organic farming & plantation are the best ways for up gradation of plants health. So, our motto & slogan is "Protecting plants Protecting Life".

- Lipi Das, 2nd Sem

WETLANDS AND THEIR CONSERVATION IN RANIGANJ

Raniganj block in West Bengal has six coal mine areas - Kurustonia, Babra, Kajora, Nimcha, Kenda and Satgram. Low lands are being mainly converted into human residence, industries and national and state High ways. There is no natural wetlands but has many man made ponds. Some exhausted coal mines are being treated as aquaculture ponds. Most of the ponds are more than 70 years old and covers about more than five bigha land. Some important ponds are Rajarband pond, Bardohi pond, Pandit pond, Rajbari pond, Pathuria pond, Bijuri pond, Patnabayar pond, Banra mine pond etc. These ponds are generally used for fisheries. They are conserved by their owners. Owners follow government expertization. Wetlands are the kidneys of lands, so, conservation of wetland means cleaning of environment. Moreover, wetlands also provide valuable ecosystems for birds and other aquatic creatures, help reduce the damaging impacts of floods, control pollutant pollution and regulate the climate.



Pandit pond



Rajbari pond

- Rianita Mondal, 4th Sem, 2020

Current news

WHAT IS AMBERGRIS?
Ambergris is a solid, grey, waxy substance of sperm whales or baleen whales. It is one of the most strongest natural substances found on earth.

USE/ APPLICATIONS
Humans have been using ambergris from different purposes since ancient times. While ancient Greeks used it for increasing the intoxication strength of wines while in medieval time, this substance was used for treating impetigo & plaque. Even during the Black Death pandemic, people used ambergris on skin from.

In eastern societies, ambergris is mainly used in medicine, potpourri & spices while in western societies, it is used in perfumery.

Why is Ambergris So Expensive?
The high price of ambergris is largely due to its long-lasting aromatic fragrance. According to the GQ magazine, ambergris is the most valuable raw material in perfumery.

How It Is Formed?
Like ruminants, whales too have four stomachs & the food is digested while moving from one to another. When digestion is not complete, the remaining partially digested substances form a glistening substance in any of these stomachs. Rarely, the indigestible materials while moving through the stomachs transform in ambergris under many complex processes & chemicals such as Danaxal, squid beaks, triterpene alcohol-compound etc. which is found in sperm whales only.

- Sanghita Gope, Ex-Student

Indonesian fanged frog

Strange animal: Indonesian fanged frog (Indonesian fanged frog (*Limnonectes larvaepartus*) has internal fertilization and gives birth to live tadpoles instead of laying eggs. A female lays approximately 100 eggs at a time, which hatch tadpoles in the oviduct. The tadpoles feed on yolk, faeces and dead siblings. Tadpoles are birthed into slow moving streams.



Male Female

Indonesian fanged frog (*Limnonectes larvaepartus*)

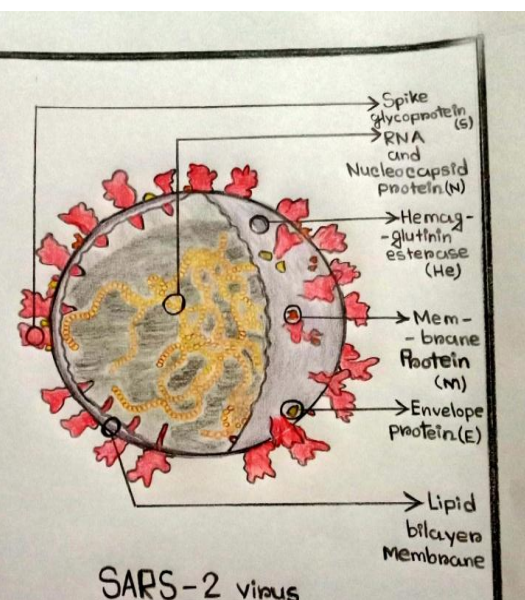
- Bidia Mondal, 4th Semester.

RT-LAMP

A new technology detecting COVID-19 in India. The novel corona virus SARS-CoV-2 is detected by RT-LAMP technology (Reverse-Transcription-Loop-mediated isothermal amplification). This is one step nucleic acid amplification method to multiply specific sequences of RNA of the corona virus. Here the viral genome the RNA is first made into DNA by reverse transcription. Then the cDNA is amplified by the LAMP-technique. The amplification takes place at 56°C and the final assay is done through color reaction within 10-30 minutes. It has 99.33% accuracy. It is cost-effective and TEM has recommended for the diagnosis as superior technique.



Gourav Roy Choudhury, 6th Semester



The culprit of dreadful COVID-19 pandemic disease

Chaiti Chatterjee, 4th Sem.

New species : Green pit viper

NEW SPECIES: Green pit viper A new venomous snake species (*Trimeresurus salazar*) or salazar's pit viper was discovered by Zeeshan A Mirza and his team in 2020 from the Himalayan mountain region. It is nocturnal and green in color. It has a unique reddish to orange stripe on both ventrolateral sides of head and body of males.



Trimeresurus salazar

- Arpita Layek, 2nd semester

Why do we feel drowsy after taking heavy meal?

- ① "When the stomach is full, then drowsiness will occur." This happens to many people.
- ② Eating heavy meal rich in carbohydrates and tryptophan enriched protein triggers melatonin secretion via increased synthesis and secretion of serotonin, that causes drowsiness.
- ③ Tryptophan is the precursor of serotonin and serotonin is the precursor of melatonin.
- ④ Glucose enhances tryptophan absorption from intestine.
- ⑤ Amylin, glucagon and cholecystokinin influence serotonin synthesis.
- ⑥ Some important tryptophan rich food are meat, egg, fish, milk, soybean, spinach and cheese. So, eat and sleep.

Chaiti Chatterjee, 4th Sem.