



NEW HORIZON PUBLIC SCHOOL

Nature Science Internship Program

September 13th 2017

OUR TEAM

ADITYA
JAGGAT
JAISURYA
JOSHUA
PRISHA
SHAKTI
SHREYA
SOHAN
TEJASVI

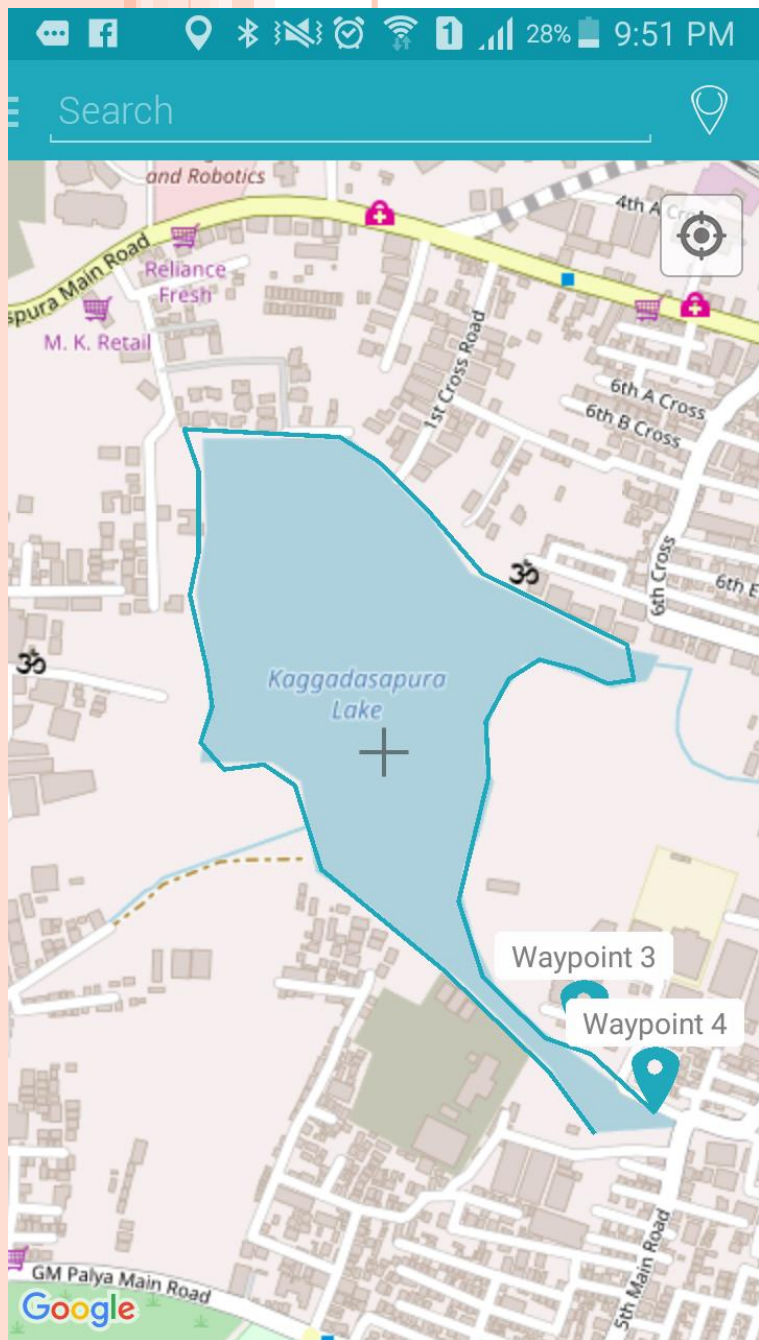




STUDY AREA

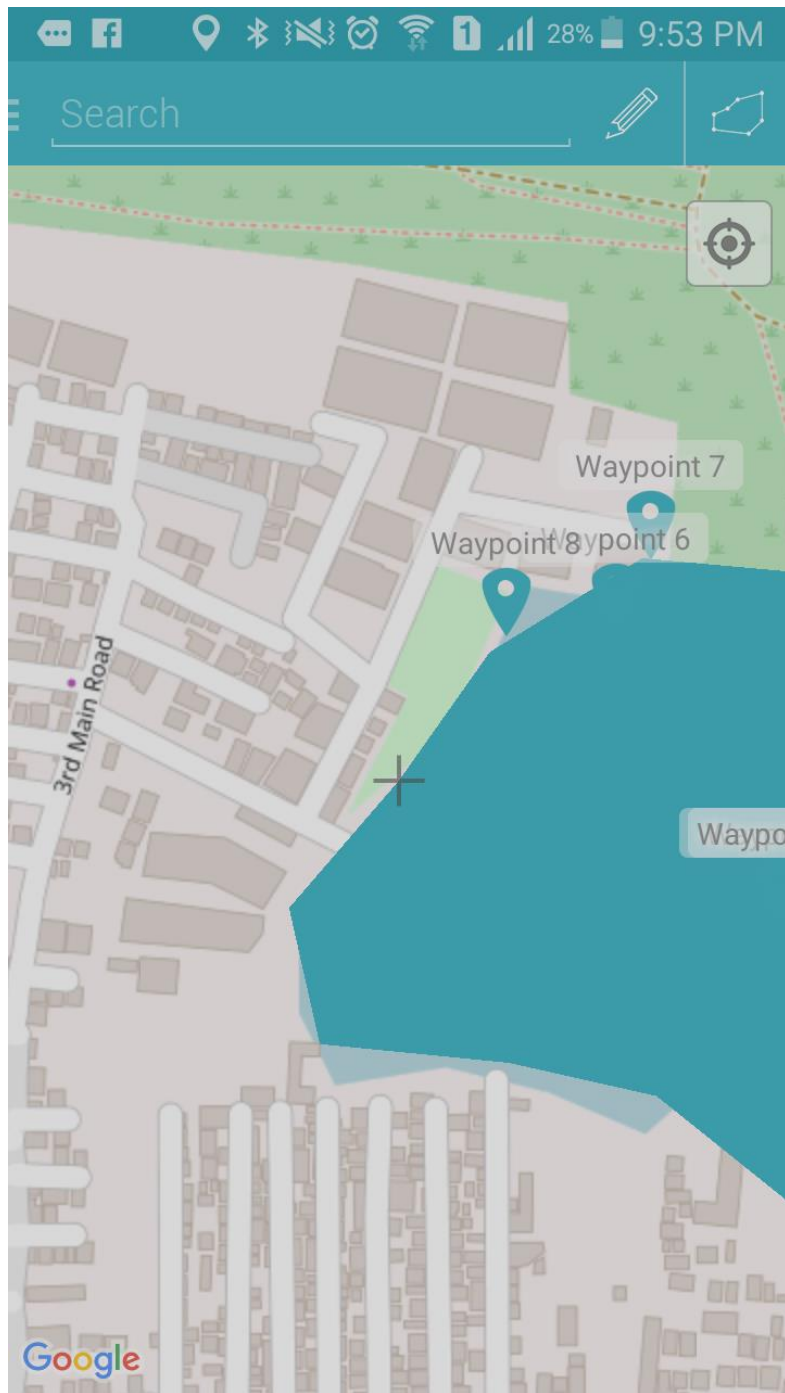
- 1. KAGGADASPURA LAKE**
- 2. UTTKARSH PARK NEAR
VIBUTHINAGAR/ L.B SHASTRI NAGAR LAKE**



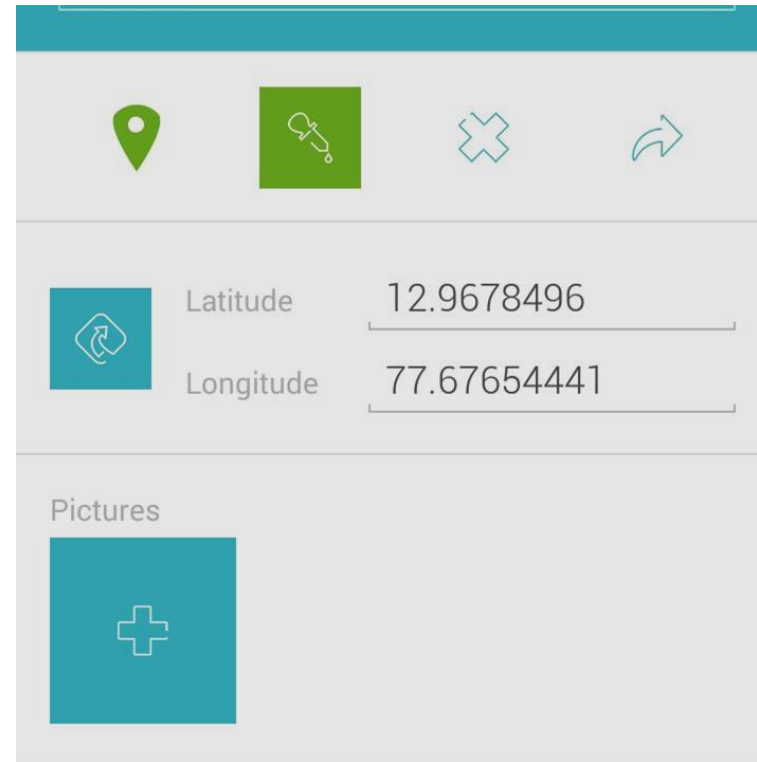


KAGGADASPURA LAKE

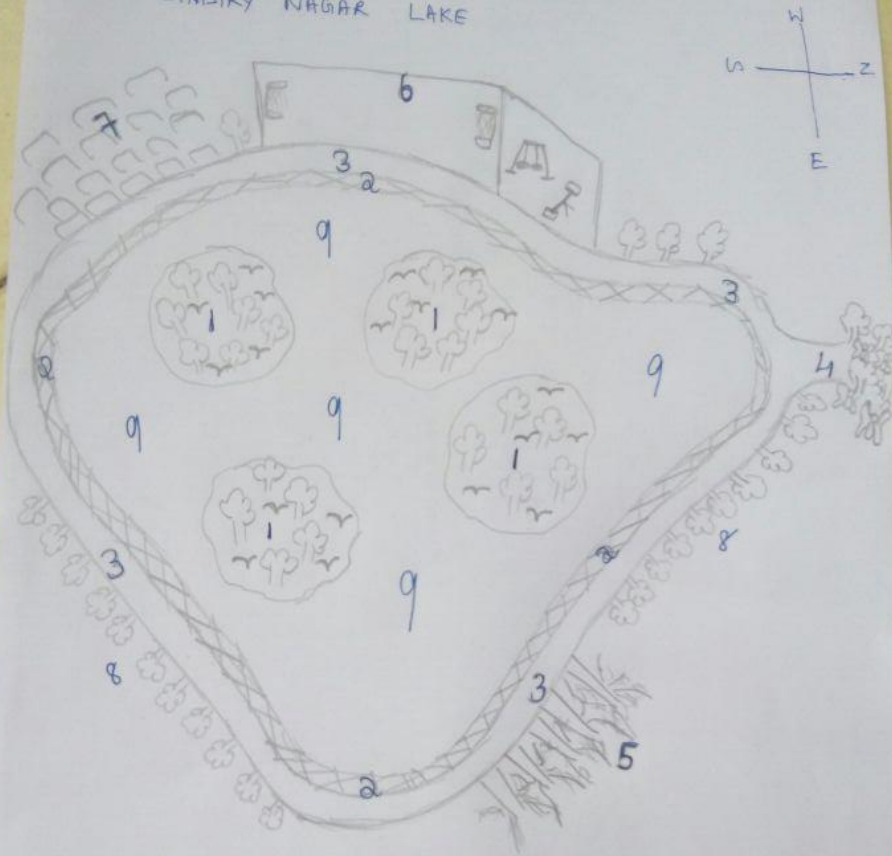
AREA-32 ACRES



UTTKARSH PARK



CRUDE STUDY MAP OF L.B. SHASTRY NAGAR LAKE



1 = Islands with large variety of birds

2 = Fenced gate

3 = PATHWAY TO WALK

4 = ENTRY TO BUTTERFLY PARK

5 = EUCALYPTUS GROVE

6 = PARK TO PLAY (UTKARSH PARK)

7 = SLUM AREA

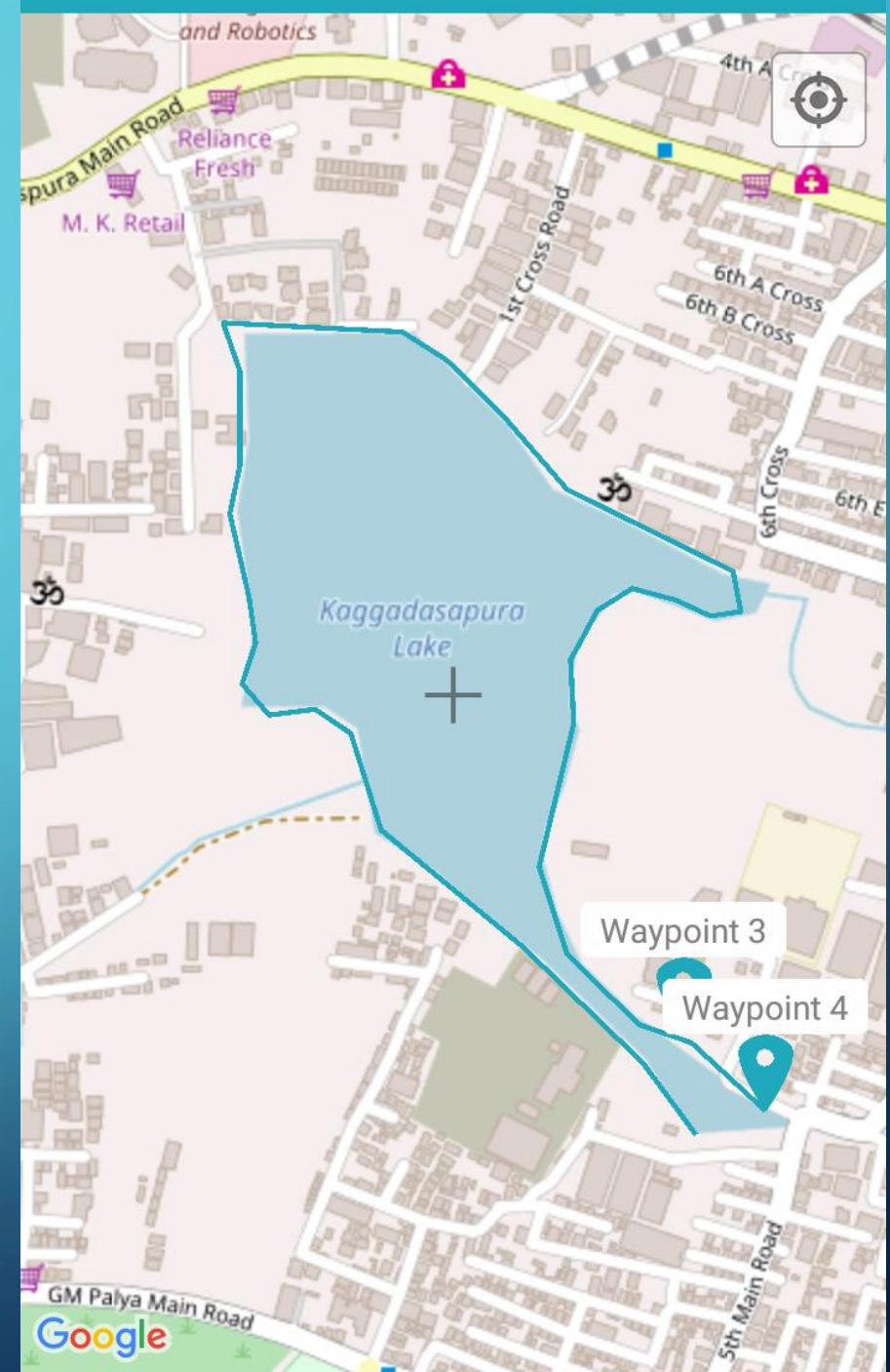
8 = MIXED VAREITY OF TREES

9 = WATER

HAND DRAWN MAP

WATER ANALYSIS

WATER FROM KAGGADASPURA
LAKE



WATER ANALYSIS :DISSOLVED OXYGEN

DATE OF TEST-AUGUST 26

INLET WATER:

- Amount of dissolved Oxygen : 4.0652 mg/ml
- Inference : heavily polluted
- pH- 7
- Temperature-24 ° C

OUTLET WATER:

- Amount of dissolved Oxygen : 5.3 mg/ml
- Inference : moderately polluted
- pH- 7
- Temperature-22 ° C

Water in the inlets is heavily polluted as sewage is pumped

In but in the outlets the water is being cleaned.



ON GOING CLEANING OF LAKE



MICRO-ORGANISMS IN THE WATER





A large display of children's drawings and posters for 'Save Kaggadasapura Lake'. The posters are hung on a wall, showing various themes: some depict the lake and surrounding area, others show children playing or working, and some have text in Kannada. The drawings are colorful and creative, reflecting the children's understanding of the lake and their desire to protect it.

SOIL ANALYSIS





UTKARSH PARK SOIL

LAT - 12.96824821

LONG – 77.67724648



DETAILS

- Sample taken - 8th Sept Friday 6:03 pm
- Sample tested - 9th Sept Saturday 9:10 am
- Colour - Mild Brown
- Texture – Coarse ; Medium
- Particle size – 0.475 mm to 2 mm
- Weight – 75 g
- pH - 7

FIELD DENSITY

- Volume of sample - $\pi r^2 h = 257.27 \text{ cm}^3$
- Field Density = Mass of Sample \div Volume
 $= 75 \div 257.27 = 0.2915 \text{ g/cc}$

... it's about
... fair.

SIMPLY SPORTS

China leads in Canada, seeking end run of near-misses

In game of South Korea
... her second consec-
... four-under 67 to move
... in the weekend after
... the Canadian Pacific
... open in Ottawa.
... one shot off the lead
... day's opening round.
... ties against one bo-
... one to eight under 134
... but lead over a trio of
... is - Mo Martin, Brit-
... come and first round
... to win.

U-17 WC host logo launched

city logo of Guwahati for the up-
... FIFA Under-17 World Cup was on-
... y launched by Assam Chief Min-
... anda Sonowal in Guwahati.

It is the venue of one of the semi-
... Under-17 football World Cup to



... even more special was
... the start of the Trophy Es-
... and Sonowal also un-
... World Cup Winner's Tro-
... vision, Sonowal said.



ITF fines Hong Kong for refusing to play in Pakistan

The International Tennis Feder-
... ITF has fined Hong Kong
... \$150,000 dollars for refusing
... to play in April.

... the International
... (ITF) ... said
... the ITF
... to play in April.
... the ITF
... to play in April.

... the ITF
... to play in April.
... the ITF
... to play in April.

Jo ... her 15th Natl crown

Jo ... her 15th women's sin-
... gles title while Saurav
... Ghosal secured his 12 men's
... singles crown at the ICL Na-
 ... tional Squash Championship
 ... that concluded in Greater
 ... Noida on Saturday.

■ The total prize
money of the
tournament was a
little over ₹ 11 lakh

Chinnappa and Ghosal, the
flagbearers of Indian squash
for the past decade, were
stretched in the finals by Lak-
shya Ravindran and Mahesh
Mangrulkar respectively be-
fore getting home in four
games.

Top seed Chinnappa, who
had lost to Dipika Pallikal in
the final last year, regained
the trophy with a 11-6 11-11
3-11-4 victory over Raven-
son, World No 14 on 2009



NATIONAL SQUASH CHAMPIONSHIP



Chinnappa makes rival
and longtime teammate Pal-
likal, had pulled out of the
tournament at last minute
due to an ankle strain.

Later in the day, Ghosal
got the better of Mangrulkar
in a closely-contested final
with the final scoreline read-
ing 11-6, 11-10, 11-8, 11-4 in
favor of the Railway man.

It was the second year in
... of the national
... of 16 national titles.

... of 16 national titles.

BULK DENSITY

- Mass of Dried Soil – 50 g
- Bulk Density – Mass of Dried Soil \div Volume
$$= 50 \div 257.27 = 0.1943 \text{ g/cc}$$
- Water content : $75 - 50 = 25 \text{ g}$
- Water content % : $25 \div 75 \times 100 = 33.33\%$



BUTTERFLY AREA SOIL

LAT – 12.96824821

LONG – 77.67724648



There are two concentric circular tracks of radii 100 metres and 102 metres respectively. A runs on the inner track and goes around the track in 1 minute and 30 seconds; while B runs on the outer track in 1 minute 32 seconds. Who runs faster?

- A. A runs faster B. B runs faster C. Both run at equal speed D. None of these

The representation of a statistical data by a symbol is known as

- A. Pictogram B. Pictograph C. Piechart D. Bargraph

The smallest number by which 72 must be multiplied to obtain

- A. 2 B. 3 C. 5 D. 7

Q.4) If the radius of a circle is 7cm, find its area.

- A. 22cm² B. 44cm² C. 66cm² D. 88cm²

Q.5) The interest on a sum of Rs. 1000 is Rs. 100 in 1 year. Find the rate of interest.

- A. 10% B. 12% C. 15% D. 18%

Q.6) The 10th World Hindi Conference was held in ...

- A. Maharashtra B. Madhya Pradesh C. Gujarat D. Haryana

Q.7) Name the ingeniously made surface-to-air missile system that was developed by the Indian agency, DRDO.

- A. Akash B. Agni C. Prithvi D. Samudra

Q.8) Name the first Indian woman to win a gold medal at the Asian Games.

- A. K. Datta B. P. T. Usha C. J. Datta D. S. Datta

Q.9) Name the first Indian woman to win a gold medal at the Asian Games.

- A. K. Datta B. P. T. Usha C. J. Datta D. S. Datta

Q.10) Name the first Indian woman to win a gold medal at the Asian Games.

- A. K. Datta B. P. T. Usha C. J. Datta D. S. Datta

Q.11) Name the first Indian woman to win a gold medal at the Asian Games.

- A. K. Datta B. P. T. Usha C. J. Datta D. S. Datta

LAUGH OUT LOUD

Father: What did you do today to help your mother?

Son: I helped her pick up the pieces of the vase that I had broken on my head the day before.

Father: You broke it, but when I asked you to help her, you didn't.

Son: Yes, I did. I didn't tell her I broke it.

Father: Why didn't you tell her?

Son: Because your feet aren't empty.

Q: Why did the man throw a bucket of water out of the window? A: He wanted to see the waterfall.

Q: Why did the man throw the butter out the window? A: He wanted to see the butterfly.

Q: What do maps and fish have in common? A: Scales.

JUMBLED WOPJS

1) coencom A: economic B: coperic C: comic D: commerc

2) repatrist A: separate B: separate C: separate D: separate

3) repatrist A: separate B: separate C: separate D: separate

4) repatrist A: separate B: separate C: separate D: separate

5) repatrist A: separate B: separate C: separate D: separate

6) repatrist A: separate B: separate C: separate D: separate

7) repatrist A: separate B: separate C: separate D: separate

8) repatrist A: separate B: separate C: separate D: separate

9) repatrist A: separate B: separate C: separate D: separate

10) repatrist A: separate B: separate C: separate D: separate

11) repatrist A: separate B: separate C: separate D: separate

12) repatrist A: separate B: separate C: separate D: separate

13) repatrist A: separate B: separate C: separate D: separate

14) repatrist A: separate B: separate C: separate D: separate

15) repatrist A: separate B: separate C: separate D: separate

INDIA SHINING

Chaitya A chaitya is a Buddhist shrine or prayer hall with a stupa at one end.

Chaityas were probably constructed to hold large numbers of devotees and to provide shelter for them. Early chaityas, such as the Bijak ki Pahadi of Viratnagar ascribed to the Emperor Ashoka, were

built as standing structures with the stupa being surrounded by a colonnaded processional path enclosed by an outer wall with a congregation hall adjoining it. The more spectacular and more numerous chaityas, however, were cut into living rock as caves.

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ANSWERS TO SUDOKU

1. 2 3 4 5 6 7 8 9

2. 3 4 5 6 7 8 9 1

3. 4 5 6 7 8 9 1 2

4. 5 6 7 8 9 1 2 3

5. 6 7 8 9 1 2 3 4

6. 7 8 9 1 2 3 4 5

7. 8 9 1 2 3 4 5 6

8. 9 1 2 3 4 5 6 7

9. 1 2 3 4 5 6 7 8

10. 2 3 4 5 6 7 8 9

11. 3 4 5 6 7 8 9 1

12. 4 5 6 7 8 9 1 2

13. 5 6 7 8 9 1 2 3

14. 6 7 8 9 1 2 3 4

15. 7 8 9 1 2 3 4 5

16. 8 9 1 2 3 4 5 6

17. 9 1 2 3 4 5 6 7

18. 1 2 3 4 5 6 7 8

19. 2 3 4 5 6 7 8 9

20. 3 4 5 6 7 8 9 1

21. 4 5 6 7 8 9 1 2

22. 5 6 7 8 9 1 2 3

23. 6 7 8 9 1 2 3 4

24. 7 8 9 1 2 3 4 5

25. 8 9 1 2 3 4 5 6

26. 9 1 2 3 4 5 6 7

KNOWLEDGE BANK

Queen Alexandra's Birdwing butterfly

is the largest butterfly in the world with a wingspan of 20 cm.

It is found in the rainforests of New Guinea.

It is named after Queen Alexandra.

It is a very rare butterfly.

It is a very beautiful butterfly.

It is a very large butterfly.

It is a very small butterfly.

DETAILS

- Sample taken - 8th Sept Friday 6:10 pm
- Sample tested - 9th Sept Saturday 9:22 am
- Colour – Dark Brown
- Texture – Fine ; Clay
- Particle size – <0.002mm
- Weight – 760 g
- pH - 7

FIELD DENSITY

- Volume of sample = 257.27 cm^3
- Field Density = Mass of Sample \div Volume
 $= 760 \div 257.27 = 2.95 \text{ g/cc}$



BULK DENSITY

- Weight of Dried Soil – 50 g
- Bulk Density = Mass of Dried Soil ÷ Volume
$$= 50 \div 257.27 = 0.1943 \text{ g/cc}$$
- Water content : $760 - 50 = 710 \text{ g}$
- Water content % : $710 \div 760 \times 100 = 93.42\%$



BIODIVERSITY



Purple heron
Ardea purpurea
poliocephalus
 Swampy marshy area
 Sitting
 Single
 Slender bird with dark plumage, yellow
 orangish red long legs
 Lines on the side of face and neck



Purple swamp hen

Porphyrio porphyrio

Among weeds in damp areas
 Sitting
 Single
 purplish hem like bird with
 beak



Black drongo
Dicrurus macrocercus
 In the midst of tall trees
 Sitting
 Glossy black plumage, forked tail, slightly
 in the region below
 Puffed up to protect from the cold and drizzle.



red vented bulbul
Pycnonotus cafer
 Open forest area
 Sitting
 slight red mark
 the tail.



White throated kingfisher
Halcyon smyrnensis
Near marshy wet areas on trees
trees
Sitting
Single
White throat brown body and blue wings
wings



Black kite
Milvus migrans
soar high in the sky or perch on tall
Sitting
Single
short sharp beak and claws, narrow



Spotted dove
Spilopelia chinensis
Scarce vegetation like short grass and trees
Sitting
Pair
grey coloured bird with spots all over its body
below its eyes



White cheeked barbet
psilopogon virdis
on top of tall trees
Sitting
single
green bird with a white stripe

BUTTERFLIES



Common name : Blue
pansy

Scientific name :

Junonia orithya

Order : Lepidoptera

Class : Insecta



Common name : pale grass
blue

Scientific name: Zizina
labradus

Order : Lepidoptera



Common name : Angled
castor

Scientific name : Ariadne
ariadne

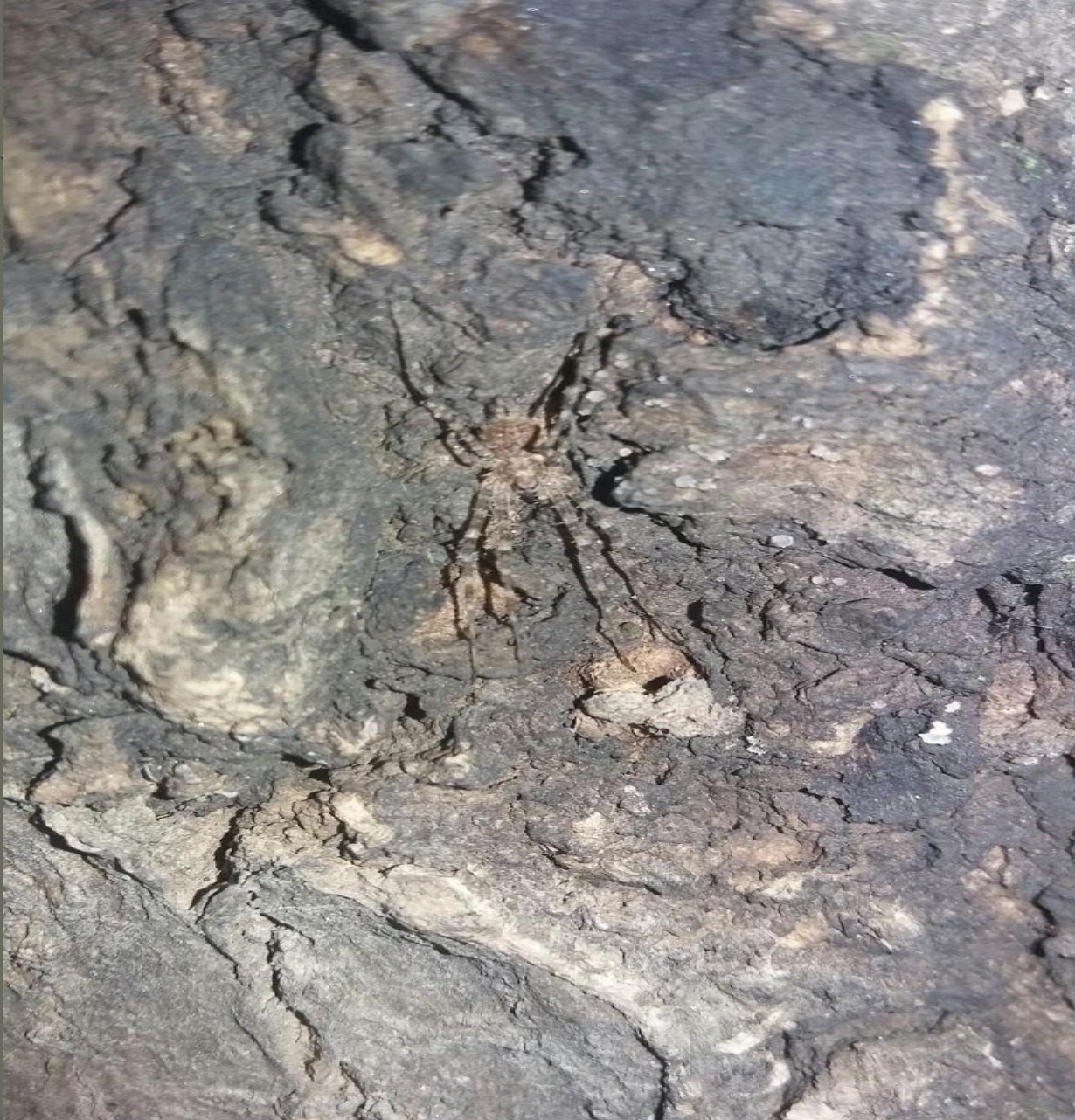


Common name : Common
indian crow

Scientific name : Euploea
core

Order : Lepidoptera





Common name :
Mostly – Grass spider
Scientific name –
family : Agelenidae
Order : Araneae
Class : Arachnida



Common name : Lappet moth
caterpillar





SOCIAL SPIDER

TREE STUDY



Honge Tree



Indian Fig Tree





Rosewood





Malabar Nut



Hibiscus syriacus



Wild Water Lemon



Euphorbia



Touch Me Not



Crown Flower

FUTURE PLAN

- TO DOCUMENT THE GARBAGE DUMP POINTS IN OUR STUDY AREA.
- TO FIND OUT THE ENVIRONMENTAL LITERACY RATE IN OUR NEIGHBOURHOOD.
- TO DOCUMENT THE TYPES OF TEXTILES ,THEIR USAGE, THE KNOWLEGDE OF CLOTH FIBRE LIFE CYCLE AMONG PEOPLE.
- TO VISIT A LOOM.
- TO CONSOLIDATE CARBON FOOTPRINT AND FOOD MILE DATA.
- TO CONTINUE WITH SOIL AND WATER SAMPLING AND BIODIVERSITY STUDIES.

Thank
You!

