

Practical No 01:-

How to measure the height using sextant

Material

Sextant apparatus' observing height

Measure the height using sextant

A Sextant is a mechanical device for the measuring the angle between two objects. Most commonly associated with navigation at sea, a sextant can also be used to help calculate the height of trees, buildings, flag poles or any other vertical object.

- Choose an observation point from which you can clearly see both the top and bottom of the object you wish measure
- Determine the exact distance between the observation point and the base of object
- Set the sextant to zero and look at the object through the eyepiece adjusting your view until it is in the center of frame
- Adjust the sextant arm to split the screen in to halves.

● Counter Continue moving the arm until the top half of the object on one side of the image is aligned with the bottom half of the object on the other side of the image.

● Read the angle from arc of the setant

● Use a Scientific calculator to find the height of the object from multiply its distance from the observation point by the tan of the angle that you measured.

→ For Example:- If you were 150 feet from the base of object and the recovered angle was 75 degree, the height of the object would be:

→ Mathematically From:-
$$150 \times \tan 75$$
$$= 500 \text{ feet}$$

Practical No 02:-

Measuring the height of a tree using shadow method

Shadow method (best on a sunny day)

1. Stand next to the tree being measured.
2. Measure the length of your shadow (feet to the top of head)
3. Measure the length of the tree shadow (do this quickly after measuring your shadow as the sun changes its position)
4. Calculate the height of the tree by using the proportion of your own shadow length.
 - ⇒ Divide the tree shadow length by your shadow length.
 - ⇒ Multiply this number by your true height h .

Practical No 03

Use of sherman trap:-

1 The sherman trap is a box style onimatile trap designed for the live capture of small mammals.

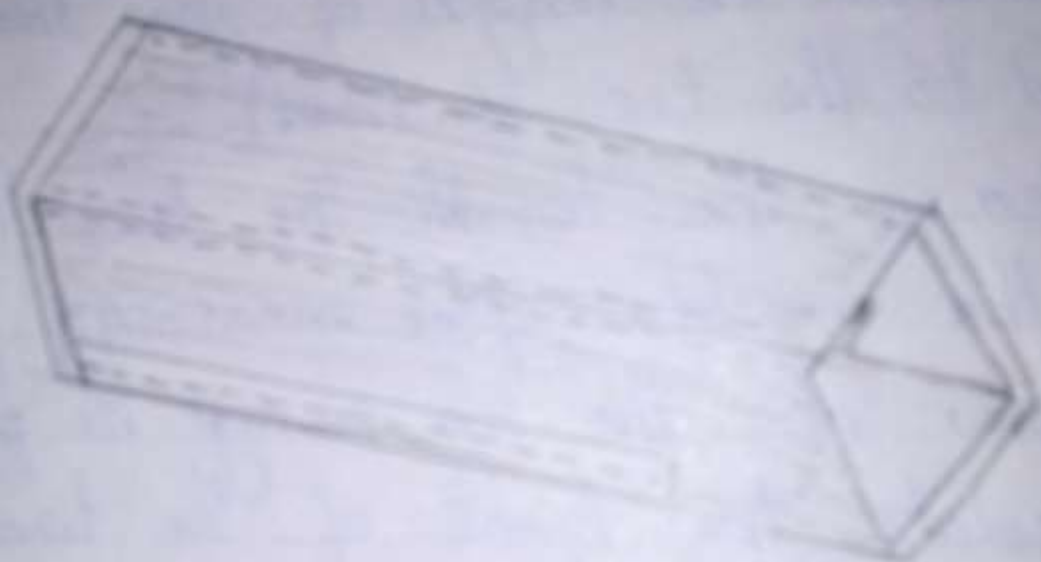
It was invented by Dr. H.B. Sherman in 1920s.

2 The sherman trap consist of Pight hinded pieces of sheet metal that allow the trap to be collapsed for storage and transport sherman traps are often set in grids and may be baited with grains and seed.

3 The hinged design allows the trap to fold up flat into something only the width of one side penal.

4 This makes it compact for storage and easy to transport to field locations

5 The bait is placed at the for end and can be dropped in place through the rear hinged door.



Sherman Trap

Practical No 04:-

Use of mist net

Mist net are used by ornithologists and bat biologist to capture wild birds and bats for banding to other reaserch projects.

Mist net are typically made of nylon or polyester mesh suspended between 2 poles resembling a volly ball net

Mist net have shalves created by horizonatly string lines that create a loose baggy pocket. When a bird or bat hits the nets it falls into this pocket when it becomes langed.

The mesh size of netting varies according to the size of the species targeted for capture.

Mist netting is a popular and important tool for monitoring species diversity, relative abundance population size and demography.

Practical No 05:-

Questions:- What is a stude malting?

• A stude farm or stude in animal husbandry is an establishment for selective breeding. The word "stud" came from the old english "stod" meaning "herd of horses" place where horses are kept for breeding.

• The word stude is often restricted to domesticated animals, such as cattles, horses and poultry.

• Stude malting consists of keeping the cocks and hens in separate pens and confining males in separate coops in the pens of females. The hens are let into the males pen one by one at interval and after melting they are removed to their own pen.

• This method is excellent increasing the utility of outstanding males to increase offspring melting and therefore it is more expensive.

Practical No 06

Status of wild animals

→ Duck:-

Common Name:-

Mallard duck

Scientific Name:-

Anus Platyrhynchos

Clutch size:-

The clutch size is 8-13 eggs where are incubated for 28 days to hatching with in 50-60 days.

Breathing Seasons:-

Mallard usually from pairs in (act and movement) oct and November only until the female lay eggs at the start of season which is around the beginning of spring.

2) Turkey :-

Common Name :-

Turkey

Scientific Name :-

Melegris gallopaso

Clutch size :-

10-14 eggs.

Breeding (Size) Season :-

Breeding behaviour is triggered primarily by increasing day length in spring and subsequent hormones response.

Conservation status :-

least concern (population increasing).

3) Ring Necked Pheasant

Common Name:-

Ring necked pheasant

Scientific Name:-

phasimus Colchicus

Clutch Size:-

10 eggs.

Conservation status:-

Least concern (population decreasing)

Breeding Season:-

April to June

The incubation period is about 22-26 or 27 days.

4) Grey partridge:-

• Common Name:-

Grey partridge

• Scientific Name:-

Fraucoling pondiciniul

• Clutch size:-

6-8 eggs

• Breeding Size:-

Varies by region and
climate from April to August.

• Conservation status:-

Least concern

5) Guinea Fowl

Common Name:-

Helmeted Guinea fowl

Scientific Name:-

Numida meleagris

Clutch Size:-

6-12 eggs

Breeding Size:-

Helmeted guinea fowl are seasonally reproducing birds. Summer is the peak breeding season while during winter no breeding activity takes place.

Conservation status:-

Least concern.

(6) Green pheasants:-

Scientific Name:-

phasianus versicolor

Clutch size:-

10-15 eggs.

Breeding Season:-

Breeding season starts in March or April goes on until June.

Conservation status:-

least concern

(population decreasing)

(7) Collard Dove

Scientific Name:-

Streptopella decaodo

Clutch size:-

1-2 eggs

Breeding Season:-

Collard dove breeds

several times per year and in temperate areas. The breeding season almost throughout the year when abundant food is available.

Conservation status:-

least concern:-

(8) pytho

● Scientific Name:-
pytho molurus

● Clutch size:-
2-10 eggs:

● Breeding size:-
Breeding season of pytho
is from december to february.

● Conservation status:-
Near threatened.

(9) Blue Bull (Nilgai)

• Scientific Name:-

Beselaphus tragocamelus

• Sexual dimorphism:-

Sexual dimorphism is prominent while females and juveniles are orang. to tawny adult males have a bluish grey coat. only males possess horns 15-20cm long.

• Breeding Season:-

Mating may occur throughout the year with peaks of three or four months varies geo the times of the year when these peaks occur varies geographically.

• Conservation status:-

least concern.

(10) chinkara:-

Scientific Name:-

Gazella bermiffii:-

Breeding Season:-

There are two breeding seasons, throughout the year one at the end of monsoon, season from late august through early october and second in late spring from march to end of April.

Conservation status:-

least concern.

The chinkara is protected in nine year of Iran and five of pakistan.

(11) 🐔strish

● Scientific Name:-

struthio camelus

● clutch size:-

4- 78 eggs per nest.

● Sexual dimorphism:-

The features of adult male are mostly black with white primaries and a white buff, tail, However females and young males are greyish brown and white. The skin of the females neck and thighs is pinkish grey while the male blue gray, gray or pink dependant on subspecies.

● Breeding season:-

Ostrich can mate from March through September.

● Conservation status:-

Least concern.

(12) Peafowl

• Scientific Name:-

• Indian peafowl : pavo cristatus
• Green peafowl : pavo muticus

• Clutch size:-

4-8 eggs

3-6 eggs

• Breeding Season:-

April to May

• Conservation status:-

Least concern (population stable)

Due to over hunting green

peafowl is evaluated endangered on

IUCN

Red list.

(13) Sulphur Crested Cockatoo:-

● Scientific Name:-

Cacatua galerita

● Clutch Size:-

2-4 eggs incubated for
22-26 days

● Breeding Season:-

The sulphur crested cockatoo is seasonal breeder. In Australia the breeding season is from August to January.

● Conservation status:-

Seven species of cockatoo are considered to be valuable

one species is considered to be threatened.

(14) Beas

Subfamily

Erycinae

Common Names:-

Indian sand boa, old world
sand, beas, 12ed sand beas.

Scientific Name:-

Eryx johnii.

Habitat:-

The snake is found in dry
semi desert scrub plains and rocky
dry foothills. It prefers loose, sand
or sandy soil that crumble easily.

Reproduction:-

E. johnii is ovoviviparous
with females giving birth to up to 14 young
at a time.

Conservation:-

Least concern.