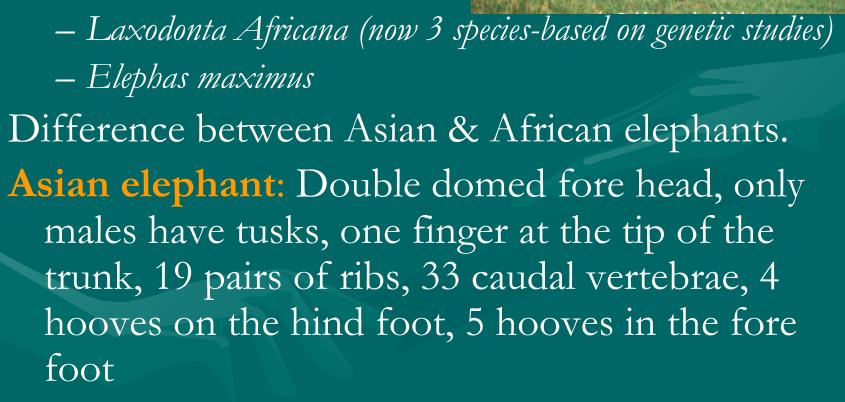


BIOLOGY OF INDIAN MAMMALS

ORDER : PROBOSCIDAE ELEPHANTS

ELEPHANTS

• 2 GENERA





 African elephant – Both males and females have tusks, single domed fore head, 21 pairs of ribs, 26 caudal vertebrae, 3 digits on the hind foot, 5 digits on the fore foot, 2 fingers at the tip of the trunk

Prehistoric time – Pig like creatures (Moeritherium, 25 million years ago, fossils found in Lake Moeris, Egypt) Modern elephants (evolved 5 million years ago along with Mammoths) Mammoths existed 20,000 years ago



Asiatic elephants

- Distribution: 11 countries.
- **Status** : Endangered
- **Population** : Ca. 23,000
- Past distribution : Pakistan, Rajasthan, Madhya Pradesh
- Present Distribution:
- 1. South India (Eastern & Weseren Ghats) : > 8000 individuals

Asiatic elephants

- 2. North-West (Rajaji-Corbett) : >750 individuals
- 3. Orissa-Bihar-West Bengal : >1600 individuals
- 4. North-East : > 13,000 individuals
- DISTRIBUTED IN ISOLATED POCKETS
 HABITAT LOSS & DISCONTINUTY



Asiatic elephants

- Teeth Lophodont dentition, tusk is modified upper incisors
- Dental formula: I 1/0, C 0/0, PM 3/3, M 3/3 = 33 teeth
- Weigh about 4 tones
- > 3.5 mt. height
- Longevity 60 to 70 years
- Gestation 20 to 22 months



Social system

- Basic unit of the elephant society FAMILY
- Temporary association of the families CLAN
- Role of temporal gland or musth gland
- Sexual maturity > 20 years
- Males are either found solitary of form bachelor herds after sexual maturity
- Cows and sub-adult females and calves stay together
- Sex ratio (Male:Female ratio): By birth it is 1:1
- In wild in Periyar Tiger Reserve, Kerala it is 1:76 (selective elimination of males)

• Activity budget : 70 to 80% of time spent in feeding



- Home range : Males 170 to 320 sq.km, females 100 to 150 sq.km
- Feeding : Grazers & browsers, debark trees (minerals, essential fatty acids & moisture content), feed on soil rich in sodium , salt, wasteful feeders (facilitation)
- Water intake : periodic drinkers, 100 lits of water at one time, up to 225 lits of water required in a day, dig water holes in streams during dry season
- Studies in India

- Major conservation issues
- 1. Exploitation of habitat
- 2. Shifting cultivation
- 3. Hydro electric and irrigation dams
- Hunting of elephants
- Crop raiding and human slaughter by elephants
- Political unrest & insurgency
- Straying of disoriented elephants
- Project elephant

