



Be careful and warn your group if you spot a crocodile. Stay calm and stay far from the animal



Don't indulge in water sports or swim in water bodies that have crocodiles

Do not feed, provoke or harass crocodiles. Avoid going

very close to them as they can charge at high speed

Don'ts



Be specially vigilant in crocodile areas, avoid walking or entering, launching or retrieving boats. If you need to be on the water, use a boat and keep your arms and legs secure



Avoid adopting a four-legged posture in crocodile areas as you can be mistaken for a four-legged animal by a crocodile



Enter areas close to riverbanks during broad daylight only



Do not bathe, wash clothes or perform rituals in lakes and rivers with known crocodile presence. Do not fish or collect rabs, snails, other molluscs or prawn seeds in such areas



Keep your livestock out of reach of crocodiles by grazing them away from the water's edge or riverbed



Avoid defecation along riverbanks



If a crocodile charges from a distance, shout loudly so that nearby people can hear you, and then run or climb a tree



Avoid returning regularly to the same spot at the water's edge to fill your bucket or to do your washing



Check with local people about the presence of crocodiles before entering an unknown water body



Do not throw fish waste and meat in water bodies close to human habitats, as these can attract crocodiles



Obey all crocodile warning signs and ad visory notices posted around crocodile areas and stick to designated paths



Do not venture into Crocodile Conservation Zones without permission from the authorities or without guides



If a crocodile is spotted in a human habitation, keep an eye on the animal. Do not engage with it. Call the forest officials



Do not go close to mud mounds near water bodies. Crocodiles lay eggs in such mounds and they guard their eggs and can attack in defence



If anyone is attacked by a crocodile, take the affected person to a hospital nearby as soon as possible



Do not try to attack a crocodile in retaliation. Inform the forest department officers as soon as possible

HUMAN-WILDLIFE CONFLICT MITIGATION IN INDIA

Indo-German Cooperation on Human-Wildlife Conflict Mitigation in India 2017-2023 **Taking a Harmonious Co-existence**























IUCN Status: Vulnerable

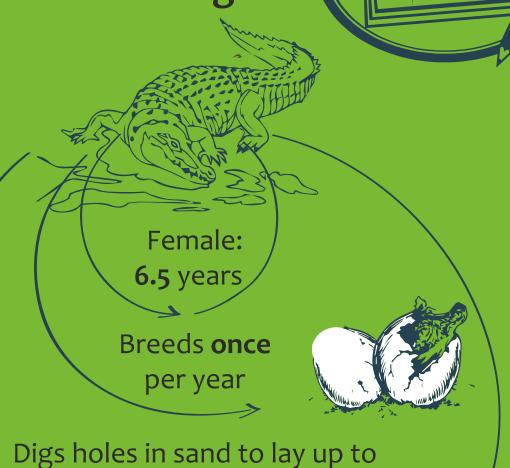
Habitat

Freshwater and brackish water ecosystems

Breeding

Lays eggs: February - April Eggs hatch: April - June

Reproductive age

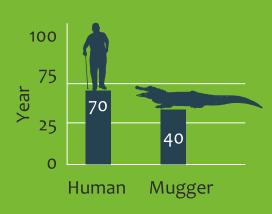


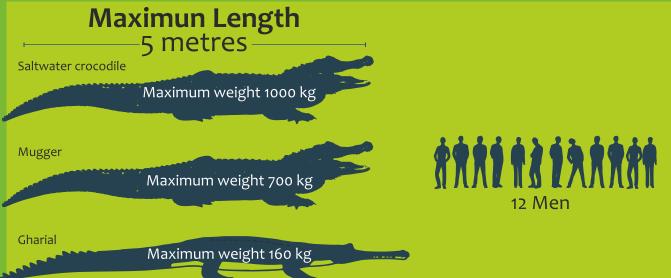
8-46 eggs

Nocturnal but can hunt during the daytime

- Lives in **freshwater** lakes, rivers and marshes
- Can live on both land and water
- Not easily visible; camouflages well on land and stays submerged in water
- Cold-blooded, basks on shores to warm itself in the sun
- Digs burrows to retreat, when it gets hot or cold
- Can suddenly **charge with speed** over short distances
- Has very **sharp teeth, strongest** bite among animals
- Ambush predator, waits for prey to come close before launching a **surprise attack**
- Can turn **aggressive** when provoked

Average lifespan





Gharial

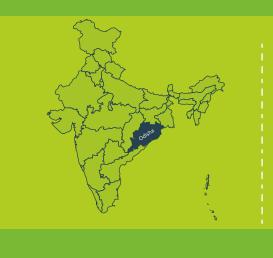
IUCN status: Critically Endangered

- Harmless to humans, preys on fish
- Gets its name from bulbous growth on its snout, which looks like a 'ghara' or Indian earthen pot
- An important indicator of clean waterbodies
- Cannot walk long distances on land, cannot disperse to other waterways in case of a threat
- Drastic decline in population, Critically Endangered

Saltwater crocodile

IUCN status: Least Concern

- Found mainly on the east coast of India and in the Andaman & Nicobar islands; lives in saline water of estuaries
- Rare in India, faced a big decline in population in 1960s due to hunting and habitat destruction
- Makes nest in vegetation mounds unlike the mugger and gharial



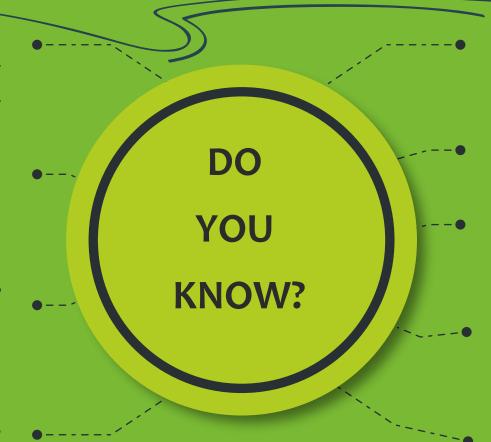
Only Odisha in India has all the three species of crocodile

Presence of crocodiles is a good indicator of a healthy waterbody

> Habitat loss, hunting and retaliatory killing are the leading threats to crocodiles

Clearing of mangroves for agriculture and aquaculture is causing habitat loss

During droughts, crocodiles can travel long distances in search of waterbodies



Crocodiles were once widespread and very abundant, but today their population is severely depleted

They are killed for meat and leather

People graze livestock in crocodile habitats, which can cause conflicts

During floods, crocodiles can get washed out to streets and homes in urban areas. The mugger especially travels via temporary pools created during the monsoon.

The sex of a hatchling depends on the temperature during incubation

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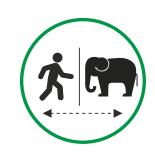






DO's & DON'Ts

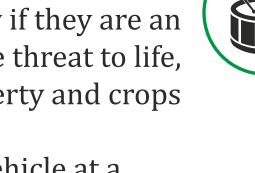
Slow down as soon as you see elephants. Maintain a safe distance as they may charge, if they feel threatened





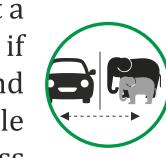
Don't try to take a selfie or close-up photograph of an elephant or try to feed it

Make a loud noise using drums to drive them away if they are an immediate threat to life, property and crops



Don't chase them as they may charge back at you

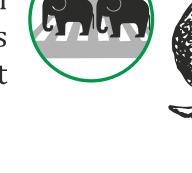
Stop your vehicle at a distance from elephants if they are crossing a road and reverse your vehicle slowly to allow them to pass





Don't use high beam lights.
Don't switch the engine off as you may have to reverse the vehicle and retreat if an animal charges at you

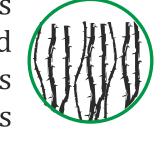
Be vigilant during dusk and dawn and drive slowly in areas where elephants might be present





Don't ignore warning signage that provides warnings about sensitive spots

Use thorny bushes as fences and create trenches around farms to prevent elephants from entering farmlands



Don't leave your farm with standing crop unguarded

Remove ripened fruits from trees that may attract elephants



Don't store groceries and rations outside house or in mud houses.
Store grains etc. in *pakka* houses

If elephants are present near your house and show threatening behaviour, slowly retreat inside the house and give them space to move away



Don't open doors or come out of the house at night if elephants are present near the house

If you spot an elephant in a human use area, call the helpline numbers of the forest department





Always keep a record of movement-information related to elephants provided by the forest department and avoid areas where elephants are present

ভারতে মানব-বন্যপ্রাণী সংঘাত প্রশমনে ইন্দো-জার্মান সহযোগিতা ২০১৭-২০২৩ একটি সমন্বয়পূর্ণ সহাবস্থান গ্রহণে ভারতে মানব-বন্যপ্রাণী সংঘাত প্রশমনের পদ্ধতি

















ASIAN ELEPHANT

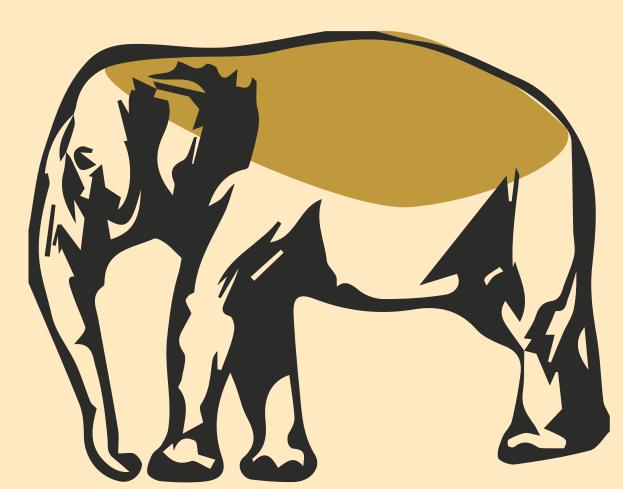


26000 - 29000 Population in India

> **IUCN Status** Endangered

Elephant habitat

Wide range, prefers grass-rich, dry and moist deciduous habitats



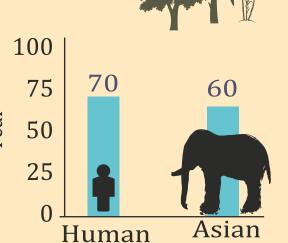
Uses trunk as

tactical

contact and

for holding

100



Diet

Grass, twigs, bark, shoots, woody plants, herbs and shrubs. 250-300 kg each day

Lifespan

60 years

Elephant Reproductive age

14 years

Gestation period 18 – 22 months

Extremely intelligent, can mimic and use tools

uncontaminated

and potable

water every day

KNOW? Needs upto 200 litres of

Only the male

Asian Elephant has

tusks. The exceptions

are makhnas, who

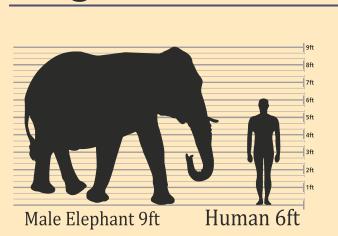
are tusk-less

males

An elephant herd is led by the senior female, who is also called the 'Matriarch'

> India has a history of captive elephants that dates back to 1000s of years

Height:



Weight

Calf: 100 kg at birth **Adult female:** 2500–4500 kg **Adult male:** 3000–6000 kg

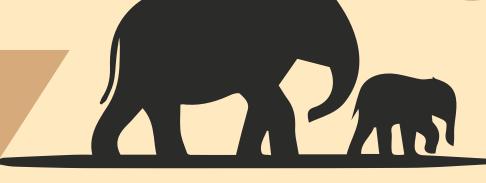
Male Elephant

Shade is essential as it prevents dehydration

Digestion efficiency is only 40%, feeds constantly to compensate

Has no sweat glands, tosses mud on itself and uses large ears as fans to keep cool

Important facts



More than 100 elephants get killed every year in retaliation by people and several others by poaching

Not all elephants forage on crops. Alternate cropping and temporary elephant-proof barriers (during crop ripening) can be installed to reduce incidents

Human deaths happen mostly due to surprise encounters or going too close to elephants. Early warnings and avoiding elephants can prevent such incidents

Deforestation, expansion of agriculture, human encroachment are causing human-elephant conflict



Matriarch remember migratory routes clearly. Fragmentation of habitats and obstruction of migratory routes lead to human-elephant conflicts.























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DO'S & DON'TS IF YOU SPOT A GAUR

Don'ts





Keep a safe distance as gaurs prefer to stay away from humans



Don't go inside the forest after evening and early in the morning to collect non-timber forest products (NTFP) or fodder for livestock as that is when most conflicts happen



Carry a stick and make noise while walking alone in the forest so that gaurs can sense your presence well in advance and stay away from you



Don't make sudden movements or run if a gaur has seen you as it can chase and knock you down, causing serious injury



Slowly back off if you spot a gaur looking at you or in case of sudden encounter



Don't go close to the calf as adult gaurs are very protective of their babies and can attack in defense



Make a loud noise to drive a gaur away if it comes close to you. Keep an eye on the animal till you reach a safe distance



In case of a charge, try to find cover behind a tree or rocks. Climbing a tree will help if you can



Drive slowly and keep a safe distance while moving in a gaur area



Don't get off the vehicle or try to chase them as this can agitate them



Stay calm if a gaur is in village or on a road. Wait till gaur passes by or leave space for it by moving sideways so that you don't disturb the animal



Don't disturb the animal by blocking its way or making it change its transit route as it can get agitated



Ensure garbage like farm waste and kitchen waste are covered, try to compost them. Use sustainable waste disposal methods



Don't throw stones at gaurs in an attempt to chase them



Visit a nearby hospital immediately in case you are injured



Don't dump garbage near farmland and village premises. This can attract gaurs who are searching for food

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Taking a Harmonious Co-existence approach to Human-Wildlife Conflict Mitigation in India







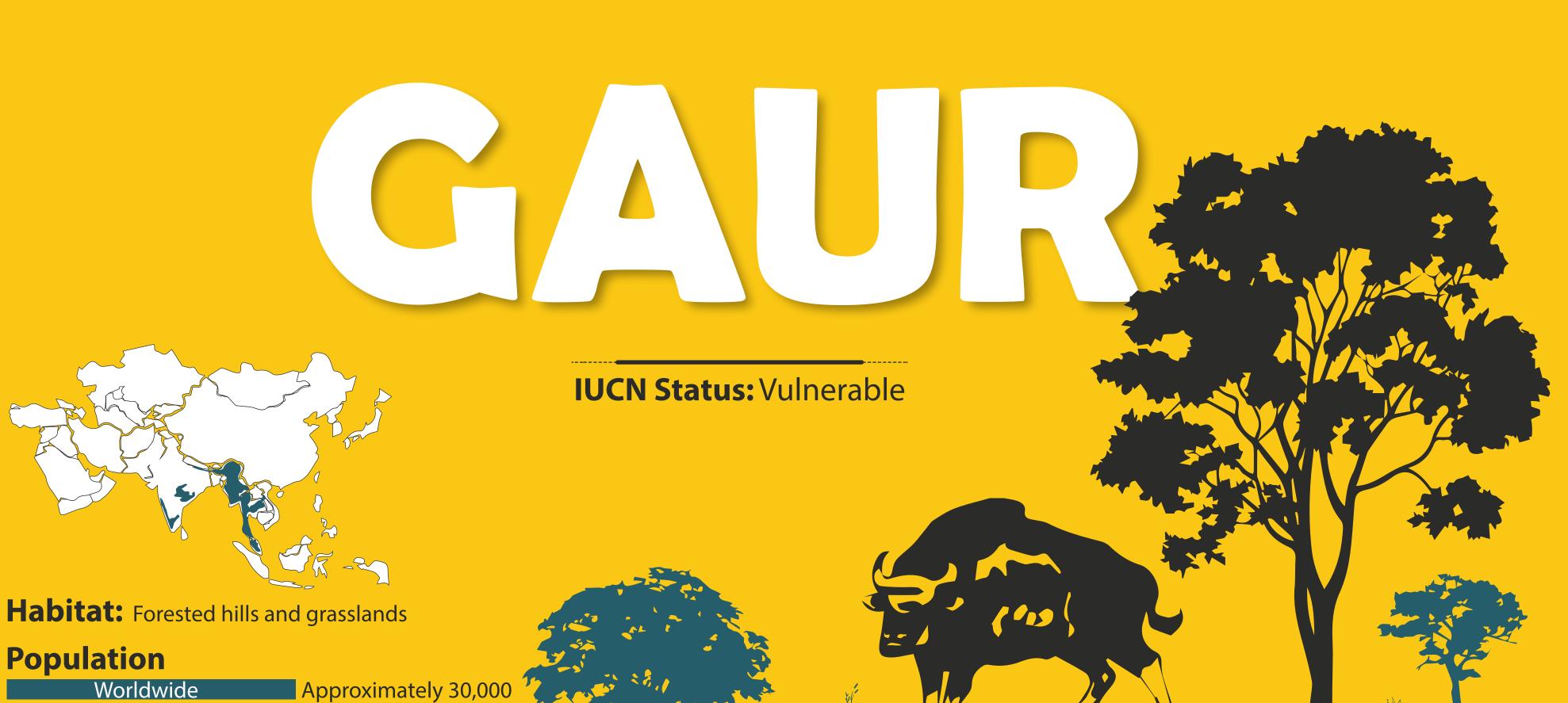










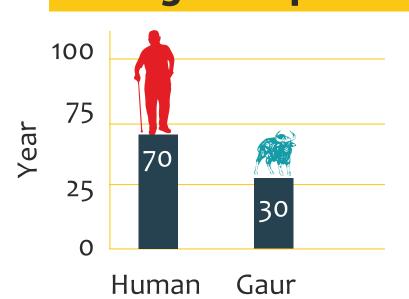


Population

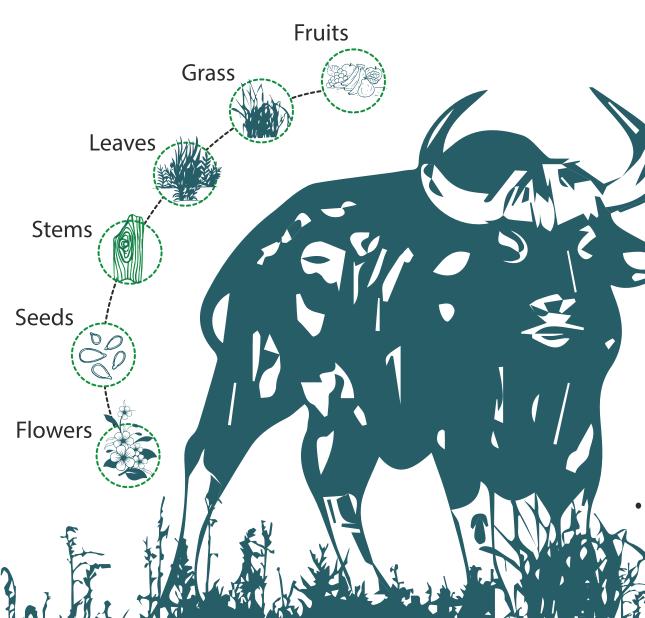
Worldwide

India

Average lifespan



Diet



Tallest living oxen species and one among the heaviest

Approximately 28,000

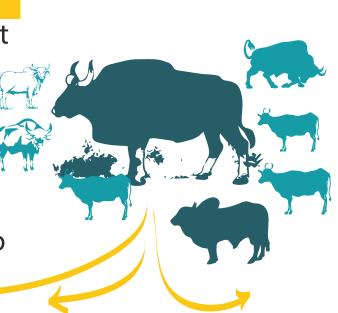


- Adult males have shiny black hair with loose skin hanging from the throat to the forelegs
- Adult females are dark brown in colour, with thinner horns • Mostly active in the morning and evening; **nocturnal in**
- human-disturbed areas Lowers its head and hind side to attack with horns
- when threatened Gives out a call known as a 'whistling snort' when alarmed
- Very shy and calm despite huge size
- Rarely attacks unless provoked or approached closely

Group structure

Do you know?

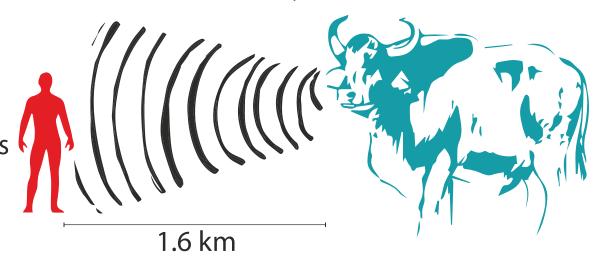
Varies from habitat to habitat over seasons 8-11 females with a bull **During mating season:** More males join the group After the mating season: Males move out of the group



Breeding

Breeding takes place year-round, but typically peaks between December and June.

In the breeding season, the bellow of the male can be heard from 1.6 km away



Reproductive age

2-3 years

Gestation period:

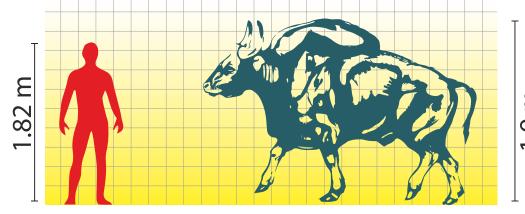
9 months A female reproduces every 1-1.5 years 1 calf at a time Weight: 23 kg





1 Gaur calf

Maximum weight – 1,000 kg **Maximum height** – 1.9 m



Human

Gaur

- Gaurs are hunted for animal trophies, horns, sports and meat in some places
- Gaurs are prone to cattle diseases such as rinderpest and foot & mouth disease

• Gaur provide crucial ecosystem services for control of plant

• Habitat loss is the biggest threat to the population

communities and landscape change

- Gaur-human conflict was not a serious problem earlier, but due to habitat loss it is emerging as an issue
- As gaurs are shy, conflict is largely confined to crop damage in forest villages and encroachments
- Regenerating degraded habitats can reduce gaur-human conflict

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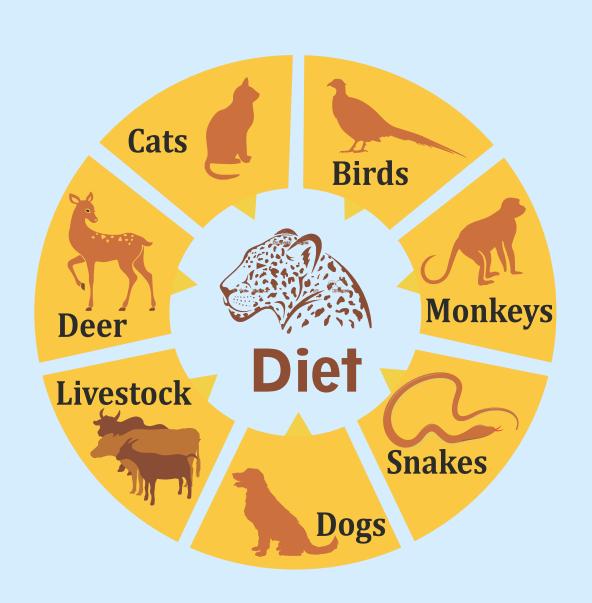






LEOPARD

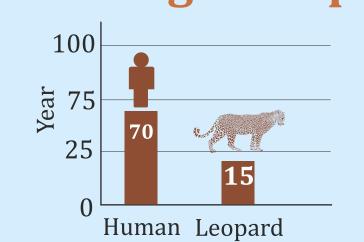




Breeding

- Birth peak aligned with the reproduction season of prey species
- Can reproduce round the year, breeding may peak in December

Average lifespan



Reproductive age

Female 18-36 months

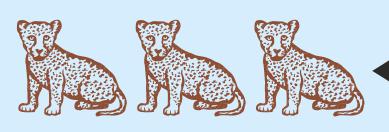
Male 24-28 months

Gestation period



3 - 3.5 months → Litters every 1 - 2 years per female

Leopard cubs



2 - 3 in a litter

.00

Solitary and territorial animal



Primarily nocturnal but maybe active during daytime



Uses scent marks and vocalization to communicate and tree scratching to mark territory



Ambush predator, uses scrub cover or darkness to hide and attack prey



Uses tree tops to locate prey. Hunts in vegetation



Strong enough to drag large animals to tree tops



Good swimmer, can hunt fish and crabs in water

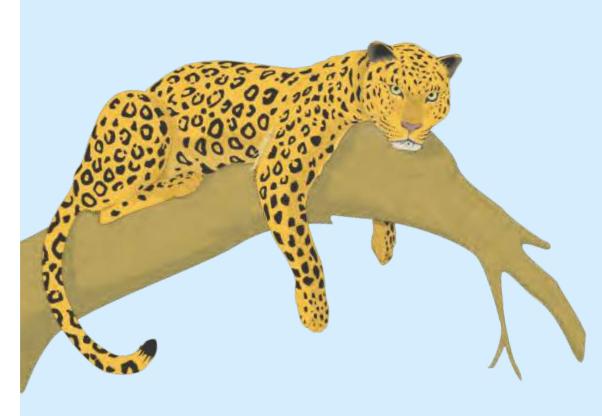


Highly adaptable, can live close to human-use areas where vegetation cover is present



Attacks dogs and other animals that get attracted to open garbage dumps

Do you know?



Leopards have black spots called rosette, which they use for camouflage

Leopards are
territorial. Due to
forest loss, leopards
are pushed out of
forests by stronger and
younger leopards
into human
settlements

Even melanistic leopards have spots, which are not easily seen because of the black colour of the body

Livestock
grazing in forests
is a big reason for
conflicts between
leopards and
humans

Leopards play a crucial role in maintaining the balance of the ecosystem, which provides people with food, water, and other resources

Most of the human attacks are accidental or happen when a leopard is cornered or surrounded

Leopards
mostly prefer easy
prey, therefore feed on
livestock or dogs
when natural prey
is not availableot
available

Leopards are opportunistic and may attack any small animal, unattended children or old people

HUMAN-WILDLIFE CONFLICT MITIGATION IN INDIA

Indo-German Cooperation on Human-Wildlife Conflict Mitigation in India

2017-2023

Taking a Harmonious Co existence





















DO'S & DON'TS IF YOU SPOT A LEOPARD







Go out in groups, play music or make noise when you are moving alone in leopard-inhabited areas, so that the animal becomes aware of your presence and will move away



In case a leopard enters a human habitation, don't gather near or surround the leopard as it can attack on being threatened by a mob



Stall-feed the cattle instead of grazing them in a forest



Do not approach areas where leopard has been spotted. A leopard may move away by itself. Inform other people so that they can avoid a particular area or route



If you observe a leopard on the way, give it way or space Leopards are not always a threat



Avoid keeping young children unattended near your house or sending them alone on village roads during dusk, dawn or night



Keep all livestock secure behind leopard-proof grills



Don't tie up pet dogs or leave them unguarded in the open at night, as leopards are attracted to them



Cover garbage bins and maintain an efficient garbage disposal system, as garbage attracts stray dogs, herbivores, and other animals to human habitations, which in turn can attract leopards



Don't let children play outside, or send elderly people outdoors alone in the dark



Clear bushes and tall grass around your house. This will prevent leopards from hiding close to your house



Don't show any sign of panic or aggression and don't make any sudden movement in front of a leopard as it can attack in defense



Keep the surroundings of your house lit during the evening and night, and always carry a torch when you go out early in the morning or late at night



Avoid defecation in open areas, instead use toilets



Inform the forest department if you see cubs without a mother. Do not pick up the cubs as the mother can be nearby and may attack



Do not crowd near leopard rescue operations or try to take photos and videos. Allow rescue teams to carry out their work without obstructing them



Call the forest department in case a leopard enters a human habitation, building or home



Don't graze cattle in or around forests during the early morning, late evening, or at night when leopards are most active

HUMAN-WILDLIFE CONFLICT MITIGATION IN INDIA

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DO'S & DON'TS DURING CLOSE ENCOUNTERS WITH MONKEYS





Make loud noise using drums to drive away monkeys from your vicinity



Don't make eye contact and avoid throwing stones at monkeys as they can attack aggressively

Don'ts



Maintain a safe distance from monkeys and allow them to pass



Don't use a stick to hit a monkey as it can attack you



Walk in a group if monkeys are around



Don't smile and don't show teeth to monkeys, as they see it as an unfriendly gesture. They perceive it as a threat and show aggression. Do not tease them or make faces at them



Understand their signs of aggression. Monkeys show different levels of aggression, starting with a grunt. This escalates to a mouth threat, lunge, grabbing of knees or feet and finally biting, which can be severe



Don't run away from them or show fear as they might chase you



Remain calm and move away slowly without jerky movements



Don't try to touch an infant monkey as mother monkeys are very protective of their babies and can bite you



Throw away the food you are carrying, if monkeys approach you closely



Don't show that you are hiding food from them. If you don't have any food, open your palms without fear to show that you are not hiding food



Avoid carrying food items in plastic bags, and try to use shoulder bags or backpacks instead. Visible food or even plastic bags can be associated with food and may provoke monkeys to snatch them



Don't feed monkeys for either sympathetic or religious reasons or eat in front of them. Feeding makes them see humans as food providers, and they lose fear of humans and can attack to get food



Use monkey-proof grills and fencing to secure your house. Alarms, CCTV, and other security measures can be combined for better protection



Don't leave doors and windows open as monkeys can enter your house



Cover and lock your garbage dumps as they are a source of high-nutrition food for monkeys



Don't throw food waste in the open when monkeys are nearby, as this attracts them and increases conflicts by bringing them closer to people



Use various acoustic, visual, olfactory and tactile substances or techniques to avoid encounters with monkeys. Do not use substances or techniques that may injure or kill monkeys



In case of a bite or scratch, don't delay in getting the vaccines and other medicines prescribed by a doctor

HUMAN-WILDLIFE CONFLICT MITIGATION IN INDIA

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RHESUS MACAQUE



Habitat: Widespread

Easily adapts to many habitats

Larger troops and higher densities in human habitations

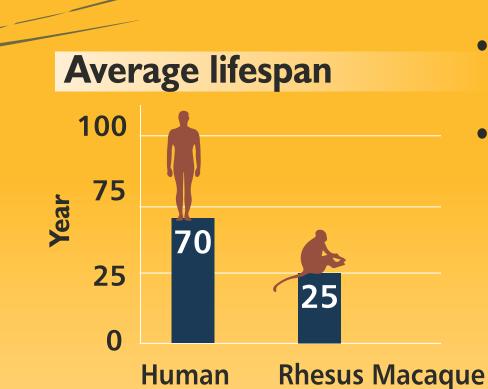
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Diet: Omnivorous

In human habitations, more than 90% of its diet is influenced by humans





RHESUS MACAQUE

IUCN Status: Least Concern

- Has brown body with pink face and rear
- Uses its tail for balancing and leaping
- Lives in social groups; males move from one troop to another and females stay in a single troop throughout their lives
- Establishes dominance by aggressive behaviours like open mouth threat, pulling, pushing, lunging, biting, etc
- Extremely intelligent, has learnt to live in human habitation
- Excellent climber but spends a lot of time on the ground
- Knows how to swim, young ones can swim within days of birth
- Rhesus macaque socialises with other group members through interactions such as grooming, huddling and playing
- Active during the daytime but spends many hours socialising and resting
- Forest troops spend more time foraging. Birth rate varies according to availability of food
- High nutrition human food at waste dumps acts as attractants contributing to increasing population

Po You KNOW?

individuals where food is abundant

Troop size varies from

10 to 80 individuals

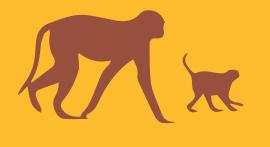
Can have >200

Troop size

Reproductive age

2.5 – 4 years | Gestation period: 5.5 months

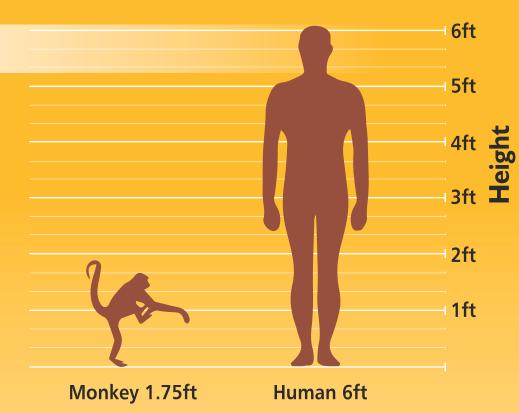
Every year one young per female



Size

One baby at a time

Twins are rare



Rhesus macaque are They contribute

the most widely

distributed primates

after humans in India

There is a strong linear dominance hierarchy in both males and females

Constant shifting of monkey troops lead to troop breakage and high stress among them

Rhesus macaque-human conflicts range from damaging crops, entering houses, stealing and eating food

People feed monkeys due to religious and sympathetic reasons. This leads to dependence of monkeys, and they start snatching food or attacking humans

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to ecosystems by

dispersing seeds

of fruit



















In case of a snake bite, keep the victim calm, immobilize the bitten area and transport immediately to a hospital where antivenom treatment is available

Habitat

Open, grassy and bushy areas, farmlands, tree hollows, forests and human habitations, including cities

Species richness

About 300 species of snake are found in India. Snakes are legally protected in India

The Big 4

Most snakes are harmless. Only four species are responsible for most of the mortality

Common cobra / **Spectacled cobra**

Naja naja Neurotoxic venom

Large sized snake with body colour varying from dark brown to black. When alerted, the snake will raise its head and spread its hood in defence. Dorsal body scales are smooth and oval shaped. Hood marking varies in individuals from a clear spectacle mark to no hood marks.

- Activity level is high during dusk
- Commonly found in farmlands, may enter houses in search of prey and shelter
- Hissing sound and raised hood are defensive and warning signals given by cobra
- Bites are painful with swelling at the bite site, continuous bleeding from wound. Patients may also experience vomiting, difficulty in breathing, and blurred vision
- Venom can cause paralysis, respiratory and cardiac failure

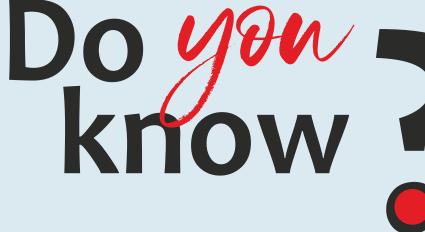
The majority of snake bites occur during the rainy season when snakes come out of their flooded burrows more frequently and may encounter humans in houses and agricultural fields

Bungarus caeruleus Neurotoxic venom

Medium sized snake with black or bluish black body with thin milky-white bands (often paired) on the body. The bands may be absent in the forebody. Scales are smooth with a hexagonal scale present in the vertebral region.



- Active during night-time
- Prefers rocky areas, crevices, under cement slabs, leaf litter, termite mounds, rat holes, often found hiding in cavities inside houses
- If disturbed during the day, it coils and hide the head under its body and bites only under extreme provocation, but aggressive at night and may bite without warning
- Often bites people who sleep on the floor. The bite is painless and the victim may die in sleep due to powerful neurotoxic venom
- Abdominal cramps, blurred vision, sweating, vomiting and difficulty in speech are common bite symptoms



- Snakes avoid encounters with humans and attack only when threatened or
- Often some venomous snake bite victims without injecting venom. Such bites are known as 'dry bites'
- Contrary to the popular belief of snake following and biting people, snakes do not have long-term memory and avoid humans
- Every year India loses about 50,000 human lives to venomous snakebites

Russell's viper

Daboia russelii Haemotoxic venom

Thick bodied ground dwelling snake covered with rough scales. Head is triangular, flattened and distinct from neck. Dorsally, the colour pattern consists of a deep yellow, tan, or brown ground colour, with three series of dark brown spots that run the length of the body. Each of these spots has a black ring around it, the outer border of which is intensified with a rim of white or yellow.

> Hatchlings have fully functional venom glands; can strike right after birth



- Active during the night-time, but in cool weather, it may also become active during the daytime
- This animal is commonly found in open, grassy areas, as well as forests, forested plantations, and farmland
- They may appear slow and sluggish. They produce a pressure cooker whistle-like sound to warn
- Bites aggressively and lightning fast with unfolded fangs
- Bites are painful, cause bleeding. There is blistering in the bitten limb. Often causes bleeding from gums and eyes as a result of haemotoxic venom

Saw-scaled viper/ Indian saw-scaled vipe

Echis carinatus Haemotoxic venom

Small ground dwelling snakes covered with rough scales and with a triangular head. Body colour varies from brick red to dusty brown. An arrow or cross-like mark present on the head.

- Active during night-time, hunts at twilight
- Lives in deserts, semi-deserts, deciduous forests, grasslands and scrublands. Hides under rocks and, logs during the day
- Moves by sidewinding locomotion, body folds into S-shape for moving
- When alerted, makes a rasping sound by rubbing its body scale in a continuous manner
- When threatened, bites aggressively and repeatedly without any warning
- Severe pain, bleeding, blistering and swelling at bite site. Also causes bleeding from gums and eyes



In case of venomous snake bite, timely administration of antivenom under medical care is the only treatment

- Snakes provide important ecosystem services by controlling rodents that cause diseases and damage crops
- accidently stepped upon
- Snakes inject venom to immobilize and digest prey. The Big-Four snakes feed on small mammals, birds, reptiles and amphibians
- Snakes use their forked tongue to sense their prey and their surroundings, especially when tracking their prey
- Lack of knowledge, lack of awareness and fear have resulted in the indiscriminate killing of snakes, including non-venomous snakes
- Loss of forests, road kills and hunting for skin and meat are other threats to snake populations
- Indiscriminate killing of snakes due to fear is also a major threat





















Indo-German Cooperation on Human-Wildlife Conflict Mitigation in India 2017-2023



DO'S & DON'TS IF YOU SPOT A SNAKE







It is important to know that a large number of snakes in India are non-venomous.



Don't be scared on seeing a snake or try to kill it on sight as most snakes are non-venomous and harmless. In fact, they mainly feed on rodents and help in controlling there population



Run a stick through the vegetation or tap the ground before working in a field, this will alert the snake and drive it away



To avoid snakebites, don't work barefoot in agricultural fields or tea and coffee plantations. Wear protective shoes and gear



Check around logs before walking over them or sitting on them



Don't sleep on the floor; sleep on a cot. If you have to sleep on the floor, use a mosquito net tucked all around



Use a torch when walking around in the night, especially on dirt roads and mud paths. Farmers should take precautions during crop harvesting



Don't leave food grains uncovered in homes as it can attract rats, which in turn attracts snakes to your home



Usually a snake will leave a place on its own so maintain safe distance and keep an eye on it



Don't lose sight of a snake or gather around it as the snake can attack in defence



In case of a snakebite, stay calm and rush to a nearby hospital that has antivenom. If possible, try to remember the colour and body pattern of the snake for identification



Don't let the snakebite victim run around. Don't cut, burn or suck the wound if bitten by a snake. Don't tie the limb tightly as it can cut blood circulation and lead to loss of a limb



In case of a snakebite, immobilize the affected limb and keep it below the heart. Cover it with a loose bandage



Don't panic and don't delay in getting medical help. Do not go to a *tantrik* or a snake charmer for treatment as it can cost you your life



Turn the victim on their left side with the right leg folded while taking them to the hospital. It will prevent them from choking



Don't leave accessories such as watch, rings on the victim's body as they can cut the skin if the limb swells



Keep the phone numbers of snake rescuers, NGOs or the forest department to contact in case a snake enters a home



Don't handle a snake yourself or try to catch it as this is how many people are bitten



Cover opened crevices/gaps in doors, windows with fine wire mesh to keep out rodents and snakes



Leave snake rescues or removal to the professional snake catchers. Do not attempt to catch snakes



Close the openings of drainage pipes with meshes so that snakes cannot come in, while sewage can flow out



Do not try to take photos and videos of rescue operations. Allow snake rescuers sufficient space and do not crowd around them



Check toilets and commodes for snakes before using them during the monsoon



Don't leave let-outs in drainage pipes open as snakes can enter your home using that during rainy season

HUMAN-WILDLIFE CONFLICT MITIGATION IN INDIA

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DO'S & DON'TS IF YOU SPOT A SLOTH BEAR







Carry sticks and make noises when walking alone in the forest so that bear can sense your presence well in advance and stay away from you



Don't walk alone in a forest



Keep non-timber forest products (NTFPs) like *mahua* flowers secure in the house to avoid attracting sloth bears



Don't collect tendu leaves and mahua flowers after dark



Slowly back off if you see a sloth bear looking at you or



Don't make noise, run or draw the bear's attention in any way as the bear might feel threatened and attack



If you spot a sloth bear in a forest and it has not seen you, stop and slowly retreat without making any noise



Don't climb the nearest tree in an attempt to escape from a chasing sloth bear as it is an excellent climber



Shout loudly, with your hands raised, and retreat slowly if a sloth bear charges from a distance. The bear might get confused and see you as a larger opponent and drop the attack



Don't use flashlights or throw stones at the sloth bear as this might irritate the animal and it can attack in defence



Inform the forest department if you see bear in a village or in a forest close to a village



Don't go to a forest or to the edge of a forest for defecation before sunrise or after dark. Use toilets instead



Rush an injured person to a hospital nearby and inform the forest department



Don't throw garbage around your house or on streets, especially food waste as it will attract bears

HUMAN-WILDLIFE CONFLICT MITIGATION IN INDIA

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Taking a Harmonious Co-existence approach to Human-Wildlife Conflict Mitigation in India













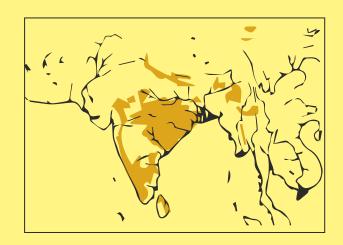




SLOTH BEAR

Habitat

Dry deciduous forests, found in the Indian subcontinent



Breeding

Mostly gives birth in winters – late December to early January Breeding season varies according to location

Reproductive age 3.5 – 6 years Gestation period 6 – 7 months Reproduces every 3 years 1-2 cubs in a litter Carries cubs on its back Cubs stay with mother for 1-2 years

Diet

Termites, ants and other insects; sugar-rich fruits; flowers; honeycombs; roots and tubers



Omnivorous and opportunistic scavenger

IUCN status

Population

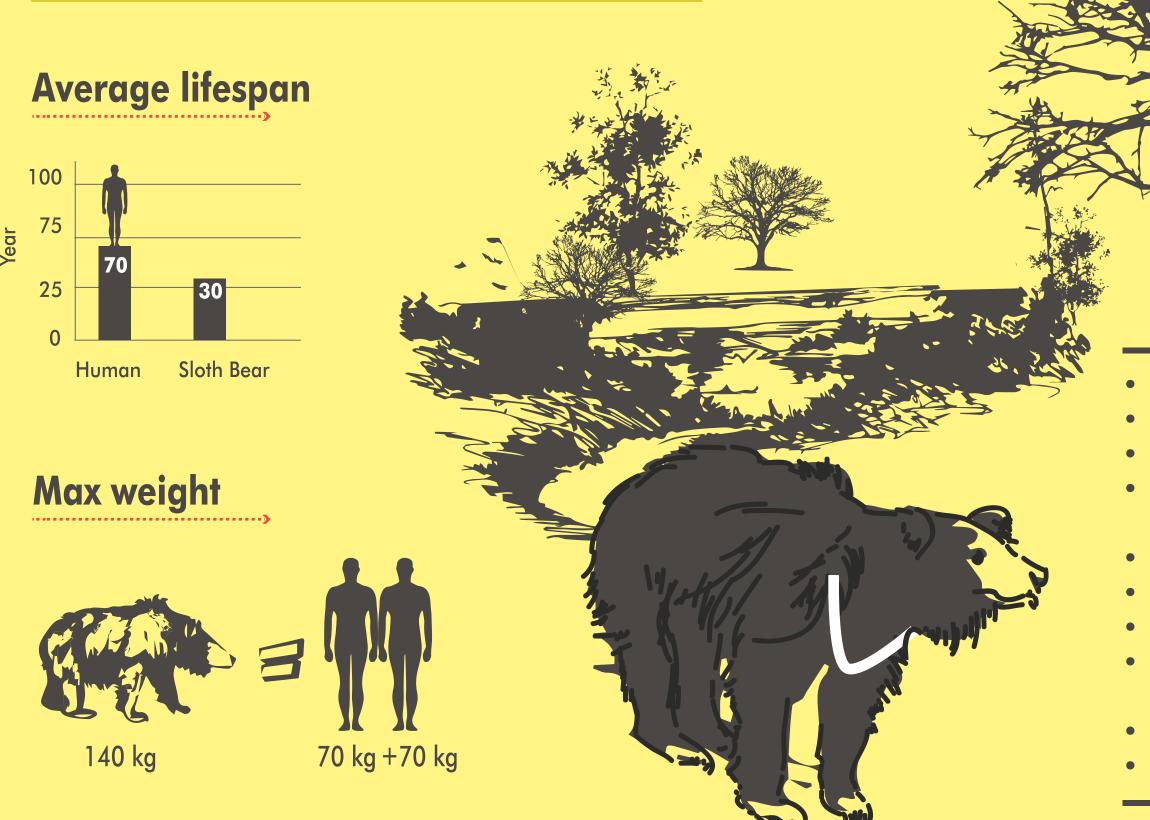
<10,000 to >20,000

Vulnerable

Behaviour Mostly solitary in

Mostly solitary in nature, forges throughout the night but returns to roosting site during daytime. Prefer rocky or good forest area for roosting

Bears have weak eyesight and a poor sense of hearing. Hence, they do not sense our presence until we are very close



- Nocturnal and active from late evening to early morning
 - Has dusty-black coat with a V or Y shaped mark on the chest
- Noisy; grunts and snorts while digging or foraging for food
- Nostrils close while raiding insect nests or beehives to keep dust and insects away
- Can climb trees and knock down honeycombs for feeding
- Uses caves or digs dens to give birth
- Mothers can charge at humans to protect cubs
- If threatened, stands on two legs to increase the body size and shows claws as weapons
- Has good sense of smell but is near-sighted
- Adapts easily to human areas; gets attracted to garbage dumps

Do you know

- Sloth bears provide important ecosystem services like seed dispersal and controlling termite populations
- Sloth bears were brutally exploited for circus and dance shows for over 400
 years
- Agriculture, mining, encroachment, linear infrastructure like roads and grazing have destroyed and fragmented their habitat
- Water scarcities in summers push bears out to human areas
- Reduced availability of non-timber forest products (NTFP) like fruits, honeycombs and mahua due to over-collection by humans, forces sloth
 bears to enter human settlements for food, leading to conflicts
- They can walk for miles in search of food and often end up at garbage dumps in villages
- Chances of bear attacks on forest dwellers increase during collection of mahua flowers and honey, when sloth bears also get attracted to the flowers for feeding
- Switching from traditional crops to more economically beneficial crops has increased the conflict as bears get attracted to the energy-rich crops
 - In summer, attacks occur during mahua collection, in winters during firewood collection and in the monsoon during mushroom collection

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DO'S & DON'TS IF YOU SPOT A WILD PIG

Don'ts







Don't corner or provoke the animal as it may charge at you



Use torches and move in a group, talk loudly at night when walking near forest areas where wild pigs might be present



Don't go close to piglets as adult wild pigs may attack to defend their young ones



Make a loud noise to drive a wild pig away, if it comes close to you. Keep an eye on the animal till you are at a safe distance from it



Don't go alone in forest to collect non-timber forest produce (NTFP) like *tendu* leaves, *mahua* flowers or bamboo



Slowly back off, be calm, and move slowly away from a wild pig if you encounter one in a village or on a road



Don't chase or disturb a wild pig, they can charge at you



Stay in your vehicle if you encounter a wild pig with young piglets or a herd



Don't throw stones at wild pigs as they can attack in defence



Protect your fields by fencing it with galvanized steel fences with a concrete base buried at least 1 foot underground



Don't dump garbage and food waste in the open or on roadsides as it can attract wild pigs



Keep garbage bins/containers covered as they attract wild pigs



Don't defecate in the open in forests or at forest edges.
Use toilets instead



Rush to a hospital nearby immediately if you get attacked by a wild pig



Don't delay getting medical help or self-treat wounds as they can be serious

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Taking a Harmonious Co-existence























Habitat in Asia

Widespread; found both in forests and close to forests

Diet

Tubers and roots, fruits, leaves, insects, small frogs, reptiles and carrion. Garbage and crops in human areas

Life span

10 – 14 years

Breeding

Seasonal – usually before and after rains
Depends on food availability and climate conditions

Reproductive age

8 – 18 months

Gestation period

3 – 4 months

Birth

4-6 piglets in a litter

- Wild pigs have large canines, called tushes, that keep growing and curving with age. These canines are sometimes called tushes
- Omnivorous and opportunistic forager
- Primarily nocturnal
- Males have a mane that runs along its back from head to lower body
- Spends 4-8 hours daily on foraging or traveling to feeding areas
- Due to the absence of sweat glands it spends hours wallowing in mud to regulate body temperature, remove parasites, and protect sensitive skin from the sun
- They also obtain food through rooting digging layers of soil in search of food
- They frequently raid agricultural crops by uprooting, trampling and eating them
- Feeding is a social activity, solitary males join feeding groups
- Gets attracted to open garbage dumps in human-dominated areas



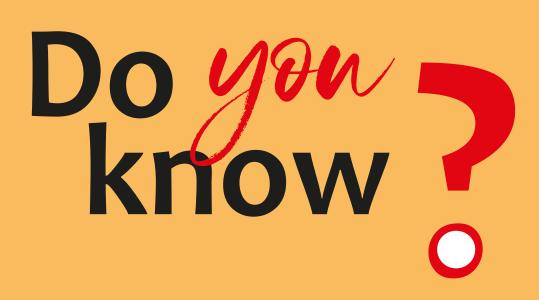
Group size

4-13

Group structure

Female with her last litter + sub-adults from old litters and adult males during the mating season





- A group of female and young wild pigs is called a "sounder". The size of the sounders varies with season, habitat and availability of water and food
- The Indian wild pig is one of the subspecies of the wild boar. It differs from the European one in having a crested mane, larger and straighter skull and smaller ears
- Wild pigs make temporary sleeping beds to rest during the day. One bed can accommodate up to 15 individuals. Sometimes, they use burrows dug by other animals
- Wild pigs are an important part of the food chain for top carnivores. They maintain ecosystem health through seed dispersal and keep pests in check
- Human attacks happen mostly due to surprise encounters or when wild pigs are cornered in crop fields

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