ZOO-504 Addition 1 (12-sep-2021)

CURRENT PAPER FILE

Admire zoologist (SirArslan)

1. **Indus dolphin conservation?**3

<u>Conservation action Included in Appendix I of CITES</u> •

The species is legally protected in all range states and occurs in a number of national parks and other designated areas, including dolphin reserves or sanctuaries. • In 1972, dolphins were protected under the Wildlife Act of Sindh. • In 1974 the government of Sindh declared the Indus River between the Sukkur and Guddu Barrages a dolphin reserve. • The government of Punjab prohibited deliberate killing of dolphins in the Punjab Wildlife Protection Act in 1974 • Establishment of the Taunsa Wildlife Sanctuary and Chashma Wildlife Sanctuary in 1983 and 1984, respectively • United Nations Development Programme (UNDP) to rescue dolphins trapped in irrigation canals and return them to the Indus mainstem has had some success in reducing mortality

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blind Indus dolphin ...
dawn.com



Saving the Indus River dolphin - Asia ...
scidev.net

2. **Urial and sub species**? 5



Urial - Wikipedia



Urial (Ovis orientalis vignei), also ...



Urial - Facts, Diet, Habitat & Pictures ...

Prominent species in Pakistan

Ovis ammon (Marcopolo sheep) • Ovis orientalis (Urial)

Ovis orientalis

Urial is a wild sheep with long legs and relatively small horns, native to central Asia. Urial is represented by three sub species in Pakistan.

Ovis orientalis vignei Ladakh Urial or Shapu

Fur tends to be more greyish in winter and less red. The chest ruff is comparatively short with black hairs predominating. The horns turn markedly inwards at their tips





Distribution

: Found in Chitral & Northern areas. On mountains upto 3000 meters elevation

Status: Endangered

Ovis orientalis blandfordi

Afghan or Baluchistan Urial. Luxuriantly developed neck ruff. The body fur is reddish. The rams have horns which often develop more than a complete arc. Tips of horn bending slightly outwards

Distribution

: Found in Sindh, Baluchistan and Southern hilly regions of KPK.

Status: Endangered

3. **Hog deer?** 3



Indian Hog Deer | Project Noah

Common Name: Para

Scientific Name: Axis porcinus

National status: Vunerable

IUCN Red list Threat Status: Endangered

Description

It is Smaller and stouter in built and hog like in appearance. Small deer with short delicate legs and rather bulky heavy body.Its pelage is coarse .General coloration is dark olive-brown,lacking any rufescent tinges when viewed from a distance. It has round ears which are fringed from inside with white hairs. Some adults (especially females) have scattered pale spots in their summer coat (particularly on either side of the darker dorsal line) The short tail is quite bushy. The surface of the horns is somewhat smooth with less corrugation. Lives solitary or in pairs.Average antler size is 30-38 cm. Females are slightly smaller and without antlers

Habitat and Ecology

Shrub dominated wetlands. Artificial terrestrial plantations like Changa Manga ,Riverine area, It prefers to live in grassy patches bordering forests.

Native:

• Bangladesh, Bhutan, Cambodia, India, Nepal

4. Feeding habitats of barking deer? 2

Feeding habit: Diet includes grasses, low growing leaves, tender shoots and fruits.

5. Short note on barking deer? 3

IUCN Red list Threat Status:

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Least concern It gives calls similar to barking, usually upon sensing a predator. Hence the common name for all muntjacs of "barking deer

Feeding habit: Diet includes grasses, low growing leaves, tender shoots and fruits.



Description: It is a little dainty creature and weighs about 22-25 kg. Coloration varies from deep brown to yellowish with creamy or whitish markings. Only males have antlers.

Threats

Generally Muntjac is an important source of bushmeat. Selected body parts and the foetus are also used in traditional medicine. Individuals are usually killed during, or shortly after, their Capture

6. Description of Indian spotted eagles? 5



Description

A medium-sized eagle about 60 cm in length and has a wingspan of 150 cm with a short tail. Adults are essentially brown. The legs appear longer and thinner due to the tarsii being less thickly feathered. This species has a lighter coloration overall compared to its relatives with a darker iris that makes the eyes appear darker than the plumage. The young birds are giving a spotted appearance glossy brown. Tips of the head and neck feathers being creamy. The upper tail coverts are light brown with white giving a barred appearance. The median coverts

have large creamy spots. After about eighteen months the bird moults and becomes a darker shade and has less spots.

7. : State of marco polo sheep? 2



Marco Polo Sheep High Resolution Stock...



Marco Polo Sheep - Asian Mo...

Distribution Native

Afghanistan, China, India, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Russian Federation, Tajikistan, Uzbekistan. Marco Polo sheep is not a resident species of Pakistan. It moves across international borders between the four range countries. They may migrate into Kilk-Mintaka area of Pakistan for safety during summers.

8. Conservation of marco polo sheep? 5



Conservation action

Argali are included on Appendix I&II of CITES. A number of trophy hunting areas have been established in China with argali as the focal species. These areas have generally succeeded in reducing poaching. Research and conservation plans for argali has been approved by the Governments of its areas of native distribution.

Conservation measures are desperately required

Implementation of Conservation Management Plans. Improve enforcement of existing legislation that would help to conserve argali. Enhance conservation management in protected areas where argali are found. Develop public education programmes to raise awareness of the status and threats to the species.Continue ecological research, monitoring population trends, and studying the impacts of threats

9. Threat of leopards cat? 2

Threats

Leopard cat skins are commercially traded internationally for the fur trade, primarily coats. Skins are also used as decorations in some parts of its range. They are occasionally kept as pets. Sometimes taken from the wild. Sometimes from captive breeding. They have been interbred with domestic cats, particularly in the West, to make the popular Bengal breed. Their bones are used in some traditional

10. Write three rules of zoo? 5

General guidelines that zoo administration must follow for its maintenance

- No zoo shall acquire any animal in violation of Wildlife Act.
- No zoo shall exhibit any animal that is seriously sick or injured.
- No zoo shall use any animal, other than the elephant in plains and yak in hilly areas for riding purposes.
- Each zoo shall be closed to visitors at least once a week.
- Each zoo shall have a wall at least two meters high from the ground level.
- No zoo shall have any residential complexes for the staff within the main campus for the zoo.
- Such complexes, if any shall be separated from the main campus of the zoo by boundary wall with a minimum height of two meters from the ground level
- No zoo shall keep any animal chained or tethered unless doing so is essential for its own well being
- The zoo operators shall provide a clean and healthy environment in the zoo by planting trees, creating green belts and providing lawn and flowers bed etc.
- The built up area in any zoo shall not exceed twenty five percent of the total area of the zoo.
- The built up area includes administrative buildings, stores, hospitals, restaurants, visitors rest sheds, animal houses and pucca roads.

11. Feeding of jungle cat? 3



Feeding

Jungle Cats feed mainly on prey that weighs less than one kilogram. Small mammals, principally rodents with three to five rodent per day. Birds, waterfowl are the mainstay of Jungle Cat diet in the winter. Other prey species are taken more opportunistically, including hares, nutria, lizards, snakes, frogs, insects, and fish. They have been seen to scavenge kills of large predators such as the Asiatic lion.

12. Threat to jungle cat ? 3

Threats The biggest threat to Jungle Cat is habitat loss particularly industrialisation and urbanisation of low intensity agricultural areas. Habitat destruction for agricultural purposes and infrastructure development are also major issues. Some farmers consider the Jungle Cat a pest which takes poultry.

13. What ia bobcat and write threats of bobcat? 5

Lynx Rufus Bobcat

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Generally “Lynx” is a wild cat with yellowish-brown fur. Body fur not spotted. Body length 70-76 cm . Tail comparatively long. Back of ears entirely black. Body covered with brick red fur. There is generally an offwhite color on the lips, chin, and under parts. Black streaks on the body and dark bars on the forelegs and tail. Bobcats in the desert regions of the southwest have the lightest colored coats. In the northern, forested regions are darkest. Bobcat eyes are yellow with black pupils. The cat has sharp hearing and vision, and a good sense of smell. It is an excellent climber. The bobcat is crepuscular, and is active mostly during twilight.

Threats The biggest threat to Bobcat is its fur. Habitat loss is another primary threat to bobcats in all of its range countries. Increasing urbanization results in direct habitat loss although. Bobcats have proven to be fairly adaptive to urbanization. Bobcats adjust to human developed landscapes, indirect effects increase. Vehicle collisions can be a primary source of mortality in urban Bobcat populations. Exposure to common rodenticides in urban landscapes can result in direct mortality (anticoagulant toxicosis). Increased susceptibility to severe notoedric mange resulting in the death of Bobcats. In localized areas Bobcats take domestic livestock and are persecuted as pests.

14. Write a note on Indian vultures? 5

The Indian vulture (Gyps indicus) is an Old World vulture native to India, Pakistan and Nepal. It has been listed as Critically Endangered on the IUCN Red List since 2002, as the population severely declined. ... It breeds mainly on hilly crags in central and peninsular India.

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Gallery of Indian Vultur...
pinterest.com


Indian Vulture - eBird
ebird.org


India may have even fe...
birdlife.org


Keystone Species Sampler: Indian Vu...
media.hhmi.org

Medium sized bulky animal. Its body and covert feathers are pale, while quills are darker. Its wings are broad and its tail feathers short.Its head and neck are almost bald. Its bill is pale yellow and long. Usually 80–103 cm long.

Habitat and Ecology It is found in cities, towns and villages near cultivated areas, and in open and wooded areas. This species feeds almost entirely on carrion. It nests almost exclusively in colonies on cliffs and ruins

Distribution Native:

Pakistan and India

Vagrant: Nepa

Threats These vultures were being found dead and dying in Pakistan and throughout India. The antiinflammatory drug diclofenac has been identified as the cause of mortality Vultures are exposed to diclofenac and other NSAIDs through scavenging on the carcasses of largely cattle and buffalo that have been treated with the drugs prior to death and left for scavengers to consume. Hence likely contributory factors are

• Poisoning • Pesticide use • Conversion and disturbance of forested habitats within its range.

15. Write note on brown bear? 5

Scientific Name: Ursus arctosr

IUCN Red list Threat Status: Least concern

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brown bear | Facts & Habitat | Britannica
britannica.com



What's the Difference Between Grizzl...
nathab.com



Brown Bear
nature.org

Description: Large animals, dark in colour, long guard hair over the shoulder, characterized by a distinctive humps on shoulders, long claws on the front paws. Sexual maturity: 4.5 to 7 years of age.Litter size ranges from one to four but two are common. Cubs remain with their mothers for at least two and half years.Female breed every three years.

Feeding habit: Chiefly vegetarian. Feed mostly on fruits, honey and ants. Occasionally kill sheep and goat.

It's native countries are: Afghanistan, Iran, Canada, Iraq, China, Pakistan, Georgia, Italy, India, France.

Threats

Brown Bears are attracted to areas with available human-related foods. Being large and somewhat aggressive, these bears may threaten life and property (often agricultural products) and may be killed as a consequence. When Brown Bears exist in a large, contiguous population. They are sometimes hunted for sport, killed for control purposes. Brown bears are poached for the commercial trade in gall bladders and paws.

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16. Threatened species of mammal's birds and reptiles in Pakistan? 3

The IUCN Red List of threatened species lists 45 species of internationally threatened animals occurring in Pakistan.

Out of these 45 species

• 18 Mammals

• 17 Birds

• 9 Reptiles

• 1 Fish

Most of these endangered species are found in Northern Areas. Pakistan houses to a variety of endangered animal species. Woolly flying squirrel, Markhor, Blue whale, Pakistan sand

cat, Ibex wild goat, Snow leopard Marco Polo sheep, Indus stream dolphin, Mountain Weasel, Asian Black Bear, Baluchistan Forest Dormouse, Black Finless Porpoise. European Otte, Vole, Branded Eagle Ray, Tuna, Siberian Cranes, Green Sea Turtle, Long Billed Vultures.

17. Threat of sand dune cat? 3



Threats

Habitat degradation and loss are considered to be the major threats to the Sand Cat. Many areas are also more heavily frequed by humans, their domestic animals and commensals (i.e. red fox, Vulpes vulpes.

• Arid ecosystems are being rapidly converted. • Infrastructural development • Human settlement and activity • Degradation occur through livestock grazing • They are also killed in retaliation for killing chickens or Houbara and MacQueen's bustard • Locally, Sand Cats may be threatened by the pet trade. In Iran, Sand Cats are reported to get killed by shepherd dogs and trapped in snares set for other species. • Desert ecosystems, caused a decline in prey base. Introduction of feral and domestic dogs and cats creating direct competition for prey and through predation and disease transmission. They are also killed in traps laid out by inhabitants of oases targeting Red Fox, Rüppel's Fox and Golden Wolf (jackal) Canis anthus.

18. Indian spotted eagle? 2



Indian Spotted Eagle - eBird
ebird.org



Indian Spotted Eagle - eBird
ebird.org



Birds of the World: Indian ...
planetbirds.blogspot.com

Scientific Name: Clanga hastate IUCN Red list

Description A medium-sized eagle about 60 cm in length and has a wingspan of 150 cm with a short tail. Adults are essentially brown. The legs appear longer and thinner due to the tarsii being less thickly feathered. This species has a lighter coloration overall compared to its relatives with a darker iris that makes the eyes appear darker than the plumage. The young birds are giving a spotted appearance glossy brown. Tips of the head and neck feathers being creamy.

Habitat and Ecology This species is a powerful predator that seizes its prey from the ground. It preys on Frogs, birds and mostly mammalian. It is a tree-nesting species

19. Black buck scientific name? 2



Black Buck | State Animal of Andhra ...
animalcreativefacts.com

Scientific Name: Antelope cervicapra

20. Red list of marco polo sheep?3

National Status:

Critically Endangered IUCN Red list Threat Status: Near threatened

Marco polo sheep is one of the nine Argali subspecies. The name ‘Argali' is the Mongolian word for wild sheep. It is the largest species of wild sheep.

21. Great Indian bustard location? 5

IUCN Red list Threat Status: Critically Endangered



sighting of Great Indian Bustard ...
m.timesofindia.com



Bustard (Great Indian)
exploringnature.org

Habitat

Arid, Semi-arid grasslands with scattered short scrub, bushes and low intensity cultivation in flat or gently undulating terrain. Birds congregate in traditional grassland patches.

Biology and Behaviour

Nests are situated in the open ground and males take no part in incubation or care of the developing young. Only a single egg is usually laid. Feed on a wide range of items depending on their seasonal availability. Grasshoppers and beetles are the preferred diet. Alternatively, they can take Grass seeds, Berries, Rodents, Reptiles. Rajasthan they are known to take Indian spiny-tailed lizards in cultivated areas, they feed on crops such as exposed groundnut, millets and pods of legumes.

Distribution Native: India, Pakistan

22. Capra hircus? 3

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Goat - Wikipedia
en.wikipedia.org



GISD
iucngisd.org

Capra hircus Females are beardless but carry backward curving horns. Measure upto 15 cm and bear fine annulations towards their base. The younger males and females show a characteristic shape pattern with a dark stripe running from the corner of eye to the muzzle. Mature males are spectacularly beautiful and may have horns over one meter in length. In adults the hair coat is of reddish buff in color. The belly and the outside of lower limbs, beard and fore part of face varies from black to chestnut brown in color. The shoulder height. They are capable of surviving in very arid desert conditions. They inhabit mountain crests upto 3300 m.

• In males is 85 to 95 cm. In females 55 to 60 cm. • The weight of adult Males up to 120 kg, Females 50 to 55 kg

23. Kashmir flying catcher's habitat? 3

IUCN Red list Threat Status: Vulnerable

Habitat and Ecology It breeds from May-June in temperate, mixed deciduous forests. It nests in natural hollows and holes. It winters in gardens, tea estates, forest edge and disturbed areas within forest, generally above 750m.



Kashmir Flycatcher - eBird
ebird.org



Kashmir Flycatcher - eBird
ebird.org

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24. Explain animals enclosure?2

• All animal enclosures in zoo shall be so designed as to fully ensure the safety of

i. Animals
ii. ii. Caretakers
iii. iii. Visitors
iv. • Stand of barriers and adequate warning signs shall be provided for keeping the visitors at a safe distance from animals.





All animal enclosures in a zoo shall be so designed as the meet the full biological requirements of the animals housed therein. • The enclosures shall be of such size as to ensure that the animals get space for their free movement and exercise.

25. Breeding in zoo ? 5

Every zoo shall have formulate a program for captive breeding.

- Every zoo shall keep the animals in viable and social groups.

Unless there is a legitimate reason to keep the animal without a mate

- No animal will kept without a mate for period exceeding one year
- If the animal has already passed its prime and is of no use for breeding purposes.
- In the event of zoo failing to find mate for any single animal within this period, the animal shall be shifted to some other place.
- No zoo shall be allowed to acquire a single animal of any variety
- Except when doing so is essential either for finding a mate for single animal housed in the said zoo or for exchange of blood in a captive breeding group. ▪ Every zoo shall take up regular exchange programs of animals ▪ This will help to prevent the traits or ill effect of inbreeding.
- To achieve this objective each zoo shall maintain a stud book or herd book; a breed registry
- This is particularly important in respect of every endangered species.
- To safeguard against uncontrolled growth in the population of prolifically breeding animals, every zoo shall implement appropriate population control measures like
- Separation of sexes
- Sterilization
- Vasectomy
- Tubectomy
- Implanting of pallets

26. Zoo hygienic condition ? 3

• Every Zoo shall maintain a healthy, hygienic and natural environment, so that the visitors get opportunity to experience a natural environment.

• For the maintenance of hygienic conditions, each zoo shall have the graveyard where carcasses of dead animals can be buried. • This would not affecting the hygiene and cleanliness of zoo • The large and medium zoo shall have an incinerator for disposal of the carcasses and other refuse material

27. Sakar falcon ? 5

Scientific Name: Falco cherrug.



Saker Falcon - eBird
ebird.org



Saker falcon - Wikipedia
en.wikipedia.org



ADW: Falco cherrug: INF...
animaldiversity.org

Description

There is Great variation in colour and pattern exist. Fairly uniform chocolate brown colour to a pale sandy colour with brown bars or streaks. Some are almost pure white individuals, which are particularly prized by Arab falconers. Saker females are markedly larger than males. Females typically Weigh 970 to 1300g ,Length of 55 cm. Wingspan of 120 to 130 cm. Males usually have weigh from 730 to 990g, 45 cm long ,wingspan of 100 to 110 cm. Sakers have sharp, curved talons, used primarily for grasping prey. Sakers use their powerful, hooked beak to sever the prey's vertebral column. The saker falcon is a large species of falcon It is a large, powerful bird of prey with an exceptionally broad wingspan for its size.

Range lifespan Wild: 10 (high) years. Captivity: 25 (high) years.

Range Distribution Wide range across the Palearctic region from eastern Europe to western China.

IUCN Red list Threat Status: Endangered

Conservation action

. Controls of illegal trade are implemented in various countries in western range. Captive breeding has been developed strongly in some countries, including U.A.E., as a means of substituting farmed for wild-caught birds. Clinics have also been set up to improve the longevity and availability of wild-caught birds in various Gulf States.

Threats This species suffered mainly from electrocution on power lines. Decreased prey availability due to the loss and degradation of steppes. Dry grasslands through agricultural intensification.

28. Houbara bustard? 2

IUCN Status: Vulnerable

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Houbara bustard - Wiki...
en.wikipedia.org



Houbara Bustard: Seasonal killers ...
dawn.com

Description: It is a large sized running bird. Measuring 60-70 cm in length. Weighs upto 1.5-2.5 kg. General body color is sandy ruff, pencilled splodged with black. Short crest of elongated feathers that are white at the base and tipped black. A ruff of black and white feathers on each side of the neck. Bill horny brown and legs greenish yellow. Females are somewhat smaller with ruff and neck plumes less developed.

29. Zoo fully fledged facilities?2

Every large and medium zoo shall have full-fledged veterinary facilities.

• Veterinary facilities must include a properly equipped

- ✓ Veterinary hospital
- ✓ Basic diagnostic facilities
- ✓ Comprehensive range of drugs

30. Short note on chukor ?2

IUCN Status: Least concern



Chukar partridge - Wikipedia
en.wikipedia.org

Description: Larger than the common patridge.

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Body length: Males measure about 34-39cm, Females about 30-34 cm Body pinkish brown in color. Ribs like bars on flanks in buff. Legs and feet coral pink..

Habitat Lives on barren rocky slopes with sparsely stunted grass and bushes. In winters, it comes down to an elevation of 1200-1500 m. Re ascends in summer to 2500 m

31. Feeding habitat of chukor ? 2

Feeding Habit Wide variety of seeds and some insects as food. Birds feeding on succulent vegetation make up for their water needs but visit open water in summer.

32. Native of Indian pangolin distribution?3

English Name: Scaly Ant eater

IUCN Red list Threat Status: Endangered



Native: India, Nepal, Pakistan Mangla,Potohar and Salt Range across Indus south to near Karachi and northward in the mountainous areas upto Kallat,

• Sri Lanka • Possibly extinct: • Bangladesh

33. Native of leopard cat ? 2

IUCN Red list Threat Status: Least concern

The leopard cat occurs throughout most of India, West into Pakistan and Afghanistan. Its range extends into the Himalayan foothills across most of China. North to the Korean peninsula and into the Russian Far East. It is found in most of Southeast Asia: Thailand, Vietnam and China. On the islands of Sumatra, Java, Borneo and Taiwan. On small islands off South Korea. The leopard cat is the only wild cat species which is native to Japan and the Philippines.

Short note leopard cat ?3

See question no 33 and 9

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34. Categorization process? 5

Categorization process should only be applied to

, • Wild populations inside their natural range. • For listing the organism in any of the category there is a range of quantitative criteria. • Meeting any one of these criteria qualifies a taxon for listing at that level of threat. • Each taxon should be evaluated against all the criteria. • Some criteria will be inappropriate for certain taxa

35. Purposes of post mortem report ?2

Every zoo shall have a post-mortem room run under an expert veterinarian.

• Any animal that dies in a zoo shall be subjected to a detailed postmortem. • The findings recorded and maintained for a period of at least six years.

36. Category of endangered species ? 3

"Species of organism which are in danger of extinction" The endangered species are classified into three categories • **Critically Endangered(CR) • Endangered(EN) • Vulnerable (VU)**

Critically Endangered (CR) When a taxon is facing an extremely high risk of extinction in the wild in the immediate future

Endangered (EN) Those which are abundant in their range but are gradually declining in total numbers.

Vulnerable (VU) When a taxon is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future.

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37. Threat of Indian bustard? 2

Threats

• High intensity Poaching • Widespread hunting for sport and food • Vehicular access to remote areas • Egg-collecting was rampant in many states of India • Habitat loss and degradation • Lack of community support.

38. Species of martens in Pakistan? 2

Two species common to Pakistan are

- ✓ Stone marten (Martes foina)
- ✓ Yellow throated marten (Martes flavigula)





Yellow-throated Marten mammals at ...

39. Name marten species? 2

Already explain

40. Feeding habitat of rhesus monkeys ? 3



Feeding habits: This species is diurnal and omnivorous. Feeds on Fruits, Seeds, Leaves, Gums, Resin, Bark and Small invertebrates.

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41. Explain the description of rhesus monkey? 5

IUCN Red list Threat Status: Least concern

Description Brown in color. Adult red face. Under parts are lighter brown. Locomotion is quadrupedal. Sexual maturity 4-6 years. Gestation period: 5 and half months. Group size varies from 10-50. Male is larger than female. Diurnal, Terrestrial, Partly arboreal. Quiet tolerant of human disturbance

42. Most traded wild animals ?2

Pangolins are considered to be the most traded wild animal in the world.

43. Conservation actions of kingfishes? 3

Conservation Actions Underway

• Bern Convention Appendix II. 8 • EU Birds Directive Annex I. • There are no known current conservation measures for this species within its European range.



Fishing for Kingfish in Australia ...

Conservation Actions proposed • Preservation of rivers and streams must be mediated through industry, agriculture and water authorities • Research to investigate the importance of individual threats and mitigation measures against all the factors.

44. Threat to wild cat ? 2



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Threats

The biggest threat to Bobcat is its fur. Habitat loss is another primary threat to bobcats in all of its range countries. Increasing urbanization results in direct habitat loss although. Bobcats have proven to be fairly adaptive to urbanization. Bobcats adjust to human developed landscapes, indirect effects increase. Vehicle collisions can be a primary source of mortality in urban Bobcat populations. Exposure to common rodenticides in urban landscapes can result in direct mortality (anticoagulant toxicosis). Increased susceptibility to severe notoedric mange resulting in the death of Bobcats. In localized areas Bobcats take domestic livestock and are persecuted as pests.

45. Hyaena hyaena ? 3

Scientific Name: Hyaena hyaena

IUCN status: Critically Endangered



Description Hyena's are large sized dog like carnivores with big head, massive cheek teeth, carnassials well developed, long developed fore legs and each foot has four toes with non-retractile claws. Body fur with yellowish fawn ground and in distinct broad vertical black stripes with close set black stripes on legs. The Striped Hyaena has a conspicuous crest of longer hair extending like a mane from the crown of the head to the pelvis. The ears lack any bursa or pouch-like fold on their outer margin and are sharply haired and black skinned. The legs are relatively long and slim.

Threats It is considered as an enemy species .Due to the non-availability of natural food it tends to scavenge near human habitations and increasing incidents for its killing.

Distribution

In Pakistan, it is distributed in Hilly tracks of Baluchistan & Sindh

46. **Characteristic of male tragopan ? 5**

Medium sized pheasant. Sexes are highly dimorph. Male grey upper parts and reddish facial skin Numerous white spots. Each spot bordered with black and deep crimson patches on the sides and back of the neck. The throat is bare with blue skin while the bare facial skin is red. They have a small black occipital crest. • Weighs 1.8–2.2 kg (4.0–4.9 lb) • Length from 55–60 cm (22–24 in)

47. Threat of snow leopard? 3



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Major threats to snow leopards

Poaching

Snow leopards have long been killed for their Beautiful fur, Bones, Body parts, Traditional Asian Medicine.

Conflict with communities

Retaliation for attacking herders' livestock. Decline in the leopard's natural prey is forcing them to rely more on livestock for food and increasing the risk of retaliatory killings. Due to hunting, competition from increasing livestock herds, and habitat loss.

Shrinking home:

Snow leopards need vast areas to thrive. Expanding human and livestock populations are rapidly encroaching on their habitat. New roads and mines are also fragmenting their remaining range.

Changing climate

All the threats will be exacerbated by the impact of climate change on the fragile mountain environment. Hence, putting the future of snow leopards at even greater risk.

Lack of effective law enforcement.

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48. Scientific name domestic goat ?2

Capra aegagrus hircus

49. Scientific name of Indian bustard? 2

Scientific Name: Ardeotis nigriceps

IUCN Red list Threat Status: Critically Endangered

50. How herbicide and pesticide can effect endangers species? 3

Certain herbicides and pesticides are horrible pollutants that causing severe damage to the

environment and animals dependent upon. Find alternative ways to reduce negative effect on

the wildlife in the area. These are hazardous pollutants that affect wildlife at many levels. Many

herbicides and pesticides take a long time to degrade and build up in the soils or throughout the

food chain. Predators such as hawks, owls, coyotes and endangered species can be harmed if they eat poisoned animals. Some amphibians are particularly vulnerable to these chemical pollutants.

51. Biology and behavior of falcon?3

This bird is physically adapted to hunting close to the ground in open terrain, combining rapid acceleration with high manoeuvrability. Specialising on mid-sized diurnal terrestrial rodents (especially ground squirrels.



Semi-desert, Steppes

In some areas, particularly near water and even in urban environments.This species usually builds no nest of its own. Uses an old stick nest in a tree which was previously used by other birds. Clutch size varies from three to five, exceptionally two to six. The species usually occurs singly or in pairs

Range lifespan

Wild: 10 (high) years. Captivity: 25 (high) years. Birds life style largely depending on the extent to food supply.They are sedentary Part-migratory or fully migratory

52. Data deficient?2

When a taxon has an inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category

• May be well studied

• Its biology well known.

Appropriate data on abundance and/or distribution is lacking. Data Deficient is therefore not a category of threat or Lower Risk.

53. Iucn status of markoplo sheep? 2

IUCN Red list Threat Status: Near threatened

Marco polo sheep is one of the nine Argali subspecies. The name ‘Argali' is the Mongolian word for wild sheep. It is the largest species of wild sheep.



54. Iucn status men Indian vulture?2

IUCN Red list Threat Status: Critically Endangered

55. Tragopan ? 5

Facts:



Tragos= goat

Pan=Greek god

Tragopans are commonly called "horned pheasants" Having two brightly colored, fleshy horns on their heads. They can erect during courtship displays. There are five recognized species of tragopans.

- **Western tragopan (Tragopanmelanocephalus)**
- Satyr tragopan (Tragopansatyra)
- Temminck's (tragopanTragopantemminckii)
- Blyth's tragopan (Tragopanblythii)
- Cabot's tragopan (Tragopancaboti)

1. Tragopanmelanocephalus

Syn: Western Tragopan , Black-headed Tragopan, Western Horned-pheasant

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The western tragopan ...



Satyr Tragopan - eBird

Description:

Medium sized pheasant. Sexes are highly dimorph. Male grey upper parts and reddish facial skin Numerous white spots. Each spot bordered with black and deep crimson patches on the sides and back of the neck. The throat is bare with blue skin while the bare facial skin is red. They have a small black occipital crest.

• Weighs 1.8–2.2 kg (4.0–4.9 lb)

• Length from 55–60 cm (22–24 in)

Females have pale brownish-grey upper parts finely vermiculated. Spotted with black, and most of the feathers have black patches and central white streaks.

• Weigh 1.25–1.4 kg (2.8–3.1 lb).

• Length 48–50 cm (19–20 in).

• Monogamous

Feeding Habit

The diet primarily consists of leaves of trees and shrubs. Also includes roots, flowers, acorns, seeds, berries, grubs and insects. Tragopans are shy and wary birds quick to hide amongst the dense vegetation they inhabit if disturbed.

Distribution

Native:India , Pakistan

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Found in western Himalayas, between 8000-12000 from hazara eastward to Garhwali- ladakh

IUCN Status: Vulnerable

Distribution in Pakistan

• Largely restricted to area between Jhelum and Kunhar rivers of Hazara district

• Forest of Kaghan valley, in Machiara National park (A.K)

• Pales valley in Cholistan district

Threats

Hunting and trapping for

• Its meat (especially in winter)

• Its decorative plumage

Conservation

CITES Appendix I

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56. Write note on red ux ? 5

57. What is data deficient (DD) ? 2

Already explain above

58. Categories of animals in different groups ? 5

The Categories

Extinct (EX)

When there is no reasonable doubt that the last individual has died

Extinct in the Wild (EW)

When a taxon is known only to survive in Cultivation, Captivity, Naturalized population (or populations) well outside the past range. When exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

Critically Endangered (CR)

When a taxon is facing an extremely high risk of extinction in the wild in the immediate future

Endangered (EN): When a taxon is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future.

Endangered (EN)

Those which are abundant in their range but are gradually declining in total numbers.

Vulnerable (VU)

When a taxon is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future.

Data Deficient (DD)

When a taxon has an inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category

• May be well studied

• Its biology well known.

Appropriate data on abundance and/or distribution is lacking. Data Deficient is therefore not a category of threat or Lower Risk

Not Evaluated (NE) When a taxon has not yet been evaluated against the criteria.

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59. Categories fall in different species ? 5

60. Note on lynx rufu ? 5

Bobcat

IUCN Red list Threat Status: Least concern

Discription:

Generally “Lynx” is a wild cat with yellowish-brown fur. Body fur not spotted. Body length 70-76

cm . Tail comparatively long. Back of ears entirely black. Body covered with brick red fur. There

is generally an off-white color on the lips, chin, and under parts. Black streaks on the body and

dark bars on the forelegs and tail. Bobcats in the desert regions of the southwest have the

lightest colored coats. In the northern, forested regions are darkest. Bobcat eyes are yellow withblack pupils. The cat has sharp hearing and vision, and a good sense of smell. It is an excellent

climber. The bobcat is crepuscular, and is active mostly during twilight.

Distribution

• Canada

• Mexico

• United States

Habitat

They are adaptable predators inhabiting

• Wooded areas

• Semi-desert

• Urban edge

• Forest edges

• Swampland environment

Like most cats, the bobcat is territorial and most of the time solitary, although there is some

overlap in home ranges.

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Feeding

The Bobcat hunt anything from insects and small rodents, rabbits and hares, to deer. Prey selection depends on location and habitat, season, and abundance.

Threats

The biggest threat to Bobcat is its fur. Habitat loss is another primary threat to bobcats in all of its range countries. Increasing urbanization results in direct habitat loss although. Bobcats have proven to be fairly adaptive to urbanization. Bobcats adjust to human developed



landscapes, indirect effects increase. Vehicle collisions can be a primary source of mortality in urban Bobcat populations. Exposure to common rodenticides in urban landscapes can result in direct mortality (anticoagulant toxicosis). Increased susceptibility to severe notoedric mange resulting in the death of Bobcats. In localized areas Bobcats take domestic livestock and are persecuted as pests.

Conservation actins

Listed on Appendix II. More research needs to be undertaken to gain knowledge of current distribution, both in and outside of protected areas.

61. Brown bear ? 3

Ans;Scientific Name: Ursusarctos

IUCN Red list Threat Status: Least concern

Syn; Grizzly Bear



Brown bear - Wikipedia
en.wikipedia.org



Brown Bear | National Geographic
nationalgeographic.com

Description:

Large animals, dark in colour, long guard hair over the shoulder, characterized by a distinctive humps on shoulders, long claws on the front paws. Sexual maturity: 4.5 to 7 years of age.Litter size ranges from one to four but two are common. Cubs remain with their mothers for at least two and half years.Female breed every three years.

Feeding habit:

Chiefly vegetarian. Feed mostly on fruits, honey and ants. Occasionally kill sheep and goat.

Distribution

The brown bear ranged across a large portion of North America throughout across North Africa. Presently it occupies North America, Europe and much of northern Asia.

It's native countries are:

Afghanistan, Iran, Canada, Iraq, China, Pakistan, Georgia, Italy, India, France.

Threats

Brown Bears are attracted to areas with available human-related foods. Being large and somewhat aggressive, these bears may threaten life and property (often agricultural products) and may be killed as a consequence. When Brown Bears exist in a large, contiguous

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population. They are sometimes hunted for sport, killed for control purposes. Brown bears are poached for the commercial trade in gall bladders and paws. In portions of Alaska, the management goal is to reduce bear populations to encourage Moose and Caribou populations to expand for the benefit of hunters. Habitat fragmentation with increasing human populations.

Conservation actins

Conservation actions vary greatly among nations and regions within nations. In Russia, Japan, Canada, Alaska, and parts of eastern and northern Europe). Large populations of this species are legally hunted, and thus managed as a game animal.

62. Write note Indus dolphin ? 5

Scientific Name: Platanista minor

National Status: Endangered

IUCN Red list Threat Status: Endangered

The Indus River dolphin is one of the world's rarest mammals. Second most endangered freshwater river dolphin.

Description

It has a long beak which thickens towards the tip, large teeth. Body is stocky with rounded belly. Flippers are large and paddle shaped. Forehead is steep. Poorly seeing eye. Approximately 1,100 specimens of this species exist today. Eye hasn't developed a lens, the dolphin still uses its eyes to differentiate between light and dark.Tail flukes are broad in relation to body sizeGrey brown in colour, sometimes with a pinkish belly.Males smaller than females Length 1.5 and 2.5m. Weight range 70-110 kg with maximum of 90kg. Travels mostly as couples or solitary, Navigation, by echolocation system. The physical touch gives the dolphins important information

about their surroundings and helps them find food. Both gender reach sexual maturity. Between

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six and ten years of age or until they reach a length equal or greater than 1.7 meters. Gestation period is 8-9 months. Single calf birth Diet: fish and crustaceans.

Habit & Habitat

These dolphins favour silt laden, turbid waters of the Indus river system. At temperature 8C° and 33C°

• Deepest river channel

• Deep, low-velocity water

Less common in secondary channels and small braids. During the low-water season (October to April), barrages divert almost all river water such that dolphin habitat downstream of Sukkur Barrage and in some tributary segments has been eliminated. In dropped water levels in the winter, dolphins are concentrated in the remaining deep areas.

Distribution

Native

India, Bangladesh, Nepal, Pakistan, From Kotri , Sindh to Jinnah , northern western Punjab. Sukkur and guddu barrage as Indus river dolphin rescue in 1974. Historically it occurred in Indus mainstream, Sutlej, Beas, Ravi, Chenab, Jhelum tributaries

Threats

Human development. The construction of dams and dikes segments the populations reducing the mature individuals to mate. It also reduces their habitat because they cannot move freely through these structures.

• By catch

They commonly get trapped in gillnets, longlines or other fishing gear intended to catch fish.

• Direct hunting

Some people kill them for their meat and oil or to use them as bait or even to prepare alternative medicines.

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• **Pollution**

Habitat contamination due to industrial, agricultural and domestic activities.

• **River traffic**

The high traffic in the river cause collisions with the propels of boats that injure them severely.

Conservation action

Included in Appendix I of CITES

• The species is legally protected in all range states and occurs in a number of national parks and other designated areas, including dolphin reserves or sanctuaries.

• In 1972, dolphins were protected under the Wildlife Act of Sindh.

• In 1974 the government of Sindh declared the Indus River between the Sukkur and Guddu Barrages a dolphin reserve.

• The government of Punjab prohibited deliberate killing of dolphins in the Punjab Wildlife Protection Act in 1974

• Establishment of the Taunsa Wildlife Sanctuary and Chashma Wildlife Sanctuary in 1983 and 1984, respectively

• United Nations Development Programme (UNDP) to rescue dolphins trapped in irrigation canals and return them to the Indus mainstem has had some success in reducing mortality

Indus River Dolphin conservation Project (IRDCP)

Since 2000, WWF-Pakistan has been working in collaboration with the Sindh Wildlife Department on the conservation of the Indus River Dolphins.

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63. Hog deer distribution in Pakistan ?3

Distribution

Pakistan

• Changa Manga Plantation

• Head Qadarabad

• Ferozwalla

• Head Marala

• Taunsa wildlife Sanctuary

• Riverine forests in Sindh

64. **Hog deer description ?3**

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Axis porcinus porcinus Indian hog deer ...
flickr.com

The is Smaller and stouter in built and hog like in appearance. Small deer with short delicate legs and rather bulky heavy body.Its pelage is coarse .General coloration is dark olive-brown,lacking any rufescent tinges when viewed from a distance. It has round ears which are fringed from inside with white hairs. Some adults (especially females) have scattered pale spots in their summer coat (particularly on either side of the darker dorsal line) The short tail is quite bushy. The surface of the horns is somewhat smooth with less corrugation. Lives solitary or in pairs.Average antler size is 30-38 cm. Females are slightly smaller and without antlers

65. Threat of of marco polo sheep ?2

; Threats

• Over-hunting (for trophy)

• Poaching (for meat)

• Competition displacement.Livestock feed on the same forage as argali, dogs chase

and even kill argalis

• Possibly disease transmission by domestic livestock

• Habitat loss.

66. Categories of extinction? 3

67. How zoo play role in education and research? 5

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Status of Zoos in Today's Society

Zoos exist in today's society for a myriad of reasons including

• Conservation

• Education

• Science

• Recreation

Education is one of the main roles of zoos and aquaria today. Millions of people visit zoos and aquaria worldwide each year this means that the zoo community can reach a very large group of people and explain the importance of conservation. Zoos enable visitors to learn about our natural world and thereby respect nature in all its forms.

Every enclosure in zoo shall bear Sign boards (displaying scientific information).

Every zoo publish literature and make the same available to the visitors, either free of cost or at a reasonable price Leaflets, Brochures, Guidebooks.

Every large and medium zoo shall make arrangements in the form of

• Recording,

• Writings,

To study, Biological behavior, Population dynamics, Veterinary care of the animals.

Every large and medium zoo shall make a detailed database .The database shall be exchanged with other zoos.

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68. In which countries does Indian bustard present today ? 2

Ans;India and Pakistan

69. Indian great bustard ? 5

Scientific Name: Ardeotisnigriceps

National Status: Critically Endangered

IUCN Red list Threat Status: Critically Endangered

Description:

It is a tall, long legged bird. Large, brown-and-white bustard with black crown and wing markings. There is a black crown on the forehead and the upper body is brown. The wings are marked with black, brown and grey. The sexes are similar in appearance. Males have larger black crown long hind crown feathers. Black band across the breast. Length: 122 cm. Females are smaller, with greyer neck. Typically no or incomplete breast-band. Length: 92 cm. regarding voice, booming moans during display and barking or bellowing sounds when alarmed. General coloration varies between each animal, from a light yellow to a reddish-brown to a dark greybrown.

Habitat

Arid, Semi-arid grasslands with scattered short scrub, bushes and low intensity cultivation in flat or gently undulating terrain. Birds congregate in traditional grassland patches

Biology and Behaviour

Nests are situated in the open ground and males take no part in incubation or care of the developing young. Only a single egg is usually laid. Feed on a wide range of items depending on their seasonal availability. Grasshoppers and beetles are the preferred diet. Alternatively, they can take Grass seeds, Berries, Rodents, Reptiles. Rajasthan they are known to take Indian spiny-tailed lizards in cultivated areas, they feed on crops such as exposed groundnut, millets and pods of legumes

Distribution Native: India, Pakistan

Threats

• High intensity Poaching

• Widespread hunting for sport and food

• Vehicular access to remote areas

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• Egg-collecting was rampant in many states of India

• Habitat loss and degradation

• Lack of community support

Conservation action

• This bustard is included in Appendix I of CITES

• In India it is legally protected and there are severe penalties for killing an individual

• Establishment of Protected areas specifically for the species

• Rehabilitation of grasslands has benefited the species in some areas.

• Removal of invasive weed species

• Conducting a school awareness programme and large-scale community awareness programme.

• Publicity materials and media stories have been produced to raise awareness of the species in India

• Consumptive human use should not be permitted during breeding months

• To formulate landscape conservation strategies in priority areas for accommodating the species's non-breeding needs.

• Evidence-based habitat management interventions should be planned and implemented.



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70. Record keeping or how record maintain in zoo?2

Maintenance of Records:

Every zoo shall keep the record of all animals in terms of their Birth, Acquisitions, Sales, Disposals and Death.

Every zoo shall prepare and maintain an inventory record

Zoo ID, Animal ID, Scientific name, Sex, Origin, Birth, Parents, Death, Out of stock

Every zoo shall prepare and maintain a daily record:

Health, Behavior, Feed and Feeding, Management, Health Care, Problems if any.

Every zoo shall also prepare a brief summary and an annual report of the activities of the zoo for every financial year particularly.

Death of the animals in the zoo with reason of death identified on the basis of

• Post-mortem reports

• Diagnostic tests

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71. Endangered species in Pakistan ? 5

The IUCN Red List of threatened species lists 45 species of internationally threatened animals occurring in Pakistan.

• 4 CR

• 12 EN

• 29 VU

Out of these 45 species

• 18 Mammals

• 17 Birds

• 9 Reptiles

• 1 Fish

Most of these endangered species are found in Northern Areas. Pakistan houses to a variety of endangered animal species. Woolly flying squirrel, Markhor, Blue whale, Pakistan sand cat, Ibex wild goat, Snow leopard Marco Polo sheep, Indus stream dolphin, Mountain Weasel, Asian Black Bear, Baluchistan Forest Dormouse, Black Finless Porpoise. European Otte, Vole, Branded Eagle Ray, Tuna, Siberian Cranes, Green Sea Turtle, Long Billed Vultures.

72. Briefly describe Indus dolphin ? 3

Scientific Name: Platanista minor

National Status: Endangered

IUCN Red list Threat Status: Endangered

The Indus River dolphin is one of the world's rarest mammals. Second most endangeredfreshwater river dolphin.



Abundance Survey for Indus Ri...
iwc.int



Indus Dolphins get a brand new lifeline
tribune.com.pk

Description

It has a long beak which thickens towards the tip, large teeth. Body is stocky with rounded belly. Flippers are large and paddle shaped. Forehead is steep. Poorly seeing eye. Approximately 1,100 specimens of this species exist today. Eye hasn't developed a lens, the dolphin still uses its eyes to differentiate between light and dark.Tail flukes are broad in relation to body sizeGrey

brown in colour, sometimes with a pinkish belly.Males smaller than females Length 1.5 and 2.5m. Weight range 70-110 kg with maximum of 90kg. Travels mostly as couples or solitary, Navigation, by echolocation system. The physical touch gives the dolphins important information about their surroundings and helps them find food. Both gender reach sexual maturity. Between six and ten years of age or until they reach a length equal or greater than 1.7 meters. Gestation period is 8-9 months. Single calf birth Diet: fish and crustaceans.

73. Threat to panther ? 2

Threats

• The primary threats to Leopards are anthropogenic.

• Habitat fragmentation

• Reduced prey base

• Conflict with livestock

• Game farming have reduced Leopard populations throughout most of their range

• Leopards are targeted for

• Trophy hunting

• Illegal wildlife trade for their

• Skins (used in traditional ceremonies)

• Bones and other parts (used for medicinal purposes in eastern cultures).

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• In Indo-Malaya and China, a recent reports estimate very high levels of Leopard removal at four individuals per week for 10 years

74. Wild goat scientific name ? 2

Ans; Capra aegagrus

75. Feeding habit of pea fowl? 2



Indian Peafowl - eBird

Feeding habit

Omnivorous: • Grain and green crops to insects • Small reptiles • Mammals • Berries • Termite • Grasshopper • Ants and beetles. • Roots in high fairly open trees in large number.

(batoo ki mithas andar ka sach nehi kholti

Moor (pea fowl) ko dekh ke kon keh skta he ke ye sanp khta hoga…)

Happy learning ending 3rd semester..

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