

## Bird's Eye View- Health Monitoring of Raptor Birds

Diksha Lade<sup>1</sup>, Kajal Kumar Jadav<sup>2</sup>, Devendra N. Podhade<sup>3</sup>, Shashi Tekam<sup>4</sup>,  
Vaibhav Shukla<sup>5</sup>, Nripendra Singh<sup>6</sup>

<sup>1</sup>Ph.D. Scholar (Wildlife Health Management) SWFH, Jabalpur, N.D.V.S.U. (M.P.)

<sup>2</sup>Assistant professor, SWFH, Jabalpur, N.D.V.S.U. (M.P.)

<sup>3</sup>Assistant professor, SWFH, Jabalpur, N.D.V.S.U. (M.P.)

<sup>4</sup>Assistant professor, Department of Veterinary Anatomy, Jabalpur, N.D.V.S.U. (M.P.)

<sup>5</sup>M.V.Sc. Scholar (Wildlife Health Management) SWFH, Jabalpur, N.D.V.S.U. (M.P.)

<sup>6</sup>Ph.D. Scholar, Department of Veterinary Anatomy, C.V.Sc. & A.H., OUAT,  
Bhubaneswar, Orrisa

### INTRODUCTION

The Latin word “raptor” means “to seize or capture” birds that hunt with their large, strong talons and sharply hooked bills. Raptors are medium to large sized bird that feeds on small birds, fish, lizards, snakes and insects. They feed mostly carrion but also on fresh carcasses when they are hunger. There are two types of raptor birds are diurnal and nocturnal. There are more

than 560 species of raptors around the world and more than 100 different species of raptors which are found in India. The raptors birds found in Indian Subcontinent includes kite (*Milvus migrans Govinda*), vulture (*Gyps indicus*), falcon (*Falcon berigora*), eagle, buzzard (*Buteo buteo*) and owl species including (*Tyto alba*).



Fig.01: Eagle owl (*Bubo bengalensis*)



Fig.02: Vulture (*Gyps fulvus*)



Fig.03: Barn owl (*Tyto alba*)



Fig.04: Pariah kite (*Milvus migrans govinda*)

## PHYSICAL EXAMINATION BIRDS

By examining the whole bird in a systematic way and also detecting external parasites. Palpating for broken wing, leg bones and also assessment of feather condition. Observe stance, posture, ability to bear weight, wing drooping, gait, flying potential, alertness, its behaviour and activity of the birds.



**Fig.05: Lice infestation on wing feather of Pariah kite (*Milvus migrans govinda*)**

### General body condition

The majority of raptor birds with a keel/sternum (keel bone visible) are shows emaciated, the degree of muscle and prominence of the keel can be used to determine bodily condition. Body weight is also important factor before any general body examination then compare this to previous weight measurement or a alternatively to the normal range for the species.

### Signs of ill health

Closing the eyes, 'sleepy' appearance or increased periods of sleep. Decreased movement or abnormal movements (example- lameness, drooping wings, poor flight). Loss of appetite, poor body condition, weight loss. Neurological abnormalities (example-tremors, abnormal head movement or placement, unable to stand). Unusual behaviour (increased or decreased vocalization) or increase breathing rate.

Dehydration (sunken eyes, dry skin with loss of elasticity, dry mucous membranes).

### Dehydration

The 10 percent dehydration in sick/injured birds. Basalic wing vein refill time  $>2\text{sec} = 7$  percent dehydration Signs of moderate to severe dehydration.' Reduced skin elasticity checked on the featherless skin (shank region) dry, sticky mucous membrane, dull and lethargic and dry or no drooping.

### Temperature

Raptors are warm-blooded and also need external heat sources to maintain temperature. Normal range  $101-108^{\circ}\text{F}$ . Increase in body temperature indicate hyperthermia the cause may be stress, infectious disease. Hypothermia due to low environment temperere.

### Respiration

Respiration is birds is complex process than mammals due to presence of air sacs and pneumatic bones. Normal respiration rate of raptor birds in between 15–30 breaths/minute. The condition goes if respiration goes below 8.

### Heart rate

Heart rate varies with bird's species, body size. The conditions critical if heart rate goes below 40.

### Faecal material

Urinary and faecal component –urine, uric acid crystals, colour (presence of blood mucus), consistency amount and frequency of faecal sample indicates presences of infection.

### Injuries

Injuries in raptors occur due to kite string injuries, electrocution, collision with windmill, electrical wire. Injuries included broken blood feather, wound, or abrasions or bleeding from tongue, patagium laceration and fracture.

## A. Fracture

Obvious: 'Crepitus' (a crunchy feeling or sound when moving the bones) Open wounds / bone exposure dropped' wing not using leg or



**Fig.06: Fracture in left wing (Radius-ulna) in Pariah kite (*Milvus migrans govinda*)**

## Signs of Infection

Swelling or redness, heat, discharge, oozing, thick pus crusting, inappetence or anorexia high body temperature and increase in respiration. Infectious disease like bacterial, viral and fungal disease. Some common infections occur in raptors (bumblefoot, trichomoniasis nematode, avian pox, aspergillosis chlamydiosis salmonellosis and giardia, coccidiosis).

## Signs of Reproductive Problems

Sign of reproductive problem in birds' diagnosis is very difficult by help of palpation and observed from distance include Straining Wide-legged stance, Swollen abdomen Reduced or absent faeces, faecal/urate staining around vent and Redness of cloaca or abdomen. Many reproductive problems, such as the bird being egg bound (unable to lay its egg), are a medical emergency it once most important problem in birds during time of lay down egg.

## Handling of Reptor birds

The species have dangerous beaks and claw/talons handling with carefully with help of gloves.

## Conclusion

Reptor are umbrella species play significant role in ecosystem it helps cleaning the wing or unwillingness to walk or fly. The fracture may be due to electrocution or kite string injuries. The facture may open or closed.

ecosystem and balancing food chain. Due to increases loss of habitat, poaching illegally, industrialisation, wind miles and high-tension power lines supply which decreases population of raptors. Some of raptors are coming under



**Fig.07: Handling of raptor birds with the help of gloves**

endangered including Indian vulture, siau scops owl, slender-billed vulture and white backed vulture. Regular health monitoring play significant role in conservation raptors.