

Wild birds in Veterinary Practice

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This guide has been put together from the authors experience in veterinary practice and in wild bird rescue.

The aim of this booklet is to give basic ideas to help vets and nurses in practices that routinely contact us. It includes basic triage, assessment, first aid and care suggestions for UK wild bird species that are often brought into practice.

References are provided from research where possible. Links to websites where information was taken from will be provided.

All relevant Legislation should be followed when caring for UK Bird species.

We understand not all practices are able to facilitate all that is detailed in this guide. This is also for educational purposes.

Information in *italics* is from own observations and experience.

If you wish to donate to Feline and Wildlife Rescue please visit: fawrescue.co.uk

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History taking

- Getting a quick but thorough history for each bird admit can be extremely helpful, both for the vet practice but also for the rescue taking on any rehabilitation care.
- Lots of birds are territorial, have mates and/or young, have an environmental niche they inhabit or are still relying on parent care. Being able to release a bird back where they came from is incredibly important for most species.
- The history also gives the idea as to what has happened and why the bird needs help. Ask for as much information on the form as possible to situation- i.e were cats involved, was it found by a roadside.
- Having an admission form is a great way to quickly get all the relevant information. The author has provided an example from their place of work (Appendix 1).
- The admission form can then be shared with the rescue who is taking on the bird so they know all the details and can aim to involve the finder in the release. This is something most people really get on board with and a really good way of spreading education surrounding helping wildlife.

Although the RCVS guidance states that a member of public does not need to sign over a wild animal to the veterinary practice, the veterinary practice the author works at have incorporated this into our admission sheet so the member of the public understands they are no longer responsible for that animal to stop any negative backlash against the veterinary surgeons' decisions (See Appendix 2).

<https://www.theveterinarynurse.com/review/article/legalities-of-treating-wildlife-in-uk-veterinary-practice-> a great article on legislation regarding treating wildlife.

Phone queries: Does it need to be seen?

- What **species** is it? (not all people will know but if they can describe it to you this may help a vet practice understand their needs). This is also relevant as sometimes people do not realise the bird they have is a lost pet.
- Is it a **fledgling**? This is a very common call between march and October (Bird breeding season). If the fledgling is not in immediate danger it is always best to be left alone. They can be moved a short distance onto a low branch or fence to move away from predators but will spend time on the floor still being fed by parents. Leaving the nest before able to fly is an anti-predator technique to disperse the chicks. If they are still worried and want advice you can point them in the direction of a local wildlife rescue. Also consider the species, for example Tawny owls fledglings can climb back up to the nest while barn owls cannot.
- Is it **injured**- Is it bleeding? Have feathers been pulled out? Does it appear to have broken legs or wing? If so this must be seen in practice.
CARE WITH THIS.... People often misinterpret fledglings as “injured” as not able to fly properly. May be worth asking for a photo or asking them to google to ensure it isn’t just a fledgling.
- Is it **sick**? Weak/lethargic, fluffed up, not moving, gasping (consider if hot day as they gasp when too warm), lesions (possible pox), Beak not closing (possible canker).
- Has it been **got by a cat**? – *This is one of the most common injuries seen in wild birds by the author.* Intervention is always needed in these cases. In a study by Smit *et al.*, 1980 found that 40% of cat bitten birds die of the wounds but 60% die of a *Pasteurella multocida* infection. *Pasteurella* spp has been reported as a possible septicemic agents in birds attacked by pet cats (Hoppes, 2015). For more information see section on cat bites.
- Has it been got a dog or other predator? - will need to be assessed for injuries that may not be obvious to the finder

- Does it have feathers? – if uninjured but naked, this will need to get to a rehabber ASAP. Advise finder to fill a glove with warm water/hot water bottle and contact a local rescue.
- Has it flown into a window? - If stunned you can suggest leaving in a dark box for an hour or so and reattempt release. If no improvement will need assessing.

Admissions

Most rescues are not fortunate enough to have vets or vet nurses volunteering for them. Initial assessment by veterinary staff and being able to let the rehabber know a basic diagnosis of a bird is incredibly time-saving, money saving (most rescues are solely funded by donations) and causes less stress to the bird being transported many times.

Risks

Birds can carry zoonotic diseases such as salmonellosis and campylobacteria. PPE such as gloves and masks should always be worn when assessing birds.

Please visit: <https://www.gov.uk/government/publications/list-of-zoonotic-diseases/list-of-zoonotic-diseases> for a list of all zoonotic diseases in the UK.

Assessment

(Harrison and Ritchie, 1994).

Things to consider:

- 1) A room which is safe to view the bird to include: windows/door closed, blinds down to avoid window collisions and no predator species.
- 2) PPE- gloves/masks, towels (care of threadbare towels as they can get tangled) and gauntlets

“In the box”

Birds, as prey animals, often behave differently when stressed or handled. Try first assessing from a far.

- Species (<https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/identify-a-bird/>)

- Age (hatchling, nestling, fledgling, adult). (<https://www.rspca.org.uk/adviceandwelfare/wildlife/orphanedanimals/babybirds>) All individuals regardless of age should be assessed for wounds/signs of disease.
- Posture: eg. Ataxic, head under wing, lying on side, unable to stand. *This may relate to head trauma/spinal problems/severe dehydration or hypovolemia.*
- Wing carriage: eg. dropped wings indicate fractures. If stressed some birds will splay their wings but this should be symmetrical. See section on fractures for more information.
- Respiratory rate and pattern- Normal respiration in birds should not be overly noticeable and the beak remains closed. Open-mouthed breathing is a sign of dyspnoea. *(Do consider the species, some bird of prey species such as red kites and buzzard will open-mouth breathe as a stress response to human presence).* RR will range from 6-70 breathes a minute dependent on size. This can double when restrained. Dyspnoea may be related to underlying bacterial or fungal infections or pain/injury.
- Demeanor/Level of consciousness- Pale/dry MM, crispy skin, sunken eyes- dehydration.
- Faeces- normal should consist of urate, liquid urine and a faecal component. Normal faeces may be green or brown. Most nestlings will produce a sack. If heavily pigmented red or purple this may be due to diet but can also be indicative of melena. *Lack of faecal content may suggest the bird has not eaten for a while and may be why they have presented as weak.*

Restraint

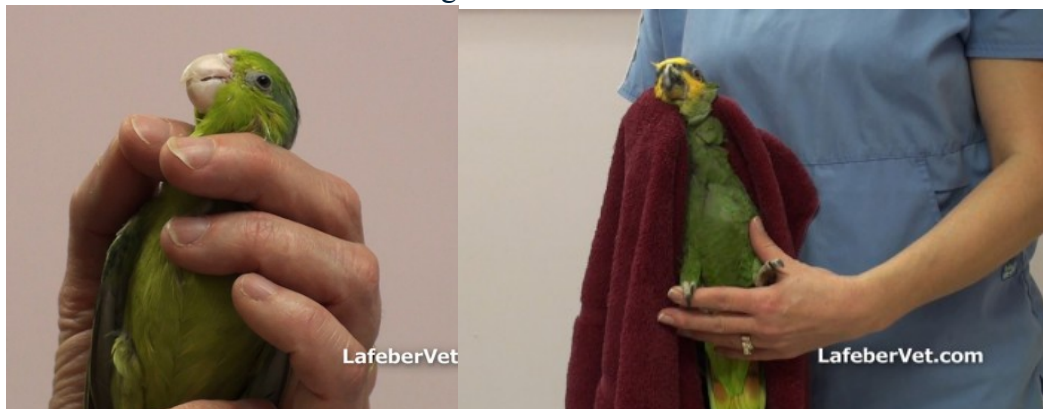
(Whitworth, 2007; Pollock, 2010; Scott, 2016)

Before any manual restraint consider the presented issues such as broken wings, limbs or respiratory difficulties.

Small birds

In general, small birds can be efficiently handled by one person, using one hand to restrain the bird while the other hand is free to perform relatively simple tasks. However, to perform delicate tasks requires two people; one to restrain the bird, the second to perform the procedures.

- 1) Approach the bird calmly and quietly.
- 2) Slowly introduce your hands/towel
- 3) Gently yet firmly use your hands or towel to secure the bird in a corner or against the carrier's edge
- 4) Restrain the head with one hand and support the torso and wings with the other hand. With the palm of your hand resting on the bird's back, encircle the bird's neck with your thumb and forefinger without constricting the neck.
- 5) Small birds may be restrained by supporting the bird's back against your palm. Use your thumb and last two digits to cradle the wings and restrain the head with the second and third digits



Medium-sized birds

- In most cases, medium-sized birds should be restrained by one handler using two hands, while another person conducts procedures.
- Two-handed restraining techniques approved by the WWT are particularly suited to waterfowl (ducks and small geese) and species such as gulls, grebes, coots, cormorants and larger shorebirds.
- The two-handed grip is the most natural two-handed restraining hold
- Firmly but gently grasp the bird with the hands placed either side of the bird so that the wings are held against the bird's body by the handler's palms.
- The thumbs should be placed on the bird's backbone at the level of the scapulae or shoulder and the fingers curled around the breast and abdomen, with the legs tucked up against the underside of the bird.

FIGURE 4.2
The two-handed grip for handling medium-sized birds



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Large birds

Appropriately sized leather gloves/gauntlets/thick towels should always be worn/used.

Remember to protect your face with one hand when grabbing a bird from a kennel.

- Most procedures involving birds of prey, including examinations, require two people
- The legs should be held with the index finger between them. This is more comfortable for the bird (the legs will not rub) and the grip is much more secure
- The legs should always be grabbed as close to the body as is possible (i.e. above the stifle joints) to avoid iatrogenic fractures. This is especially important in birds with long, thin legs.
- Once the bird is adequately restrained, the grip should be moved closer to the feet for better control of the talons.
- Have the birds back resting against your body or use a towel to wrap the wings
- Care when examining the face.



Useful information from the barn owl trust

<https://www.barnowltrust.org.uk/wp-content/uploads/How-to-towel-wrap-an-owl.pdf>

Emergency First Aid

Warmth (Jones, 2019)

Normal Body Temperature- 39-42 degrees Celsius.

Signs of Hypothermia:

- Naked/featherless, fluffed up, Shivering, Depressed, eyes closed, slow reactions, hyperextended limbs, slowed HR.
- Active heating- hot hands, incubator, hot water bottle, heat mat
- Passive heating-trapping body heat (towel, body) (only used when MILD)

Signs of Hyperthermia:

- Gasping, Extended neck, Hot to touch, Moving away from heat source
- Active Cooling: using tepid water filled gloves, fan

Shock (Green Cross vets, unknown)

Signs of shock:

- Weak (does not resist handling) and/or unresponsive
- Pale MM
- Fluffed up/ unable to perch
- Breathe in slowly and out quickly/ Rapid shallow breathing
- Cold

Birds can take 4 to 6 hours to recover from shock.

While the bird is in shock, don't force it to eat or drink. Keep in a warm, dark and well-ventilated kennel/carrier.

If Dyspnoeic provision of Oxygen therapy by flow by can be helpful but care to reduce stress.

Fluid Therapy- (Lawson and Best 2003; Eatwell, 2010; Bedford, 2018)

Birds admitted to practice should be assumed to have a mild degree of dehydration unless seen eating/drinking for themselves or fallen immediately from a nest.

Signs of severe dehydration

- dry MM
- sunken eyes
- wrinkled abdominal skin

The least stressful and most accessible route is oral fluids.

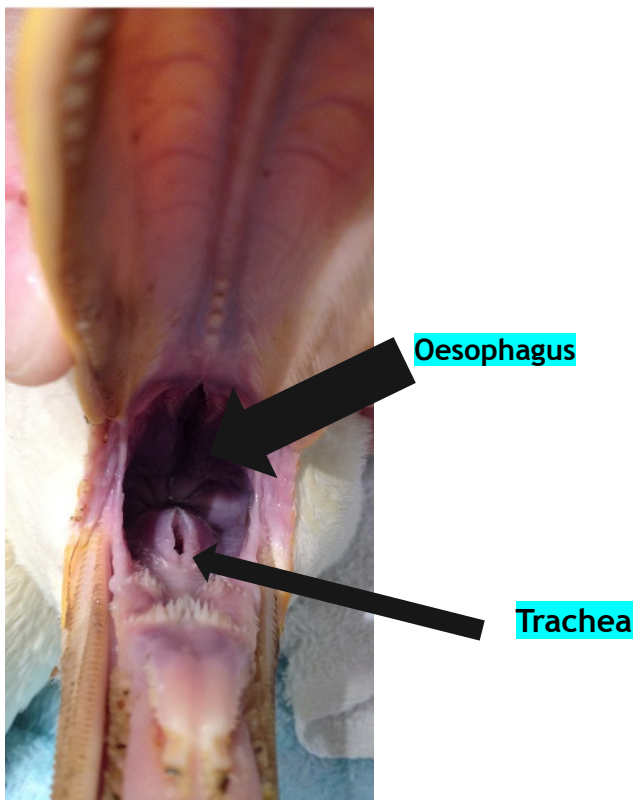
This can be administered with a crop/gavage tubes. *Make shift crop tubes have been made in practice from a syringe and cut fluid giving set or catheter (depending on bird size).*

In practice, do not initiate crop feeding unless the bird is sufficiently stable to stand and ambulate in order to avoid aspiration of the crop feeding contents.

Care must be taken to avoid aspiration- ensure the tube is passed the opening to the trachea and is down the oesophagus.

Example amounts:

- Birds under 30g: no more than 0.5ml of fluid per feed
- Birds over 100g- 2ml per feed.
- Rehydration fluids such as natural diororylte or critical care formula can be given.



IV Fluids

Fluids can be given intravenously but aim to do this in species over 100g in a bolus (1-3% of body weight). Should be warmed.

IO Fluids

Fluids can also be given to collapsed birds via intraosseous route using the ulna or tibiotarsus. Should be warmed.

SC Fluids

Subcutaneous fluids can be given in the inguinal fold or along the flanks of any species. Should be warmed.

Due to birds' poor skin circulation large volumes cannot be absorbed quickly. Up to one per cent of bodyweight is tolerated at each site and temporary lameness can result with large volumes

This is the authors preferred route of giving fluids to weak/flat birds as can be done quickly and with minimal restraint. Care must be taken to avoid air sacs and therefore may not be suitable for those not confident.



An amazing fluid chart for species ranging from 10g to 4kg can be bought and downloaded from: <https://www.therehabberstore.co.uk/product-page/fluid-administration-chart-for-birds-download>

Estimation formula for fluid deficit based on dehydration status and body weight

- a. Estimated dehydration (%) x body weight (g) = fluid deficit (ml)*
- b. Daily maintenance fluid requirements (4 ml/kg/h) are added to the fluid deficit volume*
- c. Fluid deficit can be replaced over a 48 to 72 hour period*

Analgesia (Malik et al., 2017).

This is something the author feels is not thought about enough. If a bird's wing looks broken or has a massive gash, the bird may seem bright but imagine how painful that must be. Don't just leave it without pain relief because its bright. They are a prey species and will hide all weakness.

- Current research shows that Butorphanol, a strong κ -agonist, is currently the most useful opioid analgesia in avian species. κ -receptors predominate in the forebrain opposed to μ -receptors.
- NSAID use research varies in success, likely due to species or dosage difference. Despite this meloxicam and carprofen have been proven effective. The same considerations regarding the gastrointestinal tract and renal function as mammals should be taken.
- Care should be taken with local block medications such as lidocaine as birds are sensitive to their side effects. Local anaesthesia is not recommended in conscious birds as the stress of handling and restraint is detrimental.

Drug	Dose ranges	Route	Frequency (hours)	Type of bird used for research	Notes
Butorphanol	0.5–6 mg/kg	IM, IV	Q1 – 6 h	Most species	Currently most common opioid in use. See formulary for more species-specific doses. In raptors, doses > 1 mg/kg can cause recumbency. Smaller doses have been studied in ratites
Buprenorphine	0.25–0.5 mg/kg	IM	Q2 – 5 h	Pigeons	See formulary for more species-specific doses. Doses of 0.6 mg/kg have been studied in American Kestrel, with good absorption and bioavailability, with potential to last 6–9 h (Gustavsen et al., 2014). Further research is needed
		IM	Q8 – 12 h	Chickens	
Morphine	2.5–3 mg/kg	SC, IM	Q4 h	Galliformes	Insufficient research
	10–20 mg/kg	IM		Japanese Quail	Anti-nociceptive effect on foot withdrawal and pressure tests. No effect on locomotion, eating or drinking
Tramadol	5–11 mg/kg	IV, PO	Q12 h	Peafowl, Bald eagles, Red-tailed hawks, Hispaniolan Amazon parrots	See formulary for species-specific doses. Tramadol has been tested at 30mg/kg Q6h in Amazon parrots
Carprofen	1–10 mg/kg	PO, IM, IV	Q12 – 24 h	Most species, including raptors	See formulary for species-specific doses. Doses of 30 mg/kg have been successful in chickens with induced arthritis
Meloxicam	0.1–2 mg/kg	IM, PO, IV	Q12 – 24 h		See formulary for species-specific doses and notes

Table 1: Basic Analgesia Doses in Birds ((Malik et al., 2017))

Most research into avian pain behaviour is on domestic species but can be applied to wildlife:

- Changes in demeanour, posture and appearance:
 - Hunched appearance
 - Drooping or miserable demeanour
 - Fluffed up
 - Closing eyes
 - Poor appearance/feather quality
 - Tucked-up abdomen
 - One-legged standing
- Changes in locomotion:
 - Lameness, decreased weight-bearing
 - Slower speed
 - Difficulty perching/climbing
 - Falling, stumbling
 - Reduced confidence in mobility
- Guarding behaviour: Guarding the affected area (or ensuring it is not accessible to us)
- Changes in grooming behaviour:
 - Feather-destructive behaviour
 - Overgrooming
 - Self-mutilation
- Changes in normal eating, drinking or toileting habits:
 - Inappetence
 - Constipation
- Changes in vocalisation:
 - Painful birds sometimes may vocalise on palpation of the affected area (but not always)
 - Birds that are normally talkative may become quiet, or vice versa (smaller species tend to vocalise less in general).
- Changes in physiological parameters: Tachycardia, tachypnea and hypertension in acute pain.
- Changes in weight: Weight/muscle mass loss in chronic pain states/

Stress

Stress is a big killer of bird species in veterinary practice. The author commonly sees birds that are left in stressful situations and will lead to their death.

Stress leads to death as when initially stressed adrenaline is released which raises the blood pressure, dilates the blood vessels in the muscles to allow the immediate use of glucose stores to be able to escape. However, when stress is continuous or overwhelming exhaustion sets in which usually fatal results. Moreover, constant release of cortisol can lead to immunity depression and delayed healing (Learn Bird Care, 2019; VetWest Animal Hospitals, 2021).

Ways to decrease stress in birds:

- Limited contact- use of mirrors or cameras to observe behaviour
- No predator species in same area (eg. Cats in isolation).
- Ability to behave normally: provision of perches etc.
- Quiet area
- Housing with other conspecifics where possible.
- Restricted handling and keep noise level to minimum
- Provide hiding spots (eg. A cardboard box).
- Avoid stroking, talking to them or staring at them
- Avoid sudden movements
- Adequate diet provision
- Provide privacy where appropriate

Cameras/mirrors can be incredibly helpful when observing bird species. Mirrors may be more accessible in veterinary practice and setting one up so you can see the bird through the reflection will decrease the stress of the bird knowing your there. Birds will behave very differently when in human presence.

Birds are prey animals so will hide injuries/illness. They may appear bright on exam but when you watch from afar may no longer hide their issues.

Physical exam (Tully and Mitchell, 2009; Ballard and Cheek, 2013)

This can be done under GA to limit stress.

This is a link to a really helpful article regarding bird GA <https://www.vin.com/apputil/content/defaultadv1.aspx?pId=11349&catId=34746&id=5328309>

Stop the conscious examination if the bird displays:

- Closes its eyes
- Becomes weak
- Open mouth breathing

Head

Symmetry

Swelling

Eyes (Use an ophthalmoscope for a through exam)

- palpebral reflex test
- PLR
- use of third eyelid
- discharge/lesions
- Sunken eyes
- opaque lens.

Nostrils

- Free of discharge
- Bubbles can indicate aspiration
- Blood

Beak

- Symmetry
- abnormal wear
- severe flaking
- pitting on the surface
- fractures

Tilt

- Trauma
- Paramyxovirus (There is no specific treatment for PPMV1. Infected pigeons often die within 72 hours, but may survive with supportive therapy e.g. electrolytes, acidifying agents, probiotics. The addition of electrolytes to the drinking water is the most effective treatment. Check with a rescue if they are able to accommodate this as it can take several weeks of treatment and some birds find captivity incredibly stressful)

Lesions



Avian Pox- tends to be seen in Tit family. No treatment, euthanasia required.

Oral Cavity/Mouth: If necessary use a speculum/syringe/cotton bud to open beak for the examination.

- There should be no abscesses, plaques or necrotic tissue.
- The glottis is located at the base of the tongue and should also be free of abscesses or epithelial plaques.
- The choanal slit is lined with epithelial projections called papilla. Inflamed choanal slit or lack of papilla can indicate upper respiratory infection.
- Canker-Trichomoniasis. Tends to be seen in pigeons- can be seen in birds of prey and named “frounce”. Caused by a protozoa.



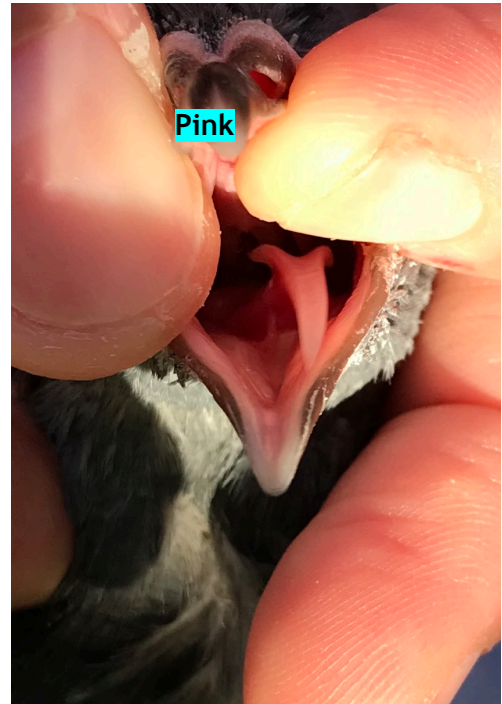
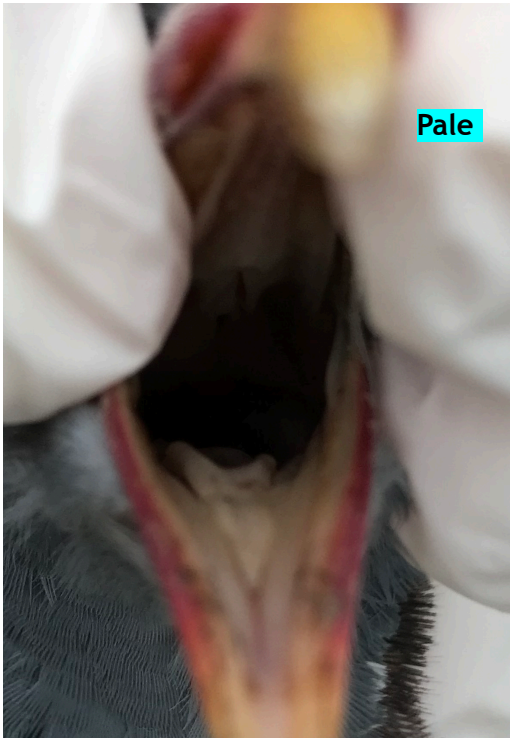
Severe

Mild

- In severe cases they are likely to be emaciated. They are unable to feed due to lesions clogging up throat. DO NOT attempt to remove lesions as will cause haemorrhage. If very severe and tube feeding would not be possible euthanasia is kindest option.
- If mild (usually seen in those brought in with other injuries) this can be treated with Carnidazole (Spartrix) and Metronidazole (Flagyl) (Green Cross Vets, unknown).
- *Some squabs may have Umbilical canker passes from the infected nest box into the body of the young bird still in the nest- this may be seen as a weird lesion to umbilicus.*
- *In the most severe cases, canker will attack internal organs. It is often found in the liver. Some signs might be apathy, ruffled plumage and diarrhea. Most of these birds die of liver failure*

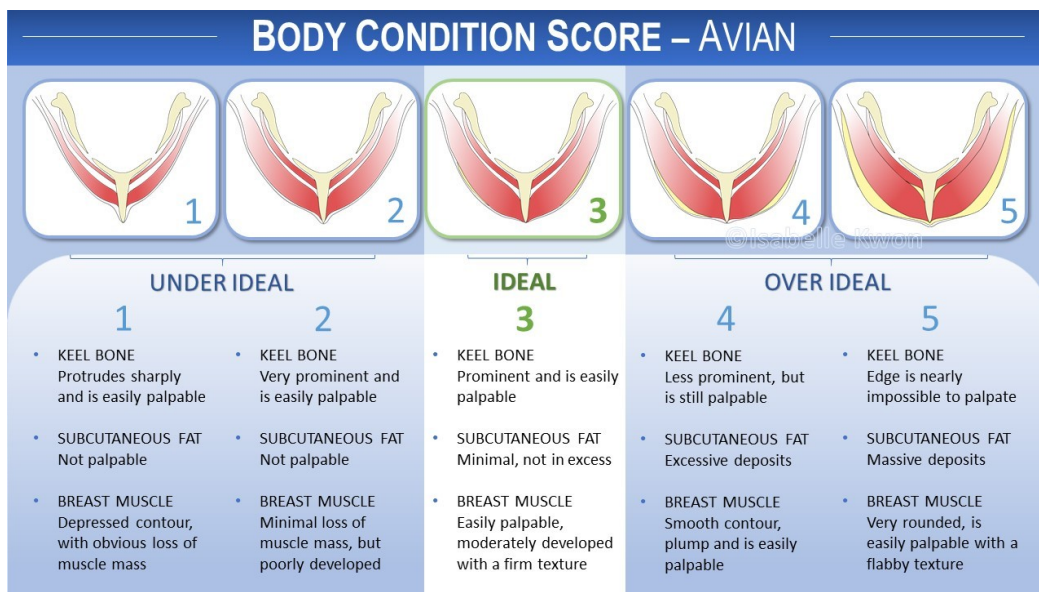
Mucus membranes

Similar to mammals the colour of MM can indicate hydration status and tissue perfusion.



Keel Bone and Pectoral Muscle

- The edge of the keel should be able to be palpated between the rounded pectoral muscles that slope slightly to either side.
- If the keel bone is prominent the bird is considered underweight. Both underweight and overweight can be life threatening (*unlikely to ever see overweight wild birds..*)

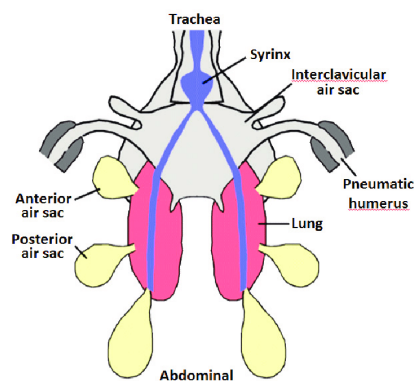


Crop

- Crop burns
- Bruising
- Necrosis
- Foreign bodies (*typically pigeon squabs where parents have fed something weird*)
- Crop stasis or large doughy feeling crops due to undigested food can be a sign of a bacterial problems- crop stasis can be treated.

Skin

- Colour- *Most have light pink/slightly yellow skin. Dark red/purple skin can indicate contusion, swelling or underlying fracture.*
- Dehydration- wrinkled/crispy
- Air sac rupture- balloon like swelling.
- Can be treated:



- *Sterilise area- spirit/chlorhexidine*
- *Insert sterile needle (25g).*
- *Allow air to escape.*
- *Rupture may continue so needs several more attempt*

Wings/Legs

- Look for swelling
- Withdrawal should be presence.

- Look for symmetry and check range of motion
- Masses
- Ability to grasp (*tend to use a pen and see if they grab*)
- check for scaly skin, foreign bodies such as string, ulcers, scabs, inflammation, gout, or necrotic tissue to feet.
- Wing carriage
- Posture

Cloaca

- Cleanliness
- Accumulation of faeces
- Prolapse
- Masses.

Abdomen:

- Tumours
- Eggs
- Ascites
- Contusions/wounds

Parasites (Hoppes, 2015; Globokar et al., 2017)

External

- Ticks- Same removal as mammals
- Flat flies (see picture). *These tend to fly out from under wings. They are attracted to heat so tend to fly at a person. We use Indorex to kill them when flying around practice.*
- Mites- Pyrethrin sprays. Ivermectin (0.2 mg/kg, PO or IM) or Xeno (topical)
- Maggots/Fly strike- Emergency like in mammals. Requires supportive treatment, removal of larvae, surgical debridement of wound and flushing of wounds.



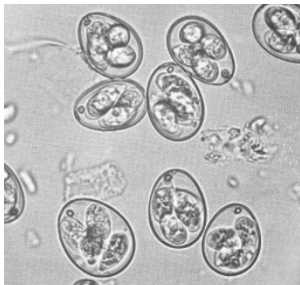
Internal

- Nematodes- Round worms (Appendix 3)
 - Various genera and species
 - Clinical findings include loss of condition, weakness, emaciation, and death; intestinal obstruction is common in heavy infections. *The author has had several suspected RTA birds of prey that are actually suffering from heavy burdens of parasites*
 - Diagnosis of intestinal nematode infection is by faecal investigations.
 - Ivermectin (0.2 mg/kg, PO, SC, or IM, repeated in 10–14 days), pyrantel pamoate (4.5 mg/kg, PO, repeated in 10–14 days), or fenbendazole (20–50 mg/kg, PO, repeated in 14 days) are generally effective.
- Cestodes

- Intermediate hosts are most likely insects and arachnids of various types, earthworms, and slugs.
- Infected birds are mainly asymptomatic
- Diagnosis is based on visualization of eggs on a faecal flotation.
- Praziquantel (5–10 mg/kg, PO or IM, once) is the recommended treatment.

- Protozoa

Coccidia



Trichomonosis



Treatment: Anticoccidials

Metronidazole/spartrix

The authors rescue tends to use non-prescription Harkers Coxoid for coccidia treatment. Harkers also do a 3 in 1 coccidia, trichomonas and worming tablet.

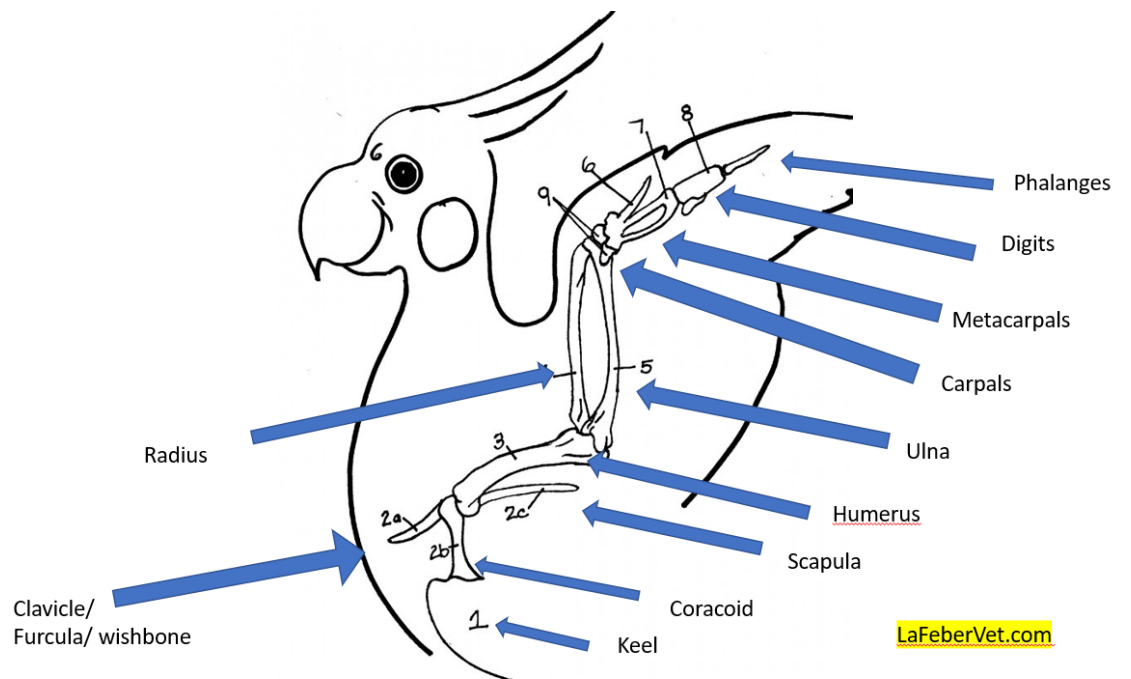
Faecal smear

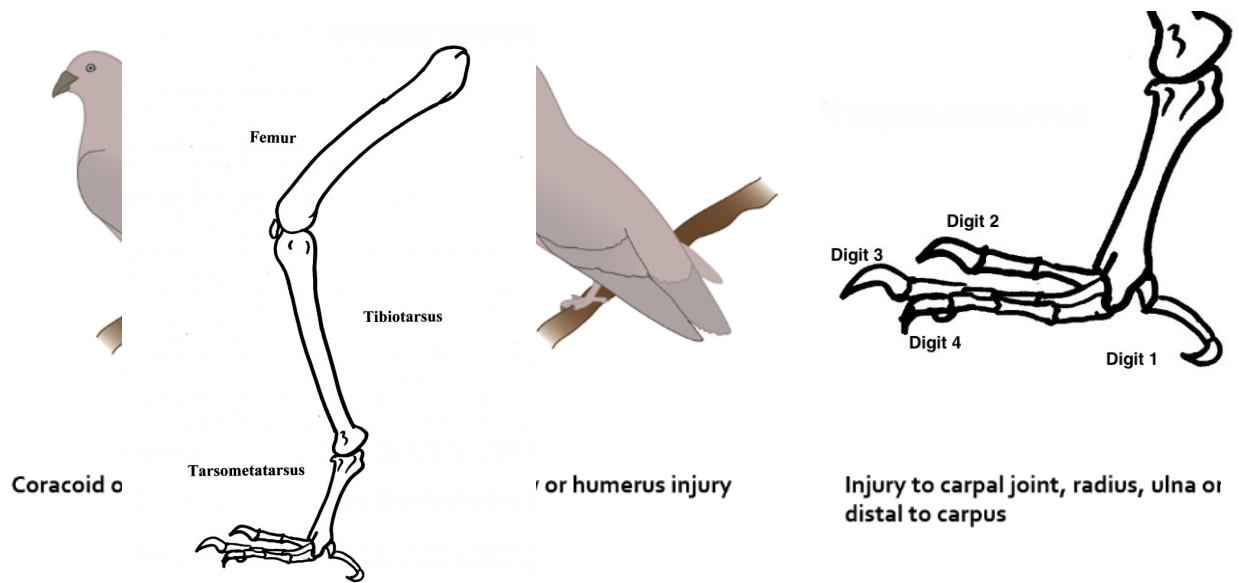
1. Add fresh faeces to a microscope slide.
2. Add a drop of saline and mix with a cotton bud/scalpel/toothpick.
3. Place coverslip over the slide and push down to create a thin layer.
4. Observe under microscope

<https://www.finchaviary.com/Maintenance/FecalSmear.htm> is a great website to help identity normal material.

<https://silo.tips/download/common-avian-parasites-introduction-diagnosis-of-parasites-protozoa> Also useful.

Fractures





Kind permission from S. Elmhurst

XRAY

If possible, X-raying is INCREDIBLY useful. Birds hide injuries well and are easily noted under x-ray.

Fractures can be suggested by odd posture, no withdrawal, bruising and swelling.

Common areas that are typically missed without x-ray are coracoid, scapula and clavicle fractures.

If vets are not confident in diagnosing or assessing bird radiographs Feline and Wildlife rescue have built up connections with wildlife and avian vets who can view x-rays for us. It is always useful for the X-ray to be done at the admission practice so if euthanasia is required it can be done as soon as possible.

Fractures (Malik, 2021):

- Simple, closed, mid- shaft, minimally displaced fracture of a non – major bone that might be **managed conservatively** (e.g. a non – major bone in a small bird): **ring your avian or wildlife vet for their advice- splints/bandages may be effective.**
- Simple, closed, mid – shaft, minimally displaced fracture of a major bone (humerus, femur) in any size of bird (or any limb in a large bird) that could be **managed**

surgically, ring an avian/ wildlife vet for their advice- these may be too severe and require euthanasia.

- Ethics is a large consideration here- will the wing/leg heal well enough to allow the bird full range of motion needed for natural behaviour eg. Perching/hunting etc

In practice the author tends to GA for X-rays to limit stress. If a bird is very flat the author may conscious x-ray to reduce risks.

Typical Kv and MAs can be found online but for pigeons the author tends to use 58KV 1.8Mas.

A DV and lateral whole-body view is usually taken unless there is an obvious area of interest. Tape is used to position wings and legs out of the way. Care with sandbags due to presence of air sacs.

Mauragis and VanderHart, 2014. Avian Radiography

<https://todaysveterinarypractice.com/avian-radiography/>





Hatchlings/Nestlings/Fledglings

Rescues typically end up with injured young birds as they are not assessed as an adult would be. Please consider a physical assessment before contacting a rescue or let the rescue know it has not been assessed. The authors rescue often gets birds that vet practices say are fine and on collection find injuries.

Hatchling- Will need rehabbing. Keep warm. Ask MOP to contact a rescue asap if via phone. If brought into practice pop in incubator or create hot hands. Please assess for injuries/issues. If rehabbable contact a local rescue after assessing. These will require feeding and may not be able to go long times without. Fresh hatched birds may still have their yolk sac to absorb (you can see it through the skin of the abdomen) and will not need feeding immediately. Limit contact/talking as much as possible.



Nestling- Will need rehabbing. Keep warm. Ask MOP to contact a rescue asap if via phone. If brought into practice pop in incubator or create hot hands. Please assess for injuries/issues. If rehabbable contact a local rescue after assessing. These will still require feeding, if short term care (few hours) they will be okay. Limit contact/talking as much as possible.



Fledgling- Aim to keep with parents unless injured, catted or parents abandoned and not self feeding. *Care with “abandoned” as parents can be away for hours at a time and may just be watching from afar. If someone was interfered or is nearby they will unlikely come down. Reduce stress as much as possible. If you have their details we can contact them to take the bird back to parents if needed!* If injured/abandoned please assess and if can be rehabbed contact a local rescue. If medications are needed please let the rehabber know. Limit contact/talking as much as possible as are very susceptible to stress.



Feeding (Bedford, 2018)

Birds feed from dawn till dusk. It is a usually panic for overnight care regarding food but adults and neonates would not feed overnight.

Care: you can do more bad than good offering the wrong food item to a bird. It is best in short term cases not to offer food if not sure what to feed them. If in doubt contact a local wildlife rescue for advice.

Water should always be available to any bird who has fledged but care providing deep dishes where an adult ataxic bird or nestling may drown or become wet and hypothermic. We usually suggest a shallow plate of water to be provided in the case the bird is not entirely stable.

Most young birds can be forcep fed or crop tubed. Very small hatchlings and nestlings need feeding every 20-30 minutes. Larger species can be every hour.

Adult birds and older fledglings should be able to eat for themselves and to limit stress food should be provided adlib.

For interim cases (Unlikely to stock what is needed in practice)

- Emerald



The authors practice stocks a bag of Kaytee Hand rearing Formula in practice as can be fed to most birds including pigeons, insect eaters and seed eaters). As mixed with water this also provides some hydration.



• *...carnivorous feeders (Do not feed this to seed eaters unless nestlings. Do not feed to pigeon species).*

- Chick crumb: Ducklings/Goslings

- Seed: Seed eaters (Usually adults only or larger fledglings)
- Insects: mealworms/waxworms/crickets are easily purchased from pet shops. You can freeze crickets and defrost as needed.
- Fruit-soft fruits such as banana, papaya, grapes can be given to most omnivorous/ insectivorous species.
- Vegetables- chopped lettuce/greens can be given to most species that are omnivorous/ insectivorous. This can also be given to ducklings.
- Pigeons can be crop fed hand rearing formulas. If none available chick crumb is readily available at pet shops and can be mixed with warm water to form a toothpaste like consistency. This is not ideal long term but in the short term will suffice.

SWIFTS- do not attempt to feed anything apart from insects. They can go without feeding for several days if enter Torpor. Please contact Feline and Wildlife Rescue ASAP or if the case they cannot be contacted find a specialist rehabber on this website: <https://www.swift-conservation.org/SwiftFirstAid.htm>

Types of feeders

Altricial (naked and dependent on parents)

- Insect eaters- blackbird, dunnock, house martin, robin, starling, swallow, tit family, thrushes, wagtails, warblers, wren
- Seed eaters- Bullfinch, chaffinch, greenfinch, goldfinch, sparrows, siskins
- Crop feeders- Pigeon (wood/feral), collard dove, stock doves
- Omnivorous- Corvids (jackdaw, magpie, jay, crow, raven, rook)
- Small mammals- Barn owl, kestrel, Red kite
- Small mammals and birds- Buzzard, Little owl (and insects), Long eared owl, Merlin
- Birds- Peregrine, Sparrow hawk

Precocial (eats for self once hatched)

- Ducks (mallard), Greylag Goose, Mute Swan, Partridge, Pheasant, Quail

Cat bites (Cousquer, 2003)

- Cat bites may range from tiny puncture wounds to lacerations.
- **Many wounds cannot be detected with the naked eye and the need for antibiotics may not be recognised in cases where there is no evidence of a puncture wound or scratch**
- Septicaemia is a common sequel to a cat bite
- **The bird may ingest organisms from cat saliva-coated feathers during preening leading to gastrointestinal disease and septicaemia**
- Cats carry *Pasteurella multocida* on their gingival tissue and teeth and antibiotics are therefore always indicated in any bird attacked by a cat
- In addition to *Pasteurella spp.*, a mixed aerobic/anaerobic population has been recovered from the majority of cat bite wounds.
- **Selecting the right antibiotic (or antibiotic combination) is therefore of vital importance.** Penicillins have been cited as the antibiotic of choice due to their efficacy against *P. multocida* and their broad spectrum of action.
- Fluoroquinolones, such as the much-favoured enrofloxacin (**Baytril**) **should not be used on their own** as they lack action against anaerobes and provide incomplete coverage against *Streptococci spp.*
- For **infected bites clavulanate-amoxicillin** or combination therapy with penicillin, or clindamycin, and a fluoroquinolone is recommended.
- Ideally culture and sensitivity testing should be performed, but this will often be impossible for time and cost reasons.
- **Bite wounds should be aggressively cleaned and flushed with saline or 0.05% chlorhexidine. Flushing may need to be repeated.**
- **Puncture wounds can be left open to drain but lacerations should be dressed to protect the underlying tissues.** Some puncture wounds may need to be opened up to facilitate access to the underlying traumatised tissues.
- Where the pectoral muscles have been lacerated, aggressive cleaning and debridement is indicated under general anaesthesia.
- The wounds should be reassessed after 24 to 48 hours and a decision made as to whether wound closure is appropriate.

We treat birds who have been catted, injuries or not with 5-day course of synulox/ clavaseptin as standard. It is the overseeing VS decision however.

We use synulox injectable IM pectoral muscle (35mg/kg-0.7ml/kg for 5-7 days)

Then use synulox/clavaseptin tablets (150mg/kg for 5 to 7 days)

Wounds may also be painful so analgesia should be given where needed.

Please check formulary where possible for up to date dosage. This was taken from Bedford, 2018.

Feather Damage (Corvid Isle, 2018)

The author feels this year there has been an increase in grounded Corvid fledglings due to poor feather quality. This presents as brittle white feathers (see figure) and is suggested to be linked poor or contaminated insects due to increased use of pesticides. This leads to long term captivity for these birds to allow their feathers to be replaced during their annual molt. They cannot be released with these feathers as they will be grounded and overwinter may suffer hypothermia and increased chance of predation. A suitable rescue must be found that can provide long term suitable care for these species.



Feather damage is a tricky rehabilitation feat due to the long time in captivity. In some species it may be suitable to PTS where they cannot be released following short amounts of time in rehab. Birds are typically stressed in captivity and have the risk of imprinting on humans. Contact your local wildlife rescue for advice on these cases.

Euthanasia (Malik, 2021)

Euthanasia is a kindness we can provide for these animals. Their ability to be rehabilitated successfully to be released into the wild should also be considered.

- Comminuted, compound or multiple fractures
- Fractures near a joint
- Missing limbs
- Severe head trauma, neurological signs
- Severe trichomonis
- Missing or irreparably damaged eyes or eye?
- Severe or extensive irreparable necrotic wounds
- Dislocation/ subluxation of joints (most cases)
- Emaciation?
- Moribund?
- Three or more conditions

RCVS- 8.1 Euthanasia may be defined as ‘painless killing to relieve suffering’. Veterinary surgeons and veterinary nurses should be aware that these events are often highly emotionally charged. In these circumstances, small actions and/or omissions can take on a disproportionate level of importance. It is recommended that all practice staff involved in euthanasia are fully trained and a planned, rehearsed and coordinated approach is taken.

To relieve suffering the author believes wild bird euthanasia should be undertaken under general anaesthetic. Depending on the stress of the bird, weighing up the length of stress when putting under anaesthetic to the stress of being restrained and injected. A competent person may be able to guarantee an injection into the vein of a flat bird but in most cases ensuring the bird is under GA is the least stressful option.

“Long-term captivity of wild animals is rarely, if ever, an acceptable alternative to euthanasia. Long-term captivity should only be considered if an animal cannot be released and can be provided with lifelong captive conditions, which meet all of the ‘Five Needs’; this will rarely

be achievable.” BVZS, 2016 https://www.bvzs.org/images/uploads/BVZS_Good_Practice_Guidelines_for_Wildlife_Centres_011016_.pdf

Useful article- <https://www.vettimes.co.uk/app/uploads/wp-post-to-pdf-enhanced-cache/1/practising-humane-euthanasia-on-small-mammals-and-exotics.pdf>

Appendix 1 **Wildlife Admission Form**

Finders Details

Name:

Contact Number:

Have you been referred to us by a wildlife rescue?

Animal Information

Species:

Reason for admission (*please provide as much information as possible*):

Date found:

Area found:

Have you fed the animal? (*if so what?*):

I, the finder, am signing over the care of this animal to “*Veterinary Practice*” and understand it is no longer my responsibility. I am happy for the “*Veterinary Practice*” to share my information with a local wildlife rescue in the case the animal can be rehabilitated and released back into the wild.

Signed:

Printed:

Date:

Vet Check:

Comments:

Rescue contacted:

Discharged:

Appendix 2: RCVS GUIDELINES SURROUNDING WILDLIFE

Legalities:

(RCVS, 2021a, RCVS, 2021b)

3.7 The purpose of first aid and pain relief is to attend to the initial and essential welfare needs of the animal. The primary consideration of the veterinary surgeon should be to relieve the animal's pain and suffering. In some cases, euthanasia may be appropriate.

11.33 Wildlife is, by its nature, wild, and may only be 'owned', or taken possession of, in exceptional circumstances. However, confusion can arise in relation to who (if anyone) is required to consent to treatment of a wild animal. A common scenario is where a member of the public finds a disabled or injured animal and takes the animal to a veterinary practice for treatment.

11.34 In this instance, the member of the public may take possession of the animal for the purpose of tending to it until it is fit to be released (subject to section 14 of the Wildlife and Countryside Act 1981, which prevents the release of invasive species). **At the point the animal is handed over for treatment, legitimate possession of the animal passes to the veterinary surgeon/practice. At no point does the member of the public have a right of ownership over the animal and as such, their consent is not required before treatment (or euthanasia if appropriate) is commenced.** See paragraph 11.1, above, as to who may be considered a 'client' and therefore consent to treatment on behalf of an animal. For veterinary surgeons' obligations in relation to providing first aid and pain relief to wild animals, see [Chapter 3: 24-hour emergency first aid and pain relief](#), paragraph 3.9.

11.35 It is therefore a matter for the veterinary surgeon to decide what treatment is in the animal's best interest and to carry out that treatment. **It is not necessary for the member of the public to formally sign over 'ownership' to the veterinary surgeon or practice.** Although, in this scenario, the member of public does not have a right of ownership over the animal, veterinary surgeons may feel it appropriate to keep the member of public up-to-date with an animal's progress, especially if the member of the public has expressed a desire to be kept informed. Veterinary surgeons should also be mindful that members of the public who find injured animals may be upset by what they have found.

11.36 If a member of public takes an animal away against veterinary advice and the veterinary surgeon has concerns about its welfare (for example, because euthanasia is necessary), they should consider whether it is necessary to alert the relevant authorities (see [Chapter 14: Client confidentiality](#) for guidance).

11.37 It is acknowledged that some organisations, for example wildlife sanctuaries and

rehabilitation centres, are in a unique position and as such, are likely to face many, varying challenges in relation to the ownership of wildlife. Further guidance that may assist in this respect may be found in the [BVZS Good Practice Guidelines for Wildlife Rehabilitation Centres](#) and the BSAVA Manual of Wildlife Casualties.

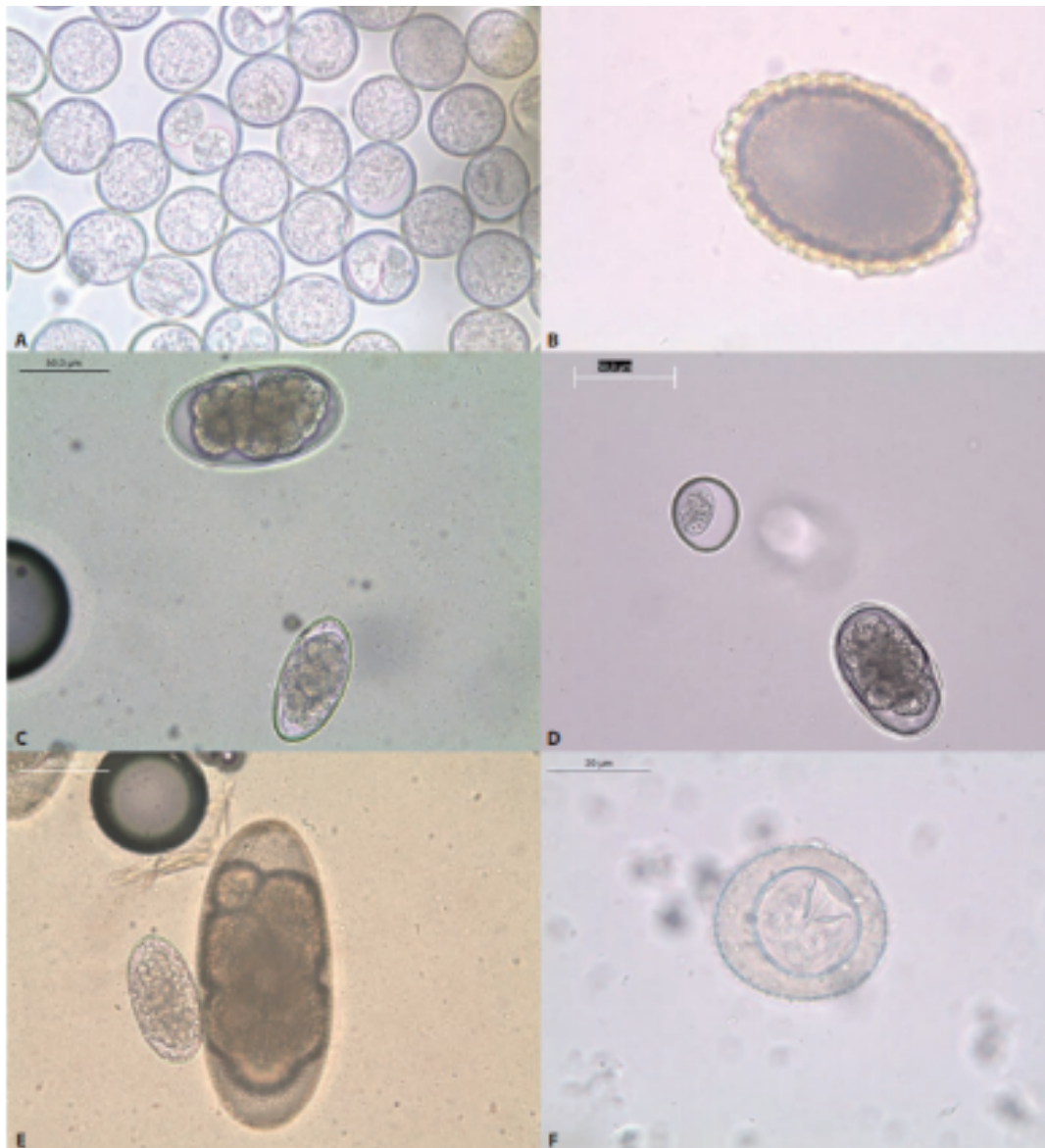


FIGURE 2: A: *Isospora* oocysts, Canary; B: *Porrocaecum* egg, Eurasian Blackbird; C: *Amidostomum* egg (top) and *Trichostrongylus* egg (bottom), Goose; D: *Caryospora* oocyst (at the left) and *Cyathostoma* egg (at the right), Falcon; E: Strongyle-type egg (*Libyostrongylus/Codiostomum* spp. at the left) and *Delectrocephalus* egg (at the right), Rhea; F: *Raillietina* egg, unspecified bird (A, B, F: scale bar= 20 µm; C, D, E: scale bar= 50 µm)

Appendix 3- Common nematodes in Birds (Globokar, *et al.*,2017)

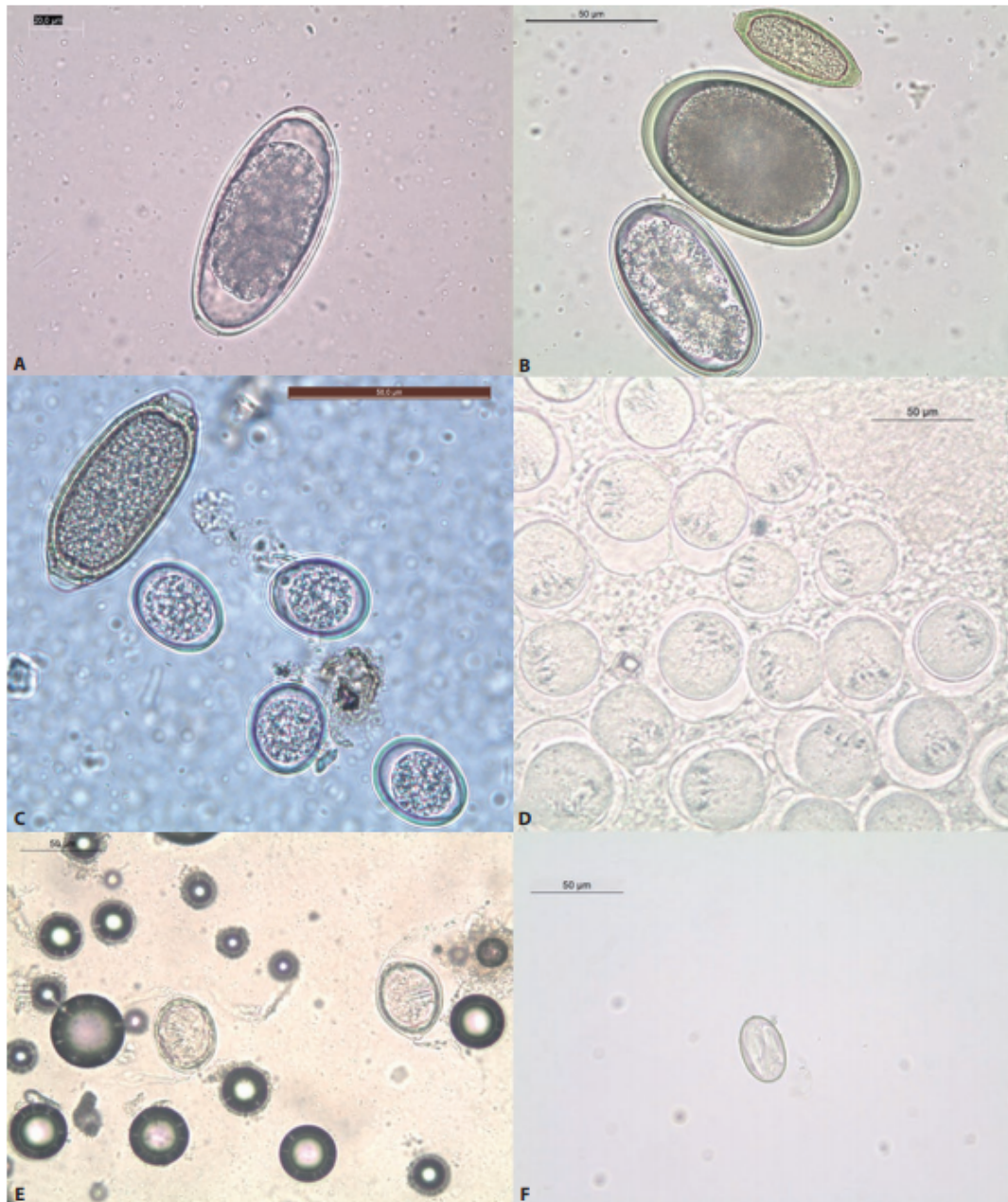


FIGURE 1: A: *Syngamus* egg, African Grey Parrot, B: *Capillaria* (top), *Ascaridia* (center) and *Heterakis* (bottom) eggs, Rock Partridge; C: *Capillaria* egg and four *Eimeria* oocysts, Pheasant; D: *Davainea* eggs, Chicken; E: *Choanotaenia* eggs, Chicken; F: *Spirurid* egg, Common Quail (A-F: scale bar= 50 µm)

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