

### Natural History / Behaviour

- A good bird field guide is imperative for correct identification.
- Many species do not handle stress well – this should be minimised at all times. Think – **Warm, Dark and Quiet.**
- Baby birds should not be admitted for care unless they are injured, sick or genuinely orphaned (parents have died); every effort needs to be made to reunite them with their parent(s) – see guide on how to reunite birds attached.
- Most species have a defined home range, and some are very territorial – ensure you obtain the exact rescue location so they can be successfully treated and returned to this area.
- Baby birds require warmth and regular feeding (some as frequently as every 30 minutes).
- Birds of prey (raptors) should never be housed in wire cages (always in cardboard boxes or smooth sided enclosures) to prevent damage to feathers.
- Bird of prey chicks should not be kept for more than a day before transferring to a raptor rehab facility to reduce risk of imprinting.

### Common Species of South-east Queensland

#### Native Species

Black Swan	Sacred Kingfisher	Australian Magpie
Australian Wood Duck	Galah	Pied Currawong
Pacific Black Duck	Sulphur-crested Cockatoo	Black-faced Cuckoo-shrike
Australian Brush Turkey	Eastern Rosella	Australasian Figbird
Australian Pelican	Rainbow Lorikeet	Olive-backed Oriole
Bush Stone-curlew	Scaly-breasted Lorikeet	Magpielark (PeeWee)
Masked Lapwing	Noisy Miner	Welcome Swallow
Crested Pigeon	Blue-faced Honeyeater	Fairy Martin
Eastern Koel	Little Friarbird	Silvereye
Channel-billed Cuckoo	Noisy Friarbird	Red-browed Finch
Tawny Frogmouth	Grey Butcherbird	Double-barred Finch
Laughing Kookaburra	Pied Butcherbird	Torresian Crow

#### Introduced (Non-native) Species

Common Myna (Indian Myna)	Rock Dove	Nutmeg Mannikin
Common Starling	Spotted Dove	House Sparrow
Northern Mallard		

**Note:** There are 360 species found in South-east Queensland. Refer to a bird field guide for a complete species list.

**Recommended resources:** *The Australian Bird Guide Revised Edition* by Peter Menkhorst, et al. and *Birds of South East Queensland* by Birdlife South-east Queensland.

# Basic Rescue Equipment and Emergency Housing

## Adults / Sub-Adults

- Cardboard boxes (to prevent feather damage); or
- Corflute collapsible pet pack; or
- Plastic picnic-style basket (less preferred as can cause feather damage); or
- Soft pet crates; or
- Wire carry cage (top-opening) – large parrot species only
- Folded towel, puppy pee-pad or triple layer of paper towel to line box or carry cage
- Sheet or towel to cover cage
- Leather gloves or towel for handling
- Eye protection (goggles) for seabirds / waterbirds
- Suitably sized branch secured into holes/sides for perching birds

## Baby Birds

- Artificial nest (ice-cream containers, small cane baskets etc)
- Tissues or paper towels for lining artificial nest
- Plastic picnic-style basket lined with towel or baby blanket
- Heat source: Hot water bottle, instant heat packs, Snugglesafe, small desk lamp suitable as heat lamp, electric heat pad or Brinsea/RCOM ICU
- Probe thermometer to monitor ambient nest temperature
- Teddy bear for ducklings and masked lapwing chicks

**Refer to Wildcare Easy Reference Sheet – Emergency Care of Native Ducklings and Waterbirds attached for specific instructions for these species.**

### Photos - Housing adult birds



**Above:** Suitable transport and emergency care setup for a bird including cardboard box with ventilation holes and lined with a towel.

*Photo: Allison Roberts*

**Below:** Suitable transport and emergency care setup for a bird including plastic rescue basket, fixed branch for bird to perch on and lined with a towel.

*Photo: Nicole Walters*



### Photos - Housing baby birds



**Above:** Crocheted bird nest lined with tissues. Ensure nest is appropriate to the size of the baby birds. *Photo: Allison Roberts*

**Below:** Plastic rescue basket lined with a towel and 'nests' made from tissues/paper towels for each baby bird to be placed within. *Photo: Allison Roberts*



# OHS Considerations / Zoonoses

## Beware of

- Beak
- Claws
- Talons (raptors)
- Long necks that can allow beak to strike at eyes

## Known Zoonotic Diseases

- Psittacosis (bacterial) - parrots and pigeons
- Salmonellosis (found in faeces of wild birds) – passerines
- Aspergillosis (fungal) – raptors, seabirds, waterbirds
- Lice/mite infestations in sick birds (although they won't stay on you as you are not a preferred host)
- Allergic Alveolitis (allergy to bird dander) – asthma-like respiratory symptoms

## Handling

When handling birds you need to be firm but gentle. Care must be taken to avoid restricting breathing. Birds do not have diaphragms so can be easily suffocated if the chest is restrained too tightly.

Ensure wings are folded inward in natural placement to prevent struggling and additional injury.

### Small Birds

Gently cradle them in your hand and secure their feet between your fingers (diagram below left); or  
Use a V grip (photo right); or  
Extend your fore and middle finger against the side of their neck/jaw area.

Diagrams: *Caring for Australian Wildlife (White)*

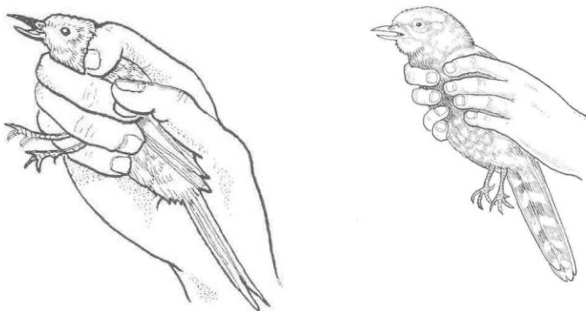


Photo above: CWS

### Medium Birds

Hold with your thumb and middle finger on either side of the bird's head and the index finger placed on top of the head. Keep the bird at arm's length whilst holding your other hand around the wings with the feet secured between your fingers.

Photo right: CWS





## Handling (continued)

### Parrots

Hold behind head with a firm grip, with your forefinger and thumb push the beak upwards, restricting biting. Keep the bird at arm's length whilst holding your other hand around the wings with the feet secured between your fingers.

Cupping a towel around the rear of the head and wrapping the wings and feet with the remainder can also assist to prevent injury to yourself.

*Photo right: CWS*



### Raptors

Cover with a towel and grasp the back of the head with your thumb and first two fingers on either side. Use the other hand to gently grasp the legs, placing a finger in between to prevent them crossing their legs over. Secure the wings either against your body within the towel or with your first hand and move away from your body (so you no longer have a grip on the head).



*Photos above and left: Mimi Dona*

### Water Birds

Swans and other large water birds can be held by securing the top of the neck gently with one hand and holding the body of the bird with the other whilst supporting it against your body. Be aware that some species of birds breathe through their mouth – allow them to open their beak slightly. Some species have strong, sharp beaks and long necks for striking: always use eye protections with long necked waterbirds and gloves if in doubt.

Wading birds have long fragile legs and suffer from capture myopathy: restrain gently.



*Photos right: CWS*

# Common Injuries, Diseases and Conditions

## Adults

- **Road trauma injuries** (head injury, fractured wings and legs, internal injuries, eye injuries, paralysis)
- **Dog or cat attack** (puncture wounds, open wounds, evisceration, internal injuries) **Note:** cat attack injuries often difficult to visualise
- **Disease** – Psittacine Beak and Feather Disease (PBFD), Avian Pox Virus, Throatworm, Tasslefoot, Leukocytozoon blood parasite, Lorikeet Paralysis Syndrome (LPS)
- **Poisoning** – Botulism (waterbirds)
- **Poisoning** - Laced meat put out during nesting “swooping season” for Magpies – resulting in Crows, Currawongs, Butcherbirds, Magpie Larks, Brush Turkeys falling victim in same area as well
- **Heat stress**
- **Entanglement** - from fishing line near rivers and dams, fruit netting and barb wire
- **Lorikeet Paralysis Syndrome (LPS)** – cause unknown. Predominantly affects Rainbow Lorikeets. (Refer to information on next page).

## Orphans

- **Dehydration** – (level dependent upon length of time without maternal nutrition)
- **Hypothermia** (particularly baby birds and in colder months – even a feathered baby bird will lose ability to maintain body temperature after only a few feeds have been missed)
- **Cat attack** (puncture wounds, internal bleeding)
- **Wounds** (from falling from nest, dog/cat attack)
- **Fractures** (from dog/cat attacks and falls)
- **Leukocytozoon infection** – affecting juvenile Figbirds and Orioles (see information on follow page)



**Far Left:** Sulphur-crested Cockatoo with advanced Psittacine Beak & Feather Disease (PBFD);

**Left:** Rainbow Lorikeet with PBFD

PBFD is highly contagious and there is no cure. Euthanasia is appropriate.

*Photos: Australia Zoo Wildlife Hospital*

**Below Left:** Magpie with Throatworm

**Below Right:** Magpie with Avian Pox

*Photos: Australia Zoo Wildlife Hospital*





# Lorikeet Paralysis Syndrome (LPS)

**Lorikeet Paralysis Syndrome (LPS)** is a syndrome predominantly affecting Rainbow Lorikeets. Sub-adult and adult birds present with varying degrees of weakness and paralysis. There are usually no indications of trauma. Birds cannot fly, may appear to fall forward, have watery eyes (with little or no blink response), may have a raspy tone to the voice and clenched feet. Birds with advanced disease are sternally recumbent, unable to blink, have a 'starry' look in the eyes and weak voice/squawk. Feet are clenched.

**Cause** - unknown. Suspected aetiologies are an environmental or plant toxin ingestion.

**Treatment** – most birds recover with supportive treatments including NSAIDS, antibiotics, fluid therapy and intensive care.

To help standardise the assessment of sick and injured lorikeets, Currumbin Wildlife Hospital assign each bird a flight score and a grade which helps determine what stage a lorikeet is in terms of its recovery.

Flight Score	Description (from a ground start)
F0	No attempt to fly
F1	Attempts to fly but no height gained
F2	Gains height, but no more than 1m
F3	Gains height, but unable to maintain
F4	Gain and maintains height but is laboured
F5	Flying normally

Currumbin Wildlife Hospital also assigns a grade to each lorikeet as follows:

Grade	Standing / Perching	Blink Reflex	Feeding	Flight Score	Medication Required	Action
G1	Unable to stand	None or reduced	Requires crop feeding	0	Yes	Requires hospital / intensive care
G2	Standing	None or reduced	Requires crop feeding or assist feeding	0	Yes	Requires hospital / intensive care
G3	Perching	None or reduced	Requires assist feeding	0	Yes	House in small hospital cage
G4	Perching	Reduced	Self-feeding	0-1	Yes	House in large hospital cage
G5	Perching	Normal	Self-feeding	0-2	No	Requires sand-based aviary
G6	Perching	Normal	Self-feeding	2-4	No	Require pre-release aviary

## Photo right:

Rainbow Lorikeet in an appropriate emergency housing setup.

Plastic rescue basket lined with a towel, small towel rolled into a circle/U shape for support. Small bowls for fresh water and lorikeet mix.

Photo: CWH



## Leukocytozoon Infection in Juvenile Figbirds and Orioles

Juvenile Australasian Figbirds (*Specotheres vieilloti*) and Olive Backed Oriole (*Oriolus sagittatus*) are very prone to *Leukocytozoon oriolus* infections across South-east Queensland. Infection rates vary by region and year depending on the prevalence of the flies that spread the parasite, but it is recommended that all juveniles of these two species be tested for this parasite during the vet check-up before going into rehabilitation. Diagnosis can be made by plucking a blood feather on the tail and doing a blood smear. The smear should be stained with DIFF QUIK and examined under 40x and 100x magnification. Infected birds can be treated by a preparation of Daraprim™ (Pyrimethamine 25mg) tabs diluted to a dose rate of 0.04ml per 100g body weight. Research into this is ongoing so it is best to contact Dr. Danny Brown at Australia Zoo Wildlife Hospital (07 5436 2097) for the more up-to-date information on identifying the parasite and drug preparation.

## Prognosis of Common Fractures in Wild Birds

Fractures are the most common trauma-related injury in wild birds presenting to wildlife rescuers and veterinarians. It is essential to note:

- Fractures in birds start to heal very quickly: they must be stabilised and aligned within 24-36 hours to ensure the best possible outcome.
- Assessment and diagnosis should include radiographs by your veterinarian: failure to diagnosis a fracture correctly can lead to incorrect healing and often multiple fractures are present.
- Assessment of joints adjacent to fractures must always be performed. This is best achieved under anaesthetic - joint ligament damage usually carries a poor prognosis.
- Some fractures may be treated with splinting/bandaging; however, many fractures require surgical stabilisation for optimal success.

The following is a list of fractures found in wild birds and a guide to treatment options and prognosis. **Note:** A number of factors will negatively influence the prognosis including:

- multiple/comminute fractures, compound/open fractures and complicated fractures
- fractures in or near joints
- folding fractures
- underlying disease or injury
- fractures more than 48 hours old
- species (some species have higher demand flight requirements e.g. raptors and migratory species)
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Bone / Joint	Treatment	Prognosis
Humerus	Surgical stabilisation generally required. Mid-shaft has better prognosis. Should be assessed by avian or wildlife vet.	Poor
Ulna	Splinting suitable in most cases. Surgical stabilisation required if radius compromised or fracture poorly aligned.	Good
Radius	Splinting suitable in most cases.	Good
Both Ulna & Radius	Surgical stabilisation required. Should be assessed by avian or wildlife vet.	Guarded
Carpometacarpals	Surgical stabilisation generally required.	Guarded/Poor

Bone / Joint	Treatment	Prognosis
Phalanges - wing	Splinting possible in some cases. Should be assessed by avian vet.	Guarded
Coracoid	Figure of 8 bandaging sometimes sufficient. Surgical stabilisation may be required. Should be assessed by avian or wildlife vet.	Poor
Clavicle	Cage rest generally sufficient. Figure of 8 bandaging sometimes used.	Good
Scapula	Cage rest generally sufficient. Figure of 8 bandaging sometimes used.	Good
Femur	Surgical stabilisation required. Should be assessed by avian or wildlife vet.	Good
Tibiotarsus	Splinting possible in some cases. May require surgical stabilisation. Should be assessed by avian wildlife vet.	Good
Tarsometatarsals	Splinting possible in some cases. Should be assessed by avian or wildlife vet.	Good / Guarded
Phalanges - feet	Splinting possible in some cases. Should be assessed by avian or wildlife vet.	Good / Guarded
Spine	Generally not viable	Poor

The above information was prepared in conjunction with Dr. Michael Pyne (Currumbin Wildlife Hospital) and Dr Amber Gillett (Australia Zoo Wildlife Hospital).



# Assessment Checklist – Birds

Clinical Signs	Healthy / Normal	Sick / Injured
<b>Demeanour</b>	<ul style="list-style-type: none"> <li>Bright, alert and responsive</li> <li>Responsive to stimuli (e.g. noises)</li> <li>Conscious</li> <li>Vocalising</li> <li>Tries to bite</li> <li>Tries to flee capture/handling</li> </ul>	<ul style="list-style-type: none"> <li>Quiet / depressed</li> <li>Distressed</li> <li>Reduced response when handled</li> <li>Not responding to stimuli</li> <li>Unconscious</li> </ul> <i>(Indicative of shock, dehydration, injury)</i>
<b>Mobility / Limbs / Wings</b>	<ul style="list-style-type: none"> <li>Able to move all limbs/wings</li> <li>Able to stand unassisted</li> <li>No bruising or swelling</li> <li>No obvious abnormalities or lack of symmetry</li> </ul>	<ul style="list-style-type: none"> <li>Abnormalities in movement (e.g. only using one leg, falling over, swaying)</li> <li>Wing abnormalities (e.g. wings not sitting in correct position, blood, missing feathers)</li> <li>Head tilted to one side</li> <li>Paralysis (<i>trauma</i>)</li> </ul> <i>(Indicative of trauma related injury)</i>
<b>Body Condition</b>	<ul style="list-style-type: none"> <li>Good body condition</li> <li>Good muscle tone over keel</li> <li>Good muscling of the thighs</li> <li>Wings in good condition</li> <li>Non-odorous smell</li> </ul>	<ul style="list-style-type: none"> <li>Open wounds (<i>trauma</i>)</li> <li>Puncture wounds (<i>trauma</i>)</li> <li>Poor body condition (<i>malnourished</i>)</li> <li>Lack of muscle tone (<i>malnourished</i>)</li> <li>Offensive odour (<i>infected wound</i>)</li> <li>Missing feathers (<i>trauma or dog/cat</i>)</li> <li>Bruising (<i>trauma</i>)</li> <li>Wart-like lesions, flaky, dry skin (<i>chronic illness</i>)</li> </ul> <i>(Indicative of trauma or chronic illness/disease)</i>
<b>Breathing</b>	<ul style="list-style-type: none"> <li>Normal (handling may result in increased respiration rate)</li> </ul>	<ul style="list-style-type: none"> <li>Open-mouthed breathing</li> <li>Laboured (noticeable effort to breath)</li> <li>Audible breathing sounds (clicking, ticking, gurgling sounds)</li> <li>Sneezing or coughing</li> <li>Shaking head (<i>possible obstruction or head injury</i>)</li> <li>Rupture of air sacs – visible as air-filled sacs around neck, under wings or inguinal region</li> </ul> <i>(Indicative of trauma related injury, poisoning)</i>
<b>Head</b>	<ul style="list-style-type: none"> <li>Symmetrical</li> </ul>	<ul style="list-style-type: none"> <li>Abnormal symmetry</li> <li>Indentations</li> <li>Swelling</li> <li>Crepitation</li> <li>Lacerations/abrasions/wounds</li> </ul> <i>(Indicative of trauma related injury or dermatitis)</i>
<b>Eyes</b>	<ul style="list-style-type: none"> <li>Bright and clear</li> <li>Shiny</li> <li>Third eyelid (nictitating membrane) retracted (intermittently flicks across eye for lubrication)</li> </ul>	<ul style="list-style-type: none"> <li>Dull (<i>pain/dehydration</i>)</li> <li>Sunken (<i>dehydrated</i>)</li> <li>Closed (<i>pain/dehydration</i>)</li> <li>Third eyelid permanently drawn across eye</li> <li>Protrusion (<i>trauma</i>)</li> <li>Swelling (<i>trauma</i>)</li> <li>Clear fluid (<i>trauma</i>)</li> <li>Nystagmus (<i>head trauma</i>)</li> <li>Unequal pupil(s) (<i>trauma</i>)</li> <li>Unreactive pupil(s) (<i>trauma</i>)</li> <li>Purulent discharge (<i>infection</i>)</li> <li>Missing feathers and open wounds (<i>trauma</i>)</li> </ul>

## Assessment Checklist – Birds (continued)

Clinical Signs	Healthy / Normal	Sick / Injured
<b>Beak</b>	<ul style="list-style-type: none"> <li>• Straight and intact</li> <li>• No discharge or bleeding</li> </ul>	<ul style="list-style-type: none"> <li>• Distorted (<i>trauma</i>)</li> <li>• Part beak missing (<i>trauma</i>)</li> <li>• Blood or other discharge (purulent infection) from nostrils (<i>trauma</i>)</li> <li>• Abrasions (<i>trauma</i>)</li> <li>• Swelling (<i>trauma</i>)</li> </ul>
<b>Mouth</b>	<ul style="list-style-type: none"> <li>• No discharge</li> <li>• Symmetrical</li> <li>• Tongue undamaged</li> </ul>	<ul style="list-style-type: none"> <li>• Mal-aligned jaw (<i>trauma</i>)</li> <li>• Blood (<i>trauma</i>)</li> <li>• Swelling (<i>trauma</i>)</li> <li>• Crepitation (<i>trauma</i>)</li> <li>• Pale mucous membrane (<i>shock/dehydration</i>)</li> </ul>
<b>Ears</b>	<ul style="list-style-type: none"> <li>• No discharge</li> </ul>	<ul style="list-style-type: none"> <li>• Blood</li> <li>• Clear fluid</li> </ul> <p>(Indicative of trauma related injury)</p>
<b>Feathers</b>	<ul style="list-style-type: none"> <li>• Shiny and in good condition</li> </ul>	<ul style="list-style-type: none"> <li>• Patchy or missing feathers (<i>dog/cat attack or PBFD</i>)</li> <li>• Wet patches on feathers (<i>dog/cat attack</i>)</li> <li>• Raw, inflamed open wounds (<i>trauma</i>)</li> </ul>
<b>Cloaca (vent)</b>	<ul style="list-style-type: none"> <li>• Clean</li> <li>• Free from discharge</li> </ul>	<ul style="list-style-type: none"> <li>• Blood (<i>trauma</i>)</li> <li>• Lacerations (<i>trauma</i>)</li> <li>• Swelling (<i>trauma</i>)</li> </ul> <p>(Indicative of trauma related injury)</p>
<b>Parasites</b>	<ul style="list-style-type: none"> <li>• Some bird lice is normal</li> </ul>	<ul style="list-style-type: none"> <li>• Overabundance of lice (<i>chronic illness</i>)</li> <li>• Fly blown/maggots (<i>trauma</i>)</li> </ul>

# Assessment Parameters

## Vital Signs

Heart Rate	Variable
Respiration Rate	100-200 breaths per minute (small birds) 35-50 (large birds)
Core Body Temperature	40-42C

## Preferred Ambient Temperature

Adults and Sub-Adults (Sick/Injured)	28°C
Baby Birds – Hatchlings	36 - 37°C
Baby Birds – Unfeathered	34 - 36°C
Baby Birds – Partially Feathered	30 - 34°C
Precocial Chicks & Ducklings	32°C
Fledglings- Fully Feathered	25 - 28°C

## Signs of Stress

- Vocalisation
- Open mouth breathing
- Attacking
- Moulting when handled (common in pigeons)

Ensure minimal handling and kept in dark and quiet location. Birds are easily stressed despite not showing traditional signs of stress. Avoid loud noises. Do not house near dogs/cats/predatory species.

## Signs of Pain

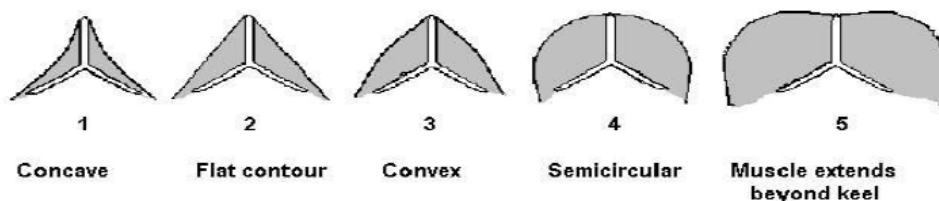
- Fluffed feathers
- Vocalising
- Aggressive behaviour
- Closed eyes or protrusion of third eyelid
- Reduced level of alertness
- Heavy breathing
- Repetitive behaviour
- Showing no interest in food/water

## Signs of Dehydration

- Dull eyes
- Sunken eyes
- Lack of skin elasticity across keel/pectoral muscles
- Increased mucous in oral cavity
- Lethargy

## Assessment of Body Condition

**Pectoral muscle over keel bone** – Should have good coverage of muscle  
**Feathers** – should be clean and unbroken, no faeces around vent  
 Healthy body score varies slightly by species, but most healthy, wild birds should be a score of 2-3. Body scores of 4-5 are often seen in overweight pet birds.



Body Condition Scores

Representation of transverse section of the sternum and pectoral musculature.

Source: *Husbandry and Rehabilitation of Injured Native Birds* – Dr Anne Fowler



# Emergency Diet

Do not offer any food or water to an animal suffering from injury (e.g. vehicle hit, dog/cat encounter etc). Injured wildlife must be presented to a veterinarian for treatment before offering food or water. Alternatively, please consult with your relevant Species Coordinator.

Many species will not self-feed when they first come into care and will need to be force-fed: only experienced rehabilitators should attempt to force feed or crop feed a bird. Do not provide food or water to a cold bird.

## Adults

- **Vetafarm Poly-Aid Plus First Aid Supplement; or**
- **Wombaroo First Aid for Birds**
- **Fresh water** available at all times

If unsure what species; offer Vetafarm Poly-Aid Plus First Aid Supplement via syringe and a variety of insects, seeds, chopped fruit, chopped greens and lean mince.

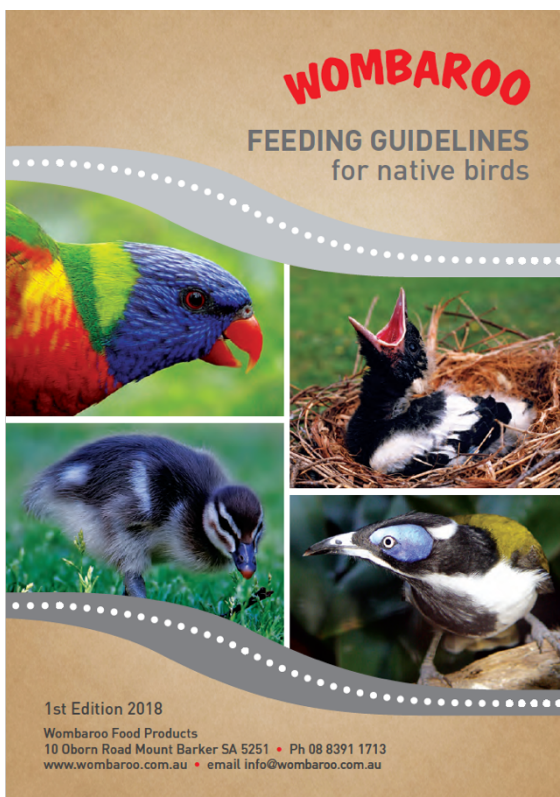
## Orphans

- **Vetafarm Spark mixed with Water** (initially for first 2 feeds); then
- **Vetafarm Poly-Aid Plus First Aid Supplement; or**
- **Wombaroo First Aid for Birds**
- **Scrambled egg** fed in small pieces dipped in Spark water when cool (short-term emergency care only).

**Note:** Young birds have high food intake requirements and will need more frequent feeds. This is particularly important when the baby has been without maternal nutrition for an extended period of time.

If unsure what species: offer Vetafarm Poly-Aid Plus First Aid Supplement via syringe and insects.

Only offer food when bird gapes to avoid aspiration. Birds which do not wish to eat are highly susceptible to aspiration.



## Wombaroo Feeding Guidelines for Native Birds

**A PDF copy of the Wombaroo guide is included at the rear of these Species Information Sheets.**

This comprehensive guide includes specific diets for various species. It also includes information on their natural diet as well as growth charts for many species.

[www.wombaroo.com.au](http://www.wombaroo.com.au)

## Emergency Diet – Supplies to keep on hand

Outlined below is a list of supplies which are commonly used in the care of Australian native birds. It is handy for rescuers to keep these items on hand in small quantities.

- **Small parrot seed** – try not to use WILD BIRD MIX as this is too high in fat and is unbalanced as a diet for rehabilitation. A combination of budgie and finch seed is preferable.
- **Vetafarm Poly-Aid Plus First Aid Supplement**- Emergency Nutrition for Sick or Orphaned Birds
- **Passwell's First Aid for Birds** – Emergency Nutrition for Sick or Orphaned Birds, optimized for granivores
- **Vetafarm Insectapro Mix**- used to mix with mince or sprinkle over fruits/ mix in honeyeater food
- **Wombaroo Insectivore Mix** – used to mix with mince and other fresh meats for meat eating birds. Do not freeze.
- **Wombaroo Lorikeet and Honeyeater mix** – wet mix for Lorikeet and Honeyeaters
- **Passwell's Complete Lorikeet** – dry or wet mix for Lorikeets and Honeyeaters
- **Liquid Calcium**– added to feeds as a supplement e.g. Vetafarm Calcivet only under vet direction
- **Vetafarm Soluvet D** (or similar) vitamin supplement - added to feeds.
- **Frozen mince** – try and use premium mince where possible, economy mince has too high a fat content. Freeze into small amounts – only keep frozen for 3 months maximum.
- **Frozen whiting** – bait fish is fine, frozen prawns can be kept too.
- **Frozen mice** – these can be expensive but purchasing them directly from a wholesaler reduces the cost significantly. It is good to have a few on hand.
- **Vetafarm Egg and biscuit mix** – added to some feed mixes
- **Fine shell grit** – used for granivores
- **Chick starter** – used in Diet 6 for waders, ducks etc
- **Good quality vegetables and fruit** – freeze seasonal fruits, frozen peas, carrots, corn mix ideal
- **Passwells Handrearing Mix** – for pigeon and dove chicks
- **Vetafarm Neocare** – for parrot chicks including lorikeets
- **Insects** – moths, mealworms, crickets, maggots etc

**If in any doubt – treat all birds as insectivores until you can identify what you have. All birds at some stage of their life will eat insects. Cooked egg is something most people can prepare in their home if a young bird is stranded for many hours (bad weather, flooding, etc.)**

## Average Feed Rates

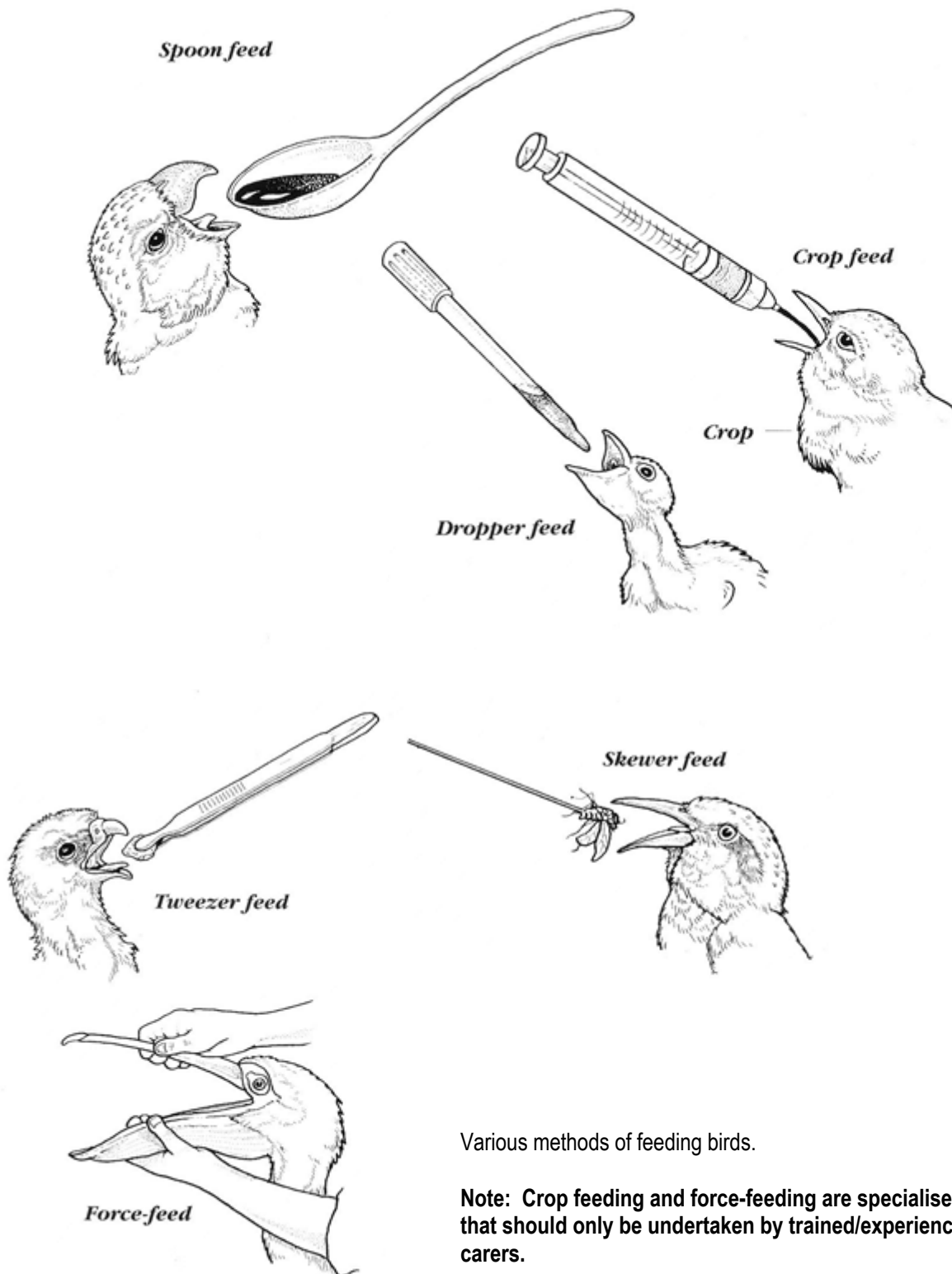
The following is based on information prepared by Heather Parsons from *Caring for Australian Native Birds*.

**Note:** Feed rates can be increased as required but should not be decreased until weaning is commenced.

Species	Unfeathered	Feathered	Fledged
<b>Small Insectivores and Nectivores</b> Silvereyes, Superb Fairywrens, Willy Wagtails, Fairy Martins, Welcome Swallows and Striated Pardalotes	15 mins	20-40 mins	40-60 mins
<b>Medium Insectivores, Nectivores and Frugivores</b> Noisy Miners, Australasian Figbirds, Magpie-larks, Noisy Friarbirds, Blue-faced Honeyeaters, Black-faced Cuckoo-shrikes, White-throated Nightjars, Sacred Kingfishers, Buff-banded Rails & Masked Lapwings	30-45 mins	1-2 hourly	4 to 5 x daily
<b>Large Insectivores, Nectivores and Frugivores</b> Pacific Koels, Pheasant Coucals, Channel-billed Cuckoos, & Bush-stone Curlews	40-60 mins	5 to 6 x daily	4 x daily
<b>Carnivores &amp; Ormnivores</b> Australian Magpies, Tawny Frogmouths, Laughing Kookaburras, Owls, Pied Currawongs & Pied and Grey Butcherbirds	40-60 mins	5 to 6 x daily	3 x daily
<b>Granivores</b> Galahs, Sulphur-crested Cockatoos, Crested Pigeons, Peaceful Doves, Pale-headed Rosellas, King Parrots & Little Corellas	2 hours	4 hours	2 x daily
<b>Precocial Water Birds</b> Ducks, Magpie Goslings etc.	-	-	2 x daily



# Feeding Methods



Various methods of feeding birds.

**Note:** Crop feeding and force-feeding are specialised techniques that should only be undertaken by trained/experienced wildlife carers.

If using a skewer, ensure that the blunt end only is used to prevent the bird lunging onto the food and accidentally causing injury to its mouth.

**Source:** *Caring for Australian Wildlife* (White)

## Drug Administration (preferred routes)

<b>Oral</b>	1mL syringe depending upon species and size. Syringe with crop needle (only if experienced with crop-feeding)
<b>Intramuscular</b>	Pectoral muscle either side of the keel bone or thigh.
<b>Subcutaneous</b>	Flank cranial to thigh (outside of upper leg) or inguinal region; or Loose skin at featherless track at lateral neck/shoulders (be careful to avoid hitting air sac).
<b>Intravenous</b>	Jugular or wing vein (medial ulnar vein over elbow).

## Euthanasia (preferred methods)

**Euthanasia methods stated to assist veterinary staff.**

**Wildlife volunteers must not euthanise unless trained to do so or they hold appropriate approvals.**

- Injection of sodium pentobarbitone (Lethabarb) after induction with Isoflurane (strongly preferred):
  - Intravenous
  - Intracardiac (must be anaesthetised first)
  - Intrahepatic (must be anaesthetised first)
  - Intraperitoneal (dilute with water 50:50)
- Blunt force trauma to the head (small birds) – **only if trained to do so**

## Suggested Drugs and Dose Rates

This information is provided for **VETERINARY USE ONLY** to assist veterinary staff with the **initial assessment** and **emergency treatment** of sick, injured and orphaned wildlife. Suggested drugs and doses are those commonly used by the wildlife hospitals in South-east Queensland and are for routine treatment only. Recommendations may vary between individual veterinarians. Culture and sensitivity results would indicate the most appropriate antibiotic regime. Most drugs are used off-label.

### Anaesthetic

Drug	Composition	Dose Rates
Isoflurane ®	Isoflurane 100%	5% for induction and 2-3% for maintenance with oxygen flow rate of 1-2 litres per minute
Aquafol ® / Propofol ®	Propofol 10mg/mL	Large seabirds (Pelicans, swans etc) 3 to 5mg/kg (IV) for induction then maintained on Isoflurane

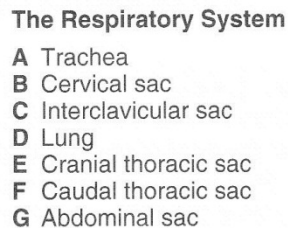
### Analgesic

Drug	Composition	Dose Rates
Metacam ®	Meloxicam	1mg/kg BID – (IM or PO)
Torbugesic ®	Butorphanol Tartrate 10mg/mL	1 to 5mg/kg every 2 - 4 hours (sedation at high doses)
Tramadol ®	Tramadol hydrochloride 50mg/mL (injectable) Tramadol hydrochloride 100mg/mL (oral liquid)	5 – 30mg/kg PO 6 – 12 hourly 5-10mg/kg IM 6-12 hourly

### Antibiotics

Drug	Composition	Dose Rates
Clavulox ®	Clavulanic acid 35mg/mL Amoxycillin 140mg/mL	75 - 100mg/kg combined drugs BID (IM or PO)
Baytril ®	Enrofloxacin	10 to 15mg/kg BID (IM or PO)
Betamox-LA ®	Amoxycillin	150mg/kg EOD (IM)





**Source:** *An Illustrated Guide to Veterinary Medical Terminology* (Romich)



Rescue and First Aid for Wildlife – Wildcare Australia Inc. (March 2021)  
**SPECIES INFORMATION SHEET – BIRDS**

# Anatomy (continued)

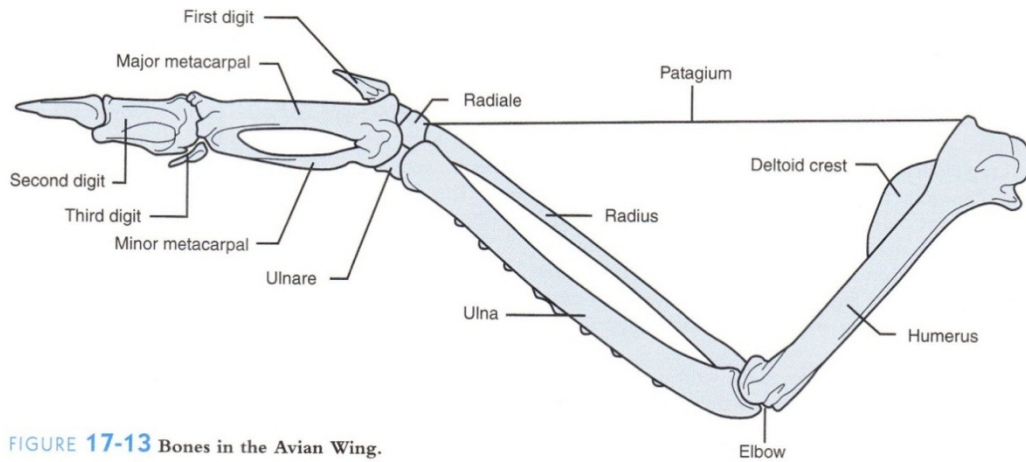
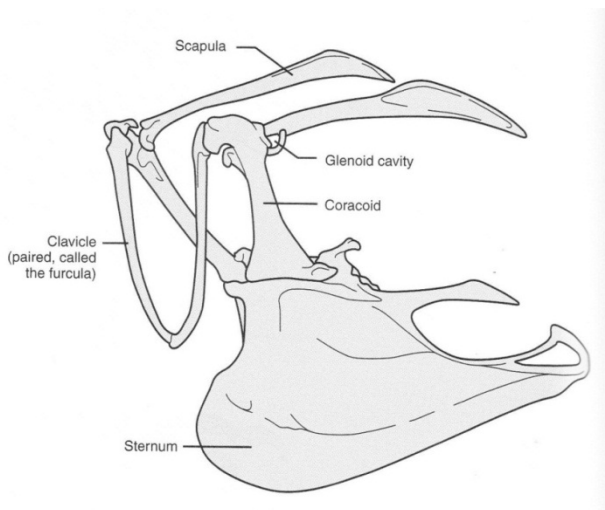


FIGURE 17-13 Bones in the Avian Wing.

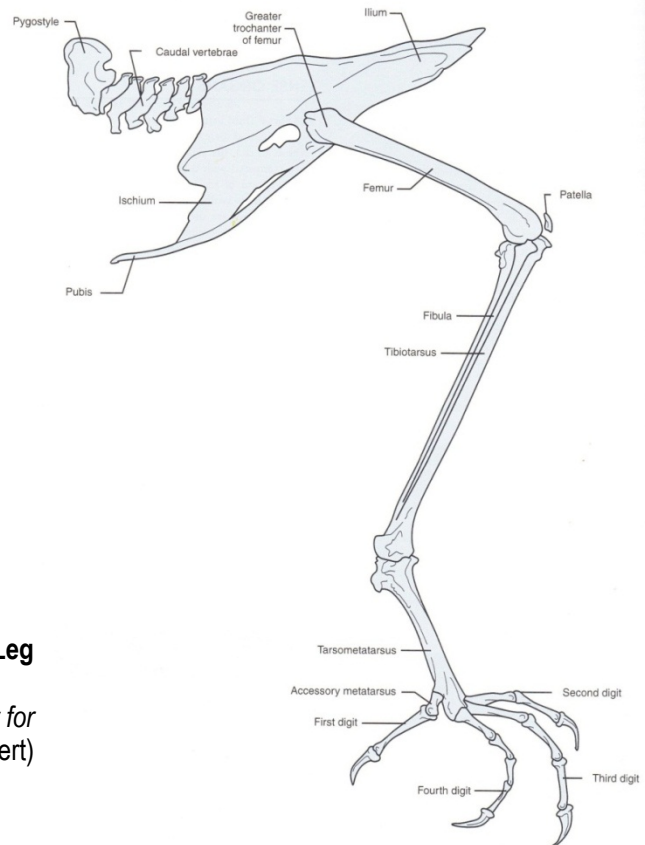
## Above: Bird Wing

Source: *Clinical Anatomy & Physiology for Veterinary Technicians* (Colville and Bassert))



## Above: Anatomy of Pectoral Girdle

Source: *Clinical Anatomy & Physiology for Veterinary Technicians* (Colville and Bassert)



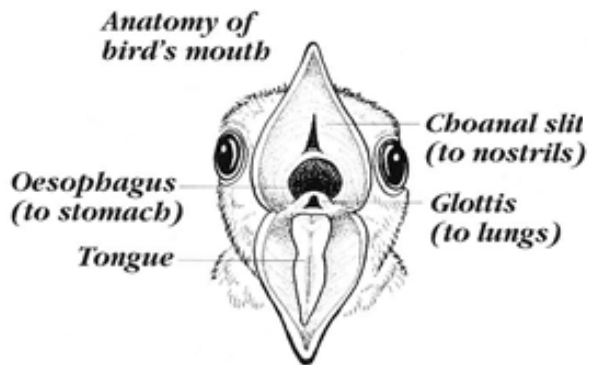
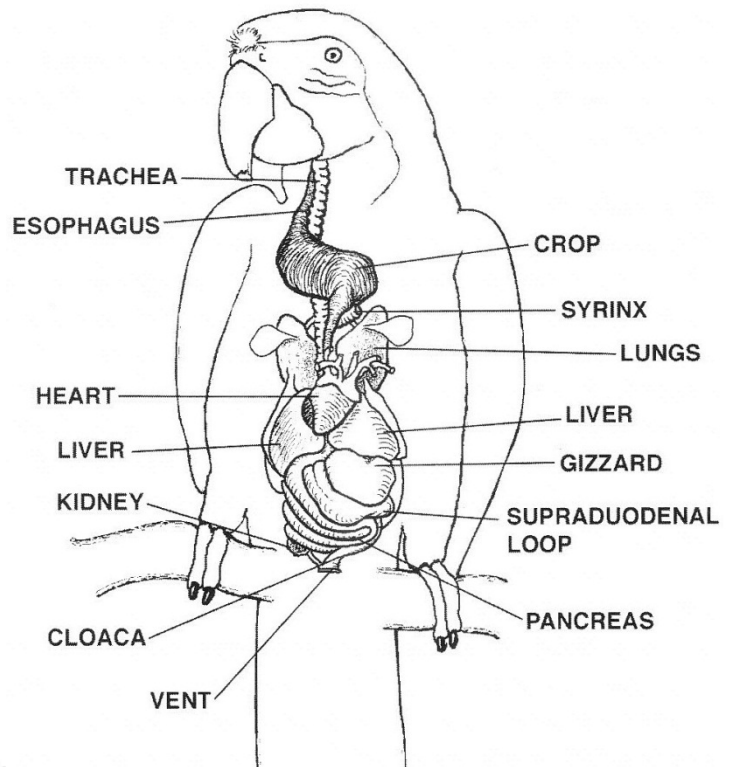
## Right: Bird Leg

Source: *Clinical Anatomy & Physiology for Veterinary Technicians* (Colville and Bassert)

## Anatomy (continued)

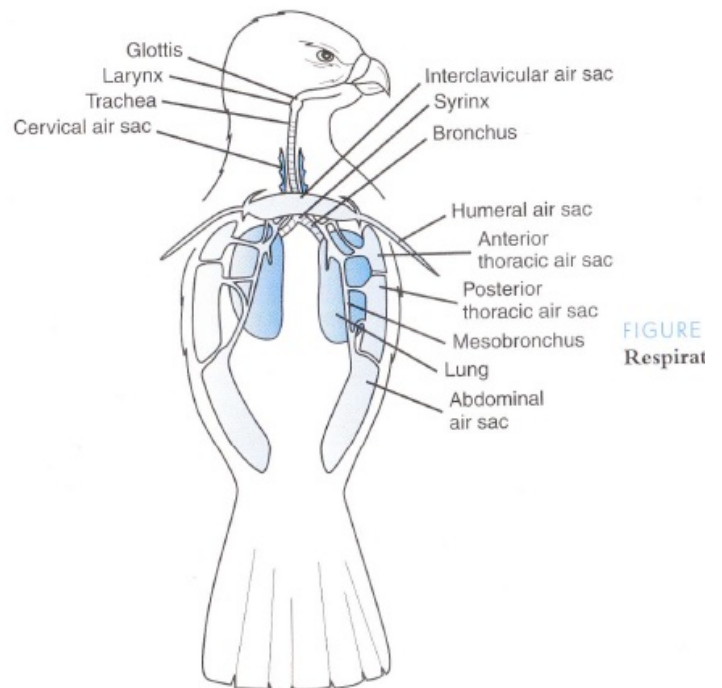
Right: Visceral anatomy of a bird

Source: *Exotic Animal Medicine for the Veterinary Technician* (Bollard & Cheek)



Above: Anatomy of a bird's mouth

Source: *Caring for Australian Wildlife* (White)



Right: Respiratory Tract

Source: *Clinical Anatomy & Physiology for Veterinary Technicians* (Colville and Bassett)

## Anatomy (continued)

### Right: External parts of a bird

**Source:** *An Illustrated Guide to Veterinary Medical Terminology* (Romich)



### Below: Parts of a wing

**Source:** *An Illustrated Guide to Veterinary Medical Terminology* (Romich)

