Flying Foxes (FF's) - *Pteropus* spp

General Information

Subclass Eutheria or Placental. There are four commonly encountered species. Most are listed as at least vulnerable. As prime tree pollinators bats are a keystone species for forest survival. All are highly colonial, intelligent nocturnal and fly long distances (e.g. 50 km per night). They eat mainly nectar, pollen and native fruits. They mate all year but are mainly fertile in April/May with a single young being born in Oct/Nov except little reds (LRFF) in which the timing is reversed. During the day they hang in camps. Flying foxes cannot take-off from the ground or support their weight on their legs. Claw tendons lock at rest. They normally hang with wings wrapped around the body but when stressed the wings hang at the sides, legs apart and may be drawn up.

Parameter	Species	Measure
Distributions	Spectacled flying foxes	Qld north of Townsville
	Black flying foxes	northern WA, NT & Qld to NE NSW
	Little red flying foxes	northern WA, NT & Qld to mid/south NSW & rarely further south
	Grey-headed flying foxes	SE Qld to Vic
Adult mass (g)	Spectacled, blacks, grey-headed	600 – 1200
	Little reds	300 – 600
Baby Mass (g)	Spectacled, blacks, grey-headed	90 – 250
	Little reds	45 – 125
Forearm Length (mm)	Spectacled, blacks, grey-headed	150 – 180
	Little reds	
Key Identification Factors	Flying foxes	no nose leaf or complex ears - don't echolocate, no tail, young born furred, adults > 300 g
	Microbats	nose leaf & complex ears: echolocate, tailed, young born naked, adults < 300 g

Requirements for Release

Need good muscle tone, and able to take high stress on arm bones for sustained flight. Normally released to a colony (relatively safer). Young are left in a colony from 4 weeks old, and can't fly out until 4 to 6 months.

Flying foxes missing a claw on a foot or one thumb can be released. Flying foxes with wing holes can be released depending on the size, position and scarring. Generally, if the edge of the hole has healed the bat can be released. It is not necessary to wait for complete closure.

In Care Requirements

Fly foxes can stress very quickly in a clinic and can die or self mutilate. Adults must hang. Place paralysed adults or young on a towel roll on a 45˚ slope. Cover young and place on a heat pad. Place the cage as high as possible, in a quiet area away from other animals.

Feed adults chopped fruit (in a container on the side of the cage) and water. Young can be fed any human milk replacer, Wombaroo, Divetalac or Biolac puppy.

Disclaimer

WAIF provides all information to the best of its knowledge as a guide only. An experienced veterinarian should be consulted before treating any animal.

Flying Foxes (FF's) - *Pteropus* spp

Common Problems / Normal Treatments

Exposure/dehydration/hypothermia/hyperthermia: Common in rescued bats, may develop respiratory infections.

First Aid: Correct hypothermia (or hyperthermia), dehydration and circulatory problems with fluids and warmth. Then address their nutritional requirements. Lectade unless electrocution possible then only use glucose. Use broad-spectrum antibiotics (e.g. amoxicillin or amoxicillin/clavulinic acid) if infection suspected or likely. Treat with oral nystatin to avoid *Candida* overgrowths while receiving antibiotics.

Parasites: many juveniles carry roundworms. Treat with fenbendazole (Panacur) or praziquantal and pyrantel pamoate (Drontal). Coccidia occasionally cause diarrhoea in baby bats. Identify with a faecal wet preparation and flotation. Treat with toltrazuril (Baycox).

Entanglement: loose tree netting – severe bruising may take up to 2 weeks to show. NEVER release before this, or with torn mouth, broken bones (particularly thumbs or claws) dehydration or shock. Barbed wire – puncture wounds in body, torn wings, sunburn (can show later as severe), dehydration, punctured soft palette, shock
All damage is treatable depending on severity – including soft palette.

Electrocution: adults severe usually fatal (if not then found on ground), burns, concussion (from fall), internal or nervous system damage. If survive first few days then often recover but nerve/brain damage may take months to become noticeable. Babies on mothers normally survive – burns (particularly mouth), dehydration, exposure. Good prognosis.

Predator Attack: (e.g. powerful owl) – deep wounds to the body, holes/tears in wing, shock, damage from the fall.

Collision: car, window, storm. Concussion, bruising, exhaustion, broken bones.

Lost: frequent reason in Feb-April for juveniles on the ground, usually crash landed from where they can't take off (stair wells, balconies etc). Normally minor abrasions, dehydration.

Dehydration:

Wings: Silvazene (for burns), Betadine, *aloe vera*, macadamia oil (recommended) or pure vitamin E oil are suitable. DO NOT use tea tree oil or any substance not known to be OK. Exposed finger bones can be amputated. Ongoing physiotherapy may be needed[1] to minimise scarring defects. **Wing fungus**: e.g. stress or poor housing / hygiene with limited access to sunshine, fresh air and ability to fully extend their wings, appears as a grey "blur" or slimy exudate. Sunshine, Panalog (this can retard growth and can compromise the immune system) or Daktarin spray. Do not stitch a wing, as this usually increases the damage. Some new techniques show promise[2].

Fractured bones Young: pin or strapping/adhesives[3]. If bones rotate during healing the bat is non-releasable. Adults: thumb breaks may heal. One can be amputated. Finger bones usually heal well. Main limb bones can be difficult and require expert treatment.

Pneumonia Requires immediate antibiotic therapy (e.g. Clavulox). Potential in young with feeding problems.

---

[1] Helen Nicholson

[2] Jon Hanger, Veterinarian Dreamworld www.dreamworld.com.au. He should be contacted before attempting this

[3] Consult a vet experienced in this area eg Dr Derek Spielman or Dr Teri Bellamy

Flying Foxes (FF's) - *Pteropus* spp

Smelly, explosive **faeces** or with white spots indicate malabsorption. Change formula or feed less.

Wounds: treat with antibiotics and sometimes sutures and dressings: clindamycin (particularly for predator wounds)

Inflammation/Sprains: treated in the usual manner (e.g. Metacam at dog dose). Damage to the wrist or elbow can cause scarring which prevents flight.

Disease: Neurological disorders in bats that are not attributable to head or spinal trauma, intoxication (e.g. lead poisoning), bacterial encephalitis, tick paralysis, hydrocephalus (juveniles) or *Angiostrongylus cantonensis* in the brain, may be due to Lyssavirus and should be handled with extreme caution.

Antibiotic Therapy

Birds and bats have simple gastrointestinal tracts and bats have no caecum, so antibiotics can be used as in cats and dogs at the same or slightly higher dose rates under similar circumstances, e.g. clindamycin for bone infections or potential bone infections.

Further Reading

Australian Mammals Biology and Captive Management, 2003 Jackson, S. CSIRO Publishing

Medicine of Australian mammals, 2008, Vogelnest, L., & R Woods. CSIRO Publishing

Urban Wildlife. Proceedings 204, 1992, Postgrad. Comm. in Vet. Science University of Sydney Ph: 61 2 9351 7979