Lizards

Species Information Sheet

Natural History / Behaviour

- Lizards are ectothermic: their body temperature is influenced by their surroundings
- All lizards are independent from time of birth/hatching – there is no such thing as an 'orphaned lizard'
- Some species (geckoes, legless lizards and skinks) can drop their tails; care should be taken when handling.
- Legless lizards are often mistaken as snakes (lizards have external ear-openings; snakes do not).
- Large species (such as goannas, lace monitors) should be rescued/handled by experienced reptile handlers ONLY.

Common Species of South-east Queensland

		Average snout-vent length
Blue-tongued Skink	*Tiliqua scincoides*	300-320 mm
Pink-tongued Skink	*Cyclodomorphus gerrardii*	200 mm
Eastern Water Dragon	*Physignathus lesueurii*	254-400 mm
Common Bearded Dragon	*Pogona barbata*	250 mm
Lace Monitor	*Varanus varius*	2.1 metres
Burton's Snake Lizard	*Lialis burtonis*	290 mm
Common Scaly-foot	*Pygopus lepidopodus*	274 mm
Thick-tailed Gecko	*Nephrurus milii*	96 mm
Robust Velvet Gecko	*Oedura robusta*	80 mm

Note: List is incomplete. For a complete list of all lizard species found in South-East Queensland, refer to a reptile field guide such as *A Field Guide to Reptiles of Queensland* by Steve Wilson.

Basic Rescue Equipment and Emergency Housing

Adults

- Cotton pillowcase with tie
- Plastic tub with smooth sides and ventilated lid with towel on bottom for support
- Small cardboard box or shredded newspaper can be placed in plastic tub to hide in
- Leather gloves or towel for handling dragons and lace monitors
- Heat source: Snugglesafe heat disk under a towel at one end of the enclosure. Ensure sufficient room so the lizard can move onto or away from it freely. If not sufficient room to move away from a heat source, do not include in emergency housing.
- **Note: When using any heat source, the animal MUST be able to move away from the heat source to avoid thermal injury. Please refer to Reptile Species Coordinator before providing a heat source.**

OHS Considerations / Zoonoses

Beware of

- Teeth / Mouth
- Claws
- Tail (Lace Monitors + Dragons)

Known Zoonotic Diseases

- Reptiles known to carry salmonella – ensure excellent hygiene when handling
- No other specific zoonoses

Handling

Skinks, Legless Lizards and Geckoes

Never handle by the tail.
Restrain the head with your thumb and/or index finger around the neck and support their body with your other hand.

Water Dragons and Bearded Dragons

Use gloves or towel to protect hands from spiky, rough skin.

Gently but firmly grasp the lizard around the back of the head and use your other hand to grasp the base of the tail.
Keep the body elevated and well supported.

Lace Monitors

Use a towel or welding gloves to prevent being bitten or scratched. Hold above the shoulders firmly but gently just below the head. Hold the hind legs together with the base of the tail with your other hand. Secure the tail either in your second hand or between your legs or against a table.

Note: Lace Monitors should only be handled by experienced reptile handlers.

Photo: Karen Scott (Legless lizard)
All other photos: CWS

Assessment Checklist – Lizards

Clinical Signs	Healthy / Normal	Sick / Injured
Demeanour	• Bright, alert and looking around • Will struggle when being handled • Responsive to stimuli (e.g. noises) • Vocalises aggressively • Tries to bite, scratch and/or kick • Tongue flicking regularly • May puff themselves up in defense	• Quiet / depressed • Distressed • Non-responsive when handled • Not responding to stimuli • Unconscious *(Indicative of shock, dehydration, injury)*
Mobility / Limbs	• Able to move body and all limbs • No bruising or swelling • No obvious abnormalities or lack of symmetry	• Abnormalities in movement (e.g. only using front legs, dragging a limb, falling over, swaying) • Head tilted to one side • Paralysis *(trauma)* *(Indicative of trauma related injury)*
Body Condition, skin and scales	• Good body condition • Good muscle tone • Scales are shiny and undamaged • Non-odorous smell	• Open wounds • Puncture wounds • Poor body condition *(malnourished)* • Lack of muscle tone • Offensive odour *(chronic disease or old wounds)* • Dull, damaged scales *(chronic disease or shedding)* • Flaky, dry skin/scales (*chronic illness)* *(Indicative of trauma or chronic illness/disease)*
Breathing	• Normal – Slight movement of chest with each breath – no noticeable effort. (Note: handling may result in increased respiration rate)	• Open-mouthed breathing • Laboured (noticeable effort to breath) • Audible breathing sounds (clicking, ticking, gurgling sounds) • Sneezing or coughing • Shaking head *(possible obstruction)* *(Indicative of trauma related injury, poisoning)*
Head	• Symmetrical	• Abnormal symmetry • Indentations • Swelling • Crepitation • Lacerations/abrasions *(Indicative of trauma related injury)*
Eyes	• Bright and clear • Shiny • Eyes open	• Dull *(pain/dehydration)* • Sunken (*dehydrated*) • Closed (pain/dehydration) • Protrusion *(trauma)* • Swelling *(trauma)* • Nystagmus *(head trauma)* • Unequal pupil(s) *(trauma)* • Unreactive pupil(s) *(trauma)* • *Purulent* discharge *(infection)*
Nose	• Straight • No discharge or bleeding	• Distorted (*trauma - fracture*) • Blood or other discharge (purulent infection) from nostrils (*trauma*) • Abrasions (*trauma*) • Swelling (*trauma*)

Assessment Checklist – Lizards (continued)

Clinical Signs	Healthy / Normal	Sick / Injured
Mouth	• No discharge • Symmetrical • Teeth and tongue undamaged	• Misaligned jaw (*trauma*) • Broken teeth *(trauma)* • Blood (*trauma*) • Swelling (*trauma*) • Crepitation (*trauma*) • Pale mucous membrane *(shock/dehydration)* • Slow capillary refill time *(shock/dehydration)* • Reduced tongue movement
Ears (Tympanic membrane)	• No discharge • Clear ear covering	• Blood • Clear fluid *(Indicative of trauma related injury)*
Cloaca (vent)	• Clean • Free from discharge • Hemipenes not exposed	• Blood • Lacerations • Swelling • Hemipenes prolapsed *(trauma)* *(Indicative of trauma related injury)*
Tail	• Straight • Missing tail (old injury) • Good grip (in prehensile tails)	• Swelling • Lacerations • Lack of movement • Missing tail *(fresh injury)* *(Indicative of trauma related injury)*
Parasites	• Some ticks are normal	• Over abundance of *ticks (chronic illness)* • Fly blown / Maggots (*trauma)*

Assessment Parameters

Vital Signs	Heart Rate	Variable between species
	Respiration Rate	Variable between species
	Core Body Temperature	Variable between species
Preferred Ambient Temperature	Blue Tongue Lizard	26°C - 33°C
	Bearded Dragon	35°C - 39°C
	Lace Monitor	32°C - 35°C
	Source: Caring for Injured Native Reptiles and Frogs (Dr. A. Fowler)	

Signs of Stress

- Biting
- Attacking
- Urination, defecation
- Non-responsive (pretending that you don't exist!)

Signs of Pain

- Non-responsive
- Closed eyes
- Heavy breathing
- Not seeking cover
- Not moving from or to heat source
- Aggressive behaviour
- Constant moving or reluctance to move

Signs of Dehydration

- Thick mucous in mouth
- Dull eyes
- Sunken eyes
- Lack of skin elasticity/skin tenting
- Lethargy
- Excessive sloughing of skin

Assessment of Body Condition

Base of tail - feel for good muscle coverage.
Spine – feel for good muscle coverage over backbone
Skin/Scales – should be in good condition

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.

Adults

- **Insects** (crickets, meal worms, snails)
- **Good quality fruit** (e.g. peas, carrot, zucchini, broccoli, apple, banana, grapes, melon, pear, silverbeet)
- **Rodents and eggs** (for Lace monitors)
- **Fresh water**

Note: Only offer food if warm and well hydrated.
Adult lizards can go for 24-48 hours without food if in good body condition and well hydrated.

Common Injuries, Diseases and Conditions

Adults

- **Road trauma injuries** (head injury, fractured jaw, fractured limbs, internal injuries, eye injuries, tongue laceration)
- **Dog or cat attack** (puncture wounds, open wounds, evisceration, internal injuries) ***Note***: cat attack injuries often difficult to visualise
- **Entanglement** from fruit netting, discarded netting, wire netting (lacerations, soft tissue damage)

Drug Administration (preferred routes)

Oral	Use a 1mL syringe for small lizards and 2.5mL syringe for larger lizards. Ensure that fresh water in a shallow bowl is always provided. All reptiles can be misted with water from a spray bottle for extra hydration.
Intramuscular	Muscle of forearm (preferred) or hind legs
Subcutaneous	Loose skin on either side of the spine and neck
Intravenous	Ventral coccygeal (tail) vein

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 Alfaxan CD-RTU preferred):
    - Intravenous
    - Intracardiac (must be anaesthetised first)
    - Intraperitoneal (dilute with water 50:50)

- Blunt force trauma to the head (small lizards only) – **only if trained to do so**
- **Euthanasia by placing in freezer is NOT ACCEPTABLE and is INHUMANE.**

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.
Alfaxan CD RTU ®	Alphaxalone	5-10mg/kg (IV) 15mg/kg (IM) Patient should be warmed to ensure effective anaesthetic induction.

Analgesic

Drug	Composition	Dose Rates
Torbugesic ®	Butorphanol Tartrate	1-2mg/kg (SC) or (IM) BID
Metacam ®	Meloxicam	0.4 mg/kg (SC) or (IM) EOD

Antibiotics

Drug	Composition	Dose Rates
Baytril ®	Enrofloxacin	5-10mg/kg EOD (IM) or (SC) – must be diluted at least 50:50 with sterile water)
Fortum ®	Ceftazidime pentahydrate	20 mg/kg Q3D (IM)

Anatomy

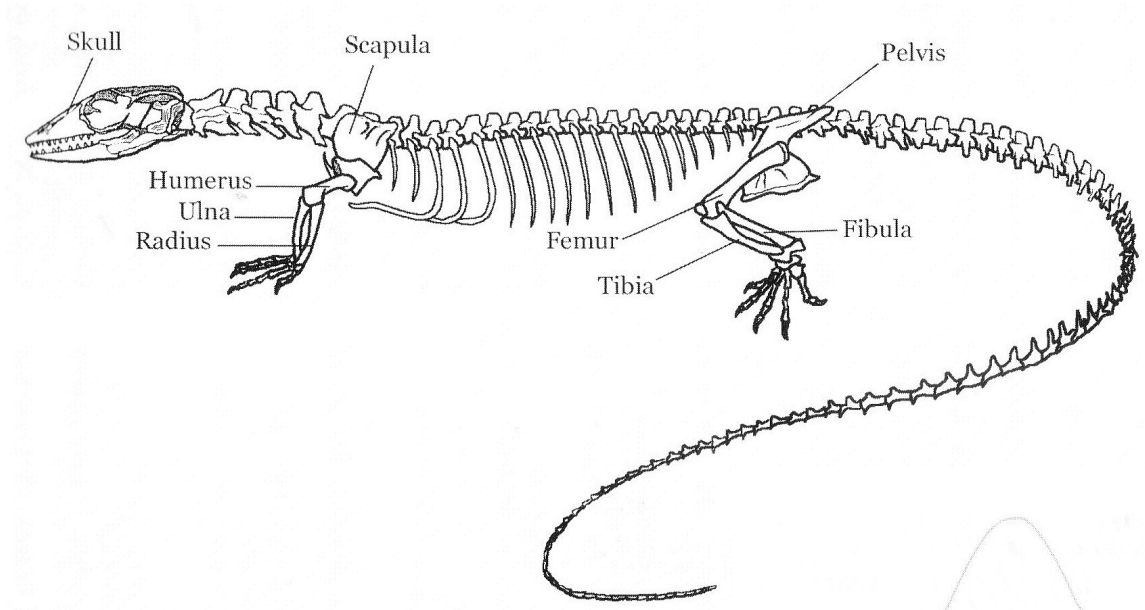
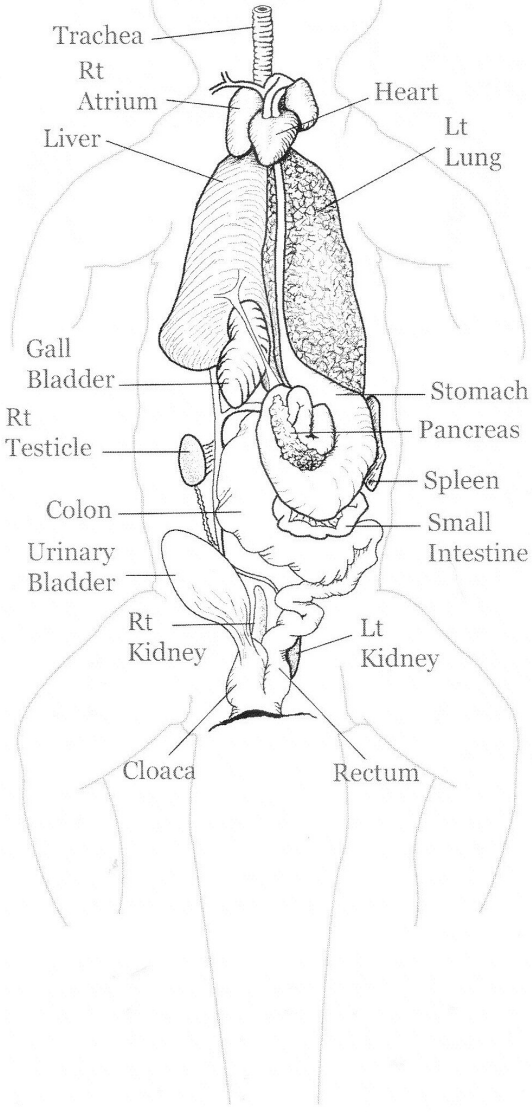


Diagram Above: Skeletal anatomy

Diagram Right: Visceral anatomy



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