Sugar Glider

(Petaurus breviceps)

Natural history

The sugar glider is native to northern and eastern Australia, New Guinea, and surrounding islands. This arboreal nocturnal creature spends its days in leaflined nests in tree hollows. Sugar gliders are extremely social and vocal.



Taxonomy

Class Mammalia

Interclass Marsupialia

Order Diprotodontia (kangaroo, wallaby, koala, wombat) Family Petauridae (possom species)

Diet

Free-ranging gliders feed on insects, larvae, arachnids, and small vertebrates during the spring and summer. Plant products such as sap, blossoms, and nectar make up the bulk of the diet during the autumn and the winter wet season. There are a number of captive diets recommended for gliders. The commonly recommended diet listed below comes from the Taronga Zoo. The following recipe feeds two animals:

- Apple (3 g)
- Banana/corn (3 g)
- Grapes/kiwi (3 g)
- Pear (2 g)
- Melon (2 g)
- Orange with skin (4 g)
- Sweet potato (3 g)
- Dog kibble (1.5 g)
- Fly pupae (1 tsp)

Leadbeater's mixture (2 tsp) Day-old chick, when available (once weekly)

- Large insects, mealworms once weekly
- · Leadbeater's Mix:
- 150 ml warm water
- 150 ml honey
- 1 shelled boiled egg
- · 25g high protein baby cereal
- 1 tsp vitamin/mineral supplement
- 100mg calcium carbonate

Mix water and honey. In a separate container, blend egg until homogenized, then gradually add vitamin/mineral powder, then baby cereal, blending after each addition until smooth. Keep refrigerated. The mixture can be frozen in ice cube trays.

Husbandry

Sugar gliders are social animals that normally live in groups of five to twelve. These groups are exclusive and territorial, and introduced gliders may be attacked.

Solitary gliders require at least 1-2 hours of human attention daily. Provide as large a cage as possible like a tall aviary wire cage. Wire spacing should be no more than 1.0×0.5 in $(2.5 \times 1.3 \text{ cm})$. Cage furniture should include items for visual security (i.e. hide box, sleeping pouch) as well as exercise and enrichment (i.e. branches, shelves, solid running wheel, swings, and bird toys). Provide supplemental heat during the winter months.

Normal physiologic values

Cloacal Temperature	89.6°F	32°C
Pulse	200-300 bpm	
Respiration	16-40 bpm	
Body weight	80-160g (the female is smaller)	
Mean life span	12-14y in captivity	4-5y (in the wild)
Sexual maturity	females (8-12 mo) males (12-14 mo)	
Gestation	15-17 days (young stay in the pouch 70-74d)	
Birth weight	30-50 grams	
Litter size	1-2 (usually 2)	
Weaning age	110-120 days	
Target environmental temperature:	65-90°F or 18.3-32.2°C	

Anatomy / physiology

- Gliders possess a large gliding membrane (patagium) which extends from the 5th digit of the forepaws to the ankles.
- The tail is weakly prehensile and it also serves as a rudder during gliding.
- Dental formula: I (3/2) C (1/0) PM (3/3) M (4/4) = 40
- The incisors are specialized for gouging tree bark.
- An enlarged cecum assists in digesting gum from the acacia tree.
- The bifurcated penis splits about halfway down the protrusion.
- Testicles are permanently descended into pendulous, pre-penile scrotal sacs.
- Males possess large prostate and Cowper's glands.
- Females have two uteri and two long, thin lateral vaginae
- Females are polyestrous, cycling every 29 days.
- Scent glands: male (frontal, sternal, paracloacal) female (within pouch)
- Gliders may enter torpor during the winter; torpor may last up to 16h/day.

Restraint

Options for restraint of the sugar glider includes:

Grasp the head between the thumb and middle finger.

	ScruffRestrain through a small cotton bag or pouchInhalant anesthesia
Venipuncture	 Larger volumes: Jugular vein, cranial vena cava +/- tibial artery Smaller volumes: Lateral saphenous, lateral coccygeal, cephalic, and femoral veins
Preventive medicine	Annual physical examination Dental prophylaxis as needed
Important medical conditions	 Alopecia, stress-related Bacterial enteritis Cataracts Cloacal or rectal prolapse Dental disease Encephalomalacia, hypovitaminosis E Malnutrition Nutritional secondary hyperparathyroidism Obesity Self-mutilation of the penis and scrotum Traumatic injury Urinary tract infection, urolithiasis

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Author: Christal Pollock, DVM, Dipl. ABVP-Avian; Lafeber Company veterinary consultant<

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