



\* Jake Burchell and Kaeden Miller/Frogtown Exotics

## Frilled Dragon (*Chlamydosaurus kingii*)

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### A Jurassic Park Inspiration

Frilled dragons are a large, arboreal species of agamid lizard indigenous to northern Australia, Papua New Guinea, and Indonesia that has a widely known and likely inspired feature that furthered the science fiction classic, Jurassic Park and subsequent films. Frilled dragons can vary in color from charcoal grayish, light to dark brown, to olive gray with a faint pattern of lighter dorsal markings. The most diagnostic feature of these lizards are their large, cartilaginous frills lined with loose spines that are displayed along with hissing and gaping when the lizard is threatened or defensive. While the frill normally remains folded around the lizard's head and neck, this defensive display can be quite intimidating to potential threats or predators when it is displayed. However, if this defense fails, or if the lizard continues to be threatened, frilled dragons are also able to run bipedially for short distances as well to escape potential predators as well. Frilled dragons, due to their unusual appearance and behavior, are a sought after and rewarding species of reptile to maintain for the more intermediate level enthusiast, although over time, most will lose the inclination to display their frill or otherwise behave defensively, making them docile yet still somewhat skittish Aussie species to maintain in captivity.

### Taxonomy

**Life:** All living, physical, and animate entities

**Domain:** Eukaryota

**Kingdom:** Animalia

**Phylum/Sub Phylum:** Chordata/Vertebrata

**Class:** Reptilia

**Order:** Squamata

**Suborder:** Lacertilia

**Infraorder:** Iguania

**Family:** Agamidae

**Subfamily:** Amphibolurinae

**Genus:** *Chlamydosaurus*

**Species:** *Chlamydosaurus kingii*\*

*\*Taxonomy subject to change and revision.*

### Lifespan and Longevity

If provided the proper care, frilled dragons can attain longevity of 10 to 15 years or more in captivity.

## **Distribution and Habitat**

The frilled dragon is a very unique, charismatic semi-arboreal agamid lizard indigenous to a wide distribution of northern coastal Australia, from northern Western Australia, through the Northern Territory, and into northern and eastern Queensland. This species also occurs in southern New Guinea as well. Within this range, frilled dragons occupy the semi-humid to semi-arid open, grassy forests and woodlands and other dry forests and savannahs, where they are largely arboreal, and thermoregulate, forage for food, and avoid predation amongst the low branches and trunks of trees, large rock formations, and other similar structures.

## **Origin/History**

*Chlamydosaurus kingii* Gray, 1825.

The frilled dragon was one of the most recognizable and iconic Australian animals that many aspiring American and European herpetologists could only aspire to see without traveling to Australia. During this time period, very little information was available or published about them during the 1960's and 1970's. This lizard's unique appearance and behavior led to them being widely depicted in media, such as Steven Spielberg's 1993 Jurassic Park, where the dinosaur species Dilophosaurus featured a similar neck frill to the real-life lizard. During the mid 1970's, and as with all other of Australia's native wildlife, exportation out of Australia then became prohibited. However, frilled dragons would continue to be bred and farmed, and subsequently exported out of Indonesia and New Guinea, as well as bred in captivity by dedicated herpetoculturists worldwide.

## **Experience Level Required**

Intermediate/Moderate.

## **Size**

Frilled dragons range from about 5.0 to 7.0 inches as hatchlings (snout-to-tail length), and roughly 2 ½ to 3 ½ feet as adults, or about 24.0 to 42.0 inches snout-to-tail length. Ranges from about 9.0 to 11.4 inches in snout-to-vent length (SVL).

## **Housing and Enclosure**

***Enclosure System: Semi-Arboreal to Arboreal.*** Housing must be sealed and escape proof. Hatchling frilled dragons can be housed in a 20 gallon terrarium or enclosure. Adult frilled dragons require a large enclosure at least five feet by three feet by four feet. Hatchling and adult frilled dragons can be maintained on a substrate of coconut fiber, or ground walnut shell, or some orchid bark substrates. Avoid using substrates made that result in environments that are too humid. Provide a large shallow dish of clean water, and change and clean it every several days, or sooner if fouled. Soaking them at least once weekly in lukewarm water for 15 to 20 minutes can also help raise their hydration. Frilled dragons are arboreal lizards, and should be provided a sufficient amount of horizontal, vertical, and diagonal climbing and basking opportunities such as appropriately sized branches, shelves, rocks, logs, and other similar furnishings.

## **Temperature, Lighting, and Humidity**

For basking, create a thermal gradient (or a warm side) in the cage/enclosure. Ideal ambient and thermal gradient temperatures for frilled dragons range from 85 to 90 degrees F to around 100 to 115 degrees F on the warm, basking side. Nighttime temperatures can drop to around 75 to 80 degrees F. Overall, they should be maintained at around 70 to 75% humidity. Providing the correct amounts of UVA/UVB overhead incandescent and florescent lighting, and calcium-to-phosphorus ratios is essential for ensuring the health and overall well-being of frilled dragons in captivity. Without UVA/UVB, or adequate amounts of it, they can be susceptible to the

abnormal bone growth and development known as Metabolic Bone Disease (MBD), and other health and development maladies. Also be sure to spot clean the enclosure for urates, feces, or uneaten food at least twice per week. Be sure to periodically replace the substrate, clean, and disinfect the enclosure and its furnishings at minimum every 2 to 3 months.

### **Feeding, Diet, and Nutrition**

**Omnivorous**; In the wild, frilled dragons are omnivorous, meaning they will eat both plant and animal matter. They will eat an assortment of insects and other invertebrates, fruit and vegetable material, and even other small vertebrates on occasion. In captivity, feed frilled dragons a variety of appropriately sized feeder insects such as crickets, roaches, mealworms, superworms, and waxworms. They can also be given a mixed assortment of chopped up vegetables including carrots, peas, collard, mustard, and dandelion greens, and beans. Several commercially available omnivore mix diets are also available. Not all frilled dragons may accept vegetable matter, however. Feeder insects should be gut-loaded in order to increase their optimal nutritional value. Frilled dragons also require additional calcium and vitamin D3 supplementation 1 to 2 times weekly or as otherwise directed for optimal health and development. This is in order to prevent Metabolic Bone Disease (MBD) and other growth and nutritional deficiencies. Their feeding frequency will depend on the age, size, and overall health of your animal. Use care as to not overfeed them, as obesity and other health related issues can become an issue. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

### **Handling**

As with many reptiles, hatchling and juvenile frilled dragons often tend to be initially more nervous and defensive. Handle your frilled dragon gently and deliberately, but do not drop or injure the animal. Adult frilled dragons can become docile and acclimated pets, although some may remain at least somewhat nervous and defensive. They are going to still be shy and/or a bit more nervous or skittish than a bearded dragon will be. Each animal has its own personality, which should be taken into consideration.

**\*\*Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens\*\***

### **Contact**

Authored by Eric Roscoe. For any additional questions, comments, and/or concerns regarding this animal, group of animals, or this care sheet, please email and contact:

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