

Blue Tongue Skink

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Natural History

Blue tongue skinks (*Tiliqua* species) are popular pet reptiles that are native to Australia, New Guinea, and Indonesia. These species are terrestrial, diurnal, and omnivorous. While there are at least 8 species of blue tongues, not all are commonly kept in captivity. The northern and eastern (*T. scincoides scincoides* and *T. scincoides intermedia*) blue tongues, which are native to Australia, are more commonly kept. Fortunately, the care requirements for most of these species are very similar. With Australia's strict export laws, the majority of blue tongue skinks in the pet trade are captive bred. The bluey's native habitat varies by species, with the most commonly kept species being found in scrubland and grassland environments. As the name suggests, these lizards have very distinctive blue tongues. They are considered "Least Concern" by the IUCN.

Characteristics and Behavior

Blue tongues are generally docile and easy to handle lizards, although some wild caught specimens have been noted to be difficult to tame. They are ovoviviparous, meaning they give birth to live young, and possess tail autotomy (they can drop their tails). Blueys tend to be good choices for people who want a hands-on lizard, as most of these lizards become well acclimated to handling. Blueys are hardy, long-lived, and have moderate care requirements, making them an appropriate reptile for beginner-intermediate keepers.

Of the two most commonly kept species, northern and eastern blue tongues can be distinguished by their coloration and patterns. Eastern blue tongues have dark bands behind their eyes. Northern blue tongues lack dark bands behind the eyes, and have light orange-yellow spots along their sides. It should be noted that captive specimens may be crossbred or color morphs, making it harder to identify what species they are. Shingleback skinks (AKA sleepy lizards or bobtail skinks) (*T. rugosa*) are very distinctive from other *Tiliqua* species. Shinglebacks have knobby, almost armor-like scales and a stumpy nub tail that looks like a second head to confuse predators. Interestingly, shinglebacks have been shown to return to the same mate year after year. This is a phenomenon that is very rare in reptiles.

Lifespan

Some species commonly reach 30 years, although 15-20 years is more likely for most species. Shingleback skinks have been noted to live 50 years.

Adult Size

Northerns are the largest at 18-24", with easterns and other species slightly smaller.

Housing

The minimum enclosure size for a blue tongue skink is 4'x2'x2', with larger animals needing up to 6' in length. The general rule of thumb is that the length of a lizard's cage should be 3x their length. Blueys should be housed alone, as they rarely tolerate other skinks outside of the breeding season. Shinglebacks have been documented showing social behavior by returning to the same mates and raising young in family colonies, but cohabitation is not recommended for novice keepers. An elevated basking spot should be provided to allow the lizard to move closer to or farther away from the heat source. This can be achieved with branches, logs, and/or rocks. Corkwood, ground clutter, plants (live or fake) can also be added to provide enrichment and cover. There is no such thing as too much space in a reptile enclosure, only too much exposure. A reptile with adequate cover and hiding spots will not feel stressed by a large enclosure. Blueys also need two hides, one on the warm side, and one on the cool side, so they don't have to choose between security and thermoregulation. One of the hides can also have moist moss added to create a humid microclimate that the lizard can enter at will. Blueys may enjoy having a piece of slate or flagstone set up under their basking lamp so they can warm their bellies.

For Australian species (such as northerns and easterns), coconut husk (like ReptiChip), cypress, or a sand/soil mixture (such as Lugarti's Natural Reptile Bedding) are all acceptable options. Aspen is acceptable but not preferred. Blueys like to burrow, so at least 5" of substrate should be provided to allow natural behavior. Cedar and pine based beddings should be avoided as these can cause respiratory irritation. Indonesian species can be kept on cypress mulch, Zilla Jungle Mix, or ReptiChip +/- sphagnum moss or soil to achieve a better humidity holding substrate. For keepers choosing to go bioactive, The BioDude's Terra Firma is a good choice for Australian species, and Terra Fauna is a good choice for Indonesian species. Like other lizards, the topic of substrate can be divisive for blueys. When loose substrate is combined with improper husbandry, life-threatening impactions can occur. Tile and paper towel pose no risk of ingestion but do not allow burrowing or humidity retention. If non-loose substrates are used, a dig box with at least 5-6" of soil or coconut coir should be provided. The animal should be able to fully stretch out and burrow in the dig box to allow for natural behavior.

Avoid CalciSand, VitaSand, crushed walnut, gravel, and corncob as these substrates carry a much higher risk of impaction. Always talk to your veterinarian before using loose substrate to ensure your lizard is healthy and your husbandry is correct. When using loose substrate, food should also be offered on a feeding dish to avoid ingestion of substrate. Live prey can also be offered with tongs.

Lighting

Like all lizards, blue tongue skinks require UVB light to synthesize vitamin D3 in their skin. Vitamin D3 is needed for proper metabolism of calcium and prevention of metabolic bone disease. The ReptiSun T5 10.0 HO, Arcadia T5 12% Desert, or Arcadia T5 6% Forest are all acceptable choices, depending on where you set up your bluey's basking spot. Arcadia provides a guide as to where to place your UVB fixture in relation to your lizard's basking spot. UVB fixtures should be roughly as long as half your reptile's enclosure length. It is important to note that UVB cannot penetrate glass, so natural sunlight through a window will not be sufficient for a lizard to synthesize vitamin D3. Allowing safe outdoor time is also an excellent source of UVB and visible light. Lizards taken outdoors should be kept in an escape-proof and predator-proof, non-glass enclosure. Provide shade and basking spots so your bluey can regulate their temperature.

Sunlight is made of ultraviolet, near infrared (IR), mid IR, far IR, and visible light. It is our job as keepers to provide full spectrum lighting, which means as close to sunlight as possible. Unfortunately there is not one source for all of these components, so we must provide multiple types of lighting. For visible light, LED or halide bulbs should be provided.

UVB is NOT optional for lizards. Lack of proper UVB can lead to impaired skeletal, muscle, and immune function. Replace UVB bulbs every 6 months, as they can continue to give off light even when not producing UVB. Lights should be turned off at night to maintain normal day/night cycles. For this reason, red or black nightlights should not be used as they can disrupt normal day/night cycles.

Arcadia UVB guide: <https://www.arcadiareptile.com/lighting/guide/>

Heat

Unlike mammals, reptiles cannot internally regulate their temperature and rely on their environment to heat and cool themselves. Therefore, it is important that we provide

captive reptiles with a temperature gradient so they can warm up or cool down as needed. Reptiles have three temperatures to measure: basking spot, warm ambient, and cool ambient. The basking spot is the hottest area in the enclosure where they bask, the warm ambient is the air temperature on the warm side of the enclosure, and the cool ambient is the air temperature on the cool side of the enclosure. Ambient temperatures are best measured with digital thermometers (one on the warm end and one on the cool end), as analog thermometers are often inaccurate. Basking temperatures can be measured with a digital infrared thermometer.

Blue tongue skinks need a basking spot of 95-105F, a warm ambient of 85F-90F, and a cool ambient of 70-80F. Any light emitting sources should be turned off at night. Sunlight is made of UV, near IR, mid IR, far IR, and visible light. Flood tungsten-halogen bulbs are the most efficient at producing near IR, which is the most abundant IR in sunlight, and they also produce significant mid IR and some far IR. Far IR is the least abundant in sunlight, but is most often produced in large amounts by sources like ceramic heat emitters, heat pads, and radiant heat panels. Tungsten-halogen bulbs should be the flood type to ensure a wide enough basking site. These heat producing bulbs can be found as reptile specific bulbs or at hardware stores. Avoid hot rocks as these can easily burn reptiles.

Humidity

Humidity should be maintained at 40-60% for northern and easterns, and 60-80% for most Indonesian species. Shinglebacks, westerns, and centralians have lower humidity requirements around 30%. Deep substrate is beneficial for maintaining humidity, as water can be mixed directly into substrate to make it damp (but not sopping). Daily misting and a large water bowl may be enough for species with moderate humidity requirements. Some Indonesian species may require automatic foggers or misters to maintain humidity. Enclosures without screens can help maintain humidity, whereas enclosures with screens can help maintain a dry environment. Humidity should be measured with a digital hygrometer. A humidity hide with moist substrate or moss also allows the animal to enter a humid microclimate at will.

Feeding

As with all reptiles, variety is key for providing enrichment and preventing nutritional deficits. Blueys are omnivores, and sometimes referred to as the “garbage disposals” of the reptile world. They eat vegetation, flowers, seeds, fruits, insects, and carrion in the wild. Adults (>8 months) should be fed 2x/week, juveniles (2-8 months) 3-4x/week, and hatchlings (<2 months) daily. Juveniles and hatchlings should be fed 70-80% protein,

20-30% veggies, and 0-5% fruit. Adults should be fed 40% protein, 50% veggies, and 10% fruit. Adult shinglebacks should only be fed 20-30% protein as they are primarily herbivorous compared to other species. Young skinks can generally be fed as much as they will eat, but adults should have amounts adjusted based on their body condition. Adult skinks are quite prone to obesity. A multivitamin with vitamin A should be added 1x/week.

Protein: Insects are naturally deficient in calcium and low in nutritional value. In order to make them nutritious for reptiles, all insects should be gutloaded (fed a highly nutritious meal 24-48 hours before feeding). Repashy BugBurger or Arcadia InsectFuel are good choices for feeding feeder insects. Insects should also be dusted with calcium powder 1-2x/week. Calcium powders should be calcium carbonate based and should not have any phosphorus. If you are providing adequate UVB, calcium powder does not need to contain D3. Arcadia, Repashy, and ZooMed all have good products. Follow your brand's recommendations to avoid overdosing. Acceptable protein sources include: crickets, dubia roaches, grasshoppers, hornworms, phoenix worms, silkworms, earthworms, snails, pinkie mice, eggs, canned dog food, moistened dry dog food, ground meat, organ meat, fish, Reptilinks, and occasional mealworms, waxworms, and superworms. Commercial diets like Repashy's Bluey Buffet and Arcadia's Omni Gold can also be given on occasion to add variety.

Veggies and greens: Dandelion greens, arugula, swiss chard, mustard greens, turnip greens, bok choy, endive, and beet tops. Many keepers buy a spring mix of salad greens. Avoid mixes with a large amount of spinach as spinach contains oxalates that can disrupt calcium absorption. Asparagus, carrots, basil, parsley, cucumber, cilantro, squash, zucchini, bell pepper, and radish are also acceptable. Avoid onion, garlic, and rhubarb.

Fruits: Strawberries, watermelon, blueberries, apples with seeds removed, pineapple, grapes, raspberries, pears, honeydew. Edible flowers such as dandelions, hibiscus, and rose petals can also be offered. Avoid avocado.

Fruit, sugary vegetables (i.e. carrots), fatty insects (waxworms, mealworms), and pinkies should not be overfed as these are all higher in energy and can lead to obesity.

Water

Clean water in a dish large enough to soak in should always be available.

Sexing

Sexual maturity is usually reached by 2-3 years. Blueys are very difficult to sex, but males tend to be larger and have wider heads than females.

Zoonosis

Like other reptiles, blue tongue skinks can carry *Salmonella*. Always wash your hands after handling reptiles or items from their enclosure.

Health

Blueys are generally fairly hardy, but can be prone to nutritional-secondary hyperparathyroidism (metabolic bone disease), dysecdysis (difficulty shedding), obesity, parasites, respiratory infections, and stomatitis (mouth rot). Blue tongue skinks should be examined every 6-12 months by your veterinarian. A healthy bluey is alert, holds themselves upright, and has a voracious appetite. It is normal for lizards to shed in pieces but the shed should not be getting stuck on their toes or tail.

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