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FROGS

Fea's Treefrog

Zhangixalus feae

Zhangixalus feae is one of the largest flying frogs: a sturdy, green tree frog of up to 12 cm from humid mountain forest in northern South-East Asia, from Yunnan and Myanmar through Thailand and Laos to Vietnam. The frog glides between the branches with full webbing on hands and feet and lives hidden in the tree canopy. Very little is known about its care in captivity.

Family: Rhacophoridae Former name: *Rhacophorus feae; Polypedates feae*

KEY FACTS

THE ANIMAL

Adult size	**7-12 cm** snout-vent length
Lifespan	**5-10 years**
Active	**At dusk and at night**
Lifestyle	**Arboreal**
Habitat	**Rainforest and montane forest**
Skin toxins	**None known**
Difficulty	**Intermediate**

CARE

Min. enclosure	**80 × 50 × 100 cm** L × W × H for 2 adults
Temperature, day	**20-24 °C**
Temperature, night	**15-20 °C**
Humidity	**60-90%**
Water	**Water dish** depth 3-5 cm
UVB	**Recommended** Ferguson zone 2
Diet	**Insects**
Kept	**Singly, in pairs or in groups**

BREEDING

Reproduction	**Egg-laying**
Development	**Tadpoles in water**
Egg-laying site	**In a foam nest**
Eggs per clutch	**1,000-3,500**
Hatching	**5-7 days**
Larval period	**35-45 days** from hatching to metamorphosis
Larval diet	**Complete diet**
Parental care	**None**

PROTECTION AND PAPERWORK

CITES	**Not listed**
IUCN	**Least Concern (LC)**

About the species

Zhangixalus feae is a large, sturdy tree frog and one of the largest species in the genus. The back is green, plain or with a few pale spots, the iris is greenish gold, and a brown line runs from the tip of the snout to behind the eardrum. Fingers and toes end in large adhesive discs and have full, green webbing, which the frog spreads to glide from branch to branch. Males have an internal vocal sac.

Males measure 9-11 cm from snout to vent, and females reach up to 12 cm. The weight is not documented.

The species was described in 1893 by George Albert Boulenger as *Rhacophorus feae*. The species name honours the Italian explorer and zoologist Leonardo Fea. The genus name *Zhangixalus* honours the Chinese zoologist Zhang Ya-Ping; the genus was established in 2019. Older names such as *Rhacophorus feae* and *Polypedates feae* are still seen.

The species is shown in zoos because of its colours.

The species has no known toxic skin secretion. Even so, wash your hands before and after working in the terrarium, and do not touch your eyes or mouth afterwards. In captivity it probably lives 5-10 years.

Distribution and habitat

Zhangixalus feae lives from Myanmar through northern Thailand and northern Laos to the highlands of northern and central Vietnam and in border areas in south-western Yunnan in China. The species has been recorded from about 600 to 1,400 m above sea level.

The species is listed as Least Concern (LC) on the IUCN Red List. It loses habitat to road building, construction and tourism, and it is occasionally collected for food and for the pet trade.

> **Native range:** China, Laos, Myanmar (Burma), Thailand and Vietnam.

HABITAT

Zhangixalus feae lives in closed, evergreen humid forest in the mountains and can also cope near humans. It stays mostly high in the trees and comes down to breed. Its diet in the wild is small invertebrates: insects, spiders and millipedes.

The climate in the mountain forests is subtropical and humid with cool nights and a rainy season, during which the frogs breed. Breeding behaviour has not been described in detail; in the closest relatives the foam nest hangs on branches above water, and the tadpoles fall into the water.

Read more: Rearing tadpoles

Care

THE ENCLOSURE

Little is known about keeping *Zhangixalus feae*. The recommendations are based on the size and habitat of the species and on experience with the closely related *Zhangixalus dennysi* and *Zhangixalus arboreus*, which have the same size and live in similar forest. The figures are borrowed from them.

The terrarium must be tall and spacious. A pair or two animals need at least 80 × 50 × 100 cm, and a small group of 4-5 animals needs at least 100 × 50 × 100 cm; more animals require more floor area. The frog glides, so there must be room to jump and land.

Furnish with many sturdy branches, cork and vertical plants. Use robust plants with large, strong leaves, for example *Fatsia japonica* or *Epipremnum*, and plant densely in front of the glass, so that the frog does not collide with open glass surfaces. The floor can be a moisture-retaining substrate of soil and dead leaves. Mesh across a large part of the lid provides ventilation, so that the air does not stand still.

TEMPERATURE

By day the temperature should be 20-24 °C and at night 15-20 °C, corresponding to a cooler living room. The temperature must not exceed 27 °C for any length of time. Do not use heat lamps, and check with a digital thermometer, especially in summer.

The temperature corresponds to the cool mountain forests where the species lives. A cool resting period in winter is not necessary.

HUMIDITY AND MISTING

Humidity should be 60-90 %, lowest by day and highest at night. Live plants keep the air humid, because they release water at night. Mist the terrarium every evening, and let it dry out a little during the day, so that mould and stagnant air are avoided.

Use dechlorinated tap water, rainwater or reverse-osmosis water. If the frog looks sluggish or the skin is wrinkled, increase the humidity and lower the temperature immediately.

Read more: Humidity, misting and ventilation

WATER AND WATER QUALITY

Place a large, shallow water bowl in the terrarium, which the frog can sit in freely. The water should be 3-5 cm deep, so that the frog easily gets out again. Change the water every day, and use dechlorinated tap water, rainwater or reverse-osmosis water. Never use soap or cleaning products nearby, because amphibians absorb substances through the skin.

The water must be at the same temperature as the air.

LIGHTING AND UVB

The species is arboreal and active at dusk, and a weak UVB source is recommended. A T5 tube with a low UVB share that gives a UV index of 1-3 on the uppermost leaves (Ferguson zone 2) is suitable. Always provide shaded places where the frog can retreat.

Use LED lighting for the plants, and avoid lamps that give off heat. The day length should preferably follow the season, so that the frog gets an even daily rhythm.

Read more: Lighting and UVB

FEEDING

Zhangixalus feae eats live insects. Use crickets as the main food, supplemented with grasshoppers and cockroaches. All food must be gut-loaded and dusted with calcium, now and then with a vitamin supplement containing D3.

Adults are fed twice a week with 3-5 crickets of a suitable size per animal. Offer the food with long tongs, or scatter it. Remove feeder insects that are not eaten.

Read more: Feeder animals: keeping and breeding Read more: Calcium, vitamins and supplements

BEHAVIOUR AND HANDLING

The species is active at night and at dusk and sits hidden among the leaves by day. The frog is large and powerful and jumps and glides wildly when startled, so it should be handled as little as possible. The skin is thin and sensitive. During cleaning the frog is moved with a damp, soft plastic container.

The species can be kept in pairs or in a small group in a spacious terrarium with many perches, like the related species. Males call, especially in the breeding season.

Breeding

SEXUAL MATURITY AND SEXING

The largest females are larger than the males, but the sizes overlap, so the sex is most reliably seen from the males' call and nuptial pads in the breeding season. The age at sexual maturity is not documented. In the related species several years pass, and it takes a pair and preferably a small group to get eggs.

MATING

Breeding in captivity is not documented for *Zhangixalus feae*. In the related species, breeding is triggered by misting the terrarium every evening, giving an extra feeding a week and then running a rain system several times a day. The males then begin to call almost immediately. This can be used as a guide for *Z. feae*.

EGGS AND TADPOLES

Egg laying has not been described for the species. In the closest relatives the female lays the eggs in a foam nest on branches or leaves above water, and the parents care for neither eggs nor tadpoles. The number of eggs is not documented; the figure in the box is borrowed from related species and is only an estimate.

When the tadpoles hatch, they fall into the water beneath the nest, so there must be a water area of at least 8 cm beneath the leaves where the frogs lay, or the leaf can be cut off and hung above an aquarium.

The care of the tadpoles is based on the related species: 18-20 °C, about 8 cm of water with pieces of cork for cover and aquatic plants, and a daily water change of 5-10 %. The tadpoles eat spirulina tablets that sink to the bottom.

METAMORPHOSIS

The eggs hatch after about 5-7 days, and the larval period is 35-45 days. The figures are borrowed from related species and are only a guide.

When the forelimbs appear, the tadpoles stop eating and need easy access to land: put cork or branches in the water, and fit a lid or mesh on the aquarium, so that the newly metamorphosed froglets cannot escape.

REARING THE YOUNG

The newly metamorphosed froglets go into a small, humid terrarium with wet kitchen paper, plants and a large, shallow water bowl. Humidity must be 80 % or more at first. Give small, dusted crickets, a few and often, once the tail has been absorbed, and sort by size, so that the smallest are not outcompeted.

Health and common mistakes

Common problems in large tree frogs in terrariums are:

- Desiccation and too high a temperature. The signs are lethargy, wrinkled skin and outstretched legs. Keep an eye on the thermometer and hygrometer.
- Injuries from jumping against the glass, especially in wild-caught animals. Plant densely in front of the glass.
- Infectious diseases and parasites, especially in wild-caught animals. Quarantine new animals, and use separate equipment.
- A one-sided diet or a lack of calcium and D3, which can cause weakened bones. Vary the food.

See a vet with expertise in amphibians if the frog stops eating, has sores, swellings or reddish areas on the skin, or sits listlessly on the floor.

Read more: Quarantine and hygiene Read more: Buying animals: captive-bred, wild-caught and transport

Always ask someone who knows

This guide is a good place to start, but it cannot replace experience. Animals differ, and much of what matters most is learned from people who have kept the species for years. Talk to a breeder, an experienced keeper or a vet who knows reptiles and amphibians before you get the animal - and again if anything looks wrong.