

Husbandry Data Sheet

Common Name: False Death's Head Cockroaches **Latin Name:** *Blaberus discoidalis*

Family: Blaberidae

Order: Dictyoptera

Class: Insecta

Phylum: Arthropoda

Natural History: The False Death's Head Cockroach (*Blaberus discoidalis*) is found throughout the northern part of South America. In the wild this species can be found in caves, holes in trees and under bark. During mating behaviour the males 'pump' their wings, raising them up and down to attract the attention of the female. This cockroach, like many others, produces a distinctive smell when attacked.

Permits Required: Yes

Life Stage: All

Ease of Care: Easy

Housing:

Temp: 75-85 degrees F

Humidity: 60%-80%

Substrate: 50:50 mixture of sand and compost.

of Animals per Exhibit: 200

Choose One: Colony

Compatible Species: N/A

Enclosure Description: 10 gallon aquarium.

Lighting/Photoperiod: Fluorescent lighting on a 12 hour period.

Furniture/Props: 4" plastic coated hardware cloth climbing structure and plastic tubes.

Escape Concerns: Although this species is not noted as being a climber, a screen cover is securely fastened to the tank.

Other Concerns/Precautions:

Husbandry

Diet/Frequency of Feeding: Mixed vegetables and Mazuri primate biscuits

Water Source/Frequency: Moisture from food as well as a 4" petri dish with rocks.

Care: Daily

Enrichment: Cork bark to hide under and wire tubes for climbing structures.

Medical/Health Concerns: If the soil becomes too moist mites can become a challenge.

Treatment: Substrate change or drying out the substrate help keep the mites under control.

Keeper Safety: N/A

Other Concerns/Precautions: All old food and substrate is placed in a freezer for one week prior to being discarded to destroy any nymphs missed in cleaning.

Education

Do you handle species directly with the guests? :No

If Yes or No how do you use the species with the guest: Displayed in a small acrylic box.

Conservation/Population Status: Not listed.

Message: Cockroaches are excellent recyclers. They eat just about everything and replenish nutrients into the soil with their feces. They also are a primary food source for many species.

Personal Comments:

Submitted by (name and email): Jamie Sincage (jamie.sincage@disney.com)

Date: 19-Dec-05 **Name of**

Institution: Disney's Animal Kingdom

Husbandry Data Sheet

Common Name: Giant South American Cockroach **Latin Name:** *Blaberus giganteus*

Family: Blaberidae

Order: Dictyoptera

Class: Insecta

Phylum: Arthropoda

Natural History: Range: Central and South America, and the West Indies

Diet: In the wild, this roach is found primarily in bat caves and roosts, and feeds off of bat guano, dead bats, and any fruit that the bats might drop. Consequently, they require a fairly high protein captive diet of dry dog food and occasional soft fruit. Other accepted diets include fish flakes, cat food, trout or turtle chow, or (limited) rabbit pellets.

Care: Since this is a relatively long lived roach (nymphs undergo 9 –11 molts over a 257 –277 day period, adult males have been reported to live 1 – 6 months after maturity, adult females can, rarely, live over a year after maturity) it can be several months before a new colony begins to grow. However, once started, the colony will rapidly expand. This is one of the largest roaches (in length; the heaviest is most likely the Australian burrowing roach) and a live - bearer – no eggs are laid. Native Costa Ricans have been known to call this roach ‘the Cockroach of the Divine Face’, a reference to the dark brown .

Permits Required: Yes

Life Stage: Adult

Ease of Care: Easy

Housing:

Temp: Captive temperature 75 -80F
much humidity can lead to higher mortality rates.

Humidity: Misting is not required. Too

Substrate: Cypress mulch or other wood mulch

of Animals per Exhibit: 400 -500

Choose One: Colony

Compatible Species: N/A

Enclosure Description: We use a large acrylic odd-shaped exhibit. Off exhibit housing is 50 gallon long tank

Lighting/Photoperiod: 12/12

Furniture/Props: Climbing materials such as cork bark, provide the roaches with a vertical resting spot that approximates a cave wall or rocky crevice.

Escape Concerns: This species can not climb glass.

Other Concerns/Precautions:

Husbandry

Diet/Frequency of Feeding: Dry dog food and occasional soft fruit. See note above under Natural History for additional information and diet suggestions. Food should always be present.

Water Source/Frequency: Water should always be present in a shallow water dish or a dish with cotton balls, paper towels, pebbles, etc. to prevent drowning.

Care: Daily

Enrichment: None

Medical/Health Concerns: Overcrowding can lead to cannibalism. Mites can be controlled by adding charcoal to the substrate.

Treatment: See above.

Keeper Safety:

Other Concerns/Precautions:

Education

Do you handle species directly with the guests? : Yes

Husbandry Data Sheet

If Yes or No how do you use the species with the guest:They are handleable but..can be fast and adults are capable of gliding some distance if they "jump". Sharp tibial spurs can scratch. Some people may display allergies.

Conservation/Population Status:

Message:like to talk about animal diversity and "good" roaches. They can also be an excellent example of cave dwelling fauna, decomposers, or "ancient" species.

Personal Comments:Because of their large size and ease of care this species provides a lot of bang for the buck. I have found them very popular with the public; they even ask for them if they are removed from exhibit!

Submitted by (name and email):Tanya K. Minott

Date:4-Feb-05 **Name of Institution:**Philadelphia Zoo

Husbandry Data Sheet

Common Name: Haitian Cockroaches **Latin Name:** *Blaberus discoidalis*

Family: Blaberidae

Order: Dictyoptera

Class: Insecta

Phylum: Arthropoda

Natural History: Adults are about 35 - 45 mm long and are tan with a dark brown to black patch on their pronotoms. Haitian cockroaches have membranous wings but are not active fliers. These roaches are basic detritivores that traditionally feed on vegetation and decaying animal matter. Adults live between 8 - 10 months. Nymphs are brown with tan speckles and generally reach adulthood in 4 to 5 months. These roaches are native to Central America and can be reared for displays but are generally used as feeder animals.

Permits Required: Yes

Life Stage: Adult

Ease of Care: Easy

Housing:

Temp: 75 +/- 5 degrees F (23 - 24 degrees C)

Humidity: 70% RH

Substrate: Orchid Bark

of Animals per Exhibit: < 150

Choose One: Colony

Compatible Species: N/A

Enclosure Description: 50 gallon acrylic tank with fan and mesh lid

Lighting/Photoperiod: plant grow light 65 watts; 12 hours

Furniture/Props: Ghostwood; various plantings

Escape Concerns: No props within 6 inches from the top of the tank

Other Concerns/Precautions: High humidity can cause mold, fungi, and fruit flies. To avoid these problems. Do not use fruit to feed these animals and regularly turnover the substrate. Sometimes I use a small vacuum to remove airborne fruit flies to reduce their numbers during exhibition times.

Husbandry

Diet/Frequency of Feeding: basic salad 4-5 times a week; as needed (lettuce, kale, carrot, sweet potato)

Water Source/Frequency: regular misting

Care: Daily

Enrichment: Burlap strips; hollowed out pumpkins

Medical/Health Concerns: chewed up wings

Treatment: for chewed wings - provide a protein source other than each other's wings

Keeper Safety: no issues

Other Concerns/Precautions: Regular removal of molts is necessary for aesthetics; regular misting and feeding of dry dog food is important because of molting and wing chewing issues

Education

Do you handle species directly with the guests? : No

If Yes or No how do you use the species with the guest: Roaches are very fast and not very easy to handle

Conservation/Population Status:

Message: Roaches are not gross and can be very "beautiful" and useful as detritivores; compare roaches that have wings to species that do not or have vestigial wings; or compare active fliers versus gliders.

Personal Comments:

Husbandry Data Sheet

Submitted by (name and email): Donna Stockton
Zoological Park

Date: 14-Feb-05 **Name of Institution:** Smithsonian National

Husbandry Data Sheet

Common Name: Madagascar Hissing Cockroach **Latin Name:** *Gromphadorhina portentosa*

Family: Blaberidae

Order: Blattodea

Class: Insecta

Phylum: Arthropoda

Natural History: A. Basic Biological and Behavioral Characteristics

1. Asexual (budding, self division, fragmentation, ect) / sexual reproduction (monoecious, hermaphrodites, dioecious, ect.). Mating can occur year-round, and is contingent on warm temperatures. When a female is ready to mate, she may give off a special scent to attract males. The male circles the female, hissing and touching her antennae. If the female is receptive, she crawls over the male's abdomen, while dragging her abdomen over his. Then, the male thrusts the tip of his abdomen towards the tip of her abdomen. The female may also stand on the ground, while the male copulates with her. Mating takes place, as the pair position themselves rear to rear. After separating, the female stores fertilized eggs in her ootheca, a 1 inch (2.5 cm) long, yellowish egg case. The ootheca may be kept inside or outside the body of the female.

2. Breeding season / birth season: Breeding can occur year round.

3. Environmental cues: Must have warm weather in order to reproduce.

4. Behavior observation with regard to courtship, mating, and copulation: When a female is ready to mate, she may give off a special scent to attract males. The male circles the female, hissing and touching her antennae. If the female is receptive, she crawls over the male's abdomen, while dragging her abdomen over his. Then, the male thrusts the tip of his abdomen towards the tip of her abdomen. The female may also stand on the ground, while the male copulates with her. Mating takes place, as the pair position themselves rear to rear.

5. Gestation / incubation period: The female will carry the egg and neonate nymphs for approximately 60 day, until they emerge as first instar nymphs.

6. Egg size / description: Female roaches lay their eggs in a purse-like capsule known as an ootheca. Ootheca are about 1in in length.

7. Clutch size: One female can produce as many as 30 to 60 nymphs.

C. Detail of Egg Laying / Nesting & Hatching – Invertebrates.

1. Pre-nesting behavior: None noted.

2. Nest type / description: No nest is made.

3. Egg laying behavior: The female does not lay the eggs, but rather produces eggs in a long, slender, yellowish egg case (ootheca). The ootheca is then reabsorbed into her abdomen.

4. Incubation behavior: Behavior is normal during incubation.

5. Hatching: When the nymphs emerge from the ootheca, the female will remain near them for a short time and if disturbed the female will start to hiss.

D. Neonatal / Larval Development – Invertebrates.

1. Number of larval stages: Has an incomplete life cycle. Egg, nymphs, and adult stages. The roach will molt six times during the course of their lives. The last molt occurs at about 5 to 7 months after the nymph is born. At the last molt the roach becomes sexually mature. Adult roaches never molt again.

Husbandry Data Sheet

2. Age and size range for each life stage. Will molt about once a month until sixth molt has occurred. After the sixth and final molt the roach is considered to be an adult, the final molt occurs at 5 to 7 months. Adults can measure up to 10 cm long and weigh up to 24 grams.

Permits Required: Yes

Life Stage: Adult

Ease of Care: Easy

Housing:

Temp: 18 to 25 C

Humidity: 70%+

Substrate: vermiculite and Pine shavings.

of Animals per Exhibit: 100+

Choose One: Colony

Compatible Species: N/A

Enclosure Description: 10-20 gal Aquarium

Lighting/Photoperiod: 12/12 reversed

Furniture/Props: Logs

Escape Concerns: Vaseline is used around the top edge to prevent escapes

Other Concerns/Precautions: The use of cedar chips may retard or inhibit nymphal growth

Husbandry

Diet/Frequency of Feeding: ground rat biscuits, and Marion leafeater. produce: apple, banana, carrot, and sweet potato. Gerber baby cereal is also offered.

Water Source/Frequency: Wet cotton or sponge is offered

Care: Daily

Enrichment: None

Medical/Health Concerns: None

Treatment: None

Keeper Safety: None

Other Concerns/Precautions: Animals are fed on plastic lids. Size of lid is dependent on number of animals in enclosure. Lids for exhibit animals are 2" in diameter, lids in off exhibit holding enclosures are 3" in diameter.

Education

Do you handle species directly with the guests? : Yes

If Yes or No how do you use the species with the guest:

Conservation/Population Status: ood They can be found all over Madagascar.

Message: Wingless, recyclers, live in large groups, and they Hiss. Female: eggs develop inside the female and when released, they eggs immediately hatch over a period of 2 days.

Personal Comments: Good exhibit and educational animal.

Submitted by (name and email): John V Matuszek

Date: 1-Feb-05 **Name of Institution:** Brookfield Zoo

Husbandry Data Sheet

Common Name: Madagascar Hissing Cockroach **Latin Name:** *Gromphadorhina portentosa*

Family:Blaberidae

Order:Blattodea

Class:Insecta

Phylum:Arthropoda

Natural History:Range: Madagascar; Habitat: Moist tropical forests; found under dead bark and in decaying vegetation; Wild diet: Opportunistic scavengers; Life span: Usually 2-3 years; occasionally 5 years: Reproduction: Eggs are held in a capsule called a oothecae, which is retained in a brood pouch in the female's body; the dozens of young are born alive.

Permits Required:Yes

Life Stage:Adult

Ease of Care:Easy

Housing:

Temp:

Humidity:

Substrate:peat with perching

of Animals per Exhibit:25

Choose One:Group

Compatible Species:

Enclosure Description: 10 gallon tank

Lighting/Photoperiod: natural light

Furniture/Props:hide log

Escape Concerns:

Other Concerns/Precautions:

Husbandry

Diet/Frequency of Feeding:twice per week

Water Source/Frequency:always available

Care: Daily

Enrichment:

Medical/Health Concerns:

Treatment:

Keeper Safety:

Other Concerns/Precautions:

Education

Do you handle species directly with the guests? :Yes

If Yes or No how do you use the species with the guest:Hissers are a favorite among guests. For most folks we challenge them to overcome their phobias and really look closely at this very interesting animal. We talk about adaptations and animal senses pointing out their interesting head design and eye placement.

Conservation/Population Status:

Message:1. Invertebrates play an important role in an ecosystem as both decomposers and protein-rich food sources (Cockroaches, YUM).

2. The Phylum Arthropoda includes the most successful animals on earth, as measured by the number of species and the number of habitats where they are found. Insects make up the largest class of animals within the phylum Arthropoda. All true insects have six legs, three body segments, and true antennae.

3. All arthropods have an exoskeleton, or an armored protective and supporting structure for the body. This exoskeleton is primarily composed of chitin, and because it is rigid, arthropods must molt in order to grow. During this molt the arthropod will shed its "shell" and it will be very vulnerable until the new exoskeleton has hardened.

Husbandry Data Sheet

4. Cockroaches are leathery insects, typically with oval and flattened bodies that enable them to squeeze through tight spaces in search of food or to escape predators (like people armed with rolled up newspapers or house slippers). They are sensitive to vibration and can quickly flee from danger. The head is often covered by a shield-like pronotum, and there are generally two pairs of wings. There are 6 families and 4,000 species in this order; less than 1% of these are pests. The rest are useful scavengers in many habitats. The pest species thrive in warm conditions and where there is poor hygiene and sanitation; they can carry disease-carrying organisms on their bodies.
5. Cockroaches are considered living fossils: fossil remains have been found from over 300 million years ago. Cockroaches can withstand both radiation and high G-forces.
6. Madagascan hissing cockroaches are large, wingless, live-bearing insects. They have a tough exoskeleton for protection. Hooks on the legs enable them to hang on to practically any surface, including your fingers.
7. The Madagascar hissing cockroaches hiss when disturbed or fighting by expelling air through vents along the flanks. There are 11 or 12 spiracles on each side, connected to a long tube-like trachea. The fourth spiracle on the abdomen has an enlarged opening leading to a horn-shaped trachea that is connected to the longitudinal tracheal trunk through a constriction. Sound is produced by closing all other spiracles and forcing the air through the constriction into the horn.
8. The male roach has bumps on its head, which it uses to butt other males. The males fight for territory and may battle for half an hour, hissing 20 or 30 times, while charging each other and butting heads. Females use sound to lure mates. They all just have a hissing good time.
9. All species in this family are ovoviviparous—they retain the egg case internally and give birth to live young. The egg sacs are fully extruded from the end of the abdomen, rotated, then drawn back inside to be brooded within the body of the female.
10. These big roaches have been used for creepy effects in movies for a long time. For example, the cockroach man in Men in Black was covered with these guys. However, the giant alien insect-like bad guys at the end of the movie are really bogus. The laws of physics and the strength of exoskeletons would never permit any arthropod to get that large. Sorry, sci-fi guys.
11. Ever try to squish a cockroach that's on the run? It's not easy. In a second, the American roach can travel over 50 of its body lengths and change direction 25 times. Proportionately, a human would have to run over 200 miles per hour (330 kph) to keep up!

Personal Comments:

Submitted by (name and email): Liz Haskins lizhaskins@sazoo-aq.org
Antonio Zoological Gardens and Aquarium.

Date: 13-Jan-06 **Name of Institution:** San

Husbandry Data Sheet

Common Name: Madagascar Hissing Cockroach **Latin Name:** *Gromphadorhina portentosa*

Family: Blaberidae

Order: Blattaria

Class: Insecta

Phylum: Arthropoda

Natural History: The Madagascar Hissing Cockroach (*Gromphadorhina* species) is only found on the island of Madagascar. As the name implies this cockroach can hiss, loud enough for you to hear! This happens during mating behaviour and when they are frightened. Cockroaches are omnivorous, meaning that they eat all manner of animal and vegetable material.

Permits Required: Yes

Life Stage: All

Ease of Care: Easy

Housing:

Temp: 75-85 degrees F

Humidity: 60%-80%

Substrate: 50:50 mixture of sand and compost

of Animals per Exhibit: 100

Choose One: Colony

Compatible Species: N/A

Enclosure Description: 10 gallon aquarium.

Lighting/Photoperiod: Fluorescent lighting on a 12 hour

Furniture/Props: 4" plastic coated hardware cloth climbing structure and plastic tubes.

Escape Concerns: Although this species is not noted as being a climber, a screen cover is securely fastened to the tank.

Other Concerns/Precautions:

Husbandry

Diet/Frequency of Feeding: ixed vegetables and Mazuri primate biscuits

Water Source/Frequency: Lightly misted daily, fresh romaine lettuce is given as a moisture source daily.

Care: Daily

Enrichment:

Medical/Health Concerns: This species has a tendency to have mites. Although the mites are unsightly, they don't appear to have any effect on the roaches longevity.

Treatment: In extreme mite infestations we have used diluted alcohol wiped on with q-tips.

Keeper Safety: None

Other Concerns/Precautions: None

Education

Do you handle species directly with the guests? : No

If Yes or No how do you use the species with the guest:

Conservation/Population Status:

Message: Cockroaches are excellent recyclers. They eat just about everything and replenish nutrients into the soil with their feces. They also are a primary food source for many species.

Personal Comments:

Submitted by (name and email): J.Sincage (jamie.sincage@disney.com) **Date:** 15-Feb-05 **Name of**

Institution: Disney's Animal Kingdom

TITAG 19 August 2005

Husbandry Data Sheet

Common Name: Madagascar hissing cockroach **Latin Name:** *Gromphadorhina portentosa*

Family: Blaberidae

Order: Blattaria

Class: Insecta

Phylum: Arthropoda

Natural History: The Madagascar hissing cockroach is a large, wingless cockroach from Madagascar. This insect lives on the forest floor in rotten logs and feeds on fallen fruit. They are active during the night and hide during the day. The Madagascar hissing cockroach is a fascinating insect because of its ability to produce sound when startled to scare off predators. This hissing is also used in intraspecific communication and courtship. The life cycle of the Madagascar hissing cockroach is long and differs somewhat from most other cockroaches. Females are ovoviparous, and give birth to live young. The female carries the egg and neonate nymphs for approximately 60 days until they emerge as first instar nymphs. One female can produce as many as 30-60 nymphs. The nymphs undergo 6 molts before reaching maturity in 7 months. The nymphs and adults are wingless and can live for 2 to 5 years. Males possess large horns on the pronotum (behind the head), while females have only small 'bumps'. The presence or absence of the pronotal horns allows easy identification of the sexes. Source: University of Kentucky College of Agriculture, <http://www.uky.edu/Ag/Entomology/entfacts/misc/ef014.htm>

Permits Required: Yes

Life Stage: Adult

Ease of Care: Easy

Housing:

Temp: 80 degrees (preferred but will do ok with some variation) (preferred)

Humidity: 65%

Substrate: Eco-Earth-compressed coconut fibers or mulch

of Animals per Exhibit: 50-150 (multiple life stages)

Choose One: Colony

Compatible Species: none

Enclosure Description: 15-20 gallon aquarium with escape proof lid, line the top of the aquarium with vasoline

Lighting/Photoperiod: no special lighting needed

Furniture/Props: Various hide logs, tubes or rocks.

Escape Concerns: Lid kept on tank to prevent them from escaping, vasoline on tanks.

Other Concerns/Precautions: Tank placed on heating pad to ensure warmth if it is cold in the environment.

Husbandry

Diet/Frequency of Feeding: Feed dog food or rodent blocks, check daily. Give fruits and veggies weekly.

Water Source/Frequency: Daily, tube with cotton.

Care: Daily

Enrichment: Hide logs

Medical/Health Concerns: Have a tendency to get mites. Change bedding frequently and isolate effected specimens to control.

Treatment: Brushing off mites and sanitation (methods for removing mites - place roach in bag with flour and shake gently. Mites come off in flour. Remove roach and spray with water to remove flour; another method is to remove mites from roaches with a paintbrush. Return to a cage with clean bedding).

Keeper Safety: No concerns

Other Concerns/Precautions: Handle gently, do not allow to drop or fall

Education

Do you handle species directly with the guests? : Yes

If Yes or No how do you use the species with the guest: Can touch the roach as it sits on handlers hand.

Conservation/Population Status: not threatened

TITAG 19 August 2005

Husbandry Data Sheet

Message:

Personal Comments:

Submitted by (name and email):Marina Haynes Date:19-Mar-06 Name of Institution:Philadelphia Zoo

Husbandry Data Sheet

Common Name: Madagascar Hissing Cockroach **Latin Name:** *Gromphadorhina portentosa*

Family: Blaberidae

Order: Blattodea

Class: Insecta

Phylum: Arthropoda

Natural History: Large roaches originally from Madagascar that are 40 - 75 mm long. These roaches are known for their hisses used to ward off predators or other males. Adult males have horns while females have small bumps on their pronotums. These animals feed mostly on vegetation. Nymphs reach adulthood in 8 - 13 months on average and adults generally live from 2-5 years.

Permits Required: Yes

Life Stage: All

Ease of Care: Easy

Housing:

Temp: 75 (+/- 5) degrees F (23 - 24 degrees C)

Humidity: 60% RH

Substrate: soil mix

of Animals per Exhibit: <150

Choose One: Colony

Compatible Species: N/A

Enclosure Description: 65 gallon glass tank and lid with circular mesh holes

Lighting/Photoperiod: florescent overhead; 12 hours/day

Furniture/Props: ghostwood with small plants and branches to rest on

Escape Concerns: make sure tank lid is sealed and flush because babies can escape

Other Concerns/Precautions: make sure to check feeding dishes and other props when removing or cleaning for babies because they can hide very easily. e sure to check feeding dishes and other props when removing or cleaning for babies because they can hide very easily.

Husbandry

Diet/Frequency of Feeding: salad mix (carrots, lettuce, kale, yam); oak leaves

Water Source/Frequency: daily light misting

Care: Daily

Enrichment: Oak leaf house they eat away thru time

Medical/Health Concerns: mites come at irregular intervals but generally not a problem for long periods of time

Treatment:

Keeper Safety: cockroach feces can be a problem if there is a lot of it. Make sure that gloves are worn and nose and mouth masks are used when changing the substrate. Always wash hands after handling roaches or cleaning the tank or any props. Salmonella concerns are rare however be cautious.

Other Concerns/Precautions: Daily glass cleaning is generally necessary because they defecate all over it.

Education

Do you handle species directly with the guests? : Yes

If Yes or No how do you use the species with the guest: Great for walking and touching demos

Conservation/Population Status:

Message: these animals are amazing. Explain the how and why these animals hiss; hissing patterns; basic social structure and male territorial battles...

Personal Comments:

Husbandry Data Sheet

Submitted by (name and email): Donna Stockton
Zoological Park

Date: 14-Feb-05 **Name of Institution:** Smithsonian National

Husbandry Data Sheet

Common Name: New Guinea walkingstick **Latin Name:** *Eurycantha calcarata*

Family: Phasmid

Order: Insect

Class: Arthropod

Phylum: Invertebrate

Natural History: This species is found on the Bismark archipelago of Papua New Guinea. Males are easily differentiated from the females by the presence of long sharp spines on the femurs of the hind legs. When threatened, the abdomen is arched while the animal stands rigidly with the hind legs in the air. While both sexes can then pinch strongly with the hind legs, the males' spurs can draw human blood or crush to death any insects of smaller or similar size. I have read that the natives of Papua New Guinea have used these spurs as fish hooks. Males also lack an ovipositor and can produce a strong skunky odor when disturbed. Young can be heavily marked with green and brown, but adults are all uniformly brown.

Permits Required: Yes

Life Stage: Adult

Ease of Care: Easy

Housing:

Temp: 75 to 85 F

Humidity: mist twice a day

Substrate: potting soil

of Animals per Exhibit: Variable; growing animals need space for proper moulting; cannibalism can occur in the event of overcrowding. I have kept as many as 10 adults in a 20 gallon long aquarium comfortably.

Choose One: Colony

Compatible Species: None

Enclosure Description: Currently kept off exhibit in 20 gallon long aquarium. Juveniles are kept in plastic 'pal pen' containers.

Lighting/Photoperiod: Standard fluorescent lighting / approx. 12-12

Furniture/Props: Sticks for climbing and moulting from, cork bark slabs for hiding under. Juveniles seem to do fine with only potted pothos for all of their needs.

Escape Concerns: Juveniles wander and can slip through small holes; make sure that lids provide air circulation without allowing gaps that juveniles can slip through.

Other Concerns/Precautions: Adult males can pinch; see 'Husbandry Keeper Safety' below

Husbandry

Diet/Frequency of Feeding: Oak leaves while available, pothos during remainder of year. Food should always be present. Other accepted host plants have been recorded as viburnum, crabapples, mulberry, benjamin fig, philodendrons, rose, ivy, hawthorn, bramble, magnolia, cherry, guava, eucalyptus, raspberry, hazel, and more.

Water Source/Frequency: mist twice a day

Care: Daily

Enrichment: N/A

Medical/Health Concerns: Juveniles will begin to die off if they become too crowded or if air circulation is not adequate.

Treatment: Monitor size of group and reduce size of individual groups if required.

Keeper Safety: Adults, especially males, will pinch fingers with their large hind femoral spurs. Watch out, they are sharp, and will hold on tightly for long periods of time. They can break the skin!

Other Concerns/Precautions: Eggs incubate at captive temperature in peat moss for 5 to 6 months. Nymphs can take up to 6 months to mature when provided with adequate ventilation, space, food availability, and humidity.

Education

Do you handle species directly with the guests? : No

TITAG 19 August 2005

Husbandry Data Sheet

If Yes or No how do you use the species with the guest:exhibit only

Conservation/Population Status:N/A

Message:Animal diversity

Personal Comments:Because they are large and impressive looking, these animals are very popular with the public. Ease of care make them an ideal display animal. If colony is large, acquiring enough food can become problematic.

Submitted by (name and email):Tanya K. Minott Minott.Tanya@phillyzoo.org **Date:**2-Mar-06 **Name of Institution:**Philadelphia Zoo