MADAGASCAR HISSING COCKROACH

| Class | Order | Family | Genus | Species |
|---------|-----------|------------|----------------|------------|
| Insecta | Blattaria | Blaberidae | Gromphadorhina | portentosa |

| Range: | Madagascar |
|----------|---|
| Habitat: | Decaying leaf litter, rotting wood on forest floors. |
| Niche: | Nocturnal, omnivorous, terrestrial |
| Diet: | Wild: Scavengers, decaying plant and animal material |
| | Zoo: Finely ground chick or hog meal, vegetables, fruit |



Special Adaptations: Large, wingless species. Males and females are the same size at maturity, averaging three to four inches. Males are easily distinguished from females by the presence of two horns on their prothorax. Females lack these horns. Further methods of distinguishing the males from females include looking at the thorax, the antennae, and at the tip of the abdomen. In the male, the prothorax stands out in two protuberances, making the prothorax appear to be the head of a vertebrate animal. Antennae in females lack hair, and the abdomen in males has a narrower ventral plate than that of the female. This species communicates by a loud hissing sound made by air forced through spiracles on the sides of their bodies.

Females are ovoviparous; they bear live young. The female retains the ootheca (egg case) inside her body, and after birth, the young will feed on the empty egg packet, which is passed after they are born. At warm temperatures, the young will reach adult size in 2-3 months.

Other: They lack the odor usually associated with cockroaches or their feces. They do not bite and will usually hide when disturbed.

TROPICAL WOOD COCKROACH

| Class | Order | Family | Genus | Species |
|---------|-----------|-----------|----------|---------|
| Insecta | Blattaria | Blattidae | Blaberus | spp |

| Range: | Central and South America |
|----------|--|
| Habitat: | Tropical & subtropical forests, humidity above 60% |
| Niche: | Nocturnal, omnivorous, scavengers, terrestrial |
| Diet: | Wild: decaying plant and animal material |
| | Zoo: |



Blaberus giganteus

Special Adaptations: Cockroaches leave chemical trails in their feces as well as emitting airborne pheromones for swarming and mating. Other cockroaches will follow these trails to discover sources of food and water, and also discover where other cockroaches are hiding. Thus, cockroaches can exhibit emergent behavior, in which group or swarm behavior emerges from a simple set of individual interactions.

The mouthparts are on the underside of the head and are generalized, chewing mandibles. Tactile information is gathered through their antennae, which is important with cockroaches.

Other: The genus Blaberus keeps its ootheca in its abdomen until the time it hatches. They generally require a relative humidity of 60+% to thrive and temperatures above 25c (28-30c is best) to reproduce. *Blaberus giganteus* is one of the world's longest roaches. Cockroaches are important recyclers of organic nutrients.

AMERICAN COCKROACH

| Class | Order | Family | Genus | Species |
|---------|-----------|-----------|-------------|-----------|
| Insecta | Blattaria | Blattidae | Periplaneta | americana |

| Range: | Found worldwide, particularly in urban areas. |
|----------|---|
| Habitat: | Anywhere dark |
| Niche: | Nocturnal |
| Diet: | Wild: Everything including human food, glue, soap, fabric, and plants |
| | Zoo: |



Special Adaptations: The largest of the house-infecting roaches. Most species have two pairs of wings that are larger in the males. In most species, the female carries her eggs in an ootheca (egg case) that protrudes from the tip of the abdomen. After about two days, the egg cases are placed on a surface in a safe location. The eggs take from 6-8 weeks to hatch into nymphs that look like miniature white adults without wings. After exposure to air, the nymphs harden and turn brown, however, it takes several molts for the roaches to reach adulthood. Adult cockroaches can live up to one year, during which females produce an average of 150 young.

The insect can travel quickly, often darting out of sight when someone enters a room, and can fit into small cracks and under doors despite its fairly large size. It is considered one of the fastest running insects.

Other: These roaches are a serious problem in the food service industry where their droppings may contaminate stored food. They were originally from Africa, and has spread worldwide as stowaways in stored food aboard ships.

AUSTRALIAN COCKROACH

| Class | Order | Family | Genus | Species |
|---------|-----------|-----------|-------------|--------------|
| Insecta | Blattaria | Blattidae | Periplaneta | australasiae |

| Range: | Origins in Asia, now worldwide |
|----------|---|
| Habitat: | Moist warm areas, tropical climates, leaf litter, in and around shrubs, |
| | flowers and trees, tree holes, wood piles, garages, crawl spaces, |
| | attics, and greenhouses |
| Niche: | Nocturnal, scavenger, terrestrial |
| Diet: | Wild: prefers plants but feeds on other organic material |
| | Zoo: |



Special Adaptations: This cockroach travels quickly, often darting out of sight when someone enters a room, and can fit into small cracks and under doors despite its fairly large size. It is known to be very mobile; it also has wings, and is a capable flier. It is more vegetarian than other cockroaches. The Australian cockroach life cycle requires about one year from egg to adult. The ootheca takes 40 days to hatch. Nymphs take about one year to develop. Some eggs produced parthenogenetically hatch, but the nymphs do not mature.

Other: The Australian cockroach is large and grows to a length of 30–35 mm (1.2–1.4 in). It is very similar in appearance to the American cockroach but is slightly smaller and has a yellow margin on the thorax, and yellow streaks at its sides near the wing base. It prefers warmer climates and is not cold tolerant.