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Assassin Bugs (Family Reduviidae)

Colorful and Aggressive Newcomers

Assassin bugs belong to a very large and diverse group of cosmopolitan insects known as the “true bugs” (order Hemiptera), consisting of over 7,000 species from multiple subfamilies and genera. Assassin bugs in general can be tremendously variable and diverse in size, shape, color, and appearance, depending on the species. However, most to all assassin bugs can be identified by their elongated heads with distinctly narrowed necks, long legs, and prominent, segmented, tubular mouthparts called the proboscis or “rostrum”. Most assassin bugs are terrestrial ambush predators of other insects and invertebrates that use their long proboscis or rostrum to inject their toxic saliva/venom into their prey, thereby digesting, paralyzing, or killing it prior to consumption.

The genus *Platyeris*, or the twin spotted, or two spotted assassin bugs (consisting of about 14 species) are perhaps the most frequently kept and imported genera of assassin bugs for the pet trade and research industries. The most commonly kept of this genera are the Orange spotted assassin bug (*Platyeris spp.*, no species name), Red spotted assassin bug (*Platyeris rhadamanthus*), and the White spotted assassin bug (*Platyeris biguttatus*). The genus *Platyeris* ranges in color from dark brown or blackish, to bluish-black with a series of twin reddish, orange, to white or cream colored spots on the abdomen/base of the wings, and banded limbs on the first joints.

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum: Arthropoda

Class: Insecta

Order: Hemiptera

Suborder: Heteroptera

Infraorder: Cimicomorpha

Superfamily: Reduviodea

Family: Reduviidae

**Taxonomy subject to change and revision.*

Lifespan and Longevity

Maximum captive longevity of assassin bugs is unknown, but these species can have the potential of reaching up to 5 years or more in captivity.

Distribution and Habitat

As a family, the assassin bugs are a very widely distributed, cosmopolitan group of insects, being found most of worldwide except Antarctica in temperate, tropical to sub-tropical regions throughout the world, and with occupying nearly every niche and micro-environment. However, when it comes to the *Platymeris* genus of Assassin bugs, western, southwestern, and central Africa are the areas in which this genus may occur. More specifically, they can be found from Senegal, Gambia, Guinea, Mali, Ivory Coast, Togo, Benin, Niger, Nigeria, Chad, Sudan, Ethiopia, Somalia, the Democratic Republic of Congo, Uganda, Kenya, Tanzania, Zambia, Zimbabwe, and Mozambique. Within this range, these species of assassin bugs occupy humid, tropical forests, savannahs, and woodlands, where they are found in humid, moist logs, leaf litter, and other decaying plant matter and vegetation.

Experience Level Required

Intermediate/Moderate.

Size

Assassin bugs can vary in size from less than 1 inch (or 4 mm) to about 1 ½ inches (or 40 mm).

Housing and Enclosure

Enclosure System: Primarily Terrestrial to Arboreal. This genus of assassin bugs are fairly simple to house and accommodate, with groups or colonies of these insects of up to ten (10) or more being able to be housed together, provided the enclosure is of a reasonable size, food and other resources are provided, and the enclosure is sturdy, secure, and adequately ventilated. Cannibalism is seldom a concern unless these other requirements are not met. Several different types of enclosures will work for housing these insects, which should be at 5 to 10 gallons tall in dimensions, and can include adequately secured tubs or plastic containers, kriticter keepers/faunariums, “bio-cube” or similar vivariums or terrariums. Several of the acrylic displays and enclosures that are now manufactured for housing arachnids, insects, and other invertebrates can also be used. A damp bottom substrate of chemical and pesticide free coconut husk/fibers or potting soil, and a dryer top substrate should then be provided. They will occasionally burrow. These insects will utilize many furnishings in the enclosure for hiding or climbing, including egg cartons, cork bark or rock slabs/hides, live or artificial vines, plants, or other foliage, paper towel rolls, or other similar hides. These insects derive much of their water and hydration from their prey, but can also benefit from a damp cotton/wool provided in the enclosure as well.

Temperature, Lighting, and Humidity

The *Platymeris* genus is also tropical, and requires higher humidity and a thermal gradient in the enclosure ranging from 70 to 75 degrees as ambient/cooler temperatures, and 80 to 85 degrees F towards the warmer end using a low wattage overhead incandescent bulb, ceramic or radiant heat emitter, or a UTH (under tank heating element). More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one’s needs, as well as those of one’s animals can be given as well. Maintain at 60 to 80% humidity. Spot clean the enclosure for wastes, feces, or uneaten food at least once 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

Insectivorous to Carnivorous; The *Platymeris* genus of assassin bugs are nocturnal to crepuscular ambush predators and hunters of a wide range of other insects and invertebrates. In captivity, a varied diet is best, and prey should be smaller than, or of equivalent size to the assassin bugs, although they can take on and overpower somewhat larger prey. Feeder crickets,

cockroaches, moths, caterpillars, grasshoppers, locusts, waxworms, mealworms, hornworms, and many other insects and invertebrates will be captured and consumed with the use of their proboscis or rostrums. No additional, or supplemental calcium, vitamin D3, or other additives are typically required when maintaining assassin bugs. 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

These assassin bugs can be fast moving, and also possess a potentially potent saliva/venom that can not only be injected through a painful bite, but can also be sprayed with great accuracy as well. Assassin bugs are not a hands on pet, and handling should be discouraged or done so with caution.

****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

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Disclaimer: Note that the information provided in these, or any care sheets, are not intended to be all-exhaustive, and further research and care should always be sought and provided when it comes to any species one may prospectively be interested in. These care sheets are also not intended to serve as substitutes for professional veterinary medical care and husbandry should any animal require it. Always seek proper and professional veterinary care for any animal should the need arise, and be prepared ahead of time for any and all husbandry costs and expenses that may occur with any animal beyond the initial purchase. Any animal owned is ultimately a matter of personal/individual care and responsibility. We cannot make any claims or guarantees regarding any information in this care sheet therein. This care sheet may be reprinted or redistributed only in its entirety.

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