

## EUROPEAN MANTIS

Class	Order	Family	Genus	Species
Insecta	Mantodea	Mantidae	<i>Mantis</i>	<i>religiosa</i>

<b>Range:</b>	Origins in S. Europe. Introduced to us in 1899. Now found all over NE U.S. and Canada to Pacific Northwest
<b>Habitat:</b>	Temperate habitat, meadows on foliage and flowers
<b>Niche:</b>	Diurnal, carnivorous, arboreal
<b>Diet:</b>	Wild: diurnal insects, some small amphibians, reptiles and mammals Zoo:



**Special Adaptations:** Their green and brown body provides excellent camouflage among the leaves and twigs. Mantises have two grasping, spiked forelegs in which prey items are caught and held securely. The first thoracic segment, the prothorax, is commonly elongated and flexibly articulated, allowing for greater range of movement of the front limbs, while the remainder of the body remains more or less immobile. They have triangular heads poised on a long "neck," or elongated thorax. The articulation of the head is remarkably flexible, allowing a wide range of motion, allowing praying mantises the ability to swivel its head nearly 180 degrees without having to move the remainder of the body. Their vision is enhanced with by two large compound eyes (large binocular field of vision) and three other simple eyes located between them, allowing them to spot potential prey without having to move the rest of their body. They undergo incomplete metamorphosis. They have powerful mouthparts that cut through the armor of most insects, their primary prey.

**Other:** Phasmids should not be confused with mantids, as phasmids are herbivores and mantids are insect eaters and have forelegs modified for grasping and holding prey. Most species of mantis are known to engage in cannibalism. The female often eats the male after mating. Nymphs can be cannibalistic too especially in crowded conditions. Females regularly lay 50-200 eggs in a foamy mass attached to a branch or grass. The foam hardens to protect the eggs through the winter. Average life span is about 12 months.



## CHINESE MANTID

Class	Order	Family	Genus	Species
Insecta	Mantodea	Mantidae	<i>Tenodera</i>	<i>aridifolia</i>

<b>Range:</b>	Origins in China, currently in Asia and North America
<b>Habitat:</b>	Temperate regions in meadows and gardens
<b>Niche:</b>	Primarily insectivorous, arboreal, diurnal
<b>Diet:</b>	Wild: insects, adults sometimes small reptiles or amphibians Zoo:



**Special Adaptations:** Chinese Mantids can turn their heads around 180 degrees to face behind them. Triangular heads with large compound eyes and three simple eyes (ocelli) in a triangular arrangement between the antennae. Mantids rely on their exquisite camouflage while hunting. They use their stereoscopic vision, to gauge distances and their extreme mobility of their head to use parallax (the apparent movement of an object against a more distant background) as a reinforcement to the binocular triangulation. They usually remain in ambush completely motionless, and then lash out with their front legs to grab insect prey. Chinese Mantids are fairly strong fliers, but they only fly in order to get to a new perch, or to escape a predator.

**Other:** Introduced to US from China in 1896 to help control pest populations. Usually larger than other mantises and will reach a size of up to 15 cm (6 inches) in length. They are the largest mantis species in North America. The Chinese Mantids is often called "Praying Mantis" because of the way it poses with its front legs together under its head. It is actually poised to strike. Females will often kill their male after, or even during, mating. Female mantids then lay eggs in a foamy liquid on a twig. The liquid hardens and becomes an egg sac called an ootheca. Eggs overwinter and hatch in the spring. Baby mantids are called nymphs. They immediately begin eating, usually starting on their brothers and sisters. Up to 400 nymphs may come from one ootheca.

### SRI LANKAN MANTIS or GIANT ASIAN MANTIS

Class	Order	Family	Genus	Species
Insecta	Mantodea	Mantidae	<i>Hierodula</i>	<i>membranacea</i>

<b>Range:</b>	This species of mantis is from the rain forest in Sri Lanka off the coast of India.
<b>Habitat:</b>	Rain forest, leaf litter
<b>Niche:</b>	Arboreal, nocturnal
<b>Diet:</b>	Wild: Insects, small reptiles, small birds Zoo: 1 cricket per week



**Special Adaptations:** Many mantids, including this one, are masters of camouflage, matching the color of leaves, bark, flowers, or lichen. The two front legs are highly specialized legs known as “raptorial.” This species is very similar to the California mantis (below), however it can be very large (up to almost 10 inches) and has been known to feed on small birds and reptiles as well as other insects.

**Other:** The eggs are produced in the ootheca (hardened froth case) and it may contain 30-300 eggs depending upon the species. A mated female produces more than one ootheca depending on how much food she gets and how long she lives. During mating, the small male often jumps on the back of the larger female. An unsuccessful mating may result in the male being eaten. If the male is successful, the pair mate and the female may still turn and devour the male’s head. The body of the male is capable of completing the mating, and when complete, the female will finish eating the male. The young mantids are very active and begin to disperse quickly.



### CALIFORNIA MANTIS

Class	Order	Family	Genus	Species
Insecta	Mantodea	Mantidae	<i>Stagmomantis</i>	<i>californica</i>

<b>Range:</b>	All of Southern California, extending north through the Central Valley
<b>Habitat:</b>	Coastal sage, dry shrubby areas; desert and arid land species.
<b>Niche:</b>	Arboreal, nocturnal (although readily attracted to lights)
<b>Diet:</b>	Wild: Zoo:



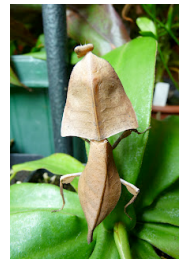
**Special Adaptations:** The body is long, slender (up to 6”); head triangular with thread-like antennae. They are brown or mottled-green. The two elongated forelegs are held in a “prayerful” position for grasping prey. Wings are long in the male extending past the tip of the abdomen; the female’s wings are only to the middle of the abdomen. The eyes are large and compound. They have the most flexible neck of any insect; able to look for prey or danger at most angles. Strong mouthparts can tear apart hard exoskeleton of prey: flies, bees, wasps, butterflies, caterpillars.

**Other:** Female often eats smaller male after mating. (sexual cannibalism). Even with it’s head off the male is able to mount and copulate with the female. The female encloses up to 200 eggs in hardened froth cases (called ootheca), which are attached to vegetation, rocks and other substrates. The mantid life cycle is incomplete metamorphosis.

## DEAD LEAF MANTID

Class	Order	Family	Genus	Species
Insecta	Mantodea	Mantidae	<i>Deroplatys</i>	<i>truncata</i>

<b>Range:</b>	Tropical Malaysia
<b>Habitat:</b>	Rainforest
<b>Niche:</b>	Primarily insectivorous, arboreal, diurnal
<b>Diet:</b>	Wild: small insects and other arthropods Zoo:



**Special Adaptations:** Their colors and overall body shape provide excellent camouflage among dead leaves. Females guard their egg case, which are laid on twigs. This species lives in leaf litter and on shrubs. When threatened, they flash the bright colors on the insides of their front legs and expose the eyespots underneath their forewings, all in an effort to startle predators.

**Other:** These mantids have a lifespan of 18 – 2 years. They are a species of praying matis and are renowned for the females' tendency to eat the male during copulation.

<http://www.auduboninstitute.org/animals/insects-and-their-relatives/dead-leaf-mantid-16371>

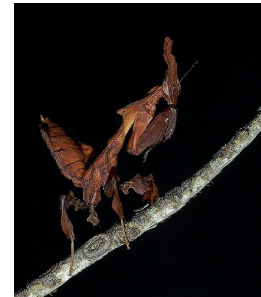
<http://animals.jrank.org/pages/2352/Mantids-Mantodea-DEAD-LEAF-MANTID-Deroplatys-lobata-SPECIES-ACCOUNTS.html>



## GHOST MANTIS

Class	Order	Family	Genus	Species
Insecta	Mantodea	Hymenopodidae	<i>Phyllocrania</i>	<i>paradoxa</i>

<b>Range:</b>	Africa
<b>Habitat:</b>	Shrubs and bushes
<b>Niche:</b>	
<b>Diet:</b>	Wild: flying insects- moths, flies, bees and other small insects Zoo:



**Special Adaptations:** An individual's colors change between molts and are dependent on light and humidity levels. Coloration varies between light green and dark brown. Camouflaged to appear as dead, dried-up leaf matter.

**Other:** small praying mantis ~ 1.8 – 2.0 in long.

**MANTIS**

Class	Order	Family	Genus	Species
Insecta	Mantodea	Hymenopodidae		

<b>Range:</b>	Africa
<b>Habitat:</b>	
<b>Niche:</b>	
<b>Diet:</b>	Wild: Zoo:

**Special Adaptations:**

**Other:**

**MANTIS**

Class	Order	Family	Genus	Species
Insecta	Mantodea	Hymenopodidae		

<b>Range:</b>	
<b>Habitat:</b>	
<b>Niche:</b>	
<b>Diet:</b>	Wild: Zoo:

**Special Adaptations:**

**Other:**