

Southeast Asian Hammerhead Flatworm (from DCMGA's Help Desk)

Question: In the last few weeks, there has been increasing media attention to reports of the Southeast Asian Hammerhead Flatworm being found in the Dallas-Ft. Worth area. This week the DCMGA Help Desk would like to provide you with evidence-based information about this unusual creature including how to identify it, its habits, and management.



Answer: The Southeast Asian Hammerhead Flatworm, also known as the Arrowhead Flatworm, is an unusual creature originating from southeast Asia. It belongs to one of the most primitive animal groups, the Phylum Platyhelminthes—also known as flatworms. It is a planarian which is defined as “a free-living flatworm which has a three-branched intestine and a tubular pharynx, typically located halfway down the body”. There are both water and land planarians. The Southeast Asian Hammerhead Flatworm is commonly known as a land planarian or terrestrial flatworm.

Quick Facts . . .

- The most commonly found species of terrestrial flatworm in Texas is the *Bipalium kewense*.
- It has a flattened head, sometimes half-moon or arrowhead-shaped, with distinct longitudinal stripes, is up to 10 inches in length, is slimy and grey or brown.
- It reproduces primarily by fragmentation but also lays eggs.
- They are found in dark, cool, moist areas such as under rocks, logs, shrubs, and the soil's surface after rain. Greenhouses are a favorite habitat.
- The Hammerhead Flatworm is considered both beneficial and predatory. Beneficially, they feed on slugs and other harmful insect larvae. They also prey on earthworms and are cannibalistic when food sources are scarce.
- They move around and feed at night.

Reported Locations

Terrestrial flatworms are found in over 50 countries. They were discovered in the United States over 100 years ago. Their natural habitats in the U.S. include hot humid environments in southeast states (AL, CA, FL, GA, LA, MS, NC, SC, TX). Reporting is inconsistent in Texas.

They have been reported from Orange to Uvalde; numerous Gulf Coastal counties, and the DFW area over through East Texas. They are spread most often by the landscape, nursery, and mulch industries.

Impact on Gardeners

Most often, they're considered a nuisance in the United States and typically do not cause significant destruction of the earthworm population for home gardeners. Flatworms do not eat plants, and as noted earlier, can be considered beneficial predators of slugs and harmful insect larvae.

Management

There are no known control measures for Hammerhead Flatworms. As a preventative measure, the soil of potted plants should be carefully checked for them and should not be combined with compost, garden soil, or other potting soil if they're present.

Hammerhead Flatworms secrete a neurotoxin to disable their prey. This neurotoxin can be irritating to the skin if touched or to pets if eaten. Protect your hands with gloves or use a paper towel or stick to pick up the flatworm. Drop it into a zipper-lock bag with salt or vinegar, seal the bag and discard it in the trash. Wash your hands thoroughly after handling them. They can be sprayed with citrus oil, e.g., orange oil, a combination of citrus oil and vinegar, or just vinegar, or sprinkled with salt. Resist the temptation to chop up the flatworm as this will result in it reproducing from the segments in about 10 days.

The Texas Invasive Species Institute is documenting distribution in Texas using reports from citizens. To help in this effort, take a picture of the flatworm, document the location coordinates, and send an email to invasives@shsu.edu.

So far, earthworm populations in Texas have not been decimated by these unusual creatures. Based on anecdotal evidence and the lack of consistent reporting in Texas, this doesn't appear to be a real risk at this time for the home gardener. That being said, it's always good to be educated about any potential harm to the coveted and precious earthworms in our gardens.