

FBMG Help Desk
Question of the Week

How can I prevent Hammerhead Worms in my yard?

*Prevention is difficult, Observation and Precaution
are the best practices.*



Hammerhead Worm - *Bipalium Kewense* In Houston area since 1980's

Bipalium kewense was discovered in 1878, not far from London, in one of the Kew Botanical Garden greenhouses. A native to Vietnam this hammerhead made it's appearance in 1901 at a greenhouse in Pennsylvania, having arrived in a shipment of imported plants. In the past 121 years it has spread throughout the United States.



- found in East Texas in the 1990's
- in Houston area since the 1980's 40 years +/-
- well established in most of Texas with the exception of the dryer areas
- prefers warm, moist/ humid sub-tropical & tropical environments
- at home in greenhouses
- eats earthworms, slugs
- average size ranges between 3-7"
- a bit longer when on the move
- coloration is usually a light/honey
- 1-5 stripes may be noted along the top and sides

Hammerhead Worm - *Bipalium Vagum*

Newcomer to Texas

Bipalium vagum was first noticed in 2005 in Bermuda. More recently found in the United States starting in Florida then along the Gulf Coast and into Texas. It appears to have arrived via exotic plants.



DSC_2988.jpg | Mark Yokoyama | Flickr

- *in Houston area for approximately 4 years*
- *prefers warm, moist/ humid sub-tropical & tropical environments*
- *at home in greenhouses*
- *eats gastropods - snails, slugs, mullosks*
- *average size ranges between 1-3"*
- *a bit longer when on the move*
- *coloration is usually tan to yellowish brown*
- *3 dark stripes noted along the top and sides with the center stripe being darker*
- *has a thick black collar*

Different, but with some commonalities

Known as Hammerhead worms, flatworms, broadheaded planarians. Often dubbed hitchhikers because they travel in flower pots and plants either as adults or eggs.



Bipalium Kewense

A warm moist environment found in sub-tropical, tropical regions and greenhouses are inviting homes. Leaf litter, compost piles, flowerpots, mulch, and the edge of ponds can become home as well. Avoiding light, they are more active after dark. Coiling tightly and covering themselves with mucus enables them to survive periods of drought.

Broadheaded Planarians have a shorter, wider appearance when coiled up, however on the move they can become much longer. They secrete and move on a cushion of mucus often leaving a trail. Hunting food is done by following the mucus trails left behind by earthworms or slugs.

Hammerheads emit a neurotoxin to stun, subdue and digest their food as well as for defense.

While it disables their prey there have not been any reported cases of it causing severe harm to human or pets.

They do not cause harm to plant matter.



File:Bipalium vagum Taiwan.jpg - Wikimedia Commons

Bipalium Vagum



Dinner for many



Multiple Creatures eat earthworms

Earthworms have been a food source for as long as there have been earthworms.

The earthworm is a source of protein is eaten by many different creatures.

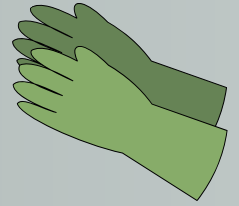
- *Birds - robins, crows, owls, gulls, thrushes etc.*
- *Mammals - hedgehogs, badgers, moles, voles, pigs etc.*
- *Reptiles - lizards, frogs, toads, turtles etc.*
- *Invertebrates - spiders, ants, beetles, snails, flatworms etc.*
- *Humans*
- *Paying homage to the circle of life the earthworms will eat them.*



Additionally the earthworm will find its way on the end of a fishing pole from time to time.



Prevention and Mitigation



Observation, Quick Action & Sanitation!

There are two species of Broadheaded Planarians AKA Hammerhead Worms in our area. The Bipalium Kewense and the Bipalium Vagum.

The Kewense (eater of earthworms) is not new.

It has been in the U.S. for 122 years & in our area 40 years +/-.

The Vagum (eater of gastropods) is newer to the U.S. and our area.



DO NOT CUT IT UP!

New heads and tails will grow. Making 2 planarian where there were 1.
(They reproduce through spontaneous fragmentation, and eggs).

What can be done to help?

- purchase potting soil, mulch and plants from a reputable source
- clean gardening tools after use and before moving to a different section of the garden
- spray with a vinegar or vinegar/ citrus oil solution, bag and freeze for several days is an option
- it is better to spray them where they are, as moving them with a stick could cause them to fragment..
- always dispose of in a tightly sealed bag or container
- any chemical that kills hammerheads also kills good worms
- they can be found where earthworms are
- always wash your hands



Citizen Reporter of Invasives

Invasives are tracked.

Under the definition of invasives as set forth
in 1999

the hammerhead worm qualifies.

It has been here for 40 years.

If you want to get involved
check out the invasive list
on their website.



*Invasives can be plants,
animals or insects.*

In order to report

- *List what you are reporting*
- *Take a photo which includes something for scale; a coin, golf ball, finger, measuring tape etc.*
- *Record the date, the time, the weather conditions*
- *Record the exact location*



File:Bipalium vagum Taiwan.jpg - Wikipedia Commons

Bipalium Vagum

*Most important to remember
don't panic.*

*check the website for
information
texasinvasives.org*

*email your information to
Invsives@shsu.edu*

***Do you have questions
about your home
landscape and plants?***

***Contact the Fort Bend
Master Gardener Help
Desk***

***Email:
FortBendmg@ag.tamu.ed
u***

***Phone:
281-341-7068***

***The Help Desk is manned
Monday thru Friday,
9am-Noon***

<https://coachellavalleypreserve.org/what-do-earthworms-eat>
http://entnemdept.ufl.edu/creatures/misc/land_planarians.htm
<http://davesgarden.com/guides/bf/go/1839/#b>

[Landscape Message: May 5, 2023 | Center for Agriculture, Food, and the Environment \(umass.edu\) Center for Agriculture, Food, and the Environment land planarians - Bipalium kewense Moseley and Dolichoplana striata Moseley \(ufl.edu\).](#)

[Flat Worms: The Earthworm Predators | A Moment of Science - Indiana Public Media Flat Worms: The Earthworm Predators](#)

[Hammerhead Flatworm, Vol. 5, No. 27 | Mississippi State University Extension Service \(msstate.edu\)](#)

[Hitchhiking hammerhead worm kills native earthworms | MU Extension \(missouri.edu\).](#)

[Hammerhead flatworm/ Hammerhead slug: Texas Invasive Species Institute \(tsusinvasives.org\)](#)

[Hammerhead Flatworms and Other Land Planaria of Eastern North America \(psu.edu\)](#)

[May 2, 2023 Lecture Texas Gardens Beward, Invasive Worms are encroaching! By Ashley Morgan-Olvera, MS Director of Research and Education Outreach Tx Invasive species Institute and TexasInvasives.org Sam Houston St University Huntsville Tx](#)

[Information on Terrestrial Flatworms and Hammerhead Worms | NC State Extension \(ncsu.edu\).](#)

[Hammerhead Flatworms and Other Land Planaria of Eastern North America \(psu.edu\)](#)

[Hammerhead Worms: New to Some, a Pest to All - Alabama Cooperative Extension System \(aces.edu\).](#)

https://www.texasinvasives.org/animal_database/detail.php?symbol=26

<https://phys.org/news/2020-11-flatworms-invading-west-indies.html>

<https://www.inaturalist.org/taxa/343173-Bipalium-vagum>

<https://lucec.loyno.edu/natural-history-writings/why-it-so-many-invasive-species-are-icky-bipalium-falt-worms>