

New World Screwworm in the Florida Keys



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

FAD Investigation – 16FL0012

- Contact from biologist at National Key Deer Refuge (September 29, 2016)
- Severe fly infestation with aggressive myiasis
 - Over 20 deer had been euthanized for myiasis
 - Big Pine Key & No Name Key
- Original case – July 4, 2016 in deer
 - motor vehicle related injury
- Larvae sample shipped to NVSL
 - high priority investigation



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

National Key Deer Refuge

- Administered by US Fish and Wildlife Service
- Endangered Key Deer reside on multiple keys
 - ~800-1000 deer; residing on ~20 keys
 - Reside on Refuge and freely wander into urban/residential areas
 - Significant urban/wildlife interface
- 2016 fawn crop was good and survival was good
 - Fawning season (Mid March – Late May)



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

National Key Deer Refuge

- Government and Private lands mixed over multiple keys
- Multiple Species on endangered list
 - Many are insects
 - Including Bartram's Hairstreak butterfly

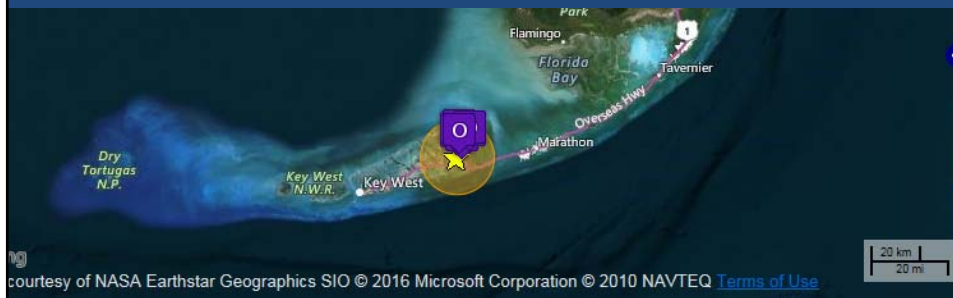


Photo credit: USFWS



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

National Key Deer Refuge



courtesy of NASA Earthstar Geographics SIO © 2016 Microsoft Corporation © 2010 NAVTEQ [Terms of Use](#)

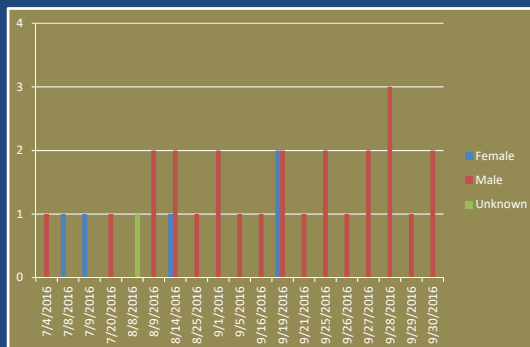


Earthstar Geographics SIO © 2016 Microsoft Corporation © 2010 NAVTEQ [Terms of Use](#)

Epi Information for Key Deer

- Deaths (July – September 2016)

- July = 4
- August = 7
- September = 20
- Male = 25
- Female = 5
- Unknown = 1



Key Deer bucks had started rut by August

Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Additional Epi Information

- Dog with severe myiasis from Big Pine Key (July 2016)
- Pig with severe myiasis from Big Pine Key (July 2016)
- Dog with moderate myiasis from Big Pine Key (August 2016)
- NONE REPORTED TO SAHO BY EXAMINING VETERINARIANS



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

16FL0012

- On October 3, 2016, the U.S. Department of Agriculture confirmed the presence of New World Screwworms in samples collected from a wildlife refuge in Big Pine Key (Monroe County) tested positive for the parasite.
- *New World Screwworms are fly larvae (maggots) that can infest livestock and other warm-blooded animals, including people.*
- *Florida's endangered Key deer population, which only exists in the Keys in Florida, has already suffered losses due to this infestation. Rapid and thorough response efforts are imperative to save this endangered species and prevent further spread to people and animals.*



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

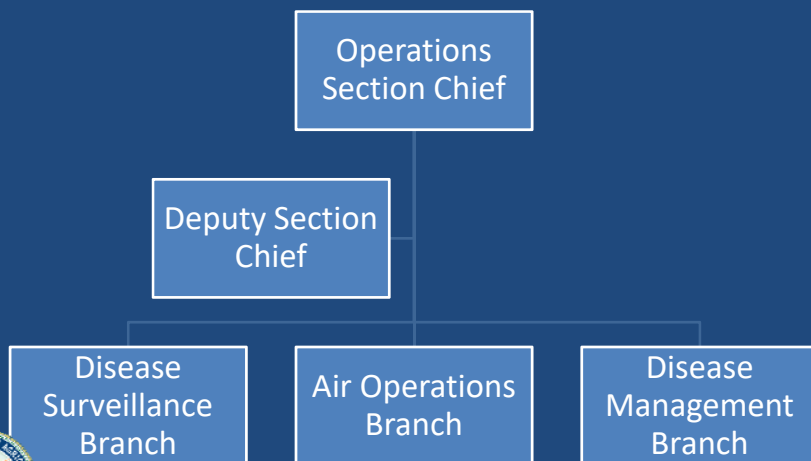
Incident – *FL NWS BPK 2017*

- Unified Command – USDA and FDACS
- Joint IMT deployed to Florida Keys
 - Multi-agency
- Declaration of Agricultural Emergency
- Controlled Animal Movement from Monroe County
 - Key Largo Interdiction Station



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Incident – *FL NWS BPK 2017*



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Disease Surveillance Branch

- Office of Agricultural Law Enforcement Interdiction
- Veterinary Support Interdiction
- Animal Inspection Station
 - Key Largo on US 1; Mandatory inspection of all animals
 - Treatment required for all livestock
 - Companion Animals with wounds, close examination

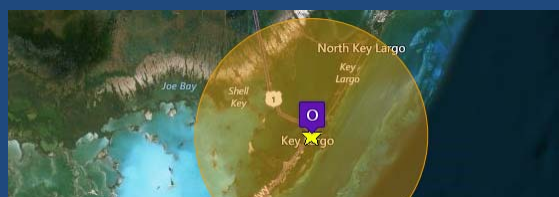


Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Incident – FL NWS BPK 2017



SA Earthstar Geographics SIO © 2016 Microsoft Corporation © 2010 NAVTEQ [Terms of Use](#)



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Disease Surveillance Branch

- Outreach and Investigation
 - Toll-free Hotline 24 hr/day; 7 days/week
 - Investigation of reports of myiasis
 - Website: www.freshfromflorida.com/screwworm
 - Resources for vets, public, pet stores, groomers, marinas, grocery stores, etc
 - Public meetings
 - Posters



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

The screenshot shows the Florida Department of Agriculture and Consumer Services website. The main heading is "New World Screwworm". The text describes the New World screwworm as a fly (larva) that can infest livestock and other warm-blooded animals, including people. It notes that while the screwworm has not been widely present in the United States since the 1960s, it is still found in most of South America and in five Caribbean countries. The page also includes a "History" section and a "Stay Current on Screwworm Eradication" form with fields for Name, First, Last, Email, Company, and Zip Code. There is also a "Submit a Photo for Review" section.



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Noticia Importante Acerca de una Enfermedad Animal

Gusano Barmador del Nuevo Mundo en Florida

■ La presencia del gusano barmador, una plaga exótica de animales, fue reportada por el Departamento de Agricultura de EE.UU. el 3 de Octubre de 2016, después de que los resultados de los tests de los testados de Monroe County, Florida fueron positivos.

■ El gusano barmador del Nuevo Mundo son las larvas de insecto que pueden causar el prurito y otras afecciones de la piel a animales, incluyendo personas.

■ Esto es la primera vez en 30 años que ha habido una infestación en los Estados Unidos y más de 50 años desde que el gusano barmador ha estado en Florida.

■ Las larvas del gusano barmador con más frecuencia entran en un animal por heridas abiertas y se alimentan de carne de animales vivos. Si se detecta oportunamente, los animales y las personas pueden ser tratados y recuperarse completamente.

■ La población de ciervos en peligro en Florida, que sólo existe en los Keys de Florida, ya ha sufrido pérdidas debido a esta infestación. Los esfuerzos de una respuesta rápida y completa son imperiosos para evitar más muertes en peligro de extinción y evitar una mayor propagación de la enfermedad a personas y animales.

Qué debemos buscar:

- Heridas en animales vivos infestados de gusanos
- Heridas rojizas de sangría y hinchazón
- Irritación
- Alteración de apetito y producción de leche
- Inflamación del tejido del tejido y coque

Si usted tiene un animal con una herida abierta con cualquiera de los signos mencionados arriba, consulte a un veterinario para asistencia. Examine sus animales más propiamente acerca del gusano barmador a las siguientes horas: 9 AM-5 PM (ET) 7-11 AM (PT) 4-7 PM (CT) con el consentimiento de FreshFromFlorida. Para reportar un caso sospechoso de gusano barmador llame al 1-800-484-3822. Para reportar un caso sospechoso de gusano barmador llame al 1-800-484-3822.

Para inscribirse en actualizaciones diarias de información acerca del gusano barmador, y para aprender a protegerse y proteger a sus mascotas, por favor visite FreshFromFlorida.com/Screwworm o llame al 1-800-484-3822.

Escanear con su teléfono para más información

USDA

IMPORTANT ANIMAL DISEASE NOTICE

New World Screwworm in Florida

■ The U.S. Department of Agriculture confirmed the presence of New World Screwworm on October 3, 2016, in Big Pine Key, Florida. A federal and state response effort was immediately activated.

■ New World Screwworms are fly larvae (maggots) that can infect livestock and other warm-blooded animals, including people.

■ This is the first time in 30 years that there has been an infestation in the United States and more than 50 years since screwworm has been in Florida.

■ Screwworm larvae most often enter an animal through an open wound and feed on the animal's living flesh. If detected early, animals and people can be treated and fully recover.

■ Florida's endangered Key deer population, which only exists in the Keys in Florida, has already suffered losses due to this infestation. Rapid and thorough response efforts are imperative to save this endangered species and prevent further spread to people and animals.

What To Look For:

- Wounds in living animals infested with maggots
- Blood tinged discharge from wound and a foul odor
- Discomfort
- Decreased appetite and milk production
- Swelling from rest of herd or flock

If you have an animal with an open wound with any of the signs that are mentioned above, consult your veterinarian for assistance. Examine that you are concerned about New World Screwworm due to the recent findings in Florida.

These Florida residents can call 904-730-7100. To report a suspected case in a Key deer call 1-800-484-3822.

To report a suspected case of screwworm call 1-800-HELP-FLA (1-800-484-3822).

You can also go to FreshFromFlorida.com/Screwworm and upload a photo and scan with your phone for more information.

To sign up for daily New World Screwworm informational updates and to learn how to protect yourself and your pets, please visit FreshFromFlorida.com/Screwworm or call 1-800-HELP-FLA (1-800-484-3822).

USDA

Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Disease Management Branch

- Sterile Fly Release Task Force
 - USDA ARS, USDA IS, COPEG Subject Matter Experts
 - Aerial and Ground Assessment for release sites
 - Enhanced surveillance – Liver bait/nets
 - Trapping to assess the Sterile Fly Release Activities
- US FWS Refuge Operations
 - Euthanasia and Disposal of infested Key Deer



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Sterile Fly Release



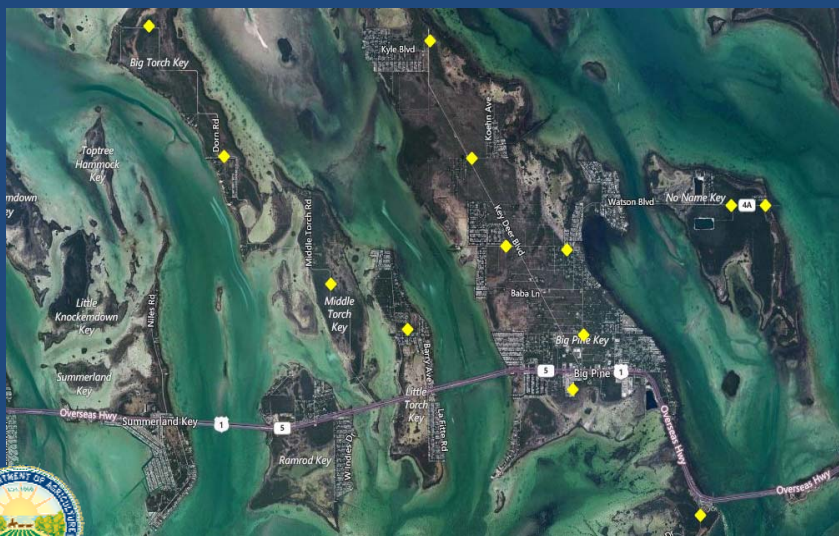
Sterile Fly Releases

- Shipments from Panama on Monday & Thursday
- Releases on Tuesday and Friday
- ~ 2.5 M flies per release
- 7 release sites on Big Pine Key
- 2 release sites on No Name Key
- 4 release sites on Torch Keys (3 keys)
- Aerial surveillance/release sites selected
 - Adjacent keys



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Sterile Fly Release Sites



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Summary Data

- 3 confirmed positive cases
 - BPK – Key Deer & Pig
 - NNK – Dog
- 5 Presumptive Positive Autochthonous* premises
 - BPK – Key Deer (>90), Dogs (2), Pig
 - NNK – Key Deer (>5)

*Autochthonous = contracted from area where NWS is reported



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

Other Activities

- Extensive outreach to Florida veterinarians
- All reported cases of myiasis or heavy fly infestation of concern on mainland peninsula are investigated
- Submissions from 7 investigations on mainland
 - All negative for NWS
 - Flies – 2; Sheep & Pig premises
 - Maggots – 5; Alpaca, Cat, Calf, Rabbit, WTD



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

THANK YOU!
QUESTIONS?

Dr. Michael Short,
Florida State Veterinarian

Dr. Diane Kitchen,
Veterinarian Manager,
Florida Department of Agriculture
and Consumer Services



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner