ew World Screwworms are fly larvae (maggots) that can infest livestock and other warm-blooded animals, including, although rarely, people. They most often enter an animal through an open wound or, in the case of newborn animals, the navel. They feed on the animal’s living flesh and, if not treated, infestations can be fatal. While New World Screwworm (Cochliomyia hominivorax) 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 U.S. Department of Agriculture announced the confirmation of screwworm in Big Pine Key, Florida, on Oct. 3, 2016. Florida Commissioner of Agriculture Adam H. Putnam issued an agricultural emergency on the same day, and the two agencies immediately began the implementation of an aggressive eradication program.

The Key deer, a subspecies of the white-tailed deer, are federally endangered and live solely on islands in the lower Florida Keys from Little Pine Key to Sugarloaf Key and a few surrounding small islands. This is the only place in the world where Key deer are found, and in the 1950s, only 25-50 of these deer were in existence. Since the National Key Deer Refuge was established in 1957 and the Key deer became one of the first species protected under the Endangered Species Act, their population has climbed back up to approximately 1,000 individuals with the core population on Big Pine Key and No Name Key.

ERADICATION PROGRAM

The eradication efforts are led by the U.S. Department of Agriculture and the Florida Department of Agriculture and Consumer Services. However, many partnering agencies at the federal, state and local levels are involved in the program to ensure its success. Eradication efforts underway include:

- An Animal Health Check Point at Mile Marker 106 in Key Largo. This animal health checkpoint is a crucial part of ensuring animal health and protecting Florida from the spread of this pest. All animals are briefly checked to ensure they do not have screwworm. Early detection of screwworms can be successfully treated in pets and livestock.
- The release of sterile flies, a scientifically proven method to achieve screwworm eradication, began on Oct. 11, 2016.
- The USDA continues to increase production and evaluate additional sites for release.
- Enhanced surveillance to determine the scope of the screwworm infestation.
- Extensive public outreach in order to engage the public in early detection of the screwworm.

SIGNS

Screwworms are typically found on warm-blooded animals that have a draining or enlarging wound.

Almost any type of wound can become infested with screwworm larvae, including those caused by feeding licks, castration, dehorning, branding, shearing, barbed wire fences, and even shedding of antler velvet in deer. The navels of newborn mammals can also become infested.

It can be very difficult to see the early stages of screwworm larvae feeding in a wound. The most obvious sign is a change in the wound’s appearance — as larvae feed, the wound gradually enlarges and deepens. An infested wound also gives off an odor and some bloody discharge. Even if the actual wound on the skin is small, it could have extensive pockets of screwworm larvae beneath it. Infested livestock usually show signs of discomfort, and they may go off their feed and produce less milk. Typically, these animals will separate themselves from the rest of the flock or herd and seek shady or secluded areas to lie down. Infested animals that are not treated in seven to 14 days may die.

While human cases of New World Screwworm are rare, they have occurred. People infested with screwworm usually have discomfort or itching at the wound site.
GUIDANCE FOR ANIMAL HEALTH

Carefully inspect animal wounds and hides for signs of screwworm. Any suspected cases of screwworm should immediately be reported to 1-800-HELP-FLA (1-800-435-7352). Screwworm eggs are creamy and white and deposited in a shingle-like manner on or near the edges of superficial wounds. The larvae are cylindrical with one pointed end and one blunt end and have rings of dark brown spines around the body. Female screwworm flies are larger than a housefly with a dark blue to blue-green body and reddish-orange head.

Suspected cases in Key deer should be reported to the U.S. Fish and Wildlife Service by calling (305) 470-6863, option 7.

TREATMENT

Screwworm infestation is treated by cleaning the site and topical application of a pesticide. Treated wounds should be inspected daily until completely healed. The examining veterinarian will remove larvae from the wound with tweezers, place them in alcohol, and submit them to USDA’s National Veterinary Laboratory for positive identification. While early detection in pets and livestock can be successfully treated, treating wildlife poses unique challenges.

Suspected cases in pets or livestock should be reported to the Florida Department of Agriculture and Consumer Services by calling 1-800-HELP-FLA (1-800-435-7352).

GUIDANCE FOR HUMAN HEALTH

While the occurrence of screwworms in humans is less common than in livestock or other mammals, people are urged to keep wounds clean and closely monitor open cuts and wounds for the presence of maggots. Anyone who suspects the presence of screwworms should contact a physician immediately.

Report Suspected Cases:

Suspected cases in Key deer should be reported to the U.S. Fish and Wildlife Service by calling (305) 470-6863, option 7.

Suspected cases in pets or livestock should be reported to the Florida Department of Agriculture and Consumer Services by calling 1-800-HELP-FLA (1-800-435-7352).

For more information, visit FreshFromFlorida.com/Screwworm

Sources: CDC, USDA, Iowa State University.