Controlling invasive corallimorphs at Palmyra Atoll

Beginning in 2007, the U.S. Geological Survey’s (USGS) National Wildlife Health Center (NWHC) Honolulu Field Station (HFS) documented the spread of an invasive corallimorph (Order Corallimorpharia) on the coral reefs at Palmyra Atoll National Wildlife Refuge, U.S. Minor Outlying Islands. After determining that a wrecked longline vessel on the western shelf of the atoll had contributed to the phase shift from corals to corallimorphs on the atoll, the wreck was removed in 2013 by the U.S. Fish and Wildlife Service (USFWS). Surveys performed in 2016 demonstrated marked declines in corallimorphs near the wreck site but also revealed new infestations to the southwest and increasing encroachment towards a particularly diverse patch of corals located to the east of the island. In 2018, HFS and USFWS initiated treatment trials to test biodegradable toxic paste or hot water to control the corallimorphs. Treatments were successful and, moreover, the treatments had limited to no adverse collateral effects on native biota (clams and corals). The next step is to scale up treatment to medium size areas in preparation for a broader atoll-wide control effort. For additional information contact: Dr. Thierry Work (thierry_work@usgs.gov).

References:


Canine distemper outbreaks at multiple locations in gulf-coast states

Canine distemper has been confirmed as the cause of raccoon (*Procyon lotor*) and gray fox (*Urocyon cinereoargenteus*) mortalities in multiple suburban areas in Texas and Louisiana between October 2018 and March 2019. The U.S. Geological Survey’s (USGS) National Wildlife Health Center (NWHC) received submissions from animal rehabilitation facilities near Houston, Texas, that were receiving multiple calls per week about animals with poor motor coordination and extreme hind-end weakness. Post-mortem diagnostics attributed the deaths to canine distemper in two of five raccoon carcasses and one gray fox carcass. Others were not tested but are believed to have died of the same cause given observed clinical signs and timing of deaths. Concurrently in early February 2019, Dallas Animal Services (promedmail.org alert 20190213.6314579) and the Louisiana Department of Wildlife and Fisheries (promedmail.org alert
20190212.6312349) reported multiple detections of canine distemper in raccoons from the city of Dallas, Texas and South-Central to South-Eastern Louisiana, respectively.

Distemper is a highly contagious viral disease that infects a wide variety of mammals including unvaccinated domestic dogs (*Canis lupus familiaris*). The disease is common and can cause significant outbreaks in susceptible wildlife species (raccoons [*Procyon spp.*], fox [Canidae], skunks [Mephitidae], coyotes [*Canis latrans*], etc.). It is caused by a single-stranded RNA virus in the family Paramyxoviridae that is closely related to the viruses that cause measles and rinderpest. Distemper is usually fatal and can spread quickly in a population when other animals come into contact with the bodily fluids, such as saliva, urine, feces, or respiratory discharge of an infected animal. The clinical signs of distemper mimic rabies and are characterized by fever, emaciation, seizures, nasal discharge, foaming at the mouth, and inflammation of the brain. As distemper affects the central nervous system, infected mammals may also exhibit unusual behaviors such as stumbling and lack of fearfulness. The onset of neurologic signs can cause spasms leading to slight or complete paralysis. While distemper cannot be transmitted to humans, it is extremely contagious to domestic pets, so owners are highly encouraged to vaccinate against it. It is also advised to contact a local veterinarian or wildlife management agency if you encounter an animal exhibiting these unusual signs and behaviors. For additional information contact: Dr. Dan Grear (dgrear@usgs.gov).

For additional information on the USGS National Wildlife Health Center see the following links:


To view, search, and download historic and ongoing wildlife morbidity and mortality event records nationwide visit the Wildlife Health Information Sharing Partnership event reporting system (WHISPers) online database: [https://www.nwhc.usgs.gov/whispers/](https://www.nwhc.usgs.gov/whispers/).