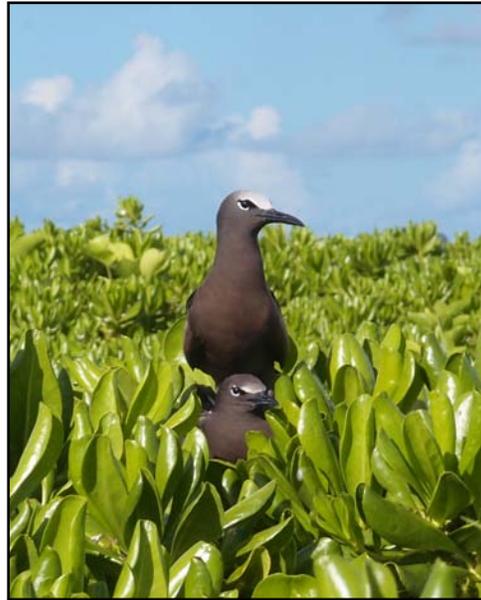


HONOLULU FIELD STATION

A Quarterly newsletter of the Honolulu Field Station, part of the USGS-National Wildlife Health Center in Madison, WI

Disease surveillance in American Samoa

Wildlife disease specialist, Dr. Thierry Work travelled to American Samoa early April 2012 to exchange information with wildlife officials about what is killing wildlife over there. Since 2005, the Honolulu Field Station has received 105 animals for examination (birds, turtles and bats) of which about 25% died from infectious diseases (parasitic or bacterial), and the rest from trauma and starvation. The public is encouraged to report dead or sick wildlife to their local government office. It is important to know what causes death in wildlife so that we can protect species if dangerous diseases occur or if there is a threat to humans.



*Brown Noddy or Noio Kōhā.
Photo credit © Thierry Work*

Green Turtle Fibropapillomatosis (FP)

FP is a tumor disease that we think is caused by a herpes virus. The HFS laboratory has been working toward understanding whether or how this virus causes tumors in green sea turtles. Recent efforts have been geared toward developing an antibody test which will allow us to take a turtle blood sample and determine if an individual was exposed to the virus before tumors occur. Early detection of disease is key to enabling early intervention and prevention.



*Hawaiian Sea Turtle or Honu.
Photo credit © Sandy Hall*

This article first appeared On Radio Australia on april 17, 2012

"Scientists studying American Samoa wildlife deaths"

The United States Geological Survey is working with conservation agencies in American Samoa to understand the causes of death of local wildlife. They are calling on the public to report any sick or recently dead wildlife to the government. The specimens are then sent to Hawaii for tests to determine what killed them. Wildlife Disease Specialist Thierry Work told Radio Australia's Pacific Beat the major causes of death are trauma or starvation, with about 25 per cent of animals dying from various infections and diseases. He says monitoring wildlife diseases is important for conservation of endangered species and public health. "The main message that we've been trying to get out is that people do need to report dead birds or dead wildlife in order to help us better understand the causes of mortality," he said. "Also from public health standpoint because sometimes wildlife diseases can be transmitted to people and wildlife mortalities can be an early indicator of that." <http://www.radioaustralia.net.au/international/2012-04-17/scientists-studying-american-samoa-wildlife-deaths/899618>

Toxoplasmosis in native Hawaiian geese

Since 1992, the HFS has been investigating causes of death in endangered nene in Hawaii. Of the infectious

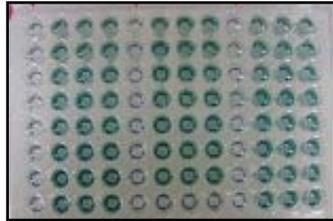


*Hawaiian goose or Nēnē.
Photo credit © Brenda Zaun*

diseases in nene, Toxoplasmosis, a parasite transmitted by feral cats, is a major player. In 2012, the HFS launched a project to determine how commonly live Nēnē in Molokai, Kauai and Maui are exposed to the parasite. This project is a collaboration between Hawaii Department of Land & Natural Resources and US Department of Agriculture-Agricultural Resource Service.

Screening for West Nile Virus

West Nile virus (WNV) was introduced into the US in 1999 and has had severe impacts on North American birds. Should WNV get to Hawaii, the consequences to native birds could be dire. To address this, the HFS has been sampling wild birds weekly at Honolulu International Airport in a collaborative effort between HFS and the USDA-Wildlife Services since 2001. In the past, samples were sent to the mainland for testing, but recently, the HFS developed the ability to test for WNV thus reducing the turnaround time for test results.



*Elisa plate.
Photo credit USGS-HFS*



*Field Necropsy.
Photo credit USGS-HFS*

Report Dead Wildlife

Part of our mission is to determine what kills wildlife in Hawaii. Various agencies and individuals from the public can and do send us suitable carcasses of native species that are necropsied to determine cause of death. This is a critical part in monitoring wildlife health and also learning of potential disease that can be transferred to humans (zoonoses).

Visiting students

Students can do internships at the HFS. Recently, we hosted students from Taiwan and Alaska. Students assist with necropsies of sea turtles, birds and other animals, perform routine blood sampling and analyze biological samples. Some students take on independent research projects that help advance knowledge about wildlife diseases. A recent example is an attempt to identify genes of inflammation in sea turtles.



*Iwi.
Photo credit © Dan Clark*



CONTACT
Dr. Thierry Work
USGS-NWHC-HFS
PO Box 50167
Honolulu, HI 96850
808/ 792-9520

E-mail: thierry_work@usgs.gov

