



United States Department of Agriculture

Invasive Species Awareness and Consequences

USDA Wildlife Services
Guam/Pacific District Supervisor
Chad Richardson



Why is Invasive Species Awareness Important?

- **THREATENING NATIVE WILDLIFE (42% OF THREATENED OR ENDANGERED SPECIES ARE AT RISK DUE TO INVASIVE SPECIES).**
 - CAUSING CROP DECIMATION
 - CLOGGING OF WATER FACILITIES
 - WILDLIFE AND HUMAN DISEASE TRANSMISSION
 - THREATS TO FISHERIES
 - INCREASED FIRE VULNERABILITY
- **COSTING BILLIONS OF DOLLARS EACH YEAR IN IMPACTS ON NATURAL ECOSYSTEMS AND ECONOMY.**

What is an Invasive Species?

- **NON-NATIVE (OR ALIEN) TO THE ECOSYSTEM UNDER CONSIDERATION **AND**,**
- **WHOSE INTRODUCTION *CAUSES OR IS LIKELY TO CAUSE* ECONOMIC OR ENVIRONMENTAL HARM OR HARM TO HUMAN HEALTH.**

How do Invasive Species Spread?

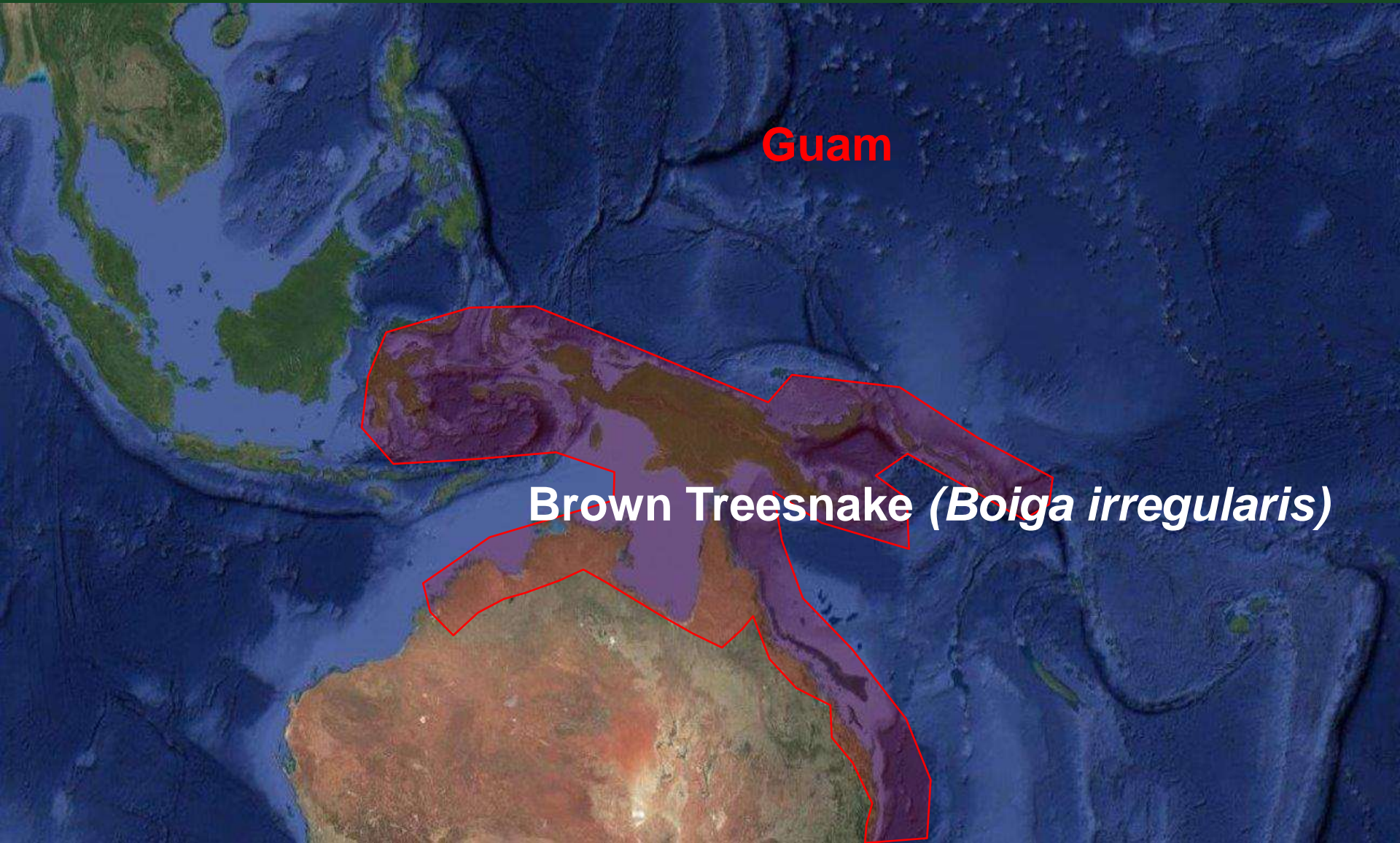
- **INVASIVE SPECIES ARE SPREAD PRIMARILY BY HUMAN ACTIVITIES, OFTEN UNINTENDED.**
- **PEOPLE, AND GOODS TRANSPORTED, TRAVEL QUICKLY AROUND THE WORLD, AND OFTEN CARRY UNINVITED SPECIES WITH THEM.**
- **INVASIVE SPECIES CAN BE INTRODUCED TO AN AREA BY SHIP BALLAST WATER, FIREWOOD, ACCIDENTAL RELEASE, AND BY PEOPLE.**
- **INSECTS CAN BE TRANSPORTED EASILY IN WOOD, SHIPPING PALETTES, AND CRATES SHIPPED ACROSS THE GLOBE.**
- **ORNAMENTAL PLANTS CAN BECOME INVASIVE AFTER ESCAPING IN THE WILD.**
- **RELEASED UNWANTED PETS ARE ANOTHER WAY INVASIVE SPECIES ARE SPREAD.**

What are the Impacts of Invasive Species?

- **THE INTRODUCTION AND ESTABLISHMENT OF INVASIVE SPECIES (INTENTIONAL OR UNINTENTIONAL) CAN POSE A SIGNIFICANT THREAT TO NATIVE AND PLANT COMMUNITIES.**
- **INVASIVE SPECIES CAN LEAD TO THE EXTINCTION OF NATIVE PLANTS AND ANIMALS, DESTROY BIODIVERSITY, AND PERMANENTLY ALTER HABITATS.**



United States Department of Agriculture



Guam

Brown Treesnake (*Boiga irregularis*)

Wildlife Services

Protecting People ♦ Protecting Agriculture ♦ Protecting Wildlife

Introduced to Guam in the late 1940s
Spread across the entire island by the 1980s



- **CAUSED THE EXTIRPATION OR EXTINCTION OF MOST OF GUAM'S NATIVE FOREST BIRDS AND LIZARDS.**
- **ELIMINATED 10 OF THE 13 NATIVE BIRDS.**

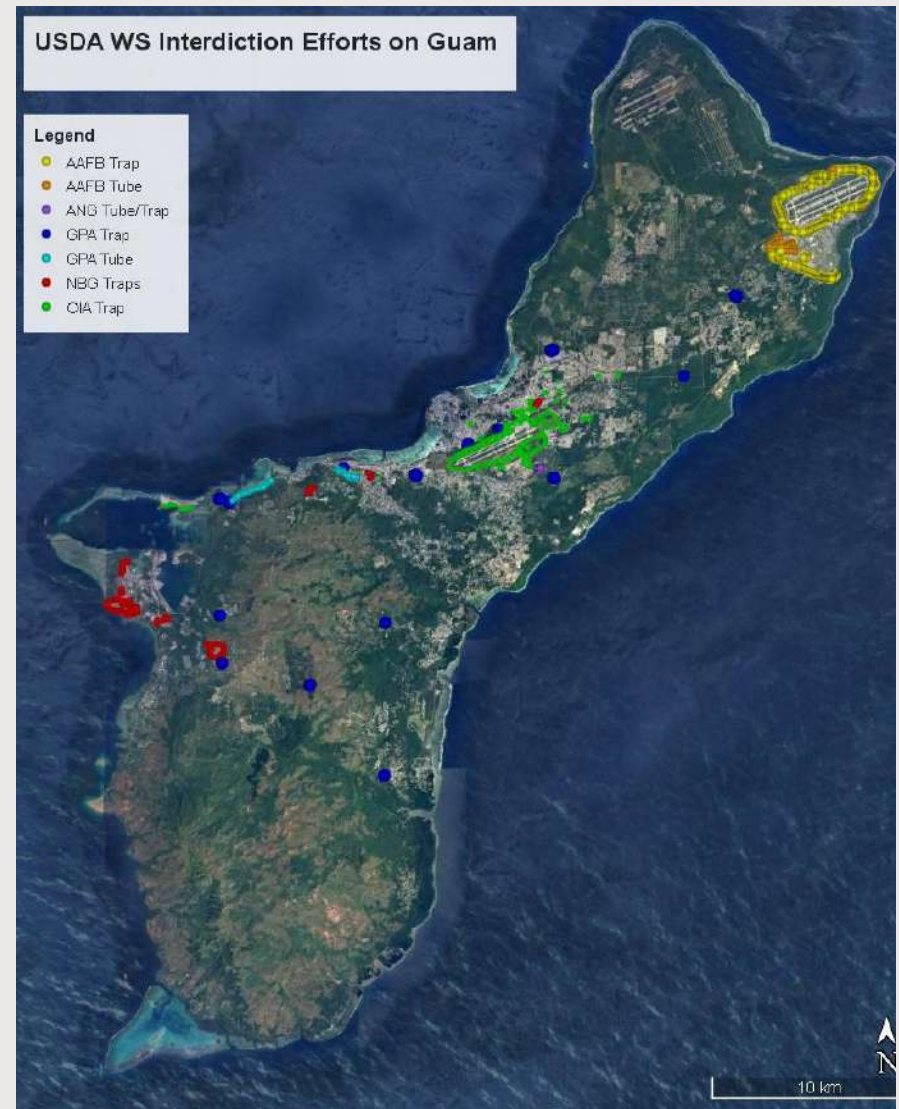
Threat to Guam's environment, economy, and health and human safety

- **MILLIONS OF DOLLARS IN DAMAGE TO THE ELECTRICAL INFRASTRUCTURE**
- **REGULARLY FOUND INSIDE HOMES AND BUSINESSES**
- **HAZARDOUS TO INFANTS AND THE ELDERLY**

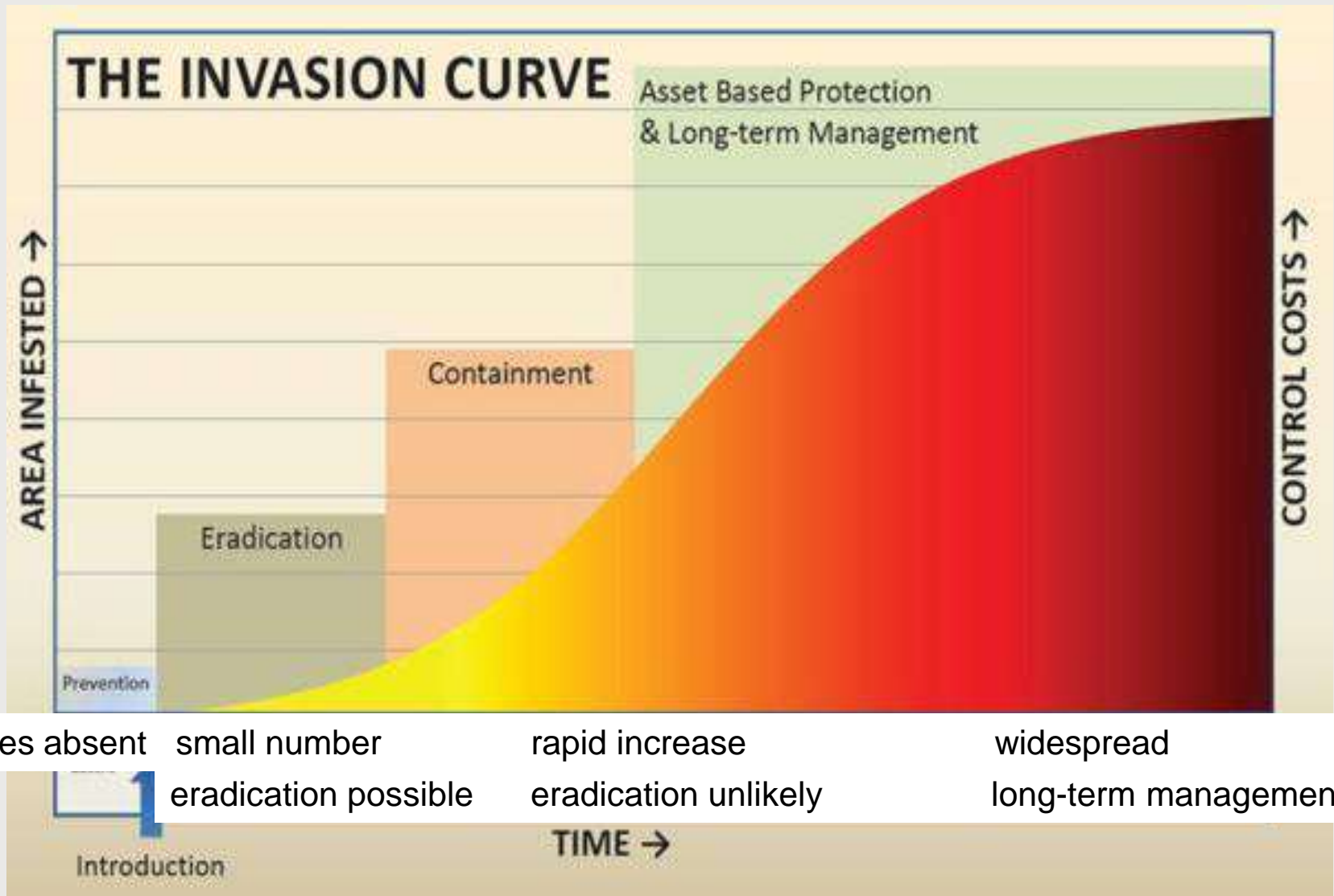


Brown Treesnake Control Efforts on Guam

- **ANDERSON AFB**
- **NAVAL BASE GUAM**
- **ARMY NATIONAL GUARD**
- **COMMERCIAL PORT**
- **GUAM INTERNATIONAL AIRPORT**
- **SHIPPING AND PACKING COMPANIES**
- **GUAM POWER AUTHORITY SUBSTATIONS**



Cost of Invasive Species



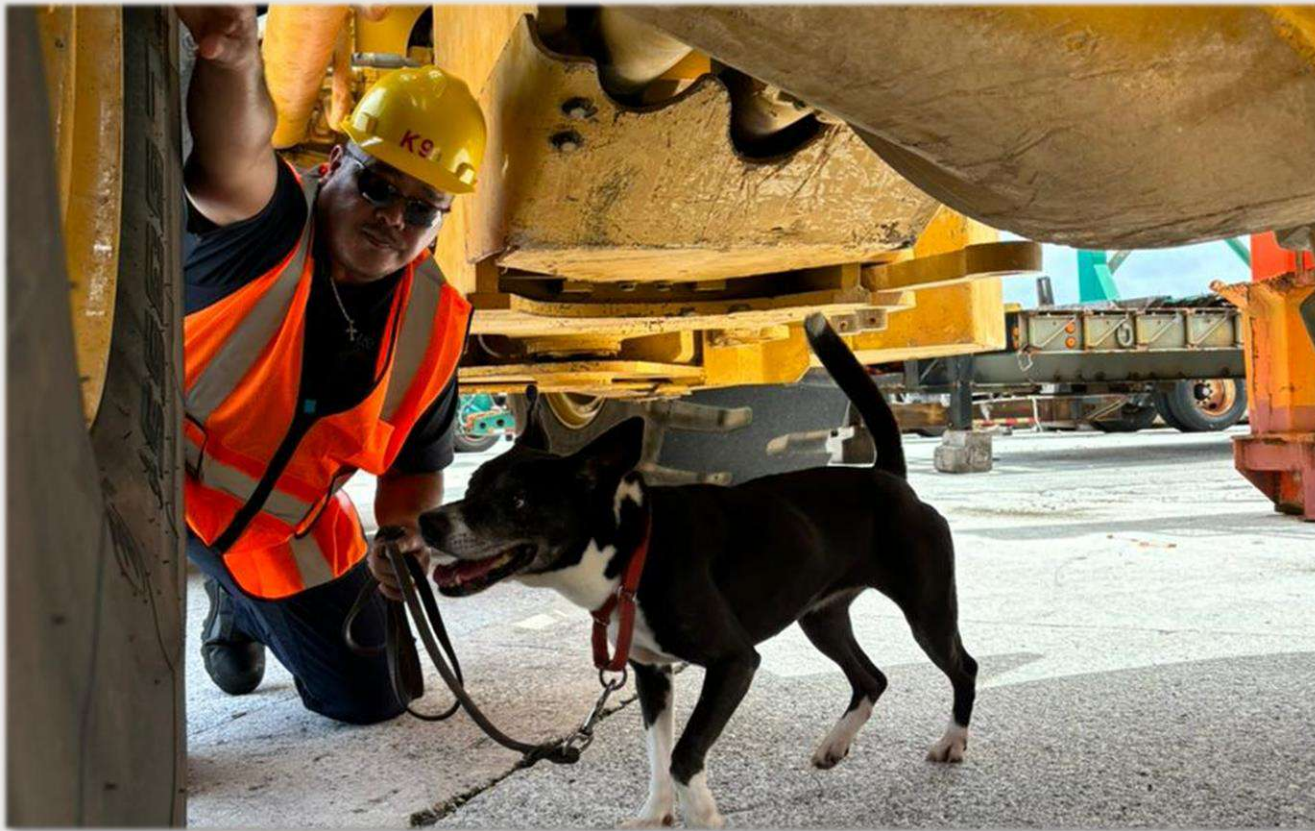
Things you can do to make a DIFFERENCE!

- **YOU DON'T HAVE TO BE A BIOLOGIST**
- **BIOSECURITY IS THE RESPONSIBILITY OF THE SHIPPER AND THE RECEIVER.** (INSECTS, DIRT, PLANT MATERIAL)
- **REPORT (ANIMALS, INSECTS, PLANTS, ETC. 28-SNAKE)**
- **CNMI DEPARTMENT OF LANDS AND NATURAL RESOURCES: 670-322-9830**
- **GUAM DEPARTMENT OF AGRICULTURE, DIVISION OF AQUATIC AND WILDLIFE RESOURCES: 671-475-PEST (7378)**



United States Department of Agriculture

Questions



Wildlife Services

Protecting People ♦ Protecting Agriculture ♦ Protecting Wildlife