

Brown Treesnake Prevention Strategies on the Receiving End of Pathways to CONUS

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Texas A&M University – Kingsville and the U.S. Fish and Wildlife Service



Outline

- Introduction
 - NABTSCT
- New Website
 - Snake ID System
 - Maps
- Education & Prevention
- Rapid Response
- Collaborations



Photo Credit: C.M.Watson

Introduction

- The brown tree snake (*Boiga irregularis*) as an invasive species which has caused economical, ecological and human health issues on Guam.
- Brown tree snakes have been found in CONUS:
 - Corpus Christi, TX
 - McAlester, OK
- The U.S. is at risk for BTS establishment

NABTSCT

- Compliment group of Aquatic Nuisance Species Task Force
- Formed to inspire and facilitate communication, cooperation, and understanding within and between agencies and organizations and to provide coordination of efforts between agencies concerning brown tree snake issues.

Mission

“To prevent the invasion of brown tree snakes into continental North America through **education** and **awareness** and through **rapid response assessments** of potential sightings via a **partnership** of stakeholders”

Prevention is Control

Similar Programs

- Existing programs that show success:
 - Zebra Mussels
 - Salvinia
- Established groups
 - monitor certain areas
 - conduct information/prevention programs



Courtesy of the Center for the Great Lakes and Aquatic Sciences



Courtesy of N.C. State University

What Does NABTSCT Do?

- Maintains a coordinating website
- Develops educational material that can be downloaded from website
- Conducts rapid response to investigate potential brown tree snake sightings
- Represents NABTSCT at scientific meetings
- Provide a forum to share information between agencies, cooperators, and organizations

Website www.nabtsct.net

- Re-vamp to make more accessible and intuitive for the public.
 - Making sure that the site has a natural flow
 - Easy access to report a BTS sighting
- Addition of the interactive snake ID system.
- Addition of maps to define military bases and port authorities



NABTSCT - Windows Internet Explorer

http://www.stop-ans.org/NABTSCT/index.htm

Search Google

Google Go 5 blocked Check AutoLink AutoFill Send to Settings McAfee SiteAdvisor


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NABTSCT

NABTSCT

Page Tools

NORTH AMERICA BROWN TREE SNAKE CONTROL



[Click Here to Report a Brown Tree Snake Sighting!](#)


The NABTSCT: Working to Keep America BTS Free

The North American Brown Tree Snake Control Team (NABTSCT) is a collaborative effort between federal agencies, state agencies, and private organizations to prevent the Brown Tree Snake from entering the United States.

Mission Statement

"To prevent the invasion of Brown Tree Snakes into continental North America through education and awareness and through rapid response assessments of potential sightings via a partnership of stakeholders."

- Goal 1. Have NABTSCT grow in individual membership and in participating organizations, especially with state wildlife agencies.
- Goal 2. Setup regional network of volunteers who are willing to search for Brown Tree Snakes if sightings occur in North America.
- Goal 3. Write news releases about NABTSCT for publication in lay-group magazines.
- Goal 4. Advertise the NABTSCT at wildlife and conservation-related professional meetings.



Navigation

- Home
- BTS Facts
- BTS in the News
- Laws
- NABTSCT
- Snake ID System
- Rapid Response
- Maps
- Education

Education

- Research Abstracts
- Flyer
- Poster

http://www.stop-ans.org/NABTSCT/Education.htm

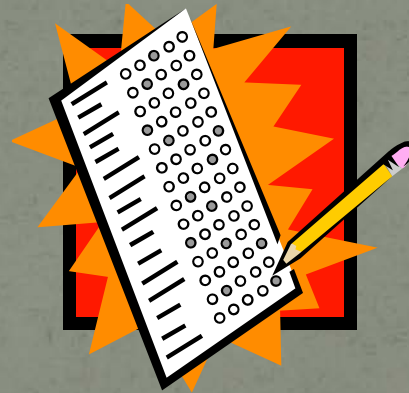
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NABTSCT - Window... Presentations BTS Hawaii 2008 1.p...

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Interactive Snake ID System

- Questionnaire
 - Identify snakes in the continental U.S.
 - 7 questions based on morphological characteristics
 - Size
 - Body Shape
 - Head Shape
 - Pupil Shape
 - Color
 - Pattern
 - Sheen
 - System gives a score to all answers
 - “I don’t know” is always an option



Interactive Snake ID System

NABTSCT - Windows Internet Explorer

http://www.stop-ans.org/NABTSCT/ProcessForm.asp

Google | Go | Bookmarks | 5 blocked | Check | AutoLink | Autofill | Send to | Settings | McAfee SiteAdvisor

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NABTSCT | NABTSCT

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**NORTH AMERICA
BROWN TREE SNAKE
CONTROL**


[Click Here to Report a Brown Tree Snake Sighting!](#)

The NABTSCT: Working to Keep America BTS Free

Your Description

Length: 3 feet.
Body Shape: Slender
Head Shape: Round
Pupil Shape: Round
Colors: Green
Pattern: Solid
Sheen: No
(IDK means "I don't know")

Below is a list of snakes sorted by similarity to your description.

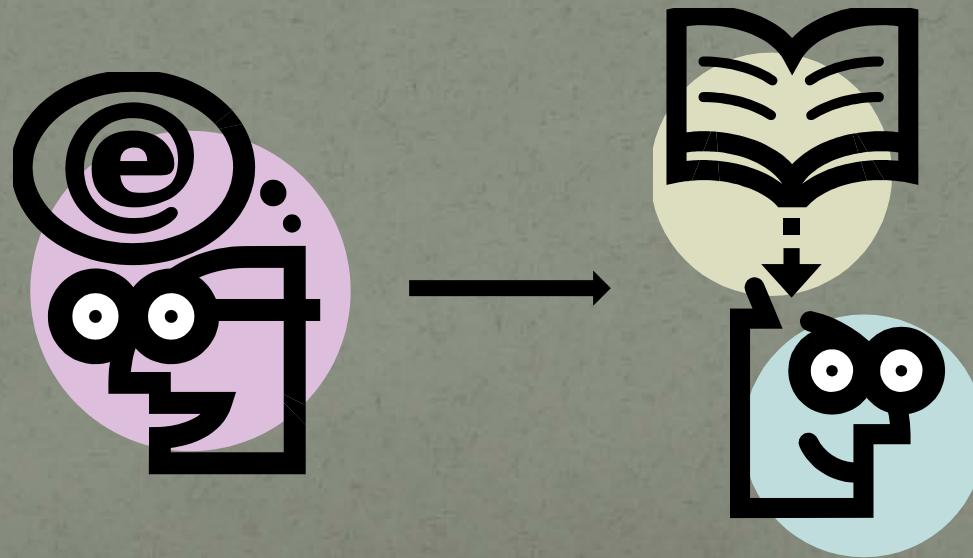


Rough Green Snake (*Opheodrys aestivus*)
[Information Page](#)
100% Similarity to your description
Photo Credit: Dr. Glenn Perrigo

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Interactive Snake ID System

- Successful advertisement
 - Bring people to the website
 - More likely to look at other pages on the site
 - Increased educational impact



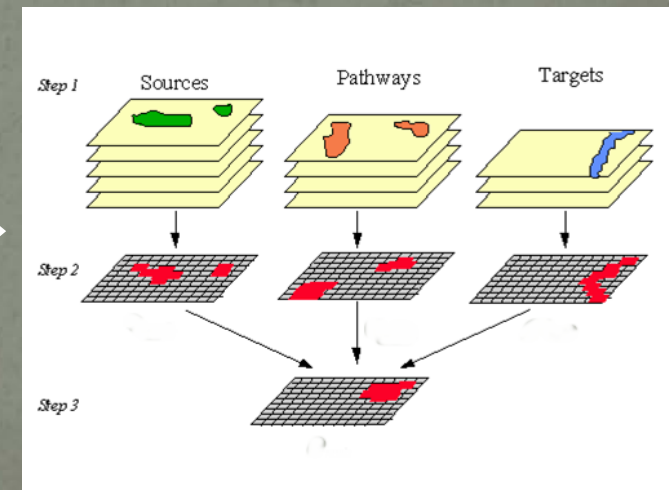
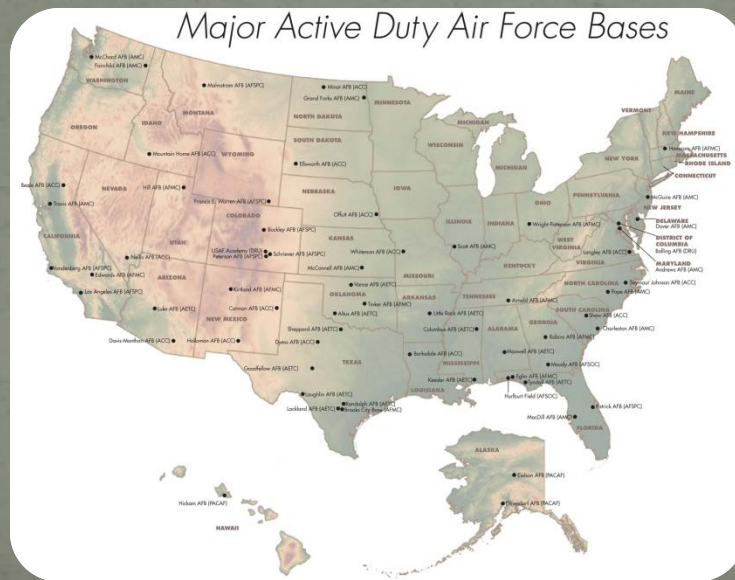
Website Research

- Research value/usefulness
 - Survey subjects
 - Determine ability to ID a snake using the questionnaire
 - Determine ability to identify a Brown Tree Snake using the questionnaire



Website – New Maps

- POTENTIAL PATHWAYS
 - Commercial Air Traffic
 - Military Bases (Cargo and Personnel deployments)
 - Pet Trade Industry
 - Commercial Cargo (Ports)



Importance of the South Texas Area



Shipments from Guam

<u>Delivery City</u>	<u>2007*</u>	<u>2006</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>	
McAllen	2	1					3
Brownsville	2			1			3
Corpus Christi	20	33	23	22	19	19	136
Portland	9	4	2	13	4	6	38
Edinburg	1				1		2
Mission	4			2			6
Ingleside	2	1	3	9	3	6	24
Kingsville	1	10	1	9	2		23
Harlingen		2				1	3
Rockport		1					1
Aransas Pass				4	1	1	6
Weslaco				1			1
Elsa						2	2
Alice						1	1
Robstown						1	1
Inez						1	1
Total	41	52	29	61	30	38	251

HHG shipments from Guam delivered in HBNT area of responsibility through October 2007

Concern in Texas

- Major Airports (2)
- Ports
 - Houston
 - Corpus Christi
- Military Bases (18)



Education and Prevention

- Preventative methods are essential to avoiding the economic, ecological, and human health issues that can result from the invasion of non-native species.
(Chornesky and Randall, 2003)
- Education
 - Presentations and talks
 - Produce educational material
 - Work with military bases and port authorities and the pet trade

Pathways

- Commercial Air Traffic
- Military Cargo
- Military Personnel Personal Belongings
- Pet Trade Industry



www.nbbd.com



BTS Cards

- Folded card for more informative purposes.

Keep America Free of Brown Tree Snakes

North America Brown Tree Snake Control Team (NABTSCT)
www.nabtsct.net

Photo provided by USGS Wildlife Services, Honolulu



Sponsored by the
U.S. Fish and Wildlife Service
in collaboration with
Texas A&M University - Kingsville



Keep America Free of Brown Tree Snakes

How to Identify Brown Tree Snakes:

- Broad head with narrow neck
- Long, slender body
- Large protruding eyes with cat-like pupils
- Color varies, but most are brown to olive green with a faint banding pattern. The belly is cream to salmon in color.



C.M. Watson

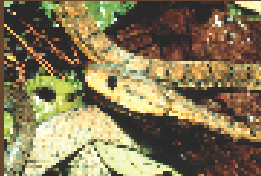
Go to www.nabtsct.net for more info and an interactive snake ID system.

Brown Tree Snake Prevention

Brown tree snakes (*Boiga irregularis*) are mildly venomous snakes threatening to invade North America. Native to South Pacific Islands, BTS invaded Guam sometime after World War II, most likely as a stowaway in cargo. The size of the population rapidly increased, devastating native species of birds, lizards, and other prey. Any suspicious sightings need to be reported to the NABTSCT. Brown tree snakes are nocturnal, very secretive, and can hide easily. Please refer to the identification characteristics on the reverse of this card. Keep a look out and call the ALERT number listed below for any suspicious sightings.

How to Identify Brown Tree Snakes:

- Immediately call **1-877-786-7267** to report sightings to the North American Hotline.
- If you can, safely contain the snake in a bucket or box. Take caution - they are mildly venomous and aggressive!
- Seek medical attention if bitten.
- If snake is killed, preserve the specimen by freezing.
- Rapid Response Team members will follow-up on your call.



BTS Cards

- 2-sided plastic card for quick reference

Keep America Free of Brown Tree Snakes

BTs invaded Guam following WWII and decimated several animal species. They are notorious hitchhikers and have been unintentionally transported in boxes and shipments from Guam.



BTs are characterized by:

- Broad head with narrow neck.
- Long, slender, olive-green to brown on top with cream to salmon-colored belly.
- Large protruding eyes with cat-like pupils.



Coordinated by Texas A&M University - Kingville

Brown Tree Snake **PREVENTION**

Go to www.nabtsct.net for more information and an interactive snake ID system from the North America Brown Tree Snake Control Team.

What To Do If You See A Brown Tree Snake

- Immediately call 1-877-786-7267 to report sightings to the North American Hotline.
- If you can, safely contain the snake in a bucket or box. Take caution! - They are mildly venomous and aggressive!
- Seek medical attention if bitten.
- If snake is killed, preserve the specimen by freezing.
- Rapid Response Team members will follow up on your call.

Getting the Word Out

- Regional (Gulf & South Atlantic) ANS Task Force Panel
- Texas Herpetological Meetings
- Joint Meeting of Ichthyologists and Herpetologists



Getting the Word Out



**Brown Treesnake Technical Working
Group Meeting**

Agenda & Abstracts

16, 17 & 18 April 2008

**Hawaii Prince Hotel
Honolulu, Hawaii**

- Presentation at the Brown Treesnake Working Group Meeting in Hawaii on April 17th, 2008.

Rapid Response Team

- How it works:
 - Sighting outside of Guam
 - Call is made to a hotline
 - An investigator conducts an interview
 - Search area defined, a search conducted



New Line Cinema (www.newline.com)

1-877-STOP-ANS

- Update the script for hotline response

Membership Needed

- GULF COAST REGIONAL PANEL – ANS TASK FORCE
- WESTERN REGIONAL PANEL – ANS TASK FORCE
- ZOOS
- HERPETOLOGICAL ORGANIZATIONS
- NGO's; EX: THE NATURE CONSERVANCY
- WILDLIFE CONTROL ORGANIZATIONS
- PROFESSIONAL SOCIETIES; EX: THE WILDLIFE SOCIETY
- COMMERCIAL AIRLINES
 - CONTINENTAL
 - NORTHWEST

Thank You

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- Texas A&M University Kingsville
 - Dr. Scott Henke
 - U.S. Fish and Wildlife Service and Aquatic Nuisance Species Task Force
 - Bob Pitmann

