

Development Of A Rapid Response Initiative For Brown Tree Snakes

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The Brown Tree Snake

- ❖ Arboreal, Nocturnal, Rear-Fanged Snake – Mildly Venomous
- ❖ Habitat is thick arboreal habitat, adaptable to less dense habitat.
- ❖ Diet: wide and varied. The snake will eat anything it can.
- ❖ Juveniles – ectothermic prey Adults – endothermic prey

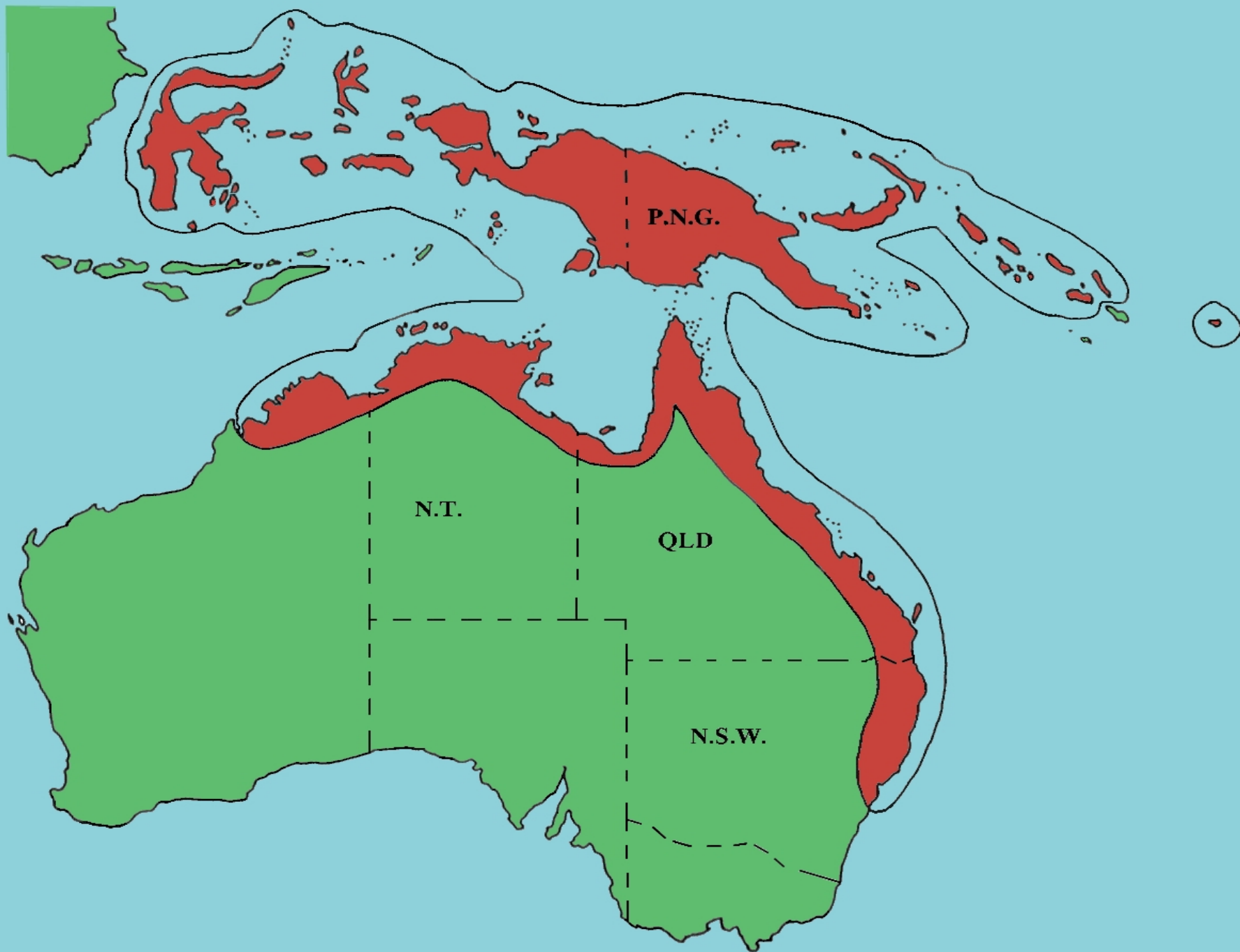


The Brown Tree Snake

Distribution

Native Range is north and eastern Australia through New Guinea and surrounding islands.

- ◆ Density is extremely low
- ◆ Malaita, Solomon Islands 0.10/ha



The Brown Tree Snake

Distribution

Expanded range includes Guam.
With sightings on several other islands.

◇ Density on Guam 24-120/ha



OKINAWA

PHILIPPINE ISLANDS

CELEBES

NEW GUINEA

SOLOMON ISLANDS

GUADALCANAL

HAWAIIAN ISLANDS

OAHU

DIEGO GARCIA

SAIPAN
TINIAN
ROTA
GUAM

CAROLINE ISLANDS

POHNPEI

MARSHALL ISLANDS
KWAJALEIN

*Area of
Enlargement*

ALASKA

TEXAS

SPAIN

The Brown Tree Snake

- ❖ ENVIRONMENTAL - The brown tree snake has contributed to the loss of native avian, and reptilian species on Guam.
- ❖ ECONOMIC - Snakes in search of prey cause electrical out-ages on power lines. The added cost of control is a burden on the economy.
- ❖ HUMAN - The snake poses a limited threat to humans. The bite of the snake can cause some minor irritation. The old and the young are most at risk.



Guam Flycatcher

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Controlling The Brown Tree Snake

Guam Is a shipping and military
hub

Multi-Agency Effort
Pacific Region

USDA-WS

USFWS

USGS

State and local agencies



Controlling The Brown Tree Snake



- ◆ Ecological
- ◆ Mechanical
- ◆ Chemical
- ◆ Biological

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Rapid Response Team

♦What is it?

- ♦Part of three pronged approach to prevent the spread of the BTS
 - ♦Prevention
 - ♦Interdiction
 - ♦Rapid Response

♦New Program (2002)

- ♦Limited To Pacific Region
- ♦Primary Goal: Find Reported Snake
- ♦Detect Incipient Populations

Rapid Response



- ◆ How it works:

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

Rapid Response

- ◆ Secondary Benefits

- ◆ Develops a data base of potential prey for future monitoring

- ◆ Education of local population



Rapid Response In Texas

◆ Major Points of Entry

◆ Ports

- ◆ Corpus Christi
- ◆ Houston

◆ Major Airports (2)

◆ Military Bases (18)



Rapid Response In Texas

1 – Texas Tech

2 – Tarleton

3 – SF Austin

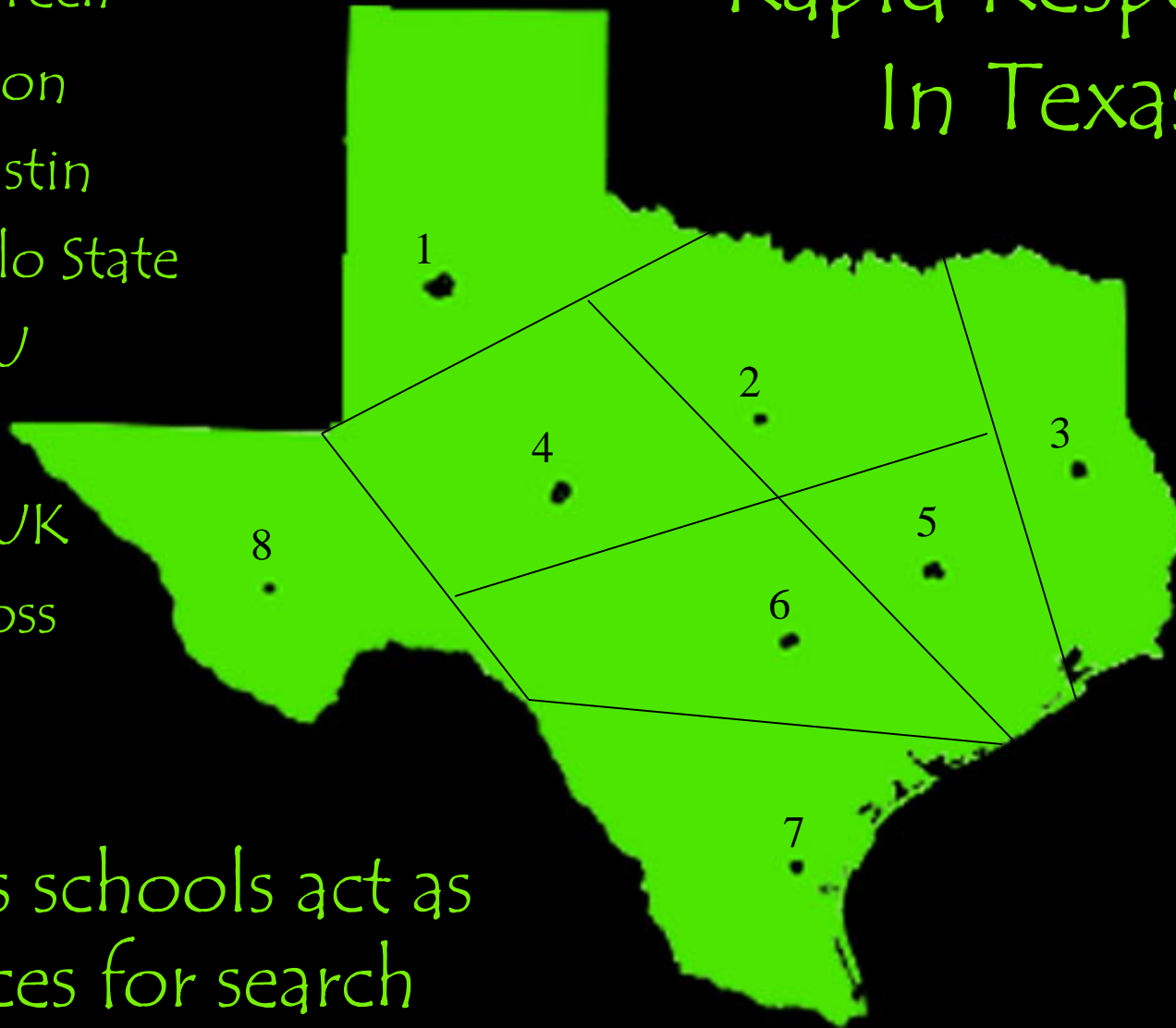
4 – Angelo State

5 – TAMU

6 – SWT

7 – TAMUK

8 – Sul Ross

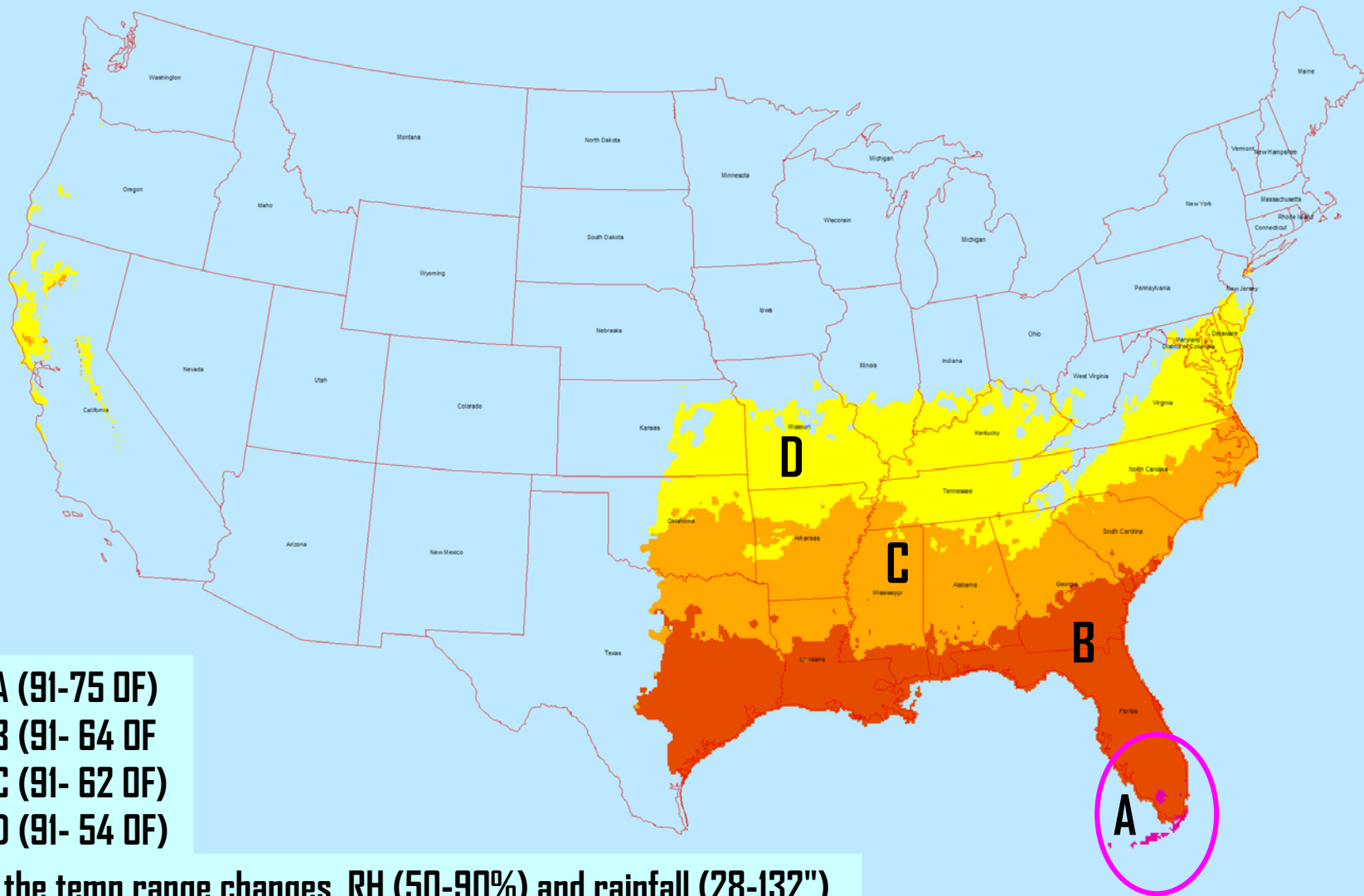


Texas schools act as
sources for search
teams

Rapid Response on Gulf Coast

The Gulf Coast region is likely to support Brown Tree Snakes

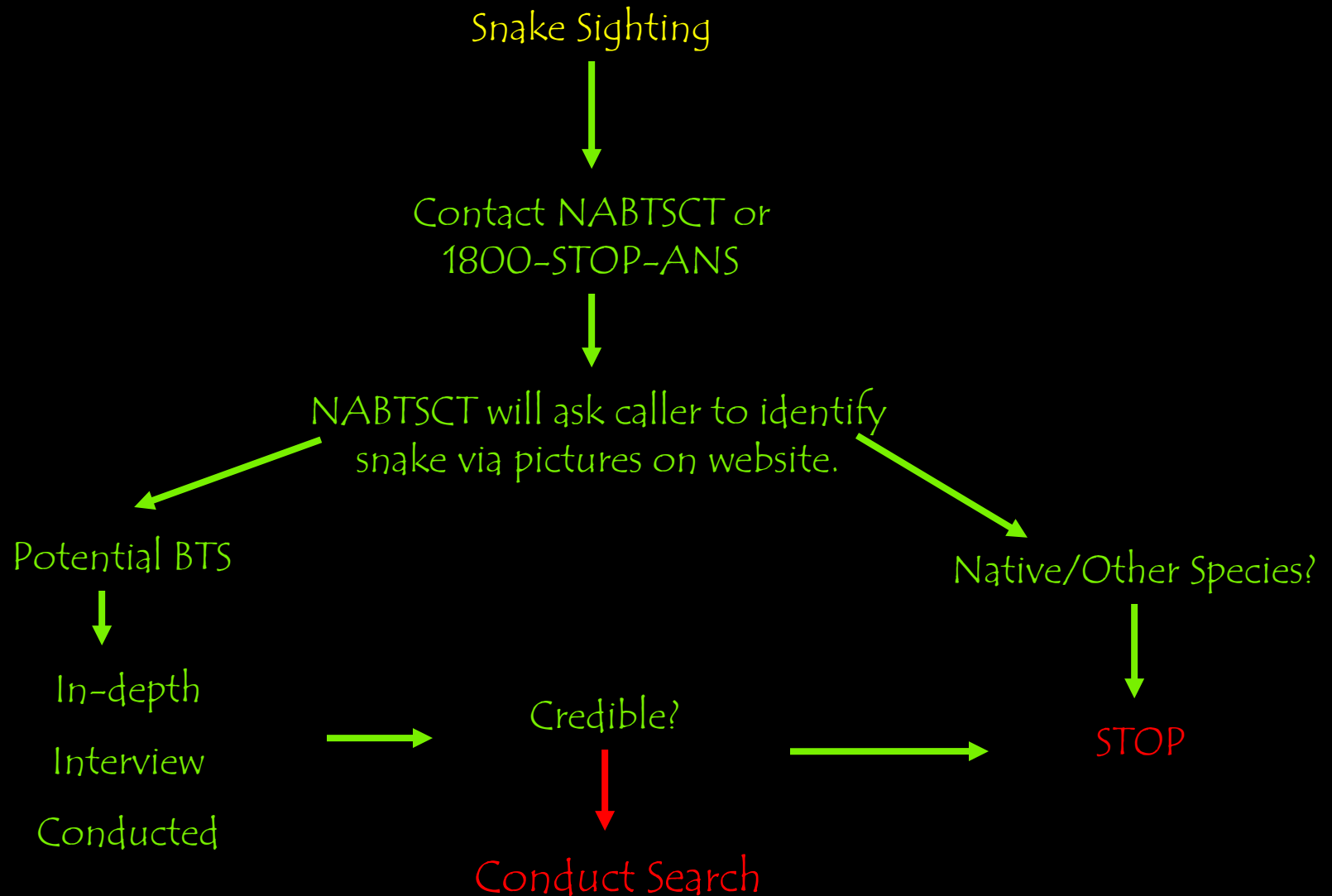
- ◇ Temperature
- ◇ Humidity
- ◇ Rainfall
- ◇ Entry Points – Ports (several hundred, only a few receiving traffic from Guam)



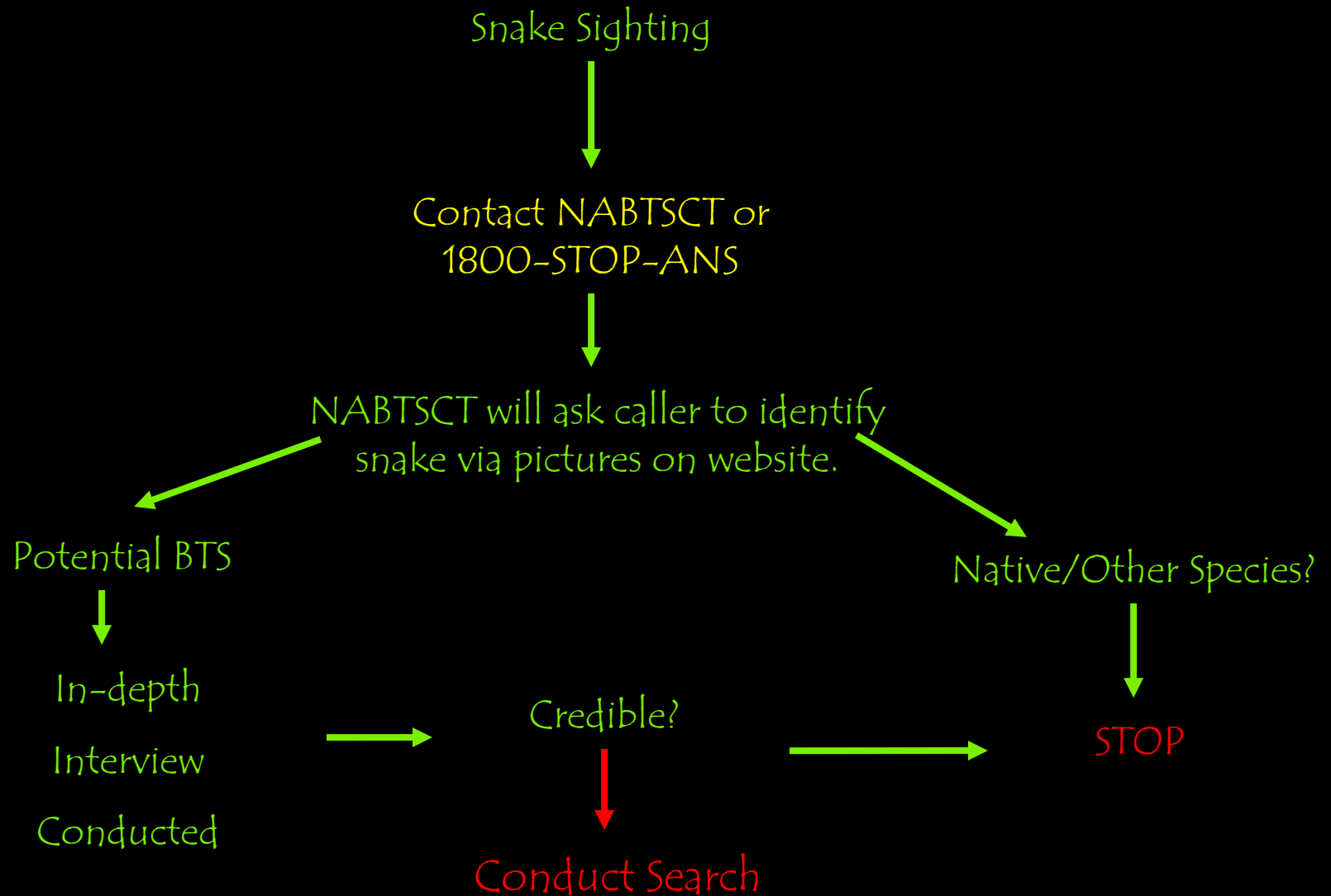
Rapid Response on Gulf Coast

- ◇ Nothing Elaborate
 - ◇ Need to ensure any snake sighting is investigated as best as possible.
- ◇ A Communication Network
 - ◇ To respond to and quickly deal with the information.

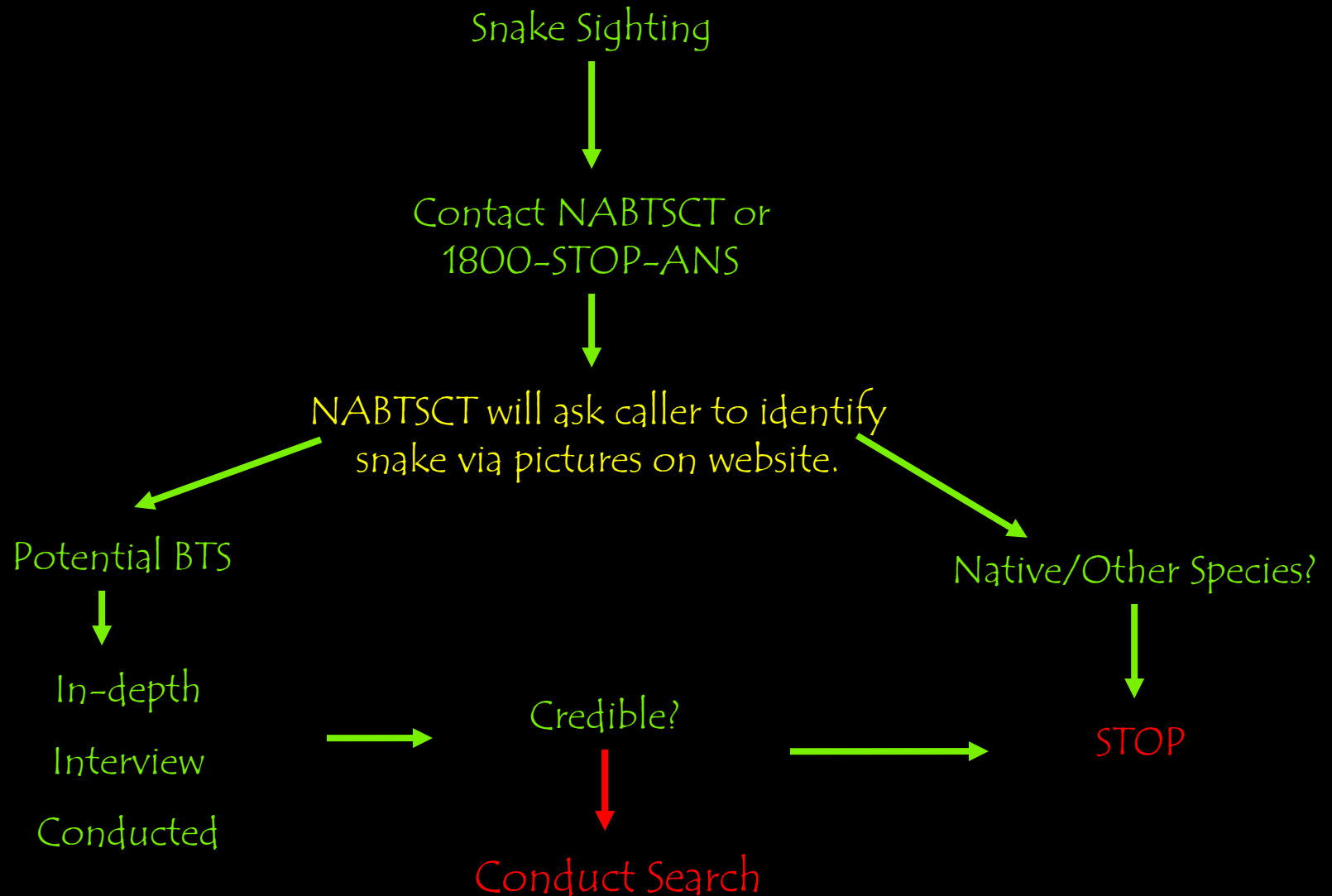
Rapid Response Flowchart



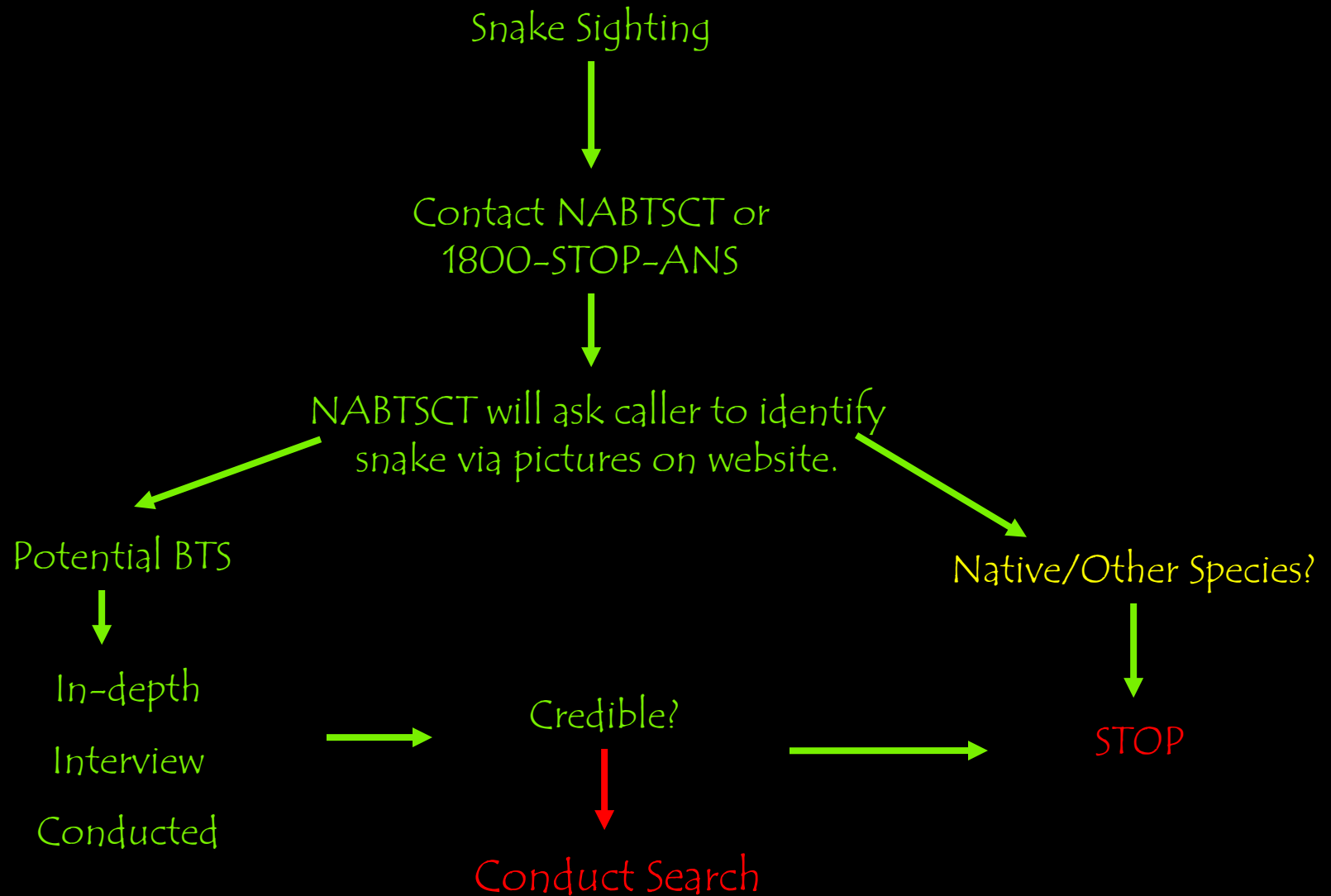
Rapid Response Flowchart



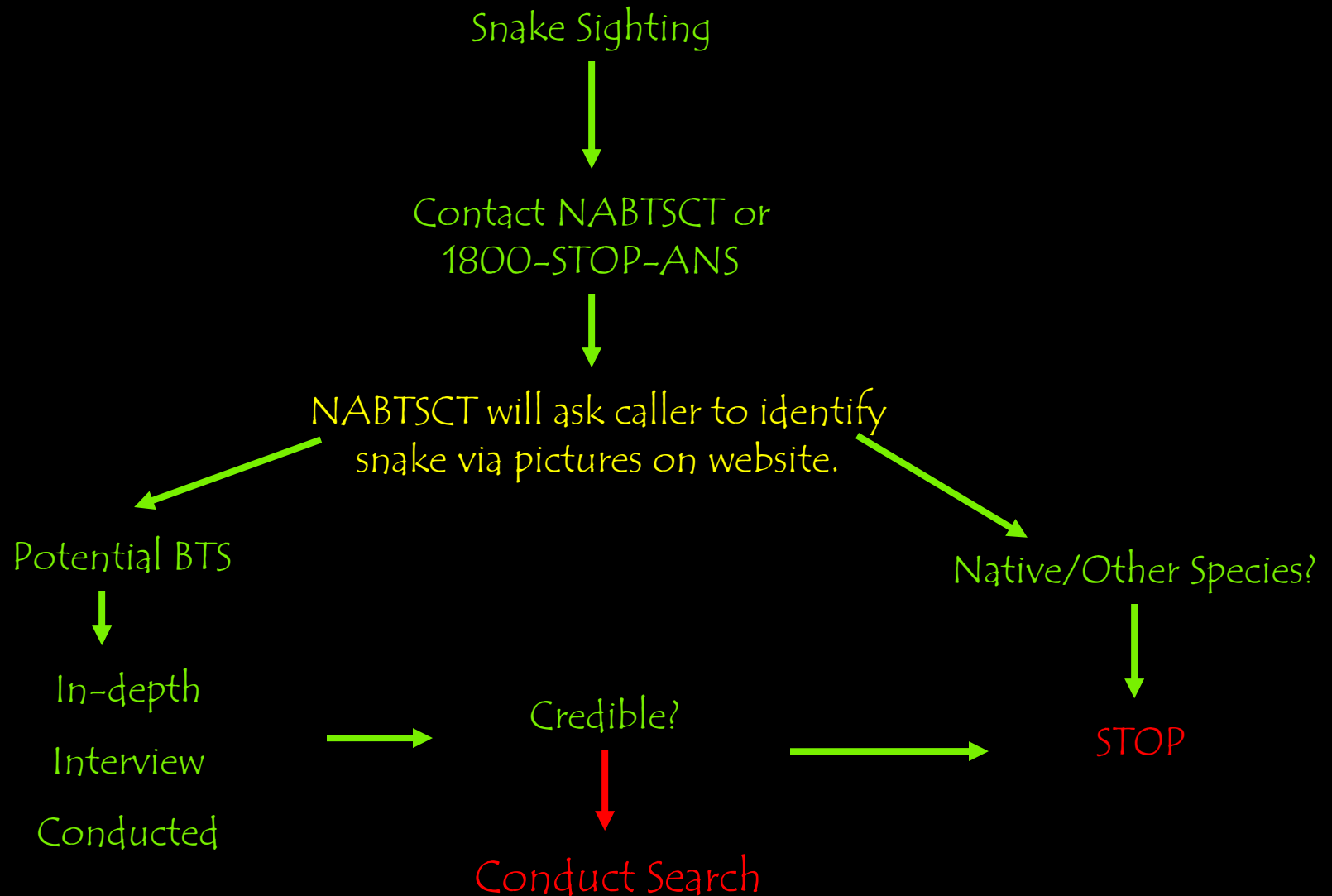
Rapid Response Flowchart



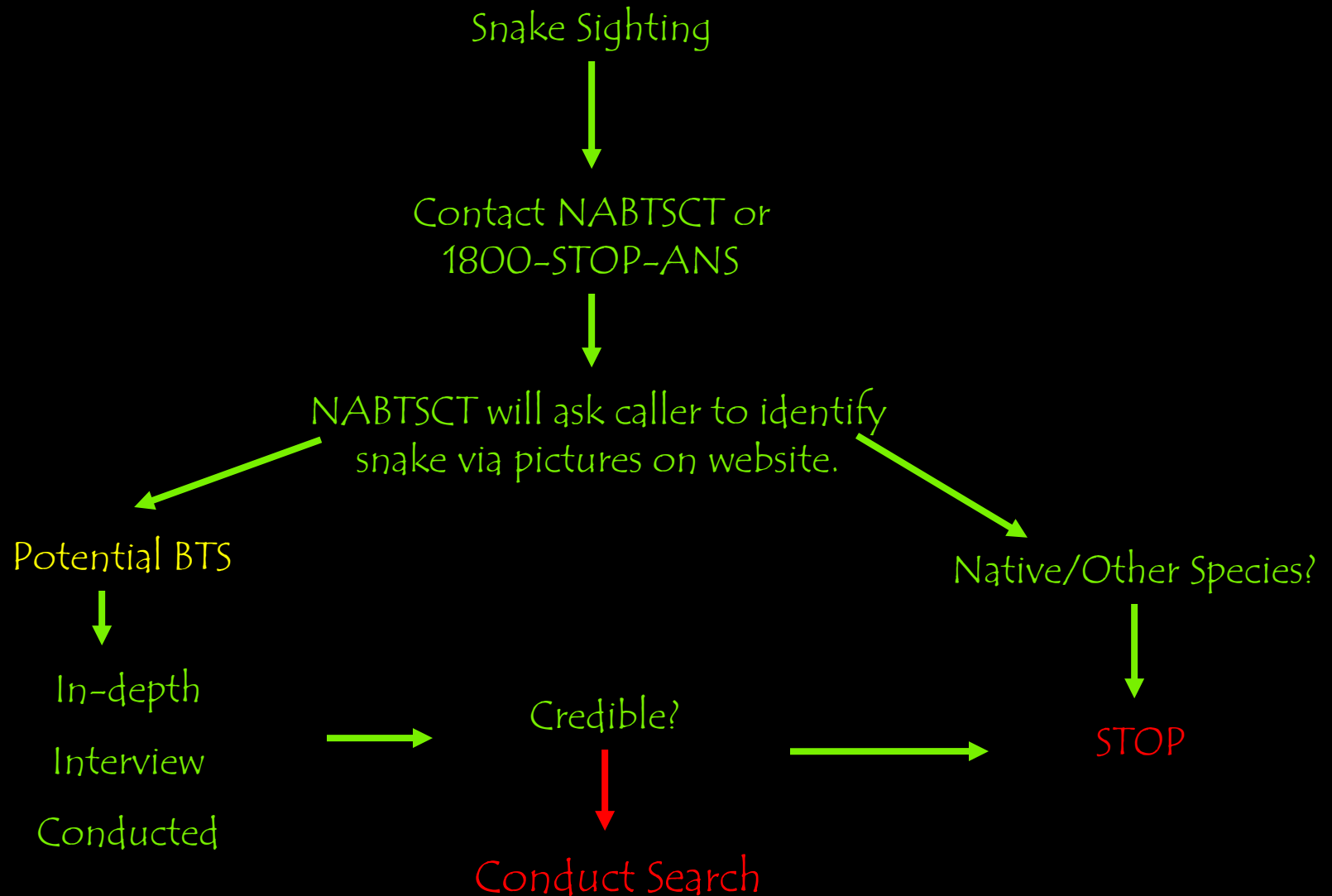
Rapid Response Flowchart



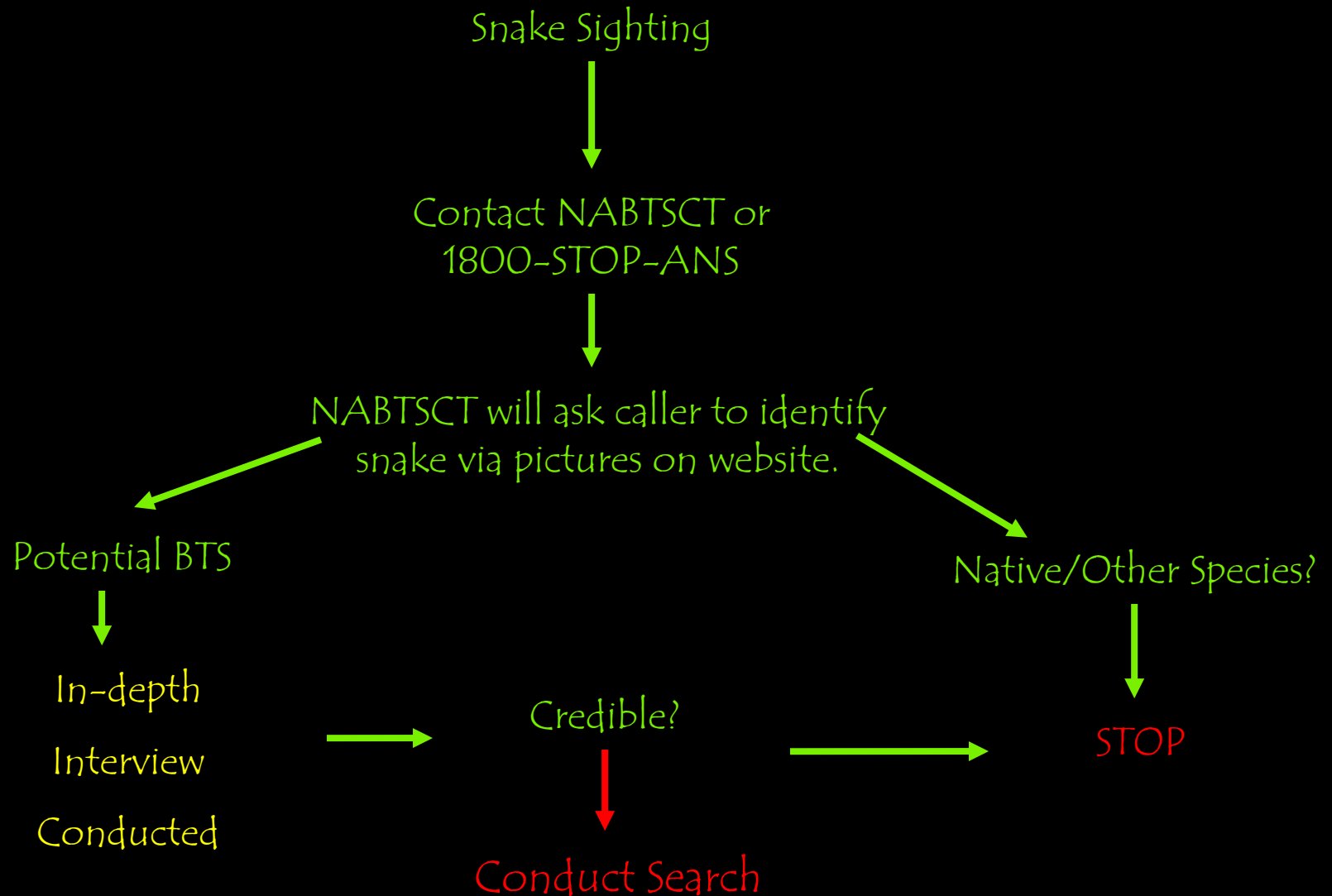
Rapid Response Flowchart



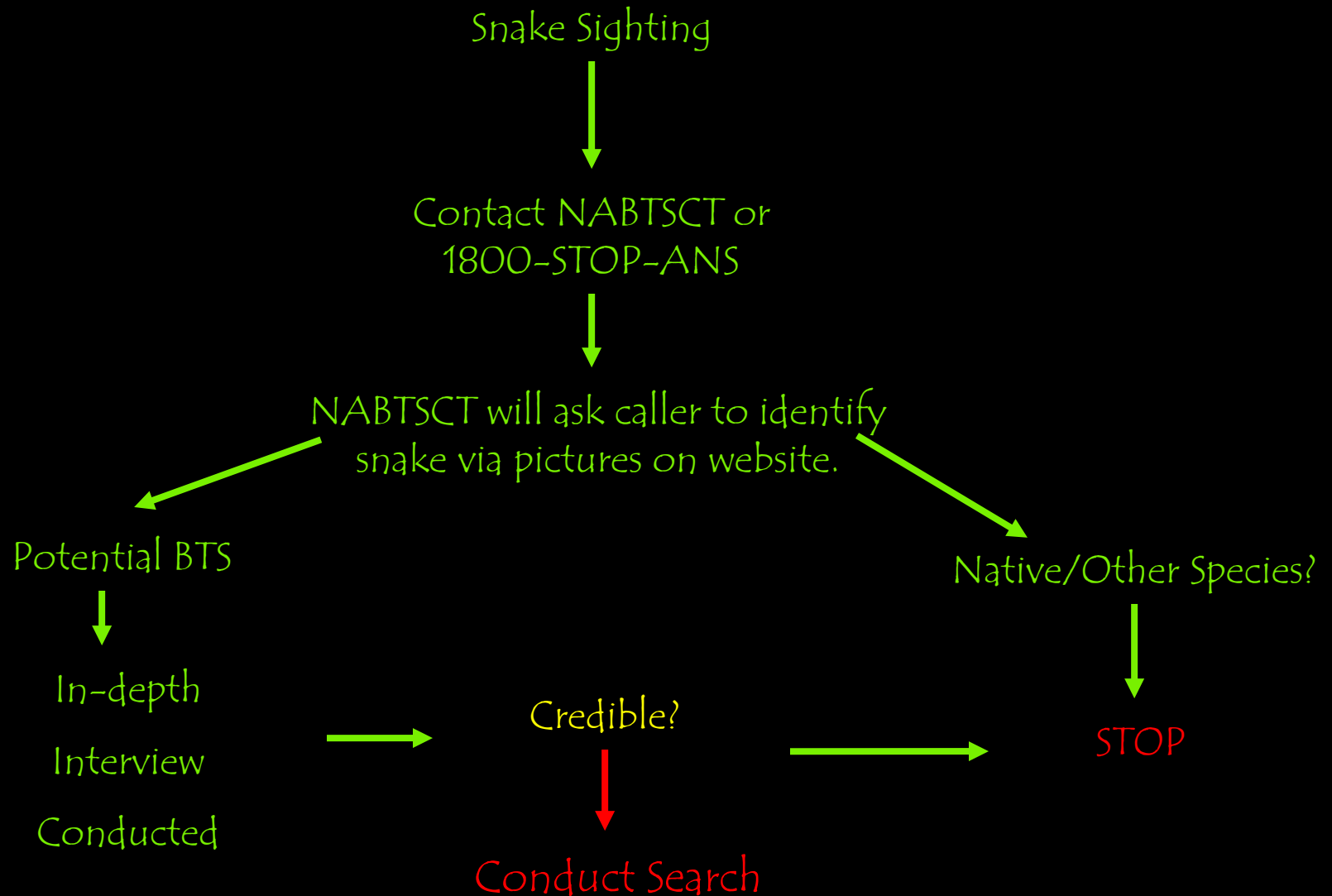
Rapid Response Flowchart



Rapid Response Flowchart



Rapid Response Flowchart



Similar Programs

◇ Existing programs that show success:

- ◇ Zebra Mussels

- ◇ Salvinia

- ◇ Established groups that monitor certain areas, conduct information/prevention programs



Summary

- ◆ BTS
- ◆ RRT a control method
- ◆ Similar Programs
- ◆ Benefits
- ◆ Participation is the Key



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