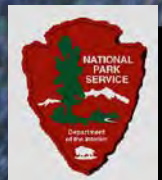


SFWMD
Invasive Animal Search Team
Identification



Skip Snow
21 July 2009



What to look for in a giant snake

If you see a large or heavy bodied exotic snake in Florida it is most likely one of the following (in order of increasing size)



Big Cypress
Spring 2001

Ball python

- Up to about 7' in total length
- Rarely exceeds 6' in total length but can be extremely fat
- Round light colored body markings on a dark background
- Dark arrowhead on the top of the head



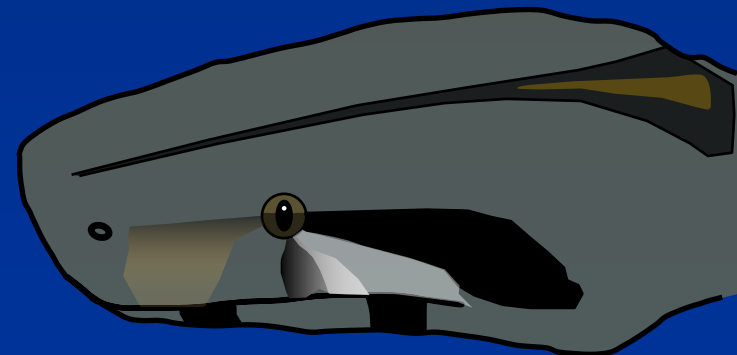
Ball python in the “wild”

- Crawling under the porch of a vacation home in Daytona Beach (July 2009)



Boa constrictor

- Up to almost 15'
- A variety of color patterns
- Most have a recognizable dark line or wedge on the top of the head
- Large ovals, progressively lighter towards the tail
- Between ovals are darker saddle-shaped blotches that extend down the side
- Blotches can become progressively more red towards the tail



Boa from Deering Estate at Cutler

11 July 2006



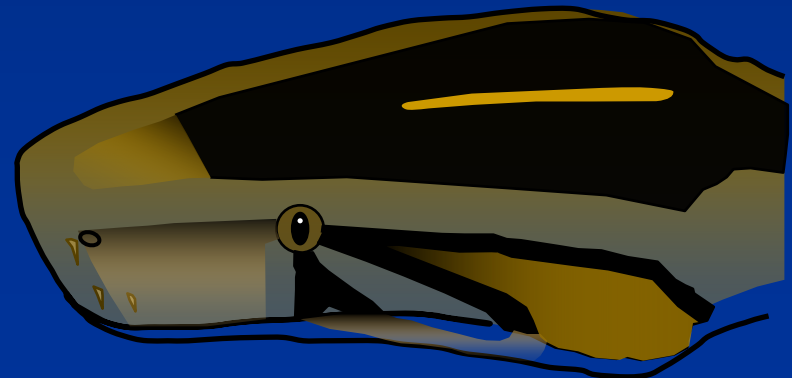
Boa constrictor in the “wild”



BoCo 1190

Burmese python

- Up to about 25'
- Network of dark blotches on backs and sides (like the pattern on a giraffe).
- Blotches are irregular NOT net-like, diamond-shaped, or round
- Dark arrowhead on top of the head
- Not as pudgy as Ball Pythons



Burmese python in the wild

- On the side of the Main Park Road (S.R. 9336) near Flamingo, Everglades National Park



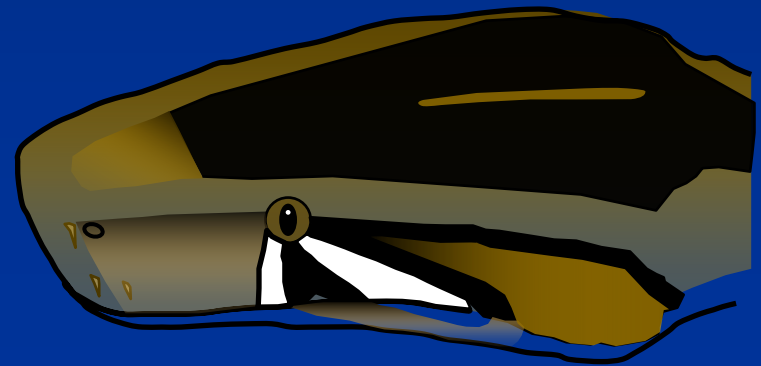
Albino Burmese python on the loose

- Feral albino Burmese python eating a squirrel in a Fort Myers backyard, 5 October 2006.



African rock pythons

- Up to about 25' in total length
- Burmese and African Rock Pythons share many characters.
- Often indistinguishable without having the snake in hand
- Very few records in South Florida

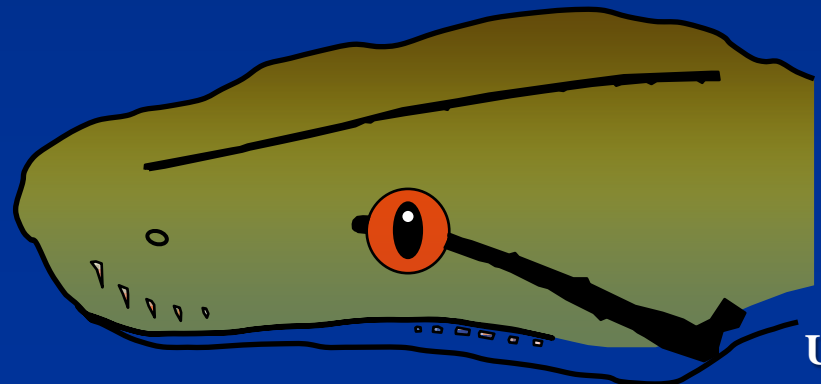
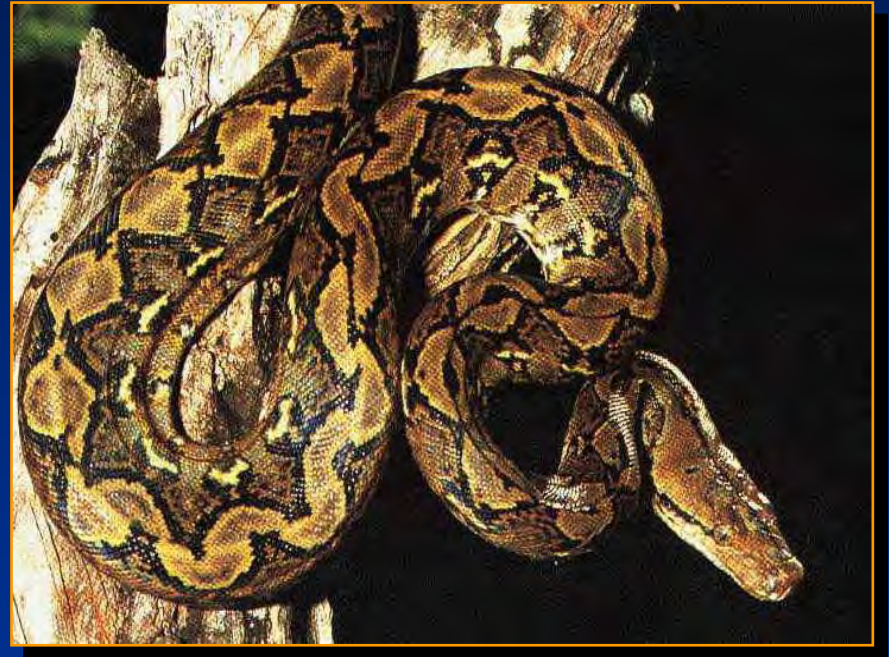


African rock pythons



Reticulated python

- Up to 30' in total length
- Longer and more slender
- Thin dark longitudinal line on the top of a light-colored head
- Conspicuous red iris
- Body markings complex, forming a network (like a fishing net)
- Upper sides of the body tend to have distinct white markings



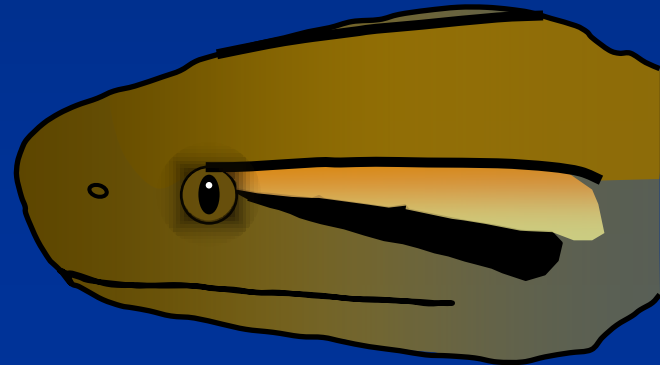
Reticulated python in the wild



Observed December 1997 on Research Road, ENP

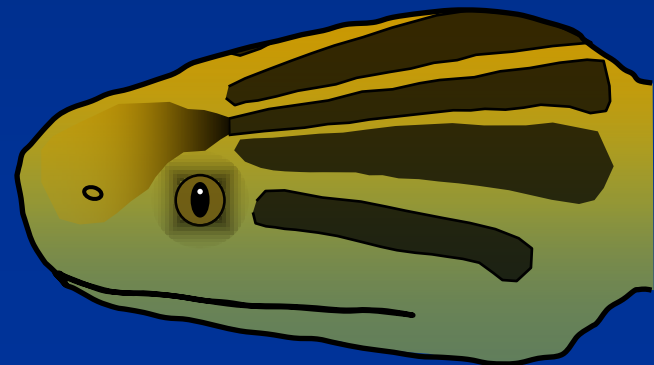
Green anaconda

- Up to “only” 24’ but heavier than pythons
- Only species with black circular marks on a plain greenish-brown body
- Black marks usually solid rather than ring-like
- Can be extremely fat for its length*
- Rarely seen far from water
- Usually no marks on the top of the head



Yellow anaconda

- Up to 12.5'
- Smaller than the Green Anaconda
- Yellow ground color with many black dorsal blotches and smaller blotches on the sides
- 5 dark head stripes (Green Anaconda has only 4)



Yellow anaconda in the “wild”



A feral yellow anaconda was collected on Loop Road, BICY, in Jan of 2007.

Tegus



Black and White Tegu



Black and Gold Tegu

Monitors



Photo by Todd Campbell

Nile monitor

Similar native species

- No heavy bodied native snakes > 8'
- Endangered eastern indigo can get long, ave. adult 5' - 6' (but no pattern)
- Eastern diamondbacks are heavy bodied but rarely exceed 8'
- Most misidentification is with small snakes < 3' - 4'



Photo by Kenneth Krysko



Photo by Kenneth Wray

Water snake and Burmese python



Native



Non-native

Other similar native species

- Corn snake



- Florida cottonmouth



Photos by Mike Rochford, University of Florida

Online Guide to the Snakes of Florida

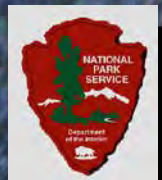
www.flmnh.ufl.edu/herpetology/FL-GUIDE/onlineguide.htm

If you live in Florida and you would like to know more about the snake you found in your backyard, or in your swimming pool, or the one you saw in the pine flatwoods, or crossing the road, this Guide will answer your questions. It is the best online source of information about Florida snakes:

- What species are found in Florida?
- Where in Florida?
- How can I identify them — safely?
- Will they bite?
- Are they venomous?
- What do they look like?
- Where do they live?
- What do they eat?
- How big do they grow?
- How can I safely remove snakes from my yard?

SFWMD
Invasive Animal Search Team
Visual Searching

Skip Snow
21 July 2009



Visual Searching

The python has much in its favor

- Very cryptic, blend well with environment
- Sit and wait predator, movement can be limited
- Low visibility and inaccessible environments (inundation, dense low-level vegetation, and private property)
- Only a small fraction (0.1-5%) of pythons present in the wild are probably detected
- Direct searching is the most widely used tool for locating reptiles
- Effective traps or toxicants have not yet been developed for these target non-native species

Find the python!



Just where is Waldo?



In the right time and place



Estimated 15' Burmese python observed on Main Park Road, ENP

Where do I look?



Burmese python on the Old Ingrahm Highway canal, March 2009

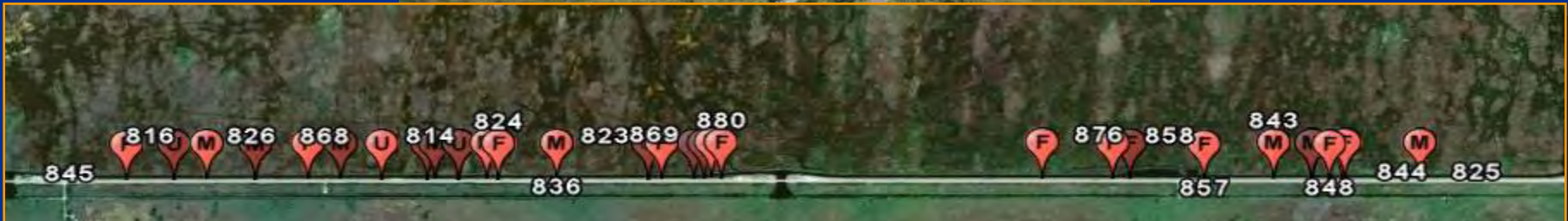
Aerial view of the L-67 Extension canal



Retention Areas



Tamiami Trail
(US 41)
33 miles west
of Miami
5000 vehicles
per day



In four months 32 pythons, 6.4 per mile, about 826 pounds.

Marginal habitat?



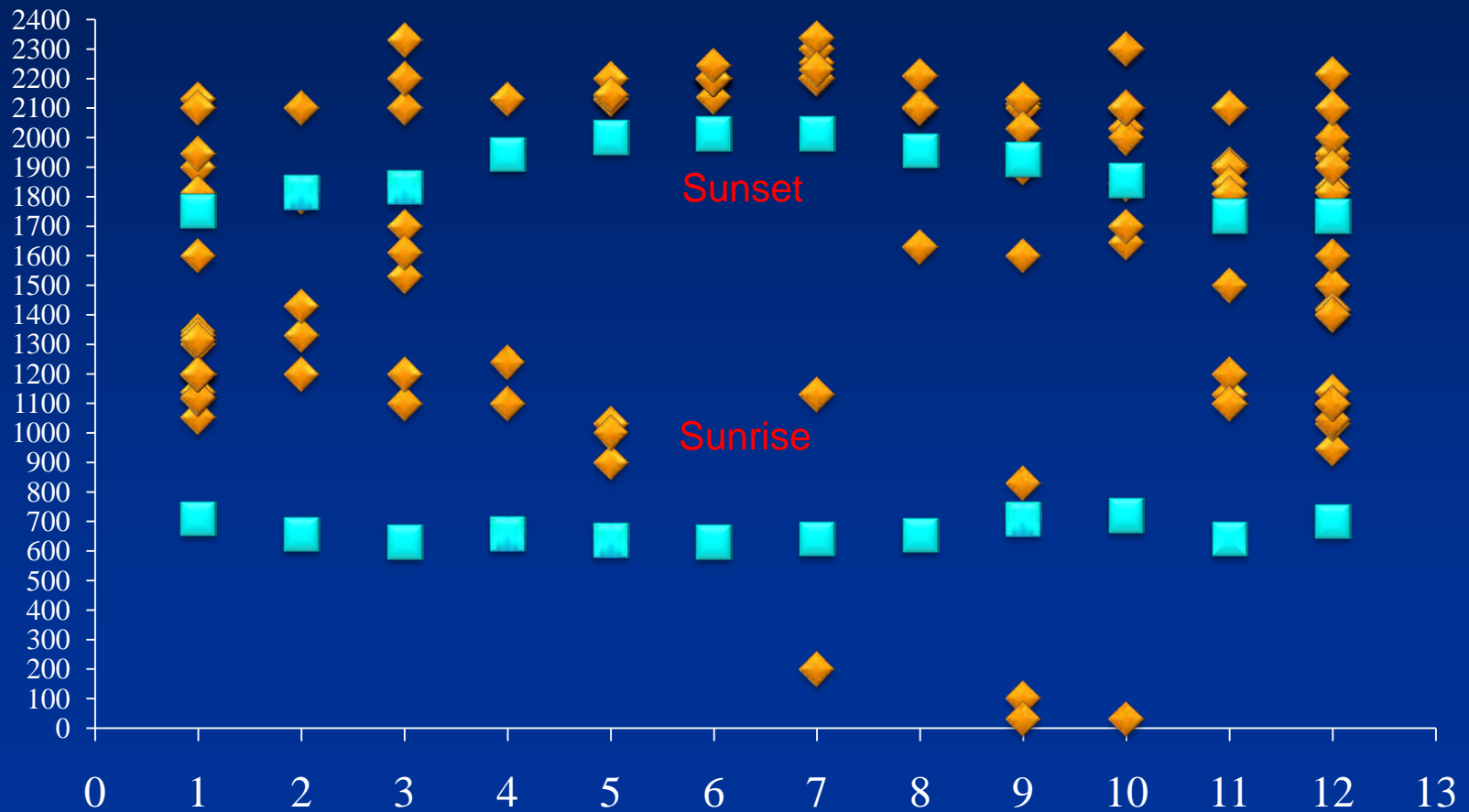
C-103 and C-113 canals

How do I look?

- Safely
- Slow speed ~ 5 mph
- Observer windows open
- Minimize distractions
- Scan the likely habitat
- The more eyes the better

When do I look?

Python Observations and Captures



What do I look for?

- **Stacked Coil**
- **Loose Coil**
- **Swimming/In Water**
- **Outstretched (not moving)**
- **Outstretched (moving)**
- **Two or More Snakes Together**
- **Other**

Stacked coil

More than a single layer of coiling, with the head resting on the body in an ambush posture, snout visible



Burmese python on the L-67 Ext., 2004.

Compact coil

More than a single layer of coiling, so that body surface exposure is reduced, head concealed/buried in coils so snout is not visible.



Burmese python on the L-29 canal bank, 21 Nov 2008 (PyMo 1016)

Loose Coil

Any coiled posture where there is little or no contact between different parts of the python's body.



Burmese python basking in a loose coil December 2008.

Swimming

Observed moving in water.



Near Taylor Slough airboat launch, ENP.

In Water/Stationary

Either partially or fully in water but not moving



Burmese python seen resting in water in Watson River, March 2009

Outstretched

A linear posture but generally not moving.



Burmese python at night on the Main Park Road, ENP, March 2009

Outstretched and Moving

Snake seen traveling across a road for example



Burmese python at night on the Main Park Road, ENP, March 2009

Two or more snakes together

Note the estimated distance between the snakes and if in contact with each other try and describe how the snakes are oriented, etc., although this can be difficult to sort out!



Three or more Burmese pythons in a mating ball on the L-29 canal bank, March 2008.

Other



Other



Burmese python making use of a tree hole along the Harney River, ENP.

Other



Burmese python being extracted from a visitor's motor vehicle, ENP.

Finding nests



Extremely hard to find active nests without the aid of radio tracking. However, if you observe a large python using a hole in April – June, it may be a nesting female.

Egg shells



Egg shells from a hatched nest found 31 Jan 2009, on the L-29 canal bank under old foam bedding.

Signs of use

- Look for areas of matted down vegetation, ferns, cattails, and sawgrass.
- This might be from a python repeatedly basking in the same spot
- Can be over water



Tracks

- Not to be confused with:
- Alligator
- Gopher tortoise
- Crab
- Bicycle tire



Track left in the mud by a radio tagged python, ENP.

Holes

India



L-67 Ext.



**A hole used by more than one
python in the Winter**

Floaters and Road kill



Found dead in L-29 canal Jan 2008



Road kill on Park road, ENP

Fire and Mowers



**Python Found dead after a burn in the
Hole-in-the-Donut**



**Mower killed python in S-332
retention area**

Farmers

vultures are our friends



Python Mirages

Dead tree branches

Trash (shiny, linear)

Retreads

Rope

Flexible pipe

Estimating Snake Length



Obtain some reference lengths

- Road width
- Levee width
- Mowed road shoulder
- Vehicle width and length
- Known length of rope, flex pipe, or fire hose



Acknowledgments

South Florida Water Management District
Bob Hill

US Fish and Wildlife Service
Florida Fish and Wildlife Conservation Commission
Smithsonian Feather Identification Lab

Carla Dove

US Geological Survey

Ken Rice, Ronnie Best, Gordon Rodda, Robert Reed

Florida Museum of Natural History

Laurie Wilkins, Kenneth Krysko, James Nifong
University of Florida

Frank Mazzotti, Mike Cherkiss, Brian Jeffery, Matt Brien, Mark Peyton, Jennifer
Eells Alex Wolf, Brian Greeves

Davidson College

Michael Dorcas

Miami-Dade County Anti-Venom Unit

Visitors to Everglades National Park

Park Staff