



30 Solar Cycles of Turtle Research

Presented by Jeffrey Campbell

December 14, 2012

At Jug Bay Wetlands Sanctuary

Honoring Chris Swarth, Director

on his departure to California

Chris served as Director at Jug Bay Wetlands Sanctuary from 1989 to 2012. Turtles were an important research area. Some turtles were tracked with radio telemetry, individual turtles were marked (shell notches) for recapture analysis, and a regular turtle census was taken in a 100 meter square area. The sanctuary is marked with white PVC pipes at 100 meter intervals serving as bearing and distance measures to any point on the property.

Unlike the research Chris has done, this presentation is about the research the turtles have done on the people (they refer to people as the giant bipedal invasive alien species.)

30 Solar Cycles of Turtle Research at



¹515K, ²535P, ³522R via TurtleMail, ⁴ jcampbell@EnvironmentalInformatics.com

Background – Alien Abductions

Increasing rumors:

- Bipedal giants took turtles away at incredible speed
- Taken to a bright light
- Subjected to medical experiments
 - Unusual shell damage at edges
- Returned to point of abduction

Then

Photographic Proof



Research Questions

- How many bipedal invasive aliens are in the area?
- What is their home range?
- What is their social hierarchy?
- What is the rate of recruitment?
- Are there strategies for control of the invasive species?

Note: No bipeds were injured in the making of this study

Population Density

Methodologies:

- Plot Census
 - We met regularly in a square area to see how many bipeds would be seen
 - Conclusion – population difficult to estimate. The number of bipeds was highly correlated with how many of us were there to see them.
- Netting
 - Caught too many of our avian friends
 - Avians rescued and given bracelets by the bipeds
- Pit fall traps
 - Digging should be complete in another 35 solar cycles



Home Range - 1



Home Range - 2

- Bipeds have a poor sense of magnetic orientation.
 - As is well know, we always move at 45 degree increments from magnetic north
 - Bipeds ignore obvious geomagnetic signals
- Bipeds are creatures of habit, following distinct patterns of movement. How boring!!
- Must be ectotherms – retreat to “Office” during cold weather



Proper magnetic navigation

Aerial imagery by Osprey Bob

Social Structure

Doppler effect removal from bipedal verbal communications most helpful for research

- Leader is known as “the Chris”
- Bipeds with lower social standing more often seen covered in mud in the marsh visiting our cousins there. This social class is known as “interns.”



Recruitment

- Breeding apparently occurs after migration to other locations
- Courtship behavior seems to involve walking hand in hand
- Appearance of avian bracelets on the fourth digit of the left fore foot seems to be relevant to courtship.
 - Statistical significance low, need larger sample size.



Not a good nesting location



A good nesting location

Control of Invasives

- Massive expansion of our “Fear the Turtle” campaign
- Send for our adolescent Ninja cousins
- Cultivate poison ivy and greenbrier
- Best strategy is to send them all to “California”, whatever that is.



What fool will fear this one?



A much better spokesturtle

Future Research

- How do they molt and change color so quickly?
- Collecting nail clippings for isotope analysis
- Maryland Atlas of Bipedal Aliens (MABA)
- Complete Memo of Understanding for Surveillance Extension (MOUSE) with the *Mus musculus* to infiltrate the “Office” during our nap season.

- Outreach and Education

And Most Importantly

- Continue tracking “The Chris”

Good
bye
Chris

In order to track The Chris in California, Jeff acquired a suitable transmitter. Concluding that epoxy would not provide suitable attachment, a back pack was provided.



Genuine Jug Bay box turtle with attached transmitter



Jeff preparing the transmitter for The Chris



Chris with transmitter (note visible antenna). Please do not tell the turtles about the gift Chris is receiving. They might not believe that no turtles were injured in the making of this event.

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Turtle eye-view photos taken by the turtles, intellectual property transferred. © 2012 Jeffrey D. Campbell

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