

**Program Name: USGS SESC PYTHON SCIENCE**

**Project Name:**

A field test of attractant traps for invasive Burmese pythons (*Python molurus bivittatus*) in Southern Florida

**Project ID: USGS PYTHON SCIENCE**

**Lead Agency:**

U.S. Geological Survey

**Strategic Plan Goal(s) Addressed:**

Reduce the populations of widely established invasive exotic species and maintain at lowest feasible levels.

**Measurable Output(s):**

Published paper and poster presentation:

Reed, R.N., Hart, K.M., Rodda, G.H., Mazzotti, F.J., Snow, R.W., Cherkiss, M., Rozar, R., Goetz, S., 2011. A field test of attractant traps for invasive Burmese pythons (*Python molurus bivittatus*) in southern Florida, *Wildlife Research*, 2001 (38), 114-121.

Hart, K.M., Reed, R.N., Mazzotti, F.J., Cherkiss, M.S., Snow, S., Rozar, R., Rodda, G.H., 2010. A Field Trial of Trap Effectiveness for Invasive Burmese Pythons (*Python molurus bivittatus*) in South Florida. Poster presentation, Greater Everglades Ecosystem Restoration 2010, Naples, Florida, USA, July 12-16, 2010.

**Project Synopsis:**

The primary goal of this project was to conduct a field trap trial in an area East of Everglades National Park, where many pythons have been captured, to assess the efficacy of traps for population control. We also aimed to compare the results of visual surveys with trap capture rates, determine capture rates of non-target species and assess capture rates as a proportion of resident pythons in the study area. Two types of attractant traps baited with live rats were set in the Frog Pond area east of Everglades National Park for a total of 6053 trap nights. Standardized and opportunistic visual surveys were also conducted in the trapping area. Following the trial, the area was disc harrowed to expose pythons and allow calculation of an index of the number of resident pythons.

A total of three pythons were captured along with 69 non-target species (rodents, amphibians and reptiles). Eleven pythons were discovered during disc harrowing as were large numbers of rodents. The trap trial captured a relatively small proportion of the pythons that appeared to be in the study area, although previous studies suggest that trap capture rates improve with additional testing of alternative trap designs. Low python captures rates may have also been associated with extremely high local prey abundances during the trap experiment. Our results suggest that traps are unlikely to result in eradication of pythons at landscape levels. Refinement of trap technologies and further assessment of environmental contributors to trap success are necessary before it will be possible to produce a more thorough assessment of the utility of traps for invasive giant constrictors.

**Current Status:**

Completed with results published.

**Project Schedule:**

Start Date: August 2009 (trapping began)

Finish Date: November 2009 (trapping ends), paper published April 2011.

**Detailed Project Budget Information**

	2008	2009	2010	2011	2012	Balance to Complete	Total
<b>Federal</b>		\$30,000	\$30,000	\$5,000			\$65,000
<b>SFWMD**</b>							
<b>Local (University of Florida)</b>		\$10,000	\$5,000				\$15,000
<b>Total</b>		\$40,000	\$35,000	\$5,000			\$80,000

**Contact:**

Kristen M. Hart, Phone: 954-236-1067

Email address: [kristen\\_hart@usgs.gov](mailto:kristen_hart@usgs.gov)

Bob Reed

Email address: [reedr@usgs.gov](mailto:reedr@usgs.gov)

**Hyperlink:**

<http://www.publish.csiro.au/paper/WR10202.htm>

**Pictures:**

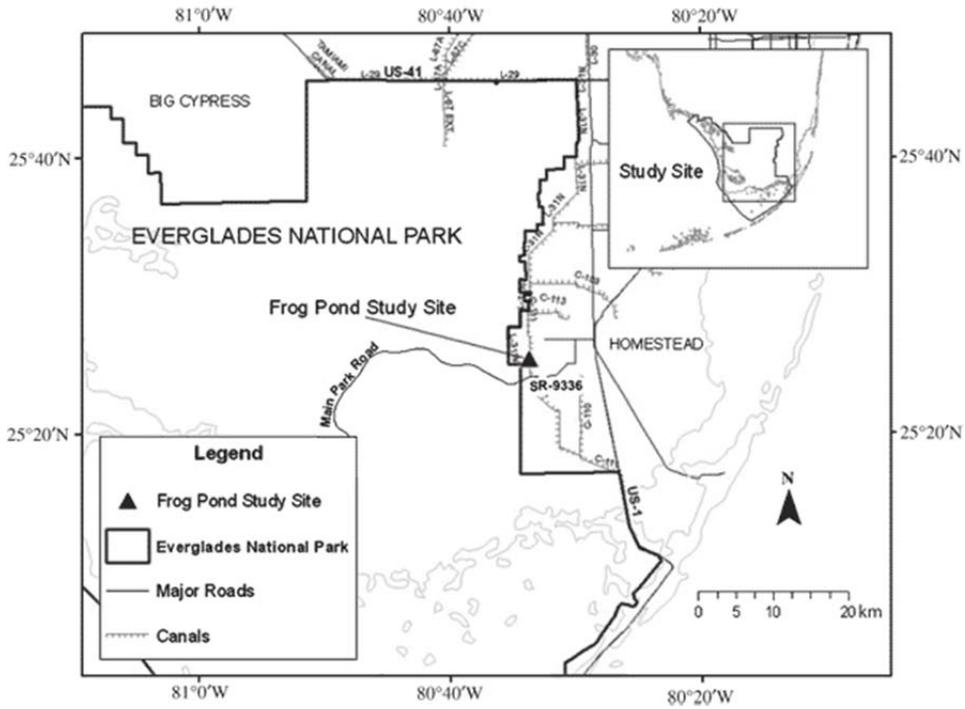


Reproduced from Reed et al. 2011: Fig. 1. (A) Python trap with a circular entrance. (B) View from interior of trap equipped with circular one-way entrance. (C) View from interior of trap equipped with one-way entrance.



Reproduced from Reed et al. 2011: Fig. 2. A Burmese python captured in a trap during the experiment.

**Map of area:**



Reproduced from Reed et al. 2011: Fig. 3. Location of the Frog Pond study site just east of Everglades National Park.