



INTRODUCED SPECIES

# Record Length, Mass, and Clutch Size in the Nonindigenous Burmese Python, *Python bivittatus* Kuhl 1820 (Squamata: Pythonidae), in Florida

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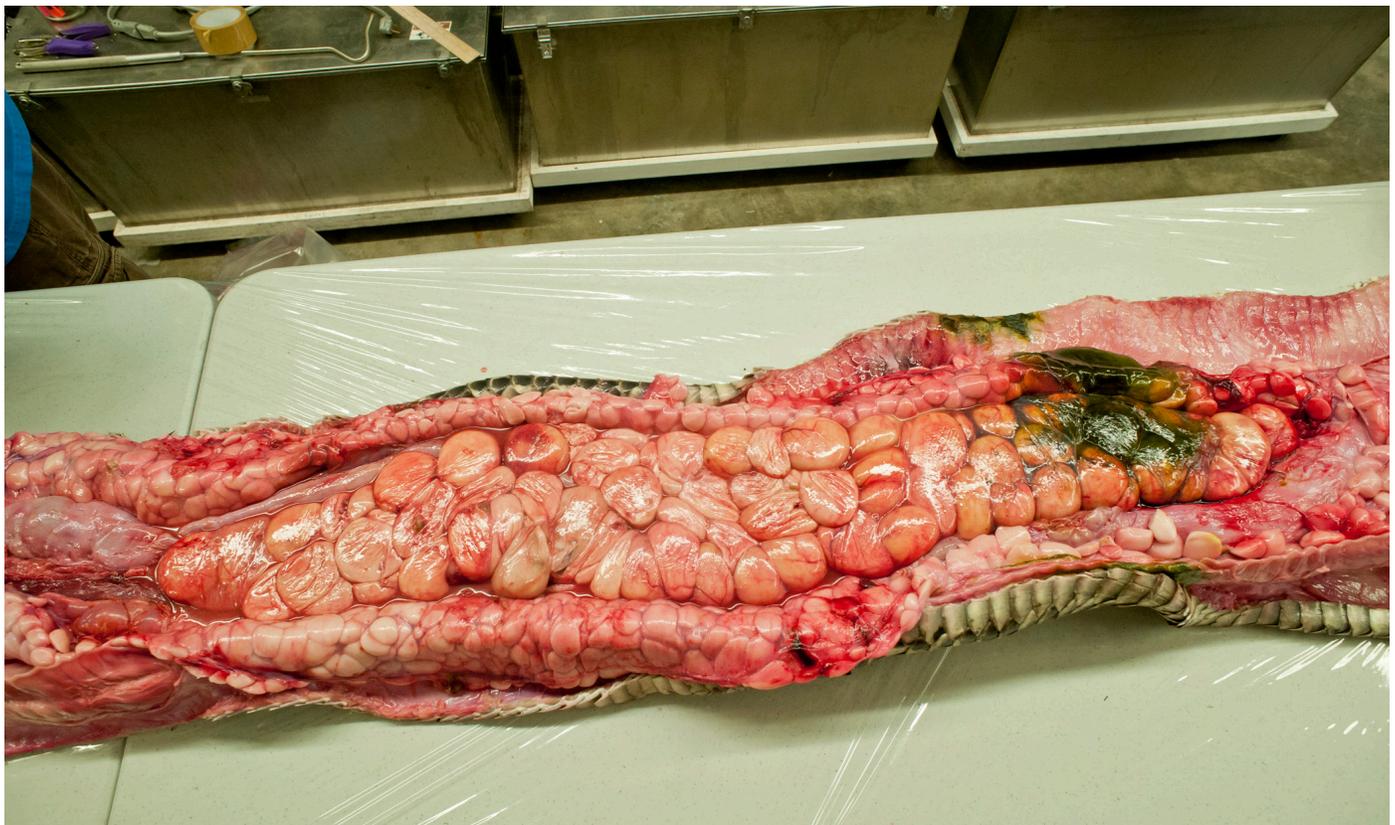
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Photographs by Kristen B. Grace.

The Burmese Python, *Python bivittatus* Kuhl 1820 (Squamata: Pythonidae), is indigenous to northern India, east to southern China, and south to Vietnam and a

few islands in Indonesia (Barker and Barker 2008, Reed and Rodda 2009). This species has been introduced since at least 1979 in southern Florida, USA, where it likely began repro-



Gravid female Burmese Python, *Python bivittatus* (EVER 40594, UF 167116) with 87 oviductal eggs.



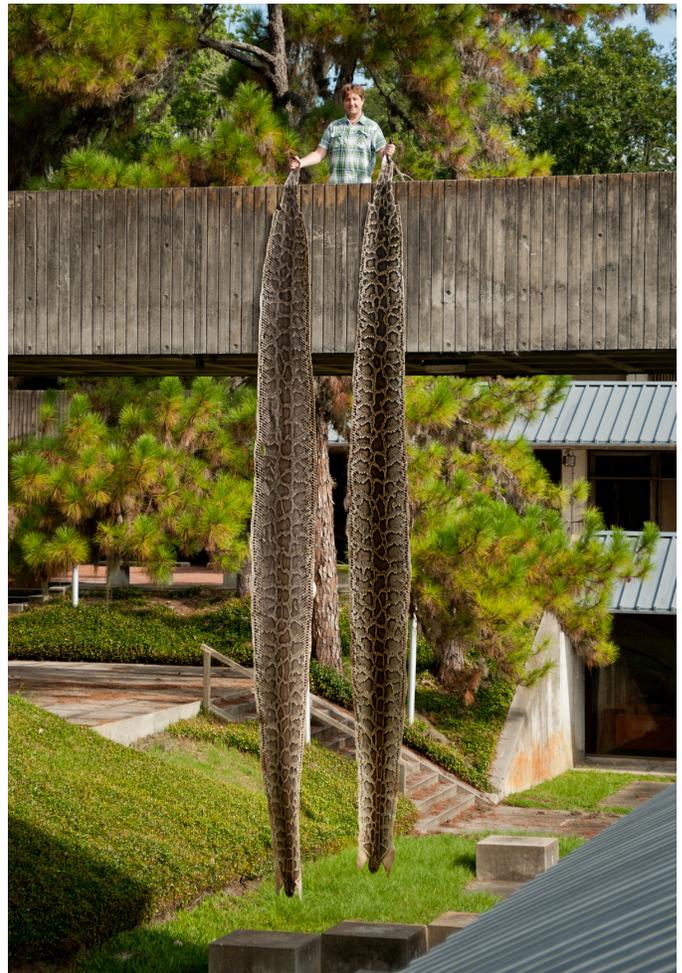
Gravid female Burmese Python, *Python bivittatus* (EVER 40594, UF 167116) with feathers of a Black Vulture (*Coragyps atratus*) removed from the lower digestive tract.

ducing and became established during the 1980s (Meshaka et al. 2000, Snow et al. 2007b, Kraus 2009, Krysko et al. 2011, Willson et al. 2011). *Python bivittatus* has been documented in Florida consuming a variety of mammals and birds, and the American Alligator (*Alligator mississippiensis*) (Snow et al. 2007a, 2007b; Harvey et al. 2008; Rochford et al. 2010b; Holbrook and Chesnes 2011), many of which are protected species. Herein, we provide details on two of the largest known wild *P. bivittatus* in Florida to date, including current records on length, mass, clutch size, and diet.

On 13 February 2012 at 0915 h, a female *Python bivittatus* was found under brush 5.02 km SW of Research Road and Old Ingraham Highway, Long Pine Key, Everglades National Park, Miami-Dade County, Florida (25.36718°N, 80.6658°W, datum WGS84, elev. 1 m). This *P. bivittatus* (#P51) was brought into the laboratory, implanted with two radio-transmitters, measured (455 cm SVL, 508 cm TL) and weighed (63.6 kg). On 17 February 2012 at 1242 h, this *P. bivittatus* was relocated to the Dan Beard Mound, 0.72 km SE

of N-S Arm and Research Road (25.38371°N, 80.68538°W). On 6 March 2012 at 1405 h, another female *P. bivittatus* was found 1.32 km SE of Research Road and Old Ingraham Highway, Long Pine Key, Everglades National Park, Miami-Dade County, Florida (25.37904°N, 80.61564°W, elev. 1 m). This *P. bivittatus* (#P52) was also implanted with two radio-transmitters, measured (482 cm SVL, 537 cm TL) and weighed (74.6 kg). On 12 March 2012 at 1113 h, this *P. bivittatus* was relocated to a shallow pond south of the Missile Base (25.36947°N, 80.68293°W), the location to which *P. bivittatus* #P51 had moved. With the conclusion of this tracking project, *P. bivittatus* #P51 was removed from the wild on 23 April 2012 and *P. bivittatus* #P52 was removed on 19 April 2012. Both were euthanized humanely and transferred to the Florida Museum of Natural History, University of Florida, to determine reproductive status and diet, and to be prepared as voucher specimens in the scientific research collections.

*Python bivittatus* (#P51; EVER 40593, UF 167114) was determined to have been reproductively active in a previous year of life because of its flaccid oviducts, and it contained



Prepared tanned skins of Burmese Pythons, *Python bivittatus*, EVER 40594, UF 167116 (left) and EVER 40593, UF 167114 (right).



Comparison of largest Burmese Python, *Python bivittatus* (EVER 40594, UF 167116) with three of the largest specimens (from left to right) of the Eastern Diamondback Rattlesnake (*Crotalus adamanteus*), Eastern Indigo Snake (*Drymarchon couperi*), and Eastern Coachwhip (*Masticophis flagellum*) from Florida, clearly illustrating the differential in size between the introduced python and the largest species of native snakes.

a very small amount of unidentifiable fecal material in the lower digestive tract. *Python bivittatus* (#P52; EVER 40594, UF 167116) was gravid with 87 oviductal eggs (41 in left oviduct, 46 in right oviduct; two eggs appeared to be unfertilized, degraded, and in the process of being resorbed, and were not counted in the overall number), and contained feathers of a Black Vulture (*Coragyps atratus*) in the lower digestive tract. This is the first published documentation of *C. atratus* being consumed by *P. bivittatus* in Florida (see Dove et al. 2011); however, two other unpublished records exist (RWS, pers. observ.). Although other large female *P. bivittatus* have been previously documented in Florida (e.g., EVER 40122, UF 146019: 432 cm SVL, 487 cm TL, 69 kg mass, with 79 oviductal eggs [Krysko et al. 2008]; EVER 55842, UF 151398: 424 cm SVL, 471 cm TL, 56.7 kg mass, with 85 vitellogenic follicles [Krysko et al. 2008; Rochford et al. 2009, 2010a]), our largest snake (EVER 40594, UF 167116) reported in this paper now holds the current records on length (482 cm SVL, 537 cm TL), mass (74.6 kg), and clutch size (87 oviductal eggs). Along with previously published studies, our data demonstrate that eliminating pythons from the wild will require the removal of all individuals, as this species is quite fecund and one female can replenish an area with only a single reproductive event.

#### Acknowledgments

We thank Nancy J. Russell for assistance with the 30-year contract (H5281050136) to KLK for preparing and curating National Park specimens at the FLMNH-UF. Python radiotracking was permitted under UF Animal Care protocols (F162 and 009-08-FTL), Florida Fish and Wildlife Conservation Commission permit (ESC 08-02), and National Park Service (Everglades) permits (EVER-2007-SCI-001 and EVER-2009-SCI-001). Funding was provided by the National Park Service and the USGS Priority Ecosystem Science Program. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government. We also thank Wayne Strebe and Ashley Schnitker for help with fieldwork; Kristen B. Grace for photography; and Gad Perry, Robert Powell, and an anonymous reviewer for helpful comments on this paper.

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