

Python bivittatus

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Reptilia	Squamata	Pythonidae

Common name piton birmana (Spanish), piton albina (Spanish), Burmese python (English, Puerto Rico), piton (Spanish)

Synonym *Python molurus bivittatus* , Mertens 1921
Python molurus , Boulenger, 1893
Python bivittatus , Werner, 1910
Python bivittatus bivittatus , Jacobs *et al.*, 2009

Similar species *Python molurus molurus*, *Python sebae*, *Python reticulatus*

Summary The Burmese python (*Python molurus bivittatus*) is a nocturnal predator that kills its prey by constriction. It is the largest and most water-dependent of the *Python molurus* complex, though it lives on land or on trees when juvenile. It threatens native species of amphibians, birds, lizards, snakes and bats. *P. molurus bivittatus* represents a threat to humans, particularly small children as well as pet animals, and it may damage agricultural activities, such as chicken farms. Worldwide, there are documented attacks of adult pythons on full-grown pigs, goats, caimans and even pet-owners. In Puerto Rico there are concerns that the Burmese python may out-compete the two native boa species: the Puerto Rican boa (*Epicrates inornatus*) and the Mona Island boa (*Epicrates monensis*), which are smaller in size than the Burmese python.



[view this species on IUCN Red List](#)

Species Description

Adult Burmese pythons have light-coloured skin with a characteristic pattern of many dark brown patches bordered in black, and may measure more than 20 feet. Adult females are larger than adult males. The pet industry has developed a variety of "morphs" with a number of different colorations and patterns, including albinos and "dwarfs".

Notes

The Burmese python is a CITES Appendix II species (Tsu-Way *et al.* 2006).

Lifecycle Stages

Burmese pythons reach sexual maturity four years before they can breed successfully. Females normally lay 12-36 eggs, but are capable of laying over 100, after a 60-90 days gestation period. The mother incubates the eggs by coiling on top of them. Incubation takes about 2 months after which hatchlings emerge. Typical life span is 15-25 years (Ferriter *et al.* 2006; Krysko *et al.* 2008).



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FULL ACCOUNT FOR: *Python bivittatus*

Uses

The international pet trade has turned the Burmese python into a valuable merchandise, various morphs in different colors and patterns have been developed which are assigned high prices. More than 144,000 Burmese pythons have been imported into the United States for exotic pet trade from 2000-2005 (Lovgren, 2005). In its native range, large numbers are collected for their skin, sometimes to make folk medicines, and, in China, for its meat. In some countries, many consider them beneficial for their control of vermin such as rats.

Habitat Description

The subspecies *Python molurus bivittatus* occupy a wide variety of habitats: tropical forest, savannahs, riparian areas, marshes and swamps, and continental tropical islands, from sea level to moderate elevations. Human presence have forced them to adapt to live in cultivated sites, and even in suburbs. They exhibit both terrestrial and arboreal habits, and they need to enter water on occasion, specially prior to shedding. They can stay underwater without breathing for as much as half an hour. They are excellent climbers and swimmers.

Reproduction

The subspecies *Python molurus bivittatus* is sexual and oviparous. Females can breed at their fourth year of age and usually lay 12-36 but may lay as many as 100 eggs after a 60-90 day gestation period. Neonates lead independent lives from birth (Ferriter *et al.* 2006; Krysko *et al.* 2008).

Nutrition

The subspecies *Python molurus bivittatus* is strictly a carnivore. They prefer small mammals and birds, but it eats any animal that it can catch and kill by constriction. Diet in the Florida Everglades consists of racoon, rabbit, muskrat, squirrel, opossum, cotton rat, black rat, bobcat, house wren, pied-billed grebe, white ibis, and limpkin (Weissmueller, 2007).

General Impacts

The Burmese python threatens native species of amphibians, birds, lizards, snakes, and bats introduced ranges by predation, competition, and disease transmission. This species also represents a threat to humans, particularly small children, to pet animals, and is known to damage agricultural activities, such as chicken farms. Worldwide, there are documented attacks of adult pythons on full-grown pigs, goats, caimans and even pet-owners. In Puerto Rico there are concerns that Burmese python may outcompete the two native boa species: the Puerto Rican boa (see [Epicrates inornatus in IUCN Red List of Threatened Species](#)), the Mona Island boa (*Epicrates monensis monensis*), and the Virgin Islands boa (*Epicrates monensis granti*) which are smaller in size than the Burmese python (Pitt and Witmer, 2007; Reed , 2005).



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Management Info

Preventative measures: Since the established population in Florida is the result of pet releases or escapes, biologists in charge of Burmese python management and removal in the Florida Everglades advocate increased pet owner education, requiring a license to own imported snakes as in Australia, stricter standards for snake import, and harsher penalties for their release throughout the United States to prevent further establishment. State agencies in Florida (USA) are establishing regulations on the purchase and trade of invasive reptiles. The USFWS Fish and Wildlife Coordination Act Report for the Comprehensive Everglades Restoration Plan recommends the removal or partial removal of canals and levees which serve as means of transportation for Burmese pythons and other invasives among wetlands (Ferriter *et al.* 2006). Additionally, biologists recommend requiring a license to own potentially invasive reptiles, as in Australia, stricter standards on snake import, and harsher penalties for snake release in the United States to prevent new invasive populations of Burmese pythons (Weissmueller, 2007; Pitt and Witmer, 2007).

Physical: Removal of Burmese pythons have been performed in Florida (USA) by Florida Park Service, Fish and Wildlife, and Fire Rescue employees. The use of radio tracking, pheromone lures, traps, hand capture and locator dogs have been employed to manage and remove Burmese pythons. Detailed mapping and tracking of Burmese pythons and even a "Python Hotline" to report sightings and request removal have also contributed to removal efforts in Florida (Beck *et al.* undated; Ferriter *et al.* 2006).

Pathway

Principal source: [Barker, David G. and Tracy M. Barker., 2008. The Distribution of the Burmese Python, *Python molurus bivittatus*. Bull. Chicago Herp. Soc. 43\(3\):33-38.](#)

[Ferriter, Amy, Bob Doren, Carole Goodyear, Dan Thayer, Jim Burch, Lou Toth, Mike Bodle, Jon Lane, Don Schmitz, Paul Pratt, Skip Snow and Ken Langeland., 2006. Chapter 9: The Status of Nonindigenous Species in the South Florida Environment. 2006 South Florida Environmental Report.](#)

Pitt, William C. and Gary W. Witmer., 2007. Chapter 12 Invasive Predators: a synthesis of the past, present, and future. In Predation in Organisms Springer Berlin Heidelberg.

[The Reptile Database: *Python molurus* Linnaeus, 1758](#)

Compiler: National Biological Information Infrastructure (NBII), Felix A. Grana Raffucci, Technical Advisor, Puerto Rico Department of Natural & Environmental Resources & IUCN SSC Invasive Species Specialist Group (ISSG)

Review:

Publication date: 2010-01-21

ALIEN RANGE

[2] PUERTO RICO

[1] UNITED STATES

Red List assessed species 1: LC = 1;

[Epicrates inornatus](#) LC

BIBLIOGRAPHY

23 references found for *Python bivittatus*

Management information

[Beck, Sandy; Alice Clarke; Larry Perez, Denise Feiber., undated. Florida Invaders \(Ed\) Alice Clarke. A Joint publication of the National Park Service \(NPS\) & Florida Fish and Wildlife Conservation Commission.](#)

Summary: Available from: <http://www.nps.gov/ever/naturescience/upload/2008%20Florida%20Invaders%20For%20Web.pdf> [Accessed 1 April 2008]



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FULL ACCOUNT FOR: *Python bivittatus*

[Campbell, Todd. S., 2005a. Eradication of Introduced Carnivorous Lizards from the Cape Coral Area Charlotte Harbor National Estuary Program FY 2003 Research and Restoration Partners Fund. Final Report](#)

Summary: Available from: http://www.chnep.org/grants/r&r_reports/monitorlizarderadication_campbellunivtampa.pdf [Accessed 20 November 2007]

[Environmental Law Institute \(ELI\), 2008. Cooperative Prevention of Invasive Wildlife Introduction in Florida. Technical Report. Copyright © 2008 Environmental Law Institute, Washington, D.C. Cover art courtesy of Jessica Western. All rights reserved. ELI Project No. 070501.](#)

Summary: ELI report, Cooperative Prevention of Invasive Wildlife Introduction in Florida, examines the complex issues faced in addressing the issue of wildlife invasions in Florida. The report analyzes state and federal laws and regulations that affect invasive wildlife species prevention efforts and makes recommendations intended to harmonize state and federal agency efforts in Florida under existing legal authorities. It also recommends changes to the existing laws and regulations that would enable agencies to proactively address the harms posed by nonnative wildlife.

Available from: http://www.elistore.org/reports_detail.asp?ID=11282 [Accessed 7 May 2008]

[Kroeger, Timm., 2007. White Paper: Economic Impacts of Live Wild Animal Imports in the United States](#)

Summary: Available from:

http://www.defenders.org/resources/publications/programs_and_policy/international_conservation/broken_screens/impacts_of_live_wild_animal_imports_to_the_united_states.pdf [Accessed 20 November 2007]

[Lardner, Stuart and Keith Larnar. 2007. Landcare Notes: A guide for the control over the possession, trade and movement of declared pest animals. State of Victoria Department of Primary Industries](#)

Summary: Available from:

[http://www.dpi.vic.gov.au/DPI/nreninf.nsf/9e58661e880ba9e44a256c640023eb2e/4c317cefcd441f60ca2572a4000a241e/\\$FILE/LC0303_Mar07.pdf](http://www.dpi.vic.gov.au/DPI/nreninf.nsf/9e58661e880ba9e44a256c640023eb2e/4c317cefcd441f60ca2572a4000a241e/$FILE/LC0303_Mar07.pdf) [Accessed 20 November 2007]

Mauldin, Richard E. and Peter J. Savarie, 2010. Acetaminophen as an oral toxicant for Nile monitor lizards (*Varanus niloticus*) and Burmese pythons (*Python molurus bivittatus*) *Wildlife Research* 37(3) 2010 215-222

Reed, Robert, N., 2005. An Ecological Risk Assessment of Nonnative Boas and Pythons as Potentially Invasive Species in the United States. *Risk Analysis*, Vol. 25, No. 3, 2005

[United States Geological Survey \(USGS\). 2008. Python molurus bivittatus. USGS Nonindigenous Aquatic Species Database, Gainesville, FL.](#)

Summary: Available from: <http://nas.er.usgs.gov/queries/FactSheet.asp?speciesID=2552> [Accessed 20 November 2007]

General information

[Barker, David G. and Tracy M. Barker., 2008. The Distribution of the Burmese Python, *Python molurus bivittatus*. Bull. Chicago Herp. Soc. 43\(3\):33-38, 2008.](#)

Summary: Available from: <http://www.vpi.com/sites/vpi.com/files/Barkers.pdf> [Accessed 20 November 2007]

Burridge, M.J. and L.A. Simmons., 2003. Exotic ticks introduced into the United States on imported reptiles from 1962 to 2001 and their potential roles in international dissemination of diseases. *Veterinary Parasitology* 113 (2003) 289-320.

[Campbell, Todd. S., 2005b. Eradication of Introduced Carnivorous Lizards from Southwest Florida. National Fish and Wildlife Foundation General Challenge Grant Program Final Programmatic Report](#)

Summary: Available from: <http://www.dep.state.fl.us/iswgfla/files/Nile%20monitor%20-%20Campbell.pdf> [Accessed 20 November 2007]

[Ferriter, Amy, Bob Doren, Carole Goodyear, Dan Thayer, Jim Burch, Lou Toth, Mike Bodle, Jon Lane, Don Schmitz, Paul Pratt, Skip Snow and Ken Langeland., 2006. Chapter 9: The Status of Nonindigenous Species in the South Florida Environment. 2006 South Florida Environmental Report.](#)

Summary: Available from: http://espi.boisestate.edu/documents/pdf/Volume1_Chapter9.pdf [Accessed 20 November 2007]

[ITIS \(Integrated Taxonomic Information System\), 2005. Online Database *Python molurus bivittatus*](#)

Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.

Available from: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=683069 [Accessed 20 November 2007]

Krysko, Kenneth L.; Nifong, James C.; Snow, Ray W.; Enge, Kevin M.; Mazzotti, Frank J., 2008. Reproduction of the Burmese python (*Python molurus bivittatus*) in southern Florida. *Applied Herpetology*, Volume 5, Number 1, 2008, pp. 93-95(3)

[Lovgren, S. 2005. Python-tracking puppy trains to patrol Everglades. National Geographic News.](#)

Summary: A news article concerning Burmese pythons in Florida.

Available from: http://news.nationalgeographic.com/news/2005/02/0203_050203_everglades.html [Accessed June 17 2008]

[Meshaka, Jr. Walter, E., 2006. An Update on the List of Floridas s Exotic Amphibian and Reptile Species. Journal of Kansas Herpetology Number 19 2006](#)

Summary: Available from: http://naherpetology.org/pdf_files/574.pdf [Accessed 20 November 2007]

Pitt, William C. and Gary W. Witmer., 2007. Chapter 12 Invasive Predators: a synthesis of the past, present, and future. In *Predation in Organisms* Springer Berlin Heidelberg.

[Reptiles Database, 2010. Python molurus Linnaeus, 1758](#)

Summary: Available from: <http://reptile-database.reptarium.cz/species.php?genus=Python&species=molurus> [Accessed September 8 2010]

[Rice, G. Kenneth; J. Hardin Waddle; Brian M. Jeffery; H. Frankin Percival., 2004. Herpetofaunal Inventories of the National Parks of South Florida and the Caribbean: Volume I. Everglades National Park. Open File Report 2004-1065, US Department of the Interior, US Geological Survey.](#)

Summary: Available from: <http://science.nature.nps.gov/im/units/sfcn/docs/Amphibian%20Report%20EVER%202004-1065.pdf> [Accessed 20 November 2007]

Schumacher, Juergen., 2006. Selected Infectious Diseases of Wild Reptiles and Amphibians. *Topics in Medicine and Surgery. Journal of Exotic Pet Medicine*, Vol 15, No 1 (January), 2006: pp 18-24



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FULL ACCOUNT FOR: *Python bivittatus*

[Tsu-Way Shiau, Ping-Chun Hou, Sheng-Hai Wu and Ming-Chung Tu., 2006. A Survey on Alien Pet Reptiles in Taiwan. *Taiwania*, 51\(2\): 71-80, 2006](#)

Summary: Available from: <http://www.press.ntu.edu.tw/ejournal/Files/taiwan/200606/1.pdf> [Accessed 20 November 2007]

Van Mierop, L. H. S.; Susan M. Barnard ., 1976. Observations on the Reproduction of *Python molurus bivittatus* (Reptilia, Serpentes, Boidae). *Journal of Herpetology*, Vol. 10, No. 4. (Oct. 25, 1976), pp. 333-340.

[Weissmueller, Z. 2007. *Swamp Wars. Orange and Blue, Spring 2007. University of Florida.*](#)

Summary: A University of Florida magazine publication with good information from Florida wildlife specialists.

Available from: <http://www.jou.ufl.edu/pubs/onb/S07/?id=56> [Accessed June 17 2008]