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The Distribution of the Burmese Python, *Python bivittatus*, in China

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We here provide a revision of the distribution of the Burmese python, *Python bivittatus*, in China, as reported previously in Barker and Barker (2008). Information provided to us since the publication of that article allows a more detailed depiction of the natural distribution of the Burmese python in China. We discuss the distribution of the Burmese python in each province from which the species has been recorded.

Fujian

The easternmost dot on the map represents the vicinity of Nanping [Yenping]. Pope (1935) reports that the python was killed in the vicinity of Yenping at an elevation of about 1000 feet (330 m). Pope also mentions that there are "several records for this province" but goes on to say that the Nanping record is the only specific locality. The dot at the southern tip of Fujian refers to the Kinmen Archipelago, where pythons are reported to occur on Queymoy Island (Hsiang, 2009).

Jiangxi

Zhong (1993) reported the presence of Burmese pythons in the extreme southern tip of this province on the basis of a sighting and a shed skin.

Guangdong

Pope (1935) mentioned that the Burmese python could be found in Kwantung Province (now Guangdong) along the southern coastal region from Swatow to Yeungkong. He goes on to state that this species "probably occurs over considerable areas in *extreme southern China*" [italics ours]. The easternmost dot on the coast of this province refers to Hong Kong and the adjacent mainland; there the species is well-known, although considered a rare species (Karsen et al., 1986). The dot just to the west refers to Macao (Zhao and Adler, 1993). The locality in north-central Guangdong is based on the report of Xu and Jim (2003) and refers to the Shimentai Nature Reserve situated in Yingde. It is the northernmost record in Guangdong of which we are aware; we placed the northern limit of the range about 50 km

north of this record, as indicated by the shaded area on our map, because of similar elevation and habitat.

Hainan

The species is well-known from Hainan Island. Pope (1935) examined several specimens from this locality.

Guangxi

We are unable to find specific locality records of Burmese pythons for this province. It is widely accepted in the literature that pythons are found across the southern half of this province. We have illustrated the range with two northward extensions on the basis of river drainages.

Guizhou

There are three closely grouped localities for Burmese pythons in south-central Guizhou (Zhao et al., 1998). The elevation of the westernmost locality, listed as Wangmo [Wang Mo], is about 600 m. To the east, the elevation of Luodian is about 500 m. The town of Ziyun [Zi Yun] is the northernmost of the three, located at an elevation of 1100 m; we note that nearby to Ziyun, about 2 km southwest, is a deep valley, the bottom of which is 500 m elevation.

Yunnan

Much of Yunnan is a high rocky plateau, the Shan Plateau, dissected with river courses, many of which are tributaries of the main rivers draining the Tibetan Plateau. Most of the ten Burmese python localities listed by Zhao et al. (1998) are associated with various drainages that offer lower elevations and far warmer conditions than up on the plateau.

The easternmost locality is on the Vietnamese border at Hekou, at an elevation of about 150 m on the Yuan Jiang; upon crossing into Vietnam the river is known as the Song Koi (Red River), flowing on to the coast at Hanoi. Further upstream on the Yuan Jiang, northwest of Hekou, is the locality of Yuanjiang [Yuankiang], and the specimen from there was collected at

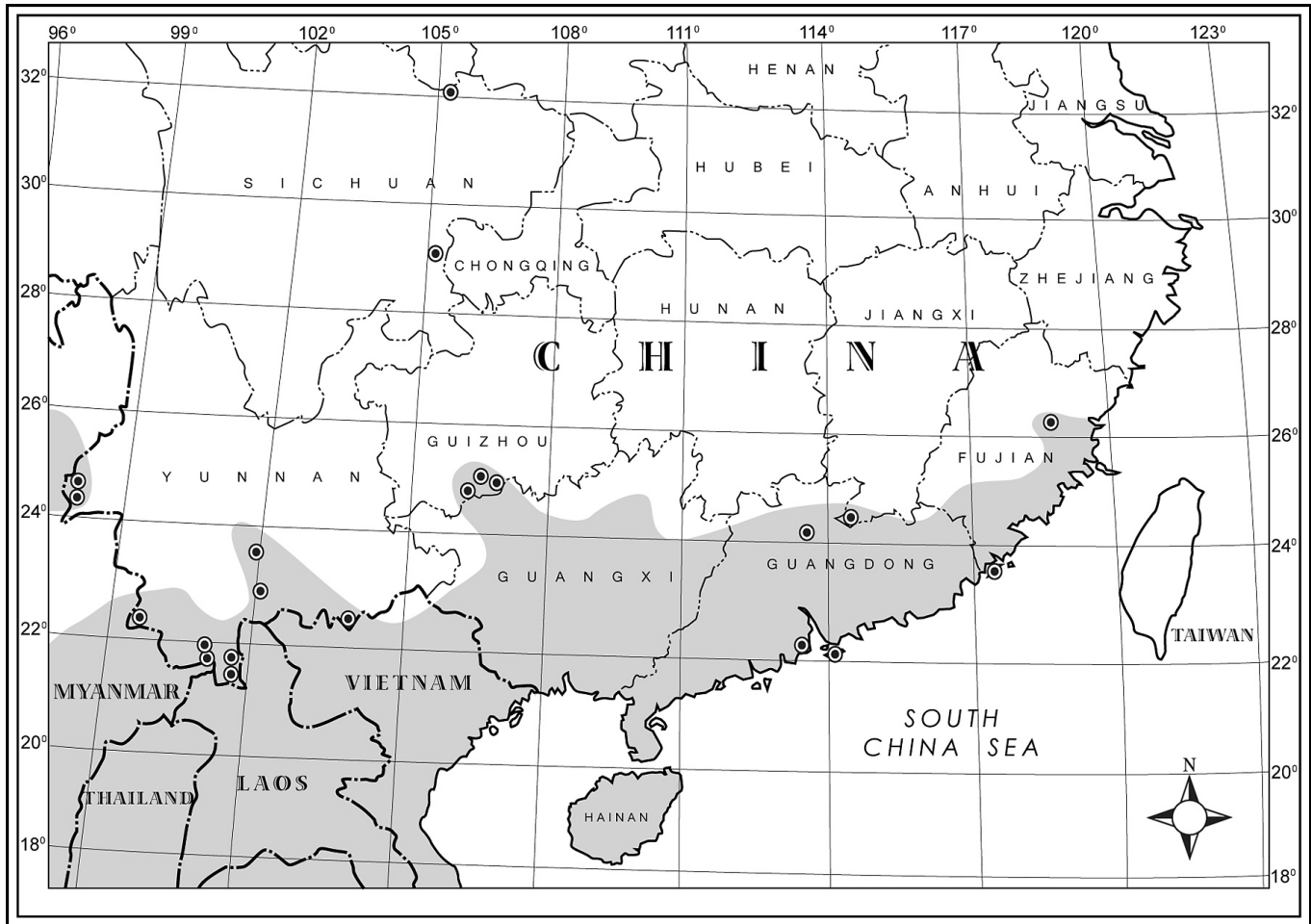


Figure 1. The Distribution of the Burmese python, *Python bivittatus*, in China. The shaded area represents the natural distribution of the Burmese python. The circles with black centers mark published Chinese localities for the species. The range of this species is also indicated in adjacent areas of Vietnam, Laos, Thailand and Myanmar.

about 500 m elevation (first reported by Pope, 1929, 1935).

South of Yuanjiang is the locality of Luchun [also Lüchun or Lachun]. Luchun is located on a ridge between the Yuan Jiang and the Amo Jiang drainages at about 1100 m. There are significantly lower elevations nearby in drainages to the west and east.

The two localities on the Laotian border are both at about 700 m; the more southern locality is Mengla [Meng La] and a few kilometers to the northwest is Mengyuan [Meng Yuan].

There are two localities on the Lancang Jiang [Mekong River] near the Myanmar border. The more northern is Jinghong at an elevation of about 550 m. A few kilometers downriver, south of Jinghong, is Meng Han [Gan Lan Ba]; the elevation of Meng Han is about 500 m.

Further to the northwest is the locality of Menglian [Meng Lian], positioned at about 1000 m elevation on the Nanlei River. The Nanlei flows south into Myanmar, eventually turning to the east and joining the Mekong River.

The two most northwestern localities are along the Myanmar border. Yingjiang is located on the Daying Jiang at an elevation of about 800 m. The more southerly of the two localities is Longchuan, located on the Longchuan Jiang at an elevation of

about 900 m. Both of these rivers drain to the west and are tributaries in the upper drainage of the Irrawaddy River in eastern Myanmar. These two localities, therefore, represent an eastern extension of the distribution of the Burmese python population associated with the Irrawaddy drainage in Myanmar; they are situated in that drainage similar to the easternmost locality for Burmese pythons in Myanmar of Myitkyina, located to the northwest of Yingjiang.

Sichuan

The presence of Burmese pythons is problematic and controversial. We do not doubt the veracity of the two reports of Burmese pythons in Sichuan. However, we do not include the two Sichuan localities in the shaded area of our map for the following reasons.

The northernmost record is based on a short report by Liu (1986). Zhao et al. (1998) and Yu et al. (2005) also mention this record, but do not add other information or mention any other specimens in that area. So far as we can determine, this is the only record of a python at this locality. According to the report, a government driver discovered a Burmese python dead in a parking lot of a suburban grocery store near a freeway in the county of Qingchuan, located at the northern border of the

province of Sichuan. The locality is given as N32° 35', E105° 14" at 823 m elevation. The driver skinned the snake and took the gall bladder. It's not clear, but apparently the author of the report saw the skin of the snake. The skin was measured at 307 cm, and scale counts around the body were taken. Liu notes that this record of a Burmese pythons is six degrees of latitude north of the next northernmost Chinese locality known.

The second locality in Sichuan of which we are aware is the report of Zhao (1987). The report states that Zhao went to the Miyi Snake Farm to examine a preserved Burmese python that was collected 27 March 1987 in the prefecture-level city of Neijiang, adjacent to the county of Longchang. This record is listed in Zhao et al. (1998) as "Neijiang." We can find no other information about this specimen or other specimens from this locality. Neijiang is located in the southern third of the Sichuan Basin [also referred to as the Sichuan Pendi]. It is located along the Tuo Jiang, and the elevation of the river in the city is about 300 m. We note that Neijiang was a densely populated area in 1987 and today has nearly 5 million residents.

It occurs to us that expanding the range of the Burmese python in China to include these two localities would be akin to finding a dead eastern indigo snake—a native of Florida north to central Georgia—in Baltimore, and another in New York, and on the basis of that, drawing the distribution of the indigo snake to include the entire eastern seaboard. We consider these two

reports as anomalous records, and feel that it is far simpler to assume that they are escaped captives rather than some small natural population hiding in a city of 5 million people.

There is no simple zoogeographic explanation based on either migration or vicariance that would account for the presence of Burmese pythons in the Sichuan Basin. They have either been released by humans, or have existed there since at least the last interglacial period, more than 100,000 years BP; in that case systematic analysis using genetic characters will undoubtedly determine which is the case.

With this explanation and based on the information that has been made available to us, we do not include Sichuan in the range of the Burmese python.

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