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Research article

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New records and an updated list of reptiles from Ba Vi National Park, Vietnam

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Abstract. We report eight new records of reptiles from Ba Vi National Park, Hanoi, Vietnam: *Gekko palmatus, Boi-ga guangxiensis, Gonyosoma prasinum, Lycodon futsingensis, L. ruhstrati abditus, Opisthotropis lateralis, Hebius chapaensis,* and *Pareas hamptoni.* Our findings bring the total number of reptiles recorded from Ba Vi National Park to 50. **Key words.** Reptiles, new records, distribution, Ba Vi National Park.

INTRODUCTION

Ba Vi National Park (NP) is located in Ba Vi District of Hanoi and Luong Son and Ky Son districts of Hoa Binh Province, with a total area of 12,023 ha. There are three high peaks in the national park: the highest is Dinh Vua at 1,296 m above sea level (a.s.l.), followed by Tan Vien at 1,226 m a.s.l. and Ngoc Hoa at 1,120 m a.s.l. (Fig. 1). The Ba Vi NP is characterized by evergreen forest and mixed forest of coniferous and broadleaf at elevations above 600 m a.s.l. (Tran et al. 2001). In Ba Vi District, previous studies documented a total of 42 species of reptiles and most of them were recorded from Ba Vi National Park (Nguyen et al. 2009). As a result of recent herpetological field surveys we herein present eight new records of reptiles from Ba Vi National Park.

MATERIAL AND METHODS

Field surveys were conducted in the Ba Vi NP by Vinh Q. Luu, Oanh V. Lo, Ngoan V. Ha, Huy Q. Tran, Tuong S. Dinh, Linh K. Luong, Nghia V. Ha and Le D. Phan

(hereafter V. Q. Luu et al.) in July, October and November 2018. Survey sites were selected at elevations ranging from 400 to 800 m a.s.l. Three survey transects were set up at three sites in the mixed forest of coniferous and broadleaf plants: the Transect 1 along Ngoc Hoa stream at elevations of ca. 400 m a.s.l., the Transect 2 in the former French Camping area at elevations of 600 m a.s.l., and the Transect 3 in the forest near Ruins of Old French Church at elevations of ca. 800 m a.s.l. Specimens were collected by hand or using a snake hook. Specimens were euthanized in a closed vessel with a piece of cotton wool containing ethyl acetate (Simmons, 2002), fixed in 80% ethanol for four to six hours, then later transferred to 70% ethanol for permanent storage. The specimens were subsequently deposited in the collection of the Vietnam National University of Forestry (VNUF), Hanoi, Vietnam. Taxonomic identification mainly followed Smith (1943), Ziegler et al. (2007, 2008, 2018), Nguyen et al. (2009), Vogel et al. (2009), Luu et al. (2013), Hecht et al. (2013), Do et al. (2016), Gawor et al. (2016), Nguyen et al. (2016), Le et al. (2018), and Pham et al. (2018).



Fig. 1. Map of Ba Vi National Park (black circle) in Hanoi City, northern Vietnam.

Abbreviations

- SVL = snout-vent length: from tip of snout to anterior margin of cloaca
- TaL = tail length: from posterior margin of cloaca to tip of tail
- HL = head length: from the tip of snout to back of mandible
- HW = head width: the widest portion of the head. Bilateral scale counts were given as left/right.

RESULTS

Family Gekkonidae Gray, 1825 Gekko palmatus Boulenger, 1907 Palm Gecko / Tắc kè chân vịt (Fig.2a)

Specimens examined (n=3). One adult male VNUF R.2018.19 (field number: BV.18.19) collected on 29 July 2018 in the fire protection and prevention station (21°04'529N/105°22'719"E, at an elevation of 400 m a.s.l.) and two adult females VNUF R.2018.12 (field number: BV.18.12) collected on 26 July 2018 in the ancient church area (21°04'409N/105°21'902"E, at an elevation of 800 m a.s.l.) and VNUF R.2018.09 (field number: BV.18.09) collected on 10 July 2018 in Ngoc

Hoa cave $(21^{\circ}05'159''N/105^{\circ}22'701''E)$, at an elevation of 400 m a.s.l.) by V. Q. Luu et al.

Morphological characters. The specimens from Ba Vi NP agreed well with the description of Rösler et al. (2011): SVL 71.3 mm (male) and 72.2–74.2 mm (females), TaL 12.9-78.6 mm (the female VNUF R.2018.12 with lost tail); head longer than wide (HL 21.5-37.8 mm, HW 13.4-14.6 mm in females; HL 19.9 mm, HW 14.7 mm in the male); rostral wider than high (RW 2.5-3.5 mm, RH 0.9-1.4 mm in females; RW 2.2 mm, RH 1.2 mm in the male); nostril in contact with rostral; interorbitals 31-33; preorbitals 18-19; supralabials 11-13; infralabials 10-11; scale rows at midbody 121-125; turbercle rows at midbody 7-10 in the female and 8 in the male; turbercles absent on dorsal surface of limbs; ventral scale rows at midbody 41-50; scales in a line from mental to the front of cloacal slit 166 in the male, 171–176 in females); subdigital lamellae under first finger 11–12, under fourth finger 12-15, under first toe 12-13, under fourth toe 13-14; precloacal pores 26 in the male, absent in females; postcloacal tubercle 1/1.

Coloration in life. Dorsal surface of head, body and tail greyish with dark blotches on head and nape; 4–6 larger blotches on dorsum; flanks and limbs with small light spots; dorsal surface of tail of the female VNUF R.2018.12 with eight light bands and of the female

VNUF R.2018.09 with 10 light bands, ventral side of tail yellowish cream with black dots.

Ecological notes. The adult female VNUF R.2018.12 was found on the wall of the ancient church at 22:13. Temperature was 23.9 °C and humidity was 71%. The adult male was collected in a house at 24:00 while crawling on the wall. The female VNUF R.2018.09 was found on the roadside cliff at 20:43 with the relative temperature being 26.5 °C and humidity about 55%.

Distribution. In Vietnam, this species was recorded from Lao Cai Province in the North southwards to Quang Binh Province (Nguyen et al. 2009, Hecht et al. 2013, Gawor et al. 2016, Pham et al. 2018; Uetz et al. 2019). This is the first record of *Gekko palmatus* for Ba Vi NP and for Hanoi City.

Remarks. The specimens from Ba Vi differ from the description of Rösler et al. (2011) by having fewer scale rows at midbody (121–125 *versus* 139–156).

Family Colubridae Oppel, 1811 Boiga guangxiensis (Wen, 1998) Guangxi Cat Snake / Rắn rào quảng tây (Fig. 2b)

Specimen examined. One adult female, VNUF R.2018.7 (field number: BV.18.7) collected on 6 October 2018 in the ancient church area (21°04'421''N/105°21'865''E, at an elevation of 801 m a.s.l.) by V. Q. Luu et al.

Morphological characters. The specimen from Ba Vi NP agreed well with the description of Ziegler et al. (2007): SVL 1290 mm, TaL 435 mm; head longer than wide (HL 31 mm, HW 21.1 mm), distinct from neck; pupil round; internasal shorter than prefrontal; loreal 1/1; preocular 1/1; postoculars 2/2; anterior temporals 2/2, posterior temporals 2/3; supralabials 8/8, third to fifth in contact with the eye, eighth largest; infralabials 13/12, third to fifth in contact with the eye, eighth largest; first to fourth (left side) and first to third (right side) bordering chin shields; dorsal scale rows 23–21–15, smooth; ventrals 270; cloacal single; subcaudals 145, divided.

Coloration in life. Dorsum pale brown, with irregular black cross-bars, venter greyish-white.

Ecological notes. The specimen was found at 20:09 while crawling on the forest ground near a tourist road. Distribution. In Vietnam, this species has been recorded from Lao Cai Province southwards to Dong Nai and Tay Ninh provinces (Nguyen et al. 2009; Do et al. 2016; Phan et al. 2018). This is the first record of *Boiga guangxiensis* for Ba Vi NP and for Hanoi City. Elsewhere, this species is known from southern China, Cambodia and Laos (Nguyen et al. 2009; Neang et al. 2017; Uetz et al. 2019).

Gonyosoma prasinum (Blyth, 1854)

Green bush ratsnake / Rắn sọc xanh (Fig. 2c)

Specimen examined. One adult female, VNUF R.2018.30 (field number: BV3.18.10) collected on 15 November 2018 in the ancient church area (21°04'363''N/105°21'886''E at an elevation of 805 m a.s.l.) by V. Q. Luu et al.

Morphological characters. The specimen from Ba Vi NP agreed with the description of Hecht et al. (2013), SVL 820 mm, Tal 330 mm; head longer than wide (HL 30.9 mm, HW 16 mm), head distinct from neck; pupil round; internasal suture 1.6 mm; prefrontal suture 4.3 mm; loreal 1/1, not touching the eye; preocular 1/1; postoculars 2/2; anterior temporals 2/2, posterior temporals 2/2; supralabials 9/9, fourth to sixth in contact with the eye, eighth largest; infralabials 10/10; first to fourth (both sides) bordering chin shields; dorsal scale rows 21–19–15, keeled; ventrals 197; cloacal divided; subcaudals 106, divided.

Coloration in life. Dorsal surface of head, back and tail green. The upper lip, lower throat, venter and lower surface of tail light green. Each side of the ventrolateral fold has a pale whitish stripe that runs from the neck to cloaca.

Ecological notes. The specimen was found in the evening on the wall of the ancient church.

Distribution. In Vietnam, this species was reported from Lao Cai Province in the North southwards to Gia Lai Province (Nguyen et al. 2009; Hecht et al. 2013; Le et al. 2018). This is the first record of *Gonyosoma prasinum* for Ba Vi NP and for Hanoi City. Elsewhere, the species is known from India, Southern China, Myanmar, Laos, Thailand, Malaysia (Nguyen et al. 2009; Uetz et al. 2019).

Remarks. The specimen from Ba Vi differs from those in the descriptions of Smith (1943) and Hecht et al. (2013) by having more dorsal scale rows at neck (21–19–15 *versus* 19–19–15).

Hebius chapaensis (Bourret, 1934)

Sapa Flat-nosed Snake / Rắn bình mũi sa pa (Fig. 2d)

Specimen examined. One adult female, VNUF R.2018.8 (field number: BV.18.8) collected on 15 November 2018 (21°04'821''N/105°22'190''E, at an elevation of 402 m a.s.l.), by V. Q. Luu et al.

Morphological characters. The specimen from Ba Vi NP agreed with the description of Le et al. (2018): SVL 440 mm, TaL 140 mm; head longer than wide (HL 13.6 mm, HW 8.82 mm), distinct from the neck; pupil



Fig. 2. Dorsal and dorsolateral views of the eight new records of reptiles from Ba Vi National Park, Hanoi, Vietnam. a. *Gekko* palmatus (VNUF R.2018.12). b. Boiga guangxiensis (VNUF R.2018.7). c. Gonyosoma prasinum (VNUF R.2018.30). d. Hebius chapaensis (VNUF R.2018.8). e. Lycodon futsingensis (VNUF R.2018.5). f. Lycodon ruhstrati abditus (VNUF R.2018.10). g. Opisthotropis lateralis (VNUF R.2018.37). h. Pareas hamptoni (VNUF R.2018.18).

round; loreal 1/1, not touching the eye; preoculars 2/2; postoculars 2/2; anterior temporals 1/1, posterior temporals 2/2; supralabials 9/9, fifth to sixth in contact with the eye, seventh largest; infralabials 10/10, first to fifth (both sides) bordering chin shields; dorsal scale rows 17-17-17, feebly keeled; scales of the outer row enlarged; ventrals 170; cloacal divided; subcaudals 70, divided.

Coloration in life. Dorsal surface of head, body and tail blackish grey, with two broader light yellow dorsolateral stripes along the body; ventral surface and lower surface of tail black.

Ecological notes. The specimen was found in the evening in a stream while being kept by a crab.

Distribution. In Vietnam, this species was reported from Lao Cai, Son La, and Yen Bai provinces. This is the first record of *Hebius chapaensis* for Ba Vi National Park and for Hanoi City. Elsewhere, the species is known from China (Uetz et al. 2019).

Remarks. *Pararhabdophis chapaensis* was originally described from Sa Pa, Lao Cai Province by Bourret (1934) and it was considered as a poorly known species, known only from northwestern Vietnam and Yunnan Province of China. This species was recently transferred to the genus *Hebius* by Kizirian et al. (2018).

Lycodon futsingensis (Pope, 1928)

Futsing Wolf Snake / Rắn khuyết fut-sing (Fig.2e)

Specimen examined. One adult male, VNUF R.2018.5 (field number: BV.18.5) collected on 6 October 2018 in the ancient church area (21°04'383''N/105°21'856''E, at an elevation of 800 m a.s.l.) by V. Q. Luu et al.

Morphological characters. The specimen from Ba Vi NP agreed well with the description of Vogel et al. (2009): SVL 680 mm, Tal 160 mm; head distinct from neck; pupil round; nasal divided; loreal 1/1, not touching the eye; preocular 1/1; subocular absent; postoculars 2/2; anterior temporals 2/2, posterior temporals 3/3; supralabials 8/8, third to fifth in contact with the eye, sixth largest; infralabials 10/10, first to third (left side) and first to fifth (right side) bordering chin shields; dorsal scale rows 17–17–15, smooth; ventrals 204; cloacal single; subcaudals 74, divided.

Coloration in life. Dorsum chocolate brown with 30 white brown bands on the body and 13 bands on the tail. Ventral surface white with dirty brown marbling, dark brown posteriorly.

Ecological note. The specimen was found at 20:39 on the forest ground. The relative temperature was about 22.6 $^{\circ}$ C and the humidity 60%.

Distribution. In Vietnam, this species was reported from Lao Cai Province southwards to Da Nang City. This is the first record of *Lycodon futsingensis* for Ba Vi NP and for Hanoi City. Elsewhere, the species is known from China, Laos, Japan, Taiwan, Myanmar (Hecht et al. 2013; Luu et al. 2013; Nguyen et al. 2018; Uetz et al. 2019).

Lycodon ruhstrati abditus (Vogel, David, Pauwels, Sumontha, Norval, Hendrix, Vu & Ziegler, 2009) Mountain Wolf Snake / Rắn khuyết đốm (Fig.2f)

Specimen examined. One adult male, VNUF R.2018.10 (field number: BV.18.10) collected on 26 July 2018 in the camping area (21°04'526''N/105°22'189''E, at an elevation of 672 m a.s.l.) by V. Q. Luu et al.

Morphological characters. The specimen from Ba Vi NP agreed with the description of Vogel et al. (2009), SVL 696 mm, TaL 190 mm; TL 886 mm; body elongate; head moderately distinct from neck, head longer than wide (HL 19.4 mm, HW 12.2 mm) rather flattened; snout projecting anteriorly beyond lower jaw; pupil vertically oval; tail tapered and thin; loreal 1/1; loreal not in contact with eye; supralabials 8/8, third to fifth in contact with the eye, sixth largest; infralabials 9/8, first to fifth (left side) and first to fourth (right side) bordering chin shields; posterior chin shields a little shorter than anterior ones; preocular 1/1; postoculars 2/2; anterior temporals 1/1, posterior temporals 3/2; dorsal scale rows 17–17–15, keeled; ventrals 229; subcaudals 100, divided; cloacal single.

Coloration in life. Dorsal surface of body greyish black with 26 cross-bars, including two white bands near the neck and 24 brown bands on body. Ventral surface white with some small brown spots posteriorly. Dorsal surface of tail greyish brown with 16 cream rings, extending towards the lower surface of the tail.

Ecological notes. The specimen was found at 21:18 in the shrub near a forest path. The surrounding habitat was secondary forest mixed with bamboos. The relative temperature was 25.1 °C and the humidity was 71%.

Distribution. In Vietnam, this species was previously known from Vinh Phuc and Quang Binh provinces. This is the first record of *Lycodon ruhstrati abditus* for Ba Vi NP and for Hanoi City. Elsewhere, this species is known from China and Laos (Vogel et al. 2009; Luu et al. 2013; Uetz et al. 2019).

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Remarks. The specimen from Ba Vi NP differs from the description of Vogel et al. (2009) by having more ventrals (229 *versus* 214–224) and the first body band starting at ventral 24 (*versus* at ventrals 12–17).

Opisthotropis lateralis Boulenger, 1903

Tonkin Mountain Keelback / Rắn trán bên (Fig. 2g)

Specimen examined. one adult male, VNUF R.2018.37 (field number: BV3.18.07) collected on 15 November 2018 (21°04'821"N/105°22'190"E, at an elevation of 400 m a.s.l.) by V. Q. Luu et al.

Morphological characters. The specimen from Ba Vi NP agreed with the description of Hecht et al. (2013): SVL 470 mm, TaL 85 mm; head length larger than wide (HL 17.5 mm, HW 10.3 mm), rostral broader than high; internasals paired; prefrontal single; frontal longer than wide, shorter than parietals, twice as broad as supraocular; nostrils directing upwards, in the upper part of single nasal; internasal suture 1 mm; prefrontal suture 2.4 mm; loreal 1/1, not touching the eye; preocular 1/1; postoculars 2/2; anterior temporal 1/1, posterior temporals 2/2; supralabials 9/9, fifth to sixth in contact with the eye, eighth largest; infralabials 10/10, first to fourth (both sides) bordering chin shields; dorsal scale rows 17–17–17, keeled; ventrals 182; cloacal divided; subcaudals 50, divided.

Coloration in life. Dorsal surface of head and body dark greyish brown, ventral surface yellowish white.

Ecological notes. The specimen was found at night in a stream after heavy rain.

Distribution. In Vietnam, this species was reported from Cao Bang, Lang Son, Vinh Phuc, Quang Ninh, Bac Giang, Hai Duong, and Hoa Binh provinces (Nguyen et al. 2009; Hecht et al. 2013; Gawor et al. 2016). This is the first record of *Opisthotropis lateralis* for Ba Vi National Park and for Hanoi City. Elsewhere, the species is reported from China (Nguyen et al. 2009; Uetz et al. 2019).

Family Pareatidae Romer, 1956 Pareas hamptoni (Boulenger, 1905) Hampton's Slug Snake / Rắn hổ mây ham-tơn (Fig. 2h)

Specimens examined (n=2). One adult female VNUF R.2018.18 (field number: BV.18.18) collected on 28 July 2018 in the orchid garden (21°04'529"N, 105°22'719"E, at elevation of 719), and one adult male VNUF R.2018.04 (field number: BV.18.04) on 6 October 2018 in the ancient church area (21°04'397"N/105°21'845"E, at an elevation of 400 m a.s.l.) by V. Q. Luu et al.

Morphological characters. The specimen from Ba Vi NP agreed with the description of Ziegler et al. (2007); Pham et al. (2018); Nguyen et al. (2018); SVL 453–480 mm, TaL 141–160 mm; body strongly compressed; head distinct from neck; head longer than wide (HL 15.8–17.3 mm, HW 8.7–11.1 mm); nasal undivided; loreal 1/1, not touching the eye; preoculars 2/2; postoculars 2/2; suboculars 2/2, long and slender; anterior temporals 2/2, posterior temporals 3/2; supralabials 8/7; infralabials 8/8; mental groove absent; dorsal scales smooth in the male and feebly keeled in the female; dorsal scale rows 15–15–15; ventrals 188–189; cloacal single; subcaudals 89–100, divided.

Coloration in life. Dorsal surface of head and body reddish brown, with vertical black body bands; ventral scales from chin to lower surface of tail orange with black spots in the female, dorsal surface of tail with black stripe.

Ecological notes. The female was found at 20:30 on the road in the heavy rain and the male was found at 20:48 on the roadside.

Distribution. In Vietnam, this species has been recorded from Lao Cai Province in the North southwards to Lam Dong and Dong Nai provinces (Nguyen et al. 2009; Nguyen et al. 2018; Phan et al. 2018; Le et al. 2018). This is the first record of *P. hamptoni* for Ba Vi NP and for Hanoi City. Elsewhere, the species is known from China, Myanmar, Laos, and Cambodia (Nguyen et al. 2009; Uetz et al. 2019).

DISCUSSION

Our new findings of reptiles from Ba Vi National Park bring the total species number of reptiles in this national park to 50 (see Table 1, Apendix). In recent years, some taxonomic changes have been made concerning reptiles in Vietnam. Nguyen et al. (2009) reported *Ophisaurus harti* (Boulenger, 1899) from Ba Vi NP but it was re-identified as *Dopasia ludovici* by Nguyen et al. (2011). In this study, we provide the first record of *Hebius chapaensis* but did not find any *H. khasiensis* (Boulenger, 1890). Therefore, the previous record of *H. khasiensis* in Ba Vi NP needs to be confirmed on the basis of voucher specimens because *H. chapaensis* and *H. khasiensis* are morphologically similar to each other.

In terms of conservation concern, among 50 recorded species of reptiles, five species were listed in the IUCN Red List (2019), eight species were listed in the Vietnam Red Data Book (2007) and three species were listed in the Governmental Decree No. 06 (2019).

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APPENDIX

Table 1. Updated list of reptiles recorded from Ba Vi NP.

Data sources: 1: Nguyen et al. (2009); 2: This study; 3: Nguyen et al. (2011). Decree 06 (2019) = Governmental Decree No 06/2019/ND-CP by the Government of Vietnam on the management of endangered wild flora and fauna. Group IB: prohibited exploitation and use for commercial purpose and Group IIB: limited exploitation and use for commercial purpose; RBVN (2007) = Vietnam Red Data Book. Part I. Animals. Descriptions of nationally endangered species of wild animals. CR = Critically Endangered, EN = Endangered, VU = Vulnerable; IUCN (2019) = The IUCN Red List of Threatened Species. CR = Critically Endangered, EN = Endangered, VU = Vulnerable; LR/nt = Lower Risk/Near Threatened, * new provincial record; ** most probably *Pelodiscus variegatus*, see Farkas et al. (2019).

Species name	Data source	IUCN (2019)	RBVN (2007)	Decree 06 (2019)
REPTILIA				
Squamata				
Sauria				
Agamidae				
Acanthosaura lepidogaster (Cuvier, 1829)	1, 2			
Draco maculatus (Gray, 1845)	1			
Pseudocalotes brevipes (Werner, 1904)	1			
Physignathus cocincinus Cuvier, 1829	1		VU	
Gekkonidae				
Gekko palmatus Boulenger, 1907*	2			
Gekko reevesii (Gray, 1831)	1		VU	
Hemidactylus frenatus Dumérin & Bibron,1836	1,2			
Scincidae				
Eutropis longicaudatus (Hallowell, 1857)	1			
Tropidophorus baviensis Bourret, 1939	1, 2			
Tropidophorus hainanus Smith, 1923	1			
Anguidae				
Dopasia ludovici (Mocquard, 1905)	1, 2, 3			
Serpentes				
Colubridae				
Ahaetulla prasina (Boie, 1827)	1			
Boiga guangxiensis Wen, 1998*	2			
Boiga multomaculata (Boie, 1827)	1			
Calamaria pavimentata Duméril, Bibron & Duméril, 1854	1			
Calamaria septentrionalis Boulenger, 1890	1, 2		VU	
Coelognathus radiatus (Boie, 1827)	1		VU	
Gonyosoma boulengeri (Mocquard, 1897)	1			
Gonyosoma prasinum (Blyth, 1854)*	2		VU	
Hebius chapaensis (Bourret, 1934)*	2			
Hebius khasiensis (Boulenger, 1890)	1			
Hebius sauteri (Boulenger, 1909)	1			
Lycodon futsingensis (Pope, 1928)*	2			
Lycodon meridionalis (Bourret, 1935)	1, 2			

Table 1. Continued

Species name	Data source	IUCN (2019)	RBVN (2007)	Decree 06 (2019)
Lycodon ruhstrati abditus Vogel, David, Pauwels, Sumon- tha, Norval, Hendrix, Vu & Ziegler, 2009*	2			
Lycodon subcinctus Boie, 1827	1			
Oligodon cinereus (Günther, 1864)	1			
Oligodon eberhardti Pellegrin, 1910	1			
Ptyas korros (Schlegel, 1837)	1		EN	
Ptyas major (Günther, 1858)	1			
Ptyas multicinctus (Roux, 1907)	1, 2			
Ptyas nigromarginata (Blyth, 1854)	1			
Homalopsidae				
Hypsiscopus plumbea (Boie, 1827)	1			
Natricidae				
Opisthotropis lateralis Boulenger, 1903*	2			
Rhabdophis callichroma (Bourret, 1934)	1			
Rhabdophis subminiatus (Schlegel, 1837)	1, 2			
Xenochrophis flavipunctatus (Hallowell, 1860)	1			
Pseudoxenodontidae				
Pseudoxenodon bambusicola Vogt, 1922	1, 2			
Elapidae				
Bungarus fasciatus (Schneider, 1801)	1		EN	
Naja atra Cantor, 1842	1, 2	VU	EN	IIB
Ophiophagus hannah (Cantor, 1836)	1	VU	CR	IB
Sinomicrurus macclellandi (Reinhardt, 1844)	1, 2			
Pareidae				
Pareas hamptoni (Boulenger, 1905)*	2			
Pareas margaritophorus (Jan, 1866)	1			
Viperidae				
Ovophis monticola (Günther, 1864)	1, 2			
Protobothrops mucrosquamatus (Cantor, 1839)	1, 2			
Trimeresurus albolabris Gray, 1842	1, 2			
Testudines				
Geoemydidae				
Cuora mouhotii (Gray, 1862)	1	EN		IIB
Mauremys sinensis (Gray, 1834)	1	EN		
Trionychidae				
Pelodiscus sinensis (Wiegmann, 1835)**	1	VU		