### Journal of Threatened Taxa | www.threatenedtaxa.org | 26 September 2013 | 5(13): 4774-4783

### NEW RECORDS OF REPTILES AND AMPHIBIANS FROM BHUTAN

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ISSN Online 0974–7907 Print 0974–7893

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Abstract: Thirteen new species of anurans that include six dicroglossids (Euphlyctis cyanophlyctis, Fejervarya pierrei, F. teraiensis and F. nepalensis, from Samdrup Jongkhar, Nanorana conaensis and N. pleskei from Haa), three megophryids (Xenophrys major and X. glandulosa from Trashiyangtse, and X. minor from Mongar) and four ranids (Amolops mantzorum from Trashiyangtse, Hylarana taipehensis and Sylvirana leptoglossa from Samdrup Jongkhar and S. cf. guentheri from Mongar) and one testudine a geoemydid (Melanochelys trijuga from Sarpang), one sauria an anguid (Ophisaurus gracilis from Zhemgang) and two colubrids (Amphiesma platyceps and Dinodon gammiei both from Paro) are reported for the first time from Bhutan. Discussions have been restricted to their presence and the distribution in and outside Bhutan. As such, this paper provides the geographic locations, morphometric measurements (in some cases), time when they were seen in their habitat and information on who have collected the data of the species reported. The quality of the data is highly variable being collected opportunistically by various individuals from various places over the last six years.

Keywords: Anurans, Bhutan, distributional records, herpetofauna.

Bhutan is primarily a mountainous country with majority of its inhabitants depending on subsistence farming and sandwiched between the two Asian giants China and India. The country's scientific study moves slow on specific taxa such as herpetofauna, invertebrates, and many others (with the exception of mammals, birds and to some extent plants) because of lack of interest. Moreover, most of the existing research institutes and centres in the country do not focus much on species conservation as their priorities are set for the development of the country including betterment of crop production, marketing and other growthoriented works aimed at improving the life of the rural people keeping in mind, the wholesome concept of gross national happiness. Bhutan's fully authorized lone conservation agent, the Department of Forest and Park Services performs almost all the tasks of main stream species protection, management, conservation and research besides regulating and catering to the daily needs of natural resources for the people of Bhutan. Most of the works done by the department include issuing of resources collection permits, planning of forest management regimes, protected area

**DOI:** http://dx.doi.org/10.11609/JoTT.o3539.4774-83 | **ZooBank:** urn:lsid:zoobank.org:pub:2EFC1483-99CE-4849-9D16-62A7D0E85E63

Editor: Anonymity requested. Date of publication: 26 September 2013 (online & print)

Manuscript details: Ms # o3539 | Received 22 February 2013 | Final received 16 June 2013 | Finally accepted 07 September 2013

Citation: Wangyal, J.T. (2013). New records of reptiles and amphibians from Bhutan. Journal of Threatened Taxa 5(13): 4774–4783; http://dx.doi.org/10.11609/JoTT.o3539.4774-83

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Funding: No specific funding was received to complete this research.

 $\label{lem:competing interest: I declare no competing interest.} \label{lem:competing interest}$ 

Acknowledgements: This paper is the result of contribution of data and photographs by Dorji Wangchuk, Researcher at Royal Manas National Park, Sarpang Bhutan, Karma Wangdi, Forester and Bird Sherub, Dy. Chief Forest Officer, who work at Ugyen Wangchuk Institute for Conservation of Environment, based in Bumthang. With deep appreciations, efforts put in by Dr. D.B. Gurung, Professor of the College of Natural Resources (CNR), Royal University of Bhutan, Lobesa and the former Lobesans (students of CNR, Lobesa), Yee J, Baep Tshering and Sherub Jamtsho (all Forest Rangers) who work in different Districts of the Kingdom are also included in this paper. Without their support, this paper could never have been written. In my office in Trashigang, Phuntsho Wangdi, Forest Ranger deserves a mention for helping me make maps and confirming if GPS readings collected by various individuals corresponded to the species. Thanks are also due to my field colleagues in Trashigang office who always give me preferences to complete any task I plan by taking my share of official work on their shoulders.

conservation planning, patrolling the areas where there is a likelihood of illegal extraction of natural resources and poaching of wildlife that consumes lots of time to focus on taxa specific studies. In such a scenario, the lack of information on many taxa from the country is obvious and herpetofauna is no exception. However, the safety of the animals of the country is guaranteed by the very goal of maintaining 60% forest cover to perpetuity enshrined in the Constitution of the Kingdom of Bhutan, which is backed by several policies, acts, laws, rules and regulations that favour an undisturbed forest ecosystem. Recent works on reptiles (Wangyal & Tenzin 2009; Wangyal 2011, 2012; Wangyal et al. 2012) and amphibians (Wangyal & Gurung 2012 a,b) reported many new records for Bhutan which showed that the research on these taxa is still nascent.

This paper reports at least 13 species of anurans, a turtle, lizard and two snakes. For each of these records, a digital photograph, geo-referenced locality data and details of measurement such as the SVL, hind and the fore limb lengths where relevant are provided.

#### **Materials and Methods**

Since this paper is the result of information gathered by the author over the past several years, no specific survey methodology can be mentioned. The method used is rather an amalgamation of information from various local and national networks of students, farmers and field colleagues who had most of the time collected data without considering any serious research reporting. Photographs, measurements and habitat information were collected from different sources opportunistically. As such, no systematic surveys were conducted to obtain the data presented in this paper because of which the data are highly variable with varying places, time, date and the seasons. Most of the species information were the result of opportunistic encounters by individuals who submitted the data to the author for species confirmation. Some of the data presented in this paper also include those collected by the field officials of the Department of Forests and Park Services who gathered them wherever and whenever they came across on the encouragement of the author.

Telephonic conversation, email exchanges, visual talks through internets and personal contacts during the official workshops and meetings were very useful in obtaining much of the data provided in this report. Interview of few people in the field, meeting with experts and sending many photographs to experts outside the country for confirmation of species were useful in identifying and authenticating the data

collected over the last six years. Physical observation in the field to obtain specific habitat details such as where the species were seen, time of photography, altitude, habitat, coordinates, etc. that were taken with the help of instruments such as altimeter and GPS are considered as field data. Measurements of the body parts of species such as SVL, carapace length, etc. where relevant were taken using a steel tape nearest to millimetre.

For the identification of species, references used include Smith (1931, 1935, 1943), Schleich & Kästle (2002), Daniels (2005), Yang & Rao (2008), Ahmed et al. (2009), Fei et al. (2010), and Vasudevan & Sondhi (2010). For lack of a standardized system in the country to allocate e-voucher numbers, digital copies of the images are archived by the author and the Forest Office, District Administration, Trashigang. GPS datum used was WGS 84.

#### **Results**

Compiling all the past records (Bauer & Günther 1992; Das & Palden 2000; Wangyal & Tenzin 2009; Wangyal 2011, 2012; Wangyal et al. 2012; Wangyal & Gurung 2012a,b), Bhutan thus far has 36 species of amphibians (34 anurans, one caudata, one caecilian), 83 species of reptiles (57 snakes, 20 lizards, one crocodile, five turtles). With this report, 13 anurans, a turtle, a legless lizard and two snakes are added to the country's biodiversity list. Due to varying nature of data collection, some species data were collected even before the latest herpetofaunal reports of the country. Some species information that were collected long ago were not reported in the past due to a really small amount of data available that would be suitable to have an article or a paper. Further, the information available needed double confirmations since all the data was collected by people who lack knowledge on the species. However, now that the species are being reported, the information in this paper is well verified as discussions on species were done adequately with herpetologists known to the author outside Bhutan.

For giving a distribution idea of the species, a map (Fig. 1) has been produced specifying the locations of 13 species of anurans (including also another four anurans that need further confirmation), one each of turtle, a lizard and two snakes collected from different parts of the country using the data collected over the years. Where relevant, morphometric measurements such as SVL, fore limb and hind limb in anurans, carapace size in turtle are given in the species accounts. The geocoordinates of the species locations are tabulated (Table I).



Figure 1. Map showing the data collection areas. © Jigme Tshelthrim Wangyal

This report includes data on coordinates, altitude and names of the places where these species were seen including the identifications of personnel who collected the species information.

### **Species accounts**

#### <u>Dicroglossidae</u>

Indian Skipping Frog Euphlyctis cyanophlyctis (Schneider, 1799): A specimen (Image 1) measuring SVL = 60mm, Hind Limb = 95mm, Forelimb = 42mm was collected from Tshangkha Lake, Dagana District at 1378m at 1650hr on 14 May 2011. The habitat, a small Lake which is also home to a small population of Tylototriton verrucosus in the middle of the village is a marsh with accumulation of mud from the agricultural fields around it. A farm road passes just on its side. A second specimen (Image 2) measuring SVL = 60mm, Hind Limb = 90mm, Fore Limb = 40mm was observed and photographed by Dorji Wangchuk, a Researcher of Royal Manas National Park at Gelephu on 06 June 2007 at an elevation of 225m, Sarpang District. This particular species was found in a pool created by rainfall in the Gelephu town area. Owing to its wide distribution IUCN considers the species as least concern. Yet another specimen (Image 3) was found in Bhangtar, Samdrup Jongkhar District on 27 October 2011 at 1333hr at an altitude of 253m by Mr. Karma Wangdi, a forester with Ugyen Wangchuck Institute for Conservation and Environment (UWICE) based in central Bhutan's Bumthang District.

Ahmed et al. (2009) measured SVL of 65mm for a northeastern Indian specimen which is almost same as the measurements in Bhutanese specimens. Literature reveals active breeding to start by early summer when water temperature rises to 10–12 °C (Khan & Malik 1987b). Outside Bhutan, the species is found in Afghanistan, Bangladesh, India, Nepal, Pakistan, Sri Lanka, Iran and westwards to Afghanistan up to 1800m (Khan 1997c).

Pierre's Cricket Frog Fejervarya pierrei (Dubois, 1975): An individual (Image 4) with SVL of 26mm was caught and deposited at the laboratory of College of Natural Resources, Royal University of Bhutan. The location data of the habitat, Tshangkha Lake, Dagana District, at an elevation of 1378m was surveyed on 08 May 2011 and the animal was caught at 1838hr while making the rounds of the lake. Several individuals of the species that are known to occupy lowland forests, grasslands and open wet places including the paddy fields retreating in moist and shadowy places and burrows were found around the lake. It is widely found in southern China, South and Southeast Asia. IUCN considers it as Least Concern (Shrestha & Ohler 2004).

Terai Cricket Frog *Fejervarya teraiensis* (Dubois, 1984): A specimen measuring SVL = 50mm was collected from Gelephu, Sarpang District at an altitude of 255m at 1100hr on 06 June 2007 and later released. However, single photographic evidence (Image 5) was kept for the reporting purpose. The species is known to occupy

Table 1. Geo-coordinates of the species located in this report

Sno	Species	Name of the Place	Geo-coordinates	
1	Euphlyctis cyanophlyctis	Tshangkha Lake, Dagana District	26º57'36.31"N	90°02′16.71″E
		Gelephu, Sarpang District	26°52′45.80″N	90°29′22.50″E
		Bhangtar, Samdrupjongkhar District	26°53′19.40″N	91º41'33.89"E
2	Fejervarya pierrei	Tshangkha Lake, Dagana District	26º57'36.31"N	90°02′16.71″E
3	Fejervarya teraiensis	Gelephu, Sarpang District	26°52′45.80″N	90°29′22.50″E
4	Fejervarya nepalensis	NgeraAmaRi, Samdrupjongkhar District	26º31'21.36"N	91º24'38.88"E
5	Nanorana conaensis	TshenchulumTsho (Lake), Haa District	27º30'17.87"N	89º04'07.42"E
6	Nanorana pleskei	NoobTshonaPatra (Lake), Haa District	27º30'00.03"N	89º03'38.61"E
7	Xenophrys major	Choetenkora, Trashiyangtse District	27º36′50.00″N	91º29'32.00"E
8	Xenophrys glandulosa	Choetenkora, Trashiyangtse District	27º36′50.00″N	91º29'32.00"E
9	Xenophrys minor	Serzhong, Mongar District	27º22'23.00"N	91º22'23.00"E
10	Amolops mantzorum	Choetenkora, Trashiyangtse District	27º36′50.00″N	91º29'32.00"E
11	Hylarana taipehensis	Bhangtar, Samdrupjongkhar District	26°53′19.40″N	91º41′33.89″E
12	Sylvirana cf. guentheri	Lingmethang, Mongar District	27º15'29.18"N	91º10′21.13″E
13	Sylvirana leptoglossa	Bhangtar, Samdrupjongkhar District	26°53′19.40″N	91º41′33.89″E
14	Melanochelys trijuga	Kanamakura, Sarpang District	26º47′51.70″N	90°29′22.50″E
15	Ophisaurus gracilis	Khomshar, Bardo, Zhemgang District	27º08'14.93"N	90°55′09.40″E
		Nimzhong, Shingkhar, Zhemgang District	27º11'03.04"N	90°29′22.50″E
16	Amphiesma platyceps	Pachu Bank, Paro District	26°47′51.70″N	90°29′22.50″E
17	Dinodon gammiei	Chukha, Paro,	27º25′57.97″N	89º23'43.20"E



Image 1. Euphlyctis cyanophlyctis from Tshangkha, Dagana. © Jigme Tshelthrim Wangyal



Image 2. *Euphlyctis cyanophlyctis*, Gelephu. © Dorji Wangchuk



Image 3. *Euphlyctis cyanophlyctis*, Ngera Ama Ri, Samdrup Jongkhar. © Karma Wangdi



Image 4. *Fejervarya pierrei*, Tshangkha, Dagana. © Jigme Tshelthrim Wangyal



Image 5. Fejervarya teraiensis, Gelephu, Sarpang. © Dorji Wangchuk



Image 6. *Fejervarya nepalensis*, Ngera Ama Ri, Samdrup Jongkhar. © Karma Wangdi

open lowland Terai to the margins of the Himalaya where Gelephu is the accurate boundary. The species is mainly distributed in Terai zone of southern Nepal, India (Nagaland, Arunachal Pradesh, Meghalaya, Manipur, Mizoram and Tripura) and Bangladesh.

Nepal Cricket Frog Fejervarya nepalensis (Dubois, 1975): Two individual species were photographed in Ngera Ama Ri, a stream in Samdrup Jongkhar District at an altitude of 356m on 29 October 2010 at 1457hr. The area is tropical lowland. A big cream mid-dorsal line that tapers towards the vent is highly conspicuous (Image 6) while in another case, the mid-dorsal line is quite small (Image 7). Dorsum is smooth with longitudinal folds made of oblong tubercles. The venter is uniformly Basic dorsal colour is grayish-brown with dark, oblong and irregular spots. Sides of the body and the posterior parts of the thighs are marbled. A dark inter-orbital band is disjoined by the mid-dorsal line. Forelimbs have dark stripes and hind limbs are barred and the ventral sides of the hands and feet are with pale metatarsal tubercles and the toe webbing being marbled with dark colour. It differs from others in the group as it has distinct dark bars on the legs. The species is known to occupy brooks and ponds in wooded surroundings and breed in summer. It is native to south Asia including India, Bangladesh, Nepal and now Bhutan.

Cona Spiny Frog *Nanorana conaensis* (Fei & Huang, 1981): A lone individual (Image 8) was found nearby Tshenchulum Lake, in Haa District on 09 July 2010 at 1304hr at an altitude of 4066m by Karma Wangdi of UWICE. Although described as a species confined to Mama, in Cona County, southern Xizang Autonomous Region, China, it is now reported for the first time from

Bhutan as this report confirms its presence from Haa, western Bhutan. Further, Cona is not too far from the spot where this species was found. It is known to occupy small streams in forested and shrubby areas, and breeds in these streams, laying its eggs under stones.

Pleske's High Altitude Frog or Tibetan or Plateau Frog Nanorana pleskei (Gunther, 1896): A lone species of Nanorana pleskei was also found at a place (not far from Noob Tshona Patra) below a day's walk from Tshenchulum Lake, Haa (Images 9, 10) on 08 July 2010 at 1041hr at an altitude of 4083m by the same person who found N. conaensis (not that far from the spot where N. conaensis was seen). Considered native to China, this species found in three provinces in China, viz., Qinghai, Gansu and Sichuan provinces between 3,300–4,500 m (Wang et al. 2004). This is the first report from Bhutan, a sort of range extension.



Image 9. Nanorana pleskei, Tshenchulum Lake, Haa. © Karma Wangdi



Image 7. Fejervarya nepalensis, Ngera Ama Ri, Samdrup Jongkhar. © Karma Wangdi



Image 8. Nanorana conaensis, Tshenchulum Lake, Haa. © Karma Wangdi



Image 10. Nanorana pleskei from Tshenchulum Lake, Haa. © Karma Wangdi

### Megophryidae

White-Lipped Horned Toad *Xenophrys major* (Boulenger, 1908): There are many unaccounted encounters with this species in Trashiyangtse, Choetenkora. Some civilians are even known to eat the species. An individual (Image 11) was hit by a stray arrow (Bhutanese men enjoy playing archery every little free time they get) just behind the archery range near the Institute for Zorig Choosoom, based in Trashyangtse not far away from the small Choetenkora suburb. The injured toad was collected by the author and kept in the office for at least two nights before it succumbed to its injuries. However, photograph was taken on 26 August 2009 at 0813hr and stuffed at the Bumdeling Wildlife Sanctuary laboratory where it can be assessed even today.

The species is known from Cambodia, China, India, Lao People's Democratic Republic, Myanmar, Thailand, and Vietnam. This species is also widespread in northeastern India states of Arunachal Pradesh and Nagaland.

Glandular Horn Toad *Xenophrys glandulosa* (Fei, Ye & Huang, 1991): An individual (Image 12) was collected by one Tashi Phuntsho, a forester then working in Bumdeling Wildlife Sanctuary from a nearby stream just in front of his quarters in Choetenkora, Trashiyangtse District on 15 August 2011 at 0740hr. The species was put through to one Kaushik Deuti, a herpetologist at ZSI, Kolkatta who confirmed the identity. The town has a number of streams around and the area remains wet most of the summer. Outside Bhutan, this species is known from Yunnan Province in China and from the northeastern Indian state of Nagaland.

Little Horned Frog *Xenophrys minor* (Stejneger, 1926): A lone species was photographed (Image 13) from Serzhong, Mongar District under Bumdeling Wildlife Sanctuary on 25 July 2009 at 1030hr at an elevation of

1287m by one Karma Wangdi, who was then a forester in Bumdeling Wildlife Sanctuary. Serzhong is a village under Mongar District between 900–1600 m and is surrounded by Chirpine (*Pinus roxburghii*) species. The species is also found in China, Thailand and Vietnam.

#### Ranidae

Mouping Sucker Frog *Amolops mantzorum* (David, 1872): A specimen was (Image 14) collected from a perennial stream called Serkang Chu, that runs through the suburban Choetenkora town, the headquarters of Trashiyangtse District at an altitude of 1745m on 23 September 2008 at 2201hr. Considered endemic to southeastern Gansu and western Sichuan provinces of China, it has been recorded between 1,000 and 2,800 m. I now report its presence in Bhutan as well. It also is known to occur in India (Meghalaya, Sikkim, Himanchal Pradesh, Assam, Manipur, and West Bengal), Bangladesh and Nepal.

Taipeh Frog *Hylarana taipehensis* (van Denburgh, 1909): A specimen (Image 15) was collected and photographed from a place called Dungkarling, Phuntshothang with a SVL of 40mm on 23 July 2011 at 2223hr at an elevation of 150m. IUCN considers it as a species of Least Concern (van Dijk et al. 2004). Feeding on insects, grasshoppers, etc. they are found in dense tree masses in groups during daytime (Lue 1990). This species can be found in wet, damp crop fields, ponds, and hills with tea crop plants present (Lue 1990), as well as open grassy wetlands, rice paddies, river floodplains, and swamps in deciduous forests. The species is known from Bangladesh, Cambodia, China, Hong Kong, Lao People's Democratic Republic, Myanmar, Taiwan, Thailand, and Vietnam.

Assam Forest Frog Sylvirana leptoglossa (Cope, 1868): A specimen (Image 16) was collected and photographed from a place called Dungkarling,



Image 11. *Xenophrys major*, Choetenkora, Trashiyangtse. © Jigme Tshelthrim Wangyal



Image 12. Xenophrys glandulosa, Choetenkora, Trashiyangtse. © Jigme Tshelthrim Wangval



Image 13. *Xenophrys minor*, Serzhong, Mongar. © Karma Wangdi



Image 14. *Amolops mantzorum*, Choetenkora, Trashiyangtse. © Jigme Tshelthrim Wangyal



Image 15. Hylarana taipehensis, Phuntshothang, Samdrup Jongkhar. © D.B. Gurung



Image 16. Sylvirana leptoglossa, Phuntshothang, Samdrup Jongkhar. © D.B. Gurung

Phuntshothang, SamdrupJongkhar District with a SVL of 70mm on 23 July 2011 at 2224hr at an elevation of 150m. IUCN considers it as a species of Least Concern. Looking at the photograph, fingers and toes in order of length are 3>4>1>2 and 4>5>3>2>1, respectively (after Lalremsanga et al. 2007). Found in tropical swampy forests from 40–300 m (Ahmed et al. 2009) the species is known to feed on insects and flies. The place where this species was located is not far away from the Indian state of Assam and the vegetation type, altitude and other ecological attributes would not differ much. Outside Bhutan, this species is known to occur in India (Assam, Meghalaya and Mizoram), Bangladesh, Myanmar and Thailand. It is a new record for Bhutan.

Gunther's Amoy Frog Sylvirana cf. guentheri (Boulenger, 1882): Webbing between toes is 3/4 similar to what Yang & Rao (2008) suggests as seen in the photograph. Dorsal surface brown with irregular black blotches but the belly is white. Conspicuous longitudinal black marks along the dorsolateral folds visible. The dorsum of hind limbs has black horizontal stripes while the posterior sides of the legs have gray-black spots. As described by Yang & Rao (2008), marks on the dorsal

surfaces of the legs are longitudinally arranged in a row.

By way of distribution it is known to be widely distributed in southern China, Hong Kong, Macau, Taiwan, and Viet Nam (Kuangyang et al. 2004), and has also been recently introduced to Guam (Christy et al. 2007). A lowland species, it can be found up to elevations of 1100m (Kuangyang et al. 2004). Photographs of an amplecting pair (Image 17) was taken by Bird Sherub, a Bhutanese ornithologist from Zhonggarchu, Lingmethang, Mongar on 30 September 2010 at 1642hr at an altitude of 606m.

## Geoemydidae

Black Pond Turtle *Melanochelys trijuga* (Annandale, 1930): A sixth species for Bhutan and the first record of Indian Black Turtle or Indian Pond Terrapin, *Melanochelys trijuga*, a geoemydid specimen (Image 18) was found from Kanamakura, Royal Manas National Park in Sarpang District (Image 19). The terrapin had a carapace length and breadth of 7 and 6 centimeters, respectively, and was found in the grassland on 18 April 2012 at 0618hr at an altitude of 260m while looking for signs of mammals in the area. The identification is



Image 17. Sylvirana cf. guentheri, Zhonggarchu, Mongar.

© Bird Sherub



Image 18. *Melanochelys trijuga*, Kanamakura, Sarpang. © Dorji Wangchuk



Image 19. Melanochelys trijuga habitat Kanamakura, Sarpang. © PhuntshoWangdi

based on the shape of its tricarinate carapace which was found to be moderately depressed with lateral margins more or less turned upward and the plastron being dark with each shield having a light margin. Digits were fully webbed while the tail was short. It had flat limbs with yellow reticulations on sides. Olive brown head had arrow head shaped black mark on forehead.

Outside Bhutan, the species is found in Nepal, India, Bangladesh and Myanmar. While it is common in India and Nepal, Bangladesh and Myanmar consider it locally endangered.

# <u>Anguidae</u>

Burmese Glass Lizard *Ophisaurus gracilis* (Gray, 1845): A single Burmese Glass Lizard was seen and photographed (Image 20) by one Sherub Jamtsho, a Forest Ranger working for Zhemgang Forest Division as an Officer In Charge of Khomshar Forest Range, Zhemgang District on 02 February 2013 at 1913hr in an open ground near school campus in the middle of the Khomshar Village, Bardo, Zhemgang District at an altitude of 1305m. The habitat is surrounded by paddy and maize fields and the species actually was killed by villagers who mistook it for a snake.

Another specimen (Image 21) was seen in an open country side filled with *Eupatorium* weeds, ferns, grasses

and a few *Benthamidia capitata* trees. The overall forest surrounding the habitat is dominated by *Lithocarpus* species with *Schima* sp., *Quercus* sp., *Exbackliandia* sp., *Michalia* sp., and *Daphnephyllum* sp., etc. as secondary species. The lizard was spotted at the base of the partially rotten stump with thick mosses and grasses on it while digging pits for plantation near Nimshong-Phumithang Dratshang under Shingkhar, Zhemgang District on 07 June 2012 at 0953hr at an altitude of 1866m. The quality of the image is poor since a mobile camera was used due to unavailability of better camera at that point of time.

Outside Bhutan, this legless lizard is known to occur in northeastern India, southern China, northern Myanmar, Laos, Thailand and Vietnam.

#### Colubridae

Himalayan Mountain Keelback *Amphiesma platyceps* (Blyth, 1854): One Ugyen Dorji, a Forest Ranger working for the National Land Commission for cadastral survey in Paro District found a Himalayan Mountain Keelback (Image 22) near Kuenga School, on the banks of Pachu, a river that feeds the Paro Valley, on 18 October 2010 at 2014hr in Paro. According to him, the species was found resting on the sandy bank of Pachu, the main river that passes through the Paro Valley. There are



Image 20. *Ophiosaurus gracilis*, Khomshar, Zhemgang. © Sherub Jamtsho



Image 21. *Ophiosaurus gracilis*, Shingkhar, Zhemgang. Photo: Sherub lamtsho



Image 22. *Amphiesma platyceps*, Paro. © Ugyen Dorji

lots of unconfirmed reports of the species presence in Thimphu, Punakha and Wangdi Phodrang districts. It is mainly found in India, Nepal, Bangladesh, Pakistan and China.

Sikkim False Wolf Snake *Dinodon gammiei* (Blandford, 1878): Gammie's Wolf Snake, *Dinodon gammiei*, is a nonvenomous species of snake first reported from Sikkim, India. A juvenile (Images 23 & 24) was found inside an animal rescue shed in Chukha Village, Paro District by an American animal rescuer Jamie Vaughan on 21 April 2013. The species identity was confirmed by Abhjit Das, an Indian herpetologist and Professor Indarneil Das. The latest reports of the presence of the species in northeastern India include that of Mistry et al. (2007) and Chettri & Bhupathy (2009). The supposed to be rare species may be present in good numbers in Bhutan.

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Images 23 & 24. Dinodon gammiei from Paro. © Jamie Vaughan

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