

Reptiles and Amphibians

Reptiles and Amphibians

Among reptiles and amphibians as foodstuff, frogs are most commonly used as important protein source for people in Mekong river basin. Reptiles are not as often used as daily food than amphibians, but sometimes tortoise, lizards and snakes are caught to eat. In this study, estimated 20 species of reptiles, 20 species of amphibians are identified, but we assume that more variety of animals are being consumed at home; they are just not seen in markets.

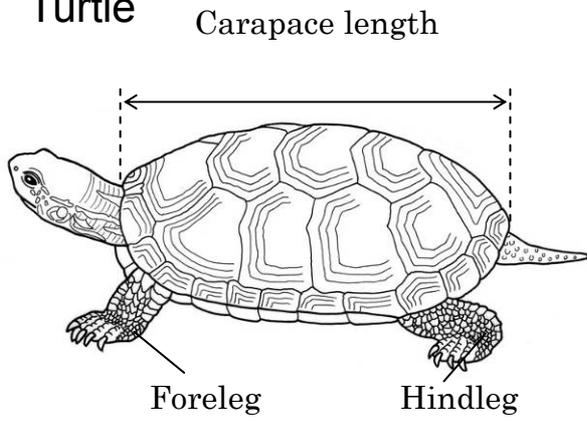
Common reptiles seen in markets are Indochinese snail-eating turtle (*Malayemys subtrijuga*) and calotes (*Calotes versicolor*). Indochinese snail-eating turtle is also sold in the cities, and is not only sold as food, but also large demand for mercy release (releasing catch into wild to make up the lost lives of those had been eaten). It is a unique sight in Buddhist country. Other species of tortoise are relatively expensive than other animals. We assumed that they are not affordable to ordinary population and are less popular as food unless someone catches them by himself. Snakes are occasionally seen in markets and some people like them, but those are not used in daily meal preparation. A few markets sell *Varanus nebulosus* once in a while. Overall, reptiles may not make up popular dishes, but they are considered familiar foodstuff as they are consumed among rural villagers and are seen in markets occasionally. It is even possible that they are cultured by professionals.

As for amphibians, larger species of *Hoplobatrachus rugulosus* and smaller species of *Fejervarya limnocharis* and *Occidozyga lima* are frequently sold at market. Not only adults but also tadpoles are used and sold in markets. Frogs are served in eateries in the cities, and most of the time, *H. rugulosus* is used. *H. rugulosus* is cultured widely and is readily available throughout year. In the market, both harvested and wild caught ones are sold, but wild caught are more expensive. Other than *H. rugulosus*, which is cultured, frogs are basically caught in wild. They have different seasons, so one sees different species in the market throughout the year. Many of the species live in close proximity of villages and forest around it. They are popular as *Mizube no Sachi*.

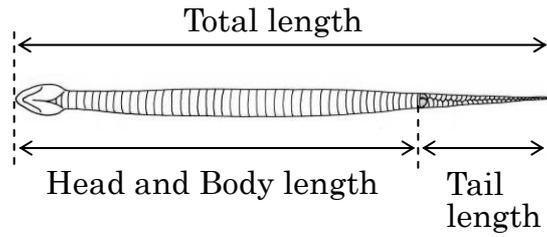


Morphology of Reptiles and Amphibians

Turtle

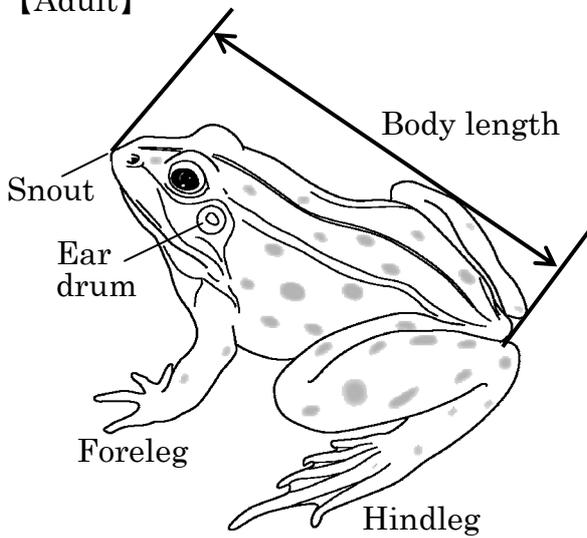


Snake

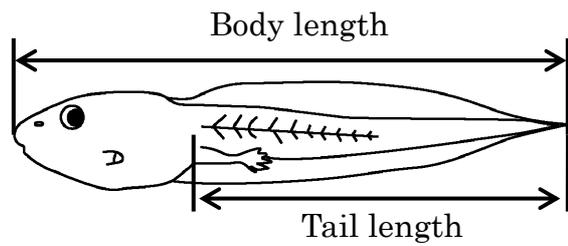


Frog

【Adult】



【Larva】



Geoemydidae spp.

Order: Testudines
Family: Geoemydidae

LA	Tao, Tao nam	
KH	Andawk	
TH		
VN	<u>Cyclemys dentata</u> : Rua dua <u>Malayemys subtrijuga</u> : Rua ba go <u>Cuora amboinensis</u> : Rua nap: Tua hop	<u>Cyclemys dentata</u> : Rùa dứa <u>Malayemys subtrijuga</u> : Rùa ba gờ <u>Cuora amboinensis</u> : Rùa nấp: Tùa hốp
JP	Ishi-game	イシガメ科の複数種

(Photo: Nokoheri-marugame)



Cyclemys dentata
23 May 2009 Phonekeo, Vientiane
Province, Laos

Remarks

Basic Information

Its distribution is centered in temperate and tropical Asia and South Europe, North Africa, and Central and South Asia.

Use

The team identified *Cyclemys dentata*, *Malayemys subtrijuga*, *Cuora amboinensis* as food source. These species are popularly served roasted or in soup. In the market, *M. subtrijuga* is found most. It is because they are also used in “mercy release” (as in Buddhist belief, releasing a catch in the wild is considered act of virtue) as well as food. In Cambodia, one *C. amboinensis* is sold at a price of twenty US dollar which is very high compared to other market goods.



Malayemys subtrijuga
19 Nov. 2009 Thong Khan Kham Market, Vientiane
Capital, Laos



Cuora amboinensis
06 Nov. 2008 Neak Loeung, Kandal, Cambodia



Malayemys subtrijuga
19 Nov. 2009 Thong Khan Kham Market, Vientiane
Capital, Laos

Platysternon megacephalum

Order: Testudines
Family: Platysternidae

LA	<u>Tao, Poulou</u>	
KH	<u>Andawk</u>	
TH		
VN	<u>Rua dau to</u>	<u>Rùa đầu to</u>
JP	<u>Ootama-game</u>	<u>オオアタマガメ</u>

Remarks

Basic Information

It is distributed in Southern China, Hainan Island, and Indo-China Peninsula. The shell length is 11 to 20cm. It lives along mountain streams.

Use

It was found as a food source in Sainyabuli province in Laos, mainly as a soup ingredient. It is highly-priced trade goods as used in Chinese cuisine (we heard in an interview as 1,000,000 kip/kg). Apart from collecting in the wild, people catch the young and raise it until it is mature (semi-farm raised) and ready to be sold. Collection mainly occurs along mountain streams.



18 Sep 2011 Nan Pui, Sainyabuli, Laos



18 Sep 2011 Nan Pui, Sainyabuli, Laos

Trionychidae spp.

Order: Testudines
Family: Trionychidae

LA	<u>Pa fa</u>	
KH	<u>Konthiev</u>	
TH	<u>Tapab nam</u>	
VN	<u>Ba ba; Cua dinh</u>	<u>Ba ba; Cua dinh</u>
JP	<u>Suppon</u> (Photo: Maru-suppon)	<u>スッポン科の複数種</u>

Remarks

Use

They are used in multiple countries as a soup ingredient. In Laos, *Pelochelys cantorii* was identified as a food source.



Pelochelys cantorii
23 May 2009 Phonekeo, Vientiane
Province, Laos

Testudinidae spp.

Order: Testudines
Family: Testudinidae

LA	<u>Tao</u>	
KH		
TH		
VN	<u>Rua nui vien</u>	<u>Rùa núi viên</u>
JP	<u>Riku-game</u> Photo:Bekkou-mutsuashi-game	<u>リクガメ科の複数種</u>

Remarks

Use

In Laos, both adults and eggs are consumed as food. Adult *Manouria impressa* and eggs of *Testudinidae* spp. are identified in the market. The adult is used in soup, and eggs are boiled and served.



Manouria impressa
25 May 2009 Vang Vieng Market,
Vientiane Province, Laos



19 Nov 2011 Dong Makkai Market,
Vientiane Capital, Laos

Calotes versicolor

Order: Squamata
Family: Agamidae

LA	<u>Ka pom</u>	_____
KH	<u>Bong kuoi</u>	_____
TH	_____	_____
VN	<u>Kỳ nhông; Cắc ke</u>	<u>Kỳ nhông; Cắc ké</u>
JP	<u>Irokae-Karotesu</u>	<u>イロカエカロテス</u>

Remarks

Basic Information

It is distributed in Southwest Asia to India and Sri Lanka, Indo-China, South China, Sumatra, and islands in the Indian Ocean such as Mauritius and Reunion. The length of a normal individual measures about 35cm, but sometimes grows up to 50cm. Its scales on the lateral trunk point toward up and behind. It changes its color from red to metallic blue. It mainly habituates in forests but is adapted to living near human habitats. Larger individuals, especially males, have a tendency to be found in the upper part of tall trees.

Use

In the Lao market, it was sold at 10,000kip for three. It is served roasted or put in Laap. People collect it in forests near the villages.



25 Jun. 2010 Dong Makkai, Vientiane Capital, Laos



14 Feb. 2010 Lak8 Market, Savannakhet, Laos

Physignathus cocincinus

Order: Squamata
Family: Agamidae

LA	<u>Ka thang</u>	_____
KH	_____	_____
TH	_____	_____
VN	<u>Rong dat; Nhong cat</u>	<u>Rồng đất; Nhông cát</u>
JP	<u>Indo-China-water-dragon</u>	<u>インドシナウォータードラゴン</u>

Remarks

Basic Information

It is distributed in South China to Indo-China. The total length is 60 to 90cm. It is often found in lowland forests. It is diurnal and mostly lives on the ground, but is able to climb trees. The body is green and can adapt to surrounding colors to some degree.

Use

The team witnessed its use as food in Laos. It is often served roasted or put in Laap.



18 Sep. 2011 Sainyabuli Market,
Sainyabuli, Laos



18 Sep. 2011 Sainyabuli Market,
Sainyabuli, Laos

Varanus nebulosus

Order: Squamata
Family: Varanidae

LA	<u>Laen</u>	_____
KH	<u>Trokuot</u>	_____
TH		_____
VN	<u>Kỳ da vân; Kỳ da hoa</u>	<u>Kỳ đà vân; Kỳ đà hoa</u>
JP	<u>Higashi-bengal-ootokage</u>	<u>ヒガシベンガルオオトカゲ</u>

Remarks

Basic Information

It is distributed in Southwest area of Guangdong Province, Guangxi Zhuang Autonomous Region, South Yunnan Province in China, Vietnam, Laos, Cambodia, Thailand, East and South Myanmar, Malay Peninsula, Sumatra Island, Java Island and Lesser Sunda Islands in Indonesia. It is a large lizard with the full body length of about 140cm (about 54cm snout to vent length). It is found in small patches of a forest and green areas in suburbs. It is known for the large consumption of small catches. Most of its diet consists of invertebrates such as beetles, grasshoppers, ants, scorpions, centipedes, and snails.



27 May 2009 Tha Heua Market, Louang Phrabang, Laos



12 Sep. 2011 Ton Vieng Kham, Bolikhamsai, Laos

Use

In Laos and Cambodia, adults and eggs are consumed. It is especially preferred in markets around Luang Prabang in Laos where one adult was sold at 45,000kip/kg. Live adults are sold with its legs tied on its back to avoid any movement. Adults are served grilled or put in soups or in Laap. In Laos, first it is chopped with the bone-in, then seasoned with garlic, chili, lemongrass, fish sauce, salt and MSG and grilled. Eggs are boiled to eat. It is collected using a type of a tie up trap.

Colubridae spp.

Order: Squamata
Family: Colubridae

LA	<u>Ngu</u>	_____
KH	<u>Poah</u>	_____
TH		_____
VN	<u>Ran bong sung</u>	<u>Rắn bông súng</u>
JP	<u>Nami-hebi</u>	<u>ナミヘビ科の複数種</u>
	<u>(Photo:Shina-mizuhebi)</u>	_____

Remarks

Use

Snakes are not heavily sought after as food, but they are consumed in many countries. It is served roasted and put in Laap or soup. Sometimes it is preserved in alcohol, and this is often sold as a souvenir around Luang Prabang in Laos. In Cambodia, small snakes on a stake were sold at two for One US dollar. It is assumed that snakes are consumed at homes, but a detail on how it is done was not clear in this study.



Enhydris chinensis
29 May 2009 Norng Bon, Vientiane
Capital, Laos



06 Nov. 2008 Neak Loeung, Kandal, Cambodia



09 Nov. 2008 Tha Heua Market, Louang Phrabang,
Laos



Enhydris plumbea
25 Aug. 2010 Phonekeo, Vientiane Province, Laos



Amphiesma stolatum
27 Jul. 2008 Vientiane Capital, Laos



Dendrelaphis pictus
07 Aug. 2010 Phonekeo, Vientiane Province,
Laos



28 May 2009 Xang Hai, Louang Phrabang,
Laos



Enhydris plumbea
28 May 2009 Xang Hai, Louang Phrabang,
Laos



Ahaetulla nasuta
28 May 2009 Xang Hai, Louang Phrabang,
Laos



Ahaetulla prasina
28 May 2009 Xang Hai, Louang Phrabang,
Laos



Boiga multomaculata
28 May 2009 Xang Hai, Louang Phrabang,
Laos



Chrysopelea ornata
28 May 2009 Xang Hai, Louang Phrabang,
Laos



Dryocalamus davisonii
28 May 2009 Xang Hai, Louang Phrabang,
Laos



Oligodon purpurascens
28 May 2009 Xang Hai, Louang Phrabang,
Laos



Oligodon sp.
28 May 2009 Xang Hai, Louang Phrabang,
Laos



Xenochrophis piscator
28 May 2009 Xang Hai, Louang Phrabang,
Laos

Duttaphrynus melanostictus

Order: Anura
Family: Bufonidae

LA	<u>Khan khak</u>	_____
KH	<u>King kuok</u>	_____
TH	_____	_____
VN	<u>Coc nha</u>	<u>Cóc nhà</u>
JP	<u>Heriguro-hikigaeru</u>	<u>ヘリグロヒキガエル</u>

Remarks

Basic Information

It is distributed in China, Pakistan in South Asia, Indo-China, Malaysia, Borneo Island, and Indonesia in Southeast Asia. The snout-vent length is 60 to 110mm. There is a black bordered ridge from the top of its snout to the top of its eye. Its color can range from grey, reddish brown, to yellow. Eggs are clustered in a long string and larvae measures 20mm. It is found in disturbed areas such as a cultivated field and also in villages and cities.

Use

They are not commonly circulated in markets; however, in North Thailand, Laos and Cambodia, they are consumed by skinning them and either fried or roasted. In Cambodia, they were highly recommended as tasty frogs.



17 Sep. 2007 Wat Preah Yesu, Siem Reap, Cambodia



11 Feb. 2010 Mouth, Louang Phrabang, Laos

Fejervarya limnocharis

Order: Anura
Family: Ranidae

LA	<u>Khiat moo</u>	_____
KH	<u>Kongkaeb ai(ch)ko, Ai(ch)ko</u>	_____
TH	_____	_____
VN	<u>Nhai ngoe</u>	<u>Nhái; Ngóe</u>
JP	<u>Numa-gaeru</u>	<u>ヌマガエル</u>

Remarks

Basic Information

It is widely distributed in tropical Asia from Pakistan to Japan. The snout-vent length is 32 to 58mm. It has a narrow head and a slightly pointed snout. There is a low ridge on the back. Some individuals have a whitish line on the back. The abdomen is white. It is found in secondary natural growth such as a paddy field, as well as near villages. It is commonly sighted with abundance. Mating occurs during the rain season. It lays eggs in paddies and other temporary wetlands, and metamorphosis occurs in one to two months.

Use

This is the most popular species of the small edible frogs category in Indo-China. Adults are sold in markets. It is often served by frying with the bone-in after it is gutted, or used in soups and stir-fried dishes. It is found easily around villages in abundance, so people often collect it for consumption. Collection often takes place at night. People use their bare hands or hand nets for collecting frogs. One Lao collector told the team that he can sell the frog at a price of 25,000 kip/kg at market (Vientiane Province).



28 Jun. 2010 Phonekeo, Vientiane Province, Laos



22 Jul. 2008 Nong Chanh Market, Vientiane Capital, Laos

Hoplobatrachus rugulosus

Order: Anura
Family: Ranidae

LA	<u>Kob na</u>	_____
KH	<u>Kongkaep ouk</u>	_____
TH	_____	_____
VN	<u>Ech dong</u>	<u>Ếch đồng</u>
JP	<u>Babatorafu-gaeru</u>	<u>ババトラフガエル</u>

Remarks

Basic Information

It is distributed in Indo-China, China and Taiwan. It is also transplanted in Malaysia and the Philippines. It resembles *Fejervarya limnocharis*, but this species is larger. Larva of this species can be distinguished from the same size of larva of *Fejervarya limnocharis* by its more developed webbing on its hind legs. It has a white abdomen and mottled jaw. It is found near water in paddies, marshes, flood plains and lakes.



23 Jul. 2008 Dong Makkai, Vientiane Capital, Laos



12 Sep. 2007 Vientiane Capital, Laos

Use

This is the most popular edible frogs in Indo-China, and is sold at most of the markets. It is served by gutting then fried, roasted, or boiled. Sometimes it is stuffed with herbs and ground meat and fried, or used as the main ingredient of chili paste. Dried frogs are roasted or fried to eat. Because of its large size, it is very filling. Farm-raising is popular and breeders of this species are distributed in Thailand and Laos. In markets, many farm-raised frogs are sold, but in general, wild caught ones are said to taste better. Thus, the wild collection is also popular. Collection methods are by hand, fixed fishing traps, and basket traps. Collecting by hand is done at night. Hand-held nets, harpoons, and spearguns are also used for collection. In Laos, a type of bamboo fish trap called Bet Kob is used. When 30 baits (earthworms) are attached to a Bet Kob and left near the water overnight, 10 to 15 frogs can be collected the next day. Another type of trap is Toum Kob, which is a bamboo basket. A piece of fish is left in the basket near the water overnight. 20 of those basket traps will yield 1 to 2kg of frogs. These traps are used more often during October through February. People say Bet Kob is more efficient. Other than those consumed at home, collected frogs are sold to markets at a price of 40,000 kip/kg. During the research, *H. chinensis* of same genus is confirmed.



23 Jul. 2008 Dong Makkai, Vientiane Capital, Laos



27 Jun. 2010 Phonekeo, Vientiane Province, Laos



22 Jul. 2008 Nong Chanh Market, Vientiane Capital, Laos



12 Sep. 2007 Thong Khan Kham Market, Vientiane Capital, Laos



28 Jul. 2010 Dong Makkai, Vientiane Capital, Laos



30 Jun. 2010 Had Saun, Vientiane Capital, Laos



23 Jul. 2008 Dong Makkai, Vientiane Capital, Laos



23 Jul. 2008 Dong Makkai, Vientiane Capital, Laos



(Toum Kob)
03 Sep. 2010 Na Pak, Vientiane Capital, Laos



03 Sep. 2010 Na Pak,
Vientiane Capital, Laos



03 Sep. 2010 Na Pak,
Vientiane Capital, Laos



03 Sep. 2010 Na Pak,
Vientiane Capital, Laos



12 Nov. 2008 Sivily,
Vientiane Capital, Laos



Hoplobatrachus chinensis
04 Nov. 2008 Tropeang Thom Khang Cheung,
Takeo, Cambodia

Hylarana erythraea

Order: Anura
Family: Ranidae

LA	<u>Khiat tapath, Khiat lang</u>	_____
	<u>khiew</u>	_____
KH	<u>Kanchang cheik</u>	_____
TH	_____	_____
VN	<u>Chang hiu xanh</u>	<u>Chàng hiu xanh</u>
JP	<u>Asia-midori-gaeru</u>	<u>アジアミドリガエル</u>

Remarks

Basic Information

It is distributed in Southeast Asia. Its snout-vent length is 32 to 75mm. It has a green dorsal side with a distinctive black lined white band. Some individuals have a brown back. Its abdomen is white and the hind legs are very long. Males are considerably smaller than females. It is widely found in paddy fields, villages, farmlands and forests, especially in disturbed lands. Mating occurs throughout the year, and eggs are laid in shallow stagnant water.

Use

It is rarely seen in markets, but commonly eaten at homes. It is served fried, roasted, or in soup. Sometimes it is dried. In Cambodia, skewed or tempura (deep fried) frogs are sold at stalls. The team confirmed several species of genus *Hylarana*, and all of them were used in the same manner.



31 May 2009 Na Ngom, Vientiane
Capital, Laos



15 Aug. 2007 Kampong Phluk, Siem
Reap, Cambodia

Hylarana guentheri

Order: Anura
Family: Ranidae

LA	<u>Khiat makleuang</u>	_____
KH	<u>Kanchang cheik dai</u>	_____
TH		_____
VN	<u>Chau chang</u>	<u>Chẫu chàng</u>
JP		_____

Remarks

Basic Information

It is distributed in China and Taiwan through Vietnam. The snout-vent length is 63 to 76mm. The male is smaller than the female. It has a brown body with a white abdomen.

Its hind legs and toes are long. It is found in paddy fields, marshes and ponds.



Hylarana guentheri
22 Jul. 2008 Dong Makkai Market,
Vientiane Capital, Laos

Hylarana macrodactyla

Order: Anura
Family: Ranidae

LA	<u>Khiat tapath, Khiat lang saek</u>	_____
KH	<u>Kanchang cheik</u>	_____
TH		_____
VN	<u>Chang hiu</u>	<u>Chàng hiu</u>
JP	<u>Yubinaga-tonosama-gaeru</u>	<u>ユビナガトノサマガエル</u>

Remarks

Basic Information

It is distributed in Southern China to Indo-China and Malay Peninsula. It has a slender body, even the snout is narrow. Its hind legs and toes are long. It lives in lakes, flood plains and paddy fields.



25 Jul. 2008 Naphang, Vientiane
Province, Laos

Hylarana taipehensis

Order: Anura
Family: Ranidae

LA	<u>Khiat tapath, Khiat lang saek</u>	_____
KH	<u>Kanchang cheik</u>	_____
TH	_____	_____
VN	<u>Chang hieu dai bac</u>	<u>Chàng hieu Đài Bắc</u>
JP	_____	_____

Remarks

Basic Information

It is distributed throughout Taiwan, China to Indo-China Peninsula. There are some records from Bangladesh.

It has a slender body and very long hind legs. Its appearance resembles *Hylarana macrodactyla*. It lives in paddy fields, flood plains, marshes and forest ponds.



Hylarana taipehensis
29 May 2009 Norng Bon, Vientiane
Capital, Laos

Hylarana nigrovittata

Order: Anura
Family: Ranidae

LA	<u>Khiat lueong, Khiat ta oad</u>	_____
KH	<u>Kanchang cheik</u>	_____
TH	_____	_____
VN	<u>Ech suoi</u>	<u>Ếch suối</u>
JP	_____	_____

Remarks

Basic Information

It is distributed in China through Indo-China Peninsula and Malay Peninsula. There are records from Sumatra and India. It is found in slow streams of the evergreen forests.



Hylarana nigrovittata
22 Nov. 2009 Mueng Song Market,
Vientiane Province, Laos

Limnonectes kuhlii

Order: Anura
Family: Ranidae

LA	<u>Khiat khakham, Kob hin,</u>	_____
	<u>Kob houay</u>	_____
KH	<u>Kongkaep</u>	_____
TH	_____	_____
VN	<u>Ech tron</u>	<u>Ếch tron</u>
JP	<u>Kuhl-gaeru</u>	<u>クールガエル</u>

Remarks

Basic Information

It is distributed in Southeast Asia. There are some records from India as well. Its snout-vent length is 44 to 67mm. It has a broad head and torso with a stocky body. The male has a broader head than the female. Its hind toes have webbing but not the front toes. It lives in streams of the higher mountain forests. It is nocturnal and tends not to stay out of water for a long period.

Use

It is occasionally found in markets. It is fried, roasted, dried or put in soups to be served. In Laos, it is prized for its good taste, and traded with high value. It is collected by hand, using a light during the night in the fringe of a river forest. It is often found in markets in nearby mountains.



22 Nov. 2009 Vang Vieng Market,
Vientiane Province, Laos



22 Nov. 2009 Vang Vieng Market,
Vientiane Province, Laos

Odorrana sp. (cf. livida)

Order: Anura
Family: Ranidae

LA	<u>Khiat leuang, Khiat khiew,</u> <u>Khiat tapath</u>	_____
KH	<u>Kanchang cheik</u>	_____
TH	_____	_____
VN	<u>Ech nui xanh</u>	<u>Ếch núi xanh</u>
JP	_____	_____

Remarks

Use

It is found in a market in Vang Vieng in Laos. It is fried, roasted, steamed, dried or put in soup to be eaten. It is collected by hand, using a light at night nearby rivers in forests.



Odorrana sp.
22 Nov. 2009 Vang Vieng Market,
Vientiane Province, Laos

Sylvirana lateralis

Order: Anura
Family: Ranidae

LA	<u>Khiat tapath</u>	_____
KH	<u>Kanchang cheik</u>	_____
TH	_____	_____
VN	_____	_____
JP	_____	_____

Remarks

Use

It is fried, roasted, dried or put in soup to be served.



Sylvirana lateralis
25 May 2009 Vang Vieng Market,
Vientiane Province, Laos

Occidozyga lima

Order: Anura
Family: Ranidae

LA	<u>Khiat taath, Khiat tana,</u>	_____
	<u>Khiat sa</u>	_____
KH	<u>Kouk'at</u>	_____
TH	_____	_____
VN	<u>Cocnuoc lima</u>	<u>Cóc nước lima</u>
JP	<u>Asia-uki-gaeru</u>	<u>アジアウキガエル</u>

Remarks

Basic Information

It is distributed in Indo-China Peninsula to Bengali area in India, and Malay Peninsula to Java Island. The snout-vent length is 25 to 35mm. The body is brown to a green color. Its eyes protrude upward. The webbings on the legs are well developed. Larvae have a long tail which has partially broad areas. Its habitat is near the water such as paddy fields, marshes, waterways, ponds and lakes, and found in abundance. It is often seen floating in water with only its eyes above the water surface. It lives along water most of the time, and eats small aquatic insects.

Use

It is consumed often but due to its small size, it is rarely sold on its own; rather, mixed with larvae of water beetles, larvae of dragonflies, shrimps, and tadpoles. It is fried, roasted, steamed or put in soup to be served. In Laos, it is mixed with other aquatic insects/animals and wrapped in banana leaves to be steamed. Other than food, it is used as bait of long line fishing to catch carnivorous fish. It is also circulated as bait for ornamental carnivorous fish. It is collected by using small nets, colanders, or seine nets.



23 Jul. 2008 Dong Makkai, Vientiane Capital, Laos



26 Jun. 2010 Vang Vieng Market, Vientiane Province, Laos



29 May 2009 Norng Yao, Vientiane Capital, Laos



16 Sep. 2007 Arak Svay, Siem Reap, Cambodia



12 Sep. 2007 Phoxai,
Vientiane Capital , Laos



28 Jun. 2010 Phone Ngeun,
Vientiane Province, Laos



01 Aug. 2010 Napuheuy,
Vientiane Province, Laos



10 Jun. 2007 New Nong Neow Market,
Vientiane Capital, Laos



15 Sep. 2007 Kampong Phluk,
Siem Reap, Cambodia



28 Jun. 2010 Houay Yae,
Vientiane Province, Laos

Polypedates leucomystax

Order: Anura
Family: Rhacophoridae

LA	<u>Khiat tapath khayao, Khiat tapad</u>	_____
KH	<u>Kongkaeb ai(ch)ko, Ai(ch)ko</u>	_____
TH	_____	_____
VN	<u>Ech cay mep trang</u>	<u>Ếch cây mép trắng</u>
JP	<u>Shiroago-gaeru</u>	<u>シロアゴガエル</u>

Remarks

Basic Information

It is distributed in South and Southeast Asia from Nepal to Indonesia and the Philippines. Its snout-vent length is 37 to 75mm. It has a slender body with long front and hind legs. Toes are long with developed sucker-like adhesive disks on the tips. Its upper jaw is white. There are 4 dark lines on the back, but sometimes they are unclear for some individuals. The larvae have eyes on the side of their head and the distance between each eye is wide. The tail of the larvae is wide in the middle. Its habitat is consisted of various environments from villages in the lowland, plowed land, fringe forest and even in urban areas. It is nocturnal, often found in trees, but can be found on the ground or in grasslands. Eggs are covered with cream-colored foam.

Each foam forms a lump consisted of several hundred eggs, and are laid near water, in paddles, or at the edge of water tanks.

Use

It is mainly eaten by frying. It is collected by hand using a light at night. A researcher followed a collector at Don Makai and Khun Neua villages in Laos and observed the collection. He could easily catch the frogs because many were on branches of small trees in the villages and near marshes. *Megacephalus* in the same genus was also found in markets.



29 Jul. 2010 Pakkagnoung, Vientiane Province, Laos



24 May 2009 Vang Vieng Market, Vientiane Province, Laos



29 Jul. 2010 Dong,
Vientiane Province, Laos



16 Sep. 2007 Arak Svay,
Siem Reap, Cambodia



28 Jun. 2010 Phone Ngeun,
Vientiane Province, Laos



27 Jul. 2008 Nathone,
Vientiane Capital, Laos



28 Jul. 2010 Dong Makkai,
Vientiane Capital, Laos



Polypedates megacephalus
23 May 2009 Vang Vieng Market, Vientiane
Province, Laos

Kaloula pulchra

Order: Anura
Family: Microhylidae

LA	<u>Eung yang</u>	_____
KH	<u>Hing</u>	_____
TH	_____	_____
VN	<u>Enh uong</u>	<u>Enh uong</u>
JP	<u>Asia-jimuguri-gaeru</u>	<u>アジアジムグリガエル</u>

Remarks

Basic Information

It is distributed throughout tropical Asia from India to China. Its snout-vent length is 54 to 75mm. It has a stout and a round body with a small head and short legs. Toes are slender and long, with their tips swelled. Its hind legs have webbings. The skin is smooth and brown in color. There is a light brown line from the snout to its body. The abdomen is white and covered with a pale mottle. Its lower jaw is dark. It puffs up when threatened. It usually habituates in forest floors of flat areas. It adapts well to the ever-changing

12 Sep. 2007 Hou Kua Market,
Vientiane Capital, Laos



27 Jun. 2010 Vang Vieng Market,
Vientiane Province, Laos

environment by human activities, thus often found in towns and paddy fields. It is nocturnal and hides under fallen leaves or rocks during the daytime. Its diet is mainly ants and other small insects. Eggs are laid in temporally stagnant water such as puddles.

Use

Roasting and putting in soups are popular ways to serve it. It has a reputation for its taste in Laos and Cambodia. It is collected around paddy fields by hand with a light at night. It is said that collection is more productive at paddies which are closer to forests. Many adults are found in June and July when it is after the beginning of the rain season. It is harder to find them in other times of the year. Its Cambodian name, "Hing", comes from the sound of the frogs call.



12 Sep. 2007 Nong Chanh Market,
Vientiane Capital, Laos



12 Sep. 2007 Nong Chanh Market,
Vientiane Capital, Laos



27 May 2009 Nakha, Louang Phrabang, Laos



27 May 2009 Nakha, Louang Phrabang, Laos



27 May 2009 Nakha, Louang Phrabang, Laos

Microhyla berdmorei

Order: Anura
Family: Microhylidae

LA	<u>Khane khak, Khiat kha kham</u>	_____
KH	<u>Kongkaep koun kromom</u>	_____
TH	_____	_____
VN	<u>Nhai bau</u>	<u>Nhái bầu</u>
JP	<u>Oohime-amagaeru</u>	<u>オオヒメアマガエル</u>

Remarks

Basic Information

It is distributed in Northeastern India, Bangladesh, Southern China through Indo-China Peninsula, Malay Peninsula and Sumatra Island and Borneo Island. The snout-vent length is 24 to 32mm. There are warts on its back. It has long hind legs and toes. It is found in primary forests in a lowland but sometimes found in secondary forests. It is nocturnal.

Use

It is fried, roasted, dried or put in soups to be served. In Lao market, it was found at 1,000kip for 4 frogs. Other species of Narrow-mouthed frogs are used in the same way. During the research, use of *Microhyla fissipes* and *Kalophrynus interlineatus* were confirmed, and there are some other species that are not confirmed. It is collected at night by hand. In Champasak province in Laos, Narrow-mouthed frogs are collected during the dry period. Adult frogs gather at areas where fallen leaves are accumulated, so it is easy to find and catch them.



19 Nov. 2009 Dong Makkai Market,
Vientiane Capital, Laos



22 Nov. 2009 Mueng Song Market,
Vientiane Province, Laos



19 Nov. 2009 Dong Makkai Market,
Vientiane Capital, Laos



19 Nov. 2009 Dong Makkai Market,
Vientiane Capital, Laos



Microhyla fissipes
14 Feb. 2010 Seno Market, Savannakhet, Laos



20 Jan. 2013 Salao, Champasak, Laos



20 Jan. 2013 Salao, Champasak, Laos



20 Jan. 2013 Salao, Champasak, Laos



Microhyla fissipes
17 Aug. 2010 Phonekeo, Vientiane Province,
Laos



Kalophrynus interlineatus
26 Jul. 2008 Sivilay, Vientiane Capital, Laos

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「The IUCN Red List of Threatened Species」 <http://www.iucnredlist.org/>