ON REPTILES AND BATRACHIANS FROM
THE COAST AND ISLANDS OF
SOUTH-EAST SIAM.

BY MALCOLM SMITH, M.R.C.S., L.R.C.P., AND C. BODENS KLOSS, F.Z.S.

[During December and January, 1914-5, I spent six weeks on
the east side of the Gulf collecting vertebrates of all kinds. I was
accompanied by three Dyak assistants and, at my suggestion, Dr.
Smith sent his reptile-collector with my party.

On Koh I Chang and Koh Kut, at each of which we spent
over a week, we obtained a fair number of reptiles, but on several of
the smaller islands between these, on which we passed only a night or
two, we were entirely unsuccessful. We had of course better fortune
on the mainland, between Ok Yam at the southern extremity of the
Franco-Siamese boundary, and Lem Ngop opposite Koh Chang, partly
because at all the places where we camped there were villages where,
encouraged by small presents, the inhabitants brought us such speci-
mens of reptiles and batrachians as were easily found in the vicinity,
and partly because the fauna was naturally much richer.

There is but little to remark about many of the species ob-
tained, but an endeavour has been made to give as full a set of local
references as the literature available will permit; until lately no serious
study of the reptiles of Siam, as a zoo-geographical district, has been
undertaken, and so it has remained for a beginning to be made in the
compilation of a synonymy. The well known works of Mr. Boulenger,
namely, the British Museum Catalogues and the Faunas of India and
the Malay Peninsula with the synonymy in those volumes have not
been quoted, but all other references of any value that we have been
able to gather, have been inserted. The collection consisted of about
250 specimens, and we have given the first set to the British Museum
of Natural History; to Mr. G. A. Boulenger, of that institution, we are
much indebted for putting us right on two or three points of identifi-
cation, and confirming the correctness of the whole.

1 Koh—Island.
For localities, the names of the British Admiralty Chart (2721) have been followed, except that instead of "Ile du Pic", "Le Chameau" and "Koh Loi" I have used respectively Koh Mehsii Yai, Koh Mehsii Lek and Koh Rang—names current locally. Klong Menao, unmarked, is about 15 miles north of Klong Yai.—C.B.K.]

CHELONIA.

1. Cyclemys dhor, Gray.


Three adult and two young individuals from Koh Chang.

The carapace of the largest example measures 220 by 158 mm. In the young animals the tail is relatively of much greater length than in the adult and is actually nearly as long as in the latter. The species was apparently common on Koh Chang and was obtained from the rocky stream above which the camp was placed, but was met with nowhere else during the excursion. It has been found also upon the mainland at Hup Bon, E. of Sriracha, where it appears to be fairly common. It is an active and voracious creature, devouring greedily animal as well as vegetable food. Its habits are chiefly aquatic.

2. Chelone imbricata, Linna.


Chelone imbricata, Mocquard, Les Reptiles de l'Indo-Chine, p 15 (1907).

One example was obtained at Koh Chang and another observed at Koh Mak. The Hawksbill Turtle is not uncommon in the Gulf of Siam. The shields of the head and limbs in the specimen obtained, were black instead of dark brown.

LACERTILIA.

3. Hemidactylus frenatus, D. and B.

Mocquard, Les Reptiles de l'Indo-Chine, p. 29 (1907).

At Klong Yai this species was caught in numbers by the village children, but not so extensively as the next. One specimen is entirely without tubercles on the tail owing to reproduction of that part.

Laidlaw, P.Z.S., 1901, p. 305; Mocquard, Les Reptiles de l'Indo-Chine, p. 28 (1907).

Exceedingly common in the village of Klong Yai.


A single example from Klong Menao. The species does not appear to have been recorded hitherto from Siam or eastern Indo-China, though known from Burma and the Malay Peninsula.


4 specimens. Koh Chang, and Klong Yai, S.E. Siam; Ok Yam, Franco-Siamese boundary on coast.

Common throughout Siam; besides those preserved, others were rejected, and the loud cry was heard from trees at many of the collecting stations.


2 males Klong Yai, 2 males 1 female Klong Menao, 12 males 2 females Koh Kut.

Colour of male. Upper surface; body, greenish-brown, membrane greenish-yellow with 5 irregular black bands. Under surface; body pale greenish-yellow, membrane dirty yellow, pouch dull yellow, throat and gular flaps deep crimson.

Females like the males but with the small gular pouch like the abdomen and the red of the throat and flaps much paler.

8. *Draco maculatus haasi*.


Two examples from Lem Ngop and a pair from Koh Kut.

The original types of *D. haasi* were founded upon two specimens obtained at Chantaboon by Dr. Erick Haase, one of which is in the British Museum, and the other in the Frankfort Museum. Mr. Boulenger does not consider them to be specifically distinct from *D. maculatus*, and of the specimens from Lem Ngop and Koh Kut he
thinks the same for he writes, "the *Draco* I must regard as a variety of *D. maculatus*, identical with *D. haasi*, of which we have one of the types from Siam."

We have therefore here accorded it subspecific rank, as it differs distinctly, both by its smaller size and by its colouration from the usual form of *D. maculatus* met with. A further series of 11 specimens, obtained since at Muak Lek and Pak Jong in the Dong Rek Mountains, confirm our ideas.

Colour in life (taken from the Lem Ngop and Koh Kut specimens).

**Male.**

Above. Brown with pale reddish and black markings.

Sides of body. Plumbeous blue.

Centre of abdomen, chest, thighs. Bluish white.

Membrane above. Reddish orange with a few black spots near the body.

Membrane below. Pale lemon.

Gular pouch. Brown with orange base.

Gular flaps. Indian yellow.

**Female.**

Umberv brown with darker markings.

Dirty white.

Dull yellow.

Gamboge, plentifully spotted with irregular blackish-brown markings.

As above.

Pale orange.

Indian yellow.

Length, Male, snout to vent 68 mm, tail 115.

" Female, " 66 " , , 108.


A single female of this slightly differentiated race of *A. armata* was obtained on Koh Chang.

The close connection between the two races as defined, is shown in this example by the presence of twelve labials, and a tail only one and one half times as long as head and body. A slight, though distinct gular fold is present.

Head and body 105, tail 153 mm.


Ok Yam, Klong Yai, Klong Menao.

Common everywhere in S. E. Siam, but not met with on any of the adjacent islands visited.
ON REPTILES AND BATRACHIANS FROM THE COAST AND ISLANDS OF SOUTHEAST SIAM.


5 specimens. Koh Chang and Klong Yai, S.E. Siam; Ok Yam, Franco-Siamese Boundary on coast. A marked white lateral band is present in an adult and an immature specimen.


Flower, P.Z.S., 1899, p. 641; Mocquard, Les Reptiles de l'Indo-Chine, p. 27 (1907).

A large individual of this species was obtained at Klong Menao.

Total length 896 mm., snout to vent 231. In an example of about half the size found on Koh Kut the colouration was much more brilliant than in the older one. General colour above, brownish green, darkest on the head; body with 3 broad diagonal bars of paler blue-green edged with brown; tail pale isabelline with brown bands; hind legs above greenish brown. Underside of body, tail and forelimbs white, with a bright blue tinge in places; chest, patches on sides, under surface of legs, bright emerald-green; upper labial scales rose-pink washed with green, lower labials and sub-labial row of scales rose-pink, the latter edged with black; throat reddish yellow. Iris brown with an inner golden ring round the pupil.

This species, which is known from Siam, differs mainly from P. cochinchenensis of Cochin-China, in the possession of a lesser number of lateral or molar teeth, and in the presence of eleven large sub-labial scales instead of only six or seven.

The individual referred to above from Koh Kut, was kept alive for some time. It was a very sluggish creature, sitting about on the ground or in a tree, quite motionless, for most of the day. It never attempted to bite when handled. It was fed upon fish, meat, worms and insects. It was never seen to take food of its own accord, but on scratching its jaws would open its mouth and then take whatever was given it. Its power of changing colour was very slight, and varied only from light to dark. When running fast over ground, its action was bipedal, the fore limbs being folded back along the flanks. A young specimen of this lizard has been recently taken at Muak Lek,
in the Dong Rek Mountains. It does not differ in colouration from the adult.

13. LIOLEPIS BELLIANA, Gray.

Eight examples. Koh Chang and Klong Yai, S. E. Siam; Ok Yam, Franco-Siamese Boundary on Coast.

This well-known and beautiful ground-lizard was common everywhere in open country where grass and sandy soil would permit it to burrow. Such being the surroundings of most villages, it was brought in numbers by small boys for trifling rewards.

These lizards are much sought after by the country people as an article of diet, and are caught usually by means of a cleverly constructed spring noose placed across the entrance of the burrow they inhabit. They are also hunted for by gangs of youths, who beat up their haunts with sticks, killing them if possible as they dash away, or, if they succeeded in reaching their holes, digging them out and then despatching them.

These creatures must be very fertile, as in spite of constant persecution, their numbers never seem to diminish.

14. VARANUS NEBULOSUS, Gray.


A young example from Koh Chang. Total length 590 mm. Top and sides of head as far as the eyes still retaining the juvenile reddish yellow colouration, but no traces of black chevrons on the nape. Common in Siam in ever-green jungle.

This lizard, like the preceding one, is also hunted for the sake of its flesh.

15. MABUIA MACULARIA, Blyth.

Twenty examples from Koh Kut and five from Ok Yam and Klong Yai, S. E. Siam.

Head and shoulders rusty brown; rest of upper surface, limbs and tail, earthy; upper labials and spots on sides, yellow; chin, throat, chest and sides of neck, red.

The largest specimen measures:—Snout to vent 67, tail 110 mm. The series from the mainland has 28-32 scales round the body, that from Koh Kut, 30-34.

16. MABUIA MULTIFASCIATA, Kuhl.

Koh Kra, Koh Mak, Koh Kut, Klong Menao, Klong Yai, S. E. Siam; Ok Yam, Franco-Siamese boundary on coast.

A very common lizard wherever it occurs and always frequently met with, owing to its boldness and conspicuous habits.

Apart from the orange or red wash on the shoulders and flanks which is probably assumed in the breeding period and thus is not constant, three colour phases occur in the present series. In the first the back and sides are unmarked, except for a black dorso-lateral line. In the second, the back is marked by five black lines running between the rows of scales, which become indistinct posteriorly; between the outer of these lines and the dark line defining the back from the sides, two rows of scales occur. In the third the shoulders and sides are irregularly spotted with white, and the dorsal region may be either striped or plain.

17. Lygosoma maculatum, Blyth.

Many specimens from Koh Kut, and examples from Koh Chang, Koh Mak and Klong Yai.

Upper surface bronze brown spotted with black and yellowish; labials and sides of neck, red. Sides of body:—first a black stripe spotted with yellowish, below this a row of yellowish spots and beneath silver spotted black. Under surface white, belly yellow.

Snout to vent of largest individual (tail missing) 65 mm; of another 60, tail 123 mm. Most of the specimens have 42 scales round the body.

18. Lygosoma bowringii, Günth.

12 specimens. 9 from Klong Yai, 1 example Koh Klum, 2 Koh Kra.

Above, brown becoming reddish towards and on the tail. Below, throat greenish-white, entire abdomen, yellow; tail and limbs, sides of neck and shoulders red, this narrowing over the forelimbs and widening to enclose the hindlimbs. Some black and white spots behind the forelimb, and a black line running from the eye to the mid-body.

This little skink is widely distributed throughout the country, in many places being exceedingly common. It is an extremely active creature in spite of the shortness of its legs.
OPHIDIA.


One small example was obtained on Koh Chang where it was said to be common. The Reticulated Python has been found on most of the islands at the head of the Gulf, and is not uncommon on the mainland.


One example from Koh Chang; this species is fairly common in the Gulf.


One example from Koh Chang. This species, only recently recorded from Siam, appears to be widely, though sparingly distributed throughout the country.

22. Tropidonotus piscator, Schneid.


Two examples from Koh Chang; common wherever it occurs.

23. Tropidonotus chrysargus, Schleg.


Four examples from Klong Menao: the longest, 728 mm in length, appears to be greater than any yet recorded.

24. Tropidonotus nigrocinctus, Blyth.

Two examples from Klong Yai. The species has also lately been obtained in Northern Siam, and at Hup Bon, E. of Srimaha.

One of the two from Klong Yai was kept alive for some months. It was an active, graceful snake, diurnal in its habits. It fed greedily upon frogs and fish, picking the latter out of the water and bolting them with great rapidity.

Colour (in life). Above, olive-green anteriorly, olive-brown posteriorly, with faint, narrow blackish cross-bars. Head copper coloured, paling on the sides. An oblique black band below the eye, another behind it and a third upon the neck. Belly white, beneath
Dec. 1915. ON REPTILES AND BATRACHIANS FROM THE COAST AND ISLANDS OF SOUTH-EAST SIAM.

the tail, pinkish mottled with dark grey. Throat white, iris and tongue, dark brown.

The young individual referred to from Hup Bon, was, as is frequent with many snakes, much more vividly coloured than the adult, with strongly marked cross-bars and a broad black chevron upon the nape, pointing forwards.

25. Tropidonotus subminiatus, Schleg.


Natrix subminiata, Barbour, Memoirs M.C.Z., Nov. 1912, XLIV, No 1, p. 111


Two specimens from Ok Yam; apparently common everywhere in Siam.


One specimen was taken on Koh Chang; it appears to be a common snake in most parts of the country.

27. Simotes cyclurus, Cantor.

Mocquard, Les Reptiles de L'Indo-Chine, p. 46 (1907); Smith, Journ. Nat. Hist. Soc. Siam, p. 97 (1914);

Two specimens from Koh Chang and Klong Yai: a very common snake in Siam. To this form which has 21 rows of scales and no longitudinal streaks the names of fasciolatus and cochinchinensis have been attached.

28. Simotes inornatus, Blgr.


One example from Koh Kut, an anomalous individual with the 4th and 5th upper labials fused. As it appears to differ somewhat in other respects from the two specimens already known, we give a description of it here.

Nasal divided, portion of rostral seen from above as long as its distance from the frontal; suture between the internasals about one-third that between the pre-frontals: frontal one and one-third longer than broad, nearly one-fourth longer than its distance from end.
of snout, equal to the parietals; loreal longer than deep; one pre- and two post-oculars; temporals \( 1 + 2 \); seven upper labials, fourth entering the eye; four lower labials in contact with the anterior chin-shields, which are about twice as long as the posterior.

Scales in 15 rows, smooth throughout. Ventrals 172; anal entire; subcaudals 32.

Colour in life:—dull sealing-wax red above with numerous ill-defined blackish cross-bars, the colour of which is chiefly confined to the edges of the scales. Upper side of head brownish with a darker cross band passing through the eye to the fourth and fifth labials, a dark spot on the frontal, an oblique dark bar from the parietals to the side of the neck, and a large \( \text{A} \) shaped marking from the frontal shield to the nape. Labials and lower parts pink, with a series of dark quadrangular spots on each side of the ventrals. Colour in spirit:—light brown above, white below, with markings as described.

Total length 345 mm., tail 45.

29. Cerberus Rhynchops, Schneider.


Six specimens from Koh Chang, one individual being of a pale pinkish-fawn colour.

30. Dipsadomorphus Cyaneus, D. & B.


A male and female from Klong Menao.

The male, 1260 mm. long, contained when caught a freshly swallowed female, 1350 mm. in length.

The anterior palatine teeth are considerably larger than the posterior.

Emerald-green above, with the skin between the scales purplish black; yellowish-green below; chin and throat sky-blue; inside of mouth purplish black. Eye large and brownish grey.

This snake, until recently not known from Siam, has been found also upon Koh Phai, where it is not uncommon, and upon the adjoining mainland, E. of Sriracha. It is nocturnal in its habits, remaining by day coiled up among the branches of some bush or tree.
Dee. 1915. ON REPTILES AND B ATRACHIANS FROM THE COAST AND ISLANDS OF SOUTH-EAST SIAM.

It is of sluggish disposition, but will bite viciously when caught. It feeds upon small mammals and other snakes.

31. DRYOPHIS PRASINUS, Boie.


One example from Koh Chang and another from Koh Kut, both stone-grey in colour. The one from Koh Chang, a male, was an unusually large specimen. It measured 1985 mm. in total length, the tail forming 725 mm.

32. CHRYSOPELEA ORNATA, Shaw.


Two examples of this beautiful snake were obtained at Klong Yai, and a third on Koh Chang.

33. HYDROPHIS TUBERCULATUS, Anders.


One example from Klong Yai, for the identification of which we are indebted to Mr. Boulenger. As only a very few specimens of this snake are yet known to science, we append a description of our specimen.

Head small; eye less than its distance to the mouth; rostral broader than deep; nostril connects by suture to 2nd labial; frontal a little longer than broad, much shorter than the parietals; 1 prae- and 1 post-ocular; a large anterior temporal; 7 and 8 supralabials, the 3rd and 4th entering the eye, 1 to 4 entire, the remainder divided horizontally; 4 large infralabials, the first 3 in contact with the chin-shields; 2 pairs of well developed chin-shields, in contact with each other. Marginals after the 2nd infra-labial. Costals 32 anteriorly, 38 at the greatest diameter of the body, sub-imbricate, with a short, faint keel, sometimes broken in two. Diameter of neck about half the diameter of greatest thickness of body. Ventrals 308, small, equal to or less than two adjacent costals, faintly biccinate, the keels sometimes broken in two.

Colour: Greenish white, with 55 broad black bands, which are broader than their interspaces. Head black with yellow markings.
34. Enhydris hardwickii, Gray.


Four examples from Klong Yai, two adults and two young extracted from one of the former. Length of the young, 255 mm. This species is very common towards the head of the Gulf, but these examples are of unusually dark colouration; in the young the dark ventral markings form a broad and continuous, though irregular, band.

35. Enhydrina valakadyn, Boie.

Enhydrina velakadyn, Mocquard, Les Reptiles de l'Indo-Chine, p. 52 (1907).


Two specimens from Klong Yai.

36. Lachesis gramineus, Shaw.

Trimeresurus gramineus, Mocquard, Les Reptiles de l'Indo-Chine, p. 57 (1907);


One example from Koh Mehsi Yai. This snake is common in Bangkok, and in many other parts of Siam.

Batrachians.

37. Oxyglossus martensi, Peters.

Flower, P.Z.S 1899, p. 887.

Four examples from Ok Yam, three from Klong Yai, one from Koh Kut. Two of the series have a light vertebral line.

While we have placed these specimens under O. martensi, they are doubtfully distinct from O. laevis, Gunth., which is the older name.

38. Rana limnocharis, Boie.


A single example of this common frog from Ok Yam: snout to vent 35 mm.

39. Rana tigrina, Daud.

Eleven examples from the S.E. Siamese mainland, and two from Koh Chang.

This frog is much esteemed by the Siamese as food, and in Bangkok is frequently brought into the market for sale. It is hunted for at night, during and after heavy storms, when its loud croak betrays its whereabouts. In the fields it is also fished for with a rod and line, a small frog, usually *Rana limnocharis*, being used as bait.

40. **Rana dorle**, Boulenger.

Twenty-three examples from S.E. Siam and Koh Chang, Koh Mesi and Koh Kut of all sizes: snout to vent of largest, 35 mm.

Originally described from Tenasserim and since known from the south of the Malay Peninsula, this frog does not seem to have been recorded from Siam before.

41. **Rana nigrovittata**, Blyth.

Two specimens from Koh Chang, both of them unusually large, the biggest measuring 72 mm. from snout to vent.

42. **Rana erythraea**.


Two examples from Klong Yai, and another from Ok Yam.

43. **Microhyla berdmorii**.

One specimen from Klong Yai, without any dark marking on the head and back.

44. **Bufo melanostictus**, Schneid.


Two moderate sized examples from Koh Chang.