

The forking of brow-tines in the horns of the Schomburgk deer seems a very rare feature, the present being the only instance so far observed by the writer.

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Bangkok, August, 1934.

PROCEEDINGS OF THE NATURAL HISTORY SECTION.

21ST ORDINARY GENERAL MEETING.

This meeting was held on August 10, 1933, with Dr. Hugh M. Smith, the leader of the section, in the chair. Owing to a very heavy rain the attendance was small, and in consequence the projected programme was not adhered to, and papers by Dr. Smith and Mr. C. J. House were postponed. The time was profitably occupied in the exhibition and discussion of specimens.

Nai Ariant Mangikul gave an interesting talk on the paddy cut-worm *Cirphis unipuncta*. This pest becomes of importance periodically and sometimes causes great devastation. Last year some 30,000 rai were completely destroyed by the caterpillars of this moth. Nai Ariant showed live moths, caterpillars of various ages, and the chalcidoid parasites that keep the pest in check.

Dr. Smith showed an attractive series of small aquaria containing native species of fishes suitable for the ornamentation of home, office, school or shop window. Especially showy were the pla hang deng (*Labeo bicolor*), two kinds of pla siew (*Rasbora*), and pla kang lai (*Puntius sumatranus*), all from Bung Borapet, together with pla krim (*Ctenops vittatus*), pla hua takua (*Panchax panchax*), and several other small forms from local waters.

He exhibited also a peculiar coiled land snail (*Rhiostoma*), one of the opisthophores, which has developed a remarkable feature for obtaining air while the shell remains tightly closed during periods of drought. A breathing pore on a long tube some distance behind the main entrance admits air but is so small that desiccation of the soft parts is prevented. This particular species, recently described, is as yet known only from Kao Sabap near Chantabun and from Sam Roi Yot. Several smaller species occur in various parts of Siam.

Dr. Smith also showed a bird (*Serilophus lunatus elizabethae*) previously unknown in Siam, collected on a recent holiday trip in the Khun Tan Mountains. This bird is a beautiful member of the family of broadbills.

Nai Boon Chuay Indrambarya, of the Department of Fisheries, showed some excellent dissections he had made of three types of air-breathing fishes, pla duk (*Clarias batrachus*), pla mor (*Anabas testudineus*), and pla cheet (*Saccobranchus fossilis*), and explained the accessory respiratory apparatus in each. Especially noteworthy was the demonstration of the hollow tube extending the entire length of

the body in the pla cheet and representing a primitive lung. The fish lives in ditches that are usually deficient in oxygen and has developed this unique respiratory adjunct as a step in its evolution into a land animal.

Mr. W. R. S. Ladell displayed some butterflies from the collection of the late Mr. E. J. Godfrey and also butterflies and other insects from his own collection.

Some attractive plants were shown by Mrs. E. J. Collins, including a beautiful orchid (*Cordula*) in full bloom.

Phya Winit Wanandorn, of the Royal Forest Department, showed a peculiar climbing plant (*Curcuma*) which has a long flower-pod hanging downwards.

Mr. C. J. House displayed the skin of a black leopard shot in Peninsular Siam. This is simply a colour phase of the common leopard, and the spots may be seen in certain lights. Mr. J. V. Mathews exhibited the skeleton of a sea turtle.

Two newly-hatched crocodiles were shown by Phya Jolamark Bicharana.

Luang Masya Chitrakarn, of the Department of Fisheries, showed a collection of pearl oysters and other pearly molluscs, recently collected in the Mergui Archipelago, Burma. Dr. Smith regretted that there had been no effort to conserve and properly utilize these valuable creatures in Siam.

The meeting closed with a hearty vote of thanks to Dr. Smith.

W. R. S. Ladell,
Honorary Secretary.

22ND ORDINARY GENERAL MEETING.

A regular meeting of the section was held on December 19, 1933. There was a large attendance of members and guests, and a very full and interesting program was presented.

At the outset of the meeting, the leader of the section, Dr. Hugh M. Smith, offered the following resolutions which were adopted:—

Resolved. That the Natural History Section of the Siam Society expresses sincere regret at the death, on June 24, 1933, of E. J. Godfrey, one of the founders of the Natural History Society of Siam and an active member of the society and of its successor the present section.

Resolved. That in the death of Mr. Godfrey the Natural History Section has lost a valued member and the cause of biological science in Siam has been deprived of one who in his chosen field of lepidopterous insects had made an imperishable record.

Under the heading of exhibits, a great variety of living and preserved animals was shown.

Phya Indra Montri, president of the Society, exhibited a very striking pair of antlers which were found by a fisherman in a swamp, Lam Tha Manao, in Supanburi province, in 1857. The horns, as at

the time of discovery, were very heavy from being thickly encrusted with lime or other salts presumably deposited from the water in which they had lain for an unknown time. In the opinion of members, the horns were those of the Schomburgk deer.

Dr. A. G. Ellis showed the egg and newly-hatched young of a reticulated python. The parent pythons had frequented his compound in Bangkok.

Nai Siah displayed a living python over 24 feet long from Tung Song, this representing about the maximum size attained by this snake in Siam; a live water lizard or hia (*Varanus*) 8 feet long from Paknam; and a mounted specimen of the crested partridge (*Rollulus*) from Peninsular Siam.

Phya Jolamark Bicharana showed skulls of the goat antelope from Hua Hin and Chiengmai.

Dr. Smith described the perambulations of a walking fish (*Anabas*) in Trang which, when removed from a small pond and carried over 300 feet away, made its way back to the pond over a hard road, occupying about half an hour in the trip. He showed a stuffed skin of a hog badger (*Aretonyx*) from Chantabun, a series of skins of ground-thrushes and broad-bills, specimens of the newly-discovered white oriole from Kao Sabap, and the mounted head of a large wild hog from Pakjong which had been hunted for many years and stood over a meter high at the shoulder.

Major W. R. S. Ladell showed mounted specimens of butterflies and other insects, and Nai Ariant Mangikul brought living specimens of a butterfly caterpillar and a parasitic fly which keeps it in check.

A small menagerie of live mammals and birds, arranged for by Phya Jolamark and Dr. Smith, was an unusual feature and attracted much attention. The animals on display comprised a serow or goat antelope from Nakorn Nayok, a barking deer, a mouse deer or chevrotain, a leopard, a fishing cat and several other members of cat tribe, a brown bear, a porcupine, a mongoose, an otter, a wind monkey or slow loris, and a small black-furred creature from Patalung, locally known as a squirrel-bear, whose zoological status was uncertain. In the same collection was a specimen of the rare serpent-head fish (*Ophicephalus maruloides*), called by the Siamese *pla ngu hao*, or cobra fish, and erroneously reputed to be venomous.

Two papers were then presented. One by Dr. Smith on the feather-back fish *Notopterus chitala* in Siam is published in the Natural History Supplement, Vol. IX, No. 2. The other by Mr. C. J. House gave an account of a collecting trip in Nan province, North Siam, taken by him and Dr. Causey in November, 1933, and was illustrated by lantern slides.

W. R. S. Ladell,
Honorary Secretary.

23RD ORDINARY GENERAL MEETING.

A largely attended meeting of the section was held at the society's home on September 14, 1934, at 9.30 p.m. The President of the society, Phya Indra Montri, called the meeting to order and introduced the leader of the section, Dr. Hugh M. Smith.

An attractive display of local fresh-water fishes in small balanced aquaria had been provided by the Department of Fisheries and Mr. Ulrich Guehler, and was much enjoyed by the members and guests. Especially interesting were the young spiny eel (*Mastacembelus armatus*) and young scat (*Scatophagus argus*) from Bangkok klongs, and the banded minnow (*Puntius sumatranus*), red-tailed minnow (*Labeo bicolor*), young gourami (*Osphronemus goramy*), and young helostoma (*Helostoma temminckii*), all from Bung Borapet. In connection with this exhibit, Mr. Guehler called attention to an article entitled "Some Siamese Aquarium Fishes" written by Dr. Smith and appearing in the August, 1934, issue of the magazine *The Aquarium*, published in Philadelphia, U. S. A.

There was shown by Dr. Smith a preserved specimen of a binturong or bear-cat (*Arctitis binturong*), from the Pakjong district. This animal, peculiar to the oriental region, is not abundant in Siam but seems to be widely distributed in forested areas. It is arboreal, with prehensile tail and plantigrade feet, and its zoological relationships have been much discussed, but the closest affinity seems to be with the civets. The specimen shown was 84 cm. long, while the tail was 81 cm. additional. The Siamese name for the creature is *mi kaw*, or goad bear, apparently in allusion to the heavy claws suggestive of an elephant goad.

The paper of the evening was then presented by Dr. Smith under the title of "The World's Most Valuable Herd of Wild Animals." The paper dealt with the Alaskan fur seal (*Callorhinus alascanus*) in its zoological, international, and commercial aspects, and was illustrated with lantern slides. At the conclusion of his lecture the speaker made this special plea for the protection of wild animals in Siam:

"I can not forego this opportunity to say a few words about wild animal conservation in Siam. Conservation lessons which may be learned from the Alaskan seal herd are that greatly depleted species may be saved from extinction if well-conceived protective measures are zealously enforced, that recovery may be rapid, and that restoration to maximum abundance may be expected if the physical condition of forests, jungles, and waters remains favorable.

"Siam has the opportunity and the responsibility of arresting the unrestricted slaughter of wild creatures that is going on everywhere, many of them species that give the country great distinction in the realm of zoology. For certain major species it is necessary to take speedy action, otherwise it will be eternally too late. I fear

the time is past when it is possible to save either species of rhino, one of which may already be totally exterminated, while the other is going fast.

"It may surprise you to learn that there is not a single species of land animal in Siam—whether mammal, bird, or reptile—with the exception of the elephant, that may not be killed by any body, by any means, at any time, in any place, in any numbers. No other country in the world has been so indifferent to the welfare of its wild animals, and this is all the more surprising in that Siam is the most outstanding follower of the Great Teacher, one of whose noble injunctions was against the taking of life.

"This society took the initiative in urging the cause of the local wild creatures. The principles and the details of necessary conservation measures have been carefully worked out. An excellent draft law is pending. The matter has been placed by the government under the able charge of Phya Daruphan Pitaks; and I am sure that all of us wish him success in securing the early action that will give to the wild life of Siam its first freedom from unregulated, indiscriminate slaughter."

Following the lecture, a film entitled "The Sea" was shown by courtesy of the United Cinema Co., Ltd. It portrayed in color nudibranchs, sea-anemones, marine worms, sea-cucumbers, starfishes, crabs, barnacles, and octopuses, and was regarded as an exceptionally fine piece of photography.

The President, in proposing a vote of thanks to the speaker of the evening, referred to his long service in Siam and the valuable help he had always given to the Siam Society, as member and leader of the Natural History Section and as member of the Council. The President alluded to the forthcoming retirement of Dr. Smith from Siam, and said his would be a very difficult place to fill. On behalf of all present he wished Dr. Smith long life and prosperity in his retirement.

Ulrich Guehler,
Secretary Pro. Tem.

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