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BIRDS
SWEDISH EXPEDITION
TO
SIAM

GYLDENSTOLPE

1911-1915

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ZOOLOGICAL RESULTS
OF
THE SWEDISH ZOOLOGICAL EXPEDITIONS TO SIAM
1911—1912 & 1914—1915

IV.
BIRDS II
BY
NILS GYLDENSTOLPE

WITH ONE MAP, FOUR PLATES AND FIVE FIGURES IN THE TEXT
COMMUNICATED FEBRUARY 23D 1916 BY HJ. THÉEL AND E. LÖNNBERG

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The following account of the Birds of Siam is based upon collections made during a journey in the interior of Siam from January 1914 to April 1915.

As is apparent from the list of the literature which has until now been published concerning this subject, very little has been done up to the present time, and no exhaustive account of the Bird Fauna of Siam has as yet appeared. Therefore I hope that the following treatise may be of value. Curiously enough Siam appears to have been almost neglected, and very few naturalists have visited the country, which, however, is very interesting, not only because of its geographical position but for its abundance of different forms.

The neighbouring countries, in the first rank British Burma and Tenasserim, are fairly well known, though several interesting discoveries may still be done there, especially in the vast jungles and among the wild mountains of the Southern Shan States. An excellent narrative of the *Birds of Tenasserim* has been published by HUME and DAVISON in the *Stray Feathers* vol. VI. 1878, and the Birds of Burma and Karennee have been dealt with by OATES in his excellent work *A Handbook to the Birds of British Burma, including those found in the adjoining state of Karennee*. Then we have BLANFORD'S and OATES', *Fauna of British India, Ceylon and Burma* which still is the standard work on Indian Ornithology. But all these accounts are fairly old and recent collections have added a considerable number of species to those which were already known to inhabit this part of the world.

Another country which has been somewhat neglected is the great Chinese Province of Yunnan. Very few recent collections have reached Europe from there, the most recent paper being that which has been published by COLLINGWOOD INGRAM in *Novitates Zoologicae* vol. 19, 1912, p. 269—310.

To the East Siam is bordered by the French Indo China, which countries are among the least known in the world. This is especially the case with the interior of Annam which up to the present time is almost unknown and would make a fine field for a keen traveller.

The Malay Peninsula, however, is mainly thanks to the energy of Mrss. ROBINSON and KLOSS of the Federated Malay States Museums to be considered as one of the best known parts of the Far East.

In February 1913 the Natural History Society of Siam was founded by some interested members of the European community at Bangkok. The President of this Society Mr. W. J. F. WILLIAMSON has lately made great contributions to the knowledge of the Bird Fauna of Siam, published in the Society's Periodical (*Journal of the Natural*

History Society of Siam, the first part of which was issued in February 1914). It is to be hoped that both Mr. WILLIAMSON and other workers on ornithology will still continue their work and that valuable collections will be brought together so that we soon may be able to state that Siam as well is one of the best known countries in the East in this respect.

List of works on Ornithology relating to Siam.

1. List of Birds collected in Siam by Sir R. H. Schomburgk. By J. O. GOULD (Proceedings of the Zoological Society. London 1859 p. 151).
Quoted as GOULD.
2. Cursory Notes on some of the Birds of Siam. By R. H. SCHOMBURGK (The Ibis 1864 p. 246—268).
Quoted as SCHOMBURGK.
3. Die Ornis der Insel Salanga von AUG. MÜLLER. (Journal für Ornithologie 1882 p. 353—448).
Quoted as MÜLLER.
4. A. Handbook to the Birds of British Burma, including those found in the adjoining state of Karennee. By E. W. OATES. 2 vols. London 1883.
5. Fauna of British India, Ceylon and Burma. Birds. By E. W. OATES and W. T. BLANFORD. 4 vols. London 1889—1898.
6. On the Birds collected by the »Skeat Expedition» to the Malay Peninsula 1899—1900. By L. J. BONHOTE. (Proceedings of the Zoological Society. London 1901. Vol. I. N:o 5, p. 57—81.)
Quoted as BONHOTE.
7. Report on the Birds collected by Mr. H. C. Robinson & Mr. N. Annandale in the Siamese Malay States and Perak. By W. R. OGILVIE GRANT (Fasciculy Malayensis. Part III. 1906 p. 63—123.)
Quoted as GRANT.
8. Ueber eine Vogelsammlung aus Ostasien von O. FINSCH und P. CONRAD. (Verhandlungen der K. K. Zoologisch-botanischen Gesellschaft in Wien. 1873 p. 341—360.)
Quoted as FINSCH & CONRAD.
9. Ueber eine Vogelsammlung aus Siam und Borneo von Dr. C. PARROT. (Verhandlungen Ornith. Gesellschaft in Bayern VIII. 1907 (1908) p. 97—139.)
Quoted as PARROT.
10. Les Oiseaux du Cambodge, du Laos, de l'Annam et du Tonkin. Par M. E. OUSTALET (Nouvelles Archives du Museum. Paris. Part I. 1899 p. 221—296. Part II. 1903 p. 1—94.)
Quoted as OUSTALET.
11. The Birds of a Bangkok Garden. By S. S. FLOWER. (The Ibis. 1898 p. 319—327.)
Quoted as FLOWER.
12. On Birds from the Northern Portion of the Malay Peninsula including the Islands of Langkawi and Teratau. By H. C. ROBINSON & C. BODEN KLOSS. (The Ibis 1910 p. 659—675 & 1911 p. 10—80.)
Quoted as ROBINSON & KLOSS.
13. Birds collected by the Swedish Zoological Expedition to Siam 1911—1912. By N. GYLDENSTOLPE. (Kungl. Svenska Vetenskapsakademiens Handlingar. Bd. 50. N:o 8. 1913 p. 1—76.)
Quoted as GYLDENSTOLPE I.
14. Birds from Upper Siam collected by Mr. E. Eisenhofer. By N. GYLDENSTOLPE (Jahrbuch des Provinzial Museum in Hannover .)
Quoted as GYLDENSTOLPE II.
15. A. Preliminary list of the Birds of Bangkok. By W. J. F. WILLIAMSON. (Journ. Siam Nat. Hist. Society Vol I. N:o 1. 1914 p. 41—48.)
Quoted as WILLIAMSON I.
16. Corrections and Additions to preliminary list of Bangkok Birds. By W. J. F. WILLIAMSON. (Journal Siam Nat. Hist. Soc. Vol. I. N:o 3. 1915 p. 196—199.)
17. Notes on the Flora and Fauna of Ratburi and Petschaburi Districts. By K. G. GAIRDNER. (Journal Siam Nat. Hist. Society. Part I. Vol I. N:o 1. 1914 p. 27—40. Part II. tom. cit. Vol I. N:o 3. 1915 p. 131—156.)
Quoted as GAIRDNER.
18. List of the Commoner Birds found in Siam 1912. By K. G. GAIRDNER. (Journal Siam Society. Vol IX part I.)
19. The Birds of Bangkok. By W. J. F. WILLIAMSON. (Journal Siam Nat. Hist. Soc. Part I. Vol I. N:o 2 p. 71—92. Part II, tom. cit. Vol I. N:o 3 p. 200—210.)
To be continued.
Quoted as WILLIAMSON II.
20. A short list of Birds from the Raheng District. By C. S. BARTON. (Journ. Siam Nat. Hist. Soc. Vol I. N:o 2. 1914 p. 105—109.)
Quoted as BARTON.
21. List of Birds collected by Mr. E. Eisenhofer in Northern Siam. By N. GYLDENSTOLPE. (Journal Siam Nat. Hist. Soc. Part I. Vol I. N:o 3. 1915 p. 163—172. Part II, tom. cit. Vol I. N:o 4. 1915 p. 229—236.)
Quoted as GYLDENSTOLPE III.
22. On a Collection of Birds from the Siamese Province of Bandon, N. E. Malay Peninsula. By H. C. ROBINSON (Journal of the Federated Malay States Museums. Vol V. N:o 3. 1915 p. 83—110.)
Quoted as ROBINSON I.

23. The Zoology of Koh Samui and Koh Pennan. III Birds. By H. C. ROBINSON. (Journal of the Federated Malay States Museums Vol V. N:o 3. 1915 p. 139—152.) Quoted as ROBINSON II.
24. On Birds collected by Mr. C. Boden Kloss. F. R. G. S. M. B. O. U., on the Coast and Islands of South-eastern Siam. By H. C. ROBINSON with Field-notes by the Collector. (The Ibis 1915 p. 718—761.) Quoted as ROBINSON III.

In January 1914 I started on my second journey to Siam in order to collect various kinds of Natural History specimens for the Royal Natural History Museum of Stockholm.

At the middle of February 1914 I arrived at Bangkok after a nice journey on the »Kleist», a steamer of the North German Lloyd.

In Bangkok I stopped for some weeks and then on the 10th of March I left for the north of Siam where I intended to spend a considerable time. After about two days railway journey I arrived at *Pak Tha*, a small village situated on about Lat. N. 18°.



Fig. 1. Dense bamboo-jungle at the neighbourhood of Pak Koh.

Pak Tha was then the terminus of the Northern Railway which is being built up to Chieng Mai, the most important town in the North of Siam and formerly the capital of the Laos country. At *Pak Tha* I only stopped for a few days and had some collecting in the neighbourhood. The forests here chiefly consisted of dry mixed forests, the fauna of which was about the same as that one at *Den Chai*, a place situated further south and where I spent some weeks during my former journey 1911—1912.

I left *Pak Tha* on the 13th of March with a construction train which could take me as far as to the neighbourhood of *Pak Koh* which then was the centre of the railway building on this part of the line and the residence of a Divisional Engineer. At *Pak Koh* I stopped for more than one month and several interesting and rare species were collected in the surrounding jungles, the natural conditions of which were very variable. The mixed dry forests are, however, the most predominant in the low-lying country and on the lower hills. In the valleys and along the numerous small creeks evergreen jungles occur though sometimes mixed with bamboos.

On the 16th of April I left Pak Koh for *Koon Tan*, a small place situated among the mountains locally known as *Loi Koon Tan*. A great tunnel is here being made for the railway and the Divisional Engineer Mr. EMIL EISENHOFER who was in charge of the building had kindly invited me to spend some time as his guest. Mr. EISENHOFER is a keen naturalist and during his stay in Northern Siam he has brought together large collections, chiefly consisting of birds. These collections have turned out to be very valuable, and some reports about them have been published in various periodicals by the present author.

The journey from Pak Koh to Koon Tan was made in about 5 days. The first days march was fairly long and I arrived at *Meh Chang*, a small village, late in the afternoon on the 16th of April. The whole days march went merely through dry forests with only a scanty vegetation and the bird-life was very scarce. At Meh Chang I had to stop one day to change carriers, and I then made some collecting in the neighbourhood.

From Meh Chang I had one days march to *Nakorn Lampang*, a fairly large town of Northern Siam. I took my headquarter just outside the town near a small village called *Sop Tue* situated on the right bank of the *Meh Wang* river, which I had to cross. From Sop Tue I had another 46 km. to Koon Tan which I did in one day. Mr. EISENHOFER's bungalow is situated on the top of a high hill and from the veranda there was a magnificent view of the surrounding country. To the north is spread the fertile *Meh Tha* valley which is bordered to the north by the high mountains which bound the large Chieng Mai plain. To the south, west and east Koon Tan is surrounded by wild mountain chains, the highest peaks of which are about 1500 m. The lower slopes of these mountains are covered with oak- and bamboo-forests, but the higher parts are clad with mixed pine- and oakforests. Sometimes these pines grow to considerable dimensions as is to be seen by the photo, which was taken on one of the Koon Tan hills. In the narrow valleys and in the numerous »hues» (= mountain creek) impenetrable evergreen jungles occur. The animal life was very rich and numbers of interesting and very little known species of birds were obtained at this locality.

When having Koon Tan as my real headquarter I also made excursions to *Bang Hue Pong*, a small hamlet situated on the southern side of the Koon Tan pass. The surroundings of that place as well had a very interesting fauna which in several ways differed from that of Koon Tan.

Another place which I also visited at several occasions was *Chum Poo*. That was the name of a village situated at the Meh Tha river. As the neighbourhood chiefly consisted of open rice-fields and dry forests, the fauna was neither very rich nor very interesting.

At Koon Tan I stopped to the middle of June when I went up to *Chieng Mai* via *Lampoon*. The distance between Koon Tan and Chieng Mai is about 70 km. This journey may, however, easily be done in one day as the roads are quite good and between Chieng-Mai and Lampoon there is a broad military road where a motorbus is running. During the rainy season, however, even this road is very bad and then the motor traffic is often closed.

At Chieng Mai I arranged for my long trip to the most northern parts of Siam and here a Haw caravan was engaged. The caravan consisted of 20 horses and mules which together with 5 carriers was enough to carry my luggage.

As already mentioned transports are very difficult during the rainy season and travelling is sometimes almost impossible owing to the miserable state of the roads together with the difficulties of crossing the numerous rivers and creeks which are swollen by the heavy rains. In tropical countries as a rule very little collecting has been done during the wet season, and it therefore was my special plan to make a long journey that time of the year in order to make collections of higher vertebrates.

On the 21st of June everything was ready, and I was able to leave Chieng Mai for the North. I then went in an almost northern direction with the intention of marching



Fig. 2. Bamboo-jungle near Doi Par Sakeng.

up to *Doi Par Sakeng*, a small place situated some distance south of Muang Fang which is a small and unimportant town in Northwestern Siam near the boundary to Karennee. After about a weeks hard travelling I arrived at Doi Par Sakeng where I intended to take my headquarter for some time. During my journey I had met with several adventures when crossing the numerous rivers, of which the *Meh Teng* was the largest and deepest. The path along which we were travelling followed for several miles the valley of the *Meh Ping* which we also had to cross at *Ping Kong*. The upper course of the *Meh Ping* runs through a very beautiful country and the scenery was most splendid. We also had to pass quite close to the gigantic and imposing *Doi Chieng Dao*, which probably is one of the highest mountains of Siam. I stopped one day at the foot of the *Chieng Dao* where I had some collecting, though no species of special interest were met with. During the whole journey up to Doi Par Sakeng the rain was pouring down and the so-called roads were very slippery and muddy. I had lots of trouble with my mules but no real damage was done.

In due time I arrived at Doi Par Sakeng where there was a bungalow belonging to the Borneo Company and where I was most heartily welcomed by Mr. T. B. CHATTERIS who was in charge of the station, which is a big centre in a district where teak and other valuable trees are being worked. The name Doi Par Sakeng comes from a mountain chain which runs quite close to the station. The real mountain chain is not very high, yet some ragged peaks grow to considerable dimensions. The vegetation chiefly consists of evergreen jungles but here and there large areas of land are covered with bamboos.

A few miles north of Doi Par Sakeng the plain of *Nong Bea* is situated. Nong Bea is an open plain, which at the time of my visit was covered with high grass. High limestone mountains, in which numerous large caves occur, surround the plain on three sides. When riding over the plain a hollow sound is heard and the whole of Nong Bea is probably undermined.

From Doi Par Sakeng I made a few days trip to *Doi Vieng Par*, a wild mountain region, the highest peak of which is said to be still higher than the Chieng Dao. The bird fauna at Doi Vieng Par seemed to be rather scarce and of about the same character as that of Koon Tan.

When I had finished my researches at Doi Par Sakeng and its immediate neighbourhood I left for *Chieng Hai*, a fairly important town at the *Meh Koke* river and the seat of the Governor in the district. To reach Chieng Hai I had a very difficult journey on unbeaten mountain tracks, and I lost 5 of my horses which were affected by a dangerous disease and succumbed. After 6 days hard travelling during which the whole caravan suffered much as well from the heavy rains as from the numerous leaches which made life almost intolerable we at last arrived at Chieng Hai on the 30th of July.

Chieng Hai is situated on the right bank of the Meh Koke river and is surrounded on all sides by large swamps, a haunt of immense masses of wading- and water-birds. Big game also abounds and rhinoceroses are said to be fairly common. Their tracks were seen at several occasions, though the animals themselves were almost impossible to stalk because of the flooded country which prevented me to reach their places of refuge.

At Chieng Hai I stopped for about one week and during my stay there I lost another 6 of my horses. From Chieng Hai I also wanted to visit the old town of *Chieng Sen*. I therefore engaged some boats to take me down the Meh Koke as far as to where it joins the *Meh Kong*. To reach Chieng Sen we had to pole the boats for some miles up against the river. This was both difficult and somewhat dangerous because of the strong current, but nothing happened. Chieng Sen which at the present time is almost ruined, was some hundred years ago a wealthy and important town judging from the numerous temples which are now in ruins and covered by jungle. Thousands of beautiful Buddhas may, however, still be found in these old temples.

After a week stay at Chieng Sen I left this nice place with about 24 carriers, and I now had a three days difficult march back to Chieng Hai which I reached on the 13th of August. At Chieng Hai I stopped for another week, and during my absence in Chieng Sen the rest of my horses had succumbed, so I had to make new arrangements for the transport of my luggage.

On the 18th of August everything was ready and I left Chieng Hai for Chieng Mai with a caravan of 48 carries. This journey turned out to be one of the most difficult I ever met with in Siam. Heavy rains were falling every day and the »roads» were most miserable. After two days march we crossed a fairly high mountain chain covered with damp evergreen jungles and mixed pine- and oak-forests. Then we had to cross the *Meh Souë*, which sometimes may be rather difficult. I had, however, good luck and the river was not too deep, nor the current too strong. Another two days march saw me in *Vieng Pa Pao*, a small town situated on a large fertile plain which is surrounded on all sides by mountains. At Vieng Pa Pao I had to change carriers which is always a nuisance in a country where »time is *not* money». As soon as I had got the new men I at once started again and a few miles south of Vieng Pa Pao we had to cross the *Meh Lao*. The river was fairly deep, and it was impossible to cross at the usual place. We therefore had to make a circuit, but at least we came to a place where a fallen tree made a tolerable bridge. The roads were quite miserable, and we generally had to walk in mud half up the knees. The further we went the more mountainous the country became, and the path on which we marched followed the courses of several creeks which we often had to cross. In two days march we thus crossed two creeks 76 times. Sometimes the current was so swift that we hardly could walk and I had to let my men form a chain, and pass the burdens from man to man.

Late in the evening on the 26th of August I arrived at last to Chieng Mai after a long and tiring days march. At Chieng Mai I rested for some days, but on the 2nd of September I again left for Koon Tan where I wanted to spend another month this time of the year.

I then once more returned to Chieng Mai where I previously had made arrangements to get a Laos boat for the intended journey down the Meh Ping river to *Paknam Po*.

On the 2nd of October the boat was loaded and I made everything ready for a start.

This same night we stopped at a fishing village called *Nan Dou*. This days journey had taken us through a very uninteresting country. The banks of the river were mostly covered with bamboos or high elephant grass and inside there either swamps or paddy-fields. Animal life was very scarce and nothing of special interest was met with.

When I woke up the next morning I met with the unpleasant news that the boat was leaking and the luggage room half filled with water. This was very disagreeable indeed, and I had to unload the whole boat. Everything was wet, clothes, natural history specimens, provisions a. s. o. and we had to stop the whole day at Nan Dou to dry everything. Fortunately enough nothing was spoiled and early the next morning we continued our journey with another boat. After still three days we at last were approaching the mountains, and the scenery grew more and more beautiful and interesting. The vegetation chiefly consisted of mixed forests, but here and there evergreen jungles occurred. The river is winding through the mountains which often showed perpendicular precipices of great dimensions. The bare rock was often visible and appeared in curious shapes. Caves were rather common but no real big ones were passed along this part of the river.

Between *Pa Tao* and *Keng Soi* the scenery was most beautiful. The valley was sometimes quite narrow and bordered on both sides by high mountains the slopes of which here and there had given away thus producing steep precipices. Down here we often passed large caves in which beautiful stalactites were observed. We had to pass several rapids, and it sometimes looked rather dangerous when the boat with great speed was hurrying down the swift current. But all turned out satisfactorily thanks to the skill of the steersman. At *Keng Soi* which is one of the largest of the Meh Ping rapids I stopped for one day. The slopes of the mountains were covered by very high grass which made progress almost impossible.

About one days journey below *Keng Soi* we again arrived to low-lying country, and had left the mountains behind us. In the evening on the 12th of October we arrived to Paknam Po where I took the railway down to Bangkok.

In Bangkok I was laid down with fever for some weeks, but in the middle of November I left the capital again this time for a journey down to Peninsular Siam. I proceeded by rail as far south as to *Koh Lak*, a nice village situated on about Lat N. 12°. *Koh Lak* is famous for its fine harbour, which is secure from all winds but the north-east. It is the residence of the Governor of the Pranburi Province. The Governor MOM CHAO PRANI was very kind to me and I am greatly indebted to him.

The immediate neighbourhood of *Koh Lak* turned out to be an excellent collecting ground and the Fauna had of course a different character, the Malayan forms predominating, from that one of the northern parts of the country. The landscape was also very variable. The shores of the Gulf of Siam are flat and low-lying, but here and there isolated limestone crags occur. These crags, sometimes forming cliffs and islands, are as a rule almost inaccessible and covered with dense evergreen jungles or deciduous forests. A species of cactus is one of the most characteristic features to these coastal mountains which are the haunts of the »*Liang Paa*» (*Capricornis sp.*). The coast line is, however, in several places covered with mangrove swamps. Inside the mangrove vegetation there was often a narrow plain which gradually passed over into a thorny bamboo-jungle.

From *Koh Lak* as a centre I made several trips up amongst the mountains which form the boundary to Tenasserim and which constitute the backbone of the Malay Peninsula. Near *Koh Lak* these mountains are fairly low but a few miles southwards a great mountain known as *Khao Luang* arises to a height of about 4800 feet.

The Tenasserim mountains are covered with dense forests, mostly evergreen, and formed a real »Dorado» for the sportsman. Big game such as Elephants, Rhinoceroses, Gaurs, Tapirs, Tigers and Leopards abound. Bird life was, however, rather scarce, though several interesting forms were obtained and incorporated with the collections.

I visited several different places among these mountains the most conspicuous of these being *Hue Sai* and *Hat Sanuk*. Both these places have got their names from small creeks which are running down from the mountains to the coast.

On the 25th of February 1915 I left my camp at *Hat Sanuk* for the last time and the next morning I left *Koh Lak* by rail for Bangkok.

At the end of April 1915 I safely arrived at Stockholm after a successful and interesting year in the wilderness of Northern Siam and the Siamese Malaya.

In order to get a proper understanding of the Fauna of Further India and especially that one of Siam, it is necessary to give a short account of the geological condition of this continent at the earlier epoques.

The present Fauna of the Oriental Region apparently has its origin from the epoque which has been called the *Pliocen*. During that period the Indian Peninsula, Further India and the Malay Archipelago constituted a large continent which has been called the *Gondwana*-continent. Australia and New Guinea were, however, already separated from that enormous continent and have therefore developed quite a peculiar Fauna of their own.

The eastern part of the *Gondwana*-continent appears to have been divided into two different parts: one western with mountains of a type which have been called altaic and one southern with another type of mountain chains called sinic.



Fig. 3. Almost impenetrable brush-jungle near Hat Sanuk.

By and by the Fauna got highly developed, but then large parts of the continent started to sink and in such a way the Bay of Bengal was formed. Therefore the Fauna of the Indian Peninsula had to develop quite independent of the Fauna of Further India. In a later period large revolutions, principally volcanic, destroyed the connection between certain other parts of the Eastern continent and thus the Malay Archipelago was formed.

The sinic mountains were gradually destroyed and then the transformation of the altaic mountain chains commenced. At that time a great depression occurred which formed the Gulf of Siam. Borneo now became separated from Sumatra. Java, on the contrary, had probably already before that time been separated from the rest of the continent which is indicated by the lack of several species which are to be found on the other Islands of the Malay Archipelago. The further east we go the poorer is the Fauna. This may possibly be due to unfavourable natural conditions at the same time as great volcanic eruptions prevented the development of a rich Fauna. Another great depression

soon followed which destroyed the connection between Sumatra and the Malay Peninsula. Ceylon, which at the present time exhibits a Fauna which in several ways differs from that one of the upper parts of the Indian Peninsula, had already been separated probably at about the same time as Borneo. As a completion to the development it seems as if the Bengal Sea is regressing, so that an exchange between the Fauna of the Indian Peninsula and that one of the Malay Peninsula was made possible.

On the Malay Peninsula the Malayan elements are predominant. This is especially evident concerning the Mammalian Fauna which highly resembles that one of Sumatra. There are, however, also several species which have had their origin in India and which have migrated to the Malay Peninsula since the connection with Sumatra already was destroyed.

Towards the north the Malayan Fauna extends as far as Pegu. Southern Siam and Tenasserim constitute, however, territories in which the Fauna is of a decidedly mixed origin. The Eastern parts of Further India, through which sinic mountain chains are running, has a very peculiar Fauna, the chief character of which is the total absence of several pure Malayan forms. These forms, however, occur again on the lower slopes of the Himalayas and in Southern China. Further India and especially the Eastern parts of the same are therefore to be considered as very important for the development of the present Fauna which still continues. These parts then most probably constituted one of the centres of distribution for the Malayan Fauna. Borneo and Sumatra seems to have constituted another centre. These two centres were probably in connection with each other though the connection was destroyed before the development was actually completed.

In course of time the Fauna of Further India spread out in every direction.

Southern China and Northern Siam are traversed by mountain chains running in a northern-southern direction and the numerous valleys formed excellent routes for the further distribution of the animals. Both Hainan and Formosa were at that time united with the Chinese continent and on account of this these islands possess a Fauna which in several respects still reminds of that of the mainland.¹ Even the Fauna of the Indian Peninsula is strongly represented in Further India.

From a Zoogeographical point of view I therefore divide Siam into three different regions: 1) the mountain region of Northern Siam, 2) the lowlands of Northern and Central Siam and 3) Lower Siam.

When looking at the Fauna in the mountain regions of Northern Siam one of the most striking facts is the near affinity to the Fauna of the Himalayas, and several forms characteristic to the Himalayas have also been found in Siam. The mountains of the Malay Peninsula which like a backbone are running down the whole Peninsula are showing the same affinity though the Malayan forms predominate the further south we reach. The mountains of the Malay Peninsula and those of Sumatra, Borneo, Java, Hainan, Formosa and the Philippines are displaying a similar character though they sometimes differ inter se on account of the different time at which these islands got sep-

¹ Vide: Kungl. Svenska Vetenskapsakademiens Handlingar. Bd. 50. N:o 8. 1913.

arated from the mainland. All these mountains are, however, only to be considered as offshoots of the big Himalayan chain.

When the low-lying countries at a later period were submerged by water, the Himalayan elements still retained their position up to the present time.

Lower Siam and especially those parts which lay south of the Isthmus of Kra viz. about Lat. N. 10° 30' is inhabited by a Fauna in which the Malayan element is strongly pronounced but even north of Kra this same Malayan element may be traced though mixed with immigrants from the north. Curiously enough the Malayan forms seem to extend further north on the eastern side of the mountain ridge than on the western one and several forms have been obtained further north on the eastern or Siamese side.

The course of this is still open to question, as the types of the landscape are almost the same. The reasons may, however, possibly be the different meteorological conditions. The western side of the Malay Peninsula is much more exposed to the full violence of the monsoon than the eastern side and this may prevent several delicate species to force their way north.

Species occurring both in Hainan and in Siam.

<i>Gallus gallus.</i>	<i>Halcyon smyrnensis fusca.</i>
<i>Francolinus chinensis.</i>	<i>Ceyx tridactyla.</i>
<i>Treron nipalensis.</i>	<i>Alcedo ispida bengalensis.</i>
<i>Osmotreron bicincta domvilli.</i>	<i>Upupa epops longirostris.</i>
<i>Carpophaga aenea.</i>	<i>Nyctiornis atherthoni.</i>
<i>Alsocomus puniceus.</i>	<i>Rhopodytes tristis hainanus.</i>
<i>Macropygia tusalia.</i>	<i>Centropus sinensis intermedius.</i>
<i>Oenopopelia tranquebarica humilis.</i>	<i>Surniculus lugubris dicruroides.</i>
<i>Chalcophaps indica.</i>	<i>Hierococcyx sparverioides.</i>
<i>Amaurornis phænicura chinensis.</i>	<i>Palæornis fasciata.</i>
<i>Rostratula capensis.</i>	<i>Apus affinis subfurcatus.</i>
<i>Hoplopterus ventralis.</i>	<i>Tachornis infumata.</i>
<i>Glareola maldivarum.</i>	<i>Rhipidura albicollis.</i>
<i>Ardetta sinensis.</i>	<i>Cyornis pallidipes.</i>
» <i>cinnamomea.</i>	<i>Alseonax latirostris.</i>
<i>Ardeola bacchus.</i>	<i>Pericrocotus griseigularis.</i>
<i>Gorsachius melanolophus.</i>	» <i>fraterculus.</i>
<i>Butorides javanica.</i>	<i>Volvocivora lugubris saturata.</i>
<i>Bubulcus coromandus.</i>	<i>Garrulax moniliger.</i>
<i>Demiegretta sacra.</i>	» <i>pectoralis.</i>
<i>Leptoptilus javanicus.</i>	<i>Copsychus saularis.</i>
<i>Querquedula querquedula.</i>	<i>Pratincola torquata stejnegeri.</i>
<i>Nettopus coromandelianus.</i>	<i>Monticola cyanea.</i>
<i>Dendrocygna javanica.</i>	<i>Sutoria sutoria.</i>
<i>Pelecanus philippensis.</i>	<i>Phylloscopus tennellipes.</i>
<i>Glaucidium brodiei.</i>	<i>Artamus fuscus.</i>
<i>Ketupa zeylonensis.</i>	<i>Melanochlora sultanea.</i>
<i>Astur trivirgatus rufitinctus.</i>	<i>Dicaeum cruentata coccinea.</i>
» <i>badius poliopsis.</i>	<i>Uroloncha acuticauda.</i>
<i>Accipiter soloënsis.</i>	<i>Oriolus indicus.</i>
<i>Spizaëtus nipalensis.</i>	<i>Dissemurus paradiseus.</i>
<i>Spilornis cheela rutherfordi.</i>	<i>Buchanga atra cathoeca.</i>
<i>Bazu lophotes.</i>	<i>Chaptia aenea.</i>
<i>Eurystomus orientalis calonyx.</i>	<i>Sturnia sinensis.</i>
<i>Halcyon pileata.</i>	

Species obtained in the Siamese Malaya on about Lat. N. 12°.

- Crypsirhina varians.*
Buchanga atra cathoeca.
Oriolus indicus.
 » *melanocephalus.*
Spodiopsar leucocephalus.
Sturnopastor floweri.
Sturnia sinensis.
Graculipica nigricollis.
Aethiopsar grandis.
Acridotheres tristis.
Munia punctulata subundulata.
Passer montanus malaccensis.
Mirafra assamica marionæ.
Motacilla flava taivanus.
Anthus richardi malayensis.
Arachnechthra asiatica.
Cyrtostomus flammazillaris.
Anthreptes malaccensis.
Dicæum cruentata coccinea.
 » *chrysorrhæum.*
Lanius hypoleucus siamensis.
Otomela cristata.
Hemipus picatus.
Platylophus ardesiacus.
Artamus fuscus.
Arundinax ædon.
Sutoria sutoria.
Phylloscopus borealis borealis.
 » *nitidus plumbeitarsus.*
Geocichla citrina.
Turdus obscurus.
Monticola cyanea.
Copsychus saularis.
Kittocincla macrurus tricolor.
Pratincola torquata stejnegeri.
Garrulax leucolophus diardi.
Pellorneum subochraceum.
Turdinus abbotti abbotti.
Mixornis gularis.
 » *gularis minor.*
Myiophoneus eugenii.
Herpornis xantholeuca.
Aegithina tiphia.
Aethorhynchus lafresnayei.
Chloropsis aurifrons.
Microtarsus melanocephalus.
Iole viridescens.
Pycnonotus finlaysoni.
Otocompsa flaviventris.
Graucalus macei.
Volvocivora melachistus intermedia.
 » *melanoptera avensis.*
Pericrocotus cinereus.
Cyornis sumatrensis.
Muscitrea grisola grisola.
Gerygone griseus.
Hypothymis azurea prophata.
- Rhipidura javanica.*
 » *albifrontata burmanica.*
Terpsiphone affinis.
Stoparola melanops.
Chelidon rustica gutturalis.
Eucichla gurneyi.
Calyptomena viridis.
Corydon sumatranus.
Cymbirhynchus macrorhynchus lemniscatus.
Gecinus viridianus.
Chrysophlegma malaccense.
Tiga javanensis intermedia.
Theraciceryx lineatus hodgsoni.
Xantholæma hæmatocephala.
Cacomantis merulinus.
Eudynamis orientalis malayana.
Rhopodytes tristis hainanus.
Centropus sinensis intermedia.
Pyrotrogon oreskios.
Collocalia francica germaini.
Tachornis infumata.
Apus affinis subfurcatus.
Lyncornis cerviniceps.
Caprimulgus macrurus bimaculatus.
Caprimulgus asiaticus.
Merops orientalis birmanus.
Nyctiornis atherthoni.
Upupa epops longirostris.
 » *saturata.*
Dichoceros bicornis.
Anthracoceros albirostris.
Pelargopsis capensis malaccensis.
Alcedo ispida bengalensis.
Halcyon smyrnensis fusca.
 » *pileata.*
 » *armstrongi.*
Coracias affinis.
Eurystomus orientalis calonyx.
Palæornis fasciata.
Glaucidium cuculoides.
Pandion haliaëtus cristatus.
Circus æruginosus æruginosus.
Astur badius poliopsis.
Aquila maculata.
Spizaëtus nipalensis nipalensis.
 » *limnaëtus.*
Circaëtus hypoleucus.
Spilornis bacha.
Haliaëtus leucogaster.
Haliaëtus indus intermedius.
Pernis cristatus.
Falco tinnunculus saturatus.
Pseudogyps bengalensis.
Otogyps calvus.
Phalacrocorax pygmæus javanicus.
Asarcornis leucoptera.
Ardea cinerea youyi.

<i>Mesophoyx intermedia.</i>	<i>Tringoides hypoleucus.</i>
<i>Demiegretta sacra.</i>	<i>Glottis nebularius.</i>
<i>Gorsachius melanolophus.</i>	<i>Rhyacophilus glareola.</i>
<i>Ardeola grayi.</i>	<i>Gallinago stenura.</i>
<i>Bubulcus coromandus.</i>	» <i>gallinago.</i>
<i>Ardetta sinensis.</i>	<i>Rostratula capensis.</i>
<i>Dissoura episcopus neglecta.</i>	<i>Hydrochelidon hybrida.</i>
<i>Leptoptilus dubius.</i>	<i>Sterna seena.</i>
» <i>javanicus.</i>	<i>Amaurornis phænicura chinensis.</i>
<i>Antigone sharpei.</i>	<i>Streptopelia suratensis tigrina.</i>
<i>Glareola maldivarum.</i>	<i>Oenopopelia tranquebarica humilis.</i>
<i>Sarcogrammus indica atrinuchalis.</i>	<i>Chalcophaps indica.</i>
<i>Squatarola squatarola.</i>	<i>Alsocomus puniceus.</i>
<i>Charadrius dominicus fulvus.</i>	<i>Treron nipalensis.</i>
<i>Ochthodromus geoffroyi.</i>	<i>Osmotreron bicincta domvilli.</i>
» <i>mongolus.</i>	<i>Carpophaga aenea aenea.</i>
<i>Aegialites peroni.</i>	<i>Turnix pugnax.</i>
» <i>alexandrina.</i>	<i>Tropicoperdix chloropus.</i>
<i>Himantopus himantopus.</i>	<i>Gennæus lineatus lineatus.</i>
<i>Numenius arquata.</i>	<i>Gallus gallus.</i>
<i>Totanus calidris.</i>	<i>Argusianus argus.</i>
» <i>ochropus.</i>	

List of species hitherto not recorded from Siam.

<i>Uroloncha acuticauda squamicollis.</i>	<i>Picumnus immominatus malayorum.</i>
<i>Motacilla flava taiwanus.</i>	<i>Sasia ochracea reichenowi.</i>
<i>Aethopyga dabryi.</i>	<i>Cyanops asiatica.</i>
<i>Arachnothera aurata.</i>	» <i>ramsayi.</i>
<i>Lanius tigrinus.</i>	<i>Collocalia francica germaini.</i>
<i>Franklinia rufescens poliocephala.</i>	<i>Apus affinis subfurcatus.</i>
<i>Corythocichla brevicaudata.</i>	<i>Upupa epops saturata.</i>
<i>Stachyrhopsis rufifrons.</i>	<i>Scops bakkamoena lettia.</i>
<i>Myiophoneus cæruleus.</i>	<i>Photodilus badius.</i>
<i>Chloropsis hardwickei.</i>	<i>Aquila maculata.</i>
<i>Volvocivora melachistus intermedia.</i>	<i>Spizaëtus nipalensis nipalensis.</i>
» <i>lugubris saturata.</i>	<i>Circaëtus hypoleucus.</i>
<i>Pericrocotus griseigularis.</i>	<i>Sarcidiornis melanolata.</i>
<i>Alseonax siamensis.</i>	<i>Dafila aguta.</i>
<i>Gerygone griseus.</i>	<i>Squatarola squatarola.</i>
<i>Rhipidura albicollis.</i>	<i>Aegialites peroni.</i>
» <i>albifrontata burmanica.</i>	<i>Himantopus himantopus.</i>
<i>Riparia paludicola chinensis.</i>	<i>Sterna seena.</i>
<i>Picus vittatus eisenhoferi.</i>	<i>Sphenocercus apicauda.</i>
<i>Brachylophus chlorolophoides.</i>	» <i>pseudo-crocopus.</i>
<i>Pyrrhopicus pyrrhotis.</i>	<i>Macropygia tusalia.</i>

In conclusion I want to express my sincere thanks to several persons both in Siam and Sweden. Principally I then have to remember the Siamese Consul General in Stockholm Mr. AXEL AX:SON JOHNSON, the Siamese Consul Mr. HELGE AX:SON JOHNSON and another friend of mine who wants to be unknown. All these three gentlemen defrayed with utmost generosity all the costs for the Expedition.

Among the European residents in Siam, who helped me in several ways, I especially want to mention the Director of the Siam Electricity Company Mr. W. L. GRUT and the Divisional Engineer Mr. EMIL EISENHOFER. The advice, generosity and hospitality of

these gentlemen were of utmost value for the successful carrying out of my plans and without their help the results of the Expedition would have been nothing of what they have turned out to be. To the Siamese Government I owe letters of introduction to the officials in the different Provinces through which I had the pleasure of travelling. Without such letters of introduction travelling in Siam is very difficult and almost impossible but with them a journey in the wilderness is fairly easy. The Government also furnished me with an escort of some Gendarmes when I went through the more uncertain parts of the country.

Several other persons and some of the large firms such as the Bombay, Burmah Trading Corporation and the Borneo Company Limited helped me in several ways which help was most valuable.

To the Siamese Government and then principally to H. R. H. PRINCE DAMRONG OF SIAM and the Vice-Minister of the Ministry of Interior H. E. PHYA MAHA AMMAT as well as to other gentlemen and officials both mentioned and unmentioned I herewith want to express my utmost gratitude.

In the systematic list the following abbreviations are used:

- L = total length (measured in flesh.),
- W = length of wing,
- C = length of culmen.
- B = bill from gape.
- T = length of tail.

Fam. Corvidæ.

1. *Corvus macrorhynchus*. WAGL. — The Jungle Crow.

Corvus culminatus: Schomburgk p. 252.

Corvus macrorhynchus: Williamson I p. 42; Williamson II p. 76; Barton p. 105; Robinson & Kloss p. 71; Grant p. 66; Gyldenstolpe I p. 18; Gyldenstolpe II; Gyldenstolpe III p. 164; Robinson II p. 150; Gairdner p. 148; Robinson III p. 761.

The Jungle Crow is commonly distributed over the whole of Siam and does not avoid even the dense forests, though it is most abundant in or around towns and villages.

Mr. STRESEMANN has kindly informed me in a letter that the Siamese Jungle Crows probably belong to the race which has been described by ADAMS (Proc. Zool. Soc. 1859 p. 171) under the name of *Corvus intermedius* founded on specimens from Kashmire and Simla. This race according to STRESEMANN »seems to be of much the same colour as typical *C. macrorhynchus* which, however, always have the bases of the feathers pure white, while in *C. intermedius* they vary from pure white to pale grey. Young birds in their first plumage have the bases of the feathers brownish grey. The bill in *C. intermedius* is also somewhat differing from that one of *C. macrorhynchus*. In the first-mentioned form the bill is generally shorter and lower and the highest point is not at the base but at about the nasal opening».

Several of these points of characteristic agree with the specimen in my collection.

In my former paper on the Birds of Siam (Kungl. Svenska Vetenskapsakademiens Handlingar Band 50. N:o 8 p. 18) the wing measurement of my specimen of *C. macrorhynchus* WAGL. is given to 226 mm. This is a misprint for 326 mm. which I herewith take the opportunity of correcting.

2. *Urocissa occipitalis*. BLYTH. — The Red-billed Blue Magpie.

Urocissa magnirostris: Gould p. 151.

Urocissa occipitalis: Gyldenstolpe I p. 19; Gyldenstolpe II; Gyldenstolpe III p. 164.

1 ad. Koon Tan, May 1914. Wing = 201 mm.; Tail = 428 mm.; Culmen = 33 mm.; Tarsus = 40 mm. — 1 ♂ juv. Koon Tan 1914. Length = 335 mm.; Wing = 176 mm.; Culmen = 33 mm. — *Iris* = brown; *Legs* = yellow.

This beautiful Magpie seems to be distributed over the whole of Siam, but it is apparently very local and could be totally absent from a locality though appearing again close by in a place showing a similar condition as the former. Most often they were observed in thin tree jungle but sometimes even in shrub-jungles. Especially along the course of the Meh Ping river they were very abundant and small parties were seen almost every day. When flying from place to place they always followed each other in a long file which has also been stated by DAVISON. As a rule this species is very shy and difficult to obtain.

The immature birds are differing from the adult specimens in being ashy grey on the upper parts of the body; the head all round, sides of the neck, throat and fore neck dusky brown; the large white occipital patch is very well-marked; abdomen and under tail-coverts pure white without any bluish shade; thighs white; rest of the plumage as in the adult though never of the same rich blue colour.

In the adult birds the bases of the quills seen from below are pale salmon coloured which extends along the inner webs of the quills.

3. *Dendrocitta rufa*. SCOP. — The Indian Tree-pie.

Dendrocitta rufa: Parrot p. 119; Gyldenstolpe I p. 19; Gyldenstolpe II; Gyldenstolpe III p. 164.

1 ad. Koon Tan, May 1914. Wing = 45 mm.; Tail = 227 mm.; Culmen = 25 mm.; Tarsus = 28 mm.

Curiously enough the Indian Tree-pie was very rare in every part of the country visited during my second journey to Siam and the Siamese Laos States. In the most northern parts of the country it seems to be totally absent. During my former journey 1911—1912 I found it quite common in the dry forests near Den Chai and Pak Pan, places situated at about Lat. N. 17° 40'. Further north I visited large areas of land showing a similar kind of vegetation but I never observed a single specimen myself. In the collections of Mr. E. EISENHOFER I, however, found a few specimens shot at the neighbourhood of Koon Tan and Pa Hing.

The Indian Tree-pie is a very characteristic bird and is not easy to overlook especially on account of its syllabic note which makes its presence known at rather a far distance.

Therefore I am perfectly sure that it does not occur in Northern Siam north of Lat. 18°.

4. *Crypsirhina varians*. LATH. — The Black Racket-tailed Magpie.

Crypsirhina varians: Grant p. 66; Williamson I p. 42; Williamson II p. 76; Gyldenstolpe I p. 19; Gyldenstolpe II; Gyldenstolpe III p. 164.

♂ Koon Tan ¹⁵/₁₂ 1914. Length = 292 mm.; Wing = 114 mm.; Culmen = 19,5 mm.; Tail = 184 mm. — ♀ Koh Lak ²⁰/₁ 1915. Length = 296 mm.; Wing = 114 mm.; Culmen = 20 mm.; Tail = 189 mm. — ♀ Chum Poo ²/₅ 1915. Length = 303 mm.; Wing = 111 mm.; Culmen = 19 mm.; Tail = 195 mm. — Iris: Pale blue. Bill: Black. Legs: Black.

The Black Racket-tailed Magpie was rather common in brush-, secondary- and bamboo-jungles over the whole of Siam. Even as far south as at Koh Lak and its surroundings it was far from being rare.

The Siamese specimens are absolutely identical with those from Java, both as to size and colouring.

5. *Cissa chinensis*. BODD. — The Green Magpie.

Cissa chinensis: Gyldenstolpe II; Gyldenstolpe III p. 164; Gairdner p. 148.

♂ Doi Par Sakeng ¹⁷/₇ 1914. L = 365 mm.; W = 150 mm.; T = 205 mm.; C = 30 mm. — ♂ Koon Tan ²⁴/₅ 1914. L = 358 mm.; W = 146 mm.; T = 211 mm.; C = 31 mm. — ♂ Koon Tan ¹⁵/₉ 1914. L = 275 mm.; W = 150 mm.; C = 30 mm. — ♀ Doi Par Sakeng ¹⁴/₇ 1914. L = 356 mm.; W = 147 mm.; T = 211 mm.; C = 29 mm. — ♀ Koon Tan ¹⁵/₅ 1914. L = 316 mm.; W = 137 mm.; T = 165 mm.; C = 27 mm. — Irides: Reddish brown. Bill: coral red. Legs: coral red. Ring round the eye: coral red.

This beautiful Magpie was fairly common in the thick vegetation covering the lower hills of Northern Siam. As already stated by DAVISON it has much the same habits as the Laughing Thrushes of the genus *Garrulax*, but I never found it together with these birds as stated by this same author. When observed it was always single sculking among the thick and thorny vegetation. I never heard it utter any notes, only when being wounded it uttered a hoarse, rather unpleasant call.

The female specimen obtained at Koon Tan on the 15th of May 1914 has a somewhat differing colouration from the other specimens collected and though its dimensions are smaller than the other birds, I think it is wisest not to separate it under a subspecific name.

These Magpies are very variable and the colour of the plumage undergoes a considerable change after death. Still this specimen differs a great deal and I therefore give a full description of it.

Adult female: General colour above greenish blue (in skin.); lores, feathers round the eye, ear-coverts and a broad band encircling the nape pure black; forehead yellowish green which colour even occupies the crown and the long crest feathers, though fading

into greenish on the latter; chin and cheeks pale greenish yellow fading into grass green on the upper breast; lower breast, flanks and sides of the abdomen pale greenish blue; middle of abdomen creamy white; under tail-coverts pale greenish white; primaries reddish chocolate to bloody red on the inner ones; inner webs of the primaries dusky red; inner secondaries bloody red tipped with white and with an indistinct black subterminal bar; outer secondaries reddish yellow on the basal part, followed by a broad bar of greyish brown and then of a black bar which reaches farther backwards on the outer web than on the inner one; the secondaries are all tipped with pale bluish white more broadly on the innermost ones; tail bluish green with a broad subterminal black bar.

6. *Garrulus leucotis*. HUME. — The Burmese Jay.

Garrulus leucotis: Gyldenstolpe I p. 20; Gyldenstolpe II; Gyldenstolpe III p. 164.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	²² / ₆	295	175	142	29	35
♂	Pak Koh	⁷ / ₄	300	179	138	29	40
♂	Koon Tan	²³ / ₆	300	174	138	29	40
♂	Chum Poo	⁴ / ₆	315	177	145	30	39
♂	Bang Hue Pong	²⁷ / ₆	299	173	132	28	39
♂	Doi Par Sakeng	²⁰ / ₇	300	178	139	33	35
♀	Bang Hue Pong	²⁷ / ₆	290	163	127	26	36
♀	Koon Tan	³ / ₆	315	164	130	27	34

Irides: brown. Bill: black. Legs: pale brownish grey.

The Burmese Jay was rather abundant on suitable localities in Northern Siam. It generally goes about in small flocks and they seem to prefer the open deciduous forests before the dense evergreen jungles. It was most common at rather high altitudes where the mountains are covered with pines sometimes of gigantic proportions. It seldom descends into the lower valleys with their dense vegetation.

Young birds were obtained at the end of May always in company with the adult bird.

Among the specimens in my collection there is a considerable amount of variation as regards the white area on the forehead and in one specimen it also occupies a large part of the crown.

Fam. *Dicruridæ*.

7. *Chaptia ænea*. VIEILL. — The Bronzed Drongo.

Chaptia ænea: Gyldenstolpe I p. 28; Gyldenstolpe II; Gyldenstolpe III p. 167.

♂ Bang Hue Pong ⁷/₅ 1914. L = 235 mm.; W = 124 mm.; T = 127 mm.; Bill from gape = 24 mm. — ♂ Koon Tan ⁷/₄ 1914. L = 196 mm.; W = 123 mm.; T = 99 mm.; Bill from gape = 22 mm. —

♂ Koon Tan ⁷/₅ 1914. L = 215 mm.; W = 121 mm.; T = 125 mm.; Bill from gape = 23 mm. — ♂ Doi Par Sakeng ¹⁹/₇ 1914. L = 215 mm.; W = 110 mm.; T = 119 mm.; Bill from gape = 21 mm. — Irides: brownish black. Bill: black. Legs: black.

Fairly common in the Northern and Central parts of the country. The specimens obtained by me are practically intermediate between the typical *C. a. aenea* VIEILL. and *C. a. malayensis* BLYTH. which inhabits more southern districts.

In the collections of the Royal Nat. Hist. Museum in Stockholm there are two specimens from Ahsown in Tenasserim which are typical *C. a. malayensis*. In this species the underparts of the body are almost black with a distinct metallic gloss especially on the breast; the metallic colour on the upper parts of the body is continued to the rump and upper tail-coverts.

The specimens from Northern Siam are decidedly more greyish on the under parts of the body and there is only a slight gloss on the breast. The rump and the upper tail-coverts are, however, glossy metallic green and not inclining to greyish as in typical *Ch. a. aenea*.

The Tenasserim specimens are also slightly smaller.

8. *Chibia hottentotta*. LINN. — The Hair-crested Drongo.

Chibia hottentotta: Barton p. 106; Gyldenstolpe I p. 28; Gyldenstolpe II; Gyldenstolpe III p. 167.

♂ Doi Par Sakeng ¹⁴/₇ 1914. L = 305 mm.; W = 165 mm.; T = 147 mm. — ♂ Koon Tan ³⁰/₄ 1914. L = 305 mm.; W = 170 mm.; T = 147 mm. — ♀ juv. Bang Hue Pong ²⁵/₅ 1914. L = 275 mm.; W = 144 mm.; T = 120 mm. — Irides: brown. Bill: black. Legs: black.

The Hair-crested Drongo was rather common on suitable localities in the Northern parts of the country, though apparently very locally distributed.

It has not yet been found at Bangkok or its neighbourhood, but during my previous Expedition to Siam I obtained a specimen on the Korat plateau, which seems to be about its southern limits in Siam. It has, however, been collected by DAVISON in Tenasserim south to about the same latitude.

Further east it seems to extend more to the south as DR. TIRANT records it from Cochin China.

9. *Buchanga atra cathoeca*. SWINH. — The Black Drongo.

Buchanga atra: Oustalet 1903 p. 29.

Dicrurus ater: Parrot p. 116; Williamson I p. 42; Williamson II p. 81; Barton p. 105; Gyldenstolpe I p. 27; Gyldenstolpe II; Gyldenstolpe III p. 167; Gairdner p. 148.

♂ Koh Lak ¹⁵/₁₂ 1914. L = 247 mm.; W = 133 mm.; T = 134 mm.; Bill from gape = 26 mm. — Irides: brownish red. Bill: black. Legs: black.

The Black Drongo is one of the birds most often met with in every part of Siam where the forests are not too thick. It was never, as far as I can remember, obtained in dense primeval forests, which it seems to avoid. It is not at all shy and as it is chiefly found in open jungles or near houses and villages it is very easy to study its habits.

Generally it was seen perching on a lofty branch at the top of a high tree, now and then darting after a passing insect.

Rather common as far south as Koh Lak in the Siamese Malaya.

10. *Buchanga cineracea mouhoti*. WALD. — The ASHY Drongo.

Dicrurus cineraceus: Gyldenstolpe I p. 27; Gyldenstolpe III p. 167.

Buchanga cineracea mouhoti: Robinson III p. 759.

♂ Koon Tan ²⁹/₅ 1914. L = 220 mm.; W = 125 mm.; T = 114 mm. — ♂ Doi Par Sakeng ²²/₇ 1914. L = 265 mm.; W = 130 mm.; T = 140 mm. — ♂ Koon Tan ²/₆ 1914. L = 270 mm.; W = 136 mm.; T = 155 mm. — Irides: brownish red. Bill: black. Legs: black.

As far as I can see the Ashy Drongos inhabiting Siam ought to be referred to the race described by LORD WALDEN under the above-mentioned name.

As compared with a series of *B. c. cineracea Horsf.* from Java, the Siamese birds are at a glance distinguished by their paler underparts and their larger bills. The upper parts of the body are also slightly paler, especially the crown. The Siamese specimens have their lores blackish which is also a point of characteristic to *B. c. mouhoti*.

From *B. leucogenys* WALD. they differ by having the under wing-coverts very dark and without the white edges, which are very conspicuous in that form. Its nearest ally is *B. c. nigrescens* OATES. but it is separated from that species by its much paler colouring.

11. *Dissemurus paradiseus malabaricus*. LATH. — The Larger Racket-tailed Drongo.

Edolius paradiseus: Gould p. 151; Schomburgk p. 261; Finsch & Conrad p. 351.

Dissemurus paradiseus: Oustalet 1903 p. 35; Grant p. 68; Williamson I p. 42; Williamson II p. 82; Barton p. 106; Flower p. 322; Robinson & Kloss p. 71; Gyldenstolpe I p. 28; Gyldenstolpe II; Gyldenstolpe III p. 167; Robinson I p. 109; Robinson II p. 150; Gairdner p. 148.

Dissemurus paradiseus paradiseus: Parrot p. 118; Robinson III p. 760.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Bill from gape mm.
♂	Koon Tan	³ / ₆ 1914	523	160	365	32
♂	Koon Tan	⁵ / ₆ 1914	512	158	382	33
♂	Pak Koh	⁷ / ₄ 1914	376	153	242	32
♂	Pak Koh	²¹ / ₃ 1914	505	160	347	35
♂	Pak Koh	⁴ / ₄ 1914	337	165	—	36
♂ juv.	Koon Tan	³ / ₆ 1914	265	134	—	33

Irides: blackish brown. Bill: black. Legs: black.

Several distinct races have been described of this bird. The form inhabiting Northern Siam cannot be the typical *Dissemurus paradiseus* LINN. because of its enormous crest and its long hair-like frontal plumes. In one of my specimens the longest crest-feathers are 45 mm. The form described by LINNÆUS has a very small crest and the size of the bird is rather small. This race inhabits Java, the Malay Peninsula and probably

Lower Siam. As already remarked by HARTERT (Nov. Zool. vol. IX. 1902 p. 579) the form called *D. p. platurus* VIEILL. is only a synonym of the typical form.

I therefore consider that the larger *D. p. malabaricus* LATH. inhabits Northern Siam. This race is characterized by its long crest and its size is also larger than any other form of the Racket-tailed Drongo, except *D. p. grandis* GOULD. from the Himalayas and Assam.

Another allied form *D. p. johni* HARTERT. inhabits the island of Hainan. This species has also a long crest but is lacking the hair-like plumes. On an average it is also decidedly smaller.

12. *Bhringa remifer*. TEMM. — The Lesser Racket-tailed Drongo.

Bhringa remifer: Robinson III p. 760.

♀ Doi Par Sakeng ¹⁶/₇ 1914. L = 247 mm.; W = 140 mm.; T = 143 mm.; B = 25 mm. — ♀ Koon Tan ⁵/₆ 1914. L = 236 mm.; W = 130 mm.; T = 130 mm.; B = 26 mm. — Irides: reddish brown. Bill: black. Legs: black.

In the collection there are only two specimens of the Lesser Racket-tailed Drongo, the one obtained at Doi Par Sakeng in Northwestern Siam and the other one at Koon Tan in the Northern parts of the country. The specimens obtained are both females and probably immature because there is not the slightest trace of the elongated outer tail-feathers and the tail is almost square and not forked at all. The nostrils are densely covered with bristles and plume-like feathers.

This beautiful Drongo seems to be very rare in Siam and besides this record it has only been found by BODEN KLOSS during his recent trip to Southeastern Siam.

Fam. Oriolidae.

13. *Oriolus indicus*. JERD. — The Black-naped Oriole.

Oriolus indicus: Oustalet 1903 p. 39; Müller p. 390; Robinson & Kloss p. 72; Williamson I p. 43; Gyldenstolpe II; Gyldenstolpe III p. 168; Gairdner p. 149; Williamson II p. 201; Robinson III p. 758.

♂ Koh Lak ³⁰/₁₁ 1914. L = 230 mm.; W = 143 mm.; T = 93 mm.; C = 27,5 mm. — ♂ Koon Tan May 1914. W = 152 mm.; T = 96 mm.; C = 29 mm. — ♀ Koon Tan ¹/₅ 1914. L = 266 mm.; W = 149 mm.; T = 98,7 mm.; C = 30 mm. — ♀ Pa Hing ⁹/₄ 1914. L = 236 mm.; W = 142 mm.; T = 95 mm.; C = 28 mm. — Irides: brownish red. Bill: pink. Legs: plumbeous.

The Black-naped Oriole was very locally distributed in secondary and thin tree jungle. In Northern Siam it was by no means as common as *O. melanocephalus* LINN. which latter species also was obtained in the Siamese Malaya where *O. indicus* seemed to be rather rare.

The Black-naped Oriole is probably to be considered as a partially migratory bird when the rains set in. Then it moves to more southern districts and it has been recorded by WILLIAMSON as being very common in Bangkok where it is said to be far more abundant than *Oriolus melanocephalus* LINN.

14. *Oriolus melanocephalus*. LINN. — The Indian Black-headed Oriole.

Oriolus melanocephalus: Müller p. 392; Oustalet 1903 p. 41; Robinson & Kloss p. 72; Gairdner p. 32; Barton p. 106; Williamson I p. 43; Gyldenstolpe I p. 34; Gyldenstolpe II; Gyldenstolpe III p. 168; Williamson II p. 202; Gairdner p. 149.

Sex	Locality	Tot. length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.	Date
♀	Pak Koh	214	128	80	26	21	1/4
♂	Pak Koh	219	136,5	87,8	26,5	21	21/3
♂ juv.	Koon Tan	225	124	80,2	26	20,5	16/6
♀	Pak Koh	215	131	84	26,7	20	20/3
♀	Pak Koh	203	125	81	24	21	7/4
♂	Koon Tan	225	128	90	28,5	20	8/6
♂	Bang Hue Pong	225	135	87	28	20	26/6
♂	Chum Poo	210	126	85	26,5	20	4/5
♀	Koh Lak	205	127,5	81	27	20,5	2/12

Irides: Crimson (young: brown). Bill: rosy pink (young: black). Legs: plumbeous (young: black).

The Indian Black-headed Oriole is generally distributed over the whole country, occurring in dense forests as well as in thin tree- and scrub-jungles.

DAVISON states that in Tenasserim it was rare south of Mergui but I found it quite common at Koh Lak and its neighbourhood why it seems to extend further south on the Siamese side than on the Tenasserim one.

One young male obtained at Koon Tan on the 16th of September has the bill pure black while other young birds shot in March to June have their bills whitish pink with a dusky tip. These are probably birds of the last year which seems to indicate that the Orioles only assume the plumage of the fully adult birds in their second year.

Fam. Eulabetidæ.

15. *Gracula javana intermedia*. A. HAY. — The Burmese Talking Mynah.

Eulabes intermedia: Müller p. 388; Barton p. 106; Gyldenstolpe I p. 34; Gyldenstolpe II; Gairdner p. 149.

Eulabes intermedius: Robinson & Kloss p. 67; Robinson II p. 150.

Gracula intermedia: Schomburgk p. 255.

Gracula javana javana: Parrot p. 114.

Gracula javana intermedia: Gyldenstolpe III p. 168; Robinson III p. 758.

♂ Pak Koh ²⁵/₃ 1914. L = 273 mm.; W = 156 mm.; T = 84 mm.; C = 23 mm. — ♀ Koon Tan ³/₆ 1914. L = 275 mm.; W = 153 mm.; T = 88 mm.; C = 23 mm. — ♂ Koon Tan ¹⁷/₅ 1914. L = 265 mm.; W = 158 mm.; T = 84 mm.; C = 25 mm. — Irides: brown. Bill: orange red (tip of upper mandible yellow). Legs: yellow.

This species was very abundant in the Northern parts of the country but only in the well-wooded districts.

The »Nok khon tong» as it is called in Siamese is a very common cage-bird among the natives and it is even highly appreciated by the European residents.

Among the mountains on the boundary between Siam and Tenasserim on about Lat. N. 12° I several times observed small parties of a Mynah, but if it was this species or the allied *G. j. javana* CUV. I am unable to ascertain because no specimens were procured there. It, however, most probably was *G. j. javana* CUV. because the birds seemed to be rather large.

16. **Ampeliceps coronatus.** BLYTH. — The Yellow-crowned Mynah.

Ampeliceps coronatus: Müller p. 388; Robinson & Kloss p. 68; Gyldenstolpe I p. 35; Gyldenstolpe II; Gyldenstolpe III p. 168.

♂ Pak Koh ²⁶/₈ 1914. L = 240 mm.; W = 121 mm., T = 64 mm.; Bill from gape = 22 mm.; Tarsus = 20 mm. — Irides: brown. Eyelid: reddish yellow. Bill: yellow. Legs: yellow.

The Yellow-crowned Mynah is a fairly common inhabitat of the damp evergreen forests of Northern Siam, where it is generally met with in small parties keeping to the highest trees. It is, however, quite tame and easy to obtain.

Fam. Sturnidæ.

17. **Spodiopsar leucocephalus.** GIGL. & SALVAD. — Hume's Mynah.

♀ Koh Lak ²/₁₂ 1914. Length = 223 mm.; Wing = 124,5 mm.; Tail = 75,2 mm.; Tarsus = 31 mm.; Culmen = 21 mm. — ♂ Koh Lak ²/₁₂ 1914. Length = 210 mm.; Wing = 120 mm.; Tail = 72,5 mm.; Tarsus = 29 mm.; Culmen = 19 mm. — Iris: yellowish white. Bill: pale orange. Legs: yellowish brown.

This species which has previously only been recorded from Cochin China and from the neighbourhood of Tavoy on the boundary between Tenasserim and Siam, was not uncommon at the vicinity of Koh Lak, a small village situated at the coast of the Gulf of Siam and a little south of the latitude of Tavoy.

When observed it was always mixed up in the flocks of the other Mynahs viz. *Sturnopastor floweri* SHARPE and *Graculipica nigricollis* PAYK. more seldom with *Aethiopsar grandis* MOORE. It was rather shy and always more difficult to get than its relatives. It most often was observed in the open, park-like forests near the seashore, but was sometimes found in the bamboo-forests though never far from villages. In the evergreen jungles which cover the hill-tracts deviding Siam and Tenasserim it was never observed nor in any part of Northern or Central Siam why its distributional area seems to be only confined to the southern parts of the country.

My specimens perfectly well agree with the descriptions in the litterature with the exception that the primaries are almost black. Only the tips and the innerwebs are dusky brown. The basal part is pure white and of the same colour as the primary coverts. The secondaries and the greater coverts are bronzy brown with some blackish colour near the shafts. Sides of the body, flanks and tighs ashy; lower rump and under tail-coverts pale fawn-buff.

18. *Spodiopsar malabaricus nemoriculus*. JERD. — The White-winged Mynah.

Sturnia malabarica: Gyldenstolpe III p. 168.

Sturnia nemoricola: Williamson II p. 203.

1 ad. Koon Tan 1914. Wing = 99 mm.; Tail = 68 mm.; Culmen = 17 mm.; Tarsus = 20,5 mm.

Seems to be fairly rare and was only observed in the mountains round Koon Tan in Northern Siam.

I have with some hesitation referred the single specimen I obtained to the above-named race, which inhabits Burma and Tenasserim, on account of its having the bastard wing and wing-lining dirty white; the first primary, however, is brown and the primary coverts are black, edged with metallic green; the lower rump and the upper tail-coverts are *not* »slightly more ashy than the back» as stated in the Catalogue of the Birds in the British Museum Vol. 13 p. 49 but ruddy brown. The tighs are also *not* ashy but pale vinous and of the same colour as the under-parts of the body; under tail-coverts pale cinnamon and only a few of the shorter ones are chestnut of about the same colour as the tips of the outer tail feathers.

19. *Sturnopastor floweri*. SHARPE. — The Siamese Pied Mynah.

Sturnopastor floweri: Gyldenstolpe I p. 36.

Sturnopastor superciliaris: Williamson I p. 43; Gairdner p. 33; Gyldenstolpe III p. 168; Williamson II p. 206; Gairdner p. 149.

♂ Koh Lak ²¹/₁₁ 1914. L = 210 mm.; W = 120 mm.; T = 74 mm.; C = 27,5 mm. — ♀ Koh Lak ²/₁₂ 1914. L = 210 mm.; W = 117 mm.; T = 69 mm.; C = 28 mm. — ♀ Koh Lak ¹⁹/₁₂ 1914. L = 213 mm.; W = 117 mm.; T = 75 mm.; C = 28,2 mm. — ♀ Koh Lak ³⁰/₁₁ 1914. L = 229 mm.; W = 118 mm.; T = 78 mm.; C = 29 mm. — Irides: yellowish white. Bill: dirty yellow (base: brick-red.) Legs: light brown.

All the specimens of the Pied Mynah which I collected at Koh Lak in the Siamese Malaya are to be referred to the species described by SHARPE under the name of *S. floweri*.

This species is a near ally to *S. superciliaris* BLYTH which also occurs in Siam, particularly in the Northern parts while *S. floweri* seems to be confined to the Central and Southern Districts.

The Siamese Pied Mynah (*S. floweri* SHARPE) differs from *S. superciliaris* BLYTH by having the upper parts of the body deep black with a glossy greenish tinge while these same parts in the last-mentioned form are brownish black.

20. *Sturnia sinensis*. GM. — The Chinese Mynah.

Sturnia elegans: Gould p. 151.

Sturnia sinensis: Williamson I p. 43; Gairdner p. 33; Gyldenstolpe I p. 35; Williamson II p. 202; Gairdner p. 149.

♂ Koh Lak ¹/₁₂ 1914. L = 176 mm.; W = 99 mm.; T = 59 mm.; C = 17 mm. — ♂ Koh Lak ¹⁹/₁₂ 1914. L = 185 mm.; W = 99,5 mm.; T = 60 mm.; C = 18 mm. — ♀ Koh Lak ¹⁹/₁₂ 1914. L =

178 mm.; W = 97 mm.; T = 60 mm.; C = 17 mm. — Irides: bluish white. Bill: bluish grey. Legs: plumbeous.

The Chinese Mynah is fairly common during the cold season. It generally occurs in large flocks keeping to the cultivated land at the surroundings of towns or villages.

Among the specimens obtained there are both immature and fully adult birds. The immature birds differ from the old ones in having the wingcoverts black; only the median series in some specimens being white. The creamy buff colour of the rump and upper tail-coverts does not extend as far down in the young birds as in the old ones and is washed with isabelline.

21. *Agropsar sturninus*. PALL. — The Daurian Mynah.

The Daurian Mynah is apparently very rare in Siam and during my journey I only came across two specimens which were observed in a garden belonging to the Siam Electricity Company at Klong Toi just outside Bangkok. Besides these records it has only been met with in Siam by WILLIAMSON.

22. *Graculipica nigricollis*. ПАУК. — The Black-necked Mynah.

Acridotheres nigricollis: Gould p. 151.

Sturnopastor nigricollis: Schomburgk p. 253.

Graculipica nigricollis: Finsch & Conrad p. 352.

Graculipica nigricollis: Flower p. 323; Williamson I p. 43; Gairdner p. 33; Gyldenstolpe I p. 35; Gyldenstolpe II; Gyldenstolpe III p. 168; Williamson II p. 204; Gairdner p. 149; Robinson III p. 757.

♀ Koon Tan ¹²/₅ 1914. L = 260 mm.; W = 155 mm.; T = 95 mm.; C = 28 mm. — ♂ Koh Lak ²²/₁ 1915. L = 255 mm.; W = 153 mm.; T = 92 mm.; C = 30 mm. — Irides: white. Bill: black. Legs: light brown.

The Black-necked Mynah is very common on suitable localities over the whole country. It was, however, never met with in evergreen forests nor very far from cultivated land. Their notes which they generally utter when resting on the top of a tree is rather sweet and melodious. The colour of the legs seems to vary from pale brown to plumbeous.

23. *Aethiopsar grandis*. MOORE. — The Siamese Mynah.

Aethiopsar grandis: Gyldenstolpe I p. 36; Gyldenstolpe II; Gyldenstolpe III p. 168; Williamson I p. 43; Williamson II p. 205; Gairdner p. 149; Barton p. 106; Robinson III p. 106.

♂ Koon Tan ²⁸/₄ 1914. L = 240 mm.; W = 132 mm.; T = 82 mm.; C = 20 mm. — ♂ Koh Lak ¹⁵/₁₂ 1914. L = 243 mm.; W = 131,5 mm.; T = 83 mm.; C = 21 mm. — Irides: reddish brown. Bill: yellow. Legs: yellow.

A very common species about towns, villages and cultivated land in every part of Siam Proper and the Siamese Malaya.

24. *Acridotheres tristis*. LINN. — The Common Mynah.

Acridotheres tristis: Barton p. 106; Gairdner p. 33; Gyldenstolpe III p. 168; Gairdner p. 149; Williamson II p. 205.

1 ad. Koon Tan 1914. W = 135 mm.; T = 87 mm.; C = 20 mm.; Tarsus = 33 mm.

The Common Mynah was rather abundant in or near villages especially in the northern parts of the country. It was, however, also observed in the Siamese Malaya as for instance at Koh Lak and its neighbourhood. They are always seen in pairs either jumping about on the ground or resting in a tree uttering their pretty song. They are often kept by the natives as a cage bird.

In the »Catalogue of the Birds in the British Museum» vol. 13 p. 81 Dr. R. B. SHARPE states that the colour of the upper (misprint: under in the Cat.) tail-coverts is the same as the colour of the back. In the specimen obtained at Koon Tan the upper tail-coverts are, however, decidedly paler than the rest of the back, being brownish ashy with pale brown edges to the feathers. But perhaps this pale colouring may only be a sign of immaturity.

Fam. Ploceidæ.

25. *Munia atricapilla rubronigra*. HODGS. — The Chestnut-bellied Munia.

Munia atricapilla: Flower p. 323; Gyldenstolpe III p. 170.

♂ Chieng Hai ²/₈ 1914. L = 104 mm.; W = 51 mm.; T = 36 mm.; C = 10,5 mm. — Irides: brown Bill: grey. Legs: plumbeous.

I only observed this *Munia* near Chieng Hai and Chieng Sen, both small towns in Upper Siam. Even at these places they were rather rare. They occurred in small parties of about 6 to 10 birds on the grassy plains outside the towns. Their food consists usually of different kinds of seeds.

The specimen obtained clearly belongs to the northern race which was named by HODGSON *Munia rubronigra*. It differs from the southern race, which is the typical *Munia atricapilla* VIEILL. in having the abdomen, vent und under tail-coverts decidedly more blackish and in lacking the hoary-grey edges to the feathers of the mantle.

26. *Munia punctulata topela*. SWINH.

♂ Chieng Hai ¹/₈ 1914. L = 120 mm.; W = 54,5 mm.; T = 48,5 mm.; C = 10,7 mm. — Irides: brown. Bill: black. Legs: plumbeous.

At the neighbourhood of Chieng Hai, one of the most important towns of Upper Siam this species was rather common on the large grassy plains which cover such an extensive area of land outside this town. It was also observed a few times in bamboo-forests in several other parts of Northern Siam.

Munia punctulata topela inhabits Southern China, Northern Siam, Hainan and Formosa.

A near ally is the next species which, however, is a more southern form, inhabiting Burma and Tenasserim, being replaced still further south in the Malay Peninsula and some of the Sunda Islands by another form *M. p. nisoria* TEMM. *Munia p. topela* is, as far as I can see, quite a distinct form. It has the upper tail-coverts and the tail shaded with yellowish green; the rump is ashy olive with paler almost white narrow edges to the feathers; the upper parts of the body are decidedly more brownish than those in *M. p. subundulata* and the bars of the flanks are dusky blackish (in *M. p. subundulata* the bars on the flanks are pure brown).

27. *Munia punctulata subundulata*. GODW. AUST. — The Spotted Munia.

Munia punctularia: Gould p. 151; Schomburgk p. 263.

Uroloncha punctulata: Williamson I p. 44.

♂ Koh Lak ³⁰/₁₁ 1914. L = 110 mm.; W = 52,5 mm.; T = 42,3 mm.; C = 11,5 mm. — Irides: reddish brown. Bill: black. Legs: plumbeous.

This race of the Spotted Munia was rather rare though it occurred on suitable localities in the Siamese Malaya at least as far south as to Koh Lak where it was observed and obtained.

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28. *Uroloncha acuticauda squamicollis*. SHARPE.

♂ Koon Tan ²⁹/₄ 1914. L = 113 mm.; W = 48 mm.; T = 42 mm.; C = 10,8 mm. — ♀ Bang Hue Pong ²⁷/₅ 1914. L = 112 mm.; W = 48 mm.; T = 47 mm.; C = 11 mm. — Irides: red (♂), reddish brown (♀). Bill: black, lower mandible plumbeous. Legs: blackish brown.

Among the higher mountains of Northern Siam I obtained two specimens of a *Munia* which I have referred to *U. acuticauda squamicollis*, SHARPE. This species has previously only been found in Southern China, Hainan and Formosa.

U. a. squamicollis which I only consider as a subspecific race of the common *U. acuticauda* HODGS. is separated from that bird, which I also have obtained in Siam though in more southern localities, by its much darker colouring which especially is prominent on the throat, chin and upper breast. The feathers of the foreneck and those of the lower breast are margined with rufous brown and of a scaly appearance. These feathers have faint indistinct whitish shaft-stripes. The upper parts of the body especially the forehead and the crown which are almost black, are much darker and have distinct whitish shaft stripes.

29. *Ploceus passerinus infortunatus*. HART. — The Eastern Baya.

Ploceus atrigula: Bonhote p. 67; Grant p. 69.

Ploceus megarhynchus: Williamson I p. 44.

♀ Chieng Hai ²/₈ 1914. L = 120 mm.; W = 62,3 mm.; T = 44 mm.; C = 12 mm. — Irides: brown. Bill: yellowish brown. Legs: flesh colour.

The Eastern Baya inhabits the Malay Peninsula, Tenasserim and Burma and was also obtained in Siam though it was apparently rather rare.

Like the next species it inhabits grassy plains and rice-fields and is generally seen in flocks feeding on seeds.

The wing measure is a little shorter than that one recorded by HARTERT (*Novitates Zoologicæ* Vol. IX. 1902 p. 578).

30. *Ploceus manyar flaviceps*. LESS. — The Striated Weaver-bird.

Ploceus manyar: Williamson I p. 44.

♂ Chieng Hai $\frac{1}{8}$ 1914. L = 130 mm.; W = 65 mm.; T = 45 mm.; C = 14,5 mm. — Irides: black. Bill: black. Legs: pale brown.

This subspecies of *P. m. manyar* HORSEF. from Java was very common indeed on the large grassy plains of Upper Siam. Around the town of Chieng Hai for instance, numbers of nests belonging to this bird were being built at the time of my visit to this place at the beginning of August 1914. The nests were placed either among the high elephant grass or in some low trees. The eggs were not laid at the time of my stay there and even about three weeks later they did not contain any eggs.

Fam. Fringillidæ.

31. *Passer montanus malaccensis*. DUB. — The Malay Tree-Sparrow.

Passer montanus malaccensis: Gyldenstolpe I p. 41.

Passer montanus: Schomburgk p. 256; Grant p. 70; Barton p. 106; Williamson I p. 44; Müller p. 386.

The Malay Tree-Sparrow was very common indeed in Bangkok and in almost every town and village of Central Siam and in the Siamese Malaya.

32. *Passer flaveolus*. BLYTH. — The Pegu House-Sparrow.

Passer flaveolus: Williamson I p. 44.

♀ Koon Tan $\frac{12}{5}$ 1914. L = 143 mm.; W = 68,5 mm.; T = 59 mm.; C = 10 mm.; Tarsus = 16 mm. — Irides: white. Bill: brown. Legs: yellowish brown.

The Pegu House-Sparrow is apparently very rare and only confined to the Northern parts of the country. However, WILLIAMSON records it from Bangkok, which seems to me a little doubtful.

Outside Siamese territory it has been obtained in the Burmese Provinces and Karennee and it is said to occur in Cochin China.

33. *Emberiza aureola*. PALL. — The Yellow-breasted Bunting.

Hypocentor aureolus: Müller p. 386.

Emberiza aureola: Grant p. 70; Gyldenstolpe II; Gyldenstolpe III p. 171.

♀ Chum Poo $\frac{2}{5}$ 1914. L = 136 mm.; W = 71 mm.; T = 57 mm.; C = 10 mm.; Tarsus = 19 mm.
— Irides: black. Bill: brown. Legs: brown.

A winter visitor to Siam. It generally goes about in small parties and is especially abundant in open country and on the rice-fields. During my stay in the Siamese Malaya I never observed it, but it probably occurs even there as it has been recorded from different parts of the Malay Peninsula.

Fam. Alaudidæ.

34. *Mirafra microptera*. HUME. — The Burmese Bush Lark.

Mirafra microptera: Gyldenstolpe II; Gyldenstolpe III p. 171.

♂ Koon Tan $\frac{28}{4}$ 1914. L = 140 mm.; W = 78 mm.; T = 44,5 mm.; C = 12 mm. — ♀ Sop Tue $\frac{24}{4}$ 1914. L = 135 mm.; W = 75 mm.; T = 43 mm.; C = 11,6 mm. — Irides: blackish brown. Bill: horn colour. Legs: flesh colour.

Two specimens collected in Northern Siam ought to be referred to this species which outside Siamese Territory has previously only been obtained in Burma and Cochin China. It seems, however, to be fairly common on suitable localities in the Northern Districts. It only inhabits open jungles where the soil is sandy and where there is no undergrowth.

35. *Mirafra assamica marionæ*. STUART BAKER. — Mrs. Williamson's Bush Lark.

♂ Koh Lak $\frac{19}{12}$ 1914. L = 142 mm.; W = 82 mm.; T = 53 mm.; C = 12,5 mm. — ♂ Koh Lak $\frac{20}{11}$ 1914. L = 133 mm.; W = 81 mm.; T = 50 mm.; C = 13 mm. — ♀ Koh Lak $\frac{19}{12}$ 1914. L = 136 mm.; W = 77 mm.; T = 48 mm.; C = 13 mm. — Irides: pale yellowish brown. Bill: horn colour. Legs: flesh colour.

In the Bulletin of the British Ornithologists' Club Vol. 35. Dec. 1915. MR. E. C. STUART BAKER has described a new subspecies of a Bush-lark under the name of *Mirafra assamica marionæ*. The type specimens were obtained at Auythia a small town a few miles north of Bangkok. This new race differs from true *Mirafra assamica* MC CLELL. »in being more brown and less grey above and paler below. The wings average about 75,0 mm. or about the same as in *microptera* against a full 84,0 in *assamica*».

The three specimens obtained by me at the neighbourhood of Koh Lak in the Siamese Malaya are probably to be referred to this new race. The wing measurements, however, are a little greater than recorded by STUART BAKER. When labelling these specimens I at first determined them as being *M. assamica* though I noted some differences in the general tone of the colouration. The family *Mirafra* is a very difficult one and

without a large material to compare with, it is hardly possible to identify the different races. However, my specimens fairly well agree with the description given by STUART BAKER for *Mirafra assamica marionæ*. MR. STUART BAKER has also quite recently described another new subspecies of a Bush Lark which he proposed to name after its discoverer *Mirafra cantillans williamsoni* (Bull. Brit. Ornith. Club. Vol. 36. N:o CCX p. 9. 1915). This new form was obtained by Mr. W. J. F. WILLIAMSON at the neighbourhood of Bangkok where it was said to be common and a resident. According to the description this form seems to be nearest to *Mirafra philippensis* WARDL. RAMS. from the Philippines. They then belong to the Group which is characterized by having the outer tail-feather almost entirely white, with the dusky mark confined to the inner web only.

In my collection there are no specimens from the neighbourhood of Bangkok, viz. the type locality of this new race. The Koh Lak specimens belong to quite another group. The light pattern on the outer tail-feathers is only confined to a narrow line on the outer webs of the feathers and is of a pale rufous colour.

Among the mountains of Upper Siam another species was obtained viz. *Mirafra microptera* HUME. This species belongs to the same group as *Mirafra assamica* MC. CLELL.

The new race described as *Mirafra cantillans williamsoni* is probably only confined to the alluvial plain surrounding the Menam Chao Phaya river, where it seems to be a resident according to MR. WILLIAMSON who has found its nest and eggs. If it migrates in some way during the cold season is still open to question. Anyhow no specimens were obtained during my stay in the Siamese Malaya from November 1914 to the end of February 1915.

Fam. Motacillidæ.

36. *Motacilla alba leucopsis*. GOULD. — The White-faced Wagtail.

Motacilla alba leucopsis: Gyldenstolpe I p. 41; Gyldenstolpe III p. 171.

Motacilla alba: Williamson I p. 44.

When going down the Meh Ping river from Chieng Mai to Paknam Po during the first half of October 1914 the White-faced Wagtail was very common indeed along the course of the river. It either rested on the stranded teak-logs or on the numerous sandbars, and was generally seen single, though several specimens could occur quite close to each other. Also observed on the paddy-fields of Northern and Central Siam.

Winter visitor only.

37. *Motacilla boarula melanope*. PALL. — The Grey Wagtail.

Motacilla boarula melanope: Gyldenstolpe I p. 41; Gyldenstolpe II; Gyldenstolpe III p. 171.

Motacilla melanope: Robinson & Kloss p. 73.

Motacilla sulphurea: Müller p. 361.

♀ Pak Koh ¹⁹/₃ 1914. L = 172 mm.; W = 72 mm.; T = 91 mm.; C = 12 mm. — Irides: black. Bill: horn colour. Legs: flesh colour.

Fairly common during the cold season in the Northern Districts.

38. *Motacilla flava taivanus*. SWINH. — The Eastern Yellow Wagtail.

♂ Koh Lak ²/₁₂ 1914. L = 165 mm.; W = 81 mm.; T = 79 mm.; C = 11 mm. — ♀ Koh Lak ²/₁₂ 1914. L = 166 mm.; W = 78 mm.; T = 77 mm.; C = 12 mm. — Irides: brown. Bill: horn colour. Legs: blackish brown.

This species was only obtained in the Siamese Malaya. It is a winter visitor to Siam and apparently rather rare. In the northern parts of the country I never met with it.

39. *Limonidromus indicus*. GM. — The Forest Wagtail.

Limonidromus indicus: Gyldenstolpe I p. 44; Gyldenstolpe III p. 171; Williamson I p. 44; Robinson & Kloss p. 73.

A single specimen of the Forest Wagtail was observed near a small creek running through a very dense uninhabited evergreen jungle three days march north of Chieng Mai, the most important town of Northern Siam.

This was the only specimen met with during the whole journey why it seems to be exceedingly rare in Siam.

40. *Anthus richardi malayensis*. EYTON.

Anthus richardi malayensis: Parrot s. 126.

Anthus malayensis: Robinson & Kloss. p. 74.

Corydalla malayensis: Müller p. 36.

Anthus rufulus: Gould p. 151; Schomburgk p. 249; Williamson I p. 44; Bonhote p. 66; Grant p. 71; Gyldenstolpe III p. 171.

♂ Koh Lak ²⁵/₁₁ 1914. L = 138 mm.; W = 76 mm.; T = 64 mm.; C = 13 mm. — ♀ Koh Lak ²²/₁₁ 1914. L = 142 mm.; W = 77 mm.; T = 65 mm.; C = 12 mm. — ♀ Koh Lak ²⁹/₁₁ 1914. L = 150 mm.; W = 81 mm.; T = 63 mm.; C = 12 mm. — Irides: brown. Bill: horn colour. Legs: flesh colour.

Rather common in the Siamese Malaya during the winter months and occurring together with *Mirafra assamica marionæ* STUART BAKER on the open sandy plains near the sea-shore.

A female specimen shot on the 22nd of November 1914 has the penultimate tail-feather quite white on the outer web. This same specimen is also much paler on the upper parts of the body and the feathers are margined with sandy buff; the brown spots and striations on the chest are very narrow and almost obsolete. As seen by this description the specimen thus resembles *A. richardi rufulus* VIEILL. from India and Ceylon which may eventually be found migrating to the Malay Peninsula and other parts of Further India.

41. *Anthus richardi striolatus*. BLYTH. — Blyth's Pipit.

Anthus richardi striolatus: Gyldenstolpe I p. 42; Gyldenstolpe III p. 171.

Anthus richardi: Gould p. 151; Schomburgk p. 249; Williamson I p. 44.

♂ Koon Tan ²⁸/₄ 1914. L = 178 mm.; W = 91,3 mm.; T = 42,5 mm.; C = 12 mm. — ♀ Koon Tan ²⁸/₄ 1914. L = 171 mm.; W = 90,2 mm.; T = 72 mm.; C = 11,5 mm. — Irides: blackish brown. Bill: horn colour. Legs: pale brown.

Blyth's Pipit was not uncommon on the plains of Upper Siam during the cold season. In the Siamese Malaya it was never met with but replaced by *A. richardi malayensis* EYTON. *Anthus richardi striolatus* is very similar to the typical *A. richardi* but is distinguished by its smaller size. Especially the bill is much shorter in *A. r. striolatus* which also has the claw of the hind toe slightly shorter.

Fam. Nectarinidæ.

42. *Aethopyga dabryi*. J. VERR. — Dabry's Yellow-backed Sun-bird.

♀ Koon Tan $\frac{21}{9}$ 1914. L = 94 mm.; W = 45 mm.; T = 34 mm.; C = 16 mm. — Irides: black. Bill: brownish black. Legs: dark brown.

This species seems to be very rare in Siam and is probably only confined to the higher mountains.

As the single female specimen I obtained was shot by my native collector, I have nothing especial to remark about this species.

43. *Arachnechthra asiatica*. LATH. — The Purple Sun-bird.

Arachnechthra asiatica: Gyldenstolpe I p. 43.

♂ Koh Lak $\frac{1}{12}$ 1914. L = 106 mm.; W = 54 mm.; T = 34 mm.; C = 15 mm. — ♂ Koh Lak $\frac{19}{12}$ 1914. L = 105 mm.; W = 52 mm.; T = 35 mm.; C = 15,5 mm. — ♂ Koh Lak $\frac{21}{11}$ 1914. L = 105 mm.; W = 55,5 mm.; T = 35 mm.; C = 15,2 mm. — ♂ Koh Lak $\frac{23}{11}$ 1914. L = 100 mm.; W = 52,5 mm.; T = 34 mm.; C = 16 mm. — Irides: blackish brown. Bill: black. Legs: black.

Rather common both in Upper Siam and down in the Siamese Malaya but never in evergreen jungles. It occurs in more open scrub jungle, in or near gardens and cultivated land. It is a very familiar bird.

Two young males from Koh Lak have the blue metallic colour confined to a line on the throat, and the upper plumage has only a few marked spots of metallic blue.

44. *Cyrtostomus flammixillaris*. BLYTH. — The Burmese Yellow-breasted Sun-bird.

Cyrtostomus flammixillaris: Müller p. 377; Robinson & Kloss p. 77; Robinson II p. 152.

Nectarinia flammixillaris: Gould p. 151.

Cinnyris flammixillaris: Oustalet 1903 p. 11.

Arachnechthra flammixillaris: Flower p. 324; Williamson I p. 44; Gyldenstolpe I p. 44; Gyldenstolpe III p. 171.

♀ Koon Tan $\frac{5}{5}$ 1914. L = 96 mm.; W = 45 mm.; T = 29 mm.; C = 16 mm. — ♂ Koh Lak $\frac{28}{11}$ 1914. L = 93 mm.; W = 49 mm.; T = 33 mm.; C = 16 mm. — ♂ Bang Hue Pong $\frac{27}{5}$ 1914. L = 98 mm.; W = 48 mm.; T = 33 mm.; C = 16 mm. — ♂ Koon Tan $\frac{29}{3}$ 1914. L = 98 mm.; W = 49 mm.; T = 31 mm.; C = 16,2 mm. — ♂ juv. Koon Tan $\frac{5}{5}$ 1914. L = 89 mm.; W = 49 mm.; T = 25 mm.; C = 12,5 mm. — Irides: brownish black. Bill: black. Legs: black.

The Burmese Yellow-breasted Sun-bird was most abundant in Northern Siam though it also occurred in the Siamese Malaya where I obtained specimens at the neighbourhood of Koh Lak.

45. *Arachnothera magna*. HODGS. — The Larger Streaked Spider-hunter.

Arachnothera magna: Gyldenstolpe I p. 44.

♂ Chieng Hai ²³/₇ 1914. L = 180 mm.; W = 93 mm.; T = 57 mm.; B = 44,3 mm. — Irides: black. Bill: black. Legs: yellow.

One specimen of a Spider-hunter was shot out of a pair one morning when I crossed a pass among the hills on my way up to Chieng Hai and it is with some hesitation that I have referred it to this species. However, it is much larger than any other specimen of a Spider-hunter that I obtained either in Northwestern or in Northern Siam. The northern form, to which I believe it belongs, is separated from *A. m. aurata* BLYTH. by having the stripes broader both on the upper and on the lower parts of the body.

46. *Arachnothera magna aurata*. BLYTH. — The Smaller Streaked Spider-hunter.

♀ Koon Tan ⁹/₉ 1914. L = 160 mm.; W = 82 mm.; T = 47,5 mm.; C = 37 mm. — ♂ Doi Par Sakeng ¹⁹/₇ 1914. L = 172 mm.; W = 87,5 mm.; T = 46 mm.; C = 41 mm. — ♂ pull. Koon Tan ¹¹/₉ 1914. L = 105 mm. — ♂ pull. Koon Tan ¹¹/₉ 1914. L = 95 mm. — Irides: brownish black. Bill: blackish. Legs: yellow.

Birds from Koon Tan and Doi Par Sakeng are decidedly smaller than the specimen collected near Chieng Hai. Their wings measure 87,5 mm. (♂) and 82 mm. (♀) while the Chieng Hai specimen has a wing measuring 93 mm. (♂). On account of this I have referred the two smaller birds as belonging to the southern race of *A. magna* HODGS.

The birds obtained during my former Expedition to Siam 1911—1912 and recorded under the name of *A. magna* HODGS. ought to receive subspecific rank and must be called *A. m. aurata*, BLYTH.

The young birds obtained at Koon Tan on the 11th of September 1914 were taken from the nest which was found in a very dense evergreen jungle.

The Spider-hunters seems to be exclusively confined to the evergreen forests and during my journey they were never observed in other kind of jungles.

47. *Anthreptes malacensis*. SCOP. — The Brown-throated Sun-bird.

Anthreptes malaccensis: Gould p. 151.

Anthothreptes malaccensis: Müller p. 375; Grant p. 73; Bonhote p. 65; Oustalet 1903 p. 13; Robinson & Kloss p. 76; Williamson I p. 45; Robinson II p. 152; Robinson III p. 757.

A few specimens of the Brown-throated Sun-bird were observed among the hill-forests on the Tenasserim boundary during my stay at Hue Sai in January 1915.

48. *Chalcoparia phaenicotis*. TEMM. — The Ruby-Cheek.

Anthothreptes phaenicotis: Oustalet 1903 p. 12.

Chalcoparia phaenicotis: Müller p. 374; Williamson I p. 45; Gyldenstolpe I p. 45; Robinson I p. 106.

♂ Pak Koh ⁸/₄ 1914. L = 85 mm.; W = 51,5 mm.; T = 43 mm.; C = 12 mm. — ♀ Pak Koh ⁸/₄ 1914. L = 97 mm.; W = 50 mm.; T = 40 mm.; C = 12 mm. — ♀ Chum Poo ²/₅ 1914. L = 104 mm.; W = 52 mm.; T = 37,2 mm. — Irides: ♂ black. ♀ reddish brown. Bill: black. Legs: greenish yellow.

Observed and obtained in the Northern parts of the country, where it was not uncommon in shrub-jungle and at the outskirts of the deciduous forests. In the Siamese Malaya I can not remember having seen it. This was rather curious because it is stated to be distributed over the whole Malay Peninsula and DAVISON found it »rather common in every part of Tenasserim».

During my previous journey 1911—1912 I found it common in Eastern and Central Siam but never south of Lat. N. 14° but GERMAIN records it from Cochin China though he found it rather rare.

Fam. Dicaeidae.

49. *Dicaeum cruentatum coccinea*. SCOP. — The Scarlet-backed Flower-pecker.

Dicaeum cruentatum: Gould p. 151; Müller p. 373; Grant p. 74; Bonhote p. 65; Oustalet 1903 p. 14; Flower p. 324; Robinson & Kloss p. 78; Williamson I p. 45; Gyldenstolpe I p. 46; Gyldenstolpe II; Gyldenstolpe III p. 171; Robinson II p. 152; Gairdner p. 149; Robinson III p. 755.

HARTERT has recently (Novitates Zoologicae Vol. 17. 1910 p. 243) discussed the various forms of *Dicaeum cruentatum* LINN. and comes to the conclusion that there are three different subspecies viz. the typical *Dicaeum cruentatum* from India, *Dicaeum cruentatum ignita*, BEGBIE. from the Malay Peninsula and *Dicaeum cruentatum coccinea*, SCOP. from Southern China and Hainan.

Unfortunately HARTERT does not give any measurements on these forms. HARTERT states that the last-mentioned form differs from the Indian one, which it, however, resembles very much in having the wing-coverts steel-blue, without any purplish shade, and in having larger bills and longer wings.

The race inhabiting the Malay Peninsula has the upper wing-coverts distinctly purplish blue and the bill is sometimes wider at base, sometimes as in the specimens from India.

In the collections of the R. Nat. Hist. Museum of Stockholm there are only two specimens, one from Kuala Lumpur in Selangor and one specimen from Malacca (mounted specimens not counted) and these two have the wing-coverts purplish blue, while the Siamese birds have the upper wing-coverts steel-blue without any purplish tinge.

The wings of the two male specimens from the Malay Peninsula measure 44,5 and 44,3 mm. respectively, while a male from Chum Poo in Northern Siam measures 48 mm. A female obtained at Koh Lak in Siamese Malaya must also be referred to *Dicaeum cruentatum coccinea*, its wing measuring 46 mm.

Dicaeum cruentatum coccinea SCOP. therefore seems to inhabit Southern China, Hainan and Siam at least as far south as to Lat. N. 12° and probably Burma and certain parts of Tenasserim.

Like other members of the family *Dicaeidae* the Scarlet-backed Flower-pecker was most often observed in the clumps of parasitical plants growing on other trees, and they are not easy to detect among the dense foliage. Their sharp notes, however, often detected them.

♂ Chum Poo ² / ₅ 1914.	♀ Koh Lak ¹⁴ / ₁₂ 1914.
Total length = 78 mm.	Total length = 80 mm.
Wing = 48 »	Wing = 46 »
Tail = 28,2 »	Tail = 27,1 »
Culmen = 9 »	Culmen = 9 »

50. *Dicæum ignipectus*. HODGS. — The Fire-breasted Flower-pecker.

♂ Koon Tan ³¹/₅ 1914. T = 80 mm.; W = 44,2 mm.; T = 25 mm.; C = 7,5 mm. — Iris: black. Bill: black. Legs: black.

Among the Flower-peckers collected in the hill-forests near Koon Tan in Northern Siam there is a fine male specimen of this beautiful species, which has hitherto not been recorded from any part of Siam, though it has been procured a few times in Burma and Tenasserim always in high altitudes.

My specimen was shot in a clumps of a parasitical plant in a mixed pine and deciduous forest at about 1400 m. elevation.

In the description of this species in the »Catalogue of the Birds in the British Museum» Vol. 10 p. 42 the thighs are said to be ochraceous buff but in my specimen the thighs are dusky black with some of the feathers greyish white. The chin and the upper throat are decidedly more buffy than the breast or the under tail-coverts; on the middle of the rump there is a small tuft of olivaceous green feathers of the same colour as the lower flanks.

51. *Dicæum chrysorrhæum*. TEMM. — The Yellow-vented Flower-pecker.

Dicæum chrysorrhæum: Müller p. 374; Robinson & Kloss p. 78; Gyldenstolpe II; Gyldenstolpe III p. 171; Robinson III p. 756.

♂ Koh Lak ²⁸/₁₁ 1914. L = 95 mm.; W = 59,6 mm.; T = 30,5 mm.; C = 10 mm.

The Yellow-vented Flower-pecker seems to be fairly rare though generally distributed over the whole country and has been obtained by me both in the Northern parts of Siam and in the Siamese Malaya.

Outside Siamese Territory it has been found in Nepal, Sikkim, Assam, Manipur, Burma, the Malay Peninsula, Sumatra, Java and Borneo.

52. *Dicæum minullum olivaceum*. WALD. — The Plain-coloured Flower-Pecker.

Dicæum olivaceum: Gyldenstolpe I p. 46.

♂ Koon Tan ¹/₅ 1914. L = 76 mm.; W = 45 mm.; T = 23,5 mm.; C = 8 mm. — ♀ Koon Tan ³¹/₅ 1914. L = 75 mm.; W = 44,6 mm.; T = 25 mm.; C = 9 mm. — ♂ Koon Tan ³¹/₅ 1914. L = 80 mm.; W = 46 mm.; T = 25 mm.; C = 9 mm. — ♂ Koon Tan ²²/₉ 1914. L = 78 mm.; W = 46 mm.; T = 24 mm.; C = 9 mm. — ♀ Koon Tan ¹⁰/₅ 1914. L = 76 mm.; W = 42 mm.; T = 23 mm.; C = 8 mm. — Irides: black. Bill: pale brown with black tip. Legs: plumbeous.

In the collection there are five specimens of this small and plain-coloured bird, all obtained in the hill-forests at Koon Tan.

Like other members of the present family this Flower-pecker was mostly seen in the clumps of the parasitical plants growing on other trees. The Plain-coloured Flower-pecker is probably fairly common in the Northern parts of the country, though it very easily escapes notice on account of its small size and plain-colouring.

A near relative *Dicæum minullum*, SWINH. inhabits the island of Hainan. It is smaller than *D. m. olivaceum* but has, according to HARTERT, a brighter colouring on the upper surface, especially on the head. The flanks are also more yellowish olive and the bill is decidedly larger.

Another allied form *D. solicitans* HART. inhabits Java where it seems to be rather rare. In the collections of the Royal Natural History Museum of Stockholm there are two specimens of this bird, which exactly agree with the description in the literature.

53. *Piprisoma modestum*. HUME. — Hume's Flower-pecker.

Piprisoma modestum: Robinson & Kloss p. 79.

Piprisoma squalidum: Gyldenstolpe II; Gyldenstolpe III p. 171.

Piprisoma modestum modestum: Robinson III p. 756.

♂ Koon Tan ¹⁷/₅ 1914. L = 88 mm.; W = 56 mm.; T = 28,5 mm.; C = 7 mm. — Bill: plumbeous grey. Legs: black.

A single male specimen of Hume's Flower-pecker was obtained among the Koon Tan Hills.

Both in size and colouration it is very similar to *Piprisoma squalidum* BURTON. which also inhabits the Burmese countries. It is, however, according to SHARPE, separated from this last-mentioned form by having the *four* outer tail-feathers tipped with white while in *P. squalidum* only the *two* outer tail-feathers are tipped with white.

Fam. Sittidæ.

54. *Sitta cinnamoventris*. BLYTH. — The Cinnamon-bellied Nuthatch.

Sitta cinnamoventris: Gyldenstolpe I p. 27; Gyldenstolpe III p. 166.

♂ Pak Koh ¹⁵/₃ 1914. L = 132 mm.; W = 81 mm.; T = 43 mm.; C = 19 mm. — Irides: brown. Bill: black. Legs: plumbeous.

Apparently a very rare species.

Nuthatches were only observed in the deciduous hill-forests of Northern Siam and they were always very scarce except *Dendrophila frontalis* SWAINS. which was rather common in suitable localities.

The Cinnamon-bellied Nuthatch was, however, also obtained by me during my previous Expedition to Siam 1911—1912. Outside Siamese Territory it inhabits the Himalayas, Assam, Manipur and Upper Burma.

Like the other members of the family this species was generally seen in small parties together with *Sitta neglecta* WALD. and *Dendrophila frontalis*, SWAINS.

55. *Sitta neglecta*. WALD. — The Burmese Nuthatch.

Sitta neglecta: Gyldenstolpe III p. 167.

♂ Koon Tan ⁴/₅ 1914. L = 95 mm.; W = 79,2 mm.; — ♂ Koon Tan ⁶/₅ 1914. L = 135 mm.; W = 77,3 mm.; T = 44,3 mm.; C = 15 mm. — ♂ Koon Tan ⁴/₅ 1914. L = 125 mm.; W = 81,3 mm.; T = 43,2 mm.; C = 15 mm. — ♂ Doi Par Sakeng ²⁸/₆ 1914. L = 128 mm.; W = 78,2 mm.; T = 43 mm.; C = 16 mm. — Irides: greyish brown. Bill: blackish brown. Legs: plumbeous.

The Burmese Nuthatch is sparsely distributed over the Northern parts of the country. It was nowhere common but some specimens were seen together with *Sitta cinnamoventris* BLYTH in the deciduous dry forests.

56. *Dendrophila frontalis*. SWAINS. — The Velvet-fronted Blue Nuthatch.

Dendrophila frontalis: Müller p. 372.

Sitta frontalis: Oustalet 1903 p. 7; Gyldenstolpe II; Gyldenstolpe III p. 167.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	¹³ / ₉ 1914	115	74	43	11,5	12
♂	Koon Tan	²⁹ / ₆ 1914	112	73,5	42,7	12,5	11,6
♂	Koon Tan	⁵ / ₆ 1914	122	71	39	12	11
♂	Doi Par Sakeng	¹⁰ / ₇ 1914	115	75	42	13	12,2
♀	Pak Koh	¹⁸ / ₃ 1914	110	74,2	41	13	13
♀	Koon Tan	²⁹ / ₄ 1914	118	72,5	43	13,1	12
♀	Bang Hue Pong	²⁹ / ₆ 1914	121	73	42,5	13	13

Iris: Yellow (ad.); vinaceous grey (young). *Bill*: Orange red with black tip (ad.); black (young).

Fairly common in the deciduous hill-forests of Northern Siam; sometimes though more seldom at the outskirts of the evergreen jungles. When observed it generally was in small parties of about 4 to 6 individuals which were busy searching the tree-trunks for insects and giving their presence known by a note, being best explained by »chik-chik» repeated several times.

The colour of the underparts seem to vary rather much and birds shot in July and September have a much more vinaceous-blue under surface than birds shot in March to May.

The young birds have the bills quite black; the irides vinaceous grey; the abdomen pale cinnamon and the under tail-coverts whitish buff barred and tipped with cinnamon.

A bird, shot at Koon Tan on the 29th of May, and still showing traces of being immature in the barring of the under tailcoverts, is of rather a remarkable colour being pale vinaceous blue on the whole upper parts of the body, this colour being exactly like the colouring of the under parts of the body in freshly moulted birds; the black frontal band is not so prominent as in other specimens.

The dimensions of the tails in the Siamese specimens are considerably greater (with the exception of one male) than the measures given by HELLMAYR (Tierreich Vol. 18 p. 194) who gives the tails as measuring from 37 to 40 mm., and in the key to the Genus in WYTSMAN's *Genera Avium* part. 16 p. 13, the same author says that the tails in *Dendrophila frontalis* and its subspecies never exceed 40 mm.

The central tail-feathers in my specimens are without any black marks, being almost bluish grey.

Fam. Paridæ.

57. *Melanochlora sultanea* \leq *flavocristata*. — The Sultan Bird.

Melanochlora sultanea: Gairdner p. 148; Grant p. 76; Müller p. 372.

Melanochlora flavocristata: Robinson & Kloss p. 70; Robinson III p. 108.

Melanochlora sultanea flavocristata: Gyldenstolpe II; Gyldenstolpe III p. 166.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Pak Koh	28/3 1914	190	104	95	13	18,5
♂	Koon Tan	22/6 1914	196	111	102	13	20
♂	Pak Koh	18/4 1914	190	111	95	13	20
♂	Pak Koh	20/3 1914	186	108	97	13	19,5
♂	Pak Koh	12/3 1914	185	106	96	13	20
♂	Doi Par Sakeng	19/7 1914	177	106	95	12,5	18

Irides: brown. Bill: black. Legs: plumbeous.

The specimens of the Sultan Bird obtained in Northern and Northwestern Siam are almost intermediate between the typical *M. sultanea* and the southern race *M. flavocristata* LAFF.

This last-mentioned race inhabits the central parts of Siam. *M. s. flavocristata* only differs from the typical *M. sultanea* in being smaller. HELLMAYR (Tierreich Vol. 18 p. 31) gives the wings in ♂ as measuring 100—107 mm. in the southern form, while the northern form have wings measuring 110—115 mm. according to the same author.

As seen by the measurements taken on the birds in my collection these specimens are practically intermediate between the two forms, which probably meet in the North of Siam.

Down in the Siamese Malaya I never observed this species. As a rule the Sultan Birds associate with Bulbuls and were generally found in small parties together with these birds.

Fam. Laniidæ.

58. *Lanius tigrinus*. DRAP. — The Thick-billed Shrike.

♂ Koon Tan 4/5 1914. L = 175 mm.; W = 84 mm.; T = 78 mm.; C = 14 mm. — Irides: brown. Bill: black. Legs: brownish grey.

The Thick-billed Shrike which has previously not been recorded from Siam inhabits the Malay Peninsula, Sumatra, Java, Borneo and China north to Corea.

Though I observed several specimens among the mountainous regions of Northern Siam I only shot a single male specimen. It is in full plumage and probably a very old bird because there are no traces of any barring on the flanks or sides of the body. On the outer tail-feathers there is only a very small white tip and a V-shaped blackish brown subterminal mark.

59. **Lanius hypoleucus siamensis.** GYLDENSTOLPE.¹ — The Siamese Shrike.

Plate 2. fig. 1.

Lanius colluroides: Gyldenstolpe III p. 167.

♂ Pong Pa Oh. ²⁵/₈ 1914. L = 200 mm.; W = 89 mm.; T = 102 mm.; Tarsus = 21 mm. — ♀ Koh Lak ¹⁷/₁₂ 1914. L = 169 mm.; W = 85,5 mm.; T = 95,5 mm.; C = 12 mm.; Tarsus = 21 mm. — 1 ad. Koon Tan 1914. W = 84 mm.; T = 91 mm.; C = 12,5 mm.; Tarsus = 21 mm. — Irides: brown. Bill: horn colour. Legs: black.

This species was fairly common at the outskirts of the forests and in the shrub-jungles of Northern Siam but it also occurred in the Siamese Malaya where one fine specimen in full plumage was obtained on the 17th of December 1914 and constitutes the type of this new subspecies.

Description: Fore part of crown black, gradually passing over into the dark grey of the hind neck, nape and upper back; rest of the back, rump and upper tail coverts deep chestnut; feathers above the eye and ear-coverts deep black; *lores and a line at the base of the bill pure white*; quills and wing-coverts dark brown, the latter as well as the secondaries broadly margined with rufous brown; basal part of the inner primaries white, which colour diminishes in extent on the outer primaries, though forming a speculum; the *four* middle pairs of the tail-feathers blackish brown with white tips, which are very narrow on the two central pairs increasing in size on the next two pairs; the outermost two pairs almost white with only a blackish brown colour on the immediate neighbourhood of the shafts which are pure black; quills below dusky and with a large white patch; throat pure white; rest of under parts creamy white with a rufous tinge on the flanks; *thighs white with black bases to the feathers; wing lining pure white.*

60. **Lanius nigriceps longicaudatus.** GOULD. — The Siamese Black-headed Shrike.

Lanius nigriceps longicaudatus: Gyldenstolpe I p. 31.

Lanius longicaudatus: Gould p. 151.

Lanius nigriceps: Williamson I p. 43; Williamson II p. 89; Schomburgk p. 256; Finsch & Conrad p. 352; Oustalet 1903 p. 24; Gairdner p. 149.

Not uncommon on the great alluvial plain of Central Siam. Outside Bangkok it also occurred and single specimens were often seen perching on a fence-post or on some low tree or bush. It has a harsh note which, however, is seldom heard, generally only when the bird has been frightened in some way.

¹ Ornith. Monatsber. 1916. No. 2 p. 28.

61. *Otomela cristata*. LINN. — The Brown Shrike.

Lanius cristatus: Williamson I p. 43; Robinson & Kloss p. 69; Gyldenstolpe II; Gyldenstolpe III p. 167; Grant p. 77.

♂ Chum Poo ²/₅ 1914. L = 190 mm.; W = 87 mm.; T = 89 mm.; C = 14 mm. — ♂ Koh Lak ²¹/₁ 1915. L = 177 mm.; W = 85 mm.; T = 88 mm. — Irides: dark brown. Bill: black. Legs: brownish black.

Probably only a migratory bird to Siam where it is found, though always rare, both in the Northern parts of the country and in the Siamese Malaya.

A specimen shot as late as on the 2nd of May 1914 near Chum Poo, a small place in the Meh Tha valley south-east of Chieng Mai, may possibly indicate that it even breeds in Northern Siam. This specimen is in full summer plumage with the under parts of a very distinct buff colour, and the white supercilium is very well-marked.

The other specimen, also a male, has still some crossbars on the flanks and on the lower breast, and the buff colour on the under parts of the body is only faintly indicated, these parts being almost white.

Another specimen — a young female — has the rump feathers barred with dark brown. Even the cheeks are also barred, as well as the breast and the under parts of the body, leaving only the middle of the belly and the under tail-coverts unbarred.

Fam. Prionopidæ.

62. *Hemipus picatus*. SYKES. — The Black-backed Pied Shrike.

Hemipus picatus: Müller p. 363; Robinson & Kloss p. 69; Gyldenstolpe I p. 32; Gyldenstolpe III p. 167; Robinson I p. 108.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.
♂	Koon Tan	²⁹ / ₅ 1914	136	59	61,5	11,2
♀	Koh Lak	²⁷ / ₁₁ 1914	130	59	60	12
♀	Koon Tan	²⁸ / ₅ 1914	135	60	61,6	11,5
♂	Koon Tan	²² / ₆ 1914	128	61,5	61,5	12,1
♂	Pa Hing	⁹ / ₄ 1914	126	60,5	59	12
♂	Koon Tan	²⁴ / ₆ 1914	130	64,5	62	11
♂	Pak Koh	¹⁶ / ₄ 1914	130	63	60	11
♀	Pak Koh	¹⁵ / ₄ 1914	123	62,6	59,5	11,8

Irides: blackish brown. Bill: black. Legs: black.

Commonly distributed in scrub-jungle in the North of Siam. It also occurred, though not quite as common, at the neighbourhood of Koh Lak in the Siamese Malaya. Even as far south as in Bandon and in some other places further south in the Malay Peninsula this species has been met with, but south of these places and on the Sunda Islands it is replaced by the allied *Hemipus obscurus* HORSF. which is characterized by the lacking of a white bar along the wing.

63. *Tephrodornis pondicerianus*. GM. — The Common Wood-Shrike.

Tephrodornis pondicerianus: Gyldenstolpe I p. 32; Gyldenstolpe III p. 168.

♂ Koon Tan $15/5$ 1914. L = 162 mm.; W = 85,2 mm.; T = 65 mm.; C = 16 mm. — ♀ Koon Tan $18/5$ 1914. L = 156 mm.; W = 84 mm.; T = 65 mm.; C = 15 mm. — Irides: brown. Bill: black. Legs: plumbeous.

This Wood Shrike was rather rare in the parts of the country visited by the Expedition and only two specimens were obtained during the whole journey.

When observed they were in company with Minivets.

64. *Tephrodornis pelvicus*. HODGS. — The Nepal Wood-Shrike.

Tephrodornis pelvicus: Gyldenstolpe I p. 32; Gyldenstolpe III p. 168.

♂ Koon Tan $28/4$ 1914. L = 200 mm.; W = 114 mm.; T = 87 mm.; C = 18,5 mm. — ♂ Pa Hing $11/4$ 1914. L = 218 mm.; W = 114 mm.; T = 86 mm.; C = 19 mm. — ♂ Koon Tan $10/5$ 1914. L = 212 mm.; W = 117 mm.; T = 87,5 mm.; C = 18,5 mm. — ♂ Doi Par Sakeng $15/7$ 1914. L = 205 mm.; W = 116 mm.; T = 96 mm.; C = 19 mm. — ♂ Koon Tan $2/6$ 1914. L = 206 mm.; W = 116 mm.; T = 85 mm.; C = 20 mm. — ♂ Koon Tan $29/4$ 1914. L = 203 mm.; W = 111 mm.; T = 87,5 mm.; C = 20,5 mm. — ♀ Koon Tan $29/5$ 1914. L = 195 mm.; W = 112 mm.; T = 82 mm.; C = 20 mm. — Irides: yellowish brown. Bill: blackish brown. Legs: plumbeous.

The Nepal Wood-Shrike was rather abundant in the Northern and Northwestern parts of the country. In the Siamese Malaya it was never observed during my journey though this species or the southern *T. gularis* RAFFL. may occur.

The immature birds are somewhat differing from the adult in having the feathers of the back and the wing-coverts tipped with pale brownish white, and with a sub-terminal black bar. The secondaries are also tipped with pale brownish white but the sub-terminal black bar is wanting and there is also a well-marked brownish white edge on the outer webs of these feathers. The tail-feathers are dusky brown tipped and margined with brownish white. The irides are greyish yellow instead of yellowish brown in adult specimens, and the bill is pale brown instead of blackish brown.

65. *Platylophus ardesiacus*. CAB. — The Jay-Shrike.

Platylophus ardesiacus: Robinson & Kloss p. 69; Robinson I p. 109.

♂ Hat Sanuk $18/2$ 1915. L = 265 mm.; W = 141 mm.; T = 126 mm.; C = 22 mm.; Tarsus = 30,5 mm. — Irides: brown. Bill: black. Legs: black.

A small party of this pretty bird, which has previously not been found out of the Malay Peninsula, were observed in a damp evergreen forest near Hat Sanuk in Siamese Malaya on the 18th of February 1915.

It is a very restless bird which is always on the move flying from tree to tree uttering its peculiar note which consists of a whistling uttered in three tones. When resting on a branch it keeps its long crest erect while it constantly bows and turns the body in all directions. It is rather a shy bird and difficult to approach in the tangle of vegetation.

In any other parts of the country it was never observed.

The colour of the upper parts of the body is rather variable as seen by a series in the Royal Natural History Museum in Stockholm. In old birds the underparts of the body are very dark slaty black without traces of the white bars which are very conspicuous in young birds.

Immature specimens have the primaries dark rufous brown with orange brown shafts to the primaries and secondaries, and the back is olive brown and not greyish as stated by ELLIOT. In old birds the primaries and the secondaries are dusky black with an olivaceous brown shade on the outer webs. The shafts of the primaries and secondaries are black. The white spots above and below the eye seems to be larger and more prominent in the Hat Sanuk specimen than in specimens from the southern parts of the Malay Peninsula.

Fam. Artamidæ.

66. *Artamus fuscus*. VIEILL. — The Ashy Swallow-Shrike.

Artamus fuscus: Gould p. 151; Williamson I p. 43; Williamson II p. 91; Gairdner p. 149.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koh Lak	23/11 1914	151	126	56	15	13
♀	Koh Lak	23/11 1914	155	131	57	16	12,5
♀	Chieng Sen	9/8 1914	178	128	62	16	14,2
♂	Chieng Sen	9/8 1914	180	132	62	17	13,5
♀	Chieng Sen	9/8 1914	175	128	62	17,5	12,8

Irides: brown or black. Bill: bluish, black tip. Legs: black.

The first time I observed this Swallow-Shrike was near Chieng Sen, where a large flock had settled down in a bamboo-clump on the bank of the Mekong river. From their resting place they now and then made aerial evolutions, though always returning to the same place again where the whole party was perching quite close to each other like some kind of weaver-birds.

At the neighbourhood of Koh Lak they were also obtained, though apparently more rare here than up in the Northern parts of the country. Here they haunted open sandy plains, resting on the branches of dead trees or on telegraph wires. At the environs of Bangkok I never observed them, but from that locality they have been recorded by WILLIAMSON and other authors.

Fam. Sylvidæ.

67. *Arundinax aëdon*. PALL. — Pallas's Reed-Warbler.

Eusciniola aëdon: Gyldenstolpe I p. 29; Gyldenstolpe II; Gyldenstolpe III p. 167.

Arundinax aëdon: Williamson I p. 42; Williamson II p. 86.

♂ Koon Tan ²⁸/₄ 1914. L = 182 mm.; W = 77 mm.; T = 90 mm.; C = 14 mm. — ♂ Sop Tue ²⁴/₄ 1914. L = 182 mm.; W = 78 mm.; T = 93 mm.; C = 14 mm. — ♂ Koh Lak ²⁸/₁ 1915. L = 176 mm.; W = 75 mm.; T = 88 mm.; C = 14 mm. — Irides; brown. Bill: upper mandible horn colour, lower mandible yellowish white. Legs: plumbeous.

Pallas's Reed Warbler is only a winter visitor to Siam and not very abundant. During the whole journey only three specimens were observed and they were all found in scrub jungles at the neighbourhood of water.

68. *Sutoria sutoria*. FORST. — The Indian Tailor-Bird.

Orthotomus sutorius: Flower p. 322; Williamson I p. 42; Williamson II p. 84.

♂ Koon Tan ¹⁵/₅ 1914. L = 131 mm.; W = 41,6 mm.; T = 65,5 mm.; C = 12 mm. — ♂ Doi Par Sakeng ¹¹/₇ 1914. L = 100 mm.; W = 41,2 mm.; T = 47,5 mm.; C = 12 mm. — ♂ Koh Lak ¹⁹/₁₂ 1914. L = 115 mm.; W = 42,5 mm.; T = 47,3 mm.; C = 12 mm. — ♀ Koh Lak ¹⁷/₁₂ 1914. L = 99 mm.; W = 41 mm.; T = 40 mm.; C = 12,2 mm. — Irides: light brown. Bill: horn colour. Legs: flesh colour.

The Indian Tailor Bird was frequently met with on suitable localities over the whole of Siam and it extends down the Malay Peninsula too. Here it was not uncommon at least as far south as to Koh Lak in Lat. N. 12°.

Further south another allied form occurs, *Sutoria maculicollis* MOORE, and this species is separated from typical *S. sutoria* FORST. by its white ear-coverts. This species may also probably be found in the southern parts of the Siamese Malaya.

In Northern Siam the Indian Tailor Birds inhabited the bamboo jungles and the grassy plains.

At the neighbourhood of Doi Par Sakeng a nest containing two fresh eggs was found on the 22nd of July 1914. The eggs were of a bluish green colour, boldly marked with spots of brownish red these spots being most numerous at the thickest end. They measure as follows: $\frac{16,4 \times 16,4 \text{ mm.}}{11,6 \times 11,8 \text{ mm.}}$.

69. *Franklinia rufescens poliocephala*. ANDERS.

♂ Koon Tan ¹³/₉ 1914. L = 99 mm.; W = 40 mm.; T = 41 mm.; C = 11 mm. — ♀ Koon Tan ⁶/₆ 1914. L = 97 mm.; W = 40 mm.; C = 11 mm. — Irides: reddish brown. Bill: horn colour. Legs: flesh colour.

Two specimens of this race were obtained on a grassy plain at the neighbourhood of Koon Tan.

The habits of this Grass Warbler are quite the same as those of the next species.

70. *Franklinia rufescens beavani*. WALD. — Beavan's Wren-Warbler.

Franklinia rufescens: Robinson & Kloss p. 67.

♂ Sop Tue ²³/₄ 1914. L = 92 mm.; W = 40 mm.; T = 43 mm.; C = 10 mm.; Tarsus = 17 mm. — ♀ Sop Tue ²³/₄ 1914. L = 95 mm.; W = 40 mm.; T = 40 mm.; C = 10 mm.; Tarsus = 18 mm. — ♂ Koon Tan ¹²/₉ 1914. L = 102 mm.; W = 41 mm.; T = 46. — Irides: brown. Bill: dark horn colour. Legs flesh colour.

Among the birds collected in Northern Siam there are two specimens shot at Sop Tue and one male from Koon Tan which I consider as belonging to this form of *F. rufescens*. The differences between *F. r. beavani* WALD. and *F. r. poliocephala* ANDERS. are, however, very slight, the former race being characterized by the presence of a white eye-brow which is absent in the last-mentioned form.

This Grass Warbler was not uncommon throughout the open grassy plains of Northern Siam and it even occurred among the undergrowth—chiefly consisting of grass—of the lower hill-forests. It was generally seen in small parties and the tiny little birds are very noisy keeping up a twittering note which may be generally heard in such localities which are suitable for this bird.

71. **Phylloscopus fuscata fuscata.** BLYTH. — The Dusky Willow-Warbler.

Phylloscopus fuscatus: Williamson I p. 42; Williamson II p. 86.

♂ Koon Tan ³⁰/₄ 1914. L = 125 mm.; W = 62 mm.; T = 54 mm.; C = 9 mm. — ♀ Sop Tue ²⁴/₄ 1914. L = 112 mm.; W = 56 mm.; T = 50 mm.; C = 9 mm. — Irides: brownish black. Bill: horn colour. Legs: pale brown.

According to WILLIAMSON (Journ. Siam. Nat. Hist. Soc. Vol. I N:o 2 p. 87) the Dusky Willow-Warbler «is fairly common» in the gardens of Bangkok during the cold season.

In Northern Siam, however, it was rather rare, and I only collected two specimens, both shot at the end of April. This species is found among low bushes and trees especially in scrub jungles.

72. **Phylloscopus borealis borealis.** BLAS. — *Kennecoo* The Arctic Willow-Warbler.

Phylloscopus borealis: Robinson & Kloss p. 65; Grant p. 76; Robinson II p. 150.

Acanthopneuste borealis: Williamson I p. 43; Williamson II p. 87.

Phylloscopus borealis borealis: Robinson III p. 754.

♂ Koh Lak ²⁷/₁₁ 1914. L = 113 mm.; W = 60 mm.; T = 45 mm.; C = 10 mm.; Tarsus = 17 mm. — Irides: brown. Bill: horn colour. Legs: pale brown.

A single male specimen of the Arctic Willow Warbler was obtained at Koh Lak on the 27th of November 1914. Winter visitor only.

73. **Phylloscopus nitidus plumbeitarsus.** SWINH. — Middendorff's Willow-Warbler.

Phylloscopus nitidus plumbeitarsus: Gyldenstolpe I p. 29.

Acanthopneuste plumbeitarsus: Williamson I p. 43.

♂ Koh Lak ¹⁴/₁₂ 1914. L = 103 mm.; W = 58 mm.; T = 43 mm.; C = 8 mm. — ♂ Koh Lak ¹⁷/₁₂ 1914. L = 100 mm.; W = 56 mm.; T = 42,5 mm.; C = 8 mm. — Irides: brown. Bill: horny brown. Legs: brown.

During my stay at Koh Lak in the Siamese Malaya I obtained two specimens of Middendorff's Willow Warbler, which only is wintering in Siam.

74. *Phylloscopus tennellipes*. SWINH. — The Pale-legged Willow-Warbler.

Phylloscopus tennellipes: Robinson III p. 755.

♂ Den Chai $\frac{8}{2}$ 1912. L = 95 mm.; W = 55,5 mm.; T = 44 mm.; C = 8 mm.; Tarsus = 16 mm.
— Irides: black. Bill: horn colour. Legs: pale brownish yellow.

When writing my former account of the Birds of Siam (Kungl. Svenska Vetenskapsakademiens Handlingar Band 50. N:o 8. 1912) I omitted to record a specimen of *Phylloscopus tennellipes* SWINH. which I shot near Den Chai in Northern Siam.

Fam. Turdidæ.

75. *Geocichla citrina*. LATH. — The Orange-headed Ground-Thrush.

Geocichla citrina: Robinson & Kloss p. 63; Gairdner p. 149.

♂ Koh Lak Paa $\frac{7}{12}$ 1914. L = 190 mm.; W = 107 mm.; T = 65,5 mm.; C = 18 mm.; Tarsus = 30 mm. — ♀ Koh Lak $\frac{12}{12}$ 1914. L = 185 mm.; W = 106 mm.; T = 68 mm.; C = 18 mm.; Tarsus = 29 mm. — Irides: brownish black (♂) or brown (♀); Legs: flesh colour.

Not common in the parts of the country visited by the Expedition and only two specimens were obtained in the Siamese Malaya. The male was shot on the slopes of a mountain near the Tenasserim boundary and the female on a limestone mountain, densely covered with evergreen jungle and situated quite close to the sea-shore.

As a rule this species keeps on the ground only moving up in a tree when being disturbed in some way. It is not very shy but still rather difficult to obtain on account of its retiring habits. The female is much paler-coloured than the male and has the upper back and scapulars suffused with olive-green.

76. *Geocichla innotata*. BLYTH. — The Malay Ground-Thrush.

Geocichla innotata: Robinson & Kloss p. 63; Robinson III p. 752.

♂ Koon Tan. W = 115 mm.; T = 72 mm.; C = 19 mm.; Tarsus = 28 mm.

Rather astonishing is that a specimen of the Malay Ground Thrush was shot by MR. E. EISENHOFER's native collector as far north as at Koon Tan, where the other allied form *G. citrina* LATH. more probably ought to have been found. But the Koon Tan specimen does not show any sign of the white tips to the median wing-coverts which is the main point of difference between these two related forms. The two specimens obtained in the Siamese Malaya have very marked white tips on the median wing-coverts and therefore clearly belong to *G. citrina* LATH., if this really is a distinct species and not only a seasonal variation. However, I have used both these names until more material from different seasons and localities have been carefully examined.

77. **Turdus aureus angustirostris.** GYLDENSTOLPE.¹

Oreocincla dauma: Gyldenstolpe III p. 170.

♂ Koon Tan, May 1914. W = 145 mm.; T = 118 mm.; C = 21 mm.; Tarsus = 32 mm. — 1 ad.
Koon Tan, May 1914. W = 146 mm.; T = 106 mm.; C = 21 mm.; Tarsus = 32 mm.

Similar to *Turdus aureus horsfieldi* BP. but the black tips to the feathers of the upper parts of the body and of the abdomen much larger and the whole colouration paler. Like *T. a. horsfieldi* the tail also consists of 14 feathers but the wing formula is somewhat different. In the new form the second primary falls between the fifth and the sixth, the fourth being the longest. Another allied form has been described by RICHMOND under the name of *Oreocichla horsfieldi affinis*. The type locality for this form was Trang in Lower Siam. According to RICHMOND the second primary falls between the third and fourth and the third primary is the longest. The bill is said to be smaller than in typical *horsfieldi* and the wing longer, viz. 142 mm.

As seen by the measurements given above, the new form has still longer wings than *O. h. affinis*. The tail is also much longer and the bill and tarsus shorter.

This new form was only obtained among the mountains near Koon Tan and it was by no means common.

78. **Turdus obscurus.** GM. — The Dark Ouzel.

Turdus obscurus: Robinson & Kloss p. 64; Robinson III p. 753.

Merula obscura: Müller p. 357.

♂ Hue Sai ¹⁷/₁ 1915. L = 215 mm.; W = 120 mm.; T = 88 mm.; C = 17,2 mm.; Tarsus = 28 mm.
— Iridis: brown. Bill: yellowish brown. Legs: pale brown.

The Dark Ouzel was only observed near Hue Sai, a small creek running from the hills bordering Tenasserim and Siam on about Lat. N. 11° 50'.

Even here it was rare and only a few specimens were met with. They occurred in a very thick and almost impenetrable brush-jungle and were rather shy. When disturbed in some way, they at once dived down into the tangle of vegetation though appearing soon again to have a look at the disturber.

This species seems to be a common cage-bird among the natives both in Bangkok and in the villages on the Peninsula. It is only found in Siam, the Malay Peninsula, Southern China, the Sunda Islands and the Philippines during the winter months, having its breeding places in Siberia.

79. **Monticola cyanea.** LINN. — The Western Blue Rock-Thrush.

Monticola cyanea: Gyldenstolpe III p. 170.

Petrophila cyanus: Williamson I p. 44.

Petrocincla affinis: Gould p. 151.

¹ Ornith. Monatsber. 1916. No. 2 p. 28.

♂ Koh Lak ²¹/₁₁ 1914. L = 205 mm.; W = 117 mm.; T = 85 mm.; C = 18 mm. — ♂ Koon Tan 1914. W = 120 mm.; T = 88 mm.; C = 17 mm. — Irides: brown. Bill: horn colour. Legs: black.

This species, as well as the next one, was not uncommon in Siam during the winter months. They were mostly observed high up among the mountains and sometimes very shy and difficult to get into a proper range. Sometimes they were, however, rather tame and rested on the roofs of the houses and bungalows.

80. **Monticola solitarius philippensis.** P. L. S. MÜLL. — The Eastern Blue Rock-Thrush.

Monticola solitarius philippensis: Gyldenstolpe I p. 40; Robinson III p. 752; Gyldenstolpe II; Gyldenstolpe III p. 170.

Monticola solitaria: Müller p. 357.

Petrophila solitaria: Robinson & Kloss p. 64; Williamson I p. 44.

♀ Pak Koh ²¹/₃ 1914. L = 206 mm.; W = 119 mm.; T = 88 mm.; C = 21 mm.; Tarsus 25,5 mm. — Irides: brown. Bill: black. Legs: brownish black.

In habits the Eastern Blue Rock-Thrush resembles *M. cyanea*, LINN. and it was also found on the same localities.

The specimen obtained is somewhat intermediate between *M. s. philippensis* and *M. s. pandoo* SYKES. The Eastern Blue Rock-Thrush breeds in South Eastern Siberia, Manchuria, Eastern China, Corea, Japan and Formosa and is only found in Siam during the cold season.

81. **Monticola gularis.** SWINH. — The White-throated Rock-Thrush.

Monticola gularis: Robinson III p. 752.

♂ Koon Tan. W = 98 mm.; T = 75 mm.; C = 15 mm.; Tarsus = 21 mm.

A single specimen of the White-throated Rock-Thrush was obtained by MR. EISENHOFER's native collector among the Koon Tan Hills.

This species is only a migratory bird to Siam and has previously been found once in Cambodia and once according to HARTERT (Vögel der Paläarktischen Fauna, Band I, p. 673), in the Malay Peninsula. Its breeding places are situated in the Ussuri valley in Eastern Siberia, Manchuria and Northern China.

My specimen agrees well with the description given by HARTERT (tom. cit. p. 673), but it has the blue feathers of the crown tipped with reddish brown, which probably only is a sign of immaturity. The tail is also longer than recorded by HARTERT, measuring 75 mm. against HARTERT's 65—67 mm. In HARTERT's description there is probably a misprint about the length of the culmen which is stated to be 24 mm. It probably ought to be 14 mm.

82. **Henicurus leschenaulti indicus.** HART. — Leschenault's Forktail.

Henicurus leschenaulti: Gyldenstolpe III p. 170.

♂ juv. Koon Tan ¹³/₉ 1914. L = 252 mm.; W = 106,5 mm.; T = 125 mm.; C = 22 mm.; Tarsus = 29 mm. — ♂ juv. Doi Par Sakeng ¹⁶/₇ 1914. L = 231 mm.; W = 103 mm.; T = 120 mm.; C = 21 mm.; Tarsus = 29 mm. — Irides: brownish black. Bill: black. Legs: flesh colour.

Two specimens of this somewhat rare Forktail were collected during my journey, one male at Doi Par Sakeng in Northwestern Siam and one male at Koon Tan in the Northern parts of the country.

Both these specimens are immature and the white patch on the crown is totally absent, the crown being dusky black like the nape and upper back.

Compared with two adult specimens of the typical *H. l. leschenaulti*, VIEILL. from Java in the collections of the Royal Natural History Museum in Stockholm, the Siamese birds are at once distinguished in having slanting white tips to the tail-feathers instead of round ones as in *H. l. leschenaulti*.

The Siamese specimens have fairly broad white tips to the outer secondaries thus resembling *H. maculatus* VIG. and *H. sinensis*, GOULD., though they differ from both these species by their smaller size.

83. *Henicurus schistaceus*. HODGS. — The Slaty-backed Forktail.

Henicurus schistaceus: Gyldenstolpe II; Gyldenstolpe III p. 170.

♀ Doi Par Sakeng ¹⁶/₇ 1914. L = 205 mm.; W = 96,2 mm.; T = 111 mm.; C = 18 mm. — ♂ Doi Par Sakeng ¹⁶/₇ 1914. L = 203 mm.; W = 94 mm.; T = 112 mm.; C = 17 mm. — ♂ Koon Tan ²⁹/₅ 1914. L = 210 mm.; W = 93,5 mm.; T = 114 mm.; C = 16,5 mm. — ♀ Koon Tan ²⁹/₅ 1914. L = 195 mm.; W = 95,5 mm.; T = 108 mm.; C = 16 mm. — Irides: blackish brown. Bill: black. Legs: flesh colour.

All the specimens obtained are young birds and none has the black chin and throat of the adult bird. They have no white frontal band and the head and upper back is blackish slaty with a brownish shade on the latter; lores greyish brown mottled with white; chin, throat and breast mottled with brown, more strongly on the breast; the sides of the body brownish slaty; flanks, lower abdomen, upper- and lower tail-coverts pure white. The extent of the white tips to the secondaries seems to be very variable and in one specimen they are quite narrow and ill-defined.

84. *Larvivora cyanea*. PALL. — The Siberian Blue Robin.

Larvivora cyanea: Robinson & Kloss p. 64; Robinson II p. 149.

♂ Koon Tan ²²/₆ 1914. L = 132 mm.; W = 75 mm.; T = 61 mm.; C = 11 mm.; Tarsus = 23 mm. — ♂ Koon Tan ⁶/₅ 1914. L = 145 mm.; W = 70 mm.; T = 50 mm.; C = 11 mm.; Tarsus = 23 mm. — ♀ Koon Tan. W = 70 mm.; T = 52 mm.; C = 11 mm.; Tarsus = 24 mm. — Irides: brown. Bill: horny black. Legs: pale brown.

The Siberian Blue Robin is probably a resident bird to Siam, as specimens were obtained among the Koon Tan Hills in May and September.

It keeps entirely to very dense forests, among the undergrowth of which it lives. It is very retiring in its habits. Besides this, it very seldom uses its wings, why it easily escapes notice. It is a silent bird too, and I never heard it utter any call. Generally found single, more seldom in pairs.

85. *Copsychus saularis saularis*. LATH. — The Magpie-Robin.

Copsychus saularis: Gould p. 151; Schomburgk p. 262; Flower p. 323; Gairdner p. 32; Williamson I p. 44; Barton p. 106; Gyldenstolpe I p. 39; Gyldenstolpe II; Gyldenstolpe III p. 170; Gairdner p. 149.
Copsychus musicus: Grant p. 79; Bonhote p. 63; Robinson II p. 150.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	28/4 1914	—	97	92	18,5	28
♂	Koon Tan	28/4 1914	208	97	94,5	16	28
♂	Ban Meh Na	24/6 1914	185	95	89	18	28
♂	Ban Meh Na	24/6 1914	188	95	92	17	27
♀	Koon Tan	30/4 1914	202	89	88	16	26
♀	Koh Lak.	28/11 1914	190	87	86,5	17	24
♂ juv.	Koon Tan	28/4 1914	185	88	78	14	28
♂ juv.	Koon Tan	28/4 1914	150	76	42	11	27
♀ juv.	Koon Tan	28/4 1914	150	83	48	12	26

Irides: brownish black. Bill: black. Legs: black.

The Magpie Robin inhabiting the North of Siam belongs to the same race which is found in India and Assam. It probably also occurs in the whole of Burma and Tenasserim. From its nearest ally *C. s. musicus* RAFFL., which is a more southern form inhabiting the Malay Peninsula, Sumatra and parts of Java, it is separated by having pure white axillaries. In *C. s. musicus* the axillaries are black with only a whitish tip to the feathers.

The northern race seems, however, to interbreed with the southern form and the specimens obtained at the neighbourhood of Koh Lak in the Siamese Malaya are practically intermediate and ought to be named

Copsychus saularis saularis \cong *musicus*.

86. *Kittocincla macrurus tricolor*. SYKES. — The Shama.

Kittocincla macrura: Gyldenstolpe I p. 39; Gyldenstolpe II; Gyldenstolpe III p. 170; Gairdner p. 32; Robinson & Kloss p. 65; Robinson I p. 108; Robinson II p. 150; Gairdner p. 149.
Copsychus macrurus: Schomburgk p. 262; Müller p. 360.
Kittocincla tricolor: Grant p. 79.
Kittocincla macrurus macrurus: Robinson III p. 753.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Pak Koh	29/3 1914	220	89	150	14	22
♂	Pak Koh	2/4 1914	250	86	155	14	22
♂	Koon Tan	14/6 1914	259	94,5	153	14,5	24
♂	Koon Tan	1/6 1914	270	93	162	15	22
♂	Koon Tan	29/6 1914	256	93	159	15	22,5

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	21/6 1914	250	92,5	170	13,5	21,5
♂	Doi Par Sakeng	14/7 1914	245	91	146	15	23
♂ juv	Doi Par Sakeng	17/7 1914	202	86	105	15	22
♂ juv	Koon Tan	9/6 1914	148	77	62	12	21
♀	Doi Par Sakeng	16/7 1914	215	85,5	125	16	22
♀	Koon Tan	5/6 1914	191	87	117	14,3	21
♀	Koon Tan	22/6 1914	205	86,2	106,5	15	21
♀	Koh Lak Paa	7/12 1914	200	82	121	15	22

Irides: black. Bill: black. Legs: pale flesh colour.

The Shama is a common bird over the whole of Siam and is found in almost every kind of jungles but perhaps particularly in bamboos. It inhabits the low-lying country as well as the hills.

The race inhabiting Siam at least as far south as to Koh Lak is the same one which is found in India, Assam, Cachar, Manipur and Burma. It differs from the southern form — the typical *K. m. macrurus* Gm. — in being paler on the upper parts of the body. This pale colouring is especially evident in the females which are at a glance separable from the dark southern race.

87. *Pratincola torquata stejnegeri*. PARROT. — The Eastern Bush-Chat.

Pratincola torquata stejnegeri: Parrot p. 124; Gyldenstolpe I p. 39.

Pratincola maura: Williamson I p. 44.

♀ Ban Kia 24/8 1914. L = 129 mm.; W = 64 mm.; T = 50 mm.; C = 10 mm. — ♀ Koh Lak 1/12 1914. L = 118 mm.; W = 63 mm.; T = 50 mm.; C = 10 mm. — Irides: blackish brown. Bill: black. Legs: black.

During my journey I only collected two specimens of the Eastern Bush-Chat.

One fine female was obtained near Ban Kia, a village situated among the mountains of Northern Siam on about Lat. N. 19° 10' and at an altitude of about 4 600 feet. The other specimen — also a female — was shot near the sea-shore at Koh Lak in the Siamese Malaya.

The Eastern Bush-Chat most probably breeds at higher altitudes in the North of Siam. The Ban Kia-specimen was obtained on the 24th of August which seems to be a very early date if the bird had to be considered only as a winter visitor to Northern Siam.

88. *Pratincola caprata bicolor*. SYKES. — The Common Pied Bush-Chat.

Pratincola caprata: Gyldenstolpe II; Gyldenstolpe III p. 170.

♂ Koon Tan 29/4 1914. L = 124 mm.; W = 68,3 mm.; T = 54 mm.; C = 11 mm. — ♂ Koon Tan 12/5 1914. L = 137 mm.; W = 65,5 mm.; T = 55 mm.; C = 10,5 mm. — ♂ Koon Tan 28/4 1914. L = 132 mm.; W = 66,5 mm.; T = 56 mm.; C = 11 mm. — ♀ Koon Tan 12/5 1914. L = 128 mm.; W = 65 mm.;

T = 54 mm.; C = 10 mm. — ♂ juv. Koon Tan 1914. W = 67,5 mm.; T = 52 mm.; C = 10 mm. — ♀ juv. Chieng Hai $\frac{1}{8}$ 1914. L = 134 mm.; W = 66 mm.; T = 54 mm.; C = 10,5 mm. — ♀ juv. Koon Tan 1914. W = 65 mm.; T = 54 mm.; C = 9,3 mm. — Irides: black. Bill: black. Legs: black.

In his »Review of the Forms of *Pratincola caprata* L.» STRESEMANN has shown that the race inhabiting the Indian Peninsula (north to the Himalayas) Burma and Tenasserim ought to be separated from typical *P. c. caprata* LINN., on account of their larger size and their having much slender bills.

This race, *P. c. bicolor* SYKES, differ from its nearest ally *P. c. rossorum* HART. in having the white colour of the underparts of the body only confined to the vent, while in *P. c. rossorum* almost the whole abdomen is white.

The young females of *P. c. bicolor* in their first plumage are dark brown above, the feathers of the head and nape with small ferruginous apical spots, those on the mantle larger; rump and upper tail-coverts ferruginous; chin pale earthy brown; throat and breast like the mantle but the ferruginous spots more closely set; the rest of the underparts and under tail-coverts pale ferruginous brown; rectrices blackish; secondaries dusky blackish edged and tipped with ferruginous.

The young male resembles the immature female but has the upper parts of the body blackish brown instead of dark brown. The white wing spot is very well-marked.

89. *Oreicola ferrea harringtoni*. HART. — Harrington's Dark-Grey Bush-Chat.

Oreicola ferrea: Gyldenstolpe III p. 170.

HARTERT has separated (Vögel der Paläarktischen Fauna Band I p. 711) the Bush Chat inhabiting Moupin, Szechuan, Fokien and Burma from the typical *Oreicola ferrea* GRAY. on account of its having a much shorter tail. He gives the tail as measuring from 57—61,5 mm. in the Burmese race, against 63—68 mm. in the Himalayan race. The tail of the single specimen (♀) I obtained during my journey measures 58,5 mm. and on account of this I have referred the Siamese bird to *O. ferrea harringtoni*. The length of the tail, however, seems to me to be a very vague character for creating a subspecies but HARTERT says that the eggs of *O. ferrea harringtoni* are different and in my specimen the wing is even shorter than recorded by HARTERT, only measuring 61,3 mm. The greyish supercilium is very well marked and the upper tail-coverts are rusty brown.

The specimen was shot at Koon Tan in Northern Siam by Mr. Eisenhofers native collector.

Fam. Crateropodidae.

90. *Pomatorhinus hypoleucus tickelli*. BLYTH. — Tickell's Scimitar Babbler.

Pomatorhinus tickelli: Gyldenstolpe III p. 165.

♀ Koon Tan $\frac{7}{9}$ 1914. L = 253 mm.; W = 102 mm.; T = 102 mm.; C = 36 mm. — ♀ Koon Tan $\frac{23}{9}$ 1914. L = 260 mm.; W = 99,8 mm.; T = 111 mm.; C = 38 mm. — ♂ Koon Tan $\frac{23}{9}$ 1914. L = 245 mm.; W = 108 mm.; T = 108 mm.; C = 38 mm. — ♂ Koon Tan $\frac{9}{9}$ 1914. L = 265 mm.; W = 110 mm.; T = 112 mm.; C = 41 mm. — Irides: reddish brown. Bill: whitish grey. Legs: plumbeous.

Tickell's Scimitar Babbler was not very common in the Northern Provinces of Siam and when observed generally in company with the Laughing Thrushes.

This species has a very nice and peculiar flute-like note which it utters now and then. It never occurs in flocks; one or two individuals generally being found together. It most often keeps to the ground only moving up on the lower branches of a tree when disturbed.

The intensity of the colour of the upper parts of the body seems to be rather variable, one of my specimens being almost brown without any shade of olive. Even the size of the ferruginous patch behind the ear-coverts is variable.



Fig. 4. Nesting tree for *Garrulax leucolophus diardi*. Less. (Chum_Poo ²/₆ 1914.)]

91. *Garrulax leucolophus diardi*. Less. — The Siamese White-crested Laughing-Thrush.

Garrulax diardi: Gyldenstolpe I p. 20; Gyldenstolpe II; Gyldenstolpe III p. 164; Oustalet 1913 p. 85; Barton p. 105; Gairdner p. 33; Gairdner p. 148; Robinson III p. 747.
Garrulax leucolophus diardi: Parrot p. 115.

♂ Pak Koh ²/₄ 1914. L = 286 mm.; W = 136 mm.; T = 130 mm.; C = 26 mm. — ♂ Pak Koh ³⁰/_s 1914. L = 310 mm.; W = 144 mm.; T = 139 mm.; C = 28 mm. — ♀ Pak Koh ³⁰/_s 1914. L = 300 mm.; W = 138 mm.; T = 132 mm.; C = 26 mm. — ♀ Koon Tan ²⁸/₅ 1914. L = 295 mm.; W = 133 mm.; T = 131 mm.; C = 28 mm. — ♀ Bang Hue Pong ²⁶/₅ 1914. L = 266 mm.; W = 132 mm.; T = 131 mm.; C = 29 mm. — ♂ Koh Lak ²⁰/₁₂ 1914. L = 265 mm.; W = 133 mm.; T = 133 mm.; C = 26 mm. — Irides: brownish red. Bill: black. Legs: blackish green.

The Siamese White-crested Laughing-Thrush was commonly distributed over the whole of Siam. In the forests on the boundary between Siam and Tenasserim it was, however, rather rare and only a few specimens were observed. In the Northern and Central Provinces it is very abundant and one of the birds most often met with by the traveller.

Some of the specimens in my collections, especially those from Pak Koh and Bang Hue Pong, have the flanks and sides of the body of a richer rufous colour than other specimens from southern localities thus inclining to *G. l. belangeri* LESS. They are, however, clearly referable to the Siamese race and not to the Burmese and Tenasserim race of which there is a fine series in the R. Nat. Hist. Museum of Stockholm. When making an excursion at Chum Poo on the 2nd of May I found a nest containing 4 pure white eggs. The nest was placed in a low tree and rather difficult to detect among the leaves though it was fairly large. The whole structure of the nest somewhat resembled that of our common Song Thrush.

92. *Garrulax pectoralis*. GOULD. — The Black-gorgeted Laughing-Thrush.

Garrulax pectoralis: Gyldenstolpe II; Gyldenstolpe III p. 164.

♀ Koon Tan ²³/₅ 1914. L = 320 mm.; W = 146,5 mm.; T = 144 mm.; C = 31 mm. — ♂ Doi Par Sakeng ¹⁶/₇ 1914. L = 283 mm.; W = 140 mm.; T = 140 mm.; C = 30 mm. — ♂ Koon Tan ²⁸/₄ 1914. L = 296 mm.; W = 143,5 mm.; T = 140 mm.; C = 30 mm. — Irides: reddish brown. Bill: horn colour. Legs: plumbeous.

The Black-gorgeted Laughing-Thrush was not quite as common as *Garrulax moniliger* HODGS. with which species it was associated.

The colour of the ear-coverts seems to be variable and in some of my specimens they are almost black while in other they are pure white. Like birds from Tenasserim the Siamese specimens have buff-coloured tips to the tail-feathers thus resembling the subspecific race inhabiting Hainan which has been named *G. p. semitorquata* by OGIIVIE GRANT. This subspecies is also said to be characterized by having the outer webs of the outer primaries brownish buff instead of hoary grey.

Siamese specimens seems, however, to be intermediate between the typical and the Hainan race in having the tail-feathers tipped with buff as in *G. p. semitorquata* but the outer webs of the outer primaries are hoary grey as in *G. pectoralis*.

The Hainan race seems, however, to me a little doubtful but if the birds really are so much smaller as stated by GRANT this form must be given a subspecific rank otherwise it only looks as being an individual variation.

93. *Garrulax moniliger*. HODGS. — The Necklaced Laughing-Thrush.

Garrulax moniliger: Gyldenstolpe I p. 20; Gyldenstolpe III p. 164.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	¹⁹ / ₅ 1914	272	127	129	24	38
♀	Pak Koh	⁸ / ₄ 1914	270	125	137	23	37
♂	Pak Koh	²⁰ / ₃ 1914	282	128	146	26	38
♂	Pak Koh	¹⁷ / ₄ 1914	265	126	134	25	39

Irides: yellow to yellowish red. Bill: horn colour. Legs: plumbeous grey.

HARTLAUB (Abh. Nat. Ver. Bremen, Vol. 14. 1898 p. 349) has described a species of *Garrulax* which inhabits Hainan under the name of *G. schmackeri*. This form is stated to be very similar to *G. moniliger* HODGS. though it differs from that species by having the tail-feathers tipped with buff instead of white; the outer webs of the outer primaries are olive brown instead of hoary grey. The buff colour of the foreneck is less bright and the rufous on the nape is also generally darker.

GRANT (P. Z. S. 1900 p. 475) records it as being smaller than typical *G. moniliger* and gives the wing for *G. schmackeri* to 4,2—4,3 inches while the wing in *G. moniliger* measures 4,8—5,0 inches.

Two of the specimens collected at Pak Koh during April 1914 have the tail-feathers tipped with buff. But these specimens are *not* smaller than typical *moniliger* obtained at the same locality (their wings measure 126 and 125 mm. respectively). Two other specimens, one from this same locality and the other one from Koon Tan further north have their tail-feathers tipped with almost pure white. The Koon Tan specimen also has the rufous collar on the hind-neck decidedly paler than the other birds.

It therefore seems to me that the »species» described as *G. schmackeri* is only based on birds in fresh plumage and that it is nothing else than typical *G. moniliger*. Unfortunately I have no Hainan specimens to compare with and am therefore unable to ascertain if the Hainan form is separable or not.

A nest containing 3 pale blue eggs was found near Pak Koh on the 16th of April 1914. They measure: $\frac{28,5 \times 28,5 \times 27,6 \text{ mm.}}{21,2 \times 21,2 \times 20,7 \text{ mm.}}$. The nest was placed in a low tree within a bamboo-jungle and could easily be reached from the ground.

94. *Dryonastes chinensis*. SCOP. — The Black-throated Laughing-Thrush.

Dryonastes chinensis: Gyldenstolpe II; Gyldenstolpe III p. 164; Gairdner p. 148.

♀ Koon Tan, april 1914. W = 116 mm.; T = 122 mm.; C = 21,5 mm.; Tarsus = 34 mm.

The Black-throated Laughing-Thrush was very rare in the parts of Siam visited during my journey. It was only observed at two different occasions: once in company with some of the other kind of Laughing Thrushes in a dense valley among the Koon Tan mountains; the second time two specimens were seen in an orchard just outside the town of Chieng Hai in Upper Siam.

The specimen from Koon Tan is quite typical.

95. *Dryonastes strepitans*. BLYTH. — Tickell's Laughing Thrush.

Garrulax strepitans: Gyldenstolpe III p. 164.

200. 1 ad. Koon Tan 1914. W = 130 mm.; T = 126 mm.; C = 24 mm.; Tarsus = 39 mm. — 701. 1 ad. Koon Tan, May 1914. W = 127 mm.; T = 131 mm.; C = 24,5 mm.; Tarsus = 39 mm. — Iris: red. Bill: black. Legs: black.

This fine species has only, as far as I know, been recorded from the Mooleyit mountain in Tenasserim, where both TICKELL and DAVISON met with it from 3000 feet to the summit. My specimens which were obtained in a very dense and thickly wooded valley

in the Koon Tan mountain range, agree perfectly well with the descriptions of this species only differing in having the bills a little shorter than recorded and in showing a slight variation as to the intensity of the colours.

Specimen No. 701, which probably is a female, has the black frontal band rather narrow; the ochraceous brown of the head almost reaching to the base of the bill. The pale grey feathers on the upper back are tipped with ochraceous brown and the throat is very dark reddish brown and certainly not chocolate brown as in the other specimen. Behind the eye there is a fairly large naked patch being black in the dried skin.

Fam. Timeliidæ.

96. *Gampsorhynchus torquatus*. HUME. — The Ring-necked Shrike-Babbler.

Gampsorhynchus torquatus: Gyldenstolpe III p. 165.

♂ Koon Tan ²²/₅ 1914. L = 225 mm.; W = 90 mm.; T = 116 mm.; B = 21 mm.; Tarsus = 26 mm.
— 1 ad. Koon Tan ²²/₅ 1914. L = 233 mm.; W = 93 mm.; T = 118 mm.; B = 21 mm.; Tarsus = 27 mm.
— ♂ Koon Tan ²²/₅ 1914. L = 210 mm.; W = 92 mm.; T = 120 mm.; B = 20 mm.; Tarsus = 28 mm. — Irides: yellow. Bill: white. Legs: whitish grey.

This fine bird was only observed in a fairly thick bamboo-jungle in a narrow valley among the Koon Tan mountains in Northern Siam. At this place and nowhere else a small flock was met with at two different occasions. The birds were mostly seen in the bamboos, now and then descending to the ground. They were fairly restless and always on the move, though they probably inhabited quite a small area of land because the surrounding jungles were of quite a different type being mostly damp evergreen forests. In such kinds of forests they were never observed by me though BINGHAM records them from evergreen forests.

The Siamese specimens agree well with the descriptions in the literature and I only want to remark that the brown colour of the feathers on the occiput and nape is deeper brown than the colour of the rest of the feathers on the upper parts of the body.

97. *Pellorneum subochraceum*. SWINH. — The Burmese Spotted Babbler.

Pellorneum subochraceum: Gyldenstolpe I p. 21; Gyldenstolpe II; Gyldenstolpe III p. 165; Grant p. 83; Robinson & Kloss p. 59; Robinson I p. 103; Robinson II p. 149; Robinson III p. 748.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♀	Pak Koh	¹⁵ / ₄ 1914	145	62	62	13	22
♂	Koon Tan	²¹ / ₆ 1914	160	67	66	15	23
♂	Koon Tan	⁹ / ₆ 1914	165	68	68	15	23
♂	Bang Hue Pong	²⁰ / ₆ 1914	165	67	64	15	22
♂	Koon Tan	³ / ₆ 1914	156	68	70	14	23
♂	Koon Tan	⁹ / ₆ 1914	166	66	65	14	20
♂	Koon Tan	²² / ₆ 1914	162	69	68	15	23
♀	Koon Tan	²¹ / ₆ 1914	155	62	69	15	23
♂	Bang Hue Pong	²⁷ / ₆ 1914	158	66	68	14	23
♀	Koh Lak Paa	⁷ / ₁₂ 1914	140	63	62	13	21

Irides: brown to reddish brown. Bill: horn colour. Legs: pale brown.

The Burmese spotted Babbler was very common on suitable localities over the whole of Siam, though more abundant in the Northern parts of the country. It always keeps to the thick undergrowth and was seldom seen in the lower trees where it probably only retires when on look out for some danger. It has a nice song which it frequently utters, and on account of its retiring habits it is more often heard than seen.

The specimen shot up among the mountains west of Koh Lak differs somewhat from the other specimens in my Siamese collection. It has the under surface, with the exception of the centre of the abdomen, rich fulvous buff, exceedingly darker than in typical birds. The blackish brown stripes on the chest and upper breast are paler and narrower; the bill is plumbeous grey instead of horn colour, but in every other way it agrees with typical specimens of *P. subochraceum*.

98. *Turdinus abbotti abbotti*. BLYTH. — Abbott's Babbler.

Turdinus abbotti: Robinson & Kloss p. 59; Williamson II p. 77; Robinson III p. 749.

Trichastoma abbotti: Müller p. 371.

♂ Koh Lak Paa $7/12$ 1914. L = 142 mm.; W = 75 mm.; T = 56 mm.; C = 17 mm.; Tarsus = 24 mm. — Irides: brownish red. Bill: brown with the tip pale plumbeous. Legs: pale flesh colour.

The birds obtained by me up among the mountains on the Tenasserim boundary west from Koh Lak have to be referred to the typical *T. a. abbotti* and not to the southern race which has been named by STRICKLAND *T. a. olivaceum*. This race inhabits the Malay Peninsula at least as far north as to Bandon — where it was found by ROBINSON — and the island of Borneo. Curiously enough MR. C. BODEN KLOSS obtained *T. a. olivaceum* during his recent trip to the Chantaboon district in south-eastern Siam. He obtained this bird on a more northern latitude than that one of Koh Lak, why the southern race seems to extend further to the north on the eastern side of the Gulf of Siam than on the western.

I only prepared the skin of a single male specimen but shot several others, though they unfortunately got spoiled and were not worthy of being preserved. They, however, all belonged to the typical race, having the underparts of the body very dark and the under tailcoverts deep rufous ochre.

When observed they were always single, though several specimens could occur on rather a small area of land. They generally kept on the ground among the thickest undergrowth; only when being disturbed in some way they flew up in a low tree, though very soon diving down to the ground again, where they were jumping about in search of food among the dry leaves.

In the Northern parts of the country I never observed them. One specimen has been recorded from Bangkok by MR. WILLIAMSON (Journal Natural History Society of Siam Vol. I N:o 2 p. 77).

My specimen agrees well with the description in the literature but the grey eyebrow is very distinct almost reaching to the upper parts of the ear-coverts.

99. *Dryocatataphus tickelli*. BLYTH. — Tickell's Babbler.

Dryocatataphus tickelli: Robinson & Kloss p. 60. Robinson I p. 104.

♂ Pak Koh ¹⁵/₄ 1914. L = 138 mm.; W = 63 mm.; T = 55 mm.; C = 13,5 mm. — ♀ Pak Koh ¹⁵/₄ 1914. L = 132 mm.; W = 59 mm.; T = 50 mm.; C = 13 mm. — Irides: reddish brown. Bill: horn colour. Legs: pale fleshy brown.

Tickell's Babbler was only observed a few times in Northern Siam, where it chiefly occurred in the hilly and densely covered portions. When observed they were sculking about among the grass on the ground or among the low bushes as well in evergreen as in mixed forests. I never heard them utter any note as far as I can remember.

100. *Corythocichla brevicaudata*. BLYTH. — The Short-tailed Babbler.

♀ Doi Par Sakeng ¹⁵/₇ 1914. L = 135 mm.; W = 64 mm.; T = 53 mm.; C = 14 mm.; Tarsus = 22,5 mm. — Iris: brownish red. Bill: horn colour. Legs: brown.

Of this exceedingly rare bird only one specimen was obtained. It was shot out of a flock of about 5 to 6 individuals which were observed on one of the highest hills near Doi Par Sakeng in North-western Siam not very far from the Burmese frontier.

When climbing up the hill, which was covered with dense evergreen forest mixed up with bamboos, I was attracted by a faint whistling note which I had never heard before. I then suddenly got sight of a couple of small birds in a bamboo clump where they were busy searching for food among the lower branches.

They were not shy in the beginning, behaving in a manner remembering of that of a Wren though not keeping their tails erect. As soon as I had fired at them, they at once dived down in the thick undergrowth, consisting of grass and low bushes, and were impossible to get sight of again, though I spent a considerable time in order to get some more specimens. However, I heard their whistling notes, but could never locate them any more.

I found them in exactly the same localities as mentioned by DAVISON, who observed them of the higher slopes of the Mooleyit mountain in Tenasserim. These slopes are covered with »boulders of rocks of all sizes lying about in a chaotic confusion».

The slopes of the Doi Par Sakeng mountain showed a similar appearance. I never succeeded in seeing this species again, though I several times visited both this same mountain and other showing a similar condition.

101. *Alcippe phaeocephala magnirostris*. WALD. — The Burmese Babbler.

Alcippe phayrei: Gyldenstolpe I p. 21; Robinson & Kloss p. 61; Robinson I p. 104.

♀ Doi Par Sakeng ¹⁷/₇ 1914. L = 145 mm.; W = 67 mm.; T = 72 mm.; C = 12 mm.; Tarsus = 17 mm. — Irides: whitish grey. Bill: dark horn colour. Legs: flesh colour.

Very sparsely distributed over the Northern parts of the country.

HARRINGTON has recently (Journal Natural History Society, Bombay, Vol. 23

N:o 3 p. 444—453) given a revision of the Genus *Alcippe* which he divides into two Groups: the *Nipalensis* — Group and the *Phæocephala* — Group.

This division is chiefly based on characters of the bill.

The bird obtained by me at Doi Par Sakeng as well as the specimen collected during my former Expedition 1911—1912 belong to the »long-billed» Group (called by HARRINGTON the *Phæocephala* Group). Both specimens have blackish brown stripes on the head and nape, and therefore ought to be referred to the race named *A. p. magnirostris*, WALD., which, according to HARRINGTON, »most probably inhabits Siam, Southern Shan States, Karennee and south-eastern Burma to just north of Moulmein».

The throat in my specimens is not greyish as stated in the description of *A. p. magnirostris* but pale ochraceous buff, almost of the same colour as the underparts of the body, hence resembling *A. p. harringtoniae*, HARTERT. from North-eastern Upper Burma and the Northern Shan States. But the stripes on the head are not »intensely black» as in this race, which also is said to be smaller on an average.

102. *Alcippe* sp.

♂ Doi Par Sakeng ¹⁷/₇ 1914. L = 150 mm.; W = 63 mm.; T = 71 mm.; C = 11,3 mm.; Tarsus = 20,2 mm. — Irides: brown. Bill: horn colour with the base dirty yellow. Legs: flesh colour.

This specimen was unfortunately very badly shot which makes the exact identification quite impossible. When obtained it was quite single sculking about among the high undergrowth. Nowhere else observed or obtained. The length of the tail is quite noteworthy.

103. *Stachyrhidopsis rufifrons*. HUME. — Hume's Babbler.

♂ Pak Koh ¹³/₄ 1914. L = 105 mm.; W = 49 mm.; T = 44 mm.; C = 11 mm.; Tarsus = 16 mm. — ♂ Doi Par Sakeng ²³/₄ 1914. L = 114 mm.; W = 50,6 mm.; T = 47 mm.; C = 11 mm.; Tarsus = 17,5 mm. — Irides: reddish brown or brown (Doi Par Sakeng specimen). — Bill: plumbeous and horn coloured. Legs: light brown or dirty yellow.

Only two specimens of this small bird were collected during my journey viz. one male at Doi Par Sakeng near the boundary to Karennee in North-western Siam and another male at Pak Koh, a small place situated on about Lat. N. 18°.

These two specimens differ somewhat *inter se* and the Doi Par Sakeng specimen seems to be nearest to *S. r. bhamoensis* HARRINGTON. In his »Notes on the Indian Time-larks and their allies» (Journ. Bombay Nat. Hist. Soc. Vol. 23 N:o 4 p. 628) HARRINGTON has given a key to the different subspecies of *Stachyrhidopsis ruficeps* and *S. rufifrons* and he also discusses the distribution and the characters of the different forms of these birds.

In *S. r. bhamoensis* the bill is said to be horn-coloured while the bill of *S. r. rufifrons* is black.

Unfortunately there is no material for comparison in the collections of the Royal Natural History Museum in Stockholm, and therefore I have been compelled to rely on the meagre descriptions in the literature.

In the specimen from Doi Par Sakeng the bill is marked on the label as being horn coloured while in the other specimen it is plumbeous.

This last-mentioned bird therefore seems to be nearer *S. rufifrons rufifrons*, but it has the black shaft-streaks of the feathers of the forehead very distinct, and this stands against what is stated by HARRINGTON who says »that the black shaft-streaks are indistinct or wanting in *rufifrons*. The dull rufous colour of the crown is confined to the forepart of the head».

In my specimen the whole crown and upper nape is cinnamon-rufous (Ridgway, Plate 16) and not dull rufous.

The breast of the Doi Par Sakeng specimen is much brighter coloured than that of the other specimen which is dull olive brown shaded with ochraceous.

I have therefore for the present refrained from giving a subspecific name to the specimens collected in Northern Siam, but the Doi Par Sakeng specimen probably belongs to *S. r. bhamoensis* HARRINGTON which is a more northern and western form, while the specimen from Pak Koh belongs to typical *S. r. rufifrons* HUME.

When observed these birds kept to the undergrowth among the valleys which were mostly clothed with dense evergreen forests. I never saw them sculking about among the lower trees or bushes as *Mixornis gularis minor* which species they resemble very much both as to habits and colouration. A marked difference exists, however, between these two species: in *Stachyrhidopsis* the bill is conical while in *Mixornis* it is slender and slightly curved.

104. *Mixornis gularis*. RAFFL. — The Sumatran Yellow-breasted Babbler.

Mixornis gularis: Müller p. 370; Grant p. 81; Bonhote p. 64; Robinson & Kloss p. 62; Robinson I p. 106.

♂ Koh Lak ²⁹/₁₁ 1914. L = 124 mm.; W = 56 mm.; T = 55 mm.; C = 13 mm.; Tarsus = 16 mm. — Irides: brownish red. Bill: plumbeous. Legs: yellowish brown.

Only observed a few miles south of Koh Lak in the Siamese Malaya, where a small party was met with on the top of an isolated limestone hill near the sea-shore. This species seems to live up in the trees, mixed up together with *Herpornis xantholeuca* HODGS., *Hypothymis azurea prophata* OBERH, and *Cyornis sumatrensis* SHARPE, and was never observed in the undergrowth or in low bushes as its near relative *Mixornis gularis minor* which it resembles very much as to the plumage. It is, however, much larger than that species and has the irides *brownish red* instead of *white* or *yellowish white*.

The Sumatran Yellow-breasted Babbler inhabits Southern Tenasserim, the Malay Peninsula and Sumatra.

105. *Mixornis gularis minor*. SUBSP. n. — The Siamese Yellow-breasted Babbler.

Mixornis rubricapillus: Gyldenstolpe I p. 21; Gyldenstolpe II; Gyldenstolpe III p. 165; Oustalet 1913 p. 91; Williamson I p. 42; Williamson II p. 77; Gairdner p. 148.

Sex	Locality	Date	Total length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♀	Pak Koh	16/4 1914	117	50	49	11,5	17
♂	Pak Koh	8/4 1914	112	52	52	11,2	18
♂	Pak Koh	18/4 1914	117	54	53	11,7	18
♀	Koon Tan	13/6 1914	123	53	54	11	16
♂	Pak Koh	16/4 1914	104	52	50	11	17
♀	Koon Tan	6/5 1914	119	51	50	12	16
♀	Koon Tan	4/5 1914	118	52	51	11	16
♂	Koon Tan	9/5 1914	123	55	54	12	17
♂	Doi Par Sakeng	12/7 1914	115	50	51	—	17
♀	Doi Par Sakeng	18/7 1914	108	52	49	12	17
♂	Pak Koh	15/4 1914	123	53	54	12	17

Irides: white, yellow or yellowish white. Bill: horn colour. Legs: dirty yellow.

Very common in suitable localities over the whole country south to about Lat. N. 11° 45'.

The Yellow-breasted Babbler inhabiting Siam, and of which I have a large series, is decidedly smaller than the measures being recorded for *M. g. rubricapillus* TICK. HARRINGTON gives the wing in that species as measuring from 57—61 mm. and the tarsus to 20 mm. As seen by the measurements given above none of my specimens have a wing measuring more than 55 mm. and the tarsus not more than 18 mm.

Unfortunately I have no specimens from Burma, Assam or Sikkim to compare with, but two specimens from Ahsown in Tenasserim are absolutely identical with Siamese birds.

Therefore I believe that the race of the Yellow-breasted Babbler which inhabits Siam and Tenasserim ought to be separated under a new subspecific name which I propose to be *Mixornis gularis minor*.

Description: Similar to *M. g. rubricapillus*, TICK., but differing from that bird in being smaller. The extreme point of the forehead and the lores are pale yellow *without* any black shaft-stripes; supercilium very pale yellow; crown ferruginous, blending on the nape with the olive green of the upper plumage; ear-coverts yellowish green with pale shafts; chin and throat »strontian yellow» (Ridgway, Plate 16); the feathers of the throat having black shaft-stripes; remainder of under surface dull greenish yellow.

Type: ♂ ad. Pak Koh, Northern Siam 15/4 1914. Coll. N. GYLDENSTOLPE.

Specimens examined: 15 from Siam and 2 from Tenasserim.

Fam. Brachypterygidae.

106. *Myiophoneus cæruleus*. SCOP.

1 ad. Koon Tan May 1914. W = 161 mm.; T = 118 mm.; C = 23 mm.; Tarsus = 43 mm.

This bird which inhabits China has previously not been recorded from any country outside the Chinese limits.

In May 1914 a fine specimen, clearly belonging to this species, was obtained on one of the Koon Tan Hills. The bill is perfectly black which is the main point of difference between this species and the allied *M. temmincki* VIG., which also has been found among the mountains of Northern Siam.

All members of the Genus *Myiophoneus* seem to migrate in some way during the winter months.

107. *Myiophoneus eugenei*. HUME. — The Burmese Whistling-Thrush.

Myiophoneus eugenei: Gyldenstolpe II; Gyldenstolpe III p. 165; Robinson III p. 750.

♂ Koon Tan $21/5$ 1914. L = 355 mm.; W = 183 mm.; T = 144 mm.; C = 29 mm. — 1 ad. Koon Tan 1914. W = 167 mm.; T = 130 mm.; C = 24 mm. — ♀ Koh Lak $1/12$ 1914. L = 303 mm.; W = 166 mm.; T = 121 mm.; C = 25 mm. — ♂ Koon Tan $22/9$ 1914. L = 306 mm.; W = 167 mm.; T = 122 mm.; C = 26 mm. — Irides: brown. Bill: horny yellow. Legs: black.

Distributed over the whole of Northern Siam and also obtained in the Siamese Malaya, though always rather rare and only seen in limited numbers.

In the literature this species is generally recorded as an inhabitant of mountain torrents and rocky ravines among the hills.

I found it in such places but also in secondary jungles in low-lying country and one specimen was seen, and another one procured, in a garden at Koh Lak. When observed it was jumping about on the ground in search of food.

The males are much larger and more heavily built than the females. Especially their bills are very strong and robust.

In the collections of the Royal Natural History Museum of Stockholm there is a specimen of a *Myiophoneus* obtained in Java 1880 according to the label.

I have carefully examined this bird and have come to the conclusion that it must be a specimen of *Myiophoneus crassirostris*, ROBINSON, which has been obtained in the Northern Malay Peninsula and on the Langkawi and Teratau Islands.

If the locality »Java» is correct, which however seems a little doubtful to me (it may be a trade skin brought over from the Malay Peninsula and incorporated in our Javan collection) it adds a new bird to the Javan fauna on the same time as it extends considerably the distributional area of this fine species.

Fam. Sibiidae.

108. *Herpornis xantholeuca*. HODGS. — The White-bellied Herpornis.

Herpornis xantholeuca: Robinson & Kloss p. 63; Grant p. 80; Robinson I p. 107.

♂ Koon Tan $7/6$ 1914. L = 108 mm.; W = 64,7 mm.; T = 44 mm.; C = 11,5 mm. — ♂ Koon Tan $30/5$ 1914. L = 123 mm.; W = 67,2 mm.; T = 46 mm.; C = 11 mm. — ♀ Koon Tan $18/9$ 1914. L = 108 mm.; W = 62,5 mm.; T = 47 mm.; C = 11 mm. — ♀ Koh Lak Paa $7/12$ 1914. L = 115 mm.; W = 61,5 mm.; T = 46,5 mm.; C = 11,7 mm. — Irides: brown to yellowish white. Bill: light brown. Legs: flesh colour.

Sparsely distributed over the whole country though even occurring rather high up among the mountains.

As a rule this species was observed associated in small parties, and the birds were busily searching their food among the foliage. It is a very restless bird which is always on the move and they very much resemble a party of Tits going through the forest while they constantly utter their twittering notes.

Fam. Liotrichidæ.

109. *Pterythias æralatus*. TICK. — Tickell's Shrike-Tit.

Pterythias æralatus: Robinson I p. 107.

♀ Koon Tan ²⁴/₅ 1914. L = 155 mm.; W = 76 mm.; T = 59 mm.; C = 13 mm.; Tarsus = 23 mm. — Irides: brownish black. Bill: horn colour (upper mandible plumbeous). Legs: flesh colour.

Seems to be very rare and during the whole journey only one specimen was shot by my native collector.

My specimen perfectly well agrees with the description given by HUME on a specimen from Mooleyit but there is no olivaceous shade on the occiput which is pure grey with a few white triangular white spots on the middle of the feathers near the shaft but only visible when the plumage is disarranged. On the feathers of the back there are also some white spots and these feathers are tipped with olivaceous grey.

The outermost secondary has a chestnut spot at the tip and the shaft is rufous orange. All the other feathers except that one and the tertiaries have blackish shafts. The under tail-coverts are white with a faint fulvous tinge.

Fam. Pycnonotidæ.

110. *Aegithina tiphia*. LINN. — The Common Iora.

Aegithina tiphia: Gyldenstolpe I p. 23; Gyldenstolpe III p. 166; Grant p. 90; Bonhote p. 61; Oustalet 1903 p. 68; Robinson & Kloss p. 55; Williamson I p. 42; Williamson II p. 78; Robinson I p. 101; Robinson II p. 148.

Iora tiphia: Müller p. 367.

♂ Koon Tan ²⁸/₅ 1914. L = 110 mm.; W = 60,5 mm.; T = 53 mm.; C = 15 mm. — ♂ Bang Hue Pong ²⁷/₅ 1914. L = 140 mm.; W = 65 mm.; T = 53,5 mm.; C = 14,2 mm. — ♂ Bang Hue Pong ⁸/₅ 1914. L = 125 mm.; W = 65 mm.; T = 52 mm.; C = 12,5 mm. — ♂ Koh Lak ³⁰/₁₁ 1914. L = 125 mm.; W = 61 mm.; T = 52 mm.; C = 14,5 mm. — ♀ Koh Lak ²³/₁₁ 1914. L = 132 mm.; W = 64 mm.; T = 58 mm.; C = 13,5 mm. — Irides: greyish white. Bill: plumbeous. Legs: bluish grey.

The Common Iora was very abundant in gardens, orchards and secondary- or brushjungles over the whole country. Sometimes this species was also observed in evergreen forests and a few specimens were obtained in such kind of vegetation. In the mountains dividing Siam and Tenasserim it was never met with, but some specimens were collected in the bamboo-jungles near the sea-shore at the neighbourhood of Koh Lak. In Bangkok and its surroundings it is also a common bird as stated by WILLIAMSON (Journ. Nat. Hist. Soc. of Siam Vol. I N:o 2 p. 78.)

111. *Aethorhynchus lafresnayeri*. HARTL. — The Great Iora.

Aethorhynchus lafresnayeri: Robinson & Kloss p. 55; Grant p. 89; Robinson I p. 101.

Iora lafresnayeri: Müller p. 367.

♂ Hue Sai ¹⁸/₁ 1905. L = 142 mm.; W = 65,5 mm.; T = 59 mm.; C = 19 mm.; Tarsus = 18 mm.
 — ♀ Hue Sai ¹⁸/₁ 1915. L = 140 mm.; W = 69,8 mm.; T = 62 mm.; C = 18,5 mm.; Tarsus = 19 mm. —
 ♀ Hue Sai ¹⁸/₁ 1915. L = 135 mm.; W = 68,5 mm.; T = 60,5 mm.; C = 17,8 mm.; Tarsus = 16,6 mm. —
 Irides: brown. Bill: plumbeous. Legs: plumbeous.

The Great Iora was only observed once near the Tenasserim boundary a few miles west from Koh Lak.

Here I met with rather a large party of this fine bird and five specimens were shot out of the flock before the rest took to the rescue and disappeared into the dense jungle.

They were feeding in some high trees in an evergreen jungle when being observed and they were rather tame.

The allied *Aethorhynchus xanthotis*, which I found in Eastern and Northern Siam during my former Expedition 1911—1912, was never met with, why it seems to be very rare and local. Mr. EISENHOFER's native collector had, however, succeeded in obtaining a female specimen among the Koon Tan Hills, but though I assiduously looked out for that bird I never came across it again.

112. *Chloropsis hardwickei*. JARD. & SELBY. — The Orange-bellied Chloropsis.

♂ Koon Tan ²⁴/₅ 1914. L = 184 mm.; W = 88 mm.; T = 72 mm.; C = 18 mm.; Tarsus = 15,5 mm. — Irides: black. Bill: black. Legs: plumbeous.

Apparently very rare and only confined to the higher mountains of Northern Siam.

The specimen obtained most probably is an immature male and it has the central tail-feathers green; the primaries, except the first and second ones, are green on the outer webs; the throat and chest are deep black with a faint gloss; the head is faintly washed with yellow. All these characteristics are only signs of immaturity.

113. *Chloropsis aurifrons*. TEMM. — The Gold-fronted Chloropsis.

Chloropsis aurifrons: Gyldenstolpe I p. 23; Gyldenstolpe II; Gyldenstolpe III p. 166.

Sex	Locality	Date	Total length mm.	Wing mm.	Tail mm.	Culmen mm.
♂	Pak Koh	²¹ / ₃ 1914	179	93	71	18,3
♀	Koon Tan	¹² / ₉ 1914	167	86	67	18,1
♂	Doi Par Sakeng	²⁸ / ₆ 1914	177	99	77	19,5
♂	Chum Poo	² / ₅ 1914	182	93	72	18,7
♂	Chum Poo	³ / ₅ 1914	172	89	62	19
♀	Koon Tan	²⁸ / ₄ 1914	161	89,7	65	18
♀	Pak Koh	² / ₄ 1914	169	88,5	62,3	17,8
♀	Koon Tan	⁸ / ₆ 1914	185	92	69	18
♂	Chum Poo	⁹ / ₅ 1914	165	90	70	19
♂	Koh Lak	²⁸ / ₁₁ 1914	168	94	72	17,7
♀	Bang Hue Pong	²⁰ / ₅ 1914	173	92	66	18,5
♂	Koh Lak	¹⁷ / ₁₂ 1914	170	93,5	73	18,5
♂	Chum Poo	⁹ / ₅ 1914	178	90,5	72	17

Irides: brown. Bill: black. Legs: pale plumbeous.

The most common member of the Genus especially in the Northern parts of the country, though never obtained further south than at Koh Lak (Lat. N. 11° 45').

At the neighbourhood of that place it was, however, rather common and as it has not been found south of Amherst (about Lat. 16° 10' N.) before, it adds a considerable area to the distribution of this species. However, it has been recorded from Cambodia and Cochin China.

One fine male obtained at Doi Par Sakeng in North-western Siam has a longer wing than specimens obtained further south, and is of about the same size as birds from the Himalayas, which on account of their greater size have been separated under the name of *Chloropsis hodgsoni*, GRAY *apud* GOULD.

However I can find no other difference between this race and typical birds, and the extent of the golden yellow patch is not greater in this specimen than in other specimens from more southern localities.

114. *Chloropsis chlorocephala*. WALD. — The Burmese Chloropsis.

Chloropsis chlorocephala: Gyldenstolpe I p. 23; Gyldenstolpe II; Gyldenstolpe III p. 166; Barton p. 105; Robinson & Kloss p. 55; Robinson I p. 101; Gairdner p. 148; Robinson III p. 745.

♂ Pak Koh ²⁰/₃ 1904. L = 167 mm.; W = 86 mm.; T = 71 mm.; C = 15 mm. — ♀ Pak Koh ¹³/₄ 1914. L = 153 mm.; W = 76 mm.; T = 66 mm.; C = 15 mm. — ♂ Chum Poo ²/₅ 1914. L = 160 mm.; W = 81 mm.; T = 68 mm.; C = 15 mm. — ♀ Koon Tan ⁹/₅ 1914. L = 148 mm.; W = 75,5 mm.; T = 68,3 mm.; C = 16 mm. — Irides: blackish brown. Bill: horny black. Legs: plumbeous.

The Burmese Chloropsis was not uncommon in the Northern Districts, where it occurred together with *Chloropsis aurifrons* TEMM.; though never in such great numbers as that species.

In the southern parts of the Malay Peninsula the Burmese Chloropsis is replaced by *Chloropsis icterocephala* LESS., which is very similar, being only separated by having the forehead and the band encircling the throat pure yellow instead of greenish yellow.

This last-mentioned species may also occur in the southern parts of the Siamese Malaya.

115. *Irena puella*. LATH. — The Fairy Blue-Bird.

Irena puella: Gyldenstolpe I p. 23; Gyldenstolpe II; Gyldenstolpe III p. 166; Oustalet 1903 p. 38; Müller p. 381; Robinson & Kloss p. 56; Robinson I p. 102; Robinson II p. 148.

Irena puella puella: Robinson III p. 745.

♂ Doi Par Sakeng ¹⁶/₇ 1914. L = 245 mm.; W = 127 mm.; T = 105 mm.; C = 21 mm.; Tarsus = 14 mm. — ♂ Koon Tan ²³/₅ 1914. L = 235 mm.; W = 126 mm.; T = 99 mm.; C = 20 mm.; Tarsus = 16 mm. — ♀ Doi Par Sakeng ¹⁸/₇ 1914. L = 230 mm.; W = 122 mm.; T = 108 mm.; C = 21 mm.; Tarsus = 16 mm. — ♂ Pak Koh ⁴/₄ 1914. L = 232 mm.; W = 130 mm.; T = 105 mm.; C = 21 mm.; Tarsus = 14 mm. — ♂ Koon Tan ²²/₅ 1914. L = 240 mm.; W = 129 mm.; T = 104 mm.; C = 22 mm.; Tarsus = 15 mm. — ♀ Pak Koh ⁴/₄ 1914. L = 240 mm.; W = 127 mm.; T = 106 mm.; C = 22 mm.; Tarsus = 14 mm. — ♀ Koon Tan ²⁹/₄ 1914. L = 235 mm.; W = 127 mm.; T = 107 mm.; C = 21,5 mm.; Tarsus = 15 mm. — Irides: red. Bill: black. Legs: black.

The Fairy Blue-Bird was fairly common in heavy jungle in the Northern parts of the country, but never met with, as far as I can remember, in the Siamese Malaya. I never found it in flocks as stated by DAVISON (Stray Feathers. Vol. 6 p. 328. 1878) but always in pairs or single.

The young males are similar in plumage to the females and they change into adult plumage without a moult. Some specimens collected at the end of April and in May have their upper plumage bluish green — like the females — but some feathers on the crown, upper back and the lower tail-coverts are *tipped with glistening cobalt* like the adult bird. Underparts of the body almost black, some of the feathers being *tipped with bluish green*.

It therefore seems that the underparts of the body are changing into their definite colour in a way opposite to the upper parts of the body, which get their new colour from the tips, while the underparts get their new colour from the bases of the feathers.

116. *Hypsipetes concolor yunnanensis*. ANDERS. — Anderson's Black Bulbul.

Hypsipetes concolor: Gyldenstolpe III p. 166.

♀ Koon Tan $\frac{4}{6}$ 1914. L = 233 mm.; W = 123 mm.; T = 114 mm.; C = 22 mm.; Tarsus = 16 mm. — ♂ Koon Tan, May 1914. W = 113 mm.; T = 101 mm.; C = 20 mm. — Irides: brown. Bill: brick red. Legs: brick red.

Fairly rare and only obtained in the hillforests of the Koon Tan mountain range. When observed it was always in small parties haunting old clearings, and as the birds were rather shy they were difficult to obtain.

The race found in Northern Siam is the same one which was described from Yunnan by ANDERSON in his remarkable work »Anatomical and Zoological Researches of the two Expeditions to Western Yunnan 1868 and 1875.

My specimens have their heads decidedly darker than the mantle, and a greenish gloss on the pointed crest-feathers; middle of back, rump and upper tail-coverts dusky black, the feathers edged with dark slaty grey; abdomen and under tail-coverts ashy grey, the latter a little darker and tipped with white; below the ear-coverts a black spot; wing-coverts, primaries and rectrices blackish brown edged with slaty grey.

117. *Microtarsus melanocephalus*. GM. — The Black-headed Bulbul.

Micropus melanocephalus: Gyldenstolpe I p. 27; Robinson & Kloss p. 57; Robinson II p. 148.

Prosecusa melanocephala: Müller p. 381.

♂ Koh Lak $\frac{13}{12}$ 1914. L = 160 mm.; W = 79 mm.; T = 75 mm.; C = 12 mm. — Irides: pale blue. Bill: black. Legs: black.

The Black-headed Bulbul seems to be very locally distributed in Siam at least in the parts of the country visited by my Expedition.

During the whole journey I only observed it at the neighbourhood of Koh Lak in the Siamese Malaya, but down there it was fairly common occurring together with some other kind of Bulbuls such as *Pycnonotus blanfordi*, JERD., *Aegithina tiphia* LINN. a. s. o.

During my seven months trip to the North of Siam I never observed a single specimen, but during my previous journey 1911—1912 I once met with a small flock near the town of Muang Pré.

This beautiful Bulbul has rather a pretty song which is frequently uttered. It is never found in dense jungles but affects cultivated land and orchards.

118. *Iole viridescens*. BLYTH. — The Olive Bulbul.

♀ Koh Lak Paa $\frac{6}{12}$ 1914. L = 175 mm.; W = 78 mm.; T = 77 mm.; C = 17 mm.; Tarsus = 17 mm. — Irides: white. Bill: horn colour. Legs: brown.

The Olive Bulbul was only obtained in the Siamese Malaya. Here it occurred in the dense forests among the hills dividing Siam and Tenasserim. Near the coast I never observed it nor was it very common on the Tenasserim boundary at least not at the localities visited by the Expedition.

119. *Criniger gutturalis sordidus*. RICHM.

Criniger ochraceus: Robinson III p. 746.

♂ Pak Koh $\frac{26}{3}$ 1914. L = 215 mm.; W = 111 mm.; T = 116 mm.; C = 19 mm. — ♂ Doi Par Sakeng $\frac{19}{7}$ 1914. L = 231 mm.; W = 109 mm.; T = 115 mm.; C = 19 mm. — ♂ Pak Koh $\frac{23}{3}$ 1914. L = 218 mm.; W = 111 mm.; T = 116 mm.; C = 18 mm. — ♂ Koon Tan $\frac{30}{5}$ 1914. L = 213 mm.; W = 103 mm.; T = 106 mm.; C = 17 mm. — Irides: ad.: brownish grey. imm.: brown. Bill: ad.: plumbeous. imm.: yellowish brown. Legs: pale brown.

This species was originally described from Trang in Lower Siam (RICHMOND. Proc. U. S. Nat. Mus. Vol. 22. 1900 p. 320) and given a specific rank.

As far as I can see, it is only a subspecies of *Criniger gutturalis* which it resembles very much, being merely separated by its larger size and its paler and more olive colouring on the upper parts of the body; the under parts of the body are darker and less yellow, these parts being almost buffy olive.

This Bulbul occurred in Northern Siam, where I found it at the same localities as *Criniger gutturalis henrici*, OUST.; though it was by no means as common as that species.

The immature bird resembles the adult one in the general tone of the plumage, but it has the wing-coverts and the secondaries rufous buff and that colour almost occupies the whole of the outer secondaries; the colour of the irides and that one of the bill is also different as stated above.

120. *Criniger gutturalis henrici*. OUST.

Criniger henrici: Gyldenstolpe I p. 24.

Criniger gutturalis: Gyldenstolpe III p. 166.

♂ Koon Tan $\frac{24}{9}$ 1914. L = 230 mm.; W = 110 mm.; T = 118 mm.; C = 18 mm. — ♀ Koon Tan $\frac{6}{9}$ 1914. L = 230 mm.; W = 108 mm.; T = 114 mm.; C = 17 mm. — ♀ Koon Tan $\frac{11}{5}$ 1914. L = 222

mm.; W = 107 mm.; T = 113 mm.; C = 17 mm. — ♂ Bang Hue Pong $7/5$ 1914. L = 227 mm.; W = 113 mm.; T = 121 mm.; C = 18 mm. — ♂ Koon Tan $29/5$ 1914. L = 212 mm.; W = 111 mm.; T = 106 mm.; C = 18 mm. — ♀ Doi Par Sakeng $19/7$ 1914. L = 216 mm.; W = 108 mm.; T = 107 mm.; C = 16,5 mm. — Irides: brown. Bill: horn colour. Legs: pale brown.

Like *Criniger gutturalis sordidus* RICHM. this species is only a subspecific race of *Criniger gutturalis* from which it is separated merely by its larger size.

It was fairly common in Northern Siam where it keeps to the evergreen forests as well as to the bamboo-jungles, but they were only met with on localities where the vegetation was very dense. They were mostly observed in couples or in small flocks. They have a smacking note often repeated when the birds have been disturbed in some way.

121. *Criniger lönnbergi*. GYLDENSTOLPE. — Lönnberg's Bulbul.

Criniger lönnbergi: Gyldenstolpe I p. 24.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.
♀	Koon Tan	$10/5$ 1914	180	83	86	15
♂	Pa Hing	$11/4$ 1914	178	86	88	15
♀	Doi Par Sakeng	$13/7$ 1914	168	83	84	15
♂	Bang Hue Pong	$25/5$ 1914	176	87	88	15
♀	Koon Tan	$6/6$ 1914	175	80	82	15
♀	Pak Koh	$10/4$ 1914	180	85	86	15
♂	Doi Par Sakeng	$17/7$ 1914	177	86	86	15
♂	Koon Tan	$10/9$ 1914	177	84	84	15
♂	Koon Tan	$24/5$ 1914	178	86	88	15,5
♂	Koon Tan	$1/5$ 1914	182	85	88	15
♂	Bang Hue Pong	$8/5$ 1914	175	86	85	15
♂	Pak Koh	$7/4$ 1914	175	86	87	15

♂ juv. Pak Koh $7/4$ 1914. — ♂ pull. Pa Hing $11/4$ 1914. — Irides: brownish yellow. Bill: blackish brown or horn colour. Legs: pale brown.

A fine series of this Bulbul was obtained at different parts of Northern Siam where it seems to be rather common in the dense evergreen jungles or in the mixed forests on the summits of the hills. It goes about in small parties and keeps to the highest trees where it searches for food among the leaves. It is as a rule very difficult to detect among the dense vegetation on account of its plain, protecting colouring.

122. *Molpastes atricapillus*. VIEILL. — The Chinese Red-vented Bulbul.

Pycnonotus atricapillus: Gyldenstolpe I p. 26; Gyldenstolpe II; Gyldenstolpe III p. 166.

♂ Koon Tan $10/5$ 1914. L = 195 mm.; W = 91 mm.; T = 93 mm.; C = 15,5 mm. — ♂ Koon Tan $29/4$ 1914. L = 195 mm.; W = 92 mm.; T = 90 mm.; C = 15 mm. — ♂ Koon Tan $30/5$ 1914. L = 200 mm.; W = 92 mm.; T = 93 mm.; C = 14,5 mm. — ♀ Koon Tan $15/5$ 1914. L = 180 mm.; W = 85 mm.; T = 83 mm.; C = 14 mm. — ♂ Chum Poo $4/5$ 1914. L = 182 mm.; W = 92 mm.; T = 91 mm.; C = 15 mm. — Irides: brown. Bill: black. Legs: black.

Certainly the most common Bulbul in the open hill-forests of Northern Siam. Sometimes I even found it in the pine-forests, which cover the highest slopes of the mountains in the North.

123. *Pycnonotus finlaysoni*. STRICKL. — Finlayson's Stripe-throated Bulbul.

Pycnonotus finlaysoni: Gyldenstolpe I p. 26; Gyldenstolpe II; Gyldenstolpe III p. 166; Grant p. 85; Robinson & Kloss p. 58; Gairdner p. 148; Robinson II p. 149; Robinson III p. 747.

Pycnonotus finlaysoni: Bonhote p. 62.

Loedorusa finlaysoni; Müller p. 380.

♂ Pak Koh $\frac{8}{4}$ 1914. L = 177 mm.; W = 85 mm.; T = 89 mm.; C = 14 mm. — ♀ Koh Lak $\frac{12}{12}$ 1914. L = 185 mm.; W = 80 mm.; T = 85 mm.; C = 13 mm. — ♀ Koh Lak Paa $\frac{7}{12}$ 1914. L = 170 mm.; W = 78 mm.; T = 78 mm.; C = 13,6 mm. — ♀ Koh Lak Paa $\frac{7}{12}$ 1914. L = 175 mm.; W = 76 mm.; T = 80 mm.; C = 14 mm. — Irides: brown. Bill: black. Legs: plumbeous.

Rather common in the evergreen forests both in Northern Siam and in the Peninsula.

In the deciduous forests I never observed this Bulbul, which probably only inhabits countries where there are evergreen jungles.

It has a pleasant note which is frequently heard. As regards to the yellow tips of the tail-feathers these only are to be found on the outermost pair; the lores are not quite black but mixed with some yellow feathers; the lower rump is of about the same colour as the upper tail-coverts viz. ochraceous green.

My observations of this species are quite opposite to those made by DAVISON in Tenasserim. He found this Bulbul common in the plains, in the outskirts of forests and in scrub-jungle, sometimes even in gardens and compounds. In such places I, however, never found it but the related *Pycnonotus blanfordi*, JERD.

124. *Pycnonotus blanfordi*. JERD. — Blandford's Bulbul.

Pycnonotus blanfordi: Gyldenstolpe I p. 26; Gyldenstolpe II; Gyldenstolpe III p. 166; Oustalet 1903 p. 82; Williamson II p. 80.

Pycnonotus plumosus: Williamson I p. 42.

♂ Koon Tan $\frac{28}{4}$ 1914. L = 201 mm.; W = 85 mm.; T = 90 mm.; C = 15 mm.; Tarsus = 19 mm. — Irides: black. Bill: black. Legs: brownish black.

Very common in open, cultivated country and in gardens and scrub-jungles. In the real evergreen forests it was never met with, but it was sparingly distributed in the mountain forests.

It has a harsh note, and is easy to obtain or observe because it is quite tame.

125. *Otocompsa flaviventris*. TICK. — The Black-crested Yellow Bulbul.

Otocompsa flaviventris: Gyldenstolpe I p. 25; Gyldenstolpe II; Gyldenstolpe III p. 166; Barton p. 105; Gairdner p. 148; Robinson III p. 747.

♂ Pak Koh $\frac{30}{3}$ 1914. L = 178 mm.; W = 84,5 mm.; T = 85 mm.; C = 11,5 mm. — ♂ Koon Tan $\frac{8}{6}$ 1914. L = 178 mm.; W = 81 mm.; T = 85 mm.; C = 12 mm. — ♂ Bang Hue Pong $\frac{7}{5}$ 1914. L = 188 mm.; W = 86,5 mm.; T = 87 mm.; C = 11,3 mm. — ♀ Chum Poo $\frac{3}{5}$ 1914. L = 156 mm.; W = 83,2

mm.; T = 85 mm.; C = 11,6 mm. — ♂ Chum Poo $\frac{5}{5}$ 1914. L = 172 mm.; W = 80,7 mm.; T = 81 mm.; C = 10,8 mm. — ♀ Pak Koh $\frac{30}{3}$ 1914. L = 175 mm.; W = 84 mm.; T = 90; C = 11,5 mm. — 1 ad. Koon Tan 1914. W = 88 mm.; T = 97 mm.; C = 11 mm. — Irides: yellow. Bill: black. Legs: black.

The Black-crested Yellow Bulbul was one of the most common birds in Siam. It was found on suitable localities over the whole country. It most often frequents brush- and scrubjungle, and it was never met with far inside the evergreen jungles.

The young birds have the head and the long crest brownish olive with a faint purplish gloss on the longest crest-feathers; chin black, but the throat is olive and of the same colour as the upper parts of the body. The colour of the eye is whitish grey instead of yellow as in the adult birds. The bill is much paler, almost horn coloured while in full-grown birds it is pure black.

126. *Otocompsa emeria*. LINN. — The Bengal Red-whiskered Bulbul.

Otocompsa emeria: Gyldenstolpe I p. 25; Gyldenstolpe II; Gyldenstolpe III p. 166; Grant p. 84; Robinson & Kloss p. 58; Williamson I p. 42; Williamson II p. 79; Robinson I p. 102.

Otocompsa pyrrhotis: Müller p. 378.

♂ Chum Poo $\frac{2}{5}$ 1914. L = 195 mm.; W = 87 mm.; T = 97 mm.; C = 14,3 mm. — Irides: black. Bill: black. Legs: black.

The Bengal Red-whiskered Bulbul was very common in the Northern parts of the country especially in the open and cultivated country.

It is a very tame and familiar bird and is even found in the villages and towns. Like the other Bulbuls it has a rather nice song and it looks quite a pretty bird when it keeps its long black crest erect.

The young birds are lacking the red patch below the eye and have the under tail-coverts pale rosy pink.

Fam. Campephagidæ.

127. *Graucalus macei*. LESS. — The Large Cuckoo-Shrike.

Graucalus macei: Gyldenstolpe I p. 34; Gyldenstolpe III p. 168; Oustalet 1903 p. 43.

♂ Koh Lak $\frac{14}{12}$ 1914. L = 282 mm.; W = 168 mm.; T = 133 mm.; C = 23 mm. — ♂ Pa Hing $\frac{11}{4}$ 1914. L = 270 mm.; W = 166 mm.; T = 129 mm.; C = 22 mm. — ♂ Pa Hing $\frac{11}{4}$ 1914. L = 277 mm.; W = 169 mm.; T = 134 mm.; C = 22,3 mm. — ♀ Koon Tan $\frac{10}{5}$ 1914. L = 269 mm.; W = 170 mm.; T = 136 mm.; C = 22 mm. — ♀ Koon Tan $\frac{2}{6}$ 1914. L = 275 mm.; W = 161 mm.; T = 125 mm.; C = 20 mm. — ♂ Koon Tan $\frac{23}{5}$ 1914. L = 280 mm.; W = 166 mm.; T = 127 mm.; C = 24 mm. — ♀ Pak Koh $\frac{30}{3}$ 1914. L = 291 mm.; W = 164 mm.; T = 132 mm.; C = 21 mm. — ♀ Pak Koh $\frac{31}{3}$ 1914. L = 288 mm.; W = 165 mm.; T = 125 mm.; C = 22,5 mm. — ♂ Pak Koh $\frac{31}{3}$ 1914. L = 285 mm.; W = 164 mm.; T = 126 mm.; C = 23 mm. — Irides: brown. Bill: black. Legs: black.

The Large Cuckoo-Shrike is generally distributed over those parts of Siam which are covered with thin tree- or shrubjungles. On the top of the hills among the mixed pine- and oak-forests it was the bird most often met with. Opposite to what is stated by DAVISON, I most often saw it associated in small parties, more seldom single or in pairs.

It has a fine whistling note which it utters both when flying or when perching at a top of a high tree.

The most southern locality where I met with this species was at the neighbourhood of Koh Lak, but down there it was rare and only a few specimens were observed. These southern birds seems to be of a paler grey colour than specimens obtained in the northern localities but are still not worthy of separation as a distinct race.

128. *Volvocivora melachistus intermedia*. HUME.

♂ Koh Lak ²³/₁₁ 1914. L = 196 mm.; W = 111 mm.; T = 97 mm.; C = 13 mm. — Irides: brownish red. Bill: black. Legs: blackish brown.

Among the Cuckoo-Shrikes collected at Koh Lak in the Siamese Malaya there is a specimen which I have referred to the above-mentioned race of *V. melachistus*, on account of its having the under tail-coverts pure slaty grey and exactly of the same colour as the rest of the under surface. The central tail-feathers are also black with a greenish gloss and have a broad white tip. On the inner side of the primaries, except the first one, there are large white patches. The under wing-coverts are almost pure white though spotted and barred with grey.

129. *Volvocivora lugubris saturata*. SWINH.

♂ Koon Tan ⁵/₉ 1914. L = 215 mm.; W = 117 mm.; T = 111 mm.; C = 13.2 mm.; Tarsus = 19 mm. — Irides: brown. Bill: black. Legs: black.

A single specimen of this species was obtained in a mixed pine- and oak forest in the Koon Tan mountains.

This specimen perfectly well agrees with SWINHÖE's description.

In Siam it seems to be rare and it has not been recorded from that country before.

130. *Volvocivora melanoptera avensis*. BLYTH.

Campophaga melanoptera: Gyldenstolpe II; Gyldenstolpe III p. 168.

Volvocivora avensis: Müller p. 365.

♀ Koh Lak ²³/₁₁ 1914. L = 205 mm.; W = 111 mm.; T = 109 mm.; C = 15 mm. — ♂ Koh Lak ¹⁵/₁₂ 1914. L = 192 mm.; W = 109 mm.; T = 102 mm.; C = 13 mm. — ♂ Koon Tan ²⁴/₉ 1914. L = 205 mm.; W = 109 mm.; T = 111 mm.; C = 13 mm. — Irides: ♂ brown. ♀ brownish red. Bill: ♂ black. ♀ horn colour. Legs: ♂ black. ♀ blackish brown.

This race which I think is quite distinct from the typical *V. m. melanoptera* was found in Northern Siam as well as in the Siamese Malaya. At this latter locality two specimens were collected: one male in full plumage and one female. This latter specimen has the underparts of the body, with the exception of the pure white under tail-coverts, barred with greyish brown more closely on the chin and throat.

Both the two males and the female have a large white patch on the basal part of the inner webs of the primaries, except the first two ones.

The Koon Tan specimen approaches *Volvocivora lugubris saturata* SWINH., as it is of a darker grey colouring on the upper parts of the body.

131. *Pericrocotus fraterculus*. SWINH. — The Burmese Scarlet Minivet.

Pericrocotus fraterculus: Gyldenstolpe I p. 33; Gyldenstolpe II; Gyldenstolpe III p. 168; Gairdner p. 149.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.
♂	Pak Koh	29/3 1914	181	93,2	87,5	14
♂	Koon Tan	5/6 1914	202	97,2	91,5	13,5
♂	Koon Tan	9/6 1914	188	93,1	88	13,3
♂	Bang Hue Pong	8/6 1914	193	94,2	90,3	12,3
♂	Koon Tan	29/4 1914	197	97,6	95,2	15
♂	Pak Koh	31/3 1914	184	94,5	94	13
♂	Doi Par Sakeng	29/6 1914	191	98,5	94,5	13
♂	Bang Hue Pong	26/6 1914	192	95	90	12,5
♂	Pak Koh	23/3 1914	184	95	86	14
♂	Koon Tan	30/6 1914	183	91,5	91	13,2
♂	Doi Par Sakeng	12/7 1914	195	92	92,5	14,2
♂	Koon Tan	29/4 1914	191	90	92	12,5
♀	Koon Tan	9/6 1914	183	91,2	89,5	13,2
♀	Pak Koh	2/4 1914	186	88,2	86	13,3
♀	Doi Par Sakeng	13/7 1914	185	90,7	89,2	13,8
♀	Koon Tan	9/6 1914	190	85	90	—
♀	Bang Hue Pong	8/6 1914	180	87,5	85	13,2

Irides: brownish black. Bill: black. Legs: black.

A fine series of the Burmese Scarlet Minivet was collected at different parts of Northern Siam.

As already remarked by HARTERT (Nov. Zool. Vol. IX, 1902 p. 556) the second primary has a red patch on the inner web, though the size of this patch varies a great deal and is smallest in the specimens collected in Northwestern Siam. These same specimens have longer wings than birds from more southern districts, thus approaching the true *P. speciosus* LATH.

As seen by the measures given above the Siamese specimens agree well in size with birds from Hainan, but they differ from these birds in having the central rectrices pure black on the outer web while in the Hainan birds the outer web is almost red.

One male specimen collected at Pak Koh has, however, only the centres of the middle tail-feathers black and the inner web is broadly margined.

In the parts of the Siamese Malaya visited by the Expedition this beautiful species was never observed.

132. *Pericrocotus peregrinus*. LINN. — The Small Minivet.

Pericrocotus peregrinus: Gyldenstolpe I p. 33; Gyldenstolpe, III p. 168; Williamson I p. 43; Williamson II p. 90.

♂ Koon Tan ²⁸/₄ 1914. L = 178 mm.; W = 70 mm.; T = 77 mm.; C = 9 mm. — ♀ Koon Tan ²⁸/₄ 1914. L = 174 mm.; W = 70,5 mm.; T = 75 mm.; C = 9 mm. — Irides: black. Bill: black. Legs: black.

The small Minivet is generally distributed over the northern parts of the country though not very common. Most often it was observed in small flocks visiting the pine forests on the tops of the higher hills but sometimes they were even met with at the outskirts of the jungles. This species was never observed in company with other kind of Minivets.

133. *Pericrocotus solaris griseigularis*. GOULD.

♂ Koon Tan ²⁴/₅ 1914. L = 171 mm.; W = 81 mm.; T = 93 mm.; C = 10,5 mm.; Tarsus = 12 mm. — Irides: brown. Bill: black. Legs: black.

This species which is closely related to *Pericrocotus solaris* BLYTH, from the Eastern Himalayas, Khasi Hills, Manipur, Pegu, Siam and Tenasserim, has previously only been recorded from the island of Formosa and parts of Southern China. SWINHOE says that the main points of difference between *P. griseigularis* and *P. solaris* are, that in »the former the thigh-feathers are black externally, ochraceous internally, while in the latter the thighs are orange». As shown by HUME (Stray Feathers 1877. Vol. V, p. 187) the thighs in *P. solaris* are *not* orange but dusky black externally and yellowish or ochraceous internally in the male.

The thighs in my specimen, which I without hesitation have identified with *P. griseigularis* are brownish black with a faint greenish tinge externally and pale yellowish internally. The first two primaries are lacking the red or yellowish patch, on the third primary there is a narrow yellowish line along the outer web; on the fourth there is an orange scarlet spot on the middle part of the outer web of about 11 mm. in length. On the inner webs of the primaries, with exception of the first one, there is a yellowish spot increasing in size on the latter primaries. On the secondaries there is a broad band of orange scarlet on about the middle parts of the feathers. Head, nape and back dark slaty grey with a bluish gloss; rump and upper tail-coverts fiery orange scarlet; chin and throat grey with yellowish tips on *some* of the feathers, especially those of the throat passing over on the scarlet underparts of the body. The two central pairs of tail-feathers are black with a narrow line of yellow on the middle parts of the outer webs and an oblique orange scarlet spot on the innerweb; tip of tail-feathers pale orange.

The specimen was shot out of a party of *Pericrocotus* assembled in a pine-tree growing on the top of one of the highest hills in the Koon Tan range.

My specimen is exactly similar to another specimen from Formosa in the collections of the R. Nat.-Hist. Museum in Stockholm.

134. *Pericrocotus cinereus*. LAFR. — The Ashy Minivet.

Pericrocotus cinereus: Williamson I p. 43; Williamson II p. 91; Robinson & Kloss p. 55; Müller p. 365.

♂ Koh Lak ¹⁶/₁₂ 1914. L = 185 mm.; W = 98,2 mm.; T = 97 mm.; C = 10,5 mm. — Irides: brown. Bill: black. Legs: black.

The Ashy Minivet seems to be very rare in Siam and during the whole journey only one specimen — in full plumage — was obtained outside Koh Lak.

A winter visitor only.

Fam. Muscicapidæ.

135. *Alseonax latirostris*. RAFFL. — The Brown Flycatcher.

Alseonax latirostris: Gyldenstolpe III p. 169; Williamson I p. 43; Robinson III p. 742; Robinson & Kloss p. 51; Müller p. 363; Williamson II p. 208.

Hemrichelidon latirostris: Gould p. 151.

♂ Koon Tan ²¹/₉ 1914. L = 115 mm.; W = 69 mm.; T = 51 mm.; C = 9,5 mm. — ♂ Koon Tan ³⁰/₄ 1914. L = 120 mm.; W = 67 mm.; T = 51 mm.; C = 10 mm. — ♂ Koon Tan ²⁹/₄ 1914. L = 121 mm.; W = 68 mm.; T = 47 mm.; C = 9 mm. — ♂ Chum Poo ²/₅ 1914. L = 125 mm.; W = 67 mm.; T = 48,5 mm.; C = 9 mm. — Irides: black. Bill: black (base of lower mandible dirty yellow.) Legs: black.

The Brown Flycatcher was fairly common in the North of Siam, but it also occurs in more southern parts having been recorded from Bangkok by WILLIAMSON and from the Malay Peninsula by ROBINSON.

This species is generally considered as a winter visitor to South eastern Asia, having its breeding places in Eastern Siberia, Corea and Northern China.

During my journey I obtained specimens in April, May and September which seems to indicate that it may possibly breed in Northern Siam too. However, I never found its nest.

As regards size and colour the Siamese specimens are absolutely identical to specimens from Saghalin in the collections of the Royal Natural History Museum of Stockholm.

136. *Alseonax siamensis*. GYLDENSTOLPE.¹ — The Siamese Brown Flycatcher.

This new species is related to *Alseonax latirostris* RAFFL. from which it is, however, clearly distinguished by being umber brown («Saccardos UMBER», Ridgway, Plate 39) above instead of ashy brown. In several other particulars it also differs from that species, as seen by the description given below.

Adult male: General colour above «Saccardos UMBER» (Ridgway. Nomencl. Colours plate 39); upper tail-coverts washed with ferruginous; wing-coverts dusky brown, margined with «Saccardos UMBER»; primaries and secondaries dusky brown, the latter edged with isabelline on the inner webs; tail dusky brown with pale brown shafts; lores and a narrow line round the eye greyish white; ear-coverts «Saccardos UMBER»; chin and upper throat greyish white slightly washed with brown; lower throat, breast and flanks ashy

¹ Ornith. Monatsber. 1916. No. 2, p. 27.

brown; middle of abdomen, vent and under tail-coverts white; thighs brown; under wing-coverts and axillaries light fawn colour; quills dusky brown below and fawn colour along the inner webs; tail-feathers brownish white below with white shafts to the feathers; wing lining light fawn colour.

Iris brownish black; bill horn colour and with the lower mandible dirty yellow; legs black.

Type: Adult male collected at Bang Hue Pong (Northern Siam on the 27th of May 1914.)

Specimens examined: Two, the type and another male from the same locality and collected on the same day.

Measurements:

Total length = 128 & 120 mm. resp.

Wing = 68 & 69 » »

Tail = 52 & 51 » »

Culmen = 11,5 & 12 » »

Tarsus = 12 & 11,5 » »

This new species is probably a resident in Northern Siam where it inhabits the higher mountains.

It has much the same habits as *Alseonax latirostris* RAFFL. of which species I also obtained specimens during my journey in Upper Siam.

137. *Cyornis dialilæma*. SALVAD.

Cyornis dialilæma: Gyldenstolpe II; Gyldenstolpe III p. 169; Robinson & Kloss p. 52; Robinson I p. 98.

Sex	Locality	Date	Total length mm.	Wing mm.	Tail mm.	Culmen mm.
♂	Koon Tan	10/6 1914	133	66	61	11,2
♂	Koon Tan	4/6 1914	135	66	57	11
♂	Koon Tan	8/6 1914	130	66,5	55	12
♂	Koon Tan	28/4 1914	130	68	60	11,4
♂	Koon Tan	28/4 1914	136	66,5	56,5	11,5
♂	Koon Tan	5/6 1914	138	67,2	58	11,6
♂	Koon Tan	29/6 1914	138	67,4	60,6	11
♂	Koon Tan	5/6 1914	144	70	62	11
♂	Koon Tan	22/6 1914	135	68	55	11,5
♀	Koon Tan	16/6 1914	129	63	56,2	12
♀	Koon Tan	14/6 1914	126	66,1	54	11,6
♀	Koon Tan	29/6 1914	140	68	59	11,3
♀	Koon Tan	16/9 1914	130	67	58,2	11,2
♀	Bang Hue Pong	27/6 1914	136	66	58	12
♂ juv.	Koon Tan	1914	—	68	61	12
♂ juv.	Koon Tan	1914	—	66	50	9
♂ juv.	Koon Tan	1914	—	66,5	49,8	9
♂ juv.	Koon Tan	30/6 1914	120	62,8	—	—
♀ juv.	Koon Tan	28/6 1914	125	63,3	57,5	11

Irides: black. Bill: black. Legs: brown.

This species which is closely allied to *Cyornis rubeculoides* VIG. was very common in the North of Siam and a fine series was collected.

ROBINSON & KLOSS state (Ibis 1911 p. 52) that it ought to be regarded as a southern form of *C. tickelliae* BLYTH. I think that it must be placed nearest to *C. rubeculoides* VIG., which is practically intermediate between *C. dialilæma* SALVAD. and *C. tickelliae*, BLYTH. or *C. sumatrensis* SHARPE. *Cyornis dialilæma* differs from *C. rubeculoides* which I also obtained in Siam, by having the abdomen and flanks pure white, while these same parts in *C. rubeculoides* are tinged with orange buff. The orange colour of the breast and throat does not extend so high up on the chin in *C. dialilæma* as it does in *C. rubeculoides*, *C. tickelliae* and in *C. sumatrensis*.

138. *Cyornis rubeculoides*. VIG. — The Blue-throated Flycatcher.

Cyornis rubeculoides: Gairdner p. 149.

Siphia rubeculoides: Bonhote p. 60.

♂ Koon Tan ³⁰/₅ 1914. L = 138 mm.; W = 66 mm.; T = 61 mm. — ♂ Koon Tan ²⁸/₅ 1914. L = 143 mm.; W = 69 mm.; T = 64 mm.; C = 11,5 mm. — ♂ Koon Tan ¹/₅ 1914. L = 130 mm.; W = 67 mm.; T = 61 mm.; C = 11,3 mm. — Irides: brownish black. Bill: black. Legs: pale brown.

Not as common as *C. dialilæma*, SALVAD. though occurring in the same localities but apparently at higher altitudes. The specimens obtained by me were all shot on the summits of the highest hills among the Koon Tan range where they occurred either in pairs or in small flocks among the pine-trees.

In colour they very much resemble *C. dialilæma* but the upper parts of the body are of a paler blue. The flanks and sides of the body are buffy white instead of pure white and the orange colour of the breast extends higher up on the throat.

139. *Cyornis sumatrensis*. SHARPE.

Cyornis sumatrensis: Robinson & Kloss p. 51; Robinson III p. 147.

♂ Koh Lak Paa ⁷/₁₂ 1914. L = 130 mm.; W = 67 mm.; T = 62,4 mm.; C = 11,2 mm.; Tarsus = 16,8 mm. — ♀ Koh Lak Paa ⁷/₁₂ 1914. L = 125 mm.; W = 64,5 mm.; T = 60 mm.; C = 10 mm.; Tarsus = 16,5 mm. — Irides: brown. Bill: black. Legs: plumbeous.

Only two specimens of this Flycatcher were obtained during my journey. They were both shot in a dense evergreen forest among the hills on the boundary between Siam and Tenasserim.

This is a somewhat rare species, which until quite recently only was known from the type and another male obtained in Kelantan and recorded by HARTERT (Novitates Zoologicae, Vol. IX, 1902 p. 549). In the last few years, however, several specimens and among them some females — until then undescribed — were obtained by ROBINSON & KLOSS during their Expedition to the Northern Parts of the Malay Peninsula (vide. Ibis 1911 p. 51—52). It has also been recorded by ROBINSON from the Siamese Islands of Koh Samui and Koh Pennan.

In colouration it very much resembles *C. tickelliae*. BLYTH but is distinguished by a smaller size and by having the abdomen, under tail-coverts, axillaries and under wing-coverts pure white.

The female specimen I obtained agrees exactly with the description given by ROBINSON and KLOSS (Ibis 1911 p. 52).

140. *Cyornis banyumas tickelliae*. BLYTH. — Tickell's Blue Flycatcher.

Cyornis tickelliae: Gyldenstolpe I p. 37.

Cyornis banyumas tickelli: Robinson III p. 743.

♂ Koon Tan ¹⁸/₉ 1914. L = 137 mm.; W = 73 mm.; T = 68 mm.; C = 12 mm. — ♂ Koon Tan ¹⁸/₉ 1914. L = 129 mm.; W = 70 mm.; T = 64 mm.; C = 12 mm. — Irides: brown. Bill: black. Legs: plumbeous grey.

Two male specimens of Tickell's Blue Flycatcher were obtained among the Hills near Koon Tan.

As I have already stated about *C. sumatrensis* SHARPE., which this species closely resembles, it is distinguished by its greater size. Both the specimens obtained are in moult and have a very abraded plumage.

141. *Cyornis pallidipes*. JERD. — The White-bellied Blue Flycatcher.

Cyornis pallidipes hainana: Robinson III p. 743.

♂ Koon Tan, May 1914. W = 69 mm.; T = 63 mm.; C = 10,3 mm.; Tarsus = 16 mm. — ♂ Pak Koh ¹⁵/₄ 1914. L = 132 mm.; W = 67 mm.; T = 61,5 mm.; C = 11 mm.; Tarsus = 16 mm. — Irides: black. Bill: black. Legs: pale brown.

Two male specimens of this beautiful Flycatcher were obtained in Northern Siam. BODEN KLOSS collected one male at Klong Menao in South Eastern Siam during his recent journey and this specimen has been referred by ROBINSON to *Cyornis pallidipes hainana* GRANT, originally described from Hainan (Proc. Zool. Soc. 1900 p. 480).

As compared with the measurements given by GRANT (tom. cit.) my specimens are practically intermediate between the Hainan form and typical *Cyornis pallidipes* JERD. from Southern India.

The Siamese specimens show a close relation to the Hainan form, as is also the case with several other species. This close relationship seems to indicate that a centre of distribution was situated somewhere east of the Salween river thus including South Eastern China, Hainan, Annam, Tonkin, Cambodia, Cochin China, Siam, Yunnan and parts of Burma. From this centre the different forms have then spread out in a western direction, while the Himalayan forms made their way southwards.

The specimens of *Cyornis pallidipes* obtained by me are neither typical *Cyornis pallidipes* JERD. nor *Cyornis pallidipes hainana* GRANT. and as the difference between these two forms are very slight I think it wisest not to give a subspecific name to the Siamese form until more material has been obtained.

142. *Muscitrea grisola grisola*. BLYTH. — The Grey Flycatcher.

Muscitrea grisola: Robinson & Kloss p. 54; Robinson II p. 148; Robinson III p. 743.

♂ Koh Lak ²⁷/₁₁ 1914. L = 148 mm.; W = 85,7 mm.; T = 70 mm.; C = 12 mm. — ♂ Koh Lak ²⁶/₁₁ 1914. L = 140 mm.; W = 77 mm.; T = 63 mm.; C = 12 mm. — ♂ Koh Lak ²⁶/₁₁ 1914. L = 146 mm.; W = 82 mm.; T = 64 mm.; C = 12 mm. — ♂ Koh Lak ¹⁶/₁₂ 1914. L = 155 mm.; W = 82 mm.; T = 65 mm.; C = 12,6 mm. — ♀ Koh Lak ²¹/₁ 1915. L = 147 mm.; W = 79,6 mm.; T = 62 mm.; C = 12 mm. — ♀ Koh Lak ¹⁶/₁₂ 1914. L = 155 mm.; W = 81 mm.; T = 67 mm.; C = 12 mm. — ? Koh Lak ²⁸/₁₁ 1914. L = 135 mm.; W = 80,5 mm.; T = 64 mm.; C = 12 mm. — Irides: brown. Bill black. Legs: plumbeous.

The Grey Flycatcher was rather common in a bamboo-jungle near the sea-shore north of the Koh Lak Bay. All other authors state that it is entirely confined to the mangroves, but I never observed it in such kind of vegetation. The country was perfectly dry where I met with this species and covered with bamboos. However, a fairly large mangrove swamp was situated not very far away.

A male specimen shot on the 26th of November 1914 has the outer webs of the secondaries and those of the inner primaries earthy brown, the bill is horn-coloured instead of black. This specimen is most probably a not fully adult bird in its first plumage.

143. *Gerygone griseus*. GYLDENSTOLPE.¹

Plate 2. fig. 2.

♀ Koh Lak ¹/₁₂ 1914. L = 85 mm.; W = 51 mm.; T = 39 mm.; C = 8 mm.; Tarsus = 14 mm. — Irides: black. Bill: black. Legs: black.

A few specimens of this small bird which I have been compelled to describe as new, were observed in an almost impenetrable mangrove swamp, situated near the sea-shore at Koh Lak in the Siamese Malaya. The birds were rather shy and difficult to make out among the vegetation and only a female specimen was obtained.

It seems to be nearest to *Gerygone modigliani* SALVAD. from the Malay Peninsula, but differs from that species in lacking the dusky horse-shoe mark on the sides of the fore-neck. Another allied form is *Gerygone flaveola* CAB. which inhabits the island of Celebes.

Description: General colour above smoky brown, the head being of the same colour; least and median wing-coverts smoky brown a little darker than the colour of the back; primaries dark dusky brown with narrow brownish white margins on the outer webs of the feathers; secondaries blackish brown; tail feathers dusky brown with a subterminal black band and a white spot near the tip; the two central pairs of tail-feathers have this white tip confined to the inner web, on the outer tail-feathers the white tip is on the outer web; lores greyish white; feathers round the eye smoky brown; ear-coverts smoky brown and of the same colour as the crown and nape; cheeks, throat, breast and abdomen pale sulphur yellow, brighter on the throat; under tail-coverts white; flanks and sides of the body pale brownish olive; thighs yellowish white; under wing-coverts and axillaries white, washed with yellow especially on the outer edge of the wing; quills brown below, whitish on their inner webs.

¹ Ornith. Monatsber. 1916. No. 2, p. 27.

144. *Hypothymis azurea prophata*. OBERH. — The Black-naped Blue Flycatcher.*Hypothymis azurea prophata*: Gyldenstolpe I p. 37.*Hypothymis azurea*: Robinson I p. 99; Robinson II p. 148; Müller p. 363; Gairdner p. 149.*Hypothymis azurea coeruleocephala*: Robinson III p. 744.

♀ Koh Lak 7/12 1914. L = 155 mm.; W = 67,6 mm.; T = 79,6 mm.; Tarsus = 13 mm.

A female specimen, collected at the neighbourhood of Koh Lak in the Siamese Malaya, appears to belong to this race. Unfortunately I have only been able to compare my specimen with some other specimens from Java in the collections of the Royal Natural History Museum in Stockholm, but these specimens, which according to locality ought to belong to this race, are absolutely identical as to size and colouration with my own specimen.

145. *Hypothymis azurea styani*. HARTL.*Hypothymis azurea*: Gyldenstolpe II; Gyldenstolpe III p. 169; Williamson I p. 43; Williamson II p. 209; Robinson & Kloss p. 53.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	22/6 1914	155	72	78	10	13,6
♂	Koon Tan	23/6 1914	150	72	77	10,5	13,5
♂	Koon Tan	3/6 1914	155	71	78	10,3	13,6
♂	Koon Tan	5/6 1914	153	74	78	10,1	13,5
♂	Koon Tan	28/4 1914	156	70	72,3	10,4	14
♂	Bang Hue Pong	27/6 1914	155	75	77	10,3	13,8
♂	Pak Koh	18/4 1914	150	71	78	9,5	12,5
♂	Pak Koh	24/3 1914	145	71,5	76	10	13
♂	Chum Poo	2/6 1914	158	71,5	78,5	10,3	13
♂	Doi Par Sakeng	16/7 1914	152	70	77	11,2	13,6
♀	Koon Tan	6/6 1914	145	70	75	10	13
♀	Koon Tan	3/6 1914	160	70	78	10	13,3
♀	Koon Tan	13/5 1914	145	67,7	66	10,2	13,5
♀	Koon Tan	13/5 1914	140	68,3	67	10	13,6
♀	Koon Tan	9/6 1914	156	69	74	11	13,2
♀	Koon Tan	29/4 1914	160	70	73	11,2	13,3

In my former paper on the Birds of Siam (Kungl. Svenska Vetenskapsakademiens Handlingar, Band 50. N:o 8 p. 37) I have referred the species of the Black-naped Blue Flycatcher inhabiting Northern Siam to *H. a. prophata* OBERH.

During my last journey I collected a large series of this beautiful Flycatcher at different parts of Northern Siam.

STRESEMANN has recently (Nov. Zool., Vol. 20 1913 p. 293—297) given a review of the forms of *Hypothymis azurea*, BODD. based on a very large material.

He considers *H. a. styani* HARTL. as to inhabit Siam and the adjoining countries to the east, west and north. In Lower Siam, however, another race: OBERHOLSERS *H. a.*

prophata is said to occur. However, the two races seem to be only slightly differentiated from each other, the first one only being characterized by its distinct bluish not lilac back.

However, all the specimens from Northern Siam have a distinctly violet shade on the back and it is with great hesitation that I accept these two races, but for the present I think it is wise to do so. In any way the specimens from Lower Siam and the Malay Peninsula are almost identical.

146. *Rhipidura albicollis*. VIEILL. — The White-throated Fantail Flycatcher.

♂ Koon Tan ²⁴/₅ 1914. L = 170 mm.; W = 76 mm.; T = 101 mm.; C = 10 mm.; Tarsus = 16 mm.
♂ Koon Tan ³⁰/₅ 1914. L = 182 mm.; W = 77 mm.; T = 102; C = 10 mm.; Tarsus = 17 mm. — Irides: black. Bill: black. Legs: dark brown.

Fairly common in Northern Siam among the Koon Tan Hills most often in company with other species of Flycatchers. It was always observed in very dense forests and as a rule far away from villages or human dwellings.

The two specimens procured are not fully adult but showing traces of the immature plumage in having a rufous shade on the underparts of the body and in having marked rufescent tips to the wing-coverts and some of the feathers on the back and rump.

The birds obtained in Siam may possibly belong to *R. a. atrata* SALVAD. from the Malay Peninsula and Sumatra. This race is chiefly characterized in having more extended white tips to the tail-feathers. As I have no material for comparison I have refrained from giving the Siamese birds a subspecific name.

147. *Rhipidura javanica*. SPARRM. — The Java Fantail Flycatcher.

Rhipidura javanica: Williamson I p. 43; Grant p. 92; Bonhote p. 60; Williamson II p. 210; Gairdner p. 149.

♀ Koh Lak ²¹/₁₁ 1914. L = 176 mm.; W = 72 mm.; T = 95 mm. — ♀ Koh Lak ²⁷/₁₁ 1914. L = 170 mm.; W = 72 mm.; T = 93 mm. — ♂ Koh Lak ²⁸/₁₁ 1914. L = 175 mm.; W = 75 mm.; T = 97 mm. — ♂ Koh Lak ²⁷/₁₁ 1914. L = 180 mm.; W = 81 mm.; T = 103 mm. — Irides: blackish brown. Bill: black. Legs: black.

The Java Fantail Flycatcher was never obtained in the Northern and Central parts of the country, but it was exceedingly common down in the Siamese Malaya. It was most often found in dense bamboo-jungle, where it keeps to the lower branches jumping about in search of food or uttering their faint trilling note while it keeps its tail spread out and its wings half open. It is also often seen on the ground behaving in the same manner.

148. *Rhipidura albifrontata burmanica*. HUME. — The Burmese White-browed Fantail Flycatcher.

♀ Koh Lak ²⁶/₁₁ 1914. L = 168 mm.; W = 83 mm.; T = 98 mm.; C = 11 mm.; Tarsus = 16 mm. — Irides: blackish brown. Bill: black. Legs: black.

Two specimens of this bird, which has not been recorded from Siam before, were observed in a thick and thorny bamboo-jungle near the coast at Koh Lak during one of my excursions on the 26th of November 1914. The birds were in company with *Rhipi-*

dura javanica, SPARRM. and *Muscitrea grisola* BLYTH., and they were rather shy and at once disappeared when I fired a shot at them.

HUME (Stray Feathers vol. IX p. 175 footnote 1881) remarks that a specimen of *Rhipidura albifrontata* collected in the Thoungyeen valley in Tenasserim differs from the typical Indian bird in wanting the white triangular spots on the wing-coverts and in having the four central tail-feathers entirely black as well as the chin, throat and upper breast. He suggests the name *burmanica* for this bird though he was a little doubtful of these characteristics were constant.

In my specimen the white spots on the wing-coverts are almost obsolete, the four central rectrices are almost black except a very small white spot at the tip of the second pair. The mantle and upper tail-coverts are clear ashy brown, much paler than in an Indian bird I have had for comparison. In this last mentioned bird the white spots on the wing-coverts are very well-marked and there is a large white spot at the tip of the second pair of tail-feathers.

I therefore believe that the Burmese and Siamese birds constitute a well-marked subspecies which ought to be called *burmanica* as suggested by HUME.

149. *Terpsiphone affinis*. BLYTH. — The Burmese Paradise Flycatcher.

Terpsiphone affinis: Robinson & Kloss p. 53; Gairdner p. 39; Müller p. 363; Oustalet 1903 p. 55; Grant p. 93; Bonhote p. 60; Gyldenstolpe II; Gyldenstolpe III p. 169; Robinson I p. 99; Robinson II p. 148; Gairdner p. 149; Robinson III p. 745.

♂ Koon Tan $\frac{6}{5}$ 1914. L = 260 mm.; W = 91 mm.; T = 177 mm.; C = 16 mm. — ♂ Koon Tan $\frac{5}{9}$ 1915. L = 317 mm.; W = 95 mm.; T = 216 mm.; C = 16,5 mm. — ♂ Koon Tan $\frac{22}{9}$ 1914. L = 300 mm.; W = 91 mm.; T = 200 mm.; C = 17 mm. — ♂ Koon Tan $\frac{4}{6}$ 1914. L = 198 mm.; W = 87 mm.; T = 94 mm. — Irides: blackish brown. Bill: bluish black (horn coloured in younger specimens). Legs: plumbeous.

Fairly rare though generally distributed over the parts of the country visited during my journey. This beautiful and attractive bird frequents the evergreen forests and was never observed nor obtained in other kind of jungles. It is rather shy and disappears at once into the tangle of vegetation when disturbed. It, however, seems to be rather curious about everything and usually returns again to have a look at that which frightened it away.

In the Siamese Malaya a few specimens of a Paradise Flycatcher were observed in the dense jungles which cover the mountain range between Siam and Tenasserim, but if it was this species or the allied *Terpsiphone incii* GOULD. I can not ascertain, because no specimens were procured here. *T. incii* has, however, recently been recorded from Bangkok by WILLIAMSON.

All the specimens obtained are males in their second plumage and not a single male in the beautiful white plumage was observed.

150. *Culicicapa ceylonensis*. SWAINS. — The Grey-headed Flycatcher.

Culicicapa ceylonensis: Gyldenstolpe I p. 37; Gyldenstolpe II; Gyldenstolpe III p. 169; Grant p. 91; Robinson I p. 100.

♀ Koon Tan $\frac{7}{5}$ 1914. L = 110 mm.; W = 58 mm.; T = 53 mm.; C = 8 mm. — ♂ Koon Tan $\frac{31}{5}$ 1914. L = 124 mm.; W = 61 mm.; T = 56 mm.; C = 9 mm. — ♂ Koon Tan $\frac{6}{9}$ 1914. L = 116 mm.;

W = 62 mm.; T = 57 mm.; C = 8 mm. — ♂ Koon Tan ¹⁴/₅ 1914. L = 125 mm.; W = 58 mm.; T = 53 mm.; C = 8 mm. = Irides: blackish brown. Bill: horn colour. Legs: brownish yellow.

The four specimens of the Grey-headed Flycatcher were all collected among the Koon Tan Hills where this species was fairly common.

A young male shot on the 14th of May 1914 has a plumage very similar to that of the adult bird but the yellow colour of the underparts of the body is, however, very much paler.

151. *Cryptolopha burkii tephrocephalus*. ANDERS. — Anderson's Flycatcher Warbler.

Cryptolopha burkii tephrocephalus: Gyldenstolpe I p. 30.

Cryptolopha burkii tephrocephala: Gyldenstolpe III p. 167.

♂ Koon Tan ⁹/₅ 1914. L = 107 mm.; W = 56 mm.; T = 45 mm.; C = 10 mm.; Tarsus = 15,6 mm. — Irides: brown. Bill: upper mandible horn colour, lower mandible yellowish brown. Legs: yellowish brown.

This species seems to be very rare in Siam and only two specimens were collected during the whole journey. Both these specimens were obtained among the Koon Tan mountains. It probably breeds in Siam, because one specimen was shot as late as at the beginning of September 1914.

152. *Abrornis superciliaris*. TICK. — The Yellow-bellied Flycatcher Warbler.

Abrornis superciliaris: Gyldenstolpe I p. 30; Gyldenstolpe III p. 167.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.
♂	Koon Tan	³¹ / ₆ 1914	100	48,2	43,2	8
♂	Koon Tan	¹⁶ / ₆ 1914	98	48,3	43,3	9
♂	Koon Tan	³⁰ / ₆ 1914	95	42	34	8
♂	Doi Par Sakeng	¹⁷ / ₇ 1914	90	45	34	9
♀	Pak Koh	¹⁷ / ₄ 1914	93	45	38	9
♀	Koon Tan	⁹ / ₆ 1914	96	45	42	8
♀	Koon Tan	¹⁴ / ₆ 1914	99	45,5	40	9
♀	Koon Tan	³⁰ / ₆ 1914	95	46,7	38,5	8

Irides: black. Bill: horn colour. Legs: pale brown.

The Yellow-bellied Flycatcher Warbler was not uncommon in the bamboo-jungles in the North of Siam, but it was never met with in the Siamese Malaya.

Another allied form *Abrornis schwaneri* TEMM. has, however, recently been found by ROBINSON (Journal Fed. Malay States Mus., Vol. V N:o 3 p. 101, 1915) in Bandon, a Siamese Province in the Malay Peninsula south of the places I visited during my journey. This form is very similar to *A. superciliaris* TICK. and only differs in having the head and ear-coverts of a darker ashy colour, which abruptly contrasts with the colour of the back. In *A. superciliaris* the ashy colour is shading off gradually into the colour of the back.

The crown in nine specimens from different parts of Siam is ashy brown and does not contrast abruptly with the colour of the back and must therefore belong to the typical race which probably inhabits the Himalayas, Burma, Northern Tenasserim and Northern Siam. In Southern Siam and the Malay Peninsula it is replaced by *A. schwaneri* which was originally described from Borneo.

153. *Stoparola melanops*. VIG. — The Verditer Flycatcher.

Stoparola melanops: Gyldenstolpe I p. 37; Gyldenstolpe III p. 169; Williamson I p. 43; Williamson II p. 207.

♂ Koh Lak ¹⁷/₁₂ 1914. L = 160 mm.; W = 88,5 mm.; T = 80 mm.; C = 8 mm. — ♂ Koh Lak ¹⁵/₁₂ 1914. L = 157 mm.; W = 85 mm.; T = 77 mm.; C = 8,5 mm. — ♀ Koh Lak ¹³/₁ 1915. L = 150 mm.; W = 80 mm.; T = 73 mm.; C = 9 mm. — ♀ Koh Lak ¹⁴/₁₂ 1914. L = 140 mm.; W = 78,8 mm.; T = 66,5 mm.; C = 9 mm. — Irides: brown. Bill: black. Legs: black.

The Verditer Flycatcher was very rare in the Northern parts of the country where only a few specimens were observed during my journey.

In the Siamese Malaya, however, it was more common during my stay there in the cold season. I never saw it in flocks, but always single or in pairs. In habits it closely resembles other Flycatchers and is generally seen perching on dry branches, now and then diving down for a passing insects. It was never observed far inside the thick jungles but frequented the outskirts of forests and sometimes even low secondary jungle.

Fam. Hirundinidæ.

154. *Riparia paludicola chinensis*. GRAY. — The Indian Sand-Martin.

♂ Chieng Hai ⁷/₈ 1914. L = 104 mm.; W = 87 mm.; T = 43 mm. — ♂ Chieng Hai ⁷/₈ 1914. L = 98 mm.; W = 86,5 mm.; T = 44 mm. — Irides: brown. Bill: blackish brown.

The Indian Sand Martin was very common and occurred in large flocks along some of the larger rivers of Northern Siam. They were mostly observed flying along the rivers but sometimes they were also seen resting in great numbers on the sandbars in the rivers. These sandbars are only covered with a scanty vegetation of a few low bushes and these bushes were sometimes quite crowded with Sand Martins. More seldom this species occurred at the great swamps of Central Siam and they were never observed nor obtained in the southern districts or in the Siamese Malaya.

155. *Chelidon rustica gutturalis*. SCOP. — The Eastern Swallow.

Chelidon rustica gutturalis: Gyldenstolpe I p. 41.

Hirundo rustica var. gutturalis: Oustalet 1903 p. 59.

Hirundo gutturalis: Williamson I p. 44; Grant p. 95.

Hirundo rustica: Gould p. 151.

Hirundo rustica gutturalis: Robinson III p. 742.

♂ Koh Lak ²¹/₁₁ 1914. L = 173 mm.; W = 113 mm.; T = 89 mm.; C = 7 mm. — ♂ Koh Lak ²¹/₁₁ 1914. L = 148 mm.; W = 114 mm.; T = 67,5 mm.; C = 7 mm. — Irides: blackish brown. Bill: black. Legs: blackish brown.

A winter visitor to Siam. During the cold season it occurred in great numbers both in the North and in the Siamese Malaya. They are never to be found in forests, but occur where there are large swamps or open country.

Fam. Pittidæ.

156. *Anthocichla phayrei*. BLYTH. — Phayre's Pitta.

Anthocichla phayrei: Gyldenstolpe III p. 172; Robinson III p. 742.

♂ Pak Koh ³/₄ 1914. L = 209 mm.; W = 101 mm.; T = 57 mm.; C = 26 mm. — ♀ Koon Tan ¹⁰/₅ 1914. L = 190 mm.; W = 97 mm.; T = 52 mm.; C = 26 mm. — ♂ Koon Tan 1914. W = 100 mm.; T = 54 mm.; C = 24 mm. — Irides: brown. Bill: black. Legs: pale brown.

Seems to be very rare in Siam and the specimens I obtained were all collected at Koon Tan and Pak Koh, both places in Northern Siam.

As my specimens were all shot by my Dyak collector, I am unable to give any records of their habits and the kind of forests where these birds occur.

157. *Pitta cyanea*. BLYTH. — The Blue Pitta.

Pitta cyanea: Gyldenstolpe II; Gyldenstolpe III p. 172; Gairdner p. 149; Robinson III p. 742.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Bill fr. gape mm.	Tarsus mm.
♂	Koon Tan	⁴ / ₆ 1914	216	115	64	29	40
♂	Koon Tan	²⁹ / ₄ 1914	200	112	59	29	40
♂	Koon Tan	⁵ / ₆ 1914	210	115	63,2	27	40
♂	Koon Tan	²¹ / ₉ 1914	226	116	63	29	40
♀	Koon Tan	⁷ / ₅ 1914	205	113	60	29	39
♀	Koon Tan	¹⁸ / ₉ 1914	215	114	57	29	40
♀	Koon Tan	¹⁸ / ₉ 1914	205	110	58	27	38

Irides: brown. Bill: blackish brown. Legs: flesh colour or plumbeous grey.

Only obtained in a very dense and thickly wooded valley among the Koon Tan Hills. At this place and almost on the same spot seven birds were shot and several more observed.

The Blue Pitta keeps entirely to the ground. It is shy and very difficult to detect in the jungles, where it runs about among the undergrowth, very seldom taking to the wings.

The red colour of the crown and nape is sometimes mixed up with yellow and some specimens have the breast without any yellowish wash at all, while other have the breast and cheeks, as well as the forehead and a well-marked supercilium strongly washed with yellow.

158. *Pitta cyanoptera*. TEMM. — The Lesser Blue-winged Pitta.

Pitta cyanoptera: Gyldenstolpe II; Gyldenstolpe III p. 172; Gairdner p. 39; Oustalet 1903 p. 64; Grant p. 95; Bonhote p. 67; Robinson & Kloss p. 48; Robinson I p. 97; Robinson II p. 147; Gairdner p. 149.

♂ Ban Meh Na ²⁴/₆ 1914. L = 175 mm.; W = 123 mm.; T = 47 mm.; B = 30,5 mm.; Tarsus = 39 mm. — ♂ Pa Hing ⁹/₅ 1914. L = 170 mm.; W = 121,5 mm.; T = 45 mm.; B = 31,2 mm.; Tarsus = 37 mm. — Irides: brownish black. Bill: black. Legs: yellowish white.

The Lesser Blue-winged Pitta was rather rare in the localities visited by my Expedition.

It was only obtained in Northern Siam. Unlike the other Pittas this species does not keep entirely to the ground and one male specimen was shot in a tree, to which I was attracted by the melodious whistle of the bird.

159. *Eucichla gurneyi*. HUME. — Gurney's Pitta.

Eucichla gurneyi: Robinson & Kloss p. 49; Robinson I p. 97.

♂ juv. Koh Lak Paa ⁸/₁₂ 1914. L = 188 mm.; W = 101 mm.; T = 42 mm.; B = 28 mm.; Tarsus = 37 mm. — Irides: brown. Bill: orange, brownish above and at the tip. Legs: yellowish brown.

During one of my excursions among the mountain chain separating Tenasserim and Siam I flushed a Pitta from a very dense and almost impenetrable piece of jungle. I succeeded in shooting the bird and it turned out to be a young bird presumably of this species though it has a plumage rather different from that of the adult bird as seen by the description given below.

Description: Forehead, crown and nape dusky black with triangular buffy tips to the feathers; upper parts of the body and upper tail-coverts umber brown (nearest »Raw umber«. Ridgway, Plate III) and with broad dusky bases to the feathers; lores, cheeks and ear-coverts black; chin dusky brown; throat white; breast and middle part of abdomen dusky brown with pale brownish tips to the feathers and with a few pure black feathers mixed up among the other; on the sides of the lower breast there are a few pure black feathers barred with yellow on their terminal half; sides of the body and flanks pure yellow barred with black; primaries black with greyish-white tips, these being confined to the outer webs; secondaries and wing-coverts dusky black, the ones as well as the wing-coverts washed and tipped with umber brown of the same shade as that one of the back; tail bright blue on the outer webs and black on the inner webs of all the feathers except the central pair which is bright blue with only the base black.

Fam. Eurylæmidæ.

160. *Calyptomena viridis*. RAFFL. — The Green Broadbill.

Calyptomena viridis: Müller p. 393; Grant p. 96; Bonhote p. 67; Robinson & Kloss p. 50; Robinson I p. 96.

♀ Hat Sanuk ²⁶/₁ 1915. L = 185 mm.; W = 103 mm.; T = 58 mm.; B = 22 mm.; Tarsus = 20 mm. — Irides: black. Bill: yellowish brown. Legs: greenish yellow.

Of this species which is rather common in the Southern Malay Peninsula, only a single specimen was obtained in a thick evergreen forest near a small creek called Hat Sanuk quite close to the Tenasserim boundary on about Lat. N. $11^{\circ} 50'$.

At this same place I observed a few more specimens, which were very difficult to detect among the dense foliage as they kept rather high up in the gigantic trees.

In any other part of Siam the Green Broadbill was never met with.

Outside Siam and the Malay Peninsula it inhabits Southern Tenasserim, Sumatra and Borneo.

161. *Psarisomus dalhousiæ*. JAMESON. — The Long-tailed Broadbill.

Psarisomus dalhousiæ: Oustalet 1903 p. 62; Gyldenstolpe II; Gyldenstolpe III p. 229.

♂ juv. Meh Nja Min $27/7$ 1914. L = 135 mm.; W = 78 mm.; T = 33 mm.; C = 10 mm. — Irides: blackish grey. Bill: horny brown with yellow edges. Legs: greenish yellow.

The Long-tailed Broadbill is sparsely distributed over the damp evergreen hill-forests of Northern Siam. During my journey I only obtained a young male which was caught by one of my coolies on the road between Muang Fang and Chieng Hai.

It has quite a different plumage from that of the adult bird and as I can find no description of such a young bird, I herewith give a short description of it.

Forehead, occiput, nape and whole upper plumage green; ear-coverts green but darker than the crown; a few feathers on the lores, a large spot over the ear-coverts, feathers below the eye and at the angle of the bill bright yellow; wing-coverts, tertiaries and secondaries green (the latter of a brighter colour) primary coverts black edged with greenish blue on the outer webs; primaries blackish edged with greenish blue on the outer web; a large patch of glistening cobalt blue on the outer webs of the inner primaries; chin and throat yellowish green; breast, abdomen and under tail-coverts pale green; tail-feathers bluish green above, blackish beneath.

162. *Eurylæmus javanicus*. HORSF. — Horsfield's Broadbill.

Eurylæmus javanicus: Gyldenstolpe II; Gyldenstolpe III p. 229; Robinson I p. 96.

♀ Koon Tan $24/5$ 1914. L = 210 mm.; W = 106 mm.; T = 71 mm.; B = 36 mm.; Tarsus = 21 mm. — ♂ Koon Tan $24/5$ 1914. L = 205 mm.; W = 105 mm.; T = 68 mm.; B = 36 mm.; Tarsus = 21 mm. — Irides: black. Bill: as in the Fauna of British India. Legs: brown.

Seems to be fairly rare in Siam and only two specimens were shot out of a small party by my Siamese collector.

The tail-coverts in my specimens are not bright yellow as recorded in the literature but pale yellow with a rosy tinge, and the spots at the bases of the primaries are pure white instead of yellow. The tail-feathers, except the central ones, have a subterminal whitish spot.

Horsfield's Broadbill has also been obtained by Mr. EISENHOFER's collector at Koon Tan and Pa Hing, both places in Northern Siam, and by ROBINSON in the Bandon Province of North Eastern Malay Peninsula and these are the only records I know about from Siam.

163. *Corydon sumatranus*. RAFFL. — The Dusky Broadbill.

Corydon sumatranus: Müller p. 395; Oustalet 1903 p. 63; Gairdner p. 39; Gyldenstolpe II; Gyldenstolpe III p. 229; Gairdner p. 149.

Sex	Locality	Date	Total length mm.	Wing mm.	Tail mm.	Bill fr. gape mm.	Tarsus mm.
♂	Pak Koh	²⁸ / ₃ 1914	230	131	101	35,5	22
♂	Pak Koh	²⁸ / ₃ 1914	255	134	99	38	22
♀	Koon Tan	²⁸ / ₆ 1914	240	129	106	36	23
♀	Pak Koh	⁸ / ₄ 1914	253	136	101	36	23
♂	Pak Koh	³¹ / ₃ 1914	255	134	102	36	22
♂	Pak Koh	²⁴ / ₃ 1914	232	135	96	36	22
♂	Pak Koh	²⁴ / ₃ 1914	242	134	108	37	23
♀	Hat Sanuk	¹⁸ / ₂ 1915	263	138	104	37	23
♂	Hat Sanuk	¹⁸ / ₂ 1915	270	134	101	37	23

Irides: brown. Bill: pink with the tip plumbeous grey.

Nine specimens of this curious bird were collected in different parts of the country both in Northern Siam and in the Siamese Malaya.

It generally occurs in flocks of about 8 to 10 individuals and they are very tame and stupid. When flying they utter a whistling note, which I never heard when the birds were resting. Then they made their presence known by a croaking note which could be heard rather far away.

There is very little variation as to the plumage with the exception of the white spots.

The males are separable from the females by having a greenish gloss on the underparts of the body. This gloss is always absent in female specimens.

164. *Cymbirhynchus macrorhynchus lemniscatus*. RAFFL. — The Black- and Red Broadbill.

Cymbirhynchus malaccensis: Robinson & Kloss p. 50; Robinson I p. 96.

Cymbirhynchus nasutus: Schomburgk p. 258.

Cymborhynchus macrorhynchus: Müller p. 394; Oustalet 1903 p. 63; Grant p. 96; Bonhote p. 68; Gairdner p. 39; Gairdner p. 149; Robinson III p. 740.

♀ Hat Sanuk ¹⁸/₂ 1915. L = 225 mm. — Irides: golden green. Bill: greenish blue with yellow base and margins. Legs: pale blue.

This beautiful Broadbill was very rare in every locality visited by the Expedition and it was only observed a few times in the Siamese Malaya near the Tenasserim frontier.

Three subspecies have been described of this bird. The typical *C. macrorhynchus*, GM., inhabits Borneo and is characterized by having no white spots or markings on the tail-feathers.

Then there is *C. m. lemniscatus* RAFFL. which previously has been found in Sumatra and the Malay Peninsula to Tenasserim. This subspecies has white bars on the

inner webs of the tail-feathers. My specimen belongs to this race which then also inhabits Southern Siam.

C. m. affinis BLYTH. has been obtained in Arracan and Pegu and it has white bars on both webs of the outer rectrices.

Fam. Picidæ.

165. *Gecinus nigrigenis*. HUME. — The Red-rumped Green Woodpecker.

Gecinus nigrigenis: Oustalet 1899 p. 257; Gyldenstolpe I p. 47; Gyldenstolpe II; Gyldenstolpe III p. 229.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Pak Koh	1/4 1914	302	154	127	32,5	24
♂	Koon Tan	16/6 1914	305	157	122	34	24
♂	Koon Tan	28/4 1914	305	157	127	34	24
♀	Koon Tan	12/6 1914	303	157	127	31	24
♀	Pak Koh	13/4 1914	290	154	118	31,5	24

Irides: yellowish white. Bill: black. Legs: greenish grey.

Quite a common bird in the open dry forests in the North.

None of the specimens obtained in the different parts of Northern Siam has the white or yellowish white stripe behind the eye as mentioned by HARGITT (Cat. Birds Brit. Mus. Vol. 18 p. 67).

The bills are quite black and there is not the slightest sign of a yellowish colour on the upper mandible.

The abdomen and the under tail-coverts are dusky brown with squamate markings of darker brown. The markings are broader and almost blackish on the under tail-coverts.

166. *Picus vittatus eisenhoferi*. GYLDENSTOLPE.¹

Gecinus vittatus: Oustalet 1899 p. 253; Robinson & Kloss p. 45; Robinson III p. 738.

♀ Pa Hing 9/4 1914. L = 290 mm.; W = 142 mm.; T = 128 mm.; C = 34 mm.; Tarsus = 26 mm. — Irides: pale crimson. Bill: blackish grey with the base of the lower mandible yellow. Legs: greenish yellow.

Allied to *P. vittatus* VIEILL. from Lower Siam, Cambodia, Cochin China, Southern Malay Peninsula, Sumatra and Java, but considerably larger and of a somewhat differing colour.

Adult female (type of the subspecies).

Similar to *P. vittatus* VIEILL. but much larger. The colour of the upper parts of the body bright grass green instead of yellowish olive; the rump-feathers fiercely tipped with yellow; wing-coverts green for their outer parts and dusky brown on their inner

¹ Ornith. Monatsber. 1916. No 2, p. 28.

half; outer webs of the primaries with white spots; on the inner webs of the primaries the white spots are only confined to the basal part of the feathers; malar stripe black with white bases and edges to the feathers; the black cap on the head is of a great extent almost covering the whole forehead, crown and nape.

During one of my excursions to a fairly dense evergreen forest at the neighbourhood of Pa Hing I came across a pair of these Woodpeckers and I succeeded in shooting the female. Pa Hing is a small hamlet situated in the middle of a large forest on about Lat. N. 18° 10'. The typical *Picus vittatus* VIEILL. is a southern form and the occurrence of a subspecific race of that species as far north as to Lat. N. 18° adds a considerable distance to its geographical distribution to the north. Like many other birds the northern forms are always growing larger than the southern ones.

167. *Picus viridianus*. BLYTH. — The Burmese Scaly-bellied Green Woodpecker.

Gecinus viridianus: Oustalet 1899 p. 253; Grant p. 101; Robinson & Kloss p. 45; Robinson I p. 95.

Gecinus dimidiatus: Schomburgk p. 257.

♂ Koh Lak $1/12$ 1914. L = 301 mm.; W = 138 mm.; T = 115 mm.; C = 35 mm. — ♀ Koh Lak $11/12$ 1914. L = 290 mm.; W = 136 mm.; T = 122 mm.; C = 34 mm. — Irides: red. Bill: black with the base yellowish green. Legs: greenish yellow.

In the parts of the Siamese Malaya visited during my journey the Burmese Scaly-bellied Woodpecker was rather common. It never seems to ascend the higher hills and was most often met with in open jungles near the sea-shore, sometimes in company with Laughing Thrushes (*Garrulax leucolophus diardi* LESS.).

To the north it has been found as far as Bangkok and its neighbourhood but north of that place I never found it.

My specimens perfectly well agree with the descriptions in the literature but both the specimens have much longer wings and tails than recorded. The female specimen in my collection has one of the tail-feathers quite white with a whitish shaft.

It inhabits the Malay Peninsula as far south as the Patani States and Kedah but further south its place is taken by the typical race of the allied *Picus vittatus* VIEILL.

168. *Picus canus hessei*. GYLDENSTOLPE.¹ — The Siamese Grey-headed Green Woodpecker.

Plate 3, fig. 2 & 3.

Picus canus occipitalis: Gyldenstolpe I p. 47; Gyldenstolpe II; Gyldenstolpe III p. 229.

Picus occipitalis: Oustalet 1899 p. 255.

♂ Koon Tan $2/6$ 1914. L = 308 mm.; W = 151,6 mm.; T = 128 mm.; C = 37,5 mm.; Tarsus = 23 mm. — ♂ Koon Tan $22/9$ 1914. L = 265 mm.; W = 146 mm.; T = 113,2 mm.; C = 34 mm.; Tarsus = 23 mm. — ♂ Pak Koh $17/3$ 1914. L = 330 mm.; W = 155,8 mm.; T = 122 mm.; C = 40 mm.; Tarsus = 24,5 mm. — ♀ Baag Hue Pong $2/5$ 1914. L = 320 mm.; W = 152,5 mm.; T = 122,6 mm.; C = 37,5 mm.; Tarsus = 22 mm. — Irides: yellowish white (♂); reddish brown (♀). Bill: black. Legs: greenish black.

Similar to *Picus canus occipitalis* VIG. from Northern India but distinguished by a smaller size. The general colouration is also much brighter than in that species.

¹ Ornith. Monatsber. 1916. No. 2, p. 28.

This is especially evident in the males, where the colour of the back is very bright and mixed with yellow. The rump is washed with golden yellow and well-marked off from the rest of the upper plumage. The wings are brightly washed with olive and the underparts of the body are much paler than in typical *occipitalis*. As in that species the lower mandible is pure black.

The Siamese Grey-headed Green Woodpecker therefore constitute a well-marked race. I have had the pleasure of naming this new form in honour of DR. ERICH HESSE who has made such a good work to the proper understanding of the geographical distribution and the generic position of the species and subspecies of several Woodpeckers.

Types of the subspecies:

Adult male collected at Pak Koh, Northern Siam ¹⁷/₃ 1914.

Adult female, collected at Den Chai, Northern Siam ¹⁵/₂ 1912.

The female is similar to the male but is lacking the red colour on the crown, which is pure black. The general colouration is also slightly paler than that of the male.

The Grey-headed Green Woodpeckers collected during my former journey 1911—1912 and by me referred to *Picus canus occipitalis* VIG. also belong to the new form, as shown by a careful examination of a series.

Picus canus hessei inhabits the forests of Northern Siam and was never found in the Siamese Malaya. It seems to prefer the deciduous forests to evergreen jungles.

169. **Brachylophus chlorolophus chlorolophus.** VIEILL. — The Small Himalayan Yellow-naped Woodpecker.

Picus chlorolophus chlorolophus: Gyldenstolpe I p. 47; Gyldenstolpe II; Gyldenstolpe III p. 229.

Gecinus chlorolophus: Barton p. 106.

♂ Bang Hue Pong ⁹/₅ 1914. L = 245 mm.; W = 136 mm.; T = 96 mm.; C = 27 mm. —
♂ Pak Koh ²³/₈ 1914. L = 243 mm.; W = 138 mm.; T = 118 mm.; C = 25 mm. — ♀ Pak Koh ¹/₄ 1914.
L = 255 mm.; W = 137 mm.; T = 116 mm.; C = 22,5 mm. — ♂ Doi Par Sakeng ¹⁴/₇ 1914. L = 247
mm.; W = 128 mm.; T = 115 mm.; C = 25 mm. — Irides: reddish brown. Bill: black with the base yellow.
Legs: greenish olive.

This species was rather common in the deciduous forests in the North of Siam. It was generally observed either single or in pairs. As already stated by HARGITT (Cat. Birds Brit. Mus., Vol. 18 p. 60) the white spotting on the outer webs of the primaries is very inconstant, and of the 6 specimens collected in Northern Siam three are quite lacking these spots while in the other three specimens these spots are quite distinct.

170. **Brachylophus chlorolophoides.** GYLDENSTOLPE.¹

Plate 2, fig. 3.

♂ Koon Tan ³¹/₅ 1914. L = 255 mm.; W = 136 mm.; T = 104 mm.; C = 24 mm.; Tarsus = 18 mm. — Iris: crimson. Bill: black, edges of the base dirty yellow. Legs: brownish yellow.

Description: Adult male.

Upper parts yellowish green, brighter on the rump and on the upper tail-coverts, the whole upper plumage suffused with a golden shade; quills dusky brown, the inner

¹ Ornith. Monatsber. 1916. No. 2, p. 29.

webs spotted with white; the outer webs of the primaries, except the first and second one margined with red, almost on their whole length, the tip only being greenish; outer secondaries brown on their inner webs and red, washed with yellowish green on their outer webs; inner secondaries almost green with blackish brown shafts, the basal part being brown on the inner web; no white spots on the outer webs of the primaries; tail black with yellowish red broad margins on the basal part of all the tail-feathers except the outermost pair; nasal plumes and a line in front of the eye deep black; forehead and occipital crest bright bloody-red; basal part of crown feathers greenish grey broadly tipped with bloody-red; nuchal crest golden yellow; sides of the face olive green; ear-coverts greyish olive brown; lores and a broad stripe under the ear-coverts white; superciliary stripe olive brown; broad malar stripe bloody red faintly barred with dusky olive, the feathers having grey bases; occipital crest lemon yellow; chin and breast dark brownish olive, the bases of the feathers greyish white; remainder of underparts and under tail-coverts greyish white with a faint greenish shade and barred with dusky brown; under wing-coverts and axillaries pure white though broadly barred with dusky brown; thighs smoky brown; bend of the wing white barred with dusky olive.

This new species is somewhat allied to *Brachylophus chlorolophus* VIEILL., but differs by the intensity of the red colour of the crown and nape. Chin and throat much darker and the upper parts of the body brighter and washed with golden yellow. The malar stripe is also broader and more distinct and the tail-feathers broadly margined with yellowish red. Nuchal crest longer and brighter. Other allied forms are *B. chlorigaster longipennis* HART. from Hainan and *B. chlorolophus rodgeri* HART. & BUTLER, from the mountains of the Malay Peninsula. From the former which lacks the red malar stripe the new form is thus easily distinguished.

Brachylophus chlorolophus rodgeri stands somewhere between *B. chlorolophus* VIEILL. and *B. chlorigaster* JERD., but differs from the former species in being much darker on the upper parts of the body, in having the abdomen darker and in having shorter wings. From *B. chlorigaster* it differs in being larger and in having the head green, not red.

171. *Chrysophlegma miniatum malaccense*. LATH. - The Banded Red Woodpecker.

Chrysophlegma malaccense: Robinson & Kloss p. 46; Grant p. 100; Bonhote p. 71; Robinson I p. 95.
Callolophus malaccensis: Müller p. 420.

♀ Hat Sanuk ¹⁸/₂ 1915. L = 276 mm; W = 140 mm.; T = 100 mm.; C = 28. — Irides: reddish brown. Bill: upper mandible blackish blue, lower mandible white. Legs: dark greenish olive.

The Banded Red Woodpecker seems to be extremely rare and during the Expedition only two specimens were observed, the one in an evergreen forest at Hat Sanuk near the Tenasserim border northwest from Koh Lak and the other one in a thin bamboo-jungle north of Koh Lak. This is a southern form, the distributional area of which seems to extend to about Lat. N. 12°.

The specimen obtained has the crown and the occipital crest rich carmine; the nuchal crest is pale greenish yellow.

172. *Chrysophlegma flavinucha*. GOULD. — The Large Yellow-naped Woodpecker.*Chrysophlegma flavinucha*: Gyldenstolpe I p. 48; Gyldenstolpe II; Gyldenstolpe III p. 229.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	6/9 1914	333	162,5	134	37	22
♂	Koon Tan	14/9 1914	289	162	127	36	22
♂	Doi Par Sakeng	12/7 1914	323	163	128	37	23
♂	Doi Par Sakeng	29/6 1914	300	154	128	38	23
♂	Doi Par Sakeng	29/6 1914	300	163	123	39	22
♀	Koon Tan	31/5 1914	319	163	134	34	22
♀	Koon Tan	31/5 1914	310	159	125	34	21
♀	Koon Tan	8/6 1914	330	159	126	33	21
♀	Doi Par Sakeng	28/6 1914	315	166	133	34	21

Irides: reddish brown. Bill: bluish grey to white. Legs: greenish olive.

A fine series from different parts of Northern and Northwestern Siam.

One male collected on the 12th of July at Doi Par Sakeng near the Burmese border is remarkable for the very dark colouring of the underparts of the body. The breast and especially the chest are almost bronzy brown. Even the malar region, the chin and the throat are not lemon yellow but »primuline yellow» (RIDGWAY. Nomcl. Col. pl. 16). Another male from the same locality is exactly of the same colour. All the other male specimens have the malar region, the chin and the throat lemon yellow.

The females collected at Doi Par Sakeng are, however, quite similar to those obtained at more southern localities and therefore I do not think it wise to split the bird into geographical races.

173. *Gecinulus viridis*. BLYTH. — The Southern Pale-headed Woodpecker.*Gecinulus viridis*: Parrot p. 108; Gyldenstolpe III p. 229; Robinson I p. 95; Robinson III p. 739.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Doi Par Sakeng	13/7 1914	237	134	100	25	24
♂	Koon Tan	7/6 1914	237	130	92	24	24
♂	Koon Tan	5/6 1914	215	121	85	23	22
♂	Koon Tan	17/9 1914	280	131	89	25	23
♀	Koon Tan	18/5 1914	250	130	97	25	23
♀	Doi Par Sakeng	13/7 1914	234	130	93	23	22
♂	Doi Par Sakeng	11/7 1914	240	122	94	24	21
♀	Koon Tan	7/6 1914	220	122	89,6	22	23

Irides: brown. Bill: bluish white. Legs: dark greenish olive.

The Southern Pale-headed Woodpecker was very abundant in the bamboo-forests of Upper Siam. In other kind of jungles it was never met with. It generally occurs single or in pairs but never in flocks or in company with other kind of Woodpeckers. Only a few times it was observed on the ground, and as soon as it was disturbed, it always flew up in a bamboo clump.

The intensity of the colour of the underparts of the body seems to be somewhat variable and in some of my specimens these parts are washed with green.

An allied form — *Gecinulus grantia* MC CLELL. — has been recorded by DR. HARMAND from the Laos country but it must be extremely rare, and I never observed it during my journey.

174. *Iyngipicus canicapillus*. BLYTH. — The Burmese Pigmy Woodpecker.

Iyngipicus canicapillus: Gyldenstolpe I p. 48; Gyldenstolpe II; Gyldenstolpe III p. 230; Grant p. 98; Robinson & Kloss p. 46; Robinson II p. 147; Robinson III p. 740.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♀	Koon Tan	20/4 1914	138	83	40	18	11
?	Pa Hing	11/4 1914	138	81	45	15	11
♀	Bang Hue Pong	26/5 1914	126	81	42	15	11
♀	Koon Tan	1/5 1914	130	85	45	15	11
♂	Doi Par Sakeng	13/7 1914	131	87	45	15,5	12
♀	Koon Tan	29/4 1914	132	79	41	15	10
♂	Bang Hue Pong	26/5 1914	128	80	44	15	11
♂	Pa Hing	11/4 1914	135	80	45	13	11
♂	Koon Tan	31/5 1914	134	83	44	15	11
♂	Bang Hue Pong	26/5 1914	128	82	41	15	11,2
♂	Koon Tan	29/4 1914	138	82	45	16	11

Irides: grey, yellowish white or brown. Bill: bluish black. Legs: yellowish green.

A large series of this species was obtained at different places in Northern Siam. Here it was quite common, though it was never met with in evergreen jungles.

The Burmese Pigmy Woodpecker is very similar to *I. pumilus* HARGITT. which inhabits Southern Tenasserim and some parts of the Malay Peninsula. It is, however, distinguished by its smaller size and by having the central pair of the tail-feathers unspotted. This varies a great deal and some specimens are almost identical with *I. canicapillus* and it therefore seems to me that *I. pumilus* is not worthy of specific rank.

175. *Pyrrhopicus pyrrhotis*. HODGS. — The Red-eared Bay Woodpecker.

♂ Doi Par Sakeng 23/7 1914. L = 277 mm.; W = 153 mm.; T = 98 mm.; C = 45 mm. — ♀ Doi Par Sakeng 11/7 1914. L = 268 mm.; W = 142 mm.; T = 91 mm.; C = 40 mm. — Irides: brown. Bill: yellowish green. Legs: brownish green.

A very shy and difficult bird to obtain. It was observed several times in Northern Siam and especially up among the hills, but during the whole journey I only succeeded in obtaining two specimens, both shot in a mixed bamboo forest near Doi Par Sakeng.

This species generally keeps to the ground, only visiting the trees when disturbed or frightened. It, however, never climbs high up the stems but always keeps to the lower half of the tree, where it conceals itself on the hindmost side.

The female specimen is immature and has the head striped with rufescent buff.

The male has the under tail-coverts of the same colour as the underparts of the body or perhaps a trifle paler. The underparts are also quite unbarred.

176. *Miglyptes jugularis*. BLYTH. — The Black-and-Buff Woodpecker.

Miglyptes jugularis: Oustalet 1899 p. 263; Gyldenstolpe II; Gyldenstolpe III p. 230.

♂ Pak Koh ²⁶/₃ 1914. L = 170 mm.; W = 102 mm.; T = 55 mm.; C = 19 mm. — ♂ Koon Tan ²²/₅ 1914. L = 163 mm.; W = 101 mm.; T = 47 mm.; C = 18 mm. — ♀ Bang Hue Pong ²⁵/₅ 1914. L = 175 mm.; W = 100 mm.; T = 49 mm.; C = 19,3 mm. — ♀ Bang Hue Pong ²⁵/₅ 1914. L = 168 mm.; W = 99 mm.; T = 54 mm.; C = 18 mm. — Irides: brown. Bill: black. Legs: greenish olive.

Only obtained in the Northern hill-forests and even there rather scarce. It was most often met with in old clearings or open forests, never in thick jungle.

177. *Micropternus phaiiceps phaiiceps*. BLYTH. — The Northern Rufous Woodpecker.

Micropternus phaiiceps phaiiceps: Gyldenstolpe I p. 48; Gyldenstolpe II; Gyldenstolpe III p. 230.

Micropternus phaiiceps: Grant p. 99.

♂ Doi Par Sakeng ²³/₇ 1914. L = 222 mm.; W = 126 mm.; T = 76 mm.; C = 26 mm. — ♀ Doi Par Sakeng ²³/₇ 1914. L = 235 mm.; W = 127 mm.; T = 78 mm.; C = 24 mm. — ♂ Koon Tan ²³/₅ 1914. L = 230 mm.; W = 123,5 mm.; T = 83 mm.; C = 25 mm. — Irides: brown. Bill: horn colour, base plumbeous. Legs: brown.

The Siamese representative of the Rufous Woodpecker must be referred to the short-winged form, which has been described by BLYTH under the above-mentioned name. In Northern India and probably Burma the Rufous Woodpecker is represented by another race which, according to HESSE, is characterized by having wings measuring 140,5—145 mm. This race ought to be separated as *M. p. blythi* MALH.

Further south in Tenasserim, the Malay Peninsula and the Gr. Sunda Islands another race occurs which has been described by VIEILLOT as *M. brachyurus* and this race is characterized by having the tail equally barred rufous and black, while in *M. phaiiceps* the black bars are much narrower than the rufous ones. In *M. brachyurus* the scale-like feathers are more conspicuous than those in *M. phaiiceps*.

The pair shot at Doi Par Sakeng in North-western Siam are very pale coloured on their heads, and the black centres to the feathers are almost obsolete. In their general appearance they are much paler than the specimen obtained at Koon Tan, which is of a rich rufous colour on the upper parts of the body.

This specimen is probably an immature bird, because the underparts of the body are varied with black crescentic marks. In the specimens from Doi Par Sakeng the black bars of the tail-feathers are almost obsolete and there are only a few black spots and blotches.

178. **Tiga javanensis intermedia.** BLYTH. — The Common Golden-backed
Three-toed Woodpecker.

Tiga javanensis: Gyldenstolpe I p. 49; Gyldenstolpe II; Gyldenstolpe III p. 230; Barton p. 106; Parrot p. 107; Robinson & Kloss p. 47; Oustalet 1899 p. 265; Grant p. 99; Bonhote p. 72; Robinson I p. 95.

Tiga tridactyla: Gould p. 151.

Tiga intermedia: Schomburgk p. 257.

Chrysonotus javanensis: Müller p. 416.

Chrysonotus intermedius: Finsch & Conrad p. 356.

♀ Koh Lak ²⁶/₁₁ 1914. L = 257 mm.; W = 142 mm.; T = 109 mm.; C = 27 mm. — ♂ Pak Koh ⁷/₄ 1914. L = 302 mm.; W = 149 mm.; T = 112 mm.; C = 30 mm. — ♂ Koon Tan ⁹/₉ 1914. L = 265 mm.; W = 147 mm.; T = 105 mm.; C = 30 mm. — ♀ Chum Poo ³/₅ 1914. L = 269 mm.; W = 154 mm.; T = 121 mm.; C = 29 mm. — ♂ Pak Tha ¹²/₃ 1914. L = 280 mm.; W = 149 mm.; T = 114 mm.; C = 32 mm. — Irides: brownish red. Legs: greenish grey.

The specimens of the Common Golden-backed Three-toed Woodpecker which I collected in Siam all belong to the long-winged form. Curiously enough this race is also found in India, Bengal, Nepal and Assam and then occurs again in Java. In the Malay Peninsula and Sumatra a form with shorter wings occurs, which is the typical *Tiga javanensis* of LJUNG.

The whitish elongated stripes of the crown in the females shows a great deal of variation and in some specimens the whole head and nape is striped, while in other the occiput and nape are only faintly striped, being almost black with only a few spots. Even as far south as at Koh Lak in the Siamese Malaya the long-winged race was found.

179. **Chrysocolaptes guttacristatus guttacristatus.** TICK. — Tickell's
Golden-backed Woodpecker.

Chrysocolaptes guttacristatus: Robinson & Kloss p. 47; Grant p. 99; Robinson II p. 147.

♂ Pak Koh ²⁶/₃ 1914. L = 293 mm.; W = 168 mm.; T = 111 mm.; C = 45 mm. — ♀ Pak Koh ³/₄ 1914. L = 265 mm.; W = 161 mm.; T = 104 mm.; C = 43 mm. — ♀ Koon Tan ³¹/₅ 1914. L = 310 mm.; W = 168 mm.; T = 105 mm.; C = 44 mm. — Irides: yellowish red. Bill: blackish grey. Legs: greenish olive.

During my former journey in Siam I collected specimens of the Golden-backed Woodpecker which belonged to the race described by HESSE under the name of *Chrysocolaptes guttacristatus indo-malayicus*. This is evidently a southern form which inhabits Siam north to about Lat. N. 18°. It is merely separated from the northern typical *C. g. guttacristatus* by its size.

In the most northern districts, where the collecting was chiefly undertaken during my recent trip, I only met with the typical form. Up here Tickell's Golden-backed Woodpecker was rather rare and only a few specimens were observed or obtained.

South of Lat. N. 18° the southern race was very common in the open deciduous forests and was certainly one of the most characteristical birds to that kind of vegetation.

180. *Hemicercus canente*. LESS. — The Heart-spotted Woodpecker.

Hemicercus canente: Oustalet 1899 p. 267; Gyldenstolpe I p. 50; Gyldenstolpe II; Gyldenstolpe III p. 230.

♂ Chum Poo ³/₅ 1914. L = 145 mm.; W = 95 mm.; T = 37 mm.; C = 22,5 mm. — ♀ Pak Koh ³/₄ 1914. L = 156 mm.; W = 97; T = 39 mm.; C = 22,5 mm. — Irides: blackish brown. Bill: black. Legs: black.

The Heart-spotted Woodpecker was rather rare at the localities visited by the Expedition and was only observed in Northern Siam where it occurred in thick, evergreen Jungles or in open deciduous forests.

As regards the colour the Siamese specimens agree perfectly well with the description in the literature but the males have only the forehead speckled with minute spots of yellowish buff; the occiput, nape and crest-feathers being pure black with a faint gloss of purple.

In the females the lower parts are much darker than those of the males. These parts are almost black in the females while in the males they are dark olivaceous. Only the thighs, vent and under tail-coverts are black.

181. *Mülleripicus pulverulentus harterti*. HESSE. — The Great Slaty Woodpecker.

Mülleripicus pulverulentus harterti: Gyldenstolpe I p. 50; Gyldenstolpe II; Gyldenstolpe III p. 230.

Alphonerpes pulverulentus: Robinson & Kloss p. 47; Robinson I p. 95.

♂ Doi Par Sakeng ²⁰/₇ 1914. L = 476 mm.; W = 242 mm.; T = 186 mm.; C = 65 mm. — ♂ Koon Tan ³¹/₅ 1914. L = 485 mm.; W = 235 mm.; T = 191 mm.; C = 64 mm. — Irides: brown. Bill: horn colour with the base plumbeous grey. Legs: plumbeous or dark greenish olive.

The Great Slaty Woodpecker is by no means a common bird in Siam, though generally distributed over the Northern parts of the country. As it is very shy and on the same time keeps to the highest trees it is not easy to obtain. It goes about either in pairs or in small parties and its shrill call is often heard. In the Malay Peninsula, Sumatra, Borneo and Java the smaller race occurs and this is the typical *M. p. pulverulentus* TEMM.

182. *Thriponax javensis feddeni*. BLANF. — The Burmese Great Black Woodpecker.

Thriponax javensis feddeni: Gyldenstolpe II; Gyldenstolpe III p. 230.

Thriponax javensis: Gyldenstolpe I p. 50; Müller p. 424; Robinson & Kloss p. 47.

♂ Hue San ²⁷/₆ 1912. W = 212 mm.; T = 157 mm.; C = 49 mm. — ♀ Koon Tan ¹⁵/₅ 1914. L = 395 mm.; W = 215 mm.; T = 159 mm.; C = 47 mm. — Irides: yellowish white. Bill: black. Legs: greyish blue.

This beautiful Woodpecker was rather rare in the parts of Siam visited by the Expedition and I only succeeded in obtaining two specimens which both were shot in deciduous forests. Like the Great Slaty Woodpecker (*Mülleripicus pulverulentus harterti*, HESSE.) this species is also very shy and difficult to obtain. It, however, never seems to live very high up in the large trees and it was mostly observed near the ground. It goes about in small parties of about 4 to 6 birds.

183. *Picumnus innominatus malayorum*. HART. — The Speckled Piculet.

♂ Koon Tan ²⁴/₅ 1914. L = 87 mm.; W = 55 mm.; T = 29 mm.; C = 10 mm.; Tarsus = 9 mm. — Irides: black. Bill: black. Legs: plumbeous.

A single male specimen of the Speckled Piculet was collected in a narrow valley among the Koon Tan mountains. During one of my excursions I was attracted by the faint tapping of a Woodpecker or a Nuthatch quite close to me. It lasted quite a long time before I could locate the bird. Suddenly I caught sight of a specimen of this species which was busily tapping on a thin bamboo sapling.

This race has been separated from the typical *P. i. innominatus* BURTON, on account of its darker colouring and of its olive-brown crown.

The specimen obtained, which was sexed male, has a few feathers of the forehead tipped with orange-red. These same feathers have a subterminal quite distinct black bar. At the base of the bill there is a narrow line of a greenish olive colour.

184. *Sasia ochracea reichenowi*. HESSE. — The Rufous Piculet.

♂ Doi Par Sakeng ²⁹/₆ 1914. L = 87 mm.; W = 52,5 mm.; T = 23,5 mm.; C = 12 mm.; Tarsus = 10 mm. — Irides: crimson. Bill: horn colour, max: plumbeous grey. Legs: orange.

The Rufous Piculet inhabiting Siam belongs to the same form which HESSE (Ornith. Monatsber. 1911 p. 181) has separated under the name of *S. o. reichenowi*. This subspecific race also inhabits North Cachar, Burma and Tenasserim. It is chiefly characterized by being much brighter coloured on the upper and under parts of the body. Its size is also much smaller than typical *S. ochracea* HODGS.

During my journey only a single male specimen was obtained by my Dyak collector. It was shot at the slopes of Doi Par Sakeng, a fairly high limestone mountain situated south of Muang Fang, a small town in Northwestern Siam not far from the Burmese frontier. I myself never observed it and it is probably a very rare bird though it is very easy to escape notice on account of its small size.

Fam. Capitonidæ.

185. *Megalæma virens*. BODD. — The Great Chinese Barbet.

Megalæma virens: Gyldenstolpe III p. 230.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♀	Koon Tan	²⁸ / ₅ 1914	300	128	97	32	28
♂	Koon Tan	⁹ / ₆ 1914	270	130	96	30	28
♂	Doi Par Sakeng	¹⁷ / ₇ 1914	280	134	99	37	29
♀	Doi Par Sakeng	¹⁸ / ₇ 1914	290	132	98	38	27
♂	Koon Tan	⁴ / ₆ 1914	302	130	105	36	26
♀	Doi Par Sakeng	¹⁶ / ₇ 1914	295	136	111	40	27
♀	Koon Tan	⁹ / ₉ 1914	300	132	103	40	26
♂	Doi Par Sakeng	¹⁶ / ₇ 1914	322	142	105	40	28
♂	Koon Tan	⁵ / ₆ 1914	277	137	100	34	29

Irides: brown. Bill: yellow with the tip blackish brown. Legs: greenish olive.

The Great Chinese Barbet was not uncommon among the hills of Northern Siam. A fine series was obtained and among these birds there is a considerable amount of variation as to the yellowish streaks of the hind neck. In some specimens these streaks are very well-marked, but in other ones they are almost absent or only faintly indicated.

This fine Barbet inhabits the deciduous forests as well as the evergreen jungles though it seems to be more sparsely distributed in the former kind of vegetation.

Their note is a loud »pio-pio-pio», often repeated and when one bird starts calling the other ones in the flock at once answer.

186. *Cyanops asiatica*. LATH. — The Blue-throated Barbet.

♀ Doi Par Sakeng ⁹/₇ 1914. L = 208 mm.; W = 103 mm.; T = 71 mm.; C = 24 mm. — ♀ Doi Vieng Par ¹³/₇ 1914. L = 195 mm.; W = 97 mm.; T = 67 mm.; C = 25 mm. — ♂ Koon Tan ³⁰/₅ 1914. L = 235 mm.; W = 106 mm.; T = 74 mm.; C = 25 mm. — ♂ Koon Tan ⁵/₆ 1914. L = 213 mm.; W = 105 mm.; T = 73 mm.; C = 24. — Irides: brownish red. Bill: horn colour, base dirty yellow. Legs: greenish olive.

This species was only found in the dense evergreen jungles among the hills of Northern Siam and was nowhere common, the commonest species being *Cyanops davisoni*, HUME. This latter species was, however, more an inhabitat of the mixed deciduous jungles than of the damp evergreen forests. The notes of the two species' are quite similar and their habits are the same too.

187. *Cyanops davisoni*. HUME. — Davison's Blue-throated Barbet.

Cyanops davisoni: Gyldenstolpe III p. 230; Robinson I p. 94; Gairdner p. 149.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	³¹ / ₆ 1914	220	98	63	22,5	20
♀	Koon Tan	¹⁹ / ₅ 1914	198	97	65	22	22
♀	Koon Tan	²⁹ / ₄ 1914	216	103	73	25	21
♂	Nong Bea	³ / ₇ 1914	200	101	66	23	22
♂	Doi Par Sakeng	¹⁰ / ₇ 1914	188	100	64	21	21
♀	Doi Par Sakeng	¹⁴ / ₇ 1914	213	99	66	22	23
♂	Doi Par Sakeng	¹⁴ / ₇ 1914	221	101	68	22	22
♂	Koon Tan	²³ / ₆ 1914	205	95	64	21	22
♂	Koon Tan	⁶ / ₆ 1914	200	100	63	20	22

Irides: brown. Bill: upper mandible horn colour, lower mandible dirty yellow, base of both mandibles dirty yellow. Legs: greenish olive.

Davison's Blue-throated Barbet, which was originally described from the Central portions of Tenasserim, was rather common among the hill-forests of Northern and North-western Siam where a fine series was obtained.

As compared with specimens from Ahsown in Tenasserim the Siamese birds are absolutely identical and there is no difference either in size or colour.

188. *Cyanops ramsayi*. WALD. — Ramsay's Golden-throated Barbet.

♂ Doi Par Sakeng $\frac{9}{7}$ 1914. L = 187 mm.; W = 98 mm.; T = 60 mm.; C = 21 mm.; Tarsus = 21 mm. — Irides: brown. Bill: black. Legs: yellowish green.

I only met with this species once in Northwestern Siam, where a male specimen was shot on the slopes of a limestone hill near Doi Par Sakeng. In no other parts of the country it was obtained or observed why it seems to be exceedingly rare in Siam.

When the specimen was shot it was in company with some other kind of Barbets, such as *Therciceryx lineatus hodgsoni* BP. and *Cyanops davisoni* HUME. and the birds were busily feeding on the fruits of a banyan tree.

189. *Therciceryx phaeostricta*. BP.

Therciceryx phaeostricta saigonensis: Gyldenstolpe II; Gyldenstolpe III p. 230.

Therciceryx phaeostricta: Robinson III p. 737.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	$\frac{1}{6}$ 1914	235	112	77	28	23
♂	Koon Tan	$\frac{10}{6}$ 1914	239	111	75	28	25
ad.	Koon Tan	1914	—	114	75	25	23,5
♂	Doi Par Sakeng	$\frac{23}{7}$ 1914	212	112	71	24	25
♂	Koon Tan	$\frac{9}{5}$ 1914	225	110	69,6	25	24
♀	Koon Tan	$\frac{24}{5}$ 1914	230	110	73	26	24
♂	Koon Tan	$\frac{9}{8}$ 1914	220	115	76	26	23
♂	Koon Tan	$\frac{13}{6}$ 1914	240	112	80	25	24
♀	Koon Tan	$\frac{4}{6}$ 1914	245	110	80	29	25
♂	Koon Tan	$\frac{14}{6}$ 1914	215	111	71	21	24
♀	Koon Tan	$\frac{4}{6}$ 1914	250	110	80	27	24
♂	Koon Tan	$\frac{7}{6}$ 1914	212	111	74	24	24
♂	Doi Par Sakeng	$\frac{23}{7}$ 1914	202	112	72	26	24

Irides: brown to reddish brown. Bill: horn colour with the base plumbeous. Legs: greenish olive.

This Barbet was fairly common in the Northern hill-forests as for instance at Koon Tan and at Doi Par Sakeng and a fine series was obtained.

NEUMANN separated the form inhabiting the lower Cochin China on account of its smaller size and comparatively shorter bill from typical *Th. phaeostricta* BP. which inhabits Annam, Tonkin and Southern China.

As seen by the measures taken on the series from Siam the bills are a little shorter than what is stated for typical *phaeostricta* viz. 29—30 mm., but the wings in these same Siamese specimens are quite as large as those of typical *phaeostricta* and NEUMANN's type specimen for his *Th. p. saigonensis* may only have been an exceptionally small bird.

I therefore think that *saigonensis* NEUM. is not worthy of subspecific separation. This is also confirmed by what has recently been stated by ROBINSON for the birds collected by Mr. BODEN KLOSS in the Chantaboon District of Southeastern Siam, thus on localities situated not far from the place where NEUMANN's type was collected.

190. *Therciceryx lineatus hodgsoni*. BP. — The Lineated Barbet.

Therciceryx lineatus hodgsoni: Gyldenstolpe I p. 50; Gyldenstolpe II; Gyldenstolpe III p. 230.

Cyanops lineata: Oustalet 1899 p. 249; Bonhote p. 73.

Therciceryx lineata: Grant p. 102.

Therciceryx lineatus: Gairdner p. 149.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	5/5 1914	235	119	73	29,5	26
♀	Doi Par Sakeng	13/7 1914	248	122	75	29	26
♀	Doi Par Sakeng	10/7 1914	252	122	84	32	26
♂	Koon Tan	19/5 1914	260	130	84	32	26,5
♂	Koon Tan	22/5 1914	245	127	87	31	24,5
♀	Pak Tha	13/3 1914	280	129	87	32	24,5
♂	Pak Koh	7/4 1914	270	133	90	33	25
♂	Koon Tan	8/6 1914	270	124	81	30	26,5
♂	Koon Tan	6/6 1914	260	124	84	32	26
♂	Pak Tha	14/3 1914	272	129	91,5	33	27
♂	Doi Par Sakeng	16/7 1914	253	125	85	30	26
♀	Doi Par Sakeng	9/7 1914	250	121	81	34	27

Irides: brown to chocolate brown. Bill: yellowish brown or dirty yellow. Legs: yellowish brown.

The northern, larger race of the Lineated Barbet is very common indeed over the whole of Northern Siam. It even occurred in the Siamese Malaya though less abundant.

It frequents open deciduous forests as well as damp evergreen jungles, and its loud call is generally heard, even during the hottest hours of the day. It feeds entirely on fruits and this species as well as the other kind of Barbets collected during my journey were exceptionally rich in intestinal worms.

191. *Mesobucco duvaugli cyanotis*. BLYTH. — The Blue-eared Barbet.

Mesobucco cyanotis: Robinson & Kloss p. 43; Robinson I p. 94.

Cyanops cyanotis: Gyldenstolpe I p. 51; Gyldenstolpe II; Gyldenstolpe III p. 230.

Mesobucco duvaugli orientalis: Robinson II p. 738.

1 juv. Koon Tan, June 1914. W = 81 mm.; T = 48 mm.; C = 16 mm.; Tarsus = 17 mm.

The Blue-eared Barbet seems to be extremely rare in Siam at least in the parts of the country visited during my journey.

The specimen obtained is apparently immature, being almost green with only a slight indication of the blue colour on the ear-coverts.

It apparently belongs to the typical form and not to the subspecies recently described by ROBINSON under the name of *Mesobucco duvaugli orientalis* and founded on a single specimen obtained by BODEN KLOSS on Koh Mehsi (Southeastern Siam) during his recent trip to the Chantaboon province.

192. *Xantholæma hæmatocephala*. P. L. S. MÜLL. — The Crimson-breasted Barbet.*Xantholæma indicu*: Gould p. 151.*Megalæma philippensis*: Schomburgk p. 258.*Xantholæma hæmacephala*: Müller p. 427.*Xantholæma hæmatocephala*: Oustalet 1899 p. 250; Flower p. 325; Robinson & Kloss p. 44; Grant p. 101; Bonhote p. 73; Williamson I p. 45; Gyldenstolpe I p. 51; Robinson I p. 95; Gairdner p. 149; Gyldenstolpe III p. 230.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koh Lak	27/11 1914	142	82	39	16	16
♂	Pak Koh	20/3 1914	142	82	39,5	16	16
♂	Bang Hue Pong	8/5 1914	160	84,5	40	16	16
♂	Pak Koh	18/3 1914	160	83	44	17	16
♀	Koon Tan	6/6 1914	150	80	38	18	16
♀ juv.	Koon Tan	5/5 1914	152	80	34,5	17	16

Irides: brown. Bill: black. Legs: pale coral.

Generally distributed over the whole country but never in dense forests. Most often met with in the dry deciduous forests and at the neighbourhood of open, cultivated land.

Fam. Cuculidæ.

193. *Coccytes coromandus*. LINN. — The Red-winged Crested Cuckoo.*Coccytes coromandus*: Williamson I p. 46; Barton p. 107; Robinson & Kloss p. 39; Müller p. 406; Oustalet 1899 p. 269; Gyldenstolpe II; Gyldenstolpe III p. 233.

♂ (?) Koon Tan, May 1914. W = 163 mm.; T = 234 mm.; C = 23 mm.; Tarsus 24 = mm.

The Red-winged Crested Cuckoo was rather rare in the parts of Siam visited by my Expedition. It was only observed at two different occasions and both these times in the Northern districts. It frequents low shrub-jungle and is quite tame and easy to observe.

Outside Siamese Territory it has been found in the Indian Peninsula, Ceylon, the Burmese countries, China, the Malay Peninsula, the Gr. Sunda Islands and the Philippines.

194. *Cacomantis merulinus*. SCOP. — The Rufous-bellied Cuckoo.*Cacomantis merulinus*: Oustalet 1899 p. 270; Robinson & Kloss p. 40; Williamson I p. 46; Robinson II p. 146; Grant p. 105.*Cacomantis merulinus querulus*: Gyldenstolpe III p. 232.

In a brushwood jungle a few miles north of Koh Lak a single specimen of this Cuckoo was observed on the 22nd of January 1915.

It most probably belonged to the race, named *C. m. querulus* by HEINE. This race inhabits the Eastern Himalayas, Bengal, Assam, Burma, Tenasserim, Siam, Southern China and Hainan and has been recorded once before from Northern Siam. (vide: GYLDENSTOLPE, Siam. Journ. Nat. Hist. Soc., Vol. I No. 4).

Specimens from the Malay Peninsula are almost intermediate between typical *C. m. merulinus* SCOP. and *C. m. querulus* HEINE.

195. *Surniculus lugubris dicruroides*. HODGS. — The Cuckoo Drongo.

Surniculus lugubris: Gyldenstolpe III p. 232; Robinson & Kloss p. 39; Grant p. 106.

Cacangelus lugubris: Müller p. 404.

♀ Ban Meh Na ²⁴/₆ 1914. L = 238 mm.; W = 135 mm.; T = 134 mm.; C = 17 mm. — Irides: black. Bill: black. Legs: black.

The Cuckoo Drongo seems to be fairly rare in Siam and only one specimen was obtained near Ban Meh Na, a small village situated at the foot of the Chieng Dao mountain in Northern Siam.

As shown by STRESEMANN (Novitates Zoologicae Vol. 20. p. 341, 1913) the Cuckoo Drongos from Sikkim, Assam, Burma, Tenasserim, Southern Shan States, Hainan, Szechuan and Siam are larger than specimens from Sumatra, Borneo and the Malay Peninsula and ought to be referred to the race described by HODGSON as *Surniculus dicruroides* which has the underparts of the body darker and more glistening than specimens from the latter localities.

The typical race *S. lugubris* HORSF. inhabits Java and Ceylon while the race from Sumatra, Borneo and the Malay Peninsula has been named *S. l. brachyurus* by STRESEMANN.

The relative length of the wing and the tail in two specimens from Java among the collections of the Royal Natural History Museum of Stockholm does not quite agree with the measurements given by STRESEMANN (tom. cit. p. 340) as seen by the measures taken on our Javan birds which have the wing measuring 133 & 122 mm. resp. and the tail 144 & 132 mm. resp.

196. *Hierococcyx sparverioides*. FIG. — The Large Hawk-Cuckoo.

Hierococcyx sparverioides: Gyldenstolpe III p. 232; Williamson I p. 46; Robinson & Kloss p. 40.

♂ Koon Tan ²⁸/₅ 1914. L = 395 mm.; W = 237 mm.; T = 223 mm.; C = 22 mm. — 1 juv. Koon Tan 1914. W = 219 mm.; T = 218 mm.; C = 25 mm. — Irides: pale yellow. Bill: greenish yellow. Legs: yellow.

The Large Hawk-Cuckoo was rather rare in the parts of Siam visited during my journey and it was only confined to the Northern and Central parts of the country where it is a resident. It frequents thin tree jungle and was never observed in evergreen forests. In the Siamese Malaya it was never met with though it at least occurs as far south as Bangkok from where it has been recorded by WILLIAMSON.

197. *Penthoceryx sonnerati*. LATH. — The Banded Bay Cuckoo.

Penthoceryx sonnerati: Gyldenstolpe I p. 58; Williamson I p. 46; Robinson & Kloss p. 40; Müller p. 404.

♀ Pa Hing $11\frac{1}{4}$ 1914. L = 240 mm.; W = 119 mm.; T = 126 mm.; C = 22 mm.; Tarsus = 15 mm. — Irides: yellowish brown. Bill: black. Legs: greenish grey.

A single female specimen of the Banded Bay Cuckoo was obtained on the top of a low hill near Pa Hing in Northern Siam.

It belongs to the typical race and not to the smaller form which inhabits the Malay Peninsula and Islands. This southern form has been given the name of *P. s. pravatus* HORSE, and may eventually be found in the Siamese Malaya.

198. *Eudynamis orientalis malayana*. CAB. & HEINE. — The Indian Koël.

Eudynamis honorata: Gyldenstolpe I p. 58; Gyldenstolpe II; Gyldenstolpe III p. 233; Barton p. 107; Flower p. 326; Williamson I p. 46; Gairdner p. 32; Oustalet 1899 p. 271; Grant p. 105; Bonhote p. 74; Gairdner p. 150; Robinson III p. 737.

Eudynamis orientalis malayana: Parrot p. 109.

Eudynamis orientalis: Robinson & Kloss p. 41; Gould p. 151; Schomburgk p. 259; Robinson II p. 146.

Eudynamis malayana: Finsch & Conrad p. 356.

Eudynamis malayanus: Müller p. 406.

♀ Bang Hue Pong $\frac{8}{5}$ 1914. L = 400 mm.; W = 199 mm.; T = 202 mm.; C = 30 mm.; Tarsus = 30 mm. — ♀ Koon Tan $\frac{4}{5}$ 1914. L = 408 mm.; W = 202 mm.; T = 206 mm.; C = 28 mm.; Tarsus = 30 mm. — Irides: red. Bill: greenish yellow. Legs: blackish grey.

Though the Koël is rather common and generally distributed over the whole of Siam, I only succeeded in obtaining two females, the one shot at Koon Tan and the other one at Bang Hue Pong, both places in Northern Siam and situated not far from each other.

It is with some hesitation that I have referred the Koël's from Siam to the subspecies *malayana*. In the literature there is a great confusion about this species, which highly needs a revision based on a large material.

COLLINGWOOD INGRAM described as lately as 1912 (*Novitates Zoologicae* Vol. 20 p. 279) the race inhabiting Hainan as *E. o. harterti*, which is separated from the Indian bird, *E. o. honoratus* LINN., on account of its having a conspicuously larger bill and larger wings.

In the collections of the Royal Natural History Museum in Stockholm there are unfortunately no specimens from the Indian Continent, but according to some measurements recorded in the literature the Siamese specimens seem to be larger than the Indian race, thus more approaching *E. o. harterti* or *E. o. malayana* CAB. & HEINE to which latter subspecies I have referred them in the present paper.

199. *Centropus sinensis intermedia*. HUME. — The Crow-Pheasant.

Centropus sinensis: Gyldenstolpe I p. 59; Gyldenstolpe II; Williamson I p. 46; Barton p. 107; Robinson & Kloss p. 41; Gairdner p. 32; Grant p. 105; Bonhote p. 74; Gairdner p. 150.

Centropus sinensis sinensis: Parrot p. 109.

Centropus philippensis: Gould p. 151; Schomburgk p. 258.

Centropus rufipennis: Müller p. 411.

Centropus sinensis intermedius: Robinson I p. 93; Robinson II p. 146; Gyldenstolpe III p. 233.

♀ Koon Tan ⁵/₅ 1914. L = 480 mm.; W = 196 mm.; T = 266 mm.; C = 36 mm. — ♀ Doi Par Sakeng ¹⁰/₇ 1914. L = 415 mm.; W = 189 mm.; C = 36 mm. — Irides: ad.: red. juv.: greyish white. Bill: ad.: black. juv.: horn colour. Legs: black.

As pointed out by STRESEMANN (Nov. Zool. Vol. 20. 1913 p. 322) the Crow Pheasants inhabiting Siam, the Indo Burmese countries south to the Northern Malay Peninsula, ought to be separated under a subspecific name on account of their smaller size and somewhat differing colour.

This species is rather common over the whole country in shrub- or secondary jungles and in such localities its loud call is generally heard.

200. *Rhopodytes tristis hainanus*. HART. — The Large Green-billed Malkoha.

Rhopodytes tristis hainanus: Gyldenstolpe I p. 58; Gyldenstolpe II; Gyldenstolpe III p. 233; Robinson III p. 737.

Rhopodytes tristis: Barton p. 107; Robinson & Kloss p. 42; Oustalet 1899 p. 274; Grant p. 103; Bonhote p. 75; Robinson I p. 94; Robinson II p. 146.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♂	Koon Tan	¹⁷ / ₅ 1914	533	163	452	31	34
♂	Koon Tan	⁵ / ₆ 1914	515	154	358	29	34
♂	Koon Tan	⁶ / ₆ 1914	—	165	330	30	33
♂	Koh Lak	¹⁹ / ₁₂ 1914	530	152	382	28	31
♂	Koh Lak	¹² / ₁₂ 1914	495	157	363	31	34
♂	Doi Par Sakeng	¹¹ / ₇ 1914	480	153	316	29	31
♀	Pak Koh	¹⁸ / ₃ 1914	620	163	435	30	33
♀	Pak Koh	³⁰ / ₃ 1914	575	163	415	28	34
?	Koon Tan	²⁸ / ₅ 1914	510	147	342	28	33

Irides: brown. Bill: green. Legs: greenish grey.

This race of the Large Green-billed Malkoha was rather common in shrub- and secondary jungles over the whole of Siam. Sometimes it was also observed in evergreen forests. In such kind of vegetation I once found a nest containing two newly hatched young and one egg. The nest was situated almost at the top of a tree quite close to the stem and very difficult to see from a distance.

Even in the Siamese Malaya this species occurs and it has also been recorded by ROBINSON & KLOSS from the Northern portions of the Malay Peninsula.

The allied *Rhopodytes diardi* LESS. is also recorded from Northern Siam (conf. BARTON. Journal Siam, Nat. Hist. Soc. Vol. I. Nr. 2 p. 107), but though I made a careful lookout for that species I never observed it in any part of the country visited by the Expedition. If the bird recorded by BARTON is not wrongly identified it adds a considerable area of distribution to that species which is a southern form. DAVISON who spent several years in Tenasserim and collected assiduously remarks that »it is entirely confined to the southernmost district of the province and meets *R. tristis* about Mergui and replaces it southwards of this place».

Fam. Trogonidæ.

201. *Pyrotrogon erythrocephalus*. GOULD. — The Red-headed Trogon.

Harpactes erythrocephalus: Gyldenstolpe I p. 57; Gyldenstolpe II; Gyldenstolpe III p. 232; Oustalet 1899 p. 278; Barton p. 107; Robinson III p. 735.

♂ Doi Par Sakeng ¹⁴/₇ 1914. L = 295 mm.; W = 147 mm.; T = 194 mm.; B = 24 mm. — ♂ Doi Par Sakeng ²⁹/₆ 1914. L = 303 mm.; W = 146 mm.; T = 191 mm.; B = 24 mm. — ♂ Koon Tan ¹⁷/₉ 1914. L = 330 mm.; W = 148 mm.; T = 203 mm.; B = 24 mm. — ♀ Koon Tan ²²/₉ 1914. L = 325 mm.; W = 150 mm.; T = 201 mm.; B = 24 mm. — ♀ Koon Tan ²³/₅ 1914. L = 301 mm.; W = 149 mm.; T = 193 mm.; B = 25 mm. — Irides: reddish brown ♂; brown ♀. Bill: black with the base blue. Legs: whitish grey.

The Red-headed Trogon was generally distributed over the well-wooded parts of Northern Siam, though nowhere very common.

The colour of the irides seems to be variable. One fine male from Northwestern Siam has the iris bright red while other males in my collection have it pale brown or inclining to reddish brown. The females, however, have the irides constantly brown.

202. *Pyrotrogon oreskios*. TEMM. — The Yellow-breasted Trogon.

Harpactes oreskios: Gyldenstolpe I p. 57; Gyldenstolpe II; Gyldenstolpe III p. 232; Oustalet 1899 p. 279; Gairdner p. 150.

Pyrotrogon oreskios: Robinson & Kloss p. 39; Grant p. 106; Robinson I p. 92; Robinson III p. 736.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Bill from gape mm.
♂	Koon Tan	⁹ / ₆ 1914	280	125	174	21,3
♂	Koon Tan	²⁹ / ₆ 1914	280	126	182	21
♂	Koon Tan	⁹ / ₆ 1914	265	122	182	21,5
♂	Pa Hing	⁹ / ₄ 1914	263	126	180	22
♀	Koon Tan	²⁴ / ₆ 1914	270	124	181	22
♀	Koon Tan	²⁸ / ₄ 1914	271	127	177	21
♀	Pak Koh	⁸ / ₄ 1914	263	121	173	20
♀	Pak Koh	²⁴ / ₃ 1914	275	125	169	19,8
♀	Koh Lak Paa	⁷ / ₁₂ 1914	290	126,5	179	21,5

Irides: brownish black. Bill: bluish black. Legs: bluish green.

The Yellow-breasted Trogon is generally distributed over the whole of Northern Siam, where it seems to be less addicted to the evergreen forests than *Pyrotrogon erythrocephalus* GOULD.

It is quite a tame and fearless bird. When disturbed it retires to a tree close by the place from where it was flushed away and then it always turns the back with its plain colouring against the disturber, never showing the brilliant colours of the breast and underparts of the body. It has a smacking note which is fairly loud and may be heard some distance.

A nest of this fine species was found on the 11th of March 1914 at the neighbourhood of Pak Koh. It was placed in an open hole of a decayed tree and contained two café-au-lait coloured eggs. There was not the slightest trace of a nest and only a few pieces of wood constituted the bottom.

Measurements of eggs: $\frac{23,7 \times 23,2 \text{ mm.}}{20,5 \times 20,5 \text{ mm.}}$

Fam. Cypselidæ.

203. *Chaetura* sp.

During my stay at a small river called Hue San Noi about one day's march south of Chieng Hai, I observed some specimens of a *Chaetura* (probably *Chaetura gigantea indica* HUME which I previously found in similar conditions in Northern Siam) flying up and down the small river just before dusk.

Some other specimens were also observed at the neighbourhood of Pak Koh on the 18th of March 1914.

204. *Collocalia francica germaini*. OUST. — The Little Grey-rumped Swiftlet.

♂ Koh Lak $\frac{11}{12}$ 1914. I. = 125 mm.; W = 116 mm.; T = 55 mm.; C = 4,5 mm. — ♀ Koh Lak $\frac{17}{12}$ 1914. I. = 115 mm.; W = 119 mm.; T = 54,5 mm.; C = 4 mm. — Iris: black. Bill: black. Legs: brown.

Both the specimens of *Collocalia* I obtained near Koh Lak in the Siamese Malaya ought to be referred to the race described by OUSTALET (Bull. Soc. Philom. France, 1876) under the name of *Collocalia germaini*. One of my specimens (♂) is, however, practically intermediate between this race and *C. francica inexpectata* HUME from the Andaman Islands. This male specimen has the upper surface of the body decidedly darker and the rumpband is of a smoky brown colour; the black shaft-stripes of the rump-feathers are, however, very conspicuous, hence declining to *C. francica germaini*.

In the general appearance this race is very similar to *C. f. terræreginæ* RAMSAY, from Australia, but is distinguished by greater size and by having darker upper parts.

OBERHOLSER in his »Monograph of the Genus *Collocalia*» (Proc. Acad. Nat. Science. Philadelphia, Vol. 58, 1906, p. 198) gives the wing in *C. francica terræreginæ* as measuring 110—111 mm. and STRESEMANN (Novitates Zoologicæ, Vol. 19, 1912, p. 351) records the wing as 111—116 mm.

Two specimens (♂♂) of *C. francica terræreginæ* from Queensland in the collections of the R. Nat. Hist. Mus. in Stockholm have the wings measuring 115—117 mm.; tail = 65—59 mm. and the tarsus 10—9,5 mm.

At the neighbourhood of Koh Lak these Swiftlets were rather common from November to the end of January and mixed up together with *Apus affinis subfurcatus* BLYTH., though always rather difficult to obtain on account of their flying at a considerable height.

205. *Tachornis infumata*. SCL. — The Eastern Palm Swiftlet.

Tachornis infumata: Grant p. 107; Robinson & Kloss p. 38; Robinson II p. 146.

Collocalia fuciphaga: Williamson I p. 46 (Specimens wrongly identified and ought to be *Tachornis infumata*).

I got a single specimen of this species shot out of a large flock a few miles south of Koh Lak. Unfortunately the specimen was too badly damaged to be preserved.

206. *Apus affinis subfurcatus*. BLYTH. — The Malay House-Swift.

♀ Koh Lak ¹⁶/₁₂ 1914. L = 145 mm.; W = 137 mm.; T = 56 mm.; C = 6 mm. — Irides: brown. Bill: black. Legs: brown.

Observed and obtained together with *Collocalia francica germaini* OUST. in the Siamese Malaya. Here it was rather common though difficult to obtain as the birds always were flying at a considerable height. In the North of Siam I never met with it though it may occur. Outside Siamese Territory it has been recorded from Tenasserim, Southern China, Cochin China, the Malay Peninsula and the Gr. Sunda Islands.

Fam. Macropterygidae.

207. *Hemiprocne coronata*. TICK. — The Indian Crested Swift.

Macropteryx coronata: Oustalet 1903 p. 2; Barton p. 107.

♂ Ban Meh Na ²⁴/₆ 1914. L = 200 mm.; W = 160 mm.; T = 111 mm.; C = 6 mm. — ♀ Doi Par Sakeng ¹³/₇ 1914. L = 203 mm.; W = 153 mm.; T = 117 mm.; C = 5,5 mm. — ♂ Ban Meh Na ²⁴/₆ 1914. L = 245 mm.; W = 159 mm.; T = 149 mm.; C = 6 mm. — ♂ Koon Tan ¹/₅ 1914. L = 172 mm.; W = 152 mm.; T = 74 mm.; C = 5,5 mm. — ♂ Doi Par Sakeng ¹³/₇ 1914. L = 184 mm.; W = 152 mm.; T = 99,5 mm.; C = 6 mm. — Irides: blackish brown. Bill: black. Legs: dark reddish brown.

Fairly common and generally distributed among the hill-tracts of Northern Siam. They are as a rule assembled in small flocks of about 8 to 10 individuals and were now and then seen perching on dead trees. When flying they utter a note remembering of that of a Paroquet though it is never very loud. I never saw them keep their long crests erect when perching, as has been stated by other observers.

Fam. Caprimulgidae.

208. *Lyncornis cerviniceps*. GOULD. — The Great Eared Nightjar.

Lyncornis cerviniceps: Robinson & Kloss p. 38; Gyldenstolpe III p. 232; Gairdner p. 150; Robinson III p. 735.

♂ Hat Sanuk ²⁶/₁ 1915. L = 405 mm.; W = 299 mm.; T = 220 mm. — ♂ Hat Sanuk ²⁹/₁ 1915. L = 400 mm.; W = 307 mm.; T = 222 mm. — ♂ Hat Sanuk ²³/₂ 1915. L = 405 mm.; W = 302 mm.; T = 218 mm. — ♂ juv. Koon Tan, May 1914. W = 249 mm.; T = 175 mm. — Irides: blackish brown. Bill: brown. Legs: pale brown.

This magnificent Nightjar was rather common in the well-wooded portions of Siam, though not quite as common in the North as among the mountains on the Tenasserim frontier in the Siamese Malaya. Here, and especially at Hat Sanuk, numbers of specimens appeared just after sunset, at first flying at a considerable height then getting lower and lower down. Especially during moonlight nights they came in mighty numbers, making their presence known by their melancholic whistling notes. Like DAVISON I never found them roosting on the ground, never did I see them at daylight but for a single female specimen which I flushed up from the ground in a very dense evergreen forest near the Hat Sanuk creek on the 18th of February 1915. I here also found a nest containing only one egg of an oval shape. The colour was creamy white with blotches of lilac grey and it was laid in a slight depression among the dead leaves. It was very hard set and unfortunately broke when I tried to blow it.

In May 1914 I obtained a young specimen at Koon Tan and as its plumage is somewhat different from that of the adult bird, I will try to give a description of it, though this Nightjar is one of the most difficult birds to describe properly.

Description of nearly adult bird.

Forehead, crown and nape pale »Brussels brown» (Ridgway. Nom. Col. Plate III) with faint black vermiculations (more strongly on the nape) and some larger black spots along the middle line; elongated ear-tufts black tipped with »Brussels brown»; general colour of the upper parts of the body black, the feathers edged and tipped with isabelline and cinnamon rufous; quills dark brown with interrupted cinnamon rufous bars; inner secondaries isabelline with the bases of the feathers finely vermiculated with black; the tip of the inner secondaries pure isabelline with only a small blackish brown spot at the middle line near the tip; outer secondaries darker isabelline and with strongly marked spots; rectrices black with isabelline and black mottled bars; chin, upper throat and breast blackish brown, the feathers margined and tipped with rufous brown; across the throat a broad white band passing to buffy behind the ear-coverts; lower parts of the body dusky brown, the feathers broadly tipped with buffy white; lores and ear-coverts blackish brown, the feathers edged, tipped and spotted with rufous brown; lesser and median wing-coverts rusty brown spotted and irregularly barred with black; greater wing-coverts isabelline, vermiculated with black and with a narrow subterminal black bar; primary coverts pale rusty brown irregularly barred with brownish black; scapulars isabelline, vermiculated with black and broadly tipped with black, [on these black tips there is also a small chestnut spot on each web of the feather].

209. *Caprimulgus macrurus albonotatus*. ТИСК.

Caprimulgus macrurus ambiguus: Gyldenstolpe I p. 57; Gyldenstolpe III p. 232; Robinson III p. 735.

♂ Pak Koh 13/4 1914. L = 285 mm.; W = 208 mm.; T = 164 mm.; C = 10 mm. — Irides: blackish brown. Bill: dark brown. Legs: pale brown.

This subspecies was fairly common in the Northern parts of the country, though never observed in very dense jungle. Most often it was flushed up from the ground in bamboo-jungles.

The two specimens collected by me during my former Expedition to Siam and recorded under the name of *C. m. ambiguus* HART. (Kungl. Svenska Vetenskapsakademiens Handlingar, Band 50, N:o 8, p. 57) have been wrongly identified and ought to be referred to the still larger race which was described by TICKELL under the name of *C. albonotatus*. It inhabits the north-western Provinces of India to Northern Burma and Siam.

On the 10:th of April I flushed up a female from its nest, which only consisted of a slight depression in the ground and contained two fresh eggs of an oval shape. The colour is creamy white with brownish spots and blotches.

They measure: $\frac{33,9 \times 23,7 \text{ mm.}}{32,2 \times 23,0 \text{ mm.}}$

210. *Caprimulgus macrurus bimaculatus*. PEALE. — Horsfield's Nightjar.

Caprimulgus macrurus: Williamson I p. 46; Müller p. 403; Oustalet 1903 p. 3; Grant p. 107; Bonhote p. 68.
Caprimulgus ambiguus: Robinson & Kloss p. 37.

♀ Hue Sai ¹⁷/₁ 1915. L = 290 mm.; W = 197 mm.; T = 156 mm.; C = 9 mm. — Irides; brown. Bill: brown. Legs: reddish brown.

In the Siamese Malaya and the southern parts of Siam the larger *C. m. albonotatus* TICK. is replaced by a smaller race which has been named *C. m. bimaculatus* by PEALE.

As is shown by OBERHOLSER (Proc. U. S. Nat. Mus., Vol. 48, p. 595, 1915) the Malayan form of *C. macrurus* was named *bimaculatus* earlier than HARTERT gave it the name of *ambiguus* which name then only becomes a synonym. Both at Hue Sai and Hat Sanuk, places near the Tenasserim boundary on about Lat. No. 12°, this race was rather common, appearing just after sunset in company with *Lyncornis cerviniceps* GOULD. At first they were flying at a considerable height but getting lower and lower as it grew darker. I never heard them utter any sound, nor did I flush any specimens from the ground during day-time.

211. *Caprimulgus asiaticus*. LATH. — The Common Indian Nightjar.

Caprimulgus asiaticus: Williamson I p. 46; Oustalet 1903 p. 4; Gairdner p. 150.

♂ Koh Lak ²/₁₂ 1914. L = 210 mm.; W = 141 mm.; T = 106 mm. — ♂ Koh Lak ¹¹/₁₂ 1914. L = 212 mm.; W = 145 mm.; T = 113 mm. — ♀ Koh Lak ¹¹/₁₂ 1914. L = 204 mm.; W = 141 mm.; T = 108 mm. Iris: brown. Bill: horn colour. Legs: brown.

Only observed in the southern Districts and around Koh Lak. This Nightjar never occurs in well-wooded tracts, but seems to keep entirely to open park-like forests.

It was generally observed in pairs and flushed up from the ground, where it roosted among the dry bamboo-leaves and was very difficult to see on account of its protecting colour. This species has also been recorded from Bangkok and its vicinity but was never met with in the northern parts of the country where it is replaced by *Caprimulgus monticola*, FRANKL.

The specimens collected all belong to the dark coloured variety.

Fam. Meropidae.

212. *Melittophagus leschenaulti swinhoei*. HUME. — The Chestnut-headed Bee-eater.

Melittophagus swinhoei: Gyldenstolpe I p. 53; Gyldenstolpe II; Gyldenstolpe III p. 231; Oustalet 1899 p. 292; Grant p. 109; Robinson & Kloss p. 36; Robinson I p. 92; Robinson III p. 734.

♂ Meh Lua ⁷/₈ 1914. L = 200 mm.; W = 101 mm.; T = 81 mm.; C = 28 mm. — ♀ Bau Meh Na ²⁴/₆ 1914. L = 203 mm.; W = 106 mm.; T = 79,2 mm.; C = 30 mm. — Irides: red. Bill: black. Legs: black.

The Chestnut-headed Bee-eater inhabits the well-wooded parts of Siam but it seems to avoid the dense evergreen jungles. It keeps to open deciduous forests and was often seen perching on the branches of dead trees, now and then making aerial evolutions after a passing insect.

213. *Merops superciliosus philippinus*. LINN. — The Blue-tailed Bee-eater.

Merops philippinus: Gould p. 151; Müller p. 396; Grant p. 109; Robinson & Kloss p. 37; Williamson I p. 45; Robinson II p. 146; Gairdner p. 150.

♀ Chieng Hai ¹/₈ 1914. L = 245 mm.; W = 121 mm.; T = 92 mm.; C = 37 mm. — Chieng Hai ²/₈ 1914. L = 215 mm.; W = 119 mm.; T = 89 mm. — Irides: brownish red. Bill: black. Legs: black;

The Blue-tailed Bee-eater was only observed at the neighbourhood of Chieng Hai in Upper Siam and even there it was rather rare.

It also occurs further south, though I never observed it there, and it has been recorded from Bangkok by WILLIAMSON and from Koh Samui and Koh Pennan by ROBINSON. GAIRDNER gives it from the Ratburi and Petchaburi Districts but during my stay in the Siamese Malaya in the Districts south of those mentioned by GAIRDNER I never observed it and the only kind of Bee-eater I found there was *M. orientalis birmanus* NEUM.

214. *Merops orientalis birmanus*. NEUM. — The Common Burmese Bee-eater.

Merops orientalis birmanus: Gyldenstolpe I p. 52; Gyldenstolpe II; Gyldenstolpe III p. 231.

Merops viridis: Gould p. 151; Oustalet 1899 p. 293.

♀ Koh Lak ²⁸/₁₁ 1914. L = 213 mm.; W = 90 mm.; T = 109,5 mm.; C = 25 mm. — ♂ Koon Tan May 1914. W = 98 mm.; T = 125 mm.; C = 25 mm. — Irides: red. Bill: black. Legs: black.

Generally distributed over the whole country though apparently more common in the Southern Districts than up in the North. It goes about in small parties of about 4 to 6 birds and seems to live exclusively in open, cultivated land. Sometimes it was also observed at the outskirts of the deciduous forests but never far from human habitations. In the dense evergreen forests it was never met with.

This race inhabits Burma east to the French Indo China.

215. *Nyctiornis atherthoni*. JARD. & SELBY. — The Blue-bearded Bee-eater.

Nyctiornis atherthoni: Gyldenstolpe I p. 53; Gyldenstolpe II; Gyldenstolpe III p. 231.

♂ Doi Par Sakeng ¹⁶/₇ 1914. L = 334 mm.; W = 132 mm.; T = 138,5 mm.; C = 39 mm. — ♀ Koon Tan ¹¹/₅ 1914. L = 332 mm.; W = 138 mm.; T = 136 mm.; C = 45 mm. — ♂ Hue Sai ²⁶/₁ 1915. L = 320 mm.; W = 132,3 mm.; T = 136 mm.; C = 42 mm. — ♂ Koh Lak Paa ²⁴/₁ 1915. L = 351 mm.; W = 139,3 mm.; T = 144 mm.; C = 43 mm. — Irides: brown. Bill: blackish blue. Legs: brownish.

The Blue-bearded Bee-eater was found in the well-wooded parts of the country though more abundant in the south than up in the north. At the neighbourhood of Koh Lak I obtained it in bamboo-jungles as well as in the dense evergreen forests which cover the mountain chain on the boundary between Siam and Tenasserim.

Its habits are the same as the other kind of Bee-eaters.

The specimens from Northern Siam have their upper parts, crown and forehead more washed with blue than the specimens from the Siamese Malaya but in every other way they are perfectly identical.

Fam. Upupidæ.

216. *Upupa epops longirostris*. JERD.

Upupa epops indica: Gyldenstolpe I p. 56; Gyldenstolpe II; Gyldenstolpe III p. 232.

Upupa indica: Robinson & Kloss p. 35; Oustalet 1903 p. 5; Grant p. 108; Bonhote p. 68; Robinson II p. 144; Gairdner p. 150.

Upupa nigripennis: Gould p. 151; Schomburgk p. 248.

Upupa longirostris: Müller p. 395.

♂ Koon Tan ¹²/₅ 1914. L = 315 mm.; W = 140 mm.; T = 105 mm.; C = 58 mm. — ♀ Koh Lak ²¹/₁₁ 1914. L = 277 mm.; W = 131 mm.; T = 106 mm.; C = 55 mm. — ♂ Koh Lak ²⁶/₁₁ 1914. L = 298 mm.; W = 146 mm.; T = 117 mm.; C = 65 mm. — Irides: brownish black. Bill: horn colour. Legs: plumbeous grey.

The Burmese race of the Hopooe has been separated from the Indian bird chiefly on account of its larger bill which is said never to exceed 2,1 inches (= 53 mm.) in the Indian bird.

All the specimens collected by me in Siam have longer bills measuring from 55—65 mm. and I have referred them as belonging to the Burmese race and not to the Indian one. Unfortunately I have no material from Continental India to compare with. A careful examination of a large series from Tenasserim, Siam, Burma and the French Indo China with a series from Continental India will perhaps show that a considerable difference does not exist between *U. e. longirostris* JERD. and *U. e. indica* REICHENB. and then the former name will only be a synonym of the latter. But until that question has been solved I think it is wisest to keep JERDON's name for the Burmese and Indo Chinese race.

217. *Upupa epops saturata*. LÖNNBERG.

♀ Koh Lak ¹¹/₁₂ 1914. L = 265 mm.; W = 132 mm.; T = 110 mm.; C = 52 mm. — Irides: brown. Bill: horn colour. Legs: plumbeous.

A female specimen collected at Koh Lak in the Siamese Malaya on the 11th of December 1914 probably has to be referred to the race of the Common Hopooe, which

inhabits Northern Mongolia and Eastern Siberia. My specimen agrees well with the type-specimen of *U. e. saturata* in the collections of the Royal Nat. Hist. Museum of Stockholm. The long crest-feathers are perhaps a trifle brighter. The upper parts of the body are very dark being almost dark greyish brown, gradually shading into the rufescent brown of the upper neck.

My specimen has considerably shorter wings, as seen by the measures given above, than any specimens of *U. e. saturata* in our collections which have their wings measuring 151 & 141 mm. respectively.



Fig. 5. Great Hornbills.

Fam. Bucerotidae.

218. *Dichoceros bicornis*. LINN. — The Great Hornbill.

Dichoceros bicornis: Gyldenstolpe I p. 55; Gyldenstolpe III p. 231; Robinson & Kloss p. 35; Müller p. 402; Grant p. 108; Bonhote p. 70; Gairdner p. 150; Robinson III p. 733.

♂ Hue Sai ¹⁵/₁ 1915. L = 1285 mm.; W = 520 mm.; T = 428 mm.; B = 272 mm. — ♀ Pak Koh ¹⁹/₃ 1914. W = 555 mm.; T = 467 mm.; B = 264 mm. — ♂ Pak Koh ¹⁹/₃ 1914. L = 830 mm.; W = 487 mm.; T = 431 mm.; B = 222 mm. — ♂ Koon Tan. W = 510 mm.; T = 463 mm.; B = 265 mm. — Irides: red. Legs: greenish yellow.

The Great Hornbill generally occurred in small flocks throughout almost all of the well-wooded parts of Siam. It lives entirely on fruits and keeps to the highest trees, where it is not easy to obtain, as it is very shy too.

219. *Anthracoceros albirostris*. SHAW & NODD. — The Indo-Burmese Pied Hornbill.

Anthracoceros albirostris: Gyldenstolpe I p. 55; Robinson III p. 734; Gyldenstolpe II; Gyldenstolpe III p. 232; Gairdner p. 150.

Hydrocissa albirostris: Müller p. 399.

Anthracoceros malabaricus: Oustalet 1899 p. 281; Grant p. 107; Bonhote p. 70; Robinson & Kloss p. 35.

♂ Pak Koh $^{14}/_4$ 1914. L = 705 mm.; W = 271 mm.; T = 270 mm.; B = 125 mm. — ♂ Bang Hue Pong $^{8}/_5$ 1914. L = 715 mm.; W = 283 mm.; T = 280 mm.; B = 133 mm. — ♂ Koh Lak $^{28}/_{11}$ 1914. L = 730 mm.; W = 275 mm.; T = 292 mm.; B = 138 mm. — ♀ juv. Pak Koh $^{16}/_4$ 1914. L = 610 mm.; W = 246 mm.; T = 253 mm.; B = 105 mm. — ♀ juv. Koon Tan $^{7}/_6$ 1914. L = 580 mm.; W = 240 mm.; T = 225 mm.; B = 88 mm. — juv. Koon Tan $^{3}/_5$ 1914. W = 248 mm.; T = 216 mm.; B = 86 mm. — Irides: brown. Bill: yellowish white. Legs: greenish yellow.

This curious-looking species is widely distributed and rather common both in evergreen and in bamboo-jungles. It generally goes about in flocks keeping to the trees where it feeds on the fruits, but at one occasion I observed a whole party on the ground in a very dense bamboo-jungle. This is probably quite exceptional, because this species and all the other members of the family are arboreal feeding on fruits in the large trees.

Their note is very shrill and penetrating and resembles that of a large Woodpecker. A specimen shot at the neighbourhood of Koh Lak has the inner secondaries tipped with white and the casque is very large but in every other way it agrees well with typical birds. The young specimens have the casque greenish white instead of pale yellow and the black blotch, which is very prominent on the casque of the adult birds, is not visible.

220. *Rhytidoceros undulatus*. SHAW. — The Malayan Wreathed Hornbill.

Rhytidoceros undulatus: Gyldenstolpe II; Gyldenstolpe III p. 232; Müller p. 400; Robinson & Kloss p. 36; Robinson III p. 733.

♂ Pa Hing $^{11}/_4$ 1914. L = 1080 mm.; W = 510 mm.; T = 353 mm.; Bill from gape = 234 mm. — Irides: pale crimson. Legs: black.

In the mountainous regions of Northern Siam the Malayan Wreathed Hornbill was fairly abundant. The noise made by these large birds when flying is still more powerful than that made by *Dichoceros bicornis* LINN. and may be heard for a considerable distance.

It generally occurs in flocks of about 6 to 8 birds.

221. *Anorrhinus austeni*. JERD. — Godwin-Austen's Hornbill.

♀ Koon Tan $^{4}/_6$ 1914. L = 655 mm.; W = 288 mm.; T = 289 mm.; Bill from gape = 99 mm. — Irides: brown. Naked skin round eye: blue. Bill: dirty yellow. Legs: brownish grey.

I only succeeded in obtaining a single female specimen of this rare Hornbill. It was shot out of a small flock among the Koon Tan Hills by my native collector.

In colouration it is rather similar to *A. tickelli* BLYTH, which has been recorded from Southwestern Siam where GAIRDNER met with in the Ratburi and Petchaburi Districts. It, however, differs from that species in having the throat and the sides of the head greyish white instead of rufous buff; the secondaries also have no white tips.

Godwin-Austen's Hornbill has only been found among the Hills of North Cachar and as I have now obtained it among the hills of Northern Siam it adds a considerable area to its distribution to the south.

Fam. Alcedinidæ.

222. *Pelargopsis gural burmanica*. SHARPE. — The Burmese Stork-billed Kingfisher.

Pelargopsis gural burmanica: Gyldenstolpe I p. 54; Gyldenstolpe II; Gyldenstolpe III p. 231; Robinson III p. 731.

Pelargopsis gural var. *burmanica*: Oustalet 1899 p. 283.

Pelargopsis gural: Williamson I p. 45; Gairdner p. 150.

Halcyon leucocephala: Schomburgk p. 247.

♂ Pak Koh ¹⁸/₄ 1914. L = 380 mm.; W = 154 mm.; T = 110 mm.; C = 77 mm. — ♂ Chieng Hai ²/₈ 1914. L = 347 mm.; W = 149 mm.; T = 109 mm.; C = 73 mm. — ♀ Pak Tha ¹²/₈ 1914. L = 383 mm.; W = 159 mm.; T = 109 mm.; C = 74. — Irides: brown. Bill: red, tip dusky brown. Legs: brick-red.

This race of the Stork-billed Kingfisher inhabits Burma, Tenasserim, Cambodia & Cochin China and it is also found in Northern Siam. Here it was not uncommon on suitable localities. As shown by my specimens this bird undergoes a considerable individual variation both as to size and colour of the brown cap. The young birds have the feathers of the throat, breast and nape narrowly tipped with dusky brown almost giving these parts a barred appearance.

223. *Pelargopsis capensis malaccensis*. SHARPE. — The Malay Stork-billed Kingfisher.

Pelargopsis javana malaccensis: Parrot p. 112.

Pelargopsis malaccensis: Müller p. 398.

Halcyon malaccensis: Finsch & Conrad p. 348.

♀ Koh Lak ²¹/₁ 1915. L = 370 mm.; W = 152 mm.; T = 109 mm.; C = 74 mm. — Irides: brown. Bill: red, tip dusky brown. Legs: brick red.

In the Siamese Malaya the larger northern race *P. g. burmanica* SHARPE was replaced by the smaller *P. c. malaccensis* SHARPE, of which I only succeeded in obtaining a single female specimen. At Koh Lak and its neighbourhood it was rather rare and only a few specimens were observed along a small river and near a mangrove swamp.

This race as well as *P. g. burmanica* is a very noisy bird, uttering its shrill note when being disturbed or when flying from one place to another.

224. *Ceryle rudis leucomelanura*. REICHENB. — The Pied Kingfisher.

Ceryle rudis leucomelanura: Gyldenstolpe I p. 53.

Ceryle rudis var. *varia*: Oustalet 1899 p. 284.

Ceryle varia: Williamson I p. 45; Gairdner p. 32; Gairdner p. 150.

♀ Chieng Hai ¹/₈ 1914. L = 270 mm.; W = 133 mm.; T = 80,5 mm.; C = 61,5 mm.; Tarsus = 8,5 mm. — Irides: brown. Bill: black. Legs: black.

The Pied Kingfisher occurs over the parts of Siam which lie north of the latitude of Bangkok. South of this line it seems to be extremely rare though it is found here and there on suitable places.

It inhabits the swampy country as well as jeehls and rivers or creeks. When searching for food it has the habit to rest on fluttering wings in the air keeping the bill almost in right angle to the body just like a Kestrel. Then it suddenly dives down in the water to catch a small fish.

In Southern China and in Hainan another allied form occurs *C. r. insignis* HART. which is characterized by having a much larger bill, which according to HARTERT is about 10 mm. longer than that of *C. r. leucomelanura*.

225. *Alcedo ispida bengalensis*. GM. — The Common Indian Kingfisher.

Alcedo ispida bengalensis: Gyldenstolpe I p. 54; Parrot p. 110; Robinson III p. 730; Gyldenstolpe II; Gyldenstolpe III p. 231.

Alcedo ispida var. *bengalensis*: Oustalet 1899 p. 286.

Alcedo ispida: Williamson I p. 45; Grant p. 111; Bonhote p. 69.

Alcedo bengalensis: Robinson & Kloss p. 32; Finsch & Conrad p. 347; Gould p. 151; Schomburgk p. 247; Müller p. 396.

♂ Meh Lua $\frac{6}{8}$ 1914. L = 160 mm.; W = 67 mm.; T = 34 mm.; C = 34 mm. — ♂ Chieng Sen $\frac{9}{8}$ 1914. L = 155 mm.; W = 68 mm.; T = 35,5 mm.; C = 33 mm. — ♂ Koh Lak $\frac{30}{11}$ 1914. L = 155 mm.; W = 69 mm.; T = 31 mm.; C = 39 mm. — ♀ Koh Lak $\frac{1}{12}$ 1914. L = 160 mm.; W = 71 mm.; T = 38 mm.; C = 39 mm. — Irides: brown. Bill: blackish brown. Legs: coral.

The Common Indian Kingfisher was generally distributed on suitable localities over the whole country, being abundant everywhere.

The two specimens collected at Koh Lak are rather remarkable in having very large bills, as seen by the measurements given above.

226. *Ceyx tridactyla*. PALL. — The Three-toed Kingfisher.

Ceyx tridactylus: Gyldenstolpe I p. 54; Gyldenstolpe III p. 231; Grant p. 111; Robinson & Kloss p. 33. *Ceyx tridactyla*: Müller p. 397.

This little beautiful Kingfisher is apparently rather rare in Siam and during my whole stay there I only observed it at two different occasions in Northern Siam. Here it keeps exclusively to the small creeks in the well-wooded parts and especially where there are dense evergreen forests. It is not shy but it conceals itself excellent among the luxurious vegetation where it is very difficult to make out in spite of its brilliant colouring.

When following these small creeks, which in some places are the only »roads» which are to be had, I sometimes flushed up these small birds which when flying almost resemble a butterfly. They never take to long flights and very soon settle again on a branch in some low tree, but when one approaches it again, it suddenly moves away into the tangle of vegetation and is then lost for ever.

227. *Carcineutes pulchellus*. HORSF. — The Banded Kingfisher.

Carcineutes pulchellus: Gyldenstolpe II; Gyldenstolpe III p. 231; Robinson & Kloss p. 34; Müller p. 399; Grant p. 111; Robinson I p. 92; Gairdner p. 150; Robinson III p. 732.

♂ Pok Koh $\frac{17}{8}$ 1914. L = 215 mm.; W = 87,6 mm.; T = 75 mm.; C = 40 mm. — ♂ Hue Pu $\frac{28}{5}$ 1914. L = 210 mm.; W = 87 mm.; T = 83 mm.; C = 35 mm. — Irides: whitish grey. Bill: red. Legs: yellowish grey.

The Banded Kingfisher was somewhat rare in the localities visited by the Expedition and only two male specimens were obtained in the Northern parts of the country. These specimens were shot in rather thick bamboo-jungles far away from any running water. It therefore seems to be less dependent on water than some other members of the family. That of course corresponds to its diet which consists more of frogs, smaller lizards and insects than on fish.

228. *Halcyon coromanda coromanda*. LATH. — The Ruddy Kingfisher.

Halcyon coromandus: Robinson & Kloss p. 34; Grant p. 110.

Callialcyon lilacina: Gyldenstolpe III p. 231.

Callialcyon coromanda: Müller p. 398.

♀ Koon Tan ²⁸/₄ 1914. L = 265 mm.; W = 108 mm.; 69,5 mm.; C = 53 mm.; Tarsus = 13 mm. — Irides: brown. Bill: brick-red. Legs: brick-red.

The typical race of the Ruddy Kingfisher which inhabits Southeastern China, Assam, Sikkim, eastern Nepal, Burma, Tenasserim, the Malay Peninsula and the French Indo China, was also obtained in Northern Siam, though it probably is very rare. It is a very shy and retiring bird and on that account very seldom observed or shot. It generally keeps to creeks and small rivers, the banks of which are densely clothed with evergreen- or scrubjungles.

229. *Halcyon smyrnensis fusca*. BODD. — The White-breasted Kingfisher.

Halcyon smyrnensis fusca: Gyldenstolpe I p. 54; Robinson III p. 732; Gyldenstolpe II; Gyldenstolpe III p. 231; Bonhote p. 69.

Halcyon smyrnensis: Williamson I p. 45; Parrot p. 110; Robinson & Kloss p. 34; Oustalet 1899 p. 288; Grant p. 110; Robinson I p. 92; Robinson II p. 145.

♀ Koh Lak ²⁵/₁₁ 1914. L = 269 mm.; W = 115 mm.; T = 81 mm.; C = 55 mm. — ♀ Koh Lak ¹⁵/₁₂ 1914. L = 254 mm.; W = 117 mm.; T = 85,5 mm.; C = 56 mm. Irides: brown. Bill: red (tip brown). Legs: brick-red.

This beautiful Kingfisher was rather common on suitable localities over the whole country, though apparently more rare in the North where the country is hilly and densely covered with forests. In Central Siam and along the coast of the Siamese Malaya it was very common indeed and occurred both along the numerous rivers and »klongs» and in the great swamps and along the sea-shore. Sometimes it was also observed in thin tree jungles but always in limited numbers.

This race has been separated on account of its smaller size and it also has the back, tail and wings of a brighter blue than typical *Halcyon smyrnensis*.

It inhabits parts of India, Southern China, the Indo-Chinese countries, Hainan and Formosa.

230. *Halcyon pileata*. BODD. — The Black-capped Kingfisher.

Halcyon pileata: Williamson I p. 45; Gyldenstolpe I p. 55; Gyldenstolpe II; Gyldenstolpe III p. 231; Finsch & Conrad p. 347; Robinson III p. 732.

Halcyon pileatus: Robinson & Kloss p. 34; Oustalet 1899 p. 289; Grant p. 110.

Halcyon atricapilla: Schomburgk p. 247.
Halcyon atricapillus: Gould p. 151.
Entomobia pileata: Müller p. 398.

The Black-capped Kingfisher is commonly distributed over the whole country and even along the sea-coast it is quite as common in the mangrove region as it is more inland where it generally haunts along the numerous small rivers and creeks. Sometimes it was even met with rather far away from water.

231. *Halcyon chloris armstrongi*. SHARPE. — The White-collared Kingfisher.

Halcyon armstrongi: Robinson & Kloss p. 34; Robinson II p. 145.
Halcyon chloris var. *armstrongi*: Oustalet 1899 p. 290.
Halcyon humei: Grant p. 111; Bonhote p. 69.
Halcyon chloris: Finsch & Conrad p. 348; Robinson III p. 731.
Halcyon collaris: Schomburgk p. 247.
Sauropatis chloris: Müller p. 398; Williamson I p. 45.

♂ Koh Lak ²⁹/₁₁ 1914. L = 220 mm.; W = 99 mm.; T = 71 mm.; C = 41 mm.; Tarsus = 12 mm.
 — Irides: brown. Bill: black. Legs: brown.

This pretty Kingfisher was fairly common in Bangkok and its neighbourhood as well as in the Siamese Malaya. In the Northern parts of the country it was never observed.

This species keeps entirely to the coastal zone and the mangrove swamps especially those which are influenced by tidal waters. Like other Kingfishers it is a very noisy bird and its shrill call is generally heard on places where they occur.

My specimen is perhaps nearer to the bird described by SHARPE as *H. humei*, but as Mr. ROBINSON has united this species with *H. armstrongi* after a careful examination of large series I think it is best to follow his example in putting these very similar forms under one name.

Fam. Coraciidæ.

232. *Coracias affinis*. McCLELL. — The Burmese Roller.

Coracias affinis: Gyldenstolpe I p. 51; Gyldenstolpe II; Gyldenstolpe III p. 230; Williamson I p. 45; Barton p. 106; Flower p. 325; Gould p. 151; Schomburgk p. 246; Grant p. 109; Oustalet 1899 p. 296; Finsch & Conrad p. 347; Gairdner p. 150.
Coracias affinis theresiæ: Parrot p. 113.

♀ Koon Tan ¹⁰/₅ 1914. L = 325 mm.; W = 188 mm.; T = 133 mm.; C = 33 mm. — ♀ Koh Lak ¹⁵/₁₂ 1914. L = 310 mm.; W = 175 mm.; T = 124 mm.; C = 32 mm. — Irides: brown. Bill: black. Legs: brownish yellow.

The Burmese Roller is generally distributed throughout the whole country though never found in dense jungles. It frequents open places and thin jungle and is never to be found far from houses and villages. Along the Southern Railway Line which runs from Bangkok to a little south of Koh Lak these Rollers were exceedingly common and were mostly seen perching on the telegraph wires along the line. The birds were not at all frightened when the trains were passing, but when I tried to stalk them on foot they were very difficult to get into a proper range.

233. *Eurystomus orientalis calonyx*. SHARPE.

Eurystomus orientalis calonyx: Gyldenstolpe II; Gyldenstolpe III p. 230.

Eurystomus calonyx: Robinson & Kloss p. 32; Grant p. 110.

♂ Pak Koh $\frac{1}{4}$ 1914. L = 282 mm.; W = 187 mm.; T = 100 mm.; C = 23 mm. — ♂ Pak Koh $\frac{23}{3}$ 1914. L = 288 mm.; W = 193 mm.; T = 106 mm.; C = 21 mm. — Irides: brown. Bill: brick red with the tip of the upper mandible black. Legs: pale coral.

This subspecies which has been separated from the typical *E. o. orientalis* LINN. on account of its having the apical half of the outer webs of the rectrices blue, except at the utmost tip, was rather rare in the parts of Siam traversed by my Expedition. It occurs in the same localities as *E. o. orientalis* with which it probably interbreeds. As shown by STRESEMANN in his recent paper »Die Formen von *Eurystomus orientalis* L.» the specimens from the Malay Peninsula and Tenasserim are practically intermediate between typical *E. o. orientalis* and *E. o. calonyx*.

This is also confirmed by the specimens in my Siamese collection which therefore ought to be better named:

Eurystomus orientalis orientalis \supseteq *calonyx*.

Fam. Psittacidæ.

234. *Palæornis eupataria magnirostris*. BALL.

Palæornis indoburmanicus: Gyldenstolpe III p. 233; Gyldenstolpe I p. 60.

♂ Koon Tan $\frac{4}{5}$ 1914. L = 455 mm.; W = 190 mm.; T = 290 mm.; C = 36 mm.; Depth of upper mandible at cere = 21 mm. — Irides: yellow. Bill: red. Legs: yellowish brown.

This beautiful Paroquet was rather rare and apparently very locally distributed over the northern parts of the country. It never occurred in large flocks like the other members of the family and when observed it was either single or in small parties of 5 to 6 birds.

The only specimen I got, clearly belongs to the race which was originally described from the Andaman Islands. In colour it resembles *P. e. eupataria* LINN. from Ceylon, but is at once distinguished by its much larger size. *P. e. magnirostris* which I only consider as a mere subspecies of *P. eupataria* is chiefly characterized by its very high and massive bill. It also has an indication to a blue collar above the rosy collar on the nape, which is of the same colour as the top of the head. The blackish brown mandibular stripes are also rather narrow.

235. *Palæornis cyanocephalus rosa*. BODD. — The Eastern Blossom-headed Paroquet.

Palæornis rosa: Oustalet 1899 p. 224; Gyldenstolpe I p. 60; Gyldenstolpe II; Gyldenstolpe III p. 233; Gairdner p. 150.

The Eastern Blossom-headed Paroquet was quite common at Pak Koh, but further north it was rather rare and only a few specimens were noticed. It keeps exclusively to the dry forests and was never met with in the evergreen jungles.

236. *Palæornis schisticeps finschi*. HUME. — The Burmese Slaty-headed Paroquet.

Palæornis finschi: Gyldenstolpe II; Gyldenstolpe III p. 233.

♂ Koon Tan 1914. W = 151 mm.; T = 265 mm.; C = 21,5 mm. — ♂ Pak Koh $14/4$ 1914. L = 240 mm.; W = 245 mm.; C = 22 mm. — ♂ juv. Pak Koh $20/3$ 1914. L = 280 mm.; W = 142 mm.; T = 146 mm.; C = 21,5 mm.

The Burmese Slaty-headed Paroquet was only met with among the hill-forests of Northern Siam, but here it was not uncommon though it only occurred in pairs and small flocks, never assembling in large parties like the other kind of Paroquets. It always keeps to open forests and was never met with in the damp evergreen jungles.

237. *Palæornis fasciata*. P. L. S. MÜLL. — The Red-breasted Paroquet.

Palæornis fasciata: Gyldenstolpe I p. 60; Gyldenstolpe II; Robinson III p. 730; Gyldenstolpe III p. 233; Oustalet 1899 p. 225.

Palæornis fasciatus: Barton p. 107; Gairdner p. 150.

Palæornis barbatus: Gould p. 151.

Palæornis javanicus: Schomburgk p. 264.

♂ Koon Tan $3/6$ 1914. L = 270 mm.; W = 152 mm.; C = 22 mm. — ♀ Pak Koh $6/4$ 1914. L = 299 mm.; W = 155 mm.; T = 156 mm.; C = 23 mm. — Irides: greyish white. Legs: greenish.

Very common indeed in the North of Siam generally occurring in large flocks and frequenting the open forests and the bamboo-jungles.

238. *Loriculus vernalis*. SPARRM. — The Indian Loriquet.

Loriculus vernalis: Gyldenstolpe I p. 60; Robinson III p. 730; Gyldenstolpe III p. 233; Robinson & Kloss p. 32; Oustalet 1899 p. 227; Robinson I p. 91.

Coryllis vernalis: Müller p. 428.

♂ Pak Koh $2/4$ 1914. L = 149 mm.; W = 91 mm.; T = 41 mm.; B = 10,5 mm. — ♀ Doi Par Sakeng $19/7$ 1914. L = 126 mm.; W = 95 mm.; T = 42 mm.; B = 10 mm. — ♀ Koon Tan $1/5$ 1914. L = 136 mm.; W = 92 mm.; T = 41 mm.; B = 10,3 mm. — ♂ Doi Par Sakeng $19/7$ 1914. L = 120 mm.; W = 89 mm.; T = 39 mm.; B = 11 mm. — Irides: white. Bill: brick red. Legs: yellowish brown.

The Indian Loriquet is generally distributed throughout the whole country, though it is nowhere very common. It occurs in bamboo-jungles or in old clearings in the deciduous forests and it was never met with, as far as I remember, in the evergreen jungles. In the Siamese Malaya I never observed it though it probably occurs.

Fam. Strigidae.**239. *Strix flammea javanica*. GM. — The Javan Barn-Owl.**

Strix flammea: Gyldenstolpe I p. 61; Williamson I p. 46; Gairdner p. 150.

Strix javanica: Finsch & Conrad p. 345.

The Javan Barn-Owl was quite common in Bangkok where numbers of specimens were seen at night-time in the gardens and open places. In no other part of the country did I observe it during my travels, though it most probably occurs in and around towns and villages.

Fam. Bubonidæ.**240. *Ketupa zeylonensis zeylonensis*. GM. — The Brown Fish-Owl.**

Ketupa zeylonensis: Robinson & Kloss p. 30; Robinson I p. 90.

Ketupa zeylonensis: Gyldenstolpe III p. 233.

1 ad. Koon Tan April 1914. W = 375 mm.; T = 192 mm.; C = 31 mm.; Tarsus = 73 mm.

Fairly rare in the parts of the country visited by the Expedition though probably generally distributed in well-wooded tracts near rivers and creeks at least in Northern and Central Siam.

Only one specimen was shot — at Koon Tan — and a few more were observed at this same place and in the neighbouring country.

Outside Siamese Territory this species has been found in British India, Ceylon, Southern China, Hainan and Cochin China. In the Malay Peninsula it seems to be very rare though some specimens have been lately recorded from Trang.

241. *Huhua nipalensis*. HODGS. — The Forest Eagle-Owl.

Huhua nepalensis: Gairdner p. 150.

♀ (?) Koon Tan 1914. W = 420 mm.; T = 238 mm.; C = 36 mm.

A fine specimen of the Forest Eagle-Owl was caught in a trap at Koon Tan by one of the Railway Engineers who kindly presented it to me. »One afternoon», he told me, »a large owl was trying to catch a chicken but was frightened away before it had carried off its prey. A trap was now brought and the dead chicken placed as a bait. About an hour afterwards the Eagle-Owl returned and was caught.»

This beautiful species seems to be very rare and besides the specimen obtained I only saw one more, also among the Koon Tan Hills, but I unfortunately missed it. Both these specimens occurred in a mixed pine and oak-forest at a fairly high altitude.

GAIRDNER has recently recorded this species from the Ratburi and Petchaburi Districts of Southern Siam.

242. *Otus bakkamoena lettia*. HODGS. — The Collared Scops Owl.

♂ Pak Koh ²²/₃ 1914. L = 195 mm.; W = 158 mm.; T = 88 mm.; C = 15 mm. — ♀ Chum Poo ³/₅ 1914. L = 220 mm.; W = 167 mm.; T = 93 mm.; C = 17 mm. — ♂ juv. Koon Tan ³⁰/₄ 1914. L = 160 mm.; W = 117 mm. — Irides: brown (black in young). Bill: horn colour or yellowish green. Legs: light brown.

In the most northern parts of Siam the Collared Scops Owl was not uncommon, though on account of its nocturnal habits and its shyness it is seldom seen or shot.

The specimen obtained during my former Expedition and recorded under the name of *Scops bakkamoena lempiji* HORSF. (Kungl. Svenska Vetenskapsakademiens Handlingar, B:d 50, No. 8, p. 61) most probably belongs to the northern race and ought to be called

O. b. lettia HODGS. This subspecific race is much larger than typical *lempiji* from the Malay Peninsula and has the feathering on the tarsi running down on the outer toe, while the bases of the toes in *O. b. lempiji* always are quite unfeathered.

243. *Ninox scutulata*. RAFFL. (subsp.?) — The Brown Hawk-Owl.

Ninox scutulata: Gyldenstolpe I p. 61; Gyldenstolpe II; Gyldenstolpe III p. 233; Williamson I p. 47; Oustalet 1899 p. 244; Robinson & Kloss p. 31; Grant p. 112; Gairdner p. 150.

♂ Pak Koh ²³/₃ 1914. L = 295 mm.; W = 203 mm.; T = 135 mm.; C = 14 mm. — ♂ Pak Koh ¹⁸/₄ 1914. L = 293 mm.; W = 206 mm.; T = 132 mm.; C = 15 mm. — ♂ Ban Meh Na ²⁴/₆ 1914. L = 280 mm.; W = 211 mm.; T = 144 mm.; C = 12,5 mm. — ♀ Koon Tan ²⁸/₅ 1914. L = 285 mm.; W = 212 mm.; T = 133 mm.; C = 13,5 mm. — ♀ Koon Tan ²⁸/₄ 1914. L = 280 mm.; W = 203 mm.; T = 135 mm.; C = 14 mm. — Irides: yellow. Bill: greyish black. Legs: dirty yellow.

Five specimens of the Brown Hawk-Owl were collected at different localities in Northern Siam.

Several subspecies have been described of this bird being mostly founded on very slight characters. Unfortunately there is no material for comparison in the collections of the Royal Natural History Museum in Stockholm and I am therefore unable to ascertain which race the Siamese specimens belong to.

They possibly are to be referred to the race which has been named *Ninox burmanica* by HUME. This race was founded on specimens from Pegu and Tenasserim. Another race the typical *Ninox scutulata* RAFFLES inhabits and breeds in Japan and Northern China. It has been found wintering in Sumatra, Java and the Philippines and might just as well be found in Northern Siam too during the cold season.

According to HARTERT both these races are very similar both as to size and general colouration of the plumage, though the head in *N. burmanica* is perhaps a little more grey than that of the typical species.

Compared with specimens from Japan (*Ninox scutulata scutulata* RAFFL.) and with birds from the Malay Peninsula (*Ninox scutulata malaccensis* EYTON.) my Siamese specimens seems to be intermediate as regards size and colour of the plumage. The Malayan race is, however, clearly distinguished by its much smaller size with wings measuring 191—195 mm. (HARTERT.)

244. *Glaucidium brodiei*. BURTON. — The Collared Pigmy Owlet.

Glaucidium brodiei: Gyldenstolpe III p. 233; Robinson I p. 91.

♂ Koon Tan ²⁵/₉ 1914. L = 130 mm.; W = 86 mm.; T = 60 mm.; C = 10 mm. — ♂ Pak Koh ¹⁸/₄ 1914. L = 159 mm.; W = 87 mm.; T = 61 mm.; C = 11 mm. — Irides: yellow. Bill: yellowish white. Legs: yellowish green.

The Collared Pigmy Owlet was rather rare in the parts of the country visited by the Expedition. Only two specimens were observed in evergreen jungles, and the birds made their appearance just at dusk. They were not shy and only moved a short distance when disturbed.

My specimens, which both are males, are a little larger than specimens from India and Hainan, having their wings measuring 86 & 87 mm., respectively, while in the Hainan birds the wings measure 82—84 mm. (4 males measured by HARTERT).

On the tails there are 6 ochraceous bars (the one at the tip not counted).

245. *Glaucidium cuculoides*. GOULD. — The Large Barred Owlet.

Glaucidium cuculoides: Gyldenstolpe I p. 61; Gyldenstolpe II; Gyldenstolpe III p. 233; Gairdner p. 150.

Athene cuculoides: Oustalet 1899 p. 244.

Athene cuculoides brügeli: Parrot p. 104.

Sex	Locality	Date	Total length mm	Wing mm.	Tail mm.	Culmen mm.
♂	Koon Tan	28/4 1914	215	150	77,5	15
♂	Ban Meh Na	24/6 1914	210	146	88	14,6
♂	Doi Par Sakeng	18/7 1914	200	144	88	15
♀	Hat Sanuk	26/1 1915	213	146	87	15
♂	Hat Sanuk	23/2 1915	225	144	85	15,5
♂	Koon Tan	17/6 1914	195	142	79	14,5
♂	Pak Koh	10/4 1914	205	151	83	15

Irides: yellow. Bill: yellowish green. Legs: yellowish green or dirty yellow.

The Large Barred Owlet is the Owl most often met with in every part of Siam. It occurs as well in dense evergreen jungles as in open deciduous forests and was found as far south as about Lat. N. 12°. However, it was a little more rare in the Siamese Malaya than in the Northern Provinces.

Like other members of this family the Large Barred Owlet is a very variable species as to size and colour. The number of the white tail-bars seems to be rather constant in the birds collected in Siam, being always five, the basal bar and that one at the tip not counted.

I have compared my Siamese specimens with two birds collected at Ahsown in Tenasserim and they are absolutely identical as to size and colour, but the Tenasserim birds have six tail-bars, the basal one and that one at the tip not counted. Some specimens have these bars broader, some narrower.

Two specimens from Doi Par Sakeng and Ban Meh Na in Northwestern Siam have very obsolete bars on the back, the rufous colouring being almost confined to irregular spots. Some of the feathers of the hind nape have large subterminal white spots almost forming an incomplete collar. The general colouring of these two specimens is distinctly more rufous, hence approaching the birds from Hainan which have been separated under the name of *G. c. persimile*, HARTERT.

246. *Photodilus badius*. HORSF. — The Bay Owl.

♀ Koon Tan 17/9 1914. L = 277 mm.; W = 215 mm.; T = 103 mm.; C = 24 mm. — Irides: blackish brown. Bill: whitish grey. Legs: whitish grey.

A fine female specimen of this rare Owl which has not previously been recorded from Siam, was shot by my Dyak collector in a dense valley among the Koon Tan mountains.

Fam. Pandionidæ.**247. Pandion haliaëtus cristatus. VIEILL. — The Osprey.**

Pandion haliaëtus: Gyldenstolpe I p. 62; Robinson & Kloss p. 29; Gairdner p. 150.

♂ Koh Lak $\frac{2}{12}$ 1914. L = 500 mm.; W = 470 mm.; T = 218 mm.; C = 32 mm. — ♂ Koh Lak $\frac{17}{12}$ 1914. L = 530 mm.; W = 461 mm.; T = 224 mm.; C = 31 mm. — Irides: pale yellow. Bill: black (cere = pale blue). Legs: pale bluish grey.

During my stay in the Siamese Malaya I shot two fine specimens of the eastern race of our common Osprey. One of these specimens, both of which were obtained at Koh Lak, is a young bird with the crown rather dark-striped; the other one seems to be older and has the crown almost white with only a few blackish-brown stripes.

248. Polioaëtus ichtyaëtus. HORSEF. — The Large Grey-headed Fishing-Eagle.

Polioaëtus ichtyaëtus: Oustalet 1899 p. 231; Robinson & Kloss p. 30; Grant p. 113; Bonhote p. 58; Robinson II p. 144; Gairdner p. 150.

♂ Nong Meh Lua $\frac{6}{8}$ 1914. L = 662 mm.; W = 461 mm.; T = 280 mm.; Culmen = 37,5 mm. — Irides: yellowish white. Bill: horn coloured (base plumbeous). Legs: whitish grey.

The Large Grey-headed Fishing-Eagle inhabits such well-wooded tracts where large rivers and swamps abound. I found it fairly common on such localities in Northern and Central Siam. It is a very clumsy bird which never takes long flights.

A fine male specimen was obtained at Nong Meh Lua in Upper Siam on the 6th of August 1914.

This specimen differs from the descriptions in the literature, in not having the head and neck pure grey. The crown and upper neck is, however, grey but distinctly washed with brown; the chin, upper throat and sides of the head are pure grey without any brownish tinge. The whole upper plumage, breast and upper abdomen brown, the two last-mentioned parts, however, decidedly paler.

Fam. Falconidæ.**249. Circus melanoleucus. FORST. — The Pied Harrier.**

Circus melanoleucus: Williamson I p. 47; Gyldenstolpe III p. 234.

♂ Koon Tan 1914. W = 346 mm.; T = 215 mm.; C = 16 mm. — ♀ Koon Tan 1914. W = 332 mm.; T = 213 mm.; C = 16 mm.

The Pied Harrier is only to be found in Siam during the cold season, but then it is not uncommon on suitable localities.

It is chiefly seen on moisty and swampy ground, but I also observed it on the large grassy plains at Nong Bea in Northwestern Siam and the specimens in my collection were both shot along the Meh Tha river in Northern Siam. Occasionally it was also observed among the hills of the Koon Tan range. Most common, however, on the great swamps

of Central Siam where numbers of specimens were seen flying to and fro near the ground in search of food.

In the Siamese Malaya it was never observed during my stay there from November 1914 to February 1915.

250. *Circus æruginosus æruginosus*. LINN. — The Marsh-Harrier.

Circus æruginosus: Gyldenstolpe I p. 63; Williamson I p. 47; Müller p. 430; Robinson & Kloss p. 11.

♀ Koh Lak ¹³/₁₂ 1914. L = 480 mm.; W = 378 mm.; T = 238 mm.; C = 21 mm. — ♂ Koh Lak ²⁴/₁₁ 1914. L = 550 mm.; W = 398 mm.; T = 255 mm.; C = 22 mm. — ♀ Koh Lak ¹⁶/₁₂ 1914. L = 528 mm.; W = 411 mm.; T = 254 mm.; C = 24 mm. — ♀ Koh Lak ¹³/₁₂ 1914. L = 490 mm.; W = 389 mm.; T = 240 mm.; C = 22 mm. — Irides: yellowish brown. Bill: blackish. Legs: yellow.

The Marsh-Harrier is a common winter visitor to the plains and open country of Central Siam and the Siamese Malaya. It chiefly haunts marshy ground or rice-fields.

All the specimens obtained are young birds and not a single adult was met with.

251. *Astur trivirgatus rufinctus*. McCLELL. — The Crested Goshawk.

Lophospizias trivirgatus: Gyldenstolpe II; Gyldenstolpe III p. 234; Robinson I p. 90.

♂ Pak Koh ¹⁶/₄ 1914. L = 376 mm.; W = 221 mm.; T = 197 mm.; C = 18 mm. — Irides: bright yellow. Bill: horn colour. Legs: yellow.

The Crested Goshawk seems to be very rare and only a few specimens were observed in Northern Siam besides the fine male which was obtained at Pak Koh on the 16th of April 1914.

It seems to avoid evergreen jungles and the lower valleys with their dense vegetation, and it was only met with in the deciduous forests or in thin tree jungle.

This subspecies is distinguished from the typical *Astur trivirgatus* TEMM., which inhabits the Indian Peninsula and Ceylon, by its larger size.

252. *Astur badius poliopsis*. HUME. — The Burmese Shikra.

Astur badius poliopsis: Oustalet 1899 p. 238; Gyldenstolpe III p. 234.

Astur poliopsis: Gyldenstolpe I p. 63; Robinson & Kloss p. 22; Gyldenstolpe II.

Astur badius: Williamson I p. 47.

Nisus badius: Finsch & Conrad p. 345.

Accipiter badius: Gould p. 151.

Micronisus poliopsis: Müller p. 430.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.	Tarsus mm.
♀	Koon Tan	¹⁵ / ₆ 1914	359	213,5	170	15	47,5
♀	Pak Koh	⁶ / ₄ 1914	339	215	175	15	50
♀	Bang Hue Pong	⁸ / ₆ 1914	340	209	179	15	48
♂	Pak Tha	¹² / ₃ 1914	300	186	158	14,5	45
♂	Koh Lak	¹² / ₁ 1915	310	187	156	12	40
♂ juv.	Bang Hue Pong	²⁶ / ₆ 1914	300	185	153	14	46
♀ juv.	Bang Hue Pong	²⁷ / ₆ 1914	295	181	133	14	47

Irides: yellow or brick red (adult), dirty yellow (juv.). Bill: plumbeous (adult), black (juv.). Legs: yellow.

The Burmese Shikra occurs throughout Siam and was even found as far south as Koh Lak in the Siamese Malaya, but down there it seems to be rather scarce and only a few specimens were observed. Most abundant it is, however, in the open deciduous forests in the Northern Districts. Their food chiefly consists of insects which they catch on the wing.

253. *Accipiter soloënsis*. HORSF. — Horsfield's Short-toed Hawk.

Astur soloënsis: Robinson & Kloss p. 22.

♀ Pak Koh ¹⁴/₄ 1914. L = 295 mm.; W = 193 mm.; T = 141 mm.; C = 13 mm.; Tarsus = 41 mm. — Irides: yellow. Bill: horn colour. Cere: bright yellow. Legs: bright yellow.

Horsfield's Short-toed Hawk, which breeds in parts of China, is only to be considered as a winter visitor to Siam, where it also seems to be extremely rare. During my journey I only obtained a single specimen, which was shot at Pak Koh in Northern Siam on the 14th of April 1914. When observed it was perching on a bamboo-clump near the banks of an almost dry creek and was easily stalked and shot.

As far as I know, this species has not been recorded from Northern Siam before, but ROBINSON & KLOSS records it from the island of Langkawi. In the Malay Peninsula it is stated by the same authors as being very rare.

254. *Accipiter gularis*. TEMM. & SCHLEG. — The Besra.

Accipiter gularis: Robinson III p. 727.

♂ Pak Koh ²⁴/₃ 1914. L = 305 mm.; W = 194 mm.; T = 158 mm.; C = 13 mm.; Middle toe = 28,2 mm. — ♂ Pak Koh ¹⁷/₄ 1914. L = 302 mm.; W = 190 mm.; T = 161 mm.; C = 13 mm.; Middle toe = 25,5 mm. — ♀ imm. Koon Tan ²⁴/₅ 1914. L = 278 mm.; W = 170 mm.; T = 125 mm.; C = 11,3 mm.; Middle toe = 29 mm. — Irides: yellowish red (♂), whitish grey (♀ imm.). Bill: horny black. Legs: yellow.

This species is probably only a winter visitor to Siam, though young specimens may occur during the summer.

Outside Siamese Territory it has been found during the cold season in Southern China, Hainan, Formosa, the Malay Peninsula and some of the Gr. Sunda Islands.

In Siam it was by no means common, and I never succeeded in shooting any fully adult specimens. It resembles *Astur badius poliopsis*, HUME in the general tone of its plumage, but it has the toes longer and more feeble than that species. Another allied bird is *Accipiter virgatus* TEMM. which inhabits Java, Borneo, Sumatra and some of the Sunda Islands.

255. *Aquila maculata*. GM. — The Large Spotted Eagle.

♀ Koh Lak ³⁰/₁₁ 1914. L = 650 mm.; W = 521 mm.; T = 276 mm.; Culmen (from cere) = 34 mm. — Irides: brown. Bill: dark horn colour. Legs: pale yellow.

A fine female specimen in adult, though rather abraded plumage, was shot near Koh Lak on the 30th of November 1914.

A few more specimens were also observed at different occasions at this same locality during December 1914 and January 1915.

They had their hunting grounds on the open, sandy plains which covered a large area of land between the sea-shore and the thick bamboo-jungles which clothed the country up to the lower foot-hills of the Tenasserim mountains. Sometimes I also observed this species in and over the mangrove swamps and in such a swamp I shot the only specimen which was obtained. Their flight is rather heavy and the birds show a rather clumpy appearance both when flying or resting in a tree.

This species has a very wide range having its breeding places in some parts of the Paläarctic Region. In the cold season it has been found in Central Asia, India, China, Burma and Cochin China, but it has not previously been recorded from Siam, as far as I am aware.

256. *Spizaëtus nipalensis nipalensis*. HODGS. — Hodgson's Hawk-Eagle.

♀ Hue Sai ¹⁵/₁ 1915. L = 700 mm.; W = 426 mm.; T = 311 mm.; C (from cere) = 33,5 mm. — Irides: yellow. Bill: bluish black.

Of Hodgson's Hawk-Eagle a fine female specimen in the immature white plumage was shot near Hue Sai in the Siamese Malaya on the 15th of January 1915.

Early in the morning that day when I was out collecting in the evergreen forests along the small Hue Sai creek, I was attracted by the alarming notes of a White-winged Wood-Duck (*Asarcornis leucoptera* BLYTH).

I went for the cry, and suddenly I came to a small pool (nong) in the thick forest. Here I caught sight of an Eagle which was trying to carry away one of the big Ducks. It was the female and the male was swimming around in the pool, both specimens uttering a whining note. The Eagle had its powerful claws into the back of the poor Duck, and with its beak it was aiming ferocious strokes at the head and neck while it was fiercely moving its wings, all in order to kill its prey.

My shot finished this interesting scene and I got both the Eagle and the Duck in one shot.

This magnificent bird seems to be exceedingly rare and outside its breeding places it has only been obtained once on Pulau Teratau (Ibis 1911 p. 22) and then in Southern China, Formosa and Hainan.

Most of the specimens recorded from these southern localities are immature birds and as they are all obtained during the cold season they seem to be partially migrant.

Spizaëtus alboniger BLYTH is its nearest ally besides *S. n. orientalis* TEMM. & SCHLEG.

This first-named form, which inhabits the Malay Peninsula to the extreme south of Tenasserim, is a perfect miniature of *S. n. nipalensis* only differing by its much smaller size.

The specimen obtained agrees well with the descriptions in the literature but the dark brown bands of the tail-feathers are 7 in number. The ear-coverts and cheeks are pale buffy white without any black streaks.

257. *Spizaëtus limnaëtus*. HORSE. — The Changeable Hawk-Eagle.

Spizaëtus limnaëtus: Gyldenstolpe III p. 233; Barton p. 107; Robinson & Kloss p. 23; Grant p. 114; Robinson II p. 144.

♀ Koh Lak ²⁰/₁ 1915. L = 638 mm.; W = 414 mm.; T = 276 mm.; Culmen from cere = 32 mm. — Irides: brownish yellow. Bill: black. Legs: dirty yellow.

During one of my excursions along the coast north from Koh Lak I was lucky in finding a nest of an eagle. The nest was situated on the upper third of a fairly high tree in a mixed bamboo-jungle. When I approached the tree I saw that the eagle was sitting on the eggs and it did not fly away before I made some blows on the tree with my stick. In flying away it started to scream loudly. Unfortunately it was quite impossible for me or my Dyak collector to climb the tree. Therefore I concealed myself near the place in order to shoot one of the parent birds when it returned. I only had to wait about half an hour before it returned and was shot. It turned out to be a fine female specimen of the Changeable Hawk-Eagle.

The male was also seen, circling high up in the air, but though I waited a considerable time to get that specimen too it never came into range of my gun.

The female I obtained does not seem to be a very old bird. It has the lower surface with the exception of the lower abdomen and the vent, which are dark brown, white speckled with dark brown; down the throat there is a very distinct blackish brown stripe; head and upper neck tinged with fulvous, all the feathers having broad, dark brown edges; tail-feathers with five dark brown bars and narrowly tipped with white; the subterminal black bar is almost three times as broad as the next one. Upper plumage dark glossy brown, the feathers having white bases which, however, are only visible when the plumage is disarranged.

258. *Circaëtus hypoleucus*. PALL. — The Short-toed Eagle.

♂ Koh Lak ²⁰/₁ 1915. L = 665 mm.; W = 533 mm.; T = 293 mm.; C = 43 mm.; Tarsus = 102 mm. — Irides: yellow. Bill: bluish black. Legs: whitish grey.

A fine female specimen of the Short-toed Eagle was obtained on a sandy somewhat swampy plain near Koh Lak.

Nowhere else met with during my excursions in Siam, from where it has not been recorded before. It also seems to be extremely rare in the Malay Peninsula and only one specimen has been obtained in Selangor. Besides these records a few more specimens have been found in the Indian Peninsula and China.

259. *Spilornis cheela rutherfordi*. HUME. — The Crested Serpent Eagle.

Spilornis cheela rutherfordi: Gyldenstolpe I p. 62; Robinson III p. 729; Gyldenstolpe III p. 234; Oustalet 1899 p. 237.

Spilornis cheela cheela: Parrot p. 100.

Spilornis cheela: Gairdner p. 32; Gairdner p. 151.

♂ Koon Tan ⁵/₅ 1914. L = 640 mm.; T = 457 mm.; W = 300 mm.; Culmen from cere = 33 mm. — Irides: yellow. Bill: horn colour with the base plumbeous. Legs: yellow.

The Crested Serpent Eagle was comparatively common in the Northern parts of the country where it inhabits the deciduous forests or the pine forests on the slopes of the higher hills. They have a very characteristic and easily recognised mewing call which they frequently utter when circling high up in the sky.

260. *Spilornis bacha*. DAUD.

Spilornis bacha: Grant p. 114.

Spilornis cheela: Bonhote p. 57.

♂ Hue Sai ¹⁸/₁ 1915. L = 615 mm.; W = 401 mm.; T = 250 mm.; C = 32 mm. — Irides: yellow. Bill: horny plumbeous. Legs: yellow.

Comparatively rare and only observed in the Siamese Malaya. Only two specimens were identified with any certainty: one was obtained and the other one was severely wounded, though I could not find it. This species was found in the country between the coast and the Tenasserim mountains. That country is densely covered with bamboo- or secondary jungles with some higher trees among the bamboos. Here and there old or new clearings or a few small paddy-fields occur and such places seems to be favourite hunting-grounds for this beautiful Serpent Eagle.

261. *Haliaëtus leucogaster*. GM. — The White-bellied Sea-Eagle.

Haliaëtus leucogaster: Robinson & Kloss p. 23; Robinson II p. 144.

Cuncuma leucogaster: Müller p. 428.

A pair of the White-bellied Sea-Eagle were breeding in a low tree on an inaccessible limestone cliff north of the village of Koh Lak. Though I made several efforts to get one of these fine Eagles, I was always unfortunate.

The food of this species seems chiefly to consist of sea-snakes which abound in the Gulf of Siam, and I several times saw the birds returning from their haunts in the Bay with a sea-snake in their claws. They are generally out in search of prey early in the morning and in the afternoon just before dusk.

262. *Haliastur indus*. BODD. — The Brahminy Kite.

Haliastur indus: Gyldenstolpe I p. 63; Williamson I p. 47; Flower p. 327; Gairdner p. 32; Gould p. 151; Schomburgk p. 246; Müller p. 428; Oustalet 1899 p. 239; Gairdner p. 151.

♂ Nong Meh Lua ⁶/₈ 1914. L = 440 mm.; W = 355 mm.; T = 199 mm.; C = 23 mm. — Irides: brownish yellow. Bill: yellowish green. Legs: yellow.

The typical race of the Brahminy Kite inhabits the Northern parts of the country. In Central Siam the two races are probably mixed up together, but in the Siamese Malaya it is only represented by the southern form.

The Brahminy Kite inhabit countries where water is plentiful and occurs both along the rivers and in the numerous swamps which occupy a large area of land in the low-lying districts of Northern Siam.

In well-wooded tracts or among the hills it was never met with.

263. **Haliastur indus intermedia.** GURNEY.

Haliastur intermedius: Robinson & Kloss p. 24; Grant p. 114; Bonhote p. 58; Robinson II p. 144.

♀ Koh Lak ¹²/₁₂ 1914. L = 493 mm.; W = 401 mm.; T = 225 mm.; C = 25 mm. — Irides: pale brownish grey. Bill: bluish white. Legs: yellow.

This species seems to be generally distributed in Central Siam and in the Siamese Malaya. It has been separated from the typical *Haliastur indus* BODD., because it has the black shaft-stripes of the head, hind neck and breast much narrower and rather indistinct.

It feeds chiefly on crabs and shellfish, and when the tide was low and the mud banks exposed, numbers could be seen flying along the shores, now and then swooping down to catch one of the numerous crabs which were running about on the beach.

264. **Milvus migrans govinda.** SYKES. — The Common Pariah Kite.

Milvus govinda: Gyldenstolpe I p. 63; Williamson I p. 47; Gairdner p. 31; Gairdner p. 151.

The Common Pariah Kite was fairly abundant outside Bangkok and along the lower course of the Menam Chao Phaya river. It seems exclusively to haunt open, somewhat marshy country.

265. **Milvus lineatus.** GRAY. — The Large Indian Kite.

Milvus melanotis: Williamson I p. 47; Gairdner p. 151.

This Kite was fairly common at the neighbourhood of Bangkok and in the open parts of Central Siam where it occurred together with the preceding species from which it is easily distinguished by its greater size.

Most often met with hunting for prey over the paddy-fields, though even observed flying along the lower course of the Menam Chao Phaya river.

266. **Elanus caeruleus caeruleus.** DESF. — The Black-winged Kite.

Elanus caeruleus: Gyldenstolpe I p. 63; Williamson I p. 47.

Elanus caeruleus caeruleus: Parrot p. 102.

The Black-winged Kite was observed now and then at the neighbourhood of Bangkok and on the great alluvial plain of Central Siam. It probably only winters in Siam as I have only met with it during the cold season. It has, however, been found breeding in Burma and parts of India.

267. *Pernis cristatus*. VIEILL. — The Crested Honey-Buzzard.

Pernis cristatus: Robinson III p. 728; Robinson & Kloss p. 29.

♂ Koh Lak $1^{2}/_{12}$ 1914. L = 600 mm.; W = 414 mm.; T = 268 mm.; Culmen from cere = 22 mm. — Irides: yellowish brown. Bill: black. Cere: yellow. Legs: yellow.

An immature male without a crest was obtained at Koh Lak on the 12th of December 1914, and it is with some hesitation that I have referred it to *P. cristatus* VIEILL.

Immature specimens of the Honey Buzzards are only separated from each other by very slight characters and a revision based on a large material is highly needed.

268. *Baza lophotes*. TEMM. — The Black-crested Baza.

Baza lophotes: Gyldenstolpe II; Gyldenstolpe III p. 234; Barton p. 107; Müller p. 429; Robinson & Kloss p. 25; Gairdner p. 151.

♀ Pak Koh $1^{4}/_{3}$ 1914. L = 325 mm.; W = 239 mm.; T = 146 mm.; C = 19 mm. — ♂ Pak Koh $2^{2}/_{3}$ 1914. L = 300 mm.; W = 236 mm.; T = 142 mm.; C = 18 mm. — ♂ Pak Koh $1^{5}/_{3}$ 1914. L = 286 mm.; W = 229 mm.; T = 133 mm.; C = 17 mm. — ♂ Bang Hue Pong $2^{6}/_{5}$ 1914. L = 305 mm.; W = 226 mm.; T = 144 mm. — ♂ Pak Koh $1^{7}/_{4}$ 1914. L = 286 mm.; W = 231 mm.; T = 139 mm.; C = 18,8 mm. — ♀ Koon Tan $7/_{6}$ 1914. L = 300 mm.; W = 226 mm.; T = 150 mm.; C = 16,5 mm. — ♀ Pak Koh $2^{2}/_{3}$ 1914. L = 280 mm.; W = 231 mm.; T = 150 mm.; C = 17 mm. — Irides: brown. Bill: plumbeous grey. Legs: plumbeous.

This beautiful Baza was not uncommon at Pak Koh and Koon Tan in Northern Siam.

In the Siamese Malaya I never observed it during my excursions though it probably occurs as it has been recorded from Trang and some other places further south.

I found them in the open deciduous forests as well as in dense evergreen jungles and they were obtained both in the lower valleys and on the summits of rather high hills. They generally were seen perching on a dry branch in some high tree. Now and then they made short flights after passing insects, which constitute their principal food. When perching they keep their long crests fully erect. Most often they were met with in pairs, sometimes in small flocks of about 3 to 4 individuals. In their habit and behaviour they seem to be rather lazy, never being on the move but for a short time.

269. *Microhierax caerulescens*. LINN. — The Red-legged Falconet.

Microhierax caerulescens: Oustalet 1899 p. 235.

Microhierax entolmus: Gyldenstolpe I p. 64; Gyldenstolpe III p. 234; Barton p. 107.

♀ Pak Koh $2^{1}/_{3}$ 1914. L = 135 mm.; W = 91 mm.; T = 63 mm.; C = 8 mm. — ♂ Bang Hue Pong $9/_{6}$ 1914. L = 148 mm.; W = 95 mm.; T = 66 mm.; C = 9 mm. — ♂ Pak Koh $2^{1}/_{3}$ 1914. L = 140 mm.; W = 92 mm.; T = 60 mm.; C = 8,3 mm. — ♂ Koon Tan $2/_{6}$ 1914. L = 156 mm.; W = 98 mm.; T = 72 mm.; C = 10 mm. — ♂ Doi Par Sakeng $9/_{7}$ 1914. L = 162 mm.; W = 104 mm.; T = 72 mm.; C = 10 mm. — Irides: brownish black. Bill: plumbeous. Legs: plumbeous.

Fairly common in Northern Siam but always in open forests. It was mostly seen in old clearings perching on a branch of a dead tree. Their note is a characteristic »kee-kee-kee.»

The immature birds have the frontal band, lores, supercilium and a line down the nape bright ferruginous instead of white as in the adult birds. In the young birds the bill is dirty yellow instead of plumbeous.

270. *Poliohierax insignis*. WALD. — Feilden's Hawk.

Poliohierax insignis: Gyldenstolpe I p. 64; Gyldenstolpe III p. 234; Oustalet 1899 p. 234.

♂ Koon Tan, May 1914. W = 145 mm.; T = 140 mm.; C = 12,5 mm. — ♀ Koon Tan, April 1914. W = 152 mm.; T = 129 mm.; C = 13 mm.

Feilden's Hawk seems to be rather rare and also very locally distributed. During my previous journey I met with it on the Korat plateau in Eastern Siam but during my last Expedition I never myself met with it. However, Mr. EISENHOFER's native collector obtained several specimens at Koon Tan and its neighbourhood, and to him I am indebted for two fine specimens.

271. *Falco* sp.

A single specimen of a medium-sized Falcon was observed in a precipitous limestone mountain a few miles south of Koh Lak in the Siamese Malaya. It most probably was a specimen of the Indian Hobby (*Falco severus* HORSEF.) which species recently has been obtained in Bangkok by WILLIAMSON (vide. Siam. Journal. Nat. Hist. Soc. Vol. I, No. 3, p. 198).

272. *Falco tinnunculus saturatus*. BLYTH. — The Kestrel.

Cerchneis tinnunculus: Robinson & Kloss p. 29.

♀ Koh Lak ²⁶/₁₁ 1914. L = 345 mm.; W = 245 mm.; T = 182 mm.; C = 15 mm.; Tarsus = 34 mm. — Irides: brown. Bill: plumbeous (tip black). Legs: yellow.

Probably a winter visitor only and not very common. Most often it was seen in Central Siam, where it frequented the large sometimes swampy plains which occur here and there. In the Siamese Malaya it was, however, more abundant and several specimens were observed in the bamboo-jungles and in the open country near the coast.

Falco tinnunculus saturatus BLYTH. is very similar to both *F. t. tinnunculus* LINN. and *F. t. japonicus* TEMM. & SCHLEG. From the former it is separated by having a much darker colouring and from the latter it is distinguished by its smaller size.

F. t. japonicus which breeds in Japan and migrates to Southern China and Hainan may eventually be found in Siam, most probably in the Northern parts of the country and more material from different localities and seasons is highly desirable.

Fam. Vulturidæ.

273. *Pseudogyps bengalensis*. GM. — The Indian White-backed Vulture.

Pseudogyps bengalensis: Gyldenstolpe I p. 62; Williamson I p. 47; Gairdner p. 31; Grant p. 115; Oustalet 1899 p. 229; Gairdner p. 151; Müller p. 430.

The Indian White-backed Vulture is fairly common over the whole country except in the more densely wooded parts, and everywhere it is far more abundant than the Black Vulture (*Otogyps calvus* SCOP.).

Several nests were observed in some large trees outside a small village a few miles south of Chieng Mai.

274. *Otogyps calvus*. SCOP. — The Black Vulture.

Otogyps calvus: Gyldenstolpe I p. 62; Williamson I p. 47; Gairdner p. 31; Grant p. 115; Gairdner p. 151.
Vultur calvus: Schomburgk p. 267.

♂ Koh Lak ¹⁹/₁₂ 1914. L = 805 mm.; W = 600 mm.; T = 271 mm.; Culmen from cere = 51 mm.
— Irides: yellowish white. Bill: black. Legs: pink.

Of this fine Vulture a few specimens were generally associated among the flocks of the other Vultures found in Siam, viz. *Pseudogyps bengalensis* GM. and *Gyps tenuirostris* HODGS.

Most abundant they seemed to be in the low-lying country along the coast of the Gulf of Siam. They also occurred both in Central and Northern Siam though rather rare in the latter part. They were never found among the hills or in well-wooded tracts but for some specimens seen circling high up in the air. At the environs of Bangkok Vultures abound, the most common species being, however, *Pseudogyps bengalensis* GM.

The Black Vulture is rather a beautiful species when seen majestically circling high up in the air on motionless wings, and with the bright sun shining on the red neck and thighs which then look fiery red.

Some years ago the Siamese had the horrible custom to place their dead, and especially those from the lower classes, on open courts in certain temples to let the corpses to be eaten by the Vultures, Crows and the semi-domesticated Pariah dogs.

This custom is now strictly forbidden at least in the greatest towns but is probably still going on in some of the out-of-the-way places.

Fam. Pelecanida.

275. *Pelecanus philippensis*. GM. — The Spotted-billed Pelican.

Pelecanus philippensis: Gyldenstolpe I p. 71; Gairdner p. 152.

Pelecanus philippensis: Schomburgk p. 265; Gairdner p. 31.

♂ Chieng Hai ¹⁶/₈ 1914. L = 1420 mm.; W = 600 mm.; T = 197 mm.; C = 329 mm. — ♀ Chieng Hai ¹⁶/₈ 1914. L = 1300 mm.; W = 580 mm.; T = 210 mm.; C = 310 mm. — Irides: hazel. Bill: whitish pink with black blotches. Legs: grey.

This species, which inhabits Southern Asia south to the Malay Peninsula and east to Java and the Philippines, is very common along the coasts of the inner Gulf of Siam during the winter months.

During the rainy season the Pelicans assemble in great numbers on the large swamps of Central Siam, but if they also breed here is open to question. During my former journey

1911—1912 I visited these swamps in April, thus before the real rains had set in, and at this time I only observed a few specimens.

In the north of Siam, where I was travelling during the summer 1914, I several times met with Pelicans on the lake-like swamps at the neighbourhood of Chieng Hai and Chieng Sen, but I don't think they were breeding up here as I never succeeded in finding a nest, though I made a very careful lookout.

This species is generally not very shy when found in an inland swamp, but along the coast they were absolutely impossible to get into range for a shotgun.

Fam. Plotidæ.

276. *Plotus melanogaster*. GM. — The Snake-bird.

Plotus melanogaster: Gyldenstolpe I p. 71; Robinson & Kloss p. 19; Gairdner p. 152.

♂ Nong Meh Lua $\frac{7}{8}$ 1914. L. = 913 mm.; W = 337 mm.; T = 247 mm.; C = 85 mm. — Irides: brownish yellow. Bill: yellowish green (topside of upper mandible horn colour). Legs: brownish yellow.

The Snake-bird was very common indeed at Nong Meh Lua. This Nong is a fairly large lake-like swamp situated a few miles south-west of the ruined town of Chieng Sen in Upper Siam. Even along the Meh Koke river and along some of the other rivers of Northern Siam it was also observed, though always in limited numbers. In the large swamps of Central Siam it was very common, but as far as I can remember, I never observed them along the coast of the Siamese Malaya.

The Snake-bird is a very good swimmer and when it swims it keeps its body almost hidden under the water, only showing the head and a part of the long neck.

It rests on the branches of dead trees where numbers of birds could be seen together. Like the Cormorants it keeps its wings expanded to the sides, now and then making some flapping movements with the wings.

Fam. Phalacrocoracidæ.

277. *Phalacrocorax pygmæus javanicus*. HORSEF. — The Little Cormorant.

Phalacrocorax javanicus: Gyldenstolpe I p. 71; Gairdner p. 152.

On the swampy country south of the town of Ratburi the Little Cormorant was quite common and numbers of specimens were seen either perching on low branches or on the fishing stags in the numerous small canals which traverse the country in every direction. As I only passed these swamps by rail I did not procure a specimen and in no other parts of the country did I meet with a single specimen though it sometimes occurs along the small rivers and creeks of Northern Siam.

Fam. Anatidæ.**278. *Sarcidiornis melanolota*. PENN. — The Comb Duck.**

I never myself met with this beautiful Duck in wild state. It is, however, as stated by the natives, quite common in several parts of Northern Siam. The old Laos Prince of Chiang Mai had a few specimens in one of his gardens together with some other kind of water-birds.

These specimens were said to have been caught somewhere in Upper Siam, probably at the neighbourhood of Muang Pra Yao, a small town in Northeastern Siam. The vicinity of Pra Yao is stated by the natives to be an excellent hunting-ground for every kind of water birds.

279. *Asarcornis leucoptera*. BLYTH. — The White-winged Wood-Duck.

Asarcornis scutulatus: Barton p. 109.

Asarcornis leucoptera: Robinson & Kloss p. 19; Robinson I p. 89.

♂ Hat Sanuk ²⁸/₁ 1915. L = 790 mm.; W = 347 mm.; T = 163 mm.; C = 64 mm. — ♀ Hue Sai ¹⁶/₁ 1915. L = 720 mm.; W = 326 mm.; T = 165 mm.; C = 61 mm. — Irides: reddish brown (♂); yellow (♀). Bill: brownish yellow (♂); yellowish red (♀). Legs: brownish yellow (♂); brownish yellow (♀).

During my journey I only met with the White-winged Wood-Duck in the Siamese Malaya. A pair was then seen at the upper course of a small creek called Hue Sai. This creek is situated on about Lat. N. 11° 50' and has its source somewhere in the mountains on the boundary between Tenasserim and Siam. At this creek the banks of which were densely covered by evergreen jungles, I observed the birds several times before I succeeded in shooting the female.

Early in the morning the Ducks were flying along the creek uttering a faint quaking sound. They probably did not feed in the river, but retired to some of the numerous small ponds or »Nongs» — as they are called in Siamese — which were plentiful along the river.

At Hat Sanuk, another small creek a little further north than Hue Sai, I also came across two pairs, and here a fine male was shot on the 28th of January 1915.

The plumage of the two specimens in my collection is fairly similar, but the male is distinguished by its much greater size. The female totally lacks the black collar on the breast which, however, is of a deeper chestnut colour than the lower surface.

In the male the brown feathers of the underparts of the body are broadly tipped with chestnut brown which latter colour prevails, and the brown colour is then only visible when the plumage is disarranged; the vent and under tail-coverts are dark olive brown and the blackish collar round the foreneck and breast is well-marked and glossed with metallic green.

280. *Anas poecilorhyncha*. GM. (?) — The Spotted-billed Duck.

During my journey down the Meh Ping river from Chieng Mai to Paknam Po I observed a small party of Ducks on the 8th of October 1914 a few miles south of Keng Soi.

Unfortunately I did not obtain a specimen but they were probably *Anas poecilorhyncha*, GM.

281. *Nettopus coromandelianus*. GM. — The Cotton Teal.

Nettopus coromandelianus: Gyldenstolpe I p. 74; Barton p. 109; Gairdner p. 31; Gairdner p. 153.

♂ Chieng Hai ²/₈ 1914. L = 305 mm.; W = 158 mm.; T = 70 mm.; C = 24 mm. — Irides: crimson. Bill: black. Legs: yellowish brown.

The Cotton Teal was not so common as the Whistling Teal, though it occurred at the same localities. I never observed larger flocks than about 8—10 birds and most often they were met with in couples. This species likes large swamps best of all and especially those where the water is fairly deep and where there are reeds or high grass to conceal in. They dive exceedingly well and generally escape by diving when not mortally wounded.

282. *Dendrocygna javanica*. HORSE. — The Whistling Teal.

Dendrocygna javanica: Gyldenstolpe I p. 73; Williamson I p. 48; Barton p. 109; Gairdner p. 29; Grant p. 115; Bonhote p. 81; Robinson & Kloss p. 21; Robinson I p. 89; Robinson II p. 143; Gairdner p. 153.

♂ Chieng Hai ³/₈ 1914. L = 410 mm.; W = 189 mm.; T = 65 mm.; C = 42 mm. — ♀ Chieng Hai ²/₈ 1914. L = 410 mm.; W = 197 mm.; T = 61 mm.; C = 41 mm. — ♂ Chieng Hai ²/₈ 1914. L = 410 mm.; W = 193 mm.; T = 65 mm.; C = 42 mm. — ♂ Chieng Hai ¹/₈ 1914. L = 390 mm.; W = 188 mm.; T = 62 mm.; C = 41 mm. — Irides: brown. Bill: black. Legs: plumbeous black.

The Whistling Teal was very abundant in some of the larger swamps of Northern and Central Siam. It also occurred in the larger rivers where the current was not too swift.

At these last-mentioned places it was, however, always more rare than in the marshy country. Sometimes I even found them among the high grass on the paddy fields.

283. *Dafila aquata*. LINN. — The Pintail.

The Pintail seems to be rare in Siam. The only specimens I observed, were those kept in confinement by the Laos Prince of Chieng Mai, and which had been obtained at Pra Yao, a small town in Northeastern Siam.

During my travels in different parts of the vast country I never met with a single specimen in wild state.

284. *Querquedula querquedula*. LINN. — The Garganey Teal.

Querquedula querquedula: Gairdner p. 153.

Querquedula circia: Williamson I p. 48.

Seems to be confined to the larger rivers and the inner parts of the Gulf of Siam. Here it, however, only occurred quite close to the shore.

In the inland lakes and swamps it was never met with during my journey.

Fam. Ardeidæ.**285. *Pyrrherodias manillensis*. MEYEN. — The Eastern Purple Heron.**

Ardea manillensis: Gyldenstolpe I p. 72; Gairdner p. 152.

The Eastern Purple Heron was fairly common at the swamps of Northern Siam. Sometimes it even occurred on the paddy-fields together with some other kind of Herons, but it seems mostly to keep to reed-swamps where there is plenty of cover to conceal in. It is rather shy and not easy to obtain.

286. *Ardea cinerea jouyi*. CLARK. — The Common Heron.

Ardea cinerea: Gyldenstolpe I p. 72; Gairdner p. 31; Gairdner p. 152.

♂ Nong Meh Lua $\frac{7}{8}$ 1914. L = 1120 mm.; W = 436 mm.; T = 184 mm.; C = 129 mm. — Irides: yellow. Bill: horn colour (lower mandible dirty yellow). Legs: brown.

A. H. CLARK has (Proc. U. S. Nat. Mus., Vol. 32, 1907, p. 468) separated the eastern race of the common Grey Heron on account of its having decidedly paler wing-coverts, which are almost ashy white. The upper parts of the body are also a little paler, though not considerably so.

During my Expeditions to Siam I only collected two specimens, one during my first journey 1911—1912 and the other one during the last one.

Both these specimens have decidedly paler wing-coverts than European specimens shot at the same time of the year, and it therefore seems as if a separation of an eastern race would hold good.

It probably breeds in Siam and Burma. However, I never succeeded in finding its nest, but one specimen was shot on the 7th of August 1914 and the other one on the 1st of April 1912 and both these dates seems to indicate that it is not merely as a migratory bird as it occurs in certain parts of Siam.

In the Siamese Malaya a few specimens were observed in a mangrove swamp at the neighbourhood of Koh Lak during my stay there from December to February.

287. *Mesophoyx intermedia*. WAGL. — The Smaller Egret.

Herodias intermedia: Gyldenstolpe I p. 72.

This Egret is quite common during the cold season and occurs together with other members of the same family on the large swampy country along the Menam river.

In the Siamese Malaya I also met with it, but down there it was not quite as common as in other parts of the country and only a few specimens were met with on a swampy plain near the coast.

288. *Herodias alba*. LINN. — The Large Egret.

Herodias alba: Gyldenstolpe I p. 72; Robinson I p. 89.

The Large Egret was also found in Northern Siam, though it was by no means as common here as in the parts of Central Siam visited during my former journey to Siam 1911—1912.

289. *Demiegretta sacra*. GM. — The Eastern Reef-Heron.

Demiegretta sacra: Robinson & Kloss p. 15; Robinson II p. 143; Robinson III p. 726.

♀ Koh Lak ²¹/₁₁ 1914. L = 572 mm.; W = 272 mm.; T = 106 mm.; C = 80 mm.; Tarsus = 70 mm. — Irides: yellow. Bill: horny black. Legs: greenish yellow.

A few specimens of the Eastern Reef-Heron were observed along the coast of the Gulf of Siam at the neighbourhood of Koh Lak. I only obtained one female specimen in the grey phase of plumage. Among the specimens observed only one was in white plumage.

The Reef-Heron occurs single or more seldom in small flocks along the sandy shore. It is rather shy and difficult to obtain.

290. *Gorsachius melanolophus*. RAFFL. — The Malay Bittern.

Gorsachius melanolophus: Robinson & Kloss p. 15.

♀ Koh Lak ¹²/₁₂ 1914. L = 482 mm.; W = 252 mm.; T = 90 mm.; C = 45 mm.; Tarsus = 64 mm. — Irides: yellow. Bill: horn colour. Legs: yellowish brown.

A few specimens of this rare Bittern were observed on the top of a solitary limestone hill, situated quite close to the sea-shore a few miles south of Koh Lak in the Siamese Malaya.

The summit and slopes of this hill were clothed with dense evergreen forests and in such a forest the birds were observed on the 12th of December 1914. A fine female was then obtained, but though I made several excursions to this same place again, I always failed to get some more specimens and not a single bird was observed any more.

This species is very shy and retiring and very little is known of its habits. It seems to live on the ground among dense undergrowth, but as soon as it sights any danger it at once moves up in a tree, where it is very difficult to detect on account of the protecting colour of its plumage.

It has a harsh, uncanny note, which I only heard them utter once, when two specimens, probably males, were chasing each other among the trees.

291. *Butorides javanica*. HORSE. — The Little Green Heron.

Butorides javanica: Gyldenstolpe III p. 236; Müller p. 436; Grant p. 116; Robinson & Kloss p. 15.

♂ Chum Poo ⁴/₅ 1914. L = 425 mm.; W = 186 mm.; T = 71 mm.; C = 67 mm.; Tarsus = 47 mm. — Irides: yellow. Bill: black (lower mandible yellowish green). Legs: yellowish brown.

DAVISON states that this species was »extremely common in every stream throughout the province» (Tenasserim) and ROBINSON & KLOSS found it »abundant everywhere on the coast and on the tidal estuaries, wherever there was mangroves» during their Expedition to the Northern parts of the Malay Peninsula.

In Siam it must, however, be very rare and during my whole Expedition I only observed three specimens at the Meh Tha river in Northern Siam. One male in full plumage was shot here on the 4th of May 1914.

It is neither included in WILLIAMSON'S list of the birds of Bangkok, nor does BARTON mention it from Raheng and neighbourhood.

292. *Ardeola grayi*. SYKES. — The Pond Heron.

Ardeola grayi: Williamson I p. 48; Gairdner p. 31; Grant p. 116; Gairdner p. 152.

♂ Koh Lak ²²/₁ 1915. L = 535 mm.; W = 227 mm.; T = 94 mm.; C = 68 mm.; Tarsus = 61 mm. — ♀ Koh Lak ¹/₁₂ 1914. L = 470 mm.; W = 198 mm.; T = 77 mm.; C = 57 mm.; Tarsus = 55 mm. — Irides: yellow. Bill: brownish black with the base of the lower mandible yellowish green. Legs: greenish yellow.

The Pond Heron was very common in a mangrove swamp near Koh Lak in the Siamese Malaya. When I travelled down by rail from Bangkok to Koh Lak several specimens of a Pond Heron were observed on suitable localities along the railway line. These specimens probably all belonged to this species.

In the North of Siam it is replaced by the Chinese Pond Heron to which it is very similar when in winter plumage. However, *Ardeola grayi* SYKES may be distinguished by its smaller size.

The Pond Herons are most often seen on the paddy-fields where their plain colouring help them to escape notice, but when they take to flight their white wings make them a conspicuous object. Their note is very harsh and croaking.

293. *Ardeola bacchus*. BP. — The Chinese Pond Heron.

Ardeola bacchus: Gyldenstolpe I p. 73; Gyldenstolpe II; Gyldenstolpe III p. 236; Robinson & Kloss p. 15; Robinson II p. 143; Robinson III p. 726.

♂ Pak Koh ⁴/₁ 1914. L = 498 mm.; W = 234 mm.; T = 95 mm.; C = 64 mm. — ♂ Pak Koh ²⁰/₃ 1914. L = 495 mm.; W = 204 mm.; T = 83 mm.; C = 61 mm. — ♀ Pak Koh ⁶/₁ 1914. L = 460 mm.; W = 204 mm.; T = 77 mm.; C = 61 mm. — Irides: yellow. Bill: horn colour (base of lower mandible yellowish green). Legs: yellowish green.

The Chinese Pond Heron replaced the last-mentioned species in the Northern parts of the country, and it seems to live more along small creeks than on the paddy-fields or swamps.

A fine male specimen in full breeding plumage was shot at Pak Koh on the 4th of April 1914. The other specimens obtained are in their winter plumage and then very similar to *A. grayi* SYKES, but even in that plumage the Chinese Pond Heron may be distinguished by its slightly larger size.

294. *Bubulcus coromandus*. BODD. — The Cattle Egret.

Bubulcus coromandus: Gyldenstolpe I p. 73; Williamson I p. 48; Robinson & Kloss p. 16; Gairdner p. 31; Müller p. 436; Grant p. 116; Bonhote p. 80; Gairdner p. 152.

Ardea coromanda: Finsch & Conrad p. 358.

♀ Chieng Hai ¹⁵/₈ 1914. L = 490 mm.; W = 246 mm.; T = 90 mm.; C = 56 mm.; Tarsus = 84 mm. — ♀ Kok Lak ²⁸/₁₁ 1914. L = 475 mm.; W = 237 mm.; T = 85 mm.; C = 59 mm.; Tarsus = 81 mm. — Iridis: yellow. Bill: yellow. Legs: black.

Abundant everywhere on suitable localities.

295. *Ardetta sinensis*. GM. — The Yellow Bittern.

Ardetta sinensis: Williamson I p. 48; Müller p. 436; Robinson II p. 143.

♂ Chieng Hai ¹⁵/₈ 1914. L = 333 mm.; W = 134 mm.; T = 47 mm.; C = 52,5 mm. — ♀ Chieng Hai ²/₈ 1914. L = 341 mm.; W = 129 mm.; T = 47 mm.; C = 52,5 mm. — ♂ Koh Lak ¹¹/₁₂ 1914. L = 375 mm.; W = 130 mm.; T = 47 mm.; C = 53 mm. — ♀ Koh Lak ¹/₁₂ 1914. L = 312 mm.; W = 125 mm.; T = 46,5 mm.; C = 51 mm. — Iridis: yellow. Bill: yellowish green (ridge of upper mandible brown). Legs: yellowish green.

On the swampy country around Chieng Hai in Upper Siam this species was not uncommon. It also occurred on the rice-fields where it had good hiding places among the rice.

In the Siamese Malaya some specimens were also obtained in a mangrove swamp just outside the village of Koh Lak. In this part of the country it was, however, rather rare and the two specimens in the collection were the only ones observed.

296. *Ardetta cinnamomea*. GM. — The Chestnut Bittern.

Ardetta cinnamomea: Williamson I p. 48; Müller p. 436; Gyldenstolpe III p. 236; Grant p. 116; Gairdner p. 152.

♀ Chieng Hai ¹/₈ 1914. L = 335 mm.; W = 145 mm.; T = 49 mm.; C = 45 mm. — ♀ Chieng Hai ²/₈ 1914. L = 355 mm.; W = 154 mm.; T = 52 mm.; C = 48 mm. — ♀ Chieng Hai ²/₈ 1914. L = 360 mm.; W = 145 mm.; T = 46 mm.; C = 51 mm. — ♀ Chieng Hai ²/₈ 1914. L = 325 mm.; W = 142 mm.; T = 44 mm.; C = 46 mm. — Iridis: yellow. Bill: yellow (ridge of upper mandible brown). Legs: greenish yellow.

Fairly common on rice-fields or marshy country. It always hides itself among the grass only using its wings when flushed up at close quarters. When resting it is quite motionless and is then very difficult to make out. When flushed up it never flew far away but soon settled again. Its flight is very heavy and rather clumsy.

On the large swamps surrounding the town of Chieng Hai it was very common indeed and occurred together with *Ardetta sinensis* GM.

Fam. Ciconidæ.

297. *Dissoura episcopus neglecta*. FINSCH. — The White-necked Stork.

Dissoura episcopus: Gyldenstolpe I p. 72; Gairdner p. 30; Robinson & Kloss p. 16; Robinson I p. 88; Robinson II p. 142; Gairdner p. 152.

Dissoura episcopus: Müller p. 437; Grant p. 115.

♂ Hat Sanuk ³¹/₁ 1915. W = 496 mm.; T = 218 mm.; C = 155 mm. — Irides: bloody red. Bill: brownish black with red tip. Legs: dark red.

In the »Notes from the Leyden Museum, Vol. 26, p. 154» FINSCH has given a key to the four species or subspecies of the White-necked Stork. He gives the distribution of the typical *Dissoura episcopus* BODD. to India, Burma, Cochin China, Ceylon and Malacca(?).

Its nearest ally is *Dissoura neglecta* FINSCH, from Java, Sumbawa, Lombok, Celebes and the Philippine Islands. This species or rather subspecies is characterized by having the sides of the head and a line down the neck from the ear-opening naked, while in the typical *Dissoura episcopus* only the sides of the head are naked.

During my stay at Hat Sanuk, a small creek running down from the Tenasserim mountains on about Lat. No. 11° 50', I succeeded in shooting a fine male specimen of the White-necked Stork. This specimen has a very pronounced area from the ear-opening down the sides of the neck quite naked and on account of this it ought to be referred to *Dissoura episcopus neglecta* FINSCH, which certainly only is a geographical race of *D. episcopus*.

These Storks are very shy, and although I made several efforts to get some more specimens I never succeeded. However, near Koh Lak they were not rare and I often saw some specimens on a swampy plain near the sea-shore. They also seem to be found at the small swampy pools so common in the evergreen forests along the Tenasserim boundary. The specimen I obtained was shot in an almost dry creek.

298. *Xenorhynchus asiaticus*. LATH. — The Black-necked Stork.

Xenorhynchus asiaticus: Gairdner p. 30; Gairdner p. 152.

This large Stork seems to be rare in Siam, and during my journey I only observed a few specimens on the swampy country outside Chieng Sen, the most northern town in Siam. On account of its shyness and its habit of keeping to almost inaccessible swamps it is very difficult to obtain, and I never succeeded in shooting a specimen though I made several efforts to get one of these beautiful birds.

299. *Leptoptilus dubius*. GM. — The Large Adjutant.

Leptoptilus dubius: Gyldenstolpe I p. 72; Gairdner p. 30; Robinson & Kloss p. 16; Gairdner p. 152.
Leptoptilus argala: Schomburgk p. 267.

♂ Chieng Sen ¹⁰/₈ 1914. L = 1310 mm.; W = 750 mm.; C = 285 mm. — Irides: grey. Bill: dirty brown. Legs: black.

The Large Adjutant was fairly common at suitable localities over the whole country. It is, however, more common in the north and as far south as at about Lat. N. 12° not a single specimen was observed.

They probably breed in Siam too, and on the 11th of October 1914 when going down the Meh Ping river I saw two specimens in the act of pairing. The female was sitting

at the top of a large tree while the male was making court to her. It was almost dancing round the female with outstretched wings, now and then making a short flight around the tree. The whole time it was producing a grunting noise, now and then even making some snapping sounds with its huge bill. Then suddenly the male — still with outstretched wings — went up on the back of the female and the act was finished.

300. *Leptoptilus javanicus*. HORSE. — The Smaller Adjutant.

Leptoptilus javanicus: Robinson & Kloss p. 16 (partim.).

♀ Koh Lak ²⁴/₁₁ 1914. L = 1250 mm. — Irides: whitish grey. Legs: black.

The Smaller Adjutant inhabits more southern Districts than the Large Adjutant, nor does it feed on carrion as its large relative does.

During my journey I only got a female specimen shot at the neighbourhood of Koh Lak in the Siamese Malaya. At this same place a few more specimens were observed, but as they are very shy they are rather difficult to get.

They are most often to be found on small open places among the mangrove vegetation, a region which is almost impenetrable. Their food chiefly consists of frogs, reptiles and fishes.

A few specimens were also observed in the swampy country along the railway line south of the town of Ratburi, always in company with specimens of *Leptoptilus dubius* GM.

Fam. Gruidæ.

301. *Antigone sharpei*. BLANF. — The Burmese Sarus.

Grus sharpei: Gyldenstolpe I p. 68; Gairdner p. 152.

Grus antigone: Gairdner p. 30.

The Burmese Sarus is generally distributed over the whole country, though nowhere abundant.

When I was camping together with the late Mr. T. B. CHATTERIS at the neighbourhood of Muang Fang in Northwestern Siam a native brought a light-set egg of the »Nok kien», which is the native name of the Sarus. The man had found the nest at the vicinity of our camping place. It contained a single egg which was of a bluish white colour without any spots at all. The nest constituted a large structure of about half a metre in diameter and was made of grass and vegetable matter. It is generally placed on a tuft and about 30 cm. from the ground. The native told me a rather curious story about the behaviour of the Sarus during the breeding season which I count in full. »The huge, massive nest is always placed on a fairly open place and the female does not sit on her eggs the whole day long. She is very coquettish and must every morning and evening correct and clean her plumage. In the morning she then is always standing on the western side of her nest so that the hot rays of the sun may keep her eggs warm. In the afternoon,

however, she always stands on the eastern side in order that the sun may still keep her eggs at a right temperature.»

Outside Siam the Burmese Sarus has been found in Burma, Cochin China and the Malay Peninsula.

Fam. Glareolidæ.

302. *Glareola maldivarum*. FORST. — The Large Indian Pratincole.

Glareola orientalis: Williamson I p. 48; Finsch & Conrad p. 357.

♂ Koh Lak $\frac{1}{12}$ 1914. L = 230 mm.; W = 195 mm.; T = 108 mm.; Tarsus = 31 mm. — ♀ Koh Lak $\frac{1}{12}$ 1914. L = 210 mm.; W = 187 mm.; T = 87 mm.; Tarsus = 31 mm. — Irides: blackish brown. Bill: dark brown. Legs: brownish black.

Small flocks of the Large Indian Pratincole were observed at different occasions just outside Bangkok. From this place it has also been recorded by WILLIAMSON. Then I observed two specimens on a sandy plain near Koh Lak on the 1st of December 1914. Both these birds were obtained and these two records are the only ones I can give about the occurrence of this bird in Siam.

Fam. Parridæ.

303. *Metopidius indicus*. LATH. — The Bronze-winged Jacana.

Metopidius indicus: Gyldenstolpe I p. 68; Barton p. 109; Gairdner p. 31; Gairdner p. 152.

♂ Chieng Hai $\frac{1}{8}$ 1914. L = 260 mm.; W = 150 mm.; T = 46 mm.; Bill from gape = 34 mm.; Tarsus = 60 mm. — Irides: brown. Bill: yellow. Legs: plumbeous grey.

The Bronze-winged Jacana was exceedingly common in the swamps of Central Siam. It also occurred in the same kind of localities in the northern parts of the country though in limited numbers.

A nest containing 5 fresh eggs was found in Nong Meh Lua on the 7th of August 1914. The nest consisted of a fairly large structure made of grass and weeds and the eggs were of a creamy white colour with reddish brown blotches and spots and were measuring:

$$\frac{40,4 \times 41,0 \times 42,5 \times 41,3 \times 41,8 \text{ mm.}}{30,2 \times 30,7 \times 30,4 \times 30,9 \times 30,8 \text{ mm.}}$$

Fam. Charadriidæ.

304. *Sarcogrammus indica atrinuchalis*. JERD. — The Burmese Wattled Lapwing.

Sarcogrammus atrinuchalis: Gyldenstolpe I p. 68; Gyldenstolpe II; Gyldenstolpe III p. 235; Gairdner p. 152; Barton p. 109; Williamson I p. 48; Robinson & Kloss p. 11; Robinson I p. 88; Robinson II p. 142.

Lobivanellus atrinuchalis: Müller p. 434.

Sarcogrammus indica atrinuchalis: Robinson III p. 725.

1 ad. Koon Tan, May 1914. W = 216 mm.; T = 116 mm.; C = 29 mm. — ♀ Koh Lak ^{27/11} 1914. L = 287 mm.; W = 202 mm.; T = 110 mm.; C = 31 mm.; Tarsus = 69 mm. — Irides: brown. Bill: black with the base red. Legs: pale yellow.

Rather common on suitable localities over the whole country. It frequents open, sandy plains or open spaces among thin tree-jungle where it runs about either in pairs or in small flocks. The birds make their presence known by uttering their characteristic notes. When disturbed it never takes to long flights and very soon settles again.

305. *Hoplopterus ventralis*. WAGL. — The Indian Spur-winged Plover.

Hoplopterus ventralis: Gyldenstolpe I p. 69; Gyldenstolpe II; Gyldenstolpe III p. 235; Robinson & Kloss p. 11; Gairdner p. 152.

1 ad. Koon Tan 1914. W = 198 mm.; T = 101 mm.; C = 28 mm.; Tarsus = 59 mm.

Very common along the course of the Meh Ping river. It also occurred along some of the smaller rivers of Northern Siam and was generally seen in pairs. Sometimes two or three pairs were seen together resting on the floating logs or on stones in the river bed. When flying it utters a whistling note which rather resembles that of the Burmese Lapwing (*Sarcogrammus indica atrinuchalis* JERD.).

306. *Squatarola squatarola*. LINN. — The Grey Plover.

The Grey Plover is a very rare winter visitor to the coasts of Siam and the Malay Peninsula. During my stay at Koh Lak I once observed a single specimen which was resting on the sandy beach just outside the village.

307. *Charadrius dominicus fulvus*. GM. — The Eastern Golden Plover.

Charadrius fulvus: Williamson I p. 48; Gairdner p. 152.

Charadrius dominicus: Grant p. 118; Bonhote p. 79.

A winter visitor to Siam but apparently not very common. During my stay at Koh Lak I at different occasions observed small parties of this bird on a marshy plain just outside the village but the birds were very shy and difficult to get into range.

308. *Ochthodromus geoffroyi*. WAGL. — The Large Sand Plover.

Ochthodromus geoffroyi: Robinson & Kloss p. 12.

Cirrepidesmus geoffroyi: Müller p. 435.

♀ Koh Lak ^{29/11} 1914. L = 194 mm.; W = 135 mm.; T = 55 mm.; C = 23 mm. — ♀ Koh Lak ^{29/11} 1914. L = 180 mm.; W = 137 mm.; T = 52 mm.; C = 20 mm. — ♀ Koh Lak ^{29/11} 1914. L = 190 mm.; W = 138 mm.; T = 58 mm.; C = 22 mm. — ♀ Koh Lak ^{29/11} 1914. L = 185 mm.; W = 136 mm.; T = 60 mm.; C = 23 mm. — Irides: brown. Bill: black. Legs: greyish yellow.

The Large Sand Plover seems to be a somewhat rare winter visitor to the coasts of Siam and I only found it in small parties along the western coasts of the Gulf of Siam.

It was generally mixed up among the flocks of *O. mongolus* PALL. and *Aegialites alexandrina* LINN.

The specimens obtained were all shot on a sandy beach, and all are in their winter plumage.

309. *Ochthodromus mongolus*. PALL. — The Lesser Sand Plover.

Aegialites mongolica: Gyldenstolpe I p. 69.

Aegialites mongolicus: Grant p. 118.

♀ Koh Lak ²⁹/₁₁ 1914. L = 180 mm.; W = 136 mm.; T = 53 mm.; C = 20 mm.; Tarsus = 30 mm. — Irides: brown. Bill: black. Legs: greyish yellow.

The Lesser Sand Plover is a winter visitor to the coasts of Siam, but seems to be rather rare and only a few specimens, probably belonging to this species, were observed. The only one I obtained was shot on a sandy beach south of Koh Lak on the 29th of November 1914.

The allied form *O. pyrrhothorax* GOULD. is very similar to *O. mongolus* PALL. in its winter plumage, being only separated by its slightly longer tarsus. It probably occurs in Siam too.

310. *Aegialites dubia*. SCOP. — The Little Ringed Plover.

Aegialites dubia: Williamson I p. 48; Gyldenstolpe II; Gyldenstolpe III p. 235; Grant p. 118; Gairdner p. 152.

♂ Koon Tan ²⁸/₄ 1914. L = 152 mm.; W = 104 mm.; T = 55 mm.; C = 13 mm. — ♂ Koon Tan ³⁰/₄ 1914. L = 145 mm.; W = 102 mm.; T = 58 mm.; C = 12 mm. — Irides: brown. Bill: black (base of lower mandible yellow). Legs: light brown.

I never found this Plover mixed up among the other kind of Sand Plovers which occurred in large numbers along the coasts of the Gulf of Siam.

In the Northern parts of the country it was, however, not uncommon during the winter months. It was found on the sandbars in the larger rivers and creeks. My specimens were both obtained at the Meh Tha river where it passes through the Koon Tan mountains.

311. *Aegialites peroni*. BP. — The Malay Sand Plover.

♂ Koh Lak ¹⁸/₁₂ 1914. L = 143 mm.; W = 90 mm.; T = 43 mm.; C = 16 mm. — ♀ Koh Lak ¹⁸/₁₂ 1914. L = 145 mm.; W = 99 mm.; T = 43 mm.; C = 16 mm. — ♀ Koh Lak ¹²/₁₂ 1914. L = 150 mm.; W = 96 mm.; T = 45 mm.; C = 15 mm. — Irides: brownish black. Bill: black. Legs: greyish white.

Three specimens of this rare bird which inhabits the Indo Malayan Archipelago where obtained south of Koh Lak in December 1914.

They occurred either single or in pairs and were never mixed up among the flocks of the other kind of wading-birds such as *A. alexandrina* LINN. or *Ochthodromus geoffroyi* WAGL. which were rather common on the sandy beaches south of Koh Lak.

As far as I know this is the first record of this bird from Siamese Territory and it has never been recorded from the Malay Peninsula nor from Burma or Tenasserim.

312. *Aegialites alexandrina*. LINN. — The Kentish Plover.

Aegialites alexandrina: Robinson II p. 142.

♀ Koh Lak ^{21/11} 1914. L = 153 mm.; W = 111 mm.; T = 53 mm.; C = 15 mm. — ♀ Koh Lak ^{29/11} 1914. L = 162 mm.; W = 109 mm.; T = 54 mm.; C = 16 mm. — ♀ Koh Lak ^{29/11} 1914. L = 160 mm.; W = 111 mm.; T = 49 mm.; C = 16 mm. — ♀ Koh Lak ^{29/11} 1914. L = 154 mm.; W = 108 mm.; T = 50 mm.; C = 16 mm. — Irides: brown. Bill: black. Legs: plumbeous.

A very common winter visitor to Siam. It generally occurs on the sandy shores, on the mud flats or on the estuaries along the coast of the Gulf of Siam and was mixed up among the flocks of the other kind of Sand Plovers having their winter quarters in this part of the world.

313. *Himantopus himantopus*. LINN. — The Black-winged Stilt.

Small flocks of the Black-winged Stilt were observed on the swampy country south of the town of Ratburi, when I was going down by rail to Koh Lak at the beginning of January 1915.

Winter visitor only, and as far as I know, it has not been recorded from Siam before. Even in the Malay Peninsula it is very rare and ROBINSON only records a single specimen in his valuable »Handlist of the Birds of the Malay Peninsula» (1910).

314. *Numenius arquata*. LINN. — The Curlew.

Numenius arquata: Robinson & Kloss p. 12.

The Curlew does not seem to be very common in Siam, where only a few specimens were met with during my stay in the Siamese Malaya from November 1914 to February 1915.

315. *Totanus calidris*. LINN. — The Redshank.

Totanus totanus: Gyldenstolpe I p. 70.

Totanus calidris: Barton p. 109; Robinson & Kloss p. 12; Robinson III p. 725.

A common winter visitor to the swamps of Central and Lower Siam. It also occurred in great numbers on the mud flats along the shores of the Gulf of Siam associated with the other kind of wading-birds wintering in this part of the world.

316. *Totanus ochropus*. LINN. — The Green Sandpiper.

Totanus ochropus: Gyldenstolpe I p. 69; Gyldenstolpe II; Gyldenstolpe III p. 236; Williamson I p. 48; Barton p. 109.

The Green Sandpiper is a common winter visitor to every part of Siam. It, however, always occurs single or in parties of two or three birds, never in large flocks. It is found almost in every part of the country where there are marshes and pools and it even occurs on the paddy-fields.

317. *Tringoides hypoleucos*. LINN. — The Common Sandpiper.

Tringoides hypoleucos: Gyldenstolpe I p. 69; Robinson III p. 725; Gyldenstolpe II; Gyldenstolpe III p. 236; Robinson & Kloss p. 13; Müller p. 435.

Totanus hypoleucos: Williamson I p. 48.

Actitis hypoleuca: Gould p. 151; Schomburgk p. 261.

Exceedingly common during the winter months and found both along the coast and along the inland rivers and creeks.

318. *Glottis nebularius*. GUNN. — The Greenshank.

Glottis nebularius: Gyldenstolpe I p. 70; Robinson III p. 726; Robinson & Kloss p. 13.

Glottis canescens: Gould p. 151.

♂ Koh Lak ¹³/₁₂ 1914. L = 355 mm.; W = 182 mm.; T = 84 mm.; C = 56 mm.; Tarsus = 50 mm. — Irides: black. Bill: plumbeous. Legs: greyish yellow.

The Greenshank is only a winter visitor to Siam and not very common. In Northern Siam it was never met with, but southwest of Bangkok, where large swamps occur, and along the coast of the Gulf of Siam it was fairly abundant and generally seen in pairs or small flocks. It is rather shy but easy to obtain when one imitates its characteristic note. Then it comes at once even from a far distance.

319. *Rhyacophilus glareola*. GM. — The Wood Sandpiper.

Rhyacophilus glareola: Gould p. 151; Robinson & Kloss p. 13.

Rhyacophilus glareolus: Müller p. 435.

Totanus glareola: Gyldenstolpe I p. 69; Gyldenstolpe III p. 236; Williamson I p. 48.

♀ Koh Lak ³/₁₂ 1914. L = 212 mm.; W = 123 mm.; T = 53 mm.; C = 32 mm. — ♂ Koh Lak ³/₁₂ 1914. L = 198 mm.; W = 116 mm.; T = 55 mm.; C = 30 mm. — ♂ Koh Lak ²/₁₂ 1914. L = 193 mm.; W = 120 mm.; T = 54 mm.; C = 29 mm. — ♀ Koh Lak ¹⁴/₁₂ 1914. L = 203 mm.; W = 129 mm.; T = 58 mm.; C = 29 mm. — Irides: brown. Bill: blackish green. Legs: greenish grey.

Very common during the cold season on suitable localities over the whole country. Unlike *Totanus ochropus* LINN., which I also observed in Siam the Wood Sandpiper was generally seen in flocks on the marshes or swamps, sometimes even occurring on the paddy-fields.

320. *Limonites damacensis*. HORSEF. — The Long-toed Stint.

♀ Sop Tue ²³/₄ 1914. L = 150 mm.; W = 102 mm.; T = 51 mm.; C = 18 mm.; Tarsus = 17,5 mm.; Middle toe and claw = 20,2 mm. — Irides: brown. Bill: black. Legs: yellowish brown.

A single female specimen of this species was shot on a sandbar in the Meh Wong river near Sop Tue.

From Bangkok it has lately been recorded by WILLIAMSON (Journ. Nat. Hist. Soc. Siam., Vol. I, part 3, p. 199 1915) and during the cold season it is probably fairly common

among the wading-birds, which have their winter quarters in Siam and neighbouring countries.

In its winter plumage it is very similar to both *L. temmincki* LEISL. and *L. minuta* LEISL. but may be recognized by the great length of its toes. It breeds in Eastern Siberia and on the islands of the Bering Sea.

As far as I am aware it has not been recorded further eastwards and it probably does not extend to the French Indo China.

321. *Gallinago stenura*. KUHL. — The Pintail Snipe.

Gallinago stenura: Gyldenstolpe I p. 70; Gyldenstolpe II; Gyldenstolpe III p. 236; Williamson I p. 48; Barton p. 109; Robinson & Kloss p. 14; Grant p. 117; Gairdner p. 152.

The Pintail and the Fantail are both very common during the cold season. They occur on the paddy-fields and on marshy country, where they form an excellent sport. The Pintail is, however, the most common of the two.

This species probably also breeds in Siam, but the greatest number are certainly migratory birds.

322. *Gallinago gallinago*. LINN. — The Fantail Snipe.

Gallinago gallinago: Gyldenstolpe I p. 70; Gyldenstolpe II; Gyldenstolpe III p. 236.
Gallinago coelestis: Williamson I p. 48; Barton p. 109; Gairdner p. 152.

The Fantail is fairly common on suitable localities during the cold season, but it is by no means as common as the preceding species.

323. *Rostratula capensis*. LINN. — The Painted Snipe.

Rostratula capensis: Williamson I p. 48; Barton p. 109; Gyldenstolpe III p. 236.

♂ Koon Tan ¹²/₅ 1914. L = 249 mm.; W = 127 mm.; T = 44 mm.; C = 48 mm. — ♂ Koon Tan 1914. W = 127 mm.; T = 46 mm.; C = 46 mm. — Irides: blue. Bill: brown. Legs: yellowish green.

The Painted Snipe is generally distributed throughout the whole country, though it was never abundant in the parts of Siam visited by the Expedition. It was most often met with on the rice-fields where it concealed among the rice and was then rather difficult to flush up.

It also breeds in Siam according to HERBERT, who found two nests near Bangkok (vide. Journ. Nat. Hist. Soc. of Siam, Vol. I, No. 1, p. 54, 1914).

Fam. Lariidæ.

324. *Hydrochelidon hybrida*. PALL. — The Wiskered Tern.

Hydrochelidon hybrida: Gyldenstolpe I p. 70; Williamson I p. 48.

♂ Koh Lak ¹⁷/₁₂ 1914. L = 245 mm.; W = 220 mm.; T = 96 mm.; C = 30 mm.; Tarsus = 16 mm. — Irides: brown. Bill: black. Legs: brownish red.

The Wiskered Tern is common in the inner parts of the Gulf of Siam and at the mouth of the Menam Chao Phaya river.

At Koh Lak a single male specimen was obtained at an estuary on the 17th of December 1914. Along the coast of the Siamese Malaya I never observed it during my excursions.

325. *Sterna seena*. SYKES. — The Indian River Tern.

♂ Koh Lak ²/₁₂ 1914. L = 380 mm.; W = 260 mm.; T = 178 mm.; C = 37,5 mm. — Irides: blackish brown. Bill: orange yellow with black tip. Legs: brick red.

A single male specimen of the Indian River Tern was obtained at Koh Lak on the 2nd of December 1914. The specimen is in winter plumage and was shot at a small estuary near the coast.

When going down the Meh Ping river I once observed 3 specimens of a Tern but they were impossible to get into range and therefore I am unable to ascertain what species they belonged to. They, however, looked rather small for being *Sterna seena* SYKES and probably belonged to another species (*Sterna melanogastra* TEMM.?)

326. *Larus brunneicephalus*. JERD. — The Brown-headed Gull.

Larus brunneicephalus: Gyldenstolpe I p. 70.

A fairly common species in the inner Gulf of Siam during the cold season.

Fam. Rallidæ.

327. *Amaurornis phænicura chinensis*. BODD. — The Chinese White-breasted Water-hen.

Amaurornis phænicurus: Gyldenstolpe I p. 68; Gyldenstolpe II; Williamson I p. 48; Barton p. 108; Gairdner p. 152.

Amaurornis phænicura: Robinson & Kloss p. 11; Grant p. 120.

Gallinula phænicura: Gould p. 151.

Porzana phænicura: Schomburgk p. 261.

Erythra phænicura: Müller p. 438.

Amaurornis phænicura chinensis: Robinson II p. 141; Robinson III p. 725; Gyldenstolpe III p. 235.

♂ Hat Sanuk ²⁵/₂ 1915. L = 311 mm.; W = 164 mm.; T = 79 mm.; C = 38 mm.; Tarsus = 52 mm. — Irides: crimson. Bill: greenish yellow. Frontal shield: plumbeous. Legs: brown.

The White-breasted Water-hen found in Siam belongs to the same race which was described by BODDAERT from Hongkong. As to the colouration it is rather similar to *A. p. phænicura* FORST. from Ceylon but is distinguished by its larger size and by having the upper parts of the body more olivaceous.

I did not find this species very common in the parts of Siam visited by the Expedition, though it occurred in the Northern Provinces as well as in the Siamese Malaya.

In this latter locality they were perhaps more common than up in the North. They most often frequented small pools and swamps situated in well-wooded districts, but were also observed in thick shrub-jungles rather far away from water. It runs very quick and at the slightest sign of danger it at once disappears into the impenetrable shrub.

328. *Porphyrio poliocephalus*. LATH. — The Purple Moorhen.

Porphyrio poliocephalus: Gyldenstolpe I p. 68; Gairdner p. 31; Gairdner p. 152.

Porphyrio caelestis: Finsch & Conrad p. 359.

♂ Chieng Hai $\frac{1}{8}$ 1914. L = 410 mm.; W = 246 mm.; T = 106 mm.; B = 36 mm.; Tarsus = 87 mm. — Irides: carmine. Bill: reddish yellow. Legs: pale pink.

At the great swamps of Central Siam this species was not rare though shy and difficult to obtain. At a swamp outside Chieng Hai a few specimens were also observed and one fine male was shot.

A near ally *P. calvus edwardsi* ELLIOT has also been found in Siam (vide: Ibis 1864 under the name of *P. smaragdinotis*).

Fam. Peristeriæ.

329. *Streptopelia turtur meena*. SYKES. — The Indian Rufous Turtle-Dove.

Streptopelia turtur meena: Gyldenstolpe III p. 235.

My Dyak collector shot a single specimen of the Indian Rufous Turtle-Dove at the neighbourhood of Koon Tan, but the specimen got too badly damaged to be preserved.

It is apparently very scarce in Siam and besides my own specimen I only know about another one which also was shot at Koon Tan by Mr. EISENHOFER's native collector.

330. *Streptopelia suratensis tigrina*. TEMM. — The Burmese Spotted Dove.

Turtur tigrinus: Gyldenstolpe I p. 66; Gyldenstolpe II; Williamson I p. 47; Gairdner p. 31; Gairdner p. 151; Müller p. 431; Robinson & Kloss p. 675; Grant p. 121; Bonhote p. 77; Robinson I p. 88; Robinson II p. 142.

Turtur suratensis: Gould p. 151; Schomburgk p. 252.

Streptopelia suratensis tigrina: Robinson III p. 724; Gyldenstolpe III p. 235.

♂ Ban Meh Na $\frac{24}{6}$ 1914. L = 288 mm.; W = 142 mm.; T = 157 mm.; C = 16 mm. — ♂ Chum Poo $\frac{2}{5}$ 1914. L = 320 mm.; W = 148 mm.; T = 158 mm.; C = 16,5 mm. — ♂ Doi Par Sakeng $\frac{11}{7}$ 1914. L = 286 mm.; W = 151 mm.; T = 158 mm.; C = 17 mm. — ♀ Koon Tan $\frac{6}{6}$ 1914. L = 295 mm.; W = 146 mm.; T = 150 mm.; C = 17 mm. — Irides: yellowish brown. Bill: black. Legs: purple.

Very common in every part of Siam where there is open or cultivated land. It never occurs in dense evergreen forests, where there is much undergrowth but is generally seen in clearings. It keeps on the ground searching for food on the rice-fields, only moving up in a tree when it is resting or has been disturbed in some way.

In some parts of the country it was very shy, in other it was quite tame. Generally seen in pairs or small flocks but sometimes they could be seen in great numbers feeding on the rice-fields.

This species inhabits Assam, Manipur, Burma, Yunnan, Siam, Cochin China, the Malay Peninsula and Sumatra.

331. *Oenopopelia tranquebarica humilis*. TEMM. — The Burmese Red Turtle-Dove.

Oenopopelia tranquebarica humilis: Gyldenstolpe III p. 235.

Oenopopelia tranquebarica: Williamson I p. 47; Gairdner p. 31; Gairdner p. 151.

Oenopopelia humilis: Gyldenstolpe II.

Turtur humilis: Gould p. 151.

♂ Koon Tan, May 1914. W = 142 mm.; T = 96 mm.; C = 13,5 mm. — ♀ Sop Tue ²²/₄ 1914. L = 225 mm.; W = 132 mm.; T = 91 mm.; C = 13,5 mm. — ♀ Koh Lak ²²/₁ 1915. L = 212 mm.; W = 132 mm.; T = 87 mm.; C = 13,5 mm. — ♀ Koh Lak ²⁴/₁ 1915. L = 240 mm.; W = 135 mm.; T = 97 mm.; C = 14 mm. — Irides: brownish black. Bill: black. Legs: blackish brown.

The Burmese Red Turtle-Dove was very common indeed in the Siamese Malaya, where it occurred in large flocks in company with the Burmese Spotted Dove (*Streptopelia suratensis tigrina* TEMM.). I never found it in dense forests but in every thin tree- or bamboo-jungle it was very common though always at the vicinity of cultivated land.

In the northern parts of the country I also observed them but here they were less common though occurring in the same kind of country as in the southern Districts.

332. *Geopelia striata*. LINN. — The Barred Ground-Dove.

Geopelia striata: Williamson I p. 47; Müller p. 431; Grant p. 121.

♀ Bangkok ¹⁴/₂ 1914. W = 94 mm.; T = 101 mm.; C = 13 mm.

The Barred Ground-Dove seems to be very rare in Siam, where it is also very locally distributed.

During my former Expedition I never met with a single specimen, but during my last journey I observed a few birds in a large fig-tree in one of the gardens in Bangkok. Neither in Northern Siam nor in the Siamese Malaya did I meet with this tiny little bird during my travellings though I kept a careful lookout for it. In size as well as in the colour of its plumage it is absolutely identical with specimens from Java.

It is a common cage-bird among the natives in Bangkok.

333. *Chalcophaps indica*. LINN. — The Bronze-winged Dove.

Chalcophaps indica: Gyldenstolpe I p. 66; Gyldenstolpe II; Gyldenstolpe III p. 234; Grant p. 120; Bonhote p. 77; Robinson & Kloss p. 675; Robinson I p. 88; Robinson II p. 141; Gairdner p. 151; Robinson III p. 724.

♂ Pak Koh ²⁴/₃ 1914. L = 250 mm.; W = 150 mm.; T = 106 mm.; C = 16 mm. — ♀ Pak Koh ²⁴/₃ 1914. L = 238 mm.; W = 141 mm.; T = 98 mm.; C = 15 mm. — ♂ juv. Koon Tan ²³/₅ 1914. L = 225 mm.; W = 134 mm.; T = 82 mm. — Irides: brown. Bill: brick-red (black in young birds). Legs: pink.

The Bronze-winged Dove is generally distributed throughout the well-wooded parts of Siam and it was quite as common in the Siamese Malaya as in the Northern Districts. It generally lives on the ground among the thick undergrowth and when flushed up it never takes long flights but soon pitches again on some of the lower branches of a tree. It likes the environs of small forest streams best of all, and is generally flushed up from the banks of the rivers. When flying it has an incredible speed and is rather difficult to shoot among the tangle of vegetation.

During my stay among the mountains on the Tenasserim boundary I several times was sitting over salt-licks in order to shoot some big game and in the afternoon just before dusk numbers of these beautiful Doves came down to drink.

Fam. Columbidae.

334. *Alsocomus puniceus*. TICK. — The Purple Wood-Pigeon.

Alsocomus puniceus: Gairdner p. 39; Gairdner p. 151.

Columba punicea: Robinson & Kloss p. 674.

♂ Hue Sai ¹⁴/₁ 1915. L = 350 mm.; W = 207 mm.; T = 140 mm.; C = 17 mm. — Irides: reddish yellow. Bill: yellowish white. Legs: pink.

The Purple Wood-Pigeon was extremely rare in the parts of the country visited by the Expedition. I only met with it once in the dense evergreen forests which cover the mountain chain dividing Siam and Tenasserim.

In the Northern hill forests with a similar kind of vegetation I never observed it. Besides this record there are only a few more records about the occurrence of this species in Siam.

Outside Siamese Territory it has been found in Eastern Bengal, Assam, Burma, Cochin China and the Malay Peninsula but it seems to be rather rare everywhere. It generally goes about single, in pairs or in small flocks of about 4—6 individuals.

335. *Macropygia tusalia*. HODGS. — The Bar-tailed Cuckoo-Dove.

♂ Koon Tan ¹⁶/₅ 1914. L = 318 mm.; W = 175 mm.; C = 16 mm. — Irides: whitish pink. Bill: horn colour. Legs: purple.

During the whole journey only three specimens of this beautiful Dove were observed at Koon Tan on the 16th of May 1914 and one fine male was procured. This specimen turned out to be the typical *M. t. tusalia* BLYTH. and not the smaller southern race which has been named *M. t. leptogrammica* TEMM. This latter form inhabits the Malay Peninsula, Java and Sumatra and may possibly occur in the southern parts of the Siamese Malaya.

Fam. Treronidae.

336. *Sphenocercus apicauda*. HODGS. — The Pin-tailed Green Pigeon.

♂ Koon Tan ²²/₅ 1914. L = 283 mm.; W = 157 mm.; C = 20 mm. — ♀ Bang Hue Pong ²⁷/₅ 1914. L = 285 mm.; W = 152 mm.; T = 111 mm.; C = 20 mm. — ♀ Koon Tan ⁴/₆ 1914. L = 255 mm.; W = 145 mm.; T = 107 mm.; C = 21 mm. — Irides: whitish red. Bill: green. Legs: pink. Orbital skin: pale blue.

Fairly rare and only three specimens (1 ♂, 2 ♀♀) were obtained at Koon Tan and its surroundings. The birds were generally met with in couples or small parties affecting the higher trees where they concealed themselves among the leaves making it very difficult to detect them. Suddenly and quite unexpected they disappeared, seldom giving even a chance for a shot.

337. *Sphenocercus pseudo-crocopus*. GYLDENSTOLPE.¹

Plate 3. Fig. 1.

♀ Bang Hue Pong ²⁶/₅ 1914. L = 253 mm.; W = 167 mm.; T = 94 mm.; C = 18 mm.; Tarsus = 23 mm. — Irides: reddish grey. Bill: grey. Legs: yellow.

During my stay at Bang Hue Pong in Northern Siam I obtained one specimen of this fine species which has turned out to be new.

Description: Adult female.

Forehead, lores, chin, cheeks and upper throat greyish, slightly washed with pale green; top of the head, occiput and ear-coverts bluish grey, the latter somewhat paler; breast »bistre green (Dauthenay, Répertoire de couleurs p. 296: 2); round the lower nape and extending to the upper back a collar of brownish olive, in certain lights shaded with vinaceous purple; this collar is followed by a band of »plumbago blue« (Dauthenay p. 207: 4); rest of back, scapulars, smaller wing-coverts and tertiaries nearest »reseda« (Dauthenay p. 294) but with a slight shade of purple, lower back and rump somewhat darker and washed with bluish grey; upper tail-coverts bluish grey, some feathers tinged with greenish yellow; lower breast, sides of the abdomen and flanks »succory blue« (Dauthenay p. 206: 1); thighs dark yellowish grey, edged with creamy white and sometimes with a subterminal black spot; tarsal feathers and middle of abdomen bright lemon yellow; under tail-coverts smoky brown tipped with pale chestnut; smaller upper wing-coverts olive grey with a tinge of vinaceous purple; greater wing-coverts tipped with yellowish white and with a subterminal brownish black bar, the yellowish white colour forming a distinct wing bar; quills dusky brown with narrow yellowish white edges; outer secondaries like the primaries but faintly tipped with ashy grey; innermost secondaries entirely ashy grey with an olive tint; axillaries and under surface of wing bluish grey; tail above yellowish green, tipped with dark brown; tail below black with a grey apical band.

In colouration this fine Pigeon utterly resembles *Crocopus phaenicopterus viridifrons* BLYTH. though it is much paler especially on the forehead and the throat. It, however, can not belong to the Genus *Crocopus* because there is no sinuation whatever on the inner web of the third quill. The tail consists of 14 feathers and the outer pair is not acuminate though it is not as broad as those of *C. p. viridifrons* BLYTH. with which I first mistook it. The greenish yellow colouration of the tailfeathers extends further down as in that species, and it is not sharply defined from the dark brown tip.

Like *Sphenocercus korthalsi* TEMM. it has the middle of the abdomen pure yellow. It differs, however, from that species among other particulars in *not* having the third and fourth primary sinuated about the middle of the inner web.

¹ Ornith. Monatsber. 1916. No. 2, p. 29.

Sphenocercus pseudo-crocopus is an easily distinguished species and the only known species, with which it may be mistaken, is *Crocopus phaenicopterus viridifrons*, because of its similar colouration.

Unfortunately I did not take any records of the colour of the soft part of the bill and of the naked skin round the eye, but most probably these parts had the colour which has been painted by the artist (vide plate 3, fig. 1).

338. *Crocopus phaenicopterus viridifrons*. BLYTH. — The Burmese Green Pigeon.

Crocopus phaenicopterus viridifrons: Gyldenstolpe III p. 234.

Crocopus viridifrons: Gyldenstolpe I p. 65; Gyldenstolpe II.

Crocopus phaenicopterus: Barton p. 107.

Treron phaenicoptera: Schomburgk p. 249.

♀ Meh Lua ⁸/₈ 1914. L = 316 mm.; W = 179 mm.; T = 109 mm.; C = 17 mm. — Irides: reddish yellow. Bill: whitish grey. Legs: yellow.

The Burmese Green Pigeon was sparsely distributed throughout the Northern Portions of the country, but it was never met with in real dense forests nor at any considerable altitude. It probably never ascends the higher hills, keeping exclusively to the plains. It occurs either single or in small flocks but never as some of the other kind of Green Pigeons in large flocks or even associating with them.

Outside Siamese Territory it has been found in Burma as far south as Moulmein and to the southeast it reaches to Cochin China.

339. *Butreron capellii*. TEMM. — The Large Thick-billed Green Pigeon.

Butreron capelli: Robinson & Kloss p. 673.

Butreron capellei: Grant p. 122; Bonhote p. 76.

The Large Thick-billed Green Pigeon is apparently very rare in Siam, where it, however, even occurs as far north as to Lat. N. 19°.

During my stay in Siam I only observed this beautiful species at two different occasions, but no specimens were preserved. However, Mr. E. EISENHOFER's native collector obtained a fine specimen at the neighbourhood of Koon Tan during my stay there in April 1914.

340. *Treron nipalensis*. HODGS. — The Thick-billed Green Pigeon.

Treron nipalensis: Gyldenstolpe I p. 65; Gyldenstolpe II; Gyldenstolpe III p. 234; Robinson & Kloss p. 674; Gairdner p. 151.

Treron nipalensis: Robinson II p. 140.

Treron curvirostra nipalensis: Robinson III p. 721.

Sex	Locality	Date	Length mm.	Wing mm.	Tail mm.	Culmen mm.
♂	Meh Cha Di	22/8 1914	245	142	88	15
♂	Pak Koh	4/4 1914	247	149	98	15
♂	Bang Hue Pong	8/5 1914	255	140	95	15
♂	Pak Koh	28/3 1914	230	141	86	15,3
♂ juv.	Meh Cha Di	22/8 1914	212	136	70	14
♀	Koh Lak	30/11 1914	230	134	83	14
♀	Koon Tan	27/5 1914	249	144	85	14,5
♀	Koh Lak	30/11 1914	235	140	84	14
♀	Pak Koh	3/4 1914	275	146	94	15,5

Irides: reddish yellow. Bill: yellowish white. Orbital skin: green. Legs: red.

This species was exceedingly common in Northern and Central Siam and it even occurred in the Siamese Malaya, where, however *O. bicincta domvilli* BLYTH. was the most common species among the Green Pigeons.

The Thick-billed Green Pigeon was most often met with in small parties of about 6 to 8 birds but sometimes and especially when the young were out very large flocks were found feeding on the fruit-bearing trees.

341. *Osmotreron pompadora phayrei*. BLYTH. — The Ashy-headed Green Pigeon.

Osmotreron phayrei: Gyldenstolpe I p. 65; Gyldenstolpe II; Barton p. 107; Gairdner p. 151.

Osmotreron pompadora phayrei: Gyldenstolpe III p. 234.

♂ Pak Koh 14/8 1914. L = 230 mm.; W = 145 mm.; T = 91 mm.; C = 15 mm. — ♂ Pak Koh 6/4 1914. L = 246 mm.; W = 153 mm.; T = 97 mm.; C = 13 mm. — ♀ Koon Tan 3/5 1914. L = 236 mm.; W = 155 mm.; T = 99 mm.; C = 16 mm. — Irides: pale crimson ♂, yellow ♀. Bill: plumbeous. Legs: purplish red.

The Ashy-headed Green Pigeon is one of the most common Green Pigeons in the North. In the Siamese Malaya it was never obtained but here the allied *O. bicincta domvilli* BLYTH. was common.

Generally observed in small flocks, more seldom in pairs.

342. *Osmotreron bicincta domvilli*. BLYTH. — The Orange-breasted Green Pigeon.

Osmotreron bicincta: Barton p. 107; Gairdner p. 39; Robinson & Kloss p. 674; Gairdner p. 151.

Treron bicincta: Gould p. 151.

Osmotreron bicincta domvilli: Robinson III p. 723.

♀ Koh Lak 22/11 1914. L = 277 mm.; W = 150 mm.; T = 90 mm.; C = 15 mm. — ♂ Koh Lak 11/12 1914. L = 259 mm.; W = 161 mm.; T = 109 mm.; C = 15 mm. — ♂ Koh Lak 1/12 1914. L = 270 mm.; W = 156 mm.; T = 105 mm.; C = 17 mm. — ♂ Koh Lak 11/12 1914. L = 255 mm.; W = 154 mm.; T = 100 mm.; C = 16 mm. — ♀ Koh Lak 11/12 1914. L = 239 mm.; W = 148 mm.; T = 91 mm.; C = 16 mm. — Irides: yellowish brown (♀), orange (♂). Bill: whitish grey. Legs: coral ♀; pink ♂.

This beautiful Pigeon was only obtained at the neighbourhood of Koh Lak. In the Northern parts of the country it seems to be very rare and I never obtained a single

specimen during my travels. It has, however, been recorded by BARTON from the Me Taw forest east of Raheng (Journ. Nat. Hist. Soc. of Siam, Vol. I, No. 2, p. 107).

Besides Southern Siam it has been obtained in Bengal, Assam, Burma, Hainan, Cochin China and the Malay Peninsula.

These Pigeons frequent every kind of jungles, though they seem to be more abundant in open country. In the afternoon, just before dusk, large flocks were seen returning to the forest from their feeding places.

The typical *O. bicincta* JERD. inhabits Ceylon and some parts of the Indian Peninsula. *O. b. domvilli* BLYTH. is only separated from the typical race on account of its larger size.

343. *Carpophaga ænea ænea*. LINN. — The Green Imperial Pigeon.

Carpophaga ænea: Gyldenstolpe I p. 66; Gyldenstolpe II; Gyldenstolpe III p. 234; Gairdner p. 39; Robinson II p. 141; Gairdner p. 151; Robinson III p. 723.

♂ Bang Hue Pong ²⁷/₅ 1914. L = 393 mm.; W = 221 mm.; T = 157 mm.; C = 22 mm. — ♂ Hat Sanuk ¹⁷/₁₃ 1914. L = 400 mm.; W = 231 mm.; T = 153 mm.; C = 23 mm. — Irides: reddish brown. Bill: bluish white. Legs: dark red.

The Green Imperial Pigeon occurred among the lower hills and on the plains, but they only inhabit such parts of the country which are well-wooded and where there are higher trees standing up among the other ones. They have a very loud, booming note which may be heard at the considerable distance. That note is never uttered when the birds are flying but only when they are feeding or perching at the top of a high tree. Their flesh forms an excellent eating and was much appreciated both by Europeans and natives.

Fam. Turnicidæ.

344. *Turnix pugnax*. TEMM. — The Bustard-Quail.

Turnix pugnax: Gould p. 151; Barton p. 108; Gyldenstolpe III.

Quails, probably belonging to this form, were flushed up from the ground several times during my excursions in the Siamese Malaya, but as no specimens were obtained I am unable to ascertain if they belonged to this form or to the allied *Turnix blanfordi* BLYTH. This latter species is, however, a more northern form and is probably not to be found as far south as Lat. N. 12°.

345. *Turnix blanfordi*. BLYTH. — The Burmese Button-Quail.

Turnix blanfordi: Gyldenstolpe III p. 235; Gairdner p. 151; Robinson III p. 721.

Apparently very rare and only met with at a few different occasions. At Nong Bea in North-western Siam they were, however, fairly common, and several specimens were flushed up from the ground, which at the time of my visit was covered with high grass.

Fam. Phasianidæ.**346. *Francolinus chinensis*. OSBECK. — The Chinese Francolin.**

Francolinus chinensis: Williamson I p. 47; Gyldenstolpe II; Gyldenstolpe III p. 235; Gairdner p. 151.
Francolinus sinensis: Gould p. 151; Finsch & Conrad p. 357.

Generally, though locally distributed over the whole country. It only occurs on such places where there are high grass and plenty of undergrowth to conceal in, and as it very seldom takes to the wings and only runs about on the ground it is seldom seen or shot.

They have a very characteristic note and during the breeding season it is frequently heard. When calling the male generally stands on some high place on the ground sometimes even on a branch in some low tree from where it utters its loud »ka, kaka, ka, kaka».

347. *Arboricola brunneipectus*. ТИСК. — The Brown-breasted Hill-Partridge.

Arboricola brunneipectus: Barton p. 108.

The Brown-breasted Hill-Partridge is only to be found among the mountains of Northern Siam and even here it is not very abundant.

A single specimen was shot during my stay at Doi Vieng Par, one of the highest mountains of North-western Siam, but unfortunately the specimen was too badly damaged for being preserved and could only be used for identification.

348. *Tropicoperdix chloropus*. ТИСК. — The Green-legged Hill-Partridge.

Tropicoperdix chloropus: Gyldenstolpe I p. 67; Gyldenstolpe II; Gyldenstolpe III p. 235; Robinson III p. 721.
Arboricola chloropus: Gairdner p. 151.

1 ad. Koon Tan 1914. W = 154 mm.; T = 82 mm.; Bill from gape = 22 mm.; Tarsus = 35 mm.

This species was found as well in thin as in dense jungles, though apparently more common in the latter kind of forests. As it is very difficult to flush up from the ground, where it runs about among the undergrowth searching for food among the dead leaves, it is seldom shot by the European traveller. The natives, however, use to snare them, because of the flesh which forms an excellent eating.

In the Siamese Malaya it is replaced by *T. charltoni* EYTON. and among the higher mountains of Northern Siam its place is taken by *Arboricola brunneipectus* ТИСК.

349. *Gennæus lineatus lineatus*. ВИГ. — The Burmese Silver Pheasant.

Gennæus lineatus: Gairdner p. 40.

♂ Hat Sanuk ²⁰/₂ 1915. L = 715 mm.; W = 252 mm.; T = 301 mm.; C = 29 mm.; Tarsus = 83 mm. — Irides: light brown. Bill: greenish white. Legs: pink.

Silver Pheasants belonging to this species were rather common in the dense evergreen jungles which cover the hills deviding Tenasserim and Siam. Especially at the neighbourhood of Hat Sanuk (Lat. N. 12°) they were exceedingly abundant though shy and difficult to obtain, because of their habits of running away among the dense undergrowth instead of taking to the wings. I most often met with them in the evergreen jungles on the lower hills, but sometimes I also found them in the low-lying country a few miles from the coast. Here the vegetation chiefly consisted of bamboos.

Quite recently Mr. STUART BAKER has published a »Revision of the Genus *Gennæus*» (Bombay. Journ. Nat. Hist. Soc., Vol. 23, p. 658—689, 1915) and in this highly interesting and valuable paper he has exhaustively disussed the characters and the geographical distribution of the different forms of Silver Pheasants.

Two maps accompany this paper and on them *Gennæus lineatus* VIG. is stated to occur in the Pegu Yomas and in Tenasserim to a little south of Moulmein. East of this area the allied *Gennæus sharpei* OATES is said to occur, and this species has also been found in Northwestern Siam. On one of these maps a small area of land south of the distributional area of *Gennæus lineatus* and as far as the coast of the Bay of Bengal is marked as being inhabited by *G. sharpei*. This seems a little doubtful to me and is probably a mistake because I found quite typical specimens of *Gennæus lineatus* in the country situated further south.

The discovery of a Silver Pheasant as far south as about Lat. N. 12° is a most remarkable fact and it adds a considerable distance to the southern extension of the family.

Mr. ROBINSON has not recorded any Silver Pheasants from the Siamese Province of Bandon, but GAIRDNER found them rather common in the Ratburi and Petchaburi Districts of Siam between Lat. N. 12° 40' and 14° 10'.

[I also take the opportunity of correcting a mistake in STUART BAKER's paper. He there says in his description of the adult male of *Gennæus lineatus* (p. 676) that »the outer webs of the central rectrices are more or less white». It of course ought to be the inner webs of the central rectrices.]

During my stay in Northwestern Siam I once caught a glimpse of a Silver Pheasant when I was climbing up one of the steep hills at Doi Par Sakeng. As far as I could make out, it looked much more white than a specimen of *G. lineatus* and was probably a specimen of *G. nycthemerus ripponi* SHARPE which inhabits the Southern Shan States and the adjoining country. Unfortunately I did not obtain a specimen from Upper Siam so it is still unknown which species inhabits the most northern parts of the country.

350. *Gallus gallus*. LINN. — The Red Jungle Fowl.

Gallus gallus: Grant p. 122; Robinson III p. 721; Bonhote p. 78; Robinson I p. 87; Robinson II p. 140.

Gallus ferrugineus: Gyldenstolpe I p. 67; Gyldenstolpe II; Gyldenstolpe III p. 235; Barton p. 108; Gairdner p. 40; Müller p. 432; Gairdner p. 151.

Gallus bankiva: Robinson & Kloss p. 672.

1 ♂ Hat Sanuk; 1 ♂, 2 ♀ Koon Tan; 3 ♀ Pak Koh; 1 ♀ Koh Lak.

The Red Jungle Fowl is generally distributed over the whole country where it is quite common in every kind of jungles.

Among the mountains on the boundary between Siam and Tenasserim it was exceedingly common and numbers of specimens were shot for the kitchen. Their flesh forms an excellent eating and is highly appreciated even by the natives.

351. *Polyplectrum malaccensis*. SCOP. — The Malay Peacock Pheasant.

Polyplectrum chinquis: Gairdner p. 151.

Polyplectron bicalcaratus: Müller p. 432; Gyldenstolpe I p. 66.

♀ Koon Tan 1914. W = 182 mm.; T = 225 mm.; C = 21 mm.; Tarsus = 56 mm.

Peacock-Pheasants were fairly rare in the parts of the country visited by the Expedition. As they are extremely shy and very seldom take to their wings, only running about among the dense undergrowth, they are seldom shot or seen by European sportsmen. The best way to get them is by using snares which are also used by the natives, not only for catching Pheasants but for every kind of game-birds living on the ground.

During my whole journey in Siam I myself neither saw nor was able to shoot a Peacock Pheasant, and the female specimen, which is among the collections, I owe to my native collector who succeeded in shooting it among the Koon Tan Hills.

As shown by HARTERT (*Novitates Zoologicae*, Vol. 9, 1902, p. 539) the bird formerly known as *Polyplectrum chinquis* must be the same bird which was called *Pavo bicalcaratus* by LINNÆUS and that was the bird which has two ocelli on each tail-feather.

The specimen I obtained differs somewhat from the description. On the longer tail-coverts the ocelli are almost obsolete and only marked by dark spots. The central tail-feathers are also without any well-marked ocelli and they are only indicated by dark spots. The outer tail-feathers, however, have very well-marked ocelli on both webs. The ocelli on the mantle, scapulars, wing-coverts and outer secondaries are fairly large and of a distinct violet gloss.

352. *Argusianus argus*. LINN. — The Argus Pheasant.

Argusianus argus: Grant p. 123; Robinson I p. 87.

The Argus Pheasant only inhabits the southern parts of the Siamese Malaya. When I was marching from Koh Lak up among the mountains on the boundary to Tenasserim I only once (on the 4th of December 1914) caught a glimpse of an Argus Pheasant which was flushed up from the path but unfortunately I missed it. At no other occasions did I meet with this beautiful species during my travels in Siam.

In the Siamese Malaya it is called »Nok eh wali» by the natives.

353. *Pavo muticus*. LINN. — The Burmese Peafowl.

Pavo muticus: Gyldenstolpe I p. 66; Barton p. 108; Gairdner p. 40; Robinson & Kloss p. 672; Grant p. 108; Bonhote p. 70; Robinson I p. 87; Gairdner p. 151.

♂ juv. Chieng Sen ¹⁰/₈ 1914. L = 680 mm.; W = 296 mm.; T = 273 mm.; C = 32 mm. — Irides: brown. Bill: horn colour. Legs: brown.

Though I heard the calls of the Peafowl several times during my travels in the Northern Districts I only succeeded in shooting a young male specimen of the Burmese Peafowl. According to the natives Peacocks are said to be very abundant along the lower course of the Meh Ping river. Early in the mornings and in the afternoon Peafowls used to come down to the small islands and sandbars which are so numerous in this magnificent river but when I passed down the whole river from Chieng Mai to Paknam Po I never heard nor saw a single specimen.

In the Siamese Malaya I neither saw nor heard the calls of a Peafowl and the natives I questioned did not know about their occurrence in the parts I was able to visit. Further north in the Ratburi and Petchaburi Districts they have been stated to be »quite common» (GAIRDNER).

Additional remarks.

Corvus macrorhynchus WAGL. (page. 16).

In his recently published review of the forms of the *Corvus coronoides* Group (Verh. Ornith. Gesellschaft in Bayern. XII. 1916, pp. 277—304) Mr. E. STRESEMANN has recognized several races some of which are described as new. On page 295 STRESEMANN writes: »Aus Kambodja und Siam habe ich kein Material untersuchen können, aber es ist wohl anzunehmen, dass dort eine Form lebt die *hainanus* mit *andamanensis* verbindet».

During my stay in Siam I unfortunately only collected one single specimen of the Jungle Crow, though it was very common, indeed, throughout the whole country. As compared with a specimen from Tenasserim in the collections of the Royal Natural History Museum in Stockholm the Siamese specimen is somewhat different. The Tenasserim birds are referred by STRESEMANN to *Corvus coronoides andamanensis* BEAVAN. The Hainan birds which are described by STRESEMANN under the name of *Corvus coronoides hainanus* are distinguished from the Indian ones (*C. coronoides levaillantii* LESS.) by their large bills. About the Hainan form STRESEMANN further writes: »Die Federn des Rückens besitzen bei *levaillantii* und seinen nächsten Verwandten ziemlich schmale, schwarze, fettig glänzende Endsäume, bei *hainanus* dagegen sind dieselben so breit, dass bei geordnetem Gefieder kaum etwas von den rötlichblau-metallischen Partien der Federn zu sehen ist. Die Aussensäume der Armschwingen sind schwärzlicher, gleichfalls mit Fettglanz, nicht so intensiv violett reflektierend. Die Basis des Körpergefieders ist rauchgrau bis hellgrau, nur bei einem Exemplar der Reihe grauweiss. Endlich

ist die Grösse beträchtlicher als bei den benachbarten Formen *C. coronoides andamanensis* und *C. coronoides colonorum*.»

In the Siamese specimen the feathers of the back have rather broad terminal violet bands which everywhere are clearly visible. The bases of the feathers are grey though almost white on the lower back. The bill is very large and stout, measuring 64 mm. in length and 23 mm. in height.

Of course a single specimen is not enough for creating a new race and therefore and until more material has been available I think I am justified to refer the Siamese Crows, hitherto known under the name of *Corvus macrorhynchus* WAGL. to the Hainan form

Corvus coronoides hainanus STRES.

Explanation of plates.

Plate 1.

Sketch Map of Siam.

Plate 2.

- Fig. 1. *Lanius hypoleucus siamensis*, GYLDENST. ♀. $\frac{2}{3}$ Nat. size.
Fig. 2. *Gerygone griseus*, GYLDENST. ♀. $\frac{2}{3}$ Nat. size.
Fig. 3. *Brachylophus chlorolophoides*, GYLDENST. ♂. $\frac{2}{3}$ Nat. size.

Plate 3.

- Fig. 1. *Sphenocercus pseudo-crocopus*, GYLDENST. ♀. $\frac{1}{2}$ Nat. size.
Fig. 2. *Picus canus hessei*, GYLDENST. ♂. $\frac{1}{2}$ Nat. size.
Fig. 3. *Picus canus hessei*, GYLDENST. ♀. $\frac{1}{5}$ Nat. size.

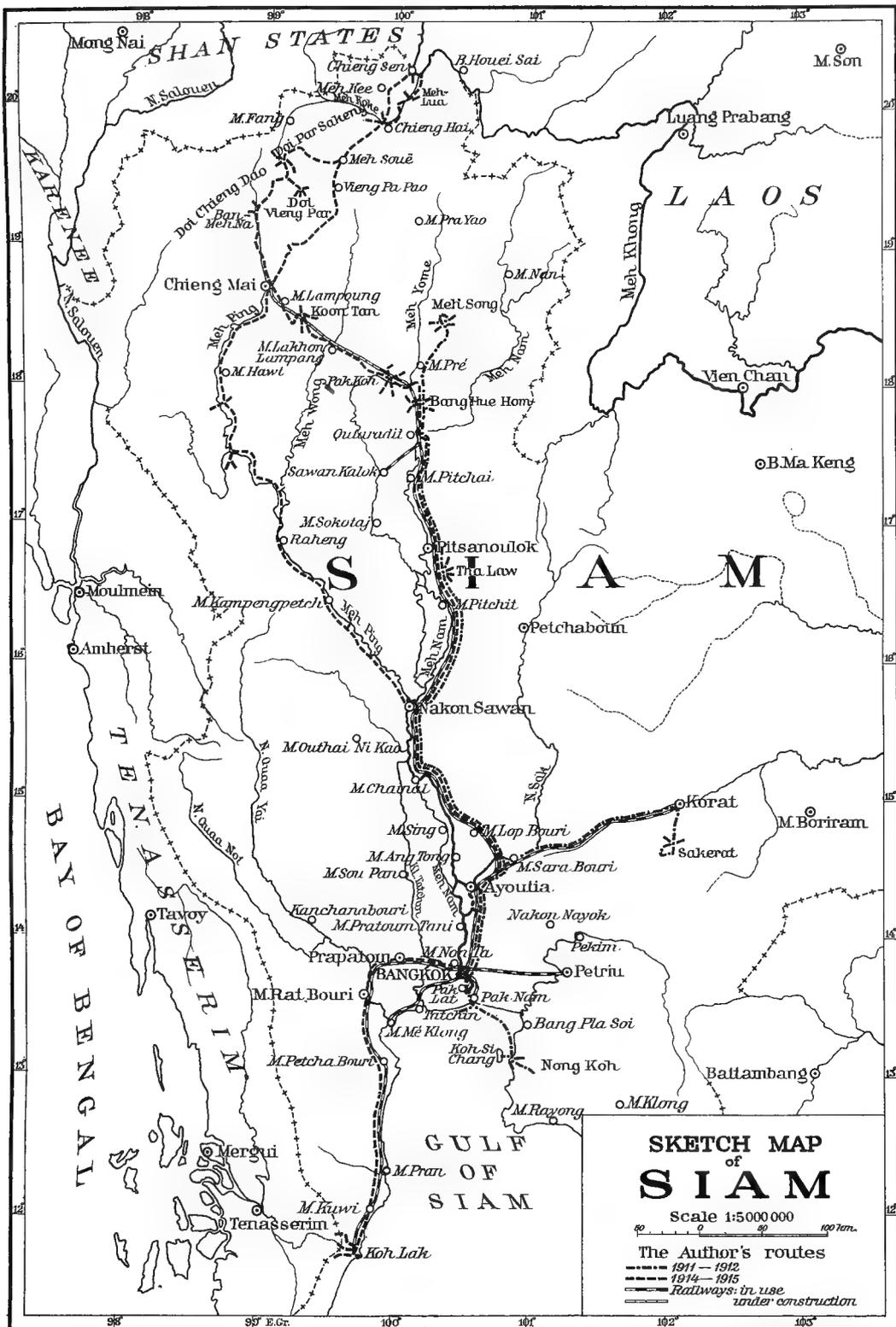
Plate 4.

- Fig. 1. Pines on the top of one of the Koon Tan mountains, Northern Siam.
Fig. 2. Forest near Pa Hing, Northern Siam.
Fig. 3. View from one of the Koon Tan mountains.

Plate 5.

- Fig. 1. In the rapids of the Meh Ping river.
Fig. 2. View of the Koon Tan mountains.
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Tryckt den 19 oktober 1916.



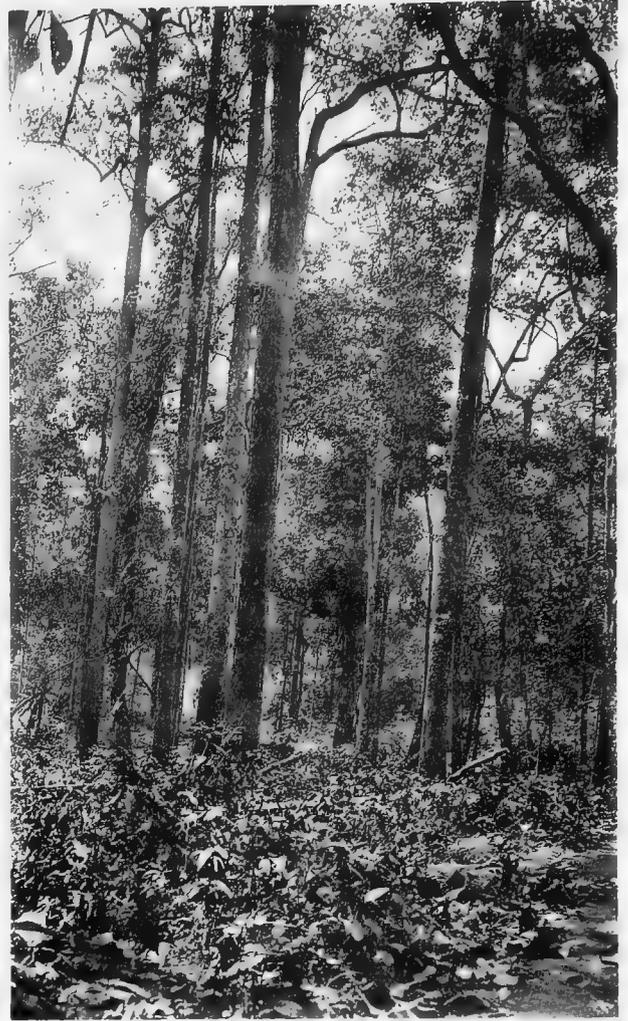


A. Österberg pinx.





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