

A SYSTEMATIC LIST OF BIRDS TO BE FOUND IN A LOWLAND AREA OF CHANTHABURI

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SUMMARY

Between October 1969 and December 1972, a survey was made of all the birds seen or heard in a lowland area of Chanthaburi province in south-eastern Thailand. One hundred and thirty-four species were tallied during this time. Five species not present in the area at the beginning of the survey, were tallied regularly at the end. Two of these, Blackshouldered Kite (*Elanus caeruleus*) and Coppersmith Barbet (*Megalaima haemacephalia*) are now resident species throughout the year. The other three, Black-crested Yellow Bulbul (*Pycnonotus melanicterus*), Goldenheaded Fantail Warbler (*Cisticola exilis*) and Forest Wagtail (*Dendronanthus indicus*) are regular residents for part of the year.

INTRODUCTION

No long term survey has ever been made of the lowland birds in the Chanthaburi area. In order to find out which species of bird were likely to occur, an attempt was made between October 1969 and December 1972 to make as comprehensive a list as possible.

THE AREA

The area chosen for the survey was two kilometers long and one kilometer wide and is situated two kilometers north-east of Chanthaburi town (13°N, 102°E). The entire area is below the fifty meter contour line and contains five distinct habitats for birds.

- a) *A school property.* This includes a building and four large fields. Three of these fields are playing fields in which the grass is kept short while the fourth has large areas of lalang grass (*Imperata arundinacea*) and *Mimosa pudica*. The property is surrounded by trees planted within the last ten years. Most of these are pine trees (*Pinus merkusii*) and rain trees (*Samanea saman*).
- b) *A rubber plantation.* Apart from the rubber trees (*Hevea brasiliensis*), the plantation also contains "khlong khlong" bushes (*Melastoma* sp.) and there are bamboo thickets (*Bambusa arundinacea*) round the edges.

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- c) *Bamboo groves.* These cover fairly large patches of land in the east of the area surveyed.
- d) *Grazing land.* This makes up most of the land not included in the above three parts. It is dotted with buffalo wallows and there are very few trees.
- e) *A stream and five ponds.* A stream cuts diagonally across the area from the north-east to the south-west. Three of the ponds are quite large and are in the central and eastern parts. The remaining two ponds are small ones inside the rubber plantation. The stream and the ponds begin drying up every year in January and there is usually no water left at all by April.

Between the months of July and September, the area is prone to flooding and for periods of up to four days at a time can be inundated by four or five feet of water. The Chanthaburi River flows in a north-south direction one kilometer to the west and the area surveyed is on the flood plain of this river. To the north is the Soi Dao mountain range with Khao Sukhim and Khao Sabap to the north-west and east respectively. The south-west and south is the continuation of the flood plain down to the sea about ten kilometers away. The Chanthaburi River valley probably provides an important gap through the mountains for migrating birds.

METHODS USED

In the years 1969 (from October), 1970 and 1971, counts and general notes were made mainly on those species which were considered of interest to the area e.g. those species recorded for the first time, exceptional numbers of common species, migratory movements etc. About eight or nine counts were made per month. In 1972 (starting in January), a more detailed census was made of all the birds seen or heard in, over or from the area. The counts were made at the same time (1600 hrs to 1800 hrs) each observation day in all four years and the same path followed on each occasion—a zigzag route covering all the habitats.

In keeping with the primary aim of the survey which was to give as full a picture as possible of the species likely to be recorded in the

area, birds recorded outside the normal census time were sometimes included if they were considered to be of some significance. Figures in the Tables at the end and for most species in the list are those of 1972. Generally speaking, the number of species recorded per month rose from a June low to an October-November high after which there was a gradual falling off in numbers.

The following list of birds follows the system used in the 'Bird Guide of Thailand' by Dr. Boonsong Lekagul.

A SYSTEMATIC LIST OF BIRDS RECORDED

1. *Pond Heron (Ardeola ralloides)*

On an average about ten birds of this species frequent the area. They roost in some large trees in the eastern part and disperse during the day. There is no evidence of breeding and the birds are not present during the three months June to August although one individual was recorded on July 11th, 1971. Some courtship displays have been observed towards the end of May just before the birds have left. The males on these occasions were in the summer plumage of *speciosa*.

2. *Cattle Egret (Bubulcus ibis)*

A transient species in the area that has never been observed on two consecutive days. Most records are of one or two birds although fifteen were recorded on March 15, 1970. It has often been observed well away from cattle.

3. *Little Egret (Egretta garzetta)*

A vagrant species with only three records in as many years. The last record was of one on September 26, 1971.

4. *Schrenk's Little Bittern (Ixobrychus eurhythmus)*

One bird of this winter migrant species was observed on September 22, 1972 at quite close quarters (twenty meters). Unlike other bitterns, this bird made no attempt to hide in long grass and flew only a few meters when flushed.

5. *Cinnamon Bittern* (*Ixobrychus cinnamomeus*)

This species is resident during the rainy season arriving in early June and staying until the last week of September. One or two birds are present throughout this time. There is no evidence of breeding but birds have often been observed chasing each other about which could be some form of courtship behaviour.

6. *Little Green Heron* (*Butorides striatus*)

This small heron is a vagrant to the area and was recorded only three times in the period covered. All records were of single birds in July, September and October of 1971 and 1972.

7. *Black Bittern* (*Dupetor flavicollis*)

Usually one but occasionally two birds present during the rainy season April-September. The movements of this species in the area follow a fixed pattern. Although there are many places in the area which could be considered good habitats for this bittern, it remains at one particular pond in the east arriving always from a south-westerly direction and flying off to the south-west when disturbed. This SW-NE flight pattern does not seem to be merely a roost movement but can be observed many times during the day too.

8. *Grey Heron* (*Ardea cinera*)

A rare vagrant recorded only once in the period covered.

9. *White-necked Stork* (*Ciconia episcopus*)

A flock of between forty and fifty of these large birds was seen flying east in December 1971. The birds kept quite close together and would often glide with slightly drooping wings making the general movement of the flock seem very slow. Another record of a single bird was made in the December of the following year.

10. *Black-necked Stork* (*Xenorhynchus asiaticus*)

A single bird of this species was seen flying very high over the area in February 1972. It flew due east and then back west.

11. *Greater Adjutant Stork* (*Leptoptilos dubius*)

This species was recorded only once in the period covered. Three birds circled high overhead slowly drifting from north to south in January 1971.

12. *Whistling Teal (Dendocygna javanica)*

This duck is resident during the rainy season and is the only duck species tallied in the area. Most records are of two or three birds. It hides itself very well on the ground because all records are of birds in flight which often betray their presence by their high pitched swift like call. A late record in November 1972 was of five birds flying north—the highest number recorded together.

13. *Black-shouldered Kite (Elanus caeruleus)*

There is evidence to suggest that this species is relatively new to the area. No records appear until March 1970—five months after the tallying of birds began. Another five months passed before a second bird was seen. After that it became more regular and in 1972 was observed in every month of the year with a pair recorded on seven occasions in February.

14. *Black-crested Lizard Hawk (Aviceda leuphotes)*

A vagrant species to the area recorded only once in the rubber plantation in December 1971.

15. *Crested Honey Buzzard (Pernis ptilorhynchus)*

An uncommon winter visitor to the area appearing usually in February and March. There were three records of this species in 1972.

16. *Pariah Kite (Milvus migrans)*

This species scavenges in the river area to the west but sometimes drifts over. All records are of birds seen in October through to December.

17. *Brahminy Kite (Haliastur indus)*

Like the above species, this bird is more often seen in the river and coastal zones and is uncommon in the area surveyed. It was recorded four times in 1972.

18. *Shikra/Besra Hawk (Accipiter badius/virgatus)*

These small hawks are passage migrants occurring in the months January-April and July-November. The peak month seems to be September when two or three have been tallied on one day indicating that a certain amount of grouping takes place before onward migration.

19. *Crested Goshawk (Accipiter trivirgatus)*

This bird was recorded five times in 1972. All records were of single birds flying north in the early evening.

20. *Sparrow Hawk (Accipiter nisus)*

A winter resident (October-March) although one was seen in April 1972. This species likes to perch on high bamboo branches and sometimes in trees at the end of the rubber plantation. It will sometimes stay for hours on one perch and can usually be tallied at the same place for many successive days. A pair has been recorded on a number of occasions. A male bird has been observed bathing in a buffalo wallow and one was found to have been feeding on a rhinoceros beetle (*Oryctes rhinocerus*).

21. *Grey-faced Buzzard Eagle (Butastur indicus)*

A transient species observed mostly in February and March. This bird has its favourite perches—usually at the top of a bamboo bush. A single bird has been recorded in the area nearly every year and sometimes there have been two. It often rests on the ground but roosts in a rubber plantation outside the area. In 1972, one remained in the locality for a month.

22. *Long-billed Vulture (Gyps indicus)*

Observed once in the area. It circled overhead and then came down onto a tree at the edge of the rubber plantation.

23. *Pied Harrier (Circus melanoleucos)*

The Pied Harrier is a winter resident usually arriving towards the end of October and staying until the first week of April. Two or three birds may be observed at the beginning or end of this period but one adult male bird stays throughout the winter.

24. *Marsh Harrier (Circus aeruginosus)*

Not so common as the previous species. All records are of single birds tallied in the winter months. In 1972 there were only ten sightings.

25. *Peregrine Falcon* (*Falco peregrinus*)

One was seen in January 1972 and again on three occasions in December of the same year. It was mostly observed perching fairly low down on fence posts.

26. *Hobby* (*Falco severus*)

This small falcon has been recorded in the area between September and April in the rubber plantation and often on low bushes not far from water. It has been seen feeding in the gathering dusk gliding a few inches above the grass like a tiny harrier.

27. *Kestrel* (*Falco tinnunculus*)

The Kestrel is a rare vagrant to the area. It has been recorded only three times, in January 1971 and January 1972.

28. *Little Button Quail* (*Turnix sylvatica*)

An uncommon visitor to the area with two records both in 1972 in August and October. This bird were probably appear more often if the area were not so prone to flooding.

29. *Yellow-legged Button Quail* (*Turnix tanki*)

One bird of this species was seen on May 13th, 1971. It was in a small clearing completely surrounded by trees.

30. *Barred Button Quail* (*Turnix suscitator*)

The commonest of all the Button Quails. Most recordings of this bird were made in November and December when it was quite common especially in 1972. All records were of single birds except for November 1970 when a pair was recorded on a number of occasions.

31. *Slaty-breasted Rail* (*Rallus striatus*)

A common wet season resident which keeps to one field containing plenty of water and long grass. It rarely flies about without calling. It is possible that there is more than one bird present during the rainy season but a pair has been seen on only one occasion. The last record of this Rail in 1972 was of one on September 27.

32. *White-breasted Waterhen (Amaurornis phoenicurus)*

Although a permanent resident bird in marshy lands outside the area, this waterhen is only an occasional visitor inside. One was recorded in November 1970 and it was not tallied again until April 1972 and then on three occasions in October of the same year.

33. *Watercock (Gallicrex cinerea)*

This is a wet season resident occurring between June and September. In June 1971, two nests were found within a hundred meters of each other both with female birds sitting. Only one male was seen during this time. The first nest discovered already contained five eggs. It was in a clump of grass a few inches above the ground and well hidden. Twelve days later, four of the eggs had hatched and one was addled. There was no sign of the young. The second nest was found a week after the first one and it also contained five eggs all of which hatched within sixteen days. In 1972, courtship displays were observed. The male would stand a few feet away from the female and slowly bend his head and neck down until his bill was touching the ground. During this display, he uttered a loud guttural clucking sound which could be heard half a mile away. The male would then chase the female and the display would be started all over again when they were on the ground again.

34. *Painted Snipe (Rostratula benghalensis)*

Recorded only once—in September 1972. It was in a field with a lot of Snipe and was a female bird.

35. *Grey-headed Lapwing (Vanellus duvaucelii)*

A fairly common winter visitor usually seen between September and December. The average number of birds seen at one time is six although a flock of twenty-five was seen in November 1971. It feeds in short-grass fields like other plovers and in spite of its large size, can keep well hidden. Unlike *V. indicus* this bird is usually silent, even when flushed.

36. *Red-wattled Lapwing (Vanellus indicus)*

In 1969 and 1970, this was a regular winter visitor but has not been tallied since. A maximum of four birds together has been recorded. It is very noisy even when feeding and this characteristic has probably led to its decline here because it should be an easy target for hunters.

37. *Golden Plover (Charadrius dominicus)*

A passage migrant recorded between February and April and again between August and November each year. Flocks of fifty and sixty of these birds have been seen flying north and at a high altitude in April.

38. *Little-ringed Plover (Charadrius dubius)*

Recorded only intermittently throughout the winter months. A maximum of five birds was present in November 1972.

39. *Kentish Plover (Charadrius alexandrinus)*

A less common winter visitor than the former species with usually one or two birds tallied. A maximum of five was present on January 11, 1972.

40. *Malay Plover (Charadrius peronii)*

Recorded once—a single bird in November 1972. It was standing well apart from the other small waders and was a female bird. The bright yellow legs distinguished it from *C. alexandrinus*.

41. *Whimbrel (Numenius phaeopus)*

One bird stayed around in the area for about two weeks in January 1971. This is the only record.

42. *Spotted Redshank (Tringa erythropus)*

Most often tallied in December and January with at maximum of five birds seen together in January 1971. They were usually tallied at the same spot on each occasion—the pond in the centre of the area where they would begin feeding at the edge and gradually waded in until only their tails were visible above the water.

43. *Redshank (Tringa totanus)*

Five were seen flying south on September 10th, 1972. The broad white patches on their wings and their call identifying them as this species.

44. *Greenshank (Tringa nebularis)*

An occasional winter visitor with a recorded maximum of two birds.

45. *Wood Sandpiper (Tringa glareola)*

The commonest wader present from August through to the following April. One early arrival was tallied on July 27, 1972. The numbers are not very great, averaging three or four at each count. Thirty-four in a single flock were recorded on April 13, 1972 which turned out to be the last record of the season. This species likes to feed at the muddy edges of buffalo wallows and by the sides of the stream.

46. *Green Sandpiper (Tringa ocrophus)*

The Green Sandpiper is a winter resident species in the area but is not so common as *T. glareola* although it is often seen associating with that species. It has also been tallied feeding at a small pond in the rubber plantation completely surrounded by trees.

47. *Common Sandpiper (Actitis hypoleucos)*

This small sandpiper is nearly always the first wader to arrive—usually in the first week of August. There is rarely more than one or two birds present during the season although a maximum of sixteen was recorded just before migration took place in April 1972.

48. *Jack Snipe (Lymnocyrtus minimus)*

One bird was recorded on September 21 and again on 25th of the same month, 1972.

49. *Little Stint (Calidris ruficollis)*

Seen sporadically from September through to February in most years. Most records are of single birds but there is an occasional record of a flock of ten or more.

50. *Broad-billed Sandpiper (Limicola falcinellus)*

This species was recorded during the winter 1971-72 and it may have been overlooked in other years. Most records are of single birds but three were tallied on December 14, 1971. It associated with the Little Stint (*Calidris ruficollis*) and other small waders but always remained to the last when other birds were frightened off. It has also been tallied inside the rubber plantation at a pond completely surrounded by trees.

51. *Pratincole (Glareola maldivarum)*

The movements of this species in the area are not fully understood. It seems to be a passage migrant species first appearing in February through to April and then again in October and November. However, in 1972, birds were tallied in June and July. It is very often tallied after a thunderstorm even when it has been absent for a long time. Flocks are sometimes in excess of two hundred birds but usually a flock will contain less than fifty. In the evening when it is almost dark, they can be seen flying silently very close to the ground.

52. *Lesser Thick-billed Green Pigeon (Treron curvirostra)*

One was tallied in the area on February 1st. 1972. The only record.

53. *Mountain Imperial Pigeon (Ducula badia)*

One was seen flying over in a southerly direction in November 1970.

54. *Red Turtle Dove (Streptopelia tranquebarica)*

Recorded once—in October 1970. A single bird.

55. *Spotted-necked Dove. (Streptopelia chinensis)*

The commonest dove in the vicinity. During 1972, this bird was recorded in every month of the year except for February, March and October. When it is not feeding on the ground, it is invariably found on bamboo thickets. A maximum of eleven has been recorded at one time (September '70)

56. *Indian Cuckoo (Cuculus micropterus)*

Recorded on two occasions in 1970 in February and March. On both occasions a single bird was seen in the rubber plantation perched low down and calling.

57. *Plaintive Cuckoo (Cacomantis merulinus)*

A resident bird during the hot season present from February to June although in some years it has been recorded right through July. It is more often heard than seen and usually calls from dense bamboo scrub.

58. *Emerald Cuckoo (Chrysococcyx maculatus)*

A single adult female bird of this species was tallied near the rubber plantation in December 1971.

59. *Koel (Eudynamys scolapacea)*

There does not seem to be any particular pattern followed in the movements of this bird. All records are of birds heard. March seems to be the peak month for this species and in 1972, two were heard calling on one occasion in this month.

60. *Greater Coucal (Centropus sinensis)*

A resident species throughout the year although in 1972 it was not tallied in September and October. The number of individuals varies from one to four. This probably indicates a certain amount of local movement rather than breeding in the area as the change in numbers takes places at different times of the year and there has been no evidence of breeding.

61. *Lesser Coucal (Centropus toulou)*

This bird has been recorded from October through to April every year. It is confined in this area to a field of dense lalang grass. When disturbed it flies weakly off only to land a few meters further on and burrow down in the thick grass. It has always been observed in winter plumage and occasionally there have been two present. It is a difficult bird to flush and unlike *C. sinensis*, is silent.

62. *Barn Owl (Tyto alba)*

A winter visitor to the area from September to December. It is more often heard than seen and never more than one has been tallied at each count. It sometimes perches on the football posts in the school grounds and probably does a lot of its feeding over the fields around the school. However, it often disappears for long periods of time before being tallied again, and in 1972 it was recorded only once or twice a month in the last four months of the year.

63. *Barred Owlet (Glaucidium cuculoides)*

A resident species throughout the year. It can be heard at any time of the day or night and in the area surveyed keeps almost exclusively to the rubber plantation. When flushed, it flies low down and then swoops up to perch on the branch of another tree further away. It can often be found right out in the open on a bare branch. One was once observed feeding its fledgling. The young bird was perched close to the adult and the latter placed food directly into the gullet. That was in May but an increase in the numbers of this bird seems to take place at the end of the year between October and December. It has been seen feeding on giant millipedes (*Polydesmida sp.*)

64. *White-lored Giant Spinetail (Chaetura gigantea)*

Recorded in most months of the year but with no particular pattern emerging. A maximum number of eight birds was tallied in August 1972. Most sightings were made at dusk when the birds would be invariably heading in a south-westerly direction. They sometimes fly very low down and at great speeds so that when they are close enough, the shuddering of their wings can be heard.

65. *House Swift (Apus affinis)*

Probably the commonest swift in the area. They are known to breed in the town so most movements in the area are connected with activities there especially in April when nesting presumably takes place. However, in 1971, movements of this species were recorded in September. In one period of half an hour, many birds were seen flying in an easterly direction at a high attitude.

66. *Palm Swift (Cypsiurus parvus)*

Appears in the area from July to October with September being the peak month. Numbers are not very great. A maximum of fifty has been recorded in the area.

67. *Large white-rumped Swift (Apus pacificus)*

Not a regular visitor to the area surveyed although it could have been overlooked. It is usually seen in flocks with *A. affinis*. In 1972 seven were tallied in December, the only record for that year.

68. *Common Kingfisher (Alcedo atthis)*

A winter visitor usually arriving in mid-September although one was tallied on August 30, 1970. It stays though October but is rarely seen in November and December. This seems to indicate that this kingfisher is a passage migrant because it reappears in January and February. The bird is often observed perching on bamboo poles in the middle of the stream or on old fish traps in ponds. It sometimes uses vegetation at the sides of the ponds as vantage points.

69. *Stork-billed Kingfisher (Pelargopsis capensis)*

A vagrant species in the area having been tallied twice in 1971 (in June and October) and not since. It was last tallied inside the rubber plantation perched on a tree at the side of a pond.

70. *White-breasted Kingfisher (Halycon smyrnensis)*

At least two pairs are resident in the area and they range all over using almost anything as a perch. Apart from the loud staccato alarm call of this bird, another call can be heard in the hot season when it gives out a long drawn out rather plaintive cry. A nest of this species was studied in 1972. The nest hole was situated in the bank of a stream about one meter above the level of the water and another meter from the top of the bank. The hole was about eighteen inches deep. It was examined on most days with the aid of a flashlight from March 20th when it was discovered until April 13th when all the young birds flew. When discovered, the

nest contained four white eggs. Four days later, two of them had hatched and in another four days, the rest had hatched. From April 1st onwards, the young stood erect in the nest. All had short black hairs covering their bodies and their eyes were open. Ten days later they were showing colours in the plumage and their black bills had white tips. All had flown three days after that and the parent birds were feeding them very noisily in a nearby bamboo grove. Dispersal was very quick because in the days following, there was no sign of the young in the vicinity.

71. *Black-capped Kingfisher (Halycon pileata)*

This kingfisher usually arrives in the third week of September every year. In September 1971, as many as five birds were tallied in one day. This soon thinned out to one and one bird was present through to mid-April. This bird likes to perch on the top branches of the rubber plantation trees and feeds on insects at a pond within the plantation.

72. *Bay-headed Bee-eater (Merops leschenaulti)*

Nine birds of this species were tallied in the area between January and March 1972.

73. *Little Green Bee-eater (Merops orientalis)*

Recorded only twice. One bird was seen in January 1970 and two in February 1971.

74. *Black-billed Roller (Coracias benghalensis)*

A common resident species in the area. The numbers fluctuate according to whether it breeds here or not. It seems to like Rain trees (*Samanea saman*) in which it nested in 1971 producing four young but outside the breeding months it is found most often inside the rubber plantation. It also feeds on the ground using tufts of vegetation as perching points. In 1972, figures showed an increase in September and October which seem to be the main nesting months. In January and February of the same year however, there was an equally significant increase in numbers although there was no evidence of breeding.

75. *Hoopoe (Upupa epops)*

Recorded but once in the area in February 1971. A single bird was seen in a small clearing in the rubber plantation.

76. *Wreathed Hornbills (Rhyticeros undulatus)*

Five birds were seen flying over the area in December 1969. They were flying from the Soi Dao mountain range to the north of the area toward the Khao Sabarp range in the east—a good thirty mile stretch.

77. *Coppersmith Barbet (Megalaima haemacephala)*

This barbet was first recorded in August 1970 nearly a year after tallying began. It was tallied a second time (two birds) in December of the same year and thereafter fairly regularly. Now it can be considered as a resident species in the area. The figures show that in 1972 this species was tallied in every month except for July. It is not clear why this is so. As most records of this species are of birds calling, it may have been breeding in July and remained silent but there was no evidence of breeding and the figures for the following month show no increase. A possible explanation would be that the bird left the area to nest.

78. *Eastern Skylark (Alauda gulgula)*

A resident species in the area. In 1972 it was recorded in every month of the year except for October and November.

79. *Collared Bush Lark (Mirifra assamica)*

The status of this species in the area is not fully understood. No reliable records were made before 1972. In that year, the species was tallied from July to December.

80. *House Swallow (Hirundo rustica)*

Apart from the next species, all *Hirundo* species were presumed to be *H. rustica*. *H. tahitica* is known to be common on islets off the coast and in the next province of Trad and it is possible that some birds of this species were inadvertently included in the figures for *H. rustica*. Most sightings of the House Swallow were in the evening when the birds were tallied on their way to

roosting areas presumably in the town to the south and south-east. They have been recorded in every month of the year except for June.

81. *Red-rumped Swallow (Hirundo daurica)*

A winter vagrant tallied mostly in January and occasionally in December. Never more than three or four birds are recorded in most years although 1971 was an exception with 'many' being recorded in the January of that year. The Red-rumped Swallow is invariably seen flying in a northerly direction in the evening ignoring the regular flow of *H. rustica* southwards.

82. *Ashy Minivet (Pericrocotus divaricatus)*

Tallied only once, in November 1971 in the rubber plantation.

83. *Black-crested Yellow Bulbul (Pycnonotus melanicterus)*

Although the red throated form of this species (*johnsoni*) is supposed to occur in south-east Thailand, only the black throated form (*dispar*) has been tallied in the area. It is a common jungle species but there is evidence to suggest that it has only recently started frequenting the area surveyed. It was not recorded at all in 1969 (October to December) and in 1970 (the whole year). The first record is of one seen towards the end of November 1971 and that was the only record for that year. In 1972 one or two birds appeared in the month of August, but then in September there was a dramatic increase in numbers when between the 22nd and 25th of the month a flock of about forty birds was in the vicinity. They would usually stay in and around the rubber plantation and flew together or in ones and twos from one tree to another. On two mornings, they worked their way out of the rubber plantation and moved in a southerly direction along a line of rain trees, then into some pine trees and so out of the area. Birds were tallied in every month after that until December.

84. *Red-vented Bulbul (Pycnonotus aurigaster)*

Recorded but once. It was a yellow-vented form found in this part of Thailand and was seen in June 1971 at the top of a pine tree, calling.

85. *Streaked-throated Bulbul* (*Pycnonotus finlaysoni*)

A common resident species with one or two birds present throughout the year. A slight increase in numbers was noted in December 1972. There are indications to suggest that this species may be gaining ground on *P. goiavier* and that it may be more common in the area in future.

86. *Yellow-vented Bulbul* (*Pycnonotus goiavier*)

The commonest of the bulbuls tallied. It is confined almost exclusively to the bamboo groves and bushes. Parent birds have been observed feeding young. An increase in numbers was recorded in May. Figures of this species compared with those for *P. finlaysoni* show that when the numbers of one species go up, those of the other go down.

87. *Blanford's Olive Bulbul* (*Pycnonotus blanfordi*)

More often heard than seen. A resident species in the area often found in the rain trees and sometimes in the rubber plantation. An increase in numbers was noted in January 1972, but there are never more than two or three birds around at any time. For some unknown reason, there are no records for this bird in October 1972, although counts were made on twenty-two days in that month.

88. *Blue-eyed Bulbul* (*Pycnonotus atriceps*)

A few of these birds appear in the area from June through to December each year. They call constantly while feeding and behave very much like Black Drongos (*Dicrurus adsimilis*) in that they perch at the top of a tree and fly out after passing insects then return to their original perch.

89. *Black Drongo* (*Dicrurus adsimilis*)

The first Black Drongos usually arrive in the last week of September or the first week of October. They are nearly always seen flying in an easterly direction often in the evening quite high in the sky and spaced well apart. Maximum numbers for this species (60 in one flock in 1972) are usually recorded in October

when the birds roost in some tall trees in the eastern part of the area surveyed. After a few days they move off and smaller numbers are tallied in the rest of the season until March when there is another increase. In 1972, the last bird was recorded on April 22nd.

90. *Ashy Drongo* (*Dicrurus leucophaeus*)

Although a common bird in surrounding jungle areas, this bird is a vagrant in the area surveyed being recorded once in January and three times in October 1972. It was not tallied in other years.

91. *Hair-crested Drongo* (*Dicrurus hottentottus*)

Seen but once in the area—in November 1969.

92. *Greater Racquet-tailed Drongo* (*Dicrurus paradiseus*)

There is at least one resident pair of this species. It keeps to thick undergrowth but when feeding perches out in the open. It is often very noisy and has a wide range of calls some of which are good mimics of other birds, e.g. White-rumped Shama (*Copsychus malabaricus*). Parent birds have been seen feeding young.

93. *Black-naped Oriole* (*Oriolus chinensis*)

This common jungle species sometimes strays into the area between November and January. It seems to like rain trees. Juvenile birds are seen more often than adults which may indicate post-nesting dispersal. Adult birds have been seen with young but never more than three or four times a year.

94. *Jungle Crow* (*Corvus macrorhynchos*)

No detailed records were kept of this species, but it seems to be most in evidence during the wet and hot seasons when the drongos are not here. Bigger than usual numbers have been observed in July.

95. *Yellow-breasted Tit-babbler* (*Macronus gularis*)

A common resident species of thick undergrowth—mostly bamboo. It is more often heard than seen. One bird usually

starts the calling and the others follow. Numbers average between four and six and peak numbers are recorded in January after which there is a gradual decline through the year to December.

96. *Magpie Robin* (*Copsychus saularis*)

Although a common garden species, this bird shows signs of making some migratory movements even if they are only local ones. It is present in the area for most of the year but disappears for two or three months. In 1972 it was absent from May through to July, but in other years it has been tallied in May. It confines itself to a clearing in a bamboo grove. A pair is nearly always recorded together. The male bird has been heard singing well after sunset when it was almost dark.

97. *White-rumped Shama* (*Copsychus malabaricus*)

A winter visitor remaining from October to February. This bird is very rarely seen and is usually identified by its song which is much mellower than that of *C. saularis* and far more varied than that of the Greater Racquet-tailed Drongo (*Dicrurus paradiseus*) which can sometimes produce a very melodious song. The White-rumped Shama can always be identified by its low-toned and very grating scolding call. It keeps to the same habitat as *C. saularis* but one was observed on three consecutive days, singing from the top branches of a rubber tree in the plantation.

98. *Rufous-breasted Stonechat* (*Saxicola torquata*)

This bird has been recorded as early as September 13th and three or four birds stay in the locality until the third week in April. The female bird always arrives long before the male. In 1970, the first female was recorded on September 13th and the first male was not tallied until October 11th although more than ten counts were made between those two dates. In 1971, the difference in arrival time was forty-nine days and in 1972, fifty-two days.

99. *Blue Rock Thrush* (*Monticola solitarius*)

A winter resident present from the last week in September until mid-April. It can be found on the roof of the school building

or sometimes on the roof of a derelict building inside the rubber plantation. It was heard singing on one occasion and its song was similar to that of the Blackbird (*Turdus merula*) of Europe.

100. Inornate Willow Warbler (*Phylloscopus inornatus*)

The one willow warbler which is a regular winter resident in the area is presumed to be of this species judging from its behaviour and especially its song. It is recorded first in October and stays through to March. It has never been observed outside the rubber plantation and feeds in both the rubber trees and the secondary vegetation beneath the trees.

101. Arctic Warbler (*Phylloscopus borealis*)

This is probably a much more frequent visitor to the area than the records seem to show. The first records of willow warblers in the area are believed to be of this species but there are no records of it having been seen outside of October. One bird was examined in the hand in October 1969 after it had flown into a window pane and stunned itself.

102. Thick-billed Reed Warbler. (*Phragamaticola aedon*)

First tallied in 1972 when two birds appeared in January. They were observed on several occasions after that in February and March. They kept to the field of lalang grass and sometimes were seen in the rain trees.

103. Black-throated Tailorbird (*Orthotomus atrogularis*)

A very common resident species tallied in every month of the year. Greatest numbers have been recorded in April.

104. Rufescent Prinia (*Prinia rufescens*)

Seen but once, in November 1971.

105. Plain-coloured Prinia (*Prinia subflava*)

A resident species usually found in the lalang grass behind the school building. There was another pair in the long reeds near one of the ponds. In 1972, this species was missing from the area in February, May and June. It is not understood why it was not tallied in these months because nesting takes place in July. In

1971, one nest was found in this month. It was a tiny cup shaped structure built about one meter from the ground in lalang grass and near a large pool of water. It had further attachments above the cup in the shape of a handle of a basket. When the nest was first discovered, it contained nestlings. There were three and they fledged two days later leaving behind one addled egg. Both parents fed the young.

106. *Streaked Fantail Warbler (Cisticola juncidis)*

Rarely tallied prior to 1972 when recorded twice. In records taken since then however, it seems that species is becoming more common.

107. *Golden-headed Fantail Warbler (Cisticola exilis)*

Up to August 1971, there were no records of this species having been seen in the area, but in that month one appeared in the lalang grass in the field behind the school and stayed to the end of the month. In 1972, the species was first recorded in April and stayed right through to the end of August. Two birds were tallied on two occasions. Although not covered by this survey, 1973 has seen two places in the area colonised by this species and there has been evinence of breeding.

108. *Grey-breasted Brown Flycatcher (Muscicapa latirostris)*

A regular winter resident usually found in the rubber plantation. Most of the season there is only one bird present but two are sometimes tallied at the beginning and end of the season. This bird is much more silent and less active than the following species and likes perching on the ends of dead branches of rubber trees. It can be observed feeding well after sunset.

109. *Red-breasted Flycatcher (Muscicapa parva)*

A winter resident arriving in October and leaving in April. The numbers of this species fluctuate considerably. In December 1970, no fewer than six birds were tallied at one count. Higher than normal numbers (three to four) are sometimes recorded at the beginning of the winter season when the birds first arrive. In

1972 however, no more than two birds were tallied throughout the season.

110. *Malaysian Fantail Flycatcher (Rhipidura javanica)*

Recorded only once, in September 1971.

111. *Black-naped Monarch Flycatcher (Hypothymis azurea)*

A female bird of this species was observed once in February 1972. It was feeding very actively in an area where there are many bamboo plants.

112. *Pied Wagtail (Motacilla alba)*

A transient species small numbers of which were tallied in January, February and April. Most of them were observed flying in a southwesterly direction in the late afternoon and early evening.

113. *Grey/Yellow Wagtail (Motacilla caspica/flava)*

These wagtails are passage migrants appearing in April and then again in September. In winter they tend to stay around to feed as there is still plenty of water in the fields but in April most records are of birds in flight.

114. *Forest Wagtail (Dendronanthus indicus)*

Between October 1969 when tallying first began and the end of 1971 only one bird of this species was recorded. In 1972 it was recorded sporadically between February and April and between September and December. Records so far in 1973 indicate a big improvement in the status of this species. The Forest Wagtail is sometimes found inside the rubber plantation but nearly always in places surrounded by trees or bushes. When flushed it flies to the branches of a tree in the same way that a Tree Pipit (*Anthus hodgsoni*) does. It also wags its tail from side to side instead of up and down. Most records are of single birds but there have been a few records of two birds seen together.

115. *Tree Pipit (Anthus hodgsoni)*

This is one of the latest of all the winter visitors to arrive. It is first recorded in November in most years and stays through to April. Parties of six to eight birds can be seen feeding inside the plantation.

116. Paddy-field Pipit (*Anthus novae-seelandiae*)

A common resident pipit which feeds on the open grazing land throughout the area. Although there is no evidence of nesting, a rise in numbers in June could be due to the addition of young birds. A further but smaller rise in the winter (October-November) may be due to an influx of birds from outside the area. The onward movement of these latter could be the reason why numbers were low in December (of 1972).

117. Red-throated Pipit (*Anthus cervinus*)

A winter visitor arriving in late October and staying through to the following April. This pipit likes areas of longish grass and muddy ground and can often be seen feeding alongside waders. Numbers reach their peak in November. At sunset, flocks of these birds can be seen flying off to the south.

118. Brown Shrike (*Lanius cristatus*)

This is the only shrike in the area and is a winter visitor. It is tallied everywhere including the rubber plantation. An average of four birds is present during the season.

119. Tiger Shrike (*Lanius tigrinus*)

Tallied only once, in February 1970.

120. Chinese Starling (*Sturnus sinensis*)

A transient species. Small flocks are tallied in the months of September to March with the exception of January. Most records are of birds in flight but they are sometimes tallied feeding in the rain trees.

121. Daurian Starling (*Sturnus sturninus*)

A passage migrant. A flock of about two thousand birds flying north in September 1971 was probably of this species. Another two or three hundred were seen later on in the same month. It can be observed in most months between September and March, but in 1972 all records were in February.

122. *Black-collared Starling (Sturnus nigricollis)*

A common resident species. The figures vary considerable from month to month but the greatest numbers are tallied in the period from August to November. In some years (e.g. 1970) larger than usual flocks were recorded in July.

123. *Jerdon's Starling (Sturnus burmanicus)*

One bird was tallied in January 1972.

124. *Common Mynah (Sturnus tristis)*

A very common resident species for which no detailed records were kept. It keeps close to the vicinity of the school building.

125. *Crested Mynah (Sturnus javanicus)*

This species of mynah bird is fairly common from August to December. It is more often seen flying over the area in closely packed flocks, but when on the ground it is never far from cattle. For one period in November 1972 flocks of up to twenty birds were seen flying in a northerly direction at the same time each day in what were probably roost movements.

126. *Yellow-throated Flower-pecker (Prionochilus maculatus)*

Recorded once, in June 1970.

127. *Scarlet-backed Flower-pecker (Dicaeum cruentatum)*

This bird is usually tallied inside the rubber plantation where it feeds in the top branches of the trees. In 1972, when the most detailed records were kept, this bird was absent in November and December. Most counts tally one bird but there are sometimes two.

128. *Tree Sparrow (Passer montanus)*

A common resident species on the buildings in the area. No detailed records were kept of this species.

129. *Pegu House Sparrow (Passer flaveolus)*

This species of sparrow is common but is often found well away from buildings and habitation. Flocks of thirty and forty birds have been seen in bamboo bushes. At least one pair nests on the school building. No detailed records were kept of this species.

130. *Baya Weaver Bird (Ploceus philippinus)*

Once a very common resident species in the area, it is now a vagrant although records taken in 1973 show that it may be on the increase again. For the period covered there is only one record of three birds in July 1971.

131. *Golden Weaver Bird (Ploceus hypoxanthus)*

Two birds were tallied in April 1972 on two occasions.

132. *White-rumped Munia (Lonchura striata)*

A common bird of bamboo bushes seen in every month except for November and December.

133. *Spotted Munia (Lonchura punctulata)*

A pair nested in a rubber tree in July 1970. Since then the species has been tallied only once when six birds appeared in March 1972.

134. *Yellow-breasted Bunting (Emberiza aureola)*

A flock of two hundred birds probably of this species was seen flying over in April 1972.

Table 1. Permanent resident bird species in a lowland area of Chanthaburi which are present during most of the year.
(Figures for 1972).

Species	Months												Totals
	J	F	M	A	M	J	J	A	S	O	N	D	
<i>Ardeola ralloides</i>	31	32	28	53	1				69	94	43	33	384
<i>Elanus caeruleus</i>	5	20	2	1		1	3	10	5	1	5	8	61
<i>Accipiter virgatus/badius</i>	5	2	1	3			1	6	3	12	1		34
<i>Glareola maldivarum</i>		29	80	49		1	4		3	162	35		363
<i>Streptopelia chinensis</i>	5			8	3	17	11	14	6		2	1	66
<i>Eudynamys scolopacea</i>		3	13	6			3	6		2	4	3	40
<i>Centropus sinensis</i>	12	8	9	32	4	14	13	25			31	31	179
<i>Glaucidium cuculoides</i>	16	19	19	15	2	7	7	11	12	26	21	34	189
<i>Chaetura gigantea</i>	12	3	4	4		2	1	12	5	1		1	45
<i>Apus affinis</i>			1	30	2	2	4	5	93	7			
<i>Halcyon smyrnensis</i>	25	34	33	36	6	19	16	36	39	26	19	33	322
<i>Coracias benghalensis</i>	42	31	26	22	6	10	15	40	40	35	25	43	335
<i>Megalaima haemacephala</i>	6	11	3	20	3	5		2	5	8	11	10	84
<i>Alauda gulgula</i>	5	4	15	16	3	9	2	1	2			1	58
<i>Pycnonotus finlaysoni</i>	9	16	23	23	3	9	7	16	3	7	10	15	141
<i>Pycnonotus goiavier</i>	32	38	23	42	8	14	14	19	7	16	25	43	281
<i>Pycnonotus blanfordi</i>	8	19	21	20	4	9	15	11	9		1	5	122
<i>Dicrurus paradiseus</i>	3	7	10	22	3	16	6	21	22	26	14	18	168
<i>Macronus gularis</i>	25	39	16	34	4	19	12	13	14	9	13		198
<i>Copsychus saularis</i>	4	20	15	11				17	15	10	9	17	118
<i>Orthotomus atrogularis</i>	15	33	34	44	5	14	8	22	19	10	12	32	248
<i>Prini subflava</i>	3		2	1			4	20	12	17	17	5	81
<i>Anthus novae-zeelandiae</i>	75	149	102	180	11	126	91	98	41	162	200	65	1,300
<i>Sturnus nigricollis</i>	112	138	56	70	24	56	48	550	348	700	680	435	3,247
<i>Lonchura striata</i>	4	1	8	70	20	9	37	72	11	10			242
No. of observations	18	20	18	20	3	11	11	20	20	22	21	24	208
Total number species	22	22	24	25	18	20	22	23	23	21	21	20	25
Total number birds	454	656	544	811	112	359	322	1,027	783	1,341	1,178	863	8,450
Average no. birds per species	26.3	29.8	22.6	32.4	6.2	17.9	14.6	44.6	34.0	63.8	56.0	43.1	32.6
Average no. birds per observation	25.2	32.8	32.2	45.5	37.3	32.6	29.2	51.3	39.1	60.9	56.0	43.1	40.1

Table 2. Species tallied mainly during the rainy season (1972)

Species	Months												Totals
	J	F	M	A	M	J	J	A	S	O	N	D	
Number of obs.	18	20	18	20	3	11	11	20	20	22	21	24	208
<i>Ixobrychus cinnamomeus</i>						15	5	14	4	1			39
<i>Dupetor flavicollis</i>					1	2	8	8	14	9			42
<i>Dendocygna javanica</i>						7	4	6	2	1	5		25
<i>Rallus striatus</i>						4	3	1	10				18
<i>Gallicrex cinerea</i>						1	1	5	7				14
<i>Cisticola exilis</i>				7	2	8	7	8					32
Total no. species				2	2	6	6	6	5	2	1		6
Total no. birds				8	4	43	28	48	32	2	5		170
Ave. no. birds per species				4.0	2.0	7.1	4.6	8.0	6.4	1.0	5.0		4.7
Ave. no. birds per observation				0.4	1.3	3.9	2.5	2.4	1.6	0.5	0.2		1.5

Table 3. Winter visitor birds species found in a lowland area of Chanthaburi province. (1972)

Species	Months												Totals
	J	F	M	A	M	J	J	A	S	O	N	D	
No. of Observations	18	20	18	20	3	11	11	20	20	22	21	24	208
<i>Milvus migrans</i>										1	1	10	12
<i>Haliaster indus</i>	2	1	1										4
<i>Accipiter nisus</i>	3	14	5	1						6	6	3	38
<i>Circus melanoleucos</i>	6	10	6	3							2	6	33
<i>Circus aeruginosus</i>		1	2							1	1	6	11
<i>Vanellus duvaucelli</i>									1	20	12	6	39
<i>Charadrius dominicus</i>		27	67	177				18		30	4		323
<i>Charadrius dubius</i>	2			6							5	2	15
<i>Tringa nebularia</i>	1	1							2				4
<i>Tringa glareola</i>	31	17	13	43			1	1		1	12	30	149
<i>Tringa ocropus</i>	18	14	12	3					4	13	30	50	144
<i>Actitis hypoleucos</i>	15	12	2	35				5	4	7	9	17	106
<i>Centropus toulou</i>	3	7	4	5							4	7	30
<i>Tyto alba</i>									1	2	1	1	5
<i>Alcedo atthis</i>	2	2							5	4	1		14
<i>Halycon pileata</i>	3		2	1					2	31	12	10	61
<i>Hirundo rustica</i>	10,615	1,680	695	1,430	92		51	460	170	120	129	20,150	35,792
<i>Pycnonotus melanicterus</i>								5	150	5	8	2	170
<i>Pycnonotus atriceps</i>						4	19	35	26	72	136	32	324
<i>Dicrurus adsimilis</i>	163	265	128	22						637	228	135	1,578
<i>Copsychus malabaricus</i>	4	7								3	9	2	25
<i>Saxicola torquata</i>	35	53	52	19						24	33	40	256
<i>Monticola solitarius</i>	5	8	10	7						9	13	17	69
<i>Phylloscopus inornatus</i>	13	7	3										23
<i>Phragamaticola aedon</i>	3	7	2										12
<i>Muscicapa latirostris</i>	23	14	16							4	21	20	110
<i>Muscicapa parva</i>	42	35	29	16						4	20	25	171
<i>Motacilla alba</i>	20	10		1									31
<i>Motacilla caspica/flava</i>				128	15				55	59	1	125	383
<i>Dendronanthus indicus</i>		3		2					1		1	4	11
<i>Anthus hodgsoni</i>	44	49	53	38							29	39	252
<i>Anthus cervinus</i>	511	403	52	48						37	850	714	2,615
<i>Lanius cristatus</i>	42	31	26	38					73	89	49	50	398
<i>Sturnus sinensis</i>			75						7	7	11	12	112
<i>Sturnus javanicus</i>								7	22	22	82	65	198
Total no. species	24	25	22	21	2	1	2	6	14	25	30	28	35
Total no. birds*	991	998	560	605	15	4	20	71	353	1,088	1,591	1,430	7,726*
Av. no. birds per species*	41.2	41.5	25.4	28.8	7.5	4.0	10.0	11.7	25.2	43.5	53.0	51.2	22.0*
Ave. no. birds per observation*	55.0	49.9	31.1	30.2	5.0	0.3	1.8	3.5	17.6	49.4	75.7	59.5	37.1

* excluding swallows