

Migration and Movements of Birds of Prey over Singapore

By L. H. HURRELL

(Received December, 1958)

PULAU BLAKANG MATI is a small island situated off the southern point of Singapore. It is well placed for observing the movements of birds leaving or arriving on the Malayan land mass. During a stay on the island of over eighteen months, I noted a number of migrating birds of prey and a curious movement of Brahminy Kites (*Haliastur indus*).



FIGURE 1. P. Blakang Mati, Singapore Island and neighbouring areas.

Migrations observed

Many birds of prey come as winter visitors to the southern part of the Malay peninsula, including the Osprey (*Pandion haliaetus*), and Peregrine (*Falco peregrinus*), but only Honey Buzzards (*Pernis ptilorhynchus*) and accipiters were observed migrating. A spring migration of Honey Buzzards was seen on April 2, 1957. At 17.30 hours, seventeen were watched going north in straggling circling parties and at 16.00 hours on April 3, a further three.

Small numbers of accipiters were seen frequently during autumn flying steadily south south-east, or circling high and making off with a group of Brahminy Kites across the Straits towards Indonesia. Many Japanese Sparrow Hawks (*Accipiter virgatus*) remain as winter visitors in the Malay Archipelago and the accipiters observed migrating were thought to be of this species. A return migration was observed in the spring of 1957. The peak occurred on April 14, when a total of nineteen passed over Blakang Mati. Ten were watched circling together to over one thousand feet and then making off north north-west at 10.00 hours. During the next two hours a further nine individuals passed north north-west flying at about one hundred feet. Several of these were coming in alone over the Singapore Harbour, the front of the observed migration being two miles in breadth.

Table of movements seen over Blakang Mati

Honey Buzzards			Brahminy Kites		
Date	Number	Direction	Date	Number	Direction
1957 April 2nd ..	17	N.	1956 May 9th ..	56	S.
April 3rd ..	3	N.	May 23rd ..	6	S.
Accipiters			September 14th ..	25	S.
1956 March 1st ..	1	W.	October 16th ..	50	S.
April 11th ..	1	W.	October 18th ..	84	S.
September 15th ..	1	S.S.E.	October 21st ..	35	S.
October 16th ..	1	S.S.E.	November 18th ..	35	S.
October 19th ..	1	S.S.E.	November 25th ..	15	S.
October 21st ..	6	S.S.E.	1957 January 11th ..	13	S.
November 18th ..	4	S.S.E.	March 31st ..	22	S.
December 2nd ..	2	S.S.E.	April 12th ..	19	S.
1957 April 13th ..	3	N.	April 14th ..	35	S.
April 14th ..	19	N.N.W.	June 8th ..	25	S.
April 19th ..	1	N.	June 27th ..	12	S.
April 22nd ..	4	N.	June 28th ..	12	S.
			July 17th ..	10	S.

Movements of Brahminy Kites

The Brahminy Kite is a plentiful species around the Malayan coast and the neighbouring islands. It is stated to be resident (Gibson-Hill) and I have been unable to trace any published records of sizeable or well marked movements of these birds. It was therefore a surprise to note from December 1955 to July 1957 a passage of them over Blakang Mati. During the early months of 1956, I noted that a number of Brahminy Kites would set off in the evening from the southern point of Blakang Mati and fly

between south and south-east out to sea. These birds could be followed past the smaller islands to the south and over the Straits of Singapore towards the Indonesian island of Batam some ten miles away. I felt at first that this must be some form of roosting behaviour but could see no definite return movement in the mornings. I did on a few occasions see two or three meandering north in the early hours but there was no convincing movement. Individuals would sometimes gather in the trees in the late afternoon near a small reservoir on Blakang Mati. Some would come down to drink, and later all or a few at a time, would take off and go south. A few birds could often be seen travelling south-east along the Blakang Mati shore to its southern tip and thence heading out to sea without necessarily joining up with the main parties. The method of progress appeared to depend upon the wind conditions; sometimes they would fly low and maintain an undeviating course and sometimes circle high before leaving the coast. In the latter case they would frequently again circle over the small islands to the south to regain height before continuing on their way. Often some of the last to leave did so when the light was fading rapidly so that it must have been quite dark by the time they reached the Indonesian shore. I sometimes watched from one of the southern-most of the Singapore group of islands (St. John's Island), and could follow them flying southwards until out of sight over the Straits.

The movements were recorded in every month except August and occurred on the majority of evenings when I was able to watch. The main variation was in the number of birds involved. Usually it was less than thirty but during October 1956 much larger numbers were seen. Birds could be seen on the move during the afternoon as early as 14.00 hours. On October 16 between 16.30 and 18.00 hours, fifty were counted and on October 19 between 16.50 and 17.30 hours, eighty-four. On the latter occasion, the weather was rough and many storm clouds were moving south. Kites were coming from the north at five hundred to one thousand feet. Groups of ten to twenty could be seen forming and circling together to gain height over Blakang Mati. After a few minutes, individuals started to break away from the group, and with measured beat to fly south, followed in a steady stream by the remaining birds. Looking east across the Singapore Harbour more kites could be seen moving south, although none could be seen to the west. Evidently the front was at least a mile wide. The parties were sometimes accompanied by migrating accipiters and on these occasions the movement gave a definite impression of a through migration.

It seems that this may be an autumn migration superimposed on the daily movements previously described, and that some Brahminy Kites in fact are true migrants. However, I saw no evidence of a northerly return movement in the spring of 1956 and 1957. Instead, there were the southbound evening parties setting off and on 9th May, 1956, fifty-six were counted streaming south. I watched closely whenever opportunities arose for other movements occurring anywhere along the southern coast of Singapore Island, but found no evidence of any.

Discussion

The overall picture is therefore of a southerly afternoon movement throughout the year which may possibly be roosting behaviour. The movements persist until such a late hour and the transition from day-light to darkness is so rapid that it seems certain that they must roost shortly after arriving in Indonesia. The answer might be forthcoming if one could observe their arrival and watch their departure in the morning but unfortunately the present political situation prevents such investigation. The Singapore

Harbour is undoubtedly attractive as a feeding area and probably explains the considerable numbers there during the day, but not the direction in which the evening movements occur, since there is no obvious reason why Indonesia should be preferred to Singapore Island or Johore. It is possible that the kites escape detection by wandering back leisurely during the morning over a very wide front but I did not succeed in demonstrating this satisfactorily.

The peak numbers in October suggest an autumn migration, partly because of the numbers involved and partly because movements were seen so much earlier in the day than would be likely if roosting was the sole purpose. The parties on such occasions were also frequently accompanied by migrating accipiters. The absence of any return migration in spring is remarkably difficult to explain, and the increased number of southbound kites in May is even more perplexing. More observations in the spring are needed before this can be regarded as a reverse migration but the evidence to date seems rather to suggest it.

Summary

Southbound autumn and northbound spring migrations of Honey Buzzards (*Pernis ptilorhynchus*) and accipiters (probably mostly *Accipiter virgatus*) were observed over Singapore during 1956 and 1957.

Autumn movements of Brahminy Kites (*Haliastur indus*) were observed, suggesting that some individuals may be migrants, but the significance of daily southbound movements throughout the year is uncertain.

Reference

- GIBSON-HILL, C. A., 1949. An annotated checklist of the birds of Malaya, *Bull. Raffles Mus. Singapore*, 20, pp. 1-299.