

Behaviour of the Banded Rail, Rallus philippensis.

by R. R. Dunlop

INTRODUCTION

In the late summer of 1963 I noticed a strange bird in the vicinity of my home, which is on an island in Pumicestone Channel just north of Brisbane. Sometimes it appeared as a white-spotted grey shadow slipping quietly through the grass beside a log, sometimes as a brown flash rising, often with a somewhat mouse-like squeak, from the track in front of me, to skim over the top of the grass for a few yards before pitching into cover.

Eventually one afternoon I saw a family party, two adults and three almost full grown chicks, slip quietly past the front of the house towards the neighbouring mangrove swamp. They spent a considerable time there feeding, mainly on flying insects, which they were taking on the wing, often leaping eighteen inches or so in the air to catch their prey. On my next visit to Brisbane I was able, with the assistance of the then Director of the Queensland Museum, the late Mr. George Mack, to identify the bird as the Banded Rail, Rallus philippensis.

During the following autumn and winter one of the birds gradually settled in and became quite used to my presence. When working at my outdoor bench I would notice it foraging under the other end, or turn round to find it feeding five or six feet behind me. In the spring a second bird arrived, and for about a week the first bird's chief aim appeared to be to chase the intruder. As a result I would commonly see two brown streaks, about eighteen inches apart, crossing the open space in front of the house. After this they settled down together for a few days until the whole matter was repeated with the arrival of a third bird. Finally all three settled

down amicably together.

It was soon apparent that the birds had very different personalities, so much so that I found myself thinking of them as, "Boldie", "Halfshy", and "Timid", (it was not until a year later that I started an individual marking scheme). Their reactions when first photographed showed their different characters quite clearly. As the shutter clicked Boldie hardly bothered to look up, Halfshy merely stared around for a few seconds, while Timid reacted strongly by performing a two foot vertical leap, without wing assistance, then landing on the same spot and glaring in all directions for about half a minute before resuming feeding.

Although the birds appear to be quite strong fliers, they seldom take to the air except in the face of sudden danger or in pursuit of a rival, and then they merely skim over the top of the scrub or grass for about ten or twelve feet before diving into cover. The longest flight I have observed would be about 60 yards by two birds, one in pursuit of the other, over a rather open area.

One of the most noticeable things about these birds is their quietness. Except when alarmed or skirmishing among themselves, every movement has the appearance of being carefully soundless, either in the long grass or out in the open, where they are seldom seen during periods of high winds. Possibly they find it difficult to detect approaching danger under such conditions. Several times I have noticed a bird feeding in the open when a strong wind has suddenly arisen, immediately it would become uneasy and soon disappeared into the long grass. If anything suspicious should attract a bird's attention, it will stretch to its full height in order to get a better view, in the same way as a domestic fowl does. A very young chick, however, will lower its head to the ground and peer upwards in a manner which gives it a

most reptilian appearance.

SEXES NOT DISTINCT

I could never notice anything, either in appearance or behaviour, to indicate the sex of a bird, and only inferred it in copulating pairs. What seemed to be mated birds shared the job of looking after the chicks. One, possibly the female, seemed to do the larger share of mothering the chicks, occasionally allowing its mate to take a titbit intended for them; also it had the duty of dealing with any intruders into its area. When the chicks were very small, and sometimes during the hatching period, one bird would occasionally carry away large pieces of food; beetles, bread etc. evidently intended for the family.

COURTSHIP AND MATING

I have seen little of what could be regarded as courtship behaviour. Sometimes a bird in the feeding area will hang about on the edge of the grass as if courting a chase. Perhaps mating is a question of chase and capture.

On one occasion two of my residents stood face to face for about a minute, each in turn nibbling at the face of the other, with short spells of mutual preening between nibbles.

One mating sequence was first observed on August 29th. Two birds were feeding together when one stood erect and uttered several throaty "coos". The other, presumably male, fell in behind, followed for a few paces and attempted to mount. However, the female slipped him, then turned around and nibbled his throat and face for a few seconds before trotting away. The male followed for a few steps but gradually lost interest. That afternoon the female was feeding when the male suddenly dashed up and chased her in close circles until they disappeared in the grass.

On September 12th the female was feeding when the male arrived with a large insect which he offered her; she snatched it and trotted away with him following. A couple of days later I saw the female tugging vigorously at something, probably a root, in a small hollow. She then sat down in the hollow and squirmed around as if trying it for size as a nest. The male promptly rushed her and grabbed her by the back of the neck, but she jumped clear and ran. When copulation takes place the female does not crouch but merely bows forward slightly to balance the weight of the male. Within five or six seconds of mounting the male slips off and after a quick shake both birds resume feeding.

BREEDING SEASON

The breeding season appears to be from late September to early February, often with the first brood about the 12th October and succeeding broods at intervals of two months. In the 1963/4 season birds arrived with chicks about two to three days old on October 24th; four chicks ten to fourteen days old on December 22nd; four chicks three to four days old on February 8th.

In the 1965/6 season they arrived with chicks about three to five days old on October 13th, December 16th and February 11th. In 1966/7 there were two broods and the assumed hatching dates being about November 12th and January 3rd. On May 12th a parent arrived with a chick approximately three weeks old. Both the 15th and 16th of May were very cold days and the chick simply stood around in a hunched position too cold even to eat. I never saw it again so presumably the cold was too much for it.

In the 1967/8 season on December 8th a female arrived in company with five chicks, apparently four or five days old, and on the next day she and her mate appeared with six chicks, the largest

family recorded since observations started. This family was the tamest I have known so far. From their arrival I was able to move quietly about indoors in full view without causing panic, and by the time they were half grown, all except one, as well as both parents, were regularly coming indoors. Although the male remained more or less with the family he soon lost interest in the young.

I have only once found a nest. Apparently the bird had simply squatted down in long grass under the partial shelter of a banana leaf, pulled a couple of grass stalks around her, and laid. The eggs were about an inch and a quarter in length, somewhat roundish, off-white in colour with large irregular chocolate blotches at the thick end. The incubation period would appear to be about two weeks. I found the nest with three clean eggs on September 31st and they hatched between October 10th and 19th.

CHICK SURVIVAL

From one to six chicks are hatched at a time, of which one or two sometimes die in the first couple of weeks. In the first few days a chick will die suddenly without any apparent cause. Later a chick may be sick for two or three days before disappearing. The main symptom of ailing is a tendency to spend much time sitting down, even while feeding, although appearing quite active between times. Also, a sick chick will often climb into a shallow saucer of water, which normal chicks seldom do.

When a chick is sick, a parent, presumably the female, usually drives the sufferer away. I was able to watch such an expulsion in 1965. On February 3rd. when the chicks were about a fortnight old and partly fledged, I noticed that one was smaller and less developed than the others. During the next two days it spent a good deal of time alone, staying behind when the others wandered away,

and frequently sitting down. On the morning of 5th February it was feeding with the rest of the family when it sat down. A parent bird promptly walked over and gave it several hard pecks on the back of the head. This happened two or three times during the morning. In the afternoon it stayed alone while the family foraged elsewhere. The following day everything appeared normal, but on the 7th it was feeding with another chick and a parent when the latter suddenly attacked it and chased it for some distance. A little later it was between the parent's legs getting fed in the normal way. On the 8th it was definitely under sentence of banishment, the hen attacking it whenever she saw it. It made repeated efforts to join the others. At one time, after hovering forlornly on the outskirts of the family for some time, it crept up behind the hen and slipped quietly into the "baby position" between her legs. For two or three minutes she accepted this and even gave it a couple of seeds, then suddenly she seemed to realise which one it was and pecked it savagely. The little one ran two or three feet and crouched down under one of the other chicks.

The hen lost sight of it and so started to search. First she stood on tiptoe to have a good look around and then she circled the area a couple of times. Failing to spot it she went a short distance down one of the paths, came back, and went down the other path. The male (?) followed her, but met her coming back. He retreated at high speed and skidded around a corner, letting out a loud squawk, and disappeared down the other track. The hen, after another good look, seemed to calm herself and resumed feeding.

Meanwhile, the chick had slipped away and for the rest of the day hung around on the outskirts of the group. The following day it was around whenever the coast was clear, seemingly quite active and

alert, but about a week behind the others in development. It took care to disappear whenever the family arrived. I never saw it again, although for a couple of days I think the hen was still watching for it.

CHICK DEVELOPMENT

The chicks develop quite rapidly. At first they are coal black, with either a grey eye stripe or, more usually, a grey cheek patch. The first feathers begin to appear about the end of the second week and at two months they are fully grown, but lack the final brilliant colouring on head and neck and the white spots on the back. These develop during the next two or three months. With some families the orange breast appears with the first feathers, while others do not acquire it for four or five months.

The chicks appear to be very independent quite early in life, foraging alone for long periods after the first week. When feeding with a parent the favoured position is between the older bird's legs. The adult does not actively feed the chicks but from time to time will pick up a seed, or other titbit and stand still, cooing softly, while the chick reaches up to take it. If there are a pair of adult birds they often divide the family, each shepherding part of the brood. The resident pair usually did this. One of the parents, presumably the male, seldom offered food to the chicks and occasionally, if the female did so and no chick responded immediately, he would take it from her.

The young are generally so independent that they would probably have a good chance of survival if orphaned when a week old. On a number of occasions I have seen unfledged chicks chase trespassing adults away, as well as honeyeaters and Peaceful Doves. It seems a rule that the chicks should be allowed to dominate the parents for the first two or three weeks, although there are exceptions. For

instance, one morning, a chick, seeing a stranger in the feeding area, dashed in to attack, only to find itself facing a sharp beak point, seeing which it stopped so suddenly that it skidded its own length, then stood looking uncertainly at the intruder.

Another time a small chick had quite a thrilling fight with an adult and it was very amusing to see this tiny ball of black fluff bounding into the air in an effort to reach its opponent's face, while the larger bird delivered a shower of downward blows all around it, but obviously taking good care to strike well clear of the tiny target. When the chicks are about half grown the parent birds decide that it is time to teach the young their place and so a charging chick often receives an unexpected peck which is sometimes delivered with enough force to tumble it over.

VOICE

These birds seem to regard a voice in the same way as a wing, something only to be used when really necessary. For a long time the only sound I heard from them was a sharp squeak uttered when surprised. Gradually, however, I discovered that they have a vocabulary of about half a dozen different sounds. They begin to "talk" early in November.

There seem to be three basic sounds, "squeak", "kuk", and "coo". The "kuk" seems to be a warning to other birds to keep away. Another variation of this is more nearly described as "chik". When a bird has, or is about to have chicks, it often keeps up a very soft "coo-ooo". The same sound can also be used with a very angry intonation, as a challenge or call of defiance. Fighting birds keep up an angry cooing between bouts.

Once when a bird succeeded in driving a rival off a disputed feeding area it spent a good deal of time during the next couple of

days in parading around uttering a challenging "chi-dik", "chi-dik". When surprised by an enemy a bird will utter a sharp squeak as it dashes away; one can hardly regard this as an alarm call as the birds are far too individualistic to bother about warning others of impending danger.

Occasionally when one of a pair with chicks has been feeding alone, the other, hidden with the chicks in the nearby grass, will set up a call something like a braying donkey, "coo-aw-ooo-aw-ooo-aw". This seems to be a signal to bring the straying mate back to its domestic duties for it will set off in the direction of the family upon hearing the call. Sometimes a bird will go through a remarkable performance which I am inclined to believe may be a mating call. Standing on tiptoe it will point its beak skywards and with a sudden shoulder shrug literally jerk out a sharp squeak, repeating this at intervals of perhaps fifteen to twenty seconds, and between squeaks the bird will wander around as if looking for something.

FOOD

Food seems to consist of small seeds, insects and small forms of aquatic life, for which the birds often hunt among the mangroves at low tide. They show no interest in large seeds, such as maize or sunflower,

One puzzling factor over the years has been their ability to live with little or no fresh water. There is no natural fresh water on the island, and the birds fly so seldom that it seems unlikely that they leave the island to drink. When I am at home I keep a small bird bath filled for them, from which they drink several times a day. One summer I was away for three weeks, during which time there was only one shower and doubtfully any dew formation, yet when I returned they, (and a couple of bandicoots), did not seem to have suffered in

any way, although for the first few days they certainly drank a good deal more than usual.

PAIR FORMATION

By May in 1964 two birds had settled in to the southern side of the house and evidently regarded that area, and the space in front of the door, as their territory. Another bird, which did not seem to be mated until 1966, had settled in to the banana patch to the west of the house, and as it refused to keep away from the feeding area there were continual skirmishes as one of the residents tried to enforce ownership. This third bird appeared with four chicks in January 1966, and took possession of the feeding ground until the chicks were about a month old, when the resident birds reasserted themselves.

But pairs are not always established so early. In July 1968 I had four birds, a male which had been with me since 1964, a male hatched about the beginning of 1967, a female hatched about October 10th of the same year, and a youngster from the January 1968 brood. At first the birds acted quite independently, chasing or being chased, whenever they got near each other. These chases, noted also in other years, have a curious, almost formal, sameness. The pursued bird runs about five or six yards, then swerves suddenly and stops about a couple of feet from the turning point. The pursuer carries on straight ahead for a couple of yards, then stops, stares about in all directions for perhaps half a minute, then dashes off in the opposite direction, while the pursued bird often returns for a few more beakfuls of seed before its protagonist reappears to repeat the performance.

On one occasion early in July the female and one of the males were quietly feeding side by side when the male turned on the female and gave her several hearty pecks till she ran off for a few feet,

when he uttered a series of throaty "kuks". He then ran past her and stopped just in front while she in turn ran past him giving a quick peck in passing, then continued into the grass with him in pursuit. These two formed a partnership to attack the single male, but it was a temporary arrangement for by October 21st the tables were turned and the female mated with the second male, driving the other one away.

PRECEDENCE AND TERRITORY OWNERSHIP

By the beginning of March there is much skirmishing among parents and offspring; birds often give sudden little jumps or quick aimless dashes, seemingly just for fun. It is not unusual for a bird to dash suddenly into a group, scattering them left and right, but without attacking anyone. Gradually, however, what seems to be games develop into serious arguments as to who shall leave home; it is usually the offspring. In spite of a pair of my residents having produced about three dozen chicks over several seasons not one of the offspring remained. Four is the most that have spent the winter with me, either solitary or in a group.

Although fights occasionally take place most questions of precedence are settled without actual blows. Two birds will stand face to face a few inches apart. After staring at each other for fifteen or twenty seconds one bird will begin to get uneasy and finally withdraw; occasionally the withdrawal will be accelerated by the other bird. Sometimes there are brief fights, beak to beak and claw to claw, but they seldom last more than a few seconds.

On one occasion an adolescent, apparently tired of being kept in its place, challenged an adult. On the first round the adult routed the youngster and for seven or eight minutes paraded in front of the house, obviously daring all comers. The youngster reappeared

and the adult charged, but this time the young bird stood its ground and for the next minute or so there was a first-class stand up scrap; beaks, wings, claws all working overtime. At the beginning, the young one had the older bird down and got on its back and then savaged the back of its head. The latter broke free and managed to return the compliment; but mostly the birds faced each other, rising into the air together and striking vigorously with beaks and claws. Between bouts they kept up an angry cooing.

Some birds show considerable initiative in dealing with rivals. A bird which is chased away at approximately the same time each day will change its feeding time. After two or three days its rival, missing the daily chase, will begin to arrive at unusual times until contact is re-established. Ambush tactics are also sometimes used. There appears to be quite a strong pecking, or rather chasing order. A bird finding an "inferior" in the feeding area will usually charge immediately, whereupon the latter will run or, if hard pressed, fly without argument.

Aggressiveness is not confined to members of their own species. They will drive away from the feeding area other birds such as doves and magpies. A bird will often feed quite peaceably with other species for a time then suddenly make a quite vicious attack on them. At times they take on even larger game. During 1966 a rather ancient bandicoot used to come to the house each evening to be hand fed and when autumn came it started to arrive a good deal earlier. I have recorded that on May 28th the bandicoot and a bird arrived at the same time, four o'clock. Eventually the bird came to within four feet of the bandicoot, who kept facing it warily. Suddenly it turned and fled, and the bird, coming up behind, administered a good hard peck just where it is supposed to do most good. The bandicoot shot forward about two yards

with the shock, swung round to see what had happened, then, after glaring at the aggressor for a minute, started to feed its way back. The bird, hunched up, stood fast, giving way a couple of times when the bandicoot came close, till at last the aggressor spotted another bird in the background and, set off after an easier victim.

In March there may be as many as eight or ten birds, most of whom met on my "feeding ground" for breakfast each morning, when for about an hour there is often an exciting "free for all". By the end of April at the latest most of the birds have left and only those few who intend to stay for winter remain.

BEHAVIOURAL NOTE ON EASTERN WHITEFACE AND SPECKLED WARBLER

by Mrs. C. Bevege.

In early February 1969 I noticed a party of Speckled Warblers, Chthonicola sagittata, in the garden. There were two adults and three young obviously not long out of the nest, as their tails were only half an inch or so long, and they appeared to be fed entirely by the adults. The adults were feeding on the ground, and two of the young were side by side in a nearly open shrub, making begging calls.

A couple of Eastern Whitefaces, Aphelocephala leucopsis, were in the general vicinity and one of them approached the two young warblers and proceeded to hop about barely out of pecking distance, for several minutes. Then the Whiteface sat beside one of the Warblers, which gaped at the Whiteface. The Whiteface then mounted the young Speckled Warbler in a manner resembling copulation, causing confusion as the Speckled Warbler struggled to keep its balance with much wing flapping. The Whiteface then flew on to another twig. This general pattern of behaviour followed for five minutes.

The Whiteface kept moving about very close to the Warblers