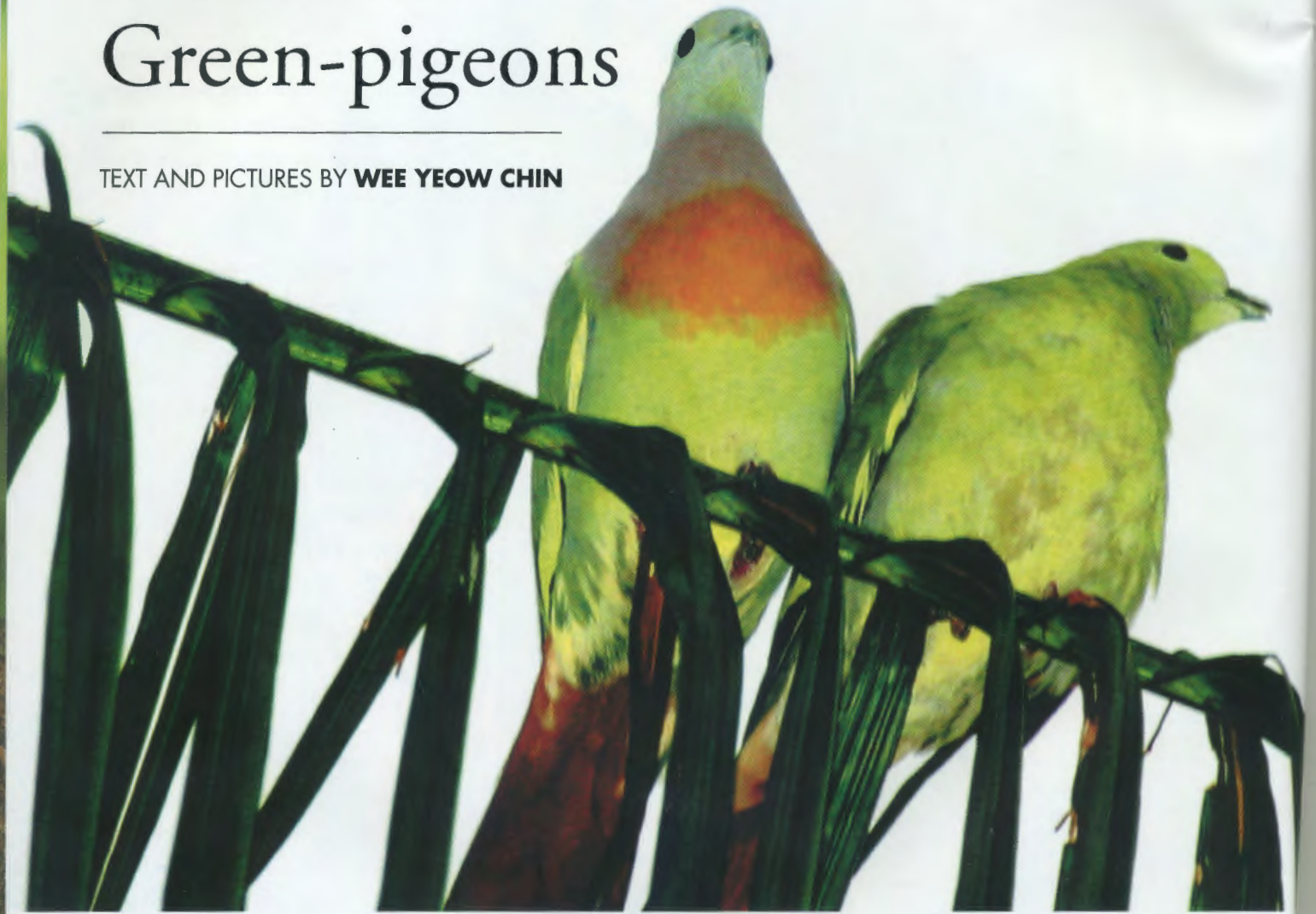


Forging A Closer Relationship With Pink-necked Green-pigeons

TEXT AND PICTURES BY **WEE YEOW CHIN**



Through his close observation of a pair of nesting Pink-necked Green-pigeons, botanist and naturalist Wee Yeow Chin sets the pace for all nature-lovers to take up the challenge of surveying and recording detailed ecological details of native wildlife. There is limited ecological data from colonial times which needs to be urgently updated.

Pink-necked Green-pigeons *Treron vernans* are handsome birds of gardens and parks in Singapore. They are essentially fruit-eaters. Flocks of up to 30 birds are commonly seen on fruiting trees like figs *Ficus* spp. and Tembusu *Fagraea fragrans*. They normally congregate within the crowns of these

tall trees and are not easy to observe, except with a pair of binoculars, or when they come to ground level to drink.

Of late, I have noticed up to a dozen of these pigeons resting on the fronds of my pair of Ceram Palms *Rhopaloblaste ceramica* in the early morning and late evening. Their soft,

gurgling calls, sometimes followed by harsh, rasping sounds, always attracted my attention to their presence. And it was a delight to see them perching precariously on the swaying fronds. Every now and then, a male would move sideways to be closer to the female.

The female bird is uniformly green and blends in well with the foliage of the trees. The male bird, however, is especially attractive. It has green plumage, a grey head and throat, pink upper breast and neck and an orange lower breast. The pale grey tail has a broad black sub-terminal band. There is a prominent yellow stripe on the wings of both sexes. The primary feathers of the wings are black and handsomely displayed when fully stretched, especially in flight. The iris is distinctly red when the bird is active and the feet are coral-red. This red iris, however, is not seen in the chick and fledgling.

Imagine my pleasant surprise when in February 2005, I found a pair of these pigeons nesting among the branches of my Song of India tree *Dracaena reflexa*.

The nest was about nine metres up this medium-sized tree. It was a shallow platform of about 15 cm diameter, made out of mainly twigs collected from the Empat trees *Cratoxylon formosum* along the roadside. The male bird apparently collected the nest materials and passed them to the female who then constructed the nest. Unfortunately I did not witness this stage. I was only alerted to the presence of the nest when the nesting bird flew off suddenly with a noisy flapping of wings as I walked under the tree. It was then that I noticed two white eggs lying precariously on the thin and flimsy platform. Subsequently one of the eggs fell off the nest, leaving only one for the birds to incubate.

Both parent helped to incubate the



Facing page: A pair of Pink-necked Green-pigeons on the frond of the Ceram Palm. Clockwise from top left: A single white egg on a simple platform of twigs; Female bird incubating the egg; The chick with feathers just sprouting; Male bird on nest duty.



Left to right: Five-day old chick; Ten-day old chick; Ten-day old chick exercising its wings; Eight-day old chick begging for food from male parent.

egg. The male took the day shift while the female the night shift. During the day, the male sat on the nest quietly, not moving much and leaving it only in the evening. At around 5.00 to 6.30 pm, the female would fly in. When the female was around, the male became visibly agitated, flapping his tail and craning his neck. As soon as the female flew in, the male moved aside to allow her to sit on the egg before flying off. The female bird took over the incubation duty until the next morning when the male would fly in at around 8.00 to 9.30am. When disturbed, the incubating bird would fly off to a nearby tree, to return at the earliest opportunity.

Incubation took a total of 17 days. On the morning after the egg had hatched, the female was noticeably active, opening her beak wide and nodding her head downwards as if feeding a chick.

The presence of a chick was confirmed later that day when the nest was inspected. The chick was near-naked with the brown skin sparsely covered with short, white, first pin feathers.

The two large prominent blackish eyes, somewhat out of proportion to the head, were closed. The large brown beak was similarly out of proportion to the body. A day later, the chick developed more pin feathers as well as black primary feathers and a few yellow ones. At three days old, the chick opened its eyes and at six days, the body was totally covered with feathers. At seven days, the chick was preening its feathers and actively exercising its wings. At this time, the chick was continuously restless while the parent bird sat quietly throughout.

Again, both parents helped look after the chick, the male during the day and the female during the night. As

during incubation, the birds stayed in the nest all the time, never leaving unless disturbed. When disturbed during the day, the male returned to the nest at the earliest opportunity when the chick was less than four days old, but was absent as long as two hours when it was older. During shift change, one bird would fly in while the one in the nest would move aside before flying off. When the birds noticed my presence, shift change was invariably delayed for up to half an hour to an hour. At such times, the one in the nest would suddenly fly off to allow the other bird to fly directly in. At one evening shift change, when I was trying to photograph the occasion, the female arrived and as soon as she landed, she spread her wings over the nest as if to protect the newly hatched chick. Both birds remained side by side in the nest, before the male flew off.



Left to right: Stages in food transfer.



Both parents similarly helped in feeding the chick. According to the literature, the parent birds feed the chick with a thick milky secretion rich in protein and fat, produced in the bird's crop and known as crop milk. Apparently, incubation stimulates crop milk production. The male fed the chick as soon as he arrived for the morning shift, no doubt after an early morning of foraging. Feeding sometimes occurred at intervals of a few hours during the day.

The female fed the chick as soon as she arrived in the evening, if the male failed to feed it before flying off. This happened when the male was apparently stressed during shift change, especially when I was around and the female delayed flying in. During such times the chick would harass the male parent for food but would be rebuffed as the latter

anxiously looked out for his mate. The ability to feed the chick with crop milk no doubt freed the parent birds of having to leave the chick unprotected while looking for food. They were thus able to provide round-the-clock protection to the chick.

The chick begged for food by pecking the neck and head area of the parent, who responded by opening its beak. The chick would then poke its head into the opening to receive the crop milk. During this transfer of food, the heads and necks of both birds made twists and turns before completing the transfer. Thus satisfied, the chick would sit quietly for a few minutes before it again begged for food. I failed to detect any audible calls made by the chick when it needed food.

As the chick grew and feathers developed, it started to flap its wings to

strengthen the muscles. Whenever there was a strong wind blowing through the tree, it bounced up and down, flapping its wings vigorously as if in mock flight. When disturbed it raised its wings to appear as large as possible. If the disturbance came from its side, it raised only one wing, the one facing the disturbance.

Finally, 10 days after hatching, the chick left its nest. The maiden flight was clumsy and the fledgling landed on some vegetation lower than the nest. All this time, the male parent remained nearby to provide moral support. Both finally ended on a branch of a taller nearby tree, sitting side by side. The male bird continued to feed the fledgling whenever the latter begged for food. When pecking the neck area failed to get a response, the fledgling sometimes turned around to face the tail of the parent and used one of its wings to flap onto the body of the parent. According to reports, the food fed to a fledged bird is regurgitated fruits and not crop milk.

Early the next morning, the fledgling was still on the same tree sitting side by side with the male parent. The



Left to right: Female bird with her eight-day old chick; Female bird about to fly off after her night shift.



Top: Female bird flying off after the arrival of the male bird in the morning.
Above: Both parents and chick during the evening shift change.

female bird must have left early. The male and the fledgling remained on the branch until late afternoon, when the former left the scene before the arrival of the female. When evening came, I was not able to locate the birds. However, the following day I was pleasantly surprised to hear the calls of both the parents. They were on the same tree, cooing, making rasping sounds and flapping their tails. The fledgling suddenly appeared nearby but soon all three flew off. I heard their calls further down the road. The parents must have encouraged the fledgling to fly further afield for its subsequent feed. The distance no doubt would be gradually increased until the fledgling totally mastered its ability to fly.

That was the last I saw of the birds. With every passing day the fledgling would obviously become less and less dependent on its parents to eventually become totally independent. My one regret is not being able to continue observing its progress. Whether the parents took turns to feed the fledgling until it was totally fledged or did it together, I am unable to provide an answer. My guess is that both parents helped during the day but would not be around all the time. They would probably leave the fledgling alone at night.

With the chick out of the nest, I was able to examine it closely. Many pieces of solid brown waste matter were trapped between the twigs of the nest. On the plants below the nest were splashes of brown faeces with traces of white uric acid. It is my guess that the chick dropped its faeces down the nest through the spaces between the twigs. The parent birds most probably squirted theirs over the side of the nest. An empty egg shell was found below the nest, remnants of the egg that fell off the nest. Of the shell belonging to the egg that successfully hatched, there was no trace. Probably the female bird ate

it up as she was on duty the morning the chick first appeared.

I had been observing the breeding pair for about a month—17 days of egg incubation, 10 days for the chick to finally leave the nest, and a few more days before the fledgling finally left the nesting area. Prior to the chick leaving the nest, I was keeping close watch twice a day during shift changes. And on and off inbetween. The only time I did not continuously look in on the nest was during the night. During this extended period, I got to be familiar with all three birds, in addition to following the growth

of the chick.

The birds have now flown the nest. I will have to wait for the next occasion when a friendly pair decides to use the same tree to breed. I am prepared to wait a few years, for after all the last time a pair of Pink-necked Green-pigeons built a nest on this tree was in March 2000. At that time both eggs hatched and the two chicks were successfully raised. 🌱

Wee Yeow Chin is a retired botanist who is now a sometime bird watcher.

He is a founder member of the newly formed Bird Ecology Study Group.

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Clockwise from top left: Arrival of the female bird for the evening shift change; Female bird fanning the nest during the evening shift change; Male bird and fledgling on a Mempat tree.