NESTS AND EGGS OF BIRDS IN CENTRAL SIAM. By E. G. HERBERT, F. Z. S., M. B. O. U.

With Plates 15 and 16. (continued from p. 123.)

34. Anthus richardi malayensis.

THE MALAYAN PIPIT.

Vernacular, "Nok a charp fon hang yao".

The Indian Pipit is a very common resident of the paddy fields of Bangkok and the surrounding district. During the early part of the breeding season this Pipit is in its abraded spring plumage, and the colouring is very similar to that of Alauda gulgula sala (The Formosan Sky-Lark), and also to Mirafra cantilans williamsoni (The Bangkok White-tailed Bush-Lark). All three are found breeding together, constructing nests that closely resemble one another, and laying eggs that are not always easily identified except by one who has studied the subject. I am therefore writing a collective note, to follow the general description of the nests and eggs of these three birds, as it is the simplest way of presenting comparative features for their identification in the field. A paper on this subject was read before the Society in July 1919, copies of it being circulated at the time amongst the members, and I then pointed out that my notes did not contain a record for the earlier part of the season, so a more thorough investigation of this subject is desirable.

The nest is situated in the middle of a paddy field, or in any case well away from the banks which divide up the fields. It is built in a cup-shaped hollow in the ground, and is generally under the cover of a root of growing grass, which gives it a fair amount of protection. The nest is made during the hot weather, so quite a lot of scratching and pecking is necessary to excavate the hole in the hard earth. Dry grass is the material mostly used for the construction, though roots and buffalo hairs are occasionally employed for the lining. There is considerable variation in the extent of the nest, as it is sometimes quite thick, with a covering in the form of a partially domed top, though more often it is a scanty affair, and I have even found the eggs in a deep cup-shaped hollow with only a few odd pieces of grass on the sides. I have no notes to show when

the nesting season commences, but nesting is in full swing early in May. It really finishes by the end of June, though a few odd nests may be found in July and I have had a clutch of eggs as late as 26th July.

The eggs are moderately broad ovals, slightly compressed towards one end. The ground-colour is usually white or a creamy white, though sometimes it is tinged with a very pale shade of green or blue. The markings can best be described under two types, with many intermediate forms. In the first type the eggs are well speckled with blackish brown, with a lesser number of light brown specks, and it is in this one that the tinge of green or blue in the ground colour is occasionally found. The second type has heavier markings in the form of streaky spots and specks of dark brown, with vellowish-brown specks and often a few pale purple ones as well. The markings are more prominent on the large end, and at times they form a slight zone or cap. In size the eggs remain fairly constant, only varying from 21.0 to 19.0 mm. in length and from 15.8 to 15.2 mm. in breadth, with an average of 19.7×15.5 mm. The shell is smooth and almost without gloss. Three eggs are generally found though four is not uncommon.

35. Alauda gulgula sala. The Hainan Sky-Lark.

Vernacular, "Nok a charp fon lep yao" (long claw).

The Sky-Lark is found in great numbers in the paddy fields around Bangkok, and may be heard singing during the dry weather or early part of the rains.

The nest is built in a cup-shaped hollow in the ground out in the open fields, and very similar to that of the Pipit previously described. It is usually placed under the cover of a tuft of paddy stubble, without any domed top; and is constructed of dry grass with occasionally a few roots or hairs for the lining. There are plenty of nests from early May to the end of June, though the commencement is earlier than this, and a fair number may be found in July.

The eggs are generally broad ovals, much pointed towards one end, though long ovals are sometimes found. The ground-colour is a

yellowish-white, with streaky spots and specks of yellowish-brown, and sometimes a few pale purple spots. There is a zone or cap on the large end, often clearly defined, though sometimes it is of a cloudy nature. Typically the eggs are broad ovals with the coarser form of streaky spots, and the long ovals are more finely marked with small spots and freckles. There is also considerable difference in the general tone of the colouring, as numerous eggs present a yellowish-brown appearance, whereas others are almost grey from the numerous pale purple spots. The average size for the broad ovals is 19.5×16.2 mm., with the long ovals about 2 mm. longer and of the same breadth. The surface carries a considerable amount of gloss. Four appears to be the general number of eggs, though three are often found.

36. Mirafra cantilans williamsoni.

THE BANGKOK WHITE-TAILED BUSH-LARK.

Vernacular, "Nok a charp fon lep san" (short claw).

This Bush-Lark is just as common in the paddy fields around Bangkok as the two previously described birds.

The nest is somewhat similar to those of the Pipit and the Sky-Lark, but as a rule it is better constructed and more protected above. It is placed in a cup-shaped hollow in the ground with growing grasses meeting over the top, and may well be described as a ball-shaped nest with entrance at the side near the top. It is built of dead grasses, and sometimes roots and hair are used for the lining. I cannot say when building starts, but nests are plentiful during May and June and a few may be found up to the end of July.

The eggs are for the most part fairly perfect ovals, though moderately broad ovals finely pointed at one end, as well as long ovals, are occasionally found. The ground-colour is a yellowish or grayish white, thickly streaked and spotted in a rich brown, with yellowish-brown and inky purple specks. The general tone of colouring may be olive brown, a yellowish-brown, or a greyish-purple, according to the predominance of the various markings, which will be denser towards the large end. The average size of the eggs is

 18.8×14.7 mm. The surface is fine and well glossed. Four is the usual number of eggs laid, though three are often found.

FIELD NOTES ON THE PRECEDING RIRDS.

The Pipit, the Sky-Lark and the Bush-Lark previously described are so much slike in the abraded spring plumage of the breeding season, that an inexperienced person will find difficulty in distinguishing them from one another. The following features will, however, serve to identify a captive bird.

The Pipit has on the penultimate feathers of the tail, an oblique portion of the inner webs (about an inch) white, whereas the other two have white only on the outer webs of those feathers. The outer feathers of all three birds are almost entirely white.

The Sky-Lark may be recognised from the other two by its much longer hind claw.

The Bush-Lark has a much thicker and a shorter beak than the other two.

To enter more closely into these points of difference, the hind claw of the Sky-Lark measures 5/8 to 3/4 of an inch in length, whereas the Pipit has a much lighter one, measuring 3/8 to 1/2 an inch, and the Bush-Lark has a still lighter and rather shorter one, but it is more a matter of appearance than actual dimensions. With regard to the beaks, the Bush-Lark has a thick short beak measuring 5/8 of an inch from the gape, as compared with the straight and rather slender bill of the Pipit which measures 3/4 of an inch from the gape. The beak of the Sky-Lark is about the same length as that of the Pipit, but it is more curved on the top and rather deeper.

I have, as far as possible, avoided giving a descriptive reference to the plumage, as this changes during the breeding season, and there is a far greater difference between the spring and autumn plumage of any one of these birds than there is between all three birds in their spring plumage. However, I will draw attention to some of the useful features of the plumage when describing the birds on the wing.

The Pipit should not be confused with the Lark when in ordinary flight, as it has an undulating movement like that of

the Wagtail, to which it is very closely allied; it generally utters a pleasant twittering note whilst in flight, very similar to that of the Wagtail. But it should be remembered that the Pipit may be seen to ascend in the air in a somewhat similar way to a Lark, particularly when flushed from the nest, so one must avoid jumping to a hasty conclusion. Early in the nesting season the worn plumage on the wings and tail of the Pipit has a whitish appearance when the bird is in flight, but about half way through it will be noticed that this changes to the fulvous or saffron yellow of the new plumage. Larks are much alike in general flight, but the Sky-Lark is larger than the Bush-Lark, stronger on the wing, and has a more powerful song. The habits of the local Sky-Lark closely resemble those of the European species, both as regards its song and the way in which it is uttered as the bird soars in the sky. The most distinctive feature of the Bush-Lark in flight is the rufous appearance of the wings. It will also be noticed that it has very feeble flight when flying near the ground, and reminds one of a Button-Quail in the sudden way in which it drops after a short flight.

The nests are built in the paddy fields during the hot weather and when the rains commence, many of them, with either eggs or young, are swamped. The extent to which they suffer is of course dependent on the violence of the early rains, but I have seen the whole community flooded out. As soon as there is a break in the rains and the land dries up the nesting is continued, but it is evident that the birds select the higher fields, avoiding those with small green rushes which are a sure indication of swampy ground.

In order to work up this subject thoroughly, many nests of each of these birds should be carefully examined: if the eggs are quite typical the parent birds may be watched for experience and field notes, but when the eggs are not of the regular type, one of the parent birds should be secured to make identification certain. This can be done by netting, snaring or shooting. In the case of the Bush-Lark it is often possible to approach within a yard of the nest before the bird is flushed, provided one is on the blind side, for the bird sits very closely in the hot sun and may therefore be secured by a net

on the end of a bamboo. The Sky-Lark and the Pipit are more wary and often rise from the nest as one approaches within 50 or 100 yards, so they must be taken by snaring, or by netting at night, or possibly by shooting.

There are many points worthy of attention in the fieldnotes of anyone who is taking up the subject, as for instance:-dates of the commencement of the breeding season for each of these birds; notes on the nest, to show whether the top covering is as general in the dry season as in the rains; the normal number of eggs in a clutch, and whether this is smaller in the latter half of the season than at the commencement; which sex is to be found brooding the eggs, and at what time. My experience was that the bird taken on the nest after dark was invariably the female, whereas by day it was more often the male. In the case of a live bird, the breast and abdomen of the female will be found to be without feathers, and that of the male will be well covered. In the case of a dead bird, it should be sexed and this feature of the feathers verified, as it may vary between the early and late parts of the season. This is another instance where it is advisable to have nests located by reliable boys in advance of one's visit to the fields.

37. Cyrtostomus flammaxillaris flammaxillaris.

THE BURMESE YELLOW-BREASTED SUNBIRD.

Vernacular, "Nok kin-plea lek".
Plate 15.

This beautiful little bird with its flashing metallic plumage may be seen in many of the larger compounds, though I am not aware of it breeding there. Its favourite resort is the fruit gardens, where it breeds and is quite common.

The nest is attached to the tip of one of the outer branches of of a tree at a height of 10 to 20 feet from the ground, though occasionally it may be found on a bush, and I once saw one at not more than a couple of feet from the ground. In appearance it resembles a collection of vegetable debris caught up on a branch in the wind, and it is a very clever representation of this. The first part of the structure is slightly pear-shaped though much elongated; it is built of fibre with the ends hanging down, and this is elaborately

decorated with a loose covering of all kinds of vegetable refuse, which are connected with cobwebs and hang down some six inches below the bottom of the egg chamber. The nest is often extensively overlaid with the woody refuse collected from the entrance to the holes of the wood-boring caterpillars, and the nest shewn in the photograph is a very good example of this. A little portico projects over the entrance, and as this generally faces towards the sheltered part of the tree, the interior is well protected from the weather. The nesting season is almost continuous throughout the year, and I have records of nests for every month. Nests are plentiful by early February, and continue as freely up to the end of August; a fair number may be found in January and September, and occasional ones in the other months.

The eggs are moderate ovals in form and often considerably pointed towards one end. In colouring there are two extremes, with numerous variations between them. One type has the whole surface closely freckled with yellowish or greenish-brown, more dense at the large end, the greenish-white ground colour being only discernible at the smaller end. There are generally a few scattered black specks or hair lines to be seen on these eggs, though they are not always present. The other type has a yellowish or greenish-white ground colour, which is clouded or thickly speckled about the large end with a purplish hue, often forming an irregular zone, and on this there are blurred spots of a dark purplish brown. Some eggs have the spots sparingly distributed about the whole surface. The shell is fine in texture and very fragile, but without gloss. The average size of the eggs is 15.5 × 11.0 mm; two are laid.

38. Anthrothreptes malaccensis.

THE BROWN-THROATED SUNBIRD.

Vernacular, "Nok kin-plea yai".
Plate 16.

This Sunbird may also be seen in the larger compounds, but its favourite resort is the fruit gardens, where it is resident like the previous one, and just as plentiful.

The nest is secured to one of the outer branches of a tree or shrub, or not infrequently to the flower-stem of a Betel palm at about 222

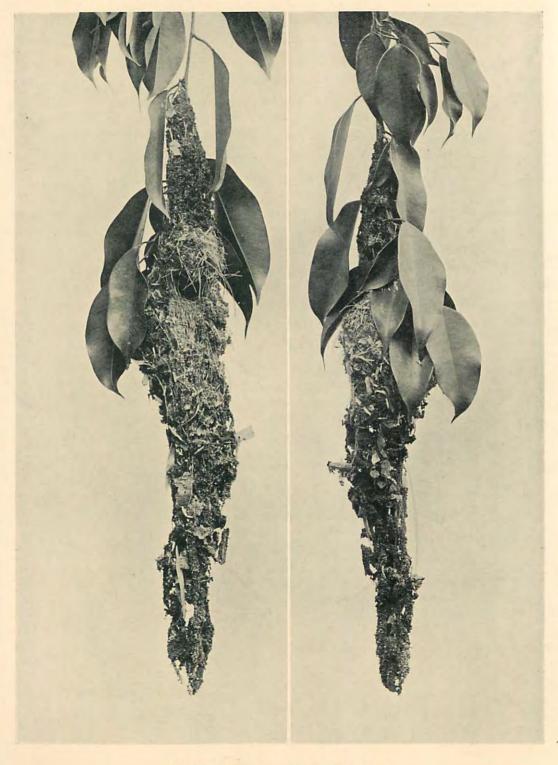
30 feet from the ground. It is a simple pear-shaped structure, with a thick pad forming a portico over the entrance. The general appearance of the nest is rough owing to the coarse pieces of fibre attached to the outside, but the interior is neatly woven and lined with cotton. Cobwebs are freely used for sticking the loose pieces of fibre together and some of them may be seen in the photograph, but it is not a very good example of this feature. The nesting season of this Sunbird is not quite so extensive as that of the other, but it is in steady progress from early February to the end of August.

The eggs are typically moderate ovals in shape, slightly pointed towards one end; but much elongated or slightly pyriform varieties may be found. The ground-colour is white or a creamy stone-colour, and it is often considerably clouded with grey or pale purplish brown. The markings consist of specks and blotchy spots of a dark purplish brown, with numerous black writing marks. They are most prominent at the large end, and occasionally a well-defined zone is formed. The eggs are entirely without gloss. Two are laid, and the measurements average 18.0 × 12.5 mm.

I have had the eggs of another Sunbird brought in with the nest, once from Samkok and the other time from Ban Yang. They were rather long ovals and marked with pale reddish brown specks. Probably they were Aethopyga cara which is what the eggs indicate, but I have no proof of this.

(To be continued)

JOURN. NAT. HIST. SOC. SIAM. VOL. VI, PLATE 15.



CYRTOSTOMUS F. FLAMMAXILLARIS.





ANTHROTHREPTES MALACCENSIS.

