PHOTOGRAPHIC STUDIES OF SOME LESS FAMILIAR BIRDS

LXXI. ROCK THRUSH

Photographed by Karoly Koffan

(Plates 29-36)

The Rock Thrush (Monticola saxatilis) and the Blue Rock Thrush (M. solitarius) are both birds of the mountains of southern Europe and Asia, breeding from Spain (also Morocco and, in the case of the Blue Rock, N. Algeria and Tunisia) to China. In parts of its range, particularly Europe, the Blue Rock is mainly a resident, but saxatilis is almost everywhere a summer-visitor, wintering chiefly in tropical Africa. In Europe the Rock Thrush extends its range rather further north than the Blue Rock and is found breeding in central France, southern Germany and Hungary and Rumania. It was in Hungary, in fact, that Mr. Koffán for several years studied and photographed this species and we are extremely grateful to him for providing not only a fine selection of the results but also a short account of the birds as he knows them. In addition, his colleague, Dr. Tibor Farkas, has kindly sent us some notes on the food of the species.

Both these contributions appear below and there is therefore little need for us to discuss the features brought out by the photographs. It seems worth remarking, however, that while the male's striking colouring of blue head and mantle, white lower back, orange under-parts and tail, and blackish wings is, of course, entirely lost in black-and-white photography, the distinctive markings of the female, notably the crescent-barring on the under-parts, are well brought out in these shots (see plates 29, 31 and 33), as is the characteristic, upright, chat-like stance of the species (plates 29, 32 and 33, in particular). Finally, we have here again examples of the value of photography as an aid to the identification of the food of birds, a method already developed in this country by Eric Hosking and Dr. Stuart Smith (e.g., antea, vol. xlii, p. 358).

I.J.F.-L.

SOME NOTES ON DISPLAY AND NESTING

For many years I have studied Rock Thrushes (Monticola saxatilis) in the barren mountains of Budaörs in Hungary. About 5-6 pairs breed here; the nests are constructed in the crevices of old quarries, in the well-hidden recesses of rock-faces, under blocks of stone and on the sides of slopes and ditches. Since the 1939-45 war, however, the thrushes have shown a preference for frequenting the ruins on the fringe of the village. The bird nests in May, but the males arrive some time earlier than the females—for instance, in 1955 the males came on 3rd April whereas the females did not arrive here until the 28th. The
males sing vigorously even before the arrival of the females, and they perform really acrobatic feats in mid-air. They hurtle up from their perches, high into the air, and then suddenly drop again; after a steep dive of about 5 or 6 metres, apparently still carried along by their own impetus, they start to rise again—this time, however, not so steeply as in the first upward flight from the perch; the highest point of flight is reached amid ever more rapid wing-beats. This game is repeated 4 or 5 times, until they finally alight once more on their perches.

The display-dance of the Rock Thrush is a very lovely sight. I was once able to observe the dance of a male who, still wet from a dip, was singing to a female, bowing with his wings hanging at his side, waving to and fro his fanned-out tail.

As regards their nests, I have noticed that if the nest is visible from any quarter, the bird always puts the eggs on the opposite side of it, so that they are always out of the line of vision of any intruder.

The number of nests which come to grief is large. Such breeding-pairs as lose their brood make a second or even third attempt; then, as a rule, the new nest is not far removed from the old one. Second broods are also frequent; for instance, the pair I photographed in 1953, whose first brood flew on 10th June, were on 17th July already feeding the fledged young of their second brood.

The behaviour of the parents varies, as does their relationship towards their young. The male of the breeding-pair I mentioned above, for instance, never once did the feeding while I was photographing. On the other hand, another male flew several times running in succession to my camera before settling on the nest. When both parents do the feeding undisturbed, it takes place approximately every 10 minutes. It has also happened that the male has done the feeding directly before or after the female. Animal food is brought alive to the nest; cherries are eaten whole with their stones. Whenever the brood has been fed on cherries, the flooring of the nest is full of the stones. Excrement is always taken away from the nest; I have never known the parent Rock Thrushes to swallow it—a habit common among, for instance, Song Thrushes (*Turdus philomelos*). The nature of the food may be responsible for this. Before feeding the brood, the parents always settle on their customary perch, and only after they have looked around and noticed nothing unusual do they fly to the nest. Now and again a few notes are sung by male and female alike.

These photographs, which are of two pairs, were taken from a distance of 1 metre. The first pair had their nest on a rocky hillside; the female here, judging from her behaviour, would be more properly described as "masculine", since her actions and movements were erect and proud. My work here lasted 2½ days, during which I was repeatedly hindered by unexpected downpours. This pair ate only animal food; if one of them let anything fall out
of its beak, he would throw himself down after the dropped prey. The female even carefully picked up again the broken-off tail of a lizard.

In this way I was able to compile valuable records of the birds' food, especially the hairy caterpillars. From my tent I could well observe the beauty of this beautiful bird's way of life, unfortunately better than my camera could catch each detail of it.

Karoly Koffan

FOOD AND FEEDING-HABITS

I have already written (Farkas, 1955) the essentials about the feeding-habits and food of the Rock Thrush (Monticola saxatilis) in Hungary. Now I would like to take the opportunity of discussing in more detail such points as in that earlier work I was able only to touch upon. The feeding-material of the Rock Thrush in Hungary comes under the following three categories: (a) Insects, (b) Other animals, (c) Plants—in that order of importance. I would now like to consider briefly these components and the way in which they are taken.

(a) Insects.—In this category hairy caterpillars above all are of great importance. That small birds too, eat such caterpillars—a special treat—has recently been more emphasized, for example by Mansfeld (1955) with regard to tits (Parus spp.) and Chaffinches (Fringilla coelebs). In the first photograph (plate 29, left) the female is carrying an ermine moth caterpillar (Spilosoma), so it seems that they not only eat such caterpillars but also feed them to their young! Plate 32 should prove not without interest, since it confirms the fact that the birds eat Hyphantria cunea, a dangerous pest. Different species of beetle make up a considerable part of the Rock Thrush's food: Copris lunaris (plate 34, left), Geotruperes sp. (plate 34, right) and Rhisotrogus aequinoctialis (plate 29, right) also testify to the active nature of the bird. Unfortunately Herr Koffan has not yet succeeded in getting photographic proof of the capture of Cetonia species, which beetles—by reason of the large numbers in which they appear in the bird's habitat—are an important item. Cetonia and Rhisotrogus are mostly caught in flight, and the pellets lying around the various perches of the bird shimmer with the remains of these beetle's wings. The bird kills and rends this kind of prey with strong hammering blows of its beak; this was also observed in caged specimens, which mastered the Cockchafers (Melolontha melolontha) and Rose Chaferers (Cetonia aurata) thrown to them, by means of woodpecker-like blows, directed vertically downwards. Somtimes the birds would warily circle a larger beetle and deliver each blow from a different direction.

(b) Other animals.—In this category the most important section is undoubtedly the vertebrates. That these birds also sometimes seize upon vertebrate animals was already to be conjectured from the writings of La Touche (1920) and Broekhuysen (1941)
among others. La Touche remarked of a Blue Rock Thrush (*Monticola solitarius pandoo*) that this bird had killed a mouse. Broekhuysen gave tree-frogs (*Hylidae*) as 2% of the food of *Monticola rupestris*. As regards *Monticola saxatilis*, the capture and eating of 4 vertebrates has so far been established—and partially, too, documented by photographs: the lizards *Lacerta agilis* (plate 36), *Lacerta muralis* (plate 33) and *Ablepharus kitaibeli*; and the European Tree Frog (*Hyla arborea*). Caged Rock Thrushes kill and rend young Green Lizards (*Lacerta viridis*) thrown to them; I once threw to a Rock Thrush a young female lizard of this species—about 10 centimetres long—that had died shortly before. Although the lizard was already half-stiffened, the bird showed a noticeable respect for this large item, but got it into position with a few strokes and then began eating it head first. After 5 minutes the tail was still hanging out of his beak. Ordinarily (when they are not in captivity), Rock Thrushes always go about the killing of a lizard with adroit jumps to the side, designed to avoid the bites and blows of their struggling prey. In such incidents the sportive grace of this bird is displayed to best advantage. It must here be observed, however, that the capture of lizards is not, with the Rock Thrush, of everyday occurrence, and this fact must in no way prejudice our opinions as to the usefulness of the bird. Small frogs (*Hyla arborea*) appear much more rarely and are killed only by chance; I was more frequently able, especially during the breeding-period, to establish the eating of small snails (*Cepaea, Zebrina*). The high calcium carbonate content of these molluscs seems to me to have a certain attraction for the birds in this period.

(c) *Plants.*—The preference of the Rock Thrush for cherries (*Prunus cerasus* and *P. avium*) is undeniable. At Dunabogdány, where both types of cherry-tree abound, I was able to confirm this by observing the excrement—coloured purple by cherry-juice—of countless nestlings; also, the beaks and mouths of the feeding adults were coloured purple. On the other hand, there were some Rock Thrushes there at the same time who bore no trace of this habit. Lastly, the bird seems to show a remarkable taste for saxifrage. I saw grown fledgings pecking at the puffy leaves of this plant. When offered to tame cage-birds, such leaves were torn to shreds and the juicy parts eaten.

TIBOR FARKAS

REFERENCES


ROCK THRUSHES (*Monticola saxatilis*): HUNGARY

The left-hand photograph shows the female, and the other the male. This series of plates once more illustrates the value of photography as an aid to the identification of the food of birds: the female is carrying an ermine moth caterpillar (*Spilosoma* sp.) while the male has one of the scarabid beetles—*Rhisotrogus aequinoctialis* (see page 270).
MALE ROCK THRUSH (Monticola saxatilis): HUNGARY

A black-and-white photograph can give no idea of the brilliant colouring of the male in summer plumage, with his blue head and mantle, white lower back, orange under-parts and tail, and blackish wings. In winter, brown and buff tips obscure much of this colour and the male becomes superficially like the female, but darker and bluer above and more orange below.
FEMALE ROCK THRUSH (*Monticola saxatilis*): HUNGARY
The female is predominantly brown above and orange-buff below, but strongly mottled on the upper-parts and strikingly barred underneath with dark brown, crescent-shaped markings which show up well in this and other plates. Like the male, however, she has a bright orange tail which is a good field-character of the species at all ages (see page 268).
MALE ROCK THRUSH (*Monticola saxatilis*): HUNGARY
This photograph illustrates well the upright stance, rather chat-like, which is a marked character of the species. The Rock Thrush also has a characteristic way of flicking its tail upwards and then swinging it from side to side. The food carried here includes a specimen of *Hyphantria cunea* (see page 270).
PLATE 33

K. Koffán

FEMALE ROCK THRUSH (Monticola saxatilis): HUNGARY
This again shows the upright stance, and the characteristic markings on the under-parts of the female. The Rock Thrush is normally considered to be primarily insectivorous, but in Hungary, where these photographs were taken, three species of lizards (in this instance, the Wall Lizard, Lacerta muralis) were among the foods recorded (see page 271).
MALE ROCK THRUSH (Monticola saxatilis): HUNGARY
Two views of the same bird: in each the edge of the white patch on the lower back is just visible. Beetles make up a considerable part of the Rock Thrush’s food and the prey in the upper photograph has been identified as Copris lunaris, and in the lower as one of the species of Geotrupes (see page 270).
ROCK THRUSHES (*Monticola saxatilis*) in flight: Hungary

The upper shows the male, the lower the female. Light here unfortunately exaggerates the size of the white patch on the back of the male, but this plate does serve to show that it is the lower back, rather than the rump, which is white. Except in its display-flights (see page 269) the Rock Thrush is usually rather secretive and flies low, dropping out of sight among the rocks.
MALE ROCK THRUSH (Monticola saxatilis) FEEDING YOUNG: HUNGARY
This again shows the white on the back. Among the prey carried here is part of another lizard—the Sand Lizard (Lacerta agilis). The nest, as this shows, is normally built of grasses and roots and is tucked away in a hole or crevice among rocks or in a wall or ditch. In this part of Hungary two broods are frequently recorded (see page 269).