Bezzel (1988) observed 51.4 % of his observations of Alpine Swifts (n = 35) as one species assemblage. No calling was heard during this survey indicating the observer should look for at sky to observe the species.

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ROLE OF PROTEIN DIET IN THE REGULATION OF CLUTCH SIZE, INCUBATION PERIOD, AND EGG SIZE OF THE RED-WHISKERED BULBUL

Abhijit Mazumdar, Prabhat Kumar

Abstract. When fed a protein rich diet, the Red-whiskered Bulbul showed a significant reduction in incubation period and egg size, however, the protein diet had no significant effect on its clutch size.

Key words: Red-whiskered Bulbul, *Pycnonotus jocosus,* India, physiology, breeding, diet.

Address: Dr. A. Mazumdar, 3-B Murlinagar, Cantt Road, Lucknow-226001, UP India;
e-mail: abhijit.mazumdar@rediffmail.com.

Роль протеиновой диеты в регуляции величины кладки, периода инкубации и размера яиц у краснощекого бюльбюля. - А. Мазумдар, П. Кумар. - Беркут. 16 (1). 2007. - Две группы бюльбюлей кормили зеленым горошком (24 % протеина) и рисом (10 % протеина). У птиц, получавших больше протеина, отмечено достоверное уменьшение периода инкубации и размера яиц. На величину кладки протеиновая диета влияния не оказывала.

The Red-whiskered Bulbul (*Pycnonotus jocosus*) is omnivorous in its diet consuming grains, fruits and insects (Ali, 1992). All birds have definite clutch size, incubation period and egg size. Therefore, we set out to see the effect of a high protein diet on clutch size, incubation period and egg size of Red-whiskered Bulbul.

Method

40 Red-whiskered Bulbuls were taken for this experiment and divided into two groups; Group 1 (Gr 1) and Group 2 (Gr 2) of 20 birds each and each bird was kept in a separate cage. Gr 1 bulbuls was fed a protein rich diet daily comprising green gram (*Phaseolus aureus*) (protein content 24 %) for four months from November 2005 to February 2006, before their breeding period. During the same period, Gr 2 bulbuls were fed on rice (*Oryza sativa*) (protein content 10 %). When the breeding period commenced from March 2006 to July 2006 the birds of Gr 1 were moved into a large enclosure and allowed to mate and nest. They were fed a daily diet of green gram during the breeding period. Similarly the birds of Gr 2 were moved into another large enclosure during the breeding period and allowed to mate and nest. To facilitate nesting used nests of Red-whiskered Bulbuls were collected and placed in both the enclosures where Gr1 and Gr2 bulbuls were kept. Many bulbuls used the old nests while a few constructed their own.

The birds of Gr 2 were fed a daily diet of rice during the breeding period. All the work was carried out in Lucknow (26º 55′ N, 80º 59′ E, 450 m above sea level), India.

Results

The clutch size (mean ± SD), incubation period (mean ± SD) and egg size (mean ± SD) of both Gr 1 and Gr 2 were noted and subjected to two tailed t-test.

The mean clutch size in 10 nests of Gr 1 was 2.4 ± 0.48. For 10 nests of Gr 2 it was 2.8 ± 0.14. The difference between the two groups was not significant at P = 0.05 (df = 18, t = 0.35).

The incubation period of 20 eggs of Gr 1 and Gr 2 each were noted. The range for Gr 1 was 12–13 days (mean 12.3 ± 0.46). The range for Gr 2 was 13–14 days (mean 13.7 ± 0.48). The difference between Gr 1 and Gr 2 was significant at P = 0.05 (df = 38, t = 4.27).

20 eggs of Gr 1 and Gr 2 each were measured. The range of length for Gr 1 was 16–20 mm (mean 17.5 ± 1.41) and range of length for Gr 2 eggs was 18–23 mm (mean 20.5 ± 1.60). The difference between the lengths of Gr 1 and Gr 2 eggs was significant at P = 0.05 (df = 38, t = 9.67).

The range of width of Gr 1 eggs was 12–14 mm (mean 13 ± 0.83). The range of Gr 2 eggs was 14–16 mm (mean 15 ± 0.80). The difference between Gr 1 and Gr 2 was significant at P = 0.05 (df = 38, t = 7.86).

Conclusion

A protein rich diet has no significant effect on the clutch size of the Red-whiskered Bulbul, however, it does bring about a significant reduction in the incubation period and the egg size of the bird.

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ДО ВИВЧЕННЯ НІДІКОЛЬНОЇ ФАУНИ ЧОРНОГО ДРОЗДА В КАРПАТСЬКОМУ РЕГІОНІ УКРАЇНИ

Л.І. Мелещук, І.В. Скільський

To the study of fauna of nidicoles of the Blackbird in the Ukrainian Carpathians. – L.I. Meleshchuk, I.V. Skilsky. - Berkut. 16 (1). 2007. - 46 nests found during 2005–2007 were investigated. In total, 4846 exemplars of invertebrate animals were discovered. They belong to 3 types and 7 classes. Arachnida and Insecta prevail in nests. Oribatei and Collembola dominate among nidicoles. The maximal number of nidicoles in one nest was 452 individuals. [Ukrainian].

Key words: Blackbird, *Turdus merula*, the Ukrainian Carpathians, nest, nidicola, fauna.

Address: L.I. Meleshchuk, P.O. Box 532, 58001 Chernivtsi, Ukraine; e-mail: mel-lyuda@rambler.ru.

Чимало видів безхребетних тварин знаходять оптимальні умови перебування у гніздах птахів. Для населення нідіколів характерні певні структурно-функціональні особливості. Тому комплексне вивчення таких угруповань надзвичайно важливе з точки зору визначення їх місця та ролі в екосистемах.

Для регіону Українських Карпат у літературних джерелах опубліковані лише фрагментарні відомості стосовно нідікольної фауни дендрофільних птахів (Черватюк, Белоконь, 1969; Харамбура, 1972 та ін.) до яких належить і чорний дрізд (*Turdus merula*) – найбільш типовий гніздовий вид різноманітних насаджень деревно-кущової