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THE GREAT REED WARBLER'S (*ACROCEPHALUS ARUNDINACEUS*) BEHAVIOR IN THE PRESENCE OF MAN

Constantin Ion

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INTRODUCTION

The Great Reed Warbler (*Acrocephalus arundinaceus*) is one of the most common passerine birds from the wet areas of Moldavia (Ion, 2005). His breeding places are established in reed beds, very close to the regions where people live.

The ornithological specialists (Cramp, 1992, Dowsett, 1978) have distinguished in The Great Reed Warbler's ethogram (Cociu, 1999), a special behavior in the presence of man. The Great Reed Warblers display different postures and songs when a man appears around their nest, than in the situations when other vertebrate species, mammals or birds come to their territories. It perceives the man like a huge animal, bigger than those animals it enters in contact with, usually: birds, Muskrats or snakes.

When a bird appears, (a Heron or a Cuckoo), or mammals, (a Muskrat), The Great Reed Warbler's reaction is to attack immediately, and to try to chase the intruder.

On the other hand, when close to him come big mammals, The Great Reed Warbler's behavior changes, as it depends on the breeding stage.

Man's presence in its territories produces a great curiosity, but it also produces fear. In many situations we need to expect minutes or even hours in order to observe the Great Reed Warblers near their nests, because they express a lot of circumspection in the presence of man. As the broods hatch, the adult's behavior becomes more and more brave.

MATERIAL AND METHOD

The observations concerning The Great Reed Warbler's behavior in the presence of man were made in the period 2001-2005 in the humid regions of Moldavia: Beresti Lake (Bacau District)- N 47º 08' 57" E 27º 39' 54", Larga Jijia- Vladeni (Iasi District) N 47º 01'57" E 27º 39'12", Iezar Lake- Botosani District)- N 47º 58' 23" E 26º 22' 00" and Botanical Garden Lake from Iasi- N 47º 11'17" E 27º 32'90".

We used a scope of 10x50 and also free observations: inside the reed beds; by boat or on the dams around the lakes. The methods used were the visual transects and visual fix points observations.

RESULTS AND DISCUSSIONS

At the begging of breeding period we observed that, in the presence of people, the female makes short leaps on the reed stems, close to the water surface; afterwards it climbs on the reed peak, or makes leap after leap, in semicircle around the nest. Sometimes she flies behind us inside the reed beds, observing the intruder, and then she returns near her nest. Meantime, her posture is characteristic: the wings are a little bit opened, like a menace gesture and she takes out short, sharp sounds. The bird looks at us from a distance of 20-50 cm. At the moment of our departure she follows us some meters and afterwards she goes back to her nest. At the begging of breeding period the male is more suspicious than the female. He stays away at some longer distances from people than the female. He watches the nest from a distance of 2-4 m. His flights are ample, being executed in the superior third of reeds stems, or at the base of the reed, emitting short sounds of alarm as a signal of menace and advertisement. Most movements around us are made in circle. No matter their positions, both partners have, always, their attention concentrated on us (Ion & Ion, 2002).

However, the majority of our incursions in Reed Warbler's territories, at the begging of breeding period, were followed by the warblers' departure. On the other hand, in literature (Granvik, 1918, mentioned by Cramp, 1992) is described that The Great Reed Warbler females are not so scared by the presence of people. If they are repeatedly visited, they will stay motionless, even allowing people to touch them. We didn't observe this because in most cases the female goes away from her nest, if we will approach more than 1 m.

When people approach the nest, the warblers fly, no more than 20, 30 m, no matter the breeding period stage. Usually, the male are those which give the warning signals. If the presence of people persists in The Great Reed Warbler territory, both partners are unquiet. The warbler's feathers ruffle, especially those on its head and neck. The wings are slowly let down, the tail is wide opened in fan, adopting a ready to fight position. Meanwhile, the female emits rare and weak sounds. Usually, the male's sounds in the presence of people are longer, characterized by a lower tonality and last some seconds. At the beginning of the breeding period, after establishing its territory his sounds are very complex, like long, true trills, of a higher amplitude and tonality.

In the presence of people, the warblers show, in many cases, postures and attitudes meant to induce into error. In many cases we observed that, when people appear, one of the warblers pair breeding will fly into a different direction then that in which is situated the nest. It will reach at 20-30 m away and will start to sing, in order to signalize its presence. The plumage is ruffled, the wings and tail are opened and the head is projected ahead. Sometimes it looks like a wounded bird because has the wings are down or it flies uncertainly between the reed stems. In other cases it descends on the reeds stems and sings trembling sounds flying slowly away from nest. At the same time it opens and closes its tail, successively. Also, the body seems to be smaller than in reality, because the feathers are sleek.

After we move away from the nest, the male comes to check inside or around the nest, moving in short leaps. He checks the eggs or the broods from nest, with its beak. Then, he goes away and stops in positions, which permit him to supervise both the nest and an eventual intruder. After 5-10 minutes the female sits down in her nest, but not before flying around it many times and searching the environment above and under.

In specialized literature (Ganvik, 1918, Dementiev şi Gladkov, 1954, Dyrcz, 1977, Francasso, 1978, Petretti, 1979, Beier, 1981 mentioned by Cramp, 1992) is mentioned that The Great Reed Warblers can attack people. We observed that the intensity of the attack is in direct correlation with the breeding stage. If the warblers have eggs, they will fly away, leaving its nest, when the man comes to its territories. They even leave the nest to look after the intruder very carefully. If the broods have hatched the female will be very unquiet and will approach very close to the man, trying to sting him. After 1-2 minutes, the male comes at 5-7 m away from the nest, oversees his broods and the man. The male seems to be more reserved in his reactions; his posture is one of menace. The body seems to be bigger because the head, neck and body feathers are ruffled and tail fanned. If the broods have the plumage completely formed, the parents' behavior will be extremely aggressive. They will sting especially the man's head, but also the hands. The both parents come closer, and in many situations, from two directions. In these situations we could say that the warblers use a true conversing stratagem to attack the intruder. Their sounds have a greater intensity. The warblers also display the red of bucal cavity, which, in this case, functions like a menace signal. The head and neck feathers are ruffled, the tail is wide opened and primaries scatter just like the prey bird.

The female behavior is different from that of the male in the presence of people. The female is always agitated, no matter the breeding stage. The male is very reserved at the beginning of breeding period. Both become aggressive especially the moment when the broods hatch. The aggressive behavior stops in the moment of offspring emancipation. As a matter of fact in this period near the broods remains only the female. The female will emit call sounds for her young and she will go inside the reed beds, if a man comes nearby.

CONCLUSIONS

The Great Reed Warbler's behavior is correlated with the breeding stage. If the warblers have eggs, they will leave the nest when a man comes around. If the warblers have broods in their nest, they will become very agitate, aggressive and will try to sting the man in order to defend the youngest.

In general the female seems to be more daring than male in the presence of a man.

REZUMAT

Ornitologii au distins în etograma lăcarului mare (*Acrocephalus arundinaceus*) comportamentul față de om. Lăcarul mare percepe omul ca pe un animal de talie mult mai mare decât animalele cu care el intră în mod obişnuit în contact: păsări, bizami, şerpi.

Studiul nostru a cuprins observaţiile efectuate între anii 2001-2005 în zonele umede din Moldova.

Noi am observat că tipul de comportament al lăcarului mare în prezenţa omului este corelat cu stadiul în care se află cuibăritul. Dacă lăcarii au ouă în cuib şi sunt la începutul perioadei de clocit, ei se dovedesc a fi sperioşi față de om. Dacă au puii în cuib atunci devin agresivi şi uneori ciupesc omul ce pătrunde în teritoriile lor fie de cap, fie de mâini.

De asemenea noi am conchis că femela pe toată perioada cuibăritului se dovedeşte a fi mult mai îndrăzneață față de om decât masculul.

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AUTHORS' ADDRESS

CONSTANTIN ION - Titu Maiorescu Street, sc. A, et. VII, ap. 29, 700460 Iaşi, România, e-mail: costin_zoo@yahoo.com