

CONTEMPORARY DISTRIBUTION AND SPECIFIC FEATURES OF LONG-LEGGED BUZZARD ECOLOGY IN THE NORTH OF THE LOW VOLGA REGION

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Современное распространение и особенности экологии курганника на севере Нижнего Поволжья. - Е.В. Завьялов, В.Г. Табачишин, И.А. Хрустов, Н.Н. Якушев. - Беркут. 10 (2). 2001. - В ходе полевых исследований, проводившихся с первой половины марта до середины ноября в 1996-2001 гг., установлено, что в настоящее время ареал курганника (*Buteo rufinus*) на севере Нижнего Поволжья охватывает юго-восточные и центральные участки Левобережья Саратовской области: северная граница распространения вида в Заволжье проходит по широте р. Большой Иргиз. Численность гнездовой популяции курганника на севере Нижнего Поволжья остается низкой, но стабильной и определяется в 75–90 пар.

Abstract. In the course of the field research carried out since the first half of March till the middle of November in 1996-2001 it was established that at the present moment the natural habitat of the Long-legged Buzzard (*Buteo rufinus*) in the north of the Low Volga region covers south-eastern and central parts of Saratov region Levoberezhye (left-bank area): the northern border of this species distribution in Zavolzhye lies in the latitude of the Bolshoy Irgiz river. Number of *Buteo rufinus* breeding population in the north of the Low Volga region is still low but stable, and is determined as 75–90 pairs.

Key words: *Buteo rufinus*, Long-legged Buzzard, distribution, number, the north of the Low Volga region.

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Long-legged Buzzard (*Buteo rufinus*) is a rare breeding bird in the North of the Low Volga Region. It inhabits steppe and semi-desert parts of the area: the northern border of this species distribution in Zavolzhye lies in the latitude of the Bolshoy Irgiz river. The most stable part of the left-bank population inhabits the Southeast of Saratov region. In the past (the 1920s) it even prevailed over the Steppe Eagle (*Aquila rapax*) in Novouzensk steppe (Volchanetsky, 1937). In the breeding period it was registered in Perelyubsky, Dergachevsky, Alexandrovo-Gaysky, Novouzensky, Ozinsky and Engels districts. In summer buzzard was found in the valley of the B. Karaman river to the north of Urbakh station in 1973 and in the divide steppe 20 km to the South-east of Novotulka settlement of Krasnokutsky district (Varshavsky et al., 1994). Meanwhile these birds were lacking in Priyeruslanskaya steppe (Volchanetsky, Yaltsev, 1934) and in most of the regions adjacent to the Volga valley. That is the area where in the past western border of the species distribution was situated (Lebedeva, 1967).

The species was found only once in 1956 on the Yeruslan river in the vicinity of Diakovka settlement of Krasnokutsky district that is to the west of the main areas of its distribution in Zavolzhye (Varshanevsky et al., 1994). Meanwhile these researchers made the assumption that the bird of prey could possibly reproduce in the right-bank Volga region as well: as the most favorable habitats they named the areas near Ribushka, Mordovoye and Sosnovka settlements where Long-legged Buzzards were registered in May – July in 1964, 1965, 1982, 1984 and 1989. Later this assumption has not been proved with reliable data to be true and appears to be rather debatable. However within the contiguous area of Kamishinsky district in Volgograd region (geomorphological nature memorial “Stolbichi”) the fact of these birds nesting is thought to be proved and stable (Chernobay, 1992).

The incomplete data concerning Long-legged Buzzard breeding in some districts of Saratov region are not sufficient for the estimation of its population density and overall



number in the past. It is known that until the middle of the 1970s the Long-legged Buzzard was a relatively common species in semi-desert districts of the region. In its distribution it is closely connected with *Spermophilus pygmaeus* which is the reason of the species concentration in the virgin areas in the places of big settlements of rodents. In the end of the 1980s the total number of birds of prey breeding in the region was still estimated by 150 pairs (Shlyahin et al., 1993). Some time later the number decreased sharply everywhere and totaled, according to the data of V.N. Moseykin (1991), approximately 40 breeding pairs at that time.

Materials and methods

The characteristic of the Low Volga Long-legged Buzzard population and the analysis of its alterations in time and space is based on the materials of quantity registration conducted since the first part of March till the end of October in 1998-2001 on the territory of Saratov left-bank region. In the course of the registration the places of birds disclosure were plotted on a 1:100000 scale map. Special consideration was given to the confirmation of nesting trustworthiness which was defined by the criteria recommended by European ornithological atlas Committee (Breeding birds..., 1992). The fact of nesting was considered to be proved when it was confirmed by the discovery of nests and dependent juveniles, as well as by the observation of adult birds with feed near the nest. The species with probable (in view of high enough number, demonstrating the elements of nesting behavior) and alleged (in view of summer stay in constant areas at the habitats suitable for nesting) reproduction character were regarded as belonging to the group of summering.

The total area of habitats studied by the authors makes up approximately 37000 km² which is about 67 % of the whole area of Saratov Levoberezhye (left-bank part) (Lazareva et al., 1996). Statistical processing of the primary data has been performed by generally

accepted methods including average values account for each index and their mistake.

Results and discussion

In the course of research it has been proved that birds population density is the highest within Alexandrovo-Gaysky and Novouzensky administrative districts, where in some areas this index equals 1,4 pair/100 km² in reproduction period. The Long-legged Buzzard abundance is a little lower in the southern and south-eastern parts of Dergachevsky, Petersky and Ozinsky districts (0,8 pairs/100 km²). In other districts (to the north to the B. Irgiz river) within which the buzzard presence has been registered for certain, irrespective of the natural habitats anthropogenic transformation degree this index is noticeably lower – 0,05-0,4 pairs/100 km².

The estimation of present Long-legged Buzzard total number within the area being studied is based only on the route registration data, in the course of which in the period before the youth flight there were registered 147 birds manifesting to a certain extent some elements of reproduction behavior. Obviously this value may not be used without certain correction for characterizing the total nesting birds number of Saratov Long-legged Buzzard population, for a number of buzzards were not found in the course of the research. Thus, the area of the territory not studied which is situated in the extreme south within Alexandrovo-Gaysky district and in the valley of the B. Irgiz river (including intrazonal water-meadow landscapes) makes up approximately 6000 km² (Lazareva et al., 1996). Within this area there are probably a few more tens of birds of prey. Taking this into account the present number of Long-legged Buzzard breeding population in the north of the Low Volga region (Saratov region) is about 75-90 pairs.

In the area of Volgograd Levoberezhye (left-bank region) this number is higher and probably totals not less than 150 pairs. It is known, for instance, that in Prieltonye on the territory of around 1079 km² 28-33 pairs of



these birds reproduce (Bukreyev, Chernobay, 2000).

In spring the first birds appear in the region in the end of March. Intense flight may be observed in the first half of April. In breeding period it is connected with south-steppe and semi-desert areas, although in dry steppes it may be found more seldom. The nests are placed in the trees, ledges and steep niches, sometimes on the burial hills and constructions. The species starts nesting in the end of April. The full clutch consists of 3-5 eggs, on average ($n = 11$) $4,0 \pm 0,11$. Eggs are white colored with brown patches. Their size: $DL_{(37)}$ 45,8 – 48,4 x 58,7 – 62,6 mm; $xDL_{(37)}$ 46,9 \pm 0,08 x 60,5 \pm 0,11 mm. In the nests registered in the first half of June 2-4 downy nestlings were found. Young birds flight was timed to the middle of July.

By the middle of the summer the number of Long-legged Buzzards in the southern Zavolzhye noticeably increases. Thus, since the first ten-day period of August the number of the birds of prey increases gradually in Novouzensky district: 25.08.1998, for instance, on the route being 97 km long there were found 7 birds. At the same time of year in 2001 in the south of Fedorovsky and in the north of Petersky districts the number of Long-legged Buzzard equalled 6,4 ind./100 km. This process keeps going in August, and in the middle of September Long-legged Buzzard is one of the most common birds of prey in the south of Saratov Zavolzhye. At this time the birds occurrence on the routs varies from 0,3 up to 8,3 ind./100 km ($2,4 \pm 0,71$ ind./100 km on average).

The reason for that is obviously not only the flying of young birds from their nests but coming of the birds of prey to the area studied from semi-desert southern regions where trophic conditions because of a year dynamics of rodent number become extremely unfavorable. That can be indirectly proved by the fact of finding a dead Long-legged Buzzard on 4.06 in Saratov Levoberezhye which was marked two years before on 9.06 near Janibek settlement in Uralsk region in Kazakhstan.

And if this example may be regarded as natural dispersion of birds of prey, then the direct return received in Saratov region on 21.10 from a Long-legged Buzzard 4 months after its marking in the same region of Kazakhstan in June practically removes all doubts of this hypothesis objectivity¹. In the end of September the main part of the birds of prey leave the area being studied. However single birds may be observed in the south of Saratov Zavolzhye till the middle of October.

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