

# The Breeding Bird Atlas of Jelgava district, Latvia

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## 1. Introduction and Methods

The district of Jelgava lies in the middle of Latvia and has a total area of 1613 km<sup>2</sup>. Forests cover ~30 % of the territory, bogs ~5% and agricultural lands ~60%. Mapping the bird distribution was by traditional atlas-type methods (Priednieks *et al.* 1989). The territory was investigated using 5 km×5 km UTM squares (n=93). The evidence of a species breeding in a square was estimated according to 17 categories divided into 4 grades representing presence of the species, possible breeding, probable breeding and confirmed breeding. 91 squares (97.9%) were surveyed during the 1995 to 1998 breeding seasons. 67 squares were covered sufficiently (at least 15 of the 20 commonest species were detected). Two national border squares whose total area was small (<5km<sup>2</sup>) were not visited.

## 2. Results

A total of 162 bird species was registered, out of which 114 species are confirmed breeders, 31 – probable breeders and 17 possible breeders. 9 species were recorded while only feeding or on passage migration and were omitted from the list of nesting birds. The largest number of nesting species registered in a single square was

107. Breeding population numbers were estimated and additional data were collected on rare and colonial species. Data for some species were compared to the data from the 1980-84 countrywide atlas (Priednieks *et al.* 1989). Changes in numbers are mostly usually connected with the recent crash of intensive agriculture (after the end of the Soviet occupation in Latvia) that produced large areas of undisturbed semi-natural landscapes.

### Species of interest

White Stork *Ciconia ciconia*. It is a very common species. The calculated number of occupied nests in the Jelgava district nest surveys of 1994-1995 was 415, the average nest density being 43/100 km<sup>2</sup>. Overall numbers in Latvia have also increased considerably (Janaus & Stipniece 2000).

Mute Swan *Cygnus olor*. The increase in numbers is caused by its recent (since the early 1980s) breeding range expansion. Before then there had been no Jelgava breeding records. Recently, 57% of approximately 25 bp (breeding pairs) nested beside water-filled open clay pits, 23% by artificial reservoirs or channels, and the rest in natural habitats along the Rivers Lielupe and Svēte.

Marsh Harrier *Circus aeruginosus*. Numbers have increased since the early 1980s and although clear reasons are not

known, the increased area of abandoned agricultural lands and encroachment of disused open clay pits might be factors.

Montagu's Harrier *Circus pygargus*. The considerable increase in numbers is most likely caused by the abandonment and the enforced low-intensity use of agricultural lands in the 1990s. Breeding sites include open, unused and overgrown clay pits and wet meadows along the rivers.

Lesser Spotted Eagle *Aquila pomarina*. Numbers of breeding pairs might have increased in the early 1990s, but forest management practices in small private forests have caused destruction of nests and habitat in the late 1990s. The total number of breeding pairs in Jelgava district (Fig. 1) might reach 20 (2.8-3.8 bp/100 km<sup>2</sup> of forest (Strazds *et al.* 1997)).

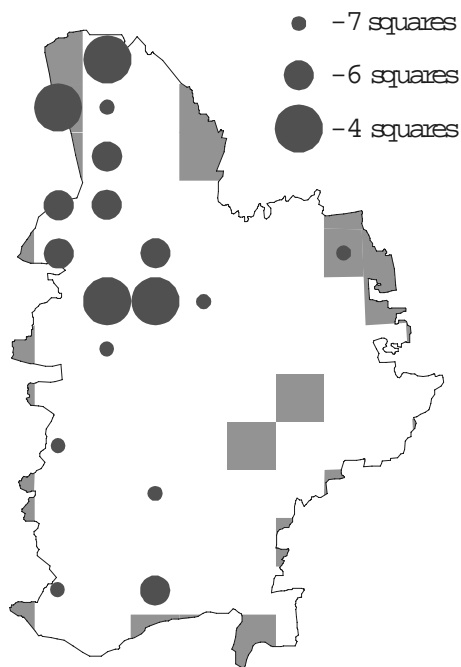


Fig. 1. Distribution of Lesser Spotted Eagle (*Aquila pomarina*) in the district of Jelgava 1995-1998.

Common Kestrel *Falco tinnunculus*. The species does not seem to have benefited from the crisis in agriculture and appears to be still decreasing in numbers. Locally fairly common, some counties having 3-4 breeding pairs, a level that is low in comparison with the mid 20<sup>th</sup> century (Vilks 1986).

Corncrake *Crex crex*. Numbers have increased in comparison with the early 1980s, but precise estimates of Jelgava district numbers are as yet unavailable. Floodplain meadows of the rivers Lielupe, Svēte and Iecava hold some of the highest breeding densities in Latvia, 18.75 calling males/km<sup>2</sup> (Keišs 1996).

Citrine Wagtail *Motacilla citreola*. Since this species was first observed in

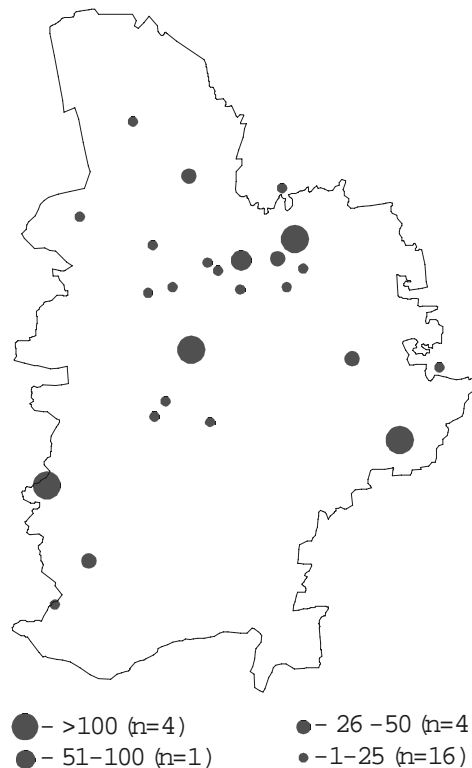


Fig. 2. Size of colonies of Sand Martin (*Riparia riparia*).

Tab. 1. Population estimates (1995-1998) and trends (1980-1984 v 1995-1998) of some bird species of the district of Jelgava, Latvia.

English name	Species name	Population estimate (pairs)	Trend
Eurasian Bittern	<i>Botaurus stellaris</i>	5-6	0
Black Stork	<i>Ciconia nigra</i>	10-15	0
White Stork	<i>Ciconia ciconia</i>	>400	+2
Mute Swan	<i>Cygnus olor</i>	20-25	+2
Marsh Harrier	<i>Circus aeruginosus</i>	30-50	+1
Montagu's Harrier	<i>Circus pygargus</i>	5-10	+2
Lesser Spotted Eagle	<i>Aquila pomarina</i>	10-20	+1
Common Kestrel	<i>Falco tinnunculus</i>	10-15	-1
Common Crane	<i>Grus grus</i>	7-10	+1
Black-tailed Godwit	<i>Limosa limosa</i>	>15	0
Redshank	<i>Tringa totanus</i>	~50	0
Common Gull	<i>Larus canus</i>	5-10	0
Black Tern	<i>Chlidonias niger</i>	30-50	-1
Kingfisher	<i>Alcedo atthis</i>	>20	0
Sand Martin	<i>Riparia riparia</i>	>1000	-1
Citrine Wagtail	<i>Motacilla citreola</i>	>5	+2
Penduline Tit	<i>Remiz pendulinus</i>	70-100	+2

Trends are summarized in Column 4, where +2 = an increase of more than 50% from the total population size in 1980-1984, +1 = an increase of 25-50%, 0 = stable population and -1 = a decrease of 25-50%.

Latvia in 1982 in Jelgava district (Bergmanis 1984), it has expanded its breeding range and has bred regularly at several Jelgava sites since the early 1990s. First breeding was recorded in 1989 (E. Račinskis *pers comm*) and the number of breeding pairs has increased since then.

Sand Martin *Riparia riparia*. During the study period, 25 colonies of this species were found (Fig. 2), The majority being in open clay pits. An increase of vegetation succession on the pit banks might have caused a slight decrease in the numbers.

Penduline Tit *Remiz pendulinus*. Numbers of breeding pairs have increased considerably since the 1980s. The species appears to be continuing its breeding range expansion (Lipsbergs 1971) in Latvia, populating new sites that it has not used previously.

## References

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