



BREVIA

About changes in the flock composition of wintering Bullfinches (*Pyrrhula pyrrhula*) in early spring of 1999.

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During 31.01.–20.03. in 1999 observations were made on Bullfinch flocks gathering in winter-feeding tray in Kuhjaveere, Viljandi County. The number of Bullfinches was registered in the morning, whereas sexual composition also was recorded. In order to catch the birds a net attached to a 1 m² frame was used. Altogether 56 individuals were ringed in the course of 27 catches, which enabled to estimate if the birds visiting the feeding tray were stationary. On the other hand, also changes in the sexual composition of the wintering flocks were being studied.

First finches to arrive at the feeding tray were 3 males, on January 31st. One week later the flock was consisting of 17 birds, whereas the rate of male birds being considerably higher – 88% (Fig. 1). Moreover, the number of male Bullfinches visiting the feeding tray remained considerably higher during the whole observation period (187 males and 82 females: $\chi^2=21.34$, $df=1$, $p<0.0001$).

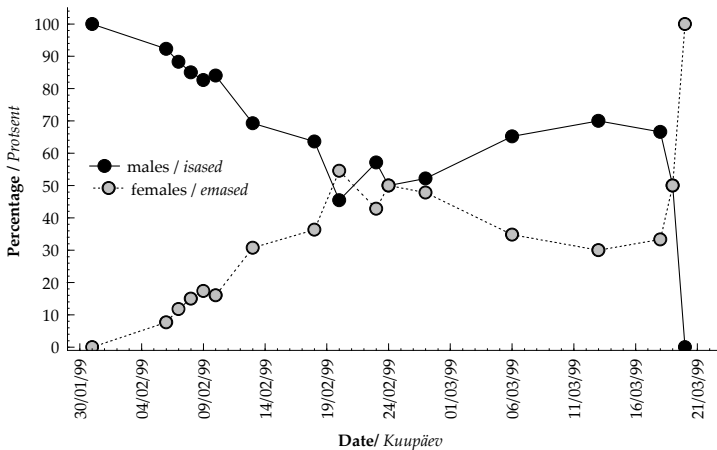


Figure 1. Percentage of male and female bullfinches in winter flock.

Joonis 1. Isas-ja emaslindude osakaal talisalgas.

The number of Bullfinches visiting the feeders was constantly increasing and peaked on February 13th when altogether 26 individuals had been counted (Fig. 2) with only 30% being females. However, the proportion of female Bullfinches in the winter flock had been slowly but consistently increasing and peaking on February 20th reaching 54%. Subsequently, until the beginning of March, the sexual composition of the flock remained rather stable.

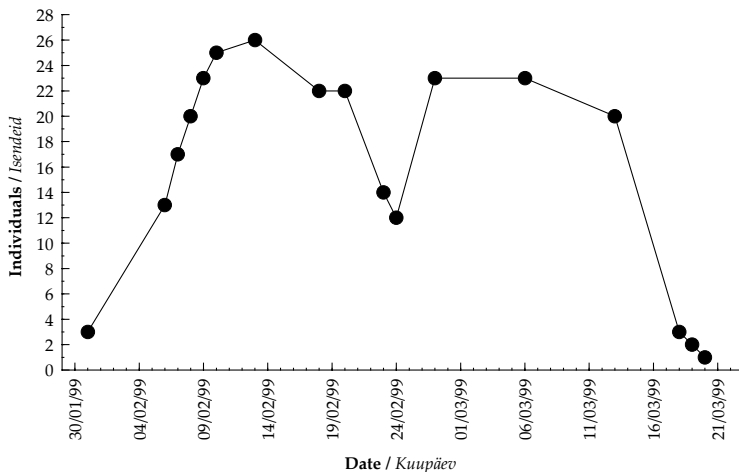


Figure 2. The size of the winter flock at the feeding tray.

Joonis 2. Toidulauda külastanud isendite arv.

In the course of several catches approximately 20–100% (mean 58%) of all the Bullfinches visiting the feeding tray have been caught. Latter provided a good overview of the rate of stationary birds. It appeared that males were more stationary when compared to females. There were 7 birds (6 males and 1 female) that had been caught several times and therefore were most stationary of all the birds ringed at the feeding tray. A few birds continued visiting the tray even until mid March, which was suggesting that these birds could be stationary (or local). One male Bullfinch who had been ringed on 31.01.1999 was encountered at the feeding tray even as late as 14.03.1999.

Fluctuations in the composition of the wintering flocks due to spring migration could be observed already in February. Decline in the flock size during the first decade of February might have been due to the departure of individuals originating from northern areas while at the same time birds from southern areas have given rise to the flock size by joining it in early March. Among Bullfinches in central Norway courtship behaviour is frequently observed during February-March (Hogstad 2006), which most probably can also be expanded on Estonia. Yet, the increase of females during the last decade of February might more likely be due to migrating birds from southern wintering areas. However, the sudden decline in the number of wintering Bullfinches visiting the feeding tray during the last decade of March might probably be a result of the interaction of several factors: a) the departure of wintering or migrating individuals; b) the expansion of the territories of stationary individuals; c) the improvement of feeding conditions.

In Estonia, the proportion of males in Bullfinch flocks is rather high. However, data of wintering flocks in central Norway during 1989–2003 showed a rather stable mean flock size of stationary Bullfinches, being 3.76 individuals, whereas the ratio between males and females being 1.09 (52.2% males, Hogstad 2006). The corresponding indicator in Kuhjaverre was 2.28 (69.5% males). The extraordinary low proportion of males (12.5%) may indicate that the majority of the individuals had been migrating (originating from northern areas). Latter also finds support by Matsalu Ringing Centre as there exists data of birds ringed in Finland who have been encountered in Estonia during 1956–1990. Namely, there is data of migrating females (n=3) ringed in Finland only during October and March

whereas males have been registered from December to February (n=5). Thus, latter data is supporting the fact that such a high proportion of males in wintering flocks is merely a regional phenomenon and may be explained by wintering individuals originating from Finland (probably also from north-western Russia).

However, the origin of the Bullfinches visiting the feeding tray remains unknown due to the lack of recovery of ringed birds. Altogether 32 ringed Bullfinches have been reported to the Matsalu Ringing Centre during 1971–2000 from January to April – 26 individuals in Estonia, 4 in Finland, 1 in Russia and 1 in Latvia.

Literature cited: – Hogstad, O. 2006. Flock composition, agonistic behaviour and body condition of wintering Bullfinches *Pyrrhula pyrrhula*. Ornis Fennica 83: 131–138.

