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WINTERING DUNNOCK *PRUNELLA MODULARIS* IN LUBUSZ VOIVODESHIP

ABSTRACT

In Poland, the wintering of Dunnock *Prunella modularis* is a regular phenomenon, which has intensified in recent years, especially in western Poland. The aim of this study is to characterize winter observations of Dunnock in the Lubusz Voivodeship. The study used 103 observations collected from the Lubusz Voivodeship during spontaneous ornithological observations carried out between 1996 and 2024. A total of 123 individuals were recorded during 23 winters out of the 29 winter seasons analyzed. Most observations took place in January (42.7%), followed by December (38.8%) and least in February (18.4%). Dunnock observations were assigned to five types of environments (river valleys, banks of water reservoirs, agricultural landscape, greenery in cities and villages, forests). Birds were most frequently recorded in river valleys – a total of 39.8%. In this environment, Dunnedks were most frequently observed in all winter months. Most observations concerned single birds – 86.4% of records. The remaining records concerned observations of 2-4 birds.

Key words: wintering, Dunnock *Prunella modularis*, (Western Poland), habitat

INTRODUCTION

European populations of the Dunnock *Prunella modularis* are either migratory or resident, depending on the region. The populations inhabiting northwestern, western, and southern Europe are mostly resident or short distance migrants within the region. Birds from northern Europe wintering mainly in western and southwestern Europe, but the Finnish population migrates mainly to central and southeastern Europe. The Central European population winter in southwestern and southeastern Europe, with some birds reaching northern and northwestern Africa (Algeria, Morocco). Birds breeding in the Baltic countries, winter in northern Italy and neighboring areas of southeastern Europe (Nikolov 2022).

In Poland, Dunnock has the status of a moderately numerous breeding species and a numerous migratory species (Tomiałoć and Stawarczyk 2003, Chodkeiwicz et al. 2015). Winter observations of Dunnock in Poland are regular and have been increasing in recent years (Tomiałoć and Stawarczyk 2003, Sikora and Bład 2011, Beuch 2015, Chmielewski 2024). Winter observations have been known since the early 19th century

(Tomiałojc and Stawarczyk 2003). This species is found in all regions of the country, but not everywhere with the same frequency and not during all winters (Dyrcz et al. 1991, Bednorz et al. 2000, Tomiałojc and Stawarczyk 2003, Chmielewski et al. 2005).

STUDY AREA AND METHODS

The study is based on 103 Dunnock observations from the Lubusz Voivodeship collected during spontaneous ornithological observations conducted between 1996 and 2025, during the winter months (December, January, February). Ornithological observations were carried out in various environments, mainly in river valleys, agricultural landscapes, and near water reservoirs. Each time Dunnock was found during winter, the number of individuals and the type of environment in which the birds were found were recorded. The habitats in which the birds were observed were assigned to five main categories: 1. trees and shrubs in river valleys, 2. trees and shrubs among fields (agricultural landscape), 3. trees and shrubs on the banks of water reservoirs, 4. trees and shrubs (including allotment gardens) within towns and villages, and 5. forest areas.

RESULTS

A total of 123 Dunnock individuals were recorded in 103 observations. Of the 29 winter seasons analyzed, birds were observed during 23 winters. No wintering Dunnocks were recorded in the following seasons: 1998/1999, 2003/2004, 2006/2007, 2009/2010, 2010/2011, and 2012/2013 (Fig. 1). An exceptionally large number of wintering birds were observed during four seasons (2000/2001 – 29% of all observations, 2001/2002 – 8%, 2020/2021 – 20%, and winter 2023/2024 – 9%). Since the 2013/2014 season, birds have been observed every winter. During this period (12 seasons), 53% of all observations were recorded.

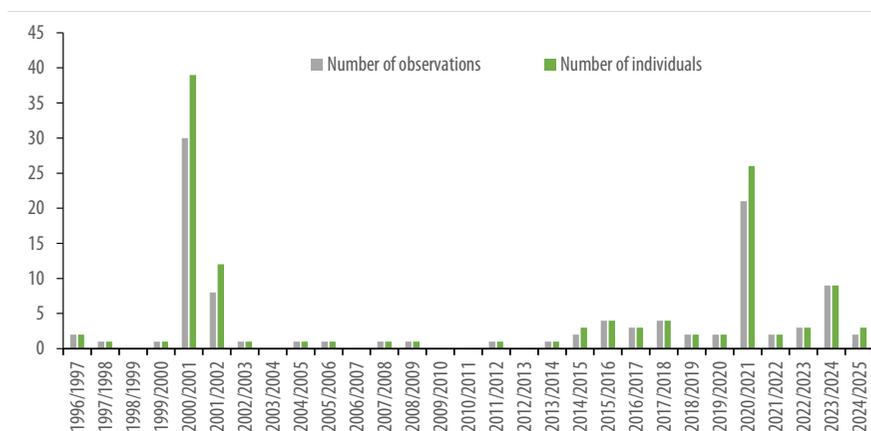


Fig. 1. Distribution of the number of observations and the number of individuals of Dunnock *Prunella modularis* in winter seasons in 1996–2025 years in Lubusz Voivodeship

Most observations took place in January – 42.7% of all observations (Fig. 2), followed by December (38.8%) and least in February (18.4%).

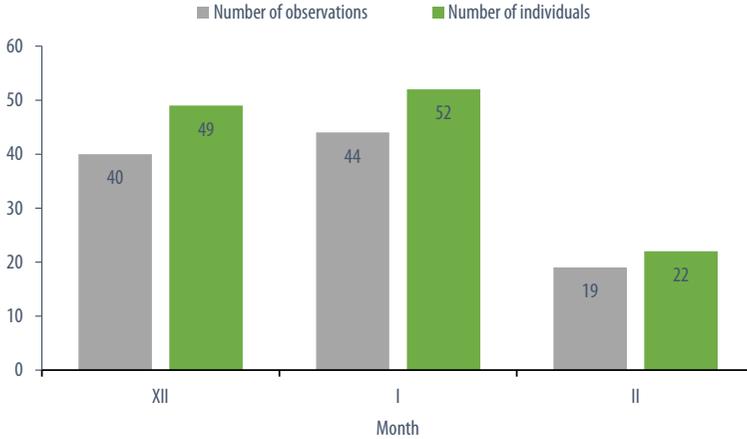


Fig. 2. Distribution of the number of observations and the number of individuals of Dunnock *Prunella modularis* by winter months in Lubusz Voivodeship

Wintering Dunnock were observed in various habitats. Most often in trees and shrubs in river valleys (mainly the Odra River) – a total of 39.8% of all observations and 42.3% of birds observed. A high proportion of sightings also occurred in green areas within human settlements (towns and villages) – 21.4% of observations, and in trees and shrubs in agricultural landscapes – 19.4%. The number of observations, individuals, and proportion of those individuals occurred in each specific habitat type are presented in Table 1. In all three months, the highest number of observations was recorded in river valleys. The proportion of other habitat categories varied in individual months (Fig. 3).

In the majority of accounts single birds were observed – 86.4% of cases. Observations of two individuals accounted for 9.7%. In addition, three and four birds were seen twice, in December (three observations) and January (one observation).

Table 1. Occurrence of Dunnock *Prunella modularis* in winter in different types of habitats in Lubusz Voivodeship

Habitat	Number of observations	% observations	Number of individuals	% individuals
River valley (1)	41	39.8	52	42.3
Farmland (2)	20	19.4	25	20.3
Water reservoirs (3)	12	11.7	12	9.8
Urban area (4)	22	21.4	25	20.3
Forest (5)	8	7.8	9	7.3
Total	103	100.0	123	100.0

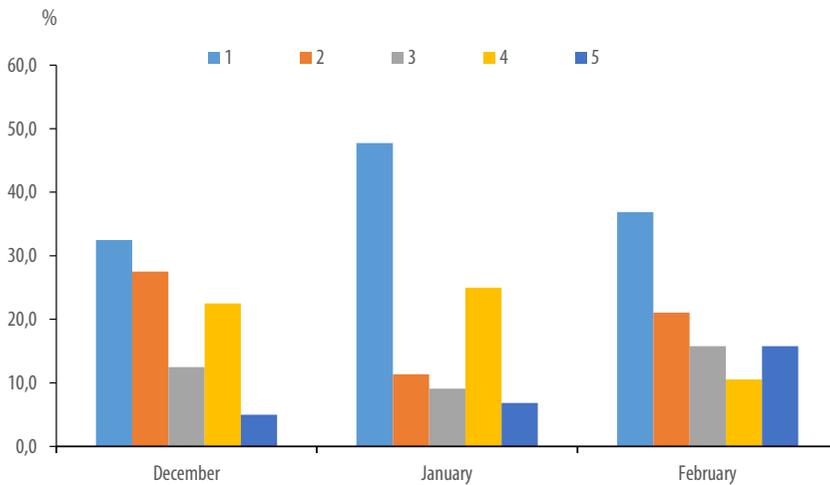


Fig. 3. Proportion of Dunnock *Prunella modularis* observation in a given habitat by months in Lubusz Voivodeship. 1 – river valley, 2 – farmland, 3 – water reservoirs, 4 – urban area, 5 – forest

DISCUSSION

The phenomenon of wintering of Dunnock in Poland is described to varying degrees in regional faunistic monographs (Dyrcz et al. 1991, Bednorz et al. 2000, Walasz et al. 2000, Chmielewski et al. 2005, 2024) and summarized in the avifauna of Poland (Tomiałoć and Stawarczyk 2003). The authors report that this bird winters almost every year throughout the country, especially in the west. This phenomenon was already known in Silesia at the beginning of the 19th century and on the Warta River until the beginning of the 20th century (Tomiałoć and Stawarczyk 2003). In the Lubusz Voivodeship, the species was not recorded until the end of the 1980s (Jermaczek et al. 1995). It was only after numerous ornithological observations began in the early 1990s that regular observations of this species were made in the Lubusz Voivodeship (Bocheński et al. 2006, Czechowski et al. 2016).

In Silesia, Dunnock is a regular wintering bird. By the end of the 1980s, several dozen observations had been recorded, and in the last two decades, over 100 more (Dyrcz et al. 1991, Silesian Avifaunistic Database). In Wrocław, it is recorded irregularly, mainly in peripheral parks and heavily bushy slopes of settling ponds (Tomiałoć et al. 2020). Regular wintering of Dunnock has also been observed in Upper Silesia in Bytom and Zabrze near mine settling ponds, where up to 6 birds were recorded in January between 2009 and 2015 (except for 2011) (Beuch 2015). In Greater Poland, until 1996, winter observations of the species were recorded only 14 times (Bednorz 2000). Another 6 observations were recorded between 2009 and 2016 (Żurawlew and Radziszewski 2014, Żurawlew and Nowak 2017a, b). In Lesser Poland, 33 observations were analyzed, with birds most frequently observed in December and then in January (Walasz et al. 2000). In

the Świętokrzyskie Mountains, only 9 observations were recorded in December-January between 1984 and 2000 (Chmielewski et al. 2005). In the Mazovian Lowlands, between 1974 and 2021, it was recorded approximately 81 times in December and January, and after 2010, an increase in observations was noted (Chmielewski 2024).

In the Lubusz Voivodeship, approximately 50% of winter Dunnock observations took place in river valleys, mainly along the Odra River, and near water reservoirs. In other regions of Poland, the birds were also more frequently found near water environments, in Lesser Poland in thickets, bushes, and brushwood piles along rivers and streams (Walasz et al. 2000), and in the Mazovian Lowlands most often along rivers (Chmielewski 2024). In Silesia, for example, in Bytom and Zabrze (Beuch 2015) or Wrocław (Tomiałojsć et al. 2020), Dunnock was regularly seen in vegetation near water reservoirs. Wintering birds in the Lubusz Voivodeship were also found in urban and rural green areas, including bird feeders. In the Mazovian Lowlands, residential areas were the second most common habitat in terms of the number of observations (Chmielewski 2024).

The majority Dunnock winter observations were single birds (Walasz 2000, Chmielewski 2024, Silesian Avifaunistic Database, present study). It is less common to observe 2-3 birds, and even rarer to see larger groups, e.g., 5-6 individuals (Walasz 2000, Beuch 2015). Exceptionally, groups of more than 10 birds were recorded: 12 individuals 15.02.1981 in Silesia (Dyrz et al. 1991) and 19 birds 03.02.2001 at the ash storage site of the combined heat and power plant in Gdańsk Nowy Port (Sikora and Bład 2011).

In summary, the wintering of Dunnock in Poland is a regular phenomenon (with varying intensity in different regions of the country), which has intensified in recent years. A large proportion of observations take place near water environments (river valleys, reservoirs). Birds, which most often stay in dense vegetation, are detected mainly on the basis of their call. Therefore, many individuals may not be detected, and as a result, the number of Dunnock staying in Poland for the winter may be higher. This is particularly true in the last dozen or so years, when winters have been much milder.

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