



# Observation of the grey heron (*Ardea cinerea*) and the great egret (*Ardea alba*) in the territory of Lviv and Cherkasy regions during the winter period

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**KK:** Conceptualization; Investigation; Formal analysis; Data curation; Writing — original draft.  
**ZV:** Methodology; Investigation; Validation; Supervision; Formal analysis; Visualization: Writing — review and editing.

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The article provides brief information on observations of grey herons (*Ardea cinerea*) and great egrets (*Ardea alba*) in the Lviv and Cherkasy regions during winter. The accounted representatives of the *Ardeidae* family show a non-mass nature of wintering and were recorded only near water reservoirs not covered with ice. Such observations indicate low synanthropization and the importance of specific habitat types for these birds. In addition, the episodic nature of their detection proves their low resistance to winter conditions, therefore, in rather cold winters, representatives of the *Ardeidae* family were almost not recorded.

**Key words:** grey heron, great egret, winter avifauna, urban agglomerations, reservoirs

## Introduction

The grey heron (*Ardea cinerea*) and the great egret (*Ardea alba*) are the most common representatives of the heron family (*Ardeidae*) in Ukraine. These are wintering, migratory and nesting birds. They nest in colonies, feed on a variety of animal food: worms, insects, amphibians, fish, mammals [10].

The grey heron is the most common species in the entire territory of Ukraine, except for the mountainous part of the Carpathians and the Crimean Mountains and their adjacent territories [5, 10].

The great egret nests in almost the entire territory of Ukraine, except for the Carpathians, Mountainous Crimea and some adjacent areas, and it is the most numerous species in the Azov-Black Sea region [5, 10].

In recent years, however, information has been increasingly appearing that herons stay for the winter, which is probably caused by warm winters and climate changes.

During the literary sources analysis, we found out that the grey heron was found in the winter period in 1984. On December 1<sup>st</sup> A. A. Bokotei observed 3 in-

dividuals in Ivano-Frankove village in Yavoriv district (Lviv region). On December 31<sup>st</sup> H. V. Boyko found 1 grey heron in Dobrotvir town in Kamyanka-Buzka district (Lviv region) [6].

In 1997, M. Rahulina watched 2 grey herons on water reservoir in Staryy Dobrotvir village in Kamyanka-Buzka district (28.02.1997) [10]. According to data by D. V. Strashniuk, 2 individuals of the grey heron were observed at the water treatment facilities of the city of Ternopil (06.12.1997), as well as in the sumps of the sugar factory there was 1 individual of the great egret [8, 9].

In 1998, I. V. Shydlovskiy watched 3 great egrets in Cholhyni village in Yavoriv district (28.02.1998). D. Dubovyk observed one grey heron in Rusaniivtsi village in Letychiv district (Khmelnitsky region) on Southern Bug river (01.02.1998) [11]. O. H. Hryshchuk counted one grey heron on Western Bug river between Sokal and Zvhyrka (Lviv region) (04.02.1998) [11].

In 1999, on December 12<sup>th</sup> M. V. Khymyn watched 3 grey herons in flight in Charukiv village (Lutsk region), on January 10<sup>th</sup> and December 23<sup>rd</sup> M. M. Khashchivsky observed one grey heron on Cherkhava river in Horodyshe village in Sambir district (Lviv region) [11].

In the territory of the Rivne region, the great egret is an atypical wintering species. In winter, birds were counted on lakes, ponds and rivers that do not freeze [1, 4].

The wintering of the great egret was registered in 2000–2003 in the Letychiv district of the Khmelnytskyi region. These birds were found in the valley of the South Bug River and its tributaries. The population during the winter of 2000/2001 was up to 25, in 2001/2002 it was up to 10, in 2002/2003 — up to 5 individuals [8].

On the territory of the Kremenchug reservoir, M. N. Havryliuk and his colleagues recorded wintering birds. On December 13, 2008, these authors observed 52 great egrets and 7 grey herons on the territory of the Sula Bay and on the ponds between the villages of Ly-pove and Bugaivka (Globyne district). In December 2008, 4 individuals of the great egret and 80 individuals of grey heron were observed on the territory of the Kaniv reservoir, and 8 grey herons were observed on the ponds near the Irkliiv village (Chornobaiv district, Cherkasy region) on December 12<sup>th</sup> [3].

In 2009, the authors observed one grey heron on the territory of the treatment facilities near the Chervona Sloboda village. In mid-February 2009, the authors observed a grey heron in the number of 12 individuals on the territory of Sula Bay and the nearby ponds. On the ponds near Sagunivka-Chervona Sloboda villages at the sewage treatment facilities and the adjacent areas of the reservoir in the same period, the authors observed 16 and 50 grey herons, respectively.

Therefore, the areas where herons stay for the winter differ in their geographical location, but they have one thing in common — the presence of reservoirs that do not freeze. These are mostly the man-made water bodies such as water reservoirs, sewage treatment plants, settling tanks.

There are a large number of ponds, lakes, and reservoirs in the territory of Lviv region, but representatives of *Ardeidae* are observed only in flight over the city of Lviv, they winter in waterbodies outside the city and can be seen while moving from one water reservoir to another.

On the territory of the Cherkasy region, there is the Kremenchuk Reservoir, which in turn provides the birds of the wetland complex with a territory for wintering with a large amount of feed.

Ternopil, Rivne, and Khmelnytskyi regions also have reservoirs of man-made origin, where birds often stay for the winter. In particular, on the territory of these regions there are cooling reservoirs of power plants.

Zhydachiv and Kaniv district-level agglomerations are located on rivers. Zhydachiv agglomeration is located on the Stryi River, which is a tributary of the Dniester, and the Kaniv one is located on the bank of the Dnipro River and has a large surface area due to the presence of the Kremenchuk Reservoir [13].

**The purpose** of this paper is a study of the quantitative composition of the heron family (*Ardeidae*) representatives in the territory of Lviv and Cherkasy urban agglomerations in the winter period.

## Materials and Research Methods

The research was carried out on the territory of urban agglomerations of Lviv and Cherkasy regions in the winter periods of 2020–2024. We selected 4 urban agglomerations: 2 of regional level (Lviv and Cherkasy) and 2 of district level (Zhydachiv and Kaniv).

The observations was conducted during the daylight from 8 am to 12 pm, by the method of point-counting, with a fixed detection zone, with the interval of 1–2 weeks. During the birdwatching we recorded all species of birds (including vocalization) in the radius of the circle  $R_1$  25 cm and  $R_2$  50 cm. To reduce the possible error, the points within the research areas are set accidentally with the help of qGis, which is used to create maps and store valuable information about discovering the habitats of various plant and animal species in nature conservation activities. For the birdwatching we used *Breaker 12×16* binoculars.

## Research Results

During the entire period of research, we found two species of herons — the grey heron (*Ardea cinerea*) and the great egret (*Ardea alba*) with a total number of 29 and 66 individuals, respectively.

In the territory of the city of Lviv, during the entire period of records, only six individuals of the grey heron and two of the great egret were observed. In contrast, in the territory of the Zhydachiv agglomeration representatives of the egrets were more numerous, in particular, 59 individuals of the great egret and 9 individuals of the grey heron were recorded.

On the territory of the Cherkasy agglomeration, only 17 individuals of the grey heron were observed, and the great egret was not recorded at all (although we know about its wintering in this territory, but during our research we did not manage to find it). Within the territory of the Kaniv agglomeration, we observed only 1 individual of the grey heron and 1 individual of the great egret.

This distribution of observations of wintering herons, in our opinion, indicates the importance for them of the presence of non-freezing water bodies, and at the same time with an insignificant depth. The Stryi River within the city of Zhydachiv is quite shallow and not wide, which provides birds with an opportunity to forage, unlike Lviv, where Poltva river with its confluents is almost entirely underground in collectors, but goes outside and flows within the city for more than 3 km.

There is also a significant difference between the rivers of both geographical locations (west and center of Ukraine), since the wide and deep Dnipro River flows within the borders of Kaniv and Cherkasy, where not all places within the rivulet are suitable for foraging by *Ardeidae* representatives.

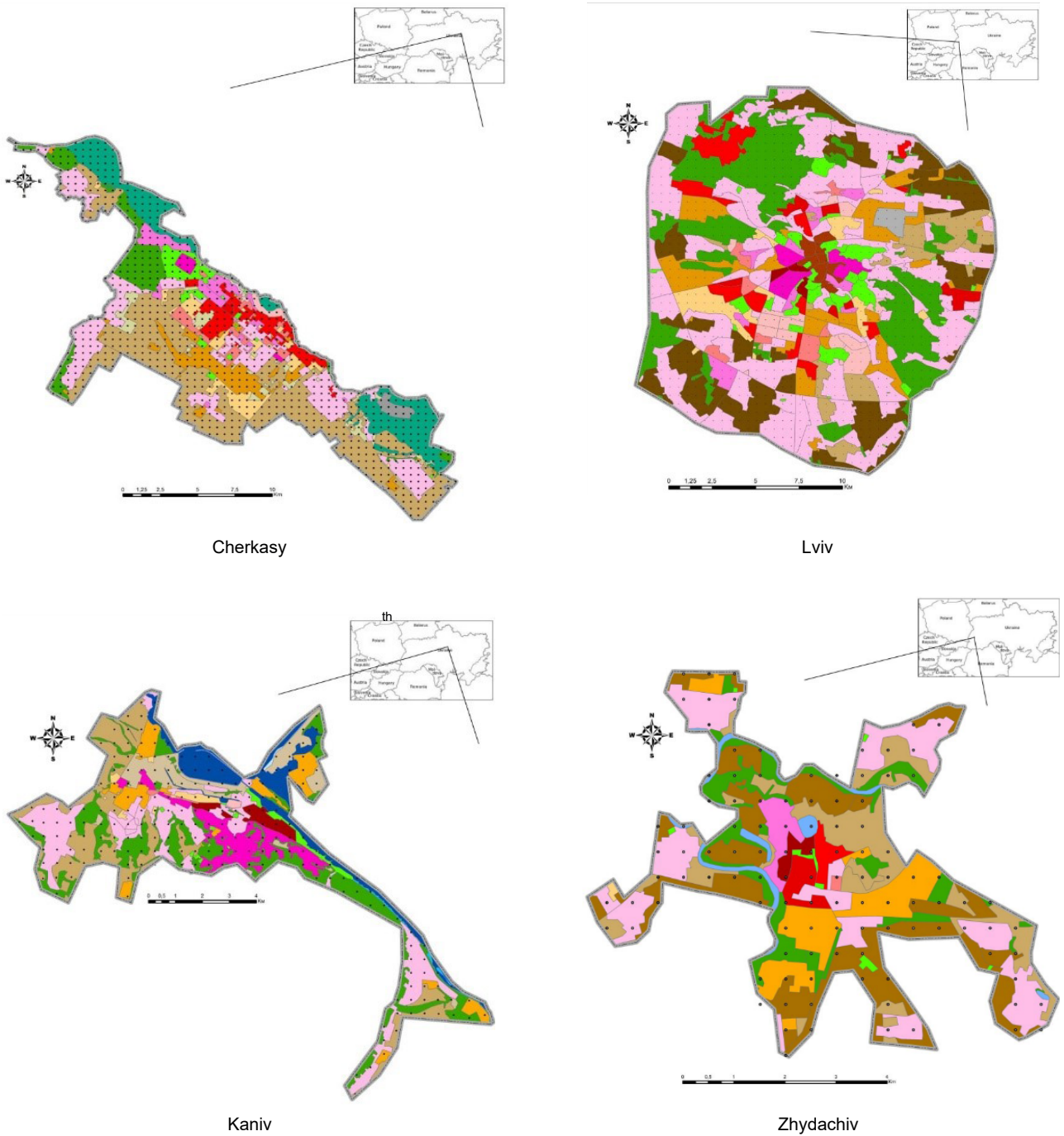


Fig. 1. Map of the research areas

According to the conducted records, wintering grey herons were more massively recorded in the territory of the Cherkasy urban agglomeration. In general, according to our data, its distribution is more uniform than that of the great egret, which is probably related to the significant, historically composed area of distribution of this heron, in contrast to the great egret, which expanded its range from the Azov-Black Sea coast to the north during the last 20–25 years.

On the territory of Ukraine, grey heron (*Ardea cinerea*) and the great egret (*Ardea alba*) can remain wintering due to the mild climate of certain regions. For example,

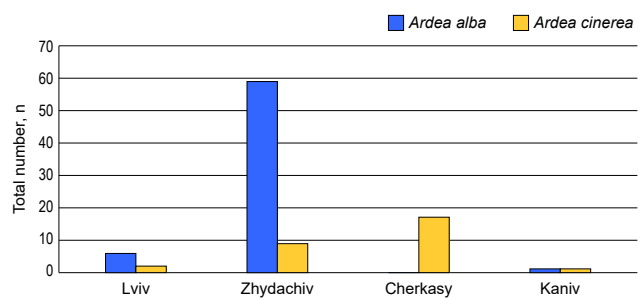


Fig. 2. The total number of *Ardea cinerea* and *Ardea alba* on the territory of the studied agglomerations in the winter periods of 2020–2024

in the southern and western regions in the valleys of large rivers, such as the Dnipro and Dniester, winters can be relatively mild. This allows the herons to stay in places where there is open water and enough forage.

The counted representatives of the *Ardeidae* family show the nature of wintering of non-mass species of birds and were recorded only near water bodies that are not covered with ice.

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## Спостереження чаплі сірої (*Ardea cinerea*) та чепури великої (*Ardea alba*) на території Львівської і Черкаської областей у зимовий період

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У статті наведена коротка інформація про спостереження у зимовий період чаплі сірої (*Ardea cinerea*) і чепури великої (*Ardea alba*) на території Львівської та Черкаської областей. Обліковані нами представники родини *Ardeidae* проявляють не масовий характер зимівлі і були зафіксовані лише біля водойм, які не вкриті кригою. Такі спостереження свідчать про низьку синантропізацію та важливість для цих птахів специфічних типів оселищ. Крім того, епізодичність їх виявлення доводить низьку стійкість до зимових умов, тому у досить холодні зими представників родини *Ardeidae* майже не фіксували.

**Ключові слова:** чапля сіра, чепура велика, зимова орнітофауна, міські агломерації, водойми