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SEASONAL DYNAMICS OF GULLS AGGREGATIONS NEAR KHARKIV, UKRAINE

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SEASONAL DYNAMICS OF GULLS AGGREGATIONS NEAR KHARKIV, UKRAINE. Stanislav H. Viter – In 2020–2025, we took some information about the seasonal dynamics of gull aggregation in the city of Kharkiv (Ukraine). There were totally 15,085 individuals observed, including 10,470 Caspian Gulls (*Larus cachinnans*), or 69.4% from all observations in 2020–2025, breeding from 2015 in the number of 50 pairs (2015) to 385 pairs (2025); 2,687 Black-headed Gulls (*L. ridibundus*), or 17.8%, it is a common breeding species in numbers of 100–110 pairs; 288 Common Gulls (*L. canus*), 10.74%, mainly in the spring season, migrants; Little Gulls (*L. minutus*) – one aggregation of 1,620 birds in March 2025; Herring Gulls (*L. argentatus*), 20 birds, wintering, January 2023 and December 2024. The largest aggregation was formed by Caspian Gulls, with a maximum observed count of 2,485 birds in mid-January to February 2025. The largest group of Little Gulls contained 1,620 birds, and Black-headed Gulls – 1,000 individuals (both in March 2025). In general, positive population trends occur in both nesting and migrant/wintering populations of gulls. Such trends are relevant for all main species in gulls' aggregations: Caspian Gull, Black-headed Gull and Little Gull. Two others (Herring Gull and Common Gull) are rare wintering species, and the Common Gull was relatively numerous during the spring migration of 2025 (200 birds in one flock).

СЕЗОННА ДИНАМІКА СКУПЧЕНЬ МАРТИНІВ В ОКОЛИЦЯХ ХАРКОВА, УКРАЇНА. Станіслав Г. Вітер – У 2020–2025 роках ми зібрали інформацію про сезонну динаміку скупчень мартинів у місті Харків (Україна). У всіх скупченнях, за нашими підрахунками, було спостережено 15085 особин, у тому числі 10470 (або 69,4% від усіх спостережень 2020–2025) мартинів жовтоногих (*Larus cachinnans*), що розмножуються з 2015 року в кількості від 50 пар (2015) до 385 пар (2025); 2687 (або 17,8%) мартинів звичайних (*L. ridibundus*) – поширений вид, що розмножується в кількості 100–110 пар; 288 (або 10,74%) мартинів сизих (*L. canus*), переважно у весняний сезон, мігранти; мартини малі (*L. minutus*) – одне скупчення з 1620 птахів у березні 2025 року; мартини сріблясті (*L. argentatus*), 20 птахів, зимують, січень 2023 року та грудень 2024 року. Найбільше скупчення утворили мартини жовтоногі, максимальна кількість яких становила 2485 птахів у середині січня – лютому 2025 року. Найбільша група мартинів малих налічувала 1620 птахів, а мартинів звичайних – 1000 особин (обидві групи у березні 2025 року). Загалом, позитивні тенденції динаміки спостерігаються як у гніздуючих, так і в мігруючих/зимуючих популяціях мартинів. Такі тенденції характерні для зграй мартинів жовтоногих, мартинів звичайних та малих. Два інших види (мартин сріблястий та сизий) є рідкісними зимуючими видами, а останній вид був відносно численним під час весняної міграції 2025 року (200 птахів в одній зграї).

Gulls are common birds in the fauna of seacoast settlements and agricultural lands, as well as in large water reservoirs in landlocked countries. In these habitats, gulls occupy the posi-

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tion of scavengers and food waste consumers, approaching in this regard an ecological specialization of Corvids with partial concurrence.

The city of Kharkiv is a landlocked settlement far from any large water reservoirs. That′s why it was an interesting appearance of Caspian Gulls′ (*Larus cachinnans*) breeding colony in 2015, with a maximum of 350 pairs in 2025. Later, more common Black-headed Gulls began a secondary position with a number of 100 (up to 200) breeding pairs and spring migrants′ aggregation of about 1000 individuals (March 2025).

As colonial scavengers and predators, gulls play an important role in the ecosystems of wetlands, seacoasts, urban areas, and steppe (open) landscapes. That is why it is important to conduct such studies and implement continuous monitoring of gull populations.

All previous observations on gulls in the Kharkiv region were devoted to colonies near the large reservoirs, lakes (especially cooling ponds) and large fish farms. About 150 pairs of Caspian Gulls (*L. cachinnans*) were bred on Stanychno-Lugans′ke Fish Farm in 1995 – 2005 with dozens and hundreds of Little Gulls (*L. minutus*), Black-headed Gulls (*L. ridibundus*) and some pairs of Pallas′s Gull (*L. ichthyaetus*) (Vetrov, 2010; Yevtushenko & Lytvynenko, 2010). Post-breeding aggregations of Black-headed Gulls were common in the Siversky Donets river valley in the 1980s – early 1990s, with a density of 5.25 birds / 1 km² ; some registrations of Common Gulls (*L. canus*) in this season were also noted (Banik & Vergeles,1993). Caspian Gulls were common on large reservoirs, for example, on Krasnooskil′ske (Oskil′ske) reservoir in 1990, with a density of 6.25 birds / 1 ha (Shaparenko, 1994). In Kharkiv in the 1980s – early 1990s, gulls were rare wintering and migrant birds (Banik et al., 1994). Not far from Kharkiv, a colony of Caspian Gulls have been found on Pechenihy Fish Farm in 1995 with a number of 30 pairs; some Common Gulls were observed too, as well as one Pallas′s Gull in 1984 and one Mediterranean Gull (*L. melanocephalus*) in 1991 (Krivitsky, 1996). On this Fish Farm, a great colony of Black-headed Gulls (300 breeding pairs) was known in 1970–1994 (Krivitsky et al., 1996).

Thus, our study is the first of its kind to reflect the situation with species composition, seasonal dynamics, and abundance of gulls in the city of Kharkiv.

Materials and methods

We conducted our research in the city of Kharkiv (eastern Ukraine) and adjacent areas (fig. 1: A, B). Observations were conducted across all seasons at a minimum of twice per season, from 2020 to 2025. Some information, devoted to the breeding colony of Caspian Gulls, was collected in 2015–2019.

We used standard point count methods during the evening movements between the breeding places and the main foraging areas. There were such points as:

- central part of Kharkiv (on the foraging movements tracks from nesting and roosting places to foraging place – Derhachi dump;
- roosting and foraging places not far from breeding colonies on the southern edges of the city (Osnova lake, Besliudivka lakes – the large lakes in the sandy quarries).

Results

The fauna of Kharkiv contains five species of gulls. Among them, the Caspian Gull (*Larus cachinnans*) and the Black-headed Gull (*L. ridibundus*) are numerous breeding species that form aggregations during the migrant seasons. Caspian Gull is the main species in winter seasonal aggregations. Two species are not breeding: Little Gull (*L. minutus*) can be found only on migrations (mainly in spring), and Common Gull (*L. canus*) – a migrant and a rare wintering species. The Herring Gull (*L. argentatus*) is a rare, not regularly wintering species.

In the Kharkiv region, we also found one breeding species and two species, which were observed on migration; none of them were found in Kharkiv in 2020–2025:

- Pallas′s Gull (*L. ichthyaetus*) breeds on settling tanks of Zmyiv power station (1–2 pairs) and Pechenigy fish farm (1 – 2 pairs),

- Lesser Black-Backed Gull (*L. fuscus*) was a regular migrant on Lyman Lake and settling tanks of Zmyiv power station, as well as some smaller water reservoirs and ponds;

- Heuglin′s Gull (*L. heuglini*) was once found by Yehor Yatsiuk on Lyman Lake during the migrant season.

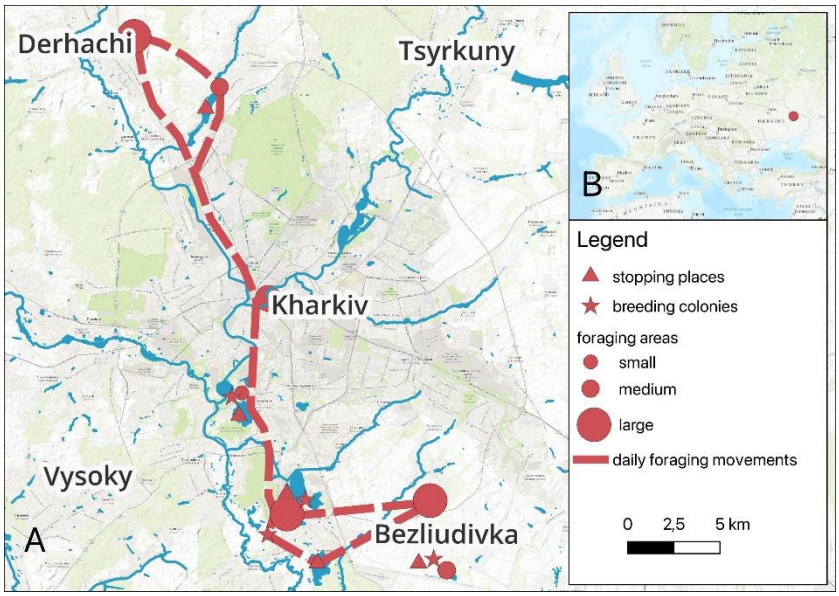

Figure 1: A – breeding colonies (stars), stopping places for migrants and, partly, places with wintering birds aggregations (triangles), foraging areas (ellipses), and the ways of daily foraging movements (dashed lines) of gulls in Kharkiv and neighboring areas; B – study area localization.

Рисунок 1: А – гніздові колонії (зірочки), місця міграційних зупинок і, частково, місця скупчення зимуючих птахів (трикутники), місця годівлі (еліпси) та шляхи щоденних переміщень чайок у пошуках їжі в Харкові та прилеглих районах; Б – розташування району дослідження.

- **Breeding colonies**

The breeding colony of Black-headed Gull on the settling tanks on the southern edge of Kharkiv is stable and estimated to be about 100 pairs.

First breeding pairs of Caspian Gulls on the southern edge of Kharkiv had been found in 2015, and their quantity was estimated at 50 pairs. It is interesting that Caspian Gulls selected the roof of a large old hangar in an industrial area for their nests. In 2022–2023, there were 200 breeding pairs, in 2024 – 250 pairs, and in 2025, at least 385 pairs. So, we can see progressive dynamics and positive trends.

- **Seasonal post-breeding, migrant and wintering aggregations**

In all aggregation, as we can estimate, there were 15,085 birds registered, including

- 10,470 Caspian Gulls (*L. cachinnans*), or 69.4% from all observations in 2020–2025;
- 2,687 Black-headed Gulls (*L. ridibundus*), or 17.8%;
- 288 Common Gulls (*L. canus*), 10.74%, mainly in the spring season, migrants, some individuals are wintering;
- Little Gulls (*L. minutus*) – one aggregation of 1,620 individuals in March 2025, or 10.74% of all gulls in all aggregations during 2020–2025;
- Herring Gulls (*L. argentatus*) were observed in a total of 20 wintering birds in January 2023 and December 2024.

The largest aggregations of Caspian Gulls were formed in mid-January to February 2025, when 2,485 birds were observed during a single observation event. The largest group of Little Gulls consisted of 1,620 birds, and Black-headed Gulls – 1,000 birds (both in March 2025).

In general, positive trends in the numbers of both nesting and migrant/wintering populations are clearly noticeable. Such trends are relevant for all main species in gulls′ aggregations: Caspian Gull, Black-headed Gull, and Little Gull. Two others (Herring Gull and Common Gull) are rare winter visitors; the Common Gull was relatively numerous during the spring migration of 2025 (200 birds in one flock). More information is provided in table 1.

- **Dynamics by years (2020–2025), including breeding populations**

Table 2 shows the trends in the number of birds in the gulls′ aggregations.

Table 1. Seasonal dynamics of non-breeding aggregation of gulls, Kharkiv (Ukraine)

Таблиця 1. Сезонна динаміка скупчень мартинів, що не пов′язані з розмноженням, Харків (Україна)

Season	*L. canus*	*L. cachinnans*	*L. ridibundus*	*L. minutus*	*L. argentatus*
Late November – early December	40	352	41	0	0
Mid-December	20	1700	0	0	10
Early January	0	650	0	0	10
Late January – February		2848			
March Early April	200	770	1580	1620	0
Early July	0	200	450	0	0
August	0	578	0	0	0
Early September	0	820	0	0	0
Mid – late September	0	174	0	0	0
Early – mid-October	0	0	34	0	0
Late October – mid-November	0	384	172	0	0

Table 2. Number of birds in gulls aggregations (including birds from local breeding populations) by years (2020–2025), Kharkiv region of Ukraine

Таблиця 2. Кількість птахів у зграях мартинів (включно з птахами з місцевих гніздових популяцій) за роками (2020–2025), Харківська область України

Year	*L. cachinnans* (b, m, w)	*L. ridibundus* (b, m)	*L. canus* (m, w)	*L. minutus* (m)	*L. argentatus* (w)
2020	373	272	0	0	0
2021	575	200	0	0	0
2022	728	130	0	0	0
2023	1212	140	28	0	10
2024	3500	620	40	0	10
2025	4858	1100	200	1620	0

Notes: b – breeding, m – migrant, w – wintering.

Примітки: b – на розмноженні, m – мігруючі, w – зимуючі.

Discussion

After the nesting period, most gulls disappeared from the region, reappearing in the second half of August. From mid-August (peaking at the beginning of September), a noticeable migration of gulls occurred, especially Caspian Gulls. A new wave of migrating Caspian Gulls began in mid-November, and in December, wintering Caspian Gulls and some Herring Gulls and Common Gulls came to the Kharkiv region and stayed until late January. In February, the number of Caspian Gulls increased because the first wave of wintering Caspian Gulls came here, but we did not observe Herring and Common Gulls.

March and early April were the times with a significant number of migrant Black-headed, Common and Little Gulls, followed by the migrant Caspian Gulls. However, most of the Caspian Gulls belonged to the local breeding population.

From 20–25 April, only local breeding Black-headed and Caspian Gulls were observed.

In August–November, juvenile and subadult birds strongly prevailed in the seasonal aggregation of Caspian Gulls and accounted for 80–90%. During December–February, the share of immature birds reduced to 50–70% but began to increase in March (70–80%). In early April, adult birds prevailed with a value of 70% (sometimes as much as 85–90%).

In general, there is a clear positive trend in the number of main gull species.

In conclusion, we would like to note that at present, the city of Kharkiv provides habitats for a stable and thriving population of gulls, including both breeding and seasonal non-breeding aggregations – wintering and migrant.

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