

Guidelines for Collecting Data for the Estonian Breeding Bird Atlas 2025–2030

Considering the time that has passed since the previous national bird atlas and the need to update the current breeding distribution of birds, the Estonian Ornithological Society (EOÜ) is launching the compilation of the third Estonian Breeding Bird Atlas. The aim of the project is to map the distribution of all breeding bird species and identify changes in their ranges. Fieldwork for the atlas is scheduled for the years 2025–2030.

The data collection is based on the international UTM coordinate grid system, according to which the territory of Estonia is divided into 5×5 km grid squares. Each square has a unique code consisting of two letters and four numbers (e.g. FK3595).

The methods for collecting and submitting data for the third atlas differ

significantly from those used in the previous atlases. Data submission will primarily be electronic, using the PlutoF common data space tools (eElurikkus biodiversity portal). Observations will be entered through the PlutoF web-based workbench (<https://plutof.ut.ee/en>) or the PlutoF GO mobile app (<https://plutof.ut.ee/en/go>). Both use the same user credentials, and a single registration is sufficient. We recommend managing your user account via the PlutoF website.

All observations with any degree of breeding evidence from any grid square are welcome. However, we encourage observers to choose one or some squares to focus on. This allows better planning and results in more comprehensive data.

Fieldwork

Breeding bird observations should be conducted throughout the breeding season. The best time for observations is early in the morning when birds are most active and more easily detected. Unlike bird censuses, atlas data can be collected throughout the day. Early-season visits (March to mid-May) are best for detecting forest and woodland species (e.g. raptors, grouse, woodpeckers, corvids). For some species (e.g. Raven, crossbills), this is the only appropriate period. Late-season visits (late June to July) are useful for spotting broods (especially on waterbodies, where families with chicks are more easily seen). For late breeders like the Honey Buzzard or Hobby, even August may be suitable. Nocturnal species require late evening or night-time surveys; owls should be surveyed at night in March and April.

Observations should cover all available habitat types within a grid square. While species of forests and farmlands are often widespread, wetland birds tend to

concentrate in specific suitable locations. Thus, it is important to survey all lakes and small marine islets, large reedbeds, open coastal meadows, floodplain grasslands, and mires. Some scattered habitat types such as cemeteries, parks, and other semi-natural urban tree stands also deserve attention. Do not overlook settlements and buildings, especially abandoned structures, as species like swallows, Swift, sparrows, and Black Redstart often breed there.

To detect all breeding species, cover as much of the square as possible. Note that some species may not occur every year or may be more detectable in certain years due to population fluctuations. A square may still be under-surveyed for some species groups (e.g. nocturnal or wetland birds) even if the total number of species appears high.

On each field work day, record at least the observation with the maximum breeding evidence code for each species. For rarer species, record all observations.

Breeding evidence and atlas codes

Choose the code that best represents the observation (1/2):

<i>Code</i>	<i>Meaning</i>
0	Species observed during breeding season within the square , but without evidence of breeding. Suitable for individuals seen flying over or outside suitable breeding habitats. If recorded activity was described with "r" (migrating), the atlas code should be omitted.
v	Species observed in its breeding season in suitable nesting habitat. Not appropriate for birds feeding onshore (e.g. herons, gulls), or for species seen outside their typical breeding period (e.g. crossbills or Raven in summer).
I	Song or display calls (territorial calls) heard in suitable nesting habitat in breeding season. Also applies to woodpecker drumming, display flights of waders, territorial calls of owls, etc. Not appropriate if a member of a migratory flock is singing, or a 1y bird is practicing a song in summer. Also not appropriate if territorial calls of mire waders are performed in fields or other feeding grounds.
P	Pair observed in suitable breeding habitat in breeding season. Not appropriate for species that don't form pairs (e.g. Capercaillie, Ruff). Also not appropriate for flocks of non-breeders.
T	Permanent territory presumed through registration of territorial behaviour (song, etc.) for the second time, a week or more apart, at the same place. Note: Territory size varies by species.
M	Copulation or courtship. Mating observed or clear courtship behaviour between adult birds. Not suitable if only display flight or song observed, or only one sex present.
K	Bird visiting probable nest site (e.g. enters a tree hollow or repeatedly lands in the same reedbed).
R	Agitated behaviour or anxiety calls of an adult at probable nest site (alarm calls, distraction displays) indicating presence of nest or chicks nearby.

Choose the code that best represents the observation (2/2):

<i>Code</i>	<i>Meaning</i>
H	Brood patch on adult female examined in the hand.
E	Nest-building, carrying of nest material, or an empty nest found (containing fresh material), or a decorated eyrie with no visible eggs or chicks.
HR	Distraction display or injury feigning (e.g. physical attacks, defecation).
KP	Used nest or egg shells found (occupied or laid within the period of the survey).
LP	Recently fledged young (nidicolous species) or downy young (nidifugous species). Not appropriate for well-flying juveniles that may have moved from another square. Also not appropriate for large, yet flightless ducklings or cygnets that may have swum far from the nest site.
VP	Adult leaving or entering a nest which contents cannot be seen, or adult seen incubating.
VT	Adult carrying food for young or faecal sac. Not appropriate for species that forage far from the nest (e.g. loons, raptors, herons, gulls, swifts, swallows, crows), unless the adult is seen flying directly to the nest or repeatedly heading to a specific site within the square. Also not appropriate when feeding well-flying juveniles.
MP	Nest containing eggs.
PP	Nest with young seen or heard (including audible nestling calls from cavity).

Important Notes on Breeding Evidence

Some bird species have a prolonged spring migration and may stay in Estonia without breeding (e.g. Red-throated Loon, Widgeon, Goldeneye, Red-breasted Merganser, Corn Crake, Spotted Crake, Whimbrel, Ruff, Jack Snipe, Woodcock, Wood Sandpiper, Great Grey Shrike, Dipper, Waxwing, Bluethroat, Brambling, some Sylvia warblers, Bullfinch, etc.). Such observations should be re-checked again in late May or early June. For example, spring migration of the Red-necked

Phalarope may last until around June 10.

From mid-June onward, non-breeding individuals from elsewhere may appear in Estonia, including failed breeders or birds that finished breeding early (e.g. Widgeon, Goldeneye, waders). These should not be recorded as local breeders. Birds such as herons, swans, raptors, and cranes may have large numbers of non-breeding individuals throughout the season. Use code 0 for all such records.

Species Identification

You do not need to know all Estonian breeding birds to contribute! However, accuracy of species identification is crucial. If you are not completely certain about an ID, it is better not to record it.

For notable or rare species, record diagnostic field marks or take photos for later verification.

Records of some species require confirmation by the Estonian Bird Rarities Committee – in such cases, a separate form must be submitted (<https://eoy.ee/hk>).

Additional Notes

Supplementary materials such as nest cards are highly appreciated.

NB! Before entering grid squares near the eastern border, please notify the nearest Border Guard station (<https://politsei.ee/en/border-guard-stations>).

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Contact: atlas@eoy.ee

More info: www.eoy.ee/atlas

Happy birdwatching!

BirdLife Estonia / Estonian Ornithological Society (EOÜ)