POPULATION OF AQUATIC WARBLER IN POLAND IN 2024

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Introduction

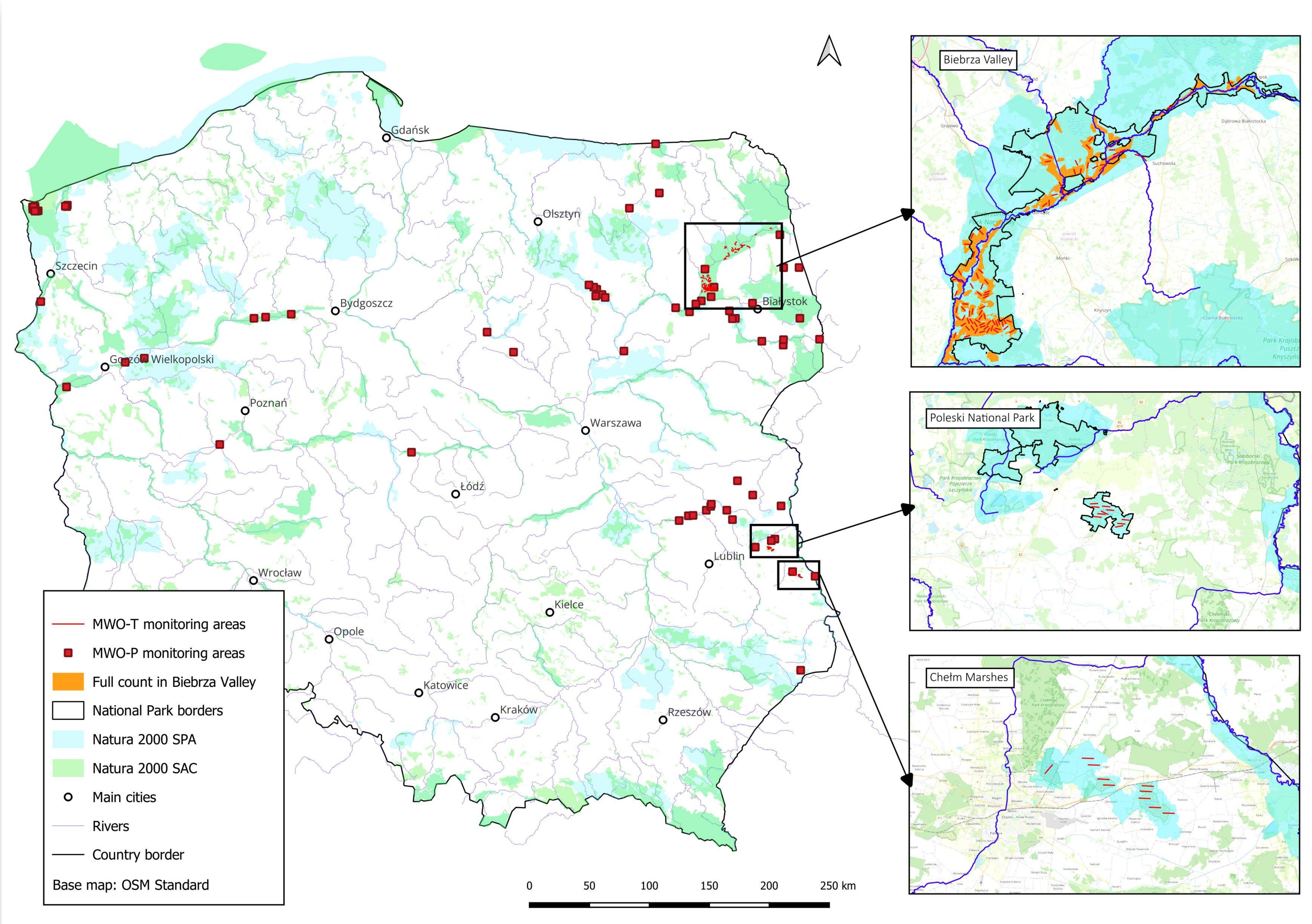
Aquatic Warbler (AW) is one of the rarest passerines in Continental Europe, globally threatened (VU on the IUCN Red List 2022). Poland is one of 4 countries where the species is breeding. Since 2012/2013 the population of the species is yearly monitored within the state monitoring scheme—Aquatic Warbler Monitoring (MWO) which is a part of Monitoring of Birds of Poland, conducted by the Chief Inspectorate of Environmental Protection (GIOŚ) and funded by the National Fund for Environmental Protection and Water Management. Independently, OTOP conducted census of the Aquatic Warbler population in selected areas

Methods

The number of Aquatic Warbler singing males in 2025 was estimated using the data from the full count in Biebrza Valley and the data from the Aquatic Warbler Monitoring (MWO) in other areas.

Census counts were conducted on 100 plots covering all suitable habitats. Depending on the size of the census area, the checks were conducted by one person or by teams of observers. They moved on foot. In one-person checks, the observer controlled all the appropriate habitats within the area. During team controls, the observers lined up in a skirmish line at one of the edges of the area and then moved parallel to each other along their assigned transects, recording birds on one side of their route. Surveys were conducted from 17.05.2024 to 10.06.2024, from 1 h before sunset to 1 h after sunset. AW singing males were recorded in GPS or QField app. The results were analysed in QGIS software to avoid double records.

The Aquatic Warbler Monitoring (MWO) is conducted according to the fieldwork methodology (Krogulec, Stasiak 2024). MWO consists of 2 subroutines. At MWO-P, all small sites of Aquatic Warbler occurrence are surveyed. Two surveys of the whole area are made during the breeding season (1st: 20th May—10th June, 2nd: 20th June—10th July, with at least 2 weeks between them). At MWO-T the large breeding sites are controlled (Biebrza Valley, Bubnów and Staw Marsh, nature reserves on Chełm Calcerous Marshes), using 100 one-kilometer transects, each controleed twice between 20th May—10th June. The actual number of singing males was estimated.



Results

During the 2024 census, **2411** Aquatic Warbler singing males were recorded in the Biebrza Valley.

On 10 transects in Bubnów and Staw marshes, 98 AW singing males were recorded within the 100 m buffer at each side of the transect (area of the survey = 200 ha). The maximal available area of habitat was approx 813 ha, the maximal estimated number of singing males in this area was **398**.

On 8 transects in nature reserves on Chełm Calcarous Marshes only 3 singing males were recorded at 160 ha. The whole area of potential habitat was estimated at approx. 940 ha, the estimated number of AW singing males was less than **20**.

The core population of Aquatic Warbler in Chełm region is monitored within MWO-P part (covering 2 transects), which revealed the total number of **90** singing males.

At other small sites occupied annually or ephemerally by Aquatic Warbler, the number of singing males in 2024 was estimated at **139**.

Summing up the results, the total number of Aquatic Warbler singing males in 2024 in Poland was estimated at 3058.

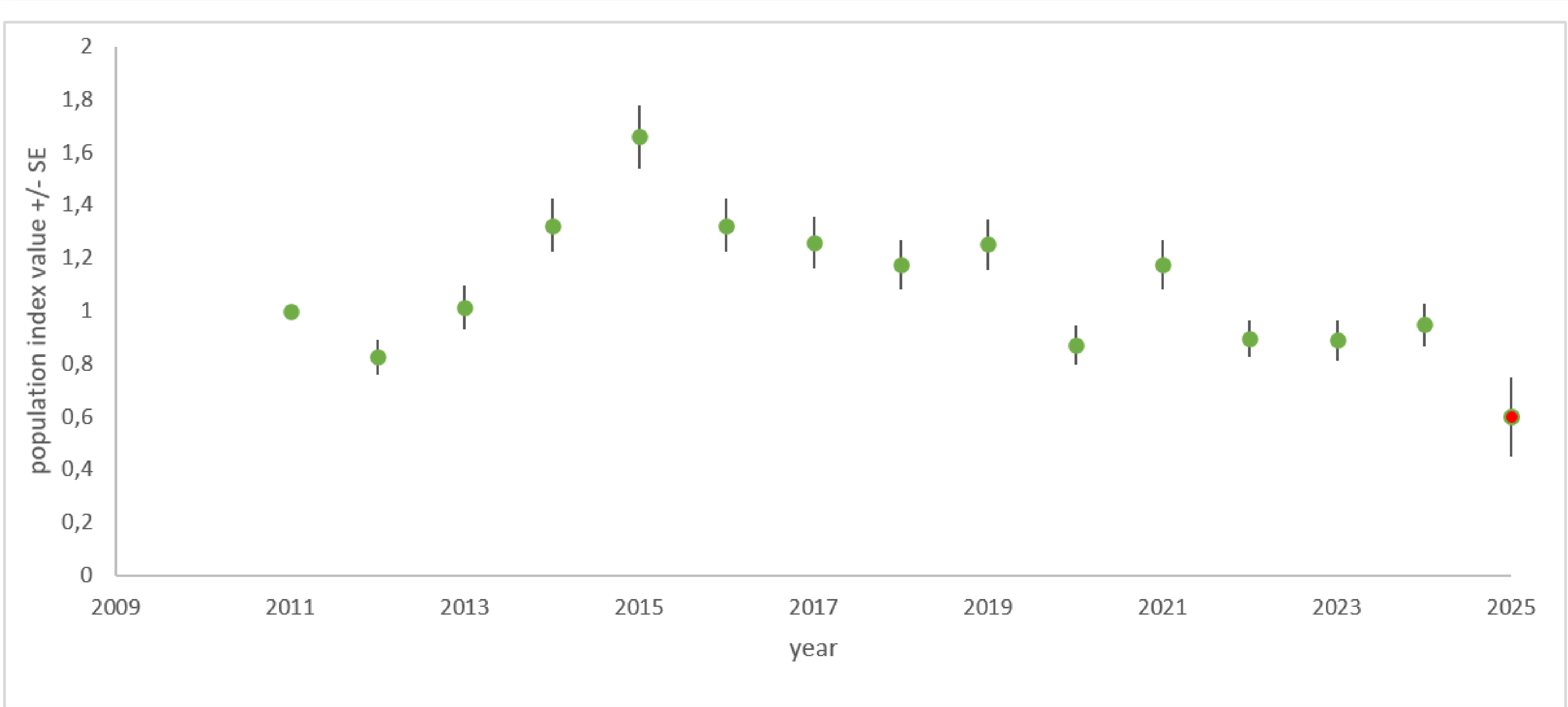
2025 breeding season

The monitoring results from 2025 are not yet available (November 2025). According to OTOP observations in the most important Aquatic Warbler breeding sites, we expect the significant decrease of number of Aquatic Warbler population in Poland. This is mostly due to a very bad conditions in Biebrza Valley. In our opinion, a very deep drought, exceptionally low temperatures in May (average May temperature anomaly of -2°C compared to the multi-year average) and extensive mowing of Aquatic Warbler habitats have caused a decline in the population in Biebrza Valley by about half compared to 2024. Taking into account the relatively good population status in other locations, including Poleski National Park and the calcareous marshes near Chełm, we estimate the expected number of Aquatic Warblers in Poland in the 2025 breeding season at approximately 60% of the number in 2024.

Trend of Aquatic Warbler population in Poland

The abundance index of the whole Polish population in 2024 was 0,948 according to MWO transect data, and the trend was estimated as moderate decline (loess function parameters: λ = 0,9881, SE = 0,0039) (Stasiak, Chodkiewicz 2024). For 2025 (red dot) the value is estimated by OTOP based on own observations. Base year for the estimation is 2011.

After the rapid increase of the population in 2012-2015 in response to the large scale habitat restoration and management within the LIFE Aquatic Warbler and Biomass project, the population started to fluctuate (2017-2022). After 2022 the moderate decline trend is observed. Our observations in 2025 suggest the population index may reach this year value between 0,5 and 0,7.



Conclusions

1. The Aquatic Warbler population in Biebrza Valley is considered long term stable, according to the surveys in years 1995—2024. The number of singing males recorded in 2024 was 2411.
2. The number of Aquatic Warbler singing males in Poland was roughly estimated at 3058, which is a very low number according to former estimations.
3. The trend of the Polish population of Aquatic Warbler, estimated using the results of MWO was a moderate decrease (Stasiak, Chodkiewicz 2024).

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PM-GIS database—monitoring results online.

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