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First insights into bird inventory along the Danube *(common Croatian-Serbian Danube section)*

5th Stakeholders Forum meeting

07.06.2023, Tibor Mikuska/Croatian Society for Birds and Nature Protection



Preparing FAIRway2 works in the Rhine Danube Corridor (2019-EU-TM-0262-S and 2019-HR-TMC-0263-S)



- [illegible]



Bird fauna along the joint HR-SR stretch of the Danube River



- ▶ From biodiversity point of view - most important stretch of the Middle Danube Reach
- ▶ Almost completely protected for nature conservation purposes (biosphere reserve (1), Ramsar sites (3), Emerald Network, national park, nature park, special reserves, Natura 2000 sites, IBAs)
- ▶ First bird studies in the area since 1785
- ▶ Some parts (Kopacki rit, Gornje Podunavlje) received more attention than the rest of the area downstream Drava river mouth





Bird fauna along the joint HR-SR stretch of the Danube River



- ▶ Some recent studies:
 - Kopacki rit Nature Park - Naturavita project 2021-2022
 - Full stretch - LIFELine MDD 2021-2022
 - Zmajevacki dunavac & Biljski rit (HR) – Wetland Restore project (2020)
 - JDS4 – 2019 etc. etc.
- ▶ Bird fauna of 293 wild bird species (excluding escaped species) (Mikuska et al. 2023)
- ▶ 140 species regular/irregular breeding birds



Wintering birds along the Danube (1/2)

- ▶ January counts – as part of mid-winter waterbird census (IWC)
- ▶ Waterbirds and wetland related birds (e.g., raptors, some song birds (Reed Bunting))
- ▶ Waterbirds counted
 - on Danube – from bank to bank
 - all major sites within the active and former floodplain (HR+SR)
- ▶ during winter 2023 26.122 waterbirds were counted in Kopacki rit Nature Park only



Wintering birds along the Danube (2/2)

- ▶ Waterbirds distribution related to weather
 - strong winters – inland water frozen, most birds leave the area, rest remain on the flowing Danube and Drava rivers
 - Mild winters – most of birds remain in the floodplain
- ▶ Wintering areas along Danube connected to shallows/sand bars and good foraging sites (e.g., cormorants, eagles etc.)
- ▶ Importance of this part of Danube for wintering ducks (>20.000 birds), cormorants (>6.000 birds), Goosander, Goldeneyes etc.



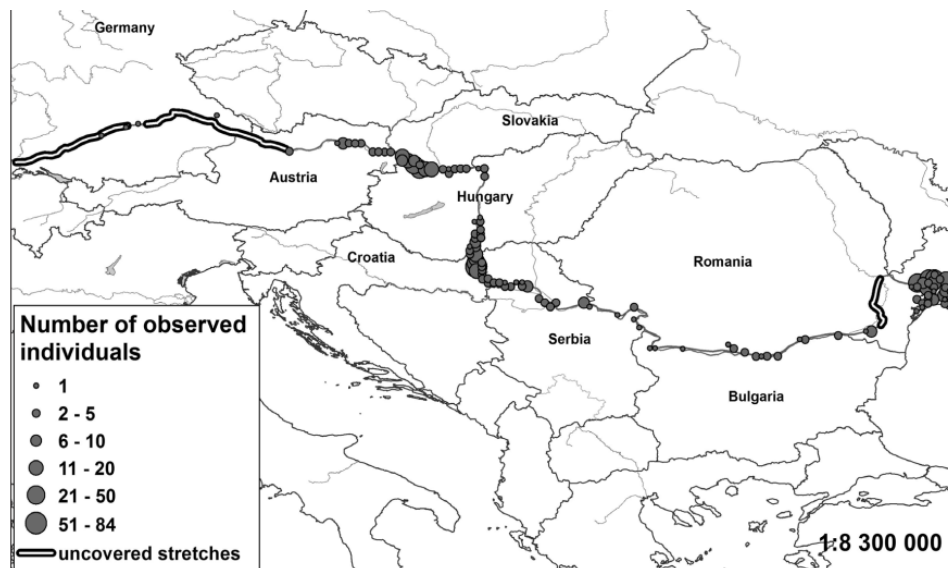
Migratory birds along the Danube

- ▶ Danube serves as a migratory corridor
 - Main migration corridor south-west to north-east
 - east to west migratory corridor in much lesser extent
- ▶ With warmer weather floodplain would be a major stop-over place, Danube main course would lose importance to birds (decline of the overall numbers as spring progresses and increase as winter approaches)

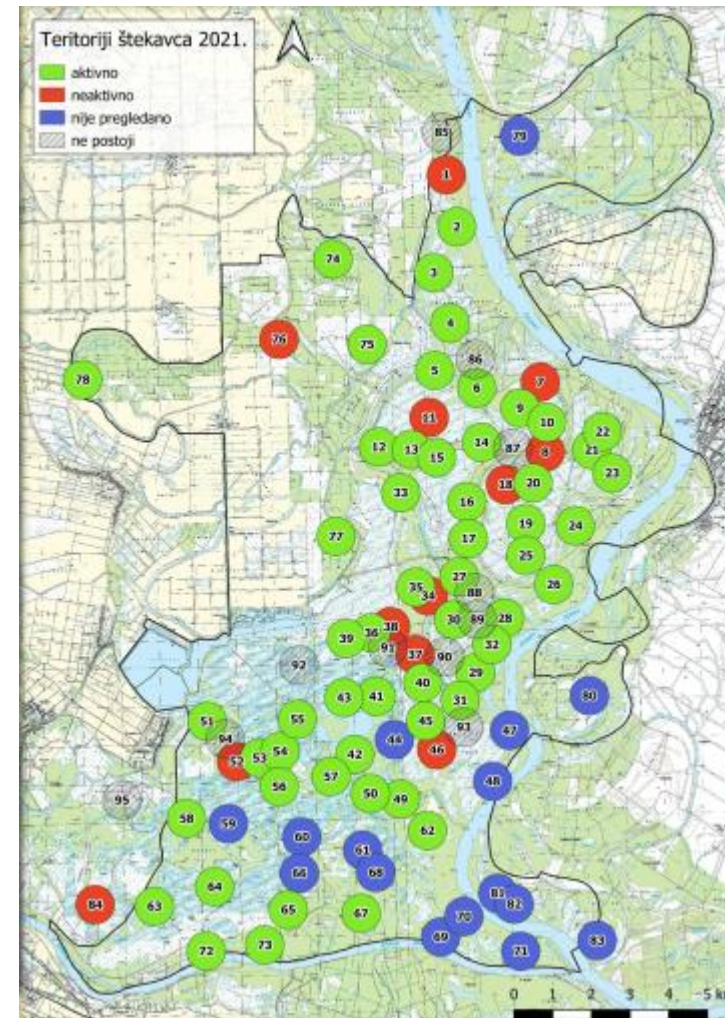


Wetlands birds in the Danube floodplain – raptors (1/4)

- ▶ Importance for White-tailed Eagles
- ▶ Importance for Black Kites
- ▶ Importance for Marsh Harriers



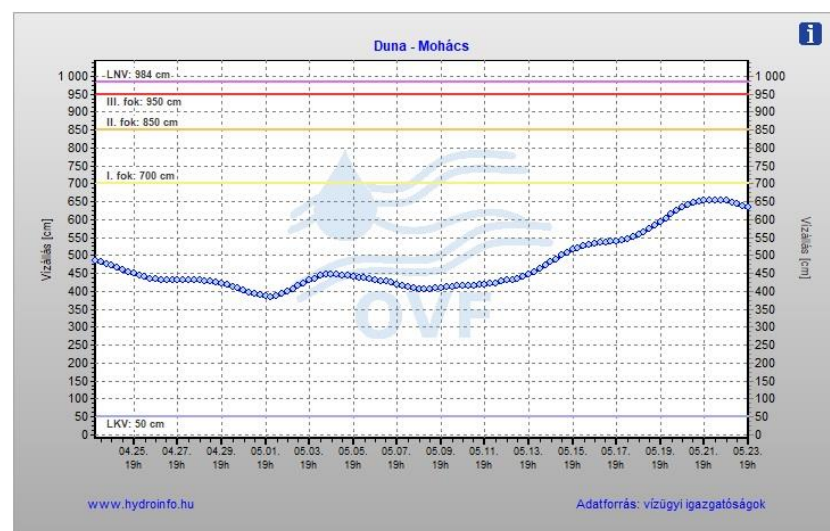
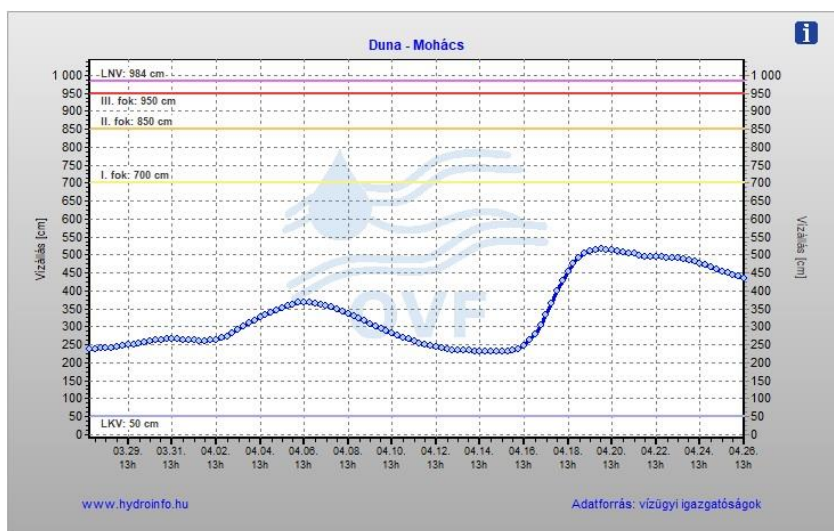
Source: Probst et al. (2014) *Acrocephalus*, 35 (162/163), 115-123.



Source: Mikuska et al. (2022) Croatian biological congress, Pula.

Water levels on Danube River during May 2023

- ▶ After last very dry season, spring 2023 defined with rain and elevated water levels
- ▶ Every sand bar flooded since late April, since mid-May floodplains flooded, too



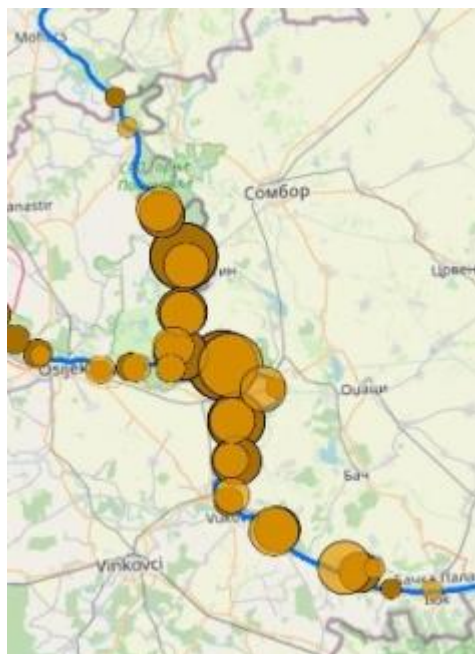


Wetlands birds in the Danube floodplain – marshland breeding birds (2/4)



Wetlands birds in the Danube floodplain – steep banks (3/4)

- ▶ Importance for Sand Martins
- ▶ Importance for Kingfishers
- ▶ Importance for Bee-eaters



Wetlands birds in the Danube floodplain – sand bars (4/4)

- ▶ Importance for Little-ringed Plovers
- ▶ Importance for terns and Common Sandpiper



Thank you for your attention!

Photo: @Tibor Mikuska

