War and wildlife

The continuing war in Ukraine, and especially the disastrous destruction of the Kachovka Dam about one month ago, made me think about the collateral damage of war to wildlife and international scientific collaboration. The breach of the Kachovka dam in the early hours of the 6th of June unleashed a torrent of water that flooded villages and towns, led to people and livestock drowning and caused the evacuation of tens of thousands of people from both sides of the Dnipro River in Ukraine's southern Kherson region. It also caused what many fear will be one of Europe's biggest environmental disasters in decades. Mud and toxic substances, including pesticides, buried in the sediments of the Kachovka Reservoir have spread over large areas downstream of the dam. The inundated area is far larger than the former flood plains that were previously inundated by natural floods on the Dnipro river, before the construction of the Kachovka Dam. For example, the fluvioglacial sand dune landscape of the Oleshky Sands National Nature Park is now inundated. Until this event, this site contained about half of the world's population of the sandy blind mole-rat (*Spalax arenarius*), a species endemic to Ukraine, with a very restricted range along the lower Dnipro River. Another species, Nordmann's birch mouse (*Sicista loriger*), while not endemic to Ukraine, has its main strongholds in remnant steppe habitats along the lower Dnipro river. According to the Ukrainian Nature Conservation Group, 70% of its world population has been affected by the flooding.[1]

Dr Pavlo Goldin, of the Smalhausen Institute in Kyiv, gave an interview with the popular science media outlet Kunsht, that not only gives a sound commentary on the consequences for wildlife, but also compares the breach of the Kachovka Dam to deliberate inundations in the Netherlands in the 16th century during the Eighty Years War. Examples include the sieges (and reliefs) of Alkmaar (1573) and Leiden (1574). While the Dutch have a long standing tradition of using inundation to prevent enemy armies invading the western part of the country (particularly through the water-based defences of the Old and New Dutch Waterlines) it seems to me that this is not ecologically comparable to the destruction of the Kachovka Dam.

One (unintended) side-effect of the New Dutch Waterline is that its fortifications have now become a stronghold of hibernating bats (see Buys et al. 2022 in last year's Lutra Special on hibernating bats). But in Ukraine, bats continue to suffer from the raging war. For example, in the town of Kharkiv in 2022 an estimated 7,000 noctules (*Nyctalus noctula*) have died as a consequence of war damage to buildings (Vlaschenko et al. 2023).

[1] https://uncg.org.ua/en/the-consequences-of-the-russian-terrorist-attack-on-the-kakhovka-hydroelectric-power-station-hps-for-wildlife/

International scientific collaboration in joint projects with Russia is another victim of the war in Ukraine. The European Mammal Foundation is currently in the process of producing a Second Atlas of European Mammals, this time including Belarus, Moldova, Russia and Ukraine, which were not included in the first atlas. However, as the war continues unabated and, despite the best efforts of the European Mammal Foundation over a considerable period, finding an acceptable way to engage in scientific cooperation with Russia has proved inappropriate, if not impossible. With great regret, the European Mammal Foundation has decided to abandon the original scientific objective of mapping mammal distributions across the whole of geographic Europe and will now exclude the Russian part of that area from the project. Following on from this decision Russia has announced that it will produce its own mammal atlas.

The editors of Lutra sincerely thank our dear colleague Dr Jan Piet Bekker who in the editorial of December last year announced his resignation from the editorial board. Jan Piet has been a dedicated editor of Lutra for 19 years and was also a very active contributor to the journal. He wrote or co-authored ten editorials and 28 or so articles for Lutra, many on morphology, such as the article on the frequency of the *radnensis* form of a molar of the root vole in this issue of Lutra. The origin of the name *radnensis* derives from the description by Éhik in 1942 of a supposed new species of snow vole, described by the author as *Microtus* (*Chionomys*) *radnensis*, first collected in the Rodna mountains (German: Radnaer Gebirge) in the north of Romania. However, later *radnensis* turned out to be just a tooth anomaly, which also occurs in other mouse species, such as Savi's pine vole (*Microtus savii*) and the root vole.

This issue of Lutra also contains papers dealing with: non-lethal, but disruptive and aversive, stimuli to protect livestock from wolves (Van Dessel & Snijders); seals that died from asphyxiation after eating Dover sole (Haelters et al.); offshore windfarms as a possible threat to noctules (Lagerveld & Mostert), and; the recently discovered presence of hibernating Leisler's bats in the Low Countries (Janssen et al.). The authors of the latter paper suggest that a part of the Leisler's bat population migrates to southwestern regions, while others stay and hibernate in their summer range, which may be due to climate change (editor's interpretation). In ecological terms the conclusions of these papers carry mixed messages. Van Dessel & Snijders' paper argues for the need for a more evidence-based approach to human-wolf conflict as being essential in building viable cohabitation arrangements between wolves, livestock farmers and pastoral activities. Lagerveld & Mostert's findings are somewhat more comforting, and suggest that offshore wind farms probably pose little risk to coastal noctule populations, at least for most of the year. The finds of Haelters et al. may be surprising to some readers: in spite of Dover sole being dangerous to the seals that eat them, it remains one of their favoured preys.

I thank Dr Lena Godlevska from the Schmalhausen Institute of the Ukrainian Academy of Sciences, who has provided excellent commentaries on the consequences of the war in Ukraine for wildlife.

References

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Johan Thissen