



Foto: wien.ORF.at/Doris Manola

### **Climate & Environment Expert: The Lobau is running out of water**

"The Lobau is running out of water," warns ecologist Thomas Hein. A supply of water would help but has not been done so far because of the risk of contamination of the drinking water. On Wednesday and Thursday, the symposium "Lobau shall live" will take place in Vienna.

26.04.2022 11.29

"Lobau has been losing water bodies for decades, and we see it falling dry and dying as a floodplain too," says the researcher, who works at the Institute for Hydrobiology and Water Management (IHG) at the University of Bodenkultur (Boku) Vienna works. According to image analysis and other investigations, the water surface of Lobau has fallen by around half since the 1930s, as Hein explained.

### **Long dry periods contribute to the deterioration of Lobau**

Above all, the smaller, heavily structured side arms silt up and are thus as a habitat for the aquatic organisms no longer available. "The process is not going evenly, but is still speeds up in recent time," said Hein. "The shallower a body of water becomes, the more vegetation grows in and all the more plant biomass and sediments are deposited there more quickly, which accelerates silting up. Also, climate change is contributing here: Longer dry phases in the vegetation period bring the Danube pronounced low water phases and as a result the water level in the floodplain significantly falls."

### **Small amounts of water intake would help**

He and his team used models to investigate what the ecosystem benefit of water supply would be. Again, there would be very clear results: Even small amounts of water intake would help, and the more water the floodplain receives, the more noticeable the ecosystem health would be improved. It could, for example practically speaking, be improved by "dotation" (=water supply from external natural sources) of Danube water. "Because this water has very little turbidity and particle load, a lot could be achieved with small water volume amounts," Hein mentioned. Further, the researcher: "It can be recommended, for example, to connect floodplain water bodies and small temporary ponds that, e.g., create important habitats for

amphibians". At least the status quo of floodplain LOBAU would be preserved and local improvements of wetland ecosystem would be possible.



Foto:ORF

Water supply from the Danube would prevent further "wetland deterioration and thus dying as a floodplain".

Another option would be to let water flow directly from the Danube into the Lobau. But in case larger water volumes are used, water after having passed LOBAU might flow out as well, as otherwise the large volume of water brings in too many particles and nutrients into Lobau floodplain. As compared with other water systems along the Danube downstream from Vienna, such as the Spittelauer and the Haslau- Regelsbrunn oxbow system and floodplain near Orth, it would even can be expected to create an intact water system in the Lobau this way, says Hein. The Au would then be revived.

Shipping would also not lack water, even water is used for "dotation" for Lobau floodplain. "As with other water body restorations, for example, at low water - when the Danube flows at around 900 cubic meters per second - no more than five cubic meters per second would have to be branched off," explained Hein: "That's manageable for shipping". It would also return to the Danube below the Lobau.

### **Researcher: City does not act adequately managing Lobau floodplain**

The research projects have now been completed for a few years and were carried out in cooperation with the municipality of Vienna, reports Hein. But no action was taken. "It's frustrating," he said. He explains why nothing happened, although various possible solutions are on the table, by saying that "there are still problems in other sectors that have not yet been completely solved".

It has not been clearly clarified whether the water “dotation” in the floodplain would actually have an impact on the groundwater used as drinking water. "But that could be found out in an experiment by feeding water into the floodplain which includes safety measures and thus to see whether this feared risk to the groundwater can be observed". In this case, protective measures are recommended as well.

### **Preserved for the population as local recreation**

"The other risk, namely the floodplain aspect of this area falling dry and thus dying, is a reality, and we are just watching and doing nothing," says the water ecologist. In the case of the controversial Lobau tunnel, the municipality of Vienna cites argued that with a large new street system in this floodplain area the protection of the wetland as an advantage - in addition to the advantage to protect the population from traffic. "If you want to protect the Lobau with such very high street building investments, it makes no sense to me if at the same time ecological floodplain management is kept in mind, i.e., it is ignored the high risk that the wetland is drying up," explained Hein.

In terms of water ecology, tourism and recreational use is not a major problem for the Lobau. "I see the recreational function very positively," he said: "More than a million people visit the Lobau every year and it is important that the former imperial hunting grounds are kept available for local recreation for the population."

### **Symposium: Importance as floodplain**

The symposium "Lobau shall live - water for the floodplain - findings and perspectives from science" will take place on April 27th and 28th at the Natural History Museum (NHM) in Vienna. "It focuses on the Lobau as part of one of the last large floodplain areas in Central Europe, as well as its ecological importance, the efforts to preserve its biodiversity and the current research situation," according to the organizers. These are in addition to the NHM, the association for research into Austria's flora "Flora Austria", the Science & Environment Forum, the International Association of Danube Research (IAD), the Lobau Museum - Association for Environmental History, the Austrian Committee for Danube Research (ÖK-IAD) and the Zoological -Botanical Society of Austria.

red, wien.ORF.at/Agentur

Link:

- NHM ([https://www.nhm-wien.ac.at/veranstaltungprogramm/lobau\\_soll\\_leben\\_](https://www.nhm-wien.ac.at/veranstaltungprogramm/lobau_soll_leben_))