Wolf Monitoring in Austria in 2020/2021

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The annual wolf monitoring reports of Austria are provided and composed by actual years, not by monitoring years. Those reports can be found here: https://baer-wolf-luchs.at/verbreitungskarten.htm

Here we provide a short overview over the last years and the development in the year 2020/2021 in English.

National coordination and technical references

In 2019 the "Österreichzentrum Bär Wolf Luchs" (Austrian Centre Bear Wolf Lynx) was established. This association of relevant administrations and stakeholder groups is supposed to harmonize the management of large carnivores within Austria and shall support its further development and implementation. Members of this association are the nine Austrian states, the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, the Federal Ministry for Agriculture, Regions and Tourism and stakeholders covering the interests of farmers, land owners, hunters, nature conservationists, and scientists. The states are responsible for large carnivore management and the Habitats Directive is implemented exclusively within the legislation of the states. Since January 2020 the Österreichzentrum coordinates the payment for genetic data analysis of the passive monitoring (mostly swabs from livestock depredations and others) for the nine Austrian states. The genetics lab (head: Steve Smith) and scientific support and analysis of further passive monitoring data (Georg Rauer, Aldin Selimovic) are placed at the Veterinary University Vienna (Vetmeduni). The genetic analyses for active monitoring are currently mostly financed by the Vetmeduni, except for the military area.

Wolf monitoring implementation in Austria

Up to today, the wolf monitoring in Austria is mostly organized as passive monitoring. Every state has appointed several persons to investigate reported observations. The bulk of data are from kill inspections (livestock depredations and wild prey), pictures taken by camera traps of hunters or by local people in the course of random encounters. For the last years, a reduced form of active monitoring has been applied by the Vetmeduni in areas, where packs formed. This included camera trapping and active search for genetic samples (scats, urine, hairs, etc.). All data are categorized according to SCALP criteria.

Wolf population status in Austria in 2020/2021

Starting in 2009 wolves were regularly recorded. The number of wolves genetically identified increased markedly from 2016 onwards. New wolves of the surrounding populations enter Austria each year, a total number of 70 different immigrant individuals could be identified between 2009 and 2020 (Österreichzentrum 2021).

The first pack was established in 2016 at a military training ground ("Allentsteig") in the north of Austria. This pack is closely monitored by the military through camera traps and scat collection. Scats are then genetically analysed at the Vetmeduni. The Allentsteig pack reproduced successfully from 2016 through to 2020. In the monitoring year 2018/2019 two further packs developed also in the north of the country ("Karlstift" and "Litschau"), but they disappeared after one year. In 2019/2020 two new packs ("Harmanschlag" and "Gutenbrunn") emerged again in the same part of Austria and again reproduction could only be proven for one year. In the monitoring year 2020/2021 only the

pack in Allentsteig could be verified (see Figure 1 and Figure 2). No packs have been registered in the Alpine part of the country so far.

Due to the increasing populations in neighboring countries, wolf numbers in Austria are also bound to further increase in the future. However, currently the average residence time of genetically recorded individuals is less than one year (Österreichzentrum 2021). When interpreting this number, it must be taken into account that the actual residence time of many animals may be longer than the genetically recorded one. Nevertheless, one can justifiably deduce from the data that many wolves that reach Austria soon disappear again. We can only speculate about the causes, as the number of verified cases remains low. Wolves may move on into other countries (7 verified cases until the end of 2021), wolves may be killed in traffic accidents or by natural causes (5 verified cases until the end of 2021), and wolves may be killed illegally (2 verified cases until the end of 2021). To better asses the first cause, coordination with genetic labs in the neighboring countries would help. Partnering with the CEwolf consortium was a first step in this direction. Further exchange with labs in the Alps would be helpful.

The fact, that the turnover rate in the Alpine part of the country is significantly higher than in the non-Alpine part and that no packs could be established in the Alps has to be addressed in the future.

Wolf distribution in Austria at 10x10km grid from 01.05.2020 to 30.04.2021 Legend state borders Wolf evidence (C1) per 10x10km grid cell alpine biogeographic region continental biogeographic region Orthophoto: basemap.at Data origin: Landesjagdverbände Landwirtschaftskammern Landesregierungen Österreichzentrum Bär Wolf Luchs 150 200 km 50 100 Map production: Dr. Georg Rauer, Vetmeduni Vienna Theresa Walter, MSc, Vetmeduni Vienna

Figure 1: C1 evidence of wolves in Austria during the monitoring year 2020/2021 at the European 10x10 km reference grid. Colours differentiate for the two biogeographic regions present in Austria.

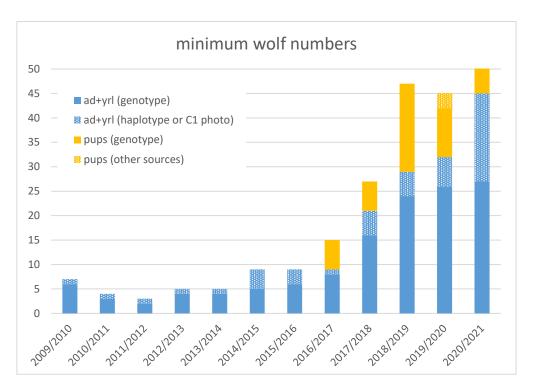


Figure 2: Minimum wolf numbers recorded in Austria per monitoring year (monitoring year starts 1st May and ends 30th of April in the subsequent year). In blue adults and yearlings identified with individual genotypes (filled blue) or based on haplotypes or C1 photographs (shaded blue). In yellow pups identified with individual genotypes (filled yellow) or based on other sources (shaded yellow).

References:

Österreichzentrum Bär, Wolf, Luchs, 2021: Statusbericht Wolf: Situation des Wolfs in Österreich.18 S. https://baer-wolf-luchs.at/download/%C3%96Z_Statusbericht_Wolf_2020_final.pdf