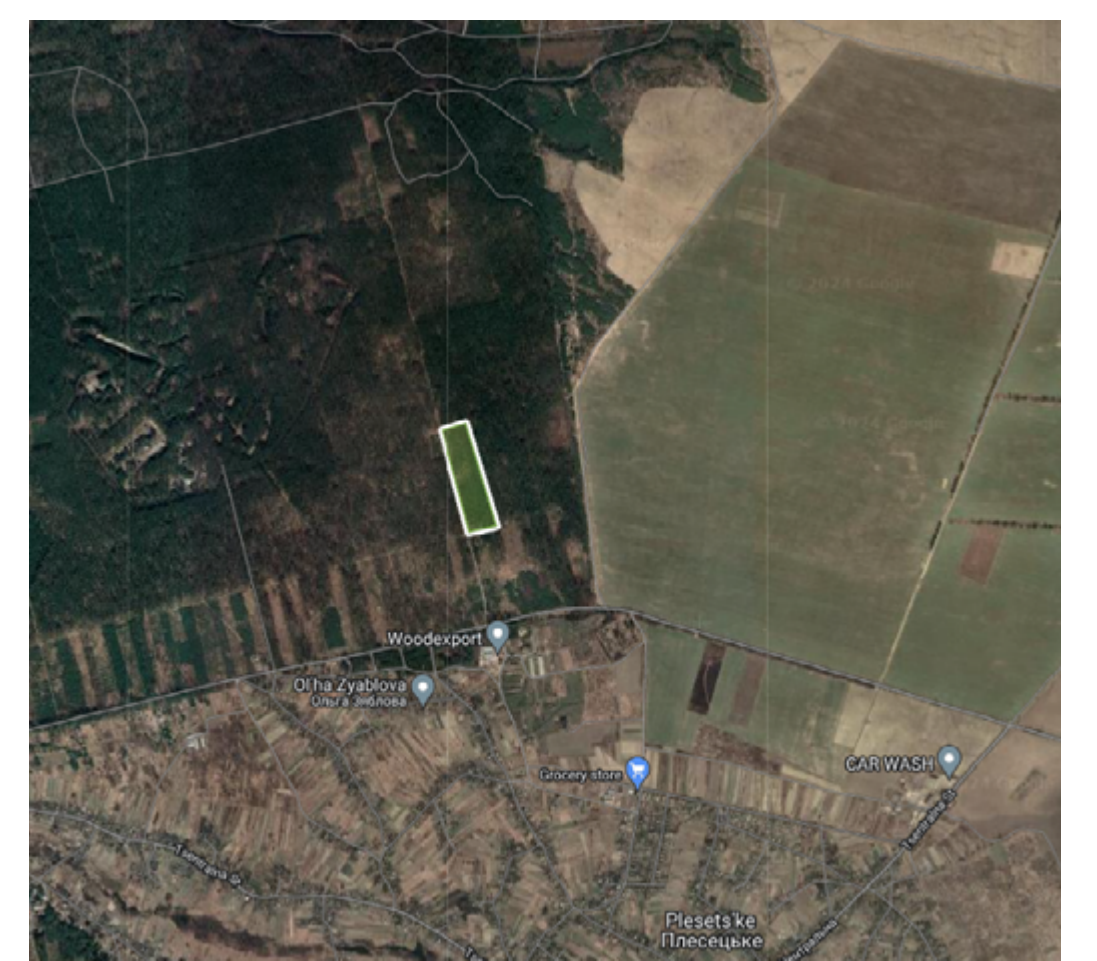


Close to nature forestry for peri-urban pine forest

Location:
Kyiv Region, Boyarka Forest Research Station Managed Forests
Length:
1,3 km
Duration:
2h00
Number of visitors:
20
Type of visitors:
Scientists
State Forestry Enterprise
NGOs
students



Transforming Pine Forests for Climate Resilience

Close-to-nature forestry enhances biodiversity, adapts forests to climate change, and boosts productivity. A pilot project near Kyiv city will transform an 80-year-old monoculture pine forest into a diverse, resilient woodland ecosystem. Initially planted in 1934 with 1.5 x 0.5 m spacing, the forest will become a mixed stand: 70% pine, 20% oak, and 10% birch. An understorey of apple and mountain ash trees will attract biodiversity, creating a sustainable and vibrant ecosystem and recreationally appealing forest.

The first selective cutting in December 2021 opened space and provided light for new pine seedlings. In 2022, acorns were sown, birch seedlings were planted under canopy gaps, and soil treatment was performed to encourage natural pine regeneration.



Patches of naturally regenerating pines and younger trees will ensure an uneven-aged structure and diverse spatial distribution. The admixture of broadleaf species will reduce fire risk and enhance the stand's resilience.

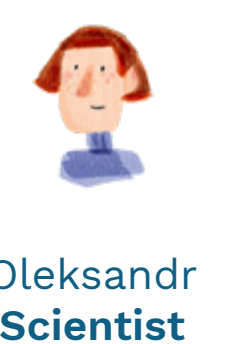
Trees with large nests, hollows showing signs of bird or bat occupancy, woodpecker activity, and single trees used by prey birds have been preserved to ensure a biodiversity-friendly approach. On the site, you can see and hear the singing blackbird, black warbler, great tit, eastern nightingale, etc. Mammals include European roe deer, gray hare, and common fox.



Serhii State Forestry Enterprise

“Recognizing that our decisions today will shape forests for decades, it’s vital to act responsibly, mindful of future generations. The most important takeaway is that **investing in nature-based solutions today is a forward-thinking strategy that saves money in the long run by ensuring forest resilience.** By adopting these practices now, we are proactively addressing the challenges posed by climate change and biodiversity loss, which in turn reduces future costs associated with forest restoration and disaster management. **This proactive investment is not only economically sound but also vital for the health and sustainability of our forests for future generations.**”

“Exploring practical pilot sites allowed me to discuss challenges with practitioners on implementation such NbS as close to nature forestry. Collecting region-specific knowledge is crucial for developing relevant guidance and methodological approaches. While Ukrainian foresters have some experience with close-to-nature forestry in the Carpathians, it is still in its early stages for pine forests. This visit inspired me to undertake more experimental work and document all practical findings.”



Oleksandr Scientist

“I felt inspired and hopeful after witnessing the practical application of close-to-nature forestry. Seeing the ongoing transformation reinforced my belief in the potential of nature-based solutions to address environmental challenges. **The key takeaway from the visit is the importance of biodiversity in creating resilient forest ecosystems.** Observing the practical steps taken to encourage natural regeneration and the careful planning involved in selective cutting stimulated me to learn more about this type of NbS.”

“Existing regulations on close-to-nature forestry do not cover all aspects of practical implementation. This visit offered a valuable opportunity to discuss various challenges and perspectives with the experienced team at Boyarka Forest Research Station. We identified the **need for legislative amendments to better support these practices.** Creating a conducive environment for scaling up such climate-resilient forestry practices is crucial.”



Yurii State Forestry Enterprise



Tetiana Student

“The main takeaway is the importance of integrating biodiversity into forest management practices. The move from a monoculture pine forest to a mixed-species stand showcases how we can create more resilient and productive ecosystems through thoughtful species selection and forest structure planning. This visit has significantly deepened my understanding of NbS. The hands-on experience has highlighted **the importance of adaptive management and continuous learning.** These learnings will **inform our policies and strategies, helping to create a more supportive regulatory environment for scaling up such climate-resilient practices.**”



Lyudmila NGO representative

“Close-to-nature forestry offers a valuable opportunity to adapt to climate change while meeting wood demand. **More importantly, it ensures biodiversity conservation by retaining deadwood, preserving hollow trees, and generally avoiding clear-cutting practices.** This approach fosters a healthier and more resilient forest ecosystem. All these features make close-to-nature forestry a nature-based solution.”

“In our study process, it is essential to combine theoretical knowledge with practical experience. This field visit inspired me to overcome what I have already learned. Both “close-to-nature forestry” and “nature-based solutions” emphasize that **nature offers abundant knowledge and tools; we just need to learn how to use them effectively.**”



Roman Student



Natalia State Forestry Enterprise