

Questions from Andrej Presentation

Do you have Larch affected by Phytophthora Ramorum, and what would be the response if that was ever found?

We don't have much Larch trees in the park (we are at about 300 m asl). For more information about this I suggest you contact my colleague from the Slovenian Forestry Institute, dr. Nikica Ogris (nikica.ogris@gozdis.si)

Andrej thats great, without managing. How are you managing with people and explaining them about that kind of managing. Ljubljana is Capital like Zagreb is, and we have lotsss of questions.

We, as the manager of protected area, communicate mainly about the forest as a habitat, why CWD and standing dying and dead trees are important part of a healthy forest ecosystem, etc.

Good morning, interesting presentation. Do you have Ash affected by Dieback (Hymenoscyphus fraxineus/Chalara fraxinea). If so do you monitor/manage those trees near infrastructure e.g paths (as we do in our reserve) but leave those trees further into the woodland alone? Thanks

I kindly ask you to refer this question to dr. Tine Hauptman form the Slovenian Forestry Institute (tine.hauptman@gozdis.si)

Good morning Andrej, thank you for your presentation. What do you think about nitrogen deposition, could it have speeded up the dying of trees?

This possibility was mentioned in the final report of the LIFE+ EMO NFUr project in 2014. The nitrogen deposition in the urban forest was assessed to be between 27 in 44 kg N ha⁻¹ per year. Increased amounts of nitrogen, which plants absolutely need to grow, can be a double-edged sword if there aren't enough over elements necessary for their growth. The absence of these elements can cause a weaker resistance of trees to extreme weather events. But I am not aware of any other studies here, that would prove the nitrogen deposition to be important factor to speed up the dying of trees. I kindly ask you to refer this question to dr. Primož Simončič form the Slovenian Forestry Institute (primoz.simoncic@gozdis.si)

And I also wonder how the communication is done with stakeholders, when tree cutting is prepared. How are they involved in preparation and decision making processes? For example, are stakeholders informed about the ecological benefits of dead/dying wood, so dead wood "is not depressing, but providing life"

Public or stakeholders can contribute in the process of 10 y forest management plans. However, apart from the forest owner and Slovenia Forest Service, they are not supposed to be involved in the final selection of trees to be cut. In the case of the forest management in our landscape park, all the works are announced in newspapers, on the municipal website and our Facebook page. In cases of bigger interventions, Slovenia Forest Service puts up a paper on selected trees with information, why that exact tree should/will be cut. For more than one year, the works in urban forests are being announced by our Mayor at weekly press conferences. Of course, this is mainly for works in forests owned by the City of Ljubljana and not private ones. Informing on works in the later depends on the owner.

What responsibility does an owner in Slovenia have regarding tree safety? Can you be sued in the event of an accident with a tree? If so, what measures should you take to avoid losing a lawsuit?

I am not aware of a legal case about such event, yet. I have been discussing this with jurists, and it is not straightforward. I'd prefer not to speculate. There is of course different if something happens while using public road in forest. But off road, the access to forest in Slovenia is free. According to the Forest act: *"Free access means the free walking of persons in the forest and other access to the forest, which is carried out at one's own risk and is in accordance with the regulations governing forests. (Google translate)"*

Questions from Pablo Presentation

Thank you Pablo for the interesting presentation. In communication with stakeholders / visitor organisations, do you experience differences in perception/acceptance of tree cutting measures when the need comes from safety, versus a need for biodiversity? Do people accept tree cutting for the sake of biodiversity? Do you have recommendations for "successful" communication?

We surely experience differences in perceptions depending on what kind of associations are addressed, even more so in highly urbanised areas with little or no agricultural or forestry activities. Generalizing, I tend to believe that there is a growing acceptance of cutting trees in order to improve the health of forests, to reduce risk of falling trees, and as a tool to reduce the risk of large forest fires. This is probably also related to periods of hurricane/winds and falling trees, the perception of forest fire risk, etc; although I would not maintain that cutting for the sake of biodiversity is widely accepted.

Successful communication is difficult to define, but we insist in explaining what and why we take certain decisions (press, interviews, bulletins, etc) assuming that not everyone is going to back them and in spite of what might be said/written in social media.

Dear Pablo, very nice examples. Maybe I missed, but who is managing with the forest, all works do other institutions or PA?

Hi Tajana, I didn't get into detail about the organisation of the Park and the public bodies that compose the whole administrations involved in the management. In the case of the natural Park of Collserola, the forest is owned and managed in a proportion of 60% by private owners (with guidance and support and public funding from the Administration). The public land / forests, owned by municipalities within the Natural Park, is managed by the Park Administration.

The lack of an healthy community of trees, with juveniles, young, adults and mature trees can be related with the decline observed in some areas?

Yes, surely to decline related to increasingly extreme climate conditions (longer drought) although possibly more specifically to the structure and homogeneous stands of a great part of our forests (I am talking about the forests in our Natural Park) with a pine canopy stand that has reached it's vital peak and are starting to die due to a natural cycle and to an extense understory of *Quercus* species with Mediterranean shrubs unable to develop under high competitions

Thank you Pablo for this presentation. I am curious what other fire management practices are considered by the park administration to complement this intervention that you are talking about. If you can give a couple of examples. Thank you!

I would rather call our actions fire prevention (fire management is done by the Fire Department; in our region this is clearly separated). Nevertheless we coordinate our actions in active and passive prevention, as some examples :

- Definition of forest road characteristics for prevention and fire fighting (most of our network needs an annual maintenance)
- Construction and maintenance of water reservoirs for fire fighters for both trucks and helicopters.
- Surveillance of fire ignition during the summer season in observation towers within the natural park.
- Planning and definition of preventive management sylvicultural activities in certain areas to reduce risk and/or size of forest fires,
- Etc

This topic has not been developed and detailed in the webinar and would require and extensive explanation.

Thanks for the explanations. Do you have situations with invasive plant species (and the need to control healthy trees for conservation of habitats)?

We have many invasive species, as surely most natural parks, even more so in areas near cities, towns, private gardens, etc, all of those circumstances which we find in Collserola Natural Park. An example is the appearance and growing extension of *Ailanthus altissima*. We had a plant control project treatment with herbicides, but it is not appearing to stop the spreading of the plant.

We have a similar situation with the coniferous trees in Romania, because of the impacts of recent extreme temperatures. Mature (mostly coniferous) trees are dying, especially inside cities and it is believed that it is a fungus that activates when the tree doesn't have enough water in the groundwater. But we need analysis and preventive treatment to prevent so much cuttings. Would the treatments be effective?

I honestly would not know if a preventive treatment would prevent the decay of single trees or forest stands. What is surely to be taken into consideration is that possible treatments of trees in cities and (urban) parks cannot be extended to natural forested land or Natural Parks.

Thank you for the very interesting and informative presentation, Pablo! I was wondering, if there weren't such a big media interest and the area were not so crowded, what would be the management strategy in the point of view of conservation?

I would like to think that we managers and technicians have a goal, a strategy and an objective, and then explain it whether the social and media interest is high or not and not make our decision making dependent on possible interpretations. Specifically answering the question, the management strategy will not change.

Pablo how you manage other infestations like *Thaumetopaea* in relation with the visitors?

Thaumetopoea is not an extreme problem in our coastal Mediterranean pine stands, nonetheless, there is periodical presence of this butterfly and caterpillar. Especially the caterpillar is or can be a problem with high frequentation of people and pets (dogs) in certain areas of our Natural Park. We do an annual treatment only along main paths and forest roads during the first weeks of November, mainly with *Bacillus th.*