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EFUF European Forum on Urban Forestry

IMPROVEMENT OF URBAN FOREST HEALTH MONITORING

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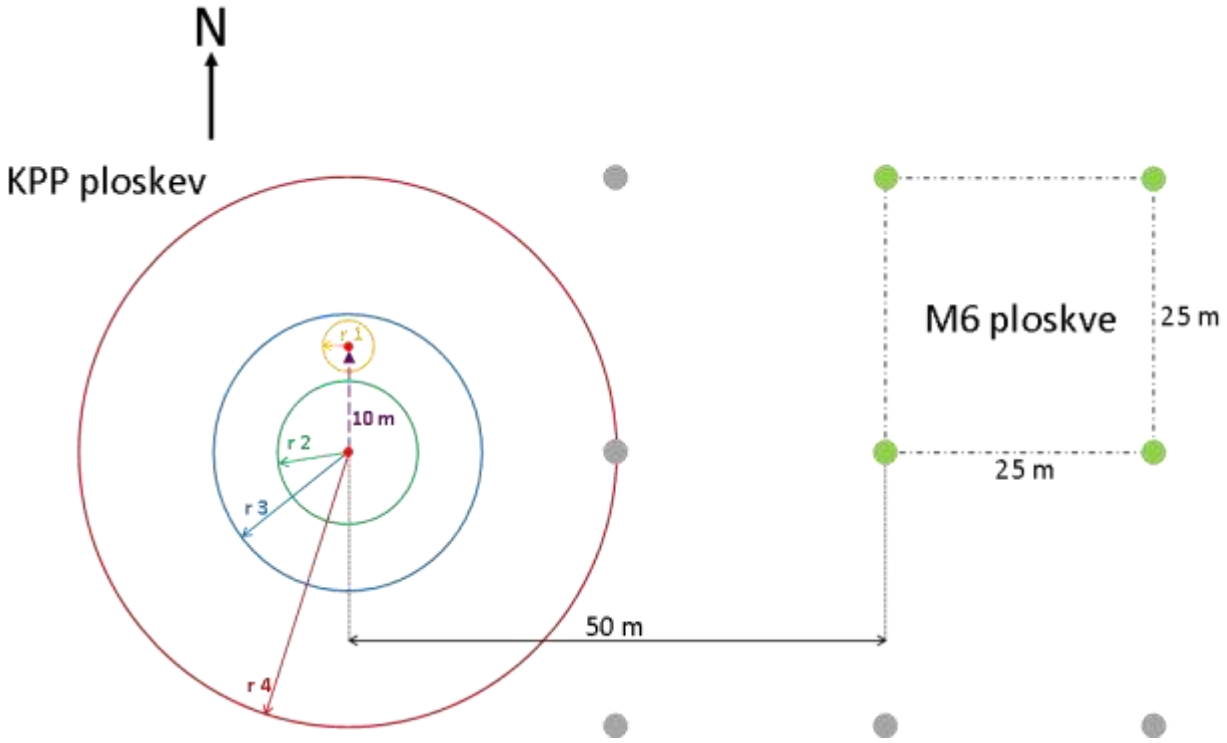
Monitoring forest health should be **only the first step** in the system of urban forest health management.

Its results have to be upgraded with proposals for measures which have to be performed to fulfill the basic conditions of health status of each tree in urban environment: without danger to visitors, assuring ecological and aesthetic function.

International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests - ICP Forests) developed two-level monitoring system for forest health:

1. basic Survey and Evaluation Monitoring – SEM and
2. optional Intensive Site Monitoring-ISM.

The data are acquired on permanent plots, which are not visibly marked



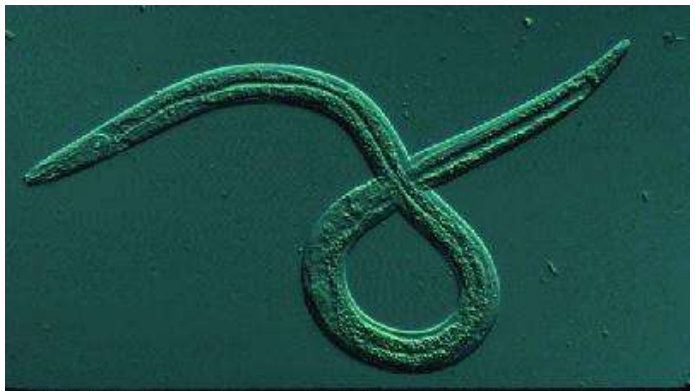
Basic SEM and optional ISM monitoring could give important data for long term insights in changes and trends in forest health, but could not give real working instructions to the forest management in urban areas.

The strengths of SEM inventory is its simplicity and relative cheapness, while the ISM inventory requires qualified personnel and has to use specialised laboratory for the determination of pests and diseases.

ISM inventory should be supplemented with the data on harmful species in the surroundings of the ISM plot, where special emphasis should be given to new invasive organisms.

More than 10.000 alien species were introduced to European territory and some seriously affect biodiversity and ecosystems functions.

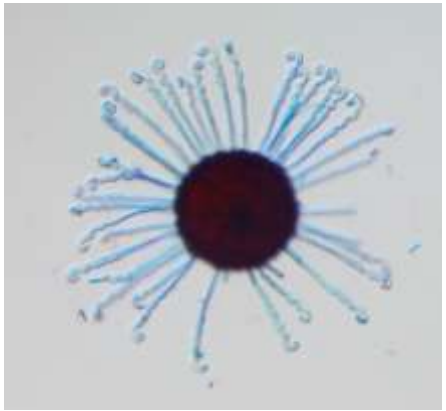
Urban areas are the main introduction points due to high volume trade, high diversity of habitats and high frequency of travellers arriving from other continents.



The procedure of ensuring good health condition of urban forests should contain:

1) A general review of harmful organisms and harmful abiotic factors in whole urban area. Their description and the management tactics to combat their potential risks should be part of the strategic guidelines of the organization responsible for the forest and tree care and maintenance in the city. The review should be the result of the work conducted by competent forestry research organization.

2) An yearly monitoring programme through the SEM/ISM plots, performed by technical staff of management organization (SEM plots) and forestry research organization (ISM plots) supplemented with additional survey in surroundings of ISM plots and random monitoring. In the yearly report all supplemental knowledge on harmful organisms found and management instructions should be provided.



3) A close cooperation programme among urban forest management organization and forestry research organization should be established to solve all the emerging problems caused by alien invasive harmful organisms.

4) The establishment of a public information and communication plan concerning the reporting on urban forests health