



DANUBE PARKS



Donau-Auen National Park

Orth an der Donau

Overview of forest floodplain areas near Wolfsthal village

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Observation Period: March 31st – April 7th 2009

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1. Introduction

Since establishing first settlements beside rivers, human population was making an impact on ecosystems around them. Human activities, such as: melioration, irrigation, flood prevention, directing water streams in channels were aimed to either simplify or improve human life. Works were carried out to cultivate field for crops, to improve trade or sailing, etc. Most of these activities affected the natural water regime of rivers and in a lot of cases irreversibly changed the structure of floodplain areas. In Europe, every river was affected, and today, floodplain areas are minimized to rare and narrow belts around rivers. Floodplain forest areas are rare and endangered habitats in Europe and because of their importance and numerous values they are one of the priority habitats for nature conservation.

In NP “Donau-Auen”, one part of the Danube River is under state protection, and thereby, habitats in that region are restored or conserved.

The aim of this field-work was to create an overview (a preliminary insight) of forest areas outside, but nearby the borders of the national park Donau-Auen.

The study area lies on border region between Austria and Slovakia. This study was carried out as a part of an international cooperation which was established between NP “Donau-Auen” from Austria and the NGO “BROZ” from Slovakia. It was planned to be a beginning of a transboundary project between these two countries.

2. Materials and Method

The explored territory lies on the right side of the Danube River, short after Morava inflow, near Wolfsthal village. It has approximately 250 ha or 2,5 square km². The whole area is divided in 48 small areas, for easier presentation and discussion. Fieldwork was conducted in the period from 31.03.2009 to 07.04.2009.

The fieldwork consisted of:

- observing forest structures and quality (notes, photographs)
- mapping of important forest sites (map, compass, drawings)
- marking old tree species (measured on approximately 1m height, notes, photographs, GPS)
- recording beaver activity (notes, photographs, GPS)
- recording large nests aiming at the presence of birds of prey (*Haliaeetus albicilla*, etc), or black stork (*Ciconia nigra*) (notes, photographs, GPS)
- recording the presence of black woodpecker (*Dryocopus martius*) as an indicator species of old forests, by the presence of feeding localities and potential housing localities in larger holes on white poplars (notes, photographs, GPS)
- looking for small check-dams and former channels and other potential places for water management changes, revitalisation and restoration of floodplain area, etc. (notes, photographs, GPS)

The results of this investigation are presented by key points and information on areas displayed on maps.

3. Results

Even though the focus was put on above mentioned issues and species, other species were noted as well. In almost every compartment different amounts of common spring plants have been found: *Pulmonaria officinalis*, *Galanthus nivalis*, *Viola suavis*, *Scilla bifolia*, *Gagea lutea*, *Allium ursinum*, *Asarum europaeum*, *Ranunculus ficaria*, *Anemone ranunculoides*, etc.

In almost every area *Sambucus nigra* has been seen.

Talpa europea activity was abundant in most investigated areas; in some areas various mammal activities (burrows, faeces, footmarks – pawmarks, etc.) have been marked.

In every observed area *Parus* species have been seen and heard.

The ash species were difficult to determine. Before the flowering and flourish of vegetation it was possible to see the leaves on the ground which didn't rot or decompose yet. After a few days of field-work, the vegetation was growing fast, and hence, the barks of two ash species are almost identical, the determination was almost impossible. That is why in some parts of the report it is only written "Fraxinus sp." It is known that *Fraxinus excelsior* is abundant in the flood area of the Danube River, before Morava inflow. In the Morava flooding area *Fraxinus angustifolia* is more common, and after it's inflow in Danube, *Fraxinus angustifolia* is more abundant in Danube flooding area.

Narrow plantations of mostly EA poplar momentarily used for wood exploitation are in area starting near Wolfsthal village, following the big circular channel.

Some of the field-pictures are illustrated in this report.



Picture I: Position of investigated area



Picture II: Map of the whole investigated area



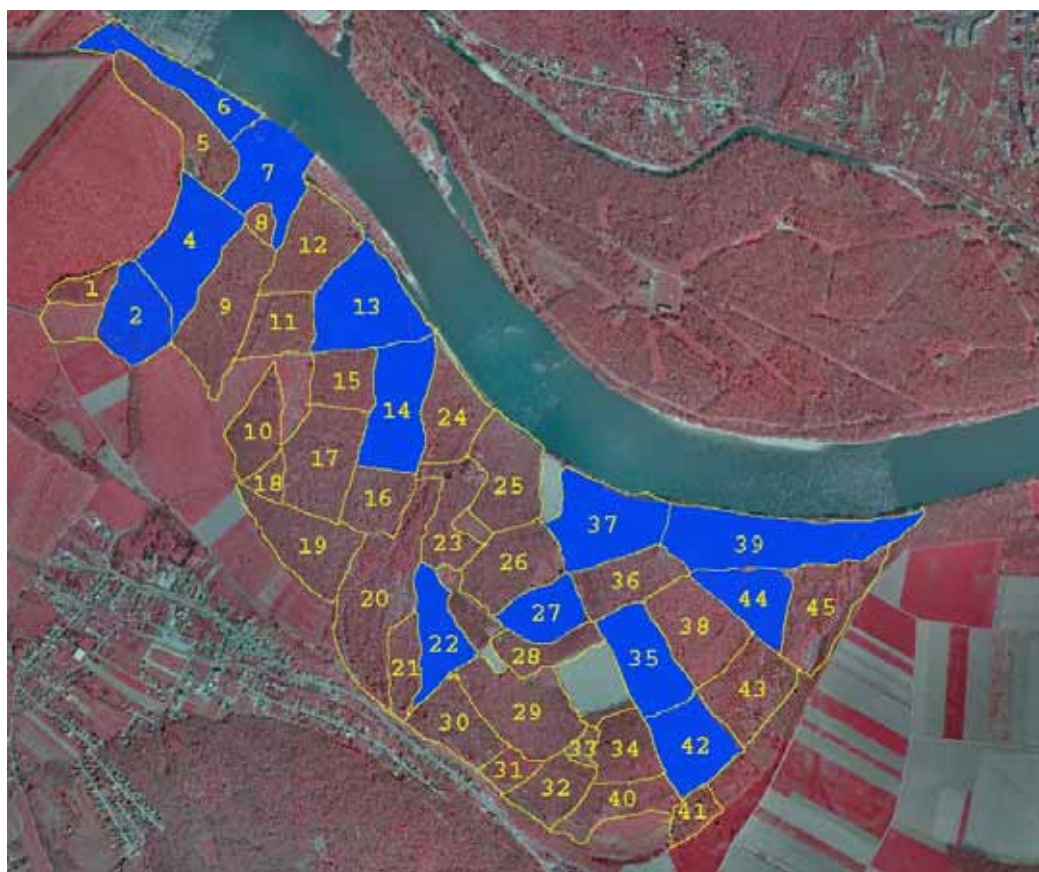
Picture III: Individual areas



Picture IV: Individual areas

CORE AREAS

Core areas were chosen on the basis on forest quality. On the chosen areas we discovered old, healthy, autochtonous trees, healthy forest ecosystems (young or old) and/or marks of black woodpcker (*Dryocopus martius*). The following areas are the areas with the highest natural quality: 2, 4, 6, 7, 13, 14, 20, 22, 27, 35, 37, 39, 42, 44.



HYDROLOGY OF THE STUDY AREA

One part of flood prevention dam is removed and water freely enters through small side dam (see picture H1 and picture H3). In old aero pictures (from year 1941, picture H2) it can be seen that there were no dams.

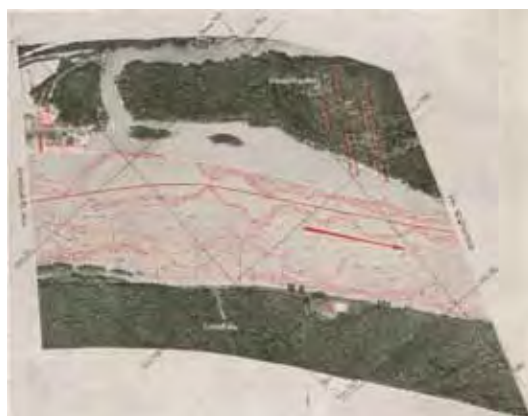
Around almost whole area is a circular side dam which is potentially good locality for restoration of water flow. It is cut through by several check-dams (pictures H1, H6, H7, H8 and H9), and in some of them it would be easy to let water flow in. Big problem can be check-dams on the Danube, because they are bigger and sedimentation was stronger, so the channels are lower.

Not much can be seen on the pictures we took in these channel areas, because those areas are usually overgrown with vegetation (bushes and shrubs develop on roadsides).

Our assumption is that there would be no flooding threat for the village if the water would be let into the system of channels, because there is a large height difference. Unfortunately, we can not assume what effect this water management could have on agro fields. We assume that they are also high enough, but that is yet to be confirmed.



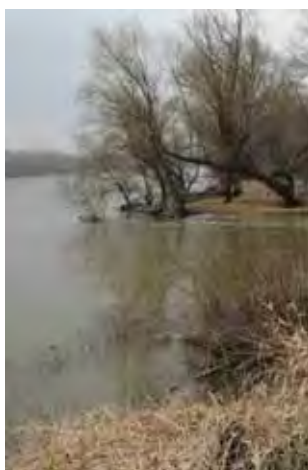
Picture H1: hydrology of the area



Picture H2: aero photo from 1941 year



Picture H3: missing dam, water flows into the armlet



Picture H4: missing dam, water flows into the armlet



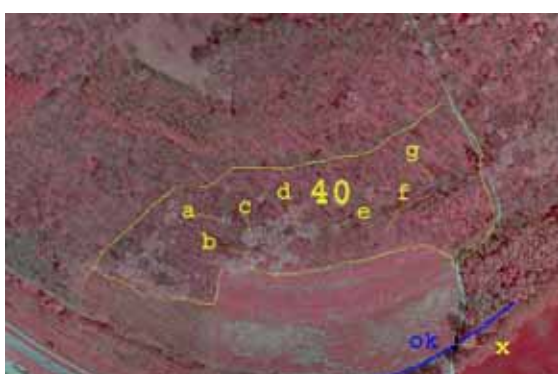
Picture H5: missing dam, water flows into the armlet



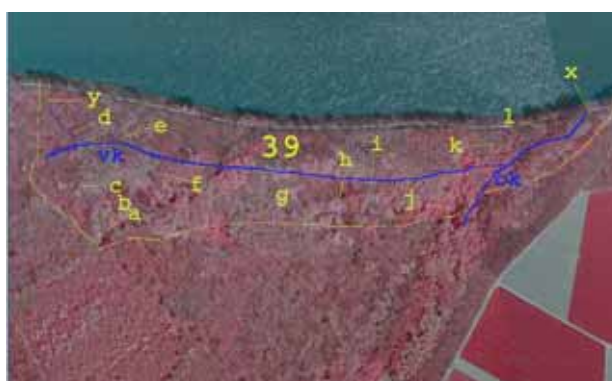
Picture H6: check-dam



Picture H7: check-dam



Picture H8: check-dam



Picture H9: check-dam

AREA 1



Picture 1.1: Position of Area



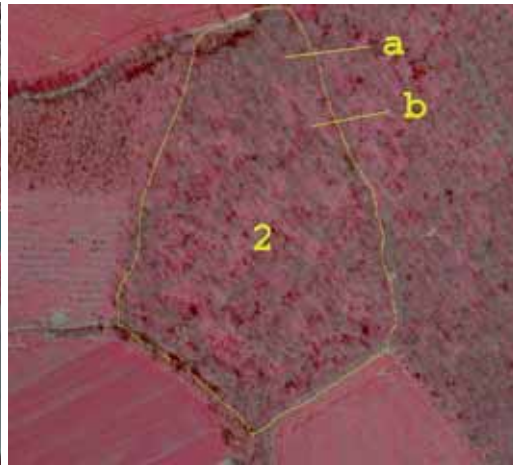
Picture 1.2: Map of Area

Evaluation: negative

EA poplar plantation

AREA 2

Picture 2.1: Map of Area

Picture 2.2: Map of Area
a – old *Acer* sp. (R=130 cm)
b – old *Quercus robur* (R =125 cm)**Evaluation: positive**

Dominant tree species: *Quercus robur* 70%, *Acer pseudoplatanus*, *Fraxinus angustifolia*, with width around R = 60 cm,
Other : *Tilia* sp. *Corylus avellana*, *Sambucus nigra*, *Cornus mas*, *Robinia pseudoaccacia*, *Galanthus nivalis*, *Scilla bifolia*, *Allium ursinum*, *Gagea lutea*, *Pulmonaria officinalis*, *Arum maculatum*.

The forest is in good shape, looks healthy and fairly natural.

Picture 2.3: b - *Quercus robur*
(R =125 cm)

Picture 2.4: Acarinae



Picture 2.5: a - old *Acer* sp.
(R=130 cm) GPS: 2 HR



Picture 2.6: a - old *Acer* sp.
(R=130 cm) GPS: 2 HR



Picture 2.7: Landscape

AREA 3



Picture 3.1: Position of Area



Picture 3.2: Map of Area

Evaluation: negative
Young plantation

AREA 4



Picture 4.1: Position of Area



Picture 4.2: Map of Area
a - old *Quercus robur*, R =100 cm
b - holes on EA poplar tree

Evaluation: positive

Dominant tree species: *Quercus robur*, *Acer pseudoplatanus*, *Fraxinus angustifolia*.

Old trees: 4 oaks and 2 maples

Other: *Tilia sp.*, *Coryllus avelana*, *Galanthus nivalis*, *Scilla bifolia*, *Allium ursinum*, *Gagea lutea*, *Pulmonaria officinalis* and younger individuals of *Populus alba*

Woodpecker sounds and activity (holes), falco flying.

This part is similar to area 2, forest in good shape and healthy.



Picture 4.3: a - *Quercus robur*
R =100 cm, GPS: 4 HR



Picture 4.4: b - holes
on EA poplar tree,
GPS: 4 zuna



Picture 4.5: b - holes
on EA poplar tree,
GPS: 4 zuna

AREA 5



Picture 5.1: Position of Area



Picture 5.2: Map of Area

a - *Quercus robur*

a, b, c, d: old trees 1 *Fraxinus* i 3 *Acer*
up to R = 1m wide

y - plantation of *Robinia pseudoacacia*

e - pond – *Vulpes vulpes*, or *Meles meles*

Evaluation: Medium

Dominant tree species: *Fraxinus* and *Acer* up to R = 1m wide, *Robinia pseudoacacia*
6 maples, younger then the ones before - up to 60 cm wide.

Some EA poplars with mistletoe (*Viscum album*) and vegetative young trees of
maples. Sound of bird of prey.

Generally doesn't look bad: degraded, but abandoned, so vegetation seems to be
recovering from degradation vegetative, young sprouts, trunks seem to be left there
to rot. No recent activity of wild animals detected (squirrels, woodpackers, beaver).
Animals such as fam. Mustelidae and bigger, probably do not prefer this area.

Negative factors:

fragmentation (a small isolated forest fragment):

on the right: loud noises from stone pit

on the left: agroecosystem

in front of it: cutting of wood, human activities



Picture 5.3: a, b, c, d - old trees 1 and 3 *Acer* up to R = 1m wide



Picture 5.4: a, b, c, d - old trees 1 and 3 *Acer* up to R = 1m wide



Picture 5.5: Landscape



Picture 5.6: e - pond and *Castor fiber* home



Picture 5.7: e - pond - *Vulpes vulpes*, or *Meles meles*



Picture 5.8: Animal activity



Picture 5.9: Landscape



Picture 5.10: Stone pit

AREA 6



Picture 6.1: Position of Area



Picture 6.2: Map of Area

- a - *Castor fiber* feeding place on Danube shore
- b – spring plants
- c - old *Fraxinus angustifolia*, R around 2 m
- d - parth without dam, water flows into the armlet
- x - *Castor fiber* feeding place
- e - channel paralalel to Danube, bridge

Evaluation: positive

Dominant species: *Fraxinus*, *Populus*, spring plants. Vikend place, down the road left from the channel, *Populus alba* (around 10 individuals) on the edge of an agroecosystem, bent towards the ground, no holes, *Robinia* with *Viscum*. Fence protection on *Juglans* from beavers.

- a - *Castor fiber* feeding on *Populus alba* on Danube shore
- b - spring plants *Viola suavis*, *Pulmonaria officinalis*, *Scilla bifolia*, *Lamium maculatum*, *Allium ursinum*, *Ranunculus ficaria*
- e - channel with flowing water, paralalel to Danube, and ends in Danube. The bridge is open (allows the water to move through)
- c - huge, old *Fraxinus angustifolia*, by the fishing house. R around 2 m
- d - parth without dam, water goes in to the armlet
- x - beaver feeding place

Typical flooded area, semi-natural



Picture 6.3: e - channel paralalel to Danube, bridge



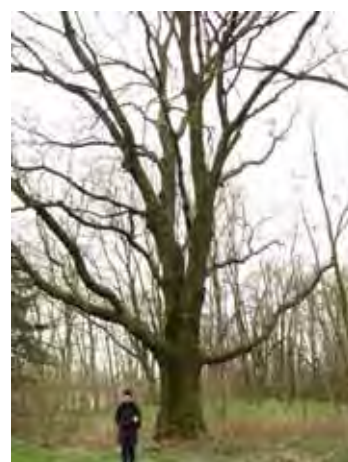
Picture 6.4: x - beaver feeding place



Picture 6.5: a - *Castor fiber* feeding on *Populus alba* on Danube shore



Picture 6.5: a - *Castor fiber* feeding on *Populus alba* on Danube shore



Picture 6.6: c - *Fraxinus angustifolia*, R~2m



Picture 6.7: b – *Pulmonaria officinalis*



Picture 6.8: b – *Ranunculus ficaria*



Picture 6.9: b - *Viola suavis*



Picture 6.10: d - parth without dam, water flows into the armlet



Picture 6.11: d - parth without dam



Picture 6.12: d - parth without dam

AREA 7



Picture 7.1 Position of Area



Picture 7.2 Map of Area
a - *Salix* on the sand bank
b - old *Acer* R around 90 cm

Evaluation: positive

Dominant tree species: *Quercus*, *Acer* from chumps (vegetative sprouts)
Fungii, *sarcoscypha coccinea*

Very nice forest, a lot of older oaks, around 10 oaks about 1m wide



Picture 7.3: Sand bank



Picture 7.4: State border



Picture 7.5: *Salix* on the sand bank



Picture 7.6: Landscape



Picture 7.7: *Sarcoscypha coccinea*



Picture 7.7: Field work



Picture 7.8: *A.pseudoplatanus* from chumps



Picture 7.9: *P.officinalis*



Picture 7.10: Landscape

AREA 8



Picture 8.1: Position of Area



Picture 8.2: Landscape

Evaluation: negative

Robinia pseudoacacia and other bushes

AREA 9

Picture 9.1: Position of Area

Picture 9.2: Map of Area
a - old *Quercus robur*, R ~ 1m

Dominant tree species: *Acer*, *Quercus*, 2 older white poplars and 3 younger ones
a - 1 old oak tree, not in the area, fenced along with an agroecosystem

GPS points: hunting stands: x2, x3, x4, Woodpecker sounds

In every area there are fallen trunks or other parts of trees, which are left there without attention, no one cares for the biomass, which is unusual - nobody needs the wood



Picture 9.3: Landscape



Picture 9.4: Landscape

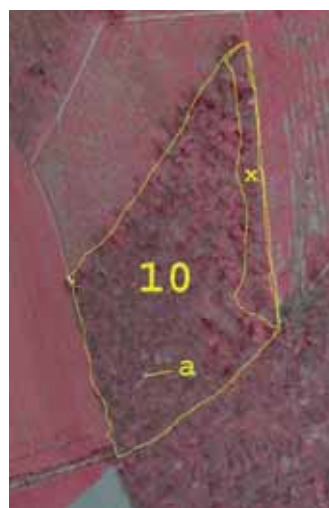
Picture 9.5: *Meloe majalis*

Picture 9.6: a - *Quercus robur*Picture 9.7: a - *Quercus robur*

AREA 10



Picture 10.1: Position of Area

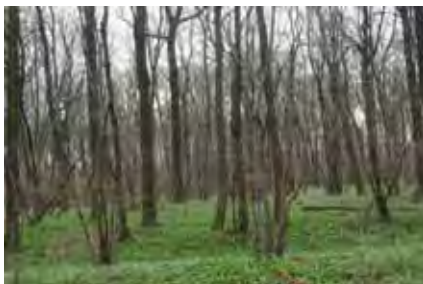
Picture 10.2: Map of Area
a - hole in white poplar
x - shrubs in forest

Evaluation: Medium

Dominant tree species: *Fraxinus angustifolia*, *Acer pseudoplatanus*, *Robinia pseudoacacia*, *Tilia sp.*, *Populus alba* (15 % of area) - hole in one of them
 Old tree species only: *Acer* and *Fraxinus*, wide around max R=1m, GPS: 10 Frax
 Spring plants: *Galanthus nivalis*, *Scilla bifolia*, *Pulmonaria officinalis*, *Anemone ranunculoides*, *Allium ursinum*.



Picture 10.3: a – a hole in *P.alba*



Picture 10.4: Landscape



Picture 10.5: Snails

AREA 11



Picture 11.1: Position of Area



Picture 11.2: Map of Area a - old *Populus alba*

Evaluation: negative

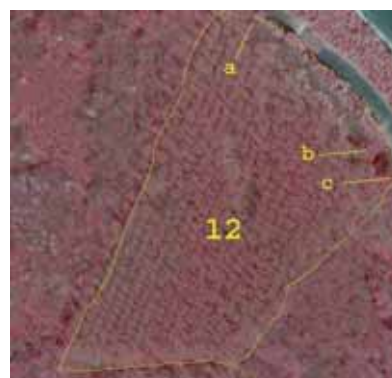
EA plantation and plantation of white poplars and a few older *Fraxinus* trees. Old *Populus alba* near huge *Quercus robur* (in area 9). Around 200-300 m from us, woodpucker sound. 2 *Sylvia atricapilla* near the fenced plantation.



Picture 11.3: a - *Populus alba*

AREA 12

Picture 12.1: Position of Area



Picture 12.2: Map of Area
 a - Beaver activity
 b - black poplar 1 (R=166 cm)
 c - black poplar 2 (R=159 cm)

Evaluation: negative

EA poplar plantation, ends on water
 3 huge *Populus nigra*, GPS 12 TOP, R1=166 cm, R2=159 cm, the third has fallen on the ground, (photos). On one *P.nigra* there can be seen a sign of some type, category - of national protection, nature monument



Picture 12.3: EA poplar plantation



Picture 12.4: Danube region landscape

Picture 12.5: a - *Castor fiber* activityPicture 12.6: a – *Castor fiber* activity



Picture 12.7 : b - *Populus nigra* (R=166 cm)



Picture 12.8 : c - *Populus nigra*, protected (R=159 cm)



Picture 12.9: Fungii



Picture 12.10: *Meloe majalis*

AREA 13



Picture 13.1: Position of Area



Picture 13.2: Map of Area
 a - the end of channel
 b - the end of the channel - the difference in height is 1,5-2 m
 c – the end of the channel
 d - *Castor fiber* activity

Evaluation: Medium

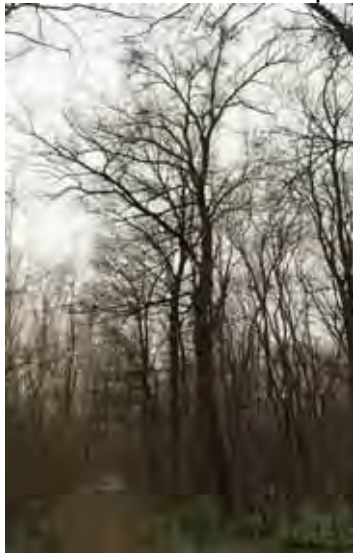
Dominant tree species: *Fraxinus*, *Acer*, No huge trees, the oldest ones are ~70 cm or less. Old *Quercus robur* R=75 cm. Woodpecker sounds, and beaver activity recorded. In channel 2, 7 *Garrulus glandarius* spotted. There are 3 channels in forest, they are sold in 1 and going around all area (see hydrology map).



Picture 13.3: Landscape



Picture 13.4: Trees from chumps



Picture 13.5: Landscape

Picture 13.6: *Bombus agrorum*, *Allium ursinum*, *Scilla bifolia*Picture 13.7: *Pulmonaria officinalis*



Picture 13.8: Danube region landscape

Picture 13.9: *Castor fiber* activity

AREA 14



Picture 14.1: Position of Area



Picture 14.2: Map of Area
 a - 2 old *Fraxinus* trees
 b - 3 old *Fraxinus* trees
 c - 2 old *Fraxinus* trees

Dominant tree species: *Populus alba*, *Robinia pseudoacaccia*, *Acer* sp., *Juglans* sp.
Talpa europea in every compartment. birds of prey catching thermal wind and making noise. Woodpecker and tit were seen. Owl sound.

old trees:

Fraxinus angustifolia R=105 cm

Quercus robur R= 69-73cm

Populus alba examination, no holes.

Large *Fraxinus*, R=110 cm, GPS: 14a *Fraxinus*

It maybe a good idea to let water in this channel, through the forest (see hydrology map) but, for these kinds of interventions there has to be more data and examination.



Picture 14.3: Landscape



Picture 14.4: Landscape



Picture 14.5: a - 2 old *Fraxinus* trees



Picture 14.6: 3 old *Fraxinus* trees, R around 1m



Picture 14.7: *Rana dalmatina* (or *arvalis*)

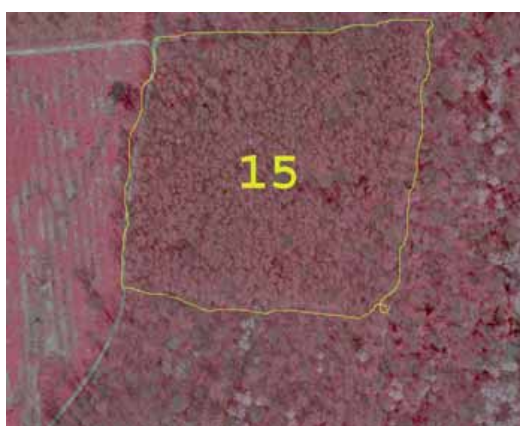


Picture 14.7: *Bombus agrorum*, and *Corydalis* sp.

AREA 15



Picture 15.1: Position of Area



Picture 15.1: Map of Area

Evaluation: negative

Abandoned, uncared-for plantation, overgrown vegetation
 a lot of bird sounds (birds of prey - *Buteo*, *Falco*, owls, etc...) lays an uninteresting
 part of woods: abandoned plantation. An old white poplar: GPS: 15 POP A, R=60 cm



Picture 15.3: Landscape

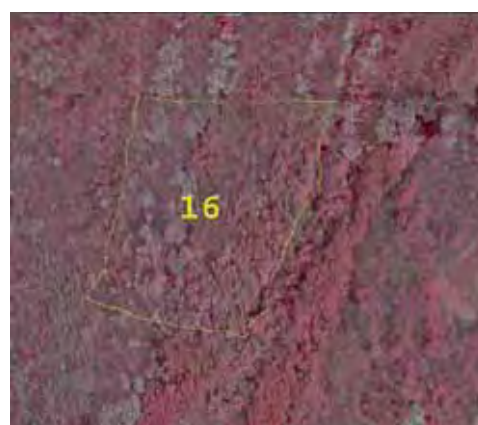


Picture: 15.4: Landscape

AREA 16



Picture 16.1: Position of Area

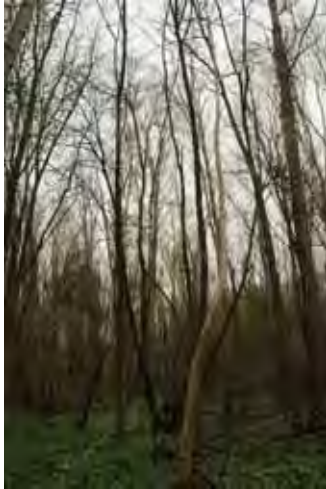


Picture 16.2: Map of Area

Evaluation: negative

Plantation, degraded forest

6 old *Fraxinus* sp. individuals around 1m wide, GPS: 17 Fr



Picture 16.3: Landscape



Picture 16.3: Bird of prey



Picture 16.3: Landscape with old *Fraxinus* sp.

AREA 17



Picture 17.1: Position of Area



Picture 17.2: Map of Area

Same as 15, 16: plantation, degraded forest, overgrown vegetation



Picture 17.3: Landscape



Picture 17.4: *Hepatica nobilis*

AREA 18

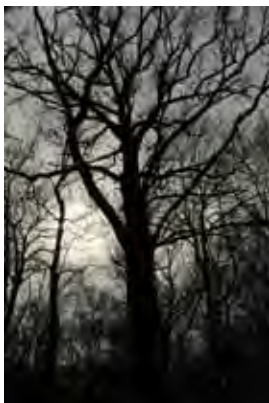


Picture 18.1: Position of Area



Picture 18.2: Map of Area 18
a - an old *Quercus robur* (R=80 cm), GPS: 17 Q

Generally an uninteresting part, even though there are a few older *Quercus robur* trees with width around R=80 cm. There were about 10 oaks. There are also older *Fraxinus* sp. Agro-ecosystem on the side



Picture 18.3: a - an old *Quercus robur* (R=80 cm)



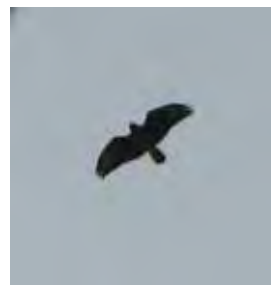
Picture: 18.4: a - an old *Quercus robur* (R=80 cm)



Picture 18.5: Landscape



Picture 18.6: Bird of prey



Picture 18.7: Bird of prey

AREA 19

Picture 19.1: Position of Area



Picture 19.2: Map of Area

a - a hole u EA poplar,
 b - 5 holes in white poplar
 x - a channel

a - a hole u EA poplar, holes are mostly on the southern and western side
 b - holes in white poplar (there are 6 holes)
 x - channel - there is water after the road. The road interrupted the stream. Both channels are interrupted - potential place for revitalisation, for breaking the road.

Dominant species: plantation of *Populus x euramericana*, *Populus alba*, *Quercus robur*, *Fraxinus angustifolia* (around R=50-60 cm wide), *Acer* sp.

an old *Acer* sp., R=83 cm, GPS: 19 Q A

an old *Quercus robur*, R=70 cm

an old *Fraxinus* sp.: GPS: 19 Fra, R=60-70 cm

above, *Buteo buteo*

“b” is the Woodpecker zone, at least 6 holes in *P.alba* : R=70, R= 53, R=50, GPS 19
 Woodpecker hole



Picture 19.3: An old
Acer sp. R=83 cm
 GPS: 19 Q A



Picture 19.4: a -
 a hole in EA
 poplar



Picture 19.5: a -
 a hole in EA
 poplar



Picture 19.6: b - a hole in *P.alba*



Picture 19.7: b - a hole in *P.alba*



Picture 19.8: b - holes in *P.alba*



Picture 19.9: b - holes in *P.alba*



Picture 19.10: b - holes in *P.alba*

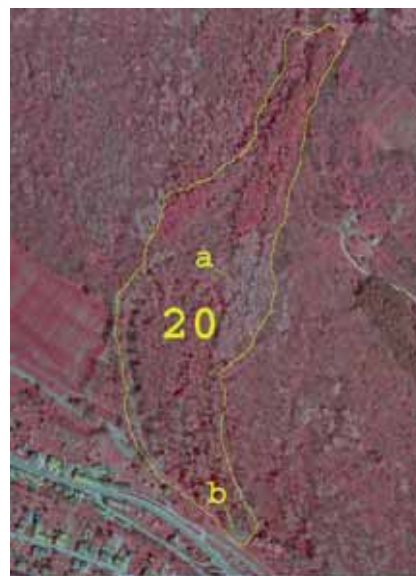


Picture 19.11: b - holes in *P.alba*

AREA 20



Picture 20.1: Position of Area

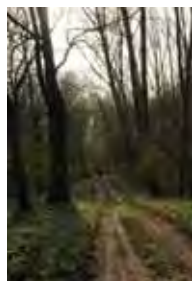


Picture 20.2: Map of Area
 a - holes in *P.alba* (2 holes)
 b - a huge nest on EA poplar

a - holes in *P.alba* (2 holes)

b - a huge nest on EA poplar

Forest: Trees from chumps, *Populus alba*, parallel channels, near a yellow house.



Picture 20.3: Landscape



Picture 20.4: Juvenile deer markings



Picture 20.5: Landscape



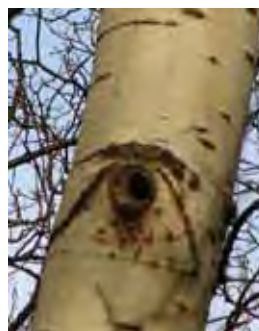
Picture 20.6: Landscape



Picture 20.7: Landscape



Picture 20.7: a - a hole in *P.alba*



Picture 20.8: a - a hole in *P.alba*



Picture 20.9: Landscape



Picture 20.10: Landscape



Picture 20.11:
b - nest on EA poplar



Picture 20.12:
b - nest on EA poplar



Picture 20.13:
Woodpecker hole



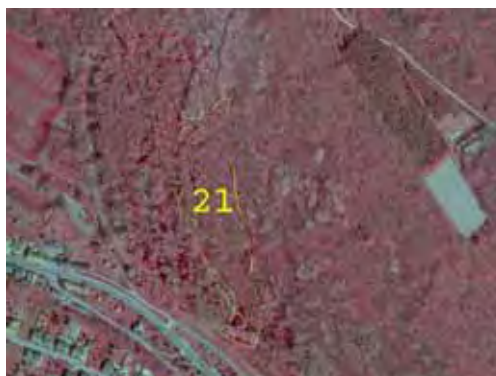
Picture 20.14: Place of
woodpecker feeding



Picture 20.15: Place of
woodpecker feeding

AREA 21

Picture 21.1: Position of Area



Picture 21.2: Map of Area

Evaluation: negative

Nearby the village: plantation of *Fraxinus* sp., *Acer pseudoplatanus* and other tree species, 1 older *Fraxinus* tree R=55cm



Picture 21.3: Landscape

AREA 22

Picture 22.1: Position of Area 22



Picture 22.2: Map of Area 22

a - a hole in *P.alba*,
 b - a huge nest on an old *Quercus robur*
 x - *R.pseudoacacia*
 c - 2 holes in *P.alba*
 d - 2 holes in *P.alba*
 e - 3 old oaks

Evaluation: positive

After the plantation is a nice forest, a few (4) old trees with width R=70, GPS 22 x
 Dominant tree species: *Acer pseudoplatanus*, *Fraxinus angustifolia*, *Quercus robur*
 other species: *Cornus mas*, *Acer campestre*, *Populus alba*, on the right side of the
 road it's the same situation, but without white poplar. *Populus alba*, is on 10% of
 territory, 2 holes found on them, 1 inactive, 1 active but small (not likely to be
Dryocopus martius): GPS 22 Z. 2 old *Quercus robur* trees, R ~ 70 cm. The nest of
 the stork is on one of them. Around *Quercus*, a lot of *Robinia pseudoacacia*. Above
 us 1 bird of prey.

a - 2 holes in *P.alba*, GPS 22 Z

b - a huge nest on an old oak - probably black stork nest, *Ciconia nigra*, GPS: 22 G

x - *R.pseudoacacia*

c - holes in *P.alba*

d - 2 holes in *P.alba*

e - 3 old oaks



Picture 22.3: *Acer pseudoplatanus*



Picture 22.4: Landscape
(mature trees)



Picture 22.5: Landscape



Picture 22.6: *Populus alba*



Picture 22.7: a - a hole in *P.alba*



Picture 22.8: b - a huge nest on an old *Quercus robur*



Picture 22.9: Bird faeces under the tree



Picture 22.10: b - a huge nest on an old *Quercus robur*



Picture 22.11: b - a huge nest on an old *Quercus robur*



Picture 22.12 Woodpecker activity



Picture 22.13: c - a hole in *P.alba*

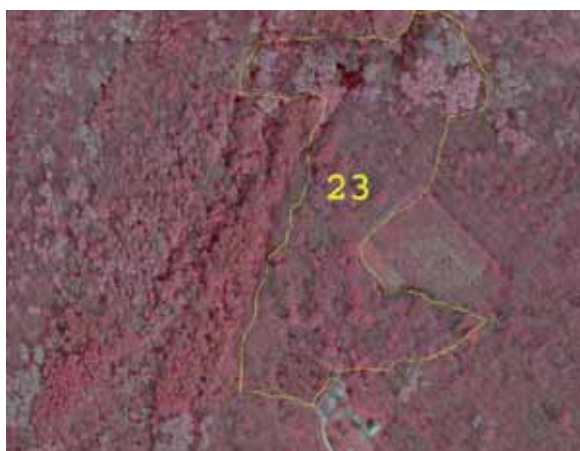


Picture 22.14: c - a hole in *P.alba*

AREA 23



Picture 23.1: Position of Area



Picture 23.2: Map of Area

Evaluation: negative

Near a yellow house, one *Accipiter*-like bird of prey flying very low, from the forest to the plantation, flying from us from ground, near above ground, no nests found.

Hunting stand, yellow house and plantation are close to that spot. Also, some *Falco* sp. seen, red ends of wings, most probably *tinunculus*.

Trees from chumps of *Acer pseudoplatanus*, *Acer campestre*, *Quercus robur*, *Tilia* sp, *Populus alba* trees, no holes. Old *Populus alba* R=87 cm, GPS: 23 BT



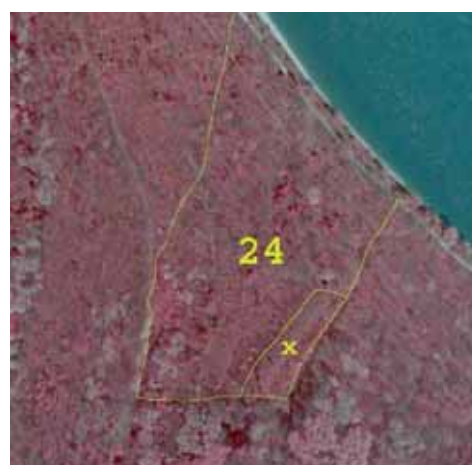
Picture 23.3: Landscape



Picture 23.4: Canopy

Picture 23.5: *Buteo buteo***AREA 24**

Picture 24.1: Position of Area

Picture 24.2: Map of Area
x - EA poplar plantation

Evaluation: negative

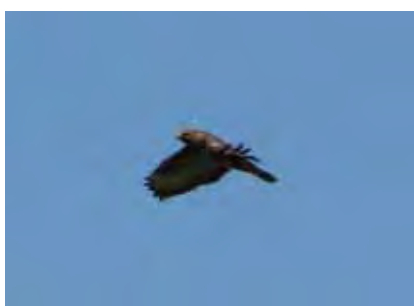
24: *R. pseudoacacia*, *Quercus robur*,
resting place, GPS: 24x, 2 birds of prey above, probably *Buteo buteo*
Area is around the fishing houses. Conclusion of today's visit to this locality is:
interesting place for water management, potential place for revitalisation. 3 parallel
channels, becoming 2 (see hydrology map) - this is already explained in area 19



Picture 24.3: Spring plants: *Galanthus nivalis*, *Scilla bifolia*, *Gagea lutea*, *Corydalis* sp., *Allium ursinum*



Picture 24.4: *Fraxinus* sp.



Picture 24.5: A bird of prey

AREA 25

Picture 25.1: Position of Area



Picture 25.2: Map of Area
a - 2 hole in 1 *P. alba*, R=65 cm,
x - *Ailanthus altissima* sprouts and mature
trees

Evaluation: Medium

a - 2 holes in 1 *P.alba*, R=65 cm,

x - *Ailanthus altissima* sprouts and a few mature trees

Forest is in bad shape, recovering after cutting, abandoned, uncared-for, and shrubby. There are trees from chumps. Dominant species are: *Acer* sp., other: *Quercus*, *Populus alba*.

Zone of *P.alba*, everything that is not *P.alba* are trees from chumps (vegetative sprouts). Old *Populus alba*, R=50 cm, 2 holes, GPS: 25 2. Very loud sound of woodpecker knocking, louder than *Dendrocopus*, probably *Dryocopus*, yet, we didn't find marks of food activity or houses of these species. *Sitta europea* and *Dendrocopus* sp. seen.



Picture 25.3:
Landscape



Picture 25.4: Landscape



Picture 25.5: Butterfly



Picture 25.6: Landscape, *P.alba*



Picture 25.7: *Corydalis* sp.



Picture 25.8: a - 2 holes in one *P.alba*



Picture 25.9: Landscape, trees from chumps



Picture 25.10: Rotting tree



Picture 25.11: A bird of prey (*B.buteo*)

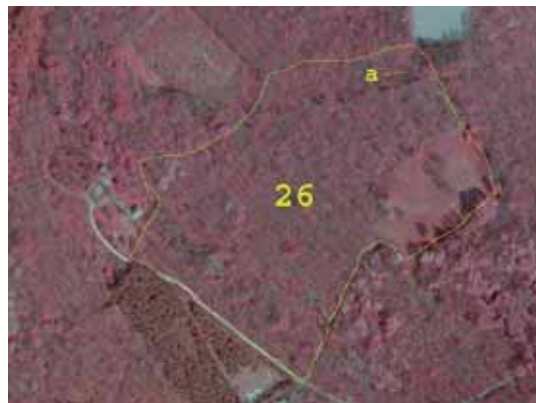


Picture 25.12: Landscape

AREA 26



Picture 26.1: Position of Area



Picture 26.2: Map of Area a - holes on vertical dead tree with *Fomes*

Evaluation: negative

This is the area from the road till the meadow. This is an uninteresting area with degraded forest, one interesting finding: large *Fomes* fungi (2 large individuals) on

vertical dead tree with, with 7 holes of former activity of some woodpecker birds (photo) Dominant species are: *Fraxinus*, *Acer*, *Populus*, *Cornus*, (same as in 25)
 a - holes on vertical dead tree with *Fomes fungii*



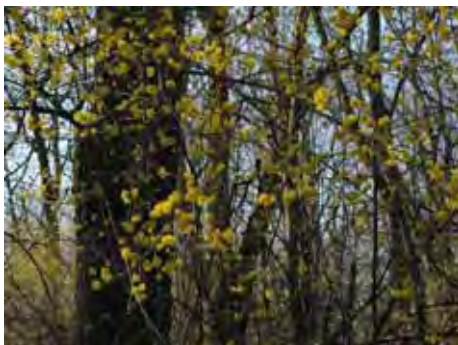
Picture 26.3: Dead tree with holes



Picture 26.4: a hole on a rotting tree



Picture 26.5: *Fomes fungii* on rotting tree



Picture 26.6: *Cornus mas*

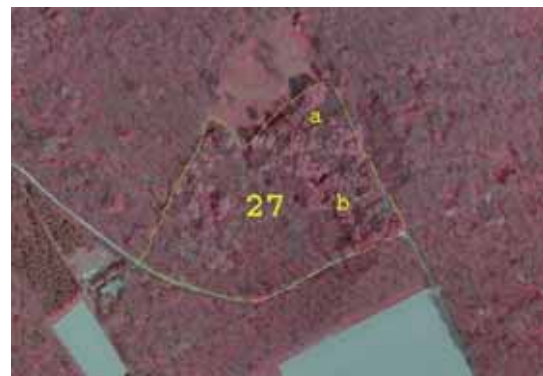


Picture 26.7: *Cornus mas*

AREA 27



Picture 27.1: Position of Area



Picture 27.2: Map of Area
 a - a hole in *P. alba*
 b - 2 holes in *P. alba*

Dominant species: *P.alba*, *Fraxinus sp*, *Q.robur*. Sound of a bird of prey. Holes on *P.alba* seen and photographed, and feeding area of woodpeckers recorded.



Picture 27.2: Landscape



Picture 27.3:
a - a hole in *P. alba*



Picture 27.4:
b - 2 holes in *P. alba*



Picture 27.5: Holes
on *P. alba*



Picture 27.6: Rotting
tree



Picture 27.7: woodpecker
activity



Picture 27.8: woodpecker
activity



Picture 27.9: woodpecker
activity

AREA 28



Picture 28.1: Position of Area



Picture 28.2: Map of Area
a - 2 holes on *P. alba*, R=60 cm

a - 2 holes on *P. alba*, R=60 cm. GPS: 28 2

Dominant trees: *Quercus*, *Fraxinus*, *Robinia*, *Acer*. Bird flew above (see pictures 28.6 and 28.7)



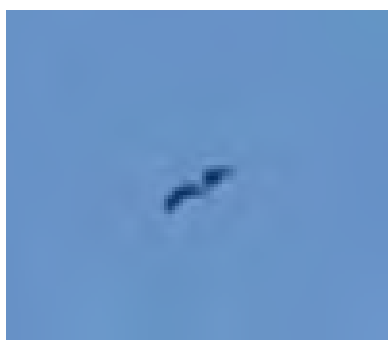
Picture 28.3: *P. alba*



Picture 28.4: a - 2 holes on
P. alba, R=60 cm



Picture 28.5: a - 2 holes on
P. alba, R=60 cm



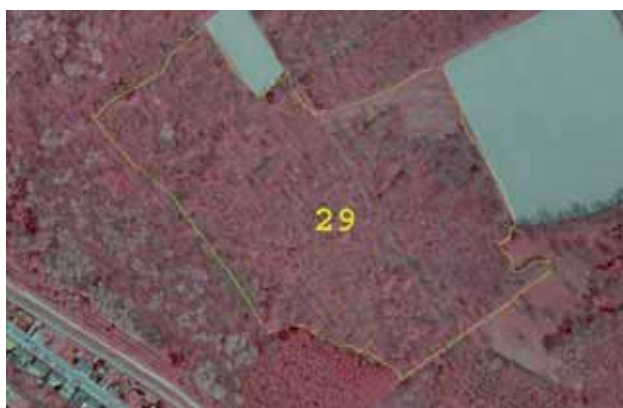
Picture 28.6



Picture 28.7

AREA 29

Picture 29.1: Position of Area 29



Picture 29.2: Map of Area 29

Evaluation: Medium

Young forest, dominant species: *Fraxinus angustifolia*, *Acer pseudoplatanus*, *Acer platanoides*, *Quercus robur*, *Carpinus sp*, *Cornus mas*, *Tilia parvifolia*, *Acer campestre*. Human activities: wood cutting activity sounds



Picture 29.3: Landscape edge of area 29



Picture 29.4: Landscape

Picture 29.5: Leaves of *Acer Pseudoplatanus* and *A.campestre*

Picture 29.6: Landscape

AREA 30



Picture 30.1: Position of Area



Picture 30.2: Map of Area
 a - a hole in *P.alba*
 b - 2 holes in *P.alba*

Dominant species: *Fraxinus*, *Acer pseudoplatanus*, *R.pseudoacacia*
 2 large *Fraxinus* trees R=80 cm, GPS: 29 J
 Holes of woodpeckers: GPS: 29 Z
 2 more holes seen



Picture 30.3: Trees from chumps (*A.pseudoplatanus*)



Picture 30.4: Landscape



Picture 30.5: Landscape



Picture 30.6: Landscape, *P.alba*



Picture 30.7: a - a hole in *P.alba*

Picture 30.8: b - 2 holes in *P.alba*Picture 30.9: b - 2 holes in *P.alba*

AREA 31



Picture 31.1: position of Area



Picture 31.2: map of Area
 a - 2 holes on 2 *P.alba*, R1=49 cm R2<49 cm
 b - 2 *Fraxinus* trees, R= around 60 cm, high around 30 m
 c - an old oak R=72 cm

Plantation of EA poplar

P.alba, nice, older ones, a - hole on *P.alba*, GPS: 31_Z,

c - an old oak GPS: 31 HR

Across the plantation, a nice forest +



Picture 31.3: *Sorbus* sp.



Picture 31.4: a - hole on *P.alba*, R1=49 cm
GPS: 31_Z

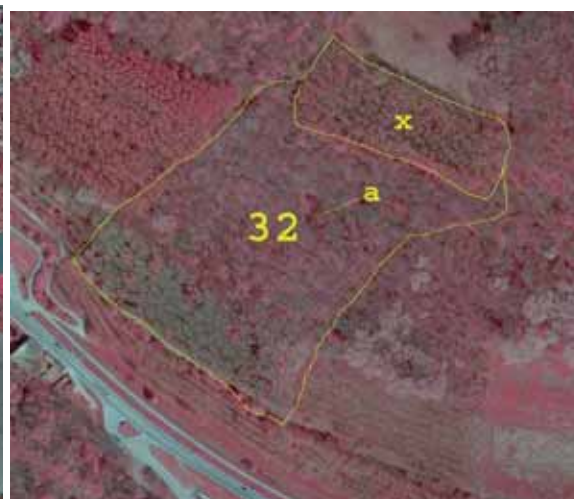


a - hole on *P.alba*, R2<49 cm GPS: 31_Z

AREA 32



Picture 32.1: position of Area



Picture 32.2: map of Area

a - an old *Fraxinus* tree, R=67 cm, GPS: 32_F

x - plantation of EA poplars

dominant species: *Fraxinus angustifolia*

other: *Acer campestre*, *Robinia pseudoacacia*, *Corylus avellana*, *Cornus mas*,
3 *Dendrocopus*, 1 hole with *Parus* or *Sitta* sp.

Area is showing signs of degradation by human activity, it looks like as it has been cut long time ago, and has been left to recover by its own. There are trees from chumps. The natural fragment is surrounded with plantations and a meadow. Nevertheless, this fragment is in good shape.



Picture 32.3: Field work



Picture 32.4: landscape



Picture 32.5: Landscape

AREA 33



Picture 33.1: Position of Area



Picture 32.2: map of Area

Evaluation: positive

Meadow

On the meadow stands a big *Robinia pseudoacacia*.



Picture 33.3: meadow landscape



Picture 33.4: meadow landscape



Picture 33.5: *Robinia pseudoacacia*

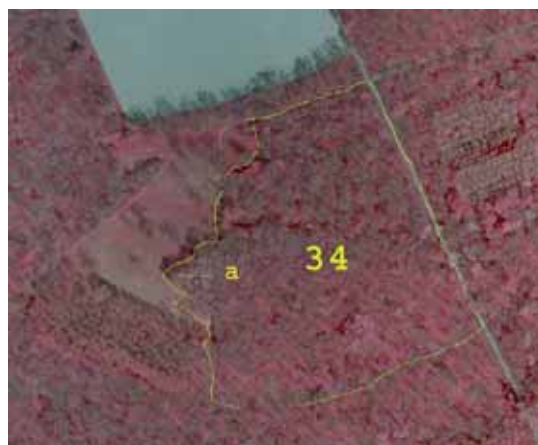


Picture 33.6: *Buteo buteo*

AREA 34



Picture 34.1: position of Area



Picture 34.2: map of Area a - nest on *Betula pendula*, GPS: 36G

Arbour of *P.alba* and bushes

Betula pendula with a nest, GPS: 36 G

Dominant tree species: *P.alba* *Fraxinus*, *Quercus robur*, *Acer campestre*



Picture 34.3: a - nest on *Betula pendula*, GPS: 36 G

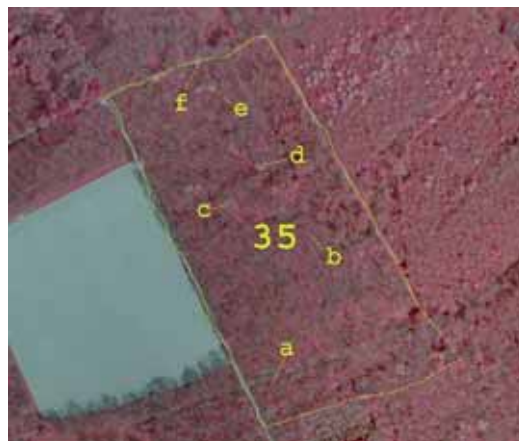


Picture 34.4: Landscape

AREA 35



Picture 35.1: Position of Area



Picture 35.2: Map of Area

- a - old *Acer campestre*, R=62, old *Fraxinus angustifolia*, R=53 cm, an ill *Quercus robur*, R=62
- b - old oak, *Quercus robur*, R=80cm
- c - old oak, *Quercus robur*, R=90 cm
- d - a hole in *P.alba*
- e - a hole in *P.alba*
- f - broken *P.alba*

Dominant tree species: *Fraxinus*, *Cornus mas*, *Robinia pseudoacacia* 40%, 3 older *P.alba*

forest - midleaged

a - huge *Acer campestre*, R=62, GPS: 35 J, old *Fraxinus angustifolia*, R=53 cm, an ill *Quercus robur*, R=62

- b - old oak, *Quercus robur*, R=80cm, GPS: 35 Q
- c - old oak, *Quercus robur*, R=90 cm, GPS: 35 Q1
- d - a hole in *P.alba*, GPS: 35 Z
- e - a hole in *P.alba*
- f - broken *P.alba*



Picture 35.3: Landscape



Picture 35.4 a - *Acer campestre*, R=62, GPS: 35 J



Picture 35.5: b - old oak, *Quercus robur*, R=80cm, GPS: 35 Q



Picture 35.6 c - *Quercus robur*, R=90 cm, GPS: 35 Q1



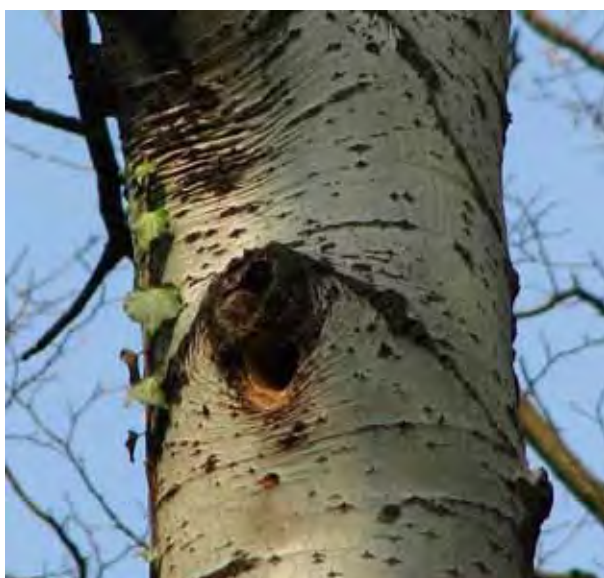
Picture 35.7: landscape



Picture 35.8: d - a hole in *P.alba*, GPS: 35 Z



Picture 35.9: d - a hole in *P.alba*, GPS: 35 Z



Picture 35.10: e - a hole in *P.alba*



Picture 35.11: f - a broken *P.alba*



Picture 35.12: Landscape



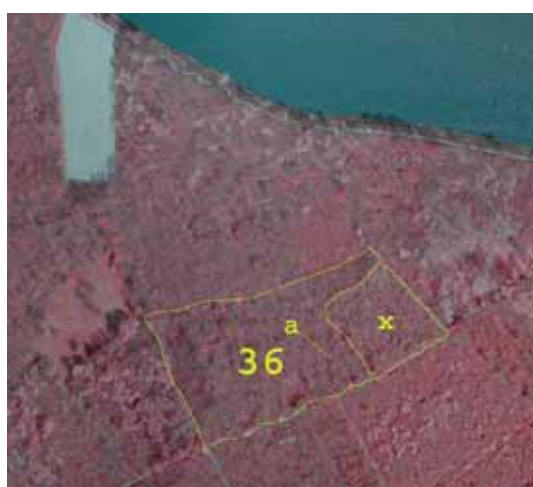
Picture 35.14: woodpecker activity



Picture 35.13: Young *Acer pseudoplatanus*



Picture 36.1: Position of Area



Picture 36.2: Map of Area
a – holes in the ground, mammals
x - EA poplar plantation

AREA 36

Dominant tree species: *Fraxinus*, there are a lot of older ashes

other: *Acer pseudoplatanus*, *Crataegus* sp.,

on the shore: a bird of prey, Danube shore, GPS: DUNAV

a – holes in the ground, at least 7, burrows, most probably carnivores, GPS: Carni
(fox or badger)



Picture 36.3: a - holes in the ground, mammals



Picture 36.4: a - holes in the ground, mammals



Picture 36.5: a - holes in the ground, mammals



Picture 36.6: a - holes in the ground, mammals



Picture 36.7: a - holes in the ground, mammals, faeces



Picture 36.8: Bird of prey



Picture 36.9: landscape



Picture 36.10: *Ranunculus ficaria*



Picture 37.11: bird of prey



Picture 37.12: Bird of prey

AREA 37



Picture 37.1: Position of Area



Picture 37.2: Map of Area

- a - old *Fraxinus*
- b - 2 holes in *P.alba*
- c - old *Fraxinus*, R=83,5 cm, old *Quercus robur*, R=71 cm
- d - old *Acer pseudoplatanus*
- e - old *Populus alba*, R=61 cm

Forest by the Danube. The part near to water is worse, shrubs, the part deeper in the woods is nicer, better. Used and then left forest. Hunting places are abandoned.

Dominant tree species: *Fraxinus angustifolia*, *Fraxinus excelsior*, *Acer pseudoplatanus*, *Quercus robur*, *Populus alba*

Other: *Gallium*, *Lathraea squamaria*, *Juglans*

a - *Fraxinus* - nice, very high, GPS: 37_F, R=80 cm,

b - 2 holes in *P.alba*, 37 Z, one is fresher

c - old *Fraxinus excelsior*, R=83,5 cm, 37 J, old *Quercus robur* R=71 cm

d - an old *Acer pseudoplatanus*

e - an old *Populus alba*, R=61 cm, GPS: 36 BT

2 old *Fraxinus* on the road, R~60 cm, old *Acer campestre* or *pseudoplatanus*

Fraxinus, R=65 cm

after a little forest road, a zone with bigger, older trees, GPS: Dendro, a nice part of the forest, +

road, hunting spot, a huge oak, R=72, GPS: 37B Q



Picture 37.3: a - *Fraxinus*
- nice, very high, GPS: 37_F,
R=80 cm



Picture 37.4: b - 2 holes in *P.alba*, 37 Z,
one is fresher



Picture 37.5: b - 2 holes in *P.alba*, 37 Z, one is fresher



Picture 37.7: *Lathraea squamaria*



Picture 38.6: c - old *Fraxinus excelsior*,
R=83,5 cm, 37 J



Picture 37.8: feathers



Picture 37.9: d - an old *Acer* sp.

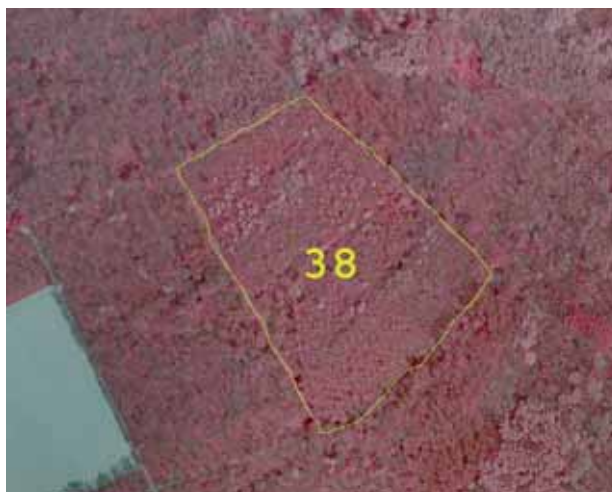


Picture 37.10: hole in ground

AREA 38



Picture 38.1: Position of Area



Picture 38.2: Map of Area

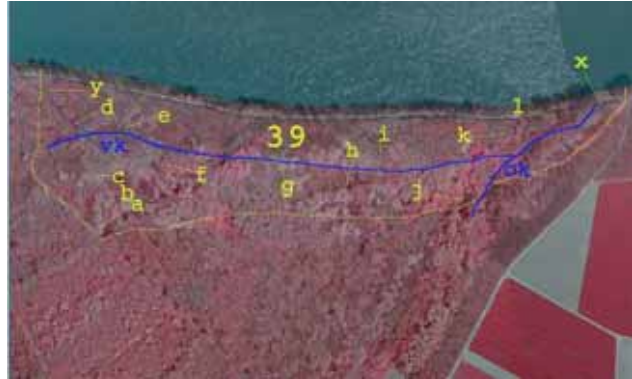
Evaluation: negative

Plantation: trees with flat bark, leaves of *Acer pseudoplatanus*, *Populus alba*
across them, across the road: plantation of EA

Further, there were also plantations of EA poplar and the species with flat bark

AREA 39

Picture 39.1: Position of Area



Picture 39.2: Map of Area

- a - a hole in *P.alba* R=100 cm
- b - a hole in *P.alba*
- c - a hole in *P.alba*
- d - *P.nigra*
- VK – big channel
- y - the end of the channel,
- e - *P.nigra* R=100 cm
- f - old *Aesculus hippocastanum* R= 95 cm
- g - hole in *P.alba*
- h - *P.alba* R=84cm, 2 holes
- i - *Fraxinus excelsior*, R=110 cm
- x - the end of the channel
- j - old tree, huge *Fraxinus*
- OK - huge, main channel
- k - feeding place of woodpeckers
- l - huge *P.nigra*

Evaluation: Very positive

P.alba, *Fraxinus* (5 larger ones), *Aesculus hippocastanum* - later.

Loud woodpecker noise, *Sylvia atricapilla*, birds of prey, audio recording of noise of birds (video 6), 2 small woodpeckers, recording of a bird of prey, we saw them landing far

a - a hole in *P.alba* R=100 cm, GPS: 39_BT

b - a hole in *P.alba*

c - a hole in *P.alba*

d - *P.nigra*

VK - veliki kanal, around the channel wilderness, a lot of decomposing trunks

e - *P.nigra* R=100 cm, GPS: 39 CT

f - *Aesculus hippocastanum* R= 95 cm, GPS: 39 KZ, more chesnuts around

g - hole in *P.alba*, GPS: 39_Z

h - *P.alba* R=84cm, 2 holes, GPS 39 BT2, R=84
 i - *Fraxinus excelsior*, R=110 cm, GPS: 39_F
 x - the end of the channel, small difference of height
 j - old tree, huge *Fraxinus*
 OK - huge, main channel
 k - it can be broken through, but it has to be examined where the VK channel is going upstream
 l - feeding place of woodpeckers
 lj - huge *P.nigra*
 y - the trace of the channel is getting lost near Danube, it could be broken through, but it has to be examined where the VK channel is going upstream
 old *Fraxinus* R~60, 70
 old *P.alba*, R~50,60
 planted *Robinia*

wild part, a lot of old *P.alba*,
 a tree: R=107 cm, wider part of tree R=110, GPS: 39_D
 old *P.alba*: R=85cm, GPS: 39 CEKA

The wildest forest that we have seen so far.

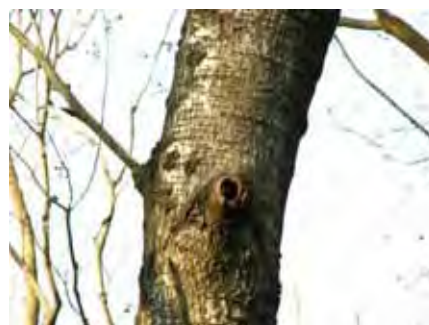
A falco species GPS: 39_Grablja (a huge *Aesculus hippocastanum* is around that area, R= 110 cm, GPS: 39K), one big *Fraxinus* near, R=74 cm
 1 *P.alba* with 2 holes



Picture 39.3: a - a hole in *P.alba* R=100 cm, GPS: 39_BT



Picture 39.4: a - a hole in *P.alba* R=100 cm, GPS: 39_BT



Picture 39.5: b - a hole in *P.alba*



Picture 39.6: b - a hole in *P.alba*



Picture 39.7: c - a hole in *P.alba*



Picture 39.8 c - a hole in *P.alba*



Picture 39.9: Bird of prey



Picture 39.10: d - *P.nigra*



Picture 39.11: e - *P.nigra*
R=100 cm, GPS: 39 CT



Picture 39.12: f - *Aesculus hippocastanum* R= 95 cm, *P.alba*, GPS: 39_Z
GPS: 39 KZ, more chestnuts around



Picture 39.13: g - hole in *P.alba*, GPS: 39_Z



Picture 39.14: g - hole in *P.alba*, GPS: 39_Z



Picture 39.15: h - *P.alba* R=84cm,
2 hole, GPS 39 BT2, R=84



Picture 39.16: h - *P.alba*
R=84cm, holes, GPS 39 BT2, R=84



Picture 39.17:
i - *Fraxinus excelsior*,
R=110 cm, GPS: 39_F



Picture 39.18:l - feeding
place of woodpeckers



Picture 39.19: j - old *Fraxinus*

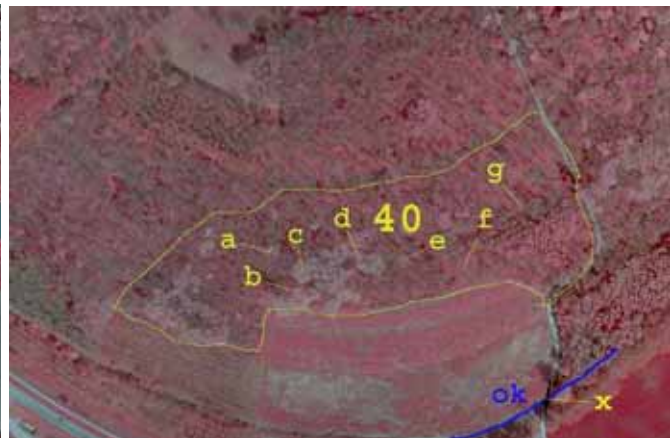


Picture 39.20: j - old *Fraxinus*

AREA 40



Picture 40.1: Position of Area



Picture 40.2: Map of Area

- a - a hole in *P.alba*
- b - old *P.alba* R=108 cm
- c - 6 holes in *P.alba*
- d - 2 holes in *P.alba*
- e - *Tilia* sp., from chumps
- f - *Quercus robur*, R=72 cm
- g - *Fraxinus* with flowers (10-15 trees)
- ok – big circular chanel
- x – spot of potential restoration

Dominant species: *P.alba*, *A.campestre*, *Fraxinus excelsior*, (there are a lot of old *P.alba*)

other: *Robinia pseudacacia* *Carpinus* sp, *Tilia* from chumps, *Acer pseudoplatanus*. *Crataegus*, In area g - dominant: *Fraxinus*, in that area, *Quercus robur* R=50 cm

- a - a hole in *P.alba*
- b - old *P.alba* R=108 cm, GPS: 40 BT
- c - 6 holes in *P.alba*
- d - 2 holes in *P.alba*

- e - Tilia, from chumps
- f - Quercus robur, R=72 cm, GPS: 40_Q
- g - Fraxinus with flowers , domin. (10-15 trees)
- ok – big circular chanel
- x – spot of potential restoration



Picture 40.3: Landscape



Picture 40.4: Landscape



Picture 40.5: a - a hole in *P.alba*



Picture 40.6: Landscape



Picture 40.7: Landscape



Picture 40.8: c - a hole in *P.alba*



Picture 40.9: Landscape



Picture 40.10: c - a hole in *P.alba*



Picture 40.11: c - a hole in *P.alba*



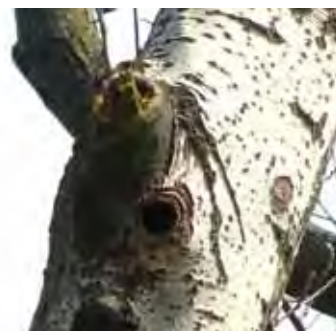
Picture 40.12: c - holes in *P.alba*



Picture 40.13: c - a hole in *P.alba*



Picture 40.14: d - 2 holes in *P.alba*



Picture 40.1: Landscape



Picture 40.1: g - *Fraxinus* with flowers (10-15 trees)

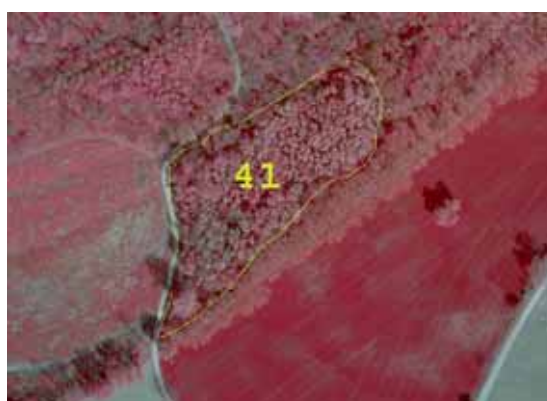


Picture 40.1: g - *Fraxinus* with flowers (10-15 trees)

AREA 41



Picture 41.1: position of Area



Picture 41.2: map of Area

Plantation of *Salix*, and tree species from from chumps, and *R.pseudoacacia*

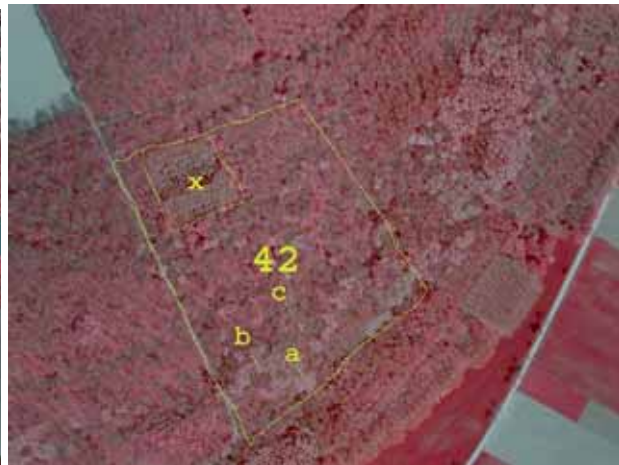


Picture 41.3: Plantation: *Salix* sp. and *Robinia pseudoacacia*

AREA 42



Picture 42.1: Position of Area



Picture 41.1: Position of Area

- a - 2 holes in *P.alba*
- b - hole in 1 *P.alba*
- c - *P.nigra*
- x - plantation

dominant: *Fraxinus* sp., *P.alba*.

Other: *Acer campestre*, *Crataegus* sp., *R.pseudoacacia*., *Acer ps.*

P.alba, *F.excelsior*, *A.campestre*, *Q.robur*. *P.alba* have around R~80 cm
4 *P.nigra*

- a - 2 holes in *P.alba*
- b - hole in *P.alba*
- c - *P.nigra*
- x - plantation



Picture 42.3: a - 2 holes in 1 *P.alba*



Picture 42.4: c - *P.nigra*



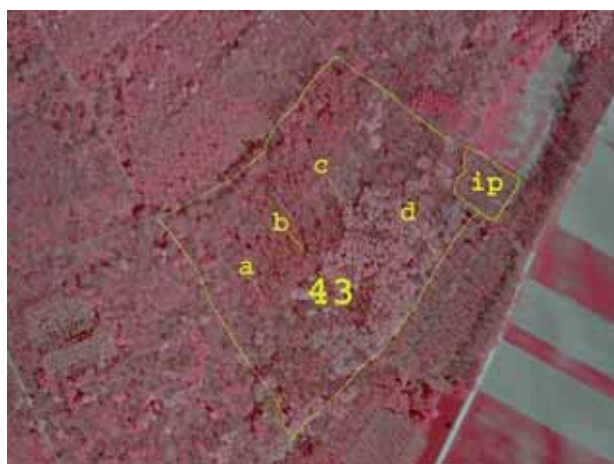
Picture 42.4: c - *P.nigra*



Picture 42.5: Landscape

AREA 43

Picture 43.1: position of Area



Picture 43.2: position of Area

- a - nest on *A.campestre* R=52 cm
- b - big *Fraxinus excelsior* R=79 cm
- c - nest on *P.alba* R=61cm
- IP - chomped, cut plantation
- d - a hole in *P.alba*

Dominant tree species: *Acer campestre*, *A.pseudoplatanus*, *R.pseudoacacia*, *Cornus mas*, *P.alba*, *Carpinus sp.*, *P.nigra* (or *euamericana*)

a - nest, a huge nest on *A.campestre*, R=52 cm, GPS: 43 G, above - a bird of prey was seen

b - big *Fraxinus excelsior* R=79 cm, GPS: 43 F

c - nest on *P.alba* R=61 cm, GPS: 43 G2

IP - chomped, cut plantation

d - a hole in *P.alba*

43/freshly cut, disturbed area, agro-ecosystem, lodging

Picture 42.3: a - nest on *A.campestre*, R=52 cm



Picture 42.4: b - old *Fraxinus excelsior* R=79 cm, GPS: 43 F



Picture 42.5: c - nest on *P.alba* R=61cm, GPS: 43 G2



Picture 42.6: c - nest on *P.alba* R=61, GPS: 43 G2

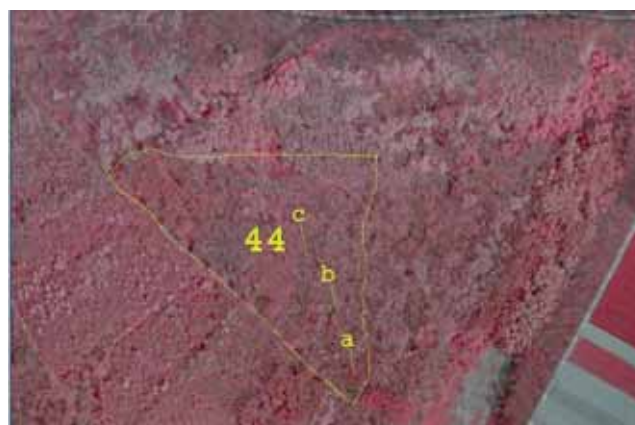


Picture 42.1: d - a hole in *P.alba*

AREA 44



Picture 44.1: Position of Area



Picture 44.2: Map of Area
 a - hole, woodpecker feeding activity
 b - old *P.nigra* R=137 cm
 c - old *Quercus robur* and *Fraxinus* sp. both R~83 cm

Dominant tree species: *P.alba*, *Fraxinus sp.*, *Quercus robur*, *P.euramericana*, *A.pseudoplatanus*, *Carpinus sp.* Woodpecker feeding activity

- a - hole, woodpecker feeding activity
- b - old *P.nigra* R=137 cm, GPS: 44CT
- c - old *Quercus* and *Fraxinus* both R~ 83 cm



Picture 44.3: a - woodpecker feeding activity



Picture 44.4: Rotting tree with Fomes fungi

Picture 44.5: Landscape



Picture 44.6: b - old *P.nigra*
R=137 cm, GPS: 44CT



Picture 44.7: c - old *Quercus* and *Fraxinus* both R~ 83 cm



Picture 44.8: c - old *Quercus* and *Fraxinus* both R~ 83 cm



Picture 44.9: trees from chumps



Picture 44.10: young *Acer pseudoplatanus*



Picture 44.11: Woodpecker feeding activity



Picture 44.12: *Arum maculatum*

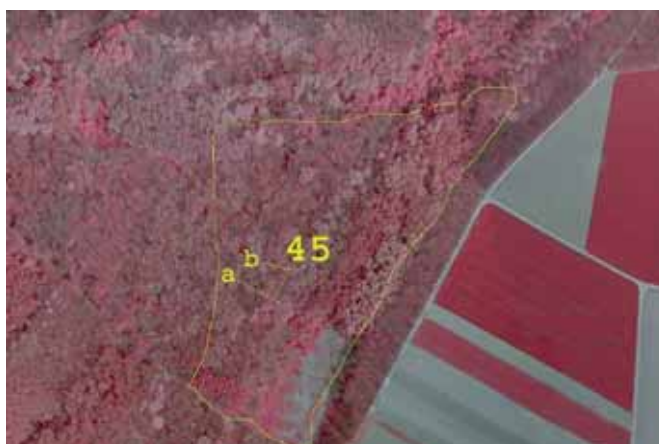


Picture 44.13: old tree

AREA 45



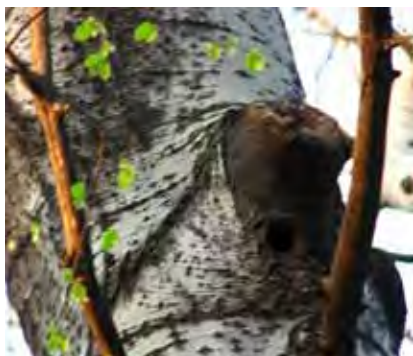
Picture 45.1: Position of Area



Picture 45.2: Map of Area
a - a hole in *P.alba*
b - nest on *P.alba* tree R=80cm

a - a hole in *P.alba* - photo after the agro-field (area 48)

b - nest on *P.alba* tree R=80cm



Picture 45.3: a - a hole in *P.alba*



Picture 45.4: b - nest on *P.alba* tree R=80cm

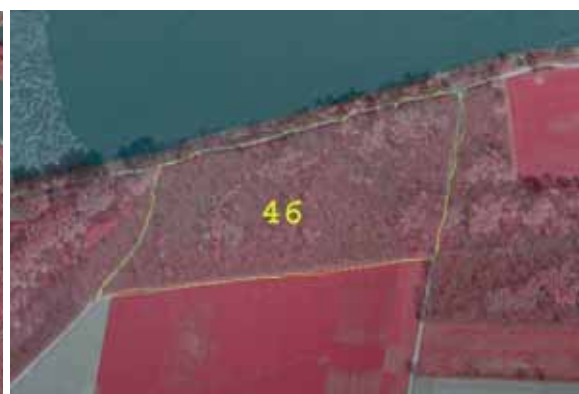


Picture 45.5: b - nest on *P.alba* tree R=80cm

AREA 46



Picture 46.1: Position of Area



Picture 46.2: Map of Area

Shrubbs and trees from chumps, with a few older ash trees (*Fraxinus* sp.)
Dominant species: R.pseudoacacia dominant in the first 50 m 80%, after: *Acer pseudoplatanus*, *Fraxinus* sp., *P.alba*, *Quercus robur*, place with overgrown vegetation, shrubs, *Sambucus nigra*, *Crataegus* sp., *Polygonatum officinale*



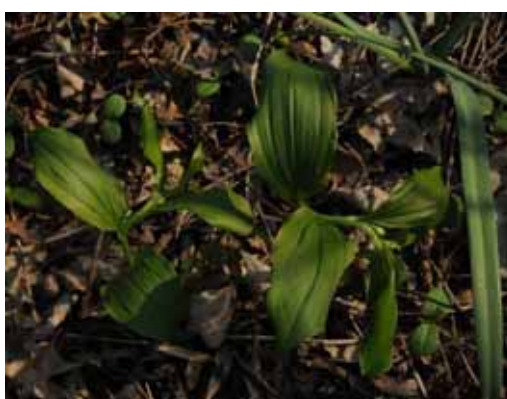
Picture 43.1: *Robinia pseudoacacia*



Picture 43.1: *Anemone ranunculoides* and *Ranunculus ficaria*



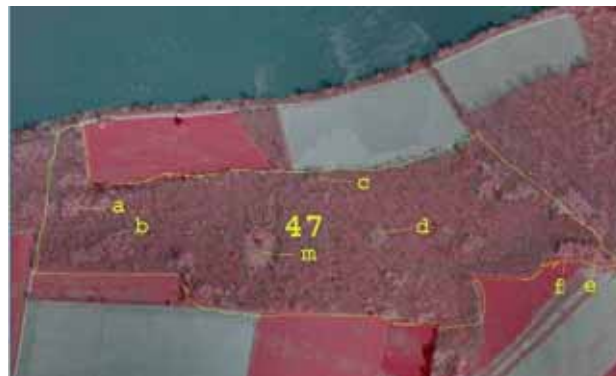
Picture 43.1: Overgrown vegetation



Picture 43.1: *Polygonatum* sp.

AREA 47

Picture 47.1: Position of Area



Picture 47.1: Map of Area

- a - a hole in *P.alba*
- b - a hole in *P.alba*
- m - meadow, *Quercus robur* R=64cm
- c - huge *P.nigra* R=93cm, and 2 old *P.alba*, R=68, R=85, one *Fraxinus* R=52
- d - hole in *P.alba*
- e - huge *P.alba* R=120 cm, with a hole
- f - holes in *P.alba*

Area 47

Dominant tree species: Fraxinus 30%, *P.alba* - 40%, *Acer* sp. (*pseudoplatanus*, *platanoides*, *campestre*). Other: shrubs, chump trees, *R.pseudoacacia*, *Crataegus* sp., *Juglans* sp. Older ashes all around. *Quercus robur* on the meadow, GPS: 74 Q, R=64cm. A hole in *P.alba*, row-deers, *Sitta europea*, back, on the road: b - *P.nigra*, *P.alba*, *Fraxinus* sp.

a, b - a hole in *P.alba*

m - meadow, *Quercus robur* R=64cm

c - huge *P.nigra* R=93cm, and 2 old *P.alba*, R=68, R=85, *Fraxinus* R=52

d - hole in *P.alba*

e - huge *P.alba* R=120 cm, hole, GPS: 47_BT

f - a hole *P.alba* GPS: 47_Z, 2 more holes on *P.alba*, a bird bigger than *Parus* flew out

* - *P.alba* deeper in the woods, younger
P.alba on the side of the forest, older



Picture 47.3: Landscape



Picture 47.4: Abandoned deer feeding place



Picture 47.5: *Anemone ranunculoides*



Picture 47.6: a - a hole in *P.alba*



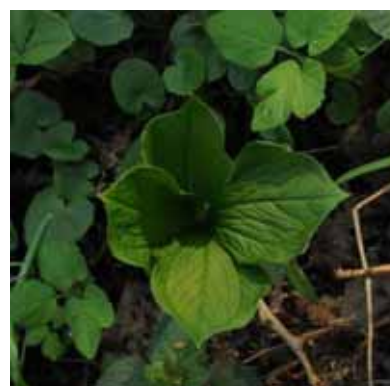
Picture 47.7: b - a hole in *P.alba*



Picture 47.8: m - *Quercus robur* on the meadow, GPS: 74 Q, R=64cm



Picture 47.9: *Primula veris*



Picture 47.10: *Paris quadrifolia*



Picture 47.11: Landscape Picture 47.12: holes in old, dead tree



Picture 47.13: d - hole in *P.alba*

Picture 47.14: f - a hole *P.alba*



Picture 47.15: e - huge *P.alba* R=120 cm, hole

AREA 48



Picture 48.1: position of Area



Picture 48.2: position of Area
x - state border

Area 48

EA poplar plantation, first few 5-8 rows, then *P.alba* (R~40-50 cm, 1 bigger, R~60),
Fraxinus (~50 cm), *A.pseudoplatanus*

Two dark falcons

An old *Fraxinus*, R=83 on one side, and R=90 on the other side of the tree

x - state border



Picture 43.1: Landscape



Picture 43.1: *Populus alba*



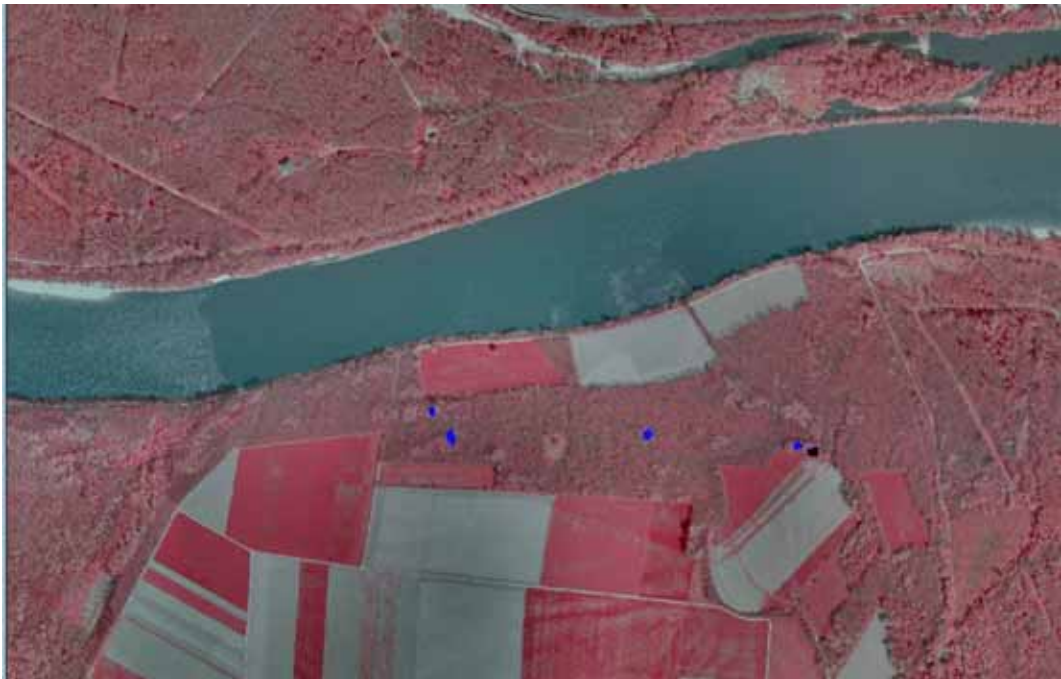
Picture 43.1: Young *Acer platanoides*

CORE SPOTS

Key results are presented on the map displayed below.



Picture C1: Core spots



Picture C2: Core spots

-
- - Beaver activity and nests - 4 marks, Areas: 6 (2x), 12, 13
 - - Large bird nests - 6 nests, Areas: 20, 12, 22, 43 (2x), 45
 - - Holes in *Populus alba* trees
 - - Old trees, *P.alba* R>60 cm, other tree species R>100 cm

4. Conclusion

The study area possesses natural qualities which are worth protecting or conserving. Forest ecosystems are generally healthy, self tenable, with very light human activities.

This enables development of various life forms and complex material and energy cycles.

Numerous mature and old trees were found, with diameters more than 1 m, especially trees of species *Quercus robur*, *Fraxinus angustifolia*, *Fraxinus excelsior*, *Acer pseudoplatanus*, *Populus alba*, *Populus nigra*, *Acer campestre*, and *Acer platanoides*

6 large nests of birds were recorded. One nest is a nest of black stork *Ciconia nigra*, which is considered a rare species in Europe.

4 localities of beaver activity were found.

Activity of black woodpecker, *Dryocopus martius* was also recorded by spotting housing and feeding places. Black woodpecker is an indicator species; it indicates habitats of old and healthy trees.

The study area has potential for water habitat restoration and river water releasing in side-dams



The end