

## INFORMATION ABOUT THE PERSON FILLING THE FORM

<b>Name and family name</b>	<i>Lukrecija Butorac</i>
<b>Research organization</b>	<i>Institute for Adriatic Crops and Karst Reclamation</i>
<b>Position in the organization</b>	<i>Scientific associate, Head of forestry department</i>
<b>Country</b>	<i>Croatia</i>
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## EXPERIMENTAL SITE<sup>1</sup>

<b>Name of the site</b>	<p><i>Pokusni objekti/Experimental plots:</i></p> <ul style="list-style-type: none"> <li>- plot no. 1, "Moseć"</li> <li>- plot no. 2, "Borovača"</li> <li>- plot no. 3, "Kučine"</li> <li>- plot no. 4, "Žrnovnica"</li> <li>- plot no. 5, "Rupotina"</li> <li>- plot no. 6, "Suvava"</li> </ul>
	<p><i>URL address</i></p>
<b>Location of the site</b>	<p><i>Croatia, Dalmatia</i></p>
	<p><i>21000</i></p>
	<p><i>UTM coordinates:</i></p> <ul style="list-style-type: none"> <li>- plot no. 1, "Moseć": 43°41'37" N 16°25'59" E</li> <li>- plot no. 2, "Borovača": 43°41'59" N 16°26'34" E</li> <li>- plot no. 3, "Kučine": 43°31'48" N 16°32'25" E</li> <li>- plot no. 4, "Žrnovnica": 43°31'23" N 16°22'18" E</li> <li>- plot no. 5, "Rupotina": 43°33'45" N 16°30'05" E</li> <li>- plot no. 6, "Suvava": 43°41'56" N 16°26'28" E</li> </ul>
<b>Start date</b>	<ul style="list-style-type: none"> <li>- plot no. 1, "Moseć": 1980. -</li> <li>- plot no. 2, "Borovača": 1980. -</li> <li>- plot no. 3, "Kučine": 2002. -</li> <li>- plot no. 4, "Žrnovnica": 2002. -</li> <li>- plot no. 5, "Rupotina": 2002. -</li> <li>- plot no. 6, "Suvava": 1972. - 1975. and 2003. -</li> </ul>
<b>Characteristics of the forest ecosystem where it is located</b>	<p><i>Most relevant features:</i></p> <p><i>plot no. 1, "Moseć":</i></p> <ul style="list-style-type: none"> <li>- <i>Vegetation: Oriental hornbeam shrub</i></li> <li>- <i>Soil characteristics: Calcocambisol, typical shallow</i></li> <li>- <i>Mean annual temperature: 12,4° C</i></li> <li>- <i>Mean annual rainfall: 1276,9 mm</i></li> <li>- <i>Altitude, slope, aspect: 550 m above sea level, slope 16°, northern exposure</i></li> <li>-</li> </ul> <p><i>plot no. 2, "Borovača":</i></p> <ul style="list-style-type: none"> <li>- <i>Vegetation: afforested Aleppo pine</i></li> <li>- <i>Soil characteristics: Calcocambisol, typical shallow</i></li> <li>- <i>Mean annual temperature: 12,4° C</i></li> <li>- <i>Mean annual rainfall: 1276,9 mm</i></li> <li>- <i>Altitude, slope, aspect: 550 m above sea level, slope 32°, western exposure</i></li> </ul>

<sup>1</sup> Note: This information could be published in the webpage of FORESTERRA.

	<p><i>plot no. 3, "Kučine":</i></p> <ul style="list-style-type: none"> <li>- <i>Vegetation: Aleppo pine</i></li> <li>- <i>Soil characteristics: Eroded rendzina soil on marl</i></li> <li>- <i>Mean annual temperature: 15,9° C</i></li> <li>- <i>Mean annual rainfall: 826 mm</i></li> <li>- <i>Altitude, slope, aspect: 212 m above sea level, slope 20°, western exposure</i></li> </ul> <p><i>plot no. 4, "Žrnovnica":</i></p> <ul style="list-style-type: none"> <li>- <i>Vegetation: burned Aleppo pine stand</i></li> <li>- <i>Soil characteristics: Coluvial soil with mainly rocks</i></li> <li>- <i>Mean annual temperature: 15,9° C</i></li> <li>- <i>Mean annual rainfall: 826 mm</i></li> <li>- <i>Altitude, slope, aspect: 83 m above sea level, slope 30°, northeast exposure</i></li> </ul> <p><i>plot no. 5, "Rupotina":</i></p> <ul style="list-style-type: none"> <li>- <i>Vegetation: Aleppo pine</i></li> <li>- <i>Soil characteristics: Brown soil on marly limestone</i></li> <li>- <i>Mean annual temperature: 15,9° C</i></li> <li>- <i>Mean annual rainfall: 826 mm</i></li> <li>- <i>Altitude, slope, aspect: 227 m above sea level, slope 26°, eastern exposure</i></li> </ul> <p><i>plot no. 6, "Suvava": - watershed</i></p> <ul style="list-style-type: none"> <li>- <i>Vegetation: afforested Aleppo pine and oriental hornbeam shrub</i></li> <li>- <i>Soil characteristics: Calcocambisol, typical shallow</i></li> <li>- <i>Mean annual temperature: 12,4° C</i></li> <li>- <i>Mean annual rainfall: 1276,9 mm</i></li> <li>- <i>Altitude, slope, aspect: 460 - 960 m above sea level</i></li> </ul>
<b>Keywords</b>	<i>soil erosion, rainfall, flow off, soil loss</i>
<b>Scientific characteristics</b>	<p><i>Scientific objectives: To determine the impact of different forest vegetation on the flow off and soil erosion, to determine potential quantity of soil loss and flow off caused by rainfall under the specific vegetation cover.</i></p> <p><i>Variables:</i></p> <ul style="list-style-type: none"> <li>- <i>different type of vegetation cover</i></li> <li>- <i>flow off</i></li> <li>- <i>soil loss</i></li> <li>- <i>rainfall intensity</i></li> <li>- <i>quantity of rainfall</i></li> </ul> <p><i>Interest for users: development of new models to determine potential quantity of soil loss</i></p> <p><i>Particularities in comparison to others sites</i></p> <p><i>Research projects in the frame of which the experimental site is used (include web site address): Name of the project: Erosion and Soil Protection on Karst</i></p>
<b>Technical characteristics</b>	<p><i>Detailed description (including instrumentation):</i></p> <p><i>Watershed of "Suvava" takes the area 1823 ha, with the length of the main flow of 10,1 km and the entire length of greater and smaller tributary streams-torrents of 20,8 km. For monitoring water levels and flow rates in the lower part of torrent "Suvava" limnigraph (water level recorder) was set. In the mouth of torrent</i></p>

Suvava on the catchment area flow off and soil loss was investigated on experimental plots (2.5 x 20 m) with the recipient on the different inclination and the corresponding plant cover: **"Borovača"** (old culture of Black pine with completely preserved humus accumulation horizon, grown by thick and without grass cover), and in **"Moseć"** (the area with preserved and cut brush of Oriental hornbeam).

Three experimental plots (5x20 m) were set in eumediterranean zone in Aleppo pine forest ecosystems. Experimental plots were set in diameter of 20 km. The investigations were done in the mouth of the torrent "Rupotine" on preserved stands of 55 year old aleppo pine; "Kućine", on burned area of aleppo pine and on the experimental plot "Žrnovnica" on burned area of aleppo pine also but on the different type of soil and inclination than the previous.

Measured parameters: flow off, soil loss, rainfall intensity and quantity of rainfall



Experimental plots

### SCIENTISTS AND/OR TECHNICIANS IN CHARGE OF THE INFRASTRUCTURE

<b>Principal investigator</b>	Lukrecija Butorac	lukrecija.butorac@krs.hr
<b>One additional line per person</b>	Goran Jelić	goran.jelic@krs.hr



# FORESTERRA

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through improved coordination and integration



## ADMINISTRATIVE INFORMATION

<b>Availability for participating in mutual measurements</b>	Yes <i>Lukrecija Butorac lukrecija.butorac@krs.hr</i>
	<i>Conditions or Policy of use</i>
<b>Availability for accessing the data collected</b>	Yes <i>Lukrecija Butorac lukrecija.butorac@krs.hr</i>
	<i>Conditions or Policy of use</i>

## Continue

<b>Institution that manages the site</b>	<i>Institut za jadranske kulture i melioraciju krša / Institute for Adriatic Crops and Karst Reclamation</i>
	<i>URL address: www.krs.hr</i>
<b>Institution that manages the data</b>	<i>Institut za jadranske kulture i melioraciju krša / Institute for Adriatic Crops and Karst Reclamation</i>
	<i>URL address: www.krs.hr</i>
<b>Is the site participating in a national or international Network?</b>	No
	<i>URL address</i>
<b>Is the site open for transnational collaboration?</b>	Yes