FA COST Action FA1203

Sustainable management of Ambrosia artemisiifolia in Europe (SMARTER)

Ambrosia facts

February 2013

[Serbia]

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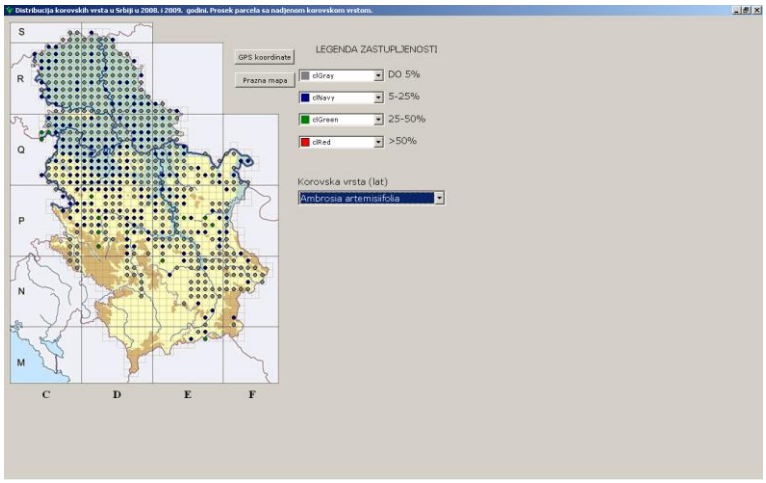
Present distribution (geographic and habitat) of *Ambrosia* and impact
Serbia

During 2005-2006 (first monitoring) and 2007-2008 (second monitoring) a survey was conducted by several scientific institutions (Faculty of Agriculture, Belgrade; Institute for Plant Protection and the Environment Belgrade; Institute of Pesticide and Environmental Protection, Belgrade; Institute of Field and Vegetable Crops, Novi Sad) and 34 regional services on the territory of Serbia. Both Projects were funded by the Ministry for Agriculture, Forestry and Water Management of the Republic of Serbia.

For common ragweed mapping the proportion at UTM net 10x10km was selected. The software was created as the basis for importing terrain data. Skilled persons (graduated engineers for plant protection) from Regional services (34 services on the territory of Serbia) monitored common ragweed presence and numerical value during the vegetation period both on arable and non-arable land and alongside traffic roads. The scale from 1 to 4 was used for numerical value estimation: 1- the species covered up to 5% of the surface area (symbol grey), 2- the species covered 5 – 25% of the surface area (symbol blue), 3- the species covered 25-50% of the surface area (symbol green), 4- the species covered over 50% of the surface area (symbol red). All categories of cultivated land were involved in surveying the terrain: arable crops, stubble, fodder crops, perennial crops, etc. The 18 representative site surveys (6 categories x 3 surveys two times per vegetation period) were conducted at each square quadrant, according to the dynamics of crop growth.



UTM map distribution and frequency of *Ambrosia artemisiifolia* in Serbia (Vrbničanin et al., 2008)

In Summary

Problems arise with regard to ragweed on roadsides, old and poor households, small gardens, field margins, stick-in-the-mud plots, etc. Public green area utility companies organize ragweed control in urban areas while rural areas due to deficiency of organized services are left without ragweed control.

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Past and present activities on *Ambrosia* research with national (regional) participation **Serbia**

2003-ongoing Project "Mapping of terrain under ragweed and other allergens plants, laboratory and field research and monitoring on the territory of Novi Sad" (project leader prof. Branko Konstantinović, Faculty of Agriculture-Novi Sad), funded by Provincial Secretariat of Agriculture, Water Economy and Forestry.

2004-2006 Project "Mapping of quarantine, invasive and economic noxious weeds in Serbia with proposal of their control" (project leader prof. Sava Vrbničanin, Faculty of Agriculture-Belgrade), funded by Ministry for Agriculture, Forestry and Water Management of Republic of Serbia.

2006-2010 Project "Monitoring and control ragweed (*Ambrosia atremisiifolia* L.) in the city of Belgrade" (project leader dr. Vaskrsija Janjić, IPEP-Belgrade), funded by City of Belgrade, Department of Environmental Protection and the Department for Housing and Utilities.

2006, Weed Science Society of Serbia organized one day meeting on title "*Ambrosia artemisiifolia* L." at the University of Belgrade, Faculty of Agriculture, and 2007 published a monograph "Regweed".

2006-2007, Project "Action plan for the control input, monitoring and control of alien invasion species" (project leader dr Predrag Cakić, IBISS, Belgrade), founded by Ministry of Environmental Protection of Republic of Serbia.

2007-2008 Project "Identification and monitoring of alien invasive weed species on the territory of Serbia and proposed measurements to control" (project leader prof. Sava Vrbničanin, Faculty of Agriculture-Belgrade), funded Ministry for Agriculture, Forestry and Water Management of Republic of Serbia.

2008-ongoing Project "Mapping of terrain under ambrosia on AP Vojvodina", (project leader prof. Branko Konstantinović, Faculty of Agriculture-Novi Sad), funded by Provincial Secretariat of Agriculture, Water Economy and Forestry.

2009, Act 82, Paragraph 5 of the Low on Environmental Protection ("Official Bulletin of the Republic of Serbia", No. 36/09). Previous Ministry of Environmental Protection of Republic of Serbia, now Ministry of Natural Resources, Mining and Spatial Planning.

2009-2010 Project "Monitoring and control ragweed (*Ambrosia artemisiifolia* L.) in the municipality of Obrenovac" (project leader dr. Vaskrsija Janjić, IPEP-Belgrade), funded by Fund for Environmental Protection Obrenovac.

2012, Project Serbian – Greek Science and Technology Cooperation „Invasive Alien Weeds in Serbia and Greece: Similarities and differences between two counties and risk assessment, prevention and management in the Southern Balkan Peninsula" (project leader prof. Sava Vrbničanin, Faculty of Agriculture-Belgrade), funded by Ministry of Education, Science and Technological Development, R. Serbia and Ministry of Science in Greece (in processing).

1999-2013 Aeropalinological research, Projects of monitoring aeroallergens (Funding provided by Authorities in several cities as well as Authorities of Autonomous Province Vojvodina). Particular attention to ragweed airborne pollen and assessment of risk for allergy symptoms and to evaluation of success of eradication activities. Information available to public through www.nspolen.com

2005-2008 SNF-SCOPES project "Monitoring and forecasting airborne ragweed pollen concentrations in the South-eastern part of its European distribution" lead by MeteoSwiss and in collaboration with Center of Environmental and Health Protection, Tirana, Albania; Inst. of Occupational Health, Skopje, Macedonia; Medical University of Sofia, Bulgaria.

2011 IPA Cross-border cooperation programe Romania-Serbia “Monitoring and control of the invasive biological pollutant – Ambrosia artemisiifolia L. (spp.) STOP AMBROSIA” (90960/30.12.2010).

2011-2013 IPA Cross-border cooperation programe Hungary-Serbia “Podrška životnoj sredini bez alergena” HUSRB/1002/122/195-EKOVOJVODINA-07

2003, 2005 Organization of the International regional meeting “Live without ragweed” that gathers people and institutions regionally involved in the fight against ragweed.

2007-2009 ragweed phenological observation as a part of the International Ambrosia Forecasting Collaboration (Penn State University, US MeteoSwiss)

2006-2012 continuous monitoring and mapping of ragweed population dynamics, changes in the character of vegetation and threat to auchtonous species in Pannonian biogeography region. (Projects funded by Authorities of the City of Novi Sad and the Municipality of Bačka Palanka)

2007-2010 project “Diversity of Pannonian flora in Serbia – threatened by expansion of invasive weeds” (project leader Prof. Pal Bože, UNSPMF) funded by Ministry of Science, R. Serbia

Over the years various media events (TV, radio, newspapers, forums) were organized on the topic of recognized and control measures of ragweed in arable and non-arable lends.

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Publications on Ambrosia

Serbia

Božić D., Vrbničanin S., Rančić D. and Veljković B. 2008. Morpho-anatomical characteristics of common ragweed (*Ambrosia artemisiifolia* L.). 2nd International Symposium «Intractable weeds and plants invaders». Osijek-Croatia, Book of Abstracts, 18.

Igić R., Konstantinović B., Polić D. i Anačkov G. 2002. Distribution of the most common weed species of the fam. Asteraceae in Srem (in Serbian). Pesticidi, 17, 39-57.

Janjić V. i Vrbničanin S. (eds.). 2007. Ragweed (in Serbian). Herbološko društvo Srbije, Beograd.

Janjić V., Vrbničanin S. i Malidža G. 2011. Possibility control of ragweed (*Ambrosia artemisiifolia* L.) (in Serbian). Biljni lekar, XXXIX, 44-54.

Jovanović V., Nikolić B., Janjić V., Umiljendić-Gajić J. i Stanković-Kalezić R. 2010. Germination of ragweed (*Ambrosia artemisiifolia* L.) in the laboratory according to the specific technical parameters (in Serbian). Acta herbologica, 19, 89-98.

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Konstantinović B., Meseldžija M. i Konstantinović Bo. 2004. The spread of *Ambrosia artemisiifolia* L. in an urban area and opportunities for its control (in Serbian). Acta biologica iugoslavica - serija G: Acta herbologica, 13, 449-452.

Konstantinović B., Meseldžija M. i Konstantinović Bo. 2007. Quarantine and invasive weed species forage and possibilities of their control (in Serbian). Zbornik radova Instituta za ratarstvo i povrtarstvo, 44, 325-332.

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Konstantinović B., Meseldžija M., Konstantinović Bo. i Marisavljević D. 2005. Determination of the occurrence and spread of the allergenic weed *Ambrosia artemisiifolia* in the territory of Vojvodina, Serbia. Introduction and spread of invasive species. BCPC Symposium proceedings, Berlin, Germany, 81, 243-245.

Konstantinović B., Meseldžija M., Konstantinović Bo., Mandić N. i Korać M. 2009. Allergenic weed species and possibilities of their control (in Serbian). Biljni lekar, 37, 634-640.

Konstantinović B., Meseldžija M., Stojšin V., Bagi F. and Balaž F. 2005. Integral control of *Ambrosia artemisiifolia* L. in the area of the city of Novi Sad. Savremena poljoprivreda, 54, 175-180.

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Šainović B. i Koljadzinski B. 1978. Contribution to the study of the process of naturalization adventive plant species - *Ambrosia artemisiifolia* L. 1753rd and *Iva xanthifolia* Nutt. 1818th (Asteraceae) in Vojvodina (in Serbian). Biosistematika, 4, 81-92.

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Vidovic B., Rancic D., Bozic D. and Petanovic R. 2009. Morphoanatomical alterations of invasive weed species *Ambrosia artemisiifolia* L. and *Iva xanthifolia* Nutt. (Asteraceae) induced by Aceria spp. (Acari: Eriophyoidea). VI Plant Protection Congress with Symposium of Biological Control of Invasive Organisms. Abstract book (II Book), 47-49.

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Vrbničanin S., Božić D., Sarić M., Pavlović D. and Raičević V. 2011. Effect of plant growth promoting rhizobacteria on *Ambrosia artemisiifolia* L. seed germination. Pesticides and Phytomedicine, 26, 141-146.

Vrbničanin S., Karadžić B. i Dajić-Stevanović Z. 2004. Adventive and invasive weed species in Serbia (in Serbian). Acta biologica iugoslavica - serija G: Acta herbologica, 13, 1-12.

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Vrbničanin S., Malidža G., Stefanović L., Elezović I., Stanković-Kalezić R., Jovanović-Radovanov K., Marisavljević D., Pavlović D. and Gavrić M. 2008. Mapping of invasive non-native weed species in Serbia. 2nd International Symposium «Intractable weeds and plants invaders». Osijek- Croatia, Book of Abstracts, 36.

Vrbničanin S., Malidža G., Stefanović L., Elezović I., Stanković-Kalezić R., Marisavljević D., Radovanov-Jovanović K., Pavlović D. i Gavrić M. 2008. Distribution of some harmful, invasive and quarantine weeds on the territory of Serbia. Part I: Spatial distribution and frequency of eight weeds species on the territory of Serbia (in Serbian). Biljni lekar, XXXVI, 303-313.

Skjøth C.A., Smith M., Sikoparija B., Stach A., Myszkowska D., Kasprzyk I., Radisic P., Stjepanovic B., Hrga I., Apatini D., Magyar D., Páldy A., Ianovici N. 2010. A method for producing airborne pollen source inventories: An example of Ambrosia (ragweed) on the Pannonian Plain. Agricultural and Forest Meteorology 150, 1203-1210, doi:10.1016/j.agrformet.

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Šikoparija B, Skjøth C.A., Alm Kübler K., Dahl A., Radišić P., Prentović M., Sommer J., Grewling Ł., Smith M. 2012. The long distance transport (LDT) of Ambrosia pollen from the Pannonian Plain to Scandinavia. EGU General Assembly 2012, Vienna, Austria.

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Radišić P., Šikoparija B., Jankova R., Milkovska S., Pejak-Šikoparija T., Šimić S., Gjebrea-Hoxa E. 2008. Ragweed airborne pollen in Southern Pannonian plain and the Balkan penninsula. 2nd International Symposium Intractable Weeds and Plant invaders, Osijek, Croatia.

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Rat M., Bojčić S., Anačkov, G., Vukov D., Igić R., Boža P. 2010. Morphological variability of the species *Ambrosia artemisiifolia* L. 1753 and *A. trifida* L. 1753 (Asteraceae, Heliantheae) from different habitats in Backa (Vojvodina, Serbia). 10. Simpozijum o flori jugoistočne Srbije i susednih regiona, Vlasinsko jezero.

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Borišev M., Pajević S., Orčić D., Boža P., Nikolić N. 2010. Photosynthetic and biochemical characteristics of invasive species (*Ambrosia artemisiifolia* L., *Ambrosia trifida* L. and *Iva xanthifolia* Nutt.) depending on soil humidity and phenological phase, Russ. J. Ecol., 41 (6): 498-505.

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Kočiš Tubić N., Obreht D., Boža P., Vapa Lj. 2009. Microsatellite allelic variability in *Ambrosia artemisiifolia* L. populations in Vojvodina, 4. Kongres genetičara Srbije, Tara, Srbija.

Kočiš Tubić N., Obreht D., Đan M., Boža P. 2011. Microsatellite variability of *Ambrosia artemisiifolia* L. in populations of Serbia and Croatia, 3. International Symposium „Intractable weeds and plants invaders", Ascona, Switzerland.

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Pajević S., Borišev M., Stanković Ž., Boža P. 2007. Dynamic of photosynthetic activity, transpiration and organic production of *Ambrosia artemisiifolia* (in Serbian). 17. Simpozijum Društva za fiziologiju biljaka, Banja Junaković, Srbija, 12.

Leaflet 1: Promotional material following International regional meeting "Live without ragweed" that indicates temporal variations of ragweed airborne pollen concentration in relation to plant phenology (Photos of different phenophases aim to improve recognition of plant).

Leskovsek R., Ulloa S.M., Datta A., Malidza G., Lesnik M., Simoncic A., Knezevic S.Z. 2010. Response of common ragweed (*Ambrosia artemisiifolia*) to broadcast flaming. Proceedings of the 15th European Weed Research Society Symposium, Kaposvar, Hungary, p. 270.

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National experts interested in SMARTER

1. Prof. Sava Vrbničanin, University of Belgrade, Faculty of Agriculture, Belgrade, Serbia
2. Dr Dragana Božić, University of Belgrade, Faculty of Agriculture, Belgrade, Serbia
3. Branko Šikoparija, University of Novi Sad Faculty of Sciences, Serbia
4. Milica Rat, University of Novi Sad Faculty of Sciences, Serbia
5. Prof. Branko Konstantinović, University of Novi Sad, Faculty of Agriculture, Serbia
6. Dr Goran Malidža, Institute of Field and Vegetable Crops, Novi Sad, Serbia
7. Dr Danijela Pavlović, Institute of Plant protection and Environment, Belgrade, Serbia
8. Dr Ljiljana Radivojević, Institute of Pesticides and Environmental Protection, Serbia
9. Dr Katarina Jovanović-Radovanov, University of Belgrade, Faculty of Agriculture, Belgrade, Serbia
10. Maja Meseldžija, University of Novi Sad, Faculty of Agriculture, Serbia
11. Marija Sarić-Krsmanović, Institute of Pesticides and Environmental Protection, Serbia
12. Jelena Gajić Umiljendić, Institute of Pesticides and Environmental Protection, Serbia
13. Darko Stojićević, University of Belgrade, Faculty of Agriculture, Belgrade, Serbia

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Expertise (general)

Areas of research expertise: Weed and crop resistance to herbicides, Invasive weeds, Parasitic weeds, Weed response to herbicides, Weed biodiversity, Weed-crop competition
Other expertise relevant to SMARTER[2]: Coordination of the national research programs "Mapping quarantine, invasive and economically important weeds in Serbia and recommendations for their control" (2004-2006) and "Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control" (2007-2009) and coordination of project of bilateral cooperation with Slovenia "Weed flora and vegetation of arable land and changes in agroecosystems" (2006-2007).

Work on *Ambrosia*

Past work on Ambrosia: Projects "Mapping quarantine, invasive and economically important weeds in Serbia and recommendations for their control" and "Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control" including *Ambrosia*; Project bilateral cooperation with Slovenia; Editor of the national monograph "Ambrozija" (in Serbian); Study of *A. artemisiifolia* anatomy, effects of plant growth promoting rhizobacteria on *A. artemisiifolia* seed germination.
Ongoing work on Ambrosia: Experiments: seed germination; response to herbicides; competitive interactions between *Ambrosia trifida* and sunflower.

Role in SMARTER

Anticipated role in SMARTER[3]: member of MC and and member of working groups WG2 and WG3

Max. five publications relevant to SMARTER[4]

1) Janjic, V., Vrbnicanin, S. (eds.) (2007): Ambrozija, Herbolosko drustvo Srbije, Beograd, pp. 29-45. (In Serbian) [Janjic, V., Vrbnicanin , S. (eds.) (2007): Common ragweed, Weed Science Society of Serbia, Belgrade, pp. 29-45.]
2) Silc, U., S. Vrbnicanin, D. Bozic, A. Čarni, Z. Dajic Stevanovic (2009): Weed vegetation in northwestern Balkans: diversity and species composition. Weed Research, 49, 602-612.
3) Vrbnicanin, S., Bozic, D., Saric, M., Pavlovic, D., Raicevic, V. (2011): Effect of Plant Growth Promoting Rhizobacteria on *Ambrosia artemisiifolia* L. Seed Germination. Pesticides and Phytomedicine, 26, 141-146.
4) Silc, U., Vrbnicanin,S., Bozic,D., Carni, Dajic Stevanovic,Z. (2012): Alien plant species and factors of invasiveness of anthropogeneous vegetation in NW Balkans. Central European Journal of Biology, 7, 720-730.
5) Bozic, D., Vrbnicanin, S., Rančić, D., Veljković, B. (2008): Morpho-anatomical characteristics of common regweed (*Ambrosia artemisiifolia* L.). 2nd International Symposium «Intractable weeds and plants invaders». Osijek-Croatia, Book of Abstracts: 18.

Scientific collaborations relevant to SMARTER

National: Dr. Dragana Bozic, University of Belgrade- Faculty of agriculture, Dr. Goran Malidza, Institute of Field and Vegetable Crops, Dr. Danijela Pavlovic, Institute for Plant Protection and Environment
European: Dr. Urban Silc, *Institute of Biology, Scientific Research Centre of the Slovenian Academy of Sciences and Arts, Slovenia,* Dr. Andrej Simoncic**,** Agricultural Institute of Slovenia, Prof. Ahmet Uludag, Igdir University, Faculty of Agriculture, Turkey, Prof. Edita Stefanic, Faculty of Agriculture, Croatia, Prof. Garifalia Economou, Agricultural University of Athens, Greece

Outside Europe:

[1] indicate also if fixed or limited until when

[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.

[3] MC, WG leader, WG member etc.; for specific topics see next page

[4] please add pdfs of your publication

[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	☐ Pathogens ☐Insects ☐Classical ☐Inundative ☐Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	X Weed biology X Weed abundance and distribution ☐Soil seed bank X Plant population dynamics/Modelling X Plant competition/Allelopathy ☐Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	X Chemical ☐Mechanical X Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	☐Aerobiology ☐Allergology ☐Air quality modelling ☐Ecological impact assessment ☐Economic &social impact assessment
	Task 5 Training and KTT	☐Website ☐Workshops: Plant invasions & management ☐Workshop: Modelling impact & evaluation
	Task 6 Policy Support	☐Biological Control ☐Invasive alien species

Curriculum vitae of Sava Vrbnicanin

Address: University of Belgrade-Faculty of Agriculture
Nemanjina 6, 11080 Zemun-Belgrade, Serbia
E-mail: sava@agrif.bg.ac.rs
Tel: +381 11 2615 315
Fax: +381 11 2193 659
Gender: Female
Date of Birth: 25 November 1963, Sehovici, Mrkonjic Grad, B&H
Marital Status: married
Languages: Serbian, English, Rusian

EDUCATION

1982-1987 BSc Degree in Plant Protection, Faculty of Agriculture, University of Belgrade, Serbia
1987-1991 M.Sc. in Plant Protection Products, Faculty of Agriculture, University of Belgrade, Serbia

Thesis: The effect of some herbicides on phytocenological changes in weed communities of maize
1991- 1996 Ph.D. thesis in Weed science, Faculty of Agriculture, University of Belgrade, Serbia,Thesis: Phytocenological and ecophysiological changes in weed vegetation of small grains, depending on the height gradient

EMPLOYMENT

1989 - 1992 - Teaching and research assistant with a BSc degree, University of Belgrade, Faculty of Agriculture, Serbia
1992 - 1997 - Teaching and research assistant with a MSc degree, University of Belgrade, Faculty of Agriculture, Serbia
1997- 2002 - Assistant Professor at the University of Belgrade, Faculty of Agriculture, Serbia
2002 - 2007- Associate Professor at the University of Belgrade, Faculty of Agriculture, Serbia
2007 - present- Full Professor at the University of Belgrade, Faculty of Agriculture, Serbia

EXPERTISE

• 25 years of experience in teaching in weed science.
• 25 years experience of field and laboratory studies of weeds.
• Author of more than 150 publications, including 20 papers in international and many papers in national peer-reviewed journals.
• Reviewer of manuscripts for several international and national journals and projects of bilateral cooperation

FUNDING

- Participant on national project - „Research for the development of new and improvement of existing formulations of herbicides“ (2005-2007)
- Coordinator of project of bilateral cooperation with Slovenia „Weed flora and vegetation of arable land and changes in agroecosystems (2006-2007)
- Participant on project of bilateral cooperation with Slovenia „Synchronization and application of methods for detection of weed species resistant to herbicides” (2006-2007)
- Coordinator of national project “Mapping quarantine, invasive and economically important weeds in Serbia and recommendations for their control” (2004-2006)
- Coordinator of national project „Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control“, (2007-2009)

- Participant on national project „Biological, chemical, toxicological and ecotoxicological study of herbicides and their application (2008-2011)
- Coordinator of project of bilateral cooperation with Germany „Monitoring and Managing Herbicide Resistance in Weeds", (2009-2010)
- Participant on national project - „Development of integrated systems for harmful organisms management in crop production in order to overcome resistance and improve the quality and safety of food" (2011-2014)
- Participant on COST action MP1102 „Chemical imaging by Coherent Raman microscopy – microCoR",. (2011-2015)
- Participant on TEMPUS project „International Master Plant Medicine, Project TEMPUS IV" (2010-2013)

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PUBLICATIONS (past five years)**:**

1. Pavlovic, D., Vrbnicanin, S., Bozic, D., Fischer, A. (2008): Morpho-physiological traits and triazine resistance levels in *Chenopodium album* L. Pest Management Science, 64: 101-107.

2. Vrbnicanin, S., Jovanovic, Lj., Bozic, D., Raicevic, V., Pavlovic, D. (2008): Germination of *Iva xanthifolia*, *Amaranthus retroflexus* and *Sorghum halepense* under media with microorganisms. Journal of Plant Diseases and Protection, XXI: 297-302.

3. Silc, U., Vrbnicanin, S., Bozic, D., Carni, A., Dajic Stevanovic, Z. (2008): Phytosociological alliances in the vegetation of arable fields in the northwestern Balkan Peninsula. Phytocoenologia, 38: 241-254.

4.Dajić Stevanović,Z., Peeters,A., Vrbničanin,S., Šoštarić,I. and Aćić,S. (2008): Long term grassland vegetation changes: Case study Nature Park Stara Planina (Serbia). Community Ecology, 9: 23-31.

5. Silc, U., Vrbnicanin, S., Bozic, D., Carni, A., Dajic Stevanovic, Z. (2009): Weed vegetation in northwestern Balkans: diversity and species composition. Weed Research, 49: 602-612.

6.Vrbničanin,S., Dajić Stevanović,Z., Jovanović-Radovanov,K., Uludag, A. (2009): Weed vegetation of small grain crops in Serbia: environmental and human impacts. Turkish Journal of Agriculture and Forestry, 33:325-337.

7. Vrbnicanin, S., Bozic, D., Saric, M., Pavlovic, D., Raicevic, V. (2011): Effect of Plant Growth Promoting Rhizobacteria on *Ambrosia artemisiifolia* L. Seed Germination. Pesticides and Phytomedicine, 26: 141-146.

8.Jarić, S., Mitrović,M., Vrbničanin,S., Karadžić,B., Đurđević,L., Kostić,Olga., Mačukanović-Jocić,M., Gajić,G., Pavlović,P. (2011): A contribution to studies of the ruderal vegetation of Southern Srem, Serbia. Archives of Biological Sciences, 63(4): 1181-1197.

9. Vrbnicanin, S., Kresovic, M., Bozic, D., Simic, A., Maletic, R., Uludag, A. (2012): The effect of ryegrass (*Lolium italicum*) stand densities on its competitive interaction with cleavers (*Galium aparine* L.). Turkish Journal of Agriculture and Forestry, 36: 121-131.

10. Bozic, D., Saric, M., Malidza, G., Ritz, C., Vrbnicanin, S. (2012): Resistance of sunflower hybrids to imazamox and tribenuron-methyl. Crop Protection, 39: 1-10.

11. Silc, U., Vrbnicanin, S., Bozic, D., Carni, A., Dajic Stevanovic, Z. (2012): Alien plant species and factors of invasiveness of anthropogeneous vegetation in NW Balkans. Central European Journal of Biology, 7: 720-730.

12. Elezovic, I., Datta, A., Vrbnicanin, S., Glamoclija, Dj., Simic, M., Malidza, G., Knezevic, S.Z. (2012): Yield and yield components of imidazolinone-resistant sunflower (*Helianthus annuus* L.) are influenced by pre-emergence herbicide and time of post-emergence weed removal. Field Crop Research, 128: 137-146.

13. Saric, M., Bozic, D., Pavlovic, D., Elezovic, I., Vrbnicanin, S. (2012): Temperature effects on common cocklebur (*Xanthium strumarium* L.) seed germination. Romanian Agricultural Research, 29: 389-393.

Name: **Dragana Bozic**
Position[1]: Assistant Professor
Institution: University of Belgrade-Faculty of Agriculture
Address:Nemanjina 6, 11080 Zemun-Belgrade, Serbia
Email: dbozic@agrif.bg.ac.rs

Expertise (general)

Areas of research expertise:
Weed and crop resistance to herbicides, Invasive weeds, Parasitic weeds, Weed response to herbicides, Weed biodiversity, Weed-crop competition
Other expertise relevant to SMARTER[2]: Mapping of invasive plant species; Response weeds (including invasive weeds) to herbicides; Integrated Weed Management; Communication with public.

Work on *Ambrosia*

Past work on Ambrosia: Project " Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control" (2007-2009) including *Ambrosia*; Project bilateral cooperation with Slovenia „Weed flora and vegetation of arable land and changes in agroecosystems" (2006-2007); Chapter in the national monograph "Ambozija" (in Serbian); Study of *A. artemisiifolia* anatomy, effects of plant growth promoting rhizobacteria on *A. artemisiifolia* seed germination, Morphoanatomical alterations of *A.artemisiifolia* induced by Aceria spp . (Acari: Eriophyoidea)
Ongoing work on Ambrosia: Experiments: seed germination; response to herbicides; competitive interactions between *Ambrosia trifida* and sunflower

Role in SMARTER

Anticipated role in SMARTER[3]: substitute in MC and member of working groups WG2 and WG3

Max. five publications relevant to SMARTER[4]

1) Vrbnicanin, S., Bozic, D., Rancic, D. (2007): Biologija ambrozije. In Janjic, V., Vrbnicanin , S. (eds.) Ambrozija, Herbolosko drustvo Srbije, Beograd, pp. 29-45. (In Serbian) [Vrbnicanin, S., Bozic, D., Rancic, D. (2007): Biology of common ragweed. Janjic, V., Vrbnicanin, S. (eds.), Common ragweed, Weed Science Society of Serbia, Belgrade, pp. 29-45.]
2) Silc, U., S. Vrbnicanin, D. Bozic, A. Čarni, Z. Dajic Stevanovic (2009): Weed vegetation in northwestern Balkans: diversity and species composition. Weed Research, 49, 602-612.
3) Vrbnicanin, S., Bozic, D., Saric, M., Pavlovic, D., Raicevic, V. (2011): Effect of Plant Growth Promoting Rhizobacteria on *Ambrosia artemisiifolia* L. Seed Germination. Pesticides and Phytomedicine, 26, 141-146.
4) Silc, U., Vrbnicanin, S., Bozic, D., Carni, Dajic Stevanovic, Z. (2012): Alien plant species and factors of invasiveness of anthropogeneous vegetation in NW Balkans. Central European Journal of Biology, 7, 720-730.
5) Vidovic, B., Rancic, D., Bozic, D., Petanovic, R. (2009): Morphoanatomical alterations of invasive weed species *Ambrosia artemisiifolia* L. and *Iva xanthifolia* Nutt. (Asteraceae) induced by Aceria spp. (Acari: Eriophyoidea). VI Plant Protection Congress with Symposium of Biological Control of Invasive Organisms. Abstract book (II Book), 47-49.

Scientific collaborations relevant to SMARTER

National: Prof. Sava Vrbnicanin, University of Belgrade- Faculty of agriculture, Dr. Goran Malidza, Institute of Field and Vegetable Crops, Dr. Danijela Pavlovic, Institute for Plant Protection and Environment
European: Dr. Urban Silc, *Institute of Biology, Scientific Research Centre of the Slovenian Academy of Sciences and Arts, Slovenia,* Dr. Andrej Simoncic**,** Agricultural Institute of

Slovenia, Prof. Ahmet Uludag, Igdir University, Faculty of Agriculture, Turkey, Prof. Edita Stefanic, Faculty of Agriculture, Croatia, Prof. Garifalia Economou, Agricultural University of Athens, Greece

Outside Europe:

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[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.
[3] MC, WG leader, WG member etc.; for specific topics see next page
[4] please add pdfs of your publication
[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	☐ Pathogens ☐Insects ☐Classical ☐Inundative ☐Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	**X** Weed biology **X** Weed abundance and distribution ☐Soil seed bank **X** Plant population dynamics/Modelling **X** Plant competition/Allelopathy ☐Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	**X** Chemical ☐Mechanical **X** Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	☐Aerobiology ☐Allergology ☐Air quality modelling ☐Ecological impact assessment ☐Economic &social impact assessment
	Task 5 Training and KTT	☐Website ☐Workshops: Plant invasions & management ☐Workshop: Modelling impact & evaluation
	Task 6 Policy Support	☐Biological Control ☐Invasive alien species

Curriculum vitae of Dragana Bozic

Address: University of Belgrade-Faculty of Agriculture
Nemanjina 6, 11080 Zemun-Belgrade, Serbia
E-mail: dbozic@agrif.bg.ac.rs
Tel: +381 11 2615 315
Fax: +381 11 2193 659
Gender: Female
Date of Birth: 26 March 1977, Kragujevac, Serbia
Marital Status: married
Languages: Serbian, English, Rusian.

EDUCATION

1996-2001 BSc Degree in Plant Protection, Faculty of Agriculture, University of Belgrade, Serbia
2001-2006 M.Sc. in Weed science, Faculty of Agriculture, University of Belgrade, Serbia

Thesis: Researching of plant resistance to herbicides ALS inhibitors
2006-2011 Ph.D. thesis in Weed science, Faculty of Agriculture, University of Belgrade, Serbia,
Thesis: Responses of weed populations and sunflower hybrids to acetolactate inhibiting herbicides.

EMPLOYMENT

• 2001 - 2006 - Teaching and research assistant with a BSc degree, University of Belgrade, Faculty of Agriculture,Serbia
• 2006-2012 - Teaching and research assistant with a MSc degree, University of Belgrade, Faculty of Agriculture,Serbia
• 2012 – present - Assistant Professor at the University of Belgrade, Faculty of Agriculture,Serbia

EXPERTISE

• 11 years of experience in the practical trainings in weed science for students.
• 11 years experience of field and laboratory studies of weeds.
• Author of more than 80 publications, including 11papers in international and 15 papers in national peer-reviewed journals.
• Reviewer of manuscripts for journal Notulae Botanicae Horti Agrobotanici Cluj-Napoca

FUNDING

- Participant on national project - „Research for the development of new and improvement of existing formulations of herbicides“ (2005-2007)
- Participant on project of bilateral cooperation with Slovenia „Weed flora and vegetation of arable land and changes in agroecosystems“ (2006-2007)
- Participant on project of bilateral cooperation with Slovenia „Synchronization and application of methods for detection of weed species resistant to herbicides” (2006-2007)
- Participant on national project „Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control“, (2007-2009)
- Participant on national project „Biological, chemical, toxicological and ecotoxicological study of herbicides and their application” (2008-2011)
- Participant on project of bilateral cooperation with Germany „Monitoring and Managing Herbicide Resistance in Weeds”, (2009-2010)

- Participant on national project - „Development of integrated systems for harmful organisms management in crop production in order to overcome resistance and improve the quality and safety of food" (2011-2014)
- Participant on COST action MP1102 „Chemical imaging by Coherent Raman microscopy – microCoR",. (2011-2015)
- Participant on TEMPUS project „International Master Plant Medicine, Project TEMPUS IV" (2010-2013),

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PUBLICATIONS (past five years)**:**

1. Pavlovic, D., Vrbnicanin, S., Bozic, D., Fischer, A. (2008): Morpho-physiological traits and triazine resistance levels in *Chenopodium album* L. Pest Management Science, 64: 101-107.
2. Vrbnicanin, S., Jovanovic, Lj., Bozic, D., Raicevic, V., Pavlovic, D. (2008): Germination of *Iva xanthifolia*, *Amaranthus retroflexus* and *Sorghum halepense* under media with microorganisms. Journal of Plant Diseases and Protection, Special Issue XXI, 297-302.
3. Vrbnicanin, S., Bozic, D., Malidza, G., Dusanic, N., Pavlovic, D., Barac, M. (2008): Tolerance of sunflower (*Helianthus annuus* L.) to imazethapyr. Helia, 31: 85-94.
4. Silc, U., Vrbnicanin, S., Bozic, D., Carni, A., Dajic Stevanovic, Z. (2008): Phytosociological alliances in the vegetation of arable fields in the northwestern Balkan Peninsula. Phytocoenologia, 38: 241-254.
5. Silc, U., Vrbnicanin, S., Bozic, D., Carni, A., Dajic Stevanovic, Z. (2009): Weed vegetation in northwestern Balkans: diversity and species composition. Weed Research, 49: 602-612.
6. Vrbnicanin, S., Bozic, D., Saric, M., Pavlovic, D., Raicevic, V. (2011): Effect of Plant Growth Promoting Rhizobacteria on *Ambrosia artenmisiifolia* L. Seed Germination. Pesticides and Phytomedicine, 26 (2): 141-146.
7. Vrbnicanin, S., Kresovic, M., Bozic, D., Simic, A., Maletic, R., Uludag, A. (2012): The effect of ryegrass (*Lolium italicum*) stand densities on its competitive interaction with cleavers (*Galium aparine* L.). Turkish Journal of Agriculture and Forestry, 36: 121-131.
8. Bozic, D., Saric, M., Malidza, G., Ritz, C., Vrbnicanin, S. (2012): Resistance of sunflower hybrids to imazamox and tribenuron-methyl. Crop Protection, 39: 1-10.
9. Silc, U., Vrbnicanin, S., Bozic, D., Carni, A., Dajic Stevanovic, Z. (2012): Alien plant species and factors of invasiveness of anthropogeneous vegetation in NW Balkans. Central European Journal of Biology, 7: 720-730.
10. Saric, M., Bozic, D., Pavlovic, D., Elezovic, I., Vrbnicanin, S. (2012): Temperature effects on common cocklebur (*Xanthium strumarium* L.) seed germination. Romanian Agricultural Research, 29: 389-393.

Name: **Branko Šikoparija**
Position[1]: Research Assistant (until 2014 extended on annual basis)
Institution: University of Novi Sad Faculty of Sciences
Address: Trg Dositeja Obradovica 2, 21000 Novi Sad, Serbia
Email: sikoparijabranko@yahoo.co.uk

Expertise (general)

Areas of research expertise:
Aerobiology, Palynology (melissopalynology, entomopalynology)
Other expertise relevant to SMARTER[2]:
Skilled experimental and field work researcher in particular related to phenology observation and insect behavior. Capable of organizing experiments and able to network on multinational level.
Organizer of the 8th European Basic Course on Aerobiology

Work on Ambrosia

Past work on Ambrosia:

Junior Scientist in SCOPES-Joint Research Project "Monitoring and forecasting airborne ragweed pollen concentrations in the South-Eastern part of its European distribution"
Junior Scientist in research project: Diversity of Pannonian flora in Serbia – threatened by expansion of invasive weeds (no. 1770 Ministry of Science R. Serbia)
COST Action ES0603„Assessment of production, release, distribution and health impact of allergenic pollen in Europe (EUPOL)“ Committee Member deputy
Palynologycal expert in the IPA Cross-border cooperation programe Romania-Serbia entitled as “Monitoring and control of the invasive biological pollutant – Ambrosia artemisiifolia L. (spp.) STOP AMBROSIA” (90960/30.12.2010)
Co-organizer of the regional workgroup meeting “Life without ragweed”

Ongoing work on Ambrosia:
Aeropalinological research, Project of monitoring aeroallergens in Vojvodina, Novi Sad and Smederevo
Biosensing technologies and global systems for continuous monitoring and integrated management of ecosystems (no.III43002 Ministry of Science R. Serbia)

Role in SMARTER

Anticipated role in SMARTER[3]:
Representative of Serbia in the Management Committee
Planned contribution to/participation in WPs and Tasks:
Participation in the WP4 in particular related to airborne pollen monitoring and modeling ragweed population dynamics.

Max. five publications relevant to SMARTER[4]

1) Grewling, L., Sikoparija, B., Skjøth, C., Radisic, P., Apatini, D., Magyar, D., Páldy, A., Yankova, R., Sommer, J., Kasprzyk, I., Myszkowska, D., Uruska, A., Zimny, M., Puc, M., Jäger, S., Smith, M. 2012: Variation in Artemisia pollen seasons in Central and Eastern Europe. Agricultural and Forest Meteorology 160, 48-59.
2) Skjøth, CA. Smith, M., Sikoparija, B., Stach, A., Myszkowska, D., Kasprzyk, I., Radisic, P., Stjepanovic, B., Hrga, I., Apatini, D., Magyar, D., Páldy, A., Ianovici, N. 2010: A method for producing airborne pollen source inventories: An example of Ambrosia (ragweed) on the Pannonian Plain. Agricultural and Forest Meteorology 150, 1203-1210.
3) Kasprzyk, I., Myszkowska, D., Grewling, L., Stach, A., Sikoparija, B., Ambelas Skjøth, C., Smith, M. 2011: The occurrence of Ambrosia pollen in Rzeszów, Kraków and Poznań, Poland: investigation of trends and possible transport of Ambrosia pollen from Ukraine. International Journal of Biometeorology 55, 633-644.
4)Šikoparija, B., Smith, M., Skjøth, C.A., Radišić, P., Milkovska, S., Šimić, S. and Brandt, J. 2009: The Pannonian plain as a source of Ambrosia pollen in the Balkans. International Journal of Biometeorology 53, 263-272.
5)Sikoparija, B., Radišić, P., Pejak, T., Šimić, S. 2006: Airborne grass and ragweed pollen in the southern panonnian valley-consideration of rural and urban environment. Annals Agricultural Environmental Medicine 13, 263-266.

Scientific collaborations relevant to SMARTER

National: dr Zivoslav Tesic (Faculty of Chemistry, Belgrade). Institutes of public health in a number of Serbian cities.
European: Carsten Skjoth Ambelas (University Worcester), Matt Smith (University of Vienna), Bernard Clot (MeteoSwiss), European Aeroallergen Network, Ana Paldy (Institute of Public Health Hungary), Barbara Stjepanovic (Institute of public health, Zagreb, Croatia), Snezana Milkovska (Institute for Occupational Health of Republic of Macedonia)
Outside Europe: -

[1] indicate also if fixed or limited until when

[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.
[3] MC, WG leader, etc.
[4] please add pdfs of your publication
[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	□ Pathogens □ Insects □ Classical □ Inundative □ Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	□ Weed biology x Weed abundance and distribution □ Soil seed bank □ Plant population dynamics/Modelling □ Plant competition/Allelopathy □ Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	□ Chemical □ Mechanical □ Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	x Aerob ology x Allergology x Air quality modelling □ Ecological impact assessment □ Economic & social impact assessment
	Task 5 Training and KTT	□ Website □ Workshops: Plant invasions & management x Workshop: Modelling impact & evaluation
	Task 6 Policy Support	□ Biological Control □ Invasive alien species

Curriculum Vitae of Branko Sikoparija

Adress: Futoški put 18c, 21000 Novi Sad, Serbia
Phone: +38121402421, mob. +381642135132
E-mail: **sikoparijabranko@yahoo.co.uk**

Personal

Date of Birth: 16h June 1979.
Place of Birth: Jagodina, Serbia
Sex: Male
Marital Status: married (children two)

Education

2008-now working on PhD Thesis entitled as "Palynology analysis in the Fruška gora lime honey production process" (Thesis submitted 28.12.2012)

2003–2007 Taxonomy Magister of Science studies at the Faculty of Natural Sciences and Mathematics, University of Novi Sad, Serbia. GPA 10 (based on scale of 5-10, 6 passing).

1998-2003 Bachelor of Sciences degree. Faculty of Natural Sciences and Mathematics, University of Novi Sad, Serbia. GPA: 9.34 (based on scale of 5-10, 6 passing).

Courses and training programs

2005 research training program "Aerobiology and health", National Pollen and Aerobiology Research Unit (NPARU), University College of Worcester, Worcester, UK
2006 Advanced Aerobiology Course "Pollen dispersion in alpine environment", Switzerland
2010 Short Term Scientific Mission to Medical University of Vienna within the COST Action ES0603 Assessment of production, release, distribution and health impact of allergenic pollen in Europe (EUPOL)

Foreign Languages

English – excellent, German - passive

Professional experience in education

Faculty of Sciences and Mathematics, Department of biology and ecology, University of Novi Sad:
Assisted Dr Smiljka Simic, Practical exercises Course: General Zoology
Assisted Dr Smiljka Simic, Lectures and practical exercises on Palynology in Taxonomical research, Aerobiology and Melissopalynology Course: Palynology
Assisted Dr Ante Vujic, Lectures on Biogeography of Balkan peninsula, Course: Ecology and Environment Protection
Assisted Dr Desanka Kostic, Practical exercises considering frog and bird dissection Course: Biology and Professor of Biology
Assisted Dr Smiljka Simic, Lectures on Biodiversity of Rotifera Course: Biology.
Assisted Dr Ivo Karaman, Lectures and Practical exercises about House Dust Mites Course: Applied entomology with acarology
2006, 2007, 2008 Organization of training program "Pollen all around us" for teachers in Primary and Secondary schools accredited by Zavod za unapredjenje obrazovanja i vaspitanja R Serbia
Organization of 8th European Basic Course on Aerobiology 2007

Research Experience

2001 Multidisciplinary Explorations of Kopaonik Mountain and Fruska Gora Mountain, International research project
1999-2002 Fieldwork concerning insect ecology
2003-2012 Aeropalinological research, Project of monitoring aeroallergens in Vojvodina, Novi Sad and Smederevo
2004-2006 Junior Scientist: Monitoring of biodiversity in protected natural reserves (no.1770; Ministry of Science R. Serbia)
2006-2007 Monitoring indoor aeroallergens in Novi Sad kindergartens
2006-2008 Junior Scientist: SCOPES-Joint Research Project "Monitoring and forecasting airborne ragweed pollen concentrations in the South-Eastern part of its European distribution"
2007-2010 Junior Scientist: Diversity of Pannonian flora in Serbia – threatened by expansion of invasive weeds

2008-2010 Project Leader: Protection of geographic origin of Fruska gora lime honey (AP Vojvodina, Provincial secretariat for industry)

2008-2011 COST Action ES0603„Assessment of production, release, distribution and health impact of allergenic pollen in Europe (EUPOL)“ Committee Member deputy

2011 Aeropalinological research, Project of monitoring aeroallergens in Smederevo (400-3730/2011-14 od 04.07.2011. i 0601-81/84 od 08.07.2011) – project leader

2011 Palynologycal expert in the IPA Cross-border cooperation programe Romania-Serbia entitled as "Monitoring and control of the invasive biological pollutant – Ambrosia artemisiifolia L. (spp.) STOP AMBROSIA" (90960/30.12.2010)

2011-2014 Research assistant (Projects funded by Ministry of Sciences, Republic Serbia)
Biosensing technologies and global systems for continuous monitoring and integrated management of ecosystems (no.III43002)

Strategy for conservation of protected species in Serbia – hoverflies (Diptera: Syrphidae) as model organisms (no.OI173002)

Current Research Interests:

Palynology, Aerobiology, Environmental Studies, howerfly larval development

Scientific production

11 publications in scientific journals
46 presentations at scientific meetings in Serbia and abroad
4 expert texts
7 chapters in books

Reviewing Experience

1. Annals of Agricultural and Environmental Medicine; 2. Environmental Monitoring and Assessment; 3. Collegium Antropologicum; 4. Archives of Industrial Hygiene and Toxicology

Membership

International Honey Commission (since 2006)
International Association for Aerobiology (since 2006)
European Association of Aerobiology: Member of Committee and involved in workgroup responsible for education (since 2008)

Schoolarships

1999 Ministry of sports and education Republic Serbia
2000 University of Novi Sad
2001-2003 Foundation for development of research and artistic young people of R. Serbia
2003-2007 Ministry for science and environment protection Republic Serbia
2008-2010 Ministry of Sciences, Republic Serbia

Grants and Awards received

Embassy of Kingdom Norwegian Grant "15 million for 500 the best", 2002
University of Novi Sad Award for success during undergraduate studies, 2000
GlaxoSmithKline Award for participating TESA, Worcester UK, September 2003
The British Scholarship Trust Award for conducting three month research training program in UK, 2005
Austrian Exchange Service (ÖAD), Academic Mobility Unit (ACM) grant for One-month research at Oto-, Rhino-, Laryngology University Clinic - Medical University of Vienna, Austria

Contact details

Name: Milica Rat
Position[1]: Herbarium curator, fixed
Institution: University of Novi Sad, Faculty of Sciences, Department of biology and ecology
Address: Serbia, Novi Sad, 21000, Trg Dositeja Obradovica 2
Email: milica.rat@dbe.uns.ac.rs

Expertise (general)

Areas of research expertise: Plant taxonomy (family Hyacinthaceae), Plant diversity in Pannonian Plain and Balkan peninsula, Botanical nomenclature,

Other expertise relevant to SMARTER[2]: Invasive alien species in Pannonian plain, Distribution of Ambrosia species, biology of ragweed in Pannonia, ecological differentiation of ragweed

Work on *Ambrosia*

Past work on Ambrosia: morphological differentiation in different habitats type, on the different soils, distribution, spreading into the native habitats,
Ongoing work on Ambrosia: morphological differentiation in different hemi-natural habitats, predicting of new invasions, vegetation management

Role in SMARTER

Anticipated role in SMARTER[3]: Co-MC for Serbia

Planned contribution to/participation in WPs and Tasks:
Participation in Task 3 that will be developed by WG 3: Primarily dealing with an experimental approach to test the impact of context-specific combinations of Ambrosia management options at the local (population) scale.
Also, contribution is planned in WG 4, management evaluation.

Max. five publications relevant to SMARTER[4]

1) Anačkov, G., Bojčić, S., Ječmenica, V., Rat, M., Igić, R., Boža, P. (2012): Morphological variability of invasive species *Ambrosia artemisiifolia* L. (Asterales, Asteraceae) on the important transit areas. "International Symposium on Current Trends in Plant Protection", Belgrade, Serbia, 25-28. September, 2012. pp:27-37
2) Radanović, M., Bokić, B., Radak, B., Rat, M., Šinžar-Sekulić, J., Anačkov, G. (2012): Range prediction of species *Ambrosia artemisiifolia* L. 1753 in Pannonian Part of Serbia. 4th Congress of Ecologists of the Republic of Macedionia with International Participation, Abstract Book, Ohrid, Macedonia, p.41.
3) Rat, M., Bojčić, S., Anačkov, G., Vukov, D., Igić, R., Boža, P. (2010): Morphological variabillity of the species *Ambrosia artemisiifolia* L. 1753 and *A. trifida* L. 1753 (Asteraceae, Heliantheae) from different habitats in Bačka Vojvodina, Serbia). 10th Symposium on the Flora of Southeastern Serbia and Neighbouring regions, Vlasina Lake, 17-20.06.2010. Abstracts, p.34.
4) Rat, M., Bojčić, S., Anačkov, G., Vukov, D., Igić, R., Boža, P. (2010): Morphological variabillity of the species *Ambrosia artemisiifolia* L. 1753 and *A. trifida* L. 1753 (Asteraceae, Heliantheae) from different habitats in Bačka Vojvodina, Serbia). 10th Symposium on the Flora of Southeastern Serbia and Neighbouring regions, Vlasina Lake, 17-20.06.2010. Abstracts, p.34.
5) Uludag, A., R. Scalera, M. Josefsson, M. Rat, T. Trichkova, R. Tomov, (2012):

ESENIAS: A regional network on invasive alien species. The 6th International Weed Science Congress (17-22 June 2012, Hangzhou, China), p.133.

Scientific collaborations relevant to SMARTER

National:

1) Collaboration with governmental organization in Municipalities with the aim to decrease ragweed fields and further spread: Municipality Novi Sad, Novi Sad City – Monitoring and suppression of ragweed (2006-2012); Municipality Bačka Palanka – Monitoring and suppression of ragweed (2010-2012); Municipality Vrbas - Monitoring and suppression of ragweed (2009)

2) cooperation with Provincial Nature Protection Agency from Novi Sad, Department for Botany - with aim to conserve native habitats and reduce the environmental impact and spread of ragweed and other alien species (2011 and 2012)

European: Co-coordinator of ESENIAS (East and South-East European Network of Invasive Alien Species) network

Outside Europe: share of information with scientist on ragweed distribution and herbarium records (Herbarium database)

[1] indicate also if fixed or limited until when

[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.

[3] MC, WG leader, etc.

[4] please add pdfs of your publication

[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	□ Pathogens □ Insects □ Classical □ Inundative □ Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	□ Weed biology □ Weed abundance and distribution □ Soil seed bank □ Plant population dynamics/Modelling □ Plant competition/Allel pathy □ Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	x Chemical x Mechanical x Integration
WG 4 Management	Task 4 Management	Aerobiology

Evaluation	Evaluation	□ All rgology □Air quality modelling x Ecological impact assessment □ Economic & social impact assessment
	Task 5 Training and KTT	□ Website □ Workshops: Plant invasions & management □ Workshop: Modelling impact & evaluation
	Task 6 Policy Support	□ Biological Control □ Invasive alien species

Curriculum Vitae of Milica Rat

ADDRESS: Herbarium BUNS, Laboratory for Invasive and Alergenic Plants, Faculty of Sciences, University of Novi Sad
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E-MAIL: milica.rat@dbe.uns.ac.rs
Tel. +381 (21) 485 2666
Gender: Female
Date of birth: 12/07/1981
Status: Married

EDUCATION

2000-2006 - Bachelor studies - B. Sc in Biology, University of Novi Sad, Faculty of Sciences, Department of biology and ecology

2007-2008 - Master studies - Msc in Biology (Botany), University of Novi Sad, Faculty of Sciences, Department of biology and ecology

2008 - Phd studies, University of Novi Sad, Faculty of Sciences, Department of biology and ecology

WORK EXPERIENCE

2006 - „Pokret gorana Novog Sada“ (Novi Sad Environmental Movement) - volunteer associate, organizer and implemeter of summer school of biology and ecology for children

2007-2010 - Scholar of Ministry of Science, Republic of Serbia; Project name: Floristic Diversity of Pannonian Part of Serbia, Endangerment by spreading of invasive weeds and their influence of human health

2010 - Expert associate in Herbarium (plant collection), University of Novi Sad, Faculty of Sciences, Department of biology and ecology

PROJECTS:

2011-2014: Plant biodiversity of Serbia and the Balkans – assessment, sustainable use and protection, 173030 Grant, supported by Ministry of Education, Science and Technological Development, Republic of Serbia (participant)

2006-2010: Floristic Diversity of Pannonian Part of Serbia, Endangerment by spreading of invasive weeds and their influence of human health, 143037 Grant, supported by Ministry of Education and Science, Republic of Serbia (scholar)

2011-2014: Bioactive natural products as a potential sources of new pharmaceuticals and food suplements, supported by Provincial Secretariat for Science and Technological Development, AP Vojvodina, Republic of Serbia (participant)

2010: List of invasive species in Vojvodina, supported by Provincial Secretariat for Environmental Protection, Fund for Environmental Protection, Republic of Serbia (participant)

2010: Reintroduction of native plant species on natural habitats in Vojvodina, supported by Provincial Secretariat for Environmental Protection, Fund for Environmental Protection, Republic of Serbia (participant)

2010-2012: ESENIAS – East and South European Network for Invasive Alien Species (Co-Chair in period 2012/13.)

2011: "Stop Ambrosia", the education of the area of the Municipality of Pančevo, Republic of Serbia

2009-2012: Mapping the terrain with ragweed and other allergenic plants

REFERENCES:

1. Anačkov, G., Bojčić, S., Ječmenica, V., Rat, M., Igić, R., Boža, P. (2012): Morphological variability of invasive species *Ambrosia artemisiifolia* L. (Asterales, Asteraceae) on the important transit areas. "International Symposium on Current Trends in Plant Protection", Belgrade, Serbia, 25-28. September, 2012. pp:27-37.
2. Živanović, S., Anačkov, G., Bokić, B., Radanović, M., Rat, M., Bojčić, S., Igić, R., Boža, P. (2012): Morphological variability of species *Iva xanthifolia* Nutt. 1818 (Asteraceae, Helianthae) in ruderal habitats."International Symposium on Current Trends in Plant Protection", Belgrade, Serbia, 25-28. September, 2012. pp:89-89.
3. Radanović, M., Bokić, B., Radak, B., Rat, M., Anačkov, G. (2012): Model for the secondary spreading of invasive species *Iva xanthifolia* Nutt. 1818 (Asteraceae, Helianthae) from anthropogenic dependent on native habitats. "International Symposium on Current Trends in Plant Protection", Belgrade, Serbia, 25-28. September, 2012. pp:103-108.
4. Gavrilović, M., Rat, M., Božin,B., Anačkov,G., Boža, P. (2012): Weed species in synantropic flora of Novi Sad. "International Symposium on Current Trends in Plant Protection", Belgrade, Serbia, 25-28. September, 2012. pp: 141-156.
5. Rat, M., Bojčić, S., Anačkov, G., Vukov, D., Igić, R., Boža, P. (2010): Morphological variabillity of the species *Ambrosia artemisiifolia* L. 1753 and *A. trifida* L. 1753 (Asteraceae, Heliantheae) from different habitats in Bačka Vojvodina, Serbia). 10th Symposium on the Flora of Southeastern Serbia and Neighbouring regions, Vlasina Lake, 17-20.06.2010. Abstracts, p.34.
6. Anačkov, G., Zlatković, B., Vestek, A., Rat, M., Boža, P. (2009): The Morphological analysis of populations of the *Scilla autumnalis* L. (Liliales, Hyacinthaceae) from Serbia and

Montenegro, 5. International Balkan Botanical Congress, Beograd: Faculty of Biology, University of Belgrade, Serbian Academy of Sciences and Arts, 7-11 September, 2009, p. 32.
7. Boža, P., Rat, M., Anačkov, G., Igić, R., Vukov, D. (2009): Potential allochthonous invasive plant species in Pannonian part of Serbia, World Conference on Biological Invasions and Ecosystem Functioning, Porto, Portugal, 27-30 October 2009, Book of Abstracts, p.21.
8. Rat, M., Boža, P., Anačkov, G., Igić, R., Vukov, D. (2009): Decreasing of natural lowland grasslands by spreading of invasive alien plant species in Serbia, World Conference on Biological Invasionss and Ecosystem Functioning, Porto, Portugal, 27-30 October 2009, Book of Abstracts, p.50.
9. Anačkov, G., Šinžar-Sekulić, J., Rat, M., Radak, B., Boža, P. (2011): Invasive plants in lowland Serbia -spreaging and threats. 11th International Conference on the Ecology and Management of Alien Plant Invasions "Bridging the gap between scientific knowledge and management practice", 30.08.-03.09.2011. Szombathely, Hungary. Absratct Book, 56.
10. Radanović, M., Bokić, B., Radak, B., Rat, M., Šinžar-Sekulić, J., Anačkov, G. (2012): Range prediction of species *Ambrosia artemisiifolia* L. 1753 in Pannonian Part of Serbia. 4th Congress of Ecologists of the Republic of Macedionia with International Participation, Abstract Book, Ohrid, Macedonia, p.41.

Name: **Branko Konstantinović**
Position[1]: Full Professor
Institution: University of Novi Sad, Faculty of Agriculture, Department for Environmental and Plant Protection.
Address: Trg Dositeja Obradovica 8, 21000 Novi Sad, Serbia.
Email: brankok@polj.uns.ac.rs.

Expertise (general)

Areas of research expertise:
Phytopharmacy, Herbology, Invasive weed species, Seed bank, Aquatic weed species, Herbicide resistance

Other expertise relevant to SMARTER[2]:
Vice-dean for Science and International Cooperation, lecturer, Faculty of Agriculture, Trg Dositeja Obradovića 8, 21 000 Novi Sad, Serbia

Work on *Ambrosia*

Past work on Ambrosia:
- Mapping of terrain under ragweed and other allergens plants, laboratory and field research and monitoring on the territory of Novi Sad. 2003-ongoing (Coordinator)
- Mapping of terrain under ambrosia on AP Vojvodina, 2008. (Coordinator)
- Proffesional supervision to control ragweed on the territory of R Srbia, ID: 404-02-15/08-1, 2008. (Coordinator)
EUPHRESCO Peer Review, Topid D: Optimising control of Ambrosia artemisiifolia <Strategies for Ambrosia Control, Proposal No. 5

Ongoing work on Ambrosia:
- Mapping of terrain under ragweed and other allergens plants, laboratory and field research and monitoring on the territory of Novi Sad.

Role in SMARTER

Anticipated role in SMARTER[3]: WG 2 Vegetation Management,

WG 3 Integration of Management Options
WG 4 Management Evaluation, Task 3 Integration of Management Options
WG 4 Management Evaluation, Task 5 Training and KTT, Task 6 Policy Support

Max. five publications relevant to SMARTER[4]

1) Konstantinović, B., Meseldžija, M., Konstantinović, Bo., Samardžić, N. (2011): *Ambrosia artemisiifolia* L. invasive and allergic weed species on the territory of Novi Sad. Journal of Agricultural Science and Technology. Vol. 5, No, 3, pp. 304-309.
2) Konstantinović, B., Meseldžija, M., Konstantinović, Bo. (2008): Control of weedy-ruderal species Ambrosia artemisiifolia L. in some cities of Vojvodina. 2nd International Symposium ,,Intractable weeds and plants invaders,, Osijek, Croatia, pp. 30.
3) Konstantinović, B., Meseldžija, M., Konstantinović, Bo. (2008): Long-term studies of *Ambrosia artemisiifolia* L. distribution in the region of northern Serbia. First International Ragweed Conference, Budapest, Hungary, pp. 69.
4) Konstantinović, B., Meseldžija, M., Konstantinović, Bo. (2008): Possibilities of *Ambrosia artemisiifolia* L. control in northern Serbia. First International Ragweed Conference, Budapest, Hungary, pp. 70.
5) Konstantinović, B., Meseldžija, M., Konstantinović, Bo. (2011): Mapping of invasive species *Ambrosia artemisiifolia* L. by Ambrosia Spot Marker software. Herbologia. Vol 12. pp . 157-164.

Scientific collaborations relevant to SMARTER

National:

- Mapping of terrain under ragweed and other allergens plants, laboratory and field research and monitoring on the territory of Novi Sad. 2003-present (Coordinator)
- Mapping of terrain under ambrosia on AP Vojvodina, 2008. (Coordinator)
- Proffesional supervision to control ragweed on the territory of R Srbia, ID: 404-02-15/08-1, 2008. (Coordinator)

European: - EUPHRESCO Peer Review, Topid D: Optimising control of Ambrosia artemisiifolia <Strategies for Ambrosia Control, Proposal No. 5

Outside Europe: -

[1] indicate also if fixed or limited until when

[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.

[3] MC, WG leader, WG member etc.; for specific topics see next page

[4] please add pdfs of your publication

[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	(Pathogens (Insects (Classical (Inundative (Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	(Weed biology **X** Weed abundance and distribution **X** Soil seed bank (Plant population dynamics/Modelling **X** Plant competition/Allelopathy (Vegetation management

WG 3 Integration of Management Options	Task 3 Integration of Management Options	**X** Chemical **X** Mechanical (Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	(Aerobiology (Allergology (Air quality modelling (Ecological impact assessment (Economic & social impact assessment
	Task 5 Training and KTT	X Website (Workshops: Plant invasions & management (Workshop: Modelling impact & evaluation
	Task 6 Policy Support	X Biological Control X Invasive alien species

Curriculum vitae of Branko Konstantinović

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E-mail: brankok@polj.uns.ac.rs
Tel: +381-21-485 33-19;
Fax: +381-21-450 616
Gender: Male
Date of Birth: 27 june1949; Novi Sad, Serbia.
Marital Status: married
Languages: English (excellent), French (basic)

EDUCATION

1977-1980 M.Sc. in Agricultural Sciences, University of Osijek, Faculty of Agriculture, Plant Protection
Thesis: Study of emergent weed species control in water facilities of localities Zrenjanin and Vrsac
1980-1984 Ph.D. thesis in Phytopharmacy, University of Osijek, Faculty of Agriculture (Plant Protection).
Thesis: Study of emergent weed species control with the special regard to contamination of soil and water

EMPLOYMENT

• 1977 - 1992 Teaching assistant, Faculty of Agriculture in Osijek at the Josip Juraj Strossmayer University of Osijek
• 1992- 1998 Head of the Department for Plant Protectin, Scientific work, Institute for Field and Vegetable Crops, Novi Sad, Serbia
• 1998 - present Full time professor, Faculty of Agriculture, Novi Sad, Serbia

EXPERTISE

• Member of the European Weed Research Society (EWRS), International Weed Science Society (IWSS), International Seed Science Society (ISSS), Invasive Weeds Working Group (IWWG) and Serbian Society for Plant Protection.
• Participant in numerous conferences and seminars in the field of plant protection and phytopharmacy in the country and abroad.
• Authorized examiner of biological properties of herbicides for the purpose of their registration in the Republic of Serbia
• Supervisor of 5 Ph.D. thesis, 7 Magister's thesis, 5 M.Sc. thesis, 100 B.Sc. thesis member in numerous committees
• 10 reviews in referee journals
• Chairing in national and international meetings
• 5 keynote lectures at European meetings

FUNDING
• Serbian-Hungarian Co-operation on Agrochemistry and Pest-control Education, acronym SHAPE, ID: HUSRB/0901/221/045 (Local coordinator)
• Development of Products and Protection Methods Aiming at Sustainable Use of Pesticides and Environmental Protection. TR-20135. 2008-2010 (Coordinator)
• The study of the Occurrence and Spread of Weeds Species Resistant to Herbicides in Order to Find the Most Effective Measures TR: 6841, 2005-2008 (Coordinator)
• Proffesional Supervision to Control Ragweed on the Territory of Republic Srbia, ID: 404-02-15/08-1, 2008. (Coordinator)
• Mapping of Terrain Under Ambrosia on AP Vojvodina, 2008. (Coordinator)
• Mapping of Terrain Under Ambrosia and other Alergy Weed, Field Research and Monitoring on the Territory of Novi Sad. 2003- present (Coordinator)

PUBLICATIONS (past five years):
1.Vasić, V., Konstantinović, B., Orlović, S. (2012):Weeds in Forestry and Possibilities of Their Control, Weeds. Andrew J. Price, 53, 147-170.
2.Konstantinović, B., Meseldžija, M., Popov, M. (2012): Qualitative and quantitative content of soil weed seed bank in sunflower crop. Bulgarian Journal of Agricultural Science, 18, 348-353.
3.Konstantinović, B., Meseldžija, M., Konstantinović, Bo., Samardžić, N. (2011): Ambrosia artemisiifolia L. invasive and allergic weed species on the territory of Novi Sad. Journal of Agricultural Science and Technology. 5, 304-309.
4.Meseldžija, M., Konstantinović, B. (2011): Activity of acetolactate synthase (ALS) of redroot pigweed in relation to imazetaphyr application. African Journal of Biotechnology, 10, 9577-9585.
5.Konstantinović, B., Meseldžija, M., Popov, M., Konstantinović, Bo. (2011): Study of weed seedbank in soybean crop. African Journal of Agricultural Research, 6, 2316-2320.
6.Konstantinović, B., Meseldžija, M., Konstantinović, Bo., Samardžić, N., Popov, M. (2009): Distribution of weed seeds in sugar beet and maize crops. Journal of Agricultural Sciences, 164-168.
7.Konstantinović, B., Meseldžija, M., Popov, M., Samardžić, N. (2009): Ispitivanje banke semena korova u usevu pšenice. VI Kongres o zaštiti bilja sa simpozijumom o biološkom suzbijanju invazivnih organizama. Zlatibor-Srbija, 116-117.
8.Nestorović, M., Konstantinović, B. (2011): Overwiev of the weed flora in the Serbia. Savremena poljoprivreda, 215-230.
9.Konstantinović, B., Meseldžija, M., Popov, M., Samardžić, N. (2011): Horizontal and vertical seed distribution under different field crops. Herbologia, 12, 164-171.
10.Konstantinović, B., Meseldžija, M., Konstantinović, Bo. (2011): Mapping of invasive species Ambrosia artemisiifolia L. by Ambrosia Spot Marker software. Herbologia, 12, 157-164.

11.Konstantinović, B., Meseldžija, M. (2011): Control of emergent macrophytes in irrigation and drainage channels. Herbologia, 12, 35-42.
12.Konstantinović, B., Meseldžija, M., Popov, M., Samardžić, N. (2010): A study of weed seed bank under wheat, sugar beet and clover crops. Herbologia, 11, 37-47.
13.Konstantinović, B., Meseldžija, M. (2008): Rezistentnost korova na herbicide u svetu i kod nas. Acta biologica jugoslavica, serija G: Acta herbologica, 17, 1-7.
14.Konstantinović, B., Konstantinović, Bo., Meseldžija, M. (2008): Mapiranje važnijih invazivnih korova i njihovo suzbijanje. Acta biologica iugoslavica, serija G: Acta herbologica, 17, 53-57.

Name: **Goran Malidža**
Position[1]: Senior Research Associate
Institution: Institute of Field and Vegetable Crops
Address: Maksima Gorkog 30, 21000 Novi Sad, SERBIA
Email: goran.malidza@nsseme.com

Expertise (general)
Areas of research expertise: chemical and physical weed control, herbicide-resistant crops and weeds, biology and control of parasitic weeds, tolerance of field and vegetable crops to herbicides.
Other expertise relevant to SMARTER[2]: Crop-weed competition

Work on *Ambrosia*
Past work on Ambrosia:
Mapping of Common ragweed (*Ambrosia artemisiifolia* L.) on Serbia and recommendation for control.
Ongoing work on Ambrosia:
Common ragweed control by flaming and some mechanical measures

Role in SMARTER
Anticipated role in SMARTER[3]:
WG member (WG 3 - Integration of Management Options)

Max. five publications relevant to SMARTER[4]
1) Janjić V, Vrbničanin S and Malidža G. 2011. Mogućnost suzbijanja ambrozije (*Ambrosia artemisiifolia* L.). Biljni lekar, XXXIX, 44-54.
2) Vrbničanin S, Malidža G and Gavrić M. 2006. Mapping of Common ragweed (*Ambrosia artemisiifolia* L.) on Serbia with proposal for control. NEOBIOTA From Ecology to Conservation, 4th European Conference on Biological Invasions, Vienna (Austria), 267.
3) Vrbničanin S, Malidža G, Stefanović L, Elezović I, Stanković-Kalezić R, Jovanović-Radovanov K, Marisavljević D, Pavlović D and Gavrić M. 2008. Mapping of invasive non-native weed species in Serbia. 2nd International Symposium «Intractable weeds and plants invaders». Osijek- Croatia, Book of Abstracts, 36.
4) Vrbničanin S and Malidza G. 2008. *Ambrosia artemisiifolia*: pregled sa posebnim osvrtom na rezultate u Srbiji. IX Savetovanje o zaštiti bilja, Zbornik rezimea, 10-13.
5) Leskovsek, R., Ulloa, SM, Datta, A., Malidza, G., Lesnik, M., Simoncic, A., Knezevic, S.Z. 2010. Response of common ragweed (*Ambrosia artemisiifolia*) to broadcast flaming. Proceedings of the 15th European Weed Research Society Symposium, Kaposvar, Hungary, p. 270.

Scientific collaborations relevant to SMARTER
National: University of Belgrade, Faculty of Agriculture
European: Dr. Andrej Simoncic and Dr. Robert Leskošek, Agricultural Institute of Slovenia.
Outside Europe: Dr. Stevan Knežević, Department of Agronomy and Horticulture,

University of Nebraska, United States.

[1] indicate also if fixed or limited until when
[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.
[3] MC, WG leader, WG member etc.; for specific topics see next page
[4] please add pdfs of your publication
[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	☐ Pathogens ☐ Insects ☐ Classical ☐ Inundative ☐ Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	☐ Weed biology ☒ Weed abundance and distribution ☐ Soil seed bank ☐ Plant population dynamics/Modelling ☐ Plant competition/Allelopathy ☐ Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	☒ Chemical ☒ Mechanical ☒ Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	☐ Aerobiology ☐ Allergology ☐ Air quality modelling ☐ Ecological impact assessment ☐ Economic & social impact assessment
	Task 5 Training and KTT	☐ Website ☐ Workshops: Plant invasions & management ☐ Workshop: Modelling impact & evaluation
	Task 6 Policy Support	☐ Biological Control ☒ Invasive alien species

Name: **Danijela Pavlovic**
Position[1]: weed researcher
Institution:Institute for Plant Protection and Environment
Address: Teodora Drajzera 9, Belgrade, Serbia
Email: dulekaca@yahoo.com

Expertise (general)
Areas of research expertise: invasive weed, weed resistance, biological efficacy of herbicide
Other expertise relevant to SMARTER[2]:

Work on *Ambrosia*
Past work on Ambrosia:
1.The study of the occurrence and spread of resistant weed to herbicides aimed at finding the most effective control measures, Project Ministry of Education and Science
2.Identification and monitoring of allergens and quarantine weed species *Ambrosia artemisiifolia* L. the territory of the Republic of Serbia, Project Ministry of Agriculture:
3.Identification and monitoring of alien and invasive weed (AIK) on the territory of Serbia and proposed measures to combat, Ministry of Agriculture
4.Providing services in the field of scientific research and tehnical assistance in combating chemical vegetation stripes PC ”Serbian Railways”
5.„Monitoring and control ragweed (*Ambrosia atremisiifolia* L.) in the city of Belgrade”, funded by City of Belgrade, Department of Environmental Protection

Ongoing work on Ambrosia:
"The development of an integrated management and application of modern principles of pest control in plant protection, Project: Ministry of Education and Science.
"Development of integrated management system harmful organisms in crop production in order to overcome resistance and improve food quality and safety, Project: Ministry of Education and Science.

Role in SMARTER
Anticipated role in SMARTER[3]: member of WG2, WG3

Max. five publications relevant to SMARTER[4]
1) Giovanni, D., Marotti, I., Catizone, P., Bosi, S., Tanveer, A., Nadeem Abbas, R., Pavlovic, D.: Germination ecology of *Ambrosia artemisiifolia* L. and *Ambrosia trifida* L. biotypes suspected of glyphosate resistance. Central Europian Journal of Biology, 8(3), 286-296, 2013.
2) Vrbničanin, S., Božić, D., Sarić, M., Pavlović, D., Raičević, V.: Effect of Plant Growth Promoting Rhizobacteria on *Ambrosia artemisiifolia* L. Seed Germination. Pesticides and Phytomedicine, 26, 141-146, 2011.
3)Vrbničanin,S., Malidža,G., Stefanović,L., Elezović,I., Stanković-Kalezić,R., Jovanović-Radovanov, K., Marisavljević, D., Pavlović, D., Gavrić, M.: Mapping of invasive non-native weed species in Serbia. 2nd International Symposium «Intractable weeds and plants invaders». Osijek- Croatia, Book of Abstracts, 36, 2008.
4) Vrbničanin, S., Malidža, G., Stefanović, L., Elezović, I., Stanković-Kalezić, R., Marisavljević, D., Radovanov-Jovanović, K., Pavlović, D., Gavrić, M.: Distribution of some harmful, invasive and quarantine weed species in Serbia Part I: Spatial distribution and frequency of eight weed species in Serbia, Plant doctor, XXXVI (5): 303-313, 2008.
5) Vrbničanin, S., Malidža, G., Stefanović, L., Elezović, I., Stanković-Kalezić, R., Marisavljević, D., Radovanov-Jovanović, K., Pavlović, D., Gavrić, M.: Distribution of some harmful, invasive and quarantine weed species in Serbia Part II: Spatial distribution and frequency of nine weed species in Serbia, Plant doctor, XXXVI (6): 408-418, 2008.

Scientific collaborations relevant to SMARTER

***National*:**

1.Faculty of Agriculture, University of Belgrade, Institute of Phytomedicine

2.Faculty of Agriculture, University of Novi Sad, Institute for Environmental and Plant Protection

3.Institute of Pesticides and Environmental Protection, Belgrade

***European*:** Department of Agroenvironmental Science and Technology, University of Bologna (Italy), Research group on Plant Physiology, project "Determination of gene flux and pollen dispersal of *Brassica napus* under field conditions", 2011-2013.

Outside Europe:

1.Research station of BASF " ARS Dinuba" in Dinuba and University "DAVIS" in Davis, California (2 months), 2003.

2.Study programme/training: Pesticides, Hunan Research Institute of Chemical Industry, Changsha, Hunan Province, China, (1 month), 2006.

3."Effects of certain glyphosate formulations on leaf cytology of glyphosate resistant and non-resistant *Maize, Soybean* and *Lolium* sp." University of Pretoria and company Syngenta, South Africa, (2 months), 2007.

[1] indicate also if fixed or limited until when

[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.

[3] MC, WG leader, WG member etc.; for specific topics see next page

[4] please add pdfs of your publication

[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	☐ Pathogens ☐ Insects ☐ Classical ☐ Inundative ☐ Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	☐ Weed biology **x** Weed abundance and distribution ☐ Soil seed bank **x** Plant population dynamics/Modelling **X** Plant competition/Allelopathy (Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	**X** Chemical (Mechanical **X** Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	(Aerobiology (Allergology (Air quality modelling (Ecological impact assessment (Economic & social impact assessment
	Task 5 Training and KTT	(Website

(Workshops: Plant invasions & management
(Workshop: Modelling impact & evaluation
Task 6 Policy Support (Biological Control
(Invasive alien species

Curriculum vitae of Danijela Pavlovic

(February 2013)
Address: Institute for Plant Protection and Environment, Teodora Drajzera 9, 11000 Belgrade, Serbia
E-mail: pavlovicdm@gmail.com
Tel: ++ 381 11 2660049
Fax: ++ 381 63 8233344
Gender: Female
Date of Birth: 01 September 1971, Senta, Serbia.
Marital Status: divorced
Languages: English (fluent)

EDUCATION

2010 - PhD, Agronomy, Pesticide Science, Faculty of Agriculture, University of Belgrade, Serbia, Thesis: Susceptibility of plants to glyphosate: morpho-anatomical, physiologycal and biological aspect.
2005 - MSc Degree, Agronomy, Plant Protection, Faculty of Agriculture, University of Belgrade, Serbia, Thesis: Determination of weed resistance to herbicides inhibitors of photosynthesis.
1999 - BSc Degree, Agronomy, Plant Protection, Faculty of Agriculture, University of Belgrade, Serbia.

EMPLOYMENT

2000- present Institute for plant protection and environment, Department of herbology.

EXPERTISE

-13 years experience of invasive species, weed research, weed resistance, efficacy of herbicides
-13 years experience of field work in Serbia
Member of the Plant Protection Society of Serbia; EWRS – European Weed Research Society; -WSSA – Weed Science Society of America; Herbology Society of Serbia
-Author of more than 60 publications, 23 – first author
-Research area: Weed resistance to herbicides in tems of the mechanism of the symptoms and determination; Efficacy of new herbicides on weed species present in some crops with emphasis on monitoring activities of some invasive species; Study and representation of invasive species in Serbia in order to determine the representation of maps and level of presence, forecasting the dispersion of individual species and the presence of new species not yet being determined from the neighboring countries; The possibility of no chemical weed control.
-Colaborated in 9 project, management of subroject (1)
-Bilateral: Slovenia and Serbia (2006-2007; 2010-2011); Germany and Serbia (2009-2010);
-International training course on pesticides held at Hunan Research Institute of Chemical Industry, Changsha, Kina, 15-30. septembar 2006. godine.

FUNDING

-Occurence and spread of resistant weeds to herbicides and reduce the possibility of the application of herbicides to prevent excessive use of herbicides. Project Ministry of Science and Environmental Protection of the Republic of Serbia (2004-2007).

-The development and introduction of new technologies in the protection of high quality of food and prevention of new pest deficient in crop production. Project Ministry of Science and Environmental Protection of the Republic of Serbia (2004-2007).

-Optimization of chemical plant protection by incresing the efficiency of diagnostic methods and risk of disease, pests and weeds. Project Ministry of Science and Environmental Protection of the Republic of Serbia (2008-2011).

-Identification and monitoring of alien and invasive weed (AIK) on the territory of Serbia and proposed measures to combat, Project Ministry of Agriculture (2008-2010).

-Effects of certain glyphosate formulations on leaf cytology of glyphosate resistant and non-resistant *Maize, Soybean* and *Lolium* sp." Project University of Pretoria and company Syngenta (31.08.-02.11.2007)

-The development of an integrated management and application of modern principles of pest control in plant protection, Project: Ministry of Education and Science, 2011-2014.

-Development of integrated management system harmful organisms in crop production in order to overcome resistance and improve food quality and safety, Project: Ministry of Education and Science, 2011-2014.

-Determination of gene flux and pollen dispersal of *Brassica napus* under field conditions, Department of Agroenvironmental Science and Technology, University of Bologna (Italy), Research group on Plant Physiology, 2011-2013.

PUBLICATIONS (past five years)**:**

1. Giovanni, D., Marotti, I., Catizone, P., Bosi, S., Tanveer, A., Nadeem Abbas, R., Pavlovic, D.: Germination ecology of *Ambrosia artemisiifolia* L. and *Ambrosia trifida* L. biotypes suspected of glyphosate resistance. Central Europian Journal of Biology, 8(3), 286-296, 2013

2. Sarić, M., Božić, D., Pavlović, D., Elezović, I., Vrbničanin, S.: Temperature effects on common cocklebur (*Xanthium strumarium* L.) seed germination., Romania agricultural research, 29, 389-393, 2012.

3. Pavlović, D., Vrbničanin, S., Reinhardt, C., Marisavljević, D.: Morpho-anatomical response of glyphosate-resistant and-susceptible maize to glyphosate trimesium. International Symposium on Curent Trends in Plant Protection. Belgrade, September 25-28, Proceedings, 188-191, 2012.

4. Vrbničanin, S., Božić, D., Sarić, M., Pavlović, D., Raičević, V.: Effect of Plant Growth Promoting Rhizobacteria on *Ambrosia artemisiifolia* L. Seed Germination. Pesticides and Phytomedicine, 26, 141-146, 2011.

5. Pavlović, D., Reinhardt, C., Elezović, I., Vrbničanin, S.: Identification of glyphosate resistance in *Lolium rigidum* Gaudin. Pesticides and Phytomedicne, 26(4), 393-399, 2011.

6. Pavlović, D., Vrbničanin, S., Božić, D., Fischer, A. J.: Morfological traits and atrazine sensitivity in *Chenopodium album* L., Pest Manage Sci., 64(2), 101-107, 2008.

7. Vrbničanin, S., Jovanović, LJ., Raičević, V., Pavlović, D.: Germination of *Iva xanthifolia*, *Amaranthus retroflexus* and *Sorghum halepense* under media with microorganisms. Journal of Plant Diseases and Protection, 297-302, 2008

8. Pavlović, D., Vrbničanin, S., Reinhardt, C., Fischer, J. A.: Susceptibility of species *Conyza canadensis* (L) Cronquist and *Conyza bonariensis* (L) Cronquist to glyphosate. Acta herbologica, 17(2), 2008.

Name: **Ljiljana Radivojevic**
Position[1]: Head Department of weed (from 2011)
Institution: Institute for Pesticides and Environmental Protection
Address: Banatska 31b, 11080 Belgrade, Serbia
Email: ljiljana.radivojevic@pesting.org.rs

Expertise (general)
Areas of research expertise:
Weed control; Weed response to herbicides; Herbicides-soil microorganisms; Invasive weeds.
Other expertise relevant to SMARTER[2]:
Mapping of invasive plant species; Response weeds (including invasive weeds) to herbicides; Integrated Weed Management.

Work on *Ambrosia*
Past work on Ambrosia: Project " Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control" (2007-2009) including Ambrosia. Project „Monitoring and control ragweed (Ambrosia arthemisiifolia L.) in the city of Belgrade", funded by City of Belgrade, Department of Environmental Protection and the Department for Housing and Utilities (2006-2010). Project „Monitoring and control ragweed (Ambrosia arthemisiifolia L.) in the municipality of Obrenovac", funded by Fund for Environmental Protection Obrenovac (2009-2010).

Ongoing work on Ambrosia: Experiments: seed germination; response to herbicides; Monitoring and control ragweed (*Ambrosia arthemisiifolia* L.) around the city Belgrade.

Role in SMARTER
Anticipated role in SMARTER[3]: Member of working groups WG2 and WG3

Max. five publications relevant to SMARTER[4]
1) Janjic V., Vrbnicanin S., Stankovic Kalezic R., Radivojevic Lj., Marisavljevic D. (2007): Poreklo i rasprostranjenost ambrozije. In Janjic, V., Vrbnicanin , S. (eds.) Ambrozija, Herbolosko drustvo Srbije, Beograd, pp. 9-28. (In Serbian) [Janjic, V., Vrbnicanin, S., Stankovic Kalezic, R., Radivojevic, Lj., Marisavljevic, D. (2007): Sourcing and distribution of common ragweed. Janjic, V., Vrbnicanin , S. (eds.), Common ragweed, Weed Science Society of Serbia, Belgrade, pp. 9-28.]
2) Janjic V., Mataruga D., Malidza G., Radivojevic Lj., Mitric S., Stefanovic L., Stankovic Kalezic R., Golic D. (2007): Ogranicenje sirenja i suzbijanje ambrozije. In Janjic, V., Vrbnicanin , S. (eds.) Ambrozija, Herbolosko drustvo Srbije, Beograd, pp. 103-118. (In Serbian) [Janjic, V., Mataruga, D., Malidza, G., Radivojevic, Lj., Mitric, S., Stefanovic, L., Stankovic Kalezic, R., Golic, D. (2007): Limit the spread and control of common ragweed. Janjic, V., Vrbnicanin , S. (eds.), Common ragweed, Weed Science Society of Serbia, Belgrade, pp. 103-118.]
3) Marisavljevic D., Cakmak D., Pavlovic D., Pfaf Dolovac E., Radivojevic Lj. (2012): Preliminary examination of the uptake of various forms of nitrogen at early growth stages of common ragweed. Second International Ragweed Conference, Lyon, France – Ambroisie – the first international ragweed review, No.27, pp.69-72. ISSBN 1271-3341.
4) Janjic V., Radivojevic Lj., Jovanovic V. (2011): Common ragweed (Ambrosia artemisiifolia L.) – a harmful weed, ruderal and allergenic plant in the territory of Belgrade. Acta herbologica, 20(2), 57-67.
5) Stankovic-Kalezić R., Jovanovic V., Janjic V., Radivojevic Lj., Šantric Lj., Gajic Umiljendic J. (2009): Distribution of common ragweed (Ambrosia artemisiifolia) in the

territory of Obrenovac. Acta herbologica, 18(2), 103-113.

Scientific collaborations relevant to SMARTER

National: Prof. Sava Vrbnicanin, University of Belgrade- Faculty of agriculture, Dr Dragana Bozic, University of Belgrade- Faculty of agriculture, Dr. Goran Malidza, Institute of Field and Vegetable Crops, Dr. Danijela Pavlovic, Institute for Plant Protection and Environment, Dr. Dragana Marisavljevic, Institute for Plant Protection and Environment

European: Prof. Ahmet Uludag, Igdir University, Faculty of Agriculture, Turkey

Outside Europe:

[1] indicate also if fixed or limited until when

[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.

[3] MC, WG leader, WG member etc.; for specific topics see next page

[4] please add pdfs of your publication

[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	☐ Pathogens ☐ Insects ☐ Classical ☐ Inundative ☐ Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	☐ Weed biology **X** Weed abundance and distribution ☐ Soil seed bank **X** Plant population dynamics/Modelling ☐ Plant competition/Allelopathy ☐ Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	**X** Chemical ☐ Mechanical ☐ Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	☐ Aerobiology ☐ Allergology ☐ Air quality modelling ☐ Ecological impact assessment ☐ Economic & social impact assessment
	Task 5 Training and KTT	☐ Website ☐ Workshops: Plant invasions & management ☐ Workshop: Modelling impact & evaluation
	Task 6 Policy Support	☐ Biological Control ☐ Invasive alien species

Curriculum vitae of Ljiljana Radivojevic

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Tel: +381 11 3076133
Fax: +381 11 3073136
Gender: Female
Date of Birth: 27 May 1965, Ljig, Serbia
Marital Status: married
Languages: Serbian (native), English (fluent), Russian (basic)

EDUCATION

1984-1989 BSc Degree in Plant Protection, Faculty of Agriculture, University of Belgrade, Serbia
1991-1998 M.Sc. in Plant Protection, Faculty of Agriculture, University of Belgrade, Serbia
Thesis: Effects of alachlor, metolachlor and metribuzin on soil microflora
1999-2006 Ph.D. thesis in Plant Protection, Faculty of Agriculture, University of Belgrade, Serbia, Thesis: Effects of atrazine and nicosulfuron on soil microorganismas.

EMPLOYMENT

• 1991-1999 Institute Serbia Center for Pesticides, Belgrade, Serbiawith,a BSc and MSc degree (research assisstent, research associate)
 1999-2003 Institute for Plant Protection and Environment, Belgrade, Serbia,with a MSc degree (research associate and Head Department of Weeds)
 2003-Institute ofPesticides and Environmental Protection, Belgrade, Serbia, with a MSc and PhD degree (research associate and Head Departmentof Weeds)

EXPERTISE

• 24 years experience of field and laboratory studies of herbicides, weeds, effects herbicides on soil microorganisms.
• Author of more than 90 publications, including 9 papers in international and 33 papers in national peer-reviewed journals.
• Reviewer of manuscripts for Agriculture Science, Experimental Agriculture and Horticulture and national journals Pesticides and Fhytomedicine, Acta herbologica.

FUNDING

 Participant on national project - „Study of pesticides and their effects on harmful and beneficial organisms“ (1991-1995).
 Participant on national project - „ Study of pesticides and natural products with pesticide action“ (1996-2000).
 Participant on national project - „ Research in plant protection and pesticides aplication“ (2002-2004).
 Participant on national project - „Research for the development of new and improvement of existing formulations of herbicides“ (2005-2007).
 Participant on national project „Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control“, (2007-2009)
 Participant on national project „Biological, chemical, toxicological and ecotoxicological study of herbicides and their application” (2008-2011)

 Participant on national project „Monitoring and control ragweed (Ambrosia atremisiifolia L.) in the city of Belgrade", funded by City of Belgrade, Department of Environmental Protection and the Department for Housing and Utilities (2006-2010).

 Participant on national project „Monitoring and control ragweed (Ambrosia atremisiifolia L.) in the municipality of Obrenovac", funded by Fund for Environmental Protection Obrenovac (2009-2010).

 Participant on national project - „Study of plant pathogens, arthropods, weeds and pesticides in order to develop biorational methods of plant protection and food safety, subproject leader „ Study of weeds, biological chemical and toxicological properties of herbicides " (2011-2014).

PUBLICATIONS (past five years)**:**

1.Radivojevic Lj., Gasic S., Santric Lj., Stankovic-Kalezic R. (2008): The impact of atrazine on several biochemical properties of chernozem soil. Journal of Serbian Chemical Society, 73(10), 951-959.

2.Stankovic-Kalezic R., Radivojevic Lj., anjic V., Santric Lj., Malidza G. (2008): A new association of ruderal weeds at Pančevački rit in Serbia. Helia, 31(49), 35-44.

3.Janjic V., Stankovic-Kalezic R., Radivojevic Lj. (2009): The role of Cytocrome P450 in metabolism of herbicides in plant. Acta herbologica, 18(1), 5-17.

4.Stankovic-Kalezic R., Jovanovic V., Janjic V., Radivojevic Lj., Santric Lj., Gajic Umiljendic J. (2009): Distribution of common ragweed (*Ambrosia artemisiifolia*) in the territory of Obrenovac. Acta herbologica, 18(2), 103-113.

5.Santric Lj., Radivojevic Lj., Stankovic-Kalezic R., Gajic Umiljendic J., Durovic R. (2010): The effects of herbicides on abundance cellulolytics microorganisma in different soil types. Acta herbologica, 19(1), 5-11.

6.Radivojevic Lj., Santric Lj., Gajic Umiljendic J. (2011): Rimsulfuron in soil: effects on microbiological properties under varying soil conditions. Pesticides and Phytomedicine, 26(2), 135-140.

7.Radivojevic Lj., Gasic S., Gajic Umiljendic J., Santric Lj., Brkic D. (2011): Impact of different adjuvants and modes of application on efficacy of rimsulfuron in maize. Pesticides and Phytomedicine, 26(3), 255-263.

8.Radivojevic Lj., Gasic S., Santrić Lj., Gajic Umiljendic J., Marisavljevic D. (2012): Short-time effects of the herbicide nicosulfuron on the biochemical activity of chernozem soil. Journal of Serbian Chemical Society, 77(6), 845-854.

9.Brkic D., Gasic S., Radivojevic Lj., Tanovic B., Kljajic P., Neskovic N. (2012): Pesticides used in Rubus and Ribes species: PHI and MRL in EU and Serbia legalisation. Proceedings of X International Rubus and Ribes Symposium –Acta horticulturae, 946, 323-326.

10.Gasic S., Brkic D., Radivojevic, Lj., Tomasevic A. (2012): Development of water based pesticide system. Pesticides and Phytomedicine, 27(1), 77-81.

Name: **Katarina Jovanovic-Radovanov**
Position[1]: Assistant Professor
Institution: University of Belgrade-Faculty of Agriculture
Address: Nemanjina 6, 11080 Zemun-Belgrade, Serbia
Email: katarinajr@agrif.bg.ac.rs

Expertise (general)
*Areas of research expertise***:** Herbicide use and efficacy in crops and on non-crop areas, Weed and crop response to herbicides, Invasive weeds,

Other expertise relevant to SMARTER[2]: Mapping of invasive plant species; Weed and crop resistance to herbicides; Integrated Weed Management;

Work on *Ambrosia*
Past work on Ambrosia: Project " Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control" (2007-2009) including *Ambrosia*; Efficacy testing of herbicides in various crops

Ongoing work on Ambrosia:Herbicide efficacy testing

Role in SMARTER
Anticipated role in SMARTER[3]: WG2 and WG3

Max. five publications relevant to SMARTER[4]
1) Vrbnicanin, S., Malidza, G., Stefanovic, L., Elezovic, I., Stankovic-Kalezic, R., Marisavljevic, D., Jovanovic-Radovanov, K., Pavlovic, D., Gavric, M. (2008): Distribution of some harmful, invasive and quarantine weeds on the teritory of Serbia. Part I: Spatial distribution and frequency of eight weed species in Serbia. Plant Doctor, XXXVI(5): 303-313.

Scientific collaborations relevant to SMARTER

National: Prof. Sava Vrbnicanin, University of Belgrade- Faculty of agriculture; Dr. Dragana Bozic (Assistant Profesor) University of Belgrade- Faculty of agriculture; Dr. Goran Malidza, Institute of Field and Vegetable Crops, Dr. Danijela Pavlovic, Institute for Plant Protection and Environment

European:

Outside Europe: Prof. Ahmet Uludag, Igdir University, Faculty of Agriculture, Turkey,

[1] indicate also if fixed or limited until when
[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.
[3] MC, WG leader, WG member etc.; for specific topics see next page
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[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	☐ Pathogens (Insects (Classical (Inundative (Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	(Weed biology **X** Weed abundance and distribution (Soil seed bank (Plant population

		dynamics/Modelling (Plant competition/Allelopathy (Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	**X** Chemical (Mechanical **X** Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	(Aerobiology (Allergology (Air quality modelling (Ecological impact assessment (Economic & social impact assessment
	Task 5 Training and KTT	(Website (Workshops: Plant invasions & management (Workshop: Modelling impact & evaluation
	Task 6 Policy Support	(Biological Control (Invasive alien species

Curriculum vitae of Katarina Jovanovic-Radovanov

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Fax: +381 11 2193 659
Gender: Female
Date of Birth: 08 May 1964, Belgrade, Serbia
Marital Status: married
Languages: Serbian (exellent), English (excellent),

EDUCATION

1983-1990 BSc Degree in Plant Protection, Faculty of Agriculture, University of Belgrade, Serbia

1991-2002 M.Sc. in Pesticide science, Faculty of Agriculture, University of Belgrade, Serbia

Thesis: Susceptibility of hybrid maize (*Zea mays* L.) to carryover potential of trifluralin and imazethapyr

2003-2012 Ph.D. thesis in Pesticide science, Faculty of Agriculture, University of Belgrade, Serbia, Thesis: Susceptibility of crops to carryover potential of imazethapyr and clomazone.

EMPLOYMENT

1994 - 2003 - Teaching and research assistant with a BSc degree, University of Belgrade, Faculty of Agriculture,Serbia

2003-2013 - Teaching and research assistant with a MSc degree, University of Belgrade, Faculty of Agriculture,Serbia

2013 – present - Assistant Professor at the University of Belgrade, Faculty of Agriculture,Serbia

EXPERTISE

20 years of experience in the practical trainings in pesticide science for students.

20 years experience of field and laboratory studies of pesticides and weeds.

Author of more than 60 publications, including 2 papers in international and 21 papers in national peer-reviewed journals.

FUNDING

- Participant on national project – „Pesticides and encironment“ (2002-2004)
- Participant on national project „“Mapping quarantine, invasive and economically important weeds in Serbia and recommendations for their control” “, (2004-2006)
- Participant on national project - „Research for the development of new and improvement of existing formulations of herbicides“ (2005-2007)
- Participant on national project „Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control“, (2007-2009)
- Participant on national project „Biological, chemical, toxicological and ecotoxicological study of herbicides and their application” (2008-2011)
- Participant on TEMPUS project „International Master Plant Medicine, Project TEMPUS IV" (2010-2013),

PUBLICATIONS (past five years)**:**

1. Vrbnicanin, S., Malidza, G., Stefanovic, L., Elezovic, I., Stankovic-Kalezic, R., Marisavljevic, D., Jovanovic-Radovanov, K., Pavlovic,D., Gavric, M. (2008): Distribution of some harmful, invasive and quarantine weeds on the teritory of Serbia. Part I: Spatial distribution and frequency of eight weed species in Serbia. Plant Doctor, XXXVI(5): 303-313.

2. Vrbnicanin, S., Stefanovic, L., Elezovic, I., Stankovic-Kalezic, R., Jovanovic-Radovanov, K., Marisavljevic, D., Pavlovic, D., Gavric, M. (2008): Distribution of some harmful,, invasive and quarantine weeds on the teritory of Serbia. Part II: Spatial distribution and frequency of nine weed species in Serbia. Plant Doctor, XXXVI (6): 408-418

3. Vrbnicanin, S., Dajic-Stevanovic, Z., Jovanovic-Radovanov, K., Uludag, A. (2009): Weed vegetation of small grain crops in Serbia: environmental and human impact. Turk. J. Agric. For., 33, 325-337

4. Jovanovic-Radovanov, K., Vrbnicanin, S. Elezovic, I. (2009): Sulcotrione: Characteristics and efficacy in controlling weeds in corn. Acta herbologica. Vol. 18, No.2, 87-102

5. Vrbnicanin, S., Jovanovic-Radovanov, K., Oparnica C. (2010): Weed incidence in stone-fruit orchards: plum, apricot and peach. Plant Doctor, XXXVIII (4-5):277-298

6. Radivojevic, Lj., Santric, Lj., Gajic Umiljendic, J., Jovanovic-Radovanov, K., Djurovic, R., Marisavljevic, D., (2011): The effect of nicosulfuron on some physiological groups of microorganisms. Acta herbologica, Vol. 20, No.1, 5-13

7. Dakic, P., Matic, L., Bozic, D., Jovanovic-Radovanov, K., Elezovic, I., Vrbnicanin, S. (2012): Weed control in raspberry and blackberry plantings using herbicides. X International Rubus & Ribes Symposium, Acta Horticulturae, 946: 101-106.

8. Gajic Umiljendic, J., Jovanovic-Radovanov, K., Radivojevic, Lj., Santric Lj., Djurovic, R., Djordjevic, T. (2012): Maize, sunflower and barley sensitivity to the residual activity of clomazone in soil. Pesticides and Phytomedicine, 27(2), 157-165

9. Vrbnicanin, S., Jovanović-Radovanov, K., Dakić, P.(2012): Weeds in small fruit plantings and control. Plant Doctor, XL (2-3):57-76

10. Jovanovic-Radovanov, K., Bursic, V., Vukovic, G., Spirovic, B., Mrdja, J. (2012): Determination of clomazone in soil using QuEChERS method. International Scientific Conference „130 years Agricultural science in Sadovo, Sadovo“, Bulgaria, Plant Science, XLIX, (6): 38-40.

Name: **Maja Meseldzija**
Position[1]: Assistant Professor, 2010-2015.
Institution: University of Novi Sad, Faculty of Agriculture
Address: Trg Dositeja Obradovica 8, 21 000 Novi Sad, Serbia
Email: maja@polj.uns.ac.rs

Expertise (general)
Areas of research expertise: Weed biology, weed control, phytopharmacy, herbicides, herbicide resistance studies of economically harmful weeds.
Other expertise relevant to SMARTER[2]:
weed research in crops and non agricultural land, a additional member of the Board of the European Weed Research Society (EWRS) for period 2012-2015, member of Weed mapping working group of the EWRS (regional coordinator for Serbia, Croatia, Bosnia, Montenegro, Bulgaria).

Work on *Ambrosia*
Past work on Ambrosia: monitoring and mapping common ragweed to design and implement sustainable system of weed management (mechanical and/or chemical), soil weed seedbank research
Ongoing work on Ambrosia: research on allelopathy, impact of herbicides use on resistant development in ragweed population on the fields, mapping and monitoring

Role in SMARTER
Anticipated role in SMARTER[3]:
WG member

Max. five publications relevant to SMARTER[4]
1) Konstantinovic, B., Meseldzija, M., Konstantinovic, Bo., Mandic, N. (2011): *Ambrosia artemisiifolia* L. invasive and allergic weed species on the territory of Novi Sad. Journal of Agricultural Science and Technology, 5 (3), 304-309.
2) Konstantinovic, B., Meseldzija, M., Konstantinovic, Bo. (2011): Mapping of invasive species *Ambrosia artemisiifolia* L. by Ambrosia Spot Marker software. Herbologia, 12 (1): 157-164.
3) Meseldzija, M., Konstantinovic, B. (2012): Activity of acetolactate synthase (ALS) of redroot pigweed in relation to imazetaphyr application. African Journal of Biotechnology, 10 (47), 9577-9585.
4) Konstantinovic, B., Meseldzija, M., Korac, M., Konstantinovic, Bo. (2011): Study of weed seedbank in soybean crop, African Journal of Agricultural Research, 6 (10), 2316-2320.
5) Konstantinovic, B., Meseldzija, M., Popov, M. (2012) Qualitative and quantitative content of soil weed seed bank in sunflower crop. Bulgarian Journal of Agricultural Science, 18 (3): 348-353.

Scientific collaborations relevant to SMARTER

National: Ministry of Science and Technological Development of Republic of Serbia

European: European Weed Research Society – Weed Mapping group

Outside Europe:

[1] indicate also if fixed or limited until when
[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.
[3] MC, WG leader, WG member etc.; for specific topics see next page
[4] please add pdfs of your publication
[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	☐ Pathogens
		☐ Insects

		☐ Classical
		☐ Inundative
		☐ Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	☐ Weed biology
		☐ Weed abundance and distribution
		☒ Soil seed bank
		☐ Plant population dynamics/Modelling
		☒ Plant competition/Allelopathy
		☐ Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	☐ Chemical
		☐ Mechanical
		☐ Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	☐ Aerobiology
		☐ Allergology
		☐ Air quality modelling
		☐ Ecological impact assessment
		☐ Economic & social impact assessment
	Task 5 Training and KTT	☐ Website
		☐ Workshops: Plant invasions & management
		☐ Workshop: Modelling impact & evaluation
	Task 6 Policy Support	☐ Biological Control
		☐ Invasive alien species

Curriculum vitae of Maja Meseldzija

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Fax: ++ 381-21-4853-448
Gender: ++ 381-21-450-616
Date of Birth: Female
Marital Status: 24 December 1973; Subotica, Serbia.
Languages: married
Serbian (native), English (fluent), German (basic), Hungarian (basic)

EDUCATION

• 1997 B.Sc. in Biology, University of Novi Sad, Faculty of Science (Biology).
Thesis: "Biochemical studies of *Hypericum perforatum* L. (f.*Hypericaceae*) from different localities"

• 2004 M.Sc. in Agriculture, University of Novi Sad, Faculty of Agriculture (Phytopharmacy). Thesis: "Resistance studies of some weed species on triazines"
• 2009 Ph.D. thesis in Agriculture, University of Novi Sad, Faculty of Agriculture(Phytopharmacy). Thesis: "Study of Weed Species Resistance to the Acetolactate Synthase Inhibiting Group of Herbicides"

EMPLOYMENT

• 1998 onwards Teaching assistant, teaching and scientific researches, University of Novi Sad, Faculty of Agriculture, Department for Environmental and Plant Protection Trg Dositeja Obradovića 8,21 000 Novi Sad, Serbia
• 2005 onwards Assistant, teaching and scientific researches, University of Novi Sad, Faculty of Agriculture, Department for Environmental and Plant Protection Trg Dositeja Obradovića 8,21 000 Novi Sad, Serbia
• 2010 onwards Assistant Professor, teaching and scientific researches, University of Novi Sad, Faculty of Agriculture, Department for Environmental and Plant Protection Trg Dositeja Obradovića 8,21 000 Novi Sad, Serbia

EXPERTISE

• 14 years experience of weed research in crops and non agricultural land
• authorized examiner of biological properties of herbicides for the purpose of their registration in the Republic of Serbia
• 10 years experience of invasive plant mapping in Serbia and herbicide resistance studies of economically harmful weeds
• Participant in 2 international research projects
• A additional member of the Board of the European Weed Research Society (EWRS) for period 2012-2015
•Member of Weed mapping working group of the EWRS, regional coordinator for Serbia, Croatia, Bosnia, Montenegro, Bulgaria
• Author of more than 90 scientific and expert publications

FUNDING

•Serbian-Hungarian co-operation on agrochemistry and pest-control education (shape). IPA Cross-border co-operation programme Hungary-Serbia HUSRB/0901/221/045. 2011-2012. (participant)
•International joint Master degree in Plant Medicine. 158875-TEMPUS-1-2009-1-IT TEMPUS project-JPCR. 2009-2012. (participant).
•Development of products and methods of protection against harmful agents aimed at sustainable use of pesticides and environment protection, Ministry of Science and Technological Development of Republic of Serbia, project no. TR 20135, 2008-2010. (participant)
• Study of the occurence and spread of herbicide resistant weed species with the aim of most effective control measures determination, Ministry of Science and Technological Development of Republic of Serbia, No. TR-6841, 2005-2008. (participant).
• Terrain Mapping of *Ambrosia artemisiifolia* L. and other Allergenic Plants, Laboratory and Terrain Studies and Monitoring, Project financed by the City of Novi Sad, 2003-2012 (participant)

PUBLICATIONS (past five years)**:**

1.Konstantinovic, B., Meseldzija, M., Popov, M. (2012) Qualitative and quantitative content of soil weed seed bank in sunflower crop. Bulgarian Journal of Agricultural Science, 18, 348-353.

2.Meseldzija, M., Konstantinovic, B. (2012): Activity of acetolactate synthase (ALS) of redroot pigweed in relation to imazetaphyr application. African Journal of Biotechnology, 10 (47), 9577-9585.
3.Konstantinovic, B., Meseldzija, M., Samardzic, N. (2012): Herbicides resistance of Amaranthus retroflexus L. the important weed of row crops, to ALS inhibitors. Zastita bilja, 15-19.
4.Konstantinovic, B., Meseldzija, M., Samardzic, N., Konstantinovic, Bo. (2012): Distribution of invasive weeds on the territory of AP Vojvodina. Zastita bilja, 44-48.
5.Konstantinovic, B., Meseldzija, M., Samardzic, N., Blagojevic, M. (2012): Horizontal seed distribution in the soil under vine grape plantation and maize crop. Zastita bilja, 183-187.
6.Konstantinovic, B., Meseldzija, M., Blagojevic, M., Samardzic, N., Konstantinovic, Bo. (2012): Quantitative and qualitative analysis of weed seed bank in row crops on the territory of Vojvodina. International Plant Protection Symposium at University of Debrecen, 132-136.
7.Konstantinovic, B., Meseldzija, M., Korac, M., Konstantinovic, Bo. (2011): Study of weed seedbank in soybean crop, African Journal of Agricultural Research, 6 (10), 2316-2320.
8.Konstantinovic, B., Meseldzija, M., Konstantinovic, Bo., Mandic, N. (2011): *Ambrosia artemisiifolia* L. invasive and allergic weed species on the territory of Novi Sad. Journal of Agricultural Science and Technology, 5 (3), 304-309.
9.Konstantinovic, B., Meseldzija, M., Korac, M., Mandic, N. (2011): Horizontal and vertical seed distribution under different field crops. Herbologia, 12 (1): 165-171.
10.Konstantinovic, B., Meseldzija, M., Konstantinovic, Bo. (2011): Mapping of invasive species *Ambrosia artemisiifolia* L. by Ambrosia Spot Marker software. Herbologia, 12 (1): 157-164.
11.Konstantinovic, B., Meseldzija, M. (2011): Control of emergent macrophytes in irrigation and drainage channels. Herbologia, 12 (2): 35-42.
12.Konstantinovic, B., Meseldzija, M., Korac, M., Mandic, N. (2010): A study of weed seed bank under wheat, sugar beet and clover crops. Herbologia, 11 (2): 37-47.

Name: **Marija Saric-Krsmanovic**
Position[1]: Research trainee
Institution: Institute of Pesticides and Environmental Protection
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Expertise (general)
Areas of research expertise: Parasitic weeds, Weed and crop resistance to herbicides, Invasive weeds, Weed response to herbicides, Weed-crop competition
Other expertise relevant to SMARTER[2]: Response weeds (including invasive weeds) to herbicides; Mapping of invasive plant species; Integrated Weed Management.

Work on *Ambrosia*
Past work on Ambrosia: Study of effect of Plant Growth Promoting Rhizobacteria on *Ambrosia artemisiifolia* L. seed germination.

Ongoing work on Ambrosia: Experiments: seed germination; response to herbicides; competitive interactions between *Ambrosia trifida* and sunflower

Role in SMARTER
Anticipated role in SMARTER[3]: member of working groups WG2 and WG3

Max. five publications relevant to SMARTER[4]
1) Vrbnicanin, S., Bozic, D., **Saric, M**., Pavlovic, D., Raicevic, V. (2011): Effect of Plant Growth Promoting Rhizobacteria on *Ambrosia artemisiifolia* L. Seed Germination. Pesticides and Phytomedicine, 26, 141-146.

Scientific collaborations relevant to SMARTER

National: Prof. Sava Vrbnicanin, University of Belgrade - Faculty of Agriculture, Dr. Goran Malidza, Institute of Field and Vegetable Crops, Dr. Danijela Pavlovic, Institute for Plant Protection and Environment, Dr. Dragana Bozic, University of Belgrade - Faculty of Agriculture

European: Prof. Ahmet Uludag, Igdir University, Faculty of Agriculture, Turkey, Prof. Edita Stefanic, Faculty of Agriculture, Croatia

Outside Europe: Prof. Sasa Stefanovic, University of Toronto Mississauga, Department of Biology, Canada

[1] indicate also if fixed or limited until when

[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.

[3] MC, WG leader, WG member etc.; for specific topics see next page

[4] please add pdfs of your publication

[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	☐ Pathogens ☐ Insects ☐ Classical ☐ Inundative ☐ Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	**X** Weed biology **X** Weed abundance and distribution ☐ Soil seed bank ☐ Plant population dynamics/Modelling **X** Plant competition/Allelopathy ☐ Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	**X** Chemical ☐ Mechanical ☐ Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	☐ Aerobiology (Allergology (Air quality modelling (Ecological impact assessment (Economic & social impact assessment
	Task 5 Training and KTT	(Website (Workshops: Plant invasions & management (Workshop: Modelling impact & evaluation
	Task 6 Policy Support	(Biological Control (Invasive alien species

Curriculum vitae of Marija Saric-Krsmanovic

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Fax: +381 11 3076136
Gender: Female
Date of Birth: 7 June 1983, Sabac, Serbia
Marital Status: married
Languages: Serbian (native), English (excellent)

EDUCATION

2002-2008 BSc Degree in Plant Protection, Faculty of Agriculture, University of Belgrade, Serbia
2008- present PhD student in Weed science, Faculty of Agriculture, University of Belgrade, Serbia,
Thesis: Biology of field dodder (*Cuscuta campestris* Yunck.) and possibility its control

EMPLOYMENT

• 2008 - 2012 – Scholar of Ministry of education, science and technology with a BSc degree, University of Belgrade, Faculty of Agriculture, Serbia
• 2012-present - Research trainee with a BSc degree, Insitute of Pesticides and Environmental

EXPERTISE

• 4 years of experience in the practical trainings in weed science for students.
• 4 years experience of field and laboratory studies of weeds.
• Author of more than 35 publications

FUNDING

 Participant on national project „Biological, chemical, toxicological and ecotoxicological study of herbicides and their application" (2008-2011)

 Participant on national project - „Development of integrated systems for harmful organisms management in crop production in order to overcome resistance and improve the quality and safety of food" (2011-2014)

PUBLICATIONS (past five years):

1. Bozic D., Saric M., Malidza G., Ritz C., Vrbnicanin S. (2012): Resistance of sunflower hybrids to imazamox and tribenuron-methyl. Crop Protection, 39: 1-10.
2. Saric M., Bozic D., Pavlovic D., Elezovic I., Vrbnicanin S. (2012): Temperature effects on common cocklebur (*Xanthium strumarium* L.) seed germination. Romanian Agricultural Research, NO. 29: 389-393.
3.Vrbničanin, S., Božić, D., Sarić, M., Pavlović, D., Matić , L., Dakić, P. (2012): Biological Spectrum of Weed Flora and Vegetation of Raspberry Plantings in Serbia. Acta Hort. (ISHS) 946:293-296.
4. Vrbnicanin, S., Bozic, D., Saric, M., Pavlovic, D., Raicevic, V. (2011): Effect of Plant Growth Promoting Rhizobacteria on *Ambrosia artenmisiifolia* L. Seed Germination. Pesticides and Phytomedicine, 26 (2): 141-146.

5.Sarić, M., Vrbničanin, S., Božić, D., Raičević, V. (2009): Effect of plant growth-promoting rhizobacteria on the germination of *Cuscuta campestris* Yunck. 10th World Congress on Parasitic Plants, Kusadasi-Turkey, Proceedings: 73.
6.Vrbničanin, S., Stefanović, L., Božić D., Sarić, M. Radošević, R. (2009): Comparative Analysis of the Anatomy of Two Populations of Red-Root Amaranth (*Amaranthus retroflexus* L.). Pesticides and Phytomedicine, 24: 103-112.

Name: **Jelena Gajic Umiljendic**
Position[1]: Research assistant (from 2009)
Institution: Institute of Pesticides and Environmental Protection
Address: Banatska 31b, 11080 Belgrade, Serbia
Email: pecikos@gmail.com

Expertise (general)
Areas of research expertise:
Weed control; Weed response to herbicides; Herbicides-soil residues; Invasive weeds.
Other expertise relevant to SMARTER[2]:
Mapping of invasive plant species; Response weeds (including invasive weeds) to herbicides; Integrated Weed Management.

Work on *Ambrosia*
Past work on Ambrosia: Project " Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control" (2007-2009) including Ambrosia. Project „Monitoring and control ragweed (Ambrosia arthemisiifolia L.) in the city of Belgrade", funded by City of Belgrade, Department of Environmental Protection and the Department for Housing and Utilities (2006-2010). Project „Monitoring and control ragweed (Ambrosia arthemisiifolia L.) in the municipality of Obrenovac", funded by Fund for Environmental Protection Obrenovac (2009-2010).
Ongoing work on Ambrosia: Experiments: seed germination; response to herbicides; Monitoring and control ragweed (*Ambrosia arthemisiifolia* L.) around the city Belgrade.

Role in SMARTER
Anticipated role in SMARTER[3]: Member of working groups WG2 and WG3

Max. five publications relevant to SMARTER[4]
1) Janjić V., Nikolić B., Mitrić S., Gajić J., Plavšić Z. (2007): Osnovne karakteristike alergena polena ambrozije. U: AMBROZIJA. Herbološko društvo Srbije, Beograd, 69-81. (In Serbian) (Janjić V., Nikolić B., Mitrić S., Gajić J., Plavšić Z. (2007): Basic characteristics of ragweed pollen allergen. Janjic, V., Vrbnicanin , S. (eds.), Common ragweed, Weed Science Society of Serbia, Belgrade, pp. 69-81.
2) Jovanović V., Nikolić B., Janjić V., Gajić Umiljendić J., Stanković-Kalezić R. (2010): Klijanje semena ambrozije (*Ambrosia artemisiifolia* L.) u laboratorijskim uslovima u zavisnopsti od pojedinih tehničkih parametara. ACTA HERBOLOGICA,19(2), 89-98.
3) Jovanović V., Janjić V., Nikolić B., Gajić Umiljendić J., Giba Z. (2011): The effect of temperature on common ragweed (*Ambrosia artemisiifolia* L.) seed germination during stratification. Book of abstracts 19th Symposium of the Serbian Plant Physiology Society, Banja Vrujci, Serbia, 32.
4) Stanković-Kalezić R., Jovanović V., Janjić V., Radivojević Lj., Šantrić Lj., Gajić Umiljendić J. (2009): Rasprostranjenost ambrozije (*Ambrosia artemisiifolia*) na teritoriji opštine Obrenovac. Acta herbologica, 18(2), 103-113.
5) Stanković-Kalezić R., Jovanović V., Janjić V., Radivojević Lj., Šantrić Lj., Gajić Umiljendić J. (2010): Prisustvo ambrozije (*Ambrosia artemisiifolia* L.) u kukuruzu, soji i

strništu na teritoriji Obrenovca. Simpozijum Aktuelni problemi u suzbijanju korova i optimizacija primene hemijskih sredstava u zaštiti bilja 21.-24.09. Vršac. Zaštita bilja, 61, 2, 119-128.

Scientific collaborations relevant to SMARTER

National: Prof. Sava Vrbnicanin, University of Belgrade- Faculty of agriculture, Dr Dragana Bozic, University of Belgrade- Faculty of agriculture, Dr. Goran Malidza, Institute of Field and Vegetable Crops, Dr. Danijela Pavlovic, Institute for Plant Protection and Environment, Dr. Dragana Marisavljevic, Institute for Plant Protection and Environment

European: Prof. Ahmet Uludag, Igdir University, Faculty of Agriculture, Turkey

Outside Europe:

[1] indicate also if fixed or limited until when

[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.

[3] MC, WG leader, WG member etc.; for specific topics see next page

[4] please add pdfs of your publication

[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	☐ Pathogens ☐ Insects ☐ Classical ☐ Inundative (Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	(Weed biology **X** Weed abundance and distribution (Soil seed bank **X** Plant population dynamics/Modelling (Plant competition/Allelopathy (Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	**X** Chemical (Mechanical (Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	(Aerobiology (Allergology (Air quality modelling (Ecological impact assessment (Economic & social impact assessment
	Task 5 Training and KTT	(Website (Workshops: Plant invasions & management (Workshop: Modelling impact & evaluation
	Task 6 Policy Support	(Biological Control (Invasive alien species

Curriculum vitae of Jelena Gajic Umiljendic

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Gender: Female
Date of Birth: 08 January 1976, Belgrade, Serbia
Marital Status: married
Languages:Serbian(native),English(excellent),Russian(basic)

EDUCATION

1997-2004 B.Sc. Degree in Plant Protection, Faculty of Agriculture, University of Belgrade, Serbia

2007-present Ph.D. student in Phytopharmacy, Faculty of Agriculture, University of Belgrade, Serbia, Thesis: Sensitivity of tomato, paprika and cucumber to clomazone and imazamox residues in soil

EMPLOYMENT

 2005 –Faculty of Agriculture, University of Belgrade, Teaching assistant with B.Sc. degree (Herbology)

 2006 –present -Institute ofPesticides and Environmental Protection, Belgrade, Serbia, Research assistant

EXPERTISE

• 1 year of experience in the practical trainings in weed science for students.
• 7 years experience of field and laboratory studies of weeds and herbicides
• Author of more than 35 publications

FUNDING

 Participant on national project - „Research for the development of new and improvement of existing formulations of herbicides“ (2005-2007)

 Participant on national project „Identification and monitoring of alien invasive weeds on the territory of Serbia and recommendations for control“, (2007-2009)

 Participant on national project „Biological, chemical, toxicological and ecotoxicological study of herbicides and their application” (2008-2011)

 Participant on national project „Monitoring and control ragweed (*Ambrosia arthemisiifolia* L.) in the city of Belgrade”, funded by City of Belgrade, Department of Environmental Protection and the Department for Housing and Utilities (2006-2010)

 Participant on national project „Monitoring and control ragweed (Ambrosia atremisiifolia L.) in the municipality of Obrenovac", funded by Fund for Environmental Protection Obrenovac (2009-2010)
 Participant on national project - „Study of plant pathogens, arthropods, weeds and pesticides in order to develop biorational methods of plant protection and food safety, subproject leader „ Study of weeds, biological chemical and toxicological properties of herbicides " (2011-2014)

PUBLICATIONS (past five years)**:**

1. Djurovic R., Gajic Umiljendic J., Djordjevic T.(2008): Determination of Atrazine, Acetochlor, Clomazone, Pendimethalin and Oxyfluorfen in Soil by a Solid Phase Microextraction Method. Pesticides and Phytomedicine, 23(4), 265-271.
2. Stankovic-Kalezic R., Jovanovic V., Janjic V., Radivojevic Lj., Santric Lj., Gajic Umiljendic J. (2009): Distribution of common ragweed (*Ambrosia artemisiifolia* L.) in the territory of Obrenovac. Acta herbologica, 18(2), 103-113.
3. Djurovic, R., Gajic Umiljendic, J., Djordjevic, T. (2009): Effects of Organic Matter and Clay Content in Soil on Pesticide Adsorption Process. Pesticides and phytomedicine, 24(1), 51-58.
4. Djurovic R., Gajic Umiljendic J., Cupac S., Ignjatovic Lj. (2010): Solid Phase Microextraction as an Efficient Method for Characterization of the Interaction of Pesticides with Different Soil Types. Journal of the Brazilian Chemical Society, 21(6), 985-994.
5. Radivojevic Lj., Santric Lj., Gajic Umiljendic J. (2010): The effect of atarzine on some physiologal groups of microorganisms. Acta herbologica, 19(2), 81-88.
6. Radivojevic Lj., Santric Lj., Gajic Umiljendic J., Jovanovic-Radovanov K., Durovic R., Marisavljevic D. (2011): The effect of nicosulfuron on some physiologal groups of microorganisms. Acta herbologica, 20(1), 5-14.
7. Radivojevic Lj., Santric Lj., Gajic Umiljendic J. (2011): Rimsulfuron in soil: effects on microbiological properties under varying soil conditions. Pesticides and Phytomedicine, 26(2), 135-140.
8. Radivojevic Lj., Gasic S., Gajic Umiljendic J., Santric Lj., Brkic D. (2011): Impact of different adjuvants and modes of application on efficacy of rimsulfuron in maize. Pesticides and Phytomedicine, 26(3), 255-263.
9. Durovic R., Dordevic T., Radivojevic Lj., Santric Lj., Gajic Umiljendic J. (2011): The effect of soil composition on pendimethalin sorption. Acta herbologica, 20(1), 43-49.
10. Radivojevic Lj., Gasic S., Santric Lj., Gajic Umiljendic J., Marisavljevic D. (2012): Short-time effects of the herbicide nicosulfuron on the biochemical activity of chernozem soil. Journal of Serbian Chemical Society, 77(6), 845-854.

Name: **Darko Stojicevic**
Position[1]: PhD student
Institution: University of Belgrade-Faculty of Agriculture
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Expertise (general)

Areas of research expertise:
Gene flow, Weed and crop resistance to herbicides, Invasive weeds, Weed biodiversity, Weed-crop competition

Other expertise relevant to SMARTER[2]: Mapping of invasive plant species; Response weeds (including invasive weeds) to herbicides; Integrated Weed Management.

Work on *Ambrosia*

Ongoing work on Ambrosia: Experiments: seed germination; response to herbicides; competitive interactions between *Ambrosia trifida* and sunflower
Role in SMARTER *Anticipated role in SMARTER*[3]: member of working groups WG2 and WG3
Max. five publications relevant to SMARTER[4]
Scientific collaborations relevant to SMARTER *National*: Prof. Sava Vrbnicanin, University of Belgrade- Faculty of agriculture, Dr. Goran Malidza, Institute of Field and Vegetable Crops, Dr. Dragana Bozic, University of Belgrade-Faculty of agriculture, Dr. Danijela Pavlovic, Institute for Plant Protection and Environment *European*: *Outside Europe*:

[1] indicate also if fixed or limited until when
[2] including policy development at the European or at the national level, communication with stakeholders or the general public, etc.
[3] MC, WG leader, WG member etc.; for specific topics see next page
[4] please add pdfs of your publication
[5] give names and institutions or research programs, and keywords for collaborations

Contribution to SMARTER

WG 1 Biological control	Task 1 Biological Control	☐ Pathogens ☐Insects ☐Classical ☐Inundative ☐Augmentative
WG 2 Vegetation Management	Task 2 Vegetation Management	☐Weed biology ☐Weed abundance and distribution ☐Soil seed bank **X** Plant population dynamics/Modelling **X** Plant competition/Allelopathy ☐Vegetation management
WG 3 Integration of Management Options	Task 3 Integration of Management Options	☐Chemical ☐Mechanical ☐Integration
WG 4 Management Evaluation	Task 4 Management Evaluation	☐Aerobiology ☐Allergology ☐Air quality modelling ☐Ecological impact assessment ☐Economic &social impact assessment
	Task 5 Training and KTT	☐Website ☐Workshops: Plant invasions & management ☐Workshop: Modelling impact & evaluation
	Task 6 Policy Support	☐Biological Control ☐Invasive alien species

Curriculum vitae of Darko Stojicevic

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Gender: Male
Date of Birth: 16 december 1987, Pozarevac, Serbia
Marital Status: not married
Languages: Serbian(excellent), English(fluent), Rusian(fluent)

EDUCATION:

 2006-2011 BSc Degree in Plant Proection, Faculty of Agriculture, University of Belgrade, Serbia

 2011- Phd student, Plant Proection, Faculty of Agriculture, University of Belgrade, Serbia

EMPLOYMENT:

 Unemployed, Phd student

EXPERTISE:

FUNDING:

 Participant of national project- "Development of integrated systems for harmful organisms management in crop production in order to overcome resistance and improve the quality and safety of food" (2011-2014)

PUBLICATION:

1. Radivojevic N., Stojicevic D., Miletic B., Vrbnicanin S. (2012): Reakcije divljeg ovsa (*Avena fatua* L.) na piroksulam. Zlatibor 2012, Zbornik rezimea radova, 177-178.