



GIS analysis of spatial distribution of invasive tree species in the protected natural area of Mt. Avala (Serbia)

Milan GLIŠIĆ, Dmtitar LAKUŠIĆ, Jasmina ŠINŽAR-SEKULIĆ, Slobodan JOVANOVIĆ*

University of Belgrade, Faculty of Biology, Institute of Botany and Botanical Garden, Takovska 43, 11000 Belgrade, Serbia

ABSTRACT: In this paper we present the results of studies of distribution of seven invasive tree species (*Robinia pseudoacacia*, *Acer negundo*, *Fraxinus pennsylvanica* s.l., *Ailanthus altissima*, *Gleditsia triacanthos*, *Rhus typhina*, *Amorpha fruticosa*) in the protected area "Avala" in Serbia. Field studies were conducted between May and July 2012. Distribution data for invasive species were collected using the GPS positioning with a GPS receiver eTrex Vista C (Garmin). Software Manifold System 5.50 Professional Edition was used for spatial data analysis and for creation of vector maps of the MGRS network with 100 × 100 m squares. We registered a total of 1019 individual occurrence data, which were distributed to 245 MGRS squares of 100 × 100 m. A detailed distribution map, resulting from the analysis of distribution in relation to the zones of protection and habitat types, is presented for each invasive species.

KEY WORDS: invasive alien trees, GIS, protected area, *Robinia pseudoacacia*, *Acer negundo*

Received: 17 August 2013

Revision accepted 18 February 2014

UDK 581.5.42:574.9(497.11)

INTRODUCTION

Invasive species represent the second greatest threat to biodiversity worldwide (BRENNAN & WITHGOTT 2005), and, according to the European Strategy on Invasive Alien Species, one of the greatest challenges for biodiversity conservation in Europe (GENOVESI & SHINE 2003). Invasive species grow and spread in natural ecosystems, modifying their basic processes: hydrology, matter cycles, soil erosion level, frequency and intensity of fires (D'ANTONIO & VITOUSEK 1992). Field studies and experiments confirmed that the presence of alien species can be a threat to native species, primarily due to the negative effects of competition (VILÀ & WEINER 2004). This can lead to the homogenization of ecosystems and decrease of autochthonous species diversity (D'ANTONIO & VITOUSEK 1992).

A large number of invasive plants are trees. At the global level, damaged or disturbed habitats are the most

vulnerable to biological invasions by woody species (BINGGELI 1996). Invasive trees more easily invade large clearings caused by deforestation than native trees. Due to increasing demands for wood fuel and other products of forest ecosystems, new conditions suitable for settling and spreading of invasive woody species, which were introduced to Europe primarily between 1838 and 1937, are being created (BINGGELI *et al.* 1998).

Twenty-three alien tree species have been identified in forest ecosystems in Serbia (MEDAREVIĆ *et al.* 2008), of which 17 are invasive (GRBIĆ *et al.* 2007). Owing to their aggressive expansion abilities, some of them represent a serious threat to natural regeneration and survival of native trees. This is particularly true for the following species: *Robinia pseudoacacia*, *Acer negundo*, *Ailanthus altissima*, and *Amorpha fruticosa*. However, more precise data on distribution of invasive woody species in Serbia still do not exist, particularly those related to protected areas.

*correspondence: sjov@bio.bg.ac.rs

The aim of this paper was to map invasive tree species within the protected natural area on Mt. Avala near Belgrade in detail. Based on the results, it will be possible to make a realistic assessment of actual and potential threats, and of the degree of invasiveness in autochthonous forest ecosystems, as well as to offer a proposal of silviculture measures aimed at controlling and preventing further spreading of invasive trees.

MATERIAL AND METHODS

Study area - Mt. Avala is located 16 km south of Belgrade, between 20°30'10" and 20°34'15" east, and 44°38'17" and 44°42'0.3" north (Fig. 1a). According to CVIJIĆ (1924), Mt. Avala belongs to the transitional mountain zone of Šumadija, as its lithological composition cannot be placed in either the Rhodopian or Dinaric mountain system. The lithological composition of Mt. Avala mainly consists of sediment serpentinite rocks from late Cretaceous and a large serpentinite mass, which makes the basis of the lithological substrate, covered by limestone, marl, and sandstone (DIMITRIJEVIĆ 1931). The peak of Mt. Avala is 506 m above m.s.l., while its foothill (the Vranovac brook) is only 210 m above m.s.l. It belongs to the moderate-continental climate zone, in which average annual air temperatures range from 20 to 22°C, decreasing with increase of altitude (RAKIĆEVIĆ 1980).

Approximately 70% of the area is covered with forest vegetation that consists of the following associations of deciduous forests (BORISAVLJEVIĆ *et al.* 1955; OBRATOV 1986; JOVOVIĆ 2004):

- Ass. *Orno-Quercetum virgiliana* (Gajić 1952) Jov. 1979 - relict and the most thermophilous community that covers only small areas at two localities on Mt. Avala in the form of narrow ridges on the south and southwest side;

- Ass. *Rusco-Quercetum frainetto-cerris* (Rudski 1940) Jov. (1951) 1979 - represents a part of the broadly conceived community *Quercetum confertae-cerris* Rudski 1940, which is climatogeneous for the hilly belt of Serbia. It is located on the south and southeastern side of Mt. Avala;

- Ass. *Orno-Quercetum petraeae* (Bor. 1959) Mišić 1972 - this is located on exposed ridges and southern slopes, on almost all sides of Mt. Avala;

- Ass. *Rusco-Quercetum-Carpinetum* Jov. 1979 - this is present in the form of a belt at altitudes of 280-490 m, at all exposures except the most exposed southern ridges and north-exposed gullies;

- Suball. *Fagenion moesiaca submontanum* - comprises hilly beech forests, which develop in the oak zone on Mt. Avala, but only in favourable orographic and microclimate conditions that exist only in a relatively small area, mostly in a gully on the eastern side of the mountain. The basic type of this forest is presented by the *Fagetum submontanum serbicum* subass. *tilietosum* Jank. et Miš. 1954 community. Another type of mixed hilly beech forests is transitional towards the pure oak forests - Ass. *Fagetum submontanum mixtum* Mišić (1963) 1972 or Ass. *Rusco-Fagetum submontanum* Gaj. 1967.

Besides natural deciduous forests, cultures of planted conifers also grow on Mt. Avala: *Pinus nigra*, *P. sylvestris*, *Cedrus atlantica*, and *Pseudotsuga menziesii*. Black locust (*Robinia pseudoacacia*) cultures are planted in several places from where they spontaneously spread towards other habitats.

Meadow vegetation of Mt. Avala is presented with communities from the alliances *Festucion vallesiaca* and *Arrhenatherion elatioris*: *Xeranthemeto-Ischaemetum* Borisav. 1956, *Festucetum valesiaca* Borisav. 1956, *Bromus arvensis-Bromus mollis* R. Jov. 1955, *Poa angustifolia-*

Table 1. Distribution of invasive tree species on Mt. Avala (zones of protection and MGRS squares).

Invasive tree species in Avala	All species		<i>Robinia pseudoacacia</i>		<i>Acer negundo</i>		<i>Fraxinus</i> sect. <i>Melioides</i>		<i>Ailanthus altissima</i>		<i>Gleditsia triacanthos</i>		<i>Rhus typhina</i>		<i>Amorpha fruticosa</i>	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Zones of protection																
Zone I	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Zone II	119	11.6	103	10.6	1	0.1	9	0.9	5	0.5	0	0.0	1	0.1	0	0.0
Zone III	900	88.4	746	76.9	37	3.8	29	3.0	22	2.3	28	2.9	24	2.5	14	1.4
In all zones	1019	100.0	849	87.5	38	3.9	38	3.9	27	2.8	28	2.9	25	2.6	14	1.4
In MGRS squares	245	44.8	230	42.0	19	3.5	17	3.1	16	2.9	14	2.6	6	1.1	2	0.4

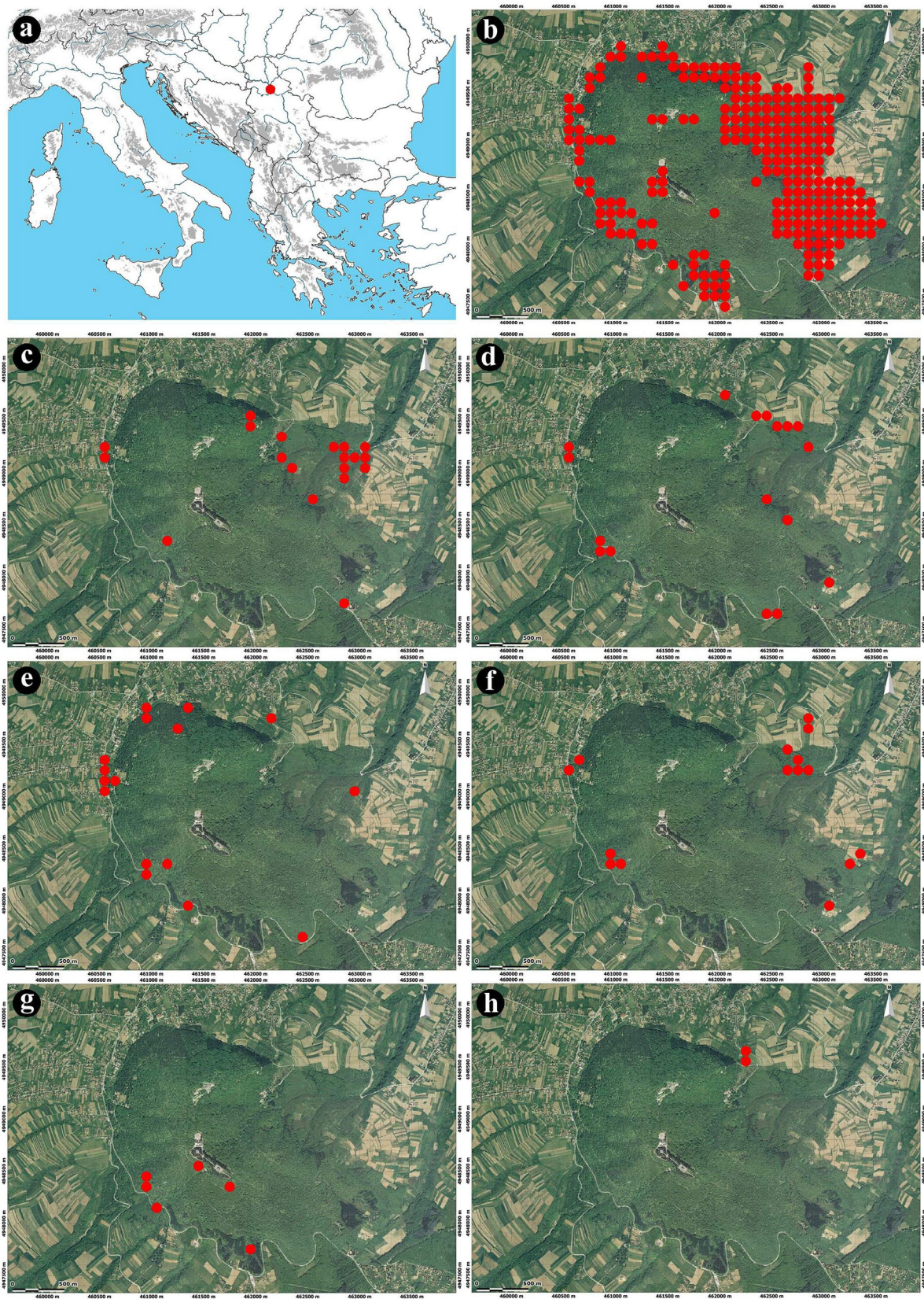


Fig. 1. Maps of invasive tree species distribution on Mt. Avala (MGRS grid 100 x 100 m).
a. Position of Mt. Avala; **b.** *Robinia pseudoacacia*; **c.** *Acer negundo*; **d.** *Fraxinus* sect. *Melioides*; **e.** *Ailanthus altissima*; **f.** *Gleditsia triacanthos*;
g. *Rhus typhina*; **h.** *Amorpha fruticosa*.

Table 2. Presence of invasive tree species in different vegetation types on Mt. Avala.

Taxon	<i>Robinia pseudoacacia</i>	<i>Acer negundo</i>	<i>Fraxinus</i> sect. <i>Melioides</i>	<i>Ailanthus altissima</i>	<i>Gleditsia triacanthos</i>	<i>Rhus typhina</i>	<i>Amorpha fruticosa</i>
<i>Orno-Quercetum virgilianae</i>	×						
<i>Rusco-Quercetum frainetto-cerris</i>	×		×				
<i>Orno-Quercetum petraeae</i>	×						
<i>Rusco-Querco-Carpinetum</i>	×	×	×			×	
<i>Fagetum submontanum</i> s.l.							
Conifer plantations	×	×	×	×		×	
Meadow vegetation	×	×	×	×	×		×

Achillea colina Borisav. 1956, *Dactylis glomerata-Geranium robertianum* R. Jov. 1955, and *Agrostis alba-Cynosurus cristatus* R. Jov. 1955. These communities are mostly of a secondary nature, resulting from deforestation. They are surrounded by forest stands, from which woody species penetrate the grass cover of these meadows, decreasing their size in this way (OBRATOV 1986).

Mt. Avala was proclaimed a protected natural area in 2004, in the category “Landscape of Outstanding Features” and it is entrusted to the Public Enterprise “Srbijašume”. The protected area covers 489.13 ha, with three zones of different protection regimes. The Protection Regime I zone covers 8.06 ha, Protection Regime II zone covers 121.78 ha, and Protection Regime III zone covers 359.29 ha (Jovović 2004).

Data sampling and analysis - Field studies were realised between May and July 2012. Distribution data for seven invasive tree species were mapped with a GPS positioning method: *Robinia pseudoacacia*, *Acer negundo*, *Fraxinus* sect. *Melioides*, *Ailanthus altissima*, *Gleditsia triacanthos*, *Rhus typhina*, and *Amorpha fruticosa* (all mapped data are presented in the electronic appendix of this paper). A GPS receiver eTrex Vista C (Garmin) was used for GPS positioning.

Vector distribution maps were created from collected data using the Manifold System 5.50 Professional Edition (Manifold System, CDA International LTD) software. The same software was used for data analysis. Distribution maps were generated from empirical findings of invasive species on Mt. Avala, in a MGRS network with 100 x 100 m squares.

RESULTS AND DISCUSSION

Of a total of 17 trees that are considered invasive in Serbia (GRBIĆ *et al.* 2007), seven taxa were found on Mt. Avala. These are: *Robinia pseudoacacia*, *Acer negundo*, *Fraxinus* sect. *Melioides*, *Ailanthus altissima*, *Gleditsia triacanthos*, *Rhus typhina*, and *Amorpha fruticosa* (Table 1).

The number of individual occurrences of invasive tree species on Mt. Avala was 1019, and the number of MGRS 100 x 100 m squares in which the presence of one or more invasive tree species were recorded was 245, 44.8% of the total number of squares that cover the protected area. No invasive woody species were recorded within the Protection Regime I zone (Table 1).

The presence of the black locust (*Robinia pseudoacacia*) was recorded within 42.0% MGRS squares of the total surface of Mt. Avala, while a significantly smaller percentage of squares were occupied by other invasive trees: *Acer negundo* (3.5%); *Fraxinus* sect. *Melioides* (3.1%); *Ailanthus altissima* (2.9%); *Gleditsia triacanthos* (2.6%); *Rhus typhina* (1.1%), and *Amorpha fruticosa* (0.4%). A marked similarity was observed between the percentage of squares with all invasive species present and squares with the black locust, which indicates a low level of squares with other species compared to those with the black locust.

Regarding the vegetation types, invasive woody species were recorded in all natural forest communities, except in the well preserved hilly beech forest (Ass. *Fagetum submontanum* s.l.). They were also present in planted coniferous stands as well as in meadow habitats (Table 2).

***Robinia pseudoacacia* L.** – This species is the most abundant of all studied species (Fig. 1b). Such an observation is consistent with the extensive presence of the black locust throughout Serbia. Namely, the black locust today represents one of the widely distributed woody species on the Planet, and the third most abundant woody species in Serbia (STAMENKOVIĆ & VUČKOVIĆ 1988), where it was introduced in 1808-1809 (PETROVIĆ 1951). As well as widespread natural occurrences, this species was planted on Mt. Avala in the past. In that sense, the plantation stand of the black locust covers 0.96 ha or 0.3% of the total forest area on Mt. Avala (JOVOVIĆ 2004).

The black locust forms both monodominant coppice forests and high forests on Mt. Avala. Such stands are present mainly on eastern hillsides, where they cover large areas or parts of the following localities: Vranovac, Čot, Bukovica, Vinogradi, and Gleđevac. Furthermore, the black locust enters all forest communities on Mt. Avala to a greater or lesser extent, except for the well-preserved hilly beech forest (Ass. *Fagetum submontanum* s.l.), where light and other ecological conditions of this pristine forest community are not favourable for its growth (Table 2). In that sense, considering its heliophilous character, its great ability to form coppice forest, and its rapid propagation through root sprouts, as well as its general eurivalence and high competitiveness, the presence of *R. pseudoacacia* is particularly enhanced and dangerous in bright and partially damaged oak forests of Mt. Avala. It was recorded even in a somewhat more sciophilous and mesophilous community of sessile oak and hornbeam (*Rusco-Quercocarpinetum*) – north of the Vranovac brook, where it was present largely in the ground floor layer, diminishing in this way the light intensity and development of the sessile oak.

The black locust is particularly abundant in habitats with planted conifers. There is almost no place on Mt. Avala where the black pine (*Pinus nigra*) grows without the presence of the black locust. Namely, due to favourable light conditions in the black pine stands, the black locust grows very well in their lower layers. It is often present in stands of planted Douglas fir (*Pseudotsuga menziesii*), or along their edges.

The species *R. pseudoacacia* rapidly occupies meadow communities on the eastern slopes of Mt. Avala, building low, thick, and impenetrable shrubs. This prevents natural progradational succession of meadow vegetation towards autochthonous forest communities, as the black locust is very dominant and no other species has favourable conditions for survival in such habitats.

***Acer negundo* L.** – This species is present mainly along rivulets and near the spring Vranovac, which would be expected, as it is originally from river valleys of the

eastern part of North America (ROSARIO 1988). However, on Mt. Avala boxelder grows in other types of habitats as well, mostly in gulches as well as in places with considerable anthropogenic influence (e.g. around roads and built structures). Its presence is generally limited to the Protection Regime III zone and to the foothill of Mt. Avala (Fig. 1c). As a heliophilous species, it frequently grows together with the black locust, and it also inhabits abandoned meadows. It rarely grows in natural forest communities of Mt. Avala and it is mainly present along forest edges.

Fraxinus* sect. *Melioides – Due to their similar features, the species *Fraxinus americana* L. and *F. pennsylvanica* Marsh. are generally known under the common name “American ash” in forestry practice in Serbia and Croatia. They belong to the subgenus *Fraxinus* and to section *Melioides* (KREMER 2006). Although it is very important to differentiate between the white ash and the green ash, primarily for their different habitat preferences, during our field studies on Mt. Avala they were mapped only as “American ash” (Fig. 1d). It would be necessary to carry out further detailed research to assess the abundance and distribution of these two American ashes more precisely, as well as to determine whether one or both species are present.

On Mt. Avala, the American ash is present mostly at its foothill as well as along forest edges and roads. Its distribution is largely limited to Protection Regime III zone. It rarely grows in natural forests and it can be found mainly around their edges. It can be found in black locust stands, particularly in gulches on the eastern slopes of Mt. Avala. It is most abundant in the northeastern part of the protected area, along the forest edge towards Gornje Bavčine, and its tall trees are also frequent along the Vranovac brook, where it grows together with *Acer negundo*.

***Ailanthus altissima* (Mill.) Swingle** – Considering that in the temperate zone of Europe the tree-of-heaven grows in different successive stages of urban vegetation, from annual pioneer communities, communities with dominant perennial herbaceous plants and grasses, to shrub communities (GUTTE *et al.* 1987), its presence on Mt. Avala is not extensive (Fig. 1e). However, there are places where this species is significantly abundant, particularly along roads and around built structures, where anthropogenic impact is increased. It is frequent in pine stands on the north slopes of Mt. Avala, as well as at the foothill, as far as the village of Pinosava, where it is present together with other invasive woody species. It was not recorded in natural deciduous forests of Mt. Avala, but in some places it grows in black locust stands.

The tree-of-heaven rarely grows as an individual tree on Mt. Avala; it is usually found in groups of several shoots. Wherever an individual tall tree was observed, it was always surrounded by numerous sprouts. Based on that, as well as on the fact that it grows very fast, a rapid change of the current status towards an increased number of tall trees and general spreading of this species to new areas could be expected on Mt. Avala.

***Gleditsia triacanthos* L.** – This species is mainly present in abandoned meadows, field boundaries, forest edges, and along roads, but only in the Protection Regime III zone at the foothill of Mt. Avala (Fig. 1f). It is frequent in black locust stands north of the Vranovac brook. It also grows both as a shrub and as a tall tree, mostly along one part of the ring road on Mt. Avala and in black locust stands. It was not observed in natural forest communities.

***Rhus typhina* L.** – This species is not frequent on Mt. Avala, where it can be found at only a few localities. It is known that staghorn sumac usually grows on dry, rocky, or gravelly soils (CHAPMAN & BESSETTE 1990). Thus, observing the highest abundance of *R. typhina* on Mt. Avala in an abandoned quarry and its surroundings, near the ascending part of the ring road, was to be expected. A large number of *R. typhina* trees were present in this location, along with a large number of young sprouts. Furthermore, the staghorn sumac was observed in an abandoned quarry near the monumental complex at the top of Mt. Avala, also in the vicinity of the ring road (Fig. 1g). It is present at several other locations near the roads, as well as in the stand of planted conifers on the southern slopes of Mt. Avala, where it grows together with the black locust. It was not observed in natural forest communities.

***Amorpha fruticosa* L.** – On Mt. Avala it grows only at one locality, near the restaurant “Stari Majdan” (Fig. 1h). Together with other species, such as *Robinia pseudoacacia*, *Prunus spinosa*, *Rosa canina*, and *Rubus* sp., it forms a hardly-penetrable shrub formation. The presence of 14 individual shrubs of desert false indigo was observed in this small area. Although it is present in small numbers, there is a risk that it would spread to other habitats with larger quantities of groundwater or near watercourses, considering that it grows mostly on wet soils along river banks, brooks, and ponds (RADULOVIC *et al.* 2008).

All invasive woody species observed on Mt. Avala are deciduous and have the form of a tree, except in the case of *Amorpha fruticosa*, which is a shrub species. However, other species can also form a shrubby habitus, depending on the habitat conditions. The height of plants that have a tree habitus can reach 40–50 m in some cases (*Acer negundo* and *Gleditsia triacanthos*), while in the case of *Rhus typhina* height rarely exceeds 10 m.

Most of these species are originally from North America and their natural ranges spread mainly over eastern parts of the USA. *Ailanthus altissima* is the only recorded invasive woody species on Mt. Avala originally from Asia, with a native range in the Chinese province Zhili (JOVANOVIĆ 1985). Areas where this woody species naturally grows are mainly with temperate-continental climate, and with broadleaf deciduous forests as the main vegetation type. All these species were introduced into different parts of the world for reforestation, as well as for timber and firewood production, or as ornamental and park species.

With regard to the negative impact that they may have on biodiversity (GRBIĆ *et al.* 2007), four species recorded on Mt. Avala pose a high risk: *Robinia pseudoacacia*, *Acer negundo*, *Ailanthus altissima*, and *Amorpha fruticosa*; *Fraxinus* sect. *Melioides* poses a moderate risk, while *Gleditsia triacanthos* and *Rhus typhina* represent invasive species that pose a low risk to autochthonous biodiversity.

The results of this research indicate that the distribution of invasive woody species on Mt. Avala is not uniform and that it depends largely on the state and conditions that prevail in certain parts of the mountain. This primarily pertains to the type of natural vegetation and the form and level of anthropogenic impact. Featured protection zones on Mt. Avala are clearly distinguished for the presence of invasive woody species, which were not recorded at all in the Protection Regime I zone. This can be explained by the vegetation type present in this zone, the distance from existing asphalt roads, and the absence of a serious anthropogenic impact. Namely, this zone is dominated by a preserved hilly beech forest (*Fagetum submontanum* s.l.), with old, tall trees, and in which light and other conditions are not favourable for the development of invasive trees. One of the important factors is that this zone does not extend along asphalt roads, where invasive species are the most abundant on Mt. Avala. The third reason (and perhaps the most important) is that the sanitary felling, as well as any other type of tree cutting, is prohibited within this zone, which prevents canopy opening and creation of conditions favourable for development of invasive species. On the other hand, the abundance of invasive woody species is high in the Protection Regime II zone (11.6%), and very high in the Protection Regime III zone (88.4% of the total number of occurrences).

CONCLUSIONS

Occurrences of seven invasive species: *Robinia pseudoacacia*, *Acer negundo*, *Fraxinus* sect. *Melioides*, *Ailanthus altissima*, *Gleditsia triacanthos*, *Rhus typhina*, and *Amorpha fruticosa*, were mapped following a detailed field study of their distributions within the protected area “Avala” near Belgrade.

A total of 1019 individual occurrences of invasive tree species were recorded, distributed within 245 MGRS 100 x 100 m squares, which represents 44.8% of the total number of squares that cover the protected area on Mt. Avala.

Differences in occurrence of invasive woody species in three zones under different protection regimes were in accordance with the state and type of the natural vegetation in each zone, with the level of anthropogenic influence and deforestation, and with the location and shape of each zone (exposure or isolation relative to the invasive impact). None of the invasive species was observed in the Protection Regime I zone, while the percentage of their occurrences in the Protection Regime II zone was 11.6%, and in the Protection Regime III zone it was 88.4%.

Forest communities on Mt. Avala differ in relation to the degree of invasiveness. In that sense, hilly beech forests are the most resistant to invasion of allochthonous woody species, considering that they were not present in these forests, whereas stands of planted conifers were the most vulnerable, along with bright, thermo-mesophilous oak forests, which are more or less damaged.

The most abundant of all invasive woody species was *Robinia pseudoacacia*, which is the only species that builds monodominant stands in a relatively wide area of the eastern slopes of Mt. Avala, and is the only species that is significantly present in all natural forest communities, except for the beech forest. The black locust was present in 42.0% of MGRS squares of the total surface of Mt. Avala, while other invasive trees were recorded in a significantly smaller number.

In the case of some invasive species, the reason for their absence in natural forests is their ecology, namely the impossibility of their survival in such communities (e.g. *Ailanthus altissima* or *Gleditsia triacanthos*). However, in the case of some other species (e.g. *Rhus typhina* or *Amorpha fruticosa*), the reason could be the short time that has elapsed since they were established on Mt. Avala.

The factor that greatly enables the invasive woody species to spread into natural forests is the inadequate and excessive cutting of native species and opening of the forest canopy. For this reason, it is very important to respect the prohibitions related to tree cutting, as well as to adequately implement cultivation and sanitary felling in zones where it is permitted (Protection Regime II and III zones).

The data presented here provide an excellent practical basis to managers of the protected area of Mt. Avala in terms of taking adequate measures against invasive woody species, and offer the possibility for comparative studies and realistic assessment of trends in the spread of invasive species in this area in the future.

Acknowledgements — This work was supported by the Ministry of Education, Science and Technological Development of the Republic of Serbia (Grant No. 173030).

REFERENCES

- BINGGELI P. 1996. A taxonomic, biogeographical and ecological overview of invasive woody plants. *Journal of Vegetation Science* 7: 121-124.
- BINGGELI P, HALL JB, HEALEY JR. 1998. An Overview of Invasive Woody Plants in the Tropics. School of Agricultural and Forest Sciences, University of Wales, Bangor. No. 13.
- BORISAVLJEVIĆ LJ, JOVANOVIĆ-DUNJIĆ R, MIŠIĆ V. 1955. Vegetacija Avale. Zbornik radova SAN 6, Institut za ekologiju i geografiju 3: 3-43, Beograd.
- BRENNAN SR, WITHGOTT J. 2005. Biodiversity and Conservation Biology. In: *Environment; The Science behind the Stories*. Pearson, Benjamin - Cummings, San Francisco.
- CHAPMAN WK, BESSETTE AE. 1990. Trees and shrubs of the Adirondacks. Utica, NY: North Country Books.
- CVIJIĆ J. 1924. Geomorfologija knj. I. Državna štamparija Kraljevine Srba, Hrvata i Slovenaca, Beograd.
- D'ANTONIO CM, VITOUSEK PM. 1992. Biological invasions by exotic grasses, the grass/fire cycle. *Annual Review of Ecology and Systematics* 23: 63.
- DIMITRIJEVIĆ B. 1931. Avala – petrografsko-minerološka studija. Beograd.
- GENOVESI P, SHINE C. 2003. European Strategy on Invasive Alien Species: Convention on the Conservation of European Wildlife and Habitats Final Version (Standing Committee 23rd meeting, Strasbourg 1-5 December 2003).
- GRBIĆ M, ĐUKIĆ M, SKOČAJIĆ D, ĐUNISIJEVIĆ-BOJOVIĆ D. 2007. Role of invasive plant species in landscapes of Serbia, 18th International Annual ECLAS Conference "Landscape Assessment - From Theory to Practice: Applications in Planning and Design Proceedings", pp. 219-228, Faculty of Forestry, Belgrade.
- GUTTE P, KLOTZ S, LAHR C, TREFFLICH A. 1987. *Ailanthus altissima* (Mill.) Swingle. Eine vergleichend pflanzengeographische Studie. *Folia Geobot. Phytotax.* 22: 241-262.
- JOVANOVIĆ B. 1985. Dendrologija. Naučna knjiga, Beograd.
- JOVOVIĆ N. 2004. Predeo izuzetnih odlika „Avala”, predlog za zaštitu. Studija, Zavod za zaštitu prirode Srbije, Beograd.
- KREMER D. 2006. Morfološke razlike između američkoga bijelog jasena (*Fraxinus americana* L.) i pensilanskoga jasena (*F. pennsylvanica* Marshall) unešenog u Hrvatsku. *Šumarski list* 7-8: 305-318.
- MEDAREVIĆ M, BRANKOVIĆ S, ŠLJUKIĆ B. 2008. Sustainable forest management in Serbia - state and potential. *Bulletin of Faculty of Forestry* 97: 33-56.
- OBRATOV D. 1986. Vaskularna flora i biljnogeografske

- karakteristike Avale. Magistarski rad, Univerzitet u Beogradu, Odsek za biološke nauke, Beograd.
- PETROVIĆ DS. 1951. Strane vrste drveća (egzoti) u Srbiji. Institut za fiziologiju razvića, genetiku i selekciju, Knjiga 1, Srpska akademija nauka.
- RADULOVIĆ S, SKOČAJIĆ D, BJEDOV I, ĐUNISIJEVIĆ-BOJOVIĆ D. 2008. *Amorpha fruticosa* L. na vlažnim staništima Beograda. Glasnik šumarskog fakulteta **97**: 221-234.
- RAKIĆEVIĆ T. 1980. Klimatsko rejoniziranje SR Srbije. Zbornik radova Geografskog instituta PMF Beograd **27**: 29-41.
- ROSARIO LC. 1988. *Acer negundo*. In: Fire Effects Information System, [Online]. U.S.
- STAMENKOVIĆ V, VUČKOVIĆ M. 1988. Prirast i proizvodnost stabala i šumskih sastojina. Šumarski fakultet, Beograd.
- VILÀ M, WEINER J. 2004. Are invasive plant species better competitors than native plant species? - evidence from pair-wise experiments. *Oikos* **105**: 229-238.

Botonica SERBICA



REZIME

GIS analiza prostorne distribucije invazivnih drvenastih vrsta u zaštićenom prirodnom dobru Avala (Srbija)

Milan GLIŠIĆ, Dmtar LAKUŠIĆ, Jasmina ŠINŽAR-SEKULIĆ, Slobodan JOVANOVIĆ

U radu su prikazani rezultati istraživanja zastupljenosti i distribucije sedam invazivnih drvenastih vrsta (*Robinia pseudoacacia*, *Acer negundo*, *Fraxinus pennsylvanica* s.l., *Ailanthus altissima*, *Gleditsia triacanthos*, *Rhus typhina*, *Amorpha fruticosa*) na području zaštićenog prirodnog dobra Avala u Srbiji. Terenska istraživanja su realizovana u periodu od maja do jula 2012. godine, a podaci o distribuciji invazivnih vrsta su sakupljeni metodom GPS pozicioniranja korišćenjem GPS prijemnika eTrex Vista C (Garmin). Softver Manifold System 5.50 Professional Edition je korišten za prostornu analizu podataka i izradu vektorskih karta na MGRS mreži sa kvadratima veličine 100 × 100 m. Tokom istraživanja je registrovano ukupno 1019 pojedinačnih nalaza koji su distribuirani u 245 MGRS kvadrata veličine 100 × 100 m. U radu su prikazane detaljne karte rasprostranjenja za svaku pojedinačnu vrstu, kao i analize distribucije u odnosu na zone zaštite i tipove staništa u kojima su vrste registrovane.

Ključne reči: invazivne drvenaste vrste, GIS, zaštićeno područje, *Robinia pseudoacacia*, *Acer negundo*

Appendix 1.

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Acer negundo	Serbia	Avala mt.	44,682	20,532	280	DQ642787
Acer negundo	Serbia	Avala mt.	44,688	20,509	371	DQ641813
Acer negundo	Serbia	Avala mt.	44,691	20,528	340	DQ642857
Acer negundo	Serbia	Avala mt.	44,691	20,527	337	DQ642857
Acer negundo	Serbia	Avala mt.	44,693	20,532	281	DQ642889
Acer negundo	Serbia	Avala mt.	44,693	20,525	319	DQ642930
Acer negundo	Serbia	Avala mt.	44,693	20,531	283	DQ642980
Acer negundo	Serbia	Avala mt.	44,694	20,525	317	DQ642930
Acer negundo	Serbia	Avala mt.	44,694	20,532	270	DQ642980
Acer negundo	Serbia	Avala mt.	44,694	20,532	272	DQ642980
Acer negundo	Serbia	Avala mt.	44,694	20,534	250	DQ643900
Acer negundo	Serbia	Avala mt.	44,695	20,502	256	DQ640951
Acer negundo	Serbia	Avala mt.	44,695	20,502	275	DQ640951
Acer negundo	Serbia	Avala mt.	44,695	20,502	253	DQ640951
Acer negundo	Serbia	Avala mt.	44,695	20,502	276	DQ640951
Acer negundo	Serbia	Avala mt.	44,695	20,533	229	DQ643901
Acer negundo	Serbia	Avala mt.	44,695	20,533	258	DQ642991
Acer negundo	Serbia	Avala mt.	44,695	20,524	298	DQ642921
Acer negundo	Serbia	Avala mt.	44,695	20,502	251	DQ640951
Acer negundo	Serbia	Avala mt.	44,695	20,524	298	DQ642921
Acer negundo	Serbia	Avala mt.	44,695	20,523	310	DQ642921
Acer negundo	Serbia	Avala mt.	44,695	20,524	299	DQ642921
Acer negundo	Serbia	Avala mt.	44,695	20,502	252	DQ640951
Acer negundo	Serbia	Avala mt.	44,695	20,531	249	DQ642981
Acer negundo	Serbia	Avala mt.	44,695	20,502	251	DQ640951
Acer negundo	Serbia	Avala mt.	44,695	20,531	244	DQ642981
Acer negundo	Serbia	Avala mt.	44,695	20,502	251	DQ640952
Acer negundo	Serbia	Avala mt.	44,695	20,530	249	DQ642972
Acer negundo	Serbia	Avala mt.	44,695	20,531	244	DQ642982
Acer negundo	Serbia	Avala mt.	44,695	20,530	251	DQ642972
Acer negundo	Serbia	Avala mt.	44,695	20,531	248	DQ642982
Acer negundo	Serbia	Avala mt.	44,695	20,530	247	DQ642972
Acer negundo	Serbia	Avala mt.	44,695	20,533	224	DQ643902
Acer negundo	Serbia	Avala mt.	44,696	20,523	312	DQ642923
Acer negundo	Serbia	Avala mt.	44,697	20,524	314	DQ642923
Acer negundo	Serbia	Avala mt.	44,698	20,520	390	DQ641994
Acer negundo	Serbia	Avala mt.	44,698	20,520	387	DQ641995
Acer negundo	Serbia	Avala mt.	44,698	20,520	390	DQ641995
Ailanthus altissima	Serbia	Avala mt.	44,681	20,527	281	DQ642746
Ailanthus altissima	Serbia	Avala mt.	44,681	20,526	281	DQ642746
Ailanthus altissima	Serbia	Avala mt.	44,681	20,526	282	DQ642746
Ailanthus altissima	Serbia	Avala mt.	44,681	20,526	280	DQ642746
Ailanthus altissima	Serbia	Avala mt.	44,684	20,512	320	DQ641739

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,687	20,507	304	DQ640892
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,688	20,510	372	DQ641813
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,688	20,510	374	DQ641813
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,688	20,507	327	DQ640893
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,688	20,510	379	DQ641813
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,688	20,507	327	DQ640893
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,688	20,509	372	DQ641813
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,694	20,502	264	DQ640950
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,694	20,532	272	DQ642990
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,694	20,503	280	DQ640961
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,695	20,502	260	DQ640951
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,695	20,502	274	DQ640951
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,695	20,503	280	DQ640961
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,696	20,502	279	DQ640952
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,696	20,502	279	DQ640952
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,696	20,502	296	DQ640953
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,699	20,511	322	DQ641926
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,700	20,508	292	DQ640997
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,700	20,522	305	DQ642917
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,700	20,507	278	DQ640997
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,701	20,512	307	DQ641938
<i>Ailanthus altissima</i>	Serbia	Avala mt.	44,701	20,507	278	DQ640998
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	338	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	337	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	338	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	338	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	338	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	338	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	337	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	337	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	336	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	336	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	336	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	336	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,698	20,523	336	DQ642925
<i>Amorpha fruticosa</i>	Serbia	Avala mt.	44,699	20,524	324	DQ642926
<i>Fraxinus</i> sect. <i>Melioides</i>	Serbia	Avala mt.	44,681	20,527	280	DQ642746
<i>Fraxinus</i> sect. <i>Melioides</i>	Serbia	Avala mt.	44,681	20,526	283	DQ642746
<i>Fraxinus</i> sect. <i>Melioides</i>	Serbia	Avala mt.	44,681	20,526	281	DQ642746
<i>Fraxinus</i> sect. <i>Melioides</i>	Serbia	Avala mt.	44,681	20,527	279	DQ642756
<i>Fraxinus</i> sect. <i>Melioides</i>	Serbia	Avala mt.	44,681	20,526	282	DQ642746
<i>Fraxinus</i> sect. <i>Melioides</i>	Serbia	Avala mt.	44,681	20,527	279	DQ642756
<i>Fraxinus</i> sect. <i>Melioides</i>	Serbia	Avala mt.	44,681	20,526	281	DQ642746
<i>Fraxinus</i> sect. <i>Melioides</i>	Serbia	Avala mt.	44,681	20,526	280	DQ642746

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Fraxinus sect. Melioides	Serbia	Avala mt.	44,681	20,526	281	DQ642746
Fraxinus sect. Melioides	Serbia	Avala mt.	44,684	20,533	267	DQ643709
Fraxinus sect. Melioides	Serbia	Avala mt.	44,687	20,507	300	DQ640882
Fraxinus sect. Melioides	Serbia	Avala mt.	44,687	20,507	301	DQ640892
Fraxinus sect. Melioides	Serbia	Avala mt.	44,687	20,506	298	DQ640883
Fraxinus sect. Melioides	Serbia	Avala mt.	44,687	20,506	298	DQ640883
Fraxinus sect. Melioides	Serbia	Avala mt.	44,689	20,529	360	DQ642865
Fraxinus sect. Melioides	Serbia	Avala mt.	44,691	20,526	334	DQ642847
Fraxinus sect. Melioides	Serbia	Avala mt.	44,695	20,502	255	DQ640951
Fraxinus sect. Melioides	Serbia	Avala mt.	44,695	20,502	254	DQ640951
Fraxinus sect. Melioides	Serbia	Avala mt.	44,695	20,502	274	DQ640951
Fraxinus sect. Melioides	Serbia	Avala mt.	44,695	20,502	275	DQ640951
Fraxinus sect. Melioides	Serbia	Avala mt.	44,695	20,502	277	DQ640951
Fraxinus sect. Melioides	Serbia	Avala mt.	44,695	20,502	278	DQ640952
Fraxinus sect. Melioides	Serbia	Avala mt.	44,695	20,531	246	DQ642982
Fraxinus sect. Melioides	Serbia	Avala mt.	44,695	20,502	277	DQ640952
Fraxinus sect. Melioides	Serbia	Avala mt.	44,697	20,530	290	DQ642974
Fraxinus sect. Melioides	Serbia	Avala mt.	44,697	20,530	289	DQ642974
Fraxinus sect. Melioides	Serbia	Avala mt.	44,697	20,530	287	DQ642974
Fraxinus sect. Melioides	Serbia	Avala mt.	44,697	20,529	290	DQ642974
Fraxinus sect. Melioides	Serbia	Avala mt.	44,698	20,529	291	DQ642974
Fraxinus sect. Melioides	Serbia	Avala mt.	44,698	20,528	299	DQ642954
Fraxinus sect. Melioides	Serbia	Avala mt.	44,698	20,529	296	DQ642964
Fraxinus sect. Melioides	Serbia	Avala mt.	44,698	20,529	296	DQ642964
Fraxinus sect. Melioides	Serbia	Avala mt.	44,698	20,529	296	DQ642964
Fraxinus sect. Melioides	Serbia	Avala mt.	44,698	20,525	327	DQ642935
Fraxinus sect. Melioides	Serbia	Avala mt.	44,698	20,527	311	DQ642945
Fraxinus sect. Melioides	Serbia	Avala mt.	44,698	20,527	310	DQ642945
Fraxinus sect. Melioides	Serbia	Avala mt.	44,699	20,525	321	DQ642935
Fraxinus sect. Melioides	Serbia	Avala mt.	44,700	20,522	315	DQ642907
Gleditsia triacanthos	Serbia	Avala mt.	44,684	20,533	268	DQ643709
Gleditsia triacanthos	Serbia	Avala mt.	44,687	20,508	340	DQ641803
Gleditsia triacanthos	Serbia	Avala mt.	44,687	20,536	267	DQ643823
Gleditsia triacanthos	Serbia	Avala mt.	44,688	20,508	336	DQ640893
Gleditsia triacanthos	Serbia	Avala mt.	44,688	20,537	265	DQ643823
Gleditsia triacanthos	Serbia	Avala mt.	44,688	20,507	334	DQ640893
Gleditsia triacanthos	Serbia	Avala mt.	44,688	20,507	333	DQ640894
Gleditsia triacanthos	Serbia	Avala mt.	44,688	20,507	334	DQ640894
Gleditsia triacanthos	Serbia	Avala mt.	44,695	20,502	274	DQ640952
Gleditsia triacanthos	Serbia	Avala mt.	44,695	20,502	274	DQ640952
Gleditsia triacanthos	Serbia	Avala mt.	44,695	20,502	276	DQ640952
Gleditsia triacanthos	Serbia	Avala mt.	44,695	20,502	276	DQ640952
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,502	277	DQ640952
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,531	251	DQ642982

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,531	251	DQ642982
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,531	254	DQ642982
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,529	253	DQ642962
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,531	254	DQ642982
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,528	262	DQ642962
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,529	264	DQ642972
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,503	286	DQ640963
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,503	285	DQ640963
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,530	263	DQ642973
Gleditsia triacanthos	Serbia	Avala mt.	44,696	20,529	264	DQ642973
Gleditsia triacanthos	Serbia	Avala mt.	44,697	20,528	294	DQ642964
Gleditsia triacanthos	Serbia	Avala mt.	44,700	20,531	278	DQ642986
Gleditsia triacanthos	Serbia	Avala mt.	44,700	20,531	273	DQ642987
Gleditsia triacanthos	Serbia	Avala mt.	44,700	20,531	277	DQ642987
Rhus typhina	Serbia	Avala mt.	44,682	20,520	329	DQ641797
Rhus typhina	Serbia	Avala mt.	44,686	20,509	312	DQ641801
Rhus typhina	Serbia	Avala mt.	44,686	20,509	312	DQ641801
Rhus typhina	Serbia	Avala mt.	44,687	20,517	456	DQ641873
Rhus typhina	Serbia	Avala mt.	44,687	20,517	457	DQ641873
Rhus typhina	Serbia	Avala mt.	44,687	20,517	459	DQ641873
Rhus typhina	Serbia	Avala mt.	44,688	20,508	344	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,508	343	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,508	343	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,508	342	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,508	343	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,508	342	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,508	342	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,507	342	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,508	346	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,507	324	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,507	324	DQ640893
Rhus typhina	Serbia	Avala mt.	44,688	20,508	346	DQ640894
Rhus typhina	Serbia	Avala mt.	44,688	20,508	345	DQ640894
Rhus typhina	Serbia	Avala mt.	44,688	20,507	323	DQ640894
Rhus typhina	Serbia	Avala mt.	44,688	20,507	324	DQ640894
Rhus typhina	Serbia	Avala mt.	44,688	20,507	324	DQ640894
Rhus typhina	Serbia	Avala mt.	44,688	20,507	323	DQ640894
Rhus typhina	Serbia	Avala mt.	44,690	20,513	477	DQ641845
Rhus typhina	Serbia	Avala mt.	44,690	20,513	462	DQ641845
Robinia pseudoacacia	Serbia	Avala mt.	44,680	20,521	302	DQ642704
Robinia pseudoacacia	Serbia	Avala mt.	44,680	20,521	301	DQ642705
Robinia pseudoacacia	Serbia	Avala mt.	44,680	20,521	301	DQ642705
Robinia pseudoacacia	Serbia	Avala mt.	44,680	20,519	306	DQ641785
Robinia pseudoacacia	Serbia	Avala mt.	44,680	20,519	307	DQ641785

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,680	20,520	316	DQ641795
Robinia pseudoacacia	Serbia	Avala mt.	44,680	20,522	299	DQ642705
Robinia pseudoacacia	Serbia	Avala mt.	44,681	20,520	318	DQ641795
Robinia pseudoacacia	Serbia	Avala mt.	44,681	20,519	321	DQ641795
Robinia pseudoacacia	Serbia	Avala mt.	44,681	20,521	299	DQ642705
Robinia pseudoacacia	Serbia	Avala mt.	44,681	20,520	323	DQ641796
Robinia pseudoacacia	Serbia	Avala mt.	44,681	20,517	310	DQ641766
Robinia pseudoacacia	Serbia	Avala mt.	44,681	20,516	312	DQ641766
Robinia pseudoacacia	Serbia	Avala mt.	44,681	20,517	319	DQ641766
Robinia pseudoacacia	Serbia	Avala mt.	44,681	20,519	330	DQ641796
Robinia pseudoacacia	Serbia	Avala mt.	44,681	20,519	332	DQ641796
Robinia pseudoacacia	Serbia	Avala mt.	44,681	20,521	310	DQ642706
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,519	334	DQ641786
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,521	313	DQ642706
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,520	327	DQ641796
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,520	321	DQ641796
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,519	334	DQ641797
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,518	337	DQ641787
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,519	338	DQ641787
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,521	313	DQ642707
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,531	279	DQ642787
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,517	328	DQ641777
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,518	333	DQ641777
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,520	334	DQ641797
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,517	331	DQ641777
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,518	340	DQ641787
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,518	341	DQ641777
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,519	339	DQ641787
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,531	281	DQ642787
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,531	281	DQ642787
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,531	282	DQ642787
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,521	313	DQ642707
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,521	313	DQ642707
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,521	297	DQ642707
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,532	267	DQ642797
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,532	270	DQ642787
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,532	273	DQ642797
Robinia pseudoacacia	Serbia	Avala mt.	44,682	20,521	298	DQ642707
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,521	298	DQ642707
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,533	269	DQ642798
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,533	264	DQ643708
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,521	313	DQ642708
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,532	290	DQ642798
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,533	285	DQ642798

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,515	321	DQ641758
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,533	285	DQ642798
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,532	293	DQ642798
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,531	296	DQ642788
Robinia pseudoacacia	Serbia	Avala mt.	44,683	20,518	359	DQ641778
Robinia pseudoacacia	Serbia	Avala mt.	44,684	20,518	356	DQ641779
Robinia pseudoacacia	Serbia	Avala mt.	44,684	20,517	362	DQ641779
Robinia pseudoacacia	Serbia	Avala mt.	44,684	20,518	361	DQ641789
Robinia pseudoacacia	Serbia	Avala mt.	44,684	20,532	296	DQ642799
Robinia pseudoacacia	Serbia	Avala mt.	44,684	20,532	297	DQ642789
Robinia pseudoacacia	Serbia	Avala mt.	44,684	20,533	290	DQ642799
Robinia pseudoacacia	Serbia	Avala mt.	44,684	20,532	295	DQ642799
Robinia pseudoacacia	Serbia	Avala mt.	44,684	20,533	267	DQ643709
Robinia pseudoacacia	Serbia	Avala mt.	44,684	20,533	272	DQ642799
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,512	342	DQ641830
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,512	342	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	343	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,512	345	DQ641830
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,512	344	DQ641830
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,512	344	DQ641830
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	335	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	341	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	339	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	337	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	343	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	345	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	342	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	344	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	344	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	337	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,530	305	DQ642870
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	333	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,511	335	DQ641820
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,531	313	DQ642880
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,534	250	DQ643800
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,535	250	DQ643810
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,529	307	DQ642870
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,530	306	DQ642870
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,529	307	DQ642870
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,510	320	DQ641811
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,533	262	DQ642890
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,510	317	DQ641811
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,530	303	DQ642870
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,530	306	DQ642871

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,533	260	DQ643801
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,529	308	DQ642861
Robinia pseudoacacia	Serbia	Avala mt.	44,685	20,534	257	DQ643801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,537	239	DQ643831
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,509	313	DQ641811
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,530	307	DQ642871
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,528	322	DQ642851
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,508	309	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,508	310	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,529	312	DQ642861
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,509	313	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,508	310	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,508	310	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,509	313	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,509	313	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,509	312	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,509	312	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,529	313	DQ642861
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,509	313	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,509	312	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,509	314	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,509	312	DQ641801
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,533	313	DQ642891
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,535	250	DQ643811
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,536	250	DQ643821
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,530	309	DQ642871
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,508	308	DQ640891
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,532	290	DQ642881
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,538	244	DQ643841
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,529	312	DQ642861
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,529	311	DQ642861
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,538	248	DQ643831
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,531	292	DQ642881
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,508	307	DQ640892
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,511	373	DQ641822
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,512	372	DQ641822
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,512	377	DQ641822
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,528	318	DQ642862
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,528	314	DQ642862
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,529	315	DQ642862
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,533	281	DQ643802
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,529	313	DQ642862
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,531	297	DQ642882
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,508	305	DQ640892

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,512	378	DQ641832
Robinia pseudoacacia	Serbia	Avala mt.	44,686	20,529	314	DQ642862
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,507	304	DQ640892
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,529	312	DQ642872
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,534	278	DQ643802
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,528	318	DQ642862
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,529	317	DQ642862
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,528	317	DQ642862
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,531	291	DQ642882
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,535	250	DQ643812
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,536	250	DQ643822
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,538	250	DQ643832
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,528	322	DQ642862
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,531	290	DQ642882
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,532	290	DQ642892
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,533	290	DQ642892
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,530	295	DQ642872
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,507	300	DQ640892
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,507	302	DQ640892
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,506	300	DQ640882
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,528	326	DQ642852
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,506	297	DQ640883
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,506	299	DQ640883
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,507	306	DQ640883
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,506	310	DQ640883
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,534	281	DQ643802
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,530	298	DQ642873
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,534	290	DQ643803
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,534	294	DQ643803
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,528	329	DQ642853
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,508	336	DQ641803
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,529	319	DQ642863
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,506	304	DQ640883
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,530	312	DQ642873
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,529	314	DQ642873
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,530	308	DQ642873
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,510	370	DQ641813
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,529	321	DQ642863
Robinia pseudoacacia	Serbia	Avala mt.	44,687	20,528	333	DQ642853
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,506	302	DQ640883
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,506	307	DQ640883
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,510	373	DQ641813
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,509	372	DQ641803
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,531	313	DQ642883

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	320	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,535	276	DQ643813
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,508	329	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,508	329	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,537	264	DQ643823
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,538	259	DQ643833
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	329	DQ642853
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,519	442	DQ641893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	331	DQ642853
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	327	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,508	353	DQ641803
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	326	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	328	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	334	DQ642853
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	329	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	330	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	327	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,509	363	DQ641803
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,510	378	DQ641813
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	327	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,509	370	DQ641813
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,509	368	DQ641813
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	324	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,508	352	DQ641803
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,537	257	DQ643833
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	331	DQ640893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,509	372	DQ641813
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,527	341	DQ642853
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,509	373	DQ641813
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,508	347	DQ641804
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,536	275	DQ643823
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,537	256	DQ643833
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,527	342	DQ642853
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	340	DQ642853
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	340	DQ642853
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	336	DQ642854
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,532	313	DQ642893
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,508	348	DQ641804
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	335	DQ642854
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,508	348	DQ641804
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,508	360	DQ641804
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	341	DQ642854
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	341	DQ642854
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	344	DQ642854

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	344	DQ642854
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	340	DQ640894
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	338	DQ642854
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,529	327	DQ642864
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	338	DQ642854
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	342	DQ642854
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	337	DQ640894
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,536	271	DQ643824
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,505	294	DQ640884
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	339	DQ640894
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,536	274	DQ643824
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,507	339	DQ640894
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,529	327	DQ642864
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,528	345	DQ642864
Robinia pseudoacacia	Serbia	Avala mt.	44,688	20,531	328	DQ642884
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,530	313	DQ642874
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,531	336	DQ642884
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,532	313	DQ642894
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,534	250	DQ643804
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,535	250	DQ643814
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,531	332	DQ642884
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,531	331	DQ642884
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,531	331	DQ642884
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,505	292	DQ640875
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,535	296	DQ643815
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,530	334	DQ642875
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,536	283	DQ643825
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,535	300	DQ643815
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,529	354	DQ642865
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,531	340	DQ642885
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,532	313	DQ642895
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,505	294	DQ640875
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,534	310	DQ643805
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,537	275	DQ643825
Robinia pseudoacacia	Serbia	Avala mt.	44,689	20,504	291	DQ640875
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,529	351	DQ642865
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,505	288	DQ640875
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,505	290	DQ640875
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,505	292	DQ640875
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	471	DQ641835
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,531	340	DQ642885
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,535	298	DQ643815
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,531	343	DQ642875
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	476	DQ641845

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	471	DQ641835
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,534	311	DQ643805
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,505	291	DQ640875
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	474	DQ641835
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,531	345	DQ642885
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,505	292	DQ640876
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	476	DQ641846
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	482	DQ641846
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	483	DQ641846
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	481	DQ641846
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,533	321	DQ643806
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,504	293	DQ640876
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,524	390	DQ642836
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,532	328	DQ642896
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,504	290	DQ640876
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,505	293	DQ640876
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	482	DQ641846
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	484	DQ641836
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,529	353	DQ642866
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,504	292	DQ640876
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,536	277	DQ643826
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	484	DQ641836
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,504	288	DQ640876
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,504	293	DQ640876
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,512	481	DQ641836
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,529	350	DQ642866
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,530	356	DQ642876
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,512	485	DQ641836
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,513	483	DQ641836
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,504	286	DQ640866
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,535	250	DQ643816
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,529	349	DQ642866
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,531	346	DQ642886
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,532	338	DQ642896
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,532	330	DQ642896
Robinia pseudoacacia	Serbia	Avala mt.	44,690	20,529	343	DQ642866
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,528	337	DQ642857
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,532	332	DQ642887
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,527	335	DQ642857
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,527	338	DQ642857
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,527	328	DQ642847
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,529	313	DQ642867
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,530	313	DQ642877
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,531	328	DQ642887

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,532	313	DQ642897
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,526	331	DQ642847
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,514	486	DQ641847
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,514	486	DQ641847
Robinia pseudoacacia	Serbia	Avala mt.	44,691	20,531	326	DQ642887
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,503	281	DQ640868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,503	284	DQ640868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,503	284	DQ640868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,504	284	DQ640868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,530	321	DQ642878
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,532	318	DQ642888
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,503	278	DQ640868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,503	280	DQ640868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,503	279	DQ640868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,503	278	DQ640868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,504	281	DQ640868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,527	271	DQ642858
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,529	271	DQ642868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,503	278	DQ640868
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,532	271	DQ642898
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,526	329	DQ642848
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,532	309	DQ642888
Robinia pseudoacacia	Serbia	Avala mt.	44,692	20,504	287	DQ640869
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,525	326	DQ642839
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,531	303	DQ642889
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,503	279	DQ640869
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,525	325	DQ642839
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,503	279	DQ640869
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,503	279	DQ640869
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,532	288	DQ642899
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,526	271	DQ642849
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,527	271	DQ642859
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,529	271	DQ642869
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,504	289	DQ640869
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,530	271	DQ642879
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,534	220	DQ643809
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,503	278	DQ640869
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,503	289	DQ640869
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,503	277	DQ640869
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,503	277	DQ640869
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,503	271	DQ640950
Robinia pseudoacacia	Serbia	Avala mt.	44,693	20,525	315	DQ642930
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	307	DQ642920
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	307	DQ642920

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,503	270	DQ640950
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,507	314	DQ640990
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,503	272	DQ640960
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,525	316	DQ642930
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	312	DQ642920
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	312	DQ642920
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,534	257	DQ643900
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,503	267	DQ640950
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,526	313	DQ642940
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,527	290	DQ642950
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,503	267	DQ640960
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,502	264	DQ640950
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,503	269	DQ640960
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,525	307	DQ642930
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,506	302	DQ640980
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,506	304	DQ640980
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,526	311	DQ642940
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,529	271	DQ642960
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,530	271	DQ642970
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,531	271	DQ642980
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,532	271	DQ642990
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,506	302	DQ640980
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	304	DQ642920
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	304	DQ642920
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	301	DQ642930
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,503	263	DQ640950
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,503	283	DQ640960
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,503	263	DQ640950
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,504	295	DQ640970
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,504	295	DQ640970
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	296	DQ642920
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	296	DQ642920
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	298	DQ642920
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,524	298	DQ642920
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,503	280	DQ640961
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,522	306	DQ642910
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,522	306	DQ642910
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,522	309	DQ642901
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,523	304	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,523	304	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,502	260	DQ640951
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,521	316	DQ642901
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,527	307	DQ642941
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,502	262	DQ640951

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,522	309	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,502	258	DQ640951
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,522	307	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,523	304	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,523	296	DQ642921
Robinia pseudoacacia	Serbia	Avala mt.	44,694	20,523	296	DQ642921
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,522	308	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,523	302	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,525	296	DQ642931
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,502	255	DQ640951
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,523	307	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,503	287	DQ640961
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,523	305	DQ642921
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,523	305	DQ642921
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,523	309	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,523	309	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,528	271	DQ642961
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,524	298	DQ642921
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,526	291	DQ642941
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,524	303	DQ642921
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,524	303	DQ642921
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,524	298	DQ642921
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,532	261	DQ642991
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,523	310	DQ642921
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,527	289	DQ642951
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,533	246	DQ642991
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,503	280	DQ640961
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,524	299	DQ642921
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,502	277	DQ640951
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,522	315	DQ642911
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,522	315	DQ642901
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,533	228	DQ643901
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,530	251	DQ642971
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,514	445	DQ641942
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,531	248	DQ642981
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,502	251	DQ640952
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,522	322	DQ642912
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,529	266	DQ642962
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,523	317	DQ642922
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,522	322	DQ642912
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,523	320	DQ642912
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,522	325	DQ642912
Robinia pseudoacacia	Serbia	Avala mt.	44,695	20,502	278	DQ640952
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,529	253	DQ642962

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,513	450	DQ641932
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,513	451	DQ641942
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	278	DQ640952
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,513	450	DQ641932
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,513	452	DQ641942
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,525	330	DQ642932
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,526	271	DQ642942
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,527	271	DQ642952
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,516	417	DQ641962
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,530	271	DQ642972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,532	271	DQ642992
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,534	220	DQ643902
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,513	452	DQ641942
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,516	415	DQ641962
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	416	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	415	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	413	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,521	332	DQ642902
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,531	252	DQ642982
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	414	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	413	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	414	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	415	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	416	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	410	DQ641962
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	413	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	415	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	416	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	410	DQ641962
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	413	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	415	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,528	250	DQ642962
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	415	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,516	417	DQ641962
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	415	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	422	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,517	417	DQ641972
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	319	DQ642912
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	321	DQ642912
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	322	DQ642912
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	322	DQ642912
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	324	DQ642912
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	323	DQ642912
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,531	257	DQ642982
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,503	289	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,521	322	DQ642903
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,503	290	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,503	290	DQ640953

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,503	291	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	289	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	317	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	292	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	321	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,528	271	DQ642963
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,529	265	DQ642963
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	296	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	296	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,523	315	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,503	289	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	298	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,503	289	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,523	309	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	322	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	320	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	308	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	296	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	323	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	322	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	309	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	296	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	304	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	305	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	297	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	297	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,504	286	DQ640963
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	320	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	297	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,502	303	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,522	321	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,696	20,529	268	DQ642963
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	296	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	298	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	298	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,525	330	DQ642933
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,526	271	DQ642943
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,527	286	DQ642953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,503	287	DQ640963
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	305	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	302	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	326	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	298	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	299	DQ640953

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	299	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	300	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,503	287	DQ640963
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	304	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,530	271	DQ642973
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,532	271	DQ642993
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,534	220	DQ643903
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	309	DQ642923
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,503	285	DQ640963
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,502	305	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,503	289	DQ640963
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	312	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,503	288	DQ640963
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,503	287	DQ640963
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,503	287	DQ640963
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,524	315	DQ642923
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	309	DQ642923
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,503	287	DQ640963
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	314	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,503	275	DQ640953
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,503	286	DQ640963
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	314	DQ642923
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	314	DQ642923
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	315	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,531	276	DQ642983
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	332	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	311	DQ642923
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	332	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	332	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	316	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	334	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	335	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	335	DQ642913
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,531	279	DQ642983
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,524	316	DQ642924
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	335	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,528	291	DQ642964
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	335	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	336	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	335	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,524	317	DQ642924
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,524	317	DQ642924
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	338	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	339	DQ642914

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	335	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,524	319	DQ642924
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	330	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,526	313	DQ642944
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,529	294	DQ642964
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,530	285	DQ642974
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,524	320	DQ642934
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,529	292	DQ642964
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	336	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	335	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	337	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	337	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	336	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	358	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	355	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,53	286	DQ642974
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,522	337	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,523	355	DQ642924
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,528	298	DQ642954
Robinia pseudoacacia	Serbia	Avala mt.	44,697	20,524	322	DQ642934
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,531	271	DQ642984
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,532	271	DQ642994
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,534	220	DQ643904
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,535	220	DQ643914
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,529	297	DQ642964
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	358	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	361	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	327	DQ642934
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,528	297	DQ642964
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,530	286	DQ642974
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,528	298	DQ642964
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,528	299	DQ642954
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	361	DQ642924
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,529	298	DQ642964
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,528	299	DQ642964
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,529	299	DQ642964
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	363	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	365	DQ642914
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,524	357	DQ642924
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,529	300	DQ642964
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,524	350	DQ642924
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,524	349	DQ642934
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	364	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	325	DQ642935

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	323	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,528	302	DQ642965
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,524	351	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	363	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	365	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	323	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,522	368	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,522	368	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,522	368	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	324	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,522	367	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	339	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,524	338	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	366	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	328	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,522	346	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	324	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,505	279	DQ640975
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,522	343	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	343	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	344	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,505	280	DQ640975
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	339	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	342	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	340	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	342	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,527	308	DQ642955
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	328	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	341	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,521	347	DQ642905
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	343	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	324	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	344	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	339	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	326	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	345	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	339	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	324	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	324	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	324	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,522	343	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	338	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,531	271	DQ642985
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	339	DQ642925

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,505	280	DQ640975
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,522	341	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	323	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	336	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,524	331	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,525	323	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,523	338	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,698	20,524	326	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	332	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,525	324	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	336	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,505	279	DQ640975
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	330	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,525	323	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	333	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	334	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	332	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	337	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	341	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	331	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	339	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	338	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	326	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	338	DQ642915
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	329	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	329	DQ642925
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	324	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	323	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	324	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	323	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	324	DQ642935
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	323	DQ642936
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,505	277	DQ640976
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	327	DQ642926
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	323	DQ642926
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,521	337	DQ642906
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	323	DQ642926
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	322	DQ642926
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,521	337	DQ642906
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,505	281	DQ640976
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	324	DQ642926
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	334	DQ642916
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	322	DQ642926
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,524	324	DQ642926

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	334	DQ642916
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,521	336	DQ642906
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,505	277	DQ640976
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	332	DQ642916
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,519	363	DQ641986
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,521	334	DQ642906
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,518	328	DQ641976
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,521	334	DQ642906
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,520	334	DQ642906
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,520	332	DQ641996
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,511	322	DQ641926
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,505	274	DQ640976
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,531	271	DQ642986
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,505	274	DQ640976
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,505	274	DQ640976
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,505	275	DQ640986
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	316	DQ642916
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,519	329	DQ641986
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,520	328	DQ641996
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,518	326	DQ641986
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,516	356	DQ641966
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,520	328	DQ641996
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,520	335	DQ641996
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,505	275	DQ640986
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,520	334	DQ641996
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	316	DQ642916
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	320	DQ642916
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	321	DQ642916
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,520	327	DQ641996
Robinia pseudoacacia	Serbia	Avala mt.	44,699	20,522	320	DQ642916
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,522	319	DQ642916
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,520	328	DQ641996
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,519	328	DQ641996
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,519	326	DQ641996
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,522	319	DQ642916
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,522	320	DQ642906
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,518	321	DQ641987
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,521	314	DQ642907
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,521	315	DQ642907
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,518	319	DQ641977
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,522	311	DQ642917
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,521	316	DQ642907
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,515	336	DQ641957
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,522	316	DQ642917

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,517	310	DQ641977
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,518	316	DQ641977
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,517	315	DQ641977
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,517	313	DQ641977
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,521	313	DQ642907
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,521	313	DQ642907
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,517	314	DQ641977
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,517	309	DQ641977
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,516	327	DQ641967
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,517	304	DQ641977
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,516	321	DQ641967
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,517	297	DQ641977
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,506	276	DQ640987
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,516	318	DQ641967
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,516	318	DQ641967
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,516	317	DQ641967
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,531	218	DQ642987
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,515	320	DQ641967
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,516	322	DQ641967
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,506	278	DQ640987
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,515	314	DQ641957
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,515	317	DQ641957
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,515	316	DQ641957
Robinia pseudoacacia	Serbia	Avala mt.	44,700	20,515	312	DQ641957
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	316	DQ641957
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	310	DQ641957
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	315	DQ641957
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,507	278	DQ640998
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	313	DQ641957
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	311	DQ641958
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,507	280	DQ640998
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	310	DQ641958
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	308	DQ641958
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	307	DQ641958
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,512	312	DQ641938
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	306	DQ641958
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,514	301	DQ641948
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,512	305	DQ641938
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	304	DQ641958
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,507	278	DQ640998
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,510	305	DQ641928
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	281	DQ640998
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	282	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,509	299	DQ641908

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	281	DQ640998
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	284	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	281	DQ640998
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,515	302	DQ641958
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	288	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	284	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	284	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	290	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,514	302	DQ641948
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	280	DQ640998
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	288	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	289	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	290	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,510	304	DQ641928
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	290	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,510	305	DQ641928
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	278	DQ640998
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,510	304	DQ641928
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	290	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	288	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,514	300	DQ641958
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	289	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,511	288	DQ641928
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,511	293	DQ641928
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	294	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	294	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	292	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	285	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,511	290	DQ641928
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,512	291	DQ641938
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	283	DQ640998
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	293	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,511	287	DQ641928
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,509	297	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,509	297	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	292	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	293	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,509	299	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,509	298	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	290	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,509	298	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,514	296	DQ641948
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	290	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,509	296	DQ641908

Taxon	State	Location	LAT	LONG	ALT	MGRS_0#1
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,513	299	DQ641948
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,513	299	DQ641948
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,509	297	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,509	297	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	295	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,514	294	DQ641948
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,508	294	DQ641908
Robinia pseudoacacia	Serbia	Avala mt.	44,701	20,513	297	DQ641948