

BUDISLAV TATIĆ

SEVERAL NEW SPECIES OF FLORA OF WEST SERBIA

For the last few years I have had a convenient opportunity to devote myself to the study of Flora and vegetation of the Studena Planina (Mountain) in the neighbourhood of Kraljevo. Studena Planina being only a link in the chain of serpentines in the direction: Bosnia and Hercegovina. Zlatibor — the gorge of Ibar (in the district of which the mentioned mountain is) — Albania, it is clear by itself that both Flora and vegetation of that basic rock are very specific and this has been already pointed out by many authors as: L ä m m e r m a y e r (1936), N e v o l e, M a l y (1928), N o v a k (1927), P a v l o v i c (1951), P a n c i c (1827) and others.

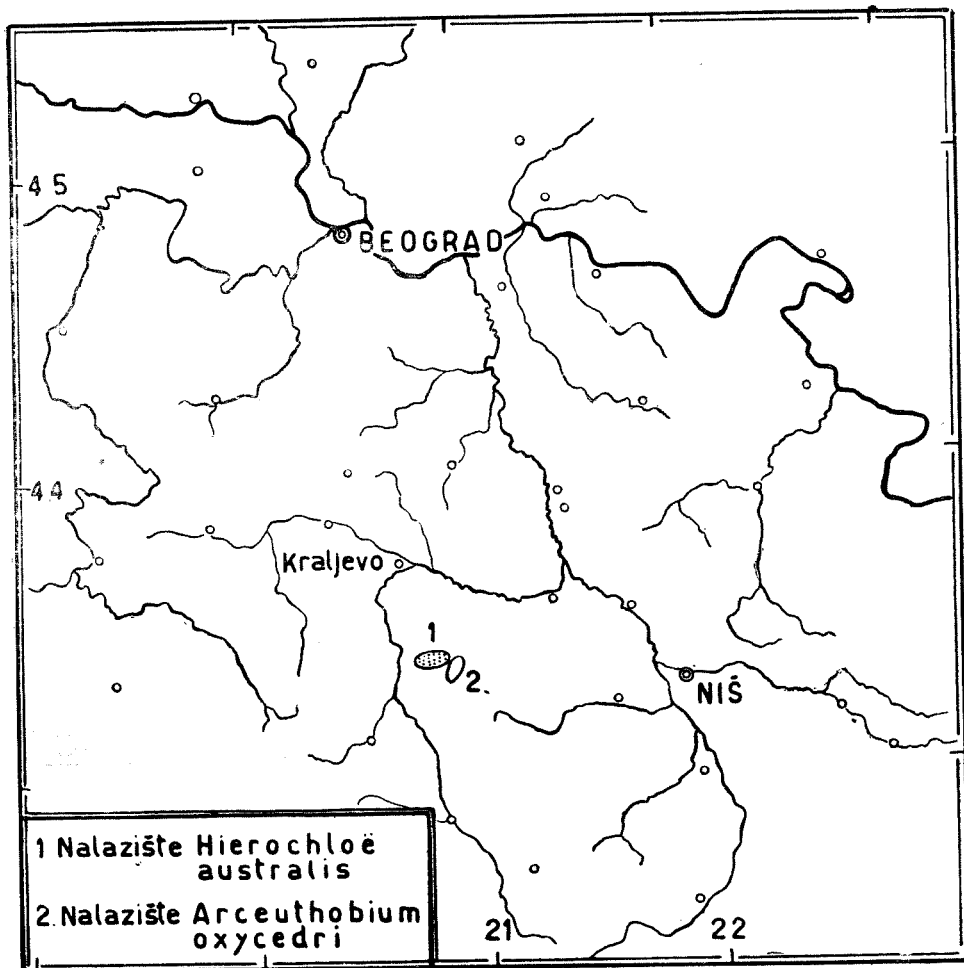
The specificity of Flora of the serpentine substrata could not be overlooked by our experienced botanist J o s i f P a n c i c, and so in 1859 in Vienna his paper »Die Flora der Serpentinberge in Mittel Serbien« was published and in that paper were quoted some plants the author considered to be those of the serpentine species. In that paper of his as well as in many others J. P. stated that Flora in the gorge of Ibar was very characteristic and because of its containing a lot of Mediterranean Flora elements, like the Pass of Sicevo, it could be considered enclaves of Mediterranean species. Among a great number of Mediterranean species which can be found on the serpentines of the Pass of Ibar, let us mention but a few: *Juniperus oxycedrus*, *Colutea arborescens*, *Quercus pubescens*, *Quercus conferta*, *Acer tataricum*, *Tamus communis*, *Not-holaena marantae* and many others. The same remarks can be seen in others authors as: A d a m o v i c (1909), P a v l o v i c (1951) and others.

Staying for a while in the mentioned area, I had an opportunity to come across specimens of the species *Juniperus oxycedrus* with the radius of its stem being 20 cm. On stems belonging to this species especially in Popova Reka, a semi-parasite species called *Arceuthobium oxycedri*, called by the local people »klekova imela« or »klekina imela« is found frequently. Among the great number of works which are referring to Serbia, it is only J. P a n c i c who quotes the mentioned species *Arceuthobium oxycedri*, and on page 368 of his book »The Flora of Serbia«, he says: »*Arceuthobium oxycedri* is grown upon the red 'fenja' *Juniperus oxycedrus*, over Maglic, about Demeronja, Zimovnik and Borje in Cacak region«. So J. P a n c i c, to be sure, was of the same opinion as some of his contemporaries when he believed that particular kind of mistletoe as a semi-parasite to grow upon *Juniperus oxycedrus*.

I had also a chance to get familiar with the work of C. v o n T u b e u f (1919) and to grasp out of it that the species *Arceuthobium oxycedri* is found on a great number of species of gen. *Juniperus*, such as: *oxycedrus*, *communis*.

rufescens, drupacea, and as the author supposed it to be in his own time: »angeblich auch auf *Sabina*«.

Very much interested in this phenomenon, I made inquiries with some of the older but very clever people, about where to find some more dense population of the red »fenja« in order to cheque up whether it was possible to spot mistletoe on the blue »fenja«, too, because it was not an isolated case for them to be found side by side in that region.

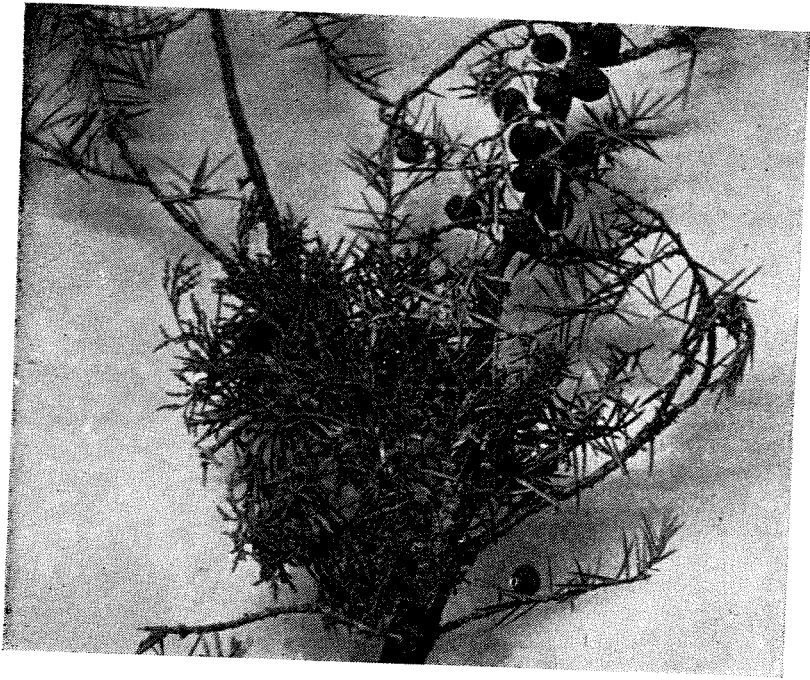


Picture 3. 1. Finding-place of *Hierochloë australis*
2. Finding-place of *Arceuthobium oxycedri*

(Orig.)

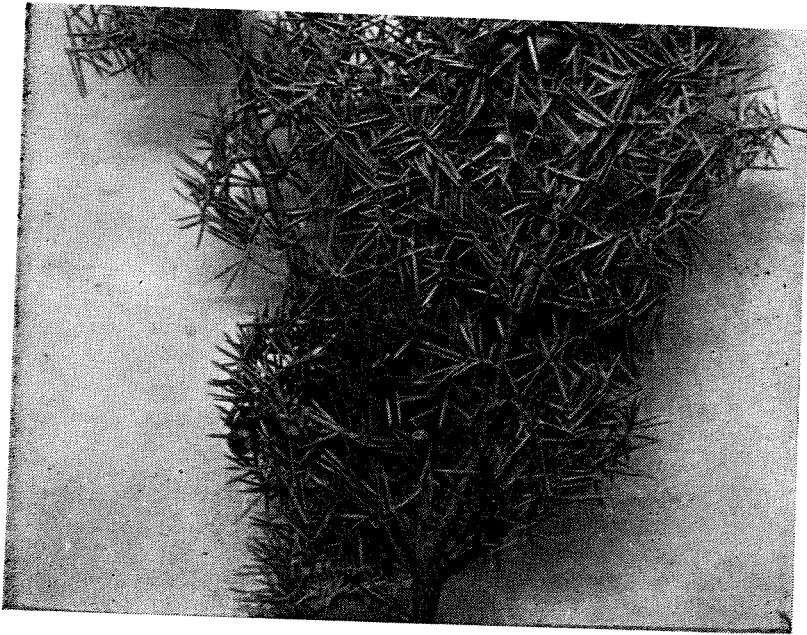
And really, in the very neighbourhood of the hamlet Rudnjak I came across a very dense population of the both species of gen. *Juniperus*. In that region the species of *Juniperus* semi-parasite *Arceuthobium oxycedri* is very frequent on blue *Juniperus communis*, too.

Accordingly, what was found in the Ibar Pass can contribute to what C. von Tubeuf had stated in the mentioned paper of his. It is to be pointed



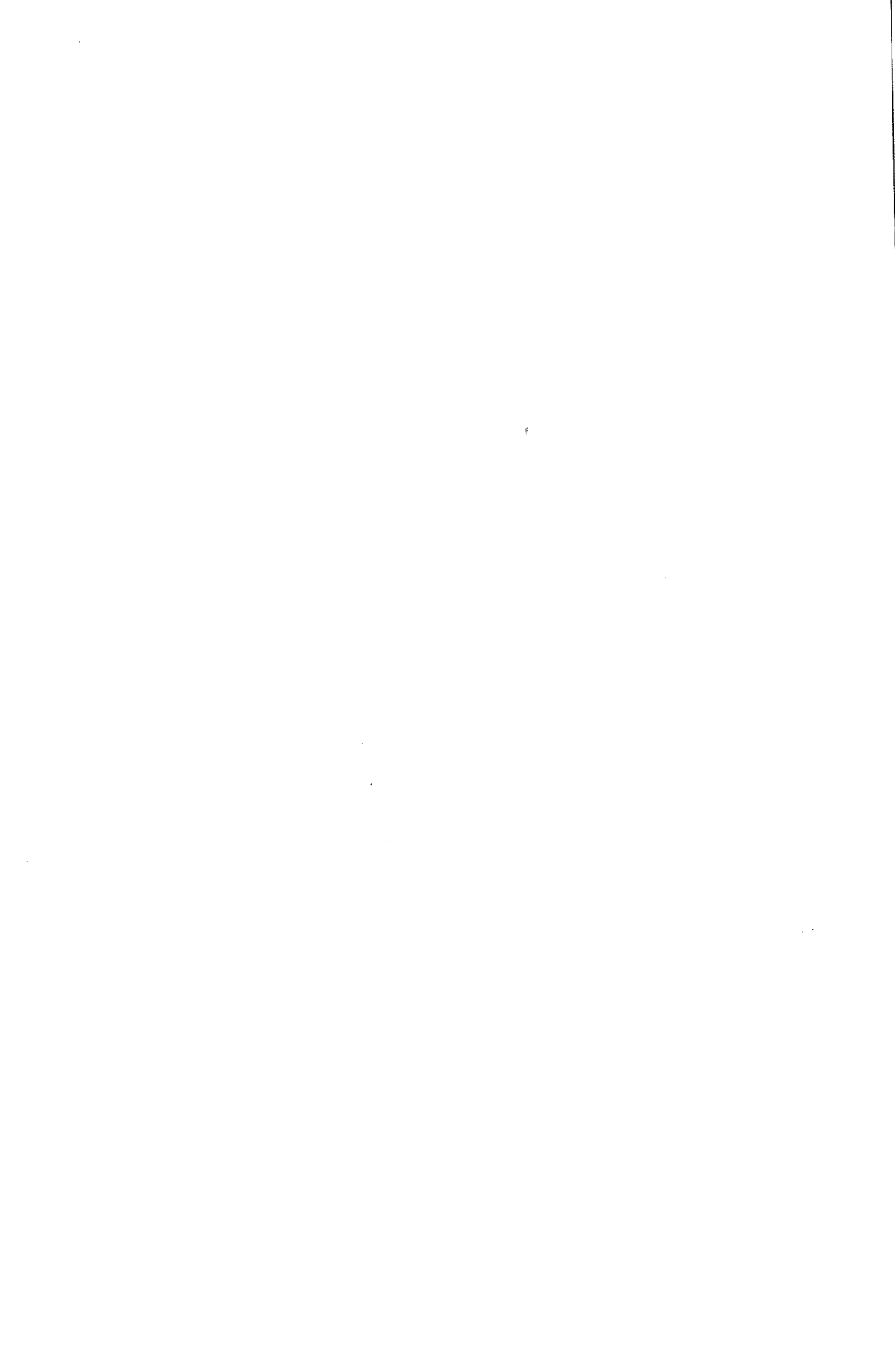
Picture 1. A twig of red „kleka“ *Juniperus oxycedrus* with mistletoe
Arceuthobium oxycedri

(Photo M. M. Janković)



Picture 2. Mistletoe *Arceuthobium oxycedri* on a twig of blue „kleka“
Juniperus communis

(Photo M. M. Janković)



out that J. P a n c i c was the only author who quoted the species *Arceuthobium oxycedri* as found in Serbia and also the fact that he had never stepped on to that area.

Locality of population of the species *Juniperus oxycedri* and *Juniperus communis*, on both of which *Arceuthobium oxycedri* can be found is marked on the map of Serbia as № 2.

Another interesting plant is *Hierochloe australis*. According to H a y e k this species is spread in Croatia, Bosnia and Hercegovina and in Bulgaria.

In May 1957, and in the same month of 1958, I found this species in the region of Leskovacka Reka, on the left side, on the slopes of some not very dense oak-woods. The species *Hierochloe australis* in Bosnia and Hercegovina was found by C a r l M a l ý as well as by Germans — W. K r a u s e and W. L u d w i g (1956) on the serpentine ground and some of the same vegetation which appeared at Studena Planina.

As this discovery is a novelty for Serbia, we are going to examine in details the habitat and vegetation of that region. The slope is facing the north and northwest. The bending of the terrain is amounting up to 40°. The forest has been cleared, and on an area of 100 x 100 m. there are three older trees *Fagus silvatica* and a few trees *Quercus sessilis*. Bush forms are of considerable frequency containing: *Fraxinus ornus*, *Cytisus nigricans*, *Rubus idaeus*, *Ostrya carpinifolia*, *Spiraea ulmifolia*, *Erica Carnea* and others. Among of which the following species are seen at places: *Festuca heterophylla*, *Galium aristatum*, *Vicia cracca*, *Alyssum Markgrafii*, *Asplenium trichomanes*, *Asplenium adulterinum*, *Asplenium adianthum nigrum*, *Melica nutans*, *Galium pedemontanum*, *Selaginella helvetica*, *Verbasum nigrum*, *Luzula silvatica*, *Campanula persicifolia*, *Stellaria graminea*, *Aruncus silvester*, *Doronicum* sp., *Melica ciliata* and others.

The place where *Hierochloe australis* is to be found is marked as № 1 on our map.

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BUDISLAV TATIČ

Rezime

NEKOLIKO NOVIH VRSTA ZA FLORU ZAPADNE SRBIJE

Zainteresovan problematikom serpentinske flore i vegetacije, bavio sam se nekoliko poslednjih godina ispitivanjima Studene Planine. Ovaj serpentinski masiv u Ibarskoj Kotlini čini kariku u lancu prostiranja serpentina pravcem Bosna — Zlatibor — Ibarska Klisura — Albanija.

I pored toga što je vrlo veliki broj ispitivača radio u oblasti Zapadne Srbije, ipak neke florističke interesantnosti do današnjeg dana nisu bile iznošene.

Pre nekoliko godina čitao sam rad C. von Tubeuf-a (1919) i iz istoga saznao da se poluparazitska vrsta imele *Arceuthobium oxycedri* ne nalazi samo na crvenoj fenji (kleki) kako je svojevremeno tvrdio naš prvi botaničar J. Pančić u svojoj knjizi »Flora Kneževine Srbije«. Ova me je pojava zainteresovala naročito zbog toga što sam znao da se u Ibarskoj Klisuri nalaze obe vrste kleke u zajedničkoj populaciji. U zaseoku Rudnjak naišao sam na populaciju ovih vrsta a na njima je bilo vrlo mnogo imele *Arceuthobium oxycedri*. Istina, ova vrsta imele zastupljena je mahom na crvenoj kleki, ali je znatno česta i na egzemplarima plave kleke *Juniperus communis*.

Foto snimci prikazuju grančice crvene (1) i plave (2) kleke na kojima se vide gomilice imele.

Druga interesantna biljka za oblast Zapadne Srbije koja do sada nije nalažena je *Hierochloe australis*. Po Hayek-u ova je vrsta nalažena u Hrvatskoj, Bosni i Hercegovini i Bugarskoj. Nađena je na padinama proređene hrastove šume na levoj strani Leskovačke Reke, što se vidi iz priložene karte Srbije.