Reflections on the life and contributions to vegetation science of Lojze Marinček (1932–2023)

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On April 8, 2023, Lojze Marinček passed away, one of the leading researchers of forest vegetation in the second half of the twentieth century, whose work significantly contributed to knowledge of the forest vegetation of Slovenia.

Lojze Marinček was born on April 23, 1932 in Ljubljana. He graduated from the Forestry Department of the Faculty of Agronomy, Forestry and Veterinary Science of the University of Ljubljana with a thesis entitled Ecological and Vegetational Conditions of Mala Pišnica Forests with Special Regard to Mapping and Categorization of Forests in 1959. He received his PhD in 1976 at the University of Belgrade with the thesis Forest Communities on Clastic Sediments in Southeastern Slovenia. His supervisor was Branislav Jovanović.

In 1955 and 1956, he worked at the Radovljica Commission for Forestry and Reclamation Planning. In 1961, he was employed at the Forestry Planning Bureau in Ljubljana as a phytosociologist and from 1971 onwards, he headed the phytosociological department. Within this institution, which had been founded by Živko Košir, he mainly mapped forest vegetation and prepared manuscript studies for the needs of forestry practice. This gave him little time to publish the results of his research. However, he had better conditions for his scientific work when he was employed at the Jovan Hadži Biological Institute at the Research Centre of the Slovenian Academy of Sciences and Arts, where he had the opportunity to publish his results.

He joined the Institute of Biology of the Slovenian Academy of Sciences and Arts on April 1, 1973, in the year in which the Biological Institute took the name of

Dr. Lojze Marinček
its first chair, evolutionary zoologist Jovan Hadži, who died in 1972. Later, in the early 1980s, the Jovan Hadži Biological Institute became part of the Scientific Research Centre of the Slovenian Academy of Sciences and Arts. Lojze Marinček was elected here to the highest research title of scientific advisor in 1985.

At the beginning of the seventies, after the founder of geobotanical research at the Institute of Biology, Maks Wraber, passed away in 1972, a research group was formed that worked together for almost thirty years. The group successfully continued Maks Wraber’s work at the institute and elaborated in detail above all the forest vegetation of Slovenia, introduced new methods and mapped the vegetation. In addition to Lojze Marinček, Mitja Zupančič, Ivo Puncer, Vinko Žagar and Milan Prešeren also collaborated in this group, to mention only the researchers that were in the group the whole time; there were many others. They substantially contributed to present knowledge of the vegetation of Slovenia.

In 1997, he became Minister of Science and Technology in the Government of the Republic of Slovenia. He held this position until the end of 2000. From December 1998 to March 1999, he was also Acting Minister of Defence. He retired in 2001.

He presented his research findings at national and international symposia. He gave nine papers at meetings of the International Society for the Study of Vegetation in Rinteln (1974–1981) and later in Rome (1989–2001) and he gave ten papers at meetings of the Eastern Alpine-Dinaric Society for Vegetation Ecology, which he regularly attended: in Ljubljana, Trieste, Dubrovnik, Salzburg, Keşthely, Zagreb, Rovereto, Vienna, Trieste and Otočec. He also took part in other meetings and symposia.

He shared his broad knowledge and valuable experience with his research team, and especially with younger colleagues. He was supervisor of the MSc of Igor Dakskobler (co-supervisor) and Petra Košir (also of her PhD).

He was also active also in the Eastern Alpine-Dinaric Society for Vegetation Ecology. In 1982, he organized an international excursion through Slovenian and Croatian oak-hornbeam forests. He was the coordinator of the Vegetation Map of the Alps for the area of Slovenia, a member of the committee for the Vegetation Map of Yugoslavia, and a member of the editorial board of the journals Ekologija and Scopolia. He was a member of various committees, organizations and societies at home and abroad. He was chairman of the committee for publications at the Slovenian Academy of Sciences and Arts (1979–1983) and chairman of the conference of delegations of research organizations of the municipality of Ljubljana Centre (1981–1983). He was the chair of the scientific committee of the Jovan Hadži Biological Institute (1996–2000).

His extensive bibliography includes around 250 bibliographic items. He received an award from the Boris Kidrič Foundation (the highest reward in science at that time) for his work in 1983. In 2005, he received the award of Ambassador of Science of the Republic Slovenia, from the Ministry of Higher Education, Science and Technology, for his lifetime achievements in the field of vegetation science, which strengthened and developed the identity of Slovenia.

His central research area was the study of the ecology, systematics and dynamics of mesophilius deciduous forests in Slovenia, neighbouring countries and southeastern Europe. Nearly all of his publications dealt with mesophilius deciduous forests that are nowadays classified within the class Carpino-Fagetea (Mucina et al. 2016). Initially, he mainly dealt with acidophilius beech forests, before starting complex research into beech forests in general. He also dealt with oak-hornbeam and ravine (noble hardwood) forests, as well as the rehabilitation of road slopes with the use of vegetation.

He devoted his entire life to research into vegetation, and it is difficult to list all his achievements in a fairly short article. Here, we mention only his activities in the field of vegetation science. He was also active as a politician and poet, though these activities will not be dealt within our overview. He nearly always worked in teams, so we have also mentioned coauthors. We have abbreviated them to the initials of the name and family name (c.f. bibliography). The regions in the description correspond to those proposed by Maks Wraber (Wraber, 1968).

He began to study acidophilius beech forests even before he was employed at the Institute of Biology. He elaborated acidophilius beech forests with saw fern and their developmental tendencies in central Slovenia (Marinček, 1979, 1973). He also described acidophilius beech forests in the altimontane vegetation belt in Slovenia (Marinček, 1983b) and dealt with acidophilius beech forests in lowlands and their nomenclature (Marinček & Zupančič, 1979, 1995), all with MZ. He elaborated acidophilius fir-beech forests in the altimontane belt of the Prealpine region with ID (Marinček & Dakskobler, 1988).

Beech forests were one of his best loved topics, which he often revisited. He began the elaboration of submontane beech forests in the Predinaric region of Slovenia (Marinček & Zupančič, 1977) (with MZ) and continued with the Submediterranean region (Marinček et al., 1990) (with JP, ID, MZ). He prepared an overview over these forests in the Illyrian floral province (Marinček, 1995b). He reported with UŠ on the degradation stages of beech forests, in which secondary stands dominated by Quercus cerris appear in the Lož valley (Marinček & Šilc, 1999). He prepared a detailed analysis of submontane forests in Slovenia in 2013 (Marinček & Čarni, 2013) (with AČ).
He also began to elaborate montane beech forests with IP and MZ in the Prealpine and Predinaric regions of Slovenia (Marinček, 1981a; Marinček et al., 1983) and later in the Dinaric region, in Kočevski Rog, with PK and UŠ (Marinček et al., 2001). He also reported on beech forests from Blegoš mountain with PK (Marinček & Košir, 1998). He studied differences between primeval and managed forests in the association Omphalodo-Fagetum in the Dinaric region with IP and MZ (Marinček et al., 1980a).

He first reported on altimontane and subalpine beech forests in 1978 from the Pišnica valley (Marinček, 1978). Four years earlier, he had guided an excursion of the Eastern Alpine-Dinaric Society for Vegetation Ecology in this area (Marinček, 1974). He presented altimontane forests in the surrounding of Škofja Loka (Marinček, 1981) and elaborated the differences between subalpine and altimontane forests in the Dinaric region (Marinček, 1988b). In collaboration with LP and MZ, he elaborated the association Anemono-Fagetum over its whole distribution area (Marinček et al., 1989). He described subalpine forests (Polysticho lonicithis-Fagetum) in the western Dinaric Alps (Marinček 1996b) and elaborated this forest on Snežnik mountain with UŠ (Marinček & Šilc, 1997). He also prepared a synthesis of altimontane beech forests in the whole region (Marinček, 1998). During the last period of his activities, he elaborated prealpine fir and beech forests with Č (Marinček & Čarni, 2007), and prepared with him a detailed overview over these forests in Slovenia (Marinček & Čarni, 2010).

He wrote his first article on thermophilous beech forests in Slovenia in collaboration with IP and MZ in 1980 (Marinček et al., 1980b). This topic was also later revisited (Marinček, 1996a).

He also provided a general overview of beech forests. He elaborated climatogenic beech forests in Slovenia (Marinček, 1983a) and was involved in an international team, composed of LM, LP, MZ, ID and MA, dealing with the nomenclature of beech forests in the Illyrian flora region (Marinček et al., 1992).

One of the fundamental results of his research work is the book Beech Forests in Slovenia from 1987 (Marinček, 1987a). He treated beech forests in a complex manner in the book, whereby he did not limit himself only to his narrow focus (vegetation) but also comprehensively covered the ecological conditions, development directions, economic importance etc. His knowledge of soil and soil processes, which he connected with individual communities, must be emphasised in particular.

He was also interested in oak-hornbeam forests. He first described oak-hornbeam forest in the Prealpine region (Marinček, 1979). He then elaborated oak-hornbeam forests in the Submediterranean region with LP and MZ (Marinček et al., 1982). He also wrote an article about subpanonian oak-hornbeam forests with MZ (Marinček & Zupančič, 1984a). He continued the elaboration of oak-hornbeam forests with acidophilous oak-hornbeam forests (Marinček, 1987b) and predinaric oak-hornbeam forests (Marinček, 2001). He also prepared a nomenclatural revision of Illyric oak-hornbeam forests (Marinček, 1994b) and a synthetic publication on Illyric oak-hornbeam forests with Č (Marinček & Čarni, 2000).

During the last decades of his research career, he was interested in ravine (noble hardwood) forests. He initially published a contribution about ravine forests in Kamniška Bistrica and around Škofja Loka (Marinček, 1992; Marinček, 1995a). He published a preliminary report about ravine forests in 1999 with PK (Košir & Marinček, 1999). Petra Košir later prepared a PhD on this topic and further developed the research of ravine forests (Košir et al. 2008).

He was also interested in primeval forests (virgin forest remnants), publishing an article about Šumik (Marinček, 1995c) and continuing his work with AM in the following years in Pečka, Ravna gora and Strmec virgin forest remnants (Marinček & Marinček, 2003; Marinček & Marinšek, 2004; Marinček & Marinšek, 2009).

He was also interested in the systematics and classification of forest vegetation. He discussed the systematics of anthropogenous vegetation (Marinček, 1973c). He explored the utilization of geographical attributes and trinomial names for zonal forests in Yugoslavia, in collaboration with IP and MZ (Marinček et al., 1981). He presented problems of the systematics and classification of forest associations in the eastern Alps and Dinaric region with MZ (Marinček & Zupančič, 1984b), wrote about problems in nomenclature (Marinček, 1988a) and proposed some nomenclature innovations in the classification of beech and oak forests with MZ (Marinček & Zupančič, 1995). He proposed a new name for the alliance of oak-hornbeam forests in the Illyrian flora province (Mucina et al., 1993).

He also elaborated some regions, mainly mesophilous deciduous forests, such as škojšeloško pogoorge (Marinček, 1973b), Moravška dolina (Marinček, 1975), Lubnik (Marinček & Wraber, 1977), Ratitovec (Marinček & Wraber, 1978), Blegoš (Marinček & Wraber, 1980), southeastern Slovenia (Marinček, 1980), Dražgoše (Marinček & Seliškar, 1982b), Sorica (Marinček, 1986) and Menina planina (Marinček, 2004).

He already started mapping forest vegetation in the 60s, when he was employed at the Forestry Planning Bureau. He joined the mapping team at the Institute of
Biology. They have prepared many maps for forestry practice and have also been involved in the mapping project Vegetation Map of Yugoslavia, which was initiated by Ivo Horvat in 1962. Marinček was involved in the preparation of the Map of Potential Vegetation of Yugoslavia on a scale of 1:1,000,000 (Fukarek & Jovanović, 1983) and an explanatory text to this map (Jovanović et al., 1986). He participated in the production of a map of real and potential vegetation of Slovenia in the Geographical Atlas of Slovenia (Zupančič et al., 1998a; Zupančič et al., 1998b).

He was among the authors (AČ, AS, MZ) of a map of forest vegetation of Slovenia on a scale of 1:400,000 (Čarni et al., 2002) with an explanatory text (Marinček & Čarni, 2002). He published an article about this map for the wider public (Marinček et al., 2000) (with AČ, TH, MJ). He also published a map of some sections on a scale of 1:50,000, such as Novo mesto (Marinček et al., 2003) (with AČ, BV, BČ, BH, MJ, PK, AM, UŠ, IZ), Ljubljana (Marinček et al., 2006) (with AČ, PK, MJ, AM, UŠ, IZ) and Murska Sobota (Čarni et al., 2008) (with AČ, PK, AM, UŠ, IZ) with an explanatory text. He was also part of a team that compiled a map of the forest vegetation of Slovenia at the Slovenian Forestry Institute, a successor to the Forestry Planning Bureau, where mapping activities were initiated by Živko Košir (Kutnar et al., 2007).

He also elaborated the development of forest and reforestation processes. He studied with MZ the developmental process of forests 30 years after abandonment in the Kočevsko region (Marinček & Zupančič, 1978). He analysed the successional stages of vegetation on Menina Planina and on Slivnica mountain with AS (Marinček & Seliškar, 1982a). He also studied the succession of spruce in the Prealpine and Alpine regions of Slovenia with MZ (Marinček & Zupančič, 1982).

He proposed changes to the phyto-geographic division of Slovenia (with MZ, IP, AS) (Zupančič et al., 1987). He later proposed himself the demarcation of the Illyrian floral province anew based on zonal vegetation (Marinček, 1994a).

He also published several articles dealing with the theoretical background of research and mapping of vegetation, and possibilities for the application of results in practice. He dealt with forests and site fertility (Marinček, 1971), presented the development of research and mapping of vegetation (Marinček et al., 1972), estimated the contribution of phytosociological research to environmental management (Marinček et al., 1977), wrote about the management of forests based on forest communities (Marinček et al., 1979a) and discussed the scientific background of the systematics of forest communities (Marinček et al., 1979b), all in collaboration with IP and MZ. With MZ, he estimated the vulnerability of the environment (Marinček & Zupančič, 1994). He also wrote about sustainable game management (Marinček, 2011).

He is known for his efforts to apply phytosociological research in engineering biology and in the optimal use of the environment, and his actions aimed at the rehabilitation of road slopes on a biological basis were very popular. He wrote about the role of vegetation in the rehabilitation of road slopes with AS (Marinček & Seliškar, 1995). Later, in collaboration with AČ, TH, PK, UŠ and IZ, he implemented research projects on the rehabilitation of slopes (Čarni et al., 1999; Marinček et al., 1999; Čarni et al., 2000).

He also worked in other topics dealing with vegetation: he measured temperature in fir forests (Marinček 1977), contributed to a pedological map (Marinček & Seliškar 1985) and reported the new finding of rare species in Logarska dolina (Dakskobler & Marinček 1995). In addition, he found time to write entries, reviews and short contributions to Krajevni leksikon [Local Lexicon], the Encyclopaedia of Slovenia and other publications.

He was a researcher with a high level of professionalism, drive and insightful solutions to scientific problems. His work also influenced the development of general science. His organizational work should additionally be mentioned, especially during his four-year ministry. His efforts to preserve the natural and cultural heritage must also be emphasised.

He was active at the Jovan Hadži Biological Institute, Research Centre of the Slovenian Academy of Sciences and Arts for many years. We remember him as a kind colleague, always ready to help with advice, ideas, some hard-to-find literature or a joint visit to the field. He worked actively at the institute for almost thirty years, leading many projects and participating in the training of younger colleagues and the management of the institute.

On the occasion of his seventieth birthday, we prepared a festschrift, which was published by ZRC Publishing House in 2002. The festschrift contained his biography and bibliography and contributions dedicated to him by researchers from all over Europe. His complete bibliography since 2001 can be found at the end of this contribution.

Slovenian science has lost a top expert, who contributed enormously to its development. We greatly appreciate his work and will hold him in permanent memory!

We would like to conclude with the thought of his doctoral student Petra Košir, which she wrote at the time of his death:

He had a long and creative life. He was loved by the girls in his family, which is what counts the most. May he also be happy on the other side of the rainbow!
References


Marinček, L., & Čarni, A. (2002). Commentary to the vegetation map of forest communities of Slovenia in a scale of 1:400,000. Založba ZRC.


Complete bibliography of Lojze Marinček

On the occasion of his seventieth birthday, we prepared a festschrift (Marinčkov zbornik), which was published by ZRC Publishing House in 2002. The festschrift contained his biography and bibliography up to 2001:


We publish here the list of his publications published after 2001.

Original scientific articles


Professional article


Discussion article


Popular articles


Monographs


Vegetation maps

Čarni, A., Marinček, L., Šeliškar, A., & Zupančič, M. 2002. Vegetacijska karta gozdovih držb Slovenije v merilu 1:400,000 [The vegetation map of forest communities of Slovenia on a scale of 1:400,000]. Založba ZRC, Ljubljana, 1 map, 1 CD ROM.


Čarni, A., Košir, P., Marinček, L., Marinšek, A., Šilc, U., & Zelnik, I. 2008. Vegetacijska karta gozdnih združb Slovenije v merilu 1:50.000 – list Murska Sobota [Vegetation map of forest communities of Slovenia on a scale of 1:50.000 – section Murska Sobota]. Pomurska akademsko znanstvena unija (PAZU), Murska Sobota, 1 map, 1 CD ROM.

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