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## Matija Zorn

dr. geografskih znanosti, višji znanstveni sodelavec, docent, Geografski inštitut Antona Melika,  
Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti, Gosposka ulica 13, SI-1000 Ljubljana  
e-pošta: matija.zorn@zrc-sazu.si

## Peter Kumer

univ. dipl. geograf, asistent, Geografski inštitut Antona Melika,  
Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti, Gosposka ulica 13, SI-1000 Ljubljana  
e-pošta: peter.kumer@zrc-sazu.si

## Mateja Ferk

dr. geografskih znanosti, znanstvena sodelavka, Geografski inštitut Antona Melika,  
Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti, Gosposka ulica 13, SI-1000 Ljubljana  
e-pošta: mateja.ferk@zrc-sazu.si

# Od gozda do gozda ali kje je goli, kamniti Kras?

### IZVLEČEK

*Naravno rastje na Krasu je gozd. Človek v to pokrajino posega že vse od prazgodovine. Zaradi izsekavanja gozda, povezanega s prekomerno pašo in drugo rabo, ter posledično zaradi pospešene vodne in vetrne erozije, jo je v zadnjem tisočletju postopno spremenil v golo kraško površje. V 18. in 19. stoletju je bil Kras »kamnita puščava«. V 19. stoletju so se začela načrtna pogozdovanja, najprej neuspešno s hrastom in nato uspešno s črnim borom. Ta proces je potekal še v prvi polovici 20. stoletja. V drugi polovici 20. stoletja je pogozdovanje zamenjal proces stibijskega ogozdovanja kot posledica naravnega zaraščanja ob opustitvi kmetijskih zemljišč, ki smo mu priča še danes.*

### KLJUČNE BESEDE

*Kras, okoljska zgodovina, rastje, gozd, spremembe rabe tal, pogozdovanje, ogozdovanje*

### ABSTRACT

#### FROM FOREST TO FOREST OR WHERE IS THE BARE ROCKY KARST?

*The natural vegetation on the Kras (Karst) Plateau is forest. Anthropogenic pressure on this region has been present since the prehistoric times. Because of deforestation linked to excessive grazing and other land uses, and hence accelerated water and wind erosion, the region has over the last millennium gradually turned into bare karst landscape. In the 18<sup>th</sup> and 19<sup>th</sup> century, the Kras (Karst) Plateau was a »rocky desert«. In the 19<sup>th</sup> century, systematic reforestation began, first unsuccessfully with oak and afterwards successfully with black pine. This process took place also in the first half of the 20<sup>th</sup> century. In the second half of the 20<sup>th</sup> century, reforestation was replaced by the process of spontaneous afforestation as a result of natural overgrowing of abandoned agricultural land.*

### KEY WORDS

*Kras (Karst) Plateau, environmental history, vegetation, forest, land-use change, reforestation, spontaneous afforestation*

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and other land uses, and hence accelerated water and wind erosion, the region has over the last millennium gradually turned into bare karst landscape. The aforementioned process could not be reversed even by decrees on restricting forest destruction (in Trieste issued already in the 12<sup>th</sup> century) which were subsequently revoked. In the 18<sup>th</sup> and 19<sup>th</sup> centuries, the Kras (Karst) Plateau had already turned into a »rocky desert«. A similar process is also characteristic of other parts of the Dinaric Karst.

In the 19<sup>th</sup> century, planned reforestation began, first unsuccessfully with oak and afterwards successfully with black pine. In the 1880s, special acts were passed for the reforestation of the Kras (Karst) Plateau, covering 30,000 hectares of wasteland. 10,814 hectares of land were reforested in 1859–1914, about 850 hectares in 1919–1945, and about 4000 hectares in 1945–1954. Between 1886 and 1911, over 45 million saplings were used in the Carniolan part of the Kras (Karst) Plateau, with the total reforestation costs amounting to about one million crown. Between 6000 and 10,000 saplings were planted per hectare, which is three- or four-times more than the present tree density. Reforestation was six to eight times more expensive than today, but the costs had been recouped by the first decade of the 20<sup>th</sup> century, largely due to the savings in rail transport (lower costs owing to snowdrifts and the bora wind knocking rail cars).

Thanks to the extraordinary reforestation success, the Kras (Karst) Plateau attracted visits by many experts from all over Europe as well as the USA.

In the second half of the 20<sup>th</sup> century, reforestation was replaced by the process of spontaneous afforestation as a result of natural overgrowing of abandoned agricultural land, which we continue to witness today. Since 1825 to present day, the share of forest area has increased by 450% (from 13.3% to 61.1%), by 300% only after 1961. According to the estimates, the forest area will also continue to grow in the future. The development of »new« forest typically exhibits: continued expansion of black pine in the direction of the existing stands; penetration of autochthonous vegetation into the growing black pine stands; and direct expansion of autochthonous forest vegetation into abandoned land. At the end of the century, the Kras (Karst) Plateau had about 30% coniferous trees and 70% deciduous trees.

The Kras (Karst) Plateau is an example of how excessive land use may lead to forest devastation and degradation of living conditions. Conversely, it also shows that reforestation of degraded landscapes may be a successful and economically viable solution. Today, the Kras (Karst) Plateau is a synonym for uncontrolled overgrowth.



## S U M M A R Y

### From forest to forest or where is the bare rocky Karst?

The natural vegetation on the Kras (Karst) Plateau is forest. Anthropogenic pressure on this region has been present since the prehistoric times. Archaeological research shows that human impact on the changing vegetation goes back at least 6000 years. Because of deforestation linked to excessive grazing