

Current spruce bark beetle calamity in the Czech Republic - year by year

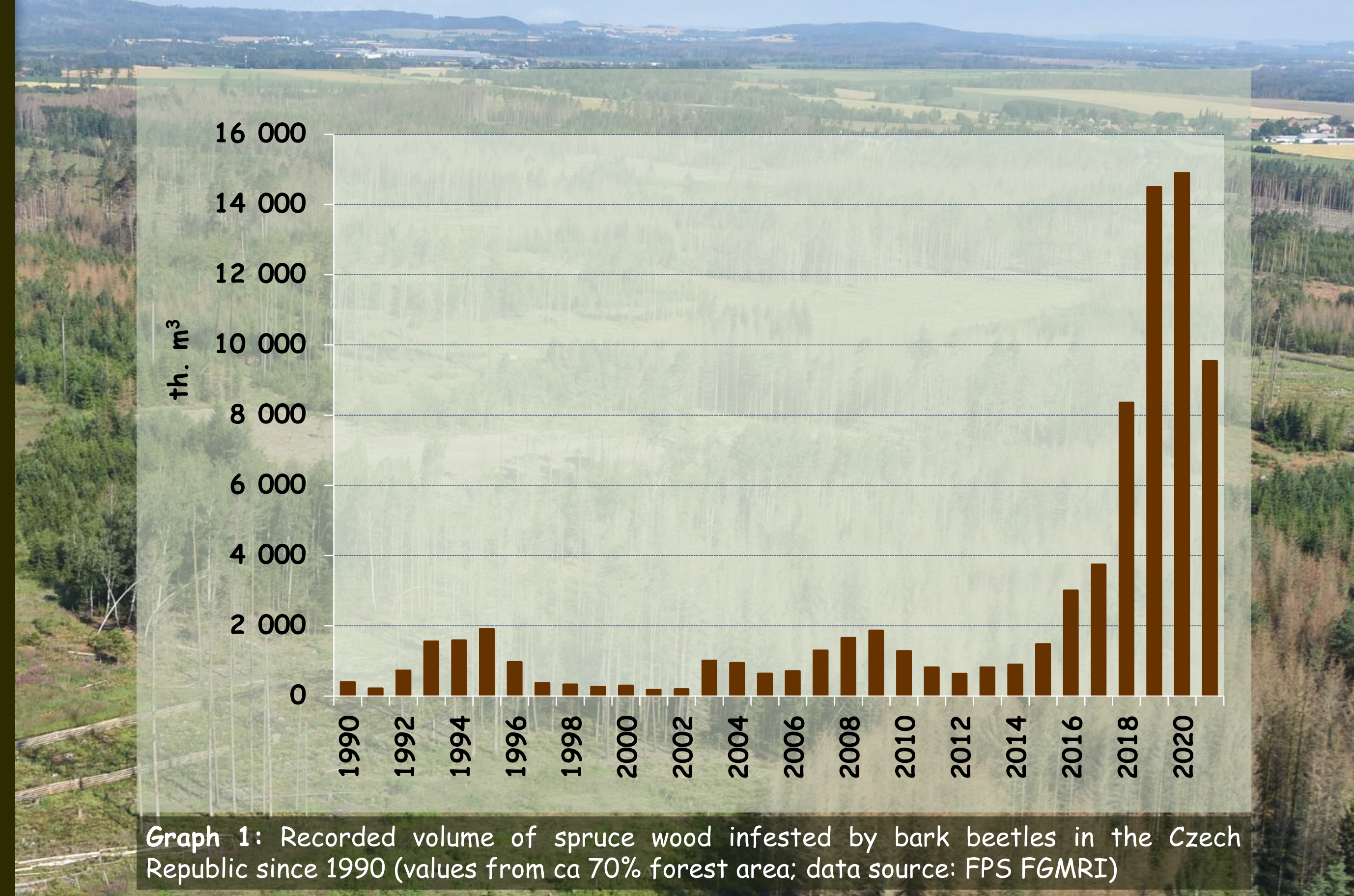
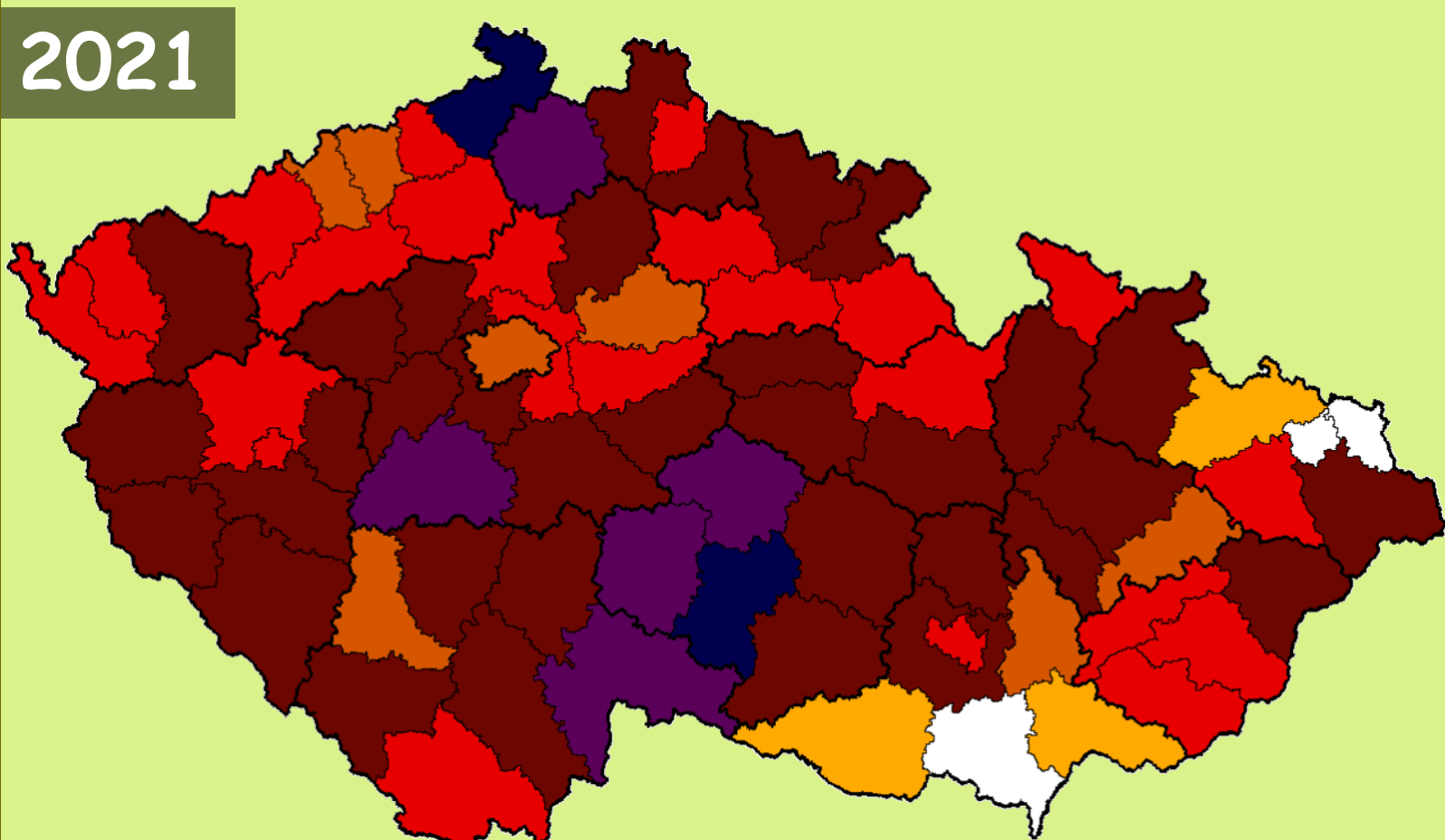
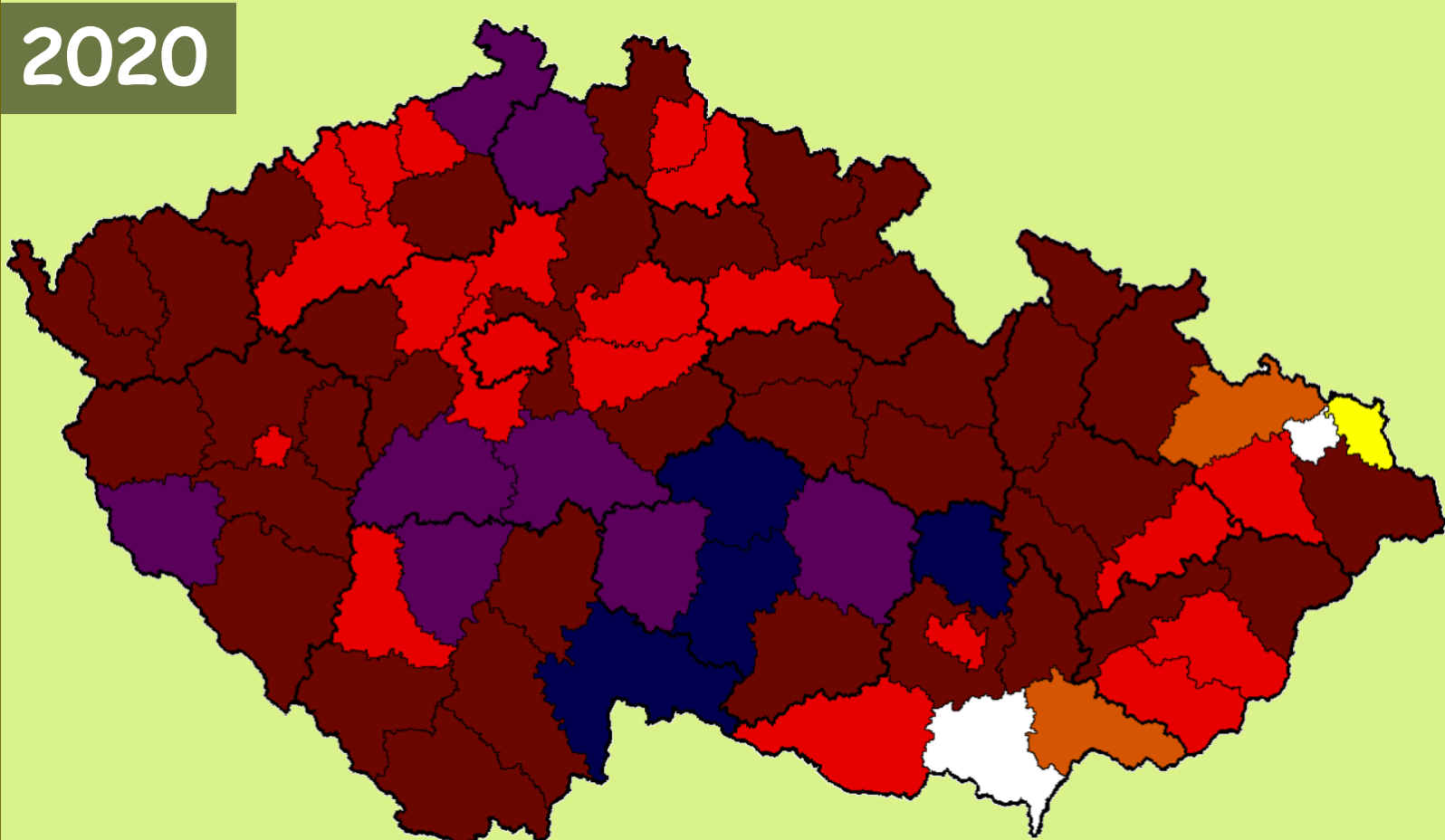
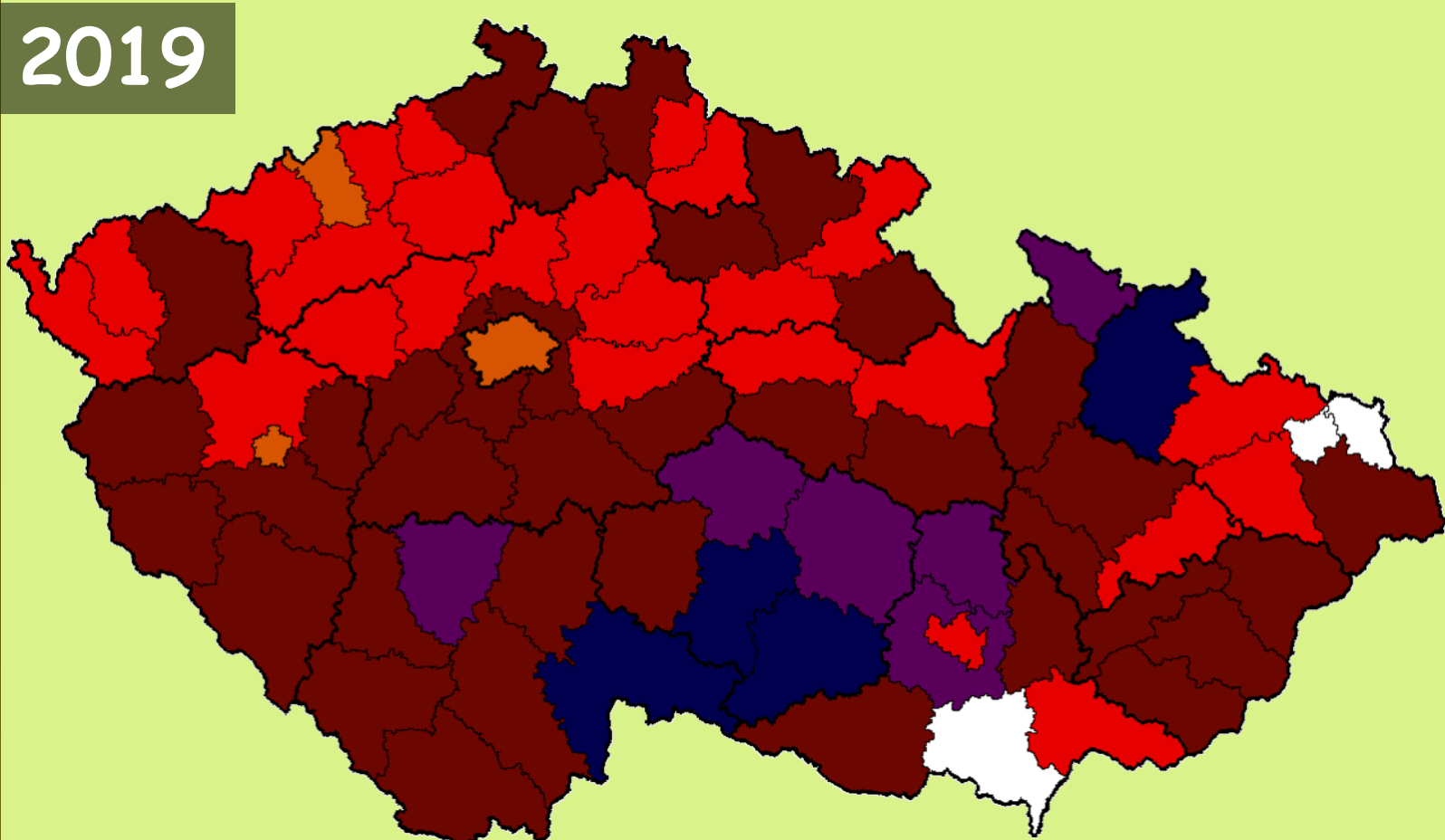
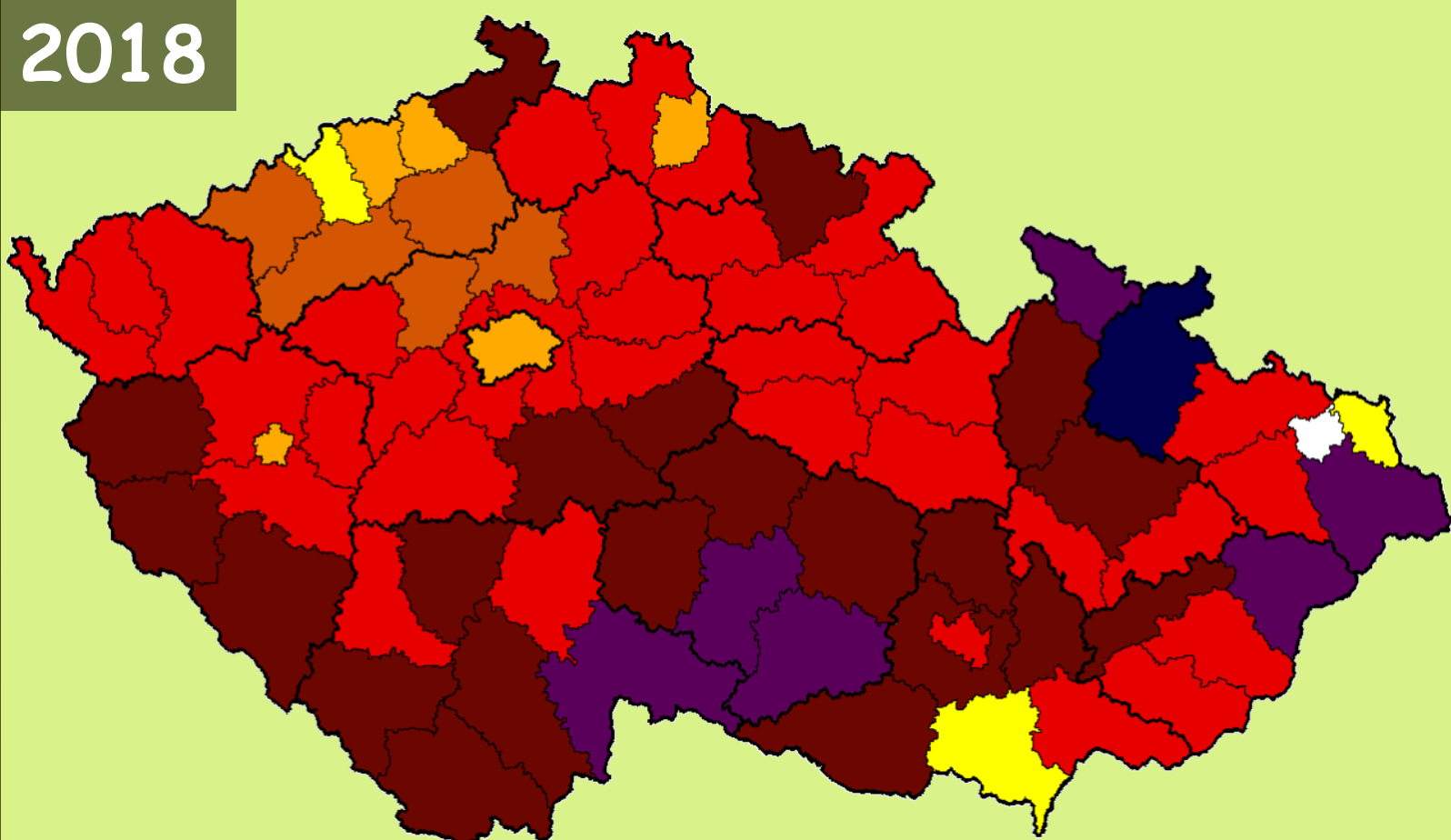
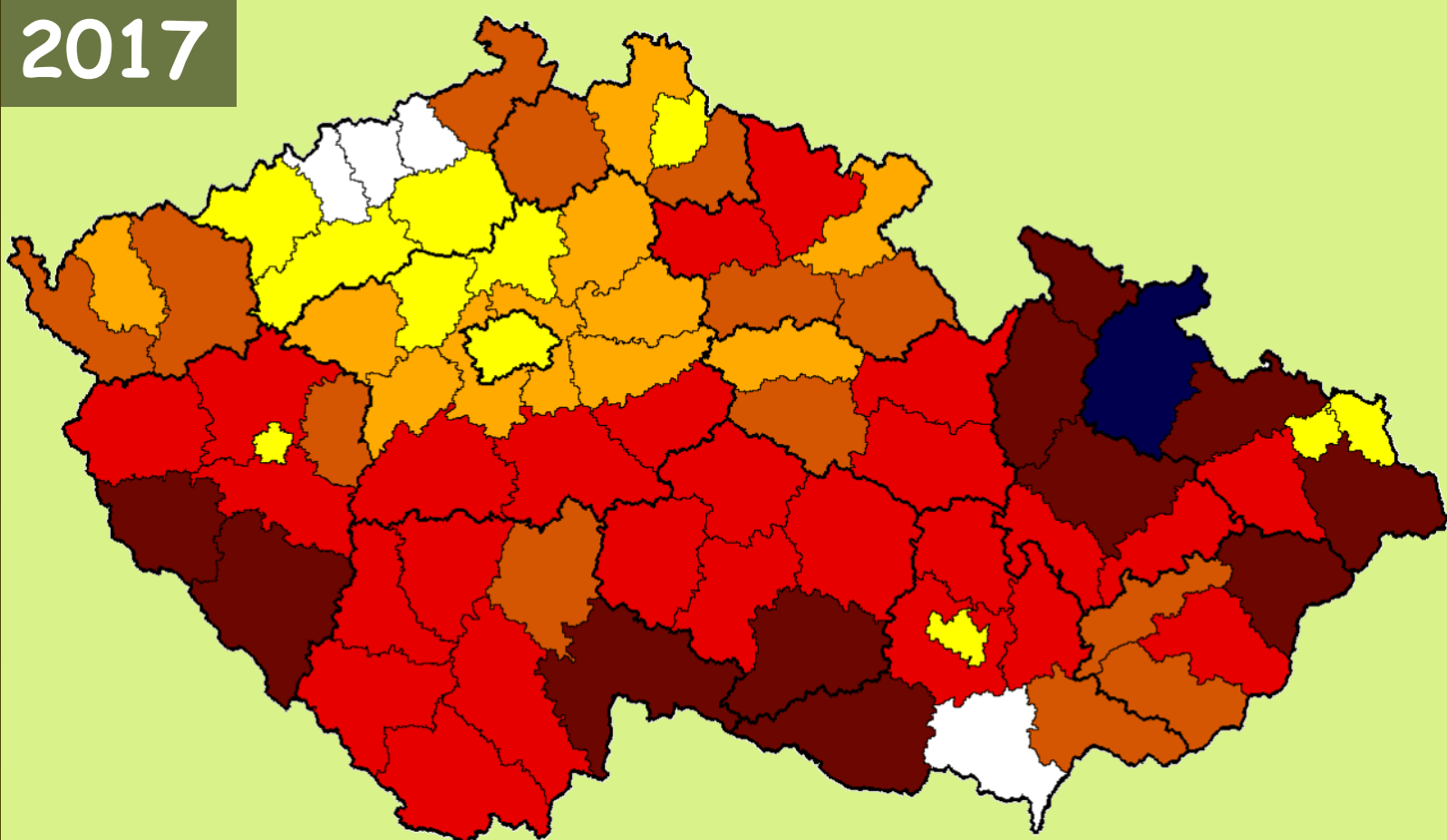
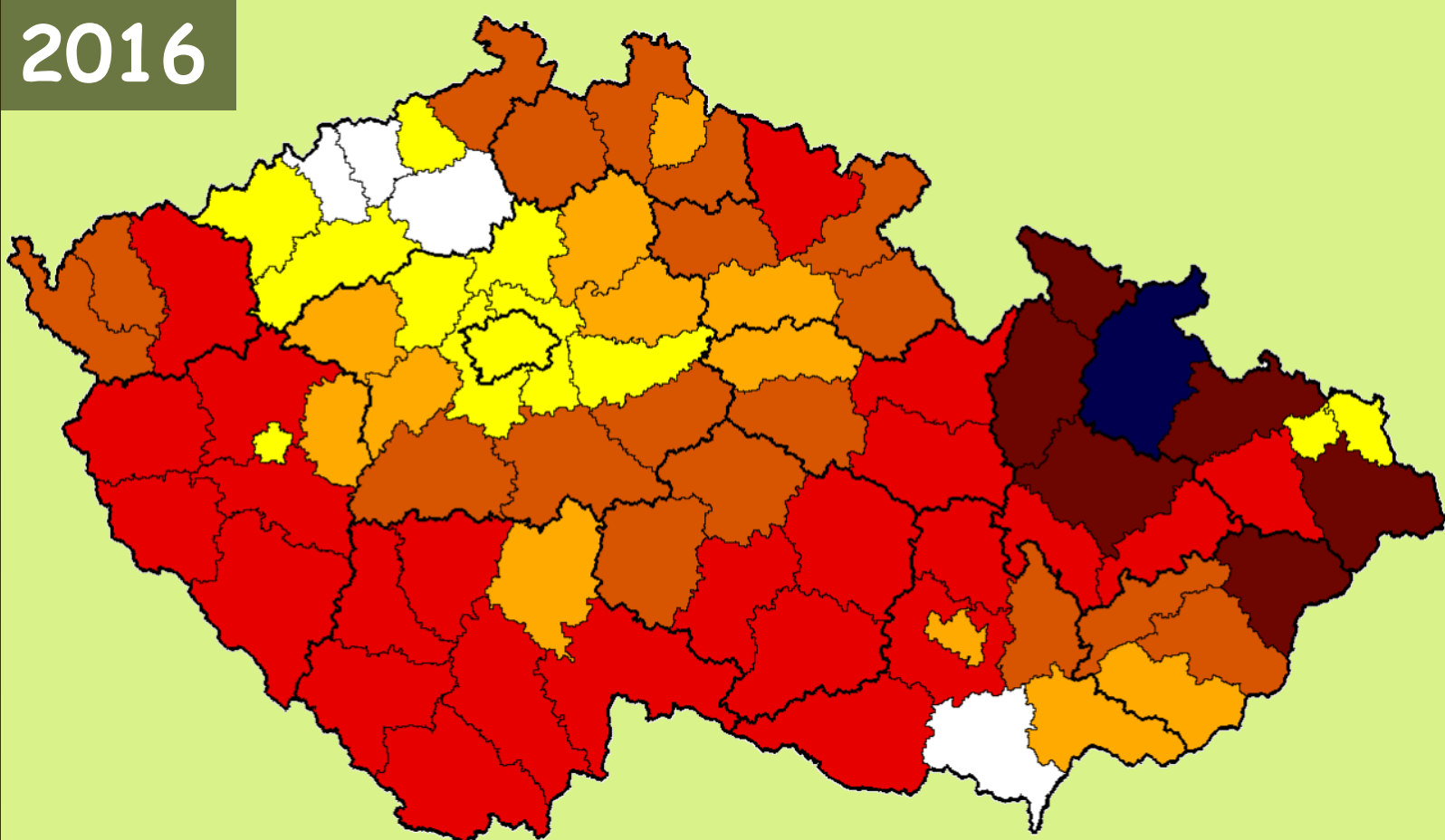
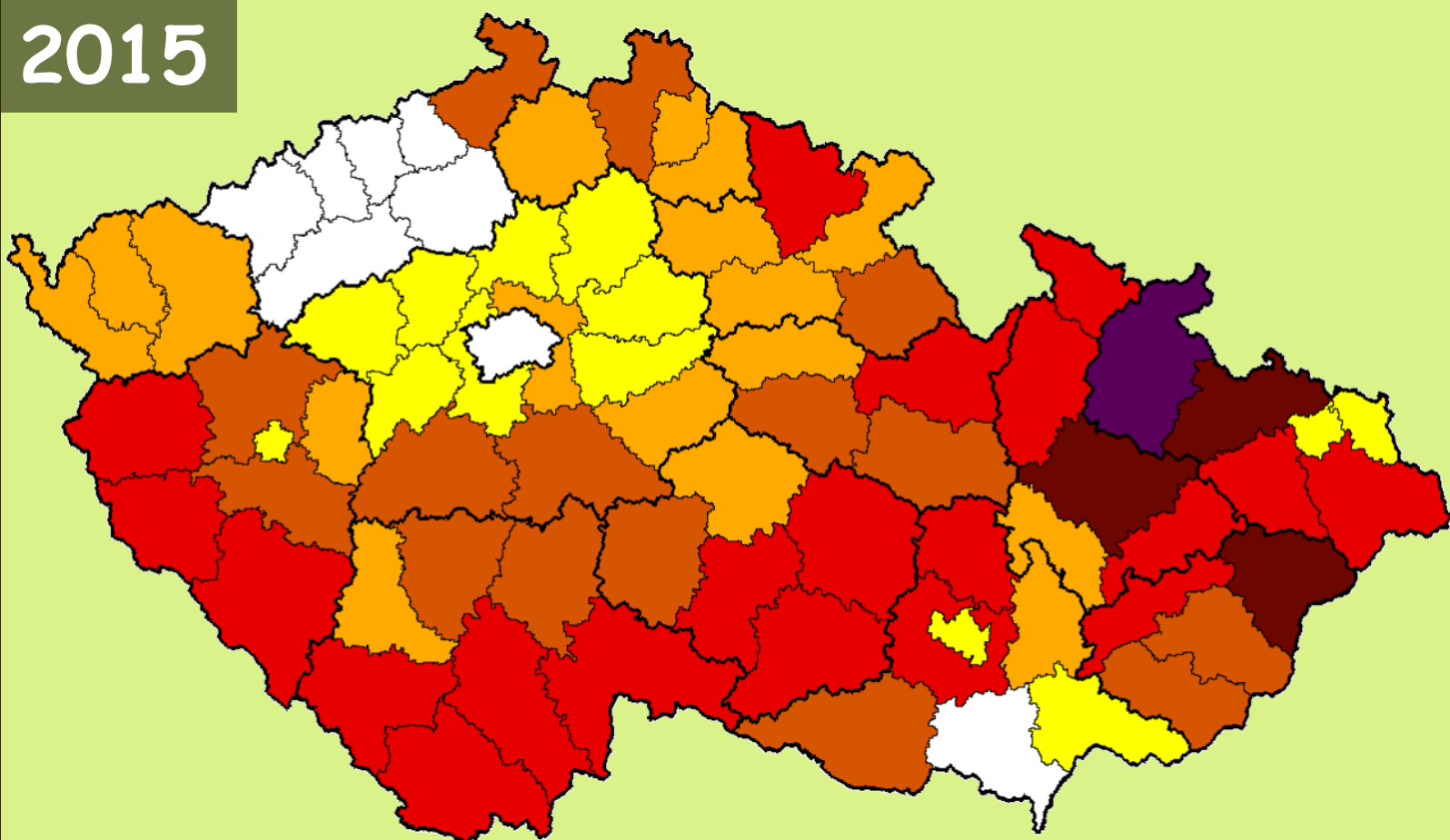
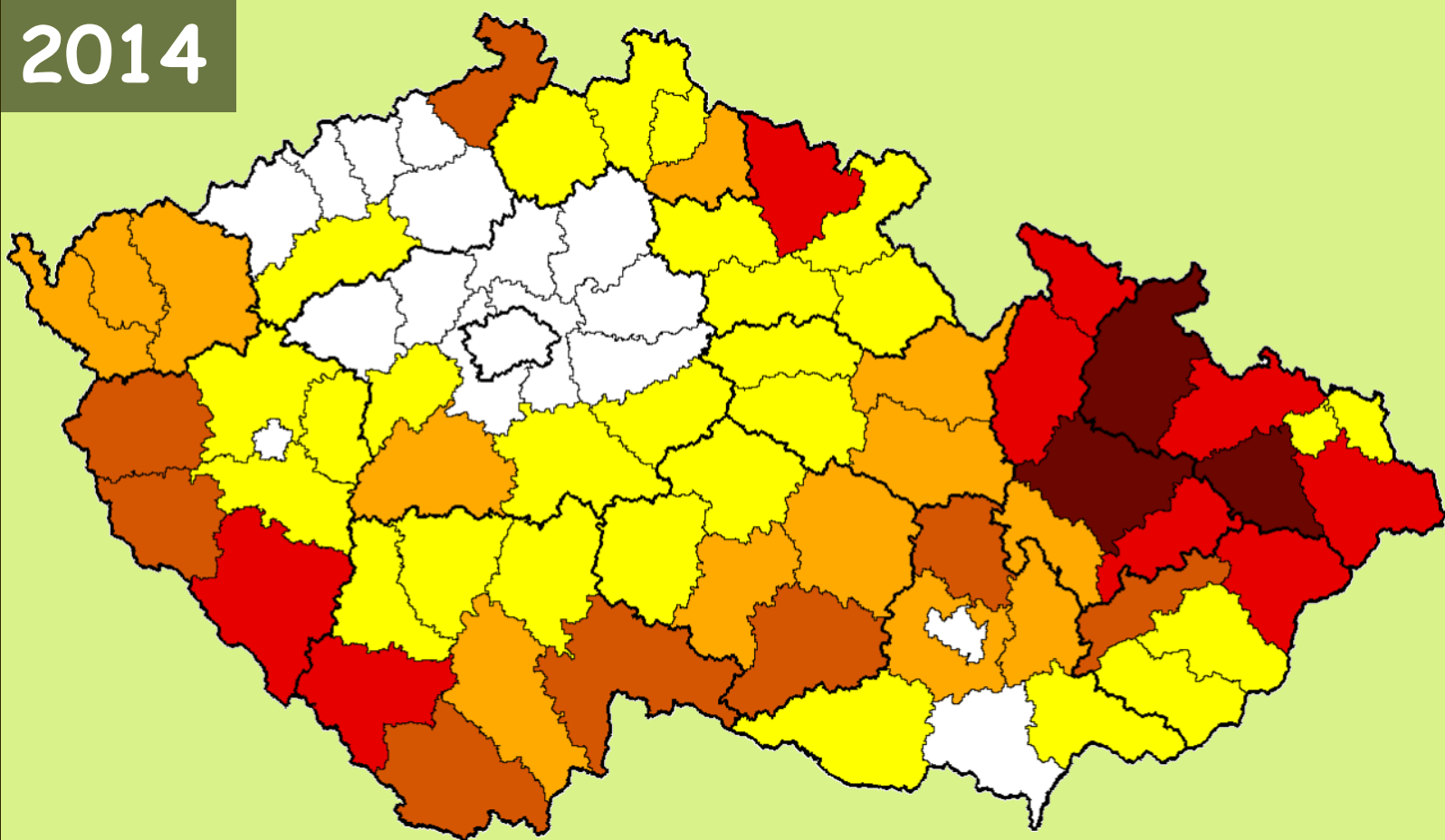


Forestry and Game Management Research Institute

Jan Lubojacký¹, Miloš Knížek²

¹ Forestry and Game Management Research Institute, Office Frýdek-Místek, Na Půstkách 39, CZ-73801 Frýdek-Místek, Czech Republic

² Forestry and Game Management Research Institute, Office Jíloviště-Strnady, CZ-15600 Praha 5 - Zbraslav, Czech Republic



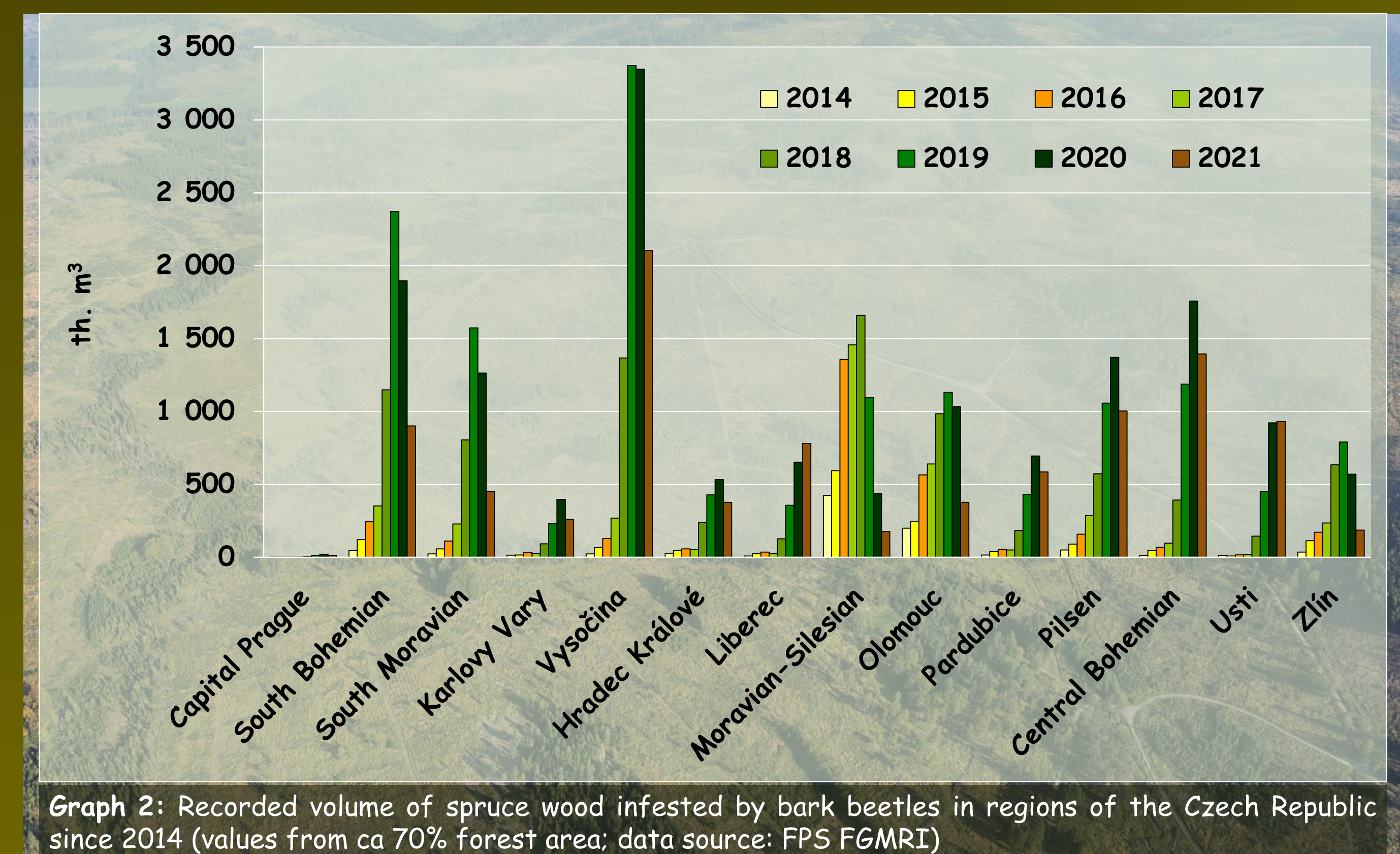
Graph 1: Recorded volume of spruce wood infested by bark beetles in the Czech Republic since 1990 (values from ca 70% forest area; data source: FPS FGMRI)

Current spruce bark beetle calamity in the Czech Republic:

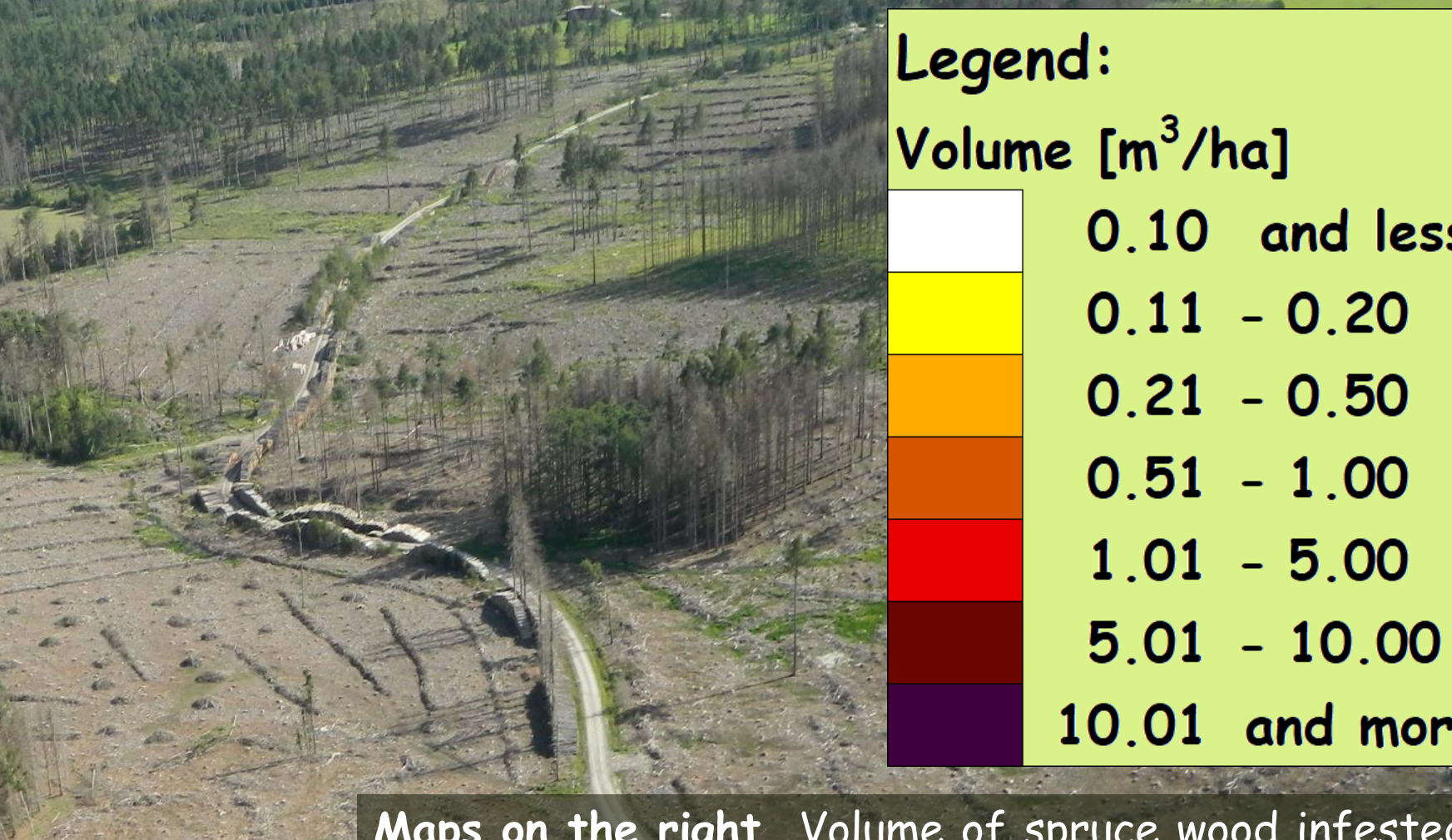
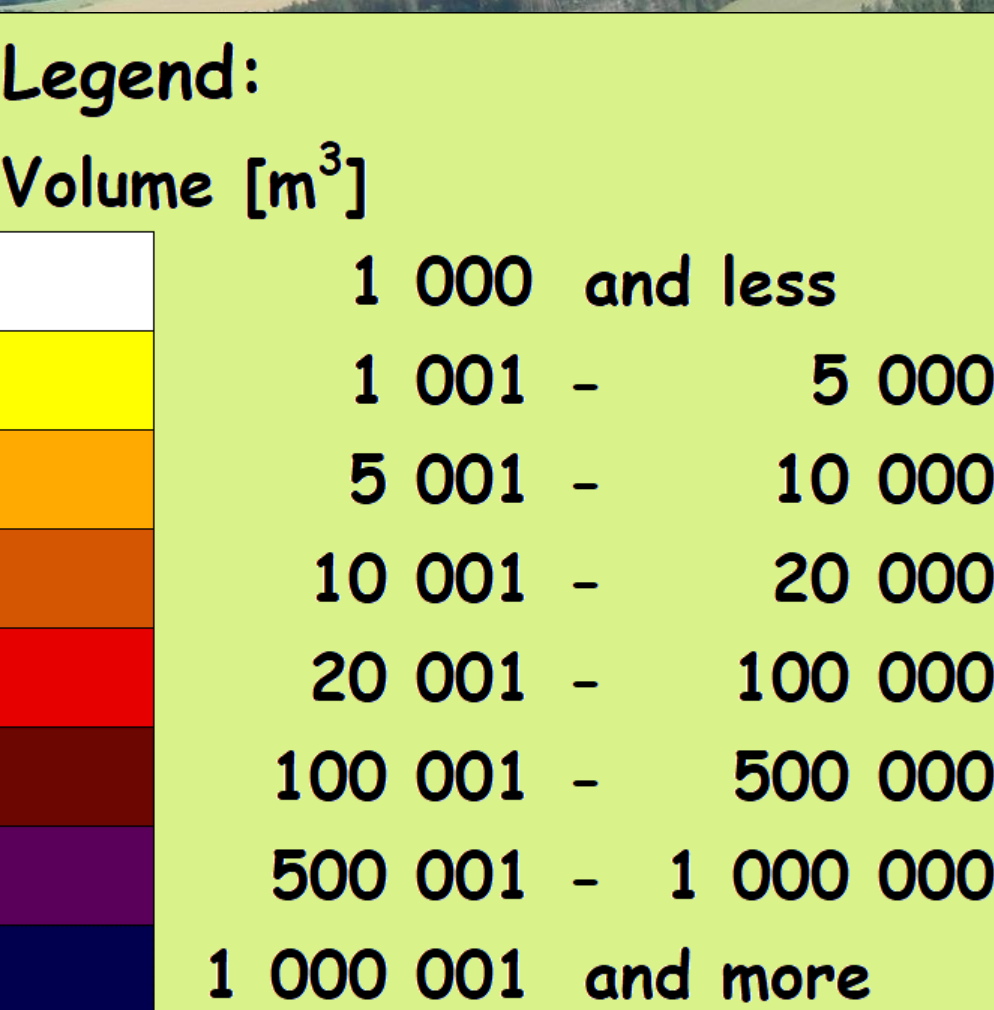
The current bark beetle outbreak in spruce stands of the Czech Republic represents the worst and biggest bark beetle calamity in the history of the Czech lands.

The poster is based on data received from forest managers, covering ca 70% of the forest area in the Czech Republic. In some cases (presented maps), the values are calculated on 100% of the forest area.

The beginning of this long-term outbreak can be dated back to 2003 (extreme drought, over average warm growing season). In the following years, the development of bark beetles was supported by a number of suitable climatic episodes. After the culmination of the recorded volumes of harvested spruce wood infested by bark beetles at the end of the decade before last, there was a renewed increase, first in the eastern half of the state (especially in the north and central Moravia and Silesia) since 2011. The increase in 2013 and 2014 was more noticeable and especially then the bark beetle calamity between the climatically extreme (dry and warm) years 2015 and 2018 with culmination mainly in 2019. In the western part of the state (Bohemia), there was a more significant increase in bark beetle infestation since 2015 again (calamity with exponential increase was recorded here mainly between 2018 and 2020), culminating in most of Bohemia was in 2020.



Graph 2: Recorded volume of spruce wood infested by bark beetles in regions of the Czech Republic since 2014 (values from ca 70% forest area; data source: FPS FGMRI)



Maps on the left Volume of spruce wood infested by bark beetles in districts of the Czech Republic in 2014-2021 (values from ca 70% forest area calculated up to 100%; data source: FPS FGMRI)

Maps on the right Volume of spruce wood infested by bark beetles for 1 ha of spruce stands in districts of the Czech Republic in 2014-2021 (values from ca 70% forest area calculated up to 100%; data source: FPS FGMRI)

Acknowledgement:

This work was made with the support of the Ministry of Agriculture under a contract to provide the Forest Protection Service and institutional support MZE-RO0118.