



FORRISK

Final Conference

Ansfelden | 26.09.2022

IFFF BOKU Vienna – Peter Baier
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Thomas Kirisits

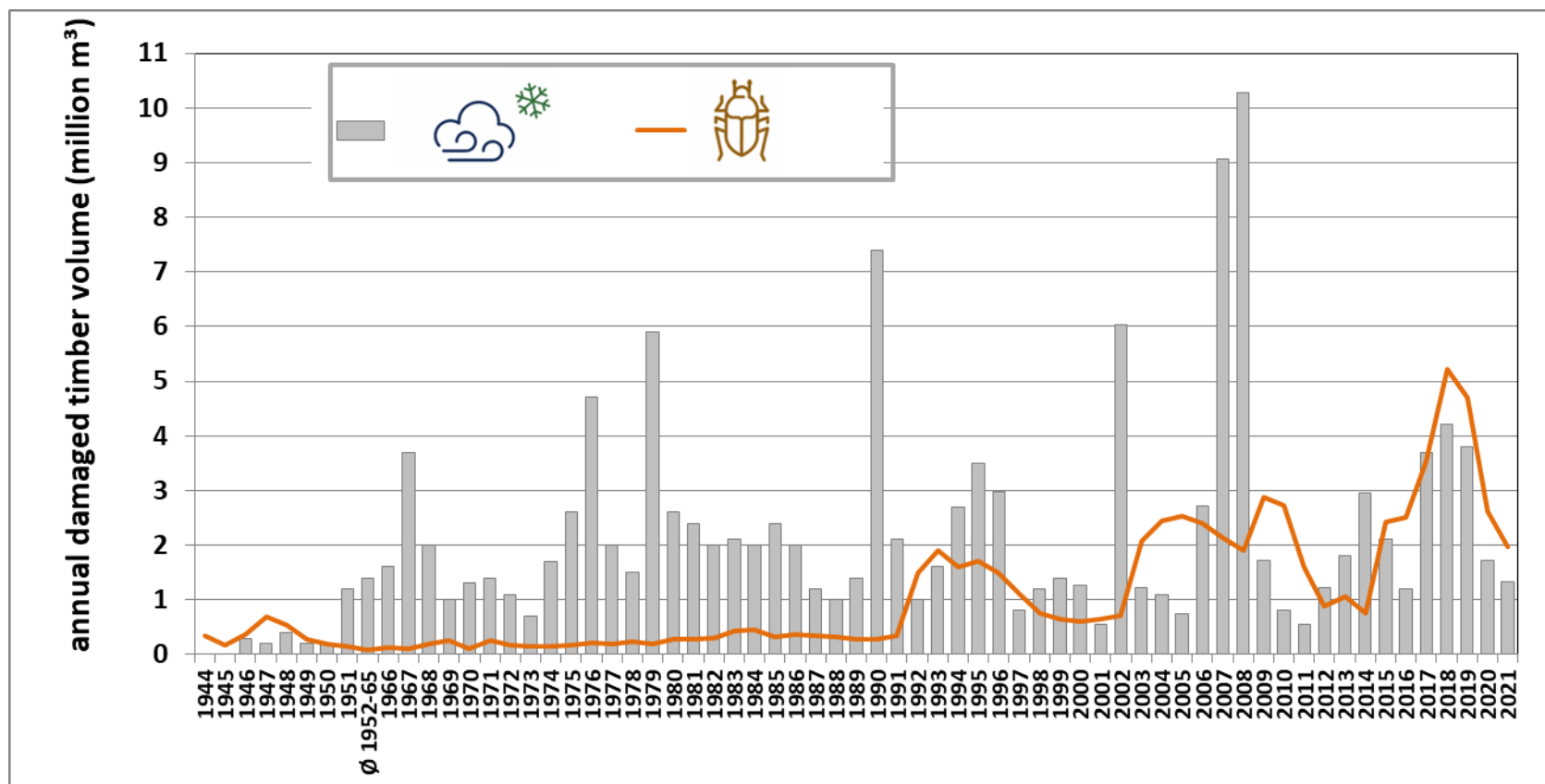


Bark beetle outbreak in Mühl- and Waldviertel

- **Outbreak history and current situation**



Annual damage by wind/snow and bark beetles in Austria

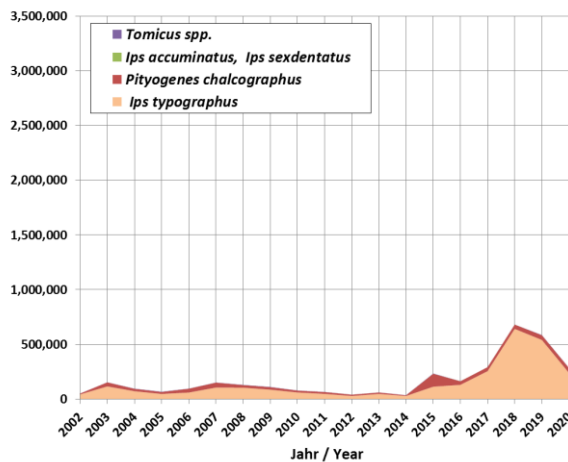


Data source: Documentation of forest damaging factors - **BFW**



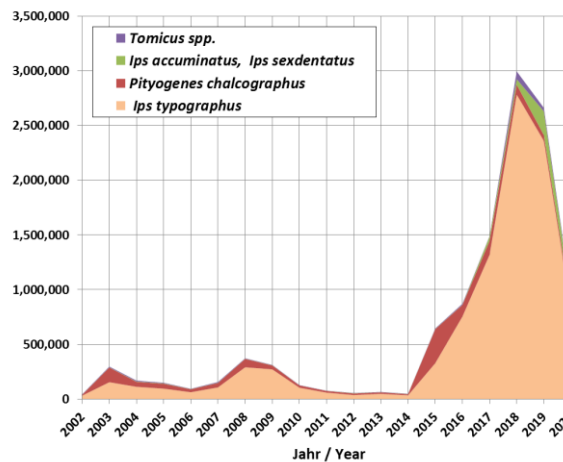
Mühlviertel + Linz, Eferding, Schärding

Borkenkäfer Schadholzmenge / Volume of damaged timber by bark beetles



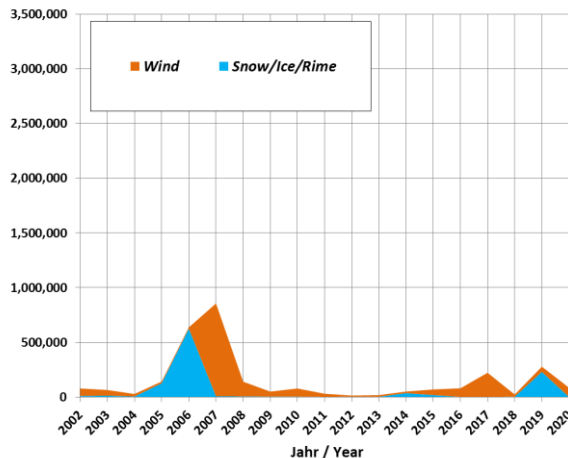
Waldviertel

Borkenkäfer Schadholzmenge / Volume of damaged timber by bark beetles



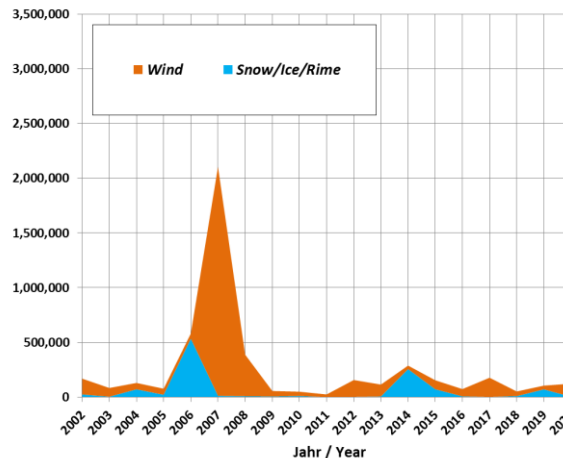
Mühlviertel + Linz, Eferding, Schärding

Sturm + Schnee Schadholzmenge / Volume of damaged timber by wind and snow (m³)



Waldviertel

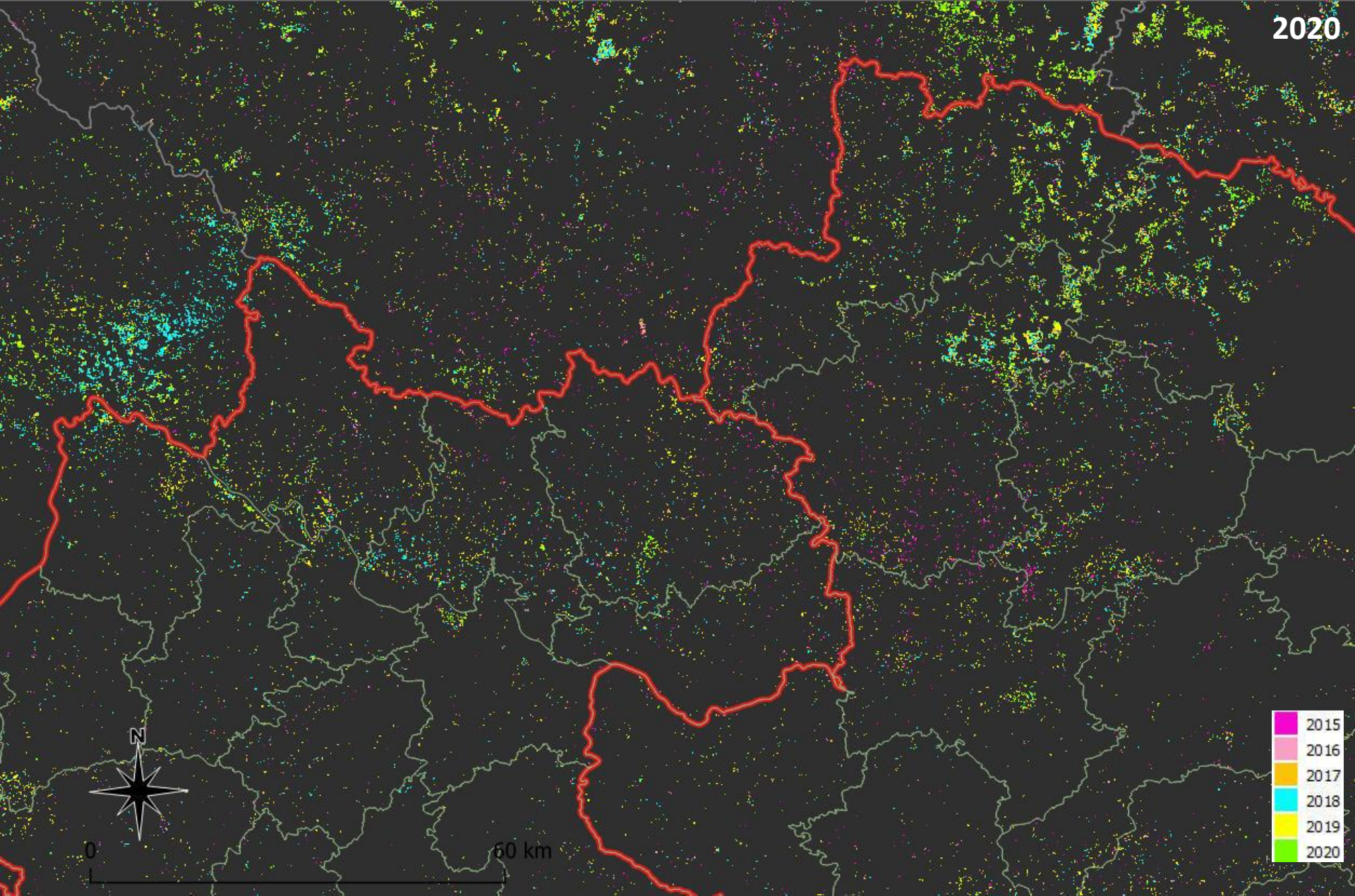
Sturm + Schnee Schadholzmenge / Volume of damaged timber by wind and snow (m³)



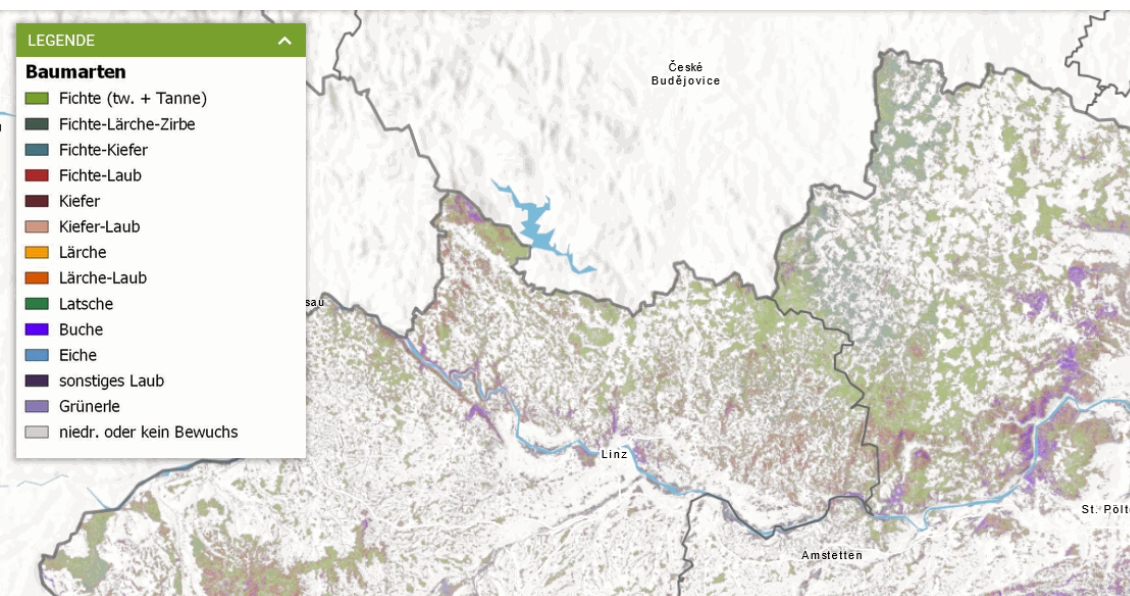
	2015-2020	
	damaged volume (Mio m³)	damaged area (tsd ha)
bark beetle infestations		
Mühlviertel	2.2	9.7
Waldviertel	9.6	45.8
sum bark beetle infestations	11.9	55.5
wind & snow damage		
Mühlviertel	0.8	4.8
Waldviertel	0.7	8.4
sum wind & snow	1.4	13.2
Total		
Mühlviertel	3.0	14.5
Waldviertel	10.3	54.1
Total	13.3	68.7

Data source: Documentation of forest damaging factors, BFW

2020

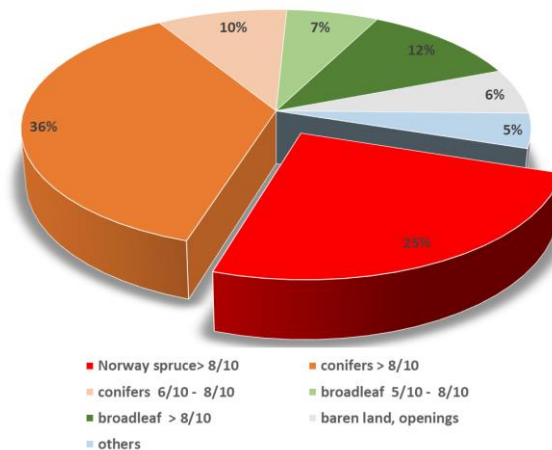


Data source: Senf, C. and Seidl, R. (2021) Mapping the forest disturbance regimes of Europe. *Nature Sustainability*.
<https://corneliussenf.users.earthengine.app/view/european-disturbance-map>



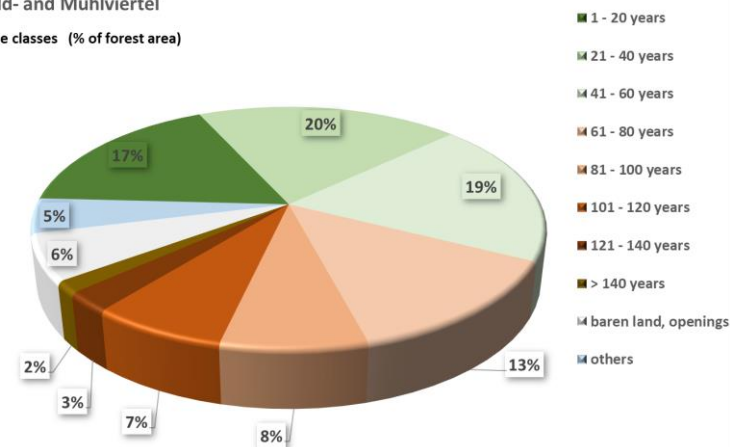
Wald- und Mühlviertel

tree species and mixture (% of forest area)



Wald- und Mühlviertel

age classes (% of forest area)

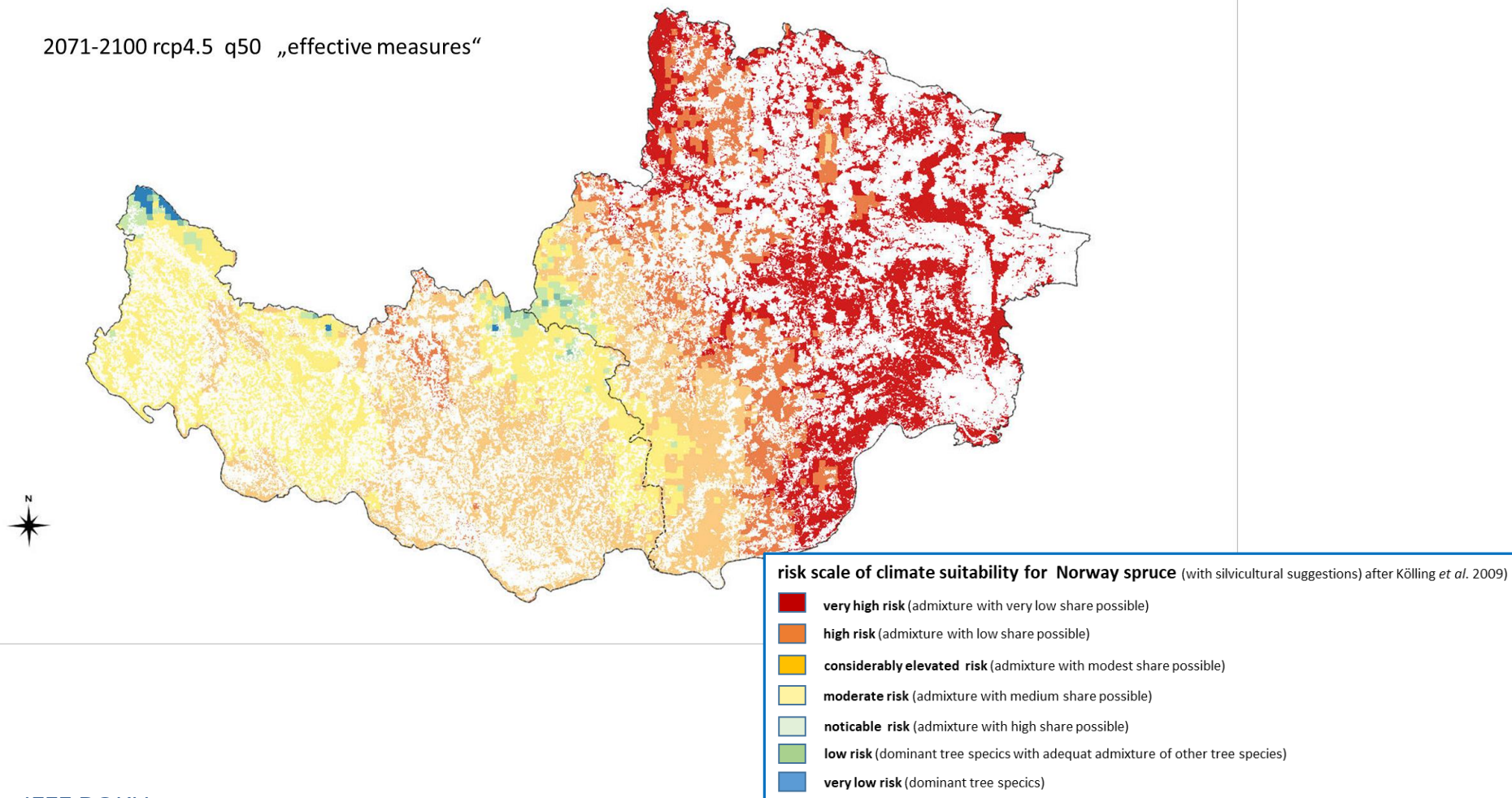


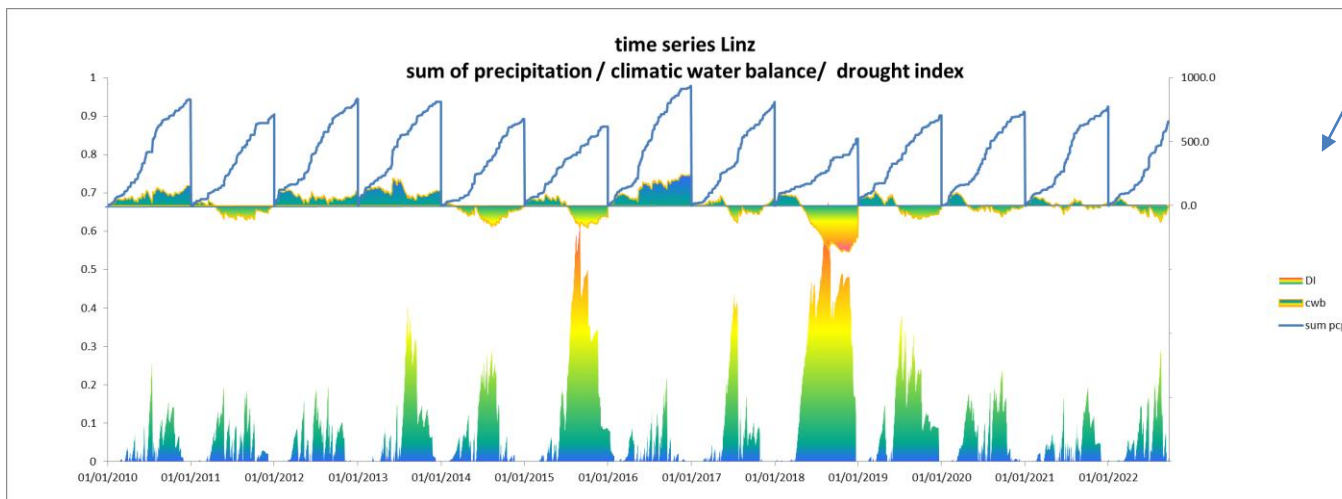
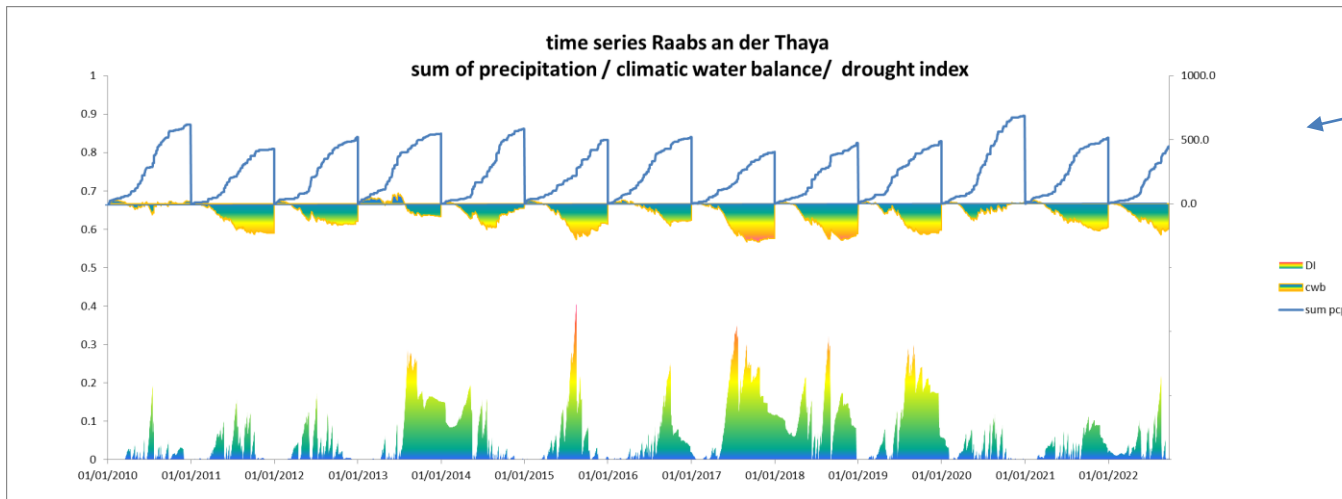
Data source: Austrian forest inventory 2016-2021 <https://geo.bfw.ac.at/oewi>



Climate suitability Norway spruce

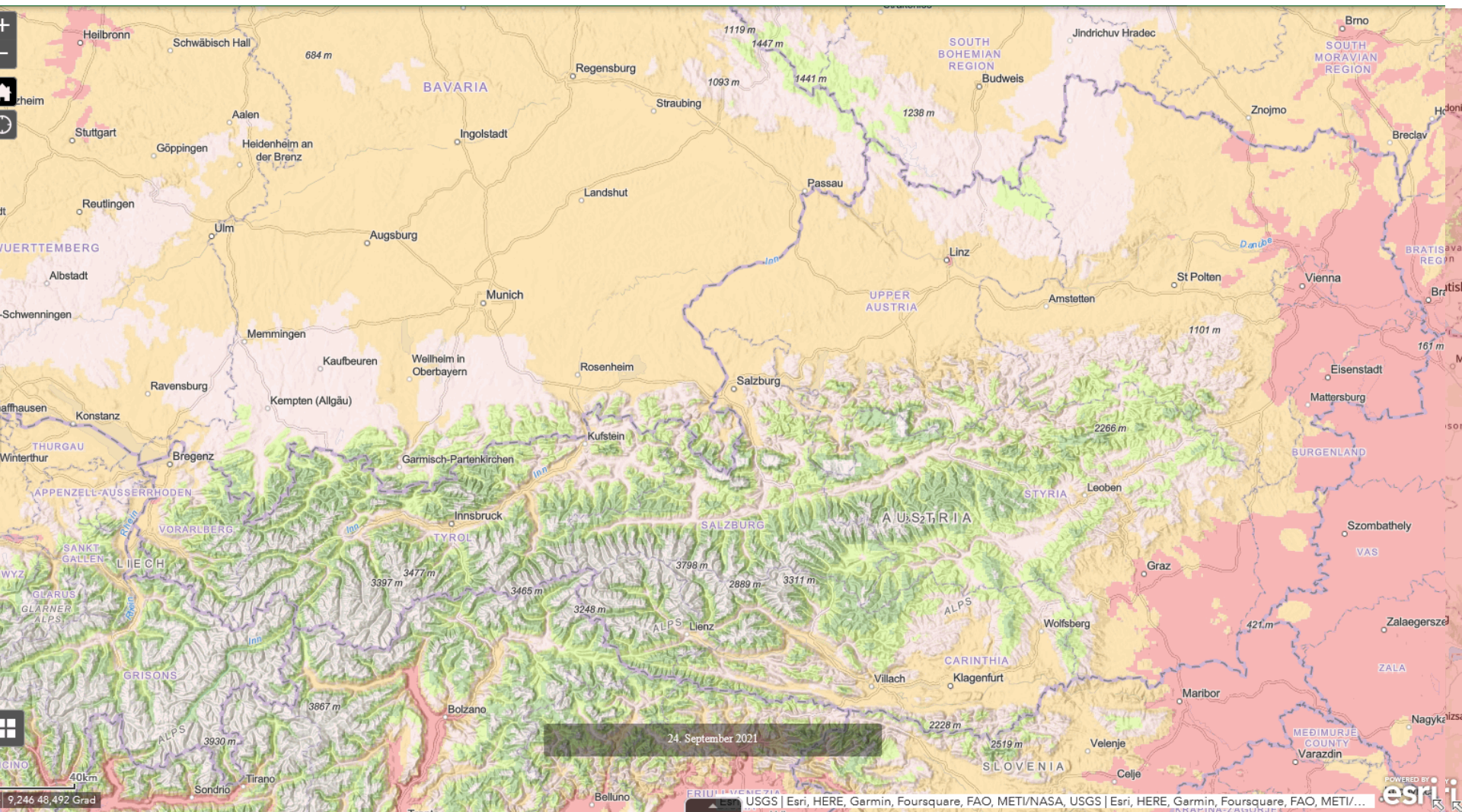
2071-2100 rcp4.5 q50 „effective measures“





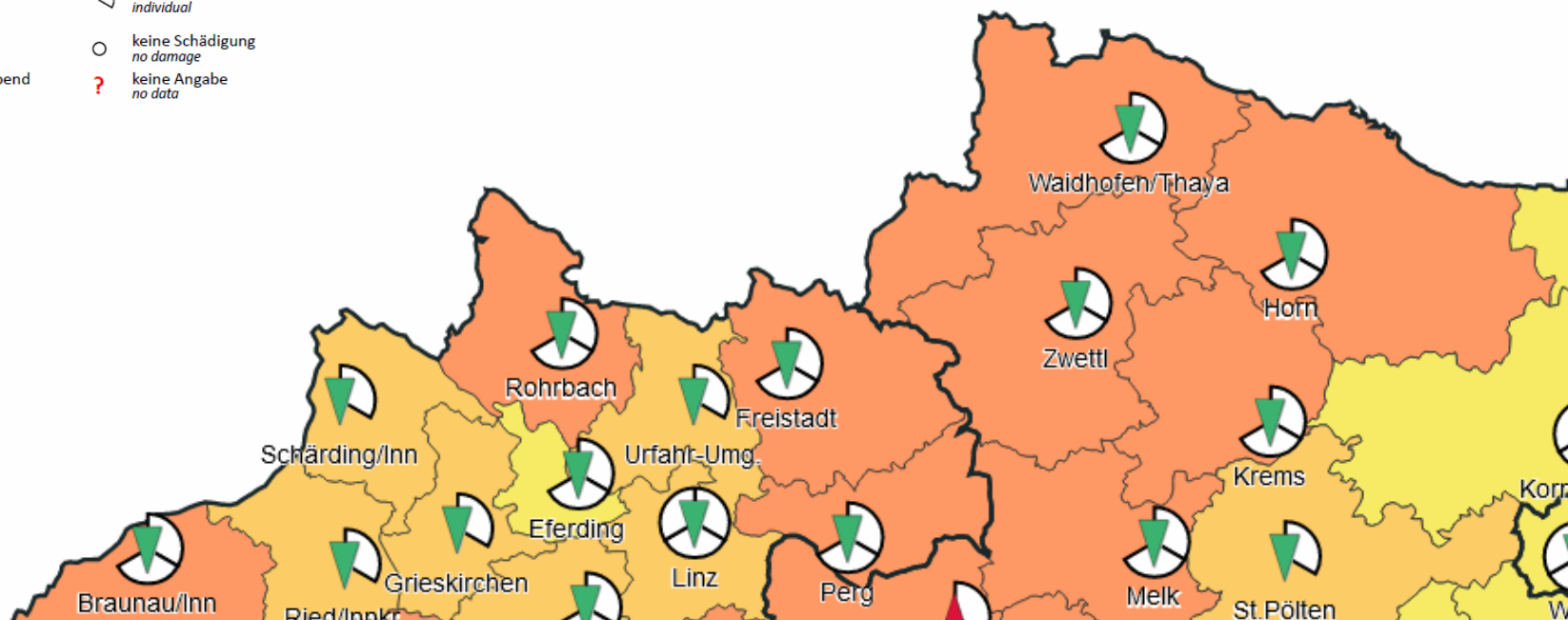
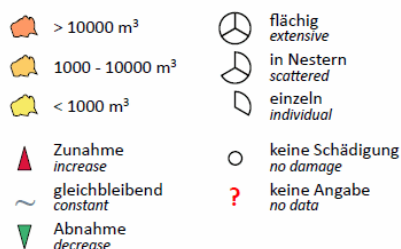


PHENIPS Modelling bark beetle development 2022 - 2021

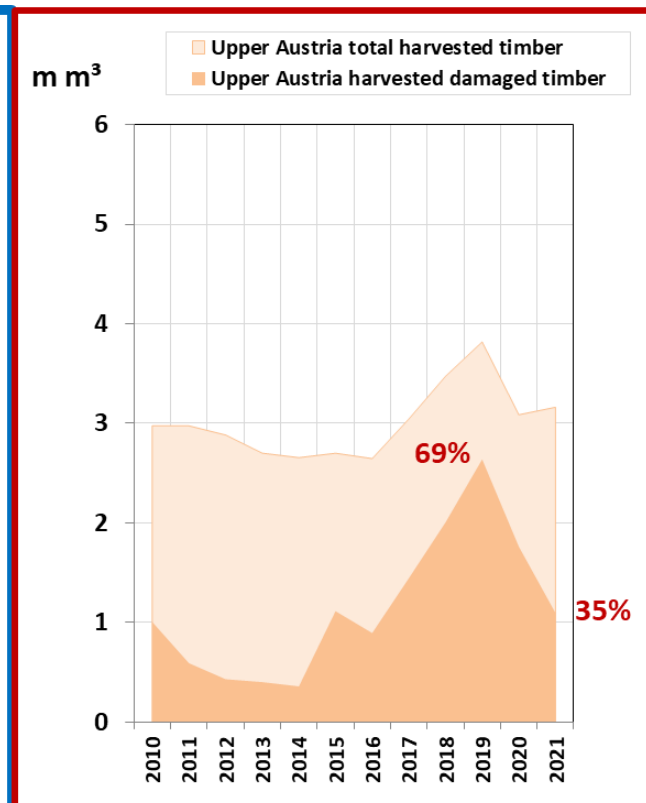
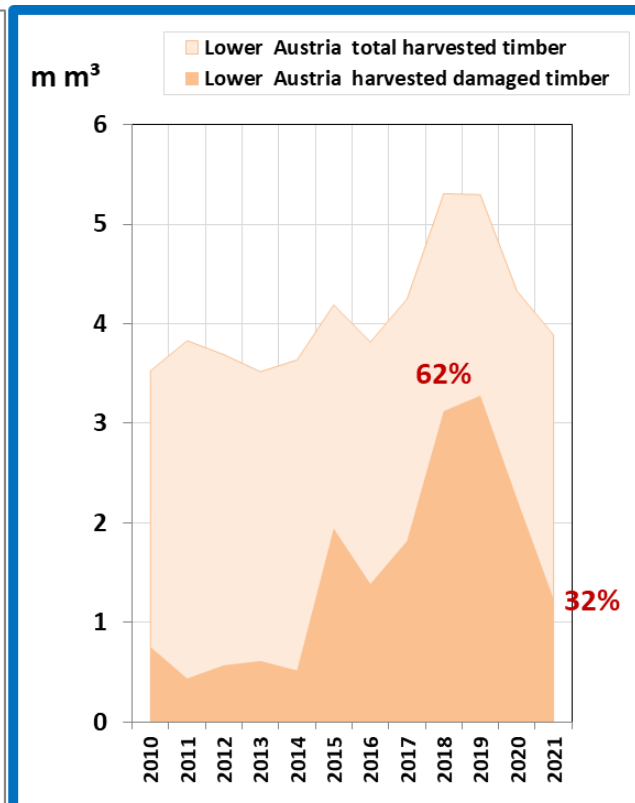
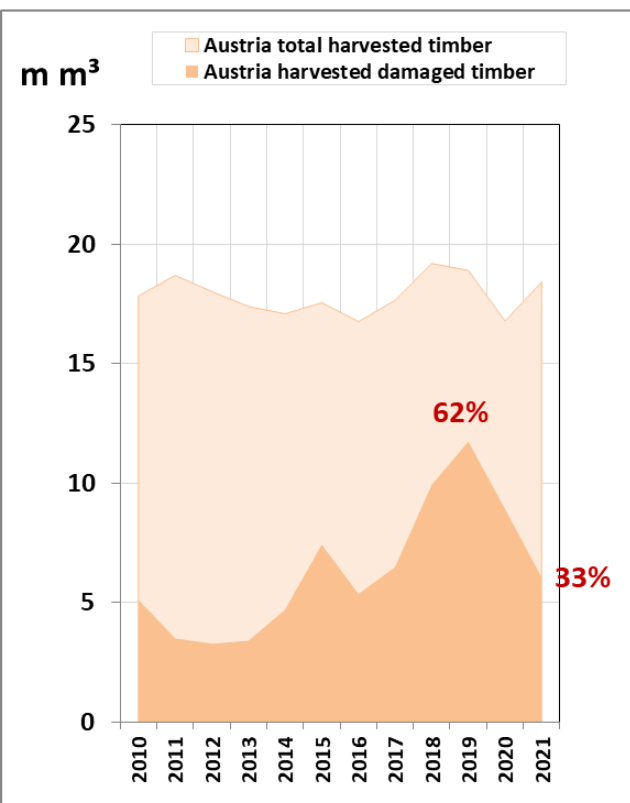




Buchdrucker 2021 *lps typographus*












Data source: Documentation of forest damaging factors, **DWF**, BFW

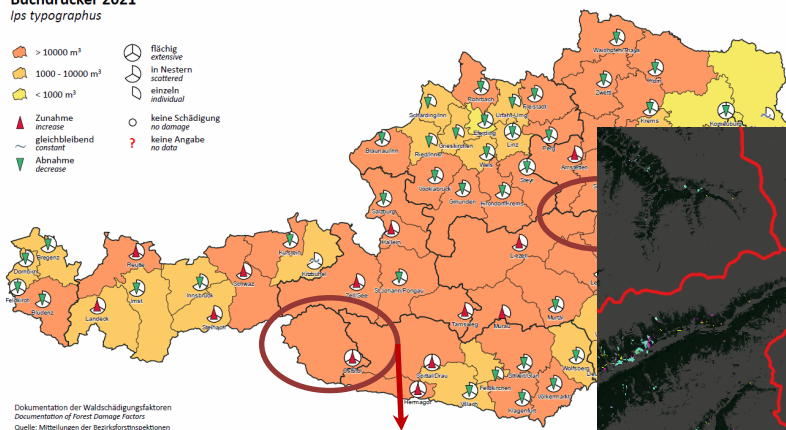


Data source: <https://info.bml.gv.at>

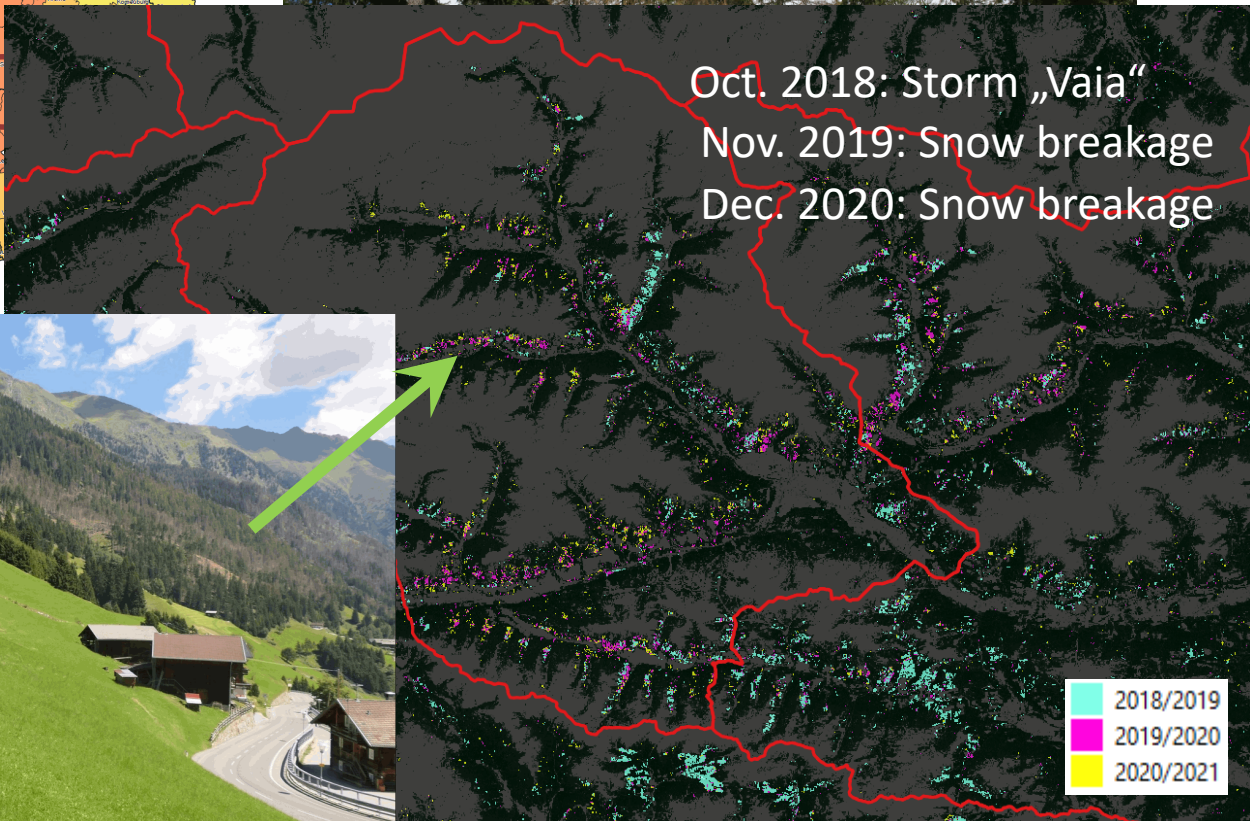


Buchdrucker 2021 *ips typographus*

-  > 10000 m³
-  1000 - 10000 m³
-  < 1000 m³
-  flächig
extensiv
in Nectern
scattered
einzel
individual
-  keine Schädigung
no damage
-  Zunahme
increase
-  gleichbleibend
constant
-  Abnahme
decrease
-  ? keine Angabe
no data



Documentation of the Forest Damage Factors
Documentation of Forest Damage Factors
Quelle: Mitteilungen der Bezirksforstinspektoren
des Bundesforstamtes Wien





August, 18th 2022: wind damage in Styria and Carinthia

