



Foto: D. Kaim, 2012

Why past land use matters: Learning from the Carpathians

Munteanu, C; Radeloff, V; Alix-Garcia, J; Boltziar, M; Butsic, V; de Beurs, K; Balasz, P; Gancz, V; Gehlbach, S; Gimmi, U; Griffith, P; Halada, L; Hansen, M; Hostert, P; Ioffe, G; Kaim, D; Kiraly, G; Knorn, J; Konkoly-Gyuro, E; Kozak, J; Krylov, A; Kuemmerle, T; Lieskovsky, J; Mojses, M; Muller, D; Olofsson, P; Ostafin, K; Ostapowicz, K; Ozdogan, M; Pidgeon, A; Potapov, P; Prishchepov, A; Shandra, O; Stych, P; Turubanova, S; Tyukavina, A; Uvsh, D; Woodcock, C; Zhao, N

... and many more...



Intro

Mapping

Legacies

Alt. states

Time-lags



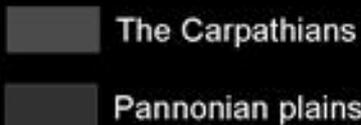
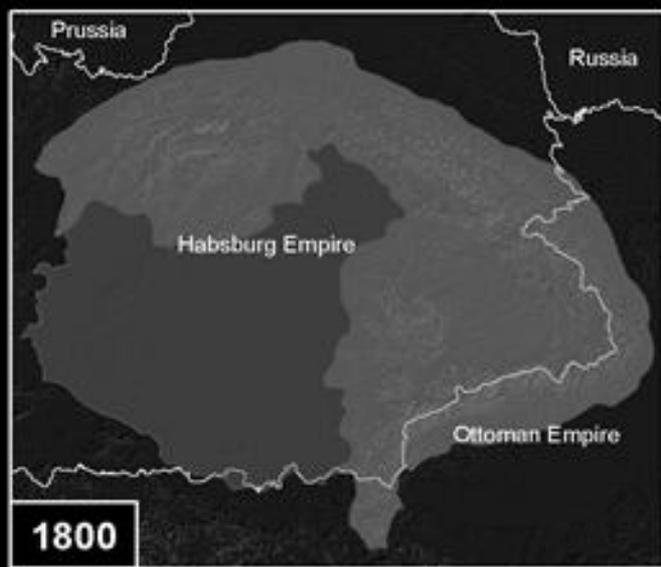
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National borders (wavy line)



Map: Kaim (2014)

Land use/cover as reflection of institutions & management systems



Intro

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Mapping change

Legacies

Effects: legacies

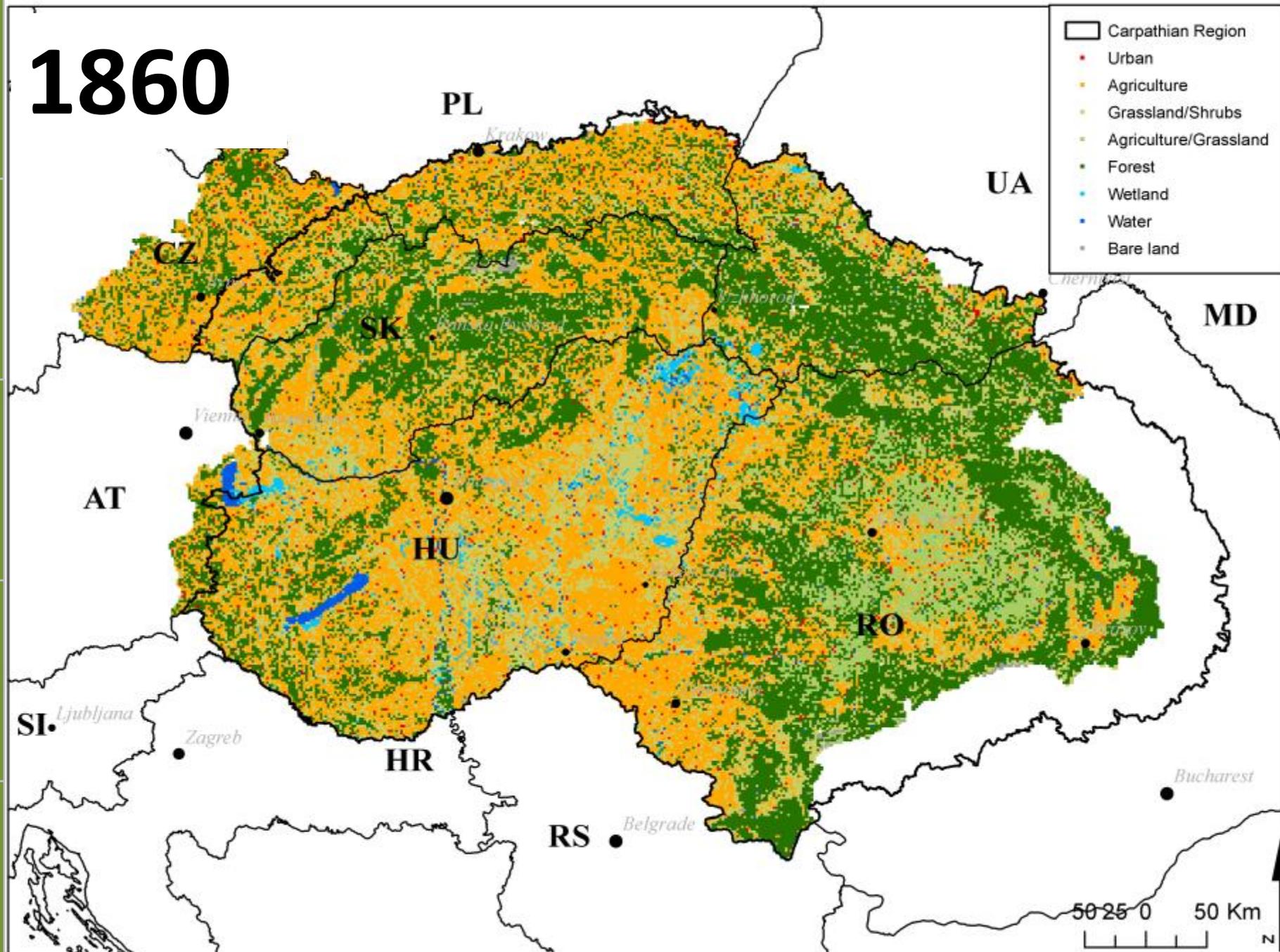
Alt. states

Effects: alternative stable states

Time-lags

Effects: time-lags

1860



Large scale Landsat mapping

750 Footprints
38,561 Images

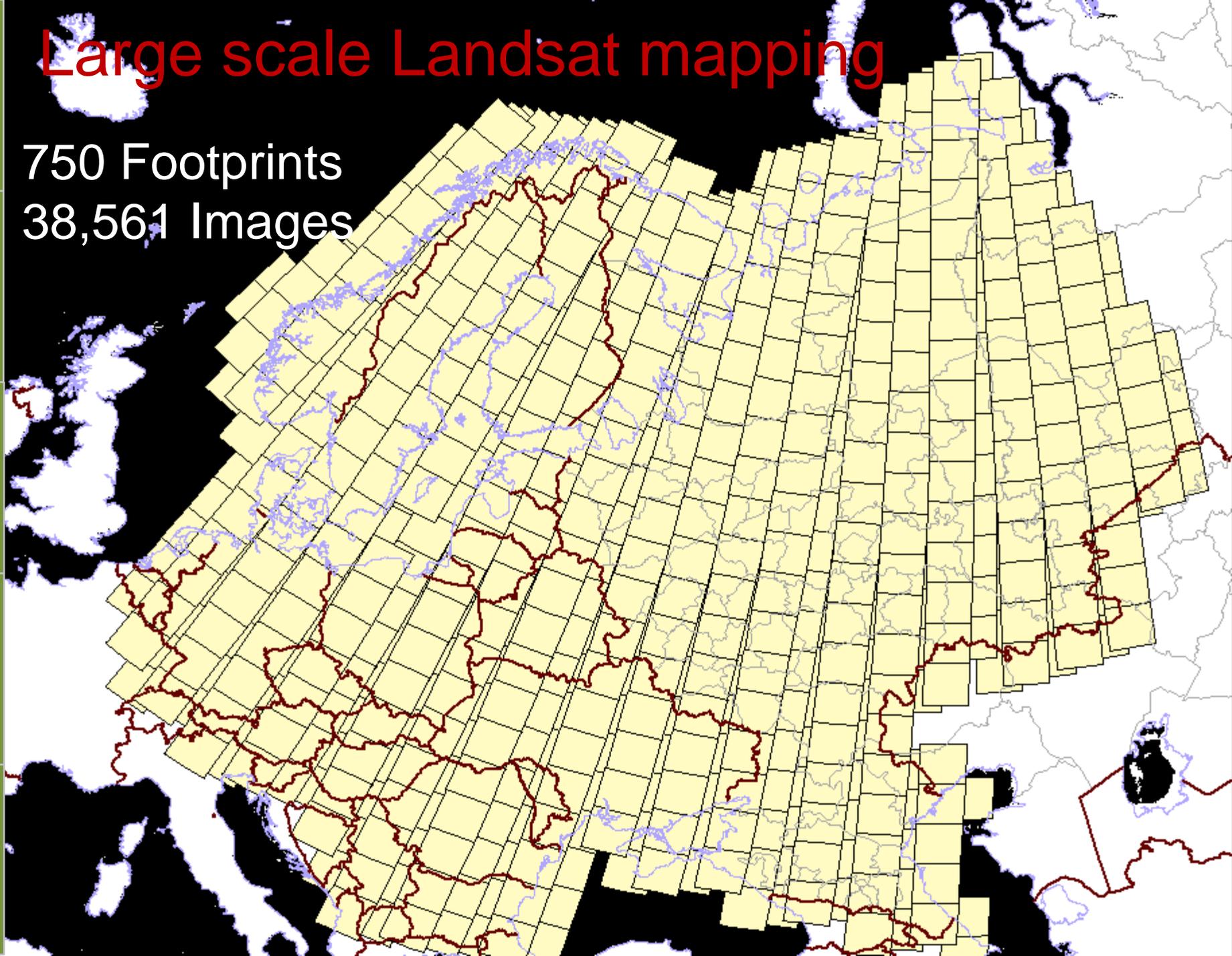
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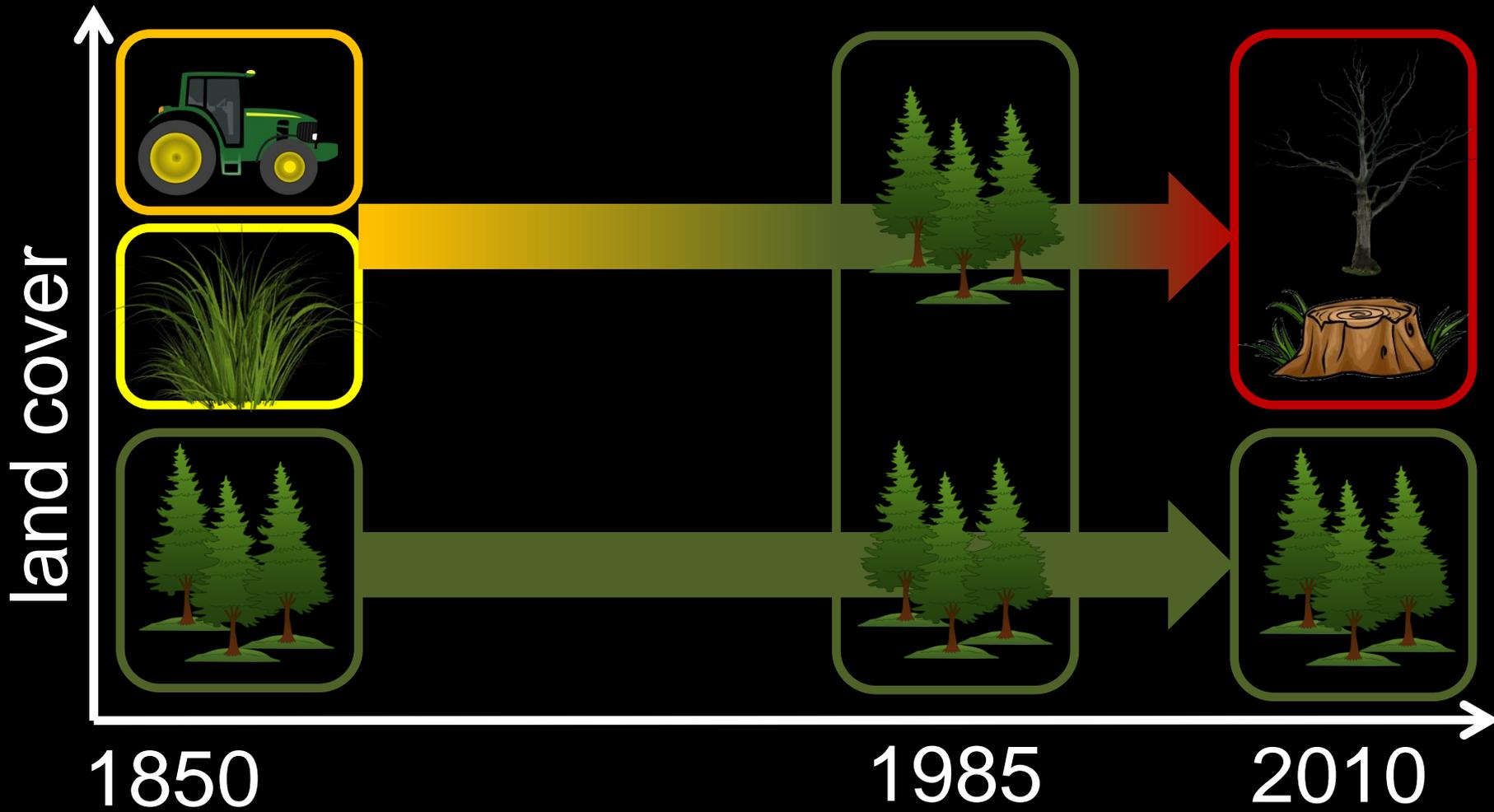
Legacies

Alt. states

Time-lags



Land use legacies



1850

1985

2010

Intro

Mapping

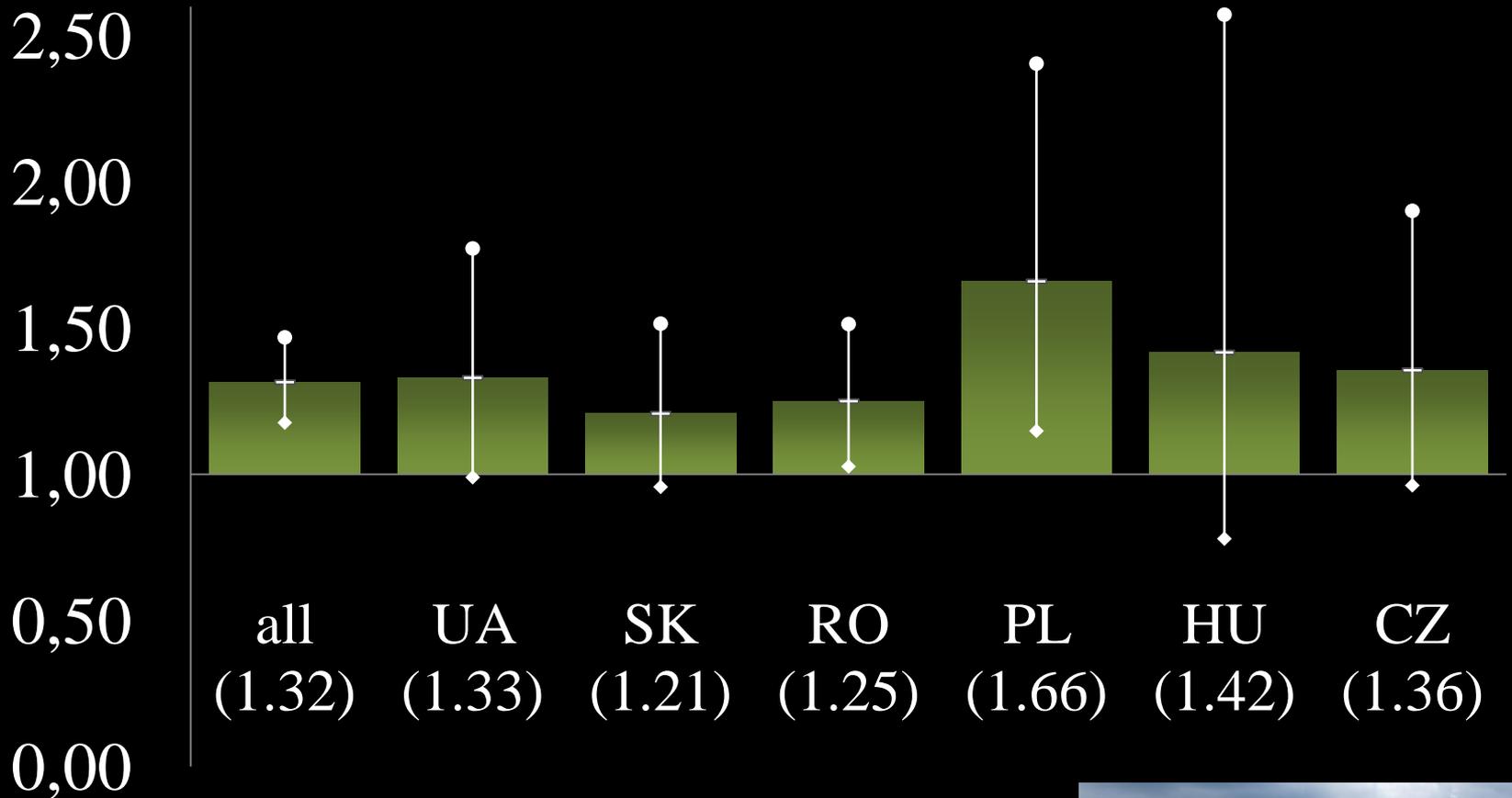
Legacies

Alt. states

Time-lags

land cover

Forest legacies 1860s



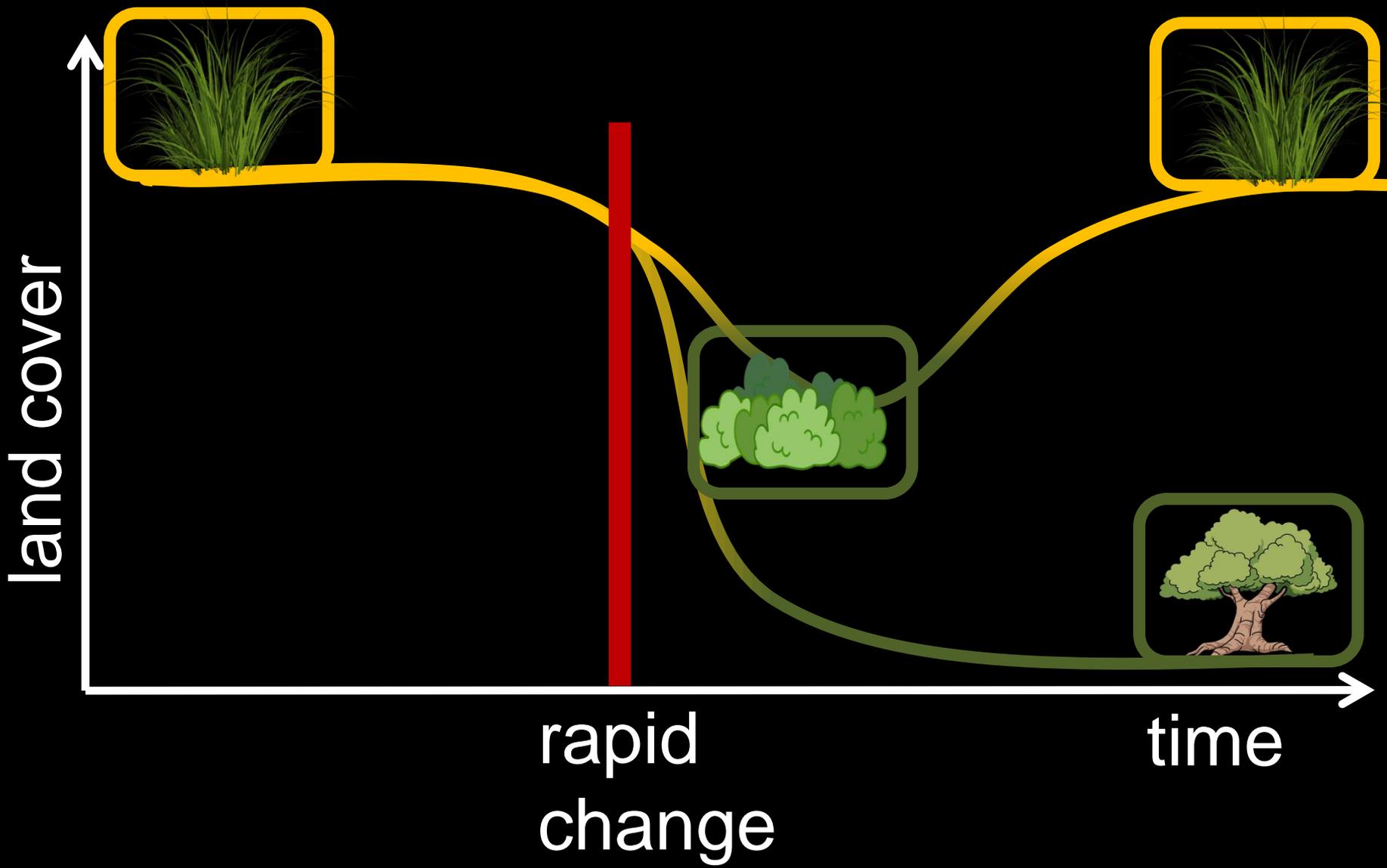
= 1, equal chance of disturbance on 1860 forest and NF

> 1, more disturbance on 1860 non-forest

< 1, less disturbance on 1860 forests



Alternative stable states



Intro



1850

Mapping



1950

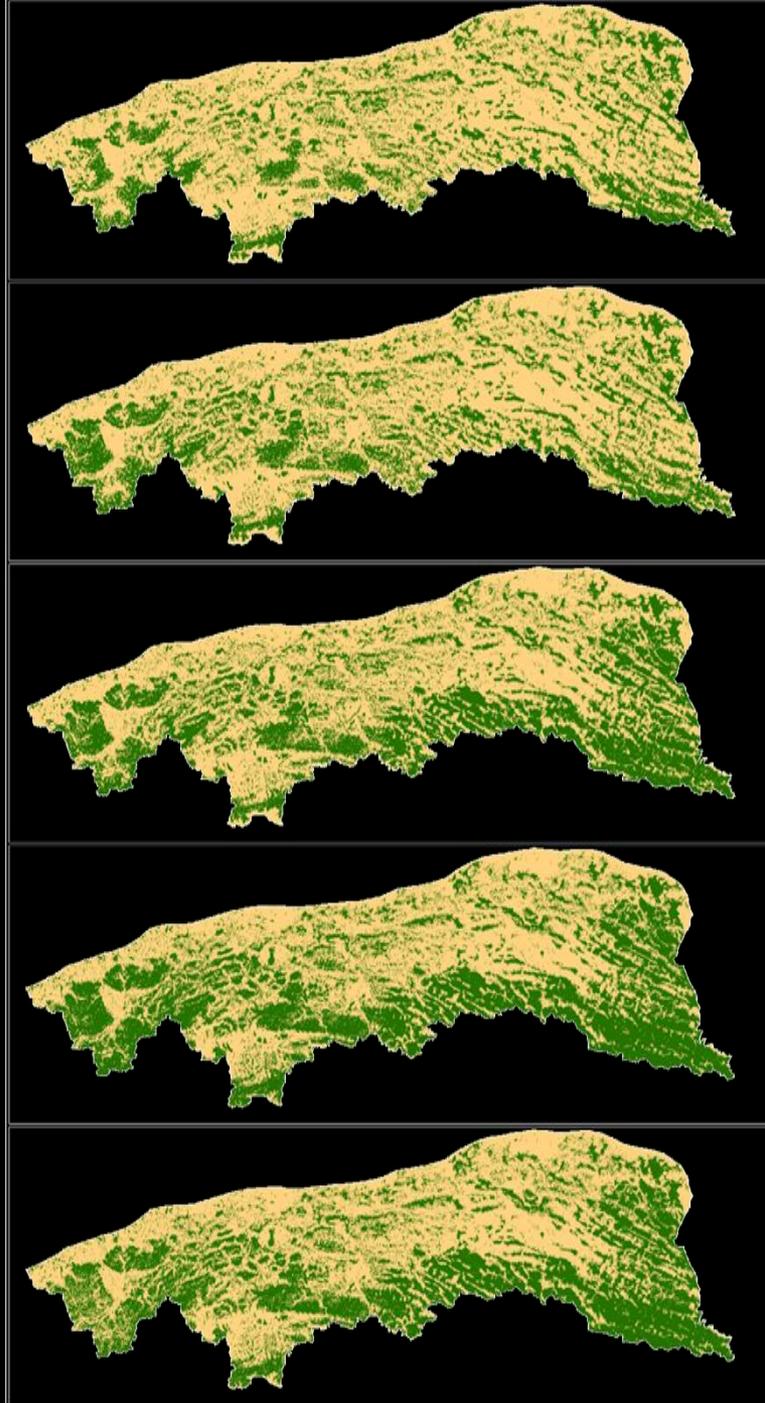
Legacies

Alt. states

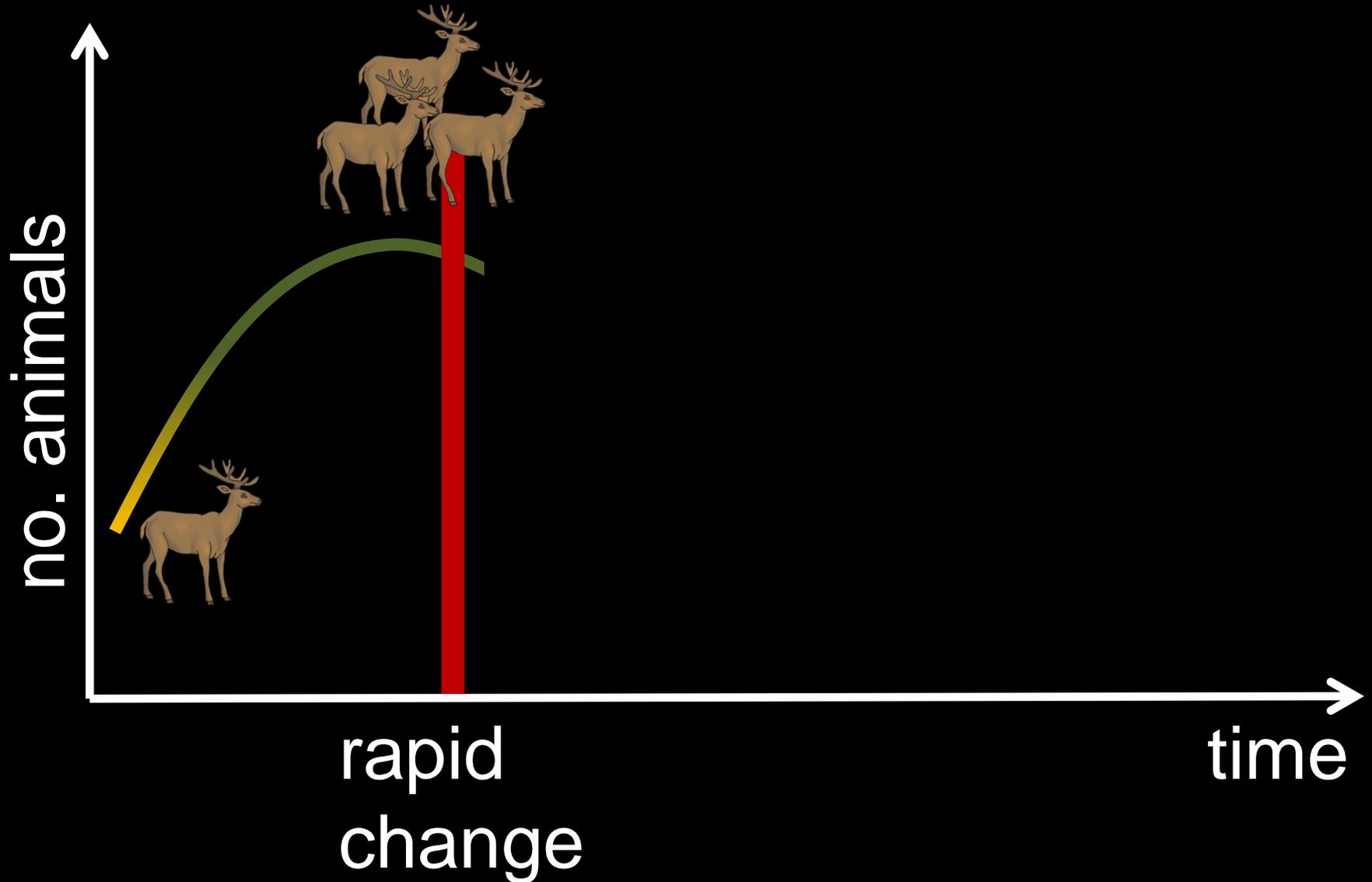
Time-lags

Foto: D. Kaim, 2012

2010



Time lags: wildlife



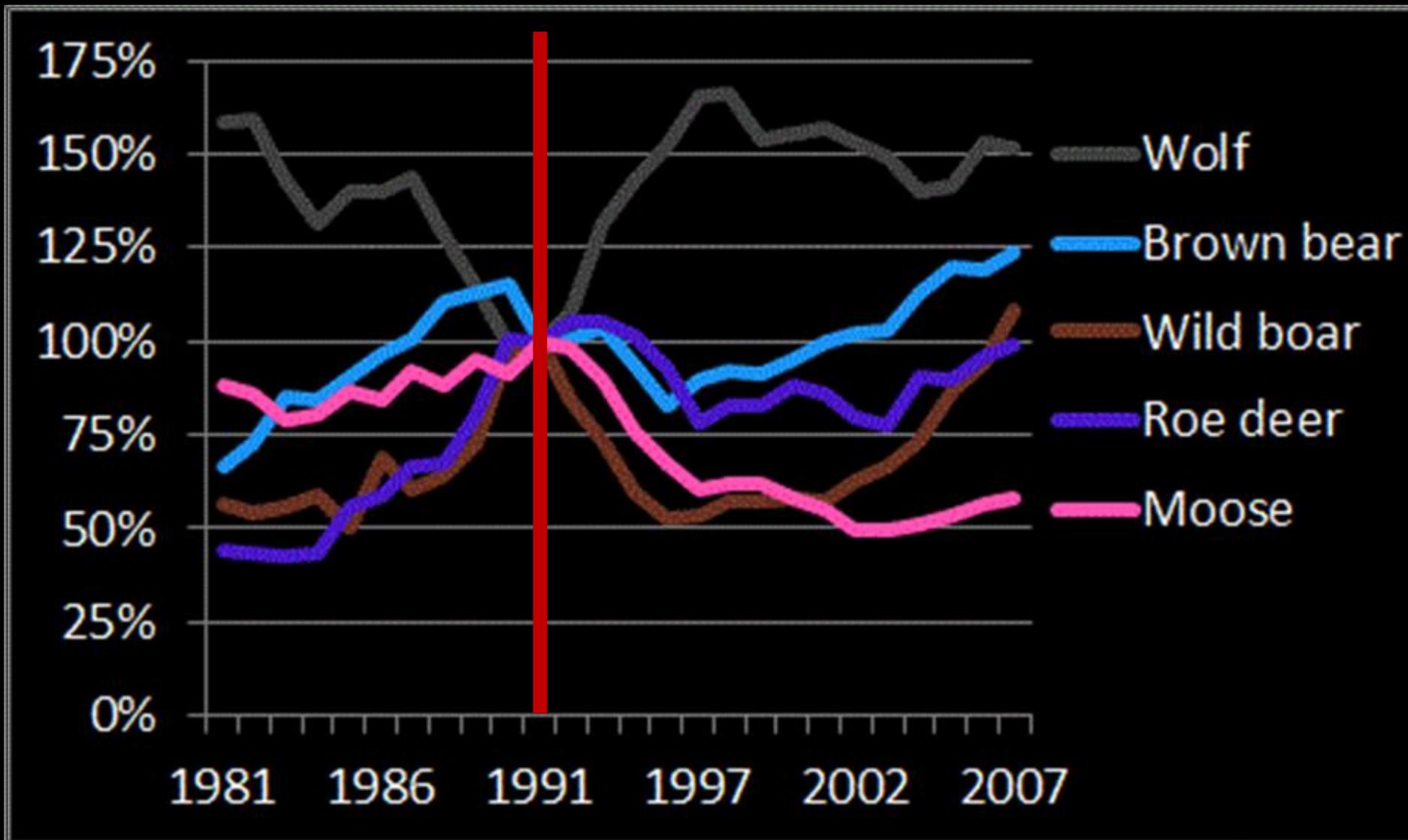
Time-lags

Alt. states

Legacies

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Intro



Summary

- Long term land change monitoring
- Effects of change: legacies, time-lags, uncertain futures



Thank you!



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