



Forest damage

in the ECE region

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San Marino, 20-23 November 2023



Forest damage in the ECE region

State of Europe's Forests (JPEDC/SOEF) 2020

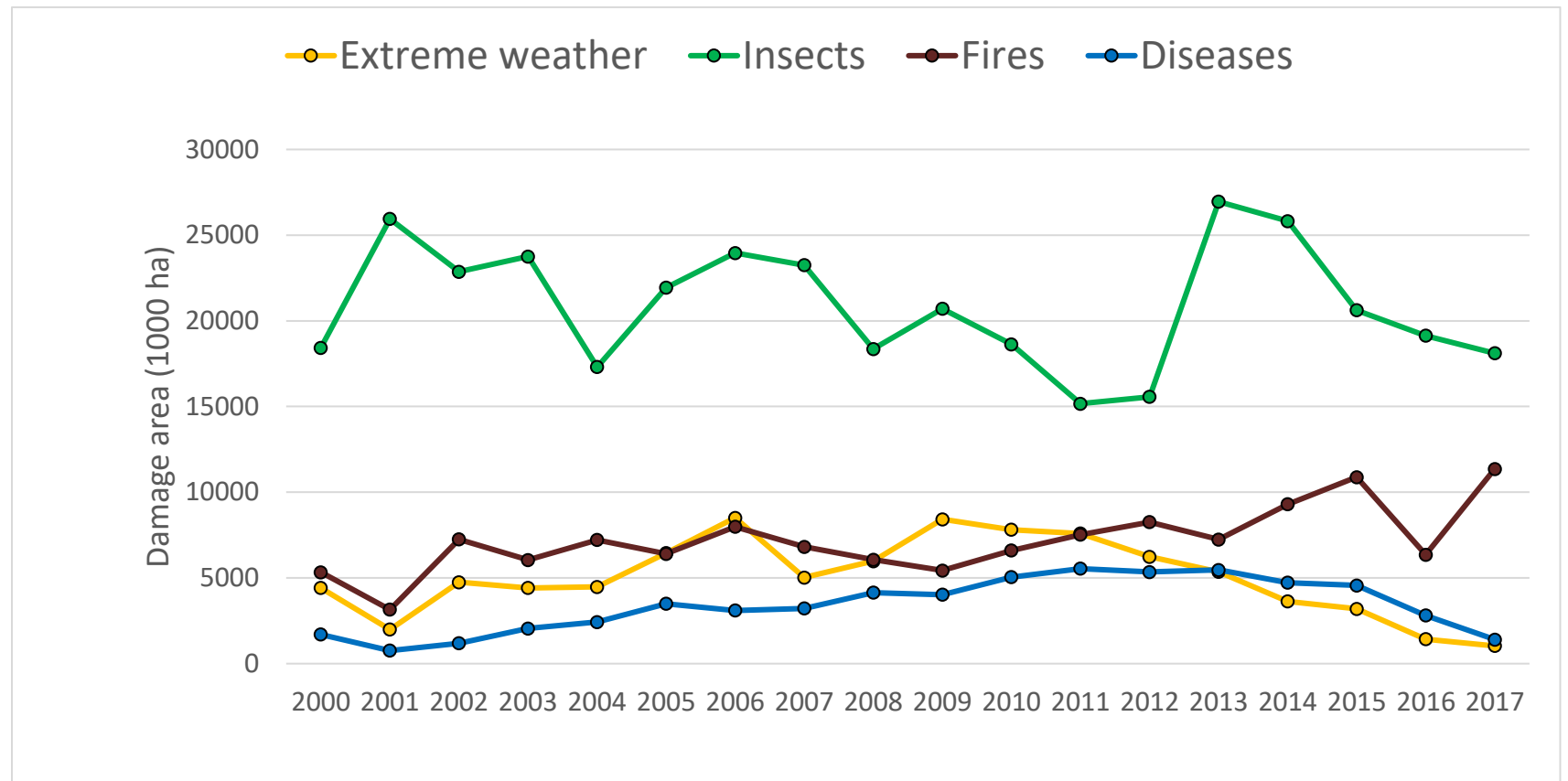
About **3%** of European forests are damaged, mainly by wind, insects, ungulate browsing and forest fires



Forest damage in the ECE region

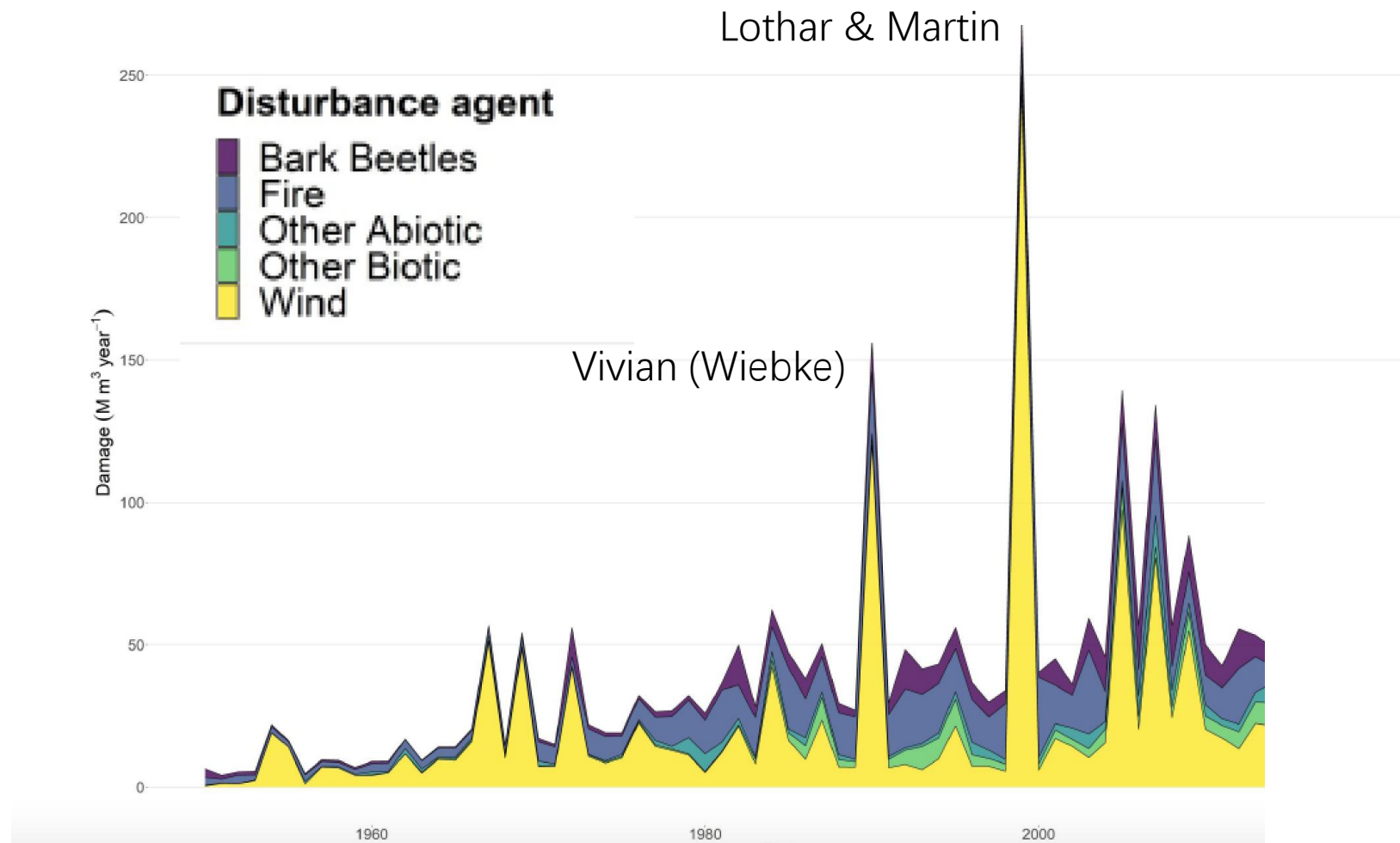
State of Europe's Forests (JPEDC/SOEF) 2020

Total area of forests affected by the different damage groups in the UNECE area based on FRA data



Forest damage in the ECE region

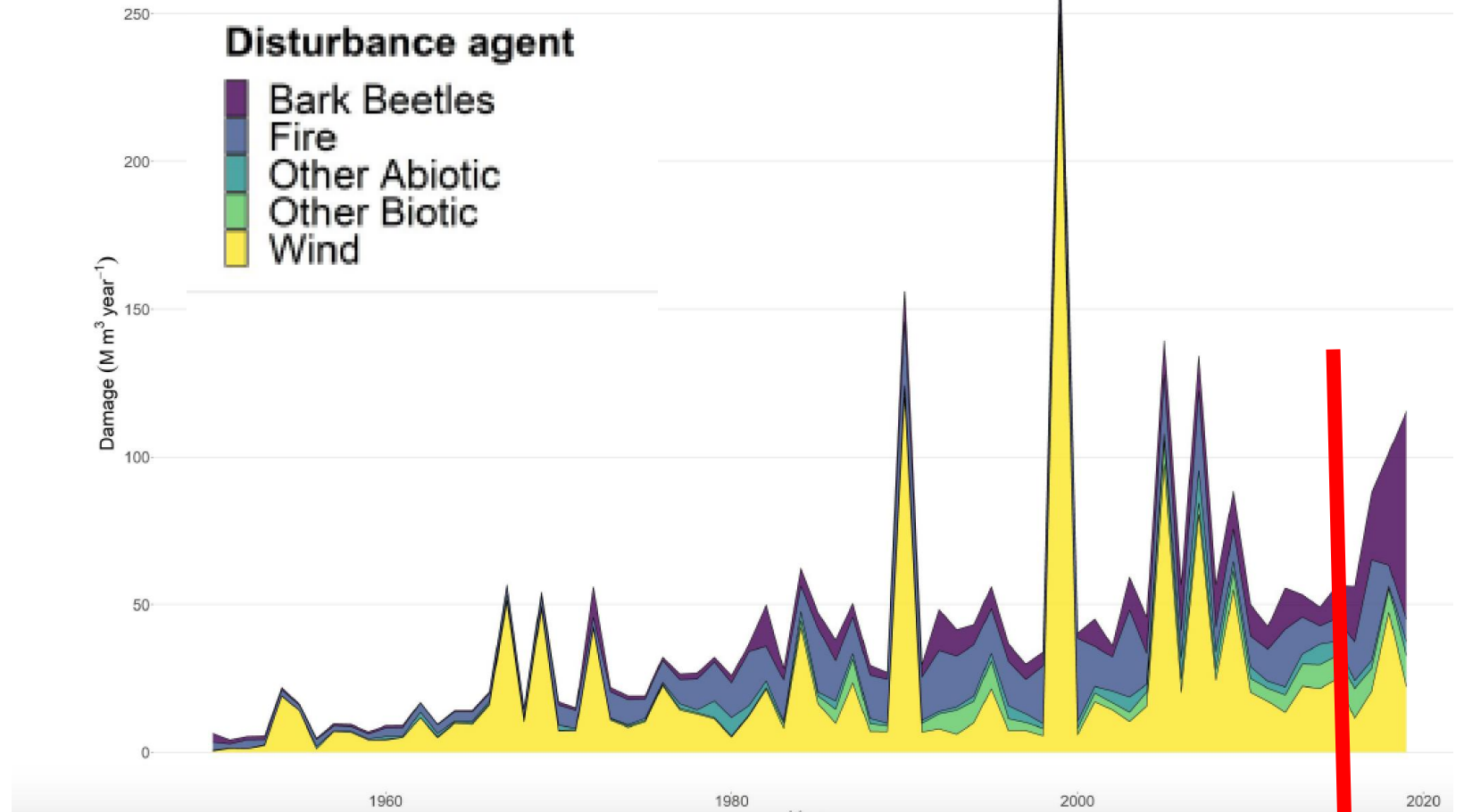
Database on Forest Disturbances in Europe



Source: EFI

Forest damage in the ECE region

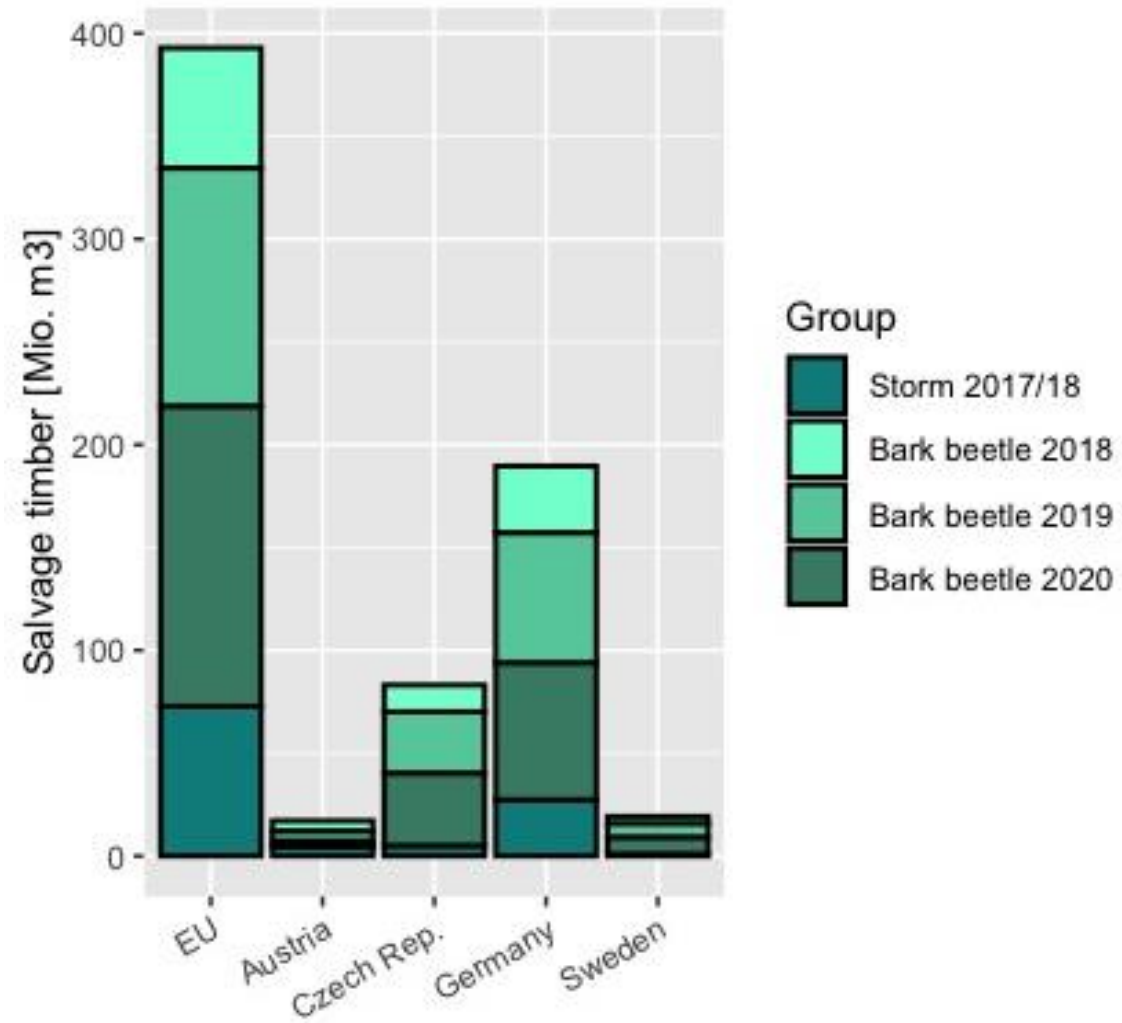
Database on Forest Disturbances in Europe JPECD/SOEF Reference Year: 2018



Source: EFI

Forest damage in the ECE region

Salvage timber 2017-2020



Source: EUWID

Forest damage in the ECE region

Reporting on forest damages and disturbances in the UNECE region

1. Concept of damage/ disturbance



Disturbance => ecosystem functions

Damage => managed forests

Forest damage in the ECE region

Reporting on forest damages and disturbances in the UNECE region

2. Periodicity



FRA: possibility of annual updates

Forest damage in the ECE region

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3. Thresholds

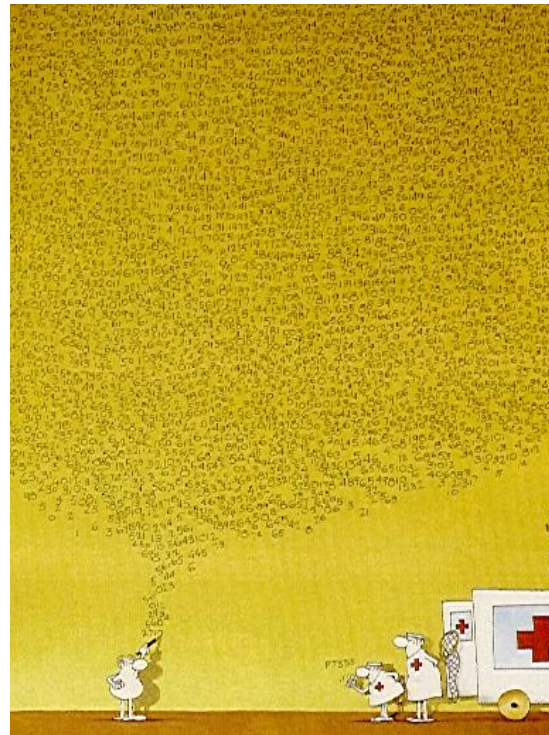


No uniform thresholds for reporting

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4. Double counting



Distinguish between primary and consequential damage

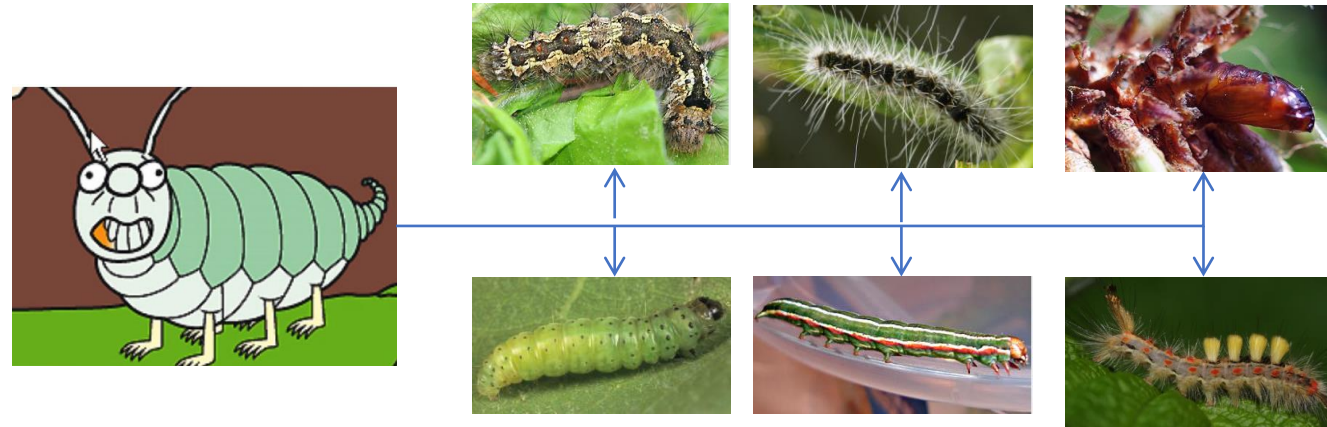
Primary = temporal sequence of occurrence?
= severity?

Left to countries to decide

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5. Completeness versus specificity



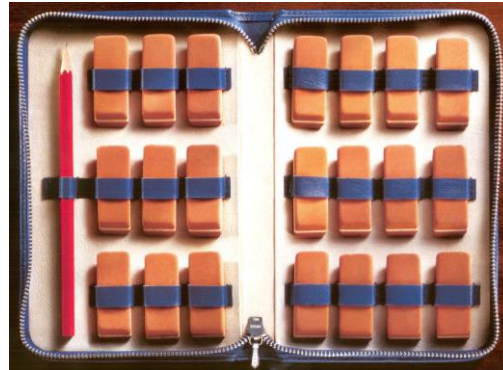
Current reporting => completeness in terms of area and defined agents
e.g. extreme weather; insects

Future reporting => more detailed data
e.g. snow, wind, drought, ...
bark beetles, defoliators

Forest damage in the ECE region

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6. Harmonisation



Long term issue

So far no easily applicable and generally accepted solution found for many attributes

Use of data from international data providers (e.g. ICP Forests, EFFIS)?

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7. Time allocation of damage



24.8.2018



16.12.2018

Temporal framework to distinguish old and newly occurring damages

- *Last 5 years*
- *Between 2 inventory cycles*

Areas that have recovered from damages

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8. Additional attributes to be included

- Volume of growing stock affected
- Salvage timber (volume and value) accrued
- Market value affected
- Forest age of the affected area
- Attributes related to terrain
- Damage/ disturbance of forest soils
- Damage/ disturbance of regeneration
- Status of wood decay in dead trees
- Damage/ disturbance caused by invasive species
- Management status of affected forest areas

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9. Data integration



Auxiliary data

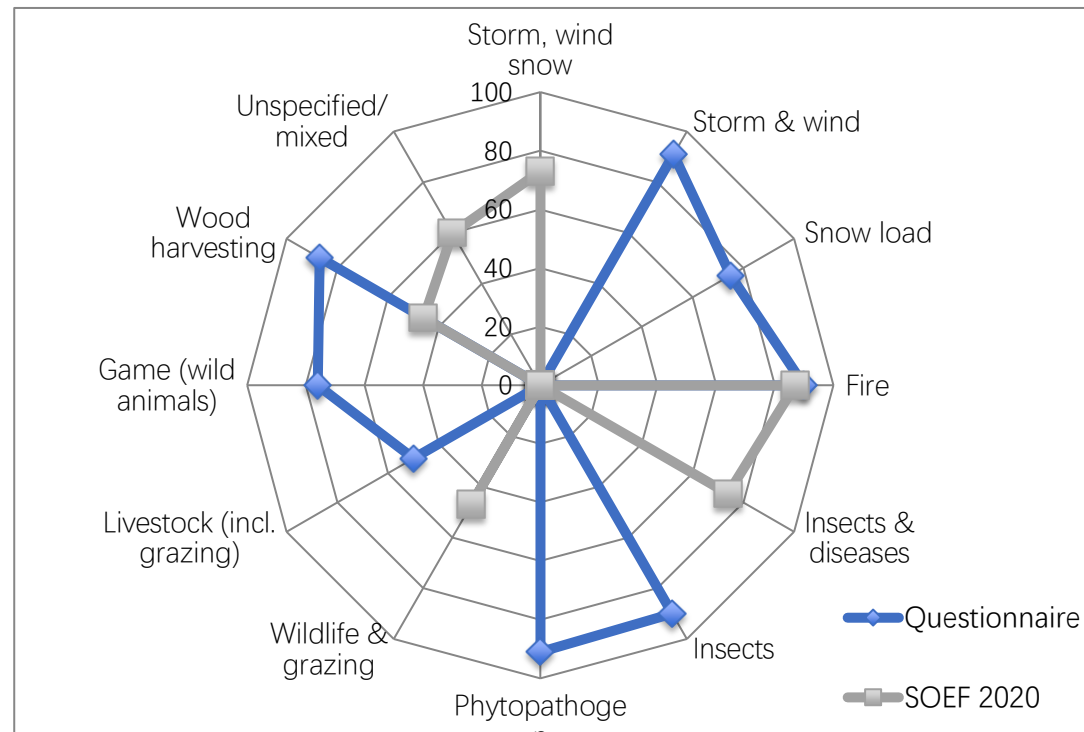
Novel analysis techniques (big data)

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10. Improve completeness of international reporting

Data availability (Europe)





Thank you



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