

Moving towards a better protection of terrestrial biodiversity – identify, compare, redefine

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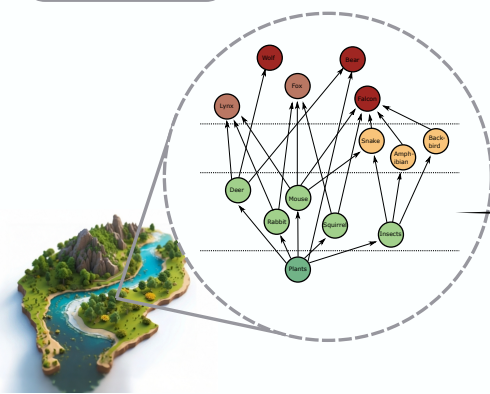
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## How to protect terrestrial ecosystems and biodiversity?

### The current situation:

- We are experiencing a pollution crisis → Chemical pollution threatens planetary boundaries
- We are lacking exposure and effect data, as well as means to gain control of the pollution crisis, thereby protecting biodiversity and ecosystem services - particularly for the terrestrial environment
- Additional **research & innovation** are required to reach the European goal of a non-toxic environment

### TerraChem: Improving the protection of terrestrial ecosystems from chemical pollution



#### WP1: Exposure

Improving our understanding of the exposure of terrestrial biota to anthropogenic chemicals

- 7 food chains, each with 4 trophic levels (1 Pan European & 6 one-country cases)
- suspect and target screening
- analysis 1. chemicals fate & behavior
- 2. sources

#### WP2: Effects

Improving our understanding of the effects of anthropogenic chemicals on terrestrial biodiversity and ecosystem services

- Bioassays
- Damage modelling 1. Funct. & Gen. Diversity
- 2. Ecosystem Services
- 3. Sources & Exposure

#### WP3: Prevention & Mitigation

Develop guidance on how to achieve more effective prevention and mitigation measures

- Identify
- Compare
- Redefine

### Redefine...

...chemicals legislation in order to protect our environment more efficiently



Identify gaps and weaknesses in current legislations



Collect existing ideas on how to improve legislation & guidances



Collection and guidance on possible chemicals legislation refinements

### Compare...

Risk predicted via traditional risk assessment approaches under current regulations (REACH, PPP, biocides, etc.)

VS

Risk according to TerraChem



"Reality Check" for current RAs & Suggestions for Improvement

### Identify...

...priority substances for regulatory actions



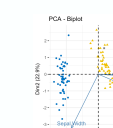
Exposure Data

+

Effect Data

+

Hazard Data (e.g. P, B, M, T)



List of Priority Pollutants

### Expected Impact

Guidance on regulatory steps that have to be taken in order to effectively protect the terrestrial environment from adverse effects by chemical pollution, reach the "Zero Pollution Ambition" and set terrestrial biodiversity on a path to recovery.

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