



GOLDER

Decision making based on soil quality and protection: chemistry, ecotoxicology and ecology as indicators of effects on soil function

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DDT in soil > soil guideline value

SWEDISH GUIDELINE = 0,1 MG/KG, DIMENSIONING = PROTECTION OF SOIL ECOSYSTEM

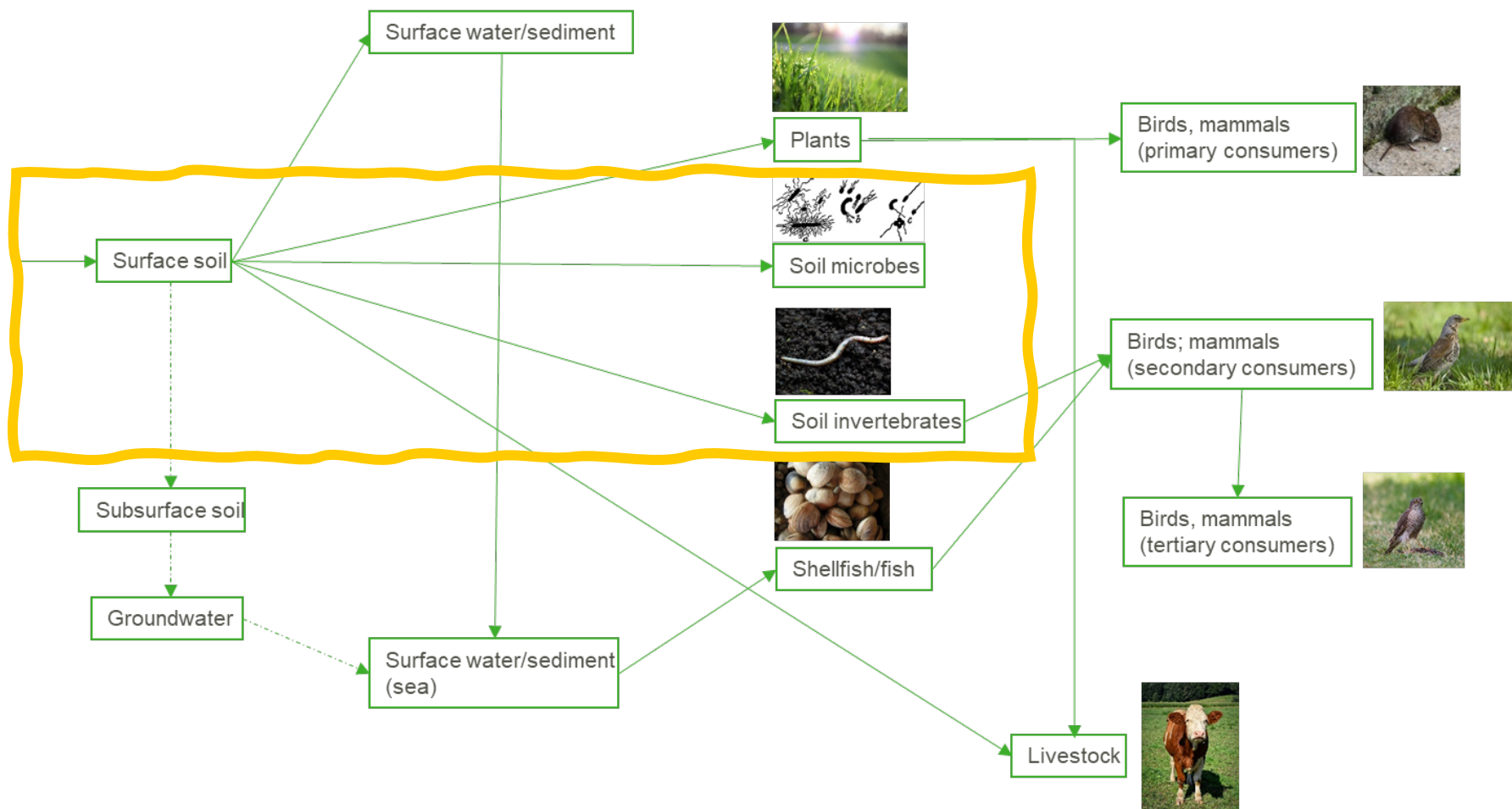
Previous sources at
the forest nursery



Former use of pesticides
(Spraying, plant dipping,
storage, pouring of residues)

Potentially contaminated media

Ecological receptors of concern



TRIAD Approach (ISO 19204)

INVESTIGATIONS/LINES OF EVIDENCE

At each sampling location

(impacted vs reference site)

DDT in soil

DDT in earthworms

Ecotox test earthworms

Ecotox test spring tail

N and C mineralization test

Invertebrate community

Chemistry



Toxicity



Ecology



OUTCOMES

- **No significant effects** of DDT on the overall soil function at the site, despite concentration above guideline value
- **Critical finding** : as excavation of large volumes of soil which do not pose significant risk is **costly and possibly unjustified** in terms of sustainable management of polluted sites
- **Methodology** used can be applied to other former forest nurseries