



Biocides and pesticides* perspective on the risk assessment for pollinators: ECHA and EFSA bee guidance and developments for other pollinators

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Introduction

ECHA bee guidance¹ presents an approach to assess the risks of biocides to bees (honey bees, bumble bees and solitary bees) with the aim of **ensuring a high and harmonised level of protection of the environment**. The revised EFSA bee guidance for plant protection products (PPPs)² was taken as reference when developing the ECHA bee guidance with specific adaptations to accommodate biocidal products' exposure scenarios.



Comparison of risk assessment for biocides and PPPs

Divergences

- Scope: biocides focus on active substances with an insecticidal mode of action, while all mode of actions are considered for PPPs
- Biocide-specific sources of exposure (see Poster 'Risk assessment of bees from the use of biocides – exposure assessment')
- Higher tier effects assessment (applicability of field studies for biocides, as studies designed for PPPs)
- Screening step for metabolites (PPPs: data from residue/metabolism studies, biocides: source of exposure)

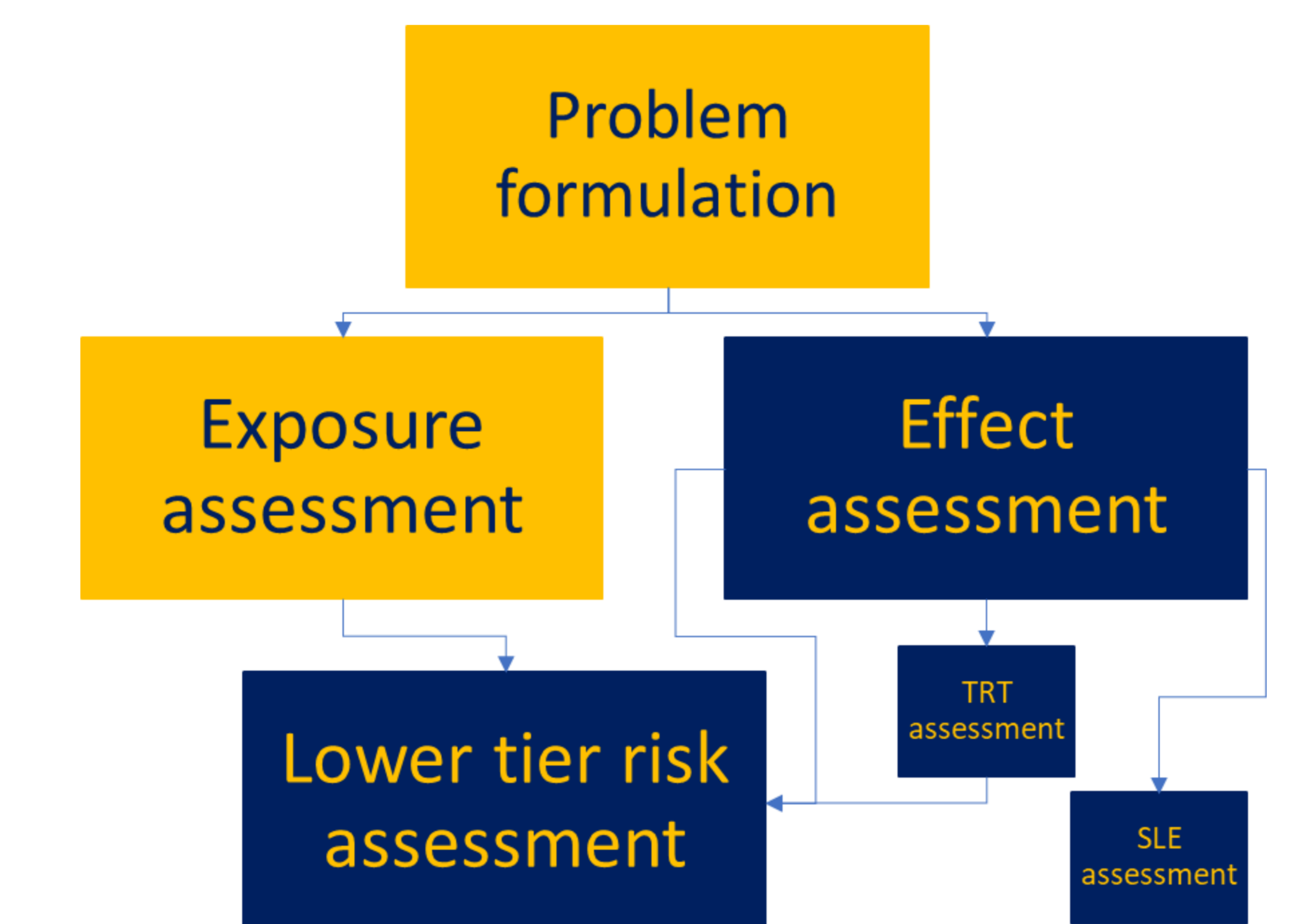


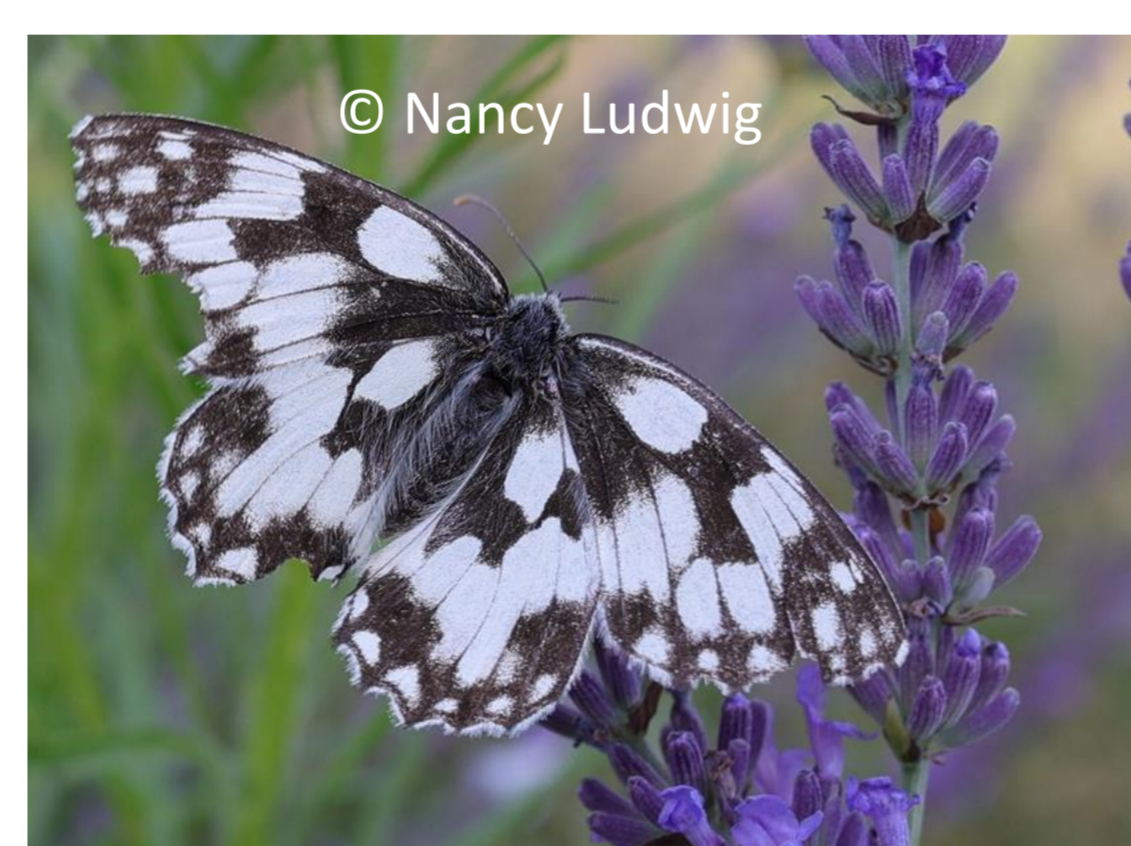
Figure 1. Simplified risk assessment scheme. Yellow boxes highlight differences in the scheme between biocides and PPPs.

Commonalities

- Bee exposure scenarios
- Effects assessment, information requirements for lower tier risk assessment
- Principles of lower tier risk assessment (dietary: acute, chronic & larvae; contact: acute)
- Specific protection goal for honey bees (max. 10 % colony reduction)
- Time-reinforced toxicity (TRT)
- Sublethal effects (SLE)
- Principles of mixture and metabolite assessment

Non-bee pollinators (NBPs)

- ECHA report on NBPs³ for biocides explains the **main characteristics, typical habitat types, possible exposure pathways**, and evaluates the **sensitivity of Diptera, Lepidoptera, non-bee Hymenoptera, and Coleoptera to insecticides**.
- Concluding on species sensitivity was not possible due to scarce available data
- Data generation for contact and oral endpoints is crucial, and standard test guidelines need to be created.



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- EFSA's scientific project focuses on non-target arthropods and aims to:
- Establish a quantitative link between direct effects of PPPs and their ecological consequences
 - Investigate interspecies sensitivity of key driver species due to direct effects
 - Characterise the exposure for the key driver species

Conclusions

- The guidances for biocides and PPPs provide applicants and evaluating competent authorities with a methodology to assess the risk to honey bees, bumble bees and solitary bees, in line with the agreed specific protection goal.
- The methodology will provide for a more consistent and robust assessment of risks to bees, which ultimately will contribute to a better protection of arthropod pollinators.
- Guidances for the risk assessment of pollinators other than bees will be developed after new standard test guidelines have been developed and information on key driver species' ecology is available.

References

- ¹ECHA. 2024. Guidance on the assessment of risks to bees from the use of biocides.
²EFSA. 2023. Revised guidance on the risk assessment of plant protection products on bees (*Apis mellifera*, *Bombus* spp. and solitary bees).
³Hätönen M, Kantner C, Lopez i Losada R, Ludwig N, Benavent González A, Riedhammer C, Kunz P, Panico S, Laakkonen E, Parramon Dolcet L, Vangheel M, Carlon C, Gutierrez Alonso S. 2022. European arthropods and their role in pollination: scientific report of their biodiversity, ecology and sensitivity to biocides. European Chemicals Agency.

*Pesticides = Plant Protection Products

*Advancing the environmental risk assessment of non-target arthropods for plant protection products by accounting for the impact on ecosystem services and on the ecological function (European Food Safety Authority, EFSA, 2023-2026)