

ECOTOX Knowledgebase Virtual Training

Breakout Group Worksheet Case Study Level 1

This worksheet was developed for the Breakout Group session of the ECOTOX Knowledgebase Virtual Training, hosted by the U.S. Environmental Protection Agency's Center for Computational Toxicology and Exposure on May 17, 2022.

For more information about the ECOTOX Knowledgebase tool—

- Visit the ECOTOX Knowledgebase at www.epa.gov/ecotox.
- Contact ECOTOX support at ecotox.support@epa.gov or by calling 218-529-5225.
- Read more in Olker et al. 2022, <https://doi.org/10.1002/etc.5324>.

Goal

To identify records available in ECOTOX for a specific chemical AND species group.

Directions

1. Select a chemical from the list provided on Page 5 of this worksheet.
2. Type the chemical and its CAS Registry Number in the space below.
3. Because we are starting with a chemical and have no other parameters, should you start with Search or Explore?
4. Create a Custom Group for your chemical. Then refer to the list of Query Filters on the left-hand side to walk through the next set of questions.
5. How many Species Groups have records in ECOTOX for the selected compound(s)?
6. Refine the results by selecting a specific Species Group. Which group did you select?



7. Based on the Species Group you selected, limit the results to either “Aquatic” or “Terrestrial” at the top of the left-hand side. Which one did you select?

8. Change the view as needed (i.e., Group Summary, Records, Plot View) to answer the following questions:
 - a. Change your results to Records view.
 - b. What types of effects were observed in the Species Group you focused on?

 - c. Change your results to Plot View.
 - d. What were the lowest concentrations for which these effects were reported?

 - e. What paper or papers were these lowest concentrations reported in?

 - f. Write down the Ecoref number (identifier for the reference) by hovering over the reference column.

 - g. Select Send Query Filters to Search at the top of the right-hand side. This will open Search in a new tab. Be sure to click the green Update Search button on the bottom-left.
 - h. Modify the Publications Options to limit the output to the reference identified above. How many records are displayed?

Chemical List

Category	Compound(s)	CAS Registry Number(s)
Pesticide/Herbicide	Atrazine	1912-24-9
Pesticide/Herbicide	Roundup	38641-94-0
Pesticide/Herbicide	Chlorpyrifos	2921-88-2
Metal	Cadmium	7440-43-9, 10108-64-2, plus 11 others in the Cadmium group
Metal	Lead	7439-92-1, 7758-95-4, 301-04-2, 10099-74-8, plus 9 others in the Lead group
Metal	Selenium	35 unique compounds in the Selenium group
Pharmaceutical/Personal Care Product	17 α -Ethinylestradiol	57-63-6
Pharmaceutical/Personal Care Product	Clofibrate/Clofibric Acid	637-07-0, 882-09-7
Pharmaceutical/Personal Care Product	DEET	134-62-3

Species Groups

Vertebrates	Invertebrates	Plants and Other
Fish	Insects/Spiders	Flowers, Trees, Shrubs, Ferns
Mammals	Worms	Algae
Birds	Molluscs	Fungi
Amphibian	Crustaceans	Moss, Hornworts
Reptiles	Other Invertebrates	Miscellaneous (Communities, Higher Taxonomic Level)