Metadata for: Benthic Invertebrate Neonicotinoid Monitoring Study

This table provides essential information about the program data.

Title	Benthic Invertebrate Neonicotinoid Monitoring Study
Alternative Title	Multi-media Monitoring Study
Description	The Ontario Ministry of Environment and Climate Change initiated the Multi-media Monitoring Study in 2015 to characterize neonicotinoid chemical concentrations in soil and stream water, and to characterize the taxonomic structure of bottom- dwelling aquatic invertebrates in southwestern Ontario streams. In June or July, aquatic invertebrates were collected from twenty-one agriculturally impacted streams and one minimally impacted stream (which drains a predominantly forested watershed). Each dataset is published in three parts: a table of the geographic coordinates of sampled locations; a table of environmental attributes that describe the catchments draining to the sampled locations (e.g., corn and soybean production, topography, soil type and drainage characteristics), plus measures of channel size, the size of inorganic materials forming the stream bottom, and current speed; and a table of the counts of bottom-dwelling aquatic invertebrates recorded from each sampled location. Follow-up surveys were conducted in 2016-2018 to monitor for changes from baseline that may occur following restrictions on the use of neonicotinoid-
	treated corn and soybean seeds. The study was discontinued after the 2018 field season. Data from soil and
	stream water are presented separately. Purpose: Relative abundances of bottom-dwelling aquatic invertebrates, as estimated from samples collected from 22 streams in south-western Ontario.
Status	Completed
Frequency of Updates	Historical
Contact	Name: Chris Jones Voice: 705 766-1724 Email: f.chris.jones@ontario.ca Organisation: Ontario Ministry of the Environment, Conservation and Parks Position: Benthic Biomonitoring Scientist
Cited Responsible Parties	See the Open Government Licence - Ontario
Keywords	Insecticides, Invertebrates
Tags	Neonicotinoid Study, Pesticides, Drinking Water, Stream Water
Use Limitations	The data describe a particular set of 22 streams from south-western Ontario, and are not applicable to other locations. No survey was undertaken to describe tillage practices, types of seeds planted, fertilization schemes, or planting dates that characterized agricultural practices in the watersheds of the sampled locations. The study was designed to characterize baseline community structure and quantify changes over time: it does not permit the causes of any observed changes to be diagnosed unequivocally.
	Additional Considerations: Data describing neonicotinoid chemical concentrations in stream water and soil are available separately.
Legal Constraints	See the <u>Open Government Licence - Ontario</u>

Geographic Bounds	Ontario: province-wide West bound: -95.15699 East bound: -74.30798 South bound: 41.6723 North bound: 56.850117
Supplemental Information	View this data on <u>an interactive map</u> . Read <u>a synopsis of the study</u> that produced the data.
Date Stamp	November 20, 2022

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