Abbreviated Citation	Surdick and Gaufin (1978)
Full Citation	Surdick, R.F., and A.R. Gaufin. 1978. Environmental Requirements and Pollution Tolerance of Plecoptera. Report No. EPA-600/4-78-062. U.S. EPA, Washington, D.C. 423 p.
Description	This is part of a U.S. EPA series on environmental requirements and pollution tolerance of aquatic macroinvertebrates. Information on 362 Plecoptera taxa from this publication are included in the Freshwater Biological Traits database. Trait information was compiled from general literature searches (the EPA series does not include exhaustive surveys of the literature, only major sources). Data are grouped into broad categories such as general habitat, specific habitat, turbidity, current, temperature, pH, dissolved oxygen, seasonal distribution, timing of emergence, and geographical distribution (by EPA region). Each page has a species profile that summarizes the range of environmental conditions under which the species has been found (values and ranges reflect the experimental and observational bias of each study), along with the sources from which the information was gathered. These publications were intended to provide a baseline to which further information could be added as further research was conducted and more information became available. Some might consider the information in these publications to be outdated. However, there have been very few comprehensive efforts to gather this information (especially that compile and publish it in one place and in a consistent format) and the comprehensive bibliographies and documentation are very valuable. Electronic copies of this publication are not available and hard copies are difficult and expensive to obtain. To obtain lists of citations for the primary literature that were reviewed for these publications, you will need to reference the hard copies. For more information, contact Jen Stamp.
Tolerance Calculations	not applicable
Published	yes (EPA report)
Highest Level of Taxonomic Resolution	species
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Data Integration Notes	Original data had to be modified for the Freshwater Biological Traits table as follows:
	Thermal preference categories were adapted to fit the USGS (2006) format, so that stenothermal (≤5 C), metathermal (5-15°C) and oligothermal (0-15°C) = Cold-cool eurythermal (0-15°C); mesothermal (15-30°C) and eurythermal (≥15°C) = Warm eurythermal (15-30°C); euthermal (>30°C) = Hot euthermal (>30°C); and taxa documented in both Cold-cool eurythermal (0-15°C) and Warm eurythermal (15-30°C) temperature ranges = No strong preference

		pH entries were adapted to fit the following general categories: acidobiontic = Acidic; acidophilous = Acid-Neutral; neutral = Neutral; alkaliphilous = Alkaline-Neutral; alkalibiontic = Alkaline; indifferent = No strong preference
		Oxygen entries were adapted to fit the following general categories: euoxyphilous = High; mesoxyphilous = Moderate; euoxyphilous AND mesoxyphilous = Moderate-High; oligoxyphilous = Low; mesoxyphilous AND oligoxyphilous = Low-Moderate; anoxyphilous = Anaerobic; oligoxyphilous AND anoxyphilous = Low-Anaerobic; taxa documented in both high and low oxygen waters = No strong preference
		Turbidity entries were adapted to fit the following general categories: eulichotophilous = Clear water; mesolichtophilous and/or oligolichtophilous = Silted/murky water; polylichtophilous = No preference
		Current entries were adapted to fit the following general categories: limnobiontic = Standing (Rheophily_comments) and Current_quiet; limnophilous = Slight (Rheophily_comments) and Current_slow; rheophilous = Moderate (Rheophily_comments) and Current_moderate; rheobiontic = Fast (Rheophily_comments) and Current_fast_lam and Current_fast_turb; indifferent = Standing and flowing (Rheophily_comments)
		Specific habitat entries were adapted to fit the following general categories: epipelic = Microhab_silt; episabulic = Microhab_sand; epilithic = Microhab_rocks and Microhab_gravel; epixylous = Microhab_LWD; epiphytic = Microhab_plants
		The following parameters from the original publication were not included in the Freshwater Biological Traits Database: salinity, nutrient, and organics.