

Guild and Tolerance Designations for Species Collected from Surveys in Onondaga Lake, 2000-2010.

Common name	Trophic Guild	Pollution Tolerance	Thermal Guild	Reproductive Guild
Alewife	Planktivore	Moderate	Cool	Nonguarder, open substrate spawner, phyto-lithophil
Banded killifish	Planktivore/invertivore	Moderate	Warm	Nonguarder, open substrate spawner, phytophil
Black crappie	Invertivore/Piscivore	Tolerant	Warm	Guarder, nest spawner, phytophil
Black Bullhead	Invertivore/Piscivore	Moderately Tolerant	Warm	Guarder, nest spawner, phytophil
Bluegill	Invertivore	Tolerant	Warm	Guarder, nest spawner, lithophil
Bluntnose minnow	Detritivore	Moderate	-	Guarder, nest spawner, speleophil
Bowfin	Piscivore	Tolerant1	Warm	Guarder, nest spawner, phytophil
Brook silverside	Planktivore/invertivore	-	Warm	Nonguarder, open substrate spawner, phyto-lithophil
Brook stickleback	Planktivore/invertivore	-	Cool	Guarder, nest spawner, ariadophil
Brown bullhead	Invertivore/Piscivore	Tolerant	Warm	Guarder, nest spawner, speleophil
Brown trout	Invertivore/Piscivore	Moderately Intolerant	Cold	Nonguarder, brood hider, lithophil
Carp	Benthic Invertivore	Tolerant	Warm	Nonguarder, open substrate spawner, phytophil
Channel catfish	Invertivore/Piscivore	Moderately Tolerant	Warm	Guarder, nest spawner, speleophil
Emerald shiner	Planktivore	-	Warm	Nonguarder, open substrate spawner, pelagophil
Fathead minnow	Invertivore	Intolerant	Warm	Guarder, nest spawner, speleophil
Freshwater drum	Invertivore/Piscivore	Moderate1	Warm	Nonguarder, open substrate spawner, pelagophil
Gizzard shad	Detritivore	Moderately Tolerant3	Warm	Nonguarder, open substrate spawner, litho-pelagophil
Golden shiner	Planktivore/invertivore	Tolerant	Cool	Nonguarder, open substrate spawner, phytophil
Greater Redhorse	Benthic Invertivore	Intolerant	Cool	Nonguarder, open substrate spawner, lithophil
Johnny darter	Invertivore	Moderate1	Cool	Guarder, nest spawner, speleophil
Lake Sturgeon	Benthic Invertivore	Moderate1	Cold/Cool	Nonguarder, open substrate spawner, lithophil
Largemouth bass	Piscivore	Tolerant	Warm	Guarder, nest spawner, phytophil
Logperch	Invertivore	Moderate1	Cool/Warm	Nonguarder, open substrate spawner, psammophil
Longnose dace	Planktivore/invertivore	Moderately Intolerant	Cool	Nonguarder, brood hider, lithophil
Longnose gar	Invertivore/Piscivore	Tolerant1	Warm	Nonguarder, open substrate spawner, phytophil
Northern hog sucker	Benthic Invertivore	Moderately Intolerant	Cool	Nonguarder, open substrate spawner, lithophil
Northern pike	Piscivore	Moderate	Cool	Nonguarder, open substrate spawner, phytophil

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Common name	Trophic Guild	Pollution Tolerance	Thermal Guild	Reproductive Guild
Pumpkinseed	Invertivore	Tolerant	Warm	Guarder, nest spawner, lithophil
Quillback	Benthic Invertivore	Moderate	Warm	Nonguarder, open substrate spawner, litho-pelagophil
Rainbow trout	Invertivore/Piscivore	Moderately Intolerant ³	Cold	Nonguarder, brood hider, lithophil
Rock bass	Invertivore/Piscivore	Moderate	Warm	Guarder, nest spawner, lithophil
Rudd	Invertivore	Tolerant	Warm	Nonguarder, open substrate spawner, phytophil
Shorthead redhorse	Benthic Invertivore	Moderately Tolerant ³	Cool	Nonguarder, open substrate spawner, lithophil
Smallmouth bass	Piscivore	Moderate	Cool	Guarder, nest spawner, lithophil
Tessellated darter	Invertivore	Moderate	Cool	Guarder, nest spawner, speleophil
Tiger muskellunge	Piscivore	Moderate ¹	Cool	Sterile hybrid
Trout perch	Invertivore/Piscivore	-	Cold	Nonguarder, open substrate spawner, lithophil
Walleye	Piscivore	Moderately Tolerant ³	Cool	Nonguarder, open substrate spawner, lithophil
White perch	Invertivore/Piscivore	Tolerant	Warm	Nonguarder, open substrate spawner, phyto-lithophil
White sucker	Benthic Invertivore	Moderately Tolerant	Cool	Nonguarder, open substrate spawner, lithophil
Yellow Bullhead	Invertivore/Piscivore	Tolerant	Warm	Guarder, nest spawner, speleophil
Yellow perch	Invertivore/Piscivore	Moderately Tolerant	Cool	Nonguarder, open substrate spawner, phyto-lithophil

* Notes: brown and rainbow trout trophic guilds are for lakes. Not all species were able to be grouped into tolerance categories or thermal guilds.

Reproductive guild substrate types: lithophils (sediment), phytophils (plant material, live or dead), speleophils (holes, crevices), pelagophils (openwater), psammophils (sand) and ariadnophils (specialised nest building that include some level of parent

1 EPA 1993

2 Smith 1986

3 Inferred from combination of EPA designation for these species and the designation of similar species in Whittier and Hughes.