

# References



Ausable Bayfield Conservation Authority. 2012. Biological surveys, 2002-2012.

Chapman, L. J., and D. F. Putnam. 1984. *The Physiography of Southern Ontario*, 3rd Edition. Ontario Ministry of Natural Resources, Toronto, Ontario.

Conservation Ontario. 2011. *Guide to Developing Conservation Authority Watershed Report Cards*. 90 pp.

de March, B. G. E. 1976. Spatial and temporal patterns in macrobenthic stream diversity. *Journal of the Fisheries Research Board of Canada* 33: 1261-1270.

Environment Canada. 2004. *How Much Habitat is Enough? A Framework for Guiding Habitat Rehabilitation in Great Lakes Areas of Concern*. Canadian Wildlife Service. 82 pp.

Lammert, M., and J. D. Allan. 1999. Assessing biotic integrity of streams: effects of scale in measuring the influence of land use/cover and habitat structure on fish and macroinvertebrates. *Environmental Management* 23: 257-270.

Luinstra, B., L. Snell, R. Steele, M. Walker, and M. Veliz. 2007. *Ausable Bayfield Maitland Valley Source Protection Region – Watershed Characterization*. Ontario Ministry of the Environment. 97 pp.

Nova Scotia Environment. 2008a. *The Drop on Water – Nitrate*. Government of Nova Scotia. 4 pp.

Nova Scotia Environment. 2008b. *The Drop on Water – Chloride*. Government of Nova Scotia. 4 pp.

Ontario Ministry of Natural Resources. 2011. *Natural Heritage Information Centre*. <http://nhic.mnr.gov.on.ca/>

Richards, C., G. E. Host, and J. W. Arthur. 1993. Identification of predominant environmental factors structuring stream macroinvertebrate communities within a large agricultural catchment. *Freshwater Biology* 29: 285-294.

Smith, A., D. Heitzman, and B. Duffy. 2009. *Standard Operating Procedure: Biological Monitoring of Surface Waters in New York State*. New York State Department of Environmental Conservation, Division of Water.

Veliz, M., H. Brock, and J. Neary, 2006. *Ausable Bayfield Conservation Authority Watershed Report Card 2007*. Ausable Bayfield Conservation Authority. Exeter, Ontario. 104 pp.

**Appendix A:** Species at risk throughout the Ausable Bayfield watersheds (Ausable Bayfield Conservation Authority 2012, Ontario Ministry of Natural Resources 2011).

<b>Watershed</b>	<b>Species Type</b>	<b>Species Name</b>
Ausable Headwaters	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> )
	Reptile	Milksnake( <i>Lampropeltis triangulum</i> )
	Plant	Butternut ( <i>Juglans cinerea</i> )
Bannockburn	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentine</i> )
	Fish	Northern Brook Lamprey ( <i>Ichthyomyzon fossor</i> )
	Mussel	Rainbow Mussel ( <i>Villosa iris</i> )
	Plant	Goldenseal ( <i>Hydrastis canadensis</i> )
Bayfield Headwaters	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> )
	Reptile	Snapping Turtle ( <i>Chelydra, serpentine</i> ), Milksnake( <i>Lampropeltis triangulum</i> )
	Mussel	Rainbow Mussel ( <i>Villosa iris</i> )
	Plant	Green Dragon ( <i>Arisaema dracontium</i> )
Bayfield North	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentine</i> ), Wood Turtle ( <i>Glyptemys insculpta</i> ), Queen Snake ( <i>Regina septemvittata</i> )
	Fish	Redside Dace ( <i>Clinostomus elongates</i> ), Black Redhorse ( <i>Moxostoma duquesnei</i> )
	Plant	Butternut ( <i>Juglans cinerea</i> )
Black Creek	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentine</i> ), Blanding's Turtle ( <i>Emydoidea blandingii</i> )
Little Ausable	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentine</i> )
	Fish	Black Redhorse ( <i>Moxostoma duquesnei</i> )
	Mussel	Rainbow Mussel ( <i>Villosa iris</i> ), Wavy-rayed Lampmussel ( <i>Lampsilis fasciola</i> )
	Plant	Heart-leaved Plantain ( <i>Plantago cordata</i> )
Lower Ausable	Bird	Cerulean Warbler ( <i>Dendroica cerulean</i> ), Louisiana Waterthrush ( <i>Seiurus motacilla</i> ), Hooded Warbler ( <i>Wilsonia citrine</i> )
	Reptile	Spiny Softshell Turtle ( <i>Apalone spinifera</i> ), Snapping Turtle ( <i>Chelydra serpentine</i> ), Spotted Turtle ( <i>Clemmys guttata</i> ), Blanding's Turtle ( <i>Emydoidea blandingii</i> ), Northern Map Turtle ( <i>Graptemys geographica</i> ), Eastern Musk Turtle ( <i>Sternotherus odoratus</i> ),

Lower Ausable (cont)	Reptile (cont)	Blue Racer Snake ( <i>Coluber constrictor foxii</i> ), Eastern Hog-nosed Snake ( <i>Heterodon platirhinos</i> ), Milksnake ( <i>Lampropeltis triangulum</i> ), Queen Snake ( <i>Regina septemvittata</i> ), Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> )
	Mussel	Northern Riffleshell ( <i>Epioblasma torulosa rangiana</i> ), Snuffbox ( <i>Epioblasma triquetra</i> ), Mapleleaf Mussel ( <i>Quadrula quadrula</i> )
	Plant	Green Dragon ( <i>Arisaema dracontium</i> ), Tuberous Indian-plantain ( <i>Arnoglossum plantagineum</i> ), Dwarf Hackberry ( <i>Celtis tenuifolia</i> ), Pitcher's Thistle ( <i>Cirsium pitcher</i> ), Eastern Flowering Dogwood ( <i>Cornus florida</i> ), False Rue-anemone ( <i>Enemion biternatum</i> ), Goldenseal ( <i>Hydrastis canadensis</i> ), Butternut ( <i>Juglans cinerea</i> ), American Ginseng ( <i>Panax quinquefolius</i> ), Broad Beech Fern ( <i>Phegopteris hexagonoptera</i> ), Riddell's Goldenrod ( <i>Solidago riddellii</i> )
Lower Parkhill	Mammal	American Badger ( <i>Taxidea taxus</i> )
	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> ), Bald Eagle ( <i>Haliaeetus leucocephalus</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentine</i> ), Blue Racer Snake ( <i>Coluber constrictor foxii</i> ), Eastern Hog-nosed Snake ( <i>Heterodon platirhinos</i> )
	Fish	River Redhorse ( <i>Moxostoma carinatum</i> )
	Plant	Green Dragon ( <i>Arisaema dracontium</i> ), Dwarf Hackberry ( <i>Celtis tenuifolia</i> ), Pitcher's Thistle ( <i>Cirsium pitcher</i> ), False Rue-anemone ( <i>Enemion biternatum</i> ), Butternut ( <i>Juglans cinerea</i> ), Heart-leaved Plantain ( <i>Plantago cordata</i> ), Drooping Trillium ( <i>Trillium flexipes</i> )
Main Bayfield	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> ), Louisiana Waterthrush ( <i>Seiurus motacilla</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentine</i> ), Wood Turtle ( <i>Glyptemys insculpta</i> ), Queen Snake ( <i>Regina septemvittata</i> )
	Fish	Black Redhorse ( <i>Moxostoma duquesnei</i> )
	Mussel	Mapleleaf Mussel ( <i>Quadrula quadrula</i> ), Rainbow Mussel ( <i>Villosa iris</i> )
	Plant	Green Dragon ( <i>Arisaema dracontium</i> ), Tuberous Indian-plantain ( <i>Arnoglossum plantagineum</i> ), Butternut ( <i>Juglans cinerea</i> )
Middle Ausable	Mammal	American Badger ( <i>Taxidea taxus</i> )
	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> ), Loggerhead Shrike ( <i>Lanius ludovicianus</i> )
	Reptile	Spiny Softshell Turtle ( <i>Apalone spinifera</i> ), Snapping Turtle ( <i>Chelydra serpentine</i> ),

Middle Ausable (cont)	Reptile (cont)	Spotted Turtle ( <i>Clemmys guttata</i> ), Northern Map Turtle ( <i>Graptemys geographica</i> )
	Mussel	Northern Riffleshell ( <i>Epioblasma torulosa rangiana</i> ), Snuffbox ( <i>Epioblasma triquetra</i> ), Wavy-rayed Lampmussel ( <i>Lampsilis fasciola</i> ), Kidneyshell ( <i>Ptychobranthus fasciolaris</i> ), Mapleleaf Mussel ( <i>Quadrula quadrula</i> ), Rainbow Mussel ( <i>Villosa iris</i> )
Mud Creek	Bird	Northern Bobwhite ( <i>Colinus virginianus</i> ), Acadian Flycatcher ( <i>Empidonax virescens</i> ), Prothonotary Warbler ( <i>Protonotaria citrea</i> ), Louisiana Waterthrush ( <i>Seiurus motacilla</i> ), Hooded Warbler ( <i>Wilsonia citrine</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentine</i> ), Spotted Turtle ( <i>Clemmys guttata</i> ), Blanding's Turtle ( <i>Emydoidea blandingii</i> ), Eastern Musk Turtle ( <i>Sternotherus odoratus</i> ), Blue Racer Snake ( <i>Coluber constrictor foxii</i> ), Eastern Hog-nosed Snake ( <i>Heterodon platirhinos</i> ), Milksnake ( <i>Lampropeltis triangulum</i> ), Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> )
	Fish	Lake Chubsucker ( <i>Erimyzon sucetta</i> ), Grass Pickerel ( <i>Esox americanus vermiculatus</i> ), Pugnose Shiner ( <i>Notropis anogenus</i> )
	Plant	Bluehearts ( <i>Buchnera Americana</i> ), Dwarf Hackberry ( <i>Celtis tenuifolia</i> ), Pitcher's Thistle ( <i>Cirsium pitcher</i> ), Eastern Flowering Dogwood ( <i>Cornus florida</i> ), Goldenseal ( <i>Hydrastis canadensis</i> ), Butternut ( <i>Juglans cinerea</i> ), Dense Blazing Star ( <i>Liatris spicata</i> ), Cucumber Tree ( <i>Magnolia acuminata</i> ), American Ginseng ( <i>Panax quinquefolius</i> ), Heart-leaved Plantain ( <i>Plantago cordata</i> ), Showy Goldenrod - Great Lakes Plains Population ( <i>Solidago speciosa</i> pop. 1) -, Drooping Trillium ( <i>Trillium flexipes</i> )
Nairn Creek	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> ), Acadian Flycatcher ( <i>Empidonax virescens</i> ), Least Bittern ( <i>Ixobrychus exilis</i> ), Loggerhead Shrike ( <i>Lanius ludovicianus</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentine</i> )
	Fish	Northern Brook Lamprey ( <i>Ichthyomyzon fossor</i> )
	Mussel	Wavy-rayed Lampmussel ( <i>Lampsilis fasciola</i> ), Kidneyshell ( <i>Ptychobranthus fasciolaris</i> ), Rainbow Mussel ( <i>Villosa iris</i> )
	Plant	Butternut ( <i>Juglans cinerea</i> ), Dense Blazing Star ( <i>Liatris spicata</i> ), Wood-poppy ( <i>Stylophorum diphyllum</i> )
Old Ausable Channel	Mammal	Woodland Vole ( <i>Microtus pinetorum</i> )
	Bird	Cerulean Warbler ( <i>Dendroica cerulean</i> ), Bald Eagle ( <i>Haliaeetus leucocephalus</i> ), Prothonotary Warbler ( <i>Protonotaria citrea</i> )

Old Ausable Channel (cont)	Reptile	Snapping Turtle ( <i>Chelydra serpentina</i> ), Blanding's Turtle ( <i>Emydoidea blandingii</i> ), Eastern Musk Turtle ( <i>Sternotherus odoratus</i> ), Blue Racer Snake ( <i>Coluber constrictor foxii</i> ), Eastern Hog-nosed Snake ( <i>Heterodon platirhinos</i> ), Milksnake ( <i>Lampropeltis triangulum</i> ), Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> ), Common Five-lined Skink (Carolinian population) ( <i>Plestiodon fasciatus</i> pop. 1)
	Fish	Lake Chubsucker ( <i>Erimyzon sucetta</i> ), Grass Pickerel ( <i>Esox americanus vermiculatus</i> ), Pugnose Shiner ( <i>Notropis anogenus</i> )
	Insect	Northern Barrens Tiger Beetle ( <i>Cicindela patruela</i> ), Aweme Borer Moth ( <i>Papaipema aweme</i> )
	Plant	Green Dragon ( <i>Arisaema dracontium</i> ), Bluehearts ( <i>Buchnera Americana</i> ), Dwarf Hackberry ( <i>Celtis tenuifolia</i> ), Pitcher's Thistle ( <i>Cirsium pitcher</i> ), Dense Blazing Star ( <i>Liatris spicata</i> ), American Ginseng ( <i>Panax quinquefolius</i> )
South Gullies	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentina</i> ), Blanding's Turtle ( <i>Emydoidea blandingii</i> ), Milksnake ( <i>Lampropeltis triangulum</i> )
	Fish	Redside Dace ( <i>Clinostomus elongates</i> )
	Plant	Butternut ( <i>Juglans cinerea</i> )
Upper Ausable	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentina</i> ), Northern Map Turtle ( <i>Graptemys geographica</i> )
	Fish	Black Redhorse ( <i>Moxostoma duquesnei</i> )
	Mussel	Northern Riffleshell ( <i>Epioblasma torulosa rangiana</i> ), Snuffbox ( <i>Epioblasma triquetra</i> ), Wavy-rayed Lampmussel ( <i>Lampsilis fasciola</i> ), Kidneyshell ( <i>Ptychobranhus fasciolaris</i> ), Rainbow Mussel ( <i>Villosa iris</i> )
	Plant	Green Dragon ( <i>Arisaema dracontium</i> ), Goldenseal ( <i>Hydrastis canadensis</i> ), Butternut ( <i>Juglans cinerea</i> ), Riddell's Goldenrod ( <i>Solidago riddellii</i> )
Upper Parkhill	Bird	Bobolink ( <i>Dolichonyx oryzivorus</i> )
	Reptile	Snapping Turtle ( <i>Chelydra serpentina</i> ), Milksnake ( <i>Lampropeltis triangulum</i> )
	Plant	Green Dragon ( <i>Arisaema dracontium</i> ), Goldenseal ( <i>Hydrastis canadensis</i> ), False Rue-anemone ( <i>Enemion biternatum</i> ), Butternut ( <i>Juglans cinerea</i> ), American Ginseng ( <i>Panax quinquefolius</i> ), Riddell's Goldenrod ( <i>Solidago riddellii</i> )





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