

3/24/2019

Ohio Power Siting Board 180 E. Broad St. Columbus, OH 43215

16-0253-GA-BTX

r.e.: #16-253-GA-BTX; Duke Energy's Central Corridor Pipeline (Hamilton County)

POTENTIAL NEPA VIOLATIONS

Duke seems to be following NEPA in the Applications for this Project of 9/13/2016, and the 1/20/2017 and April, 2018 revisions. These give superficial appearances of Environmental Impact Statements. They've retained a firm of professional biologists— CH2m. From their input into the above Applications, their surveys for State & Federally-listed Species have not been adequately done. They were unable to find anything! However if they have enumerated Listed species in some other documents, I hereby request these so that I can examine them. But from what I've seen, these biologists have not done well.

Numerous Federal Court rulings have rejected submissions of Environmental Impact Statements that they've judged to be inadequate.

On 10/31/2016, ODNR filed a letter in this case file identifying specific Listed species that had already been observed within 1,000 feet of this Project. The CH2m firm has not acknowledged any of these species as being there. Somehow-- they just can't find anything! Please examine Appendices I and IA to see what other biologists have found.

is to certify that the images appearing are an rate and complete reproduction of a case file sent deligred in the regular course of business.

The source of this material is ODNR's Natural Heritage Database. And, as stated in the enclosed I-A, all properties in Ohio (and Hamilton County) have not been surveyed, to yield complete, comprehensive Listings.

OTHER ADDITIONAL SOURCES OF LOCAL SPECIES INFORMATION

For bat species, in addition to the Indiana bat (Endangered), there is also the Northern long-eared bat, which has recently been determined to be State & Federally-threatened. And still further-- all bat species in Ohio have now become State-listed, because of Whitenose Syndrome fungus.

For bird species seen locally, significant information on all of these can be found in <u>The Second Atlas of Breeding Birds in Ohio</u>, by Paul G. Rodewald, Matthew B. Shuman, Aaron T. Boone, David L. Stager, Jim McCormac, and 900 other named Ohio birders who contributed (Pemsylvania State University Press, 2016).

Using the State T & E List, a partial Listing of such moths that have been seen in Hamilton County can be viewed in Petersen's Field Guide to Moths of Northeastern North America by David Beadle and Seabrooke Leckie (Houghton Mifflin Harcourt, 2012). That work has some of these; but there are so many other moth species not covered therein that, to locate where those other moths can be found around here, another big field guide that contains those would be necessary.

To see where the Federally-endangered Rusty-patched bumble bee (Bombus affinis) has been seen in Hamilton County, see <u>Bumble</u>

<u>Bees of North America</u>, by Paul H. Williams, Robbin W. Thorp,

Lief L. Richardson, and Sheila R. Colla (Princeton University Press, 2014) P.122.

To see where Listed dragonflies and damselflies have been, see Dragonflies and Damselflies of the East, by Dennis Paulson (Princeton University Press, 2011)

To see where Listed butterflies have been seen in Ohio, see:

<u>Butterflies of Ohio Field Guide</u> (Adventure Publications Inc.,

Cambridge, Mn, 2004)

ODNR's Rare Native Plant List has 254 Endangered, 157 Threat-ened, 111 Potentially-threatened, and 4 Unassigned on it. Appendix I-A mentions a few of these. The CH2m firm would conceivably have a lot of original research work to do this task conscience tiously, correctly. There's so many of these Listed plants.

For fish species in Hamilton County, see <u>Fishes of Ohio</u> by Milton B. Trautman (Ohio State University Press; 1957, 1981). This large, thick book is quite comprehensive. It's surprising that there are so many different fish species in Ohio. Use this with the State T & E List and Appendix I-A.

Listed Mussel species of Hamilton County are found in Appendices I and I-A. To find these decisively when doing a mussel survey, divers must be employed to enter the water and dig along the bottom, to get mussels that have burrowed in.

Merely searching along the shores of waterways does not constitute a thorough search.

Latter Appendices also mention other Listed Species found near Duke's two designated routes.

ABSOLUTELY NO STATE OR FEDERALLY-LISTED SPECIES ALONG THOSE ROUTES? ???

So unless I see further documentation, this does suggest that Duke has failed to meet the basic requirements of NEPA.

Wm q M mos men

APPENDIX I-A



155 East Broad Street 20th Floor Columbus, Ohio, 43215 o: 614-222-1334 f: 614-222-1337

October 31, 2016

VIA ELECTRONIC FILING		2019	RECE
Barcy McNeal Ohio Power Siting Board Docketing Division 180 East Broad Street, 11 Floor Columbus, OH 43215-3716	PUCO	APR -3 AMIC	EIVED-DOCKETING
Re: Duke Energy Ohio C314V Central Corridor Pipeline Extension Project Case No. 16-	253-GA-1	BTX	AIC 9

Dear Ms. McNeal:

Please find attached a letter from the Ohio Department of Natural Resources (ODNR) addressing the plant and animal life that may be affected by the project. This letter, dated October 31, 2016, had not been received at the time the Application was filed on September 13, 2016.

Sincerely,

Jeanne W. Kingery
Jeanne W. Kingery
Associate General Counsel



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Office of Real Estate Paul R. Baldridge, Chief 2045 Morse Road – Bldg. E-2 Columbus, OH 43229 Phone: (614) 265-6649 Fax: (614) 267-4764

October 31, 2016

Nathan Zink CH2M 400 E. Business Way, Suite 400, Cincinnati, OH 45241

Re: 16-692; OPSB No. 16-253-GA-BTX -Duke Energy C314V Central Corridor Pipeline Extension Project, Informal Consultation Request - State-Listed Threatened and Endangered Species

Project: The proposed project involves the installation of approximately 13 miles of new 20-inch natural gas pipeline from Duke's WW Feed Station to the existing Line V pipeline.

Location: The proposed project is located near Cincinnati, Hamilton County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following records at or within a one mile radius of the project area:

In addition to the rare species reported in the project documentation (pdf page 3) that were provided via a data request, the following data were also reported in the data request but not included in the project documentation:

Oak-maple forest plant community
Stream gorge (geologic feature)
Cliffs (geologic feature)
Fossil deposit (geologic feature)
Little Miami State Scenic River
Sharon Woods Gorge State Nature Preserve – Hamilton Co. Park District
Sharon Woods – Hamilton Co. Park District
French Park – City of Cincinnati Parks
Ault Park – City of Cincinnati Parks
Lindner Park – City of Norwood

Mill Creek Conservancy – Mill Creek Conservancy Hazelwood Botanical Preserve – University of Cincinnati

The review was performed on the project area you specified in your request as well as an additional one mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity. Additional comments on some of the features may be found in pertinent sections below.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

The project is within the range of the Indiana bat (Myotis sodalis), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees: shagbark hickory (Carya ovata), shellbark hickory (Carya laciniosa), bitternut hickory (Carya cordiformis), black ash (Fraxinus nigra), green ash (Fraxinus pennsylvanica), white ash (Fraxinus americana), shingle oak (Quercus imbricaria), northern red oak (Quercus rubra), slippery elm (Ulmus rubra), American elm (Ulmus americana), eastern cottonwood (Populus deltoides), silver maple (Acer saccharinum), sassafras (Sassafras albidum), post oak (Ouercus stellata), and white oak (Ouercus alba). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the sheepnose (Plethobasus cyphyus), a state endangered and federally endangered mussel, the fanshell (Cyprogenia stegaria), a state endangered and federally endangered mussel, the pink mucket (Lampsilis orbiculata), a state endangered and federally endangered mussel, the rayed bean (Villosa fabalis), a state endangered and federally endangered mussel, the snuffbox (Epioblasma triquetra), a state endangered and federally endangered mussel, the ebonyshell (Fusconaia ebena), a state endangered mussel, the long-solid (Fusconaia maculata maculata), a state endangered mussel, the butterfly (Ellipsaria lineolata), a state endangered mussel, the elephant-ear (Elliptio crassidens crassidens), a state endangered mussel, the Ohio pigtoe (Pleurobema cordatum), a state endangered mussel, the monkeyface (Quadrula metanevra), a state endangered mussel, the wartyback (Quadrula nodulata), a state endangered mussel, the black sandshell (Ligumia recta), a state threatened mussel, the fawnsfoot (Truncilla

donaciformis), a state threatened mussel, and the threehorn wartyback (Obliquaria reflexa), a state threatened mussel.

This project must not have an impact on freshwater native mussels at the project site. This applies to both listed and non-listed species. Per the Ohio Mussel Survey Protocol (2016), all Group 2. 3. and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 10 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. This is further explained within the Ohio Mussel Survey Protocol. Therefore, if in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, as a last resort, the DOW recommends a professional malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the Ohio Mussel Survey Protocol. The Ohio Mussel Survey Protocol (2016) can be found at: http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/licenses%20&%20permits/OH%20Mussel%20Su rvey%20Protocol.pdf

The project is within the range of the shortnose gar (Lepisosteus platostomus), a state endangered fish, the shoal chub (Macrhybopsis hyostoma), a state endangered fish, the shovelnose sturgeon (Scaphirhynchus platorynchus), a state endangered fish, the lake sturgeon (Acipenser fulvescens), a state endangered fish, the northern madtom (Noturus stigmosus), a state endangered fish, the bigeye shiner (Notropis boops) a state threatened fish, the mountain madtom (Noturus eleutherus), a state threatened fish, the river darter (Percina shumardi) a state threatened fish, the channel darter (Percina copelandi), a state threatened fish, the blue sucker (Cycleptus elongatus), a state threatened fish, and the paddlefish (Polyodon spathula) a state threatened fish. The DOW recommends no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed, this project is not likely to impact this species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet meadows and other wetlands. Due to the location, the type of habitat present at the project site and within the vicinity of the project area, this project is not likely to impact this species.

The project is within the range of the cave salamander (*Eurycea lucifuga*), a state endangered species. Due to the location, this project is not likely to impact this species.

The project is within the range of the American bittern (*Botaurus lentiginosus*), a state endangered bird. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. In the Oak Openings area west of Toledo, lark sparrows occupy open

grass and shrubby fields along sandy beach ridges. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to June 30. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the Sloan's crayfish (*Orconectes sloanii*), a state threatened species. Any in-water work should be conducted in a manner that will provide any Sloan's crayfish that are present an opportunity to relocate out of the area prior to construction.

The project is within the range of the Kramer's cave beetle *Pseudanophthalmus krameri*), a state endangered species, and the Ohio cave beetle (*Pseudanophthalmus ohioensis*), a state endangered species. These species are found only in caves. The Ohio Cave Protection Law, Section 1517.21 of the Ohio Revised Code, protects caves from impacts, in turn, protecting the habitat of these species. Therefore, this project is not likely to impact these species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/water-use-planning/floodplain-management#PUB

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler ODNR Office of Real Estate 2045 Morse Road, Building E-2 Columbus, Ohio 43229-6693 John.Kessler@dnr.state.oh.us

HAMILTON COUNTY

APPENDIX I

State Status	Rederal Status	County	Category	Species	CommonName	Sensitive Species	Most Recent Record	FWS
Endangered		Hamilton	Amphibian - Satamander	Cryptobranchus atleganiensis alleganiensis	Eastern Hellbender	Yes	1961	
Endangered		Hamilton	Amphibian - Salamander	Eurycea Nofuga	Cave Salamander	No No	2013 2009	
Endangered		Hamilton	Fish	Lepisosteus platostomus Macrhybopsis hyostoma	Shortnose Gar Shoal Chub	No No	2012	
Endangered Endangered		Hamilton Hamilton	Fish Fish	Noturus stigmosus	Northern Madtom	No	2008	
Endangered		Hamilton	Insect - butterfly	Lycaena helioides	Purplish Copper	No	1917	
Endangered		Hamilton	Insect - bulterfly	Speyena idalia	Regal Fritillary	No	1946	
Endangered		Hamilton	Insect - odonale	Gomphus externus	Plains Clublait	No	1995	
Endangered		Hamilton	Insect - odonale	Nannothemis bella	Etfin Skimmer Fanshell	No No	2002 1887	
Endangered	Endangered	Hamilton	Invert fw bivalve	Cyprogenia stegaria	Butterfly	No	1997	
Endangered		Hamilton Hamilton	Invert, - fw bivalve Invert, - fw bivalve	Ellipsana lineolata Elliptio crassidens crassidens	Elephant-ear	No	1987	
Endangered Endangered	Endangered	Hamilton	Invert fw bivalve	Epioblasma obliquata obliquata	Purple Car's Paw	No	1850	
Endangered	Endangered	Hamilton	Invert fw bivalve	Epioblasma torulosa rangiana	Northern Riffleshell	No	1850	
Endangered	Endangered	Hamilton	Invert fw bivalve	Epioblasma triquetra	Snuffbox	No	1850	•
Endangered		Hamilton	Invert, - fw bivalve	Fusconaia ebena	Ebonysheli	No	1997	
Endangered		Hamilton	Invert - fw bivalve	Fusconaia maculata maculata	Long-solid	No	1997 1850	
Endangered		Hamilton	Invert fw bivalve	Lampsilis ovata	Sharp-ridged Pocketbook Yellow Sandshell	No No	1943	
Endangered	F-44 .	Hamilton	Invert. • fix bivative Invert fix bivative	Lampsilis teres Lampsilis abrupta	Pink Mucket	No	.546	
Endangered	Endangered	Hamilton Hamilton	Invert fw bivalve	Megalonaias nervosa	Washboard	No	2013	
Endangered Endangered	Endangered	Hamilton	Invert fw bivalve	Plethobasus cyphyus	Sheepnose	No	199?	
Endangered	Endangered	Hamilton	Invert fw bivalve	Pleurobema clava	Clubshell	No	1850	
Endangered		Hamilton	Invert fw bivalve	Pleurobema cordatum	Onio Pigloe	No	1997	
Endangered		Hamilton	Invert fw bivalve	Pleurobema rubrum	Pyramid Pigtoe	No	1879	
Endangered	Threatened	Hamillon	Invert Iw bivalve	Quadrula cylindrica cylindrica	Rabbitsfoot	No No	1850 1997	
Endangered		Hamilton	Invert fw bivalve	Quadrula metanevra	Monkeyface Wartyback	No No	2013	
Endangered	Enda	Hamilton	Invert fw bivalve Invert fw bivalve	Quadrula nodulala Villosa fabalis	Rayed Bean	No		•
Endangered Endangered	Endangered Endangered	Hamilton Hamilton	Invert. • IW DIVAIVE	Myotis sodalis	Indiana Myotis	Yes		•
er registal and a				·			2010	
Threatened		Hamilton	Fish	Cycleptus elongatus	Blue Sucker	No	2010	
Threatened		Hamilton	Fish	Notropis boops	Bigeye Shiner	No No	2012 2013	
Threatened		Hamilton	Fish	Noturus efeulherus	Mountain Madlom Channel Darler	No	1996	
Threatened		Hamilton	Fish	Percina copelandi	River Darter	No	2009	
Threatened		Hamilton Hamilton	Fìsh Fish	Percina shumardi Polyodon spathula	Paddlefish	No	1992	
Threalened Threatened		Hamilton	Invert decapod	Orconectes (Rhoadesius) sloenii	Sloan's Crayfish	No	1995	
Threatened		Hamilton	Invert. • fw bivalve	Ligumia recta	Black Sandshell	No	2013	
Threatened		Hamilton	Invert fw bivalve	Obliquaria reflexa	Threehorn Wartyback	No	2013	
Threatened		Hamilton	Invert fw bivalve	Truncilla donaciformis	Fawnsfoot Pondhom	No No	2012 1850	
Threatened		Hamilton	Invert fw bivalve	Uniomerus tetralasmus	Eastern Harvest Mouse	No.	1945	
Threatened		Hamilton	Mammal Postilo Saste	Reithrodontomys humulis Clonophis kirtlandii	Kirlland's Snake	No	1937	
Threatened		Hamilton	Reptile - Snake	Cionophis Kirkenon				
Species of Concern		Hamilton	Amphibian - Frog / Toad	Acris crepitans crepitans	Eastern Cricket Frog	Nο	2011	
Species of Concern		Hamilton	8ird	Dendroica cerulea	Cerulean Warbler	No	2006	
Species of Concern		Hamilton	Fish	Ammocrypta pellucida	Eastern Sand Darter	No No	2013 2009	
Species of Concern		Hamilton	Fish	Esex masquinongy	Muskellunge Blue Catfish	No No	2010	
Species of Concern		Hamilton	Fish	ctalurus furcatus	River Redhorse	No	2010	
Species of Concern		Hamilton	Fish Invert - fw bivalve	Moxosioma carinatum Alasmidonta marginala	Elktoe	No	2007	
Species of Concern Species of Concern		Hamilton Hamilton	Invert fw bivalve	Cyclonaias luberculata	Purple Wartyback	No	1987	
Species of Concern		Hamilton	Invert fw bivalve	Lampsilis fasciola	Wavy-rayed Lampmussel	No	1850	
Species of Concern		Hamilton	Invert, - fw bivalve	Lasmigona compressa	Creek Heelsplitter	No	1850	
Species of Concern		Hamilton	Invert. • fw bivalve	Pleurobema sintoxia	Round Pigtoe	No	1987 1850	
Species of Concern		Hamilton	Invert fw bivalve	Ptychobranchus fasciolaris	Kidneyshell Deertoe	No No	2012	
Species of Concern		Hamilton	Invert fw bivalve	Truncilla truncala	Blg Brown Bat	No	2011	
Species of Concern		Hamilton	Mammal Mammal	Eptesicus fuscus Lasionycteris noctivagans	Silver-halred Bat	No	1984	
Species of Concern		Hamilton Hamilton	Mammal Mammal	Lasionyciens riccavagans Lasionus borealis	Red Bat	No	2010	
Species of Concern Species of Concern		Hamilton	Mammal	Lasiurus cinereus	Hoary Bat	No	2010	
Species of Concern		Hamilton	Mammal	Microtus ochrogaster	Prairie Vole	No	1974	
Species of Concern		Hamilton	Mammal	Microtus pinetorum	Woodland Vole	No No	1974 2010	
Species of Concern		Hamilton	Mammal	Myotis lucifugus	Little Brown Bat	No No	2010	
Species of Concern	Threatened	Hamilton	Mammal	Myotis septentrionalis	Northern Long-eared Bat Tri-colored Bat	No	2011	
Species of Concern		Hamilton	Mammai	Perimyotis subflavus	Deer Mouse	No	2013	
Species of Concern		Hamilton	Mammal	Peromyscus maniculatus Synaptomys cooperi	Southern Bog Lemming	No	1958	
Species of Concern Species of Concern		Hamilton Hamilton	Mammal Mammal	Taxidea taxus	Badger	No	2006	
Species of Concern		Hamilton	Reptile - Snake	Opheodrys aestivus aestivus	Northern Rough Greensnake	No	1973	
opened 1. 22		,			Caldan assured Kinetet	No	2013	
Special Interest		Hamilton	Bird	Regulus satrapa	Golden-crowned Kinglet	No No	1924	
Special Interest		Hamilton	Insect - moth	Catocala maestosa				
Extirpated		Hamilton	Invert fw biyalve	Actinonaias ligamentina ligamentina	Mucket	No	1987	
Extripated		Hamilton	Invert fw biyatve	Cumberlandia monodonta	Spectaclecase	No	1909	
Extirpated		Hamilton	Invert - fw bivatve	Hemistena lata	Cracking Pearly Mussel	No	1850	
Extirpaled		Hamilton	Invert fw bivatve	Leplodea leplodon	Scaleshell	No No	1850 1965	
Extirpated		Hamilton	Invert fw bivaive	Obovaria olivaria	Hickorynut Ring Pink	No No	1987	
Extirpaled		Hamilton	invert fw bivalve	Obovaria retusa	White Wartyback	No	1850	
		Hamilton	Invert fw bivalve	Plethobasus cicatricosus	Orange-fooled Pearly Mussel	No	1876	
Extirpaled		Hamilton	invert fw bivalve	Plethobasus cooperianus Pleuroberna plenum	Roughl Pigtoe	No	1885	
Extirpated Extirpated		1 day 144						
Extirpated Extirpated Extirpated		Hamilton Hamilton	Invert fw bivalve Invert fw bivalve		Winged Mapleleaf	No	1850	
Extirpated Extirpated Extirpated		Hamilton Hamilton	Invert fw bivalve Invert fw bivalve	Quadrula fragosa				
Extirpated Extirpated Extirpated Extirpated			Invert fw bivalve Invert fw bivalve	Quadrula fragosa Epioblasma flexuosa	Leafsheil	No	1850	
Extirpated Extirpated		Hamilton	Invert fw bivalve Invert fw bivalve Invert fw bivalve	Quadrula fragosa Eploblasma flexuosa Epioblasma Iowsi	Leafshell Forkshell	No No	1850 1850	
Extirpated Extirpated Extirpated Extirpated Extirpated		Hamilton Hamilton Hamilton Hamilton	Invert fw bivalve Invert fw bivalve Invert fw bivalve Invert fw bivalve	Quadruta fragosa Epioblasma flexuosa Epioblasma personata Epioblasma personata	Leafshell Forkshell Round Snuffbox	No No No	1850 1850 1850	
Extirpated Extirpated Extirpated Extirpated Extinct Extinct		Hamilton Hamilton Hamilton	Invert fw bivalve Invert fw bivalve Invert fw bivalve	Quadrula fragosa Eploblasma flexuosa Epioblasma Iowsi	Leafshell Forkshell	No No	1850 1850	

4	٠.	_	_
Æ	7 1	A	33
٠,	P	Ψ	75
ь.	. 3		#
w	الحيا	- 1	52
•	-	-	

Hamilton County

and the state of t			State	Federal
Scientific Name	Common Name	Last Observed	Status	Status
Accipiter striatus	Sharp-shinned Hawk	1978-05	SS	
Acipenser fulvescens	Lake Sturgeon	1971	ш	
Alasmidonta marginata	Elktoe	2007-10-09	SC	
Ammocrypta pellucida	Eastern Sand Darter	1996-08-23	SC	
Botaurus lentiginosus	American Bittern	1997-02-09	ш	
Chondestes grammacus	Lark Sparrow	1988-06-01	w	
Cicindela marginipennis	Cobblestone Tiger Beetle	1995-07-20	ш	
Cistothorus platensis	Sedge Wren	1975	SC	
Clonophis kirtlandii	Kirtland's Snake	1985	۲	
Corallorhiza wisteriana	Spring Coral-root	2006-06-26	Q.	
Cycleptus elongatus	Blue Sucker	1995-09-13	 	
Cyclonaias tuberculata	Purple Wartyback	1965-08-09	SC	
Cyperus acuminatus	Pale Umbrella-sedge	2011-09-05	۵	
Descurainia pinnata	Tansy Mustard	2006-04-23	-	
Echinodorus berteroi	Burhead	2007-07-17	۵۰	
Ellipsaria lineolata	Butterfly few Brivalne	1965-08-09	ш	
Elliptio crassidens	Elephant-ear	1965-08-09	ш	
Eurycea lucifuga	Cave Salamander	2011-06-24	ш	
Fusconaia ebenus	Ebonyshell	1965-08-09	ш	
Heterodon platirhinos	Eastern Hognose Snake	1991-10-23	SC	
Lanius Iudovicianus	Loggerhead Shrike	1984-06	ш	
Lipocarpha micrantha	Dwarf Bulrush	2007-07-17	F	
Lota lota	Burbot	1963-08-07	SC	
Lynx rufus	Bobcat	2002-01-28	⊢	
Megalonaias nervosa	Washboard	1965-08-09	ш	
Moxostoma carinatum	River Redhorse	1993-09-28	SC	
Myotis sodalis	Indiana Bat	1999-08-10	щ	딾
Notropis boops	Bigeye Shiner	1973-07-23	}	
Noturus stigmosus	Northern Madtom	1998-07-25	ш	
Nyctanassa violacea	Yellow-crowned Night-heron	1954-06	S	
Nycticorax nycticorax	Black-crowned Night-heron	1997-07-30	 	



Hamilton County

		State	Federal
Common Name	Last Observed	Status	Status
Threehorn Wartyback	1991-08	F	
Hickorynut	1965-08-09	×	
Northern Rough Greensnake	1990-05-19	SC	
Sloan's Crayfish	1995-09-13	⊢	
Louisiana Broom-rape	2010-09-06	ш	
Riverbank Paspalum	1993-10-26	├	
Маурор	2010-07-01	 - -	
Channel Darter	1996-10-10	 	
River Darter	1994-09-26	-	
Fern-leaved Scorpion-weed	2007-04-16	а	
Sheepnose	1965-08-09	ш	丑
Ohio Pigtoe	1965-08-09	ш	
Paddlefish	1992-09-29	-	
Sora Rail	1976-07	SC	
Prothonotary Warbler	1979-06-13	SC	
Monkeyface	1965-08-09	Ē	
Wartyback	1991-08	ш	
Missouri Gooseberry	2010-04-06	_	
Virginia-mallow	2005-08-23	Д.	
Smooth Buttonweed	2010-10-17	۵	
Eastern Box Turtle	2011-07-07	SC	
Buffalo Clover	2012-05	ш	
Running Buffalo Clover	2013-05-25	u	FE
Prairie Wake-robin	2007-05-08	۵	
Three-birds Orchid	2003-08-08	ፈ	
Deertoe	1965-08-09	SC	
Southern Black-haw	1989-10-22	ط	
	Threehorn Wartyback Hickorynut Northern Rough Greensnake Sloan's Crayfish Louisiana Broom-rape Riverbank Paspalum Maypop Channel Darter River Darter Fern-leaved Scorpion-weed Sheepnose Ohio Pigtoe Paddlefish Sora Rail Prothonotary Warbler Monkeyface Wartyback Missouri Gooseberry Virginia-mallow Smooth Buttonweed Eastern Box Turtle Buffalo Clover Running Buffalo Clover Prairie Wake-robin Three-birds Orchid Deertoe	eensnake pe n-weed v ver	sck 1991-08 1965-08-09 eensnake 1990-05-19 1995-09-13 pe 2010-09-06 n 2010-09-06 1993-10-26 2010-07-01 1996-10-10 1996-10-10 1996-09-29 1965-08-09 1965-08-09 1965-08-09 1965-08-09 1991-08 2010-10-17 2011-07-07 2013-05-25 ver 2003-08-09 1965-08-09 1991-08 2005-08-23 d 2010-10-17 2013-05-25 ver 2003-08-09 1965-08-09 1965-08-09 1965-08-09



Hamilton County

Common Name

Last Observed

Status

Status

Federal

State

Ohio Natural Heritage Database Ohio Division of Wildlife

Status based on 2016 Rare Animal List Date Accessed: March 6, 2015

and 2014-15 Rare Plant List.

Status:

EX = Extinct

X = Extirpated

E = Endangered

T = Threatened

P = Potentially Threatened

SC = Species of Concern

SI = Special Interest

List Created: July 2016