
Appendix G

The efforts of many people over the years have created a rich database about the flora and fauna of Doan Brook. The results of a number of these past studies were considered during the preparation of the main *Handbook* text. This appendix includes tables that summarize some of the background data on the brook's biology.¹

List of Biological Data Tables

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¹ Every effort has been made to present the data in a logical and consistent way. Data users should nonetheless keep in mind that data collected by different investigators at different times and using different methods may not be directly comparable. Original data sources should be consulted where appropriate.

Table G-1: Trees of the Doan Brook¹

Common Name	Scientific Name	Before 1790	1964	1966A	1979	1981	1994	1997
Apple	<i>Pyrus malus</i>							p
Ash, black	<i>Fraxinus nigra</i>	S						
Ash, green	<i>Fraxinus pennsylvanica</i>					l	R	p
Ash, mountain	<i>Pyrus decora</i>		p			l		p*
Ash, white	<i>Fraxinus americana</i>	vp	p	p	p	l		
Basswood	<i>Tilia americana</i>	rvs	p	p	p	l	r	p
Beech	<i>Fagus grandifolia</i>	rVP	p	p	P	l	e	p
Beech, European	<i>Fagus sylvatica</i>					l*		
Beech, European white	<i>Fagus sp.</i>					l*		
Birch, black	<i>Betula lenta</i>	r	p	p				
Birch, gray	<i>Betula populifolia</i>		p					
Birch, paper	<i>Betula papyrifera</i>					l		
Birch, river	<i>Betula nigra</i>					l		p*
Birch, yellow	<i>Betula lutea</i>	r	p	p			r	
Bladdernut	<i>Staphylea trifoliata</i>						r	
Buckeye, Ohio	<i>Aesculus glabra</i>		p					p
Butternut	<i>Juglans cinerea</i>	p	p	p				
Catalpa, northern	<i>Catalpa speciosa</i>		p				r*	
Cherry, choke	<i>Prunus virginiana</i>		p	p				
Cherry, cornelian	<i>Cornus mas</i>					l		
Cherry, flowering	<i>Prunus serrulata ?</i>					l*		
Cherry, Japanese	<i>Prunus serrulata?</i>		p					
Cherry, sweet	<i>Prunus avium</i>		p				Fe	
Cherry, wild	<i>Prunus sp.</i>					l		
Cherry, wild black	<i>Prunus serotina</i>		p	p	p		Fe	p
Chestnut	<i>Castanea dentata</i>	eb		e				
Cottonwood	<i>Populus deltoides</i>	s	p	p	r	l	R	p
Crabapple	<i>Pyrus coronaria sp.</i>					l		
Crabapple, American	<i>Malus coronaria</i>		p					
Crabapple, flowering	<i>Malus sp.</i>		p					
Cucumber-Tree	<i>Magnolia acuminata</i>	evp	p	p		l	r	
Cypress, bald	<i>Taxodium distichum</i>					l		
Dogwood, Chinese						l		
Dogwood, flowering	<i>Cornus florida</i>	p	p	p				p
Dogwood, gray	<i>Cornus foemina</i>						R	p
Dogwood, pink	<i>Cornus sp.</i>					l		
Dogwood, red osier	<i>Cornus stolonifera</i>		p					
Dogwood, red twig	<i>Cornus sp.</i>					l		
Dogwood, silky	<i>Cornus amomum</i>						e	
Dogwood, white	<i>Cornus sp.</i>					l		
Dogwood, yellow twig	<i>Cornus sp.</i>					l		
Elder, box	<i>Acer negundo</i>					l		
Elm, American	<i>Ulmus americana</i>	S	p	p		l	r	p
Elm, Chinese	<i>Ulmus parvifolia</i>					l		
Elm, English	<i>Ulmus procera</i>					l*		
Elm, red (slippery)	<i>Ulmus rubra</i>		p				re	
Elm, scotch	<i>Ulmus sp.?</i>					l		
Elm, Siberian	<i>Ulmus pumila</i>						r	
Fringe tree	<i>Chionanthus virginicus ?</i>					l		
Ginkgo	<i>Ginkgo biloba</i>					l*		
Golden rain tree	<i>Koelreuteria paniculata</i>					l*		

Table G-1: Trees of the Doan Brook¹

Common Name	Scientific Name	Before 1790	1964	1966A	1979	1981	1994	1997
Hackberry	<i>Celtis occidentalis</i>						e	
Halesia	<i>Halesia sp.</i>					l		
Hawthorn	<i>Crataegus sp.</i>		p	p		l		p
Hawthorn, blushing	<i>Crataegus pruinosa</i>						e	
Hawthorn, English	<i>Crataegus monogyna</i>						r*	
Hemlock	<i>Tsuga canadensis</i>	R	p	p	r			
Hickory	<i>Carya sp.</i>					l		
Hickory, bitternut	<i>Carya cordiformis</i>	s	p	p			e	p*
Hickory, pignut	<i>Carya glabra</i>	e			p			
Hickory, shagbark	<i>Carya ovata</i>	e	p	p	rp		e	
Hophornbeam	<i>Ostrya virginiana</i>	p	p	p		l	R	
Hornbeam, American	<i>Carpinus caroliniana</i>	ps	p	p	p	l	e	p
Juniper	<i>Juniperus sp.</i>					l		
Larch	<i>Larix laricina</i>		p					
Linden, European	<i>Tilia eropea?</i>					l*		
Linden, silver	<i>Tilia sp.?</i>					l		
Locust, black	<i>Robinia pseudoacacia</i>		p			l	e*	
Locust, honey	<i>Gleditsia triacanthos</i>					l		
Magnolia	<i>Magnolia sp.</i>					l		
Maple, black	<i>Acer nigrum</i>					l		
Maple, hedge	<i>Acer campestre</i>					l*		
Maple, Japanese	<i>Acer palmatum</i>		p			l*		
Maple, mountain	<i>Acer spicatum</i>	r						
Maple, Norway	<i>Acer platanoides</i>		p			l		p*
Maple, red	<i>Acer rubrum</i>	rpS	p	p	p	l	re	p
Maple, silver	<i>Acer saccharinum</i>		p	p	rp			p
Maple, sugar	<i>Acer saccharum</i>	VP	p	p	P	l	Fe	
Maple, sycamore	<i>Acer pseudoplatanus</i>					l		
Mulberry	<i>Morus sp.</i>					l		
Mulberry, red	<i>Morus rubra</i>						e	
Mulberry, white	<i>Morus alba</i>		p					
Oak, black	<i>Quercus velutina</i>	rb			p		E	p
Oak, bur	<i>Quercus macrocarpa</i>		p	p				
Oak, chestnut	<i>Quercus montana</i>	e	p	p		l	E	
Oak, pin	<i>Quercus palustris</i>		p	p	r	l	e	p
Oak, red	<i>Quercus maxima</i>	eb	p	p	FP	l	rE	p
Oak, scarlet	<i>Quercus coccinea</i>	eb		p		l		
Oak, shingle	<i>Quercus embricaria</i>					l		
Oak, swamp white	<i>Quercus bicolor</i>	s	p	p				
Oak, white	<i>Quercus alba</i>	Eb	p	p	r	l	E	p
Oak, willow	<i>Quercus phellos</i>					l		
Olive, Russian	<i>Olea sp.</i>					l		
Pawpaw	<i>Asimina triloba</i>	f	p	p				
Pine, Austrian	<i>Pinus nigra</i>					l		
Pine, scotch	<i>Pinus sylvestris</i>					l		
Pine, white	<i>Pinus strobus</i>	r	p	p		l		p
Pine, yellow	<i>Pinus echinata</i>		p					
Plum, wild	<i>Prunus americana</i>	f					e	
Redbud	<i>Cercis canadensis</i>		p			l		
Redwood, dawn	??					l		
Rubber tree, hardy	??					l		
Saphora	??					l		
Sassafras	<i>Sassafras variifolium</i>	e	p	p		l		p
Shadbush	<i>Amelanchier canadensis</i>	p	p			l		
Spruce	<i>Picea sp.</i>					l		

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Common Name	Scientific Name	Before 1790	1964	1966A	1979	1981	1994	1997
Spruce, blue	<i>Picea sp.</i>		p					
Spruce, white	<i>Picea glauca</i>		p					
Sumac	<i>Rhus sp.</i>							
Sweetgum	<i>Liquidambar styraciflua</i>					l		
Sycamore	<i>Platanus occidentalis</i>		p	p			R	p
Sycamore, American	<i>Platanus occidentalis</i>							
Tree-of-heaven	<i>Ailanthus altissima</i>					l	r*	
Tuliptree	<i>Liriodendron tulipifera</i>	rvbp	p	p	p		r	
Tupelo	<i>Nyssa sylvatica</i>	vp	p	p		l		p
Walnut, black	<i>Juglans nigra</i>		p	p				
Willow, basket	<i>Salix purpurea</i>		p					
Willow, black	<i>Salix nigra</i>	s	p	p			r	p
Willow, crack	<i>Salix fragilis</i>						e	
Willow, heart leaved	<i>Salix cordata</i>	s	p	p				
Willow, pussy	<i>Salix discolor</i>	s						
Willow, shining	<i>Salix lucida</i>		p	p				

¹ Not all surveys covered the entire watershed. This list should therefore be taken as a list of what was present at the time of the survey, not of what was absent.

Key to species locations:

p = Plateau s = swampy areas on Plateau e = Escarpment edge
 r = stream ravines v = valley sides in Lake Plain l = Lake Plain
 u = understory b = sand banks in Lake Plain f = valley bottom in Lake Plain

Capital letters indicate dominant species. * Indicates a non-native species (not all exotics are so marked).

Data Sources:

Before 1790: Williams, Arthur B. January 1949. Also from Arthur Williams 1950. Some input from naturalists at the Nature Center at Shaker Lakes.
 1964: List in files at the Nature Center at Shaker Lakes. Probably compiled by Harold Wallins.
 1966A: National Audubon Society, Nature Center Division. 1971.
 1979: Institute for Environmental Education. 1979.
 1981: Behnke and Associates. 1981.
 1994: URS Consultants. March 16, 1994.
 1997: Davey Resource Group. June 1997.

Table G-2: Shrubs of the Doan Brook¹

Common Name	Scientific Name	Before 1790	1964	1966A	1981	1994	1997
Alder, black	<i>Alnus glutinosa</i>					e	
Alder, speckled	<i>Alnus rugosa</i>						p
Aralia	<i>Aralia sp.</i>				l		
Arborvitae	<i>Aborvitae sp.</i>				l		
Arrow wood, northern	<i>Viburnum recognitum</i>					re	p
Azalea	<i>Rhododendron sp.</i>				l		
Barberry, Japanese	<i>Berberis thunbergii</i>					r*	
Blackberry, allegheny	<i>Rubus allegheniensis</i>					e	p
Buckthorn, common	<i>Rhamnus cathartica</i>					e*	p*
Buckthorn, European	<i>Rhamnus frangula</i>					re*	p*
Burning bush	<i>Euonymus europaeus</i>				l	e	
Buttonbush	<i>Cephalanthus occidentalis</i>						p
Cockspur thorn	<i>Crataegus crus-galli</i>					re	
Cotoneaster	<i>Cotoneaster pyracantha</i>				l		
Cranberry, European	<i>Viburnum opulus</i>						p*
Cranberry, high bush	<i>Viburnum opulus</i>					r*	
Deutzia	??				l		
Dewberry	<i>Rubus flagellaris</i>						p
Elder(berry), common	<i>Sambucus canadensis</i>		p			e	p
Elder, red berried	<i>Sambucus racemosa</i>	p	p				
Euonymous alatus	<i>Euonymous alatus</i>		p				
Forsythia	<i>Forsythia sp.</i>				l		
Gooseberry, wild	<i>Ribes cynosbati</i>						p
Grape, riverbank	<i>Vitis riparia</i>					r	
Hercules club	<i>Aralia spinosa</i>		p				
Holly	<i>Ilex sp.</i>				l		
Honeysuckle, European fly	<i>Lonicera xylosteum</i>				l		p*
Honeysuckle, Japanese	<i>Lonicera japonica</i>					re*	
Honeysuckle, Maack's	<i>Lonicera maackii</i>					re*	
Honeysuckle, Morrow's	<i>Lonicera morrowii</i>					re*	
Jetbead	??				l		
Lilac	<i>Syringa sp.</i>				l		
Orange, mock	??				l		
Orange, osage	<i>Maclura pomifera</i>						p*
Poison ivy	<i>Rhus radicans</i>	s				r	p
Privet	<i>Ligustrum vulgare</i>				l	r*	p*
Raspberry, black	<i>Rubus occidentalis</i>					e	
Raspberry, purple flowering	<i>Rubus odoratus</i>	p	p				
Raspberry, red	<i>Rubus idaeus</i>					e*	
Rhododendron	<i>Rhododendron sp.</i>				l		
Rose, multiflora	<i>Rosa multiflora</i>					e*	p*
Serviceberry, downy	<i>Amelancier arborea</i>			p		r	p

Table G-2: Shrubs of the Doan Brook¹

Common Name	Scientific Name	Before 1790	1964	1966A	1981	1994	1997
Spicebush	<i>Benzoin aestivale</i>	ps				e	
Spirea	<i>Spirea sp.</i>				l		
Sumac	<i>Rhus, sp.</i>				l		
Sumac, smooth	<i>Rhus glabra</i>						p
Sumac, staghorn	<i>Rhus typhina</i>		p	p		e	
Taxus	<i>Taxus sp.</i>				l		
Viburnum, maple-leaved	<i>Viburnum acerifolium</i>	p	p	p	l	e	p
Wayfaring tree, European	<i>Viburnum lantana</i>						p*
Weigelia	??		p		l		
Witchhazel	<i>Hamamelis virginiana</i>	p				e	p
Withe-rod	<i>Viburnum cassinoides</i>					r	

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 1981: Behnke and Associates. 1981.
 1994: URS Consultants. March 16, 1994.
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Table G-3: Herbaceous Plants of the Doan Brook¹

Common Name	Scientific Name	Before1790	1966B	1979	1981	1994	1997
Anemone, rue	<i>Anemonella thalictroides</i>		p				
Arrowhead	<i>Alisma sp.</i>		s				
Aster	<i>Aster sp.</i>					re	p
Avens	<i>Geum canadense</i>					r	
Baneberry	<i>Actaea sp.</i>		p				
Bedstraw, rough	<i>Gallium asprellum</i>		p				
Beggar ticks	<i>Bidens frondosa</i>					r	
Bellwort, sessile-leaved	<i>Uvularia sessilifolia</i>		p				
Bindweed	<i>Polygonum sp.</i>		p				
Bloodroot	<i>Sanguinaria canadensis</i>		p	p			
Buckwheat, false	<i>Polygonum scandens</i>					e	
Bugle	<i>Ajuga reptans</i>						p*
Burdock	<i>Arctium minus</i>						p
Buttercup, early	<i>Ranunculus fascicularis</i>		p				
Buttercup, spotted	<i>Ranunculus sp.</i>		p				
Buttercup, swamp	<i>Ranunculus septentrionalis</i>		s				
Carrot, wild	<i>Daucus carota</i>					e*	
Cattail	<i>Typha sp.</i>		s	s			p
Cinquefoil, old field	<i>Potentilla simplex</i>		p				p
Clover, white	<i>Trifolium repens</i>						p*
Coltsfoot	<i>Tussilago farfara</i>		p*				
Columbine, European	<i>Aquilegia vulgaris</i>		p*				
Creepers, Virginia	<i>Parthenocissus quinquefolia</i>						p
Cress, purple	<i>Cardamine douglassii</i>		s				
Cress, spring	<i>Cardamine bulbosa</i>		p				
Cress, toothed rock	<i>Arabis lyrata?</i>		p				
Crowfoot, small flowered	<i>Ranunculus abortivus</i>		p				
Cuckoo flower	<i>Cardamine pratensis</i>		p				p
Daisy, white	??		p				
Dandelion	<i>Taraxacum officinale</i>					r*	p*
Daylily	<i>Hemerocallis fulva</i>						p*
Dock, curly	<i>Rumex crispus</i>					e*	p*
Dock, water	<i>Rumex obtusifolius</i>					e*	
Dock, whorled swamp	<i>Rumex verticillatus</i>					r	
Fairy bells	<i>Disporum lanuginosum</i>		p				
Fern, Christmas	<i>Polystichum acrostichoides</i>						p
Fern, sensitive	<i>Onoclea sensibilis</i>	s					p
Figwort, hare	<i>Scrophularia lanceolata</i>		p				
Figwort, Maryland	<i>Scrophularia marilandica</i>		p				
Fleabane, daisy	<i>Erigeron annuus</i>		p				
Garlic, wild	<i>Allium vineale</i>						p
Geranium, wild	<i>Geranium maculatum</i>		p	p			
Goldenrod, blue stem	<i>Solidago caesia</i>	pre				e	
Goldenrod, field	<i>Solidago canadensis</i>	pre				e	
Grape, summer	<i>Vitis aestivalis</i>	p					p
Grass, autumn bent	<i>Agrostis perennans</i>					e	
Grass, blue-eyed	<i>Sisyrinchium sp.</i>		p				
Grass, cord	<i>Spartina pectinata?</i>			s			
Grass, creeping bent	<i>Agrostis stolonifera</i>					e	
Grass, fowl manna	<i>Glyceria striata</i>					e	
Grass, Kentucky blue	<i>Poa pratensis</i>					e	

Table G-3: Herbaceous Plants of the Doan Brook¹

Common Name	Scientific Name	Before1790	1966B	1979	1981	1994	1997
Grass, orchard	<i>Dactylis glomerata</i>						p
Grass, sweet vernal	<i>Anthoxanthum odoratum</i>						p
Greenbriar, common	<i>Smilax rotundifolia</i>					e	
Groovebur	<i>Agrimonia sp.</i>						p
Hawkweed	<i>Hieracium pratense</i>					e*	
Hepatica	<i>Hepatica acutiloba</i>	p					
Honewort	<i>Cryptotaenia canadensis</i>		p				
Horsetail	<i>Equisetum arvense</i>						p
Iris, blue flag	<i>Iris sp.</i>		p				
Iris, yellow	<i>Iris psuedacorus</i>		p*				p*
Ivy, English	<i>Hedera helix</i>				l		p*
Jack-in-the-pulpit	<i>Arisaema sp.</i>	p	p				p
Jewelweed	<i>Impatiens sp.</i>	s		s		r	p
Jumpseed	<i>Polygonum virginianum</i>					re	
Knotweed, Japanese	<i>Polygonum cuspidatum</i>					e*	p*
Knotweed, Virginia	<i>Polygonum virginianum</i>						p
Lady's thumb	<i>Polygonum persicaria</i>					e*	
Leek, wild	<i>Allium tricoccum</i>		p				
Lily of the Valley	<i>Convallaria majalis</i>		p*				p*
Lily, spatterdock	<i>Nuphar variegatum</i>		s				
Lily, trout	<i>Erythronium americanum</i>	p	p	p			p
Lily, white trout	<i>Erythronium albidum</i>		p				p
Loosestrife, fringedleaf	<i>Lysimachia ciliata</i>			s			
Matrimony vine	??				l		
Mayapple	<i>Podophyllum peltatum</i>		p	p			p
Mertensia	<i>Mertensia sp.</i>		p				
Milfoil, European water	<i>Myriophyllum spicatum</i>						p
Moneywort	<i>Lysimachia nummularia</i>						p
Mustard, garlic	<i>Alliaria petiolata</i>		p*			re*	p*
Myrtle	<i>Vinca minor</i>				l		p
Nightshade, bittersweet (deadly)	<i>Solanum dulcamara</i>		p			r*	p*
Nightshade, enchanter's	<i>Circaea quadrisulcata</i>			s		r	
Nightshade, southern broad-leaved enchanter's	<i>Circaea lutetiana</i>						p
Pachysandra	??				l		
Phlox, wild blue	<i>Phlox divaricata</i>		p				
Plantain, common	<i>Plantago major</i>						p*
Pokeweed	<i>Phytolacca americana</i>					e	
Pondweed	<i>Potamogeton crispus</i>						p
Pussytoes	<i>Antennaria sp.</i>		p				
Richweed	<i>Collinsonia canadensis</i>					e	
Rocket, yellow	<i>Barbarea vulgaris</i>						p*
Rose, early wild	<i>Rosa sp.</i>		p				
Rue, early meadow	<i>Thalictrum dioicum</i>			p			
Rue, waxy meadow	<i>Thalictrum revolutum</i>		p				
Rush, spike	<i>Eleocharis sp.</i>						p
Rush, wood	<i>Luzula sp.</i>						p
Rye, river wild	<i>Elymus riparius</i>					r	
Sarsaparilla, wild	<i>Aralia nudicaulis</i>		p				
Sedge, wetlands	<i>Carex sp.</i>						p
Skunk cabbage	<i>Symplocarpus foetidus</i>		p				p
Smartweed, water	<i>Polygonum peritannorum</i>					r	
Smartweed, water	<i>Polygonum punctatum</i>					r	
Snakeroot, wild	<i>Eupatorium rugosum</i>					r	
Solomon's seal	<i>Polygonatum sp.</i>		p				p
Spring beauty	<i>Claytonia virginica</i>	p	p				

Table G-3: Herbaceous Plants of the Doan Brook¹

Common Name	Scientific Name	Before1790	1966B	1979	1981	1994	1997
Star of Bethlehem	<i>Ornithogalum umbellatum</i>		p*				
Stick tight	<i>Bidens cernua</i>					r	
Sweetflag	<i>Acorus calamus</i>						p
Toothwort, cut-leaved	<i>Dentaria laciniata</i>		p	p			
Toothwort, two-leaved	<i>Dentaria diphylla ?</i>		p				
Trillium, great white	<i>Trillium grandiflorum</i>	p	p				
Violet, blue	<i>Viola sp.</i>		p				
Violet, common blue	<i>Viola papilionacea</i>						p
Violet, Holland leaved	<i>Viola sp.</i>		p				
Violet, pale early	<i>Viola affinis</i>		p				
Violet, Selkirk's	<i>Viola selkirkii</i>		p				
Violet, yellow	<i>Viola rotundifolia?</i>		p				
Water-pepper, mild	<i>Polygonum hydropiperoides</i>					e	
Willow herb, hairy	<i>Epilobium hirsutum</i>			s			

¹ Not all surveys covered the entire watershed. This list should therefore be taken as a list of what was present at the time of the survey, not of what was absent.

Key to species locations:

p = Plateau

s = swampy areas on Plateau

e = Escarpment edge

r = stream ravines

l = Lake Plain

Capital letters indicate dominant species. * Indicates a non-native species (not all exotics are so marked).

Data Sources:

Before 1790: Williams, Arthur B. January 1949. Also from Arthur Williams 1950. Some input from naturalists at the Nature Center at Shaker Lakes.

1966B: List titled "Wild Flowers Found in the Shaker Heights District" made by Harold Wallins in about 1966.

1979: Institute for Environmental Education. 1979.

1981: Behnke and Associates. 1981.

1994: URS Consultants. March 16, 1994.

1997: Davey Resource Group. June 1997.

Table G-4: Fungi of the Shaker Lakes Area

Common Name	Scientific Name
Bird's nest fungi	<i>Crucibulum levis</i>
Boletus merulioides	<i>Boletus merulioides</i>
Boleus alboater	<i>Boletus alboater</i>
Chanterelle	<i>Craterellus cantharellus</i>
Clitopilus albogriseus	<i>Clitopilus albogriseus</i>
Dead Men's Fingers	<i>Xylaria polymorpha</i>
Emetic russula	<i>Russula emetica</i>
Fawn colored mushroom	<i>Pluteus cervinus</i>
Fly mushroom	<i>Amanita muscaria</i>
Haymaker's mushroom	<i>Panaeolus foenisecii</i>
Horse mushroom	<i>Agaricus arvensis</i>
Leccinum subglabripes	<i>Leccinum subglabripes</i>
Lepiota cristata	<i>Lepiota cristata</i>
Lepiota naucina	<i>Lepiota naucina</i>
Lycoperdon marginatum	<i>Lycoperdon marginatum</i>
Mary's Russula	<i>Russula Mariae</i>
Meadow mushroom	<i>Agaricus campestris</i>
Mica ink mushroom	<i>Coprinus micaceus</i>
Naucoria sp.	<i>Naucoria sp.</i>
Polyporus Berkelyii	<i>Polyperus Berkelyii</i>
Polystictus sp.	<i>Polystictus sp.</i>
Psilocybe foenceii	<i>Psilocybe foenceii</i>
Red and yellow pore mushroom	<i>Boletus bicolor</i>
Sheathed mushroom	<i>Amanitopsis vaginata</i>
Skunk fungus	<i>Russula foetens</i>
Slippery jack	<i>Suillus luteus</i>
Turquoise mushroom	<i>Russula virescens</i>
Winter mushroom	<i>Flammulina collybia velutipes</i>

Data are from Cibula, William. Undated (ca. 1965?). *A Partial Survey of the Higher Fungi Found in the Shaker Lakes Area* .

Table G-5: Birds of the Doan Brook

Common Name	Scientific Name	Shaker Lakes Area				Site 14
		1966	1973-79	1979 BBC	1997-99	1980-2000
Loon, common	<i>Gavia immer</i>	x			u	x
Grebe, horned	<i>Podiceps auritus</i>	x	x			x
Grebe, eared	<i>Podiceps nigricollis</i>					x
Grebe, pied-billed	<i>Podilymbus podiceps</i>	x	c		c	x
Grebe, red-necked	<i>Podiceps grisegena</i>					x
Pelican, American white	<i>Pelecanus erythrorhynchos</i>				r	x
Cormorant, double-crested	<i>Phalacrocorax auritus</i>				u	x
Bittern, least	<i>Ixobrychus exilis</i>		r			x
Bittern, American	<i>Botaurus lentiginosus</i>		r		r	x
Heron, black-crowned night	<i>Nycticorax nycticorax</i>	x	x	x	m	x
Heron, yellow-crowned night	<i>Nyctanassa violacea</i>		r			
Heron, green	<i>Butorides virescens</i>	x	c	b	b	x
Heron, tricolored	<i>Egretta tricolor</i>					x
Heron, little blue	<i>Egretta caerulea</i>	x				x
Egret, cattle	<i>Bubulcus ibis</i>					x
Egret, snowy	<i>Egretta thula</i>					x
Egret, great	<i>Ardea alba</i>	x	r		u	x
Heron, great blue	<i>Ardea herodias</i>	x	c		c	x
Swan, tundra	<i>Cygnus columbianus</i>		x			x
Swan, mute	<i>Cygnus olor</i>					x
Goose, snow	<i>Chen caerulescens</i>		r			x
Goose, Canada	<i>Branta canadensis</i>	x	c	x	b	x
Brant	<i>Branta bernicla</i>					x
Duck, wood	<i>Aix sponsa</i>	x	c	n	b	x
Mallard	<i>Anas platyrhynchos</i>	x	c	n	b	x
Duck, American black	<i>Anas rubripes</i>	x	c		u	x
Gadwall	<i>Anas strepera</i>		x		m	x
Teal, green-winged	<i>Anas crecca</i>		x		m	x
Wigeon, American	<i>Anas americana</i>	x	c		m	x
Wigeon, Eurasian	<i>Anas penelope</i>	x	r			x
Pintail, northern	<i>Anas acuta</i>	x	r			x
Shoveler, northern	<i>Anas clypeata</i>	x	x		m	x
Teal, blue-winged	<i>Anas discors</i>	x	c		m	x
Canvasback	<i>Aythya valisineria</i>		x			x
Redhead	<i>Aythya americana</i>		x		r	x
Duck, ring-necked	<i>Aythya collaris</i>	x	x		m	x
Scaup, greater	<i>Aythya marila</i>		c		m	x
Scaup, lesser	<i>Aythya affinis</i>	x	c			x
Scoter, black	<i>Melanitta nigra</i>					x
Scoter, white-winged	<i>Melanitta fusca</i>					x
Scoter, surf	<i>Melanitta perspicillata</i>					x

Table G-5: Birds of the Doan Brook

Common Name	Scientific Name	Shaker Lakes Area				Site 14
		1966	1973-79	1979 BBC	1997-99	1980-2000
Duck, harlequin	<i>Histrionicus histrionicus</i>					x
Long-tailed duck	<i>Clangula hyemalis</i>		r			x
Goldeneye, common	<i>Bucephala clangula</i>	x	c		u	x
Bufflehead	<i>Bucephala albeola</i>	x	x	m	m	x
Merganser, common	<i>Mergus merganser</i>	x	x		r	x
Merganser, red-breasted	<i>Mergus serrator</i>	x	c		m	x
Merganser, hooded	<i>Lophodytes cucullatus</i>	x	r		m	x
Duck, ruddy	<i>Oxyura jamaicensis</i>	x	x		m	x
Vulture, turkey	<i>Cathartes aura</i>		x		u	x
Osprey	<i>Pandion haliaetus</i>	x	r		u	x
Harrier, northern	<i>Circus cyaneus</i>		x			x
Eagle, bald	<i>Haliaeetus leucocephalus</i>				r	x
Hawk, sharp shinned	<i>Accipiter striatus</i>		r		u	x
Hawk, cooper's	<i>Accipiter cooperii</i>	x	x		u	x
Goshawk, northern	<i>Accipiter gentilis</i>		r			x
Hawk, broad-winged	<i>Buteo platypterus</i>	x	x			x
Hawk, red shouldered	<i>Buteo lineatus</i>		x		r	x
Hawk, red-tailed	<i>Buteo jamaicensis</i>	x	c		b	x
Hawk, rough legged	<i>Buteo lagopus</i>		r			x
Kestrel, American	<i>Falco sparverius</i>	x	c			x
Merlin	<i>Falco columbarius</i>		r		r	x
Falcon, peregrine	<i>Falco peregrinus</i>					x
Pheasant, ring-necked	<i>Phasianus colchicus</i>		r			x
Turkey, wild	<i>Malleagris gallopavo</i>				r	
Rail, king	<i>Rallus elegans</i>					x
Rail, Virginia	<i>Rallus limicola</i>		r			x
Rail, yellow	<i>Coturnicops noveboracensis</i>					x
Rail, sora	<i>Porzana carolina</i>	x	r		u	x
Moorhen, common	<i>Gallinula chloropus</i>					x
Coot, American	<i>Fulica americana</i>	x	x		m	x
Crane, sandhill	<i>Grus canadensis</i>					x
Plover, black-bellied	<i>Pluvialis squatarola</i>					x
Plover, American golden-	<i>Pluvialis dominica</i>					x
Plover, piping	<i>Charadrius melodus</i>					x
Plover, semipalmated	<i>Charadrius semipalmatus</i>					x
Killdeer	<i>Charadrius vociferus</i>	x	c	b	b	x
Avocet, American	<i>Recurvirostra americana</i>					x
Willet	<i>Catoptrophorus semipalmatus</i>					x
Yellowlegs, greater	<i>Tringa melanoleuca</i>	x	x		m	x
Yellowlegs, lesser	<i>Tringa flavipes</i>	x	x		m	x
Sandpiper, solitary	<i>Tringa solitaria</i>	x	x		c	x

Table G-5: Birds of the Doan Brook

Common Name	Scientific Name	Shaker Lakes Area				Site 14
		1966	1973-79	1979 BBC	1997-99	1980-2000
Sandpiper, spotted	<i>Actitis macularia</i>	x	c	b	c	x
Whimbrel	<i>Numenius phaeopus</i>					x
Godwit, marbled	<i>Limosa fedoa</i>					x
Godwit, hudsonian	<i>Limosa haemastica</i>					x
Turnstone, ruddy	<i>Arenaria interpres</i>					x
Sandpiper, purple	<i>Calidris maritima</i>					x
Knot, red	<i>Calidris canutus</i>					x
Sanderling	<i>Calidris alba</i>					x
Dunlin	<i>Calidris alpina</i>					x
Sandpiper, curlew	<i>Calidris ferruginea</i>					x
Sandpiper, semipalmated	<i>Calidris pusilla</i>					x
Sandpiper, western	<i>Calidris mauri</i>					x
Sandpiper, least	<i>Calidris minutilla</i>		x		r	x
Sandpiper, white-rumped	<i>Calidris fuscicollis</i>					x
Sandpiper, Baird's	<i>Calidris bairdii</i>					x
Sandpiper, pectoral	<i>Calidris malanotos</i>		x			x
Sandpiper, sharp-tailed	<i>Calidris acuminata</i>					x
Sandpiper, upland	<i>Bartramia longicauda</i>					x
Sandpiper, buff-breasted	<i>Tryngites subruficollis</i>					x
Ruff	<i>Philomachus pugnax</i>					x
Dowitcher, short-billed	<i>Limnodromus griseus</i>					x
Dowitcher, long-billed	<i>Limnodromus scolopaceus</i>					x
Sandpiper, stilt	<i>Calidris himantopus</i>					x
Snipe, common	<i>Gallinago galinago</i>		x		u	x
Woodcock, American	<i>Scolopax minor</i>	x	x		u	x
Phalarope, Wilson's	<i>Phalaropus tricolor</i>		r			x
Phalarope, red-necked	<i>Phalaropus lobatus</i>					x
Phalarope, red	<i>Phalaropus fulicaria</i>					x
Jaeger, pomarine	<i>Stercorarius pomarinus</i>					x
Jaeger, parasitic	<i>Stercorarius parasiticus</i>					x
Gull, Franklin's	<i>Larus pipixcan</i>					x
Gull, laughing	<i>Larus atricilla</i>					x
Gull, Bonaparte's	<i>Larus philadelphia</i>		x			x
Gull, black-headed	<i>Larus ridibundus</i>					x
Gull, little	<i>Larus minutus</i>					x
Gull, ring-billed	<i>Larus delawarensis</i>	x	c		c	x
Gull, California	<i>Larus californicus</i>					x
Gull, herring	<i>Larus argentatus</i>	x	c	x	c	x
Gull, glaucous	<i>Larus hyperboreus</i>					x
Gull, Iceland	<i>Larus glaucoides</i>					x
Gull, Thayer's	<i>Larus thayeri</i>					x

Table G-5: Birds of the Doan Brook

Common Name	Scientific Name	Shaker Lakes Area				Site 14
		1966	1973-79	1979 BBC	1997-99	1980-2000
Gull, lesser black-backed	<i>Larus fuscus</i>					x
Gull, great black-backed	<i>Larus marinus</i>					x
Kittiwake, black-legged	<i>Rissa tridactyla</i>					x
Tern, Caspian	<i>Sterna caspia</i>		r		u	x
Tern, Forster's	<i>Sterna forsteri</i>					x
Tern, common	<i>Sterna hirundo</i>		r			x
Tern, least	<i>Sterna antillarum</i>					x
Tern, black	<i>Chlidonias niger</i>	x	r			x
Guillemot, black	<i>Cepphus grylle</i>					x
Dove, rock	<i>Columba livia</i>	x	c	n	c	x
Dove, mourning	<i>Zenaida macroura</i>	x	c	n	c	x
Cuckoo, yellow-billed	<i>Coccyzus americanus</i>	x	x	b?	u	x
Cuckoo, black-billed	<i>Coccyzus erythrophthalmus</i>		x	m?		x
Owl, barn	<i>Tyto alba</i>					x
Owl, short eared	<i>Asio flammeus</i>		x			x
Owl, great horned	<i>Bubo virginianus</i>		x			x
Owl, barred	<i>Strix varia</i>	x	r			
Owl, snowy	<i>Nyctea scandiaca</i>		r			x
Owl, eastern screech	<i>Otus asio</i>		x			
Owl, northern saw-whet	<i>Aegolius acadicus</i>					x
Nighthawk, common	<i>Chordeiles minor</i>	x	c	x	c	x
Whip-poor-will	<i>Caprimulgus vociferus</i>		x			
Swift, chimney	<i>Chaetura pelagica</i>	x	c	x	c	x
Hummingbird, ruby throated	<i>Archilochus colubris</i>	x	x	b	c	x
Kingfisher, belted	<i>Megaceryle alcyon</i>	x	c	x	b	x
Woodpecker, red-headed	<i>Melanerpes erythrocephalus</i>	x	c	n	u	x
Woodpecker, red-bellied	<i>Melanerpes carolinus</i>		x		b	x
Flicker, northern	<i>Colaptes auratus</i>	x	c	n	b	x
Sapsucker, yellow-bellied	<i>Sphyrapicus varius</i>	x	x	m	m	x
Woodpecker, downy	<i>Picoides pubescens</i>	x	c	n	b	x
Woodpecker, hairy	<i>Picoides villosus</i>	x	c	b	b	x
Flycatcher, olive-sided	<i>Contopus borealis</i>		r		u	
Peewee, eastern wood	<i>Contopus virens</i>	x	x	b	b	x
Flycatcher, acadian	<i>Empidonax virens</i>		x			x
Flycatcher, yellow bellied	<i>Empidonax flaviventris</i>		x			
Flycatcher, alder	<i>Empidonax alnorum</i>	x				x
Flycatcher, willow	<i>Empidonax traillii</i>		x			x
Flycatcher, least	<i>Empidonax minimus</i>	x	x		u	x
Phoebe, eastern	<i>Sayornis phoebe</i>	x	c	b	b	x
Flycatcher, great crested	<i>Myiarchus crinitus</i>	x	c	b	b	x
Kingbird, eastern	<i>Tyrannus tyrannus</i>	x	x		u	x

Table G-5: Birds of the Doan Brook

Common Name	Scientific Name	Shaker Lakes Area				Site 14
		1966	1973-79	1979 BBC	1997-99	1980-2000
Shrike, loggerhead	<i>Lanius ludovicianus</i>		r			x
Shrike, northern	<i>Lanius excubitor</i>	x	r			x
Vireo, white-eyed	<i>Vireo griseus</i>	x	r			x
Vireo, yellow-throated	<i>Vireo flavifrons</i>	x	x		u	
Vireo, blue-headed	<i>Vireo solitarius</i>	x	x		m	x
Vireo, red-eyed	<i>Vireo olivaceus</i>	x	c	n	b	x
Vireo, Philadelphia	<i>Vireo philadelphicus</i>	x	x		m	x
Vireo, warbling	<i>Vireo gilvus</i>	x	x		m	x
Jay, blue	<i>Cyanocitta cristata</i>	x	c	n	b	x
Crow, American	<i>Corvus brachyrhynchos</i>	x		b	b	x
Lark, horned	<i>Eremophila alpestris</i>		r			x
Swallow, tree	<i>Tachycineta bicolor</i>	x	c		x	x
Martin, purple	<i>Progne subis</i>	x	x	x	x	x
Swallow, bank	<i>Riparia riparia</i>	x	x	x	x	x
Swallow, cliff	<i>Petrochelidon pyrrhonota</i>		r		x	x
Swallow, northern rough-winged	<i>Stelgidopteryx serripennis</i>	x	c	x	b	x
Swallow, barn	<i>Hirundo rustica</i>	x	c		m	x
Titmouse, tufted	<i>Parus bicolor</i>	x	c	b	b	x
Chickadee, black-capped	<i>Parus atricapillus</i>	x	c	n	b	x
Creeper, brown	<i>Certhia americana</i>	x	x		c	x
Nuthatch, white-breasted	<i>Sitta carolinensis</i>	x	c	b	b	x
Nuthatch, red-breasted	<i>Sitta canadensis</i>	x	x	n	u	x
Wren, house	<i>Troglodytes aedon</i>	x	c	b	b	x
Wren, winter	<i>Troglodytes troglodytes</i>	x	x		u	x
Wren, Carolina	<i>Thryothorus ludovicianus</i>	x	x		b	x
Wren, marsh	<i>Cistothorus palustris</i>		r		r	x
Wren, sedge	<i>Cistothorus platensis</i>		r			x
Kinglet, golden-crowned	<i>Regulus satrapa</i>	x	x		m	x
Kinglet, ruby-crowned	<i>Regulus calendula</i>	x	r		m	x
Gnatcatcher, blue-gray	<i>Poliophtila caerulea</i>	x	x	b	m	x
Bluebird, eastern	<i>Sialia sialis</i>		r			
Thrush, wood	<i>Hylocichia mustelina</i>	x	c	n	m	x
Veery	<i>Catharus fuscescens</i>	x	x		m	x
Thrush, gray-cheeked	<i>Catharus minimus</i>	x	x		u	x
Thrush, Swainson's	<i>Catharus ustulatus</i>	x	x	m	m	x
Thrush, hermit	<i>Catharus guttatus</i>	x	x		m	x
Robin, American	<i>Turdus migratorius</i>	x	c	n	b	x
Catbird, gray	<i>Dumetella carolinensis</i>	x	c	n	b	x
Mockingbird, northern	<i>Mimus polyglottus</i>		r			x
Thrasher, brown	<i>Toxostoma rufum</i>	x	c	b	m	x
Starling, European	<i>Sturnus vulgaris</i>	x	c	n	b	x

Table G-5: Birds of the Doan Brook

Common Name	Scientific Name	Shaker Lakes Area				Site 14
		1966	1973-79	1979 BBC	1997-99	1980-2000
Pipit, American	<i>Anthus rubescens</i>					x
Pipit, Sprague's	<i>Anthus spragueii</i>					x
Waxwing, cedar	<i>Bombycilla cedrorum</i>	x	c	b	c	x
Warbler, prothonotary	<i>Protonotaria citrea</i>	x	x		u	
Warbler, blue-winged	<i>Vermivora pinus</i>	x	c		m	
Warbler, golden-winged	<i>Vermivora chrysoptera</i>	x	x		m	
Warbler, Tennessee	<i>Vermivora peregrina</i>	x	c		m	x
Warbler, orange-crowned	<i>Vermivora celata</i>	x	x		m	x
Warbler, Nashville	<i>Vermivora ruficapilla</i>	x	c		m	x
Parula, northern	<i>Parula americana</i>	x	x		m	x
Warbler, chestnut-sided	<i>Dendroica pensylvanica</i>	x	x		m	x
Warbler, Cape May	<i>Dendroica tigrina</i>	x	c		m	x
Warbler, magnolia	<i>Dendroica magnolia</i>	x	c		m	x
Warbler, yellow-rumped	<i>Dendroica coronata</i>	x	c	m	m	x
Warbler, black and white	<i>Mniotilta varia</i>	x	c	m	m	x
Warbler, black-throated blue	<i>Dendroica caerulescens</i>	x	x		m	x
Warbler, cerulean	<i>Dendroica cerulea</i>	x	x		m	
Warbler, blackburnian	<i>Dendroica fusca</i>	x	x		m	x
Warbler, black-throated green	<i>Dendroica virens</i>	x	c	m	m	x
Warbler, yellow-throated	<i>Dendroica dominica</i>	x	r		r	
Warbler, prairie	<i>Dendroica discolor</i>	x	r		u	
Warbler, bay-breasted	<i>Dendroica castanea</i>	x	c		m	x
Warbler, blackpoll	<i>Dendroica striata</i>	x	x		m	x
Warbler, pine	<i>Dendroica pinus</i>	x	r		u	x
Warbler, palm	<i>Dendroica palmarum</i>	x	c		m	x
Warbler, yellow	<i>Dendroica petechia</i>	x	c	b?	m	x
Warbler, mourning	<i>Oporornis philadelphia</i>	x	x		r	x
Warbler, Connecticut	<i>Oporornis agilis</i>	x	r			x
Warbler, Kentucky	<i>Oporornis formosus</i>	x	r			
Warbler, Canada	<i>Wilsonia canadensis</i>	x	c		m	x
Warbler, Wilson's	<i>Wilsonia pusilla</i>	x	c		m	x
Warbler, hooded	<i>Wilsonia citrina</i>	x	x		m	
Warbler, worm-eating	<i>Helmitheros vermivorus</i>	x	r			
Ovenbird	<i>Seiurus aurocapillus</i>	x	c		m	x
Waterthrush, Louisiana	<i>Seiurus motocilla</i>	x	x		m	
Waterthrush, northern	<i>Seiurus noveboracensis</i>	x	x		m	x
Yellowthroat, common	<i>Geothlypis trichas</i>	x	x	b?	m	x
Chat, yellow-breasted	<i>Icteria virens</i>	x				x
Redstart, American	<i>Setophaga ruticilla</i>	x	c	b?	m	x
Tanager, summer	<i>Piranga rubra</i>		r?		r	x
Tanager, scarlet	<i>Piranga olivacea</i>	x	c	b?	m	x

Table G-5: Birds of the Doan Brook

Common Name	Scientific Name	Shaker Lakes Area				Site 14
		1966	1973-79	1979 BBC	1997-99	1980-2000
Towhee, eastern	<i>Pipilo erythrophthalmus</i>	x	c		m	x
Sparrow, American tree	<i>Spizella arborea</i>	x	c		m	x
Sparrow, field	<i>Spizella pusilla</i>	x	c		m	x
Sparrow, chipping	<i>Spizella passerina</i>	x	c	b	m	x
Sparrow, clay colored	<i>Spizella pallida</i>		r			x
Sparrow, grasshopper	<i>Ammodramus savannarum</i>					x
Sparrow, Henslow's	<i>Ammodramus henslowii</i>		x			x
Sparrow, Le Conte's	<i>Ammodramus leconteii</i>					x
Sparrow, Nelson's sharp-tailed	<i>Ammodramus nelsoni</i>					x
Sparrow, fox	<i>Passerella iliaca</i>	x	x		u	x
Sparrow, Savannah	<i>Passerculus sandwichensis</i>	x	x			x
Sparrow, Lincoln's	<i>Melospiza lincolni</i>		x		m	x
Sparrow, song	<i>Melospiza melodia</i>	x	c	b	m	x
Sparrow, vesper	<i>Pooeceter gramineus</i>	x	x			x
Sparrow, swamp	<i>Melospiza georgiana</i>		x		u	x
Sparrow, white-throated	<i>Zonotrichia albicollis</i>	x	c		m	x
Sparrow, white-crowned	<i>Zonotrichia leucophrys</i>	x	x		m	x
Junco, dark-eyed	<i>Junco hyemalis</i>	x	c		m	x
Longspur, Smith's	<i>Calcarius pictus</i>					x
Longspur, Lapland	<i>Calcarius lapponicus</i>					x
Bunting, snow	<i>Plectrophenax nivalis</i>		x			x
Grosbeak, rose-breasted	<i>Pheucticus ludovicianus</i>	x	c		m	x
Cardinal, northern	<i>Cardinalis cardinalis</i>	x	c	n	b	x
Dickcissel	<i>Spiza americana</i>					x
Bunting, indigo	<i>Passerina cyanea</i>	x	c		u	x
Bobolink	<i>Dolichonyx oryzivorus</i>					x
Meadowlark, eastern	<i>Sturnella magna</i>	x	x			x
Blackbird, yellow-headed	<i>Xanthocephalus xanthocephalus</i>				r	x
Blackbird, red-winged	<i>Agelaius phoeniceus</i>	x	c	n	b	x
Grackle, common	<i>Quiscalus quiscula</i>	x	c	n	b	x
Blackbird, rusty	<i>Euphagus carolinus</i>	x	x			
Cowbird, brown-headed	<i>Moluthrus ater</i>	x	c	b	b	x
Oriole, orchard	<i>Icterus spurius</i>		r		r	x
Oriole, Baltimore	<i>Icterus galbula</i>	x	c	b	m	x
Finch, purple	<i>Carpodacus purpureus</i>	x	r		u	
Finch, house	<i>Carpodacus mexicanus</i>		r	b	b	x
Crossbill, red	<i>Loxia curvirostra</i>	x	r			x
Crossbill, white-winged	<i>Loxia leucoptera</i>	x	r?			
Siskin, pine	<i>Carduelis pinus</i>	x	x			x
Goldfinch, American	<i>Carduelis tristis</i>	x	c	b	b	x
Redpoll, common	<i>Carduelis flammea</i>	x	x		u	x

Table G-5: Birds of the Doan Brook

Common Name	Scientific Name	Shaker Lakes Area				Site 14
		1966	1973-79	1979 BBC	1997-99	1980-2000
Grosbeak, evening	<i>Coccothraustes versperinus</i>	x	r			
Sparrow, house	<i>Passer domesticus</i>	x	c	n	b	x
Bishop, Orange	<i>Euplectes franciscanus</i>					exotic
Waxbill, black-rumped	<i>Estrilda troglodytes</i>					exotic

x = species is present c = species is a common resident m = species is a regular migrant
 u = species is unusual r = species is rare b = species is breeding in the area
 n = there is direct evidence of species nesting in the area (1979 BBC only)
 exotic = a non-native bird that is assumed to be an escaped cage bird

Different surveyors used different notations and criteria in their surveys, so that a species labeled present in the 1966 survey or the Site 14 survey may be indicated as common, unusual, or rare in another survey, etc.
 Site 14 refers to the Corps of Engineers Site 14 Diked Disposal Area on Lake Erie at the mouth of Doan Brook.

Data Sources: Shaker Lakes 1966: List compiled by Perry Peskin 1966.
 Shaker Lakes 1973-79 and 1979 BBC: Institute for Environmental Education 1979.
 Shaker Lakes 1997-99: Compiled from the records of Laura Gooch and Leo Deininger.
 Site 14 1980-2000: Sean T. Zadar.

Table G-6: Mammals Along the Doan Brook

Common Name	Scientific Name	1979	1994
Opossum	<i>Didelphis virginiana</i>	u	p
Shrew, short-tailed	<i>Blarina brevicauda</i>	x	p
Raccoon	<i>Procyon lotor</i>	c	p
Skunk	<i>Mephitis mephitis</i>	u	p
Woodchuck	<i>Marmota monax</i>	x	p
Chipmunk, eastern	<i>Tamias striatus</i>	c	p
Squirrel, fox	<i>Sciurus niger</i>	c	p
Squirrel, flying	<i>Glaucomys volans</i>	r	
Mouse, white-footed	<i>Peromyscus leucopus</i>	c	p
Vole, meadow	<i>Microtus pennsylvanicus</i>	u	
Muskrat	<i>Ondatra zibethica</i>	c	
Rat, Norway	<i>Rattus norvegicus</i>	u	
Mouse, house	<i>Mus musculus</i>	u	
Rabbit, eastern cottontail	<i>Sylvilagus floridans</i>	c	p
Mole, common	<i>Scalopus aquaticus</i>	p	
Mole, hairy-tailed	<i>Parascalops breweri</i>	l	
Mole, star-nosed	<i>Condylura cristata</i>	p	
Shrew, masked	<i>Sorex cinereus</i>	p	
Bat, big brown	<i>Eptesicus fuscus</i>	x	
Bat, little brown	<i>Myotis lucifugus</i>	x	
Bat, red	<i>Lasiurus borealis</i>	x	
Weasel, New York	<i>Mustela frenata novaboracensis</i>	p	
Fox, red	<i>Vulpes fulva</i>	p	
Squirrel, red	<i>Tamiasciurus hudsonicus</i>	p	
Squirrel, gray	<i>Sciurus carolinensis</i>		p
Mouse, deer	<i>Peromyscus maniculatus bairdii</i>	p	p
Mouse, meadow jumping	<i>Zapus hudsonius</i>	p	
Deer, white-tailed	<i>Dama virginiana</i>	x	p

x = present u = uncommon r = rare p = possible (not observed)
 l = likely (not observed)

Data Sources: 1979: Institute for Environmental Education. 1979.
 1994: URS Consultants. 1994.

Table G-7: Reptiles and Amphibians of the Doan Brook

Type	Common Name	Scientific Name	1968	1979
Frogs and Toads				
	American toad	<i>Bufo americanus</i>		small numbers
	Bullfrog	<i>Rana catesbeiana</i>		release; reproduction doubtful
	Green frog	<i>Rana clamitans</i>	present	release; reproduction doubtful
	Leopard frog	<i>Rana pipiens</i>	1 present	possible
	Spring peeper ¹	<i>Hyla crucifer</i>		
Salamanders				
	Dusky salamander	<i>Desmognathus fuscus</i>	present	absent - should be present
	Red-backed salamander	<i>Plethodon cinereus</i>	present	rare
	Slimy salamander	<i>Plethodon glutinosus</i>	present	
	Spotted newt	<i>Diemictylus viridescens</i>	released	absent - should be present
	Two-lined salamander	<i>Eurycea bislineata</i>		rare
Snakes				
	Black rat snake	<i>Elaphe obsoleta</i>		release
	Brown or Dekay snake	<i>Storeria dekayi</i>		probably present in small numbers
	Common water snake	<i>Natrix sipedon</i>		absent - should be present
	Eastern garter snake	<i>Thamnophis sirtalis</i>		probably present in small numbers
	Milk snake	<i>Lampropeltis doliaata</i>	present	
	Red-bellied snake	?	present	
Turtles				
	Blanding's turtle	<i>Emydoidea blandingi</i>	present	present
	Box turtle	<i>Terrapene carolina</i>	present	release
	Map turtle	<i>Graptemys geographica</i>		probable
	Midland painted turtle	<i>Chrysemys picta marginata</i>	present	present
	Red-eared turtle	<i>Pseudemys scripta elegans</i>		release
	Snapping turtle	<i>Chelydra serpentina</i>	present	present
	Spotted turtle	<i>Clemmys guttata</i>		release
	Stinkpot	<i>Sternotherus odoratus</i>		present
	Wood turtle	<i>Clemmys insculpata</i>		release

¹ Reported "present or expected" by URS 1994.

Table G-8: Fish in the Doan Brook

Common Name	Scientific Name	1979	1994
Common carp	<i>Cyprinus carpio</i>		b
Shiner	<i>Notropis sp.</i>		b
Green sunfish	<i>Lepomis cyanellus</i>	uplh	
Fathead minnow	<i>Pimephales promelas</i>	uplh	
Goldfish	<i>Carassius auratus</i>	uplh	

Fish Location Key:

u = brook u/s from Lower Shaker Lake p = lily pond l = Lower Shaker Lake h = Horseshoe Lake
 m = Marshall Lake g = Green Lake b = brook d/s from Lower Shaker Lake

Data Sources for Tables G-7 and G-8:

1968: Wolfe, Ronald. 1968.
 1979: The Institute for Environmental Education. 1979.
 1994: URS Consultants. 1994.

Table G-9: Fish Expected in the Doan Brook

Common Name	Scientific Name	1979	1994
Mudminnow, central	<i>Umbra limi</i>	p	
Pickereel, redbfin	<i>Esox americanus vermicularis</i>	lp	
Sucker, hog	<i>Hypentilium nigricans</i>	b	
Sucker, white	<i>Catostomus c. commersoni</i>	bl	b
Sucker, spotted	<i>Minytrema melanops</i>	l	
Carp, common	<i>Cyprinus carpio</i>	lp	b
Goldfish	<i>Carassius auratus</i>	blp	b
Shiner, golden	<i>Notemigonus crysoleueas</i>	blp	b
Dace, blacknose	<i>Rhinichthys atratulus</i>	b	
Dace, redbelly	<i>Phoxinus erythrogaster</i>	b	
Dace, redbelly	<i>Clinostomus elongatus</i>		
Chub, creek	<i>Semotilus atromaculatus</i>	b	
Shiner, central striped	<i>Notropis chrysocephalus</i>	b	b
Shiner, emerald	<i>Notropis atherinoides</i>		b
Shiner, spotfin	<i>Notropis cornutus</i>	bl	b
Shiner, spottail	<i>Notropis hudsonius</i>		b
Minnnow, silverjaw	<i>Ericymba buccata</i>	b	
Minnnow, fathead	<i>Pimephales p. promelas</i>	blp	
Minnnow, bluntnose	<i>Pimephales notatus</i>	bl	b
Minnnow, stoneroller	<i>Campostoma anomalum</i>	b	
Catfish, channel	<i>Ictalurus punctatus</i>	l	
Bullhead, black	<i>Ictalurus melos</i>	blp	b
Bullhead, brown	<i>Ictalurus nebulosus</i>	lp	
Bullhead, yellow	<i>Ictalurus natalis</i>		b
Silverside, brook	<i>Labidesthes sicculus</i>	bl	
Crappie, white	<i>Pomoxis annularis</i>	l	
Bass, largemouth black	<i>Micropterus s. salmoides</i>	blp	
Sunfish, green	<i>Lepomis cyanellus</i>	blp	
Sunfish, bluegill	<i>Lepomis m. macrochirus</i>	blp	
Sunfish, pumpkinseed	<i>Lepomis gibbosus</i>	blp	b
Sunfish, warmouth	<i>Lepomis gulosus</i>	lp	
Darter, Johnny	<i>Etheostoma n. nigrum</i>	b	
Darter, rainbow	<i>Etheostoma caeruleum</i>	b	
Darter, faintail	<i>Etheostoma f. flabellare</i>	b	
Stickleback, brook	<i>Cualea inconstanus</i>	p	

Fish Location Key:

u = brook u/s from Lower Shaker Lake
h = Horseshoe Lake
b = brook d/s from Lower Shaker Lake

p = lily pond
m = Marshall Lake

l = Lower Shaker Lake
g = Green Lake

Data Sources:

1979: The Institute for Environmental Education. 1979.
1994: URS Consultants. 1994.

Table G-10: Macroinvertebrates in the Shaker Lakes

Common Name	Scientific Name	1973	1974	1979	1998
	<i>Corethrella</i>	I			
	<i>Einfeldia</i>	I			
Aquatic Worms	<i>Oligochaeta</i>	I			hl
	Lumbricidae		I		
	<i>Lumbriculus sp.</i>		hl		
	<i>Lumbriculus inconstans</i>			hl	
	<i>Aulodrilus piqueti</i>	I			
	<i>Aulodrilus pluriseta</i>	I			
	<i>Branchiura sp.</i>		I		
	<i>Branchiura sowerbyi</i>	I		I	
	<i>Orphodinaiis serpentina</i>	I			
	<i>Nais sp.</i>	I			
	Tubificidae		I		
	<i>Tubifex sp.</i>		I		
	<i>Tubifex tubifex</i>	I		hl	
	<i>Enchytraeus sp.</i>		I	I	
	<i>Dero sp.</i>	I			
	<i>Limnodrilus sp.</i>		hl	hl	
	<i>Limnodrilus hoffmeisteri</i>	I			
	<i>Limnodrilus cervix</i>	I			
	<i>Limnodrilus spirallis</i>	I			
	<i>Limnodrilus maumeensis</i>	I			
	<i>Peloscoclex sp.</i>		I	I	
	<i>Aleosoma sp.</i>			h	
Bivalves	<i>Spaerium sp.</i>		I		
Dragonflies	<i>Ishnura sp.</i>		I	hl	
	<i>Dibullula sp.</i>			hl	
	<i>Gomphus sp.</i>			I	
Flatworms	<i>Dugesia sp.</i>		I		
Flies	Ceratopogonidae				h
	<i>Pentaneura sp.</i>		hl	hl	
	<i>Chironomus sp.</i>	I	hl	hl	hl
	<i>Harnischia</i>	I			
	<i>Chironomus chironomus</i>			hl	
	<i>Cryptochironomus</i>	I			
	<i>Glyptotendipes lobiferus</i>	I			
	<i>Polypedilum sp.</i>		I	I	
	<i>Cricotopus sp.</i>	I	h		

Table G-10: Macroinvertebrates in the Shaker Lakes

Common Name	Scientific Name	1973	1974	1979	1998
	<i>Orthocladius sp.</i>		l		
	<i>Simulium sp.</i>		l		
Leeches	<i>Erpobdella sp.</i>		l		
	<i>Erpobdella punctata</i>			hl	
	<i>Helobdella stagnalis</i>			hl	
	<i>Dina sp.</i>	?	l	l	
	<i>Placobdella sp.</i>		h		
Moss Animals	<i>Plumatella sp.</i>			h	
Nematodes	<i>Nematoda</i>	l			
Snails	<i>Gastropoda</i>				h
	<i>Physa sp.</i>		hl	hl	
	<i>Lymaea sp.</i>			hl	
	<i>Viviparus sp.</i>		hl	hl	
	<i>Viviparus georgianus</i>	l			
	<i>Gyraulus sp.</i>		l		
Sponges	<i>Hydra</i>	l			
Watermite	<i>Hydracarina</i>		l		
Location Key:	l = Lower Shaker Lake h = Horseshoe Lake				
Data Sources:	1973: Bill, Steven. 1973. 1974: Water Quality Program: Cleveland Department of Public Utilities. 1976. 1979: Institute for Environmental Education. 1979. 1998: Montgomery Watson. October 1999.				

Table G-11: Macroinvertebrates in the Doan Brook

Common Name	Scientific Name	1974	1987	1989	1990	1998
Aquatic Worms	<i>Oligochaeta</i>		nc		nc	launecs
	<i>Lumbricidae</i>	n				
	<i>Haplotaxis sp.</i>	n				
	<i>Naidium sp.</i>	n				
	<i>Tubificidae</i>		l			
Bivalves	<i>Anadonta grandis</i>					uc
	<i>Fusconaia flava</i>					c
Caddisflies	<i>Cheumatopsyche sp.</i>					la
	<i>Hydropsyche betteni</i>			l		laun
	<i>Hydropsyche simulans</i>					laun
	<i>Hydroptilia sp.</i>					l
	<i>Hydroptilis cansmilis</i>					l
Crustaceans	<i>Grammarus sp.</i>					laucs
	<i>Crangonyx gracilis</i>			l		
	<i>Caecidotea sp.</i>					a
	<i>Pelecypods</i>		nc			
Dragonflies	<i>Calopteryx sp.</i>					lau
	<i>Enallagma sp.</i>			nc	nc	laucs
	<i>Erythemis sp.</i>					u
	<i>Hetaerina sp.</i>					n
	<i>Argia sp.</i>			nc	n	n
	<i>Somatochlora sp.</i>					n
Flatworms	<i>Platyhelminthes</i>		c	nc	nc	acs
Flies	<i>Tipula sp.</i>					lus
	<i>Psychodidae sp.</i>			l		
	<i>Simulium sp.</i>	n		lnc	c	launes
	<i>Chironimidae</i>		lnc			
	<i>Natarsia sp.</i>				c	
	<i>Ablablesmyia sp.</i>				c	c
	<i>Thienemannimyia sp.</i>			c		
	<i>Conchapelopia sp.</i>					launcs
	<i>Penteneura sp.</i>	n	l			
	<i>Paratanytarsus sp.</i>					lun
	<i>Rheotanytarsus distinctissimus</i>					lu
<i>Rheotanytarsus exiguus</i>					laun	
<i>Tanytarsus glabrescens</i>					luns	

Table G-11: Macroinvertebrates in the Doan Brook

Common Name	Scientific Name	1974	1987	1989	1990	1998
	<i>Tanytarsus guerlus</i>					launc
	<i>Chironomus sp.</i>	n		l		
	<i>Chironomus riparius</i>					l
	<i>Dicrotendipes sp.</i>				c	
	<i>Dicrotendipes modestus</i>					lune
	<i>Dicrotendipes neomodestus</i>					aes
	<i>Dicrotendipes nervosus</i>					lunecs
	<i>Dicrotendipes simpsoni</i>					ec
	<i>Endochironomus nigricans</i>					lun
	<i>Endochironomus subtendens</i>					luc
	<i>Glyptotendipes sp.</i>	n		l		laun
	<i>Paratendipes sp.</i>					launecs
	<i>Phaenospectra dyari</i> (?)					au
	<i>Phaenospectra flavipes</i>					lanes
	<i>Polypedilum sp.</i>				c	
Flies, continued	<i>Polypedilum convictum</i>					lune
	<i>Polypedilum illenoense</i>					lune
	<i>Polypedilum scalaenum</i>					nes
	<i>Stenochironomus sp.</i>					a
	<i>Tribelos sp.</i>					s
	<i>Cardiocladius obscurus</i>					l
	<i>Cricotopus sp.</i>	n		l	c	
	<i>Cricotopus bicinctus</i>					lue
	<i>Cricotopus vierriensis</i>					l
	<i>Nanocladius crassicornus</i>					luc
	<i>Synorthocladius sp.</i>					lau
	<i>Nanocladius minimus</i>					l
	Empididae					lue
	<i>Hemerodromia sp.</i>					ln
	<i>Larsia sp.</i>					s
	<i>Odontomyia sp.</i>					u
Leeches	Hirudineans		nc			
	<i>Erpobdella parva</i>					u
	<i>Erpobdella punctata</i>					launcs
	<i>Erpobdella sp.</i>			nc		
	<i>Moorebdella microstoma</i>					l
	<i>Moorebdella tetragon</i>					c

Table G-11: Macroinvertebrates in the Doan Brook

Common Name	Scientific Name	1974	1987	1989	1990	1998
	<i>Moorebdella sp.</i>				c	
	<i>Alboglossiphonia heteroclita</i>					lac
	<i>Gloiobdella elongata</i>					lncs
	<i>Helobdella fusca</i>					lac
	<i>Helobdella stagnalis</i>					l
Mayflies	<i>Baetis sp.</i>		c	nc		launcs
	<i>Centroptilium sp.</i>					u
Snails	Gastropods		nc			
	<i>Physa sp.</i>	n				
	<i>Physa vernalis</i>					l
	<i>Physella sp.</i>			lc	c	
	<i>Planorbella trivolvus sp.</i>					l
	<i>Marstonia decepta</i>					u
	<i>Fossaria parva</i>					c
	<i>Amnicola limnosa</i>			nc	nc	c
	<i>Sphaerium sp.</i>			n	nc	
	<i>Gyraulus circumstriatus</i>				n	
	<i>Gyraulus parvus</i>				c	
	<i>Helisoma anceps</i>				c	
Sponges	Spongillidae					ac
True Bugs	<i>Ramphocorixa sp.</i>					l
	<i>Merragata sp.</i>					l
	Gerridae					s

Location Key:

l = lower watershed (Rockefeller Park)

a = Ambler Park

u = d/s from Lower Shaker Lake

n = between Horseshoe and Lower Shaker Lake

e = u/s from Horseshoe Lake, N. Branch

c = u/s from Lower Shaker Lake, S. Branch

s = d/s Shaker Golf Cours, S. Branch

Data Sources:

1974: Institute for Environmental Education. 1979.

1987-1998: NEORS. Additional data may be available from NEORS.

