

# Preliminary Assessment of Bird Strikes at Windows in Eastern Washtenaw County, MI

Washtenaw Safe Passage  
& Great Lakes/Detroit Safe Passage

Heidi Trudell & Alice Elliott



Ruby-throated Hummingbird



Ann Arbor & Ypsilanti



# Bird / Window Collisions

## GENERAL ASSUMPTIONS

- Birds are important *...for the planet*
- Dead birds are important *...salvage for research*
- Birds don't see glass *...transparent or reflective*
- Window collisions *...highly preventable*
- Decals\* and noise makers *...DO NOT WORK*
- Action is required *...inaction doesn't make it better*

\* Decals, stickers, silhouettes, decoys, etc - need such close spacing that they're never applied correctly



# Bird / Window Collisions

## ASSUMPTIONS FOR THIS STUDY

- Low rise buildings      *...less than 12 floors, most <5*
- Non-residential\* buildings      *...campus, office park, etc*
- Diurnal collisions only      *...midday surveys optimal*
- Not a “lights out” issue      *...at least not directly*
- Not feeder related      *...no feeders/few feeder species*
- Not generally panic related      *...maybe on occasion*

\* Some dorms were surveyed

# Initial Objectives:

- **Opportunistic Citizen Science**
- **Salvage specimens for University of Michigan Museum of Zoology**
- **Collect data**
  - Rank threats
  - Compare notes!
- **Prevent collisions ASAP**



# Bird Survey Specimen Entry

Form for entering each bird survey specimen

\* Required

Date of Survey \*

Date

mm/dd/yyyy

Time of survey \*

Approximate time is okay

Time

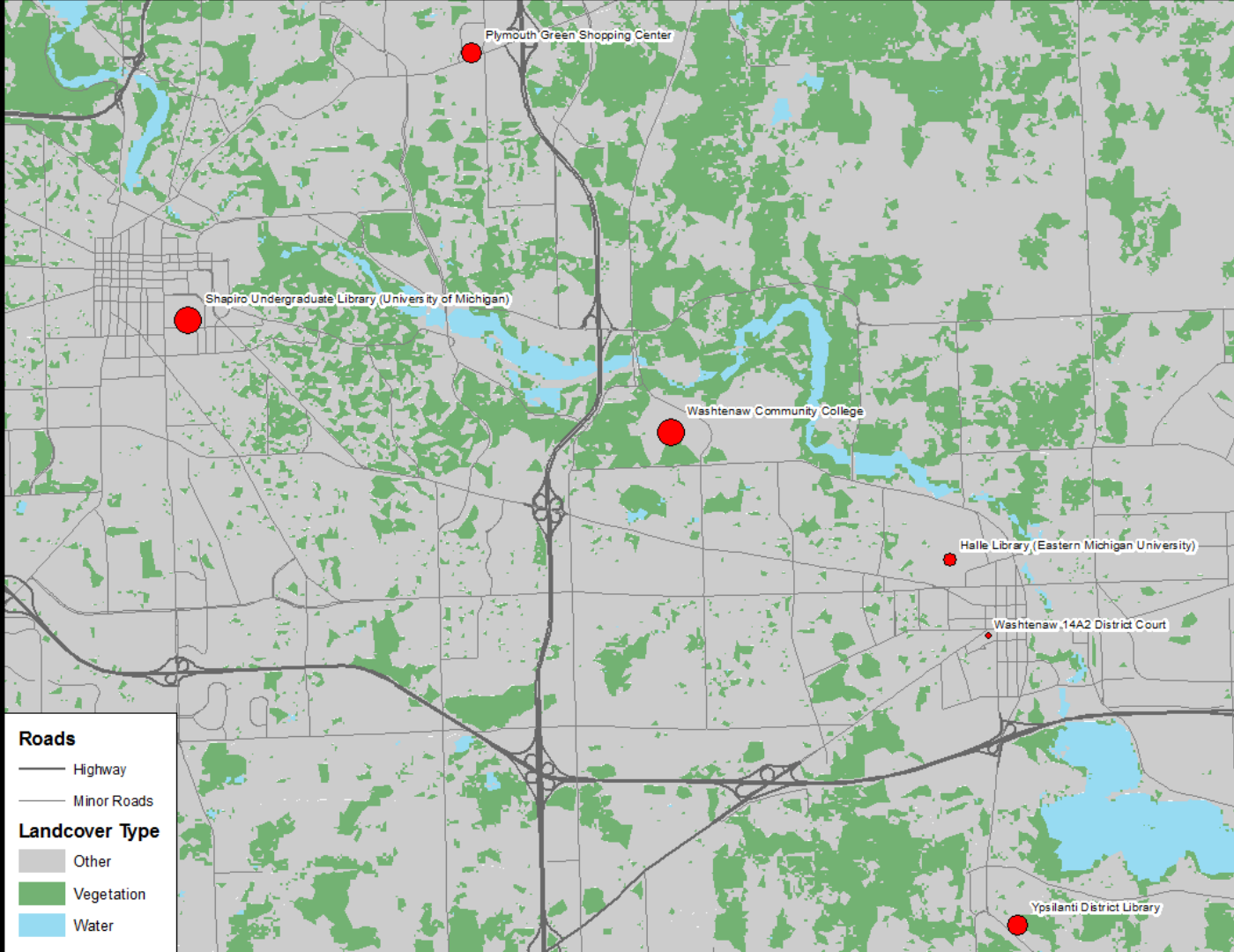
: AM

Survey Location \*

- Ypsilanti Library
- Ypsilanti Courthouse
- Eastern Michigan University
- University of Michigan
- Washtenaw Community College
- Plymouth Green Shopping Center
- Other : \_\_\_\_\_

NEXT

Never submit passwords through Google Forms.



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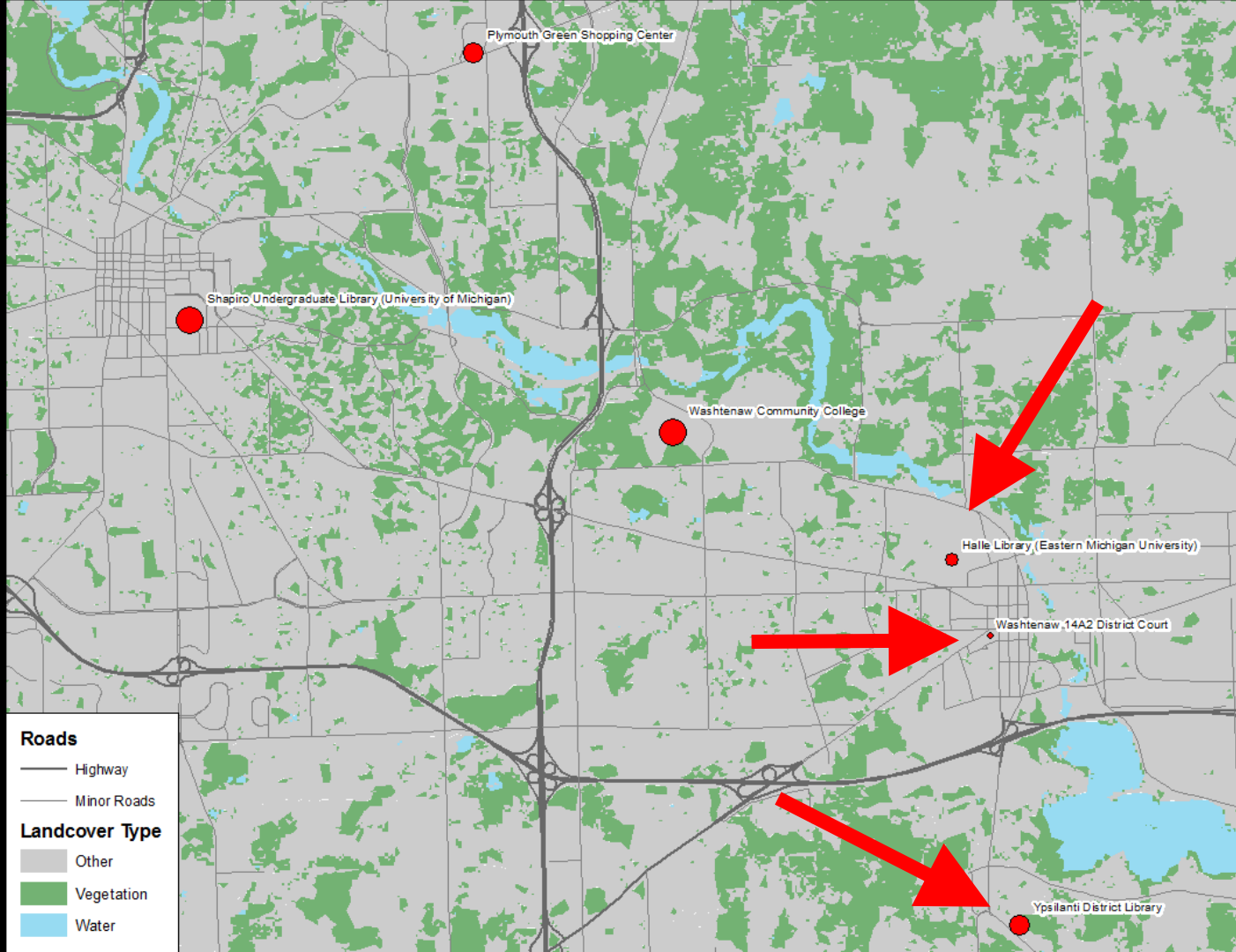
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# Spring 2016: 14 species Summer 2016: 14 species

Location	# Dead Birds	Survivors
14a2 Dist Courthouse	9	
Ypsilanti District Library	8	3
EMU: Boone	4	
EMU: Halle Library	3	
EMU: Phelps	1	
EMU: Putnam	1	
EMU: Student Center	3	
EMU: Walton	4	
<b>EMU Total:</b>	16	
<b>Spring 2016 Total:</b>	33	3

Location	# Dead Birds	Survivors
14a2 Dist Courthouse	12	
Ypsilanti District Library	7	3
EMU: Halle Library	3	
EMU: Pierce	1	
EMU: Putnam	4	
EMU: Sellers	3	
EMU: Walton	2	
EMU: Incidental/Other	5	1
<b>EMU Total:</b>	18	1
<b>Summer 2016 Total:</b>	37	5





# Spring 2016: 14 species Summer 2016: 14 species Total Species? 24

American Goldfinch
American Robin
Black-capped Chickadee
Belted Kingfisher
Cedar Waxwing
Common Grackle
Common Yellowthroat
Empidonax Sp
Eurasian Starling
Eastern Wood-Pewee
Golden-crowned Kinglet
House Finch
House Sparrow
Indigo Bunting
Killdeer
Mourning Dove
Ovenbird
Red-eyed Vireo
Rock Pigeon
Ruby-throated Hummingbird
Red-winged Blackbird
Song Sparrow
White-throated Sparrow
Yellow-billed Cuckoo

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# Reminder: no scavenging or efficiency numbers

## 2016 Fall Surveys : Fall 2016 Ypsi Summary

Location	# Dead Birds	Species
14a2 Dist Courthouse	12	6
Ypsilanti District Library	26	15
EMU: Boone	2	2
EMU: Halle Library	12	8
EMU: Pierce	2	2
EMU: Rackham	2	2
EMU: Sellers	3	2
EMU: Walton	2	2
EMU: Incidental/Other	4	4
<b>EMU Total:</b>	27	18
<b>Ypsilanti Monitoring Total:</b>	65	





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## How surveyable?

14a2 = 2/3 access/parking

YDL = 3/4 accessible

Halle = 1/3 accessible

Similar for others

\* Fall = Aug 15 - Oct 31



**Avg strike  
mortality: 54-  
76%**

**(Klem 1990)**

**Implication:  
Double the  
numbers, min.**



## **Annual Averages:**

**Single-family residence: 2-8**

**Residence w/feeders: 16-24+**

**Low-rise (<11 floors): 21-24**

**High-rise (12+ floors): 24\***

\*highly variable, max known = 3,000

Extremely broad  
generalizations re:  
seasonal strike  
detection ratios  
based on problem  
MI buildings:

Spring = ~5-10+  
Summer = ~5-15+  
Fall = ~20-35+





**Greater Detroit high-rises: ~195 (~4,680 birds/yr)**  
**Greater Detroit low-rises: ????**

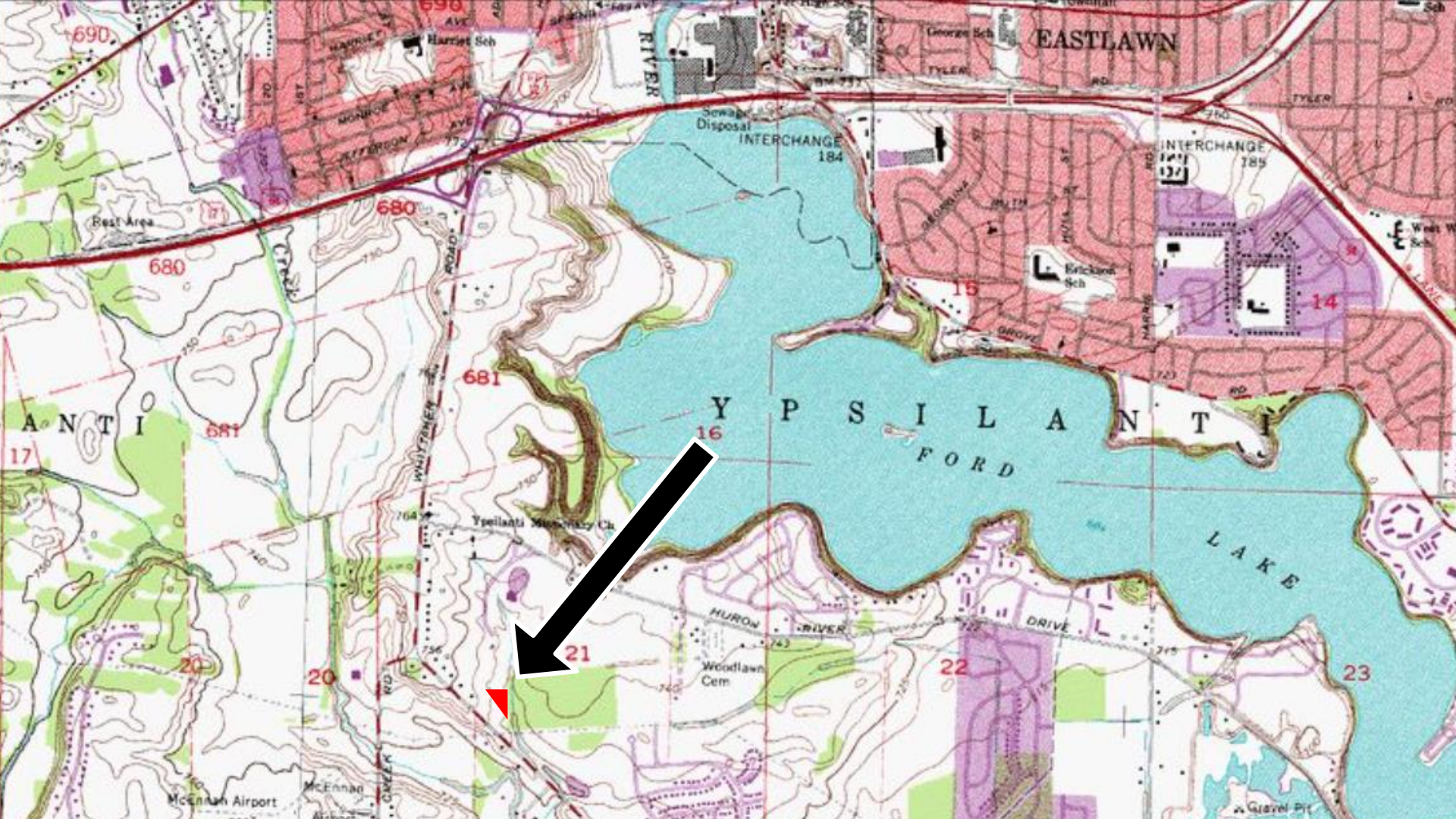


Sellers Hall, Eastern Michigan University

YPSILANTI  
DISTRICT  
LIBRARY







# Snapshot: Fall 2015 - Fall 2016

- Constants: vegetation, lighting, glass.
- “Bird deterrent” installed Spring 2016
- 117 strike detections for ~2 year span
  - Pre-F15 = ~32
  - F15 = ~36
  - SP16 = 9
  - SU16 = 12
  - F16 = 28

Reminder: ~50% survive, ?% die elsewhere



Bay-breasted Warbler  
*Setophaga castanea*



Nashville Warbler  
*Oreothlypis ruficapilla*



Ruby-throated Hummingbird  
*Archilochus colubris*



Tennessee Warbler  
*Oreothlypis peregrina*



Swainson's Thrush  
*Catharus ustulatus*



**LEGEND**

- Year Round
- Summer (breeding)
- Winter (non-breeding)
- Migration

Map by Cornell Lab of Ornithology  
Range data by NatureServe



Black-throated Green Warbler  
*Setophaga virens*



American Robin  
*Turdus migratorius*



# No shortage of windows:

Genus	Species	State	Locality	Date	Coll Method
Pheucticus	ludovicianus	Michigan	Ann Arbor, University of Michigan Central Campus		found dead
Turdus	migratorius	Michigan	Ann Arbor, University of Michigan Kraus Bldg	01/13/2016	found dead next to Nat Sci building
Pheucticus	ludovicianus	Michigan	Ann Arbor, University of Michigan Dana Bldg	05/11/2015	hit window
Corvus	brachyrhynchos	Michigan	Ann Arbor, University of Michigan Diag	03/11/2015	found dead on ground
Regulus	satrapa	Michigan	Ann Arbor, University of Michigan Palmer Commons	10/20/2014	hit window along Washtenaw Ave. side of
Corvus	brachyrhynchos	Michigan	Ann Arbor, University of Michigan Central Campus	12/12/2013	found dead
Zonotrichia	albicollis	Michigan	Ann Arbor, University of Michigan Power Center	10/28/2013	hit window
Leiothlypis	peregrina	Michigan	Ann Arbor, University of Michigan Alumni Center	09/18/2013	window kill
Bubo	virginianus	Michigan	Ann Arbor, University of Michigan Inst. Social Res.	12/14/2010	found dead, may have hit window
Euphagus	carolinus	Michigan	Ann Arbor, University of Michigan Hatcher Library	10/13/2010	hit window
Junco	hyemalis	Michigan	Ann Arbor, University of Michigan Modern Language	09/19/2010	hit window
Accipiter	cooperii	Michigan	Ann Arbor, Univ. Mich. Med. Sci. II courtyard	02/03/2010	hit window
Larus	delawarensis	Michigan	Ann Arbor, University of Michigan Hospital	10/19/2009	found dead
Bombycilla	cedrorum	Michigan	Ann Arbor, University of Michigan	10/06/2009	found dead
Bombycilla	cedrorum	Michigan	Ann Arbor, University of Michigan	10/06/2009	found dead
Turdus	migratorius	Michigan	Ann Arbor, University of Michigan North Campus, Sch	01/26/2009	hit window
Accipiter	cooperii	Michigan	Ann Arbor, University of Michigan Power Center	01/04/2009	hit window
Hylocichla	mustelina	Michigan	Ann Arbor, University of Michigan Dental School	09/26/2008	found dead on sidewalk
Certhia	americana	Michigan	Ann Arbor, University of Michigan North Campus, Sch	09/25/2008	window kill, run over
Geothlypis	trichas	Michigan	Ann Arbor, University of Michigan Dennison Bldg	05/30/2008	found dead
Hylocichla	mustelina	Michigan	Ann Arbor, University of Michigan Diag	05/17/2005	Hit window.
Setophaga	tigrina	Michigan	Ann Arbor, University of Michigan Med. Sci. Com	05/17/2005	window kill

MACOMB

## New peregrine falcon chick Grace dies in Mt. Clemens



Christina Hall, Detroit Free Press

June 23, 2016

“The 42-day-old chick is believed to have flown into glass on a parking garage next to the Circuit Court in downtown Mt. Clemens...”







Alice Elliott







Alice Elliott



Alice Elliott



Alice Elliott



Alice Elliott



Alice Elliott

- RESEARCH
- OUTREACH
- ADVOCACY
- EDUCATION
- CONSERVATION

DETROIT  
AUDUBON

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GREAT LAKES  
SAFE PASSAGE

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WASHTENAW  
AUDUBON

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Washtenaw  
Safe  
Passage