



Resolution on PREVENTING BIRD-WINDOW COLLISIONS ON CAMPUS

(Resolution 2015-04)

Whereas Duke strives to be a leader in environmental stewardship, conserving natural resources and protecting biodiversity¹;

Whereas buildings on Duke's campus caused at least 163 bird deaths due to window collisions in 2014 [*see Exhibit 1*];

Whereas one building, CIEMAS, accounted for 63 percent of reported on-campus bird deaths in 2014;

Whereas concern for birdlife among members of the Duke community is demonstrated by the 77 incidental collision reports that came from volunteer students, faculty, and staff in 2014²;

Whereas window collisions are the second leading cause of bird mortality in the US, accounting for an estimated 1 billion birds per year^{3,4,5};

Whereas 43 species have been documented as window collision victims on Duke's campus, of which 19 are protected by the Neotropical Migratory Bird Conservation Act⁶ and several others of continental importance⁷ [*see Exhibit 2*]; and

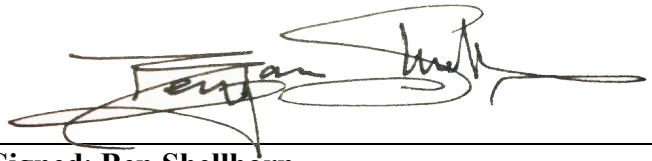
Whereas a variety of cost-effective, off-the-shelf window strike deterrence options are available for both new buildings and retrofit of existing buildings⁸; now, therefore be it:

Resolved, that Duke graduate and professional students:

1. Urge the Duke Administration to seriously consider bird collision mitigation during the design and planning process of all future campus buildings to be constructed;
2. Urge the Duke Administration to consider identifying the architectural features on campus that are most deadly to birds;

3. Urge the Duke Administration to investigate permanent bird collision deterrence retrofit options, such as window replacement with bird-friendly glass, for the architectural features on campus that are most deadly to birds;
4. Urge the Duke Administration to consider leading a bird-friendly campus movement to set an example for peer institutions;
5. Urge the Duke Administration to consider collaborating with bird conservation organizations, such as Audubon or the American Bird Conservancy, in this endeavor;

Signed,

A handwritten signature in dark ink, appearing to read 'Ben Shellhorn', is written over a horizontal line.

Signed: Ben Shellhorn

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ENDNOTES

¹Principles and Goals for the Duke Campus (revised 2012)

²Using the “Bird Collision Project – Duke University” website (<http://sites.duke.edu/birdcollisions/>), and the iNaturalist smartphone app and website (<http://www.inaturalist.org/>) students, faculty, and staff reported 77 collisions in 2014.

³Bird, D.M. 2004. The Birds Almanac: A Guide to essential Facts and Figures of the World’s Birds

⁴Loss et al. 2014. Bird-building collisions in the United States: Estimates of annual mortality and species vulnerability. *The Condor* 116: 8-23;

⁵Klem, D. 2014. Landscape, legal, and biodiversity threats that windows pose to birds: A review of an important conservation issue. *Land* 3: 351-361.

⁶US Fish and Wildlife Service. 2014. Neotropical Migratory Bird Conservation Act. <http://www.fws.gov/birdhabitat/Grants/NMBCA/index.shtm>

⁷Rich, T. D., C. J. Beardmore, H. Berlanga, P. J. Blancher, M. S. W. Bradstreet, G. S. Butcher, D. W. Demarest, E. H., Dunn, W. C. Hunter, E. E. Iñigo-Elias, J. A. Kennedy, A. M. Martell, A. O. Panjabi, D. N. Pashley, K. V. Rosenberg, C., M. Rustay, J. S. Wendt, T. C. Will. 2004. Partners in Flight North American Landbird Conservation Plan. Cornell Lab of Ornithology. Ithaca, NY.

⁸American Bird Conservancy. 2011. Bird Collision Deterrence: Summary of Material Threat Factors.

Definitions:

Bird-window collision: occurs when a wild bird hits a window because it a) cannot see it, or b) it reflects its habitat. Bird-window collision victims can either survive the shock and fly away after a few minutes, or die instantly as a result of the strike.

Exhibit 1: Bird-window collision deaths recorded in 2014 on Duke University's campus

Collision #	Date	Building	Species
1	3/11/2014	FFSC	Tufted Titmouse
2	3/11/2014	CIEMAS	Fox Sparrow
3	3/11/2014	LSRC	Cedar Waxwing
4	3/18/2014	Undergraduate Financial Aid Office	Yellow-bellied Sapsucker
5	3/20/2014	CIEMAS	Eastern Towhee
6	3/20/2014	CIEMAS	Yellow-rumped Warbler
7	3/24/2014	Penn Pavilion	Hermith Thrush
8	3/31/2014	CIEMAS	American Robin
9	3/31/2014	CIEMAS	Tufted Titmouse
10	3/31/2014	CIEMAS	Unknown
11	3/31/2014	CIEMAS	Cedar Waxwing
12	3/31/2014	CIEMAS	Unknown
13	3/31/2014	Law extension	Brown Thrasher
14	4/1/2014	CIEMAS	Tufted Titmouse
15	4/1/2014	CIEMAS	Tufted Titmouse
16	4/1/2014	CIEMAS	Yellow-rumped Warbler
17	4/1/2014	CIEMAS	Tufted Titmouse
18	4/1/2014	Law extension	Tufted Titmouse
19	4/1/2014	FFSC	Northern Cardinal
20	4/2/2014	Perkins Library	Yellow-bellied Sapsucker
21	4/2/2014	School of Nursing	Downy Woodpecker
22	4/3/2014	CIEMAS	Cedar Waxwing
23	4/3/2014	CIEMAS	Unknown
24	4/3/2014	CIEMAS	Tufted Titmouse
25	4/3/2014	CIEMAS	Unknown
26	4/3/2014	CIEMAS	Cedar Waxwing
27	4/3/2014	Schwartz-Butters Athletic	Unknown
28	4/4/2014	Law extension	Unknown
29	4/4/2014	FFSC	Ovenbird
30	4/5/2014	FFSC	Unknown
31	4/6/2014	Perkins Library	Yellow-bellied Sapsucker
32	4/7/2014	CIEMAS	Cedar Waxwing
33	4/7/2014	Pearson	Unknown
34	4/8/2014	CIEMAS	Cedar Waxwing

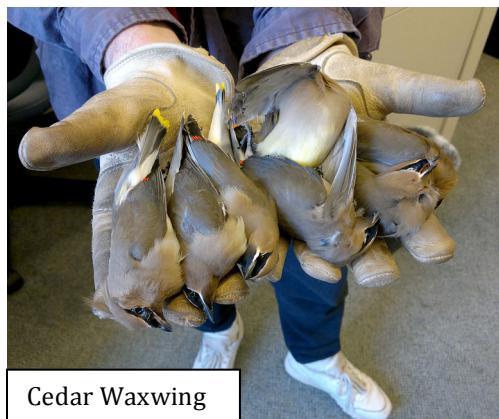
35	4/8/2014	CIEMAS	Ruby-crowned Kinglet
36	4/8/2014	CIEMAS	Cedar Waxwing
37	4/8/2014	CIEMAS	Cedar Waxwing
38	4/8/2014	CIEMAS	Cedar Waxwing
39	4/8/2014	CIEMAS	Cedar Waxwing
40	4/8/2014	CIEMAS	Cedar Waxwing
41	4/8/2014	CIEMAS	American Robin
42	4/10/2014	CIEMAS	Northern Cardinal
43	4/10/2014	CIEMAS	Unknown
44	4/10/2014	CIEMAS	Cedar Waxwing
45	4/10/2014	CIEMAS	Unknown
46	4/10/2014	CIEMAS	Unknown
47	4/10/2014	Medical Center	Eastern Towhee
48	4/11/2014	Environment Hall	Ovenbird
49	4/11/2014	CIEMAS	White-breasted Nuthatch
50	4/11/2014	CIEMAS	Unknown
51	4/14/2014	CIEMAS	Cedar Waxwing
52	4/20/2014	CIEMAS	Mourning Dove
53	4/21/2014	Law extension	White-throated Sparrow
54	4/21/2014	Environment Hall	Unknown
55	4/23/2014	CIEMAS	Ruby-throated Hummingbird
56	4/23/2014	CIEMAS	Unknown
57	4/23/2014	CIEMAS	Gray Catbird
58	4/23/2014	CIEMAS	Wood Thrush
59	4/25/2014	LSRC	Red-bellied Woodpecker
60	4/28/2014	LSRC	Red-bellied Woodpecker
61	5/4/2014	FFSC	Indigo Bunting
62	5/6/2014	CIEMAS	Scarlet Tanager
63	5/8/2014	LSRC	Unknown
64	5/8/2014	CIEMAS	Unknown
65	5/8/2014	LSRC	Common Yellowthroat
66	5/9/2014	LSRC	Unknown
67	5/15/2014	LSRC	Unknown
68	6/22/2014	CIEMAS	Ruby-throated Hummingbird
69	8/20/2014	FFSC	Ruby-throated Hummingbird
70	8/21/2014	Perkins Library	Song Sparrow

71	9/5/2014	CIEMAS	Ruby-throated Hummingbird
72	9/8/2014	CIEMAS	American Goldfinch
73	9/11/2014	CIEMAS	Ruby-throated Hummingbird
74	9/14/2014	CIEMAS	Red-eyed Vireo
75	9/17/2014	CIEMAS	American Goldfinch
76	9/18/2014	CIEMAS	American Goldfinch
77	9/21/2014	CIEMAS	Swainson's Thrush
78	9/21/2014	CIEMAS	Gray Catbird
79	9/21/2014	CIEMAS	Common Yellowthroat
80	9/21/2014	CIEMAS	Veery
81	9/21/2014	CIEMAS	Unknown
82	9/21/2014	CIEMAS	Gray Catbird
83	9/21/2014	CIEMAS	Ovenbird
84	9/21/2014	CIEMAS	Wood Thrush
85	9/21/2014	CIEMAS	Rose-breasted Grosbeak
86	9/21/2014	FFSC	Wood Thrush
87	9/21/2014	CIEMAS	Gray Catbird
88	9/21/2014	CIEMAS	Common Yellowthroat
89	9/21/2014	CIEMAS	Gray-cheeked Thrush
90	9/21/2014	LSRC	Unknown
91	9/21/2014	CIEMAS	Ovenbird
92	9/22/2014	CIEMAS	Hermith Thrush
93	9/22/2014	LSRC	Chestnut-sided Warbler
94	9/24/2014	FFSC	Northern Mockingbird
95	9/24/2014	FFSC	Northern Mockingbird
96	9/25/2014	CIEMAS	American Goldfinch
97	9/27/2014	CIEMAS	Unknown
98	9/27/2014	Law extension	Ovenbird
99	9/27/2014	FFSC	Unknown
100	9/27/2014	FFSC	Unknown
101	9/27/2014	Independence Park Facility	Unknown
102	9/27/2014	CIEMAS	American Redstart
103	9/27/2014	Medical Park	Common Yellowthroat
104	9/28/2014	CIEMAS	Ruby-throated Hummingbird
105	9/28/2014	CIEMAS	Black-throated Blue Warbler
106	9/28/2014	CIEMAS	American Goldfinch
107	9/28/2014	CIEMAS	Wood Thrush
108	9/28/2014	CIEMAS	Gray Catbird

109	9/30/2014	CIEMAS	Wood Thrush
110	9/30/2014	CIEMAS	American Goldfinch
111	9/30/2014	Penn Pavilion	Gray-cheeked Thrush
112	9/30/2014	Law extension	Red-eyed Vireo
113	9/30/2014	Law extension	Gray Catbird
114	10/1/2014	Fuqua	Red-bellied Woodpecker
115	10/2/2014	CIEMAS	American Goldfinch
116	10/2/2014	CIEMAS	Gray Catbird
117	10/2/2014	CIEMAS	Unknown
118	10/2/2014	CIEMAS	Northern Mockingbird
119	10/2/2014	CIEMAS	Red-eyed Vireo
120	10/2/2014	CIEMAS	Brown Thrasher
121	10/2/2014	Perkins Library	Red-eyed Vireo
122	10/2/2014	Undergraduate Financial Aid Office	Rose-breasted Grosbeak
123	10/3/2014	CIEMAS	Ovenbird
124	10/4/2014	Law extension	Red-eyed Vireo
125	10/4/2014	FFSC	Golden-crowned Kinglet
126	10/6/2014	CIEMAS	Unknown
127	10/6/2014	CIEMAS	Northern Cardinal
128	10/6/2014	Penn Pavilion	Black-throated Green Warbler
129	10/6/2014	Law extension	American Redstart
130	10/8/2014	CIEMAS	American Goldfinch
131	10/8/2014	CIEMAS	Ruby-throated Hummingbird
132	10/9/2014	CIEMAS	Northern Cardinal
133	10/9/2014	CIEMAS	American Goldfinch
134	10/9/2014	CIEMAS	American Goldfinch
135	10/9/2014	Schwartz-Butters Athletic	Yellow-bellied Sapsucker
136	10/9/2014	CIEMAS	American Goldfinch
137	10/11/2014	CIEMAS	Brown Thrasher
138	10/11/2014	CIEMAS	Unknown
139	10/19/2014	Environment Hall	Yellow-bellied Sapsucker
140	10/19/2014	Carmichael Building	Cape May Warbler
141	10/20/2014	CIEMAS	Hermith Thrush
142	10/20/2014	Environment Hall	Yellow-bellied Sapsucker
143	10/20/2014	CIEMAS	Golden-crowned Kinglet
144	10/20/2014	CIEMAS	Golden-crowned Kinglet

145	10/20/2014	CIEMAS	Carolina Wren
146	10/20/2014	CIEMAS	Swamp Sparrow
147	10/21/2014	Undergraduate Financial Aid Office	Gray Catbird
148	10/21/2014	CIEMAS	American Goldfinch
149	10/22/2014	Environment Hall	Yellow-bellied Sapsucker
150	10/22/2014	CIEMAS	Gray Catbird
151	10/22/2014	CIEMAS	Ruby-throated Hummingbird
152	10/22/2014	LSRC	Song Sparrow
153	10/22/2014	CIEMAS	Song Sparrow
154	10/23/2014	Environment Hall	Unknown
155	10/23/2014	CIEMAS	Mourning Dove
156	10/24/2014	CIEMAS	American Redstart
157	10/25/2014	Trent Building	Cape May Warbler
158	10/25/2014	CIEMAS	White-throated Sparrow
159	10/27/2014	CIEMAS	Hermith Thrush
160	10/27/2014	CIEMAS	Swamp Sparrow
161	10/30/2014	North Pavilion	Eastern Towhee
162	11/3/2014	LSRC	White-throated Sparrow
163	11/20/2014	Environment Hall	Unknown

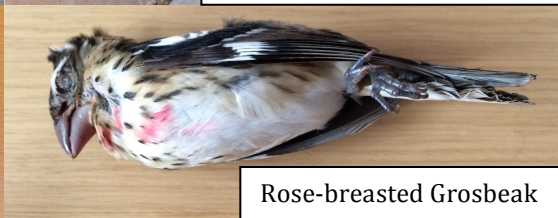
Exhibit 2: Examples of bird species that have been documented as bird window collision victims on Duke University's campus



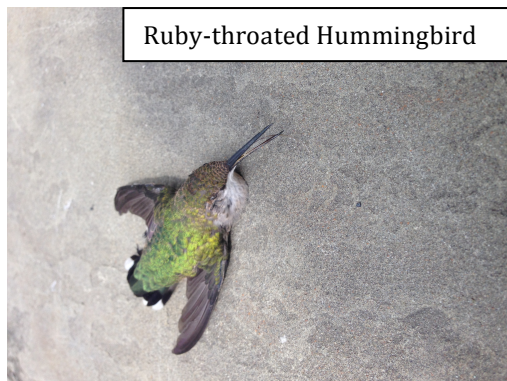
Cedar Waxwing



Yellow-bellied Sapsucker



Rose-breasted Grosbeak



Ruby-throated Hummingbird



Scarlet Tanager



Grey-cheeked Thrush



Eastern Towhee



Common Yellowthroat



Black-throated blue Warbler



Wood Thrush



Red-eyed Vireo



Brown Thrasher



American Goldfinch



Mourning Dove



Ovenbird

Black-throated Green Warbler



Northern Cardinal

