



St. Louis Audubon
Society BirdSafeSTL
2025 Report



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BirdSafeSTL seeks to establish long-term community relationships that support bird-safe practices and reduce bird fatalities in the St. Louis region.



I. Introduction

Collisions with buildings pose a significant risk to migratory birds. It is estimated that up to one billion birds die from building collisions in the United States every year¹. With our central location in the Mississippi Flyway, St. Louis represents a dangerous area for birds as they migrate each spring and fall. Due to this, it is important for us to understand the risks posed to birds in the region and work to reduce those risks.

In September 2020, volunteers with St. Louis Audubon Society began monitoring for bird collisions in downtown St. Louis during migration. Since that initial season, collision monitoring has been conducted during peak migration every spring and fall (except for fall 2022). The following report details the results from our 2025 monitoring. The information is reported by season, with each season broken down by survey site.

II. Survey Process

Before the start of each survey season, the survey sites are assessed, and buildings are selected for monitoring. A map is created for the season, showing which buildings to survey and which sides of the buildings can be surveyed. A schedule is also created with the dates we would like to survey. Surveys are conducted during peak migration in the spring and fall.

On survey days, the scheduled surveyors meet around sunrise to begin searching for collisions. When a collision is found, one of the surveyors records the collision to the site's iNaturalist project. One observation is recorded per bird.

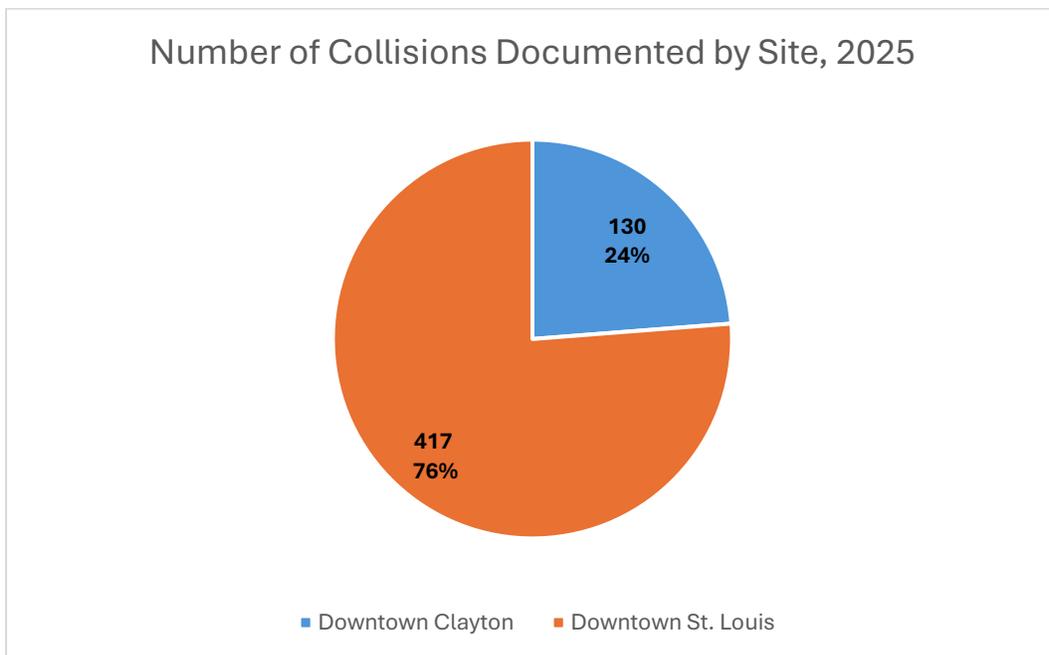
We collect data for each collision in iNaturalist. Some of the data fields include the name of the building the bird was located at, whether the find was 'incidental' (not located around one of the buildings we are specifically surveying), and whether the observation might be the result of predatory activity. In downtown St. Louis there are also some buildings with 'sections', so we can log where the collision was found with greater precision. iNaturalist also logs the observation time and GPS location.

In addition to the data fields, we also collect photos of the bird from multiple angles/sides (dorsal, ventral, lateral, and head detail) to assist with species identification. A context photo is also taken, so we can see how the bird was found. The survey concludes once all the selected buildings have been searched. If no collisions are found during the survey, the surveyors notify the project coordinator so it can be recorded.

At the end of the season, the data in the iNaturalist projects is downloaded for review. Before the data is analyzed, all observations are reviewed and any that are found to be non-collision (predation, possible collision with vehicle, etc.) are removed. This helps to ensure we aren't overstating our results and provides a more accurate count.

III. 2025 Survey Results Overview

- A total of 130 surveys were conducted in 2025 with 547 collisions documented.
- 66 species were documented, including three species of conservation concern (Table 1).
- Approximately 76% of all documented collisions were in downtown St. Louis.



IV. Spring 2025

Survey period: 4/13/25-5/31/25

56 surveys conducted; 195 collisions documented

After our first full season of monitoring two sites in fall 2024, the decision was made to continue this approach heading into 2025. Due to this our data for spring 2025 is a more

complete picture than what we captured in spring 2024, when we conducted 3 times as many surveys in downtown Clayton (25) than we conducted in downtown St. Louis (8)

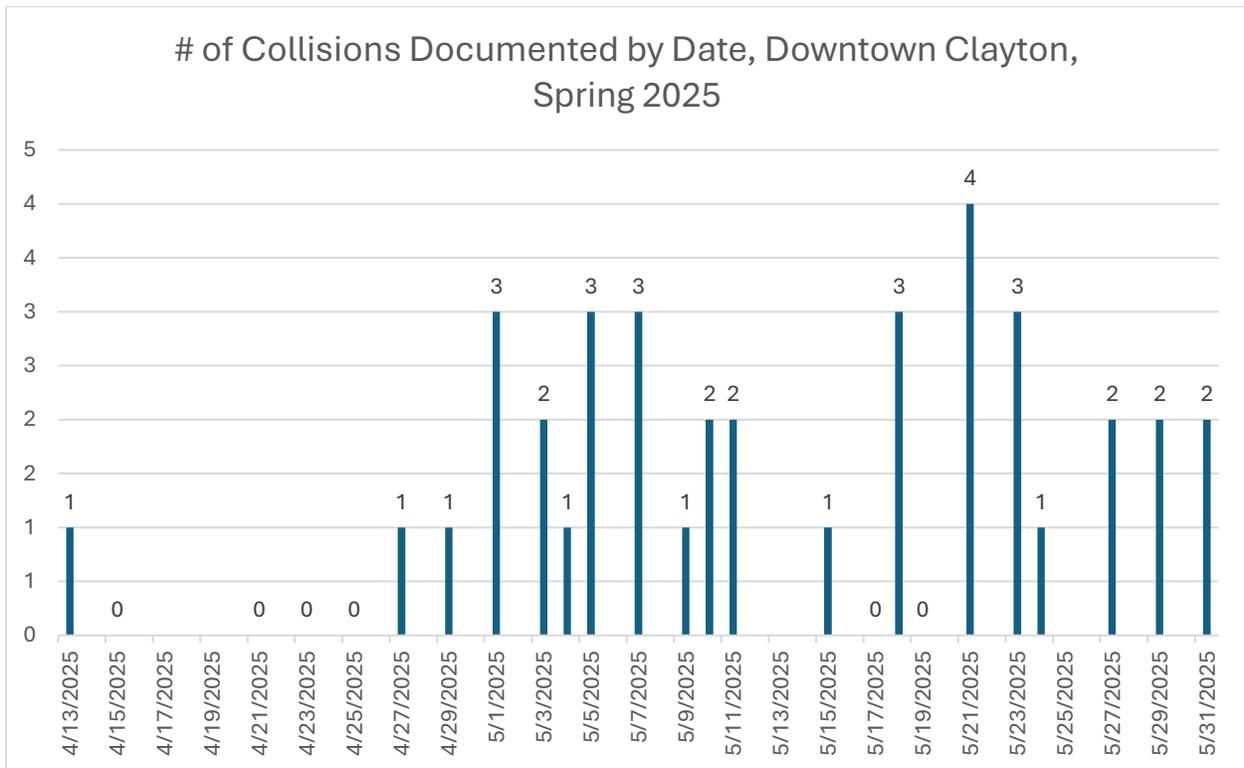
The first two weeks of the survey season were rainy, which caused multiple surveys at each site to be cancelled. After that, conditions improved and we were able to survey more consistently for the remainder of the season.

Notable observation:

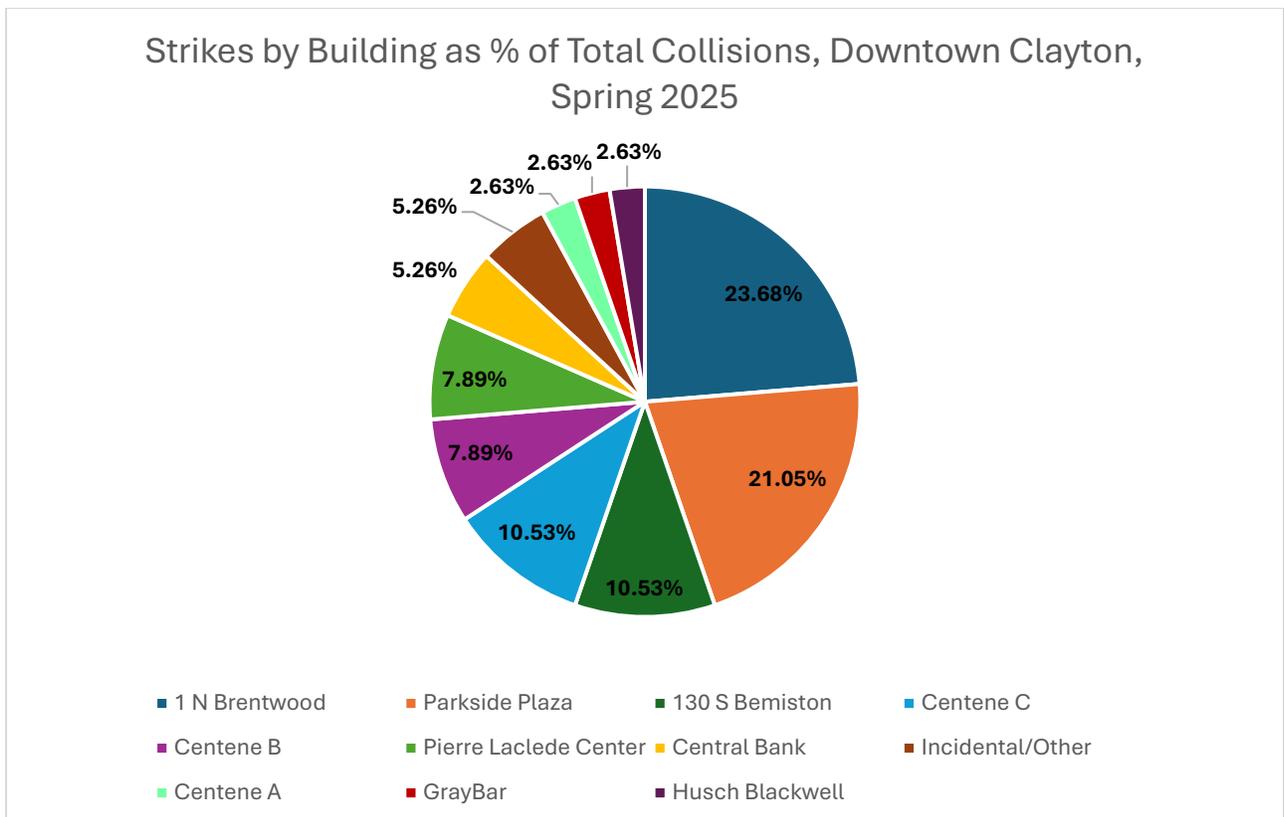
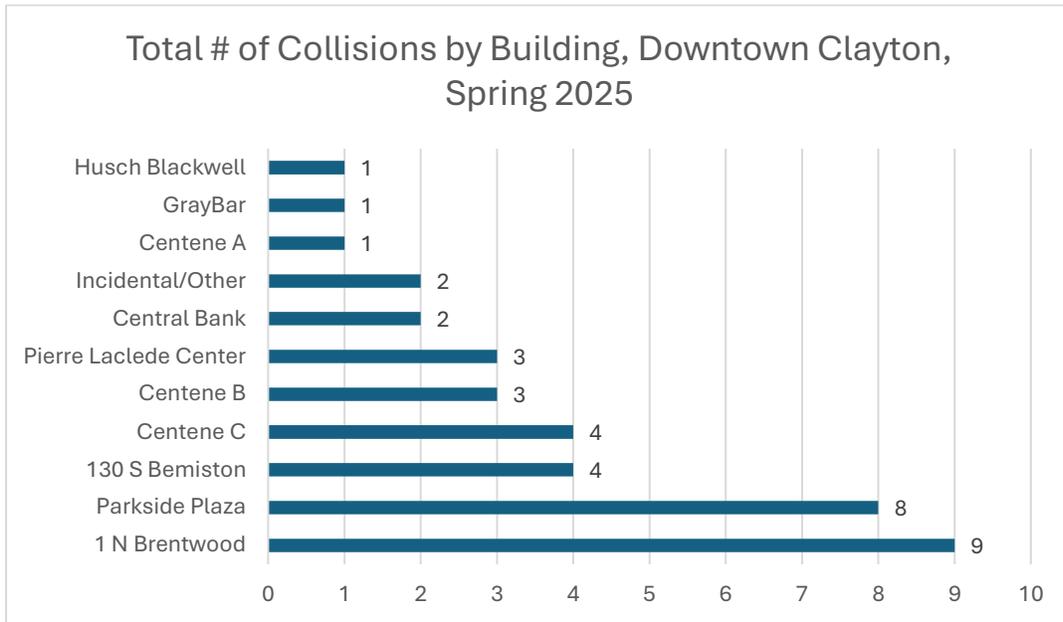
- While we surveyed more evenly between the two sites in spring 2025, we still documented more than four times as many collisions in downtown St. Louis (157) than we did in downtown Clayton (38).

i. Downtown Clayton:

- 26 surveys conducted. Documented a total of 38 collisions, representing 21 species of bird.
 - 23% of surveys at site (6 of 26) documented no collisions.



- The deadliest building during the survey was 1 N. Brentwood, accounting for approximately 24% of all collisions documented (9 of 38).
- The Centene Campus (Centene Buildings A [1], B [3], and C [4]) accounted for approximately 21% of all collisions documented (8 of 38).



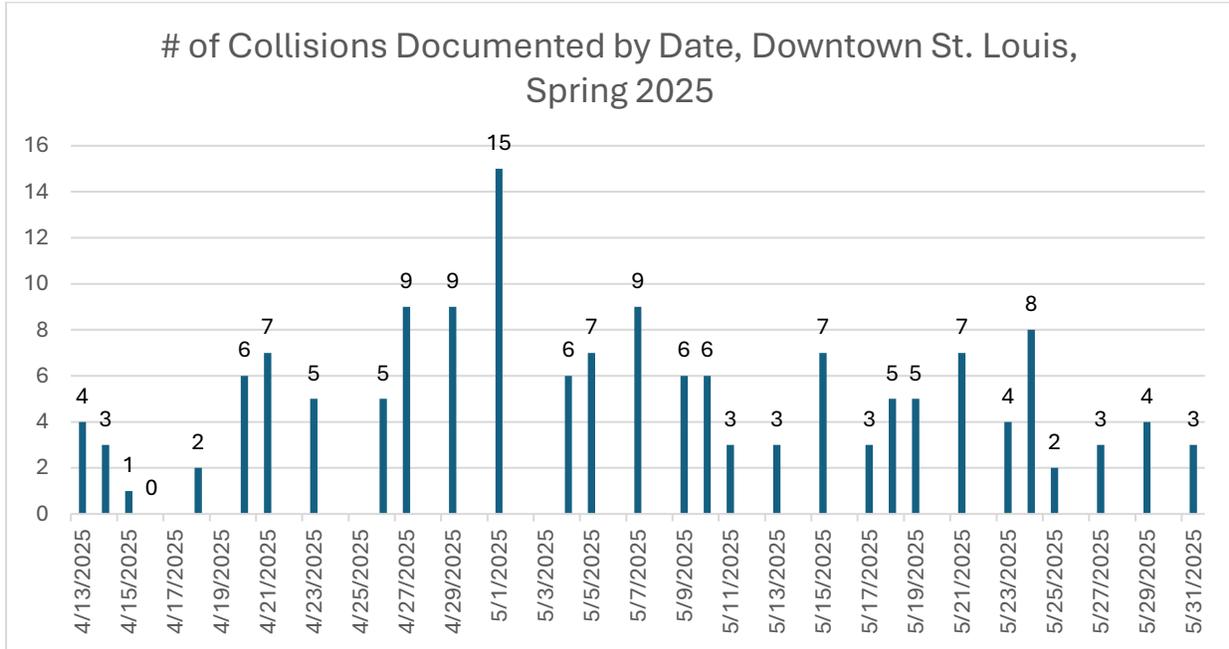
- The most documented species during the survey was the Yellow-billed Cuckoo, *Coccyzus americanus*, with 7 collisions.

Scientific Name	Common Name	# of Collisions Documented, Downtown Clayton, Spring 2025
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	7
<i>Vireo olivaceus</i>	Red-eyed Vireo	3
<i>Catharus ustulatus</i>	Swainson's Thrush	3
<i>Leiothlypis peregrina</i>	Tennessee Warbler	3
<i>Passer domesticus</i>	House Sparrow	2
<i>Passerina cyanea</i>	Indigo Bunting	2
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	2
<i>Turdus migratorius</i>	American Robin	1
<i>Setophaga castanea</i>	Bay-breasted Warbler	1
<i>Setophaga pensylvanica</i>	Chestnut-sided Warbler	1
<i>Geothlypis trichas</i>	Common Yellowthroat	1
<i>Dryobates pubescens</i>	Downy Woodpecker	1
<i>Sturnus vulgaris</i>	European Starling	1
<i>Columba livia domestica</i>	Feral Pigeon	1
<i>Haemorhous mexicanus</i>	House Finch	1
<i>Zenaida macroura</i>	Mourning Dove	1
<i>Leiothlypis ruficapilla</i>	Nashville Warbler	1
<i>Seiurus aurocapilla</i>	Ovenbird	1
<i>Archilochus colubris</i>	Ruby-throated Hummingbird	1
<i>Piranga rubra</i>	Summer Tanager	1
<i>Melospiza georgiana</i>	Swamp Sparrow	1
	Other**	2
Total:		38

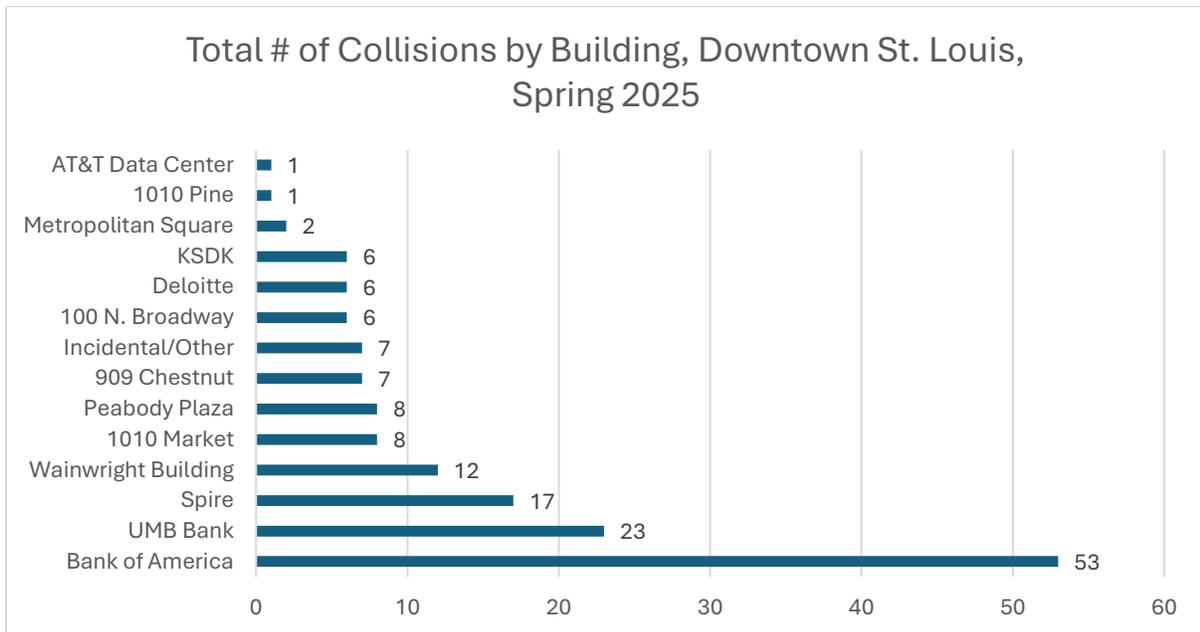
The overall results for spring 2025 in Clayton (38 collisions in 26 surveys) are similar to what we observed in spring 2024 (37 collisions in 25 surveys). However, we found collisions more consistently over our spring 2025 survey period. Only 23% of Clayton surveys documented no collisions in spring 2025, while 48% of Clayton surveys documented no collisions in spring 2024.

ii. Downtown St. Louis:

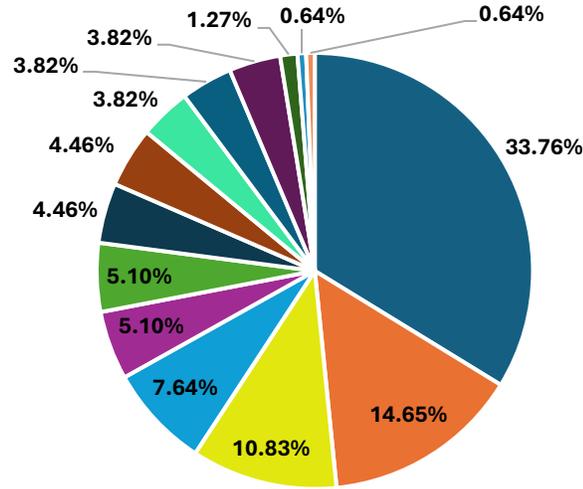
- 30 surveys conducted. Documented a total of 157 collisions, representing 39 species of bird.
- At least one collision was documented on 29 of the 30 surveys conducted.



-The deadliest building during the survey was Bank of America, accounting for approximately 34% of all collisions documented (53 out of 157).



Strikes by Building (as % of Total Collisions), Downtown St. Louis, Spring 2025



- Bank of America ■ UMB Bank ■ Spire ■ Wainwright Building ■ 1010 Market
- Peabody Plaza ■ 909 Chestnut ■ Incidental/Other ■ 100 N. Broadway ■ Deloitte
- KSDK ■ Metropolitan Square ■ 1010 Pine ■ AT&T Data Center

- The most documented species during the survey was the White-throated Sparrow, *Zonotrichia albicollis*, with 23 collisions.

Scientific Name	Common Name	# of Collisions Documented, Downtown St. Louis, Spring 2025
<i>Zonotrichia albicollis</i>	White-throated Sparrow	23
<i>Seiurus aurocapilla</i>	Ovenbird	21
<i>Passerina cyanea</i>	Indigo Bunting	12
<i>Leiothlypis peregrina</i>	Tennessee Warbler	11
<i>Geothlypis trichas</i>	Common Yellowthroat	5
<i>Parkesia noveboracensis</i>	Northern Waterthrush	5
<i>Dumetella carolinensis</i>	Gray Catbird	4
<i>Leiothlypis ruficapilla</i>	Nashville Warbler	4
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	4
<i>Dryobates pubescens</i>	Downy Woodpecker	3
<i>Sturnus vulgaris</i>	European Starling	3
<i>Passer domesticus</i>	House Sparrow	3
<i>Melospiza georgiana</i>	Swamp Sparrow	3

<i>Scolopax minor</i>	American Woodcock	2
<i>Geothlypis philadelphia</i>	Mourning Warbler	2
<i>Melanerpes carolinus</i>	Red-bellied Woodpecker	2
<i>Corthylio calendula</i>	Ruby-crowned Kinglet	2
<i>Sphyrapicus varius</i>	Yellow-bellied Sapsucker	2
<i>Setophaga ruticilla</i>	American Redstart	1
<i>Turdus migratorius</i>	American Robin	1
<i>Icterus galbula</i>	Baltimore Oriole	1
<i>Mniotilta varia</i>	Black-and-white Warbler	1
<i>Setophaga striata</i>	Blackpoll Warbler	1
<i>Cyanocitta cristata</i>	Blue Jay	1
<i>Toxostoma rufum</i>	Brown Thrasher	1
<i>Cardellina canadensis</i>	Canada Warbler	1
<i>Antrostomus carolinensis</i>	Chuck-will's-widow*	1
<i>Columba livia domestica</i>	Feral Pigeon	1
<i>Myiarchus crinitus</i>	Great Crested Flycatcher	1
<i>Catharus guttatus</i>	Hermit Thrush	1
<i>Setophaga magnolia</i>	Magnolia Warbler	1
<i>Cistothorus palustris</i>	Marsh Wren	1
<i>Zenaida macroura</i>	Mourning Dove	1
<i>Colaptes auratus</i>	Northern Flicker	1
<i>Catharus ustulatus</i>	Swainson's Thrush	1
<i>Empidonax traillii</i>	Willow Flycatcher	1
<i>Cardellina pusilla</i>	Wilson's Warbler	1
<i>Empidonax flaviventris</i>	Yellow-bellied Flycatcher	1
<i>Setophaga coronata</i>	Yellow-rumped Warbler	1
	Other**	25
Total		157

V. Fall 2025

Survey period: 9/1/25-10/18/25

74 surveys conducted; 352 collisions documented

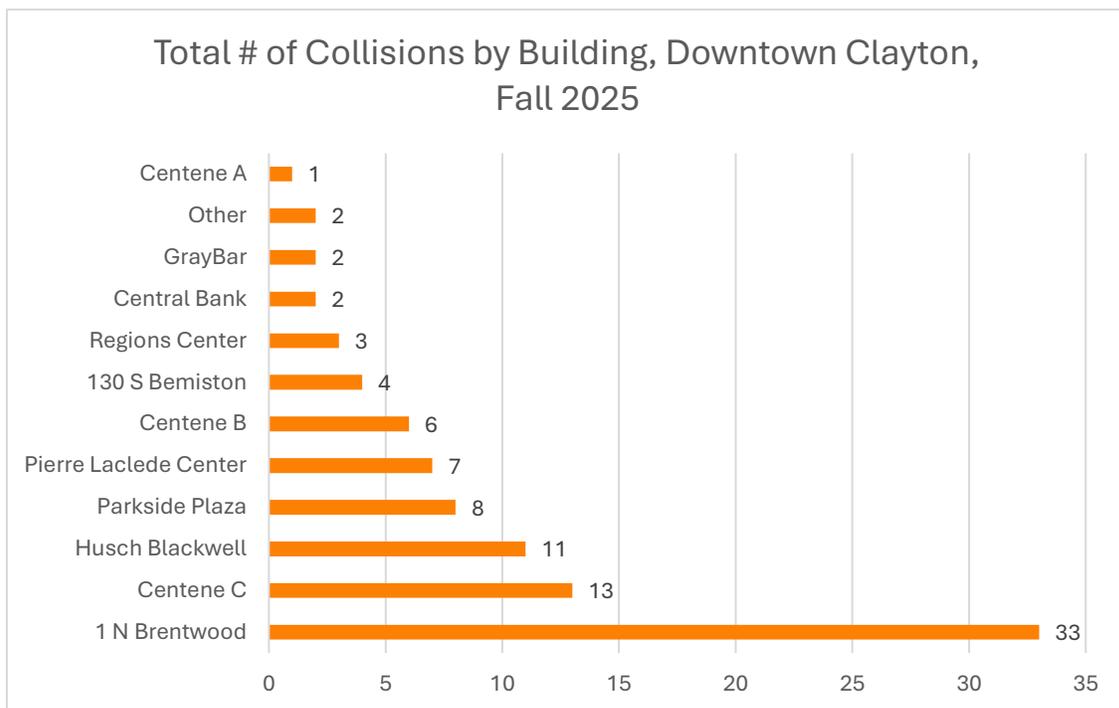
We continued to survey downtown St. Louis and downtown Clayton in fall 2025. However, we saw some slight changes to the buildings we surveyed at both sites. In downtown Clayton, 8235 Forsyth was removed due to construction at the front of the building. In

downtown St. Louis, 909 Chestnut and the south side of AT&T Data Center were also removed due to construction.

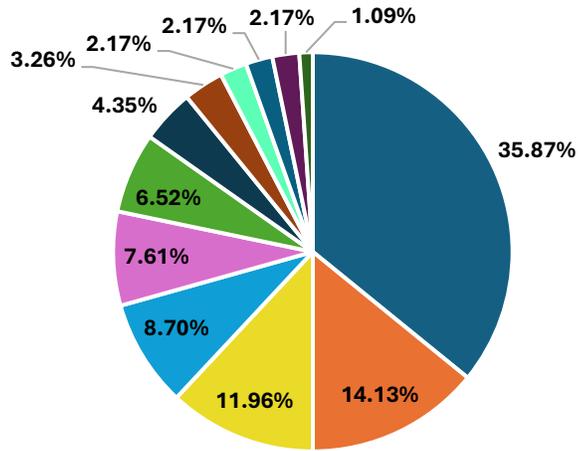
While the original survey period ended on 10/18/25, a handful of additional surveys were organized at each site between 10/19/25 and 10/31/25. These impromptu surveys were organized to follow nights with elevated levels of migration, based on BirdCast forecasts.

i. Downtown Clayton:

- 36 surveys conducted. Documented a total of 92 collisions (Chart 1), representing 24 species of bird.
 - Approximately 8% of surveys at site (3 of 36) documented no collisions.
- The deadliest building during the survey was 1 N. Brentwood, accounting for approximately 36% of all collisions documented (33 out of 92).
 - 2/3 of all collisions documented at 1 N. Brentwood (22 of 33) were Hummingbirds.
- The Centene Campus (Centene Buildings A [1], B [6], and C [13]) accounted for approximately 22% of all collisions documented (20 of 92).



Strikes by Building (as % of Total Collisions), Downtown Clayton, Fall 2025



- 1 N Brentwood
- Centene C
- Husch Blackwell
- Parkside Plaza
- Pierre Laclède Center
- Centene B
- 130 S Bemiston
- Regions Center
- Central Bank
- GrayBar
- Other
- Centene A

- The most documented species during the survey was the Ruby-throated Hummingbird, *Archilochus colubris*, with 33 collisions.

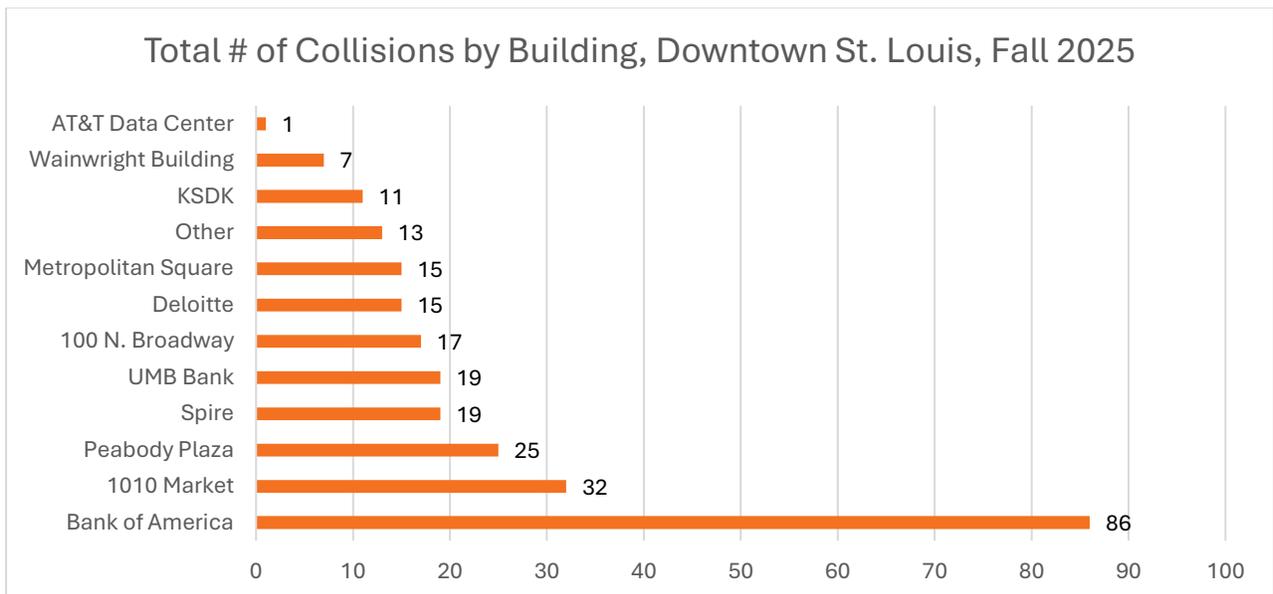
Scientific Name	Common Name	# of Collisions Documented, Downtown Clayton, Fall 2025
<i>Archilochus colubris</i>	Ruby-throated Hummingbird	33
<i>Columba livia domestica</i>	Feral Pigeon	7
<i>Sitta canadensis</i>	Red-breasted Nuthatch	6
<i>Setophaga castanea</i>	Bay-breasted Warbler	4
<i>Certhia americana</i>	Brown Creeper	4
<i>Zenaida macroura</i>	Mourning Dove	4
<i>Leiothlypis ruficapilla</i>	Nashville Warbler	4
<i>Setophaga fusca</i>	Blackburnian Warbler	3
<i>Passer domesticus</i>	House Sparrow	2
<i>Melospiza georgiana</i>	Swamp Sparrow	2
<i>Leiothlypis peregrina</i>	Tennessee Warbler	2
<i>Mniotilta varia</i>	Black-and-white Warbler	1
<i>Setophaga virens</i>	Black-throated Green Warbler*	1
<i>Setophaga pensylvanica</i>	Chestnut-sided Warbler	1
<i>Geothlypis trichas</i>	Common Yellowthroat	1

<i>Dryobates pubescens</i>	Downy Woodpecker	1
<i>Sturnus vulgaris</i>	European Starling	1
<i>Haemorhous mexicanus</i>	House Finch	1
<i>Colaptes auratus</i>	Northern Flicker	1
<i>Troglodytes aedon</i>	Northern House Wren	1
<i>Setophaga americana</i>	Northern Parula	1
<i>Piranga rubra</i>	Summer Tanager	1
<i>Rallus limicola</i>	Virginia Rail	1
<i>Zonotrichia albicollis</i>	White-throated Sparrow	1
	Other**	8
Total		92

- 3 of the 8 birds included in ‘Other’ are hummingbirds that were unable to be identified at the species level. When combined with the Ruby-throated Hummingbirds we located, Hummingbirds accounted for approximately 39% of all collisions documented in downtown Clayton during the season (36 of 92).

ii. Downtown St. Louis:

- 38 surveys conducted. Documented a total of 260 collisions (Chart 2), representing 44 species of bird.
- The deadliest building during the survey was Bank of America, accounting for approximately 33% of all collisions documented (86 of 260, Chart 3).



- The most documented species during the survey was the White-throated Sparrow, *Zonotrichia albicollis*, with 43 collisions.

Scientific Name	Common Name	# of Collisions Documented, Downtown St. Louis, Fall 2025
<i>Zonotrichia albicollis</i>	White-throated Sparrow	43
<i>Seiurus aurocapilla</i>	Ovenbird	27
<i>Leiothlypis peregrina</i>	Tennessee Warbler	15
<i>Leiothlypis ruficapilla</i>	Nashville Warbler	13
<i>Parkesia noveboracensis</i>	Northern Waterthrush	12
<i>Mniotilta varia</i>	Black-and-white Warbler	9
<i>Archilochus colubris</i>	Ruby-throated Hummingbird	9
<i>Geothlypis trichas</i>	Common Yellowthroat	8
<i>Sphyrapicus varius</i>	Yellow-bellied Sapsucker	7
<i>Certhia americana</i>	Brown Creeper	6
<i>Melospiza lincolnii</i>	Lincoln's Sparrow	6
<i>Setophaga magnolia</i>	Magnolia Warbler	6
<i>Melospiza georgiana</i>	Swamp Sparrow	6
<i>Catharus guttatus</i>	Hermit Thrush	5
<i>Setophaga ruticilla</i>	American Redstart	4
<i>Spizella pusilla</i>	Field Sparrow	4
<i>Passerina cyanea</i>	Indigo Bunting	4
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	4
<i>Junco hyemalis</i>	Dark-eyed Junco	3
<i>Dumetella carolinensis</i>	Gray Catbird	3
<i>Troglodytes aedon</i>	Northern House Wren	3
<i>Regulus satrapa</i>	Golden-crowned Kinglet	2
<i>Setophaga americana</i>	Northern Parula	2
<i>Setophaga palmarum</i>	Palm Warbler	2
<i>Sitta canadensis</i>	Red-breasted Nuthatch	2
<i>Melospiza melodia</i>	Song Sparrow	2
<i>Setophaga dominica</i>	Yellow-throated Warbler	2
<i>Turdus migratorius</i>	American Robin	1
<i>Scolopax minor</i>	American Woodcock	1
<i>Setophaga castanea</i>	Bay-breasted Warbler	1
<i>Toxostoma rufum</i>	Brown Thrasher	1
<i>Thryothorus ludovicianus</i>	Carolina Wren	1
<i>Setophaga pensylvanica</i>	Chestnut-sided Warbler	1
<i>Oporornis agilis</i>	Connecticut Warbler	1
<i>Dryobates pubescens</i>	Downy Woodpecker	1
<i>Melospiza melodia melodia</i>	Eastern Song Sparrow	1

<i>Contopus virens</i>	Eastern Wood-Pewee	1
<i>Passer domesticus</i>	House Sparrow	1
<i>Parkesia motacilla</i>	Louisiana Waterthrush	1
<i>Geothlypis philadelphia</i>	Mourning Warbler	1
<i>Corthylio calendula</i>	Ruby-crowned Kinglet	1
<i>Cistothorus stellaris</i>	Sedge Wren	1
<i>Catharus ustulatus</i>	Swainson's Thrush	1
<i>Empidonax flaviventris</i>	Yellow-bellied Flycatcher	1
	Other**	34
Total		260

VI. Summary

We continue to encounter a substantially higher number of collisions in downtown St. Louis vs. downtown Clayton. Further analysis is needed to understand why, but some possible causes could be downtown St. Louis's proximity to the Mississippi River or higher levels of light pollution.

While we documented more collisions in 2025 than any other year in the program's history, our results are still likely an underrepresentation of the true number of collisions that occur. Reasons for this include:

- We are only surveying a limited area/number of buildings.
- Building design prevents us from counting all collisions. For example, the tower of the 'Hilton St. Louis at the Ballpark' in downtown St. Louis is surrounded by a two-story building at the ground level. Most collisions with the tower would likely fall on the roof of the surrounding building.
- Some buildings have cordoned off areas that we can't access, such as the east side of the Spire Building in downtown St. Louis.
- We receive anecdotal information from groundskeeping/building staff about collisions that have already been removed and collisions we cannot see from the street.

VII. Acknowledgments

2025 was another notable year for the BirdSafeSTL program. For the first time we completed two full seasons of surveys at two sites, which is reflected in the 130 surveys we conducted. This is a significant increase compared to our previous single year record of

102 surveys in 2024. The increase is primarily from conducting a full season of spring surveys in downtown St. Louis vs. partial spring surveying in 2024.

All of these surveys wouldn't be possible without the efforts of our amazing BirdSafeSTL volunteers. Our community of surveyors continues to grow, with 47 individuals participating in surveys during our 2025 season. That represents the most individual participants for the program in a single year. Thank you for your dedication and everything you do to make St. Louis a safer place for birds!

Additional Resources:

- | | |
|--|---|
| BirdSafeSTL program page | https://stlouisaudubon.org/birdsafestl/ |
| Downtown St. Louis iNaturalist project | https://www.inaturalist.org/projects/birdsafestl |
| Downtown Clayton iNaturalist project | https://www.inaturalist.org/projects/birdsafe-stl-downtown-clayton |

Table 1: Complete Species List, 2025 Collision Surveys

Scientific Name	Common Name	# of Collisions Documented, 2025
<i>Zonotrichia albicollis</i>	White-throated Sparrow	67
<i>Seiurus aurocapilla</i>	Ovenbird	49
<i>Archilochus colubris</i>	Ruby-throated Hummingbird	43
<i>Leiothlypis peregrina</i>	Tennessee Warbler	31
<i>Leiothlypis ruficapilla</i>	Nashville Warbler	22
<i>Passerina cyanea</i>	Indigo Bunting	18
<i>Parkesia noveboracensis</i>	Northern Waterthrush	17
<i>Geothlypis trichas</i>	Common Yellowthroat	15
<i>Melospiza georgiana</i>	Swamp Sparrow	12
<i>Mniotilta varia</i>	Black-and-white Warbler	11
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	11
<i>Certhia americana</i>	Brown Creeper	10
<i>Columba livia domestica</i>	Feral Pigeon	9
<i>Sphyrapicus varius</i>	Yellow-bellied Sapsucker	9
<i>Passer domesticus</i>	House Sparrow	8
<i>Sitta canadensis</i>	Red-breasted Nuthatch	8
<i>Dumetella carolinensis</i>	Gray Catbird	7
<i>Setophaga magnolia</i>	Magnolia Warbler	7
<i>Setophaga castanea</i>	Bay-breasted Warbler	6
<i>Dryobates pubescens</i>	Downy Woodpecker	6
<i>Catharus guttatus</i>	Hermit Thrush	6
<i>Melospiza lincolnii</i>	Lincoln's Sparrow	6
<i>Zenaidura macroura</i>	Mourning Dove	6
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	6
<i>Setophaga ruticilla</i>	American Redstart	5
<i>Sturnus vulgaris</i>	European Starling	5
<i>Catharus ustulatus</i>	Swainson's Thrush	5
<i>Spizella pusilla</i>	Field Sparrow	4
<i>Troglodytes aedon</i>	Northern House Wren	4
<i>Turdus migratorius</i>	American Robin	3
<i>Scolopax minor</i>	American Woodcock	3
<i>Setophaga fusca</i>	Blackburnian Warbler	3
<i>Setophaga pensylvanica</i>	Chestnut-sided Warbler	3
<i>Junco hyemalis</i>	Dark-eyed Junco	3
<i>Geothlypis philadelphia</i>	Mourning Warbler	3
<i>Setophaga americana</i>	Northern Parula	3
<i>Vireo olivaceus</i>	Red-eyed Vireo	3
<i>Corthylio calendula</i>	Ruby-crowned Kinglet	3

<i>Toxostoma rufum</i>	Brown Thrasher	2
<i>Regulus satrapa</i>	Golden-crowned Kinglet	2
<i>Haemorhous mexicanus</i>	House Finch	2
<i>Colaptes auratus</i>	Northern Flicker	2
<i>Setophaga palmarum</i>	Palm Warbler	2
<i>Melanerpes carolinus</i>	Red-bellied Woodpecker	2
<i>Melospiza melodia</i>	Song Sparrow	2
<i>Piranga rubra</i>	Summer Tanager	2
<i>Empidonax flaviventris</i>	Yellow-bellied Flycatcher	2
<i>Setophaga dominica</i>	Yellow-throated Warbler	2
<i>Icterus galbula</i>	Baltimore Oriole	1
<i>Setophaga striata</i>	Blackpoll Warbler	1
<i>Setophaga virens</i>	Black-throated Green Warbler*	1
<i>Cyanocitta cristata</i>	Blue Jay	1
<i>Cardellina canadensis</i>	Canada Warbler	1
<i>Thryothorus ludovicianus</i>	Carolina Wren	1
<i>Antrostomus carolinensis</i>	Chuck-will's-widow*	1
<i>Oporornis agilis</i>	Connecticut Warbler	1
<i>Melospiza melodia melodia</i>	Eastern Song Sparrow	1
<i>Contopus virens</i>	Eastern Wood-Pewee	1
<i>Myiarchus crinitus</i>	Great Crested Flycatcher	1
<i>Parkesia motacilla</i>	Louisiana Waterthrush	1
<i>Cistothorus palustris</i>	Marsh Wren	1
<i>Cistothorus stellaris</i>	Sedge Wren	1
<i>Rallus limicola</i>	Virginia Rail*	1
<i>Empidonax traillii</i>	Willow Flycatcher	1
<i>Cardellina pusilla</i>	Wilson's Warbler	1
<i>Setophaga coronata</i>	Yellow-rumped Warbler	1
	Other**	69

Total: 547

*Species included in Missouri Department of Conservation's ' Missouri Species and Communities of Conservation Concern Checklist, January 2026' (<https://mdc.mo.gov/sites/default/files/2025-12/2026%20SOCC%20Checklist.pdf>).

**Birds included in 'Other' were unidentifiable at the species level for various reasons (flattened by vehicle, decomposition, etc).

Chart 1: # of Collisions Documented by Date, Downtown Clayton, Fall 2025

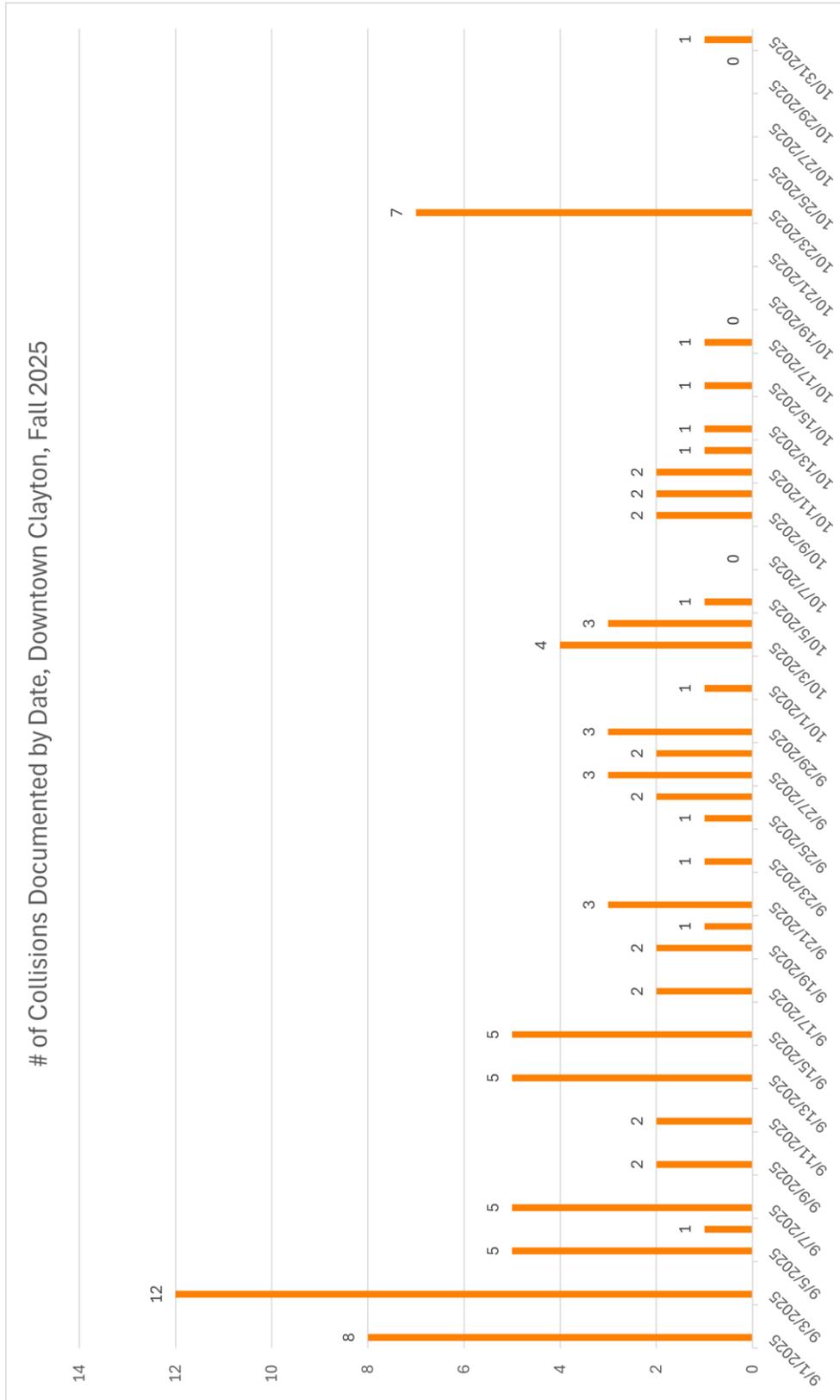


Chart 2: # of Collisions Documented by Date, Downtown St. Louis, Fall 2025

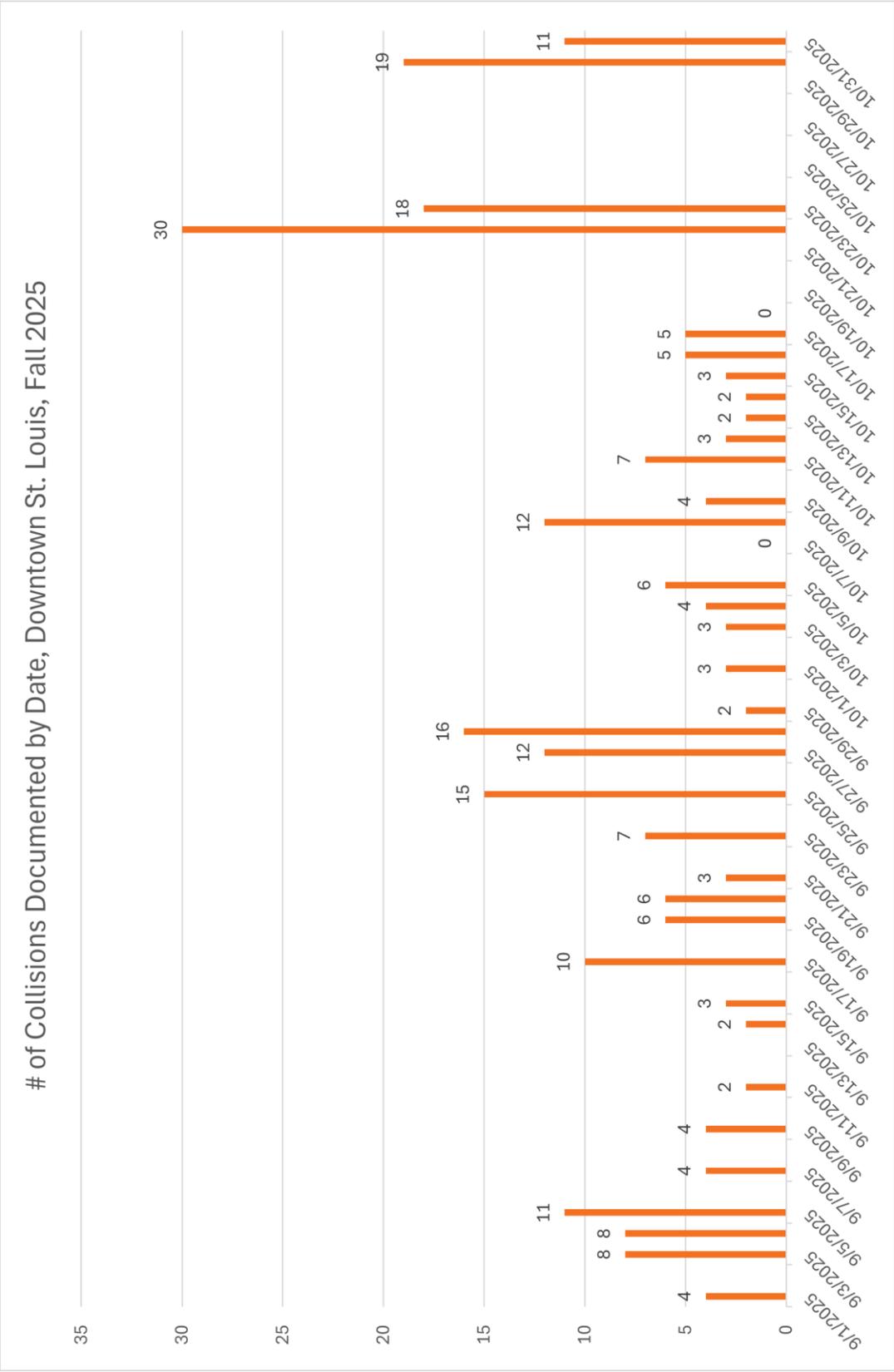
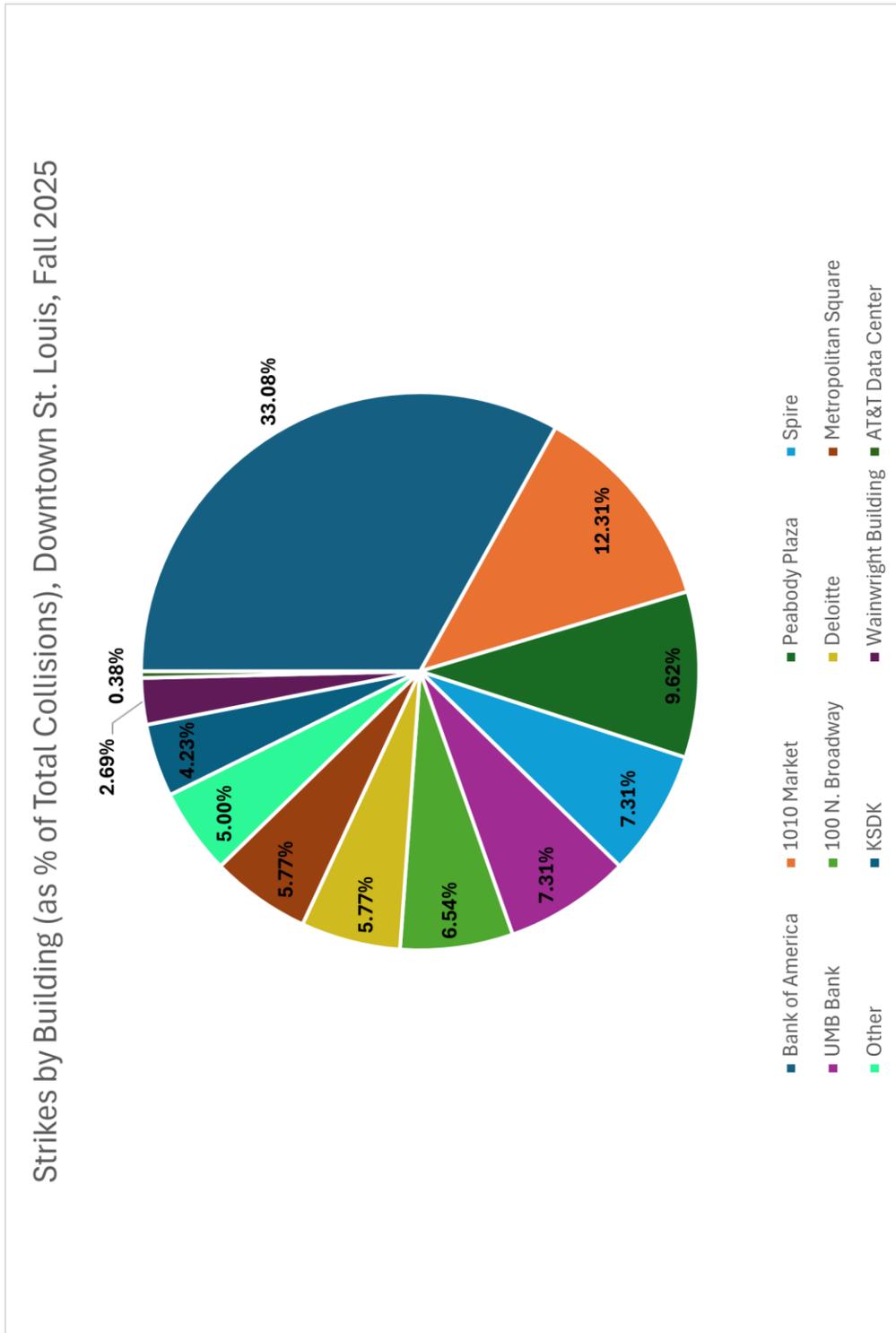


Chart 3: Strikes by Building as % of Total Collisions, Downtown St. Louis, Fall 2025



ⁱ Loss et al. 2014. [Bird–building collisions in the United States: Estimates of annual mortality and species vulnerability](#). *Condor*