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**Rocky
River**



IMPORTANT BIRD AREA

This site is part of a global
network of places recognized
for their outstanding value
to bird conservation



Audubon



**Important
Bird Area**



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Presentation outline

- Watershed basics
- Intro to the Rocky River IBA
- Conservation science in the IBA
- Results, findings, and outcomes
- Insights on forest fragmentation
- Changes in climate and land cover
- End notes



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Welcome to the Rocky River Watershed!





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This is a Watershed

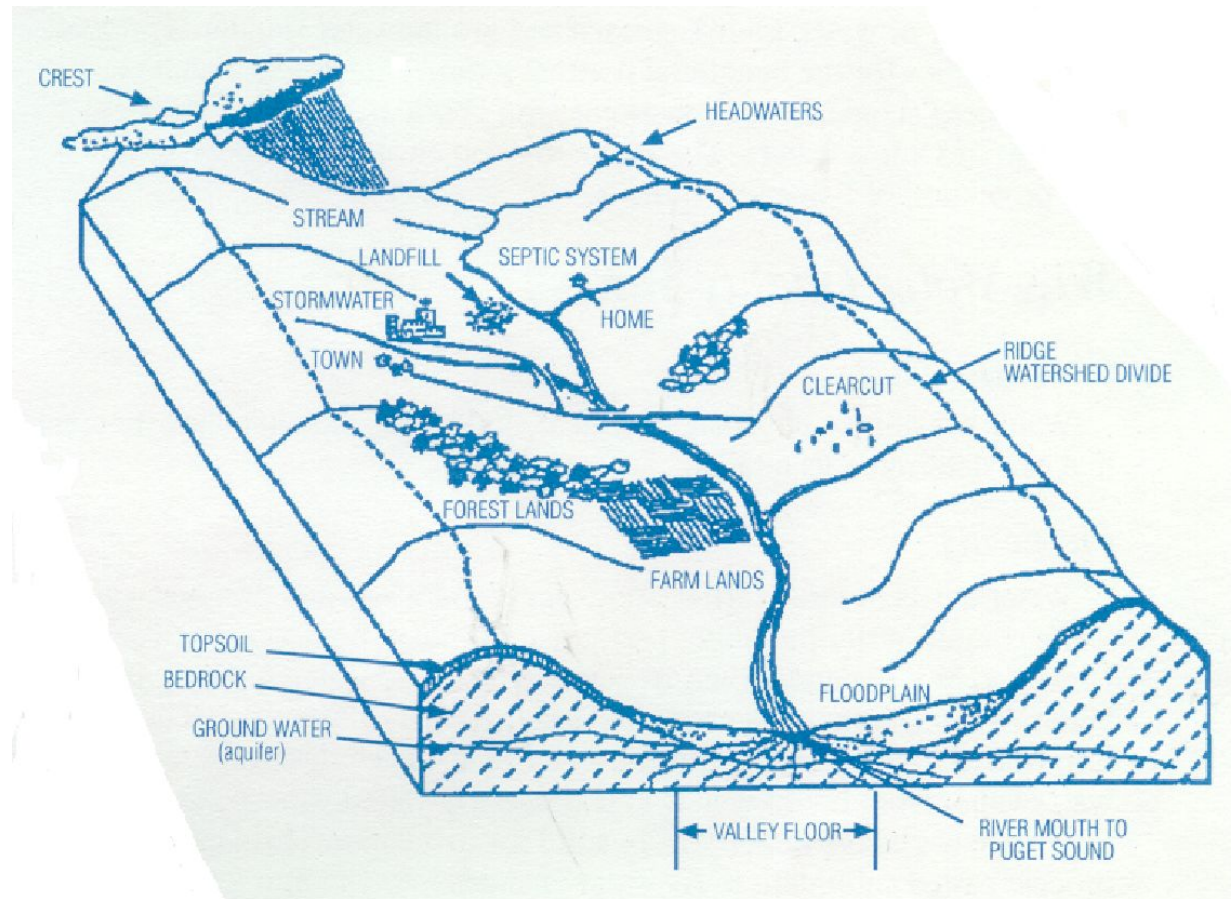
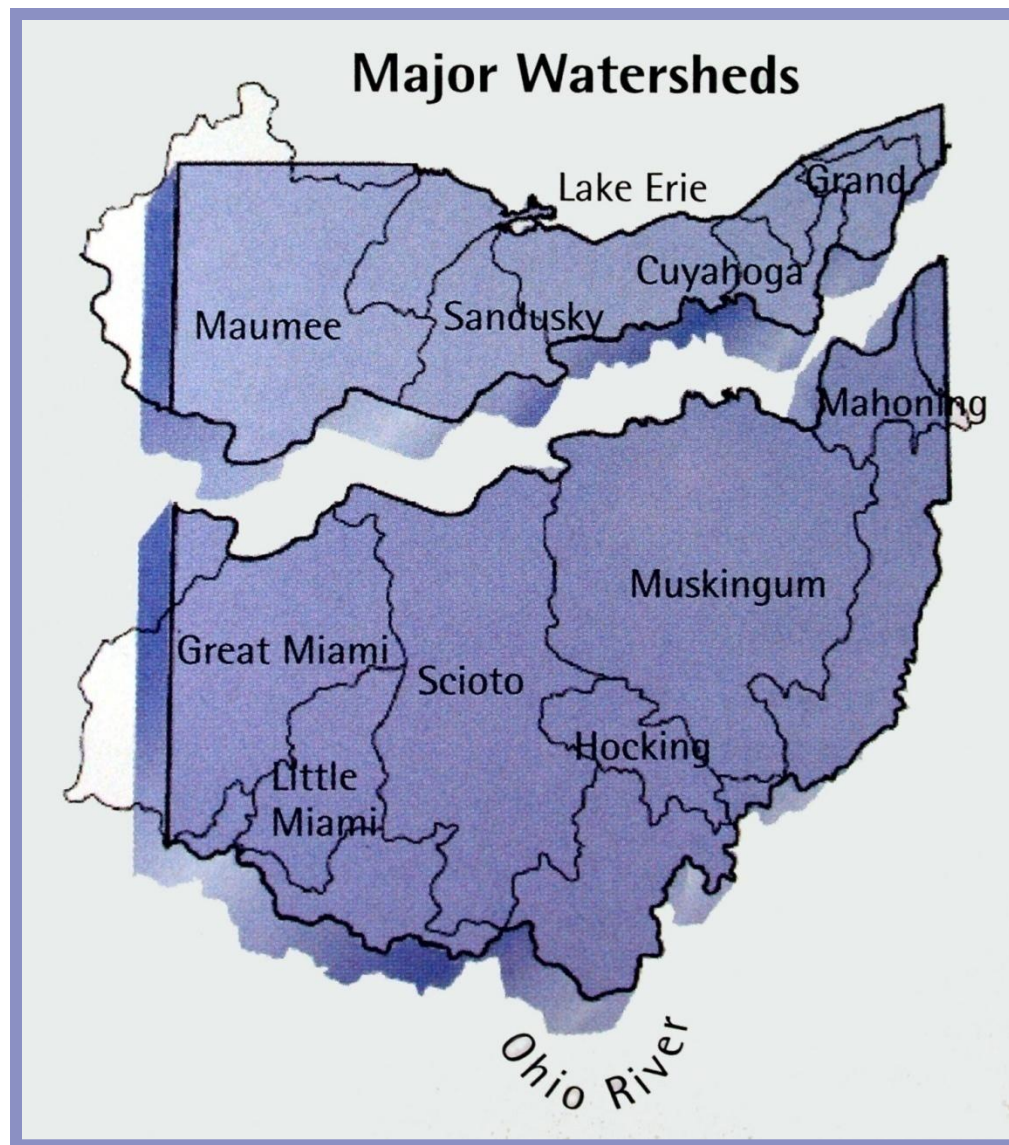


Figure from Indian Lake Master Watershed Stewards Program



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Watershed Issues

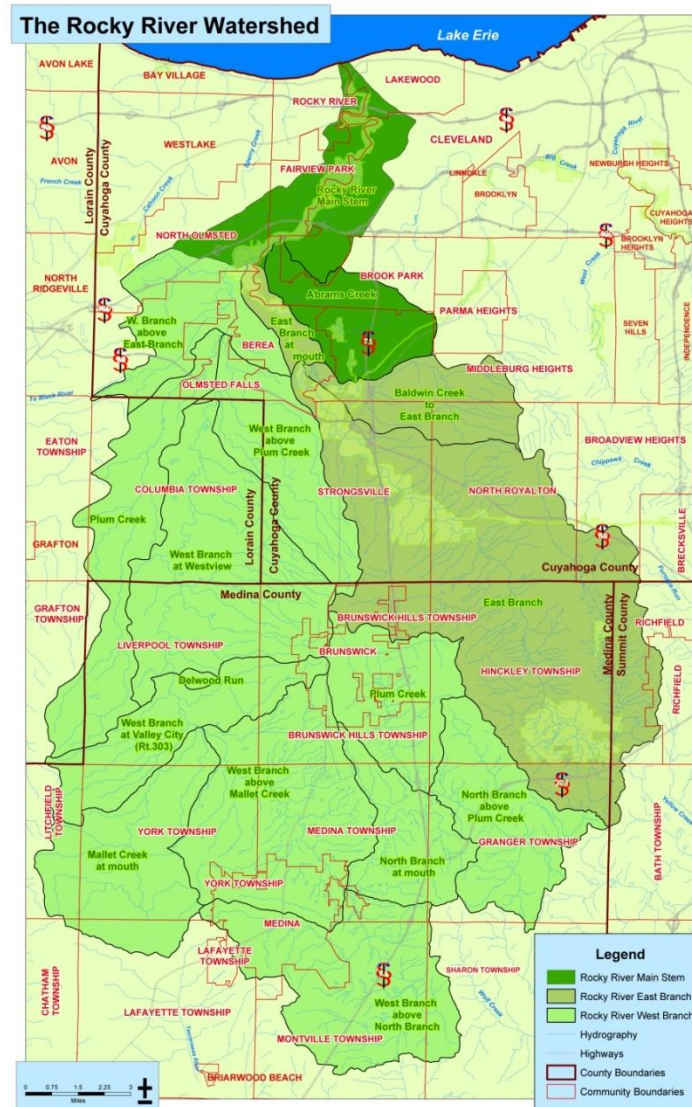
- Invasive plants
- Deer browse
- Stormwater runoff



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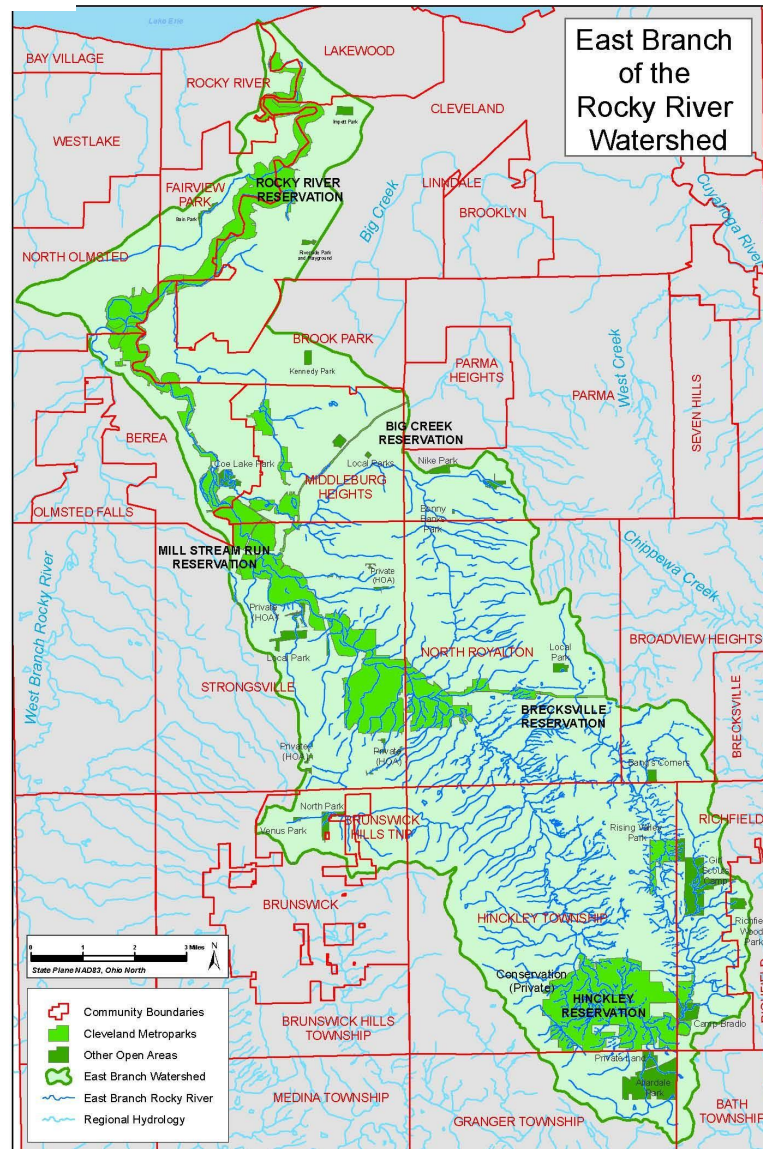
What does the Rocky River watershed have to do with the Rocky River Important Bird Area?





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Rocky River Reservation

Mill Stream Run Reservation



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Hinckley Reservation





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Conservation science

- Birds are a barometer of the health of the habitat.
- Data about birds help Cleveland Metroparks conserve habitat.
- Citizen scientists (volunteers) make a difference in conservation.



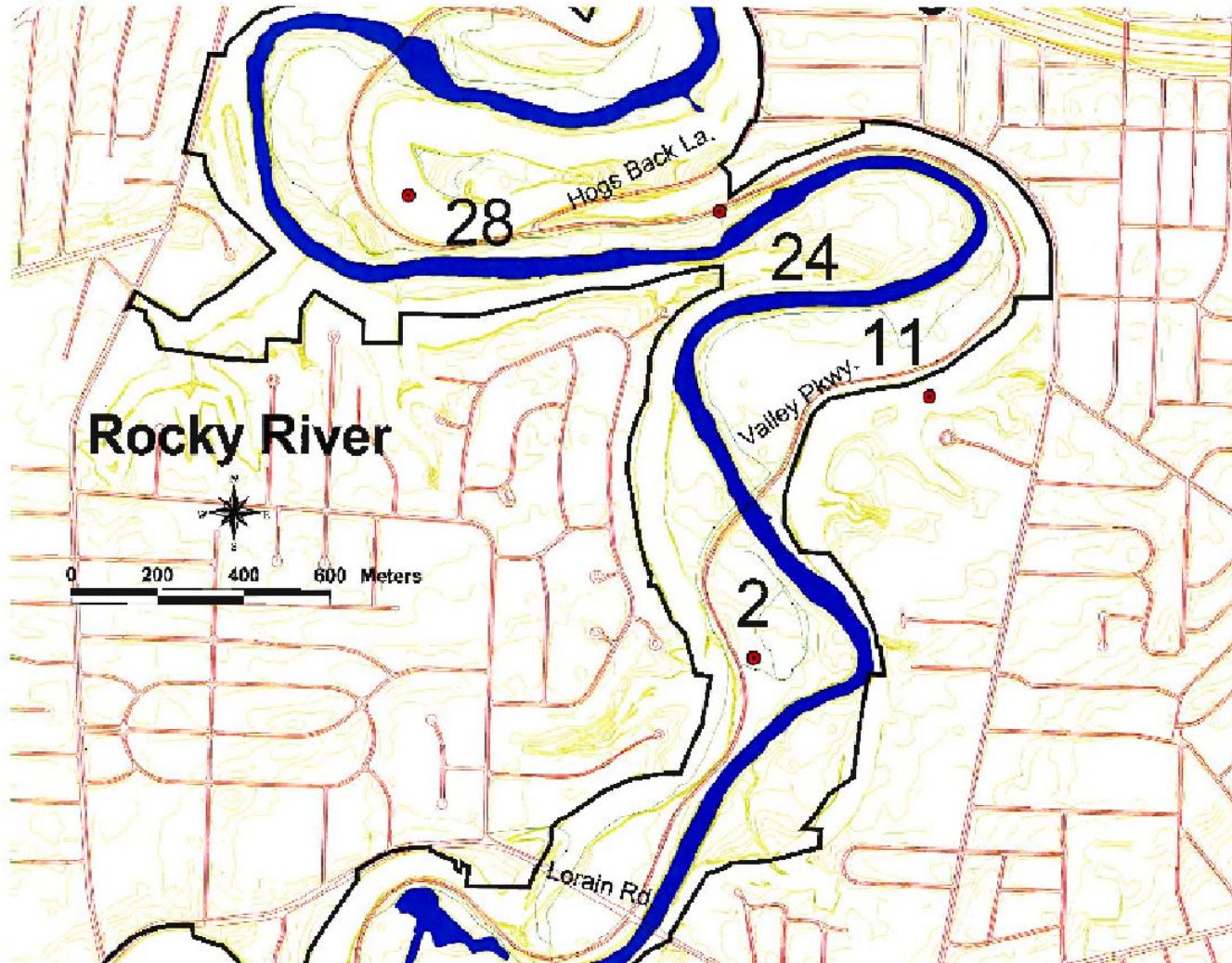
Methodology

- We assessed the diversity and abundance of forest breeding birds over a five-year period, 2006-2010.
- We surveyed 65 points each year, 3 times for 10 ten minutes from May-June.



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Finding and marking points





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Training and testing for the surveys





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Surveying the points





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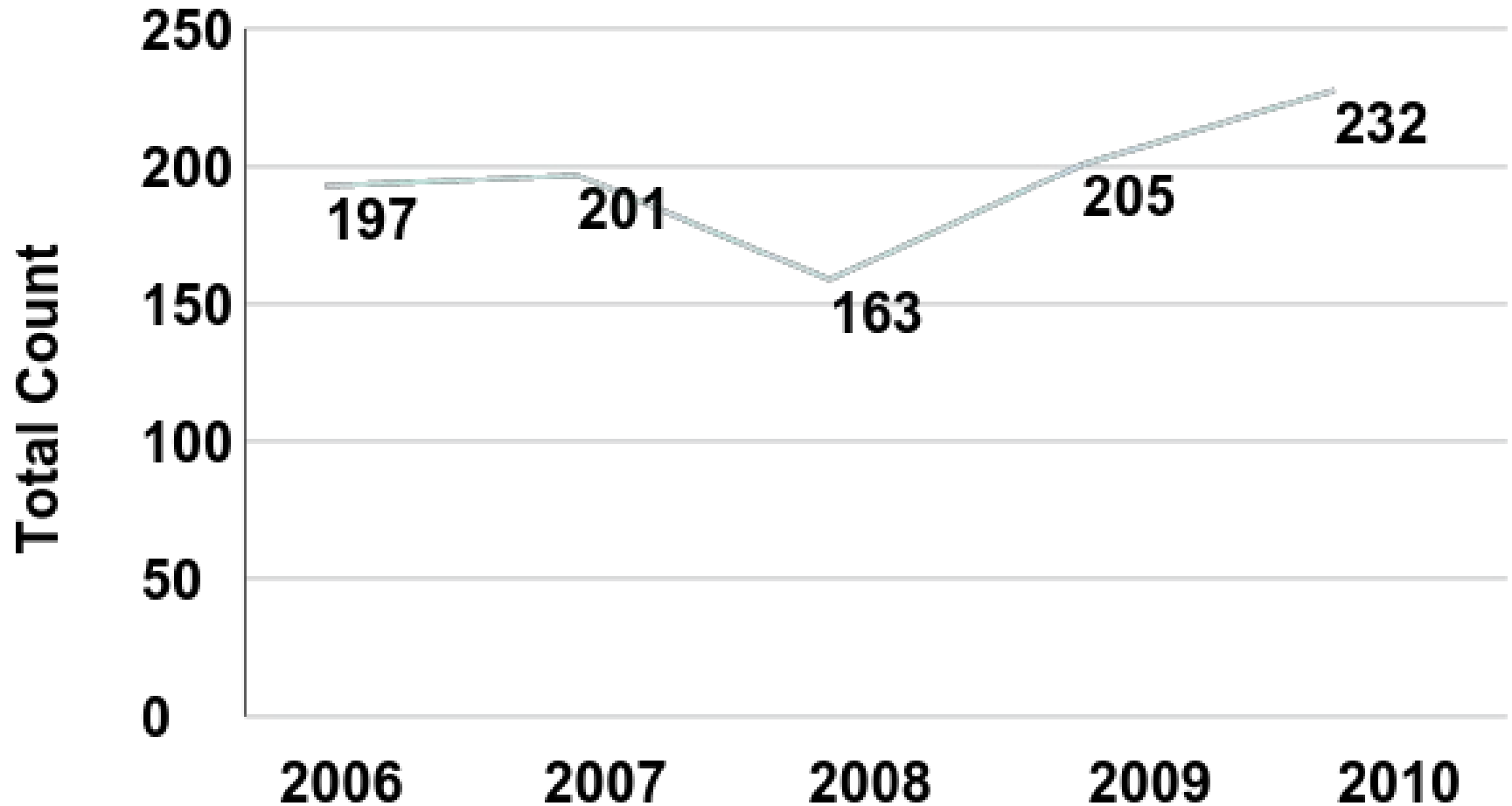
Here are our results!

- We counted 93 species of birds.
- Following are the top ten species of birds we found – not statistically significant, just raw numbers.



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Rocky River IBA Survey: American Robin

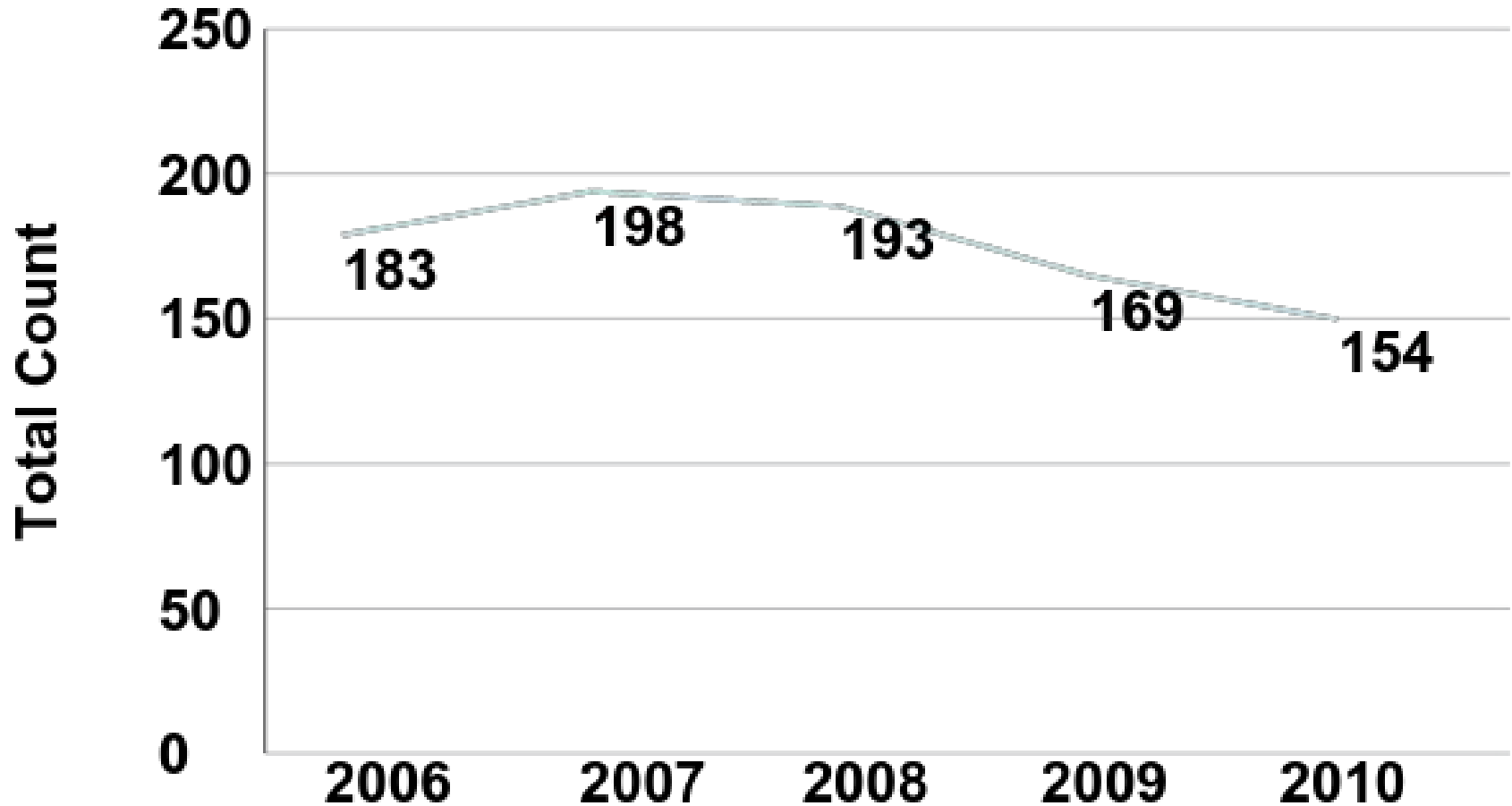




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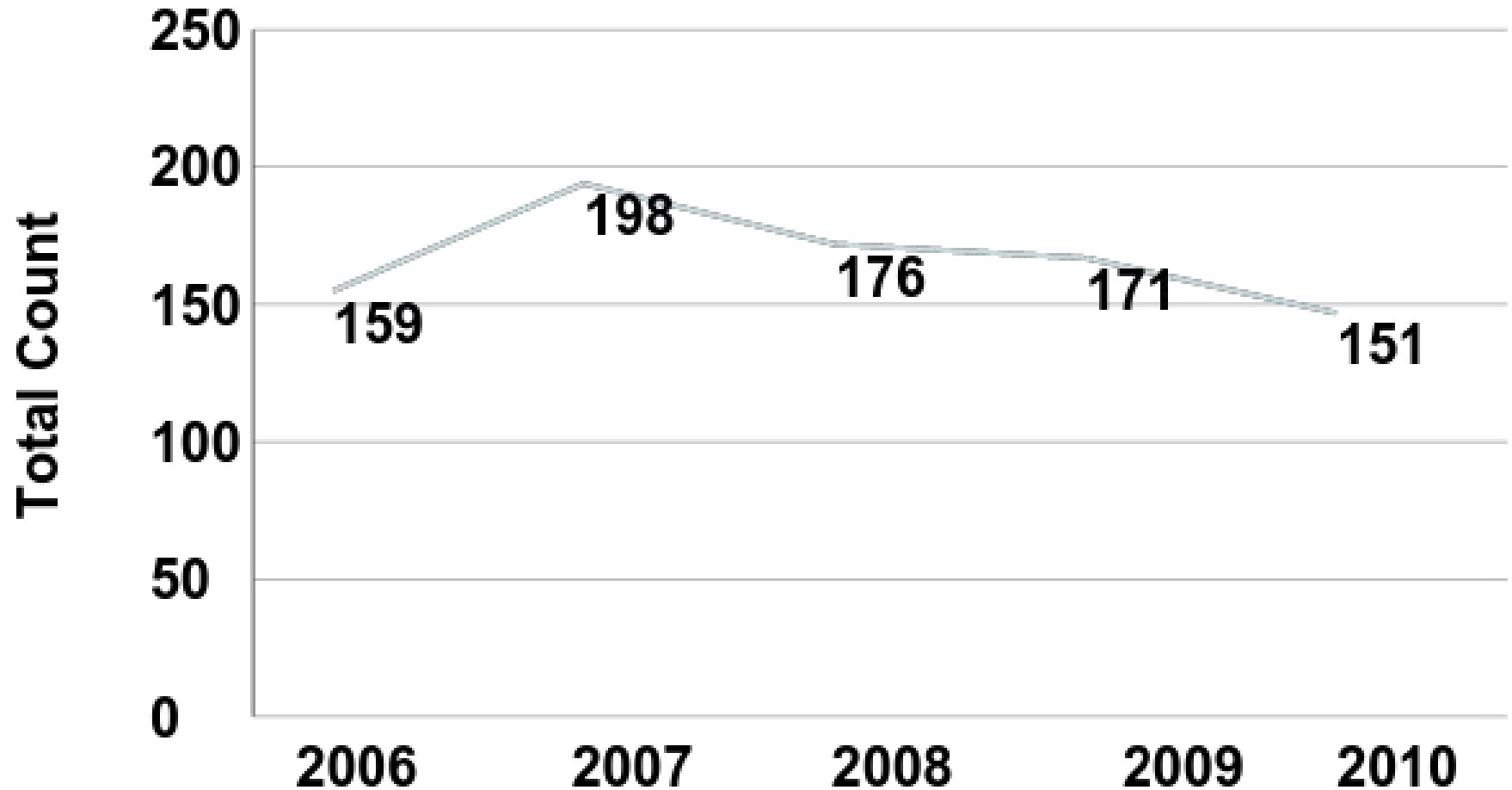
Rocky River IBA Survey: Red-eyed Vireo





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Rocky River IBA Survey: American Cardinal

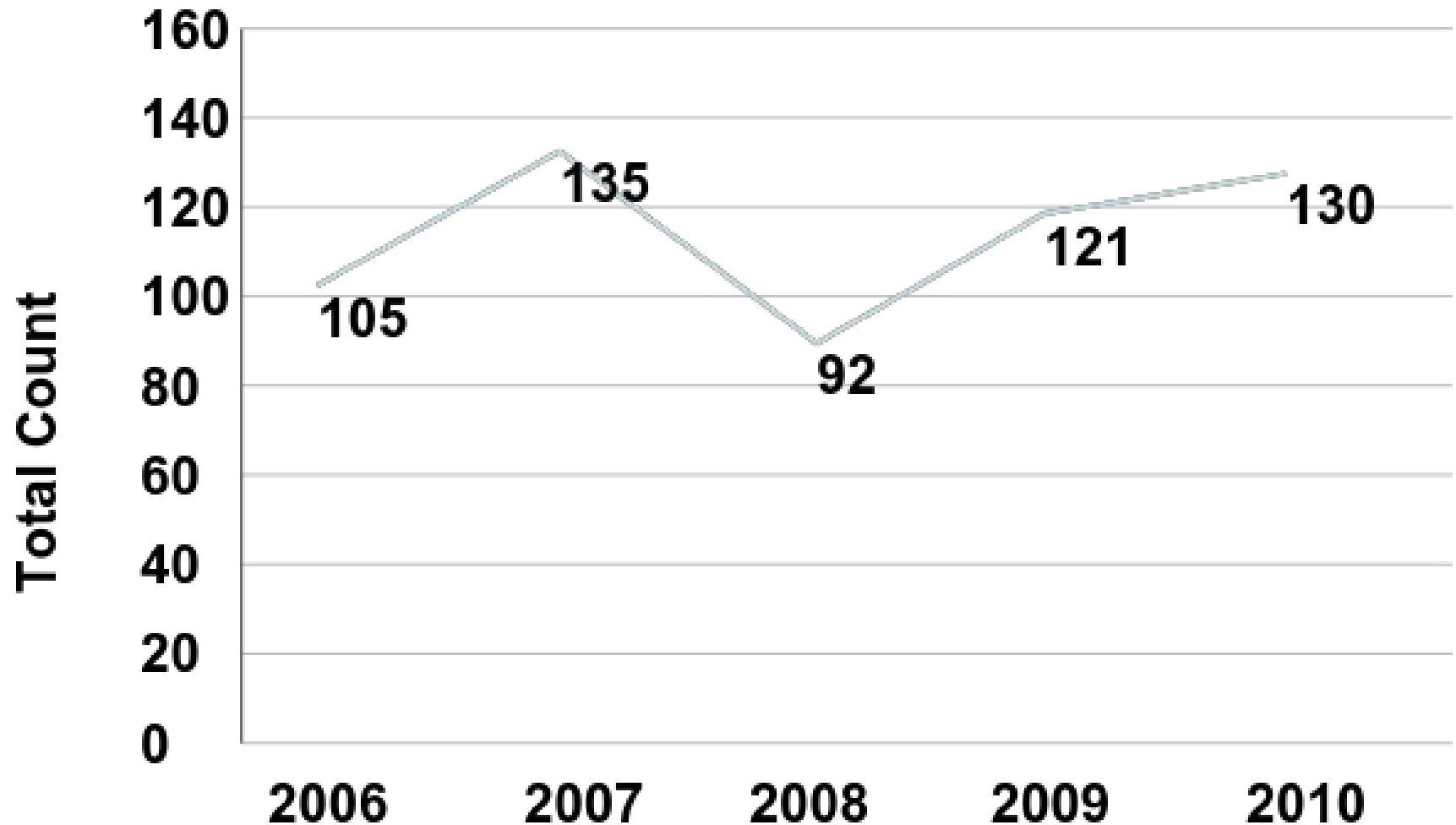




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Rocky River IBA Survey: Blue Jay

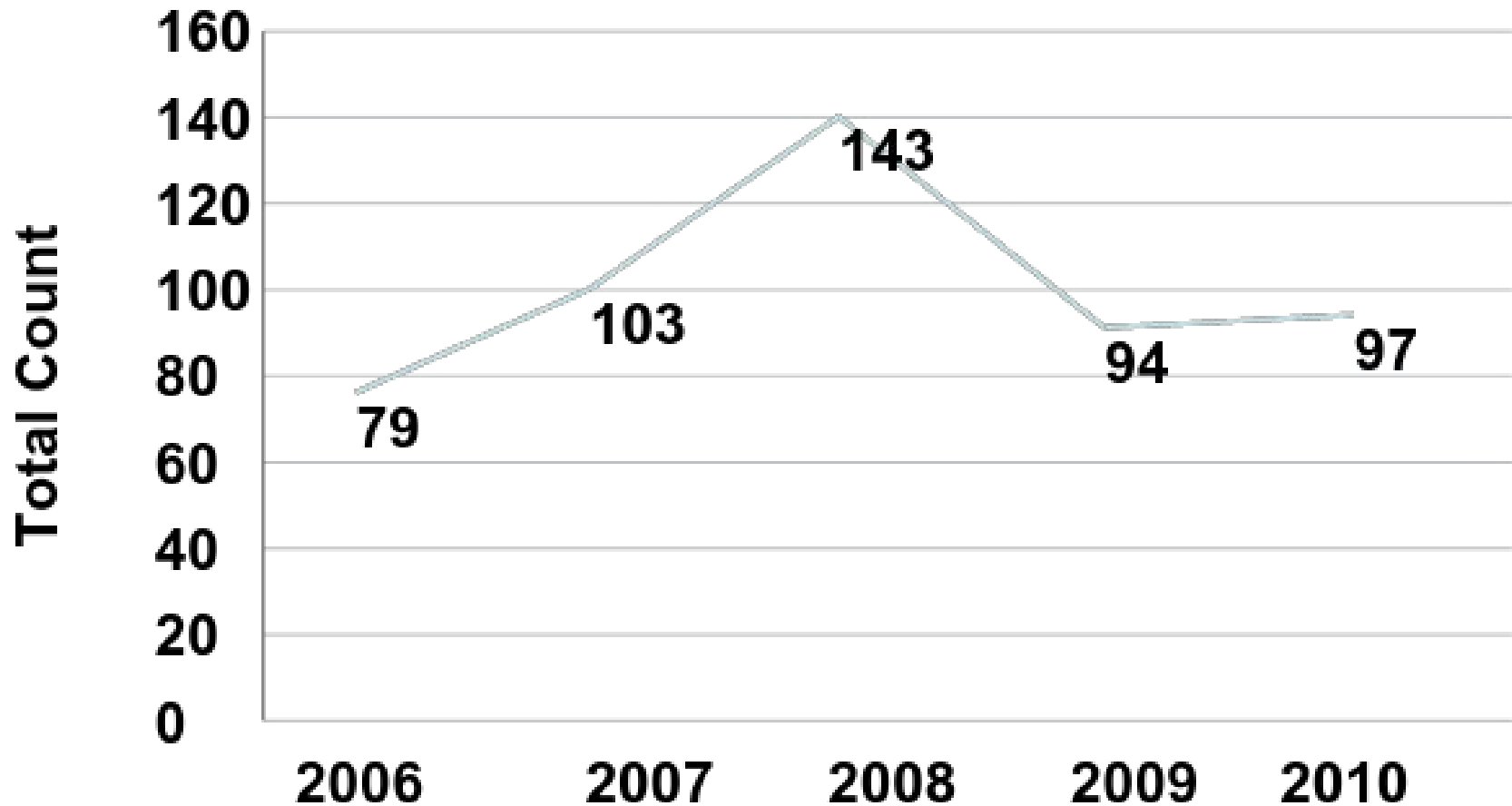




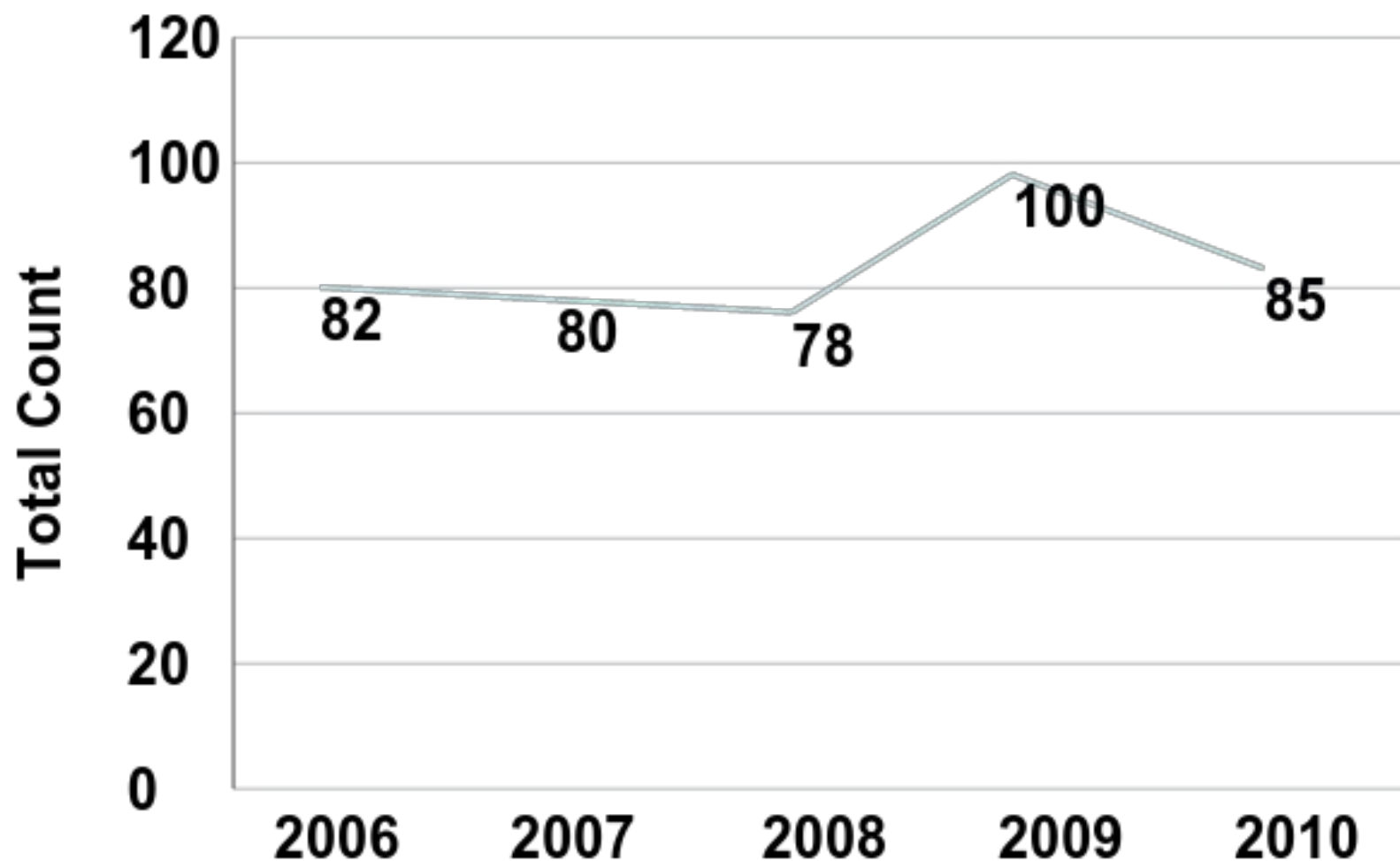
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Rocky River IBA Survey: Black-capped Chickadee



Rocky River IBA Survey: Red-bellied Woodpecker

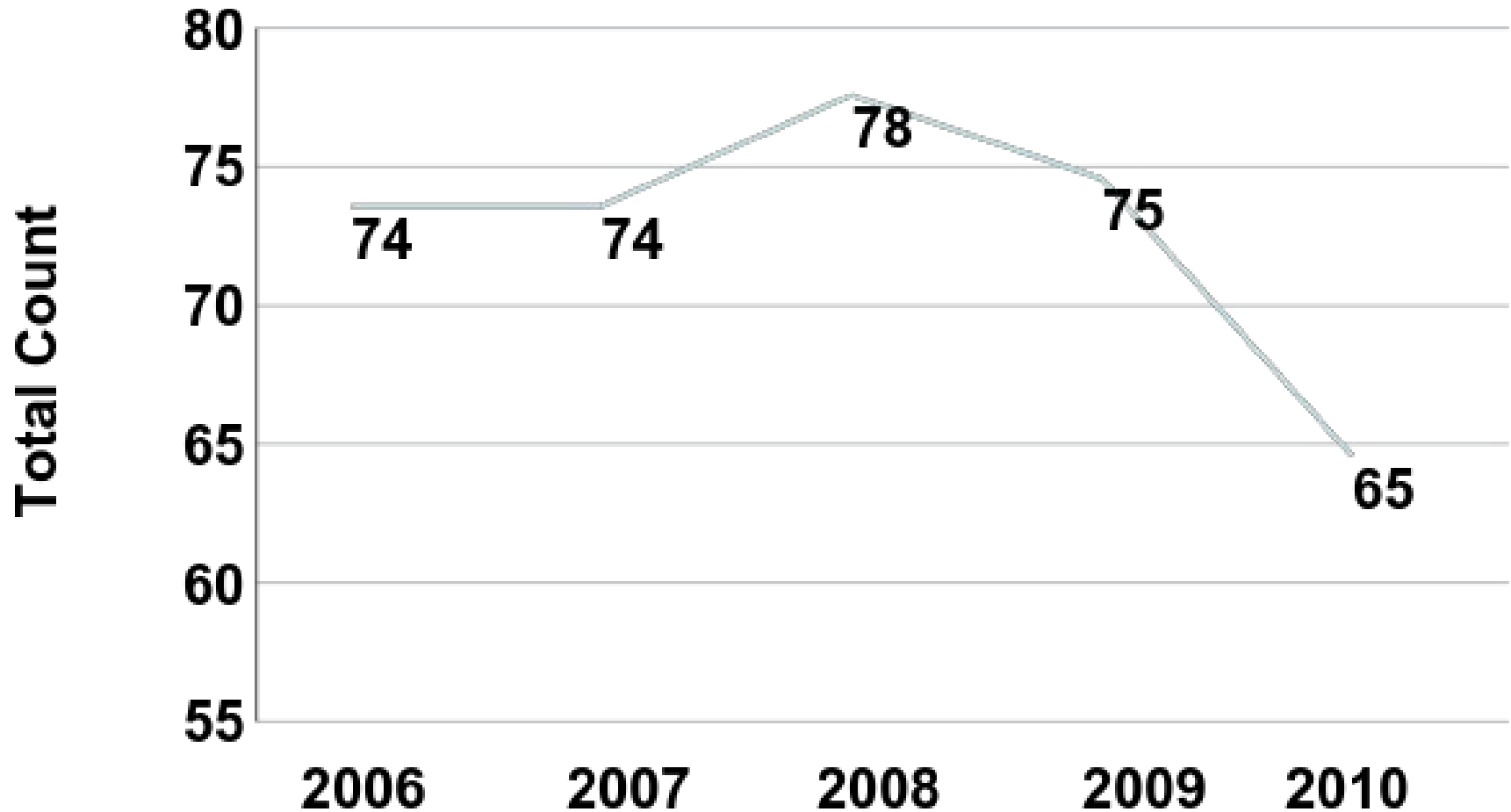




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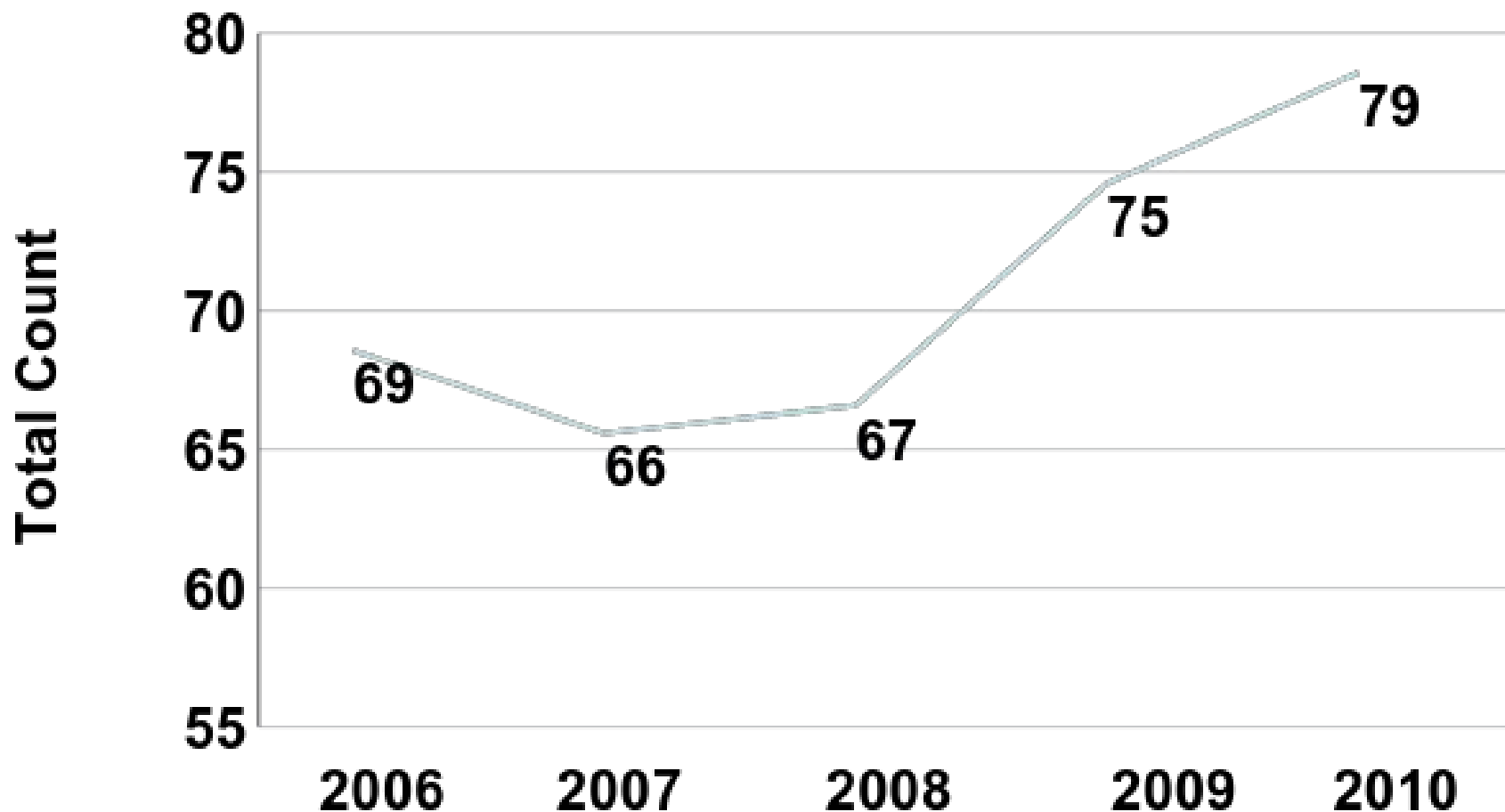
Rocky River IBA Survey: Wood Thrush





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Rocky River IBA Survey: Downy Woodpecker

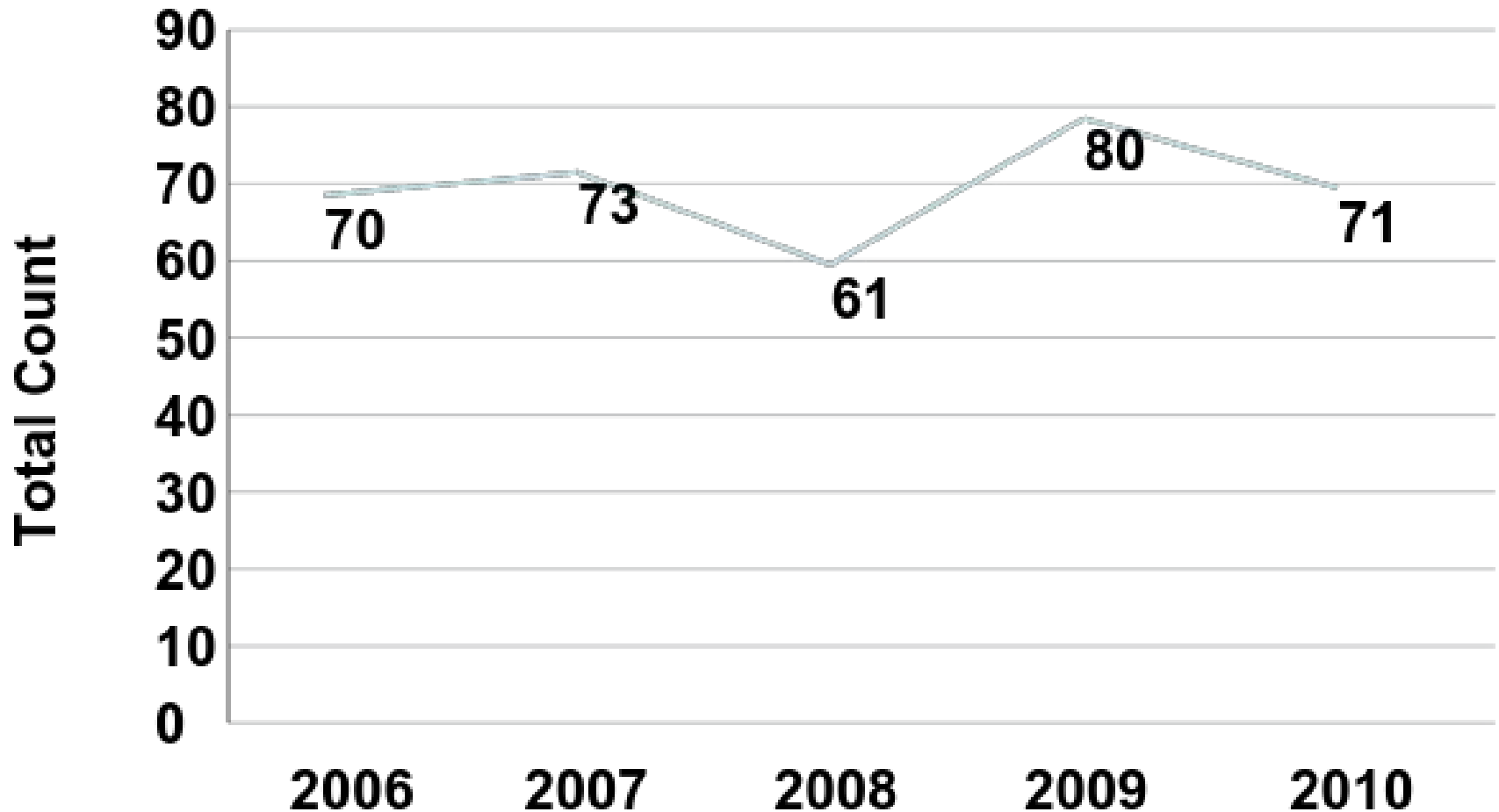




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Rocky River IBA Survey: Eastern Wood Pewee

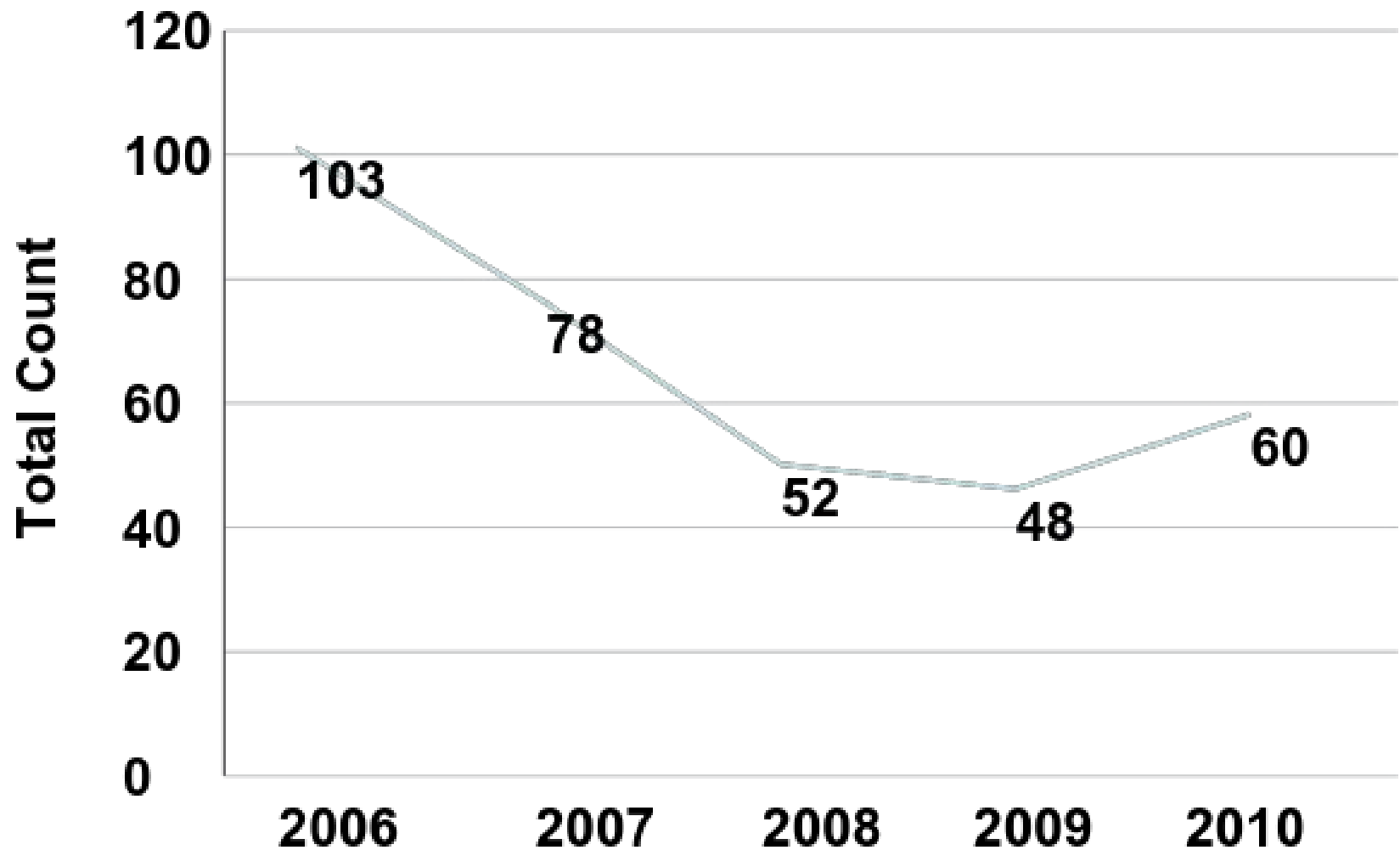




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Rocky River IBA Survey: American Goldfinch



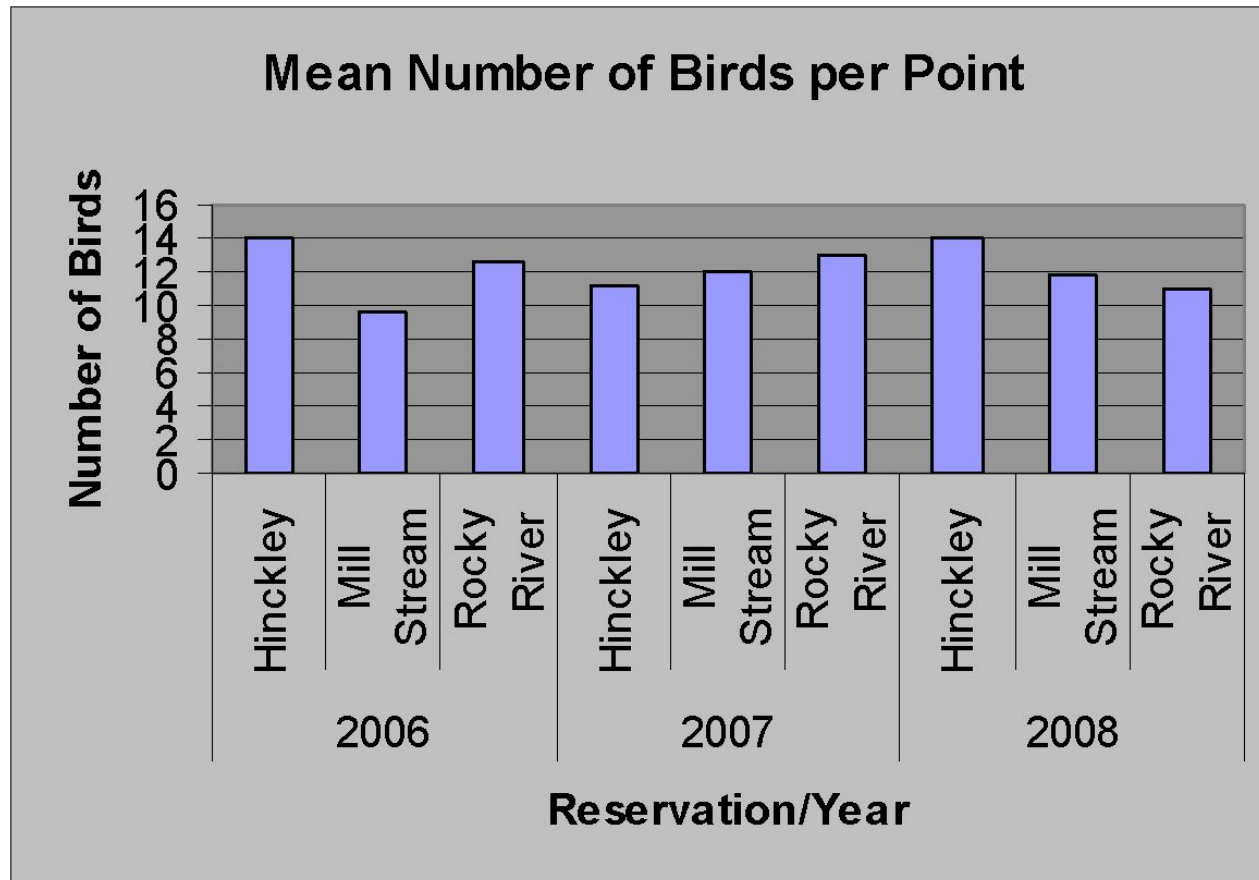


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Our first key finding:

The importance of large, unbroken blocks of forest





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Another perspective on this finding:

Variability of sightings among point counts

Year	Reservation	Mean	Std Dev	Minimum	Maximum
2006	Hinckley	14.0	3.5	7	23
	Mill Stream	9.6	4.1	2	24
	Rocky River	12.7	6.0	2	30
2007	Hinckley	11.2	3.9	3	22
	Mill Stream	12.0	5.4	1	28
	Rocky River	12.9	5.9	4	34
2008	Hinckley	14.0	5.0	5	28
	Mill Stream	11.8	6.7	4	41
	Rocky River	10.9	4.6	4	27



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Here's a good example!

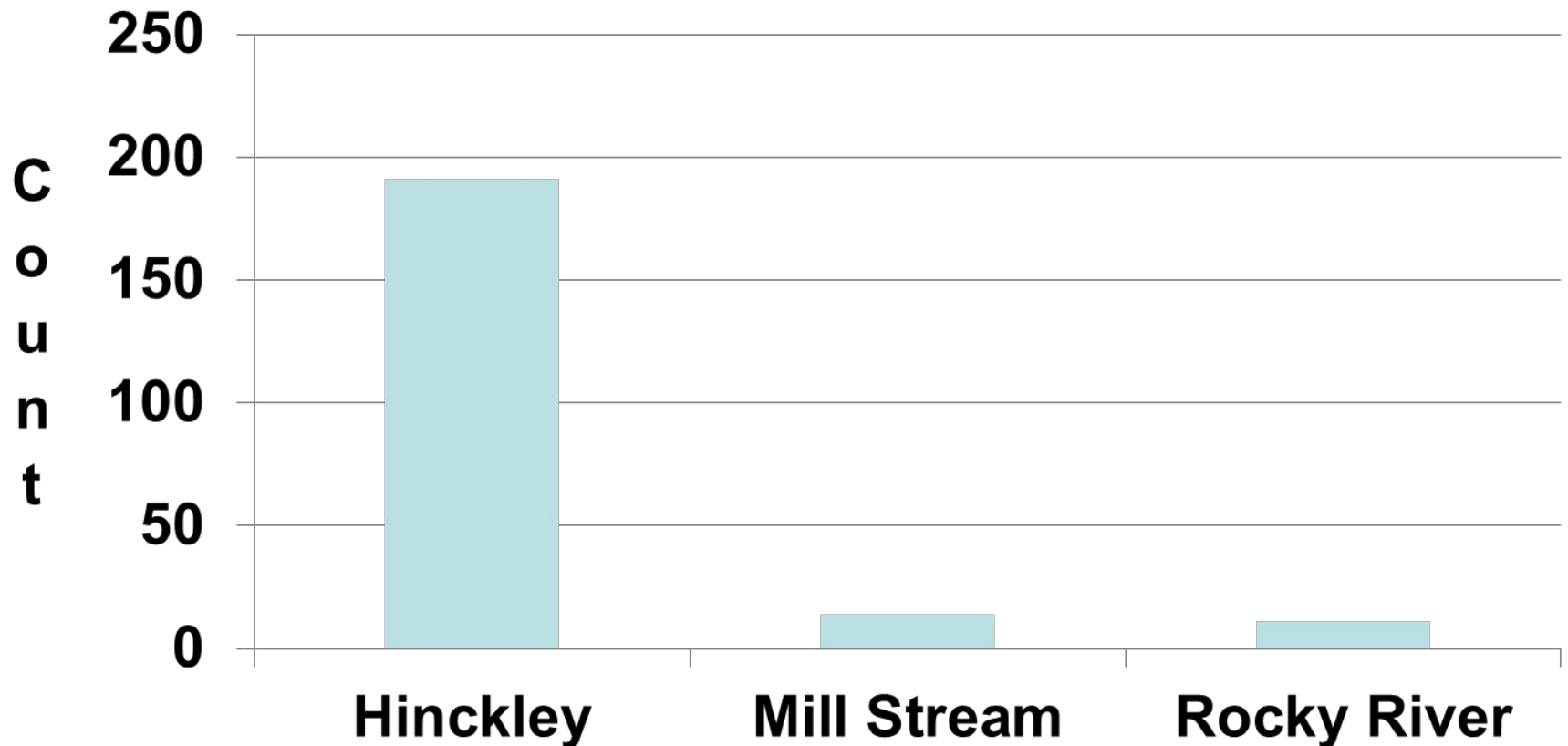




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Rocky River IBA Survey: Hooded Warbler





Notes about Hooded Warblers

- Scott Rush studied HOWA survival in small & large forests in PA in 2002-2003.
- BHCO parasitized more HOWA nests in small versus large forest fragments.
- HOWA fledgling survival rate was higher in large forest fragments.



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The vegetation component





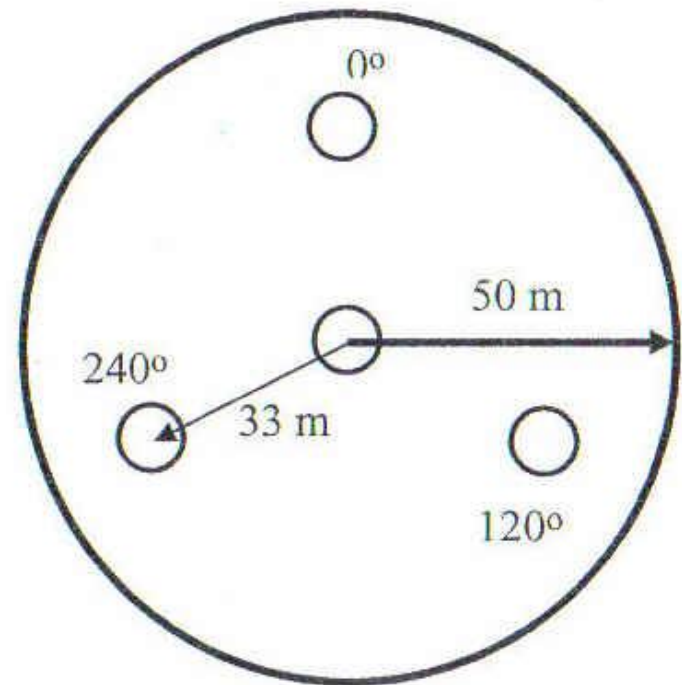
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Forest patch metrics

Four variables:

- Forbs
- Woody stems
- Canopy cover
- Canopy height





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Our second key finding

- Lower vegetation structure supports a diverse population of bird species.
- Cleveland Metroparks has initiated projects that support this finding.



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Forest regeneration in CMP

- CMP has created canopy gaps by cutting ashes injured by Emerald Ash Borers.
- Plantings of white oaks, sycamores, beeches, and shrubs are replacing ashes.
- CMP forests are so small that creating gaps will not promote BHCO parasitism.



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Restoring the forest





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Our first outcome

- We mobilized citizens who made a difference in conservation.
- This was the “volunteer component.”



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The volunteer component

100 people volunteered during the five-year IBA survey in the following tasks:

- Observers
- Recorders
- Point-finding
- Data entry
- Veg surveyors
- Public speaking
- Hospitality
- Board members
- Data analysis
- Fund-raising



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Here's how we found our volunteers!

Strategic planning





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Classroom orientations





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Open houses





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Outdoor certification





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Family activities





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Our second outcome

- We generated data that Cleveland Metroparks is using to obtain grants to buy property in the Rocky River watershed.
- This is why we did the survey!



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Hinckley Reservation





Effects of forest fragmentation

- 3 effects: regional, landscape, local.
- Farms, development promote BHCOs.
- BHCO abundance greatest in landscapes with high fragmentation.
- >70% forest cover best for birds.
- Success best in contiguous forests.



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It wasn't just another bird walk!





Rocky River

Important
Bird Area



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THE GEORGE
GUND
FOUNDATION



OHIO BIRD
CONSERVATION
INITIATIVE



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End notes

- Last points
- Questions
- Thank you for having me!