eBird, Citizen Scientists, & Data – Oh My!



Ashley Dayer & Chris Wood The Cornell Lab of Ornithology



The **Cornell** Lab of Ornithology

Interpret and **conserve** the earth's biological diversity through research, education, and **citizen science** focused on birds.



















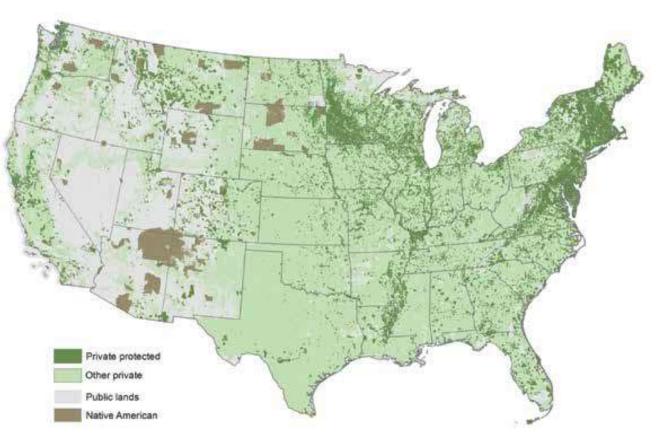






"A large number of acres protected by land trusts is most notable in certain bird habitat types: forest, grasslands, and western forest regions."

THE STATE OF THE BIRDS 2013 REPORT ON PRIVATE LANDS United States of America





Land Trust Interest in Bird Habitat Conservation and Resources

Welcome

The purpose of this survey is to learn more about your land trust's interest and experience with bird habitat conservation and related resources. Even if your land trust isn't that involved with these topics, we are still interested in your response to this survey so the results better represent all land trusts. Results from the survey will be helpful in preparing educational materials, services, and programs for land trusts of all types.

Your participation in this survey is voluntary, but we encourage you to respond. Hearing back from as many land trusts as possible will ensure that the results of the survey are valid and adequately represent the perspectives of land trusts. Please be assured that your identity will be kept strictly confidential, and your responses will never be associated with your name.

If you have any questions about the survey, please contact Dr. Ashley Dayer at aad86@cornell.edu.

Thank you for your help?

This survey is a cooperative effort of the Cornell Lab of Ornithology, the Land Trust Alliance, and Wings Over Western Waters (a consortium of land trusts and bird habitat Joint Ventures).

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Powered by SurveyMonkey Cherk out our sample surveys and create your ownower

Nearly half of land trusts put land under easement due to birds in the past 5 years

Nearly 2/3 considered <u>birds</u> in management plans























Birding Trail Creates Regional Attraction

he coastal wetlands along Lake Huron's Saginaw Bay are not universally appreciated, even by locals, says Zachary Branigan, Saginaw Basin Land Conservancy's executive director. Not everyone understands the critical role wetlands play for a cleaner lake by acting as a natural filter, or that they offer opportunities for recreational uses, such as kayaking and birding.

That is the primary reason the conservancy planned and created the Saginaw Bay Birding Trail, which links 50 existing parks and preserves along Lake Huron's Saginaw Bay into a regional tourist

Bird Rookeries Talk

04/23/2013 - staff

Join Conservation Foundation of the Gulf Coast on Tuesday, May 7th at 10:00 to 11:30am and enter the fascinating world of bird rookeries. This presentation will give you all the fun facts about bird rookeries in Florida. A rookery is a place where wading birds such as egrets, herons, spoonbills and storks go to find a mate. build nests, incubate eags and bring up their young. The presentation uses

natu site TRLT Submits \$1,000,000 NAWCA Grant for the Henry's Fork

ill share her birding trips



attra inch

Wings Over Western Waters

In 2011, Executive Director Andrew Mackie and Executive Director Marie McCarty of the Kachemak Heritage Land Trust, Homer, Alaska, started discussing how they could work together across the West to further local and national bird conservation goals. Drawing from his background in bird conservation, Andrew recognized the opportunity to partner with other land trusts and bird conservation organizations to make a meaningful difference in land conservation. From this initial conversation, Wings Over Western Waters was born.

With support of the Intermountain West and the Pacific Coast Joint Ventures we have been working with land trusts of the Snake Rivel in the West. The initial focus of this program is on two critical habitat types in the West: riparian and wetlands. These

water dependent habitats are important for a variety reasons. Each comprises only a small percentage of the overall Specific objective Western landscape, but provides significant benefits for agriculture, fisheries, wildlife, water quality, and outdoor areas via perpetua recreation. The Land Trust of the Upper Arkansas is focused on all of these benefits so incorporating bird conservathat support high tion goals into the existing land conservation strategy will only help bring more resources to the effort. Wings Over

Western Waters will also let the Land Trusts contribute to a larger conservation effort with significance across the West by providing migratory bird habitat for species identified as declining.

"Partners matching funds"

"Membership growth"

"More land protected"

"Grants for birds"



"Buzz about land trusts' bird activities"

"Increased event participation & volunteerism"

"Increased awareness of mission"

"We get to enjoy more birds!"



Birdwatchers = Citizen Science = Benefits for Land Trusts

79% of land trusts agreed that they would <u>increase</u> their bird and habitat conservation with availability of volunteers to inventory or monitor birds

76% of land trusts agreed that they would <u>increase</u> their bird and habitat conservation with availability of a tool to allow staff or volunteers to inventory or monitor birds

eBird

eBird Participation

- 278 million observations
- 20 million checklists
- 2.11 million locations
- Every country in the world
- 10209 species (98% of all species)
- 14,587,978 hours in the field

18% of land trusts used eBird in the last 5 years

eBird

A Tool for Land Protection & Management



Birdwatchers = Citizen Science = Benefits for Land Trusts

- Selection of land for protection
- Data for grant proposals
- Justification of easements
- Repository for inventory and monitoring efforts
- Connection to citizen scientists → volunteers → supporters → donors?

eBird

Submit Observations My eBird Home About **Explore** Data Help Hello Chris Wood (zeledonia) | Preferences | Sign Out

Translate to: English | Español | Français | Português

View and Explore Data



Explore a Location BETA

Recent sightings, checklists, birding activity, best hotspots, and top birders for a county, state, province, or country.



Explore Hotspots BETA

Discover the best places for birding nearby or around the world.



Range and Point Maps

Explore interactive range maps by species or subspecies - zoom in for details



Bar Charts

Find out what birds to expect throughout the year in a region or location

Your Totals

Track your totals and compare with other eBirders.

Yard Totals

How many species and checklists have you submitted for your yard?

Patch Totals

How many have you submitted for your favorite birding patches?

Top 100

Compare with the top eBirders in your region.

My eBird

Manage your personal lists, observations, locations, and account settings.

Your Life List: 2705 Species

Updated 11 sec ago.

Your Stats

	Life	Year	Month
Total Species	2705	803	274
Total Checklists	14673	961	198
ABA Area Total Ticks	8806	524	150

Your Lists

Major Regions	Country	State/Province	County
	Life	Year	Total County Ticks
Colorado	434	45	5543
Veracruz	420	<u>0</u>	<u>21</u> 95
Texas	390	Q	2703
Chiapas	368	<u>0</u>	-
New York	363	236	4581
California	315	224	980
Florida	315	Q	1799
New Jersey	302	<u>0</u>	746
Jalisco	297	<u>0</u>	
Kansas	292	Q	1207
Minnesota	289	<u>0</u>	1826
Illinois	271	Q	1728

eł	Bird			
Home	About Su	bmit Observations	Explore Data My	eBird Help
Hello C	hris Wood (zeledor	nia) <u>Preferences</u> <u>Sign C</u>	out -	Translate to: English Español Français Português
Mi	ssouri _{Chi}	ange Region		Updated ~7 hrs ago.
Тор	100 eBirders	in Missouri: <u>406</u> Sp	pecies	All Time 🗘 Submit
You	ě.			
Rar 15		Species 172 42.36% of total	Most Recent Additi Chuck-will's-widov	on – Jun 30, 2014 v Antrostomus carolinensis
	rybody y Checklists	By Species		
	Observer	Complete Checklists	Species (% of total)	Most Recent Addition
1	Joshua Uffman	4540	353 (86.95%)	Golden-cheeked Warbler Setophaga chrysoparia (Apr 19, 2013)
1	Larry Lade	126	353 (86.95%)	Common Redshank Tringa totanus (Feb 24, 2012)
3	Matt Gearheart	403	323 (79.56%)	Northern Goshawk Accipiter gentilis (Oct 18, 2013)
4	Michael Beck	2301	312 (76.85%)	Willow Flycatcher Empidonax traillii (May 24, 2013)
5	Scott Schuette	912	311 (76.6%)	Red Crossbill Loxia curvirostra (Dec 27, 2012)
5	Keith Brink	643	311 (76.6%)	Laughing Gull Leucophaeus atricilla (Jun 1, 2013)
5	Doug Willis	245	311 (76.6%)	Mute Swap Cyanus olor (Dec 19, 2013)

eBird Location Explorer

Select a region:

Tompkins County, NY

Select Hotspot Tab

Tom New York,	US Change Location					
All Year	rs 💠 Set					
Over	view Hotspots Rece	nt Visits				
3	25 Species 75,44	18 Chec	klists			Updated -12 hrs ago.
Las	t Seen First Seen High Counts	Bar Cha	irts A			Show All Details
	SPECIES NAME =	COUNT -	DATE *		BY	
1	Mallard Anas platyrhynchos	1	25 Aug 2014	0	Jay McGowan	
2	Mourning Dove Zenalda macroura	5	25 Aug 2014	0	Jay McGowan	
3	Carolina Wren Thryothorus Iudovicianus	1	25 Aug 2014	0	Jay McGowan	
4	Northern Cardinal Cardinalis cardinalis	3	25 Aug 2014	0	Jay McGowan	
5	Red-tailed Hawk Buteo jamaicensis	1	25 Aug 2014	0	Jeremy Pardo	
	gull sp. Larinae sp.	45	25 Aug 2014	0	Jeremy Pardo	
6	Common Nighthawk Chordelies minor	1	25 Aug 2014	0	Matthew Medler	
7	Ring-billed Gull Larus delawarensis	5	25 Aug 2014	0	Jay McGowan	
8	American Crow Corvus brachyrhynchos	1	25 Aug 2014	0	Jay McGowan	
9	Barn Swallow Hirundo rustica	2	25 Aug 2014	9	Jay McGowan	
10	Black-capped Chickadee Poecile atricapillus	1	25 Aug 2014	0	Jay McGowan	
11	American Robin Turdus migratorius	4	25 Aug 2014	0	Jay McGowan	
12	European Starling Sturnus vulgaris	6	25 Aug 2014	0	Jay McGowan	
13	Chipping Sparrow Spizella passerina	1	25 Aug 2014	9	Jay McGowan	
14	Savannah Sparrow Passerculus sandwichensis	1	25 Aug 2014	0	Jay McGowan	



Complete Life Histories

Checklists submitted

Recent Visits

		within the last hour an not shown				
OBSERVER	DATE		SPECIES			
David Weber	26 Aug 2014	9	17			
Tom Schulenberg	26 Aug 2014	9	18			
Jane Graves	26 Aug 2014	9	5			
Marshall Iliff	26 Aug 2014	9	1			
Kevin McGowan	26 Aug 2014	9	12			
David Weber	26 Aug 2014	9	4			
Kevin McGowan	26 Aug 2014	9	11			
Marshall Iliff	26 Aug 2014	9	4			
Jay McGowan	26 Aug 2014	9	40			
Chris Wood	26 Aug 2014	9	20			

More Recent Visits...

Top eBirders

BY SPECIES BY CHECKLISTS	Updated -12 hrs ago.
1 Jay McGowan	307
2 Tim Lenz	298
3 Chris Wood	286

Select an eBird hotspot:

Lindsay-Parsons **Biodiveristy** Preserve

Finger Lakes Land Trust

Tom		S Change Locatio	an /			Finger & aless	
All Year	rs	Set				National Forest Enfield Ithaca	St.
Overv	/iew	Hotspots	Recent Visits			er the work	
				SPECIES -		The CornellLab of Ornith	nology
.7	Stews	art Park			261	7	
2	Myer	s Point			251		
3.	Hog	Hole			238	The Market State	lp us
-4	Saps	ucker Woods			236		lp the ds.
:81	Dryde	en Lake			217		os. Donate
-	Stewa	art Park & Renw	vick Woods		203		Jonate
7	Согти	ell UniversityC	Campus		200	O Lawy Bad	-
10	Jetty	Woods and Go	If Course		189		
191	Come		nds Unit II (restricted		179		
30	Linds	ay-Parsons Bio	diversity Preserve		178		
3.5	Steve	enson Rd. Game	e Farm & Compost		172		
12	Saps	ucker Woods1	Wilson Trail North		171		
32	Saps	ucker WoodsI	Building Area		189		
34	Hawt	hom Orchard			-166		
10	Monk	wy RunSouth	west		166		
16	Moun	nt Pleasant			.165		
37	Fuert	es Bird Sanctua	ary (Renwick Woods)		164		
10	Taug	hannock SP			162		
19-	Beeb	e Lake			161		
20	Com	ell UniversityP	almer Woods		161		
21	Monk	key RunSouthe	east		161		

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Conditions

	Say-Parsons Biodiv County, New York, US – Get Directions ths + All Years + Set	150	Preserv	e Edit	Submit Data	And the second	Station Ro Station Ro	end Feedback
over							B. 1. 200	
1	78 Species 337 (Checklis	ts		Updated 4 sec ago.			N.
						eBird	1	MI
Las	t Seen First Seen High Counts	Bar Cha	rts A		Show All Details	Feed your habi	1000	
	SPECIES NAME 👻	COUNT -	DATE -	BY			A MILE	and a second
1	Wood Duck Aix sponsa	35	25 Aug 2014	Benjamin Freeman		and the second second	Mr. Call	6
2	Ruffed Grouse Bonasa umbellus	2	25 Aug 2014	Benjamin Freeman		· · · ·	the as a lot	band .
з	Great Blue Heron Ardea herodias	2	25 Aug 2014	Benjamin Freeman		Don	ate Now	
4	Green Heron Butorides virescens	7	25 Aug 2014	Benjamin Freeman		a second second		
5	Mourning Dove Zenaida macroura	5	25 Aug 2014	Benjamin Freeman		Recent Visits		klists submitted the last hour are
6	Common Nighthawk	5	25 Aug 2014	Benjamin Freeman		OBSERVER	DATE	not shown. SPECIES
	Chordelles minor					Benjamin Freeman	25 Aug 2014	47
7	Ruby-throated Hummingbird Archilochus colubris	1	25 Aug 2014	Benjamin Freeman		Alexandra Class Benjamin Freeman	25 Aug 2014 22 Aug 2014	47 45
8	Belted Kingfisher Megaceryle	2	25 Aug 2014	Benjamin Freeman		Graham Montgomery	22 Aug 2014	45
	alcyon					Garrett MacDonald	13 Aug 2014	42
9	Red-bellied Woodpecker	1	25 Aug 2014	Benjamin Freeman		Diane Morton	9 Aug 2014	30
	Melanerpes carolinus					Kenneth Kemphues	9 Aug 2014	29
10	Downy Woodpecker Picoides	1	25 Aug 2014	Benjamin Freeman		Jay McGowan	1 Aug 2014	45
	pubescens					Livia Santana	1 Aug 2014	45
77	Hairy Woodpecker Picoldes villosus	4	25 Aug 2014	Benjamin Freeman		Shawn Billerman	1 Aug 2014	45
12	Northern Flicker Colaptes auratus	1	25 Aug 2014	Benjamin Freeman		More Recent Visits		
13	Eastern Wood-Pewee Contopus virens	3	25 Aug 2014	Benjamin Freeman			ete il	lated 4 sec ago.
	Alder/Willow Flycatcher (Traill's Flycatcher) Empldonax alnorum/traillii	4	25 Aug 2014	Benjamin Freeman		1 Benjamin Freeman 2 Chris Wood		138 138

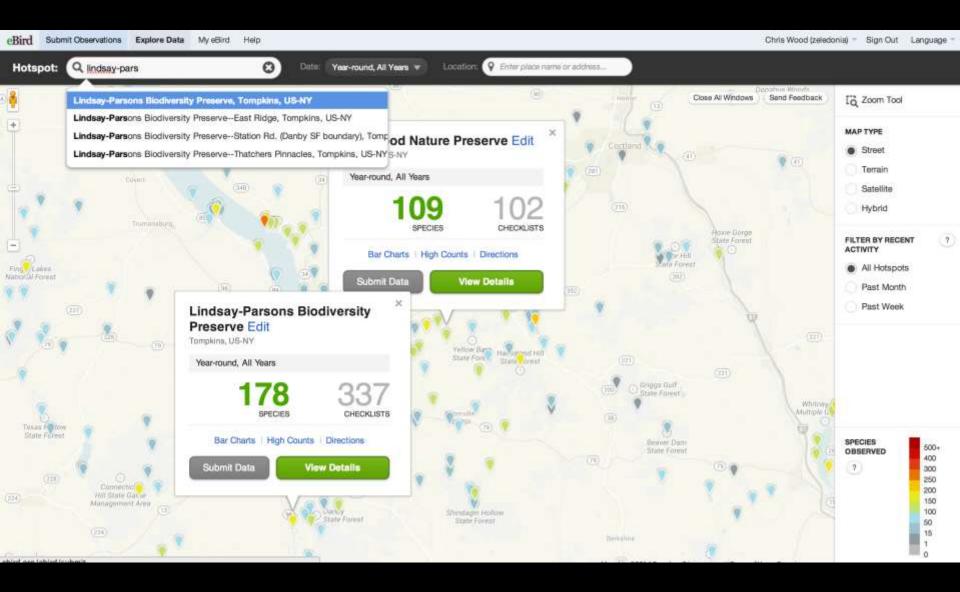
Bird Observations

Date Range: Change Date

1/1 - 12/31, 1900-2014 Combine Years

For Change Location														
[Lindsay-Parsons Biodiversity Pres	serve]	_												
178 species (+18 other taxa)		<u>Jan</u>		<u>eb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	Jun	<u>Jul</u>	Aug	<u>Sep</u>	Oct	Nov	Dec
Ovenbird (Seiurus aurocapilla)	MAP			1								1	1	
Worm-eating Warbler (Helmitheros vermivorum)	MAP			2									8	
Louisiana Waterthrush (Parkesia motacilia)	MAP					1			• 8				8	
Northern Waterthrush (Parkesia noveboracensis)	MAP	83					•							
Blue-winged Warbler (Vermivora cyanoptera)	MAP	83	1	8		1								
Brewster's Warbler (hybrid) (Vermivora cyanoptera x chrysoptera (F1 hybrid))	MAP		i II				-							1
Lawrence's Warbler (hybrid) (Vermivora cyanoptera x chrysoptera (F2 backcross))	MAP			8										
Black-and-white Warbler (Mniotilta varia)	MAP					1							*	
		Jan	R	eb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Tennessee Warbler (Oreothlypis peregrina)	MAP	83		8				13					8	88
Nashville Warbler (Oreothlypis ruficapilla)	MAP			1				•						
Connecticut Warbler (Oporornis agilis)	MAP	83	1	8										88
<u>Mourning Warbler (Geothlypis</u> <u>philadelphia)</u>	MAP							-	1					
Common Yellowthroat (Geothlypis trichas)	MAP			1										88
Hooded Warbler (Setophaga citrina)	MAP			8								8		
American Redstart (Setophaga ruticilla)	MAP			8									1	
Cape May Warbler (Setophaga tigrina)	MAP						7							

eBird HotSpot Explorer



Data Download

Request Download Access eBird Avian Knowledge Network Name and Email: Ashley Dayer | aad86@cornell.edu (Edit) Organization: Project Title: Project Type: Academic/Student \$ Please describe your project and how you plan to use the data Abstract: Terms of Use: I accept the Terms of Use Submit Request

Management and Conservation





Birdwatchers = Citizen Science = Benefits for Land Trusts

- Selection of land for protection
- Data for grant proposals
- Justification of easements
- Repository for inventory and monitoring efforts
- Connection to citizen scientists → volunteers → supporters → donors?
- Contribute to conservation science

eBird Results

In the Last 18 Months

- 6236 individual data requests
- 14998 data downloads

Resulting In:

- 120 peer-reviewed publications
- Ecology, Artificial Intelligence Magazine, Current Biology
- Topics such as climate change (see link on handout)

Thank you



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