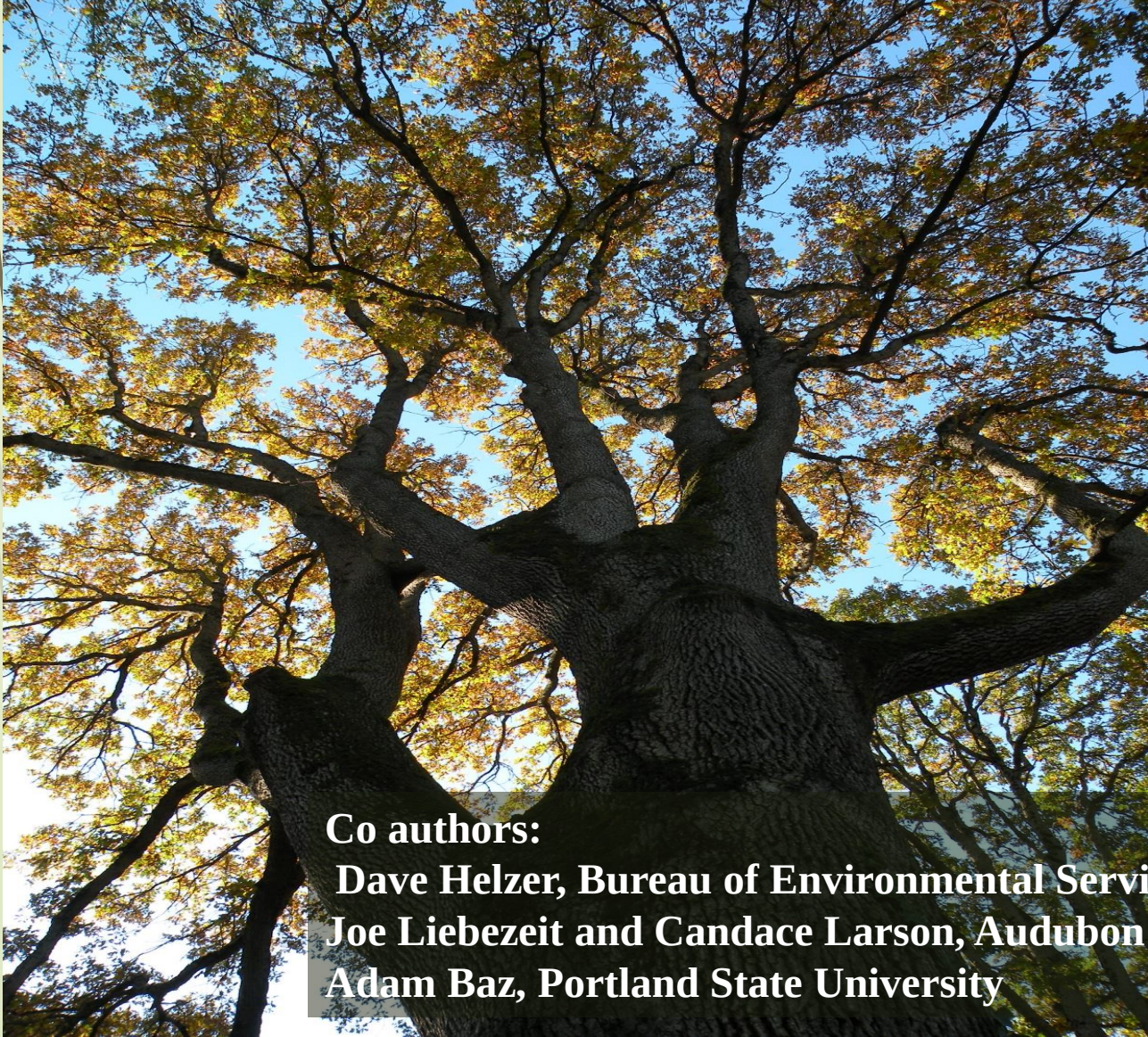


PORTLAND'S URBAN OAK HABITATS:

INVESTIGATING A
REGIONAL NEXUS
FOR OAK
ASSOCIATED AVIAN
SPECIES.



Co authors:

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Adam Baz, Portland State University

working for clean rivers



Willamette Oaks Avian Study



ENVIRONMENTAL SERVICES
CITY OF PORTLAND

NICK FISH, COMMISSIONER
MICHAEL JORDAN, DIRECTOR

Mary Bushman

Bureau of Environmental Services

October 2015



Portland

**The intersection
of two
ecoregions**

Elk Rock Island



Oaks Park / Oaks Bottom



Kaiser Hill



Willamette River Escarpment



University of Portland



Baltimore Woods



Audubon Society of Portland and citizen contributions

BUILDING A REGION WHERE PEOPLE AND WILDLIFE FLOURISH TOGETHER [volunteer](#) [pressroom](#) [site map](#)



[About Us](#) [Local Birding Information](#) [Trips, Classes & Camps](#) [Wildlife Care Center](#) [Sanctuaries & T](#)

In This Section...

- [Top Priorities](#)
- [Species Protection](#)
- [Wildlife Habitat](#)
- [Avian Hazards](#)
- [Backyard Habitat Certification Program](#)
- [Get Involved](#)
- [Citizen Science](#)

Upcoming Events

Talk
Birders' Night
Oct 06, 2015

Ecotour
Steens Mtn. & Alvord Desert
Oct 07, 2015

Class
...

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Citizen Science

The Audubon Society of Portland is involved in wildlife research. Our projects involve working with the ecology, biology, and behavior of wildlife in the Portland metro area and the Oregon coast near Cape Perpetua.

These efforts play an invaluable role in understanding our local wildlife populations, as well as in these projects is a great way to make a difference for wildlife. Oregon is the fifth richest in avian diversity in the United States, and their lives in the Portland area! You can learn, a love of birds and the patience to observe.

For more information about the citizen science projects, contact Liebezeit at jliebezeit@audubon.org.

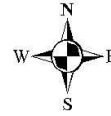
Black Oystercatcher Monitoring

Audubon is monitoring Black Oystercatchers to understand this species' use of roosting and nesting sites. We are partnering on this project with the U.S. Fish and Wildlife Service, building on their unique species of conservation concern.



Urban Study Design

Oak Bird Circles - Adidas / Kaiser



10050 0 100 Feet



Data analysis



Photo credit : https://commons.wikimedia.org/wiki/File:White-Breasted_Nuthatch_Lunch.jpg - Y. Roiter, Potsdam, NY, April 8, 2005

Detections

Highly associated species reach some of their highest densities in oak habitats, though they may also be abundant in other habitats.

Species are defined as **oak-obligates** if > 75% of their historic or current population resides in oak habitats.



[https://commons.wikimedia.org/wiki/File:White-breasted_Nuthatch_\(nesting\)_-NMP_6-11-12_1.jpg](https://commons.wikimedia.org/wiki/File:White-breasted_Nuthatch_(nesting)_-NMP_6-11-12_1.jpg)

2014-15 WILLAMETTE OAK POINT COUNT DATA		
SPECIES ABUNDANCE INDEX*		
	Species Name	Total Detections Abundance Index
1	Song Sparrow	119 1.55
2	American Robin	80 1.04
3	Spotted Towhee	74 0.96
4	American Crow	60 0.78
5	Black-capped Chickadee	56 0.73
6	Bewick's Wren	53 0.69
7	Lesser Goldfinch	41 0.53
8	Anna's Hummingbird	31 0.40
9	Bushtit	27 0.35
10	American Goldfinch	24 0.31
11	Brown Creeper	19 0.25
12	Dark-eyed Junco	17 0.22
13	House Finch	17 0.22
14	White-breasted Nuthatch	17 0.22
15	Western Wood-Pewee	11 0.14
16	Yellow-rumped Warbler	10 0.13
17	European Starling	9 0.12
18	Golden-crowned Kinglet	8 0.10
19	Vaux's Swift	8 0.10
20	Orange-crowned Warbler	7 0.09
21	Downy Woodpecker	6 0.08
22	Mallard	6 0.08
23	Western Tanager	6 0.08
24	Wilson's Warbler	6 0.08
25	Canada Goose	5 0.06
26	Northern Flicker	5 0.06
27	Brown-headed Cowbird	4 0.05
28	Golden-crowned Sparrow	4 0.05
29	Western Scrub-Jay	4 0.05
30	Cedar Waxwing	3 0.04
31	Cooper's Hawk	3 0.04
32	Common Yellowthroat	3 0.04
33	Pacific-slope Flycatcher	3 0.04
34	Stellar's Jay	3 0.04
35	Black-headed Grosbeak	2 0.03

*Includes detections within 50m and associated flyovers. Excludes >50m

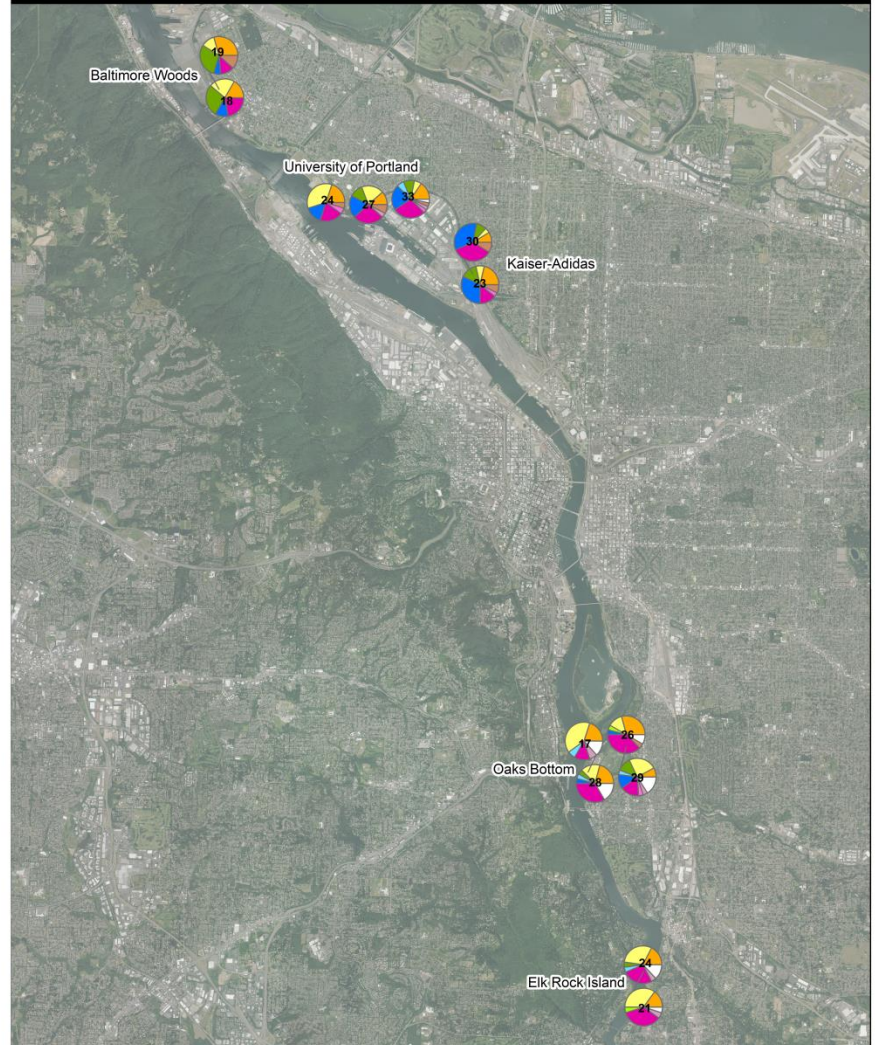
*Abundance index = # species detections / total number surveys (77)

Distribution



https://commons.wikimedia.org/wiki/File:Bewicks_Wren.jpg

WILLAMETTE OAK STUDY Oak-Associate & Oak-Obligate Species Distribution 2014-15



LEGEND

Oak-Associates

- Bewick's Wren
- Black-capped Chickadee
- Black-headed Grosbeak
- Bushy-tit
- Downy Woodpecker
- Lesser Goldfinch
- Spotted Towhee

- Western Scrub-Jay
- Western Tanager
- Western Wood-Pewee

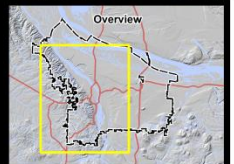
Oak-Obligate

- White-breasted Nuthatch

Text Symbology



Number of oak-associate and oak-obligate species at each point



Breeding status

201-15 WILLAMETTE OAK POINT COUNT DATA

BREEDING STATUS*

Species Name	Detections			Data-deduced Breeding Status	Inferred Breeding Status	Oak Obligate (O) / Associate (A)	Nesting Date Range		
	April	May	June				April	May	June
Bewick's Wren	S C V	S C V	S C V	Breeding 2014 & 2015	B	A			
Black-capped Chickadee	S C V	S C V	S C V	Breeding 2014 & 2015	B	A			
Black-headed Grosbeak	-	S	S	Breeding 2014 & 2015	B	A			
Bushtit	C	C V	C V	Breeding 2014 & 2015	B	A			
Downy Woodpecker	C	S V	V	Breeding 2014 & 2015	B	A			
Lesser Goldfinch	S C	C	S C	Breeding 2014 & 2015	B	A			
Spotted Towhee	S C V	S C V	S C V	Breeding 2014 & 2015	B	A			
Western Scrub-Jay	C	V	-	Breeding 2014	B	A			
Western Tanager	-	S C	-	No breeding		A			
Western Wood-Pewee	-	-	S	Breeding 2014	B	A			
White-breasted Nuthatch	S C V	S C	C	Breeding 2014 & 2015	B	O			
A=11, O=1									
				If species deduced as breeder by "Song" and/or "Presence," then breeder (B).	Breeding status in oak habitat determined using best professional judgement, and after consulting breeding dates in "Birds of Oregon."	As defined by Altman and Stephens in "Bird Habitat and Populations in Oak Ecosystems of the Pacific Northwest."	Black areas represent the range of dates observed nesting in the Pacific NW, including clutch initiation through fledging. Data from "Birds of Oregon."		

*Includes detections within 50m, flush detections, and associated flyovers, but excludes detections >50m and independent flyovers

Questions?

