

The Ottawa Bird Count

Discover the birds in your city

Adam C. Smith

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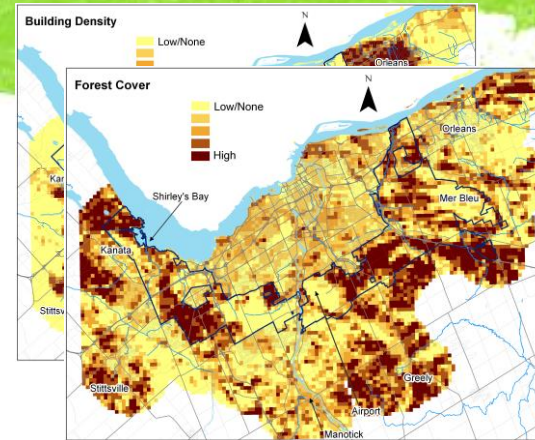
What is the Ottawa Bird Count?

- A rigorous, volunteer-based, long-term survey of birds in an expanding city
- **Mission:** Learning to create cities that are habitat for birds and people
- **Guiding Principles:**
 - Science – long-term monitoring in a **changing landscape**
 - Open-Access – public database
 - Sustainability – biological monitoring in **human environments**

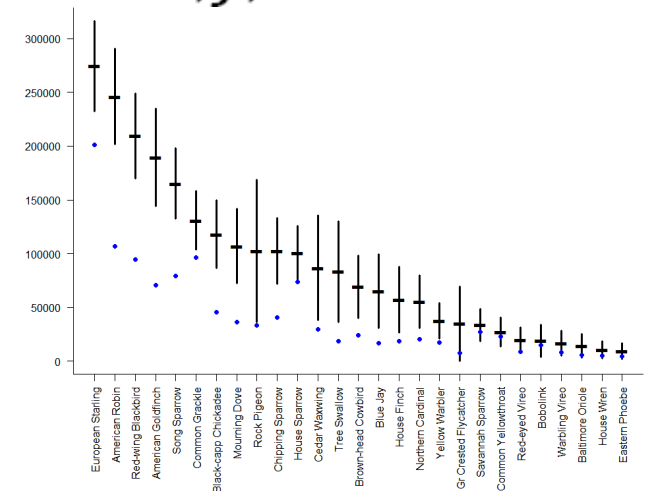
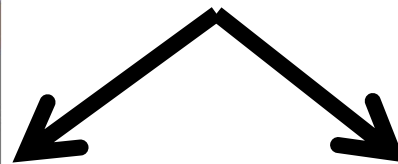
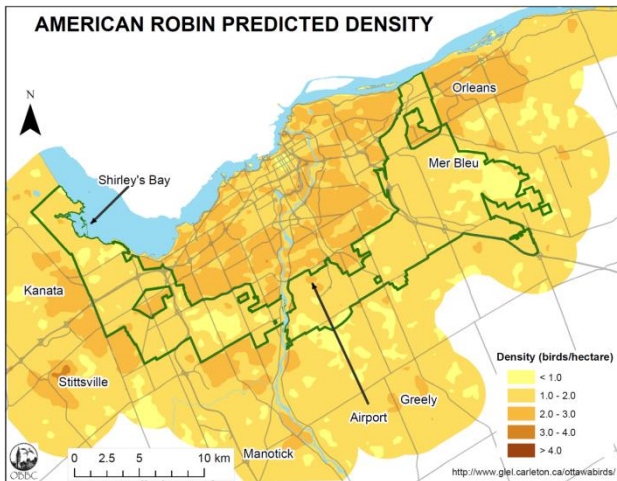
What have we learned so far?



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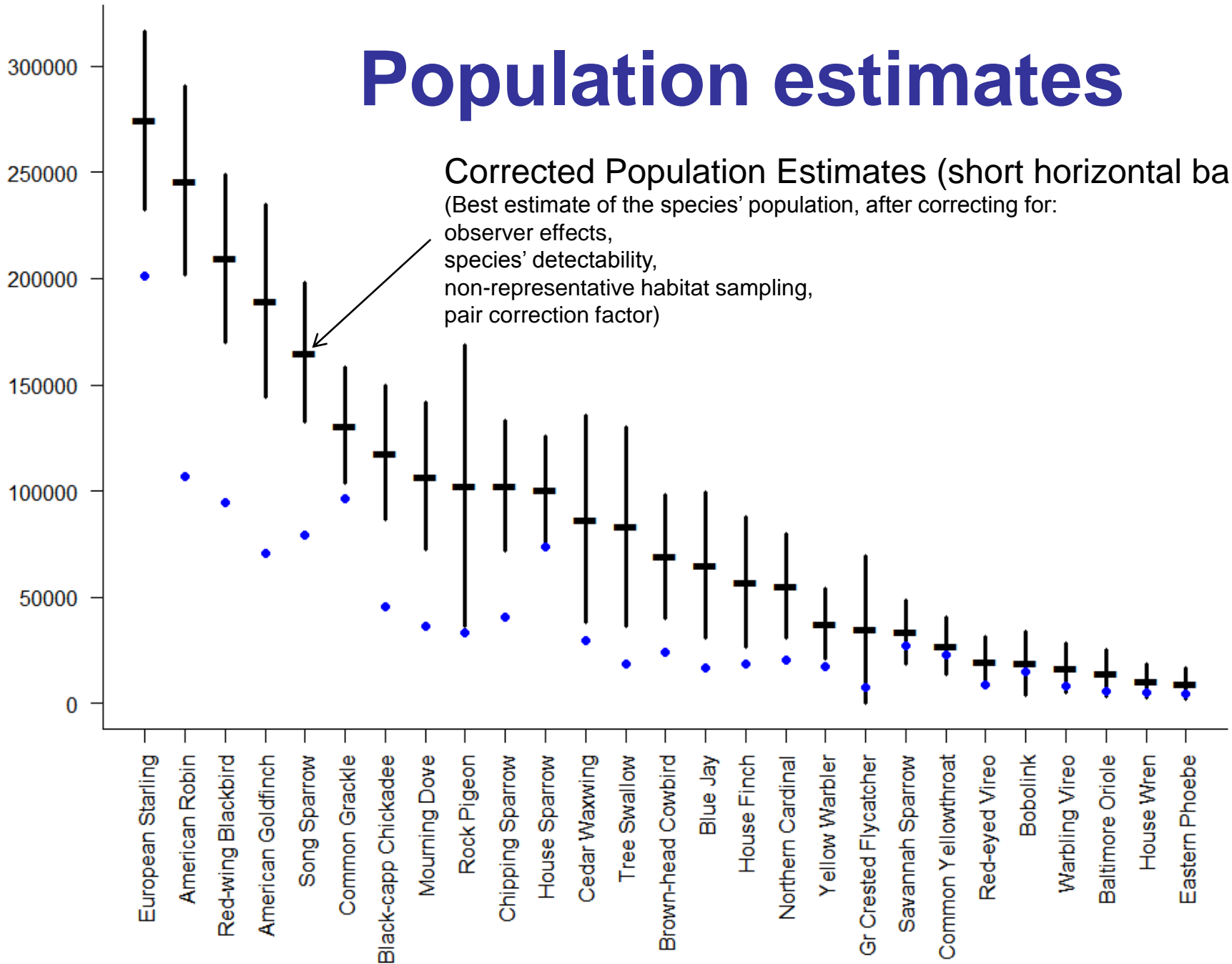


Population estimates

Corrected Population Estimates (short horizontal bars)

(Best estimate of the species' population, after correcting for:
observer effects,
species' detectability,
non-representative habitat sampling,
pair correction factor)

of Birds in study area (during breeding season)



Newest list of species at risk in Ottawa

Species Name	Status under Ontario <i>Endangered Species Act, 2007</i> ¹	Status under federal <i>Species at Risk Act (SARA)</i> ²	Distribution in Ottawa	Comments
Bobolink Goglu des prés (<i>Dolichonyx oryzivorus</i>)	Threatened (Sept. 2010) Recovery strategy issued June 2013.	None – listed as threatened by COSEWIC in April 2010. In consultation for addition to SARA in 2011.	Widespread; confirmed or probable nests found in 39 out of 40 local atlas squares during recent OBBA.	Declining grassland species in North America (McCracken, 2005). COSSARO identifies mortality due to early haying and loss of habitat as major threats. Individuals and nests protected under federal <i>Migratory Birds Convention Act</i> .
Canada Warbler Paruline du Canada (<i>Cardellina canadensis</i>)	Special Concern (Sept. 2009)	Threatened (Schedule 1) as of March 17, 2010	One confirmed nest, two probable and six possible reported in recent OBBA.	Prefers wet forests with dense shrub layers. Individuals and nests protected under federal SARA and <i>Migratory Birds Convention Act</i> .
Cerulean Warbler Paruline azurée (<i>Setophaga cerulea</i>)	Threatened (June 2011)	Special Concern (Schedule 1); draft management plan issued Oct. 2010. Listed as endangered by COSEWIC in Nov. 2010.	No nests reported during recent OBBA.	SARO and SARA range maps both include parts of Ottawa. Prefers mature deciduous forests. Individuals and nests protected under federal <i>Migratory Birds Convention Act</i> .
Chimney Swift Martinet ramoneur (<i>Chaetura pelagica</i>)	Threatened (Sept. 2009). Habitat regulation deferred until 1 year after adoption of federal recovery strategy.	Threatened (Schedule 1)	Confirmed nests in 3 squares, 2 probable and 11 possible reported in recent OBBA.	Nests in traditional-style open brick chimneys (and rarely in hollow trees). Individuals and nests also protected under federal SARA and <i>Migratory Birds Convention Act</i> .
Common Nighthawk Engoulevent d'Amérique (<i>Chordeiles minor</i>)	Special Concern (Sept. 2009)	Threatened (Schedule 1) as of March 17, 2010	Six probable and five possible nests reported in recent OBBA.	Nests in wide variety of open sites, including beaches, fields and gravel rooftops. Individuals and nests protected under federal SARA and <i>Migratory Birds Convention Act</i> .
Eastern Meadowlark Sturnelle des prés (<i>Sturnella magna</i>)	Threatened (Jan. 2012) Recovery strategy issued June 2013.	None – listed as threatened by COSEWIC in May 2011. In consultation for SARA listing in 2011.	22 confirmed, 11 probable and 3 possible nests during recent OBBA.	Declining grassland species in North America (McCracken, 2005). Individuals and nests protected under federal <i>Migratory Birds Convention Act</i> .
Eastern Whip-poor-will Engoulevent bois-pourri	Threatened (Sept. 2009). Habitat	Threatened (Schedule 1) as of	Seven squares with probable nests and 10	Nests on the ground in open deciduous or mixed woodlands with

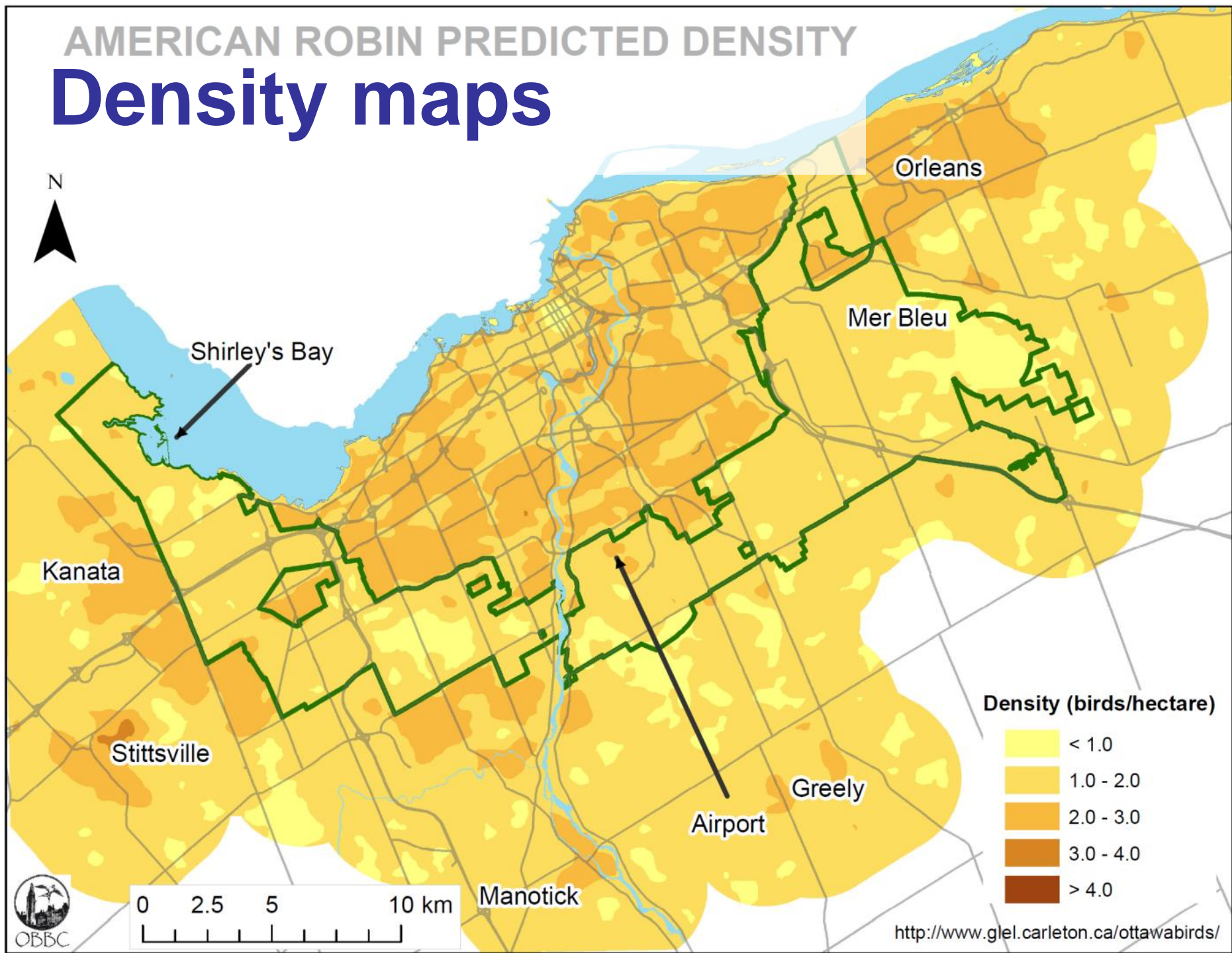
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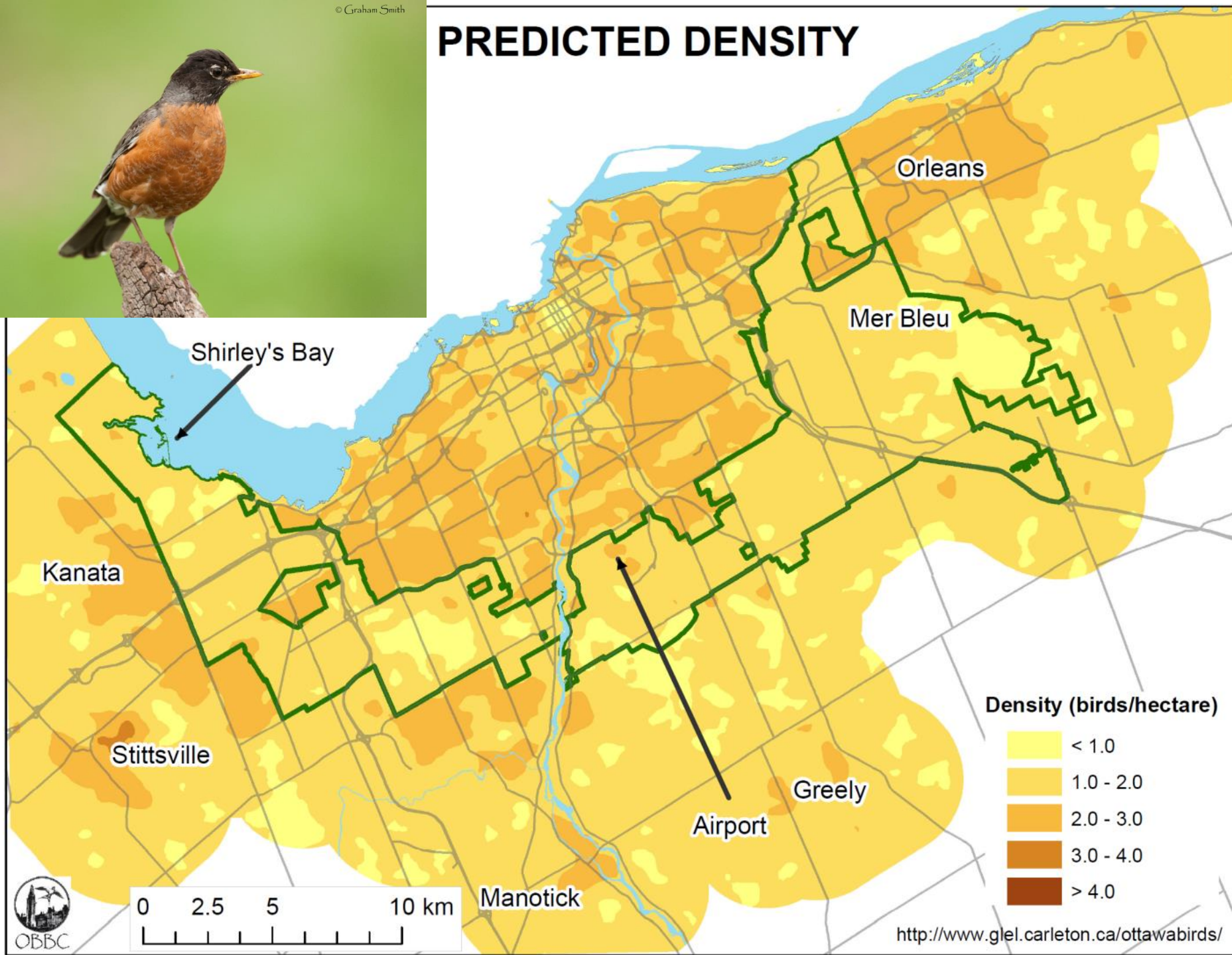
~ 10,000

AMERICAN ROBIN PREDICTED DENSITY

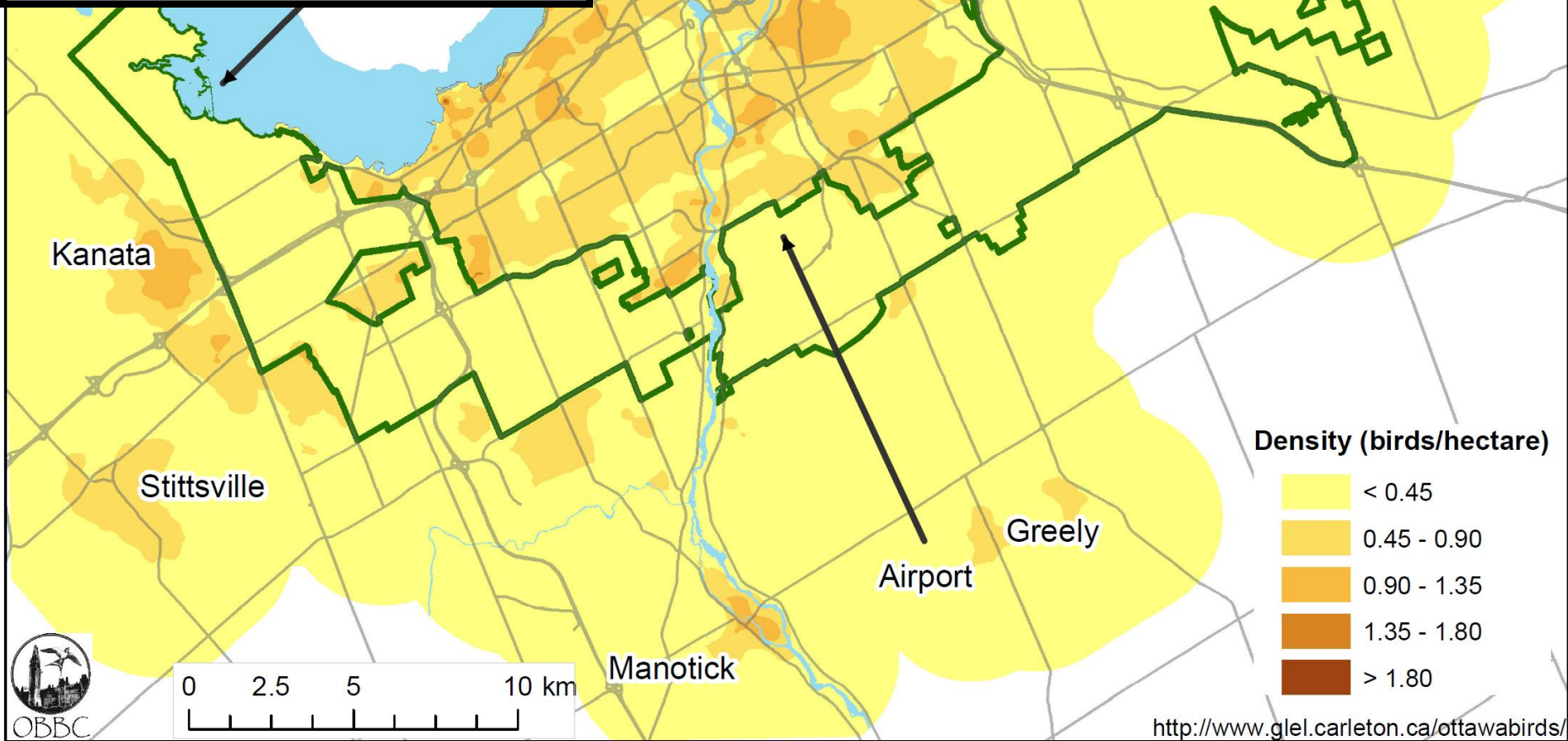
Density maps



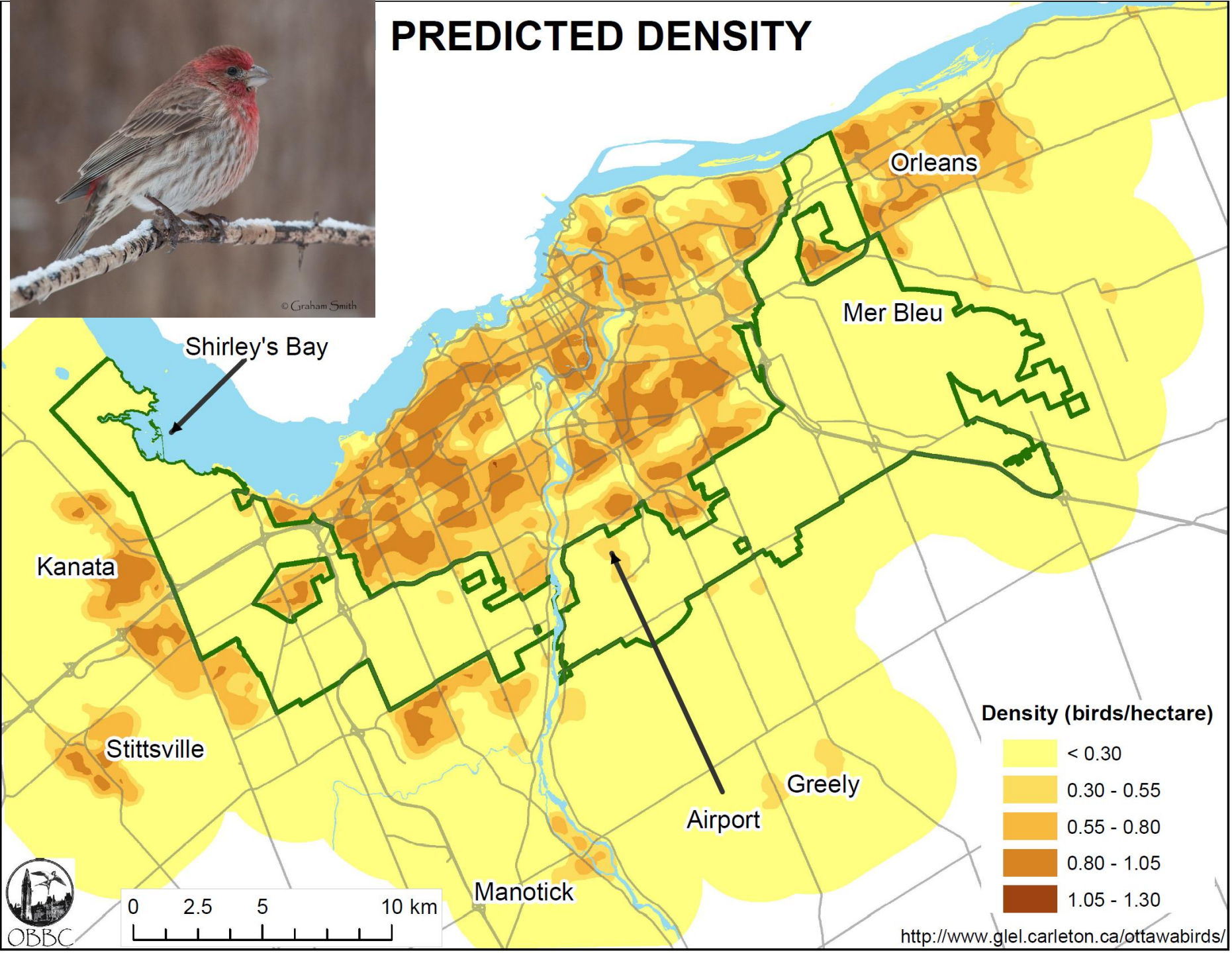
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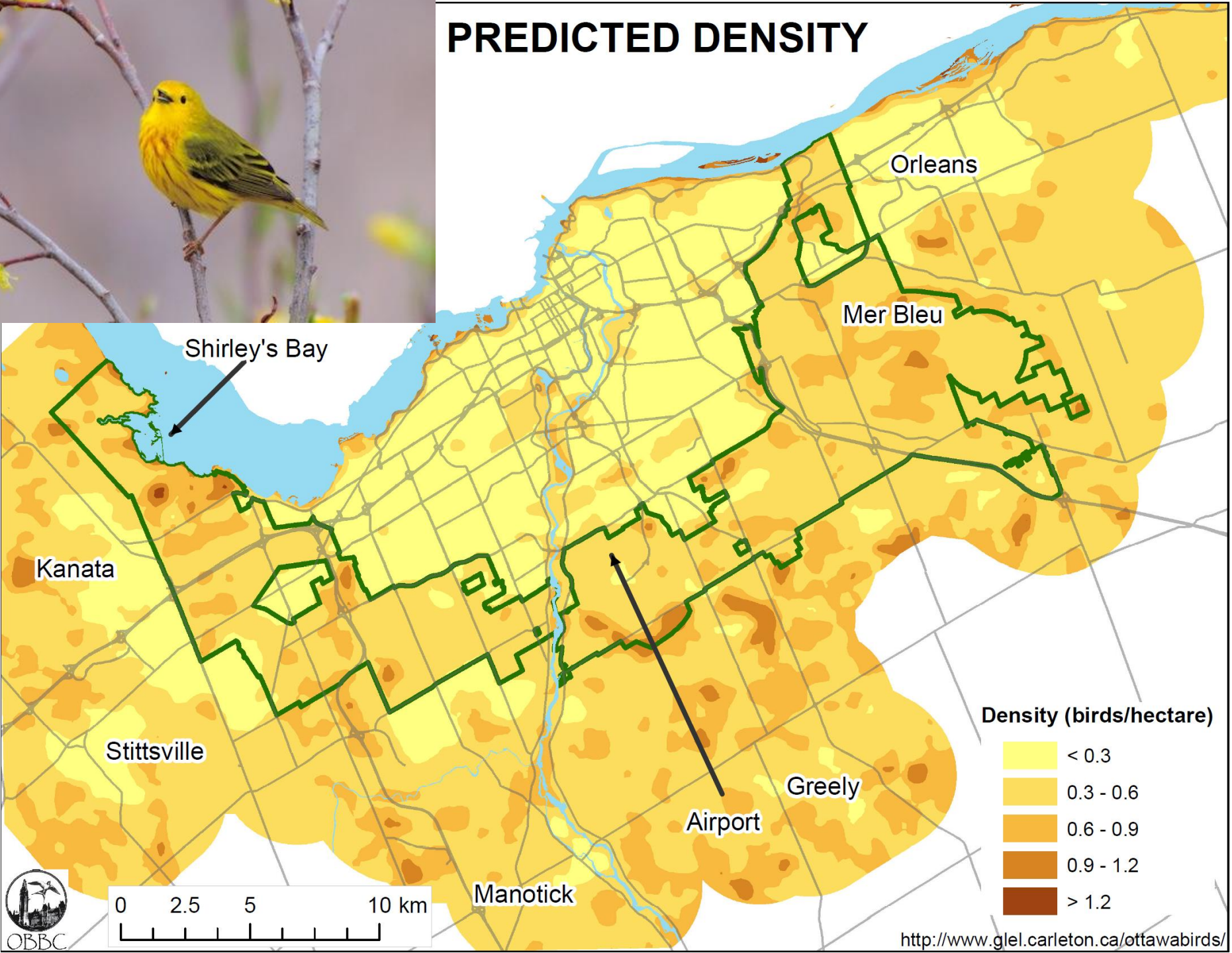
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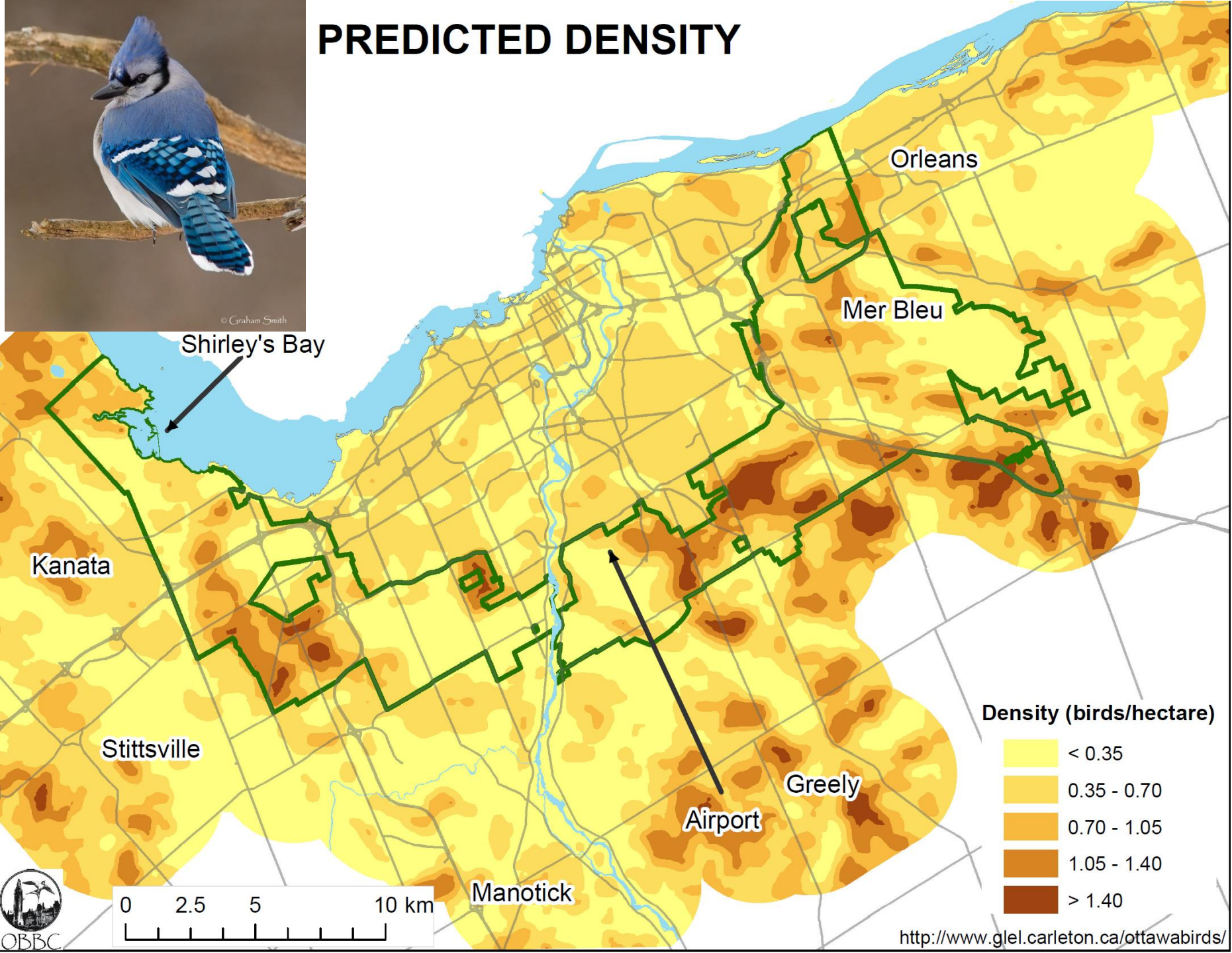
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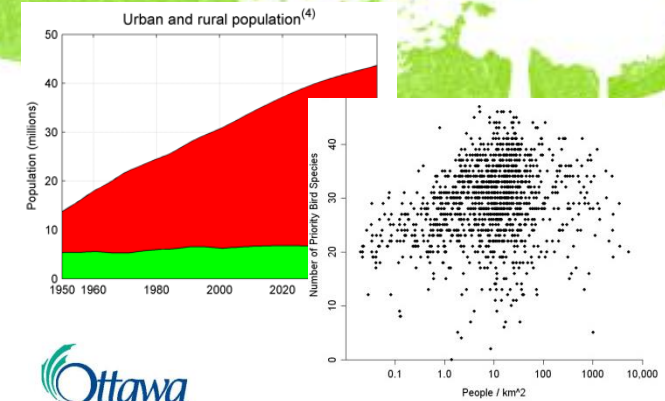
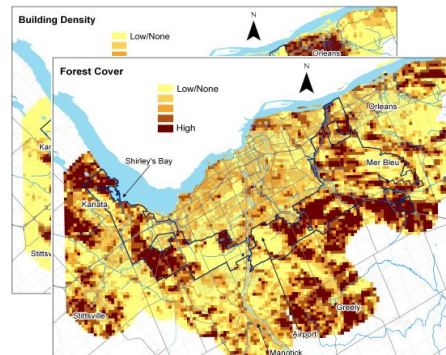
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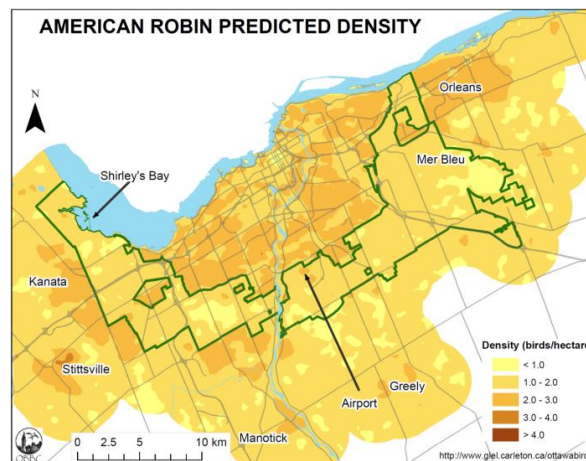
Imagining Ottawa's Future

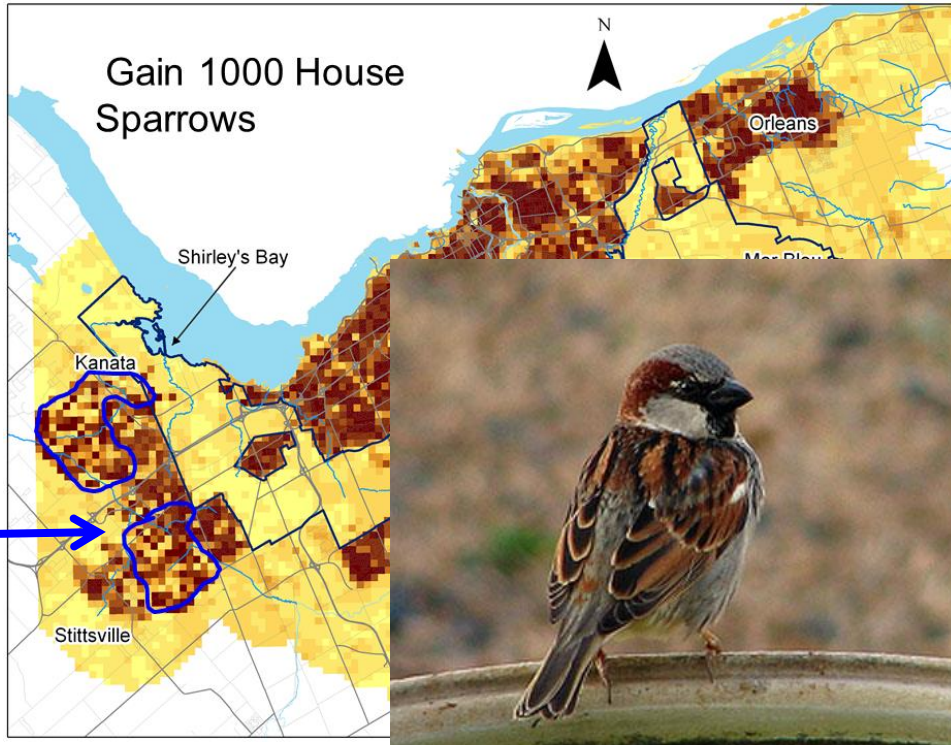
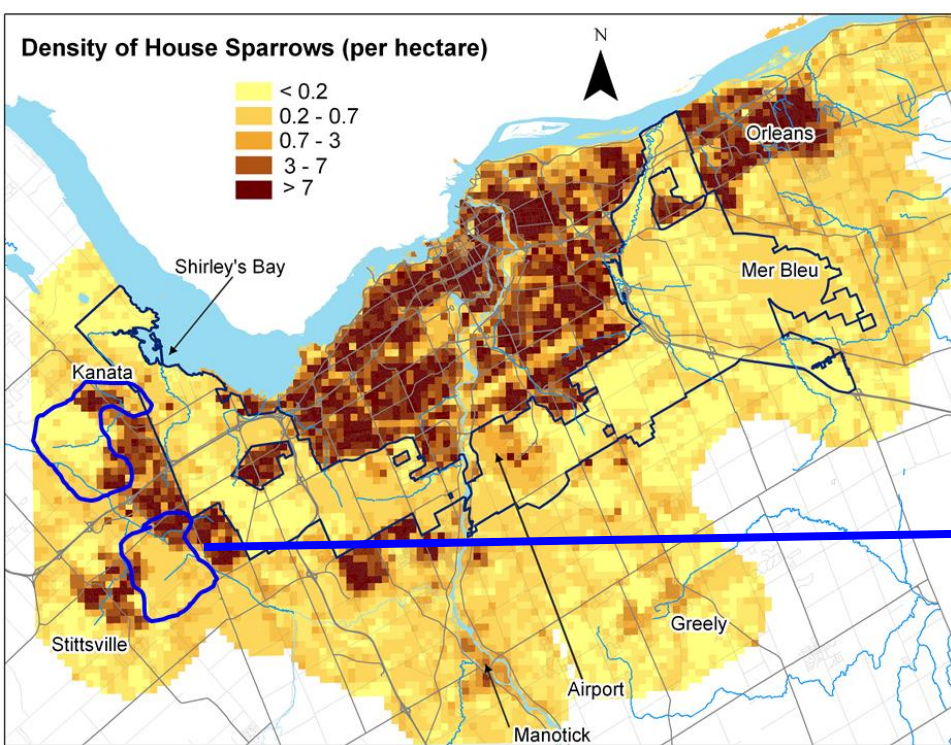
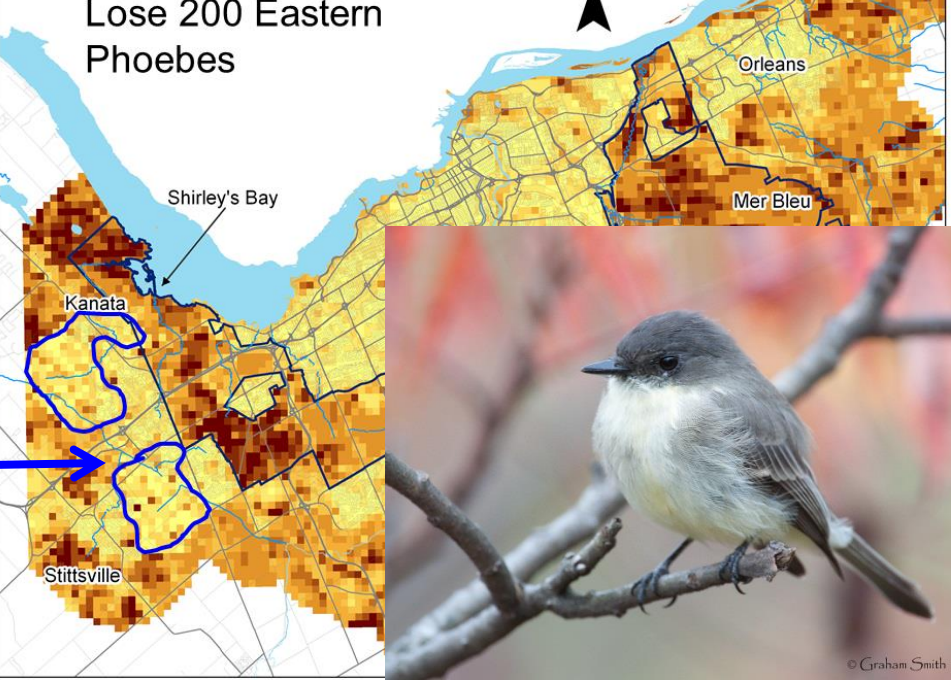
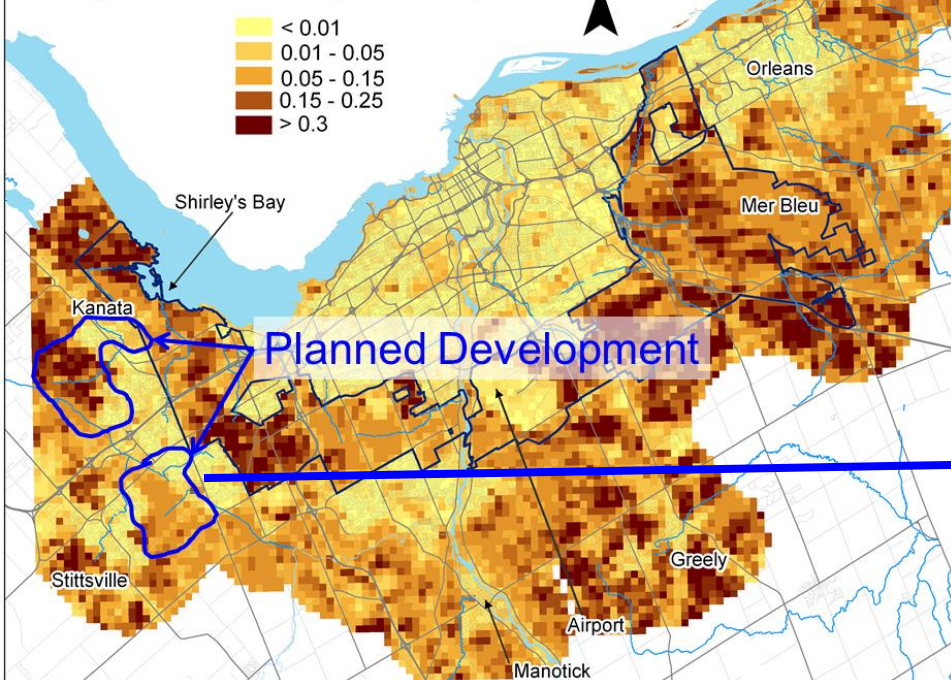


Ottawa

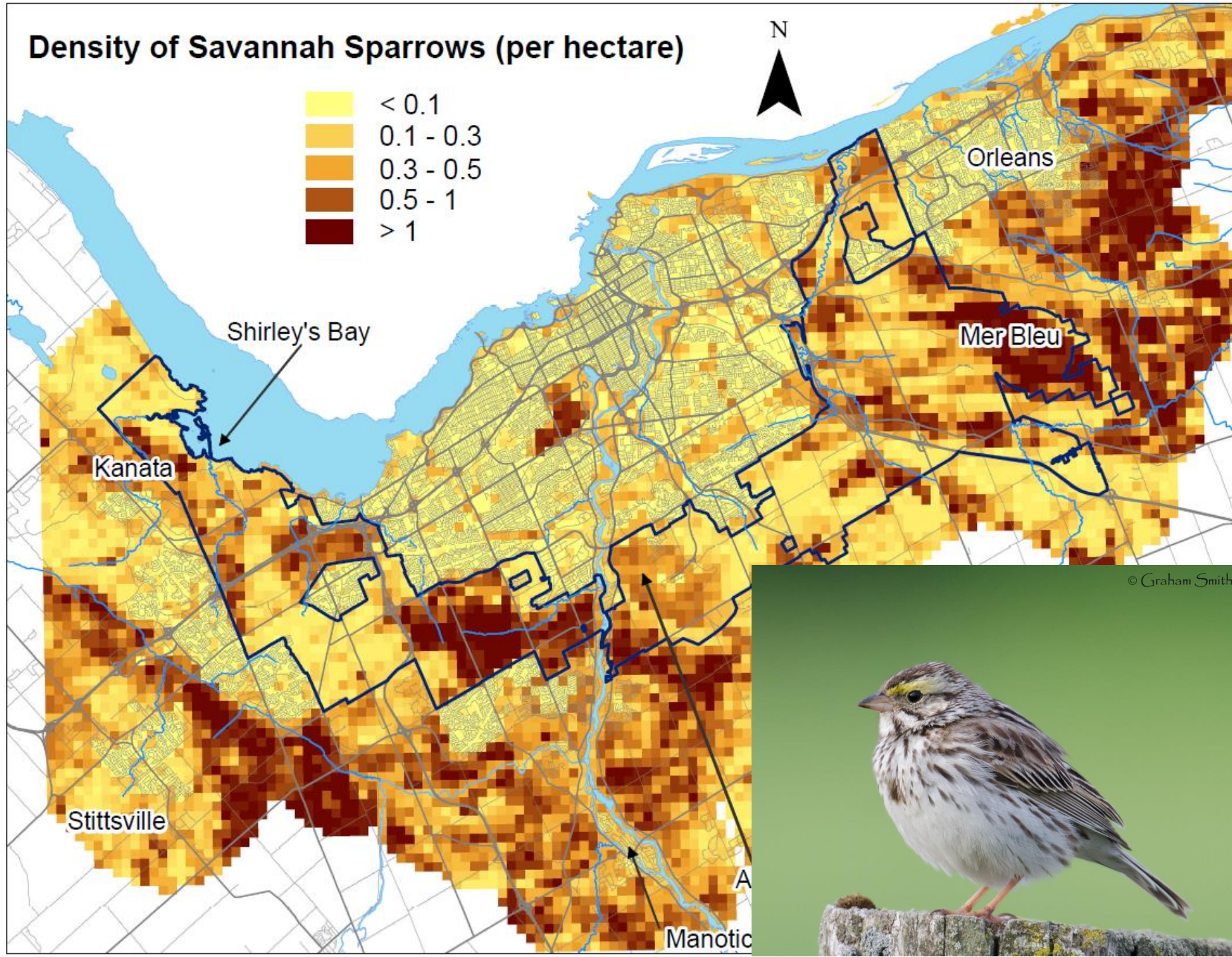
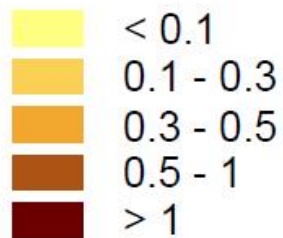
City of Ottawa Official Plan

$$n \text{ birds}_{i,j,t} = \text{Pois}(\lambda_{i,j,t})$$





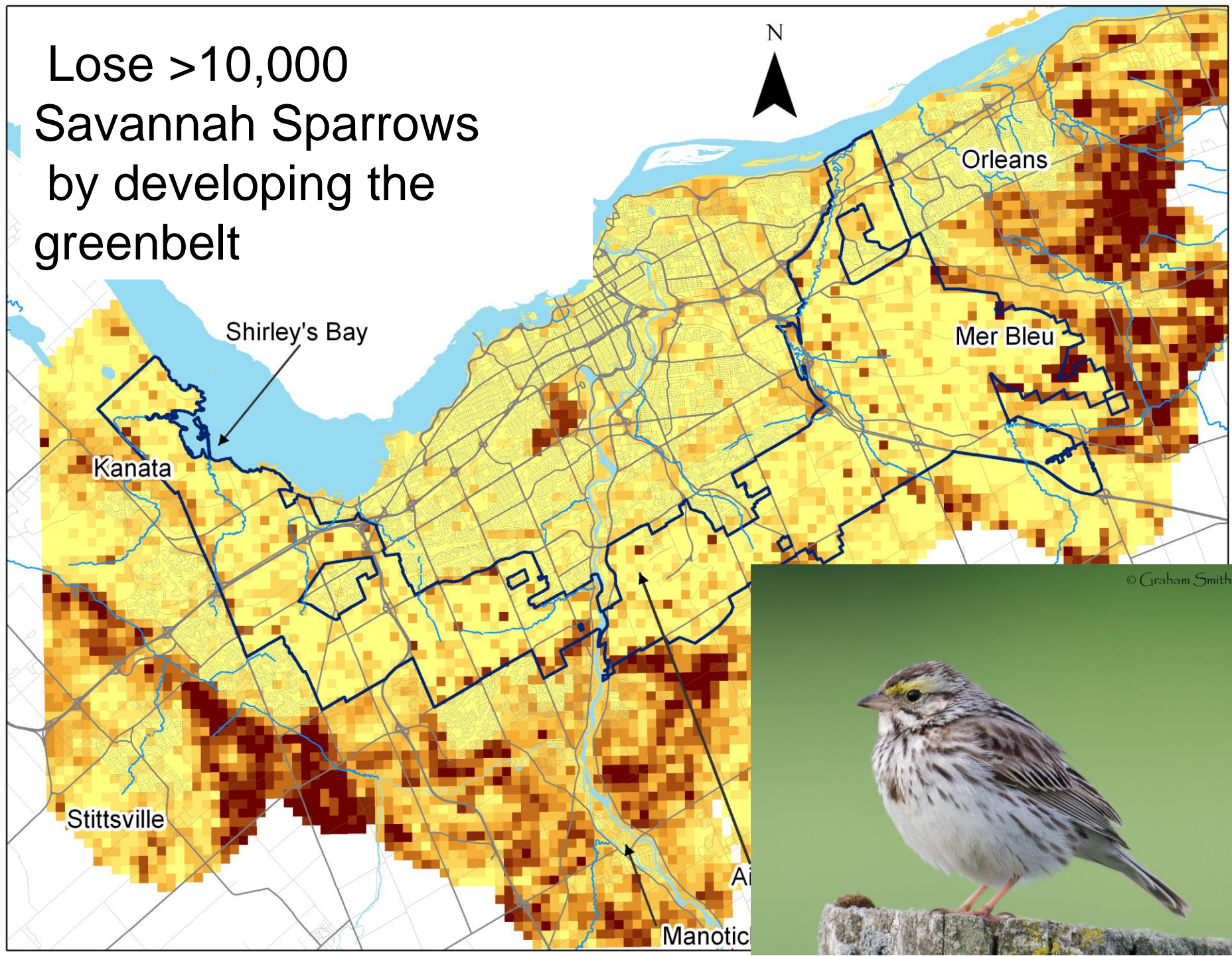
Density of Savannah Sparrows (per hectare)



© Graham Smith



Lose >10,000
Savannah Sparrows
by developing the
greenbelt





So Far...

- Built a database of **30 000 observations**
- **Bird Song Course**
- Shown that the **rigorous field methods work** and are useful
- Established **continental and global collaborations**
- Initial **population estimates**
- Published one **scientific paper**
- Created **density maps**
- Preliminary explorations of **future scenarios** for Ottawa's development



The future:

- What information is useful to the Greenspace Alliance?
- New surveys?
 - Migratory stopover habitat in the city?
 - Winter bird community?
- Surveys for species at risk?
- Further work on scenario modelling?

www.OttawaBirds.ca

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