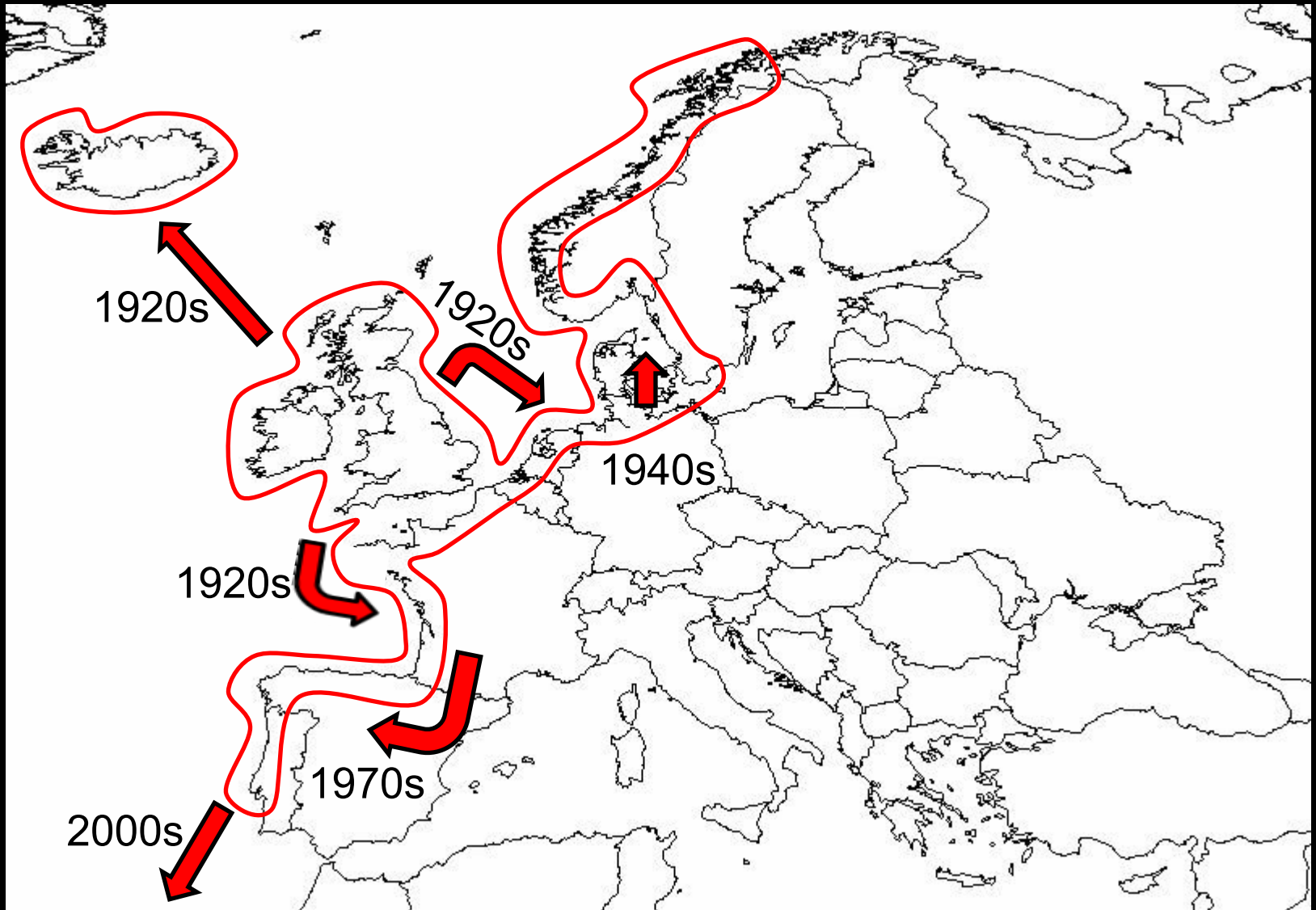


# North American winter distribution and movement in Lesser Black- backed Gulls (*Larus fuscus*)



Scott Weidensaul, Dr. Frank Gill, Sally Conyne,  
Bill Etter, Tom Johnson, and Cameron Rutt

# LBBG Breeding Range Expansion



1920s

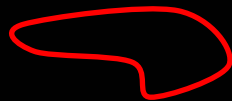
1920s

1940s

1920s

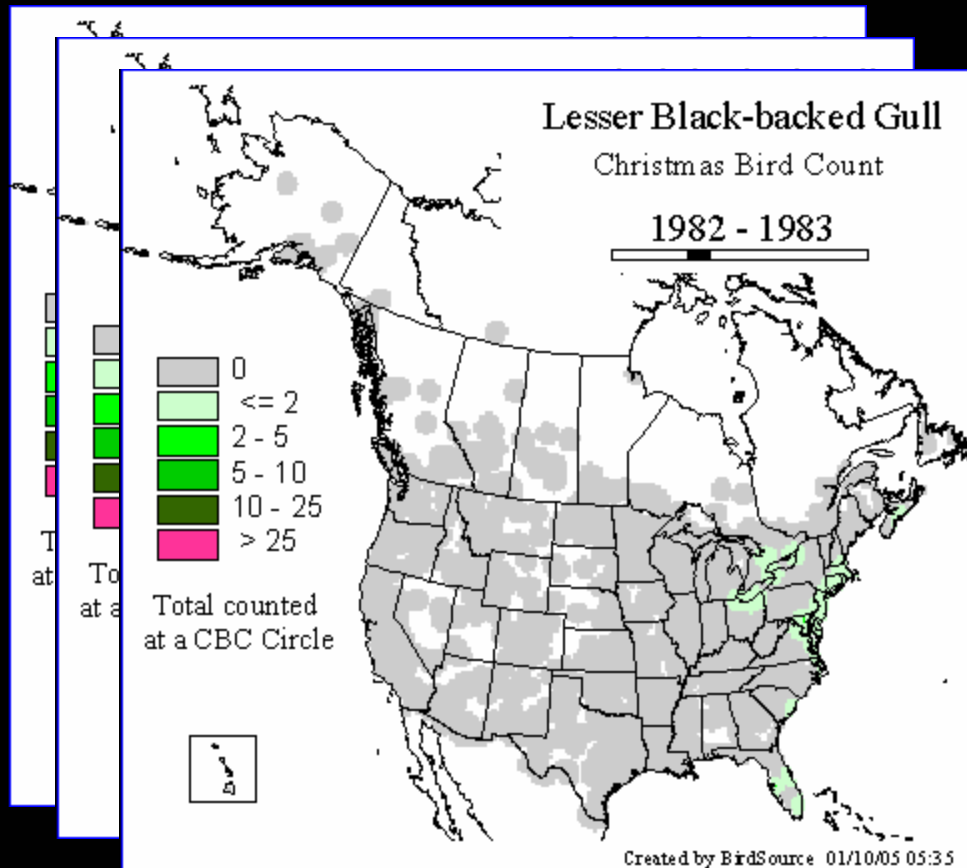
1970s

2000s



*graellsii / intermedius* breeding range

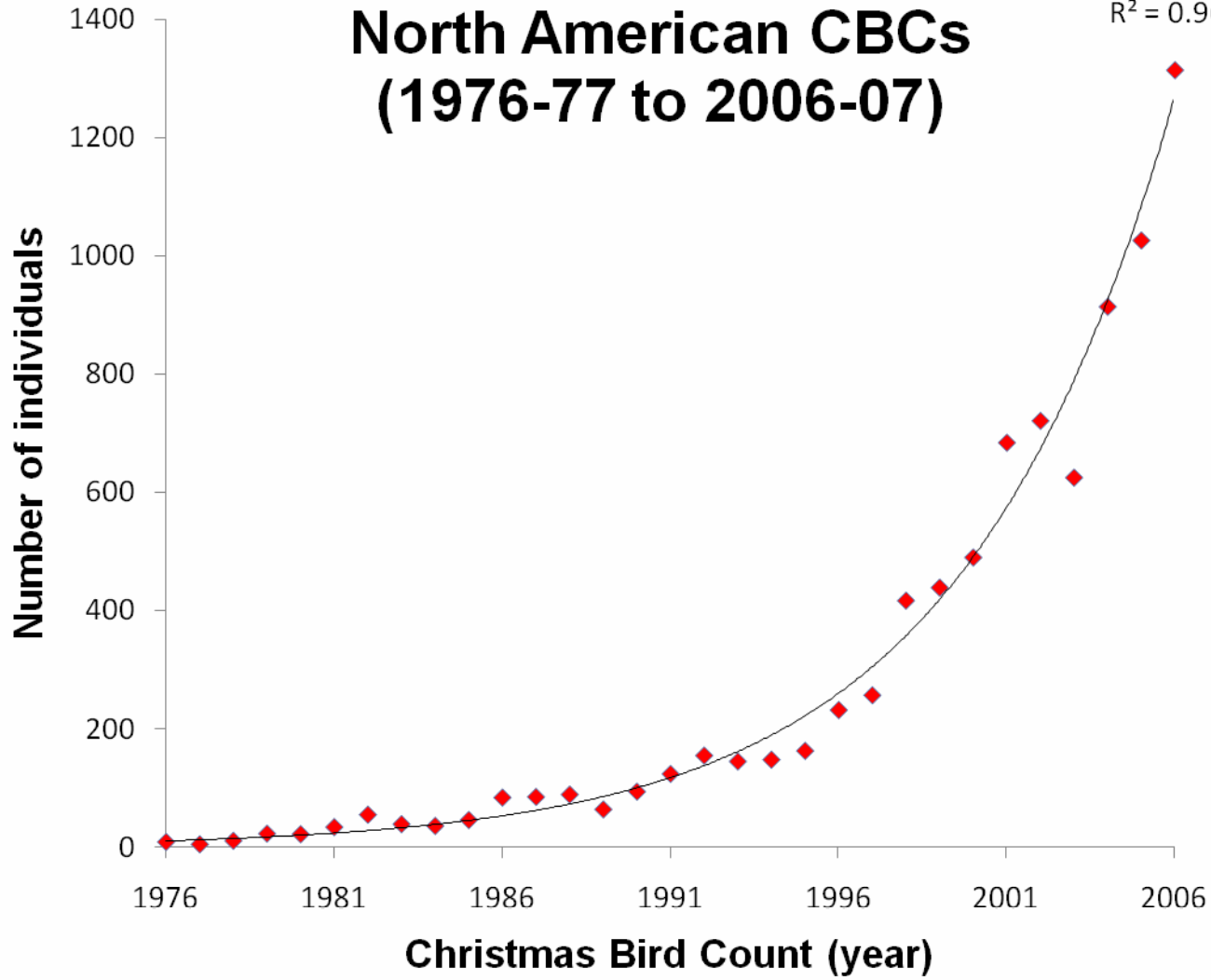
# LBBG Christmas Bird Count Maps



- 1982 – 1983
- 1992 – 1993
- 2002 – 2003

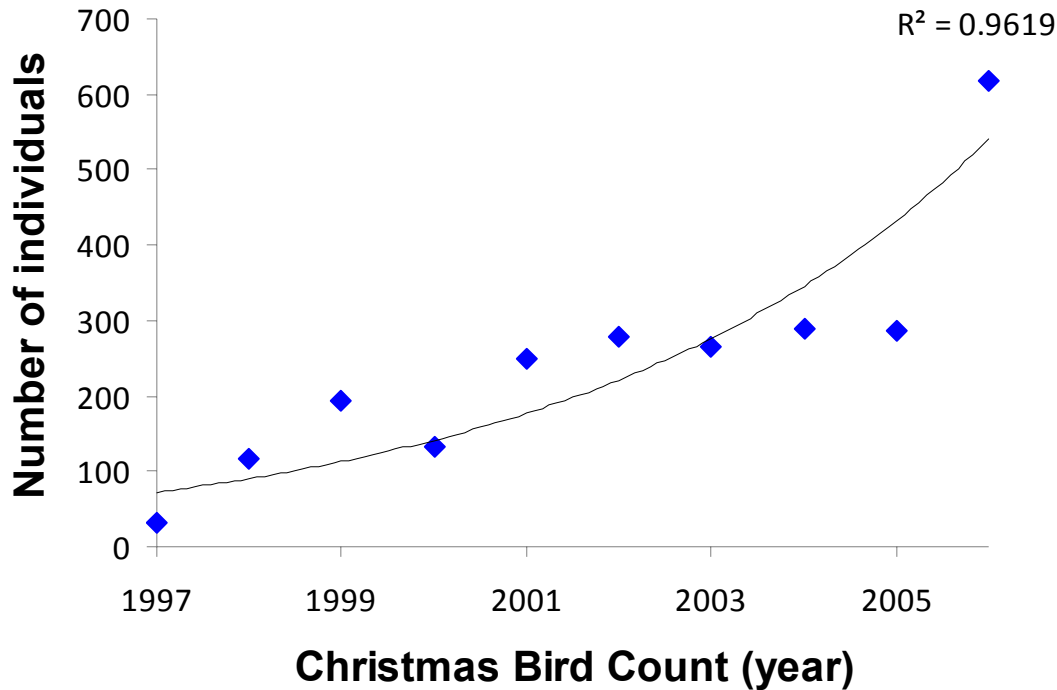
# North American CBCs (1976-77 to 2006-07)

$R^2 = 0.9619$



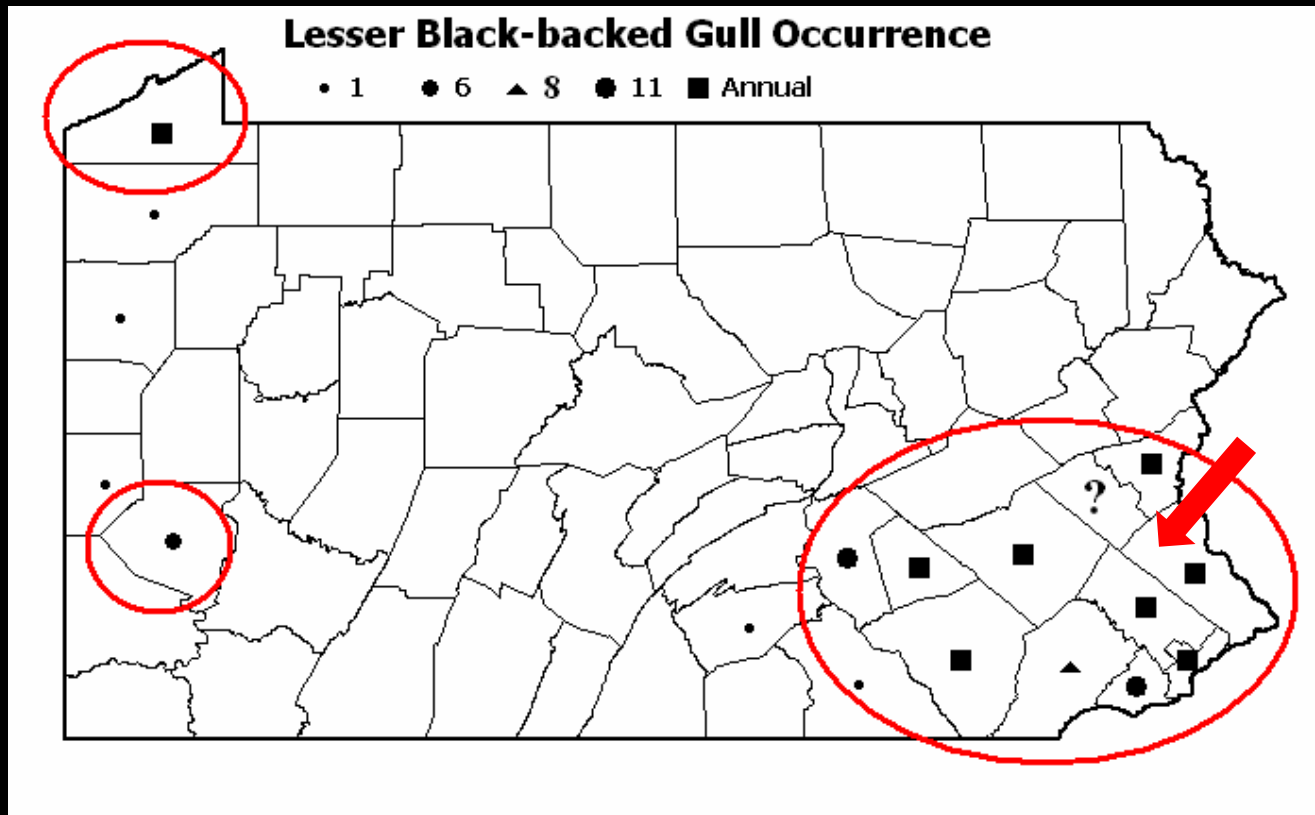
# LBBGs in Pennsylvania

## Pennsylvania CBCs (1997-98 to 2006-07)



County	Daily High Count	Comments
Allegheny	2	
Beaver	1	
Berks	9	
<b>Bucks</b>	<b>456</b>	<b>17-Mar-07</b>
Chester	15	
Crawford	1	
Cumberland	2	
Dauphin	3	
Delaware	1	
Erie	10	
Lancaster	11	
Lebanon	12	
Lehigh	?	
Mercer	1	
Montgomery	?	
<b>Northampton</b>	<b>237</b>	<b>13-Apr-04</b>
Philadelphia	7	
York	1	

# LBBG Occurrence in Pennsylvania



Pennsylvania LBBG sightings per county

- An obvious southeast concentration
- Peak counts consistently come from Bucks County (especially Peace Valley Park and Nockamixon SP)

# The Project's Main Goals

QUESTIONS: Where do these gulls come from? By what route do they arrive here? Are the same routes used in the spring as in the fall? Are they resident once they arrive here in winter? Do individual birds exhibit winter site fidelity?



Goal – To Determine:

- migration routes
- seasonal movements
- migration ecology

# Plan of Action



- Capture birds using a bow net (alternate capture methods include nocturnal spotlighting or snares).
- Band and color-mark (color leg bands and dyed blue or green on the head/nape and secondaries) wintering LBBGs in southeastern Pennsylvania.
- Pluck two contour feathers to be used for future stable isotope and DNA analysis and obtain a cloacal swab to be checked for the presence of HP-H5N1.



# GPS/Satellite Transmitters



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← Attaching a satellite transmitter to an Ivory Gull with a teflon harness; Gull outfitted with transmitter ↴

Attach Microwave Telemetry GPS transmitters to adult LBBGs to track their local, regional and global movements.



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# First Documented Offspring of LBBG in North America

- Hybrid pair of LBBG (male) and HERG (female) from Appledore Island, Maine – Summer 2007.
- Two hybrid chicks (LBBG x HERG).
- One succumbed to a GBBG.
- The other, a juvenile male, was banded and wears NO2 leg band (white on green lettering).

© David Brown,  
Photo from video





# Various LBBG Ages



© Tom Johnson



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# References

Audubon. Christmas Bird Count. Available from: <<http://www.audubon.org/bird/cbc/hr/>> Accessed Feb 2008.

Grande JM, Palacios CJ. 2002. First Breeding Record of the Lesser Black-backed Gull in the Macaronesic Archipelago, North Atlantic; a Large Spread in Its Breeding Range. *Waterbirds* 25 (3): 388 – 389.

Olsen KM, Larsson H. 2003. *Gulls of North America, Europe, and Asia*. Princeton, New Jersey: Princeton University Press.

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