

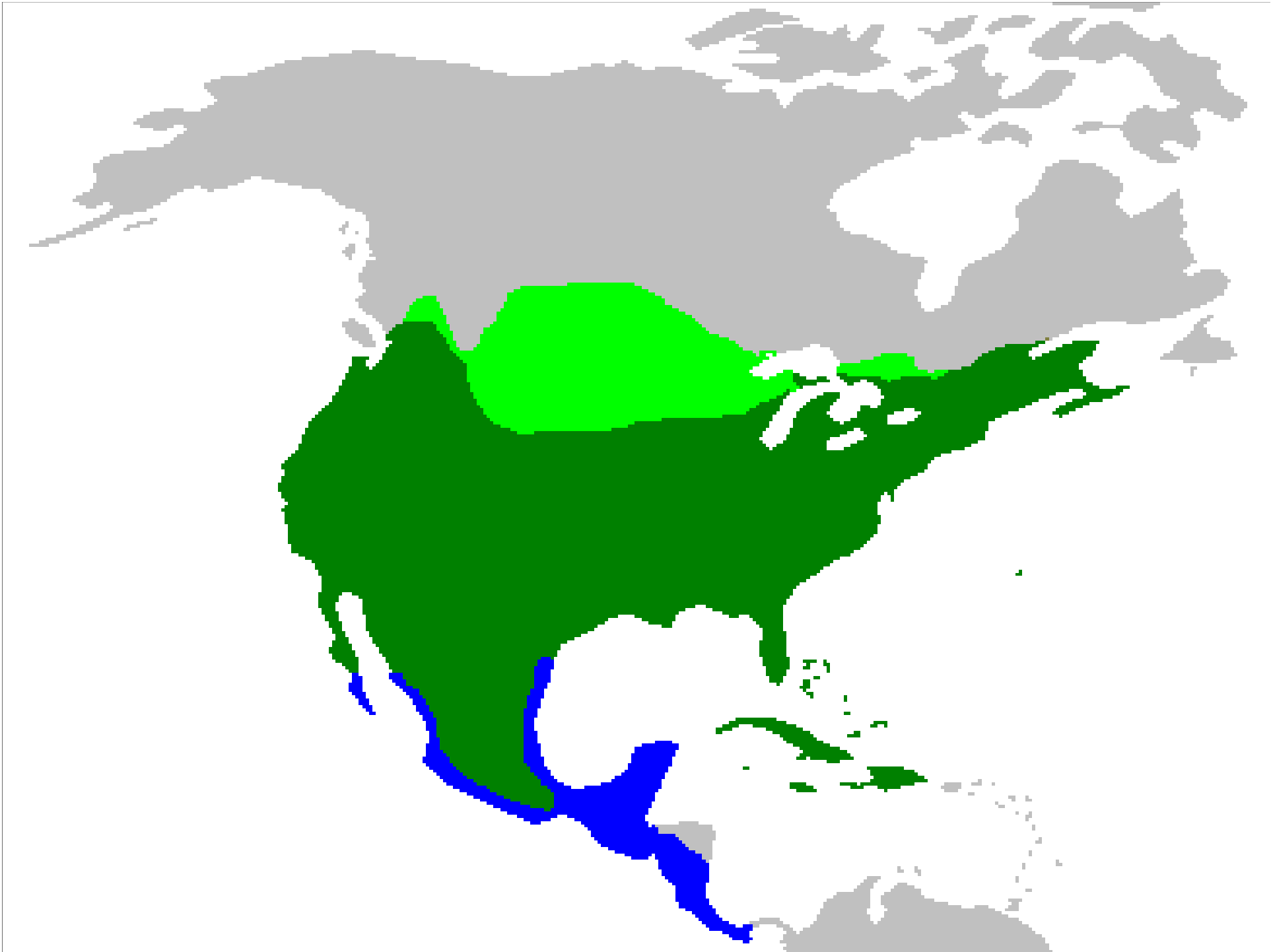
**Beliefs and Support for Use of
Nontoxic Shot Among Mourning
Dove (*Zenaida macroura*) Hunters
in Illinois, U.S.A.**

Craig A. Miller

**Human Dimensions Research
Illinois Natural History Survey
University of Illinois**



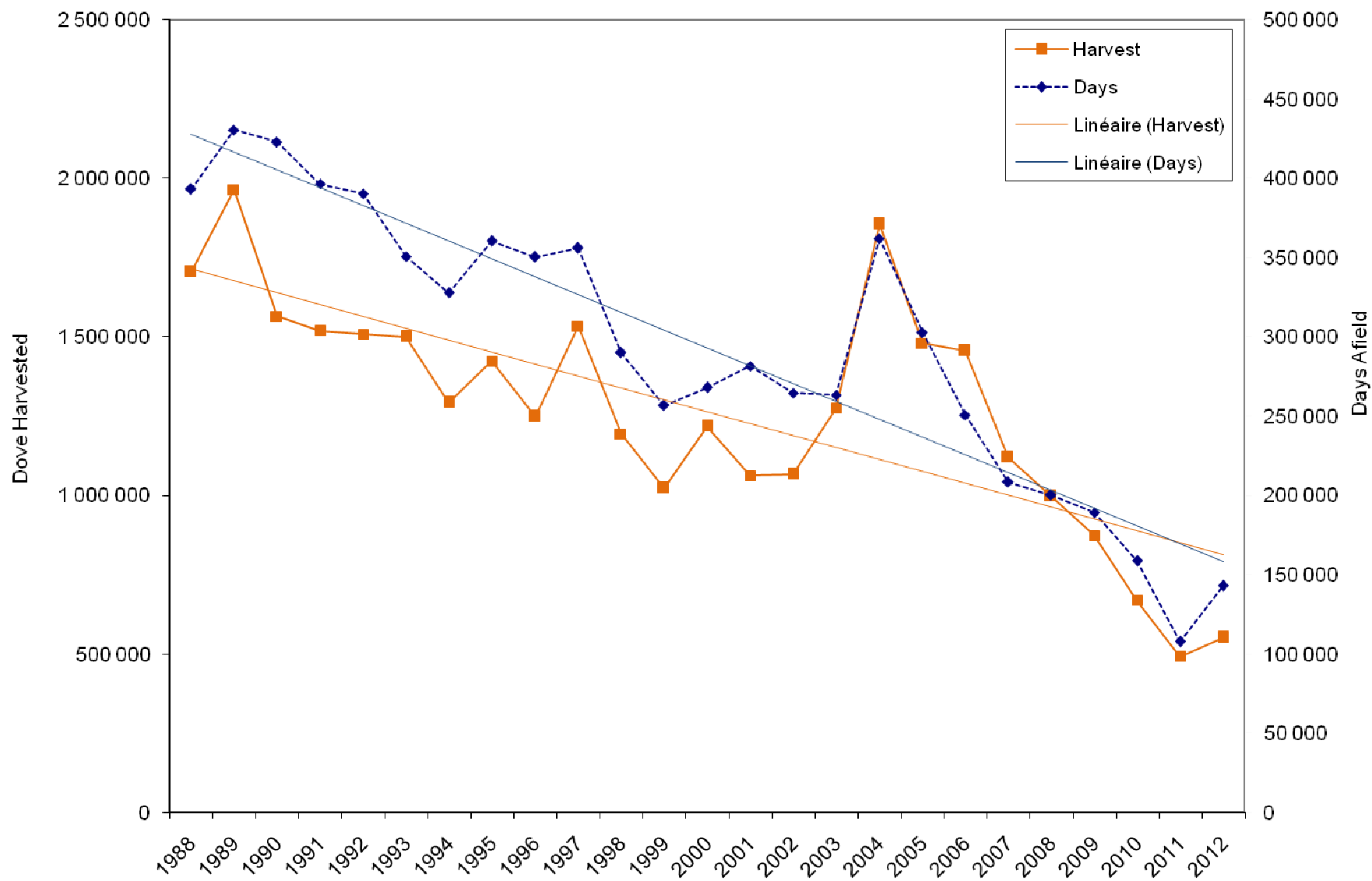




Background

- **Log-term trend shows Illinois mourning dove (*Zenaida macroura*) harvest decline beginning in 1989 (harvest = 1,963,509; hunters = 430,386)**
 - Total harvest 2004 (1,855,135) 2012 (550,962)
 - Daily bag average 2004 = 5.13; 2012 = 3.85
- **Number of dove hunters has also declined**
 - 2004 (78,455)
 - 2012 (34,501)

Dove Harvest and Days Afield, 1988-2012.



- **Illinois in Eastern Management Unit (27 states)**
- **2- and 10-year trends in EMU do not suggest decline in mourning dove populations**
- **48-year trends do support decreased dove populations in EMU and EMU states that hunt doves (19 states, 80% of total EMU)**
- **Some evidence suggest dove populations increased in states with no dove hunting**

Seamans, Rau, and Sanders. 2013 Mourning dove population status, 2013. U.S. Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Washington, D.C.

- **20-40 million birds harvested annually (U.S.), 3-4 shots per bird harvested**
- **Field studies suggest lead shot in fields hunted readily available to doves (Anderson 1986, Castrale 1989)**
- **Lab studies indicate dove susceptibility to lead shot ingestion (Beurger, Mirarchi, Lisano 1986)**
- **Lead toxicosis through shot ingestion now suspected factor in dove population declines in some states**

Research Questions

- **Does support for lead shot differ between dove hunters who hunt waterfowl and those who do not?**
- **Is there a difference in beliefs about steel shot between dove hunters who hunt waterfowl and those who do not?**

Lead shot ban in Waterfowl

- **Lead shot banned for waterfowl hunting nationwide in U.S. since 1994**
- **Many states banned lead shot prior to 1994**
- **Banned in Illinois since 1994**
- **Steel shot is most common shot used**

Methods

- **Mail survey of 9,000 Illinois dove hunters stratified by HIP registration from 2009, 2010 and 2011 seasons (n=3,000/season)**
- **Used repeat-mailing method**
- **Sampled participants received 8-page questionnaire**
- **5,151 (59%) completed questionnaires received.**

Results

- **89% hunted doves in Illinois**
 - **41% did not hunt in 2011 or 2012 seasons**
 - **6% hunted only 2012 season**
 - **13% hunted only 2011 season**
 - **40% hunted both**
- **26% hunt doves every year**
 - **28% hunt most years**
 - **28% hunt occasional years**

Use of Steel Shot for Dove Hunting

14% Always

5% Often

11% Sometimes

11% Rarely

59% Never

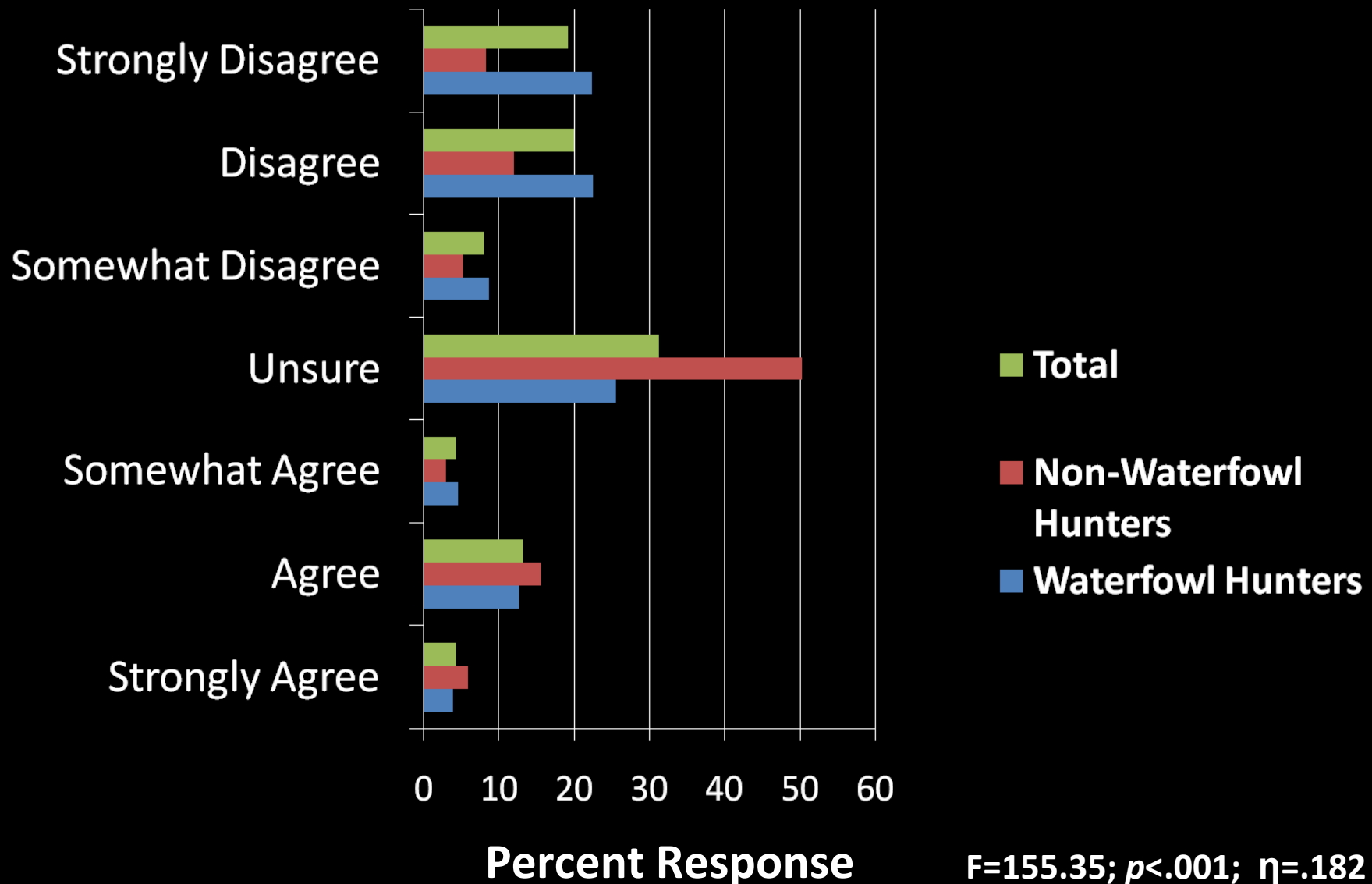
Waterfowl Hunting among Dove Hunters

- **76% of dove hunters hunted waterfowl**
 - **40% do so every year**
 - **17% most years**
 - **18% occasionally**

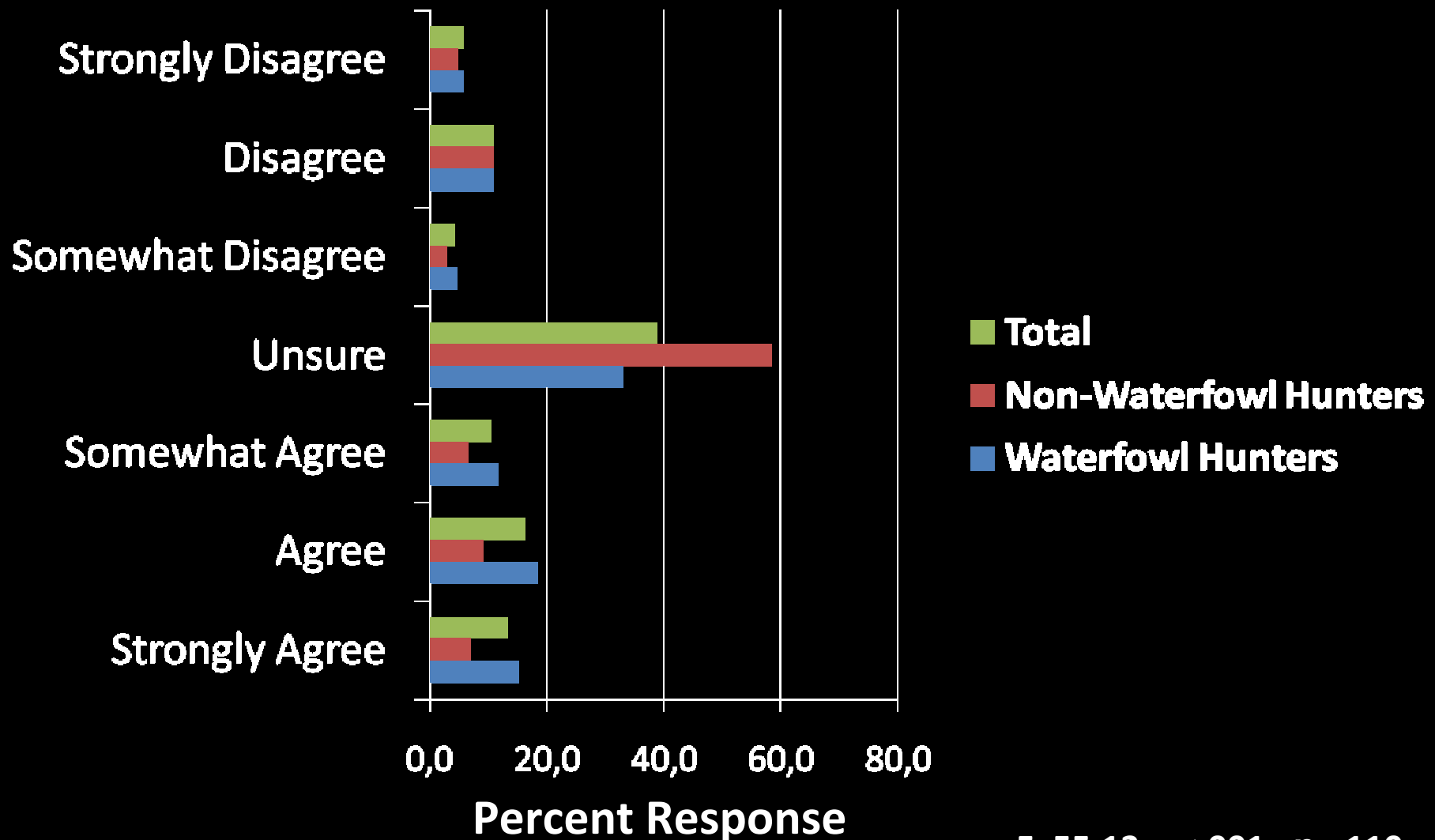
**“I Support the Ban on Lead Shot
for Dove Hunting” (% Response)**
($F = 4.216, p = 0.04, \eta = 0.031$)

	Strongly Disagree	Disagree	Somewhat Disagree	Unsure	Somewhat Agree	Agree	Strongly Agree
Waterfowl Hunters (n=3448)	33	24	8	18	6	8	3
Non-Waterfowl Hunters (n=1046)	25	25	9	29	5	6	2

Steel shot kills doves as effectively as lead

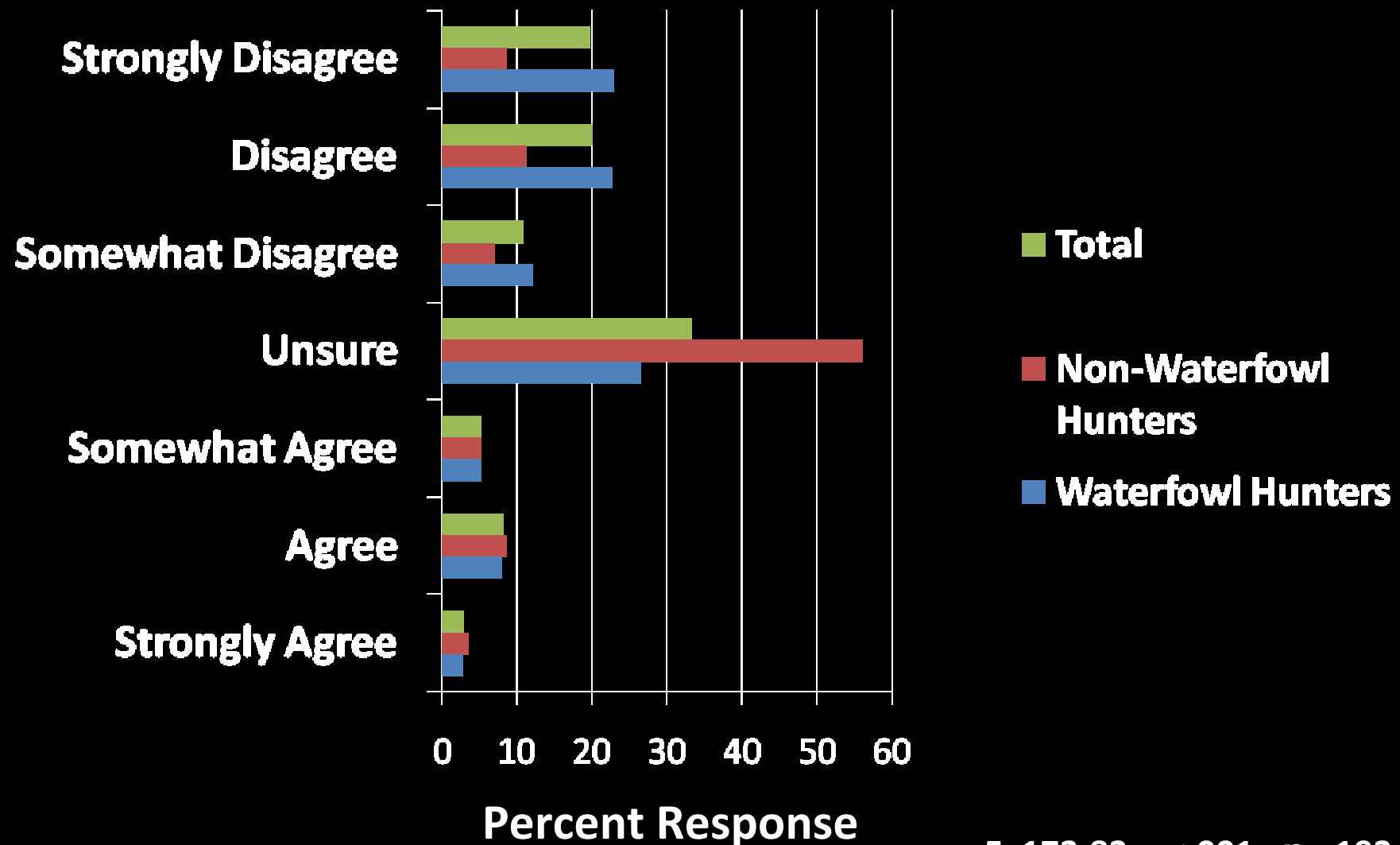


I Will Cripple More Doves with Steel Shot



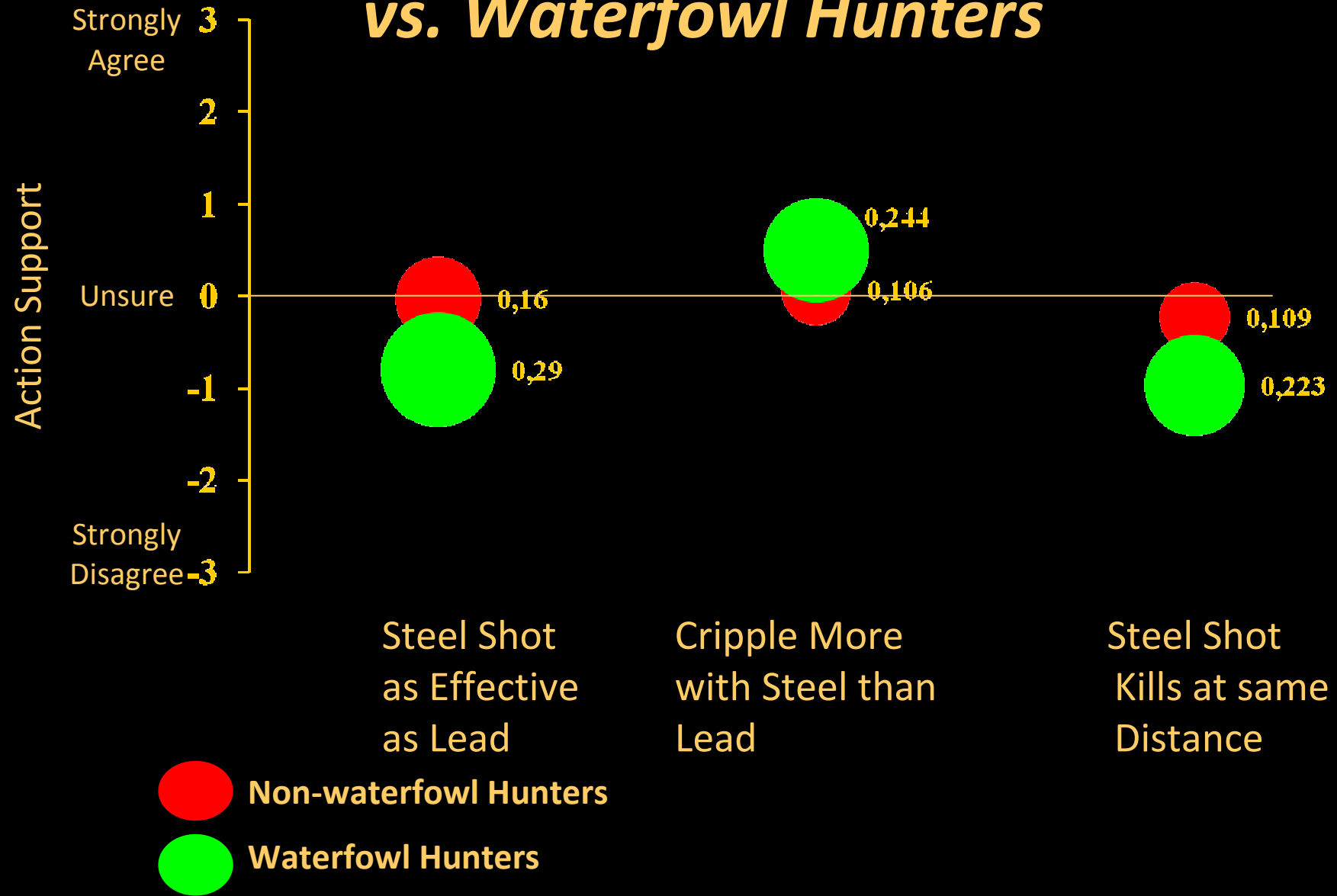
$F=55.12; p<.001; \eta=.110$

Steel Shot Kills Doves at Same Distance as Lead



$F=173.83; p<.001; \eta=.193$

Support for Steel Shot: Non-waterfowl Hunters vs. Waterfowl Hunters



Conclusions



- Beliefs about steel shot are not positive, even among waterfowl hunters
- Hunters use steel shot due to regulations, but findings suggest they do not believe steel shot is as effective as lead

Acknowledgements

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- Illinois Natural History Survey
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Questions?



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