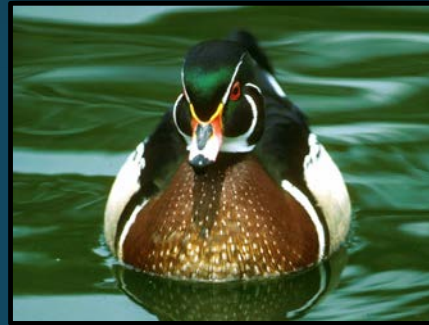


General Public Survey Results



9/26/2017

Emily Wilkins and Holly Miller
USGS Fort Collins Science Center

Survey topics

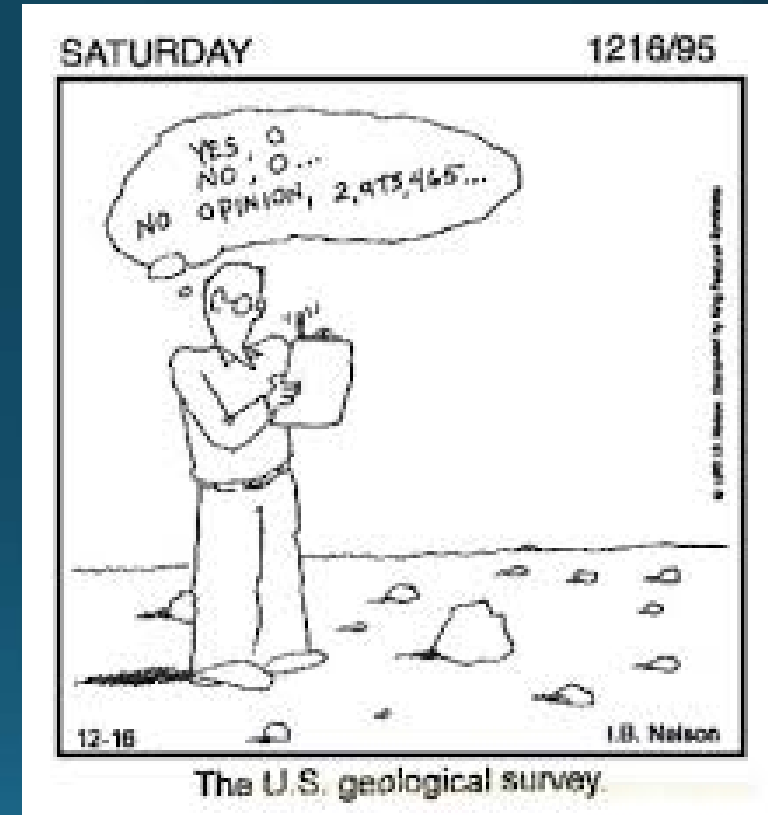
- Participation in and attitudes toward waterfowl and wetlands-based activities
- Awareness of wetlands and concern for loss of wetlands ecosystem services
- Engagement in conservation behaviors
- Preferred communication channels and sources

Nature and Wetlands Survey



Background

- Mail-out survey, January-March 2017
- 5,000 U.S. addresses
- Up to 4 mailings per person
 - Survey, reminder postcard, replacement, non-response
- 1030 surveys returned, 559 not deliverable
- 23.4% response



Data weighting

	Category	Sample	Census
Census region	Northeast	19.7%	17.5%
	Midwest	27.7%	21.1%
	South	31.1%	37.7%
	West	21.6%	23.7%
Gender	Male	65.1%	49.2%
	Female	34.9%	50.8%
Age	18-44 (% of adults)	21.4%	48.1%
	45-65 (% of adults)	45.8%	34.7%
	65+ (% of adults)	32.7%	17.2%
Education	High school degree or less	17.4%	41.1%
	Some college or AA	30.3%	26.4%
	Bachelor's degree	26.8%	20.5%
	Graduate degree	25.5%	12.0%
Ethnicity	Hispanic	5.6%	17.1%
	Not Hispanic	94.4%	82.9%
Race	American Indian/Alaskan	1.3%	0.8%
	Asian	3.9%	5.1%
	Black	5.0%	12.6%
	Hawaiian/Pacific Islander	0.2%	0.2%
	White	86.1%	73.6%
	Other alone	N/A	4.7%
	Two or more	3.2%	3.0%

	Male	Female
Age: 18-44	1.952	2.550
Age: 45-64	0.563	1.095
Age: 65 +	0.343	1.097

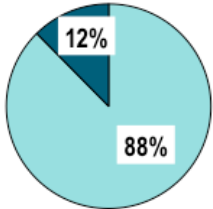
Margin of error:
3.35
Confidence level:
95%

Activity participation

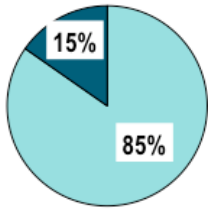
Compared to 2011 National Survey of Fishing, Hunting, and Wildlife Associated Recreation

Activity	Sample participation rates	2011 participation rates (FWS)
Viewing/feeding/ photographing birds	58.3%	19.0%
Viewing/photographing any wildlife	68.7%	29.1%
Fishing	39.1%	13.4%
Hunting waterfowl	5.2%	1.0%
Hunting other game	16.2%	5.6%

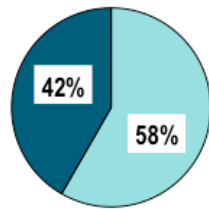
Backyard/at-home nature activities



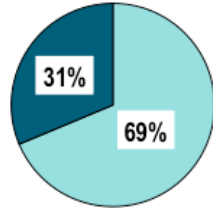
Spending time in nature away from home



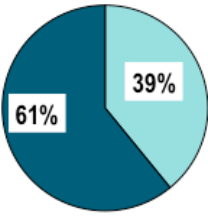
Viewing/feeding/ photographing birds



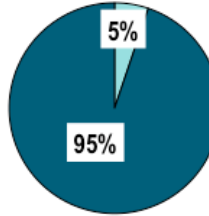
Viewing/photographing other types of wildlife



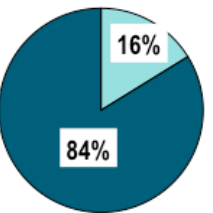
Fishing



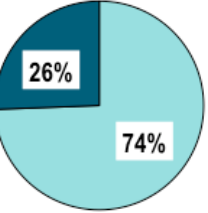
Hunting waterfowl



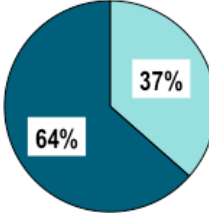
Hunting all other game



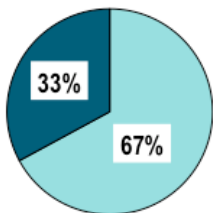
Non-motorized outdoor recreation activities



Motorized outdoor recreation activities



Learning about nature

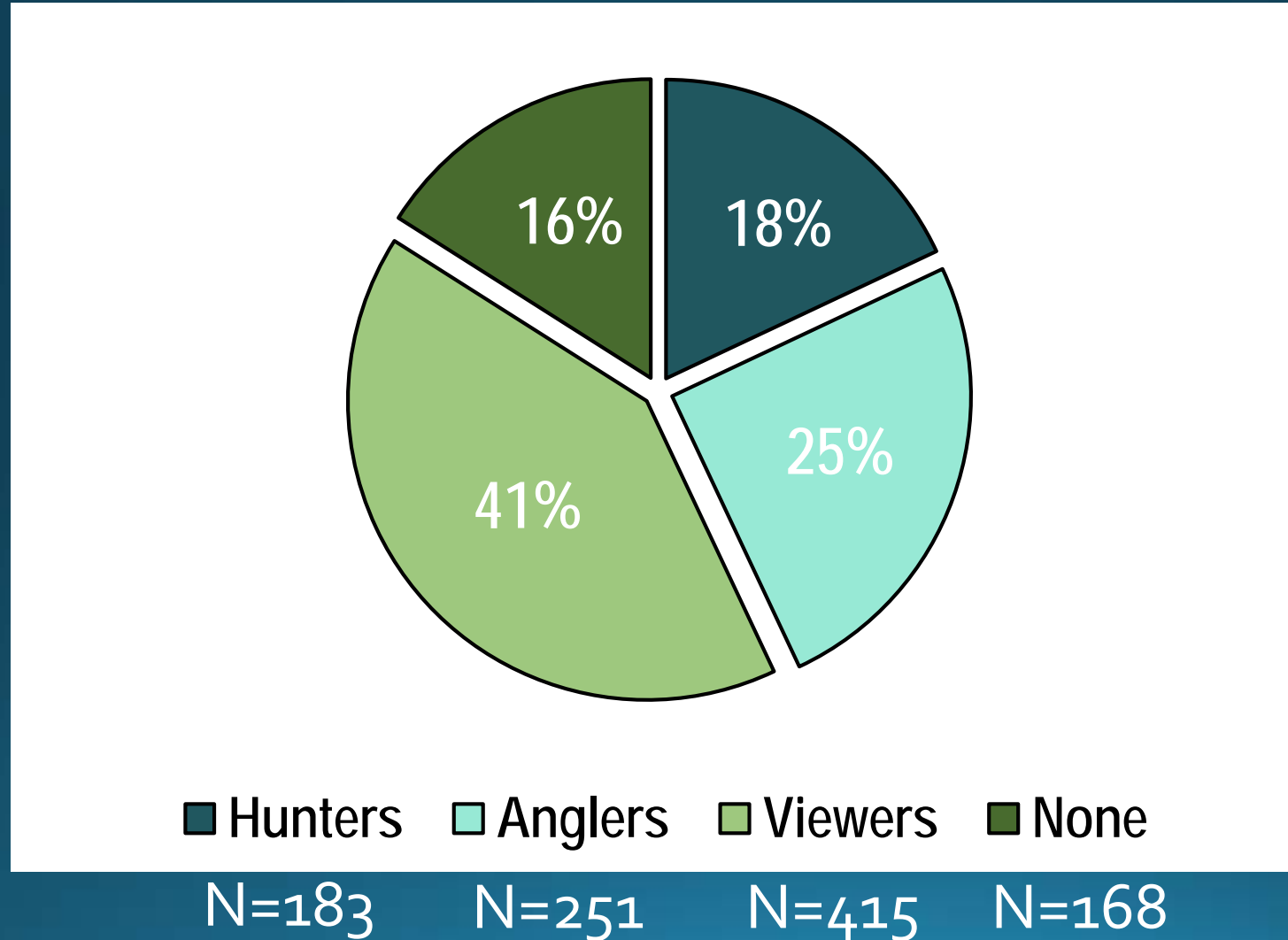


Participated

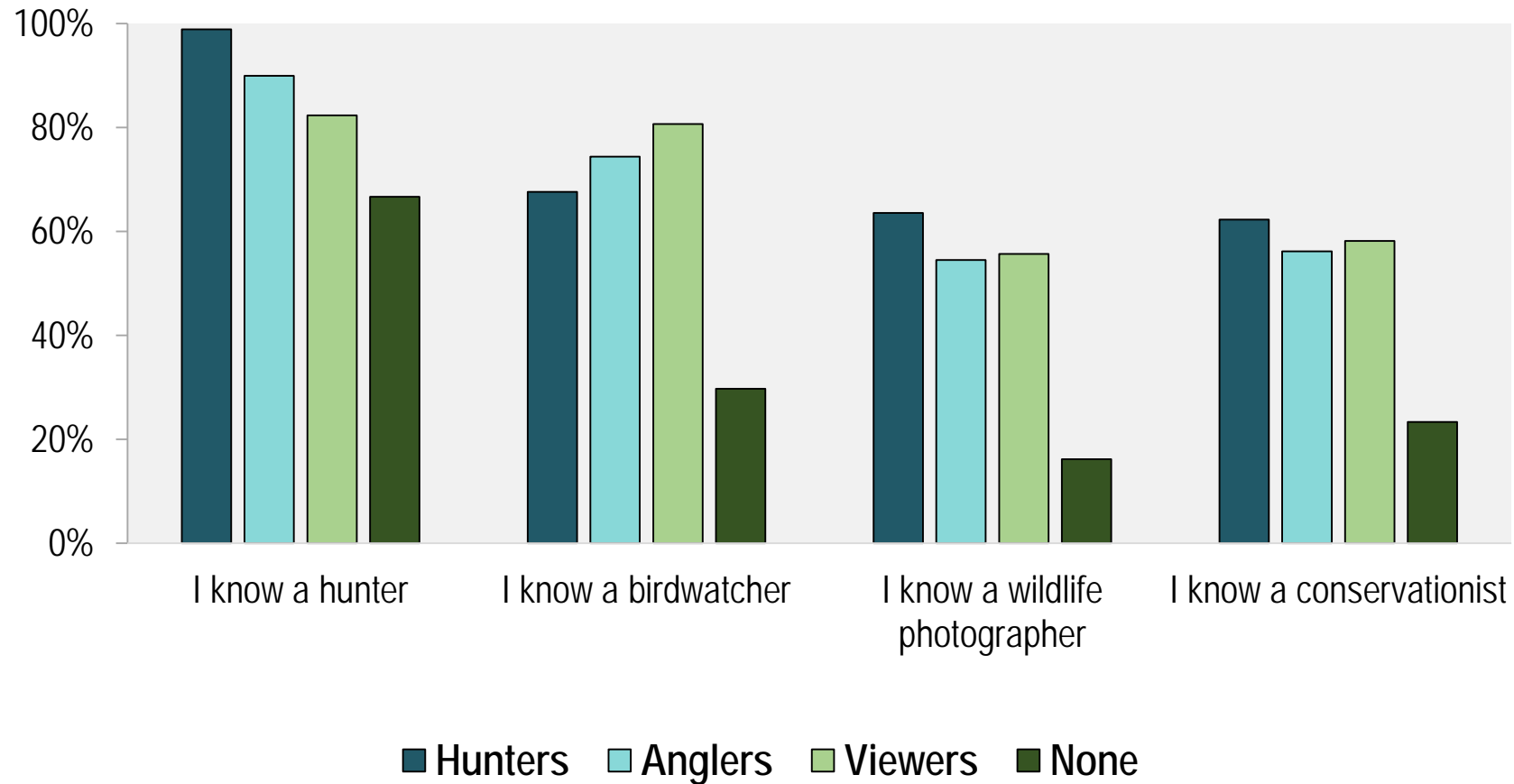
Did not participate

n=966-987

Wildlife-related recreation groups



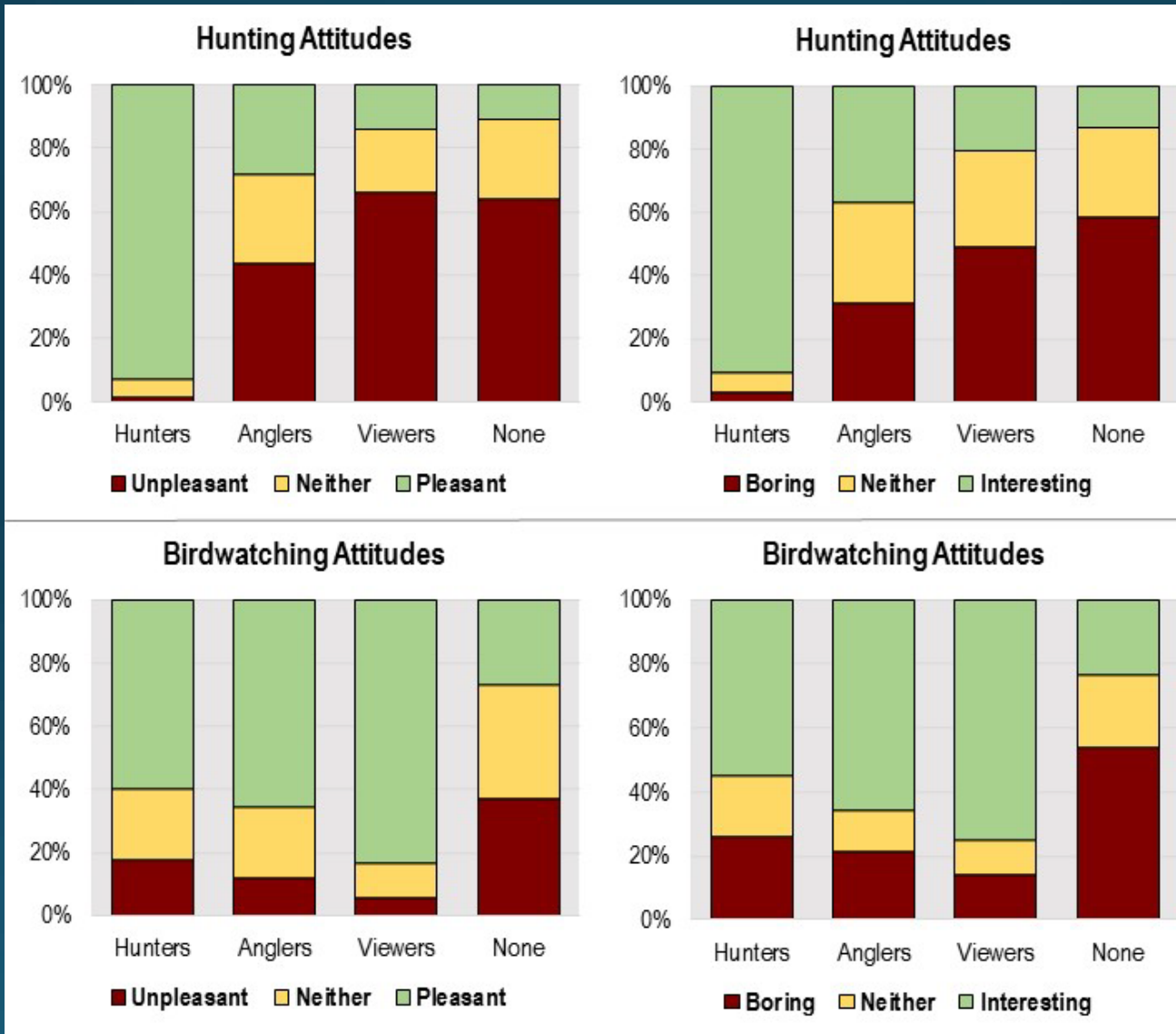
Social networks



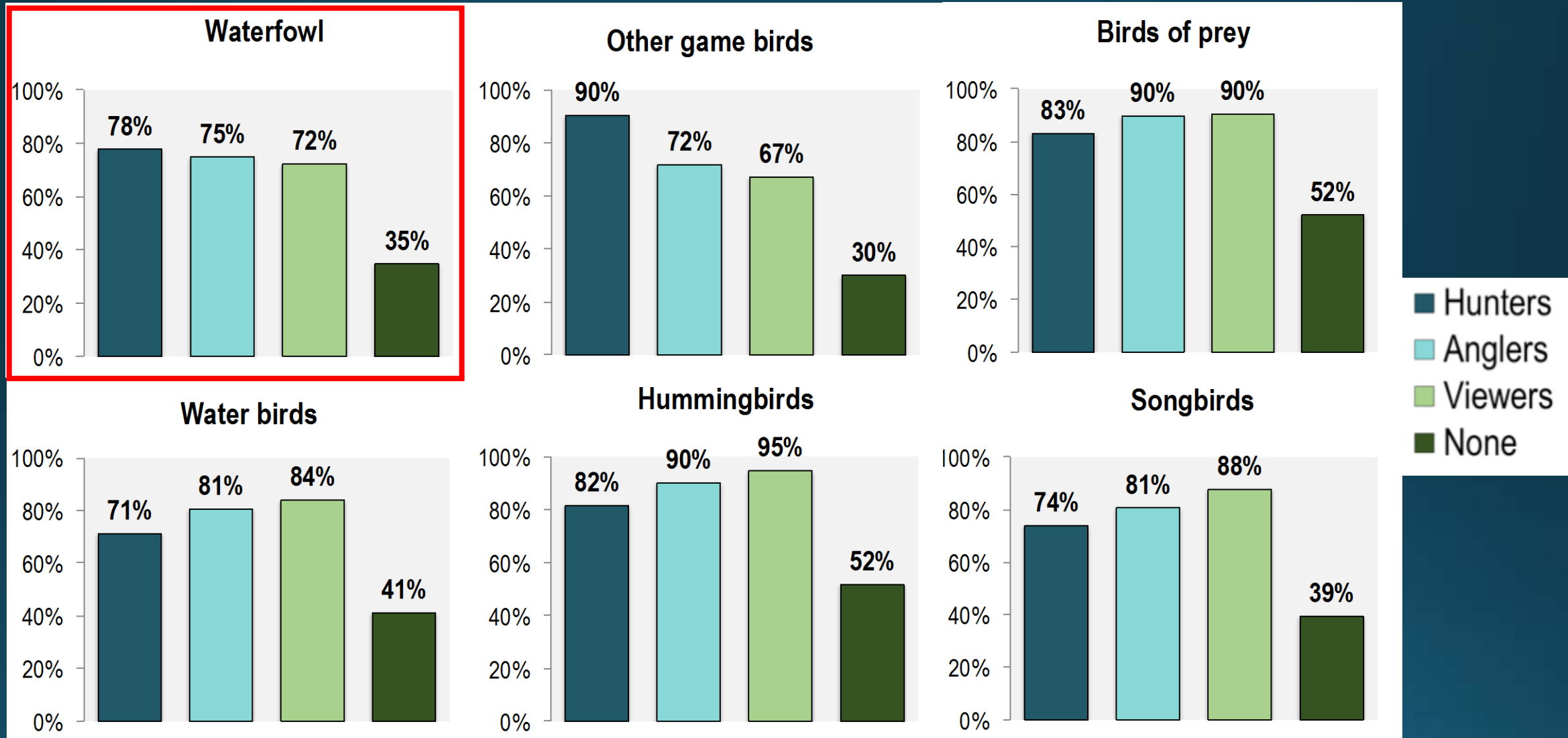
$\chi^2=76.41$, Cramer's $V=0.276$ | $\chi^2=146.97$, Cramer's $V=0.384$ | $\chi^2=96.45$, Cramer's $V=0.312$ | $\chi^2=70.23$, Cramer's $V=0.266$. For all items $p<0.001$ and $df=3$.

Items adapted from Harshaw & Tindall (2005)

Hunting/birdwatching attitudes

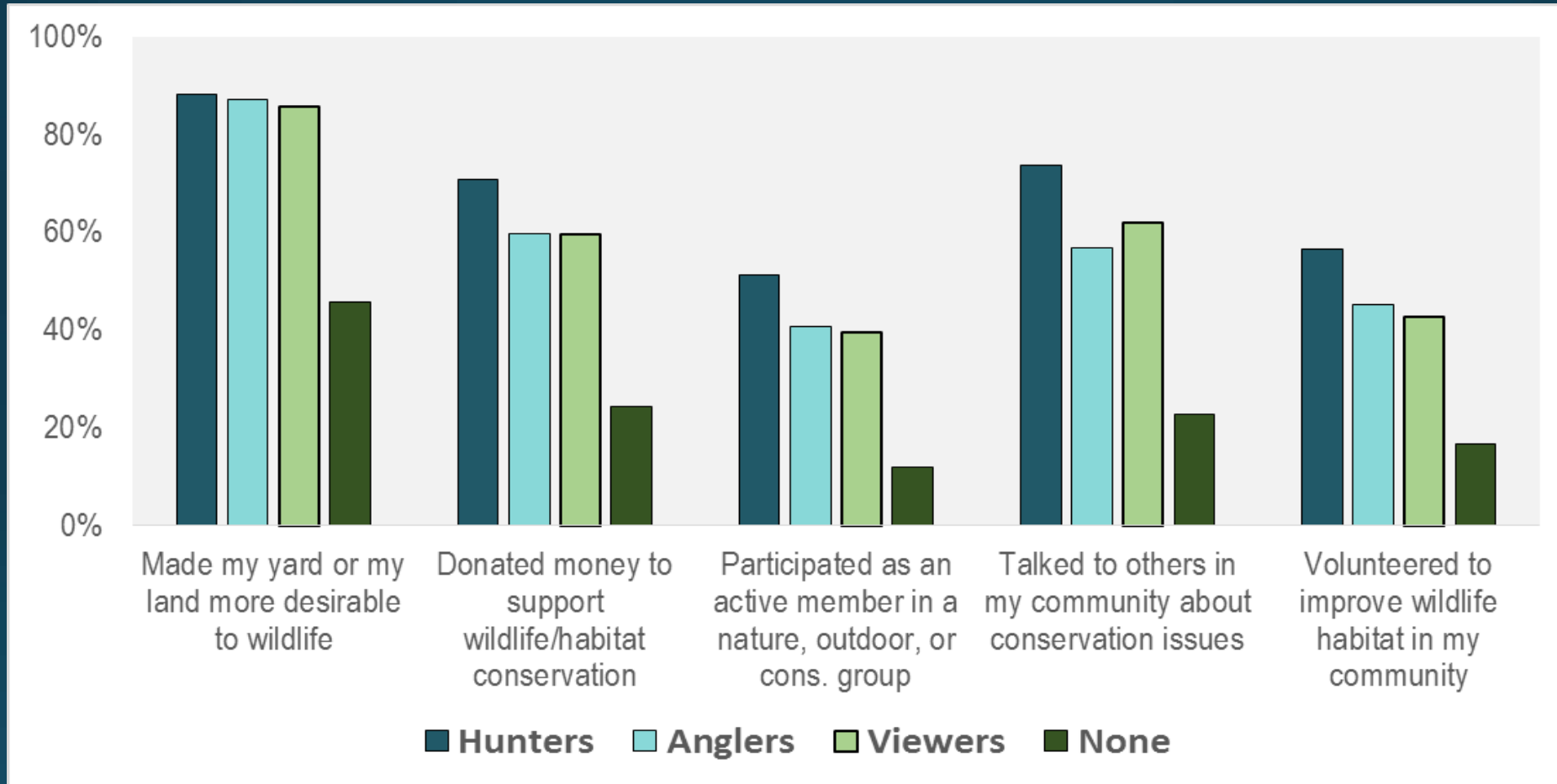


Preferred birds (very or somewhat prefer to see)



General conservation behavior

Percent who participated in the last 12 months

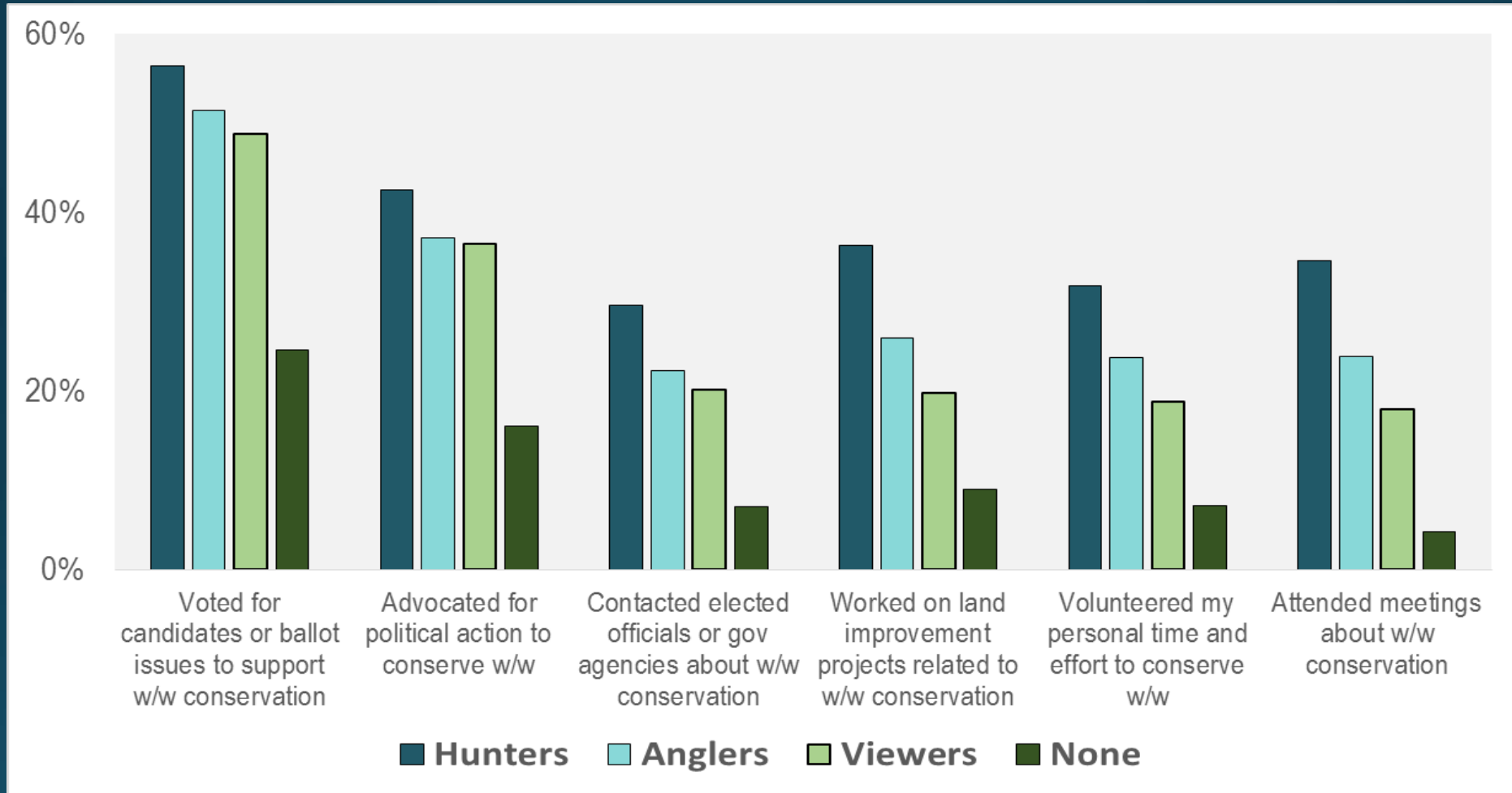


$\chi^2=117.98$, Cramer's $V=0.342$ | $\chi^2=53.52$, Cramer's $V=0.230$ | $\chi^2=42.17$, Cramer's $V=0.205$ | $\chi^2=67.58$, Cramer's $V=0.259$ | $\chi^2=34.58$, Cramer's $V=0.185$. For all items $p<0.001$ and $df = 3$.

Items adapted from Cooper et al. (2015)

Wetlands/waterfowl conservation behavior

Percent who participated in the last 12 months

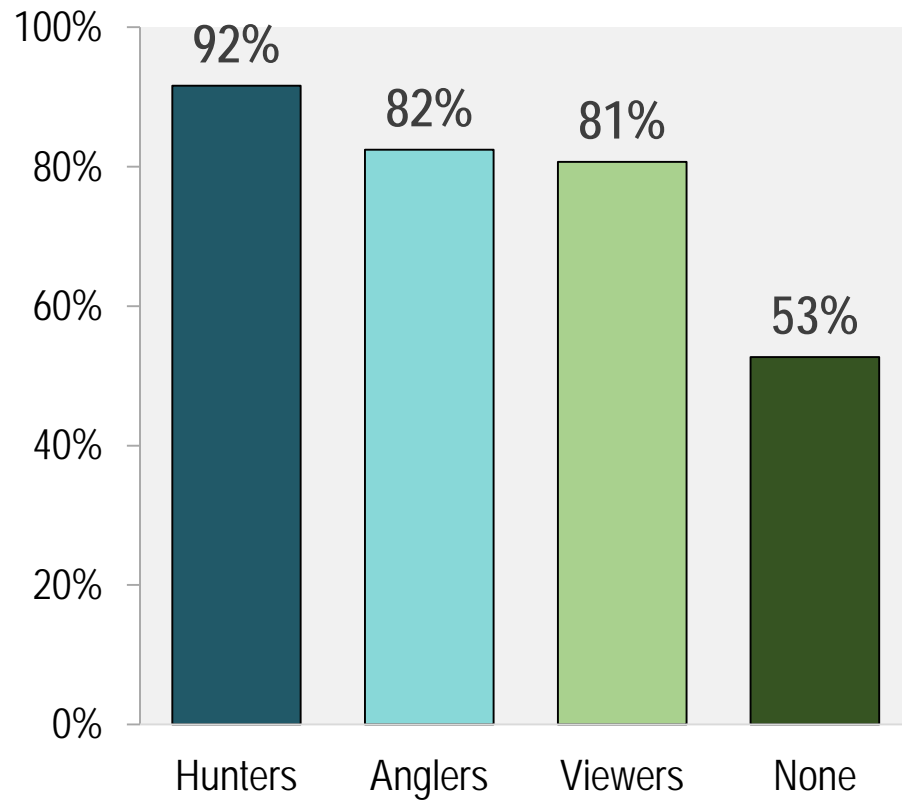


$\chi^2=33.10$, Cramer's $V=0.182$ | $\chi^2=21.03$, Cramer's $V=0.145$ | $\chi^2=11.24$, Cramer's $V=0.106$ | $\chi^2=35.71$, Cramer's $V=0.188$ | $\chi^2=26.02$, Cramer's $V=0.161$ | $\chi^2=27.53$, Cramer's $V=0.165$. For all items $p<0.001$ and $df = 3$.

Items adapted from Cooper et al. (2015)

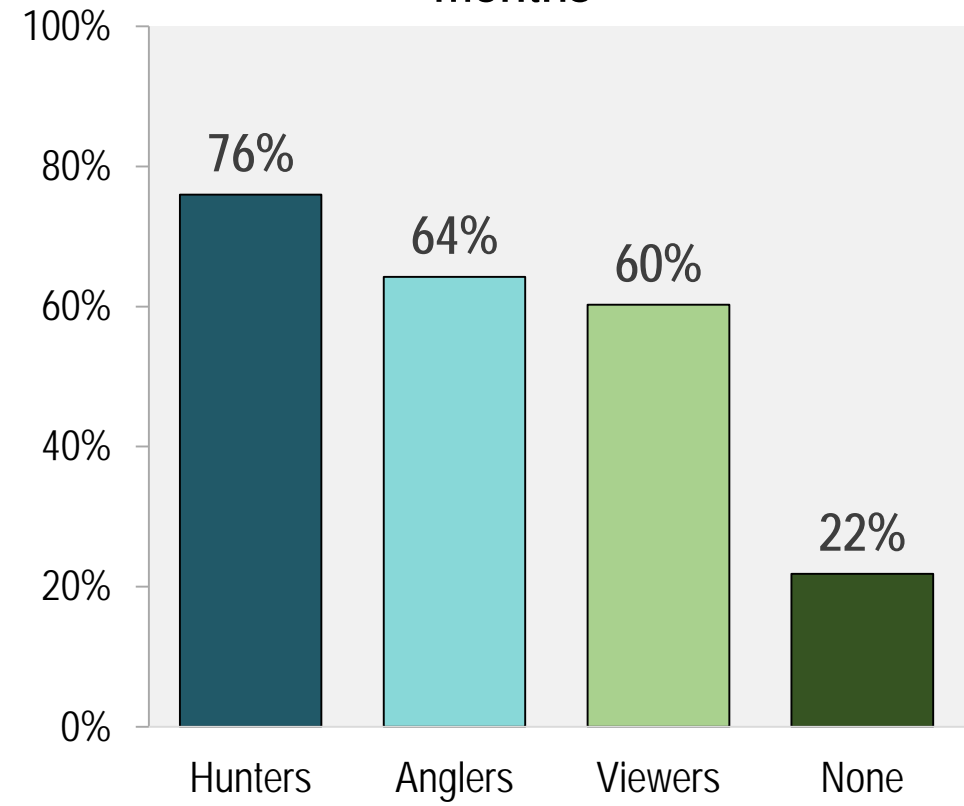
Wetlands awareness

I know of wetlands in my community



$\chi^2=95.56$, 3 df, $p<0.001$, Cramer's $V=0.219$

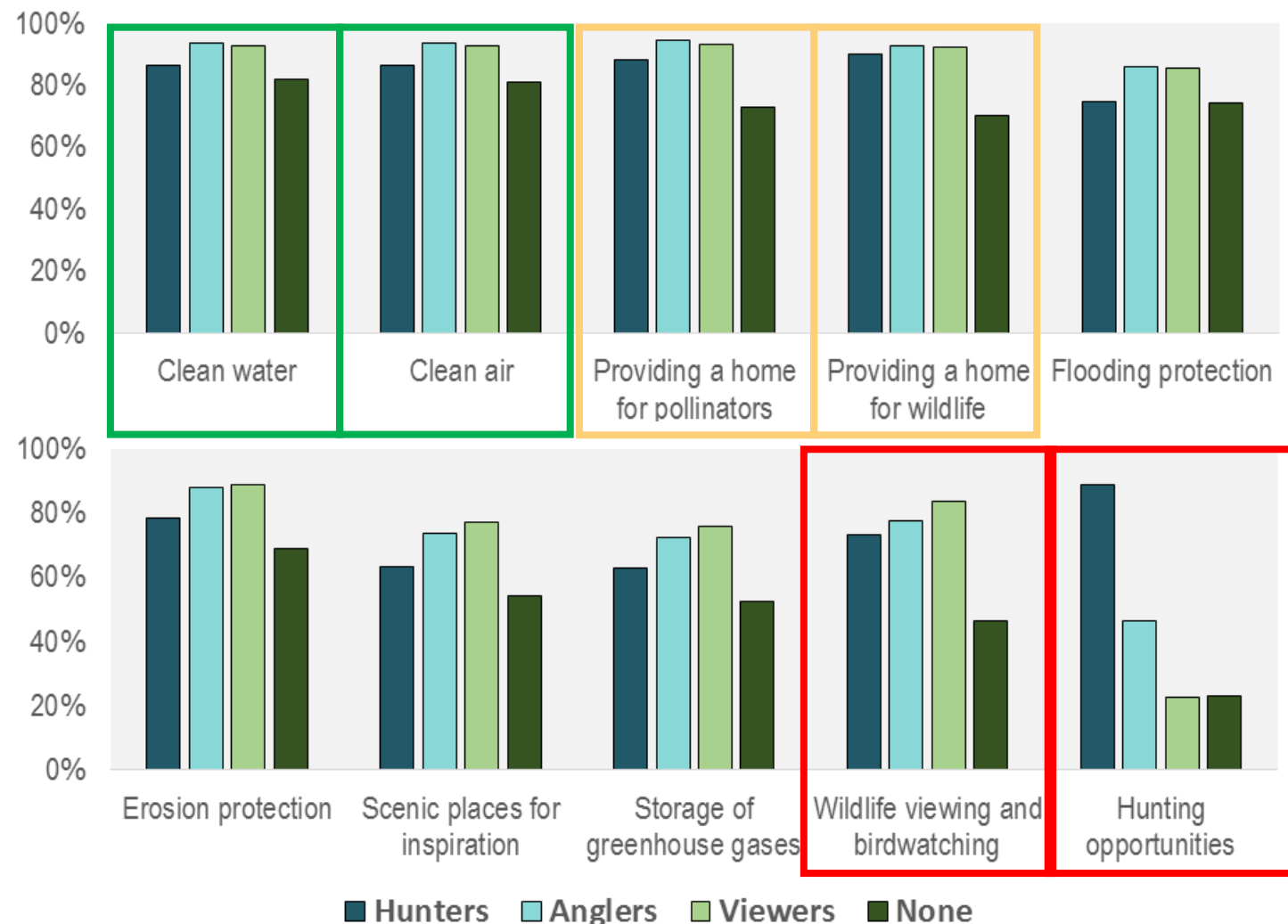
I have visited wetlands in the last 12 months



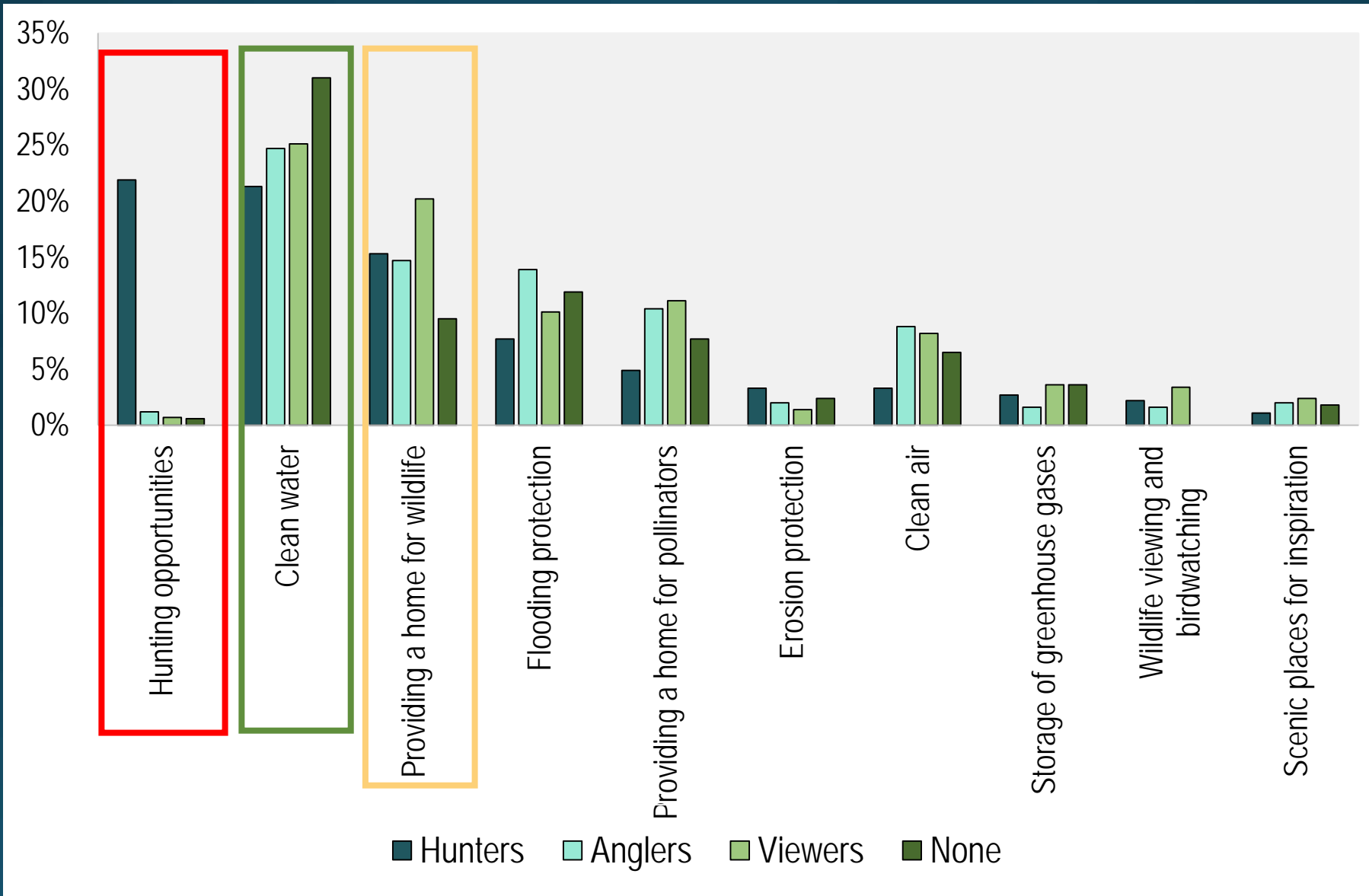
$\chi^2=116.90$, 3 df, $p<0.001$, Cramer's $V=0.343$

Wetlands ecosystem services

Percent that would be somewhat or very concerned about various ecosystem services being reduced due to a loss in wetlands

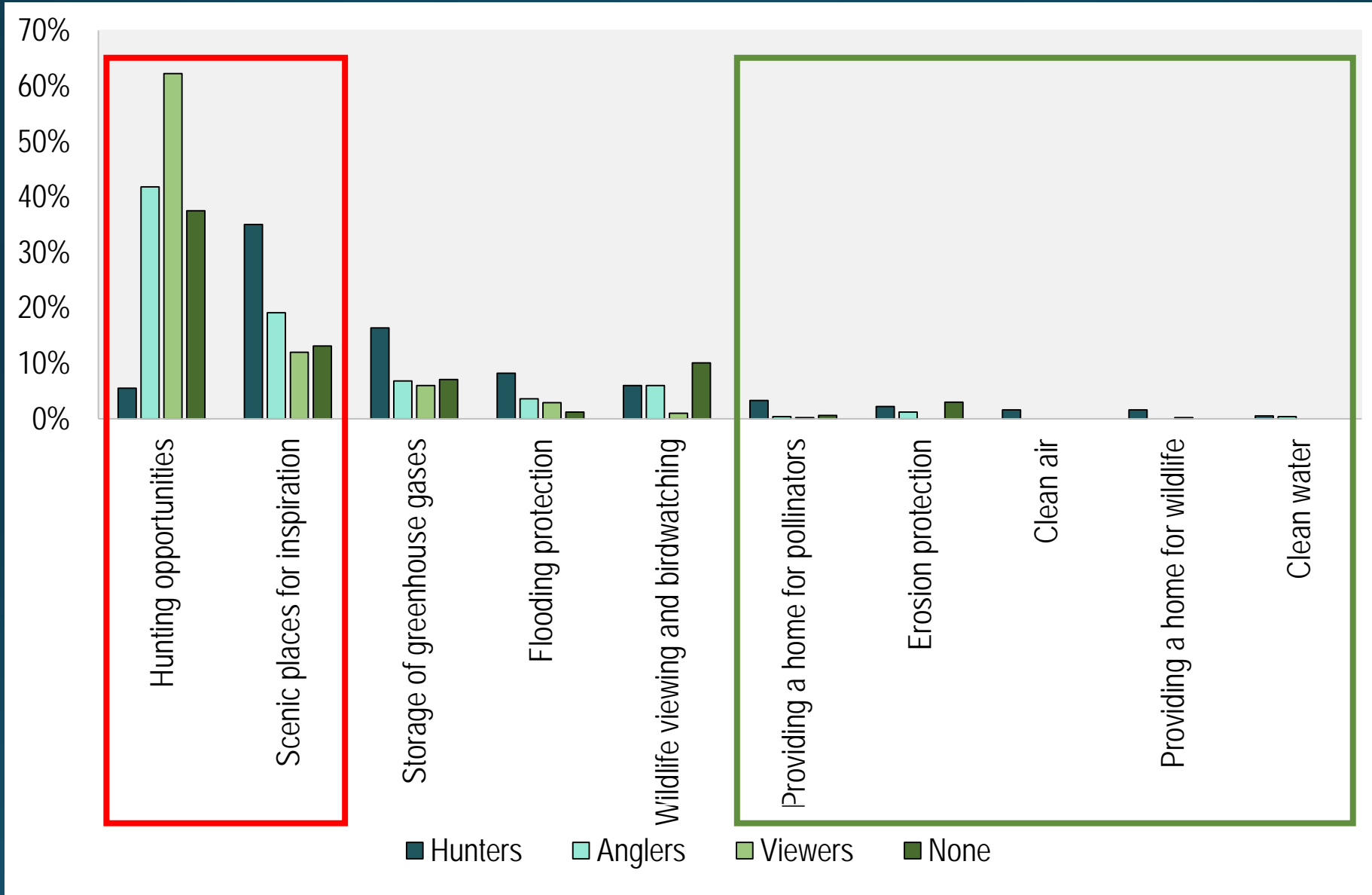


Ecosystem services: Most concerned



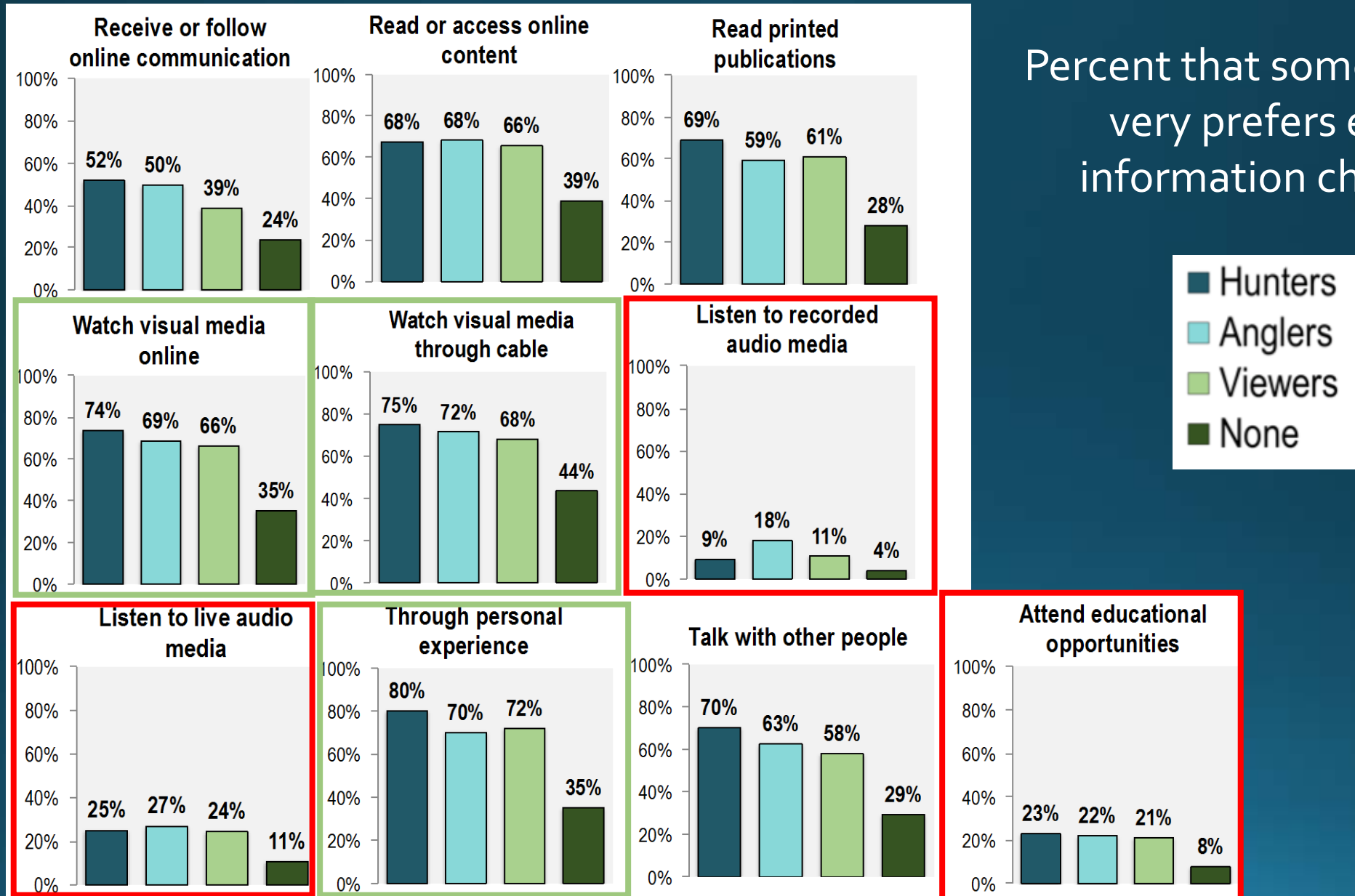
$\chi^2=193.69$, 30 df, $p<0.001$, Cramer's $V=0.252$

Ecosystem services: Least concerned



$\chi^2=253.34$, 30 df, $p<0.001$, Cramer's V=0.288

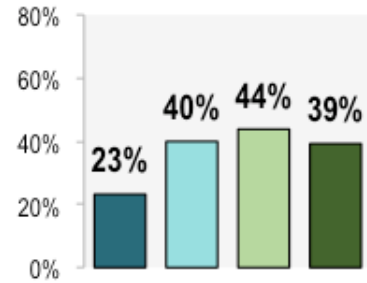
Channels of information on conservation issues



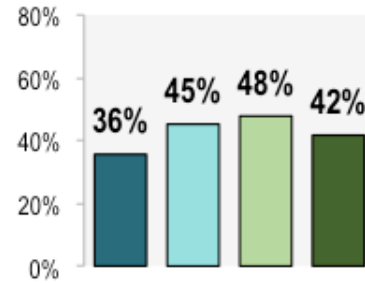
Trust in sources

Percent that trust each source either a lot or completely

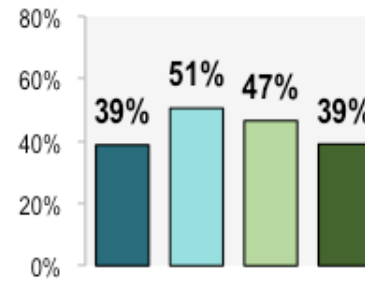
Federal government



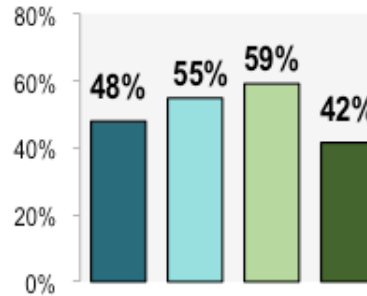
State government



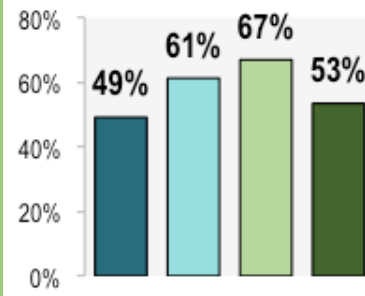
Local government



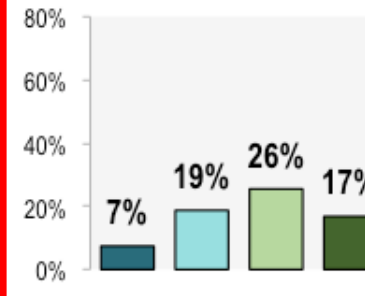
Conservation groups



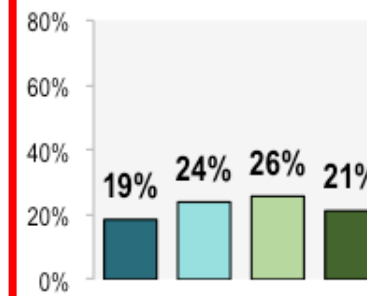
Universities/educational organizations



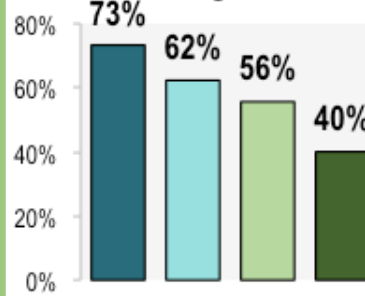
National media/news



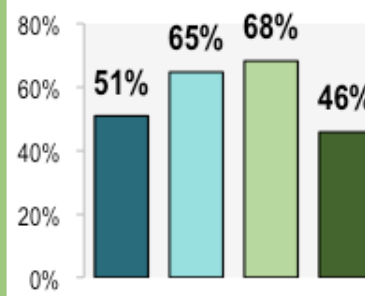
Local media/news



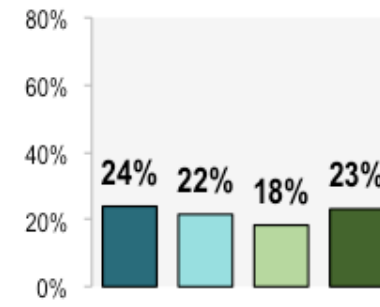
Friends, family, neighbors, colleagues



Scientific organizations



Religious organizations



Hunters
Anglers
Viewers
None

Implications

- Promoting wetlands-related activities and general wildlife/habitat conservation projects may help to bring more people to these areas.
- Many people have negative attitudes toward hunting and/or are not interested in participating, so attempting to recruit them as hunters may not be effective. However, given how many people across all groups knew a hunter and the relatively high levels of trust people had in their friends/family, hunters may be effective ambassadors for promoting waterfowl and wetlands conservation.
- Messages which focus on the broad environmental benefits of wetlands and on many different species, not just waterfowl, may resonate best with the general public.
- Online visual media produced in conjunction with scientific organizations and universities may be the most effective in communicating with the public.