

# The BC Species at Risk Public Opinion Survey

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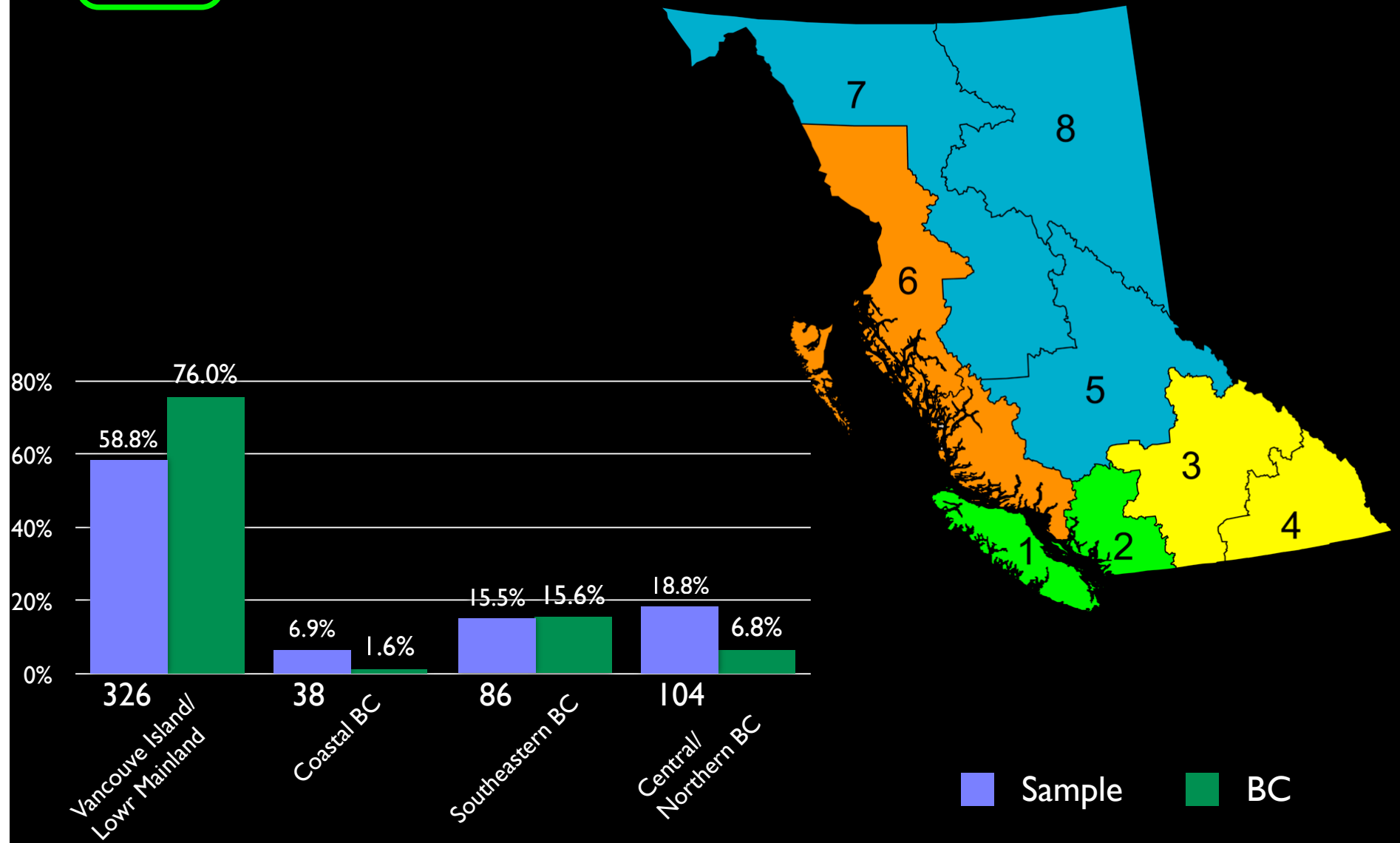


## BC SaR Public Opinion Survey: Project development.

- Initiated by SaRCO.
- Questions developed in collaboration with:
  - SaRCO & MoE staff
  - WWF & COFI
  - Researchers
- Serves practical & theoretical needs.



# BC SaR Public Opinion Survey: Context.





## BC SaR Public Opinion Survey: Sample characteristics.

- Responses received between January 23<sup>rd</sup> and March 13<sup>th</sup> 2008.
- Sample size = 762
- Returned & completed questionnaires = 555
  - Rate of return = 72.8%
  - Sample error =  $\pm 4.16\%$  at the 95% CI.





## BC SaR Public Opinion Survey: Sample characteristics.

- Average age: 53 years (18 - 88 years)
- 50.5% male
- Average length of residence in community:  
21.92 years.



## BC SaR Public Opinion Survey: Sample characteristics.

39 employment sectors represented in sample.

1. Retired **24.2%**
2. Professional/Scientific/Technical Services **10.9%**
3. Management of Companies & Enterprises **7.0%**
4. Multiple **6.4%**
5. Educational Services **5.9%**



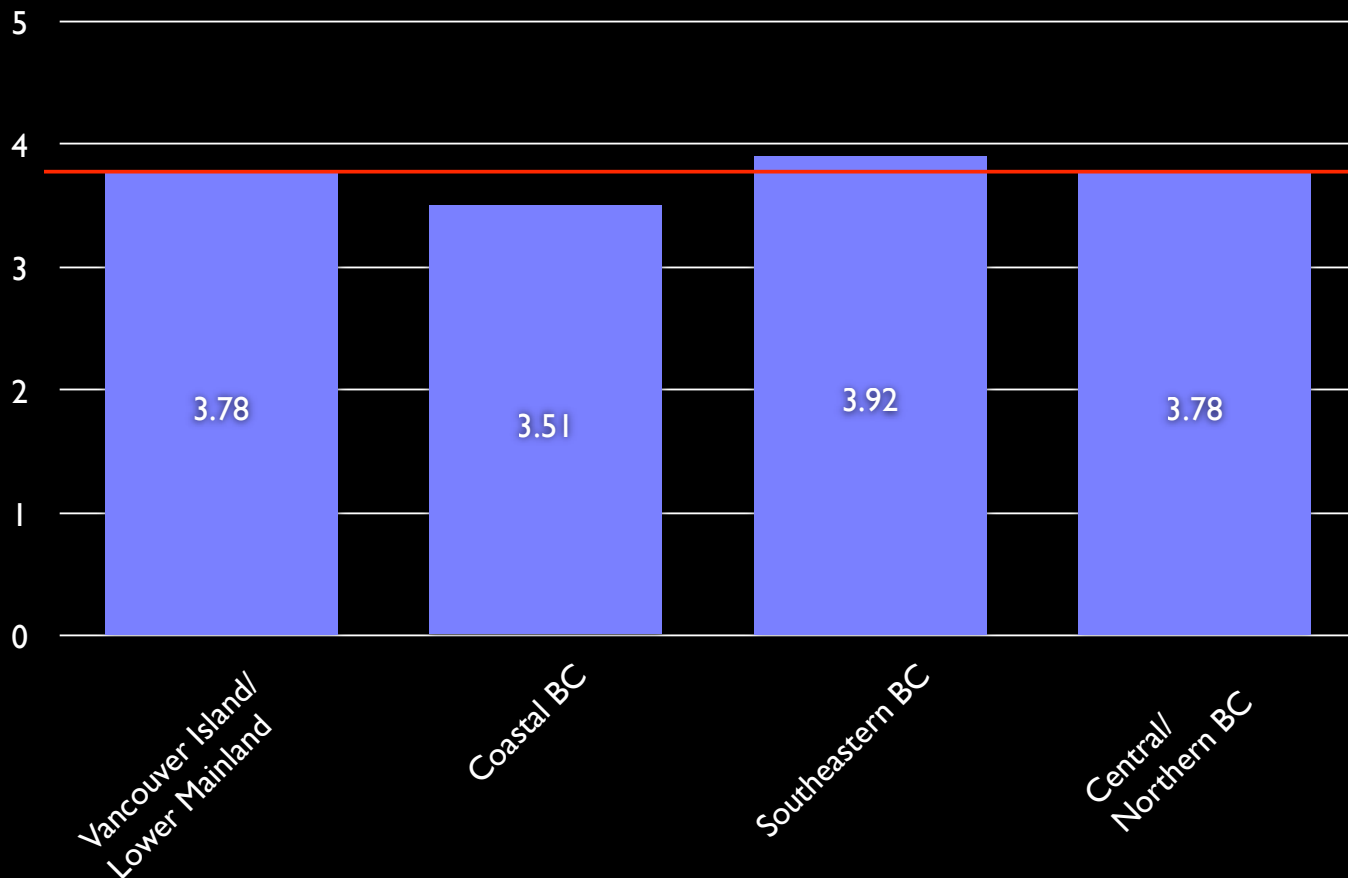
## BC SaR Public Opinion Survey: Sample characteristics.

### Response Bias

- Statistically significant, but minor, differences for age & education at region scale but not at the provincial scale.
- No statistically significant differences for questions about attitudes towards SaR.

Q2

## Opinions & beliefs about sustainability issues in British Columbia.

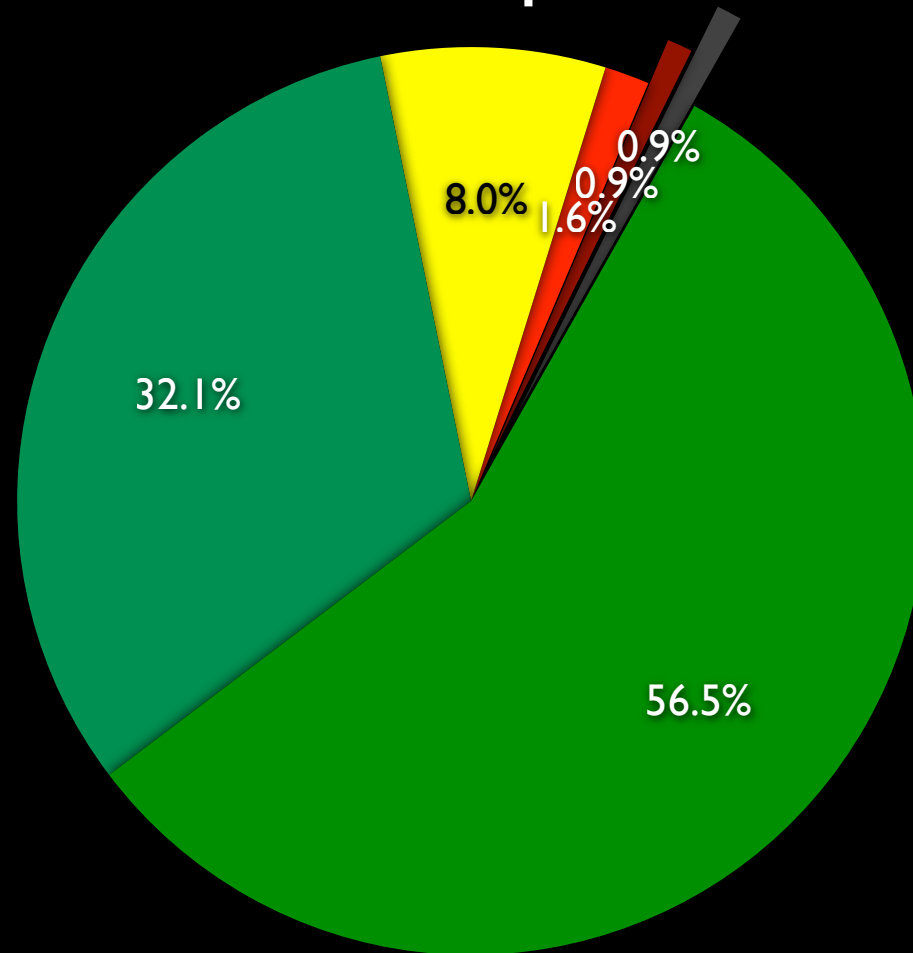




Support for species at risk  
protection & recovery.

S

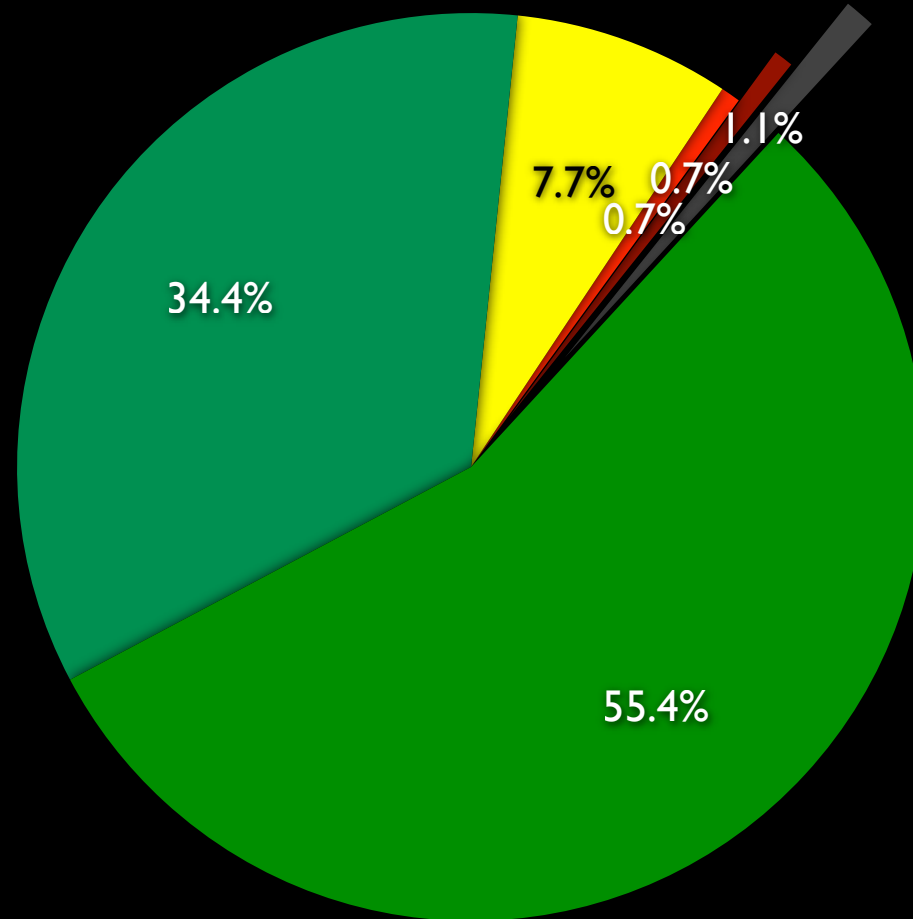
SaR protection and recovery in the area where I live is important to me.



● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know

S

SaR protection and recovery outside of the area where I live is important to me.

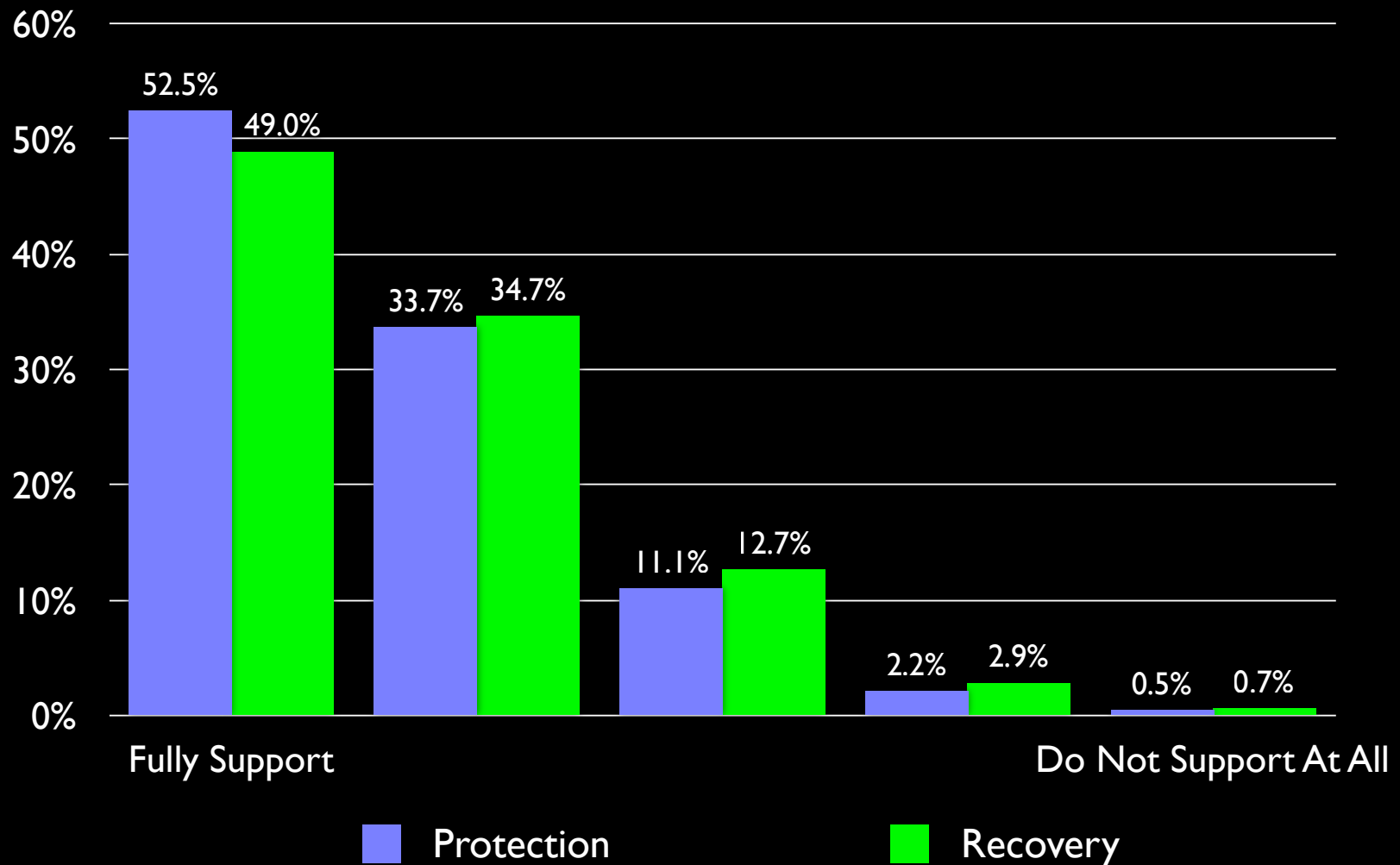


● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know



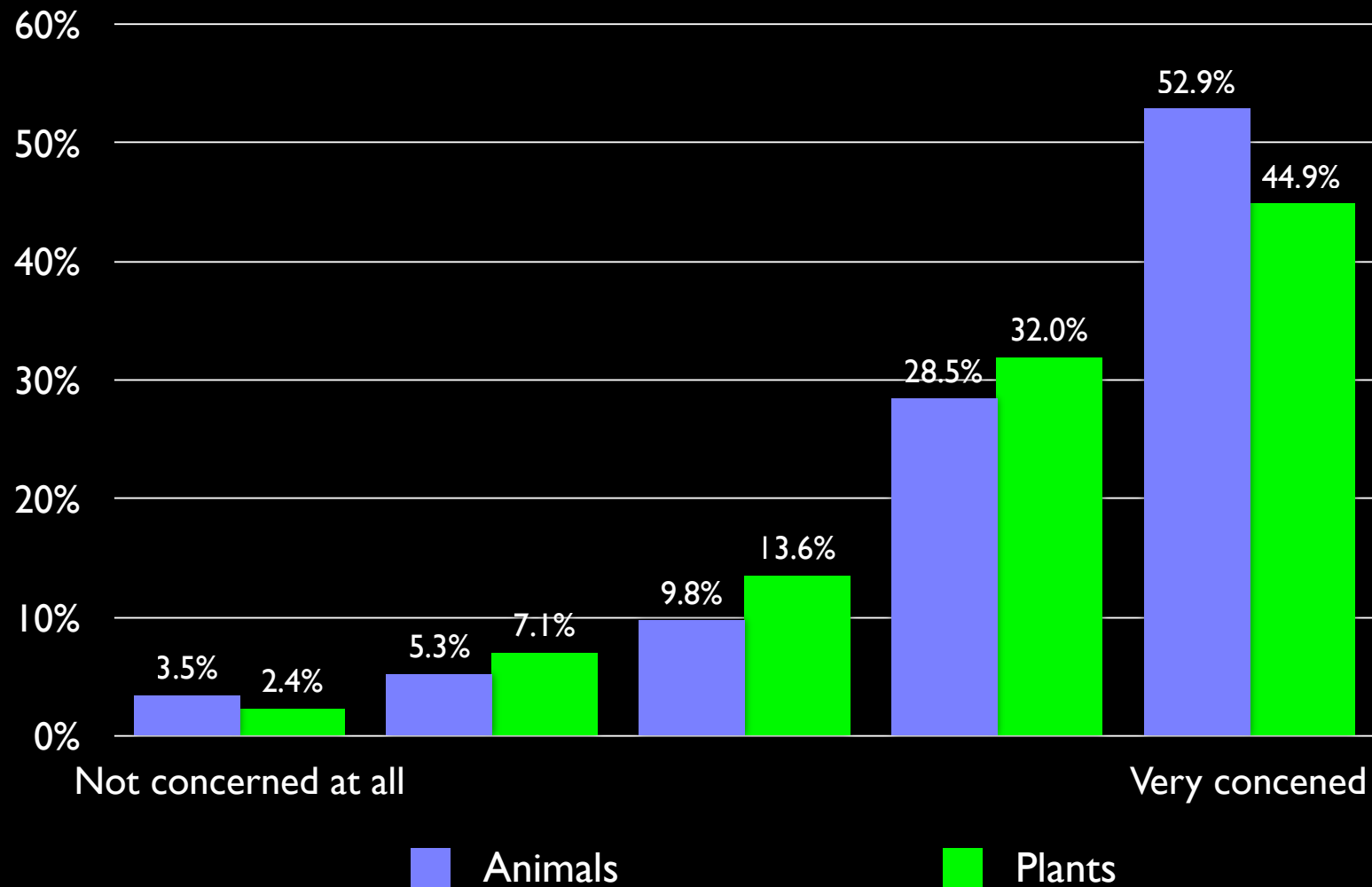
S

## Support for SaR protection & recovery.



S

## Concern for loss/extinction of animals & plants in BC.

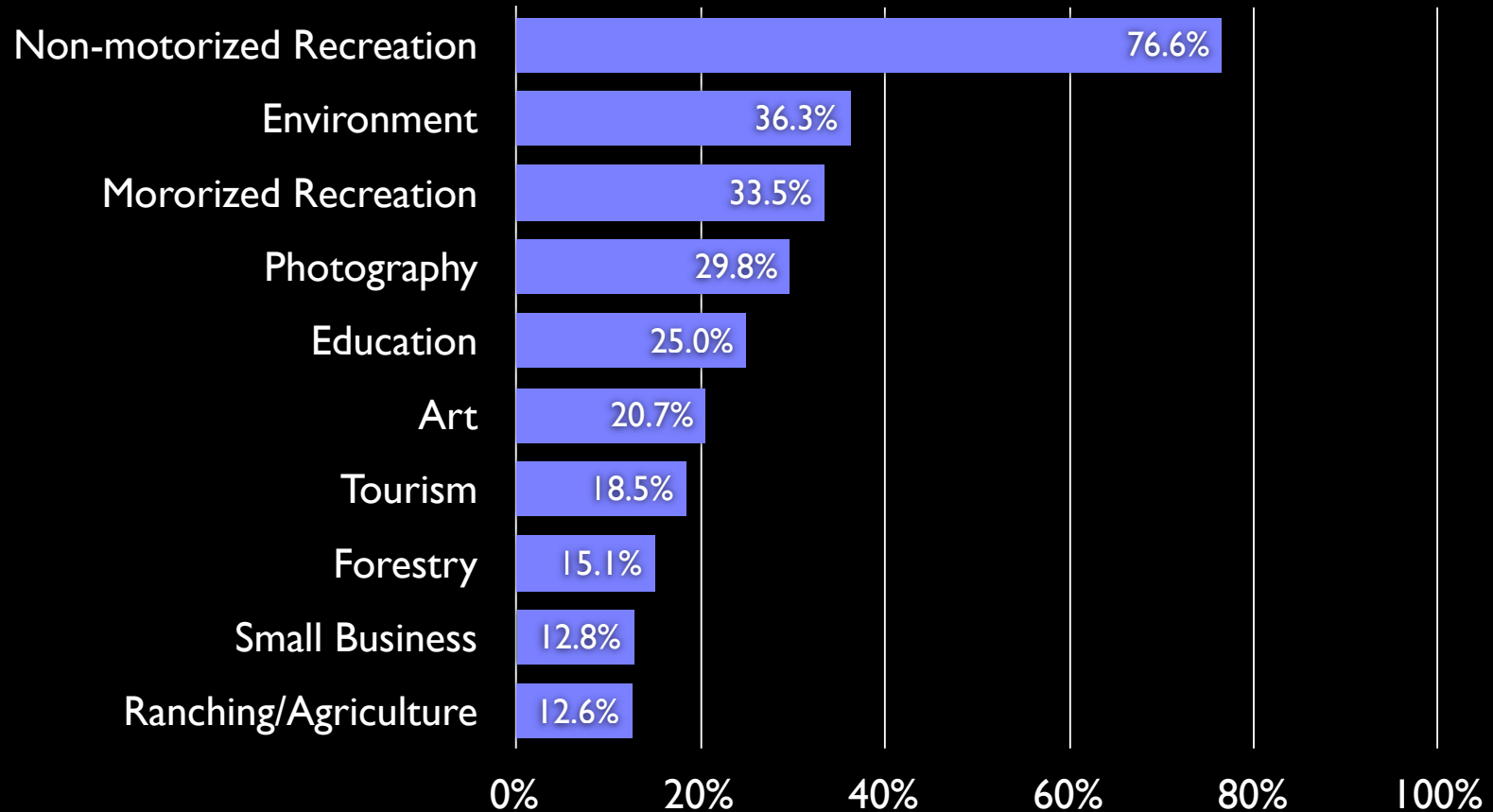




Connections to the natural environment.

C

## Connections to the natural environment.



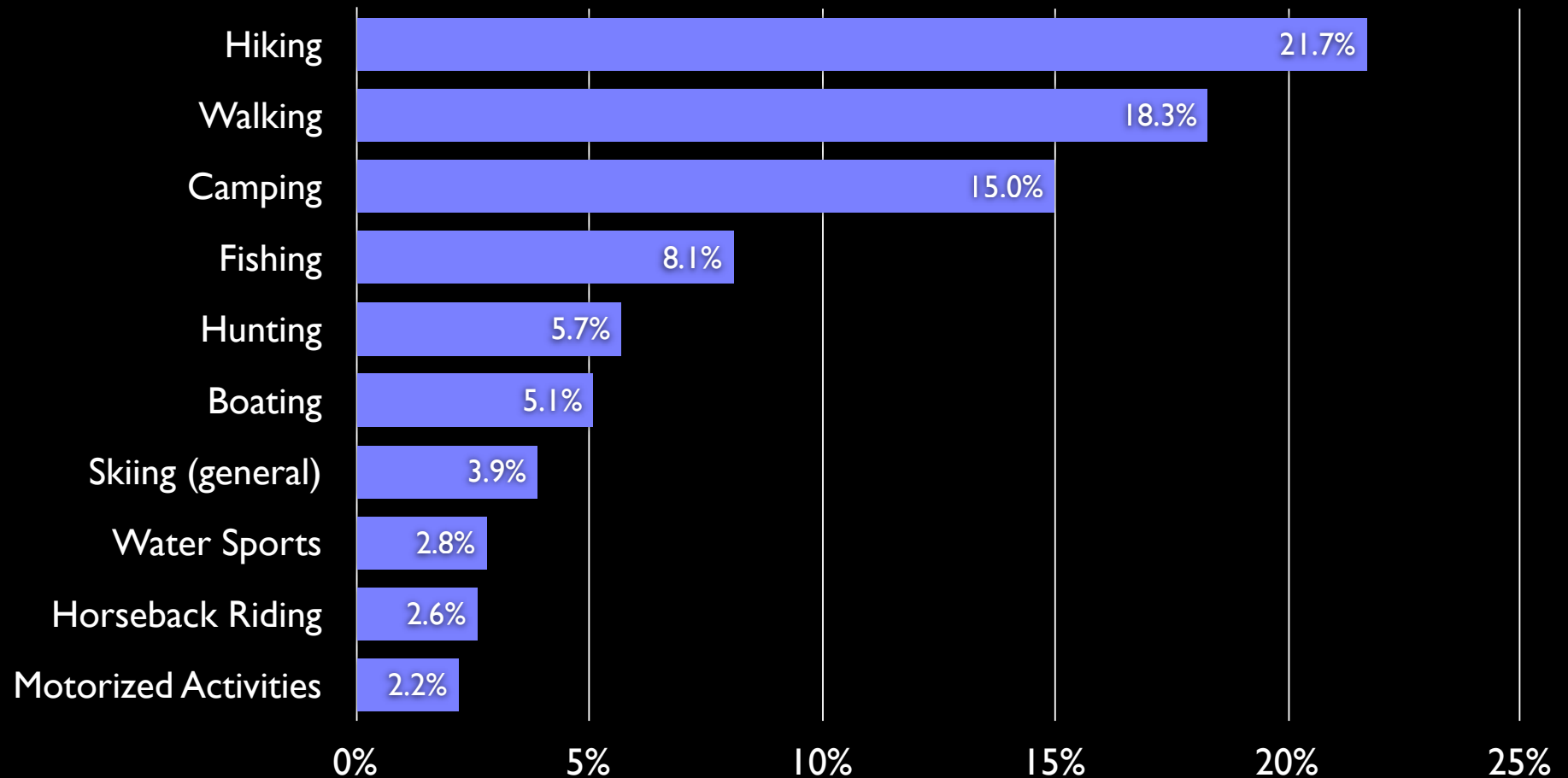
## C

### Recreation characteristics

- Average number of recreation activities:  
3.75 (n = 396).
- Mean annual recreation participation:  
100.5 days (n = 495).
- Mean involvement in most important activity: 31.5 years.
- Members of an outdoor recreation club:  
18.2% (n = 500).

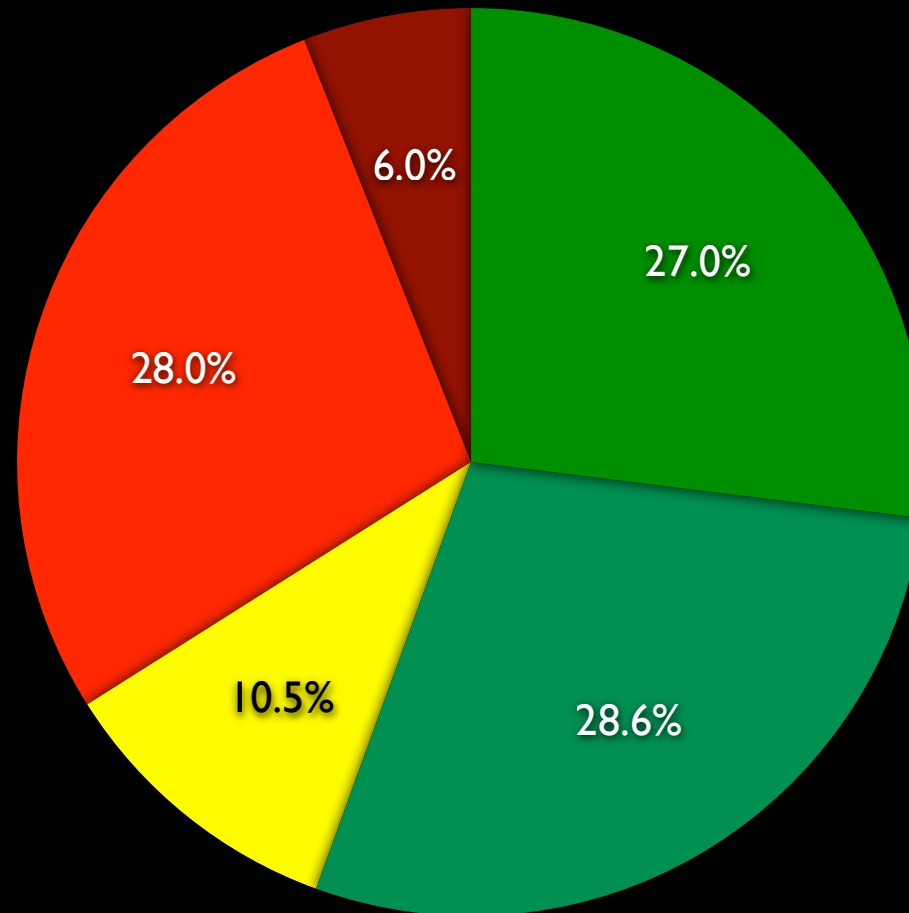
C

## Connections to the natural environment.



C

How central is this activity to your lifestyle?



Very  
Central



Mostly  
Central



Somewhat  
Central



Moderately  
Central

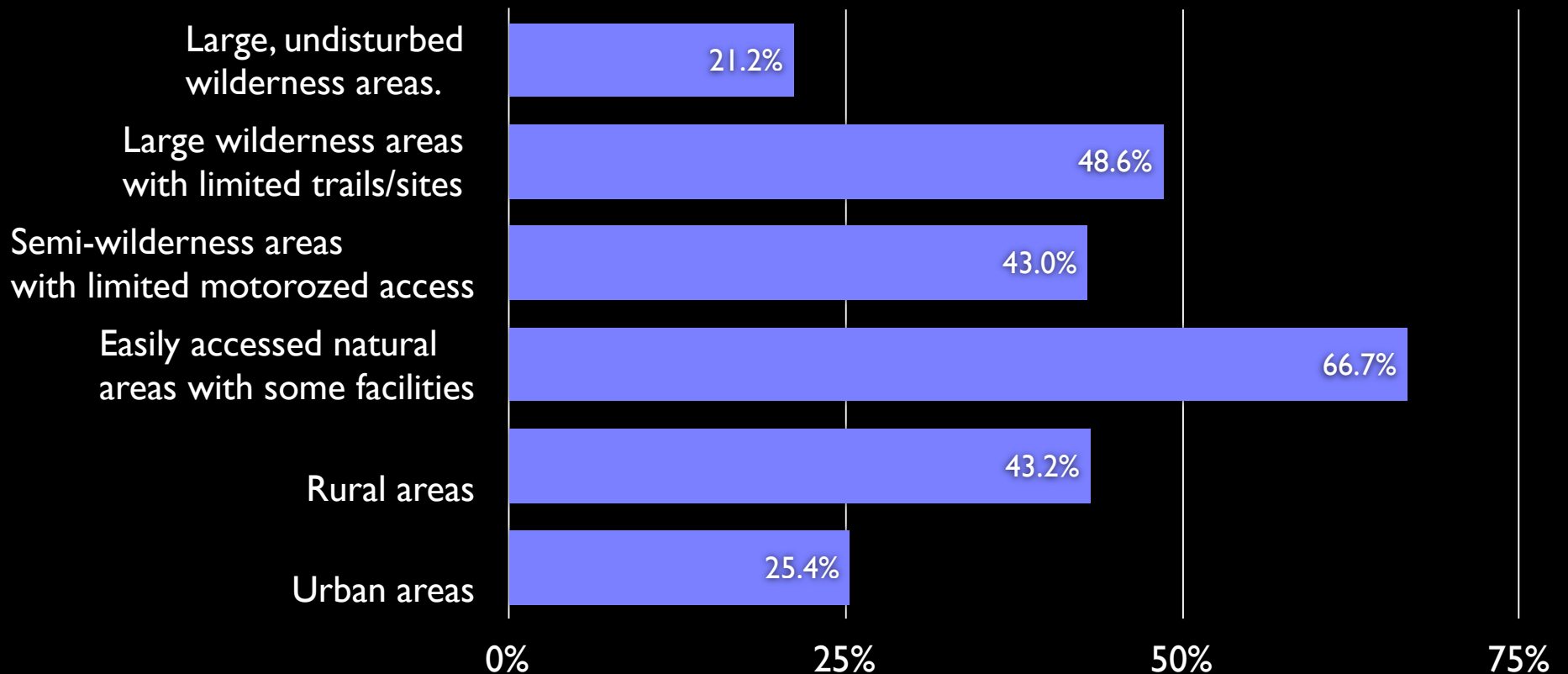


Not Central  
at All



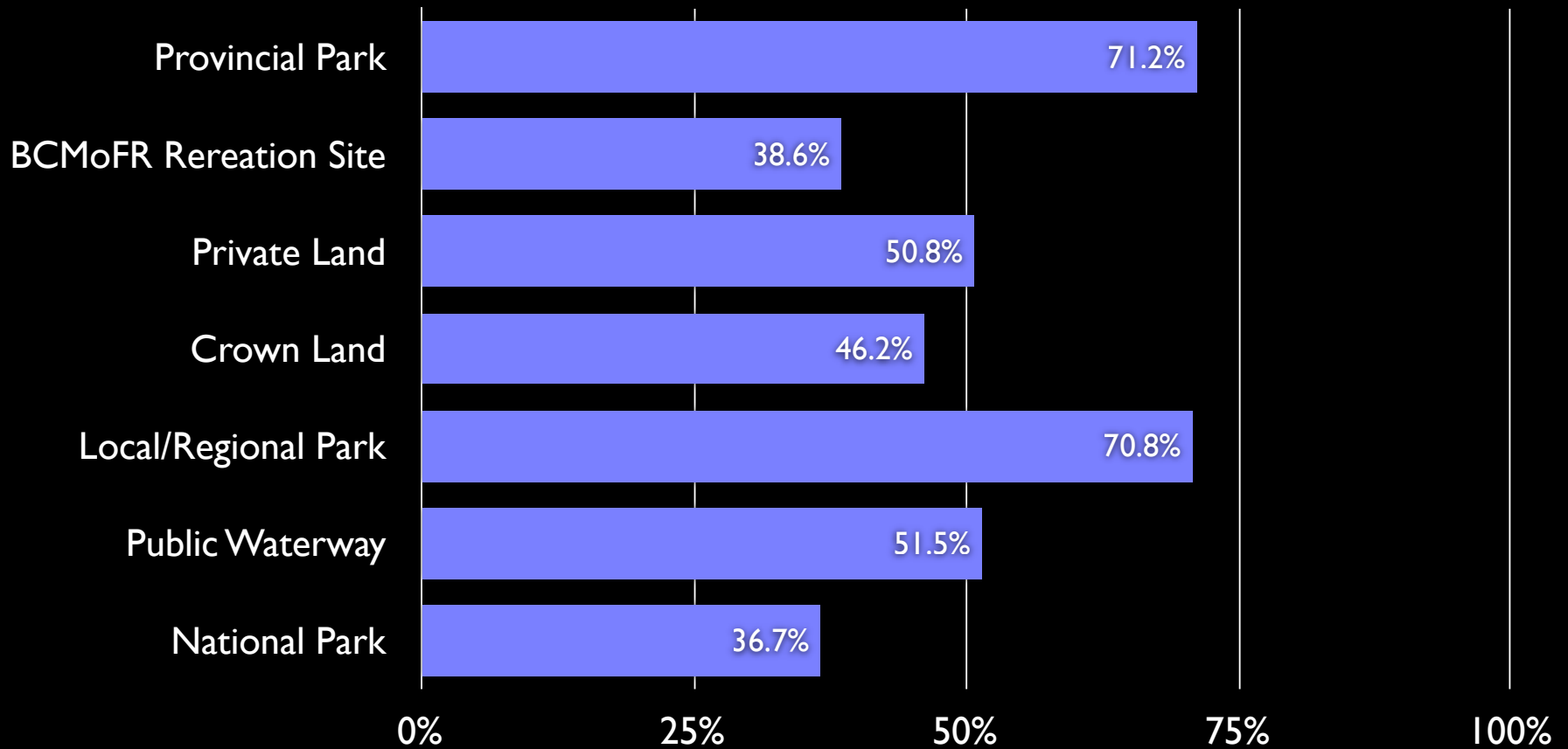
C

## Preferred setting for most important recreation activity.



C

## Where do you most often engage in outdoor recreation activities?

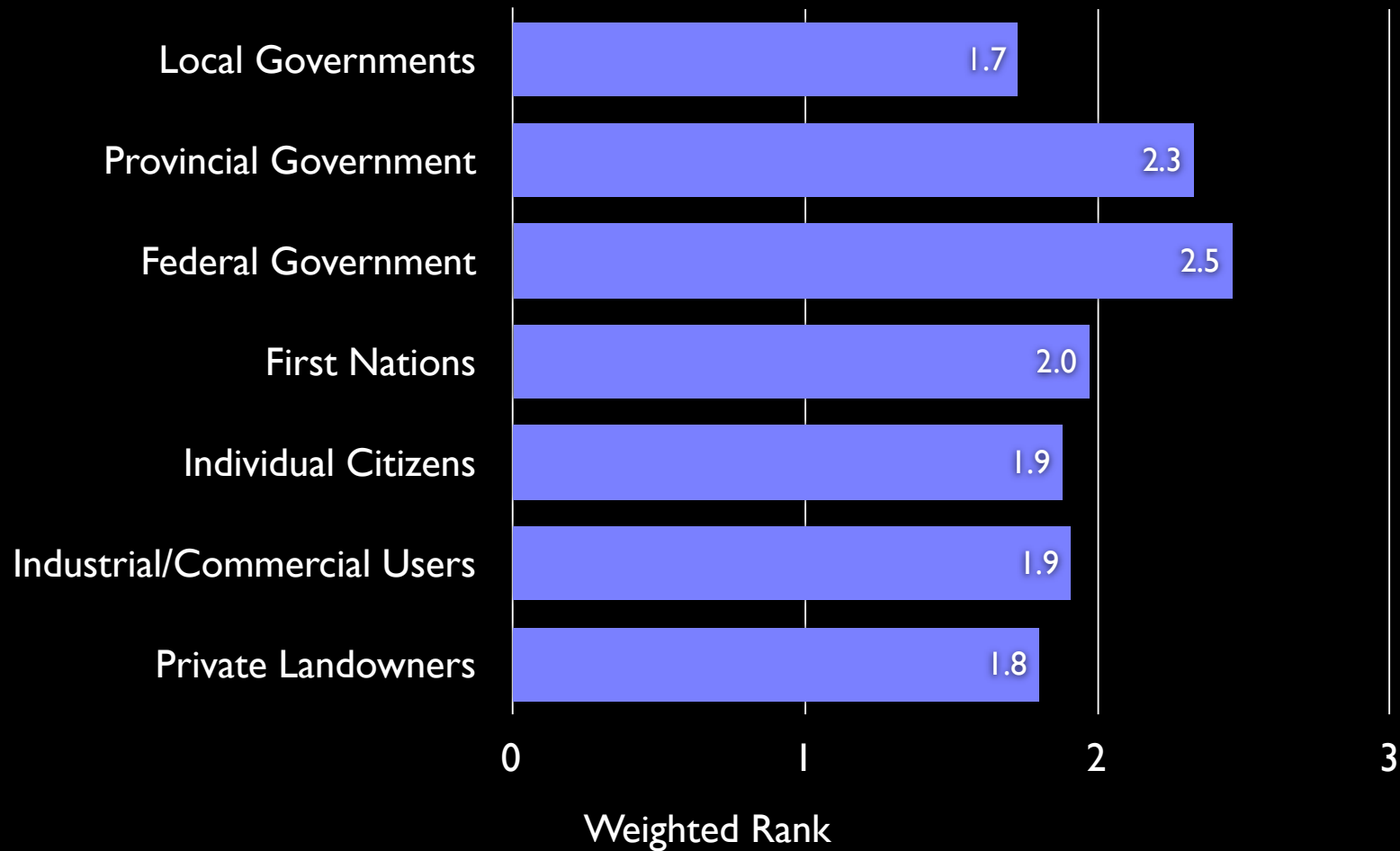




Responsibilities & expectations  
for SaR protection & recovery.

R

## Responsibilities & expectations for SaR protection & recovery.



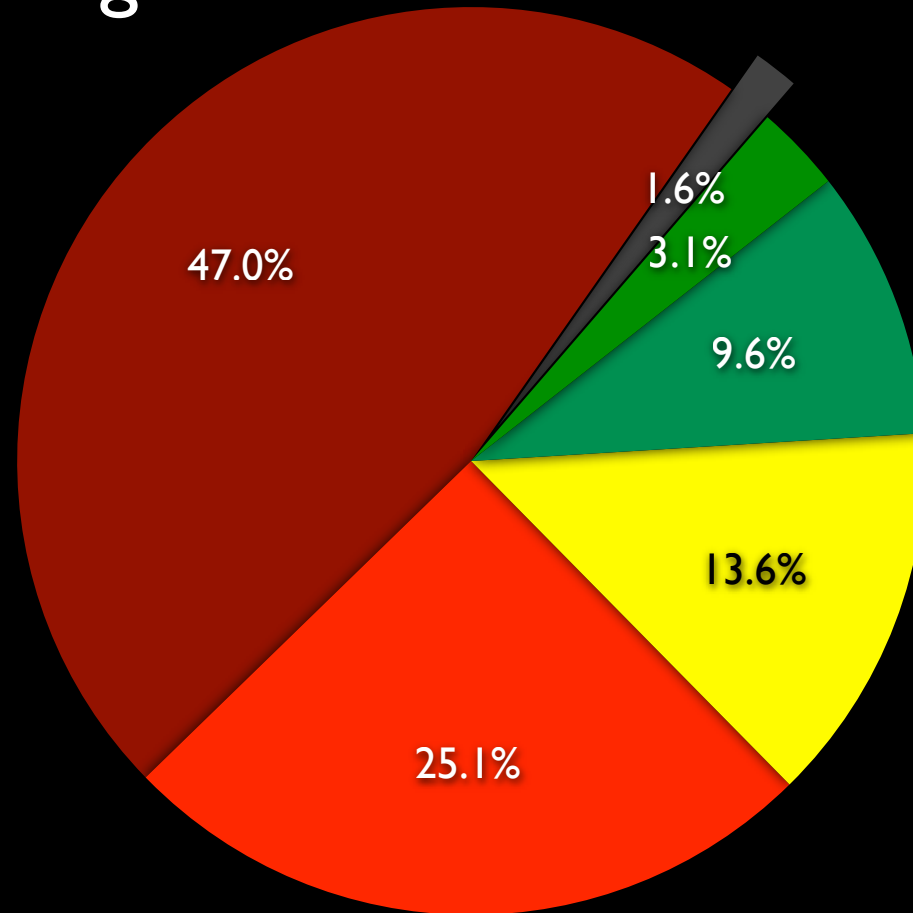
R

## Responsibilities & expectations for SaR protection & recovery.

“Why is education on these lines not more accessible? When things like thinning out moose by limited entries, to thin the wolves to save the small herd of caribou when their wintering ground has been logged have no place to winter should be public knowledge. We didn't even know what is endangered and what has been done! I don't want my answers from Greenpeace.”

R

I trust the gov't to make fair decisions about natural resources that balance SaR management & economic dev't.



● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know

R

## Responsibilities & expectations for SaR protection & recovery.

“I have two young children and protecting the environment for their future is of key importance to me. I think it is important for all sectors of government to be involved: to educate individuals and businesses on ways to to their part, and in some cases, to make examples either financially or criminally of those who ignore their harmful impact on the environment...”



R

## Responsibilities & expectations for SaR protection & recovery.

“... I also believe that it is important for governments to take a more active role of informing the public on what is being done and what should be done by the public to help, on what sacrifices must be made and why. I think we rely too much on the media to get our information and they tend to focus on the bad news which is good for ratings but tends to turn people off. I know we all need to help, but scaring people isn't the answer.”

R

## Responsibilities & expectations for SaR protection & recovery.

“The provincial government seems more and more to have it's hands in the pockets of corporations. Very little regard or care is given for the citizens of this province. Vancouver or Victoria are to the rest of the province like Ottawa or Toronto are to the West. Couldn't give a damn! We are only areas for exploitation and profit.”



Threats to SaR.

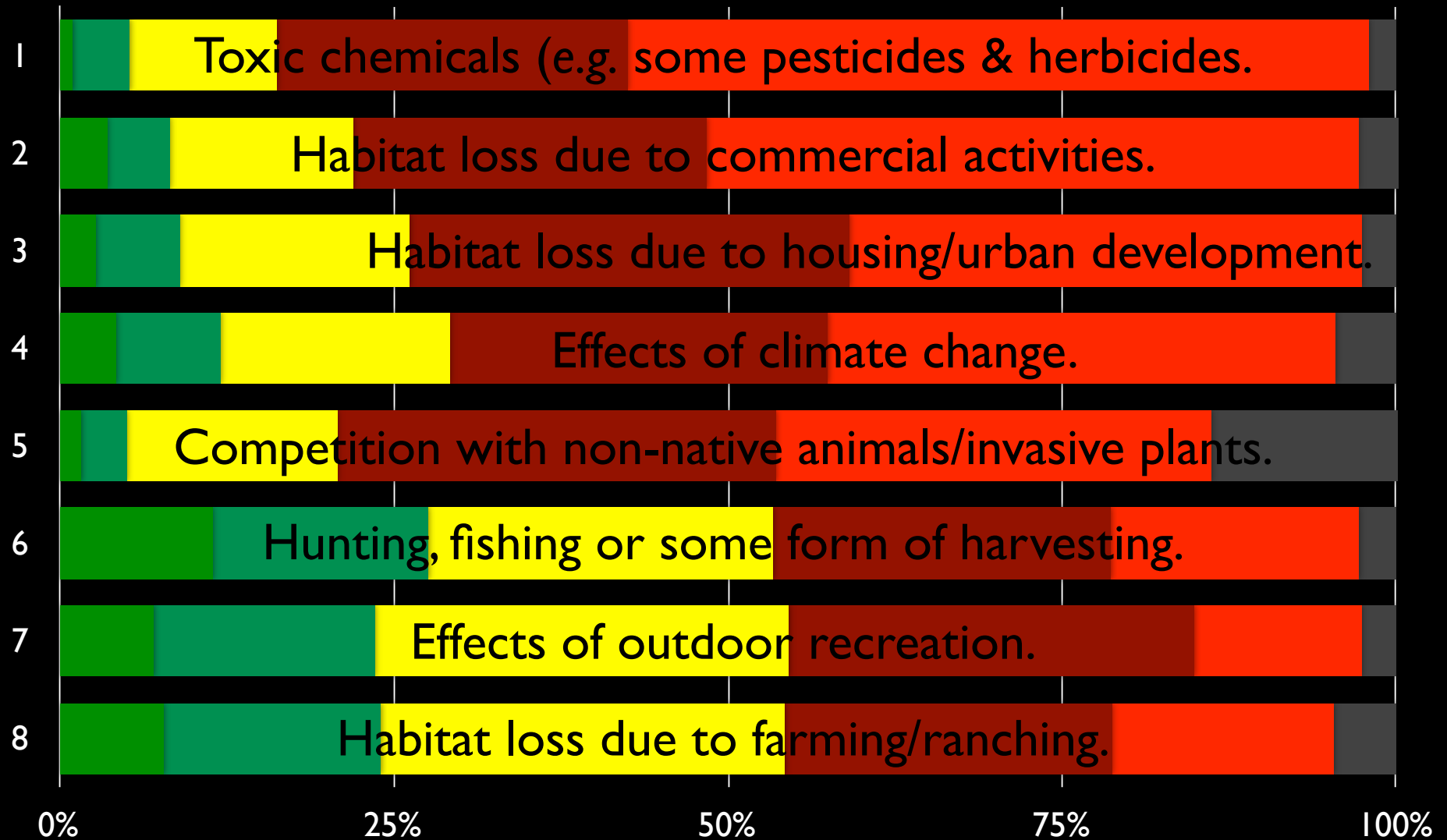
# T

## Threats to SaR.

1. Toxic chemicals (e.g. pesticides, herbicides).
2. Commercial/industrial activities (e.g. mining, timber harvesting).
3. Housing/urban development.
4. Climate change.
5. Competition with non-native animals and invasive plants.
6. Hunting, fishing, and other harvesting of plants and animals.
7. Impacts from outdoor recreation.
8. Farming/ranching practices.

T

# Perceived threat to SaR.



F

Factors for prioritizing the protection & recovery of SaR.

F

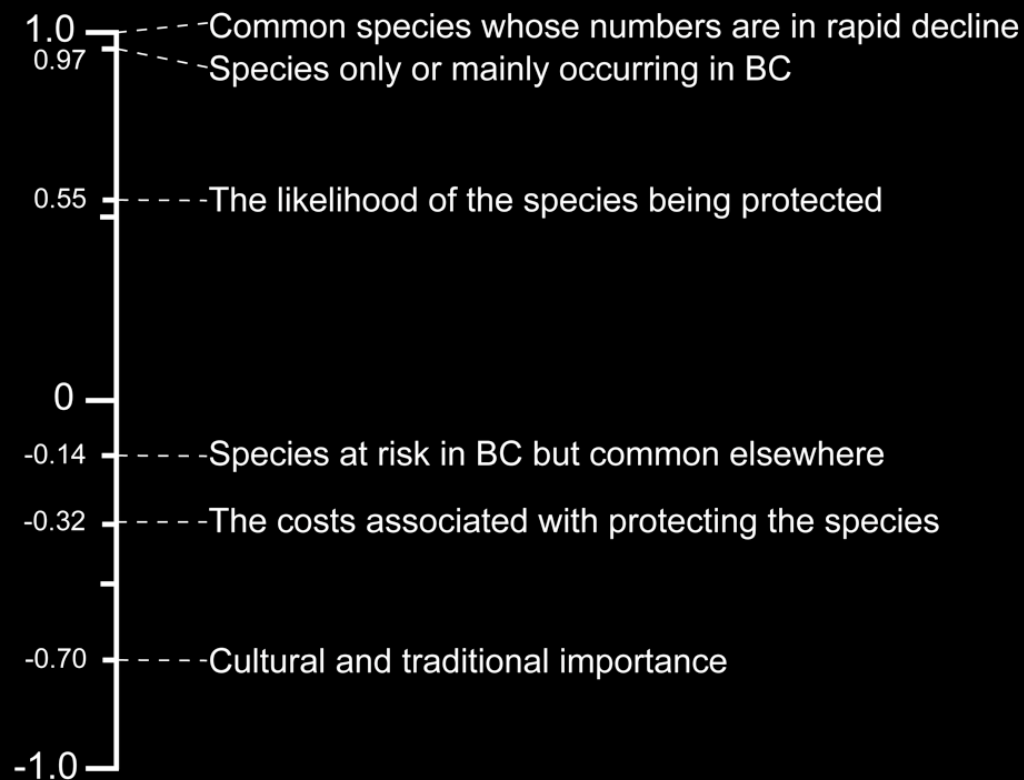
## Priorities & responsibilities for SaR protection & recovery.





F

## Priorities for SaR Protection: British Columbia.



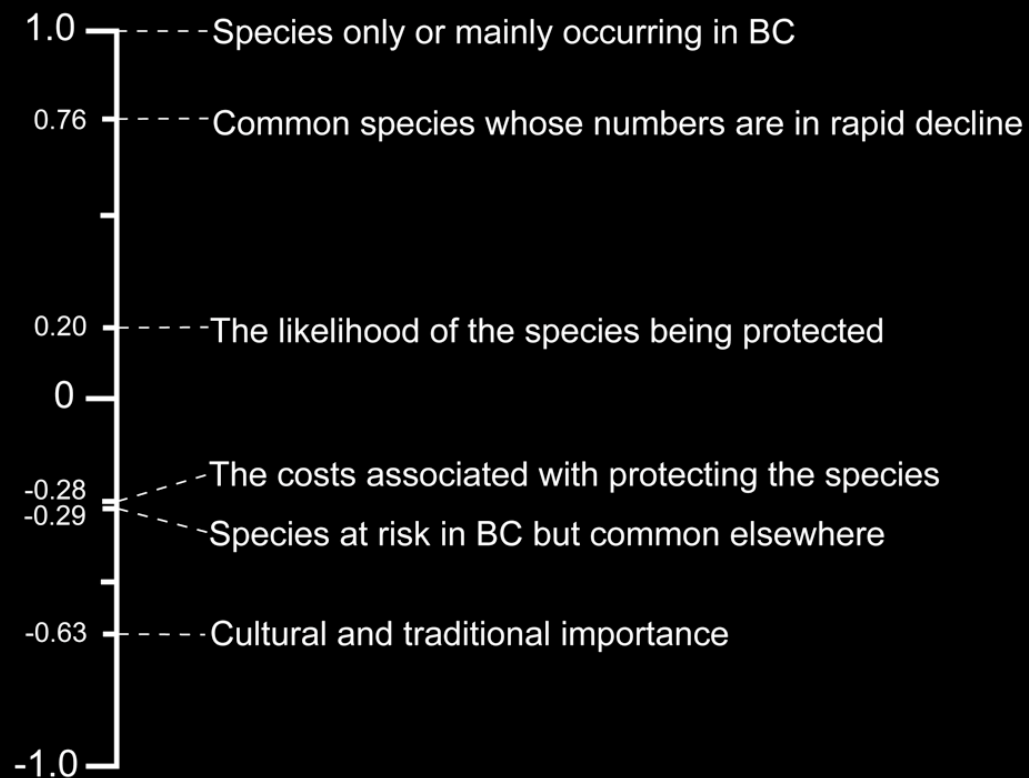
F

## Priorities for SaR Protection: Central-Northern BC



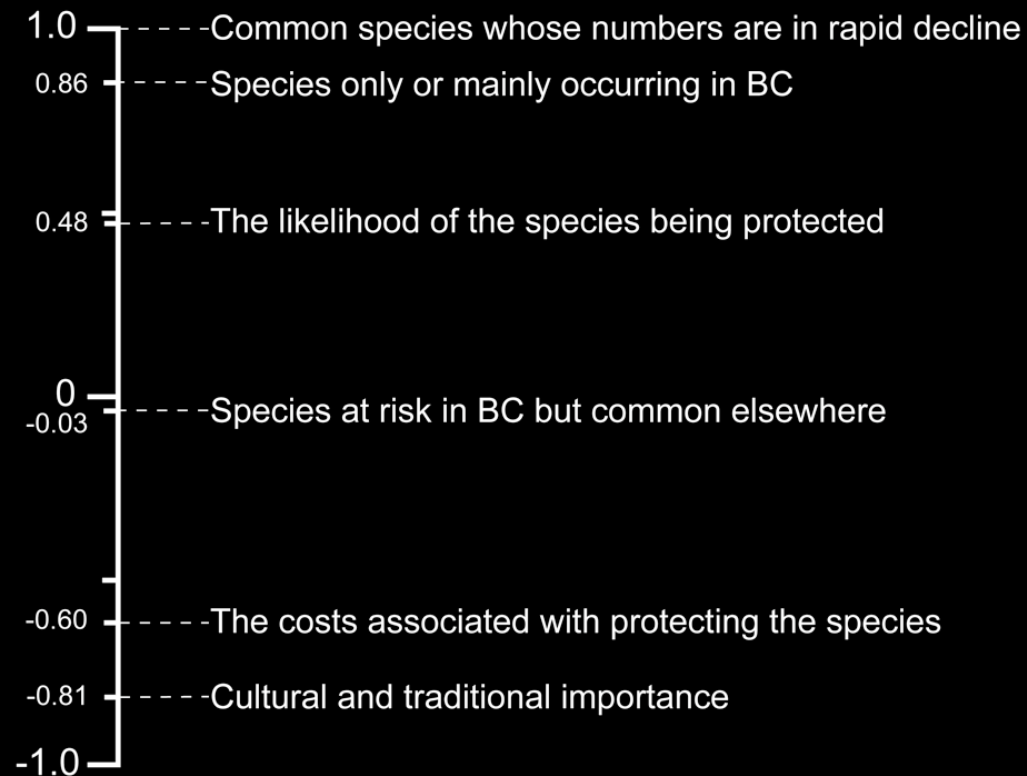
F

## Priorities for SaR Protection: Coastal BC.



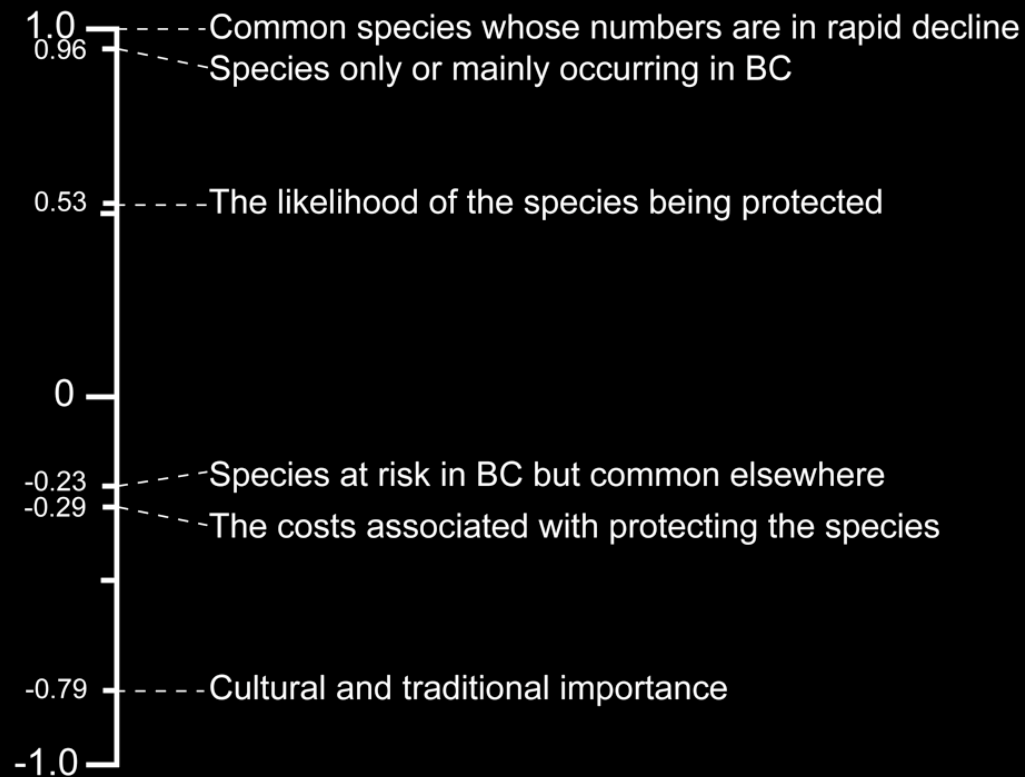
F

## Priorities for SaR Protection: Southeastern BC.



F

## Priorities for SaR Protection: Vancouver Island / Lower Mainland.



**F**

## Factors for prioritizing the protection & recovery of SaR.

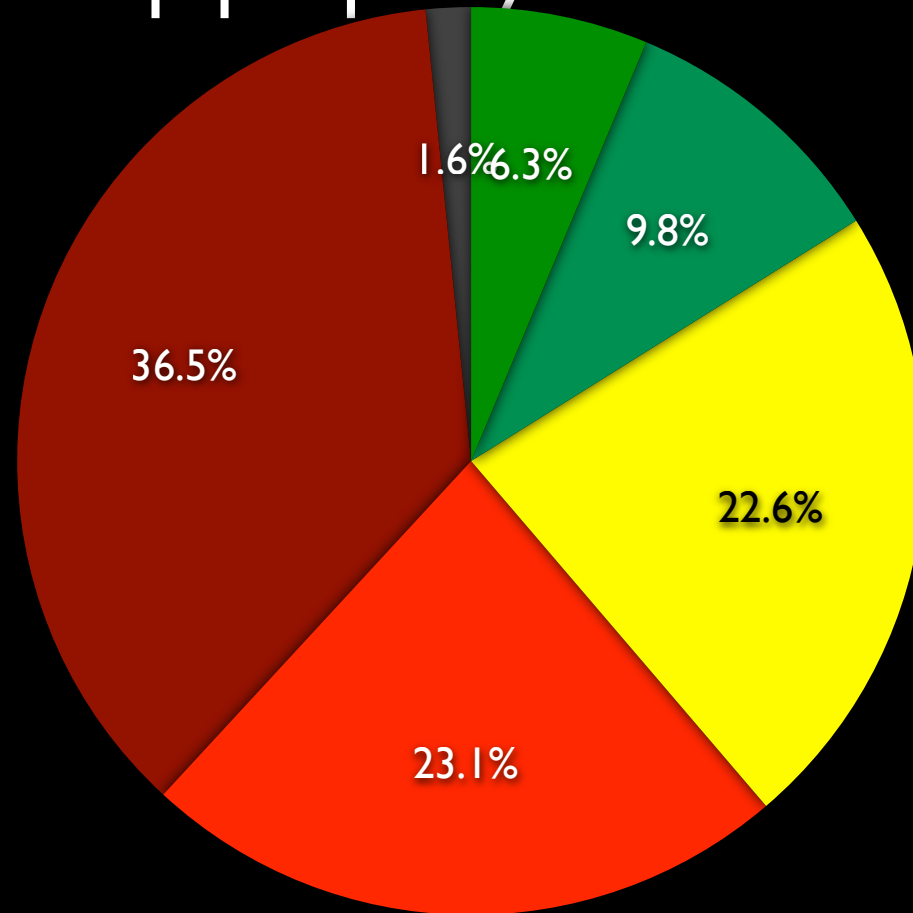
	<b>Ranked Specie Attributes</b>	<b>Thurstone Scale Rank</b>
1	Species only or mainly occurring in BC.	Common species whose numbers are in rapid decline.
2	Common species whose numbers are in rapid decline.	Species only or mainly occurring in BC.
3	Chances of successful protection & recovery.	The likelihood of the species being protected.
4	Economic costs of protection & recovery.	Species at risk in BC but common elsewhere.
5	Species at risk in BC but common elsewhere.	The costs associated with protecting the species.
6	Species of cultural and traditional importance.	Cultural and traditional importance.



Protection & recovery of SaR on private land.

P

SaR protection & recovery should not interfere with a landowner's right to develop property.

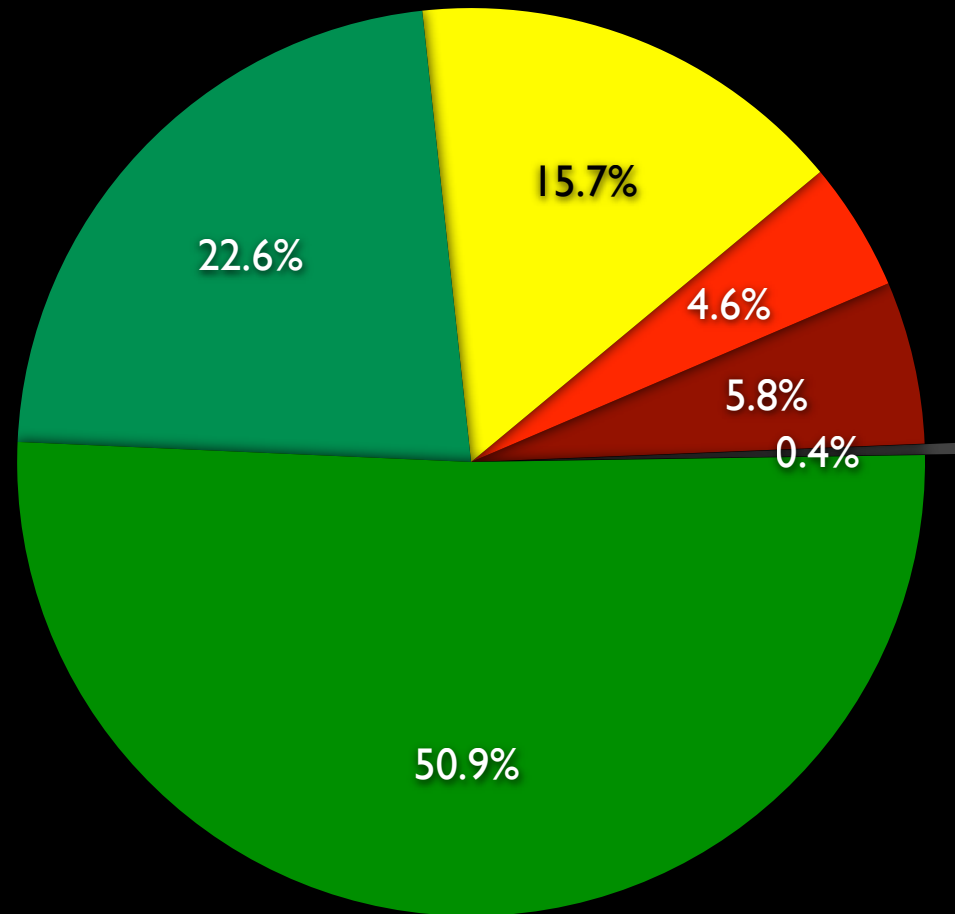


Strongly Agree Mildly Agree Partly Agree/Disagree Mildly Disagree Strongly Disagree Don't Know

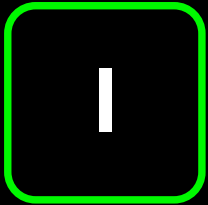


P

Landowners should not have the right to use their property in ways that may put plants & animals at risk of extinction...



● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know

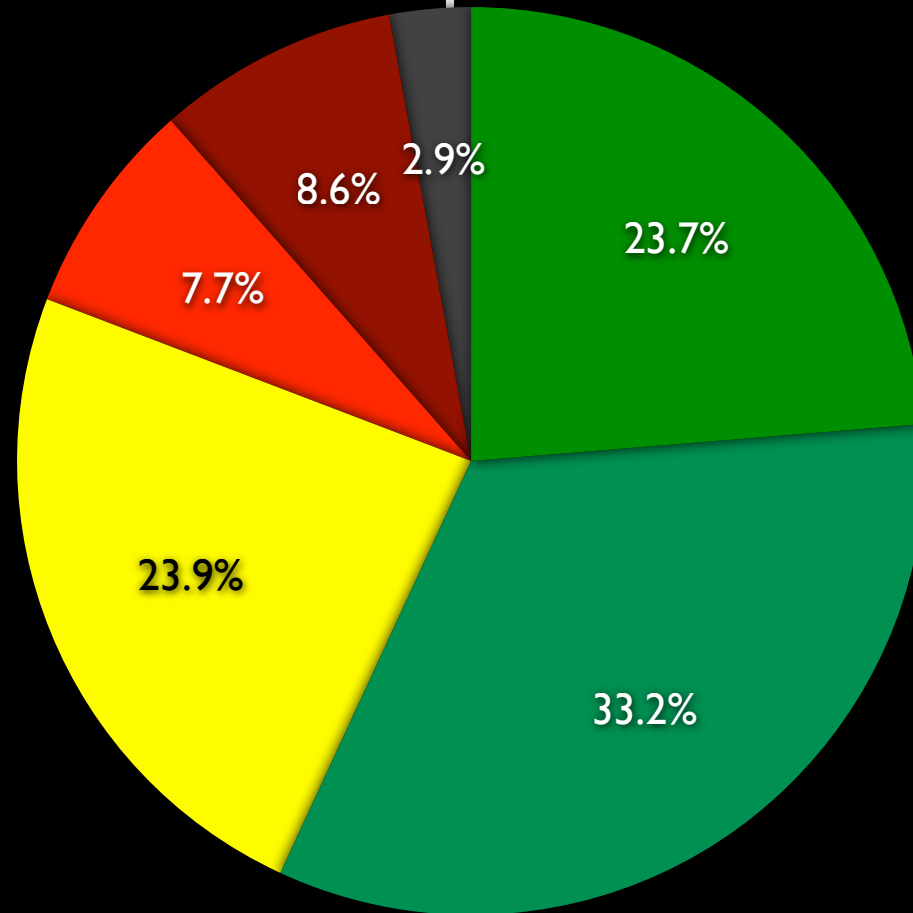


## Protection & recovery of SaR on private land.

“Your questionnaire is well written and raises interesting questions about the rights of private landowners. As a private landowner myself, I feel strongly that ownership does not include the right to ‘do anything’ on your land. Rather, ownership should bring with it responsibilities, including the protection of water, habitat, and species at risk. Government should play a key role in enforcement of environmental regulations on private land.”

P

Landowners who are prevented from developing their property because of SaR should be compensated...



● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know

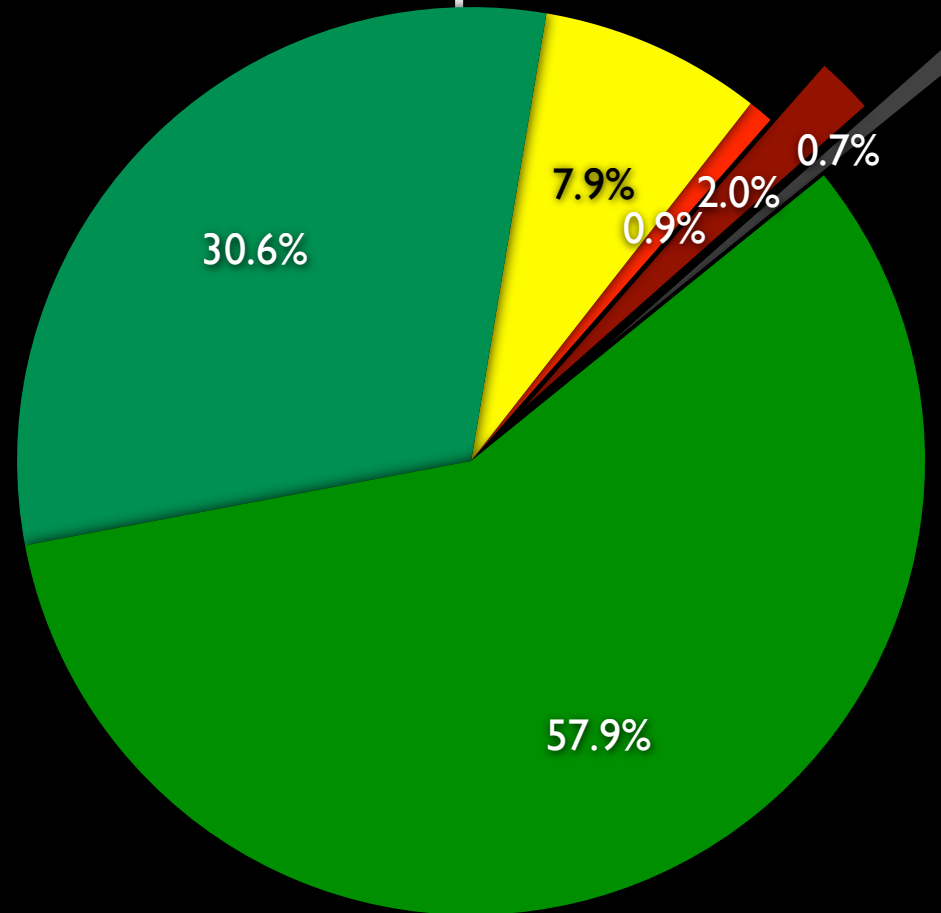
P

Protection & recovery of SaR on private land.

“Nobody has a right to tell me what I can or cannot do on my own private land, unless we agree to sell it to you at fair market value.”

P

Provide incentives (e.g. tax breaks) to private landowners for efforts that they could make to protect & recover SaR...



● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know

P

Protection & recovery of SaR on private land.

“Private property makes up a very small percentage of British Columbia and should be left just like that, Private! My experience tells me the Government is far more likely to boggle up things than private citizens.”

**M**

Public preferences for SaR  
management strategies / actions.

# M

## Management Strategies

	n	Strongly Agree	Mildly Agree	Partly Agree/Disagree	Mildly Disagree	Strongly Disagree	Mean	95% CI
It is acceptable to limit industrial & commercial activities on public land in order to protect & recover species at risk and the places that they depend upon to live.	552	<b>67.4%</b>	23.4%	6.0%	0.7%	0.9%	1.42	±0.061
Natural resource planning and management does a good job of protecting and recovering species at risk and the places that they depend upon to live.	553	2.9%	21.7%	<b>22.1%</b>	20.4%	17.4%	3.33	±0.106
The protection and recovery of species at risk should be given priority over economic considerations.	549	26.0%	<b>30.8%</b>	32.1	5.8%	2.7%	2.27	±0.086
It is more useful to protect and recover the places that plants and animals depend upon to live than it is to protect and recover individual species.	552	25.2%	<b>31.5%</b>	21.4%	5.6%	3.8%	2.22	±0.096
It is acceptable to limit non-commercial activities (such as home building or the drilling of water wells) on private land in order to protect & recover species at risk and the places that they live.	552	27.9%	<b>28.6%</b>	24.3%	8.9%	7.8%	2.38	±0.102
It is acceptable to limit industrial and commercial activities on private land in order to protect & recover species at risk and the places that they depend upon to live.	551	<b>43.6%</b>	23.5%	14.9%	3.8%	3.8%	1.90	±0.086



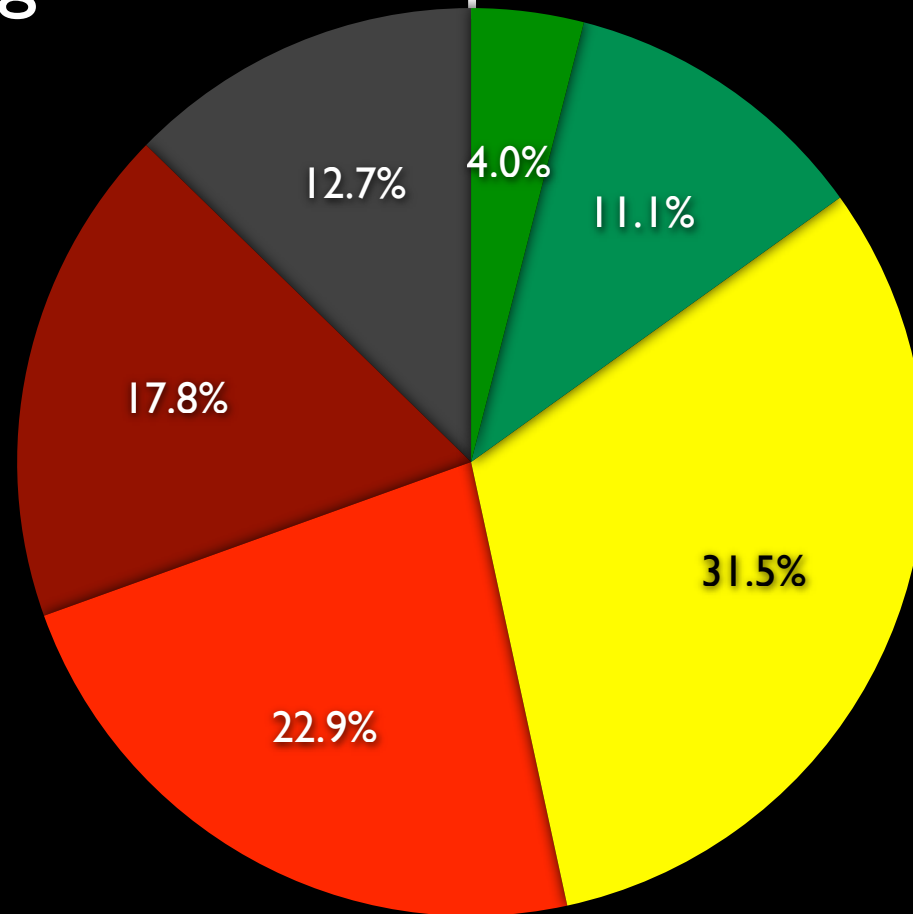
M

## Public preferences for SaR management strategies / actions.

“You refer to the balance of nature. There is no such thing. It is a constant war out there. Eat or be eaten. Everything is connected but all organisms are striving for the things they need to survive. Some are successful, others go extinct. The fossil record shows us that extinction is the norm. Survival is not. Species at risk will always occur. We should not lose sight of the big picture, that is all species are at risk!”

M

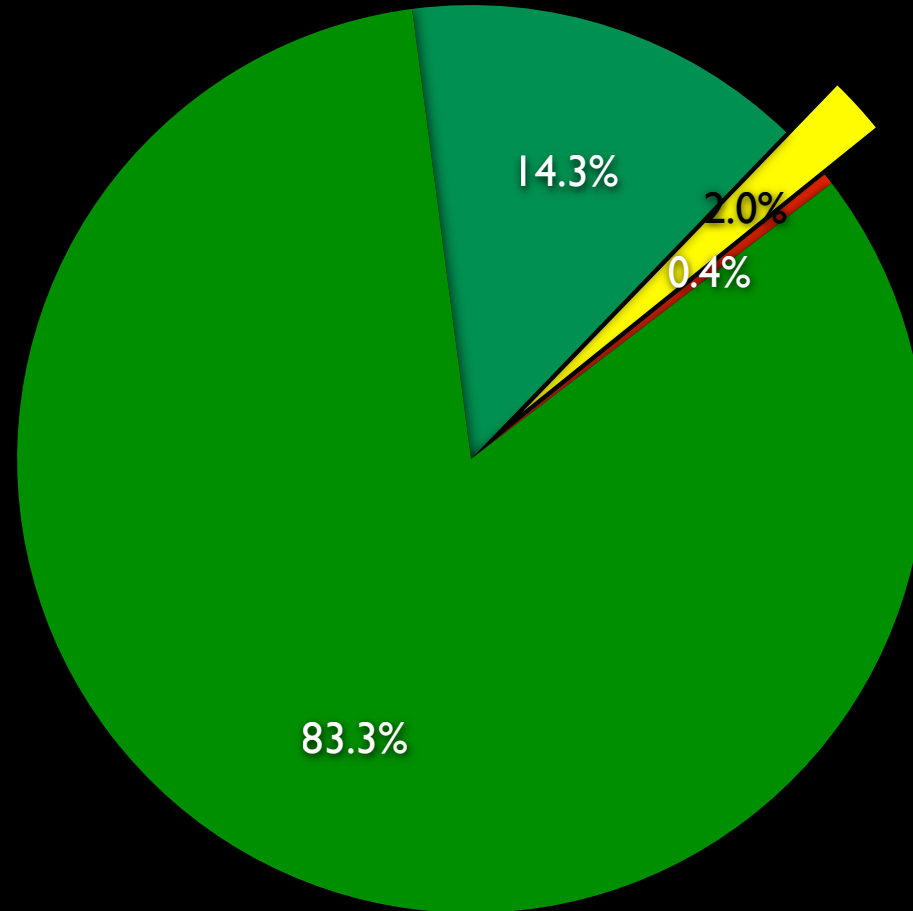
Implement actions for SaR protection & recovery even if these actions have negative consequences for other species.



● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know

M

Support primary & secondary education classes about natural history & the natural environment.



Strongly Agree Mildly Agree Partly Agree/Disagree Mildly Disagree Strongly Disagree Don't Know

M

Public preferences for SaR management strategies / actions.

“Continue to improve natural parks and resources as population increases. Teach young people to enjoy nature.”

M

Public preferences for SaR management strategies / actions.

“... In my opinion/experience, grade and high school environmental education is necessary, but currently poor, alarmist, and often provided by unqualified teachers. The ESA has conducted several studies on ecological/environment. Hobbies such as aquarium/terrarium keeping, house plants, gardening are often effective education tools.”

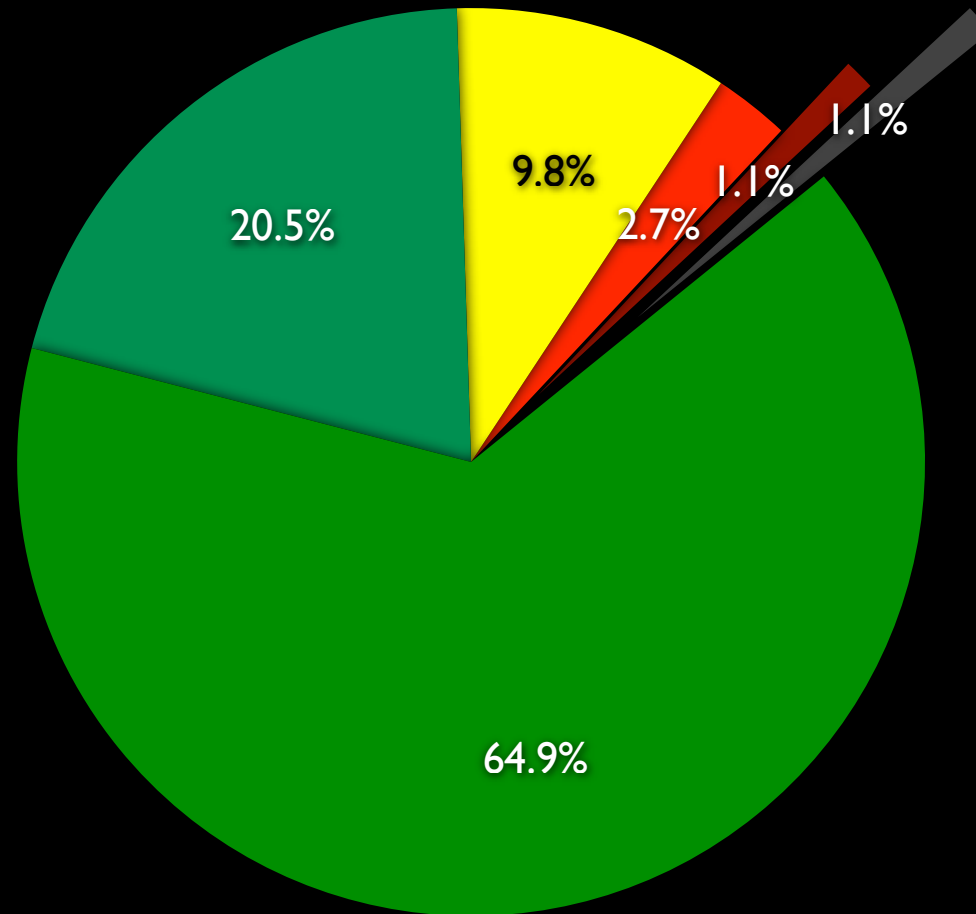
M

Public preferences for SaR management strategies / actions.

“We need to educate our children about the value of nature. Inculcating a sense of the importance of the environment and the creatures around them is the best way to protect species at risk. Ok, maybe not the most effective immediately, but it will pay off in the future!”

M

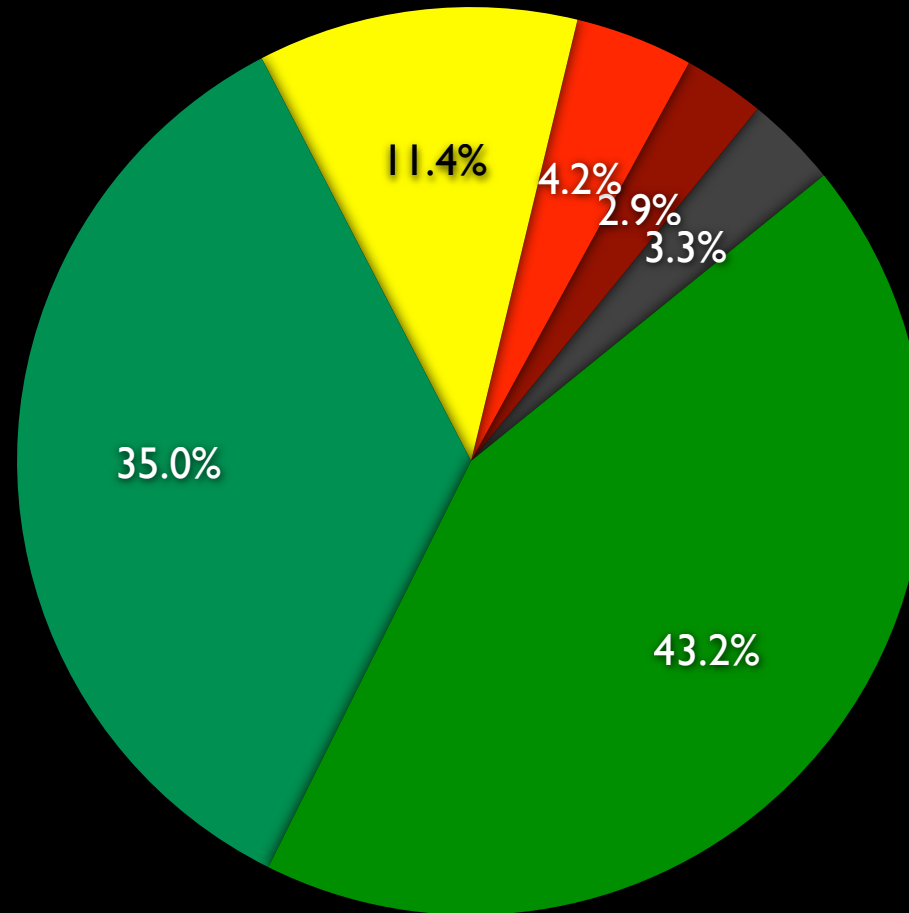
Ban pesticides & other toxic chemicals in order to protect & recover SaR and their habitats.



● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know

M

Increase the pop/ns of SaR by raising plants & animals that are at risk in a controlled environment for later release..

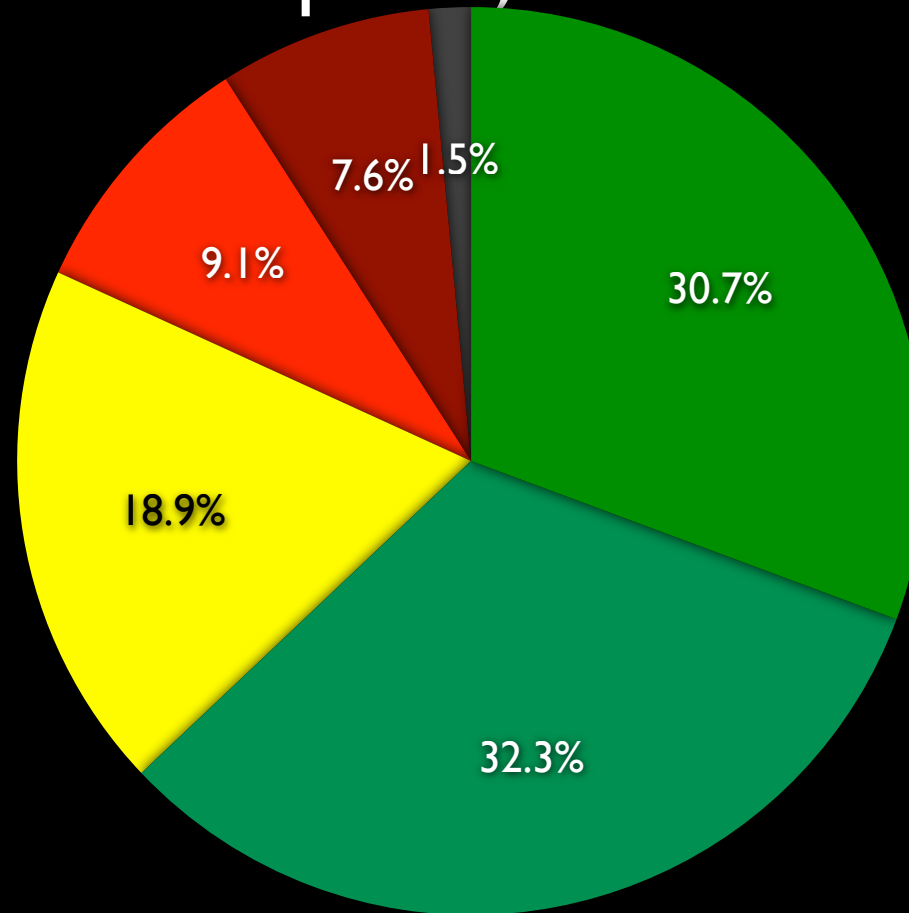


● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know



M

Limit access to natural areas (*i.e.* controlling human activities inside & outside of parks).

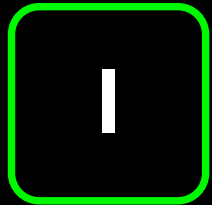


● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know

M

Public preferences for SaR management strategies / actions.

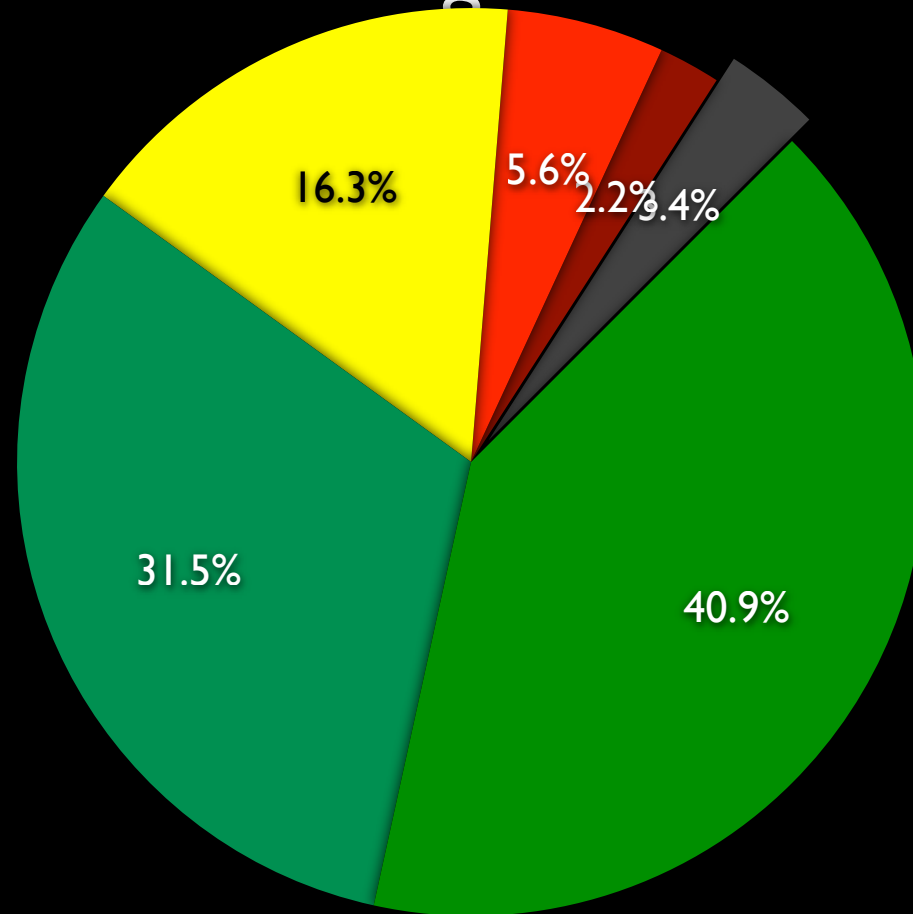
“I would support protection of the environment but at the same time resent when areas are off limits... .”



Public involvement in natural resource decision-making.

I

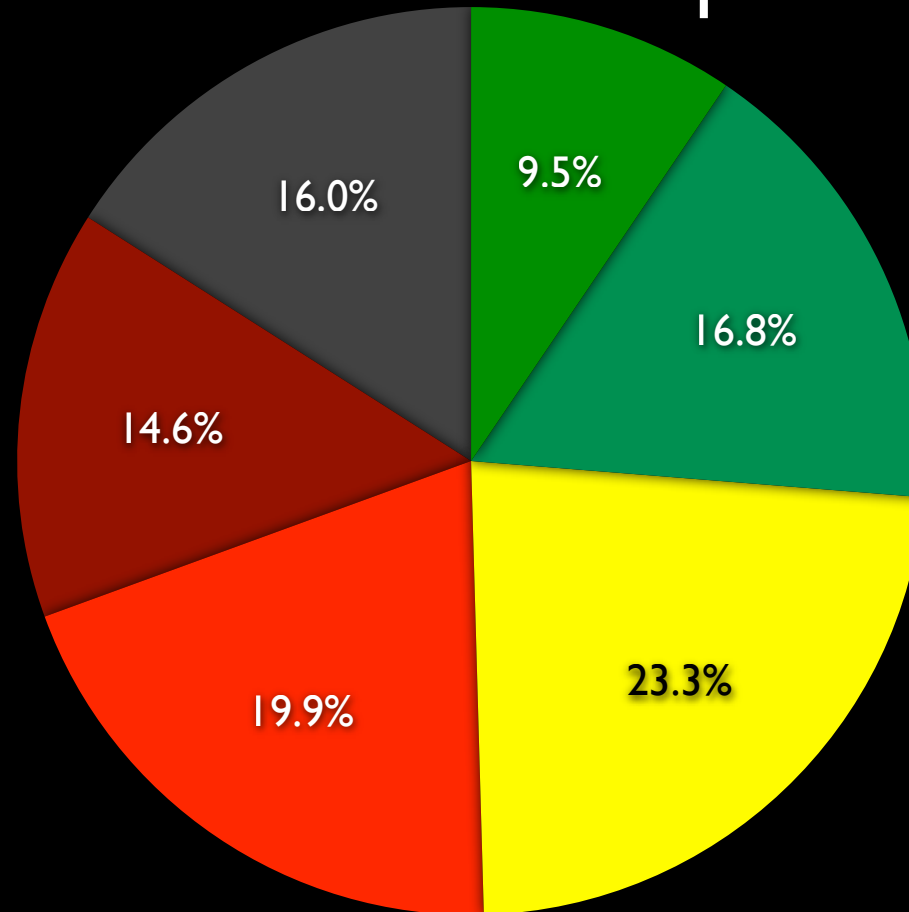
The citizens of BC need to have more opportunities for input into natural resource management decisions.



● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know

I

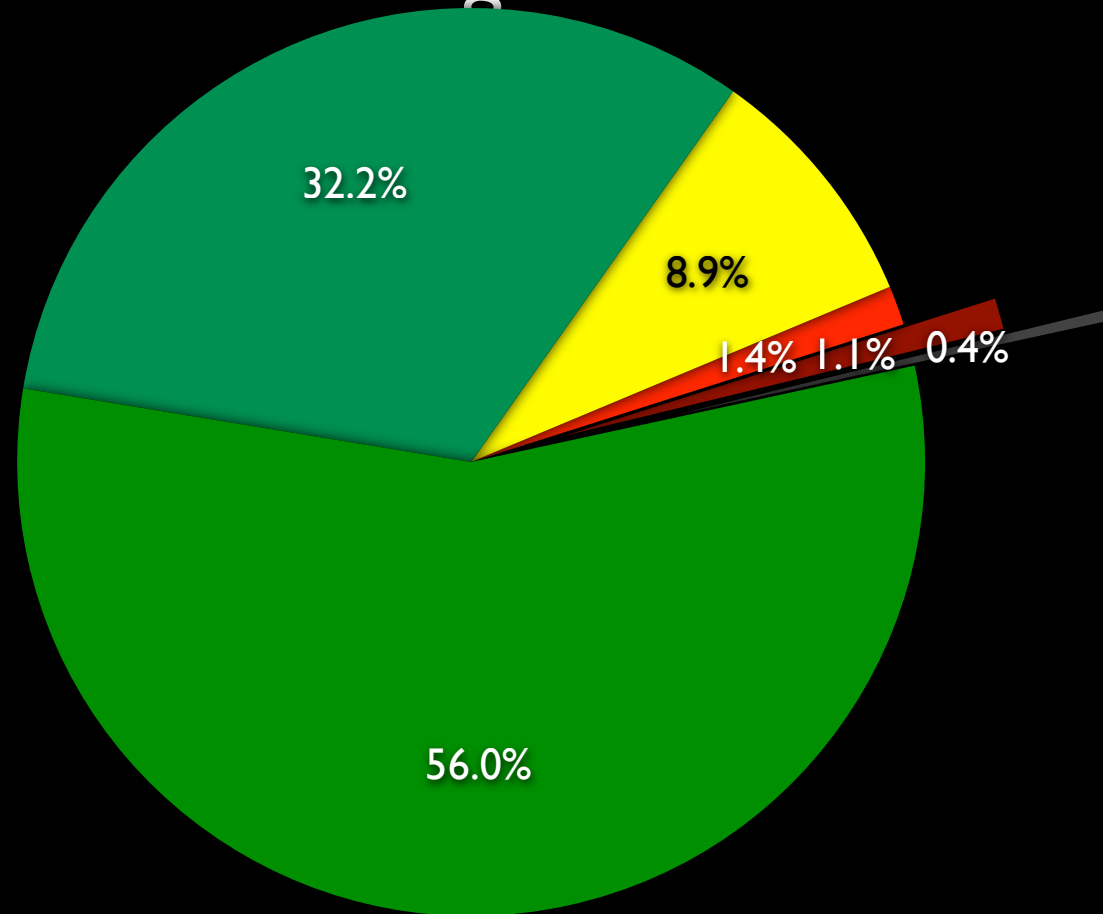
I know enough about natural resource management to provide meaningful input into natural resource planning decisions.



● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know

I

Members of the public have a responsibility to become involved in efforts to manage SaR & their habitats.



● Strongly Agree    ● Mildly Agree    ● Partly Agree/Disagree    ● Mildly Disagree    ● Strongly Disagree    ● Don't Know



Areas of uncertainty & lack of knowledge.



## Areas of uncertainty & lack of knowledge.

### I. Opinions & beliefs about natural resource management issues:

- 10% did not know enough about natural resource management to provide meaningful input.
- Uncertainty about whether there are enough parks in BC to protect species at risk.





Areas of uncertainty & lack of knowledge.

## 2. Opinions about species at risk protection:

- Uncertainty about whether natural resource management does a good job of protecting/recovering SaR and their habitats.
- Uncertainty about whether it is more useful to protect & recover SaR habitat or individual species.



Areas of uncertainty & lack of knowledge.

### 3. Opinions about different approaches for protecting & recovering SaR:

- Uncertainty about strategy to limit negative consequences of green energy development in order to protect & recover SaR and their habitats.
- Uncertainty about acceptability of implementing actions to protect & recover SaR if they have negative consequences on other species.



Areas of uncertainty & lack of knowledge.

#### 4. Opinions about threats to SaR:

- Uncertainty about degree of threat posed by non-native animals or invasive plants.



# Recommendations

- I. Ensure that programs & strategies to manage SaR are informed by a representative sample of the public.





Ensure that programs & strategies to manage SaR are informed by a representative sample of the public.

“I have concern that legislation will be designed and enacted by people more powerful than I, and they will do their work in a city a long way from here. Most of BC residents live west of Hope and south of Squamish. They will be the major responders to your survey and they, primarily non-rural residents, will be setting the standards to which I in the rural area must adhere. I have great concerns on that score...”





# Recommendations

2. Public attitudes & beliefs about SaR management should be monitored.





# Recommendations

3. Make the results of the BC SaR Public Opinion Survey widely available.







# Recommendations

4. Encourage British Columbians' interactions with the environment.







# Acknowledgements

## People

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