

Camera trap monitoring of human-wildlife interactions

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WildCo



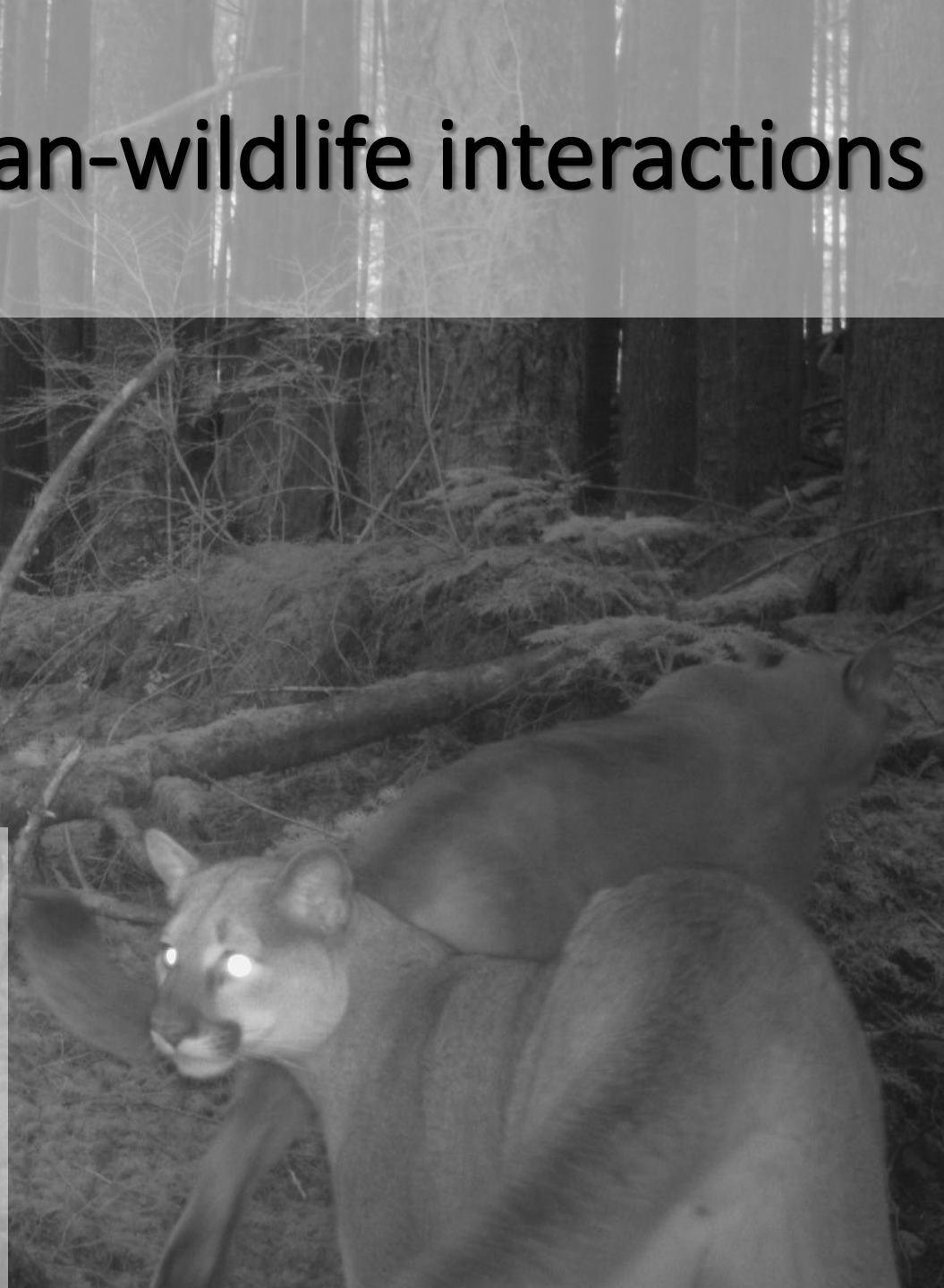
forestry
university of british columbia



**NSERC
CRSNG**



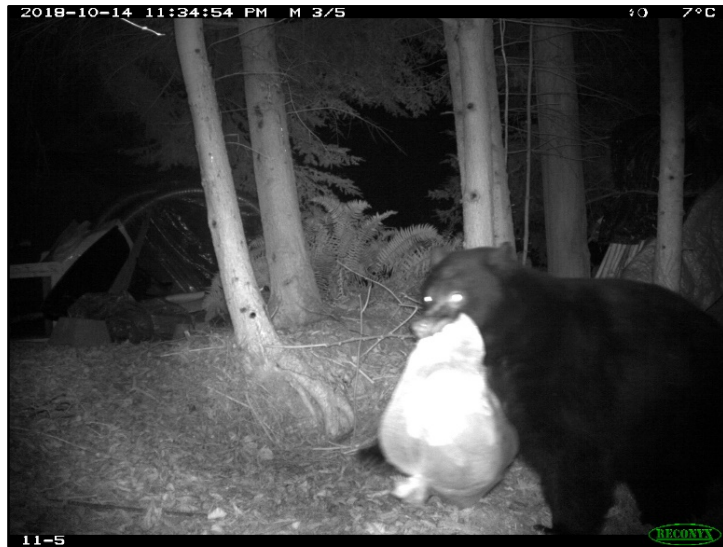
South Coast Conservation Connections, 28 September 2021



The Wildlife Coexistence Lab



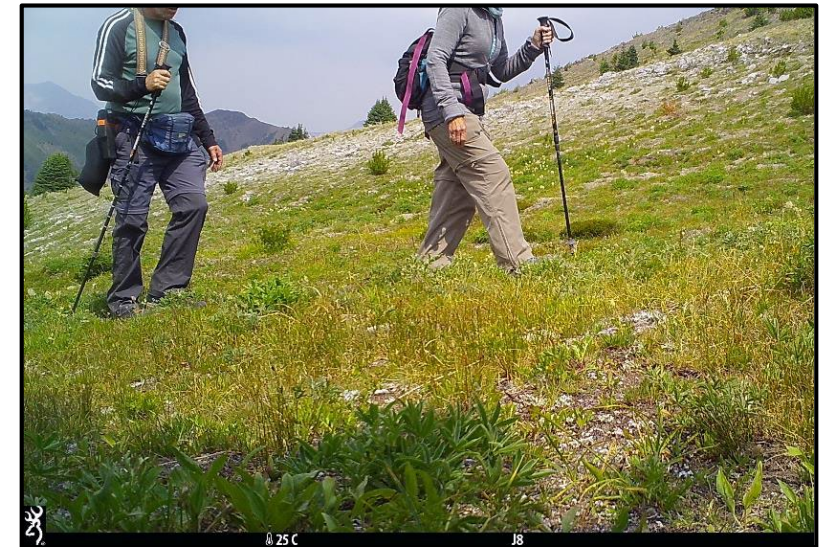
Studying coexistence with wildlife where we live, work and play



Mitigating conflicts



Sharing working landscapes

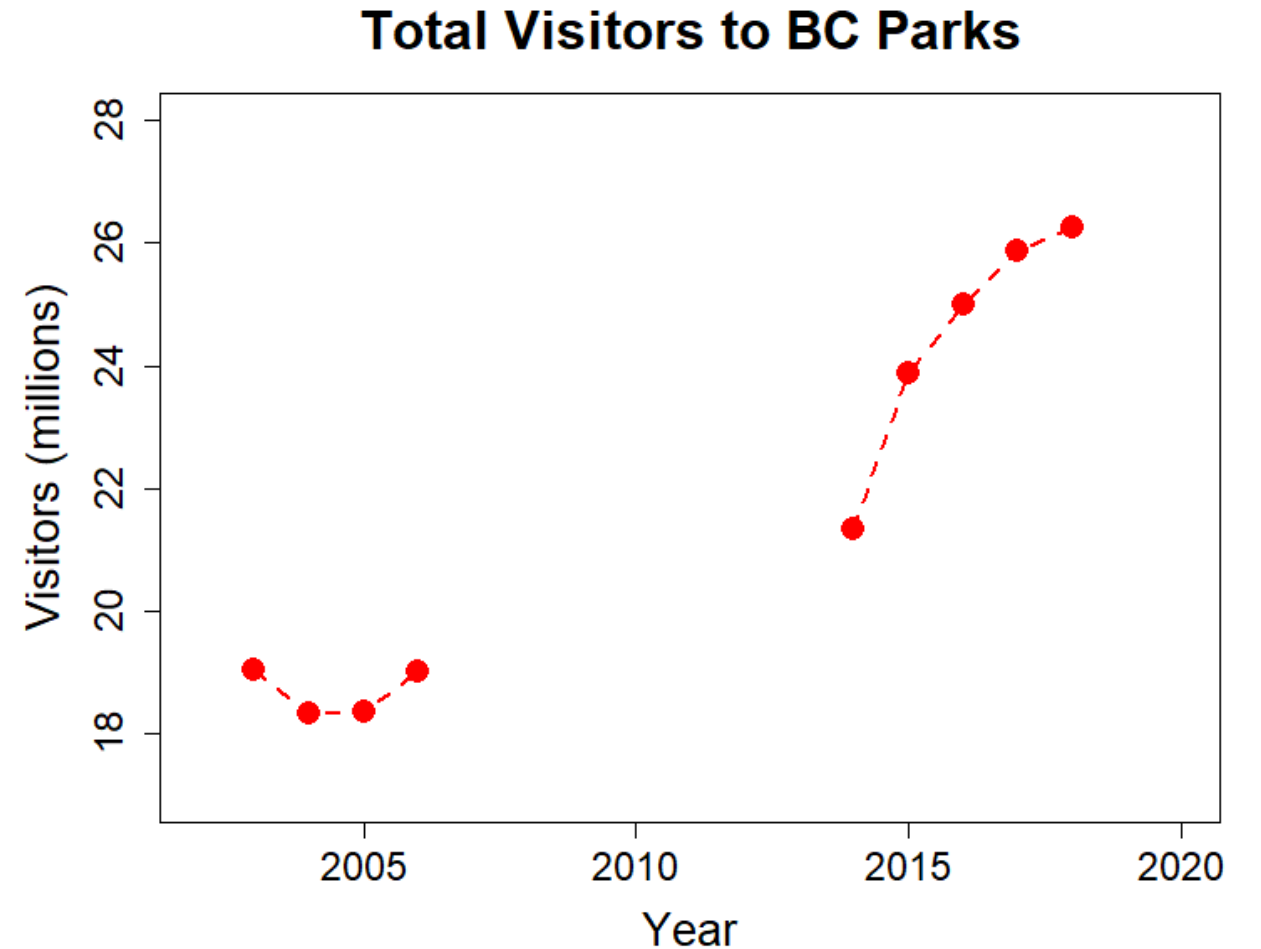


Keeping parks healthy

British Columbia's parks under pressure



Photo: izzabelle.co



Data from bcparks.ca/research

People vs. Wildlife?



Hikers show their "Day-Use" pass to James Tammaro of Cypress Mountain before they can start their day at Cypress Provincial Park in West Vancouver on Monday. PHOTO BY RICHARD LAM /PNG Vancouver Sun



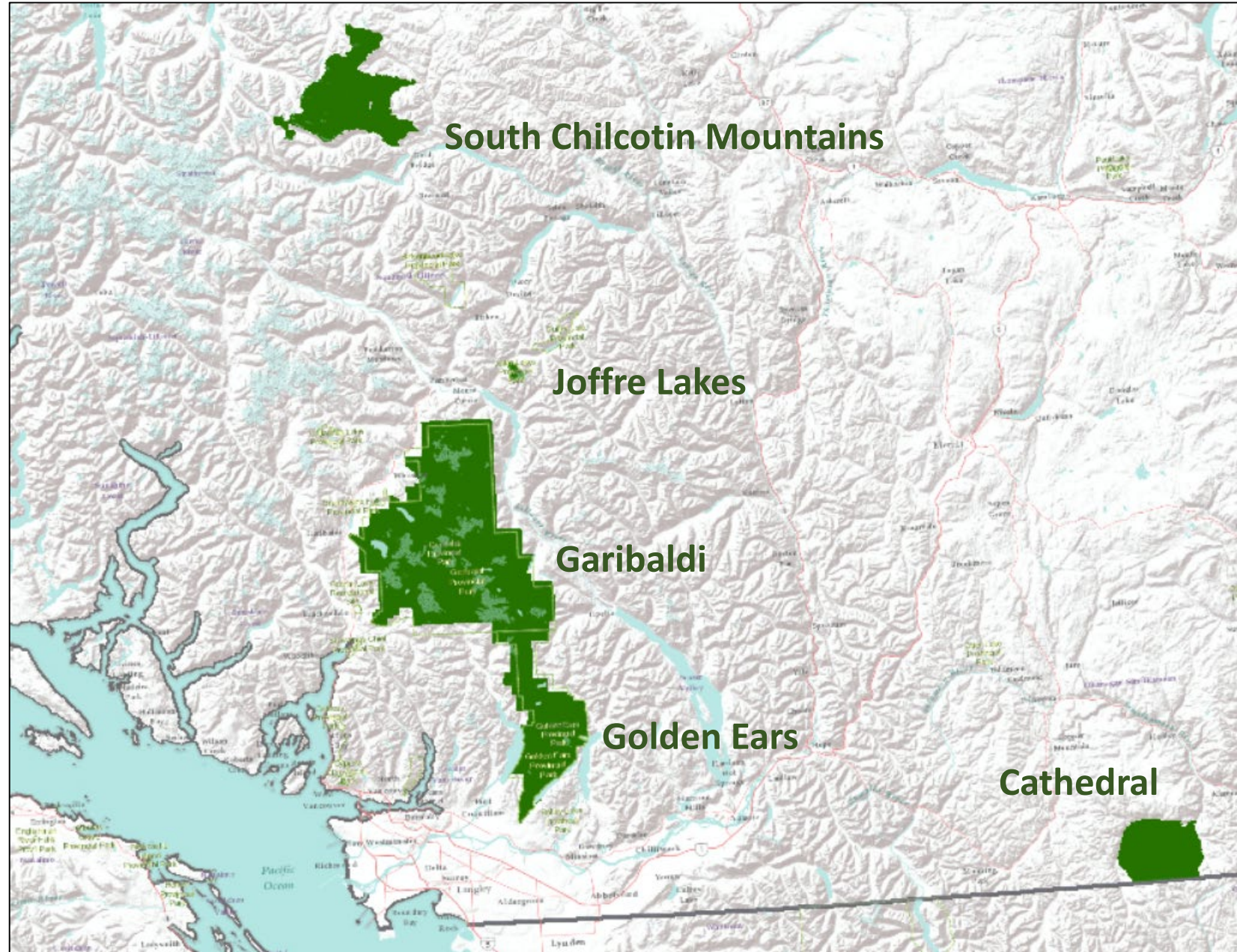
Vango Photos

British Columbia [Eva Uguen-Csenge](#) · CBC News · Posted: Apr 30, 2021

Recreation groups call on B.C. Parks to scrap day-pass system ahead of summer 2021

WildCo Surveys in SW BC Parks

- 5 Parks
- 217 camera traps
- 2018 - present
- 3+ million images ...



Does recreation displace wildlife?

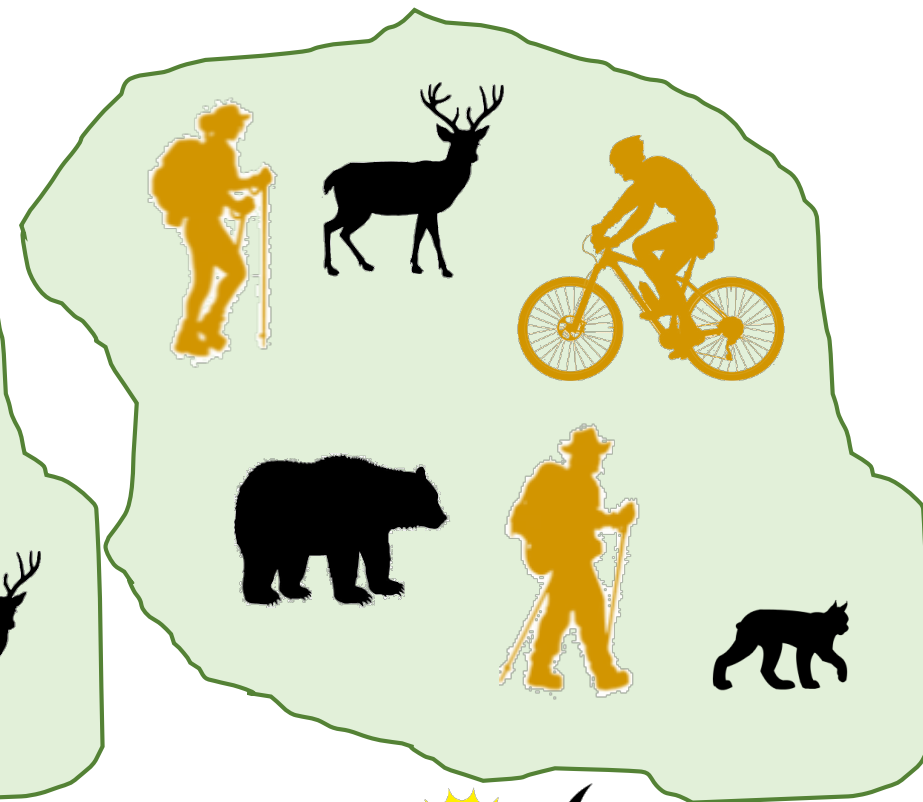
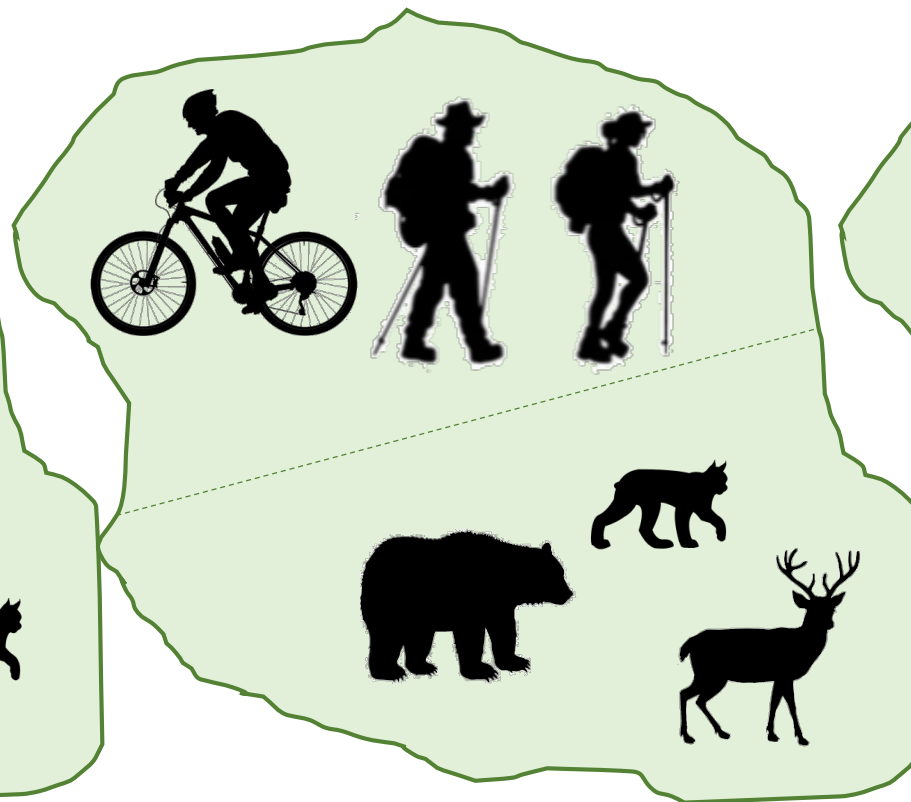
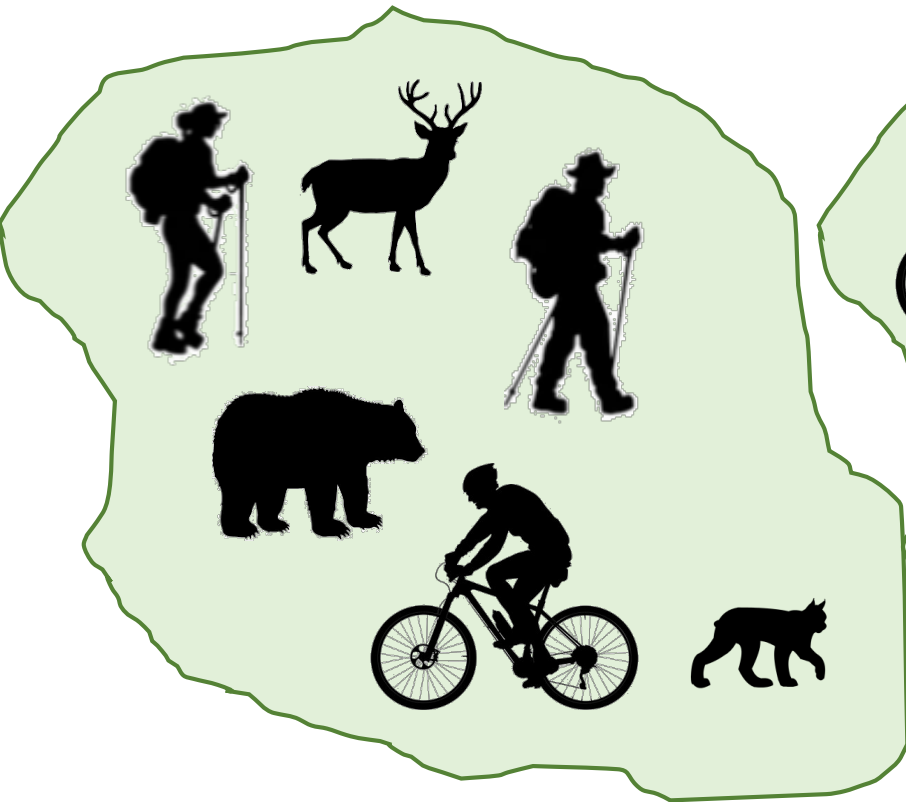


How might recreation affect wildlife?

No Effect

Spatial Displacement

Temporal Displacement

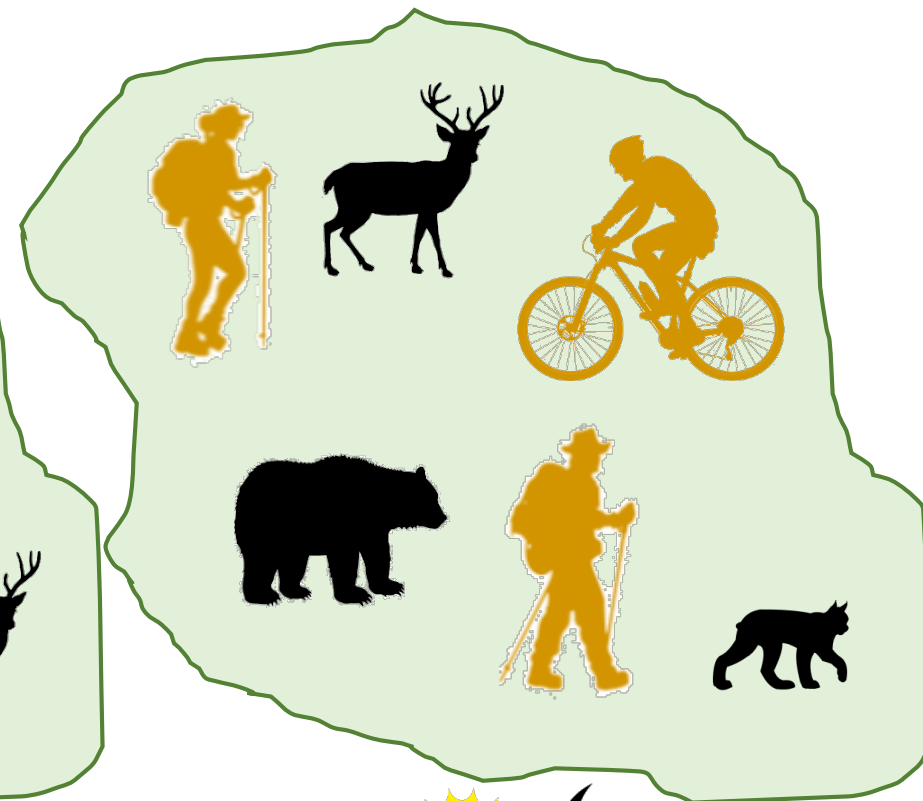
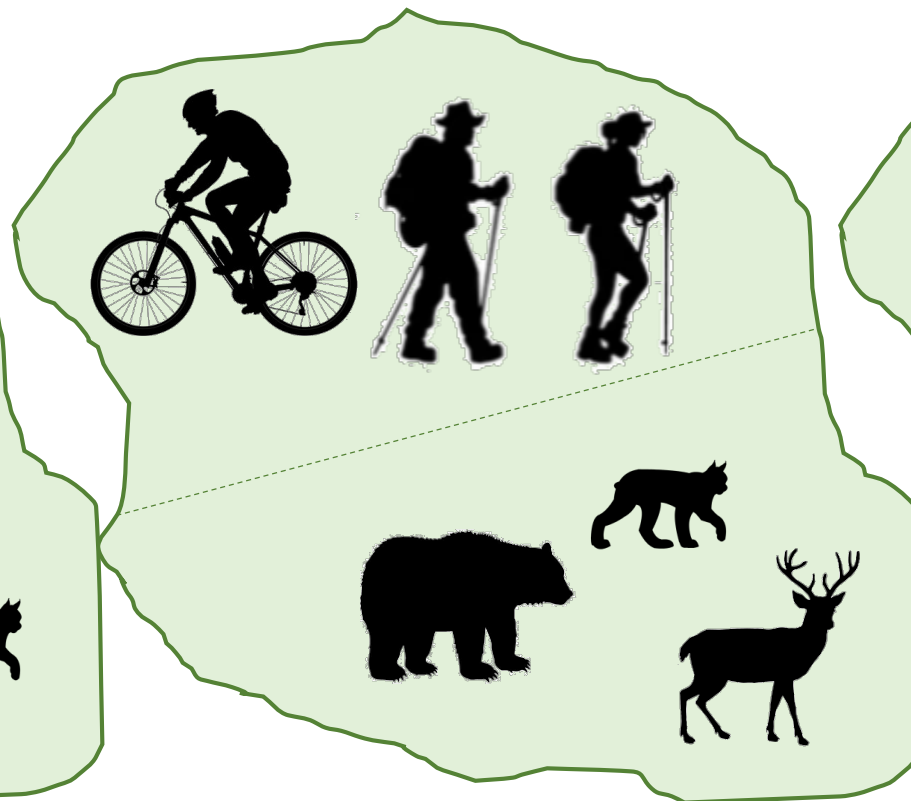
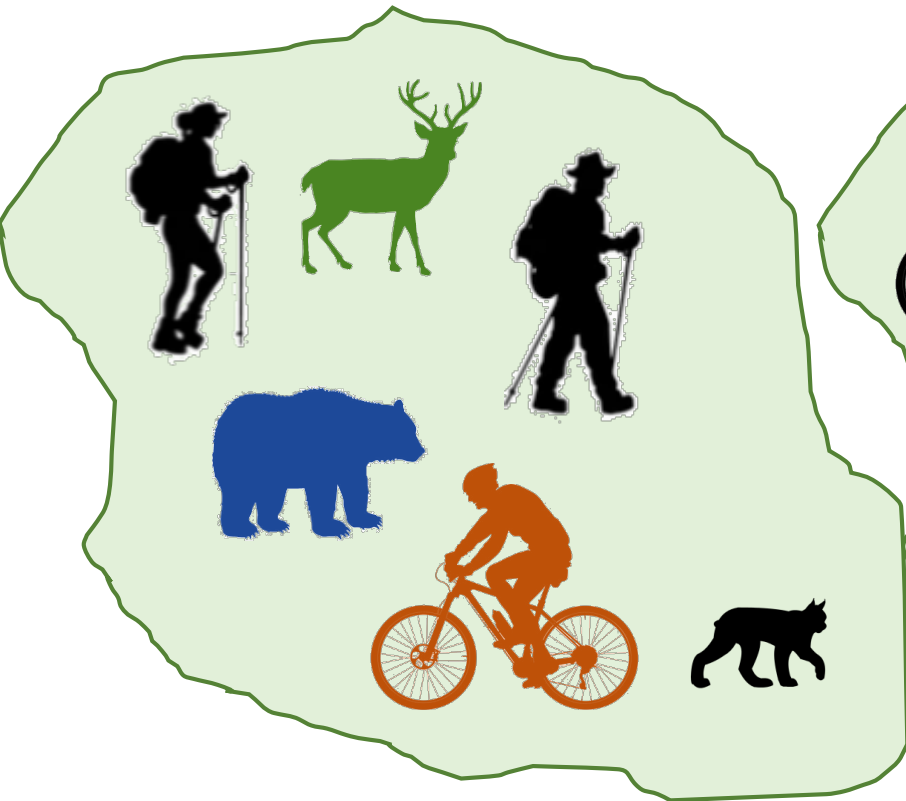


How might recreation affect wildlife?

Variable Effect

Spatial Displacement

Temporal Displacement

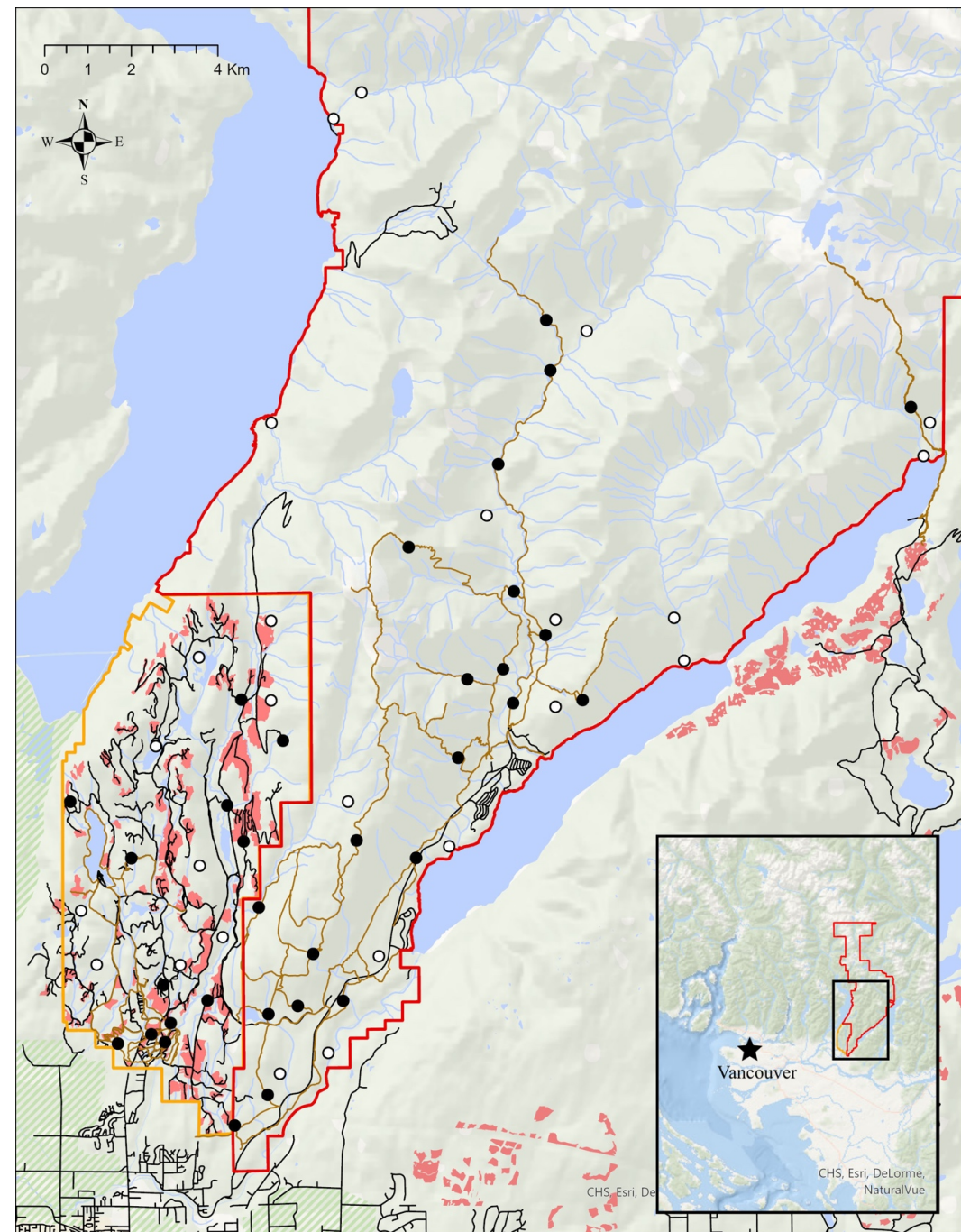


Golden Ears



Michael Procko, MSc project

- 58 cameras
- On/off trail
- Park & Malcolm Knapp Research Forest
- May 2019 – Sep 2021
- High human use
 - > 1 million photos



Golden Ears

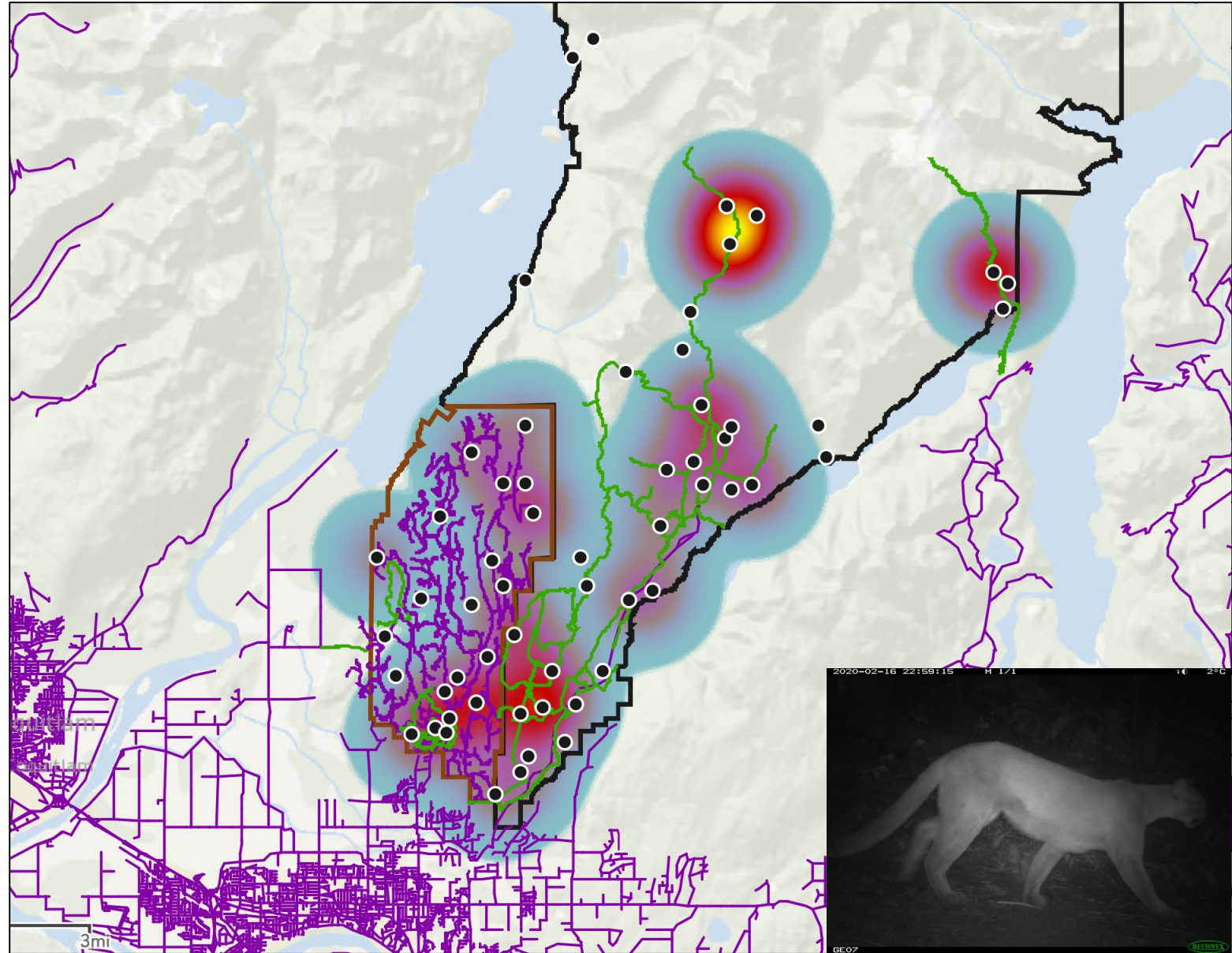


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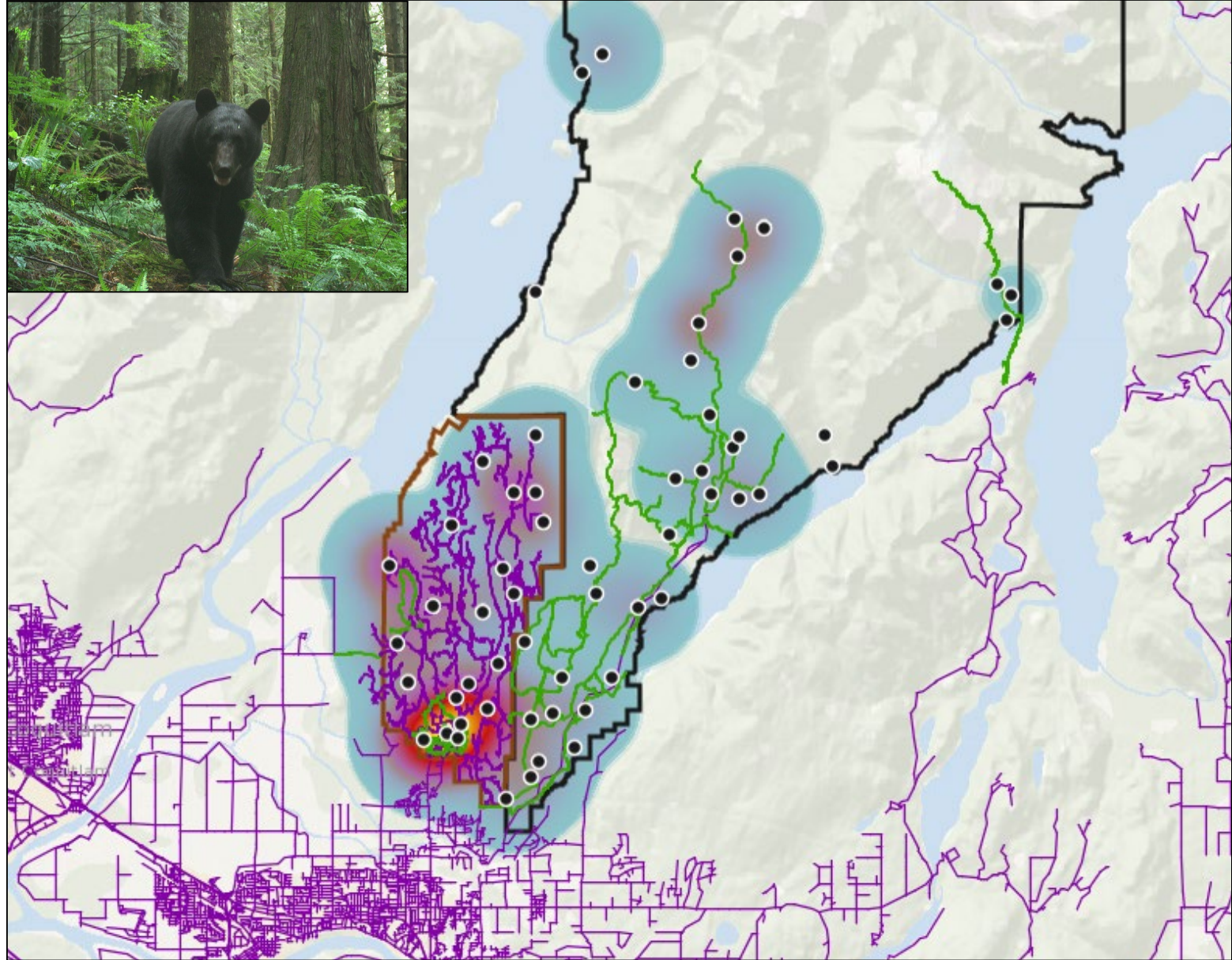


Golden Ears

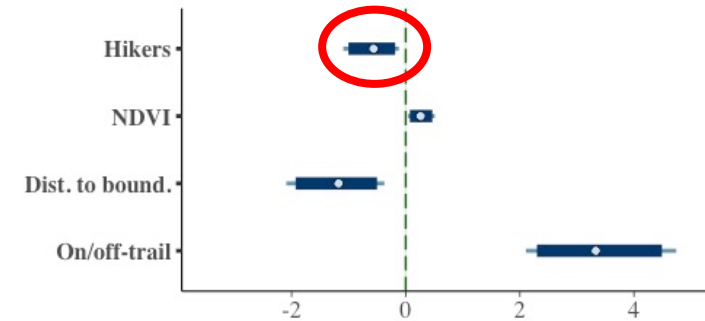
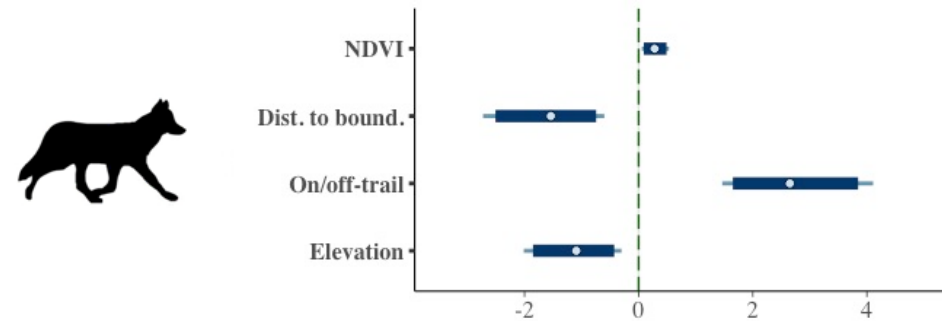
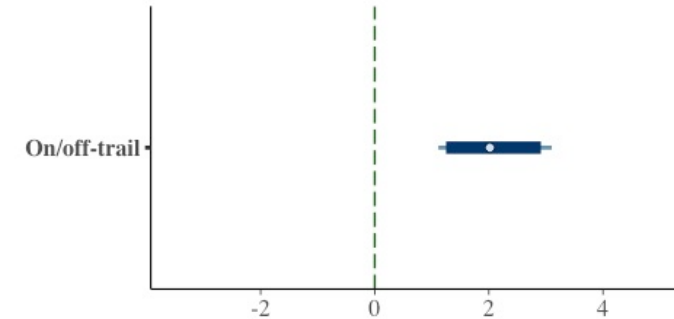
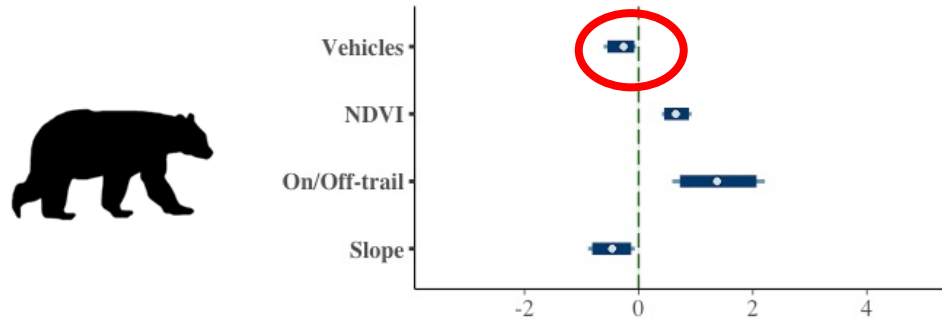
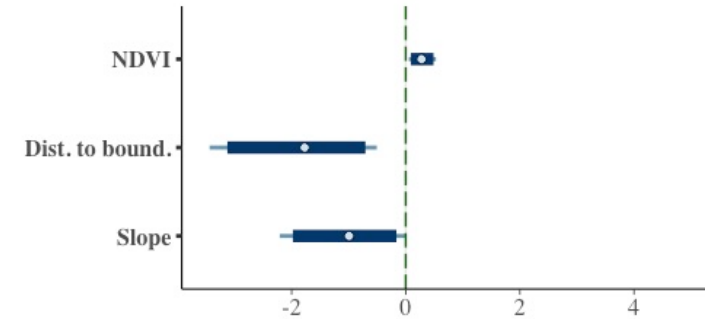
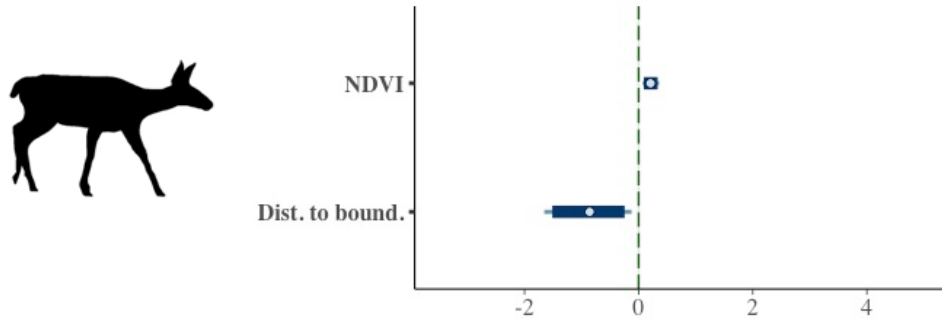


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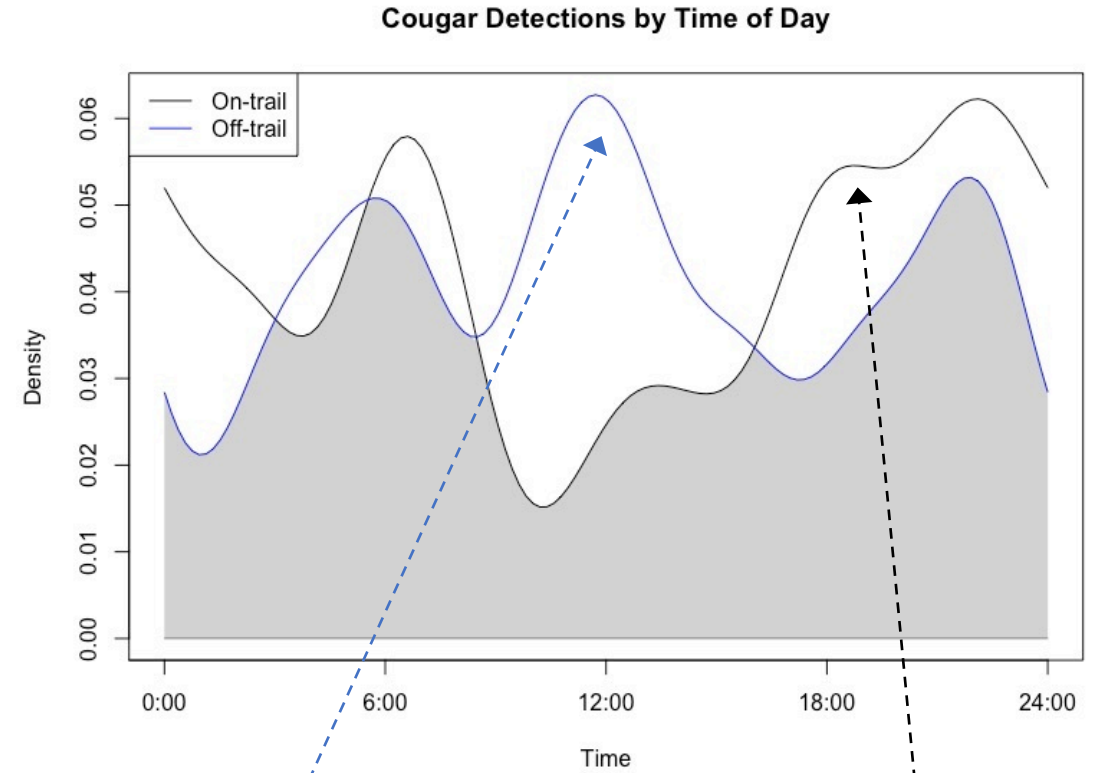
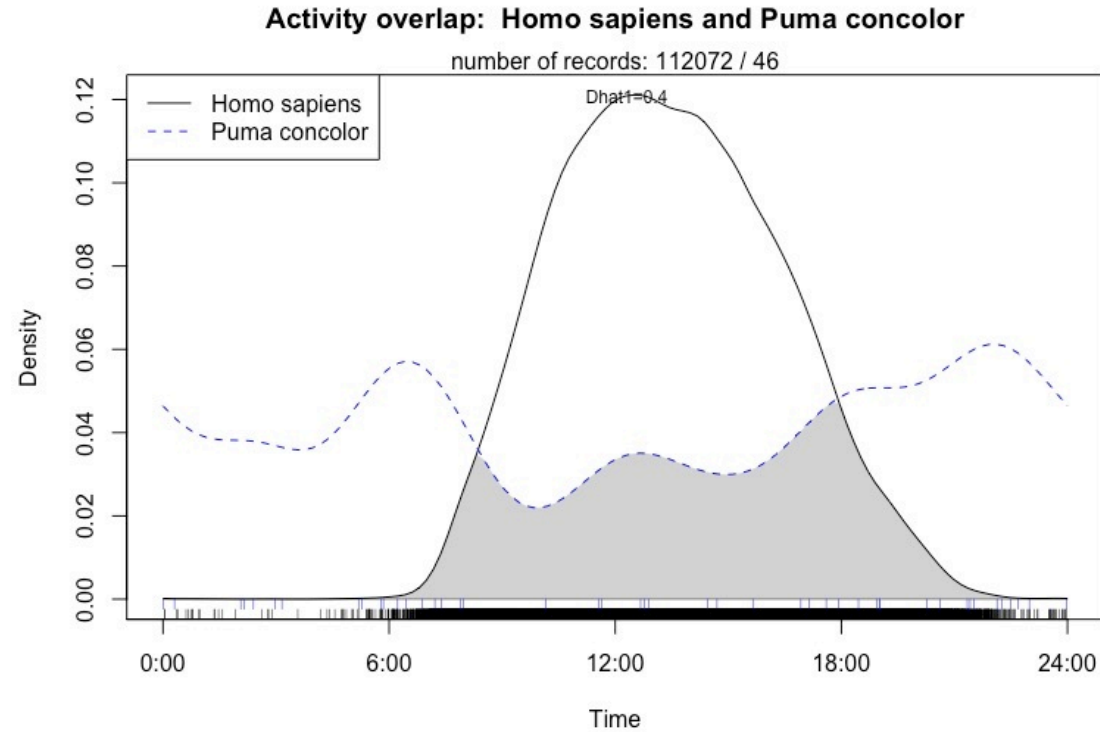
Some negative spatial associations with human activity



Standardized regression coefficients from
Bayesian GLMMs of weekly detections

Procko et al. in prep

Cougars are more nocturnal on trails



Procko et al. in prep



Learning from the “Anthropause”:

How are wildlife responding to rapid changes in park visitation?



VANCOUVER SUN

Apr 08, 2020

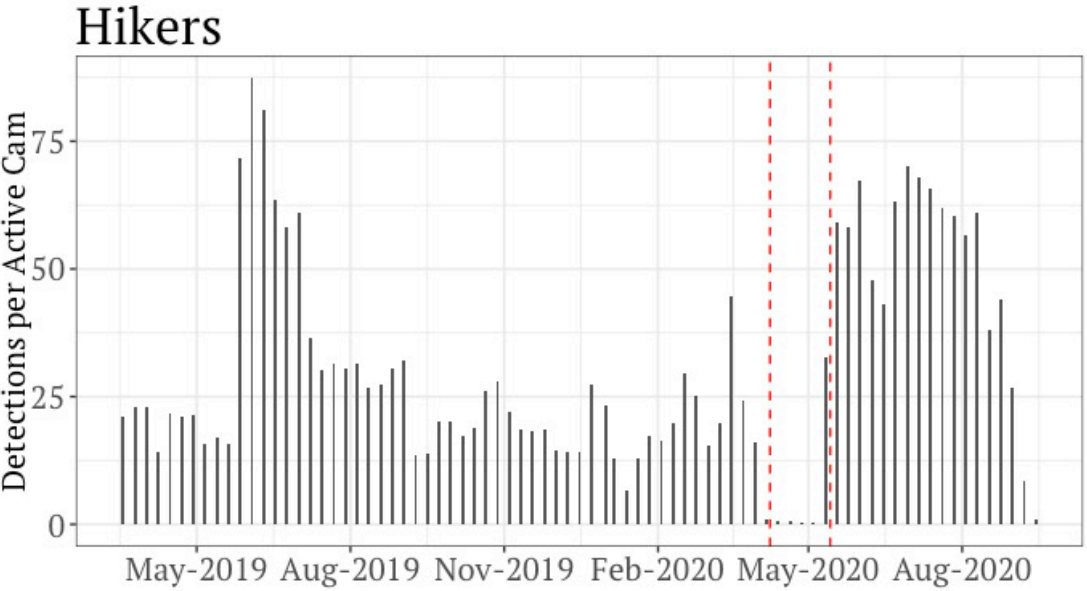
COVID-19: All provincial parks in B.C. closed to halt spread of virus

VANCOUVER SUN

Jul 23, 2020

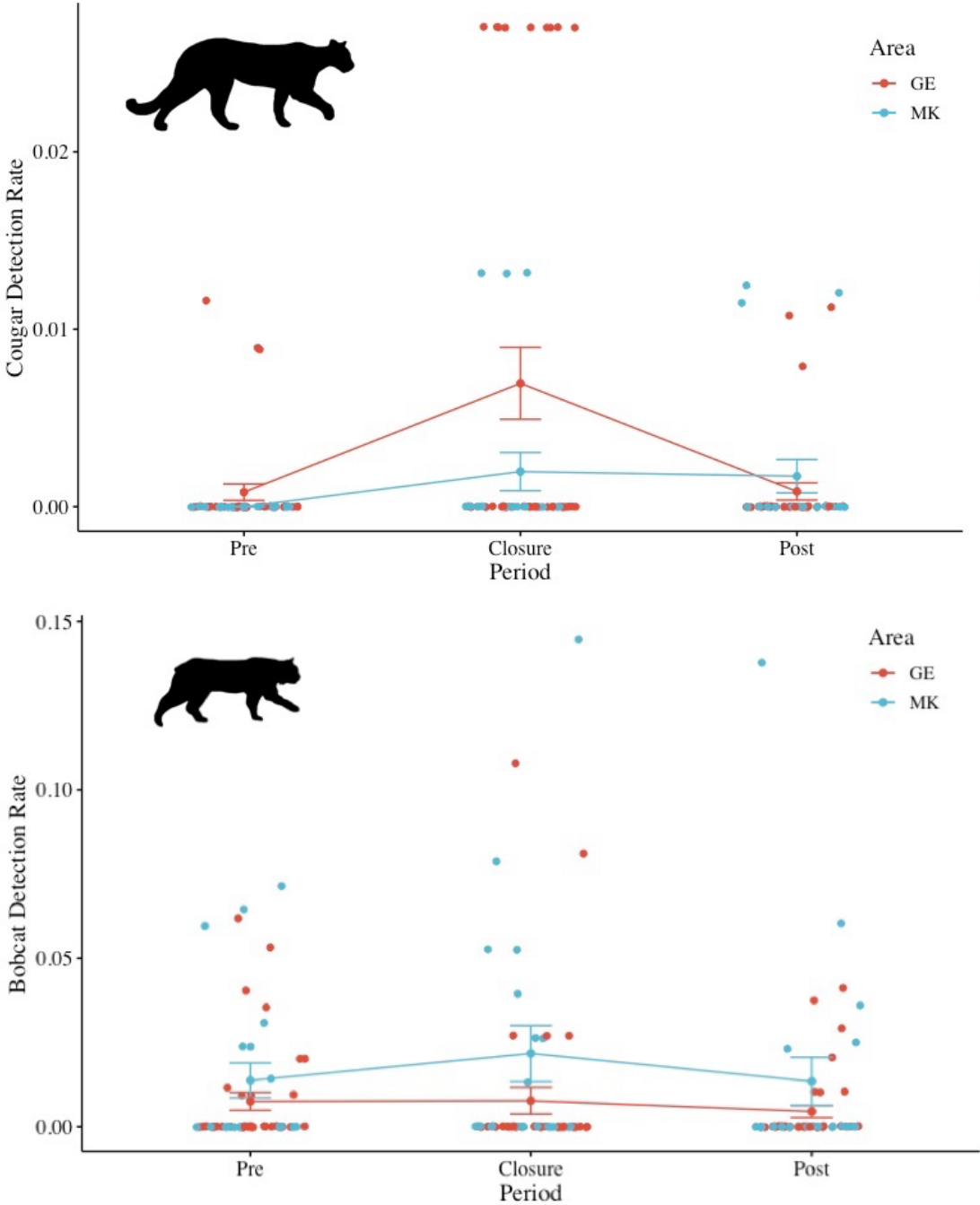
COVID-19: Provincial parks overwhelmed as campers spill onto Crown land

Cougars increased park use during closure



Park Closure

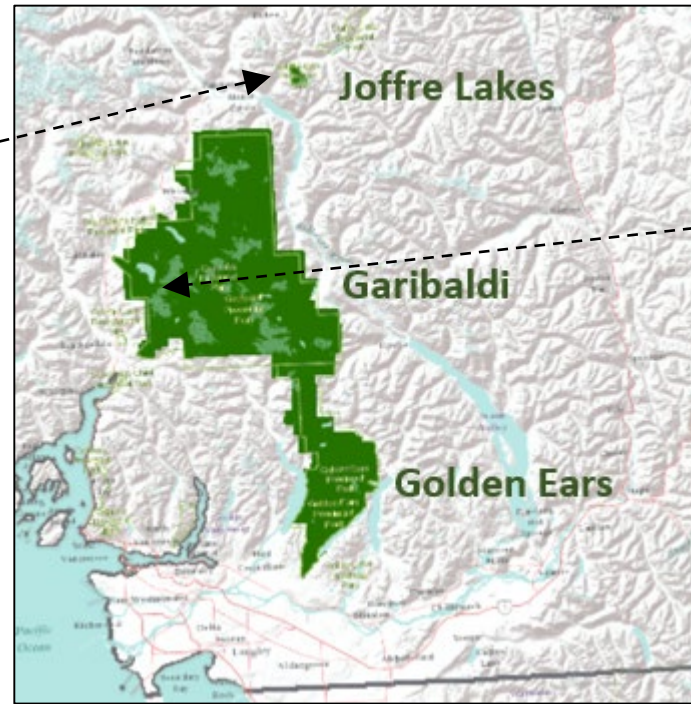
Golden Ears Park



Joffre Lakes Closed



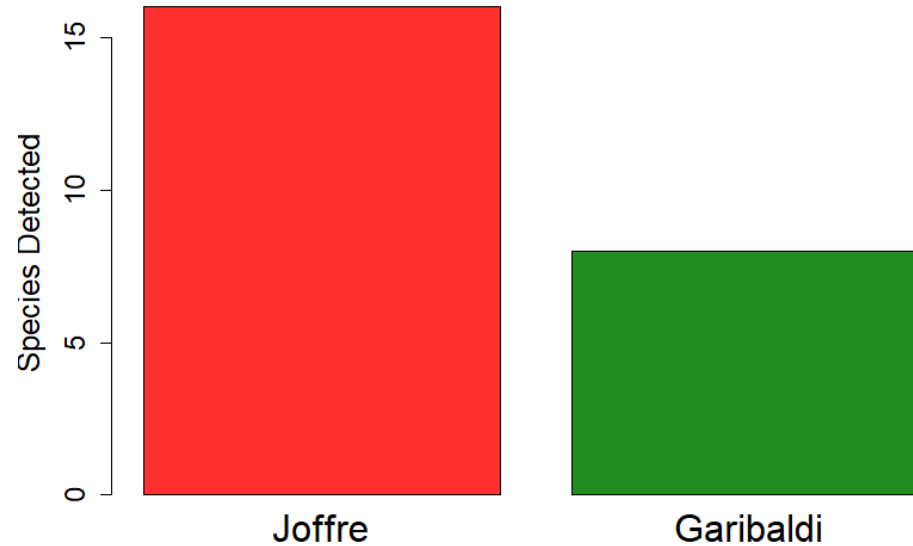
18 cameras



Garibaldi Open



21 cameras



More mammal species detected in closed park (*so far – preliminary!*)

Wolverine “captured” in Joffre Lakes park, May 2021

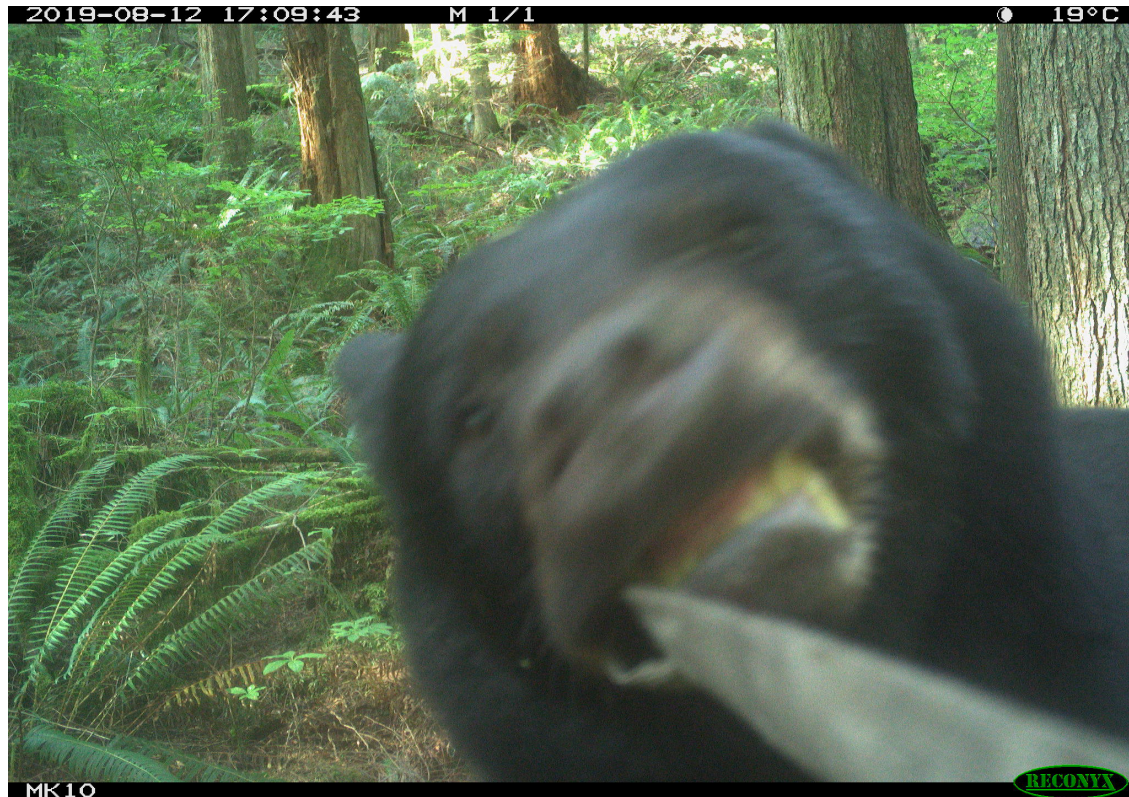


Stay tuned for more results from:



See also: Naidoo & Burton 2020, *Conservation Science and Practice* e271

Questions?



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Thank you!

WildCo Lab Members

BC Parks: M. Percy, J. Quayle, J. Grant, J. Hirner, S. Stickney, D. Lapointe, K. Wagner and more ...

UBC: R. Naidoo, V. LeMay, I. Aron, L. Chua, J. Dean

Many other collaborators, contributors, funders and supporters!



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