

BC Ptarmigan Distribution Project: Identifying the three Ptarmigan species

Kathy Martin and Davide Scridel



THE
UNIVERSITY OF
BRITISH
COLUMBIA



Environment and
Climate Change Canada

Three Ptarmigan species in NA



White-tailed Ptarmigan
Alpine



Rock Ptarmigan
High Arctic & Alpine



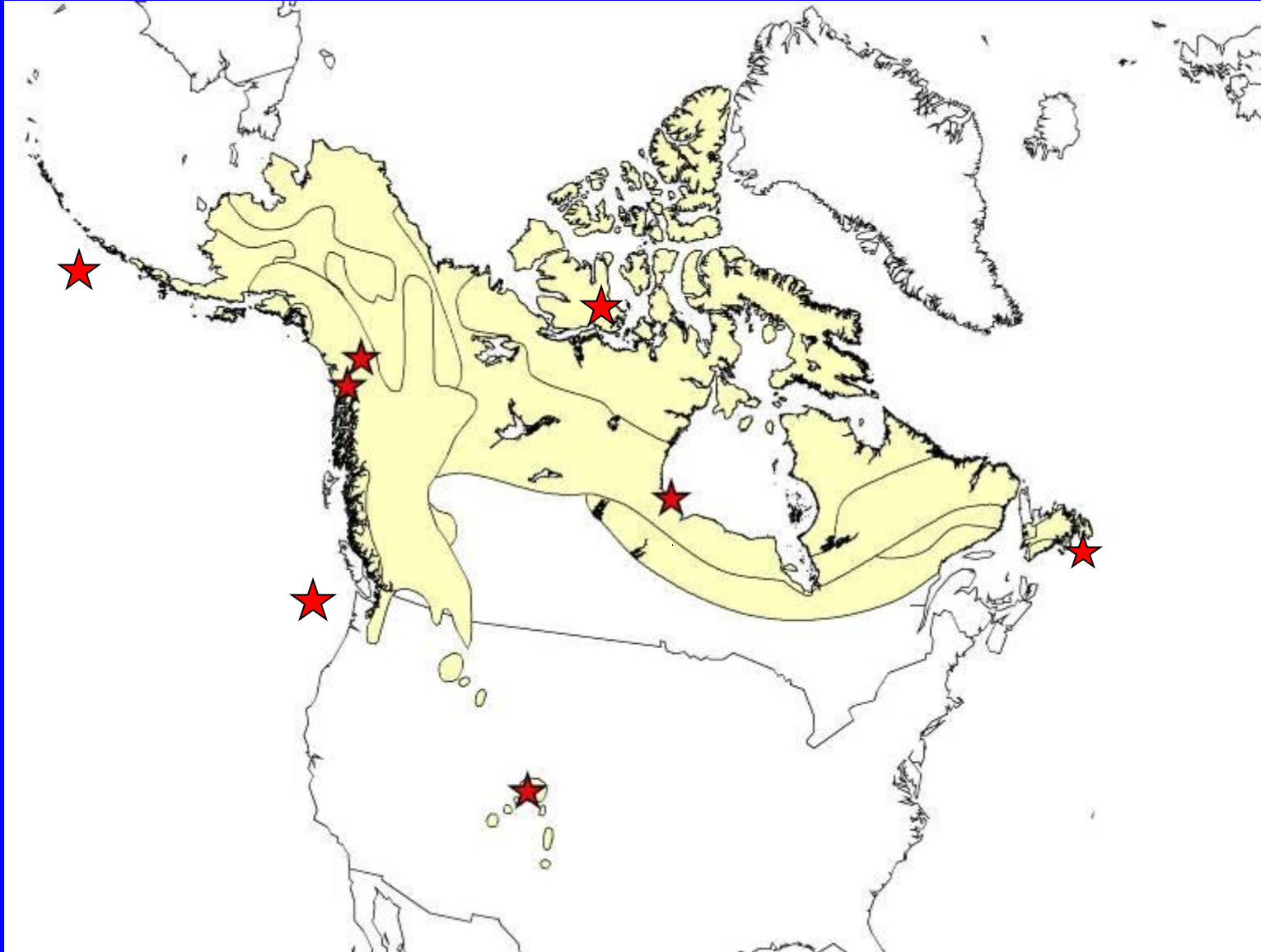
Willow Ptarmigan
Sub-arctic & Sub-
alpine

- Monogamous
- Ground nesters
- Tundra



- Precocial
- Single brood/Yr
- Populations often cyclic/unstable

Arctic and Alpine Ptarmigan Distribution - > 50% of Canadian Land base



Important to identify which ptarmigan species

Willow Ptarmigan

White-tailed Ptarmigan



Only one species has a white tail – Look there first, under mottled brown tail covert feathers

Willow vs Rock ptarmigan - beak shape

Willow Ptarmigan – Stubby bill,
wider at the base than long



Rock Ptarmigan -
Longer, more slender bill



Male Early Summer Plumage

Willow Ptarmigan

- Reddish brown upper parts, white below



Rock Ptarmigan

- Remain white until mid-summer



Male Late Summer Plumage

Willow Ptarmigan

- Reddish brown with black flecking



Rock Ptarmigan

- Grayish with black flecking



Female Summer Plumage

- Female Willow and Rock Ptarmigan plumage nearly identical
- Rock Ptarmigan have more slender build, narrower bill shape



Willow



Rock

Female White-tailed Ptarmigan, alert posture can indicate she has chicks



Female - Late summer plumage



Male – Mid summer plumage



Winter Plumage

Willow Ptarmigan

- Black tail, White wings
- Some males have red eye patch



Rock Ptarmigan

- Black loral streak in males & some females (**diagnostic for Rock Ptarmigan**)
- Black tail, White wings
- Some males have red eye patch



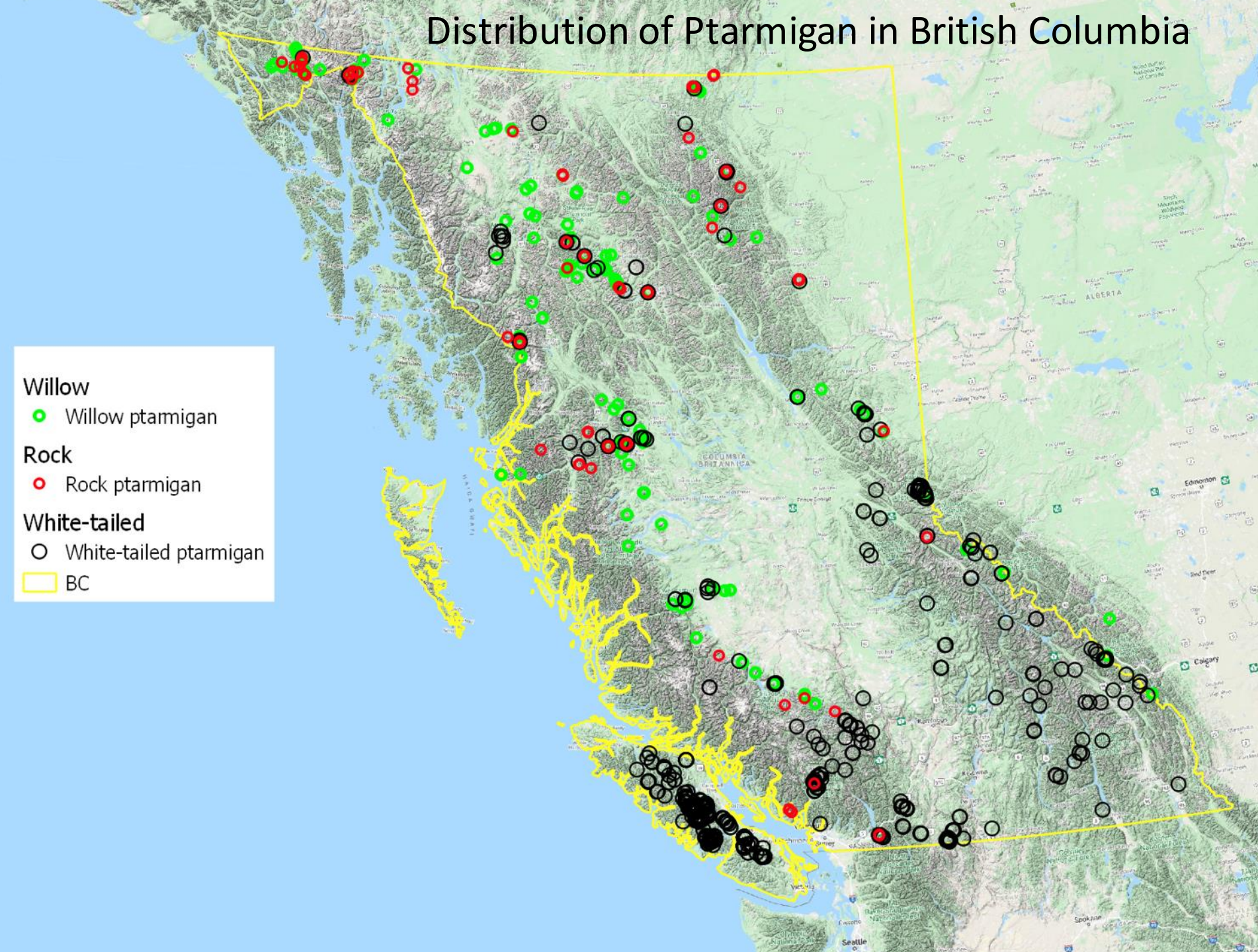
Distribution of Ptarmigan in British Columbia

Willow
● Willow ptarmigan

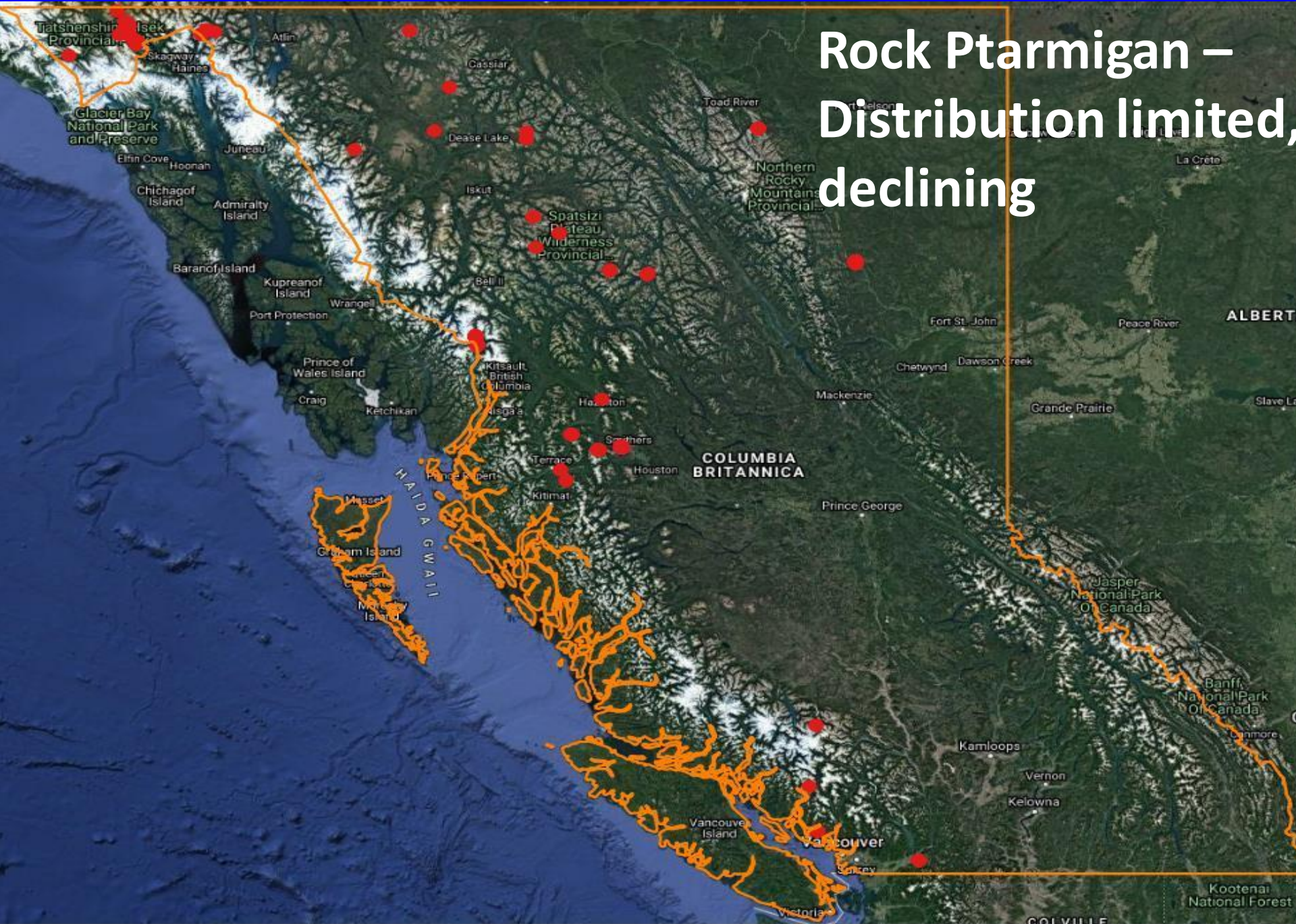
Rock
● Rock ptarmigan

White-tailed
○ White-tailed ptarmigan

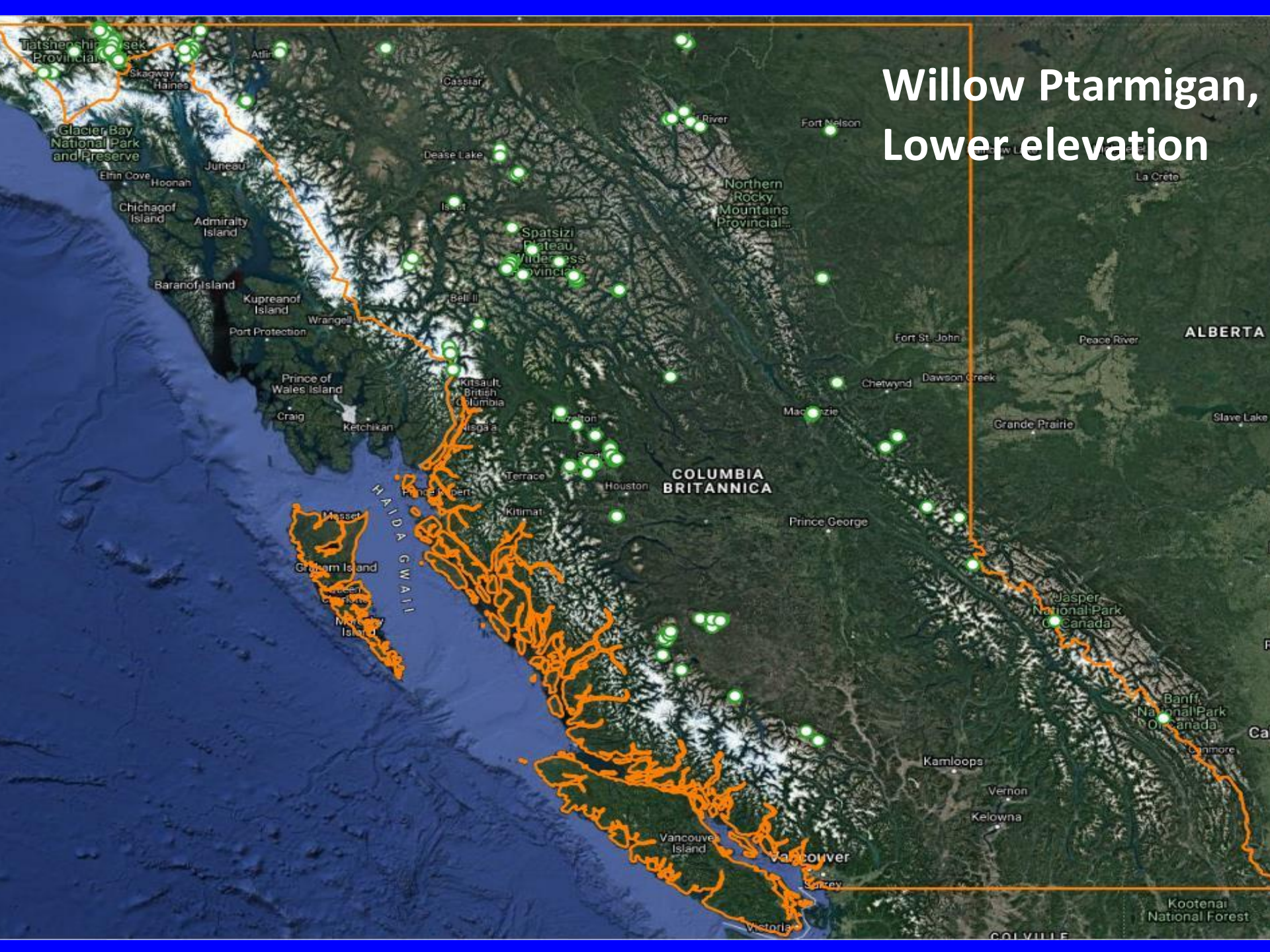
□ BC



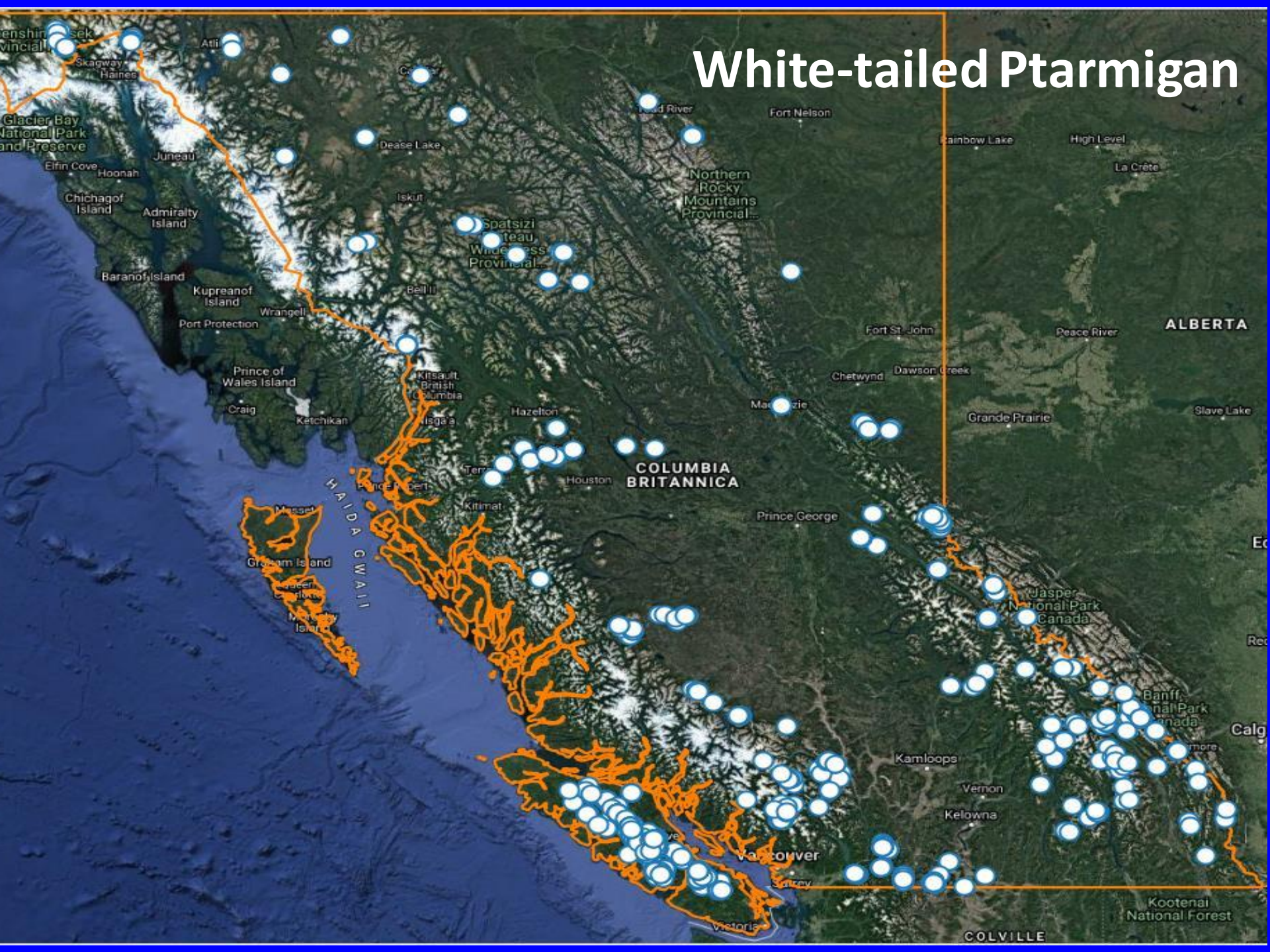
Rock Ptarmigan – Distribution limited, declining



Willow Ptarmigan, Lower elevation



White-tailed Ptarmigan



Modelling ptarmigan species distribution in a changing climate in British Columbia

- Given their inaccessible mountain habitats, we lack knowledge of ptarmigan occurrence across British Columbia. We request observations, especially of Rock Ptarmigan (any where in BC) and Willow Ptarmigan in eastern BC.
- Data should be forwarded to dscridel@gmail.com or kathy.martin@ubc.ca