

# Region I Deer Overwinter Habitat Assessment

Preliminary Methods and Next Steps  
Field Season 2014

{ Presentation to Board of Game  
Juneau, Alaska, January 2015



# Region I Deer Overwinter Habitat Assessment

## Question:

- Can the deer overwinter range in Units 3 and 1A support more deer?

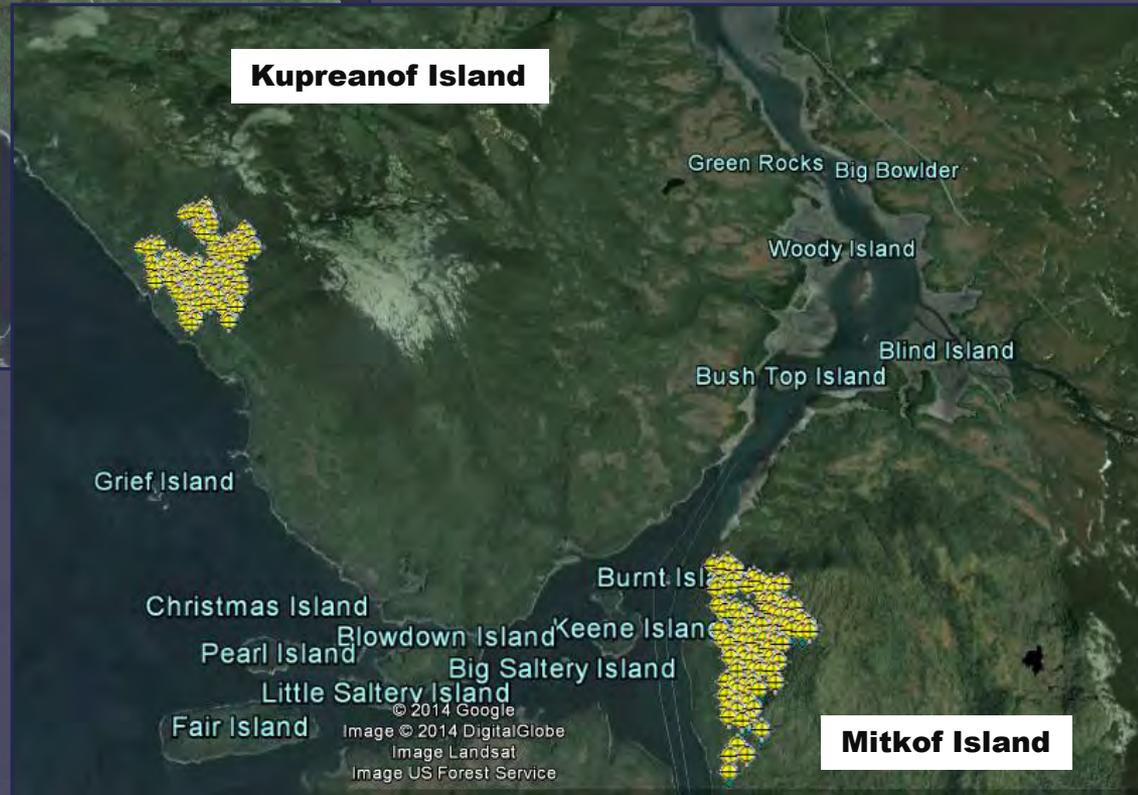
## Objective:

- Conduct a pilot study to assess the abundance, condition, and utilization of key forage plants on important overwinter ranges
  - Browse
  - Forbs





# Selection of Stands to Conduct Pilot Work



# Region I Deer Overwinter Habitat Assessment

## *Methods*

Browse data collected in late April/early May 2014 before spring leaf out

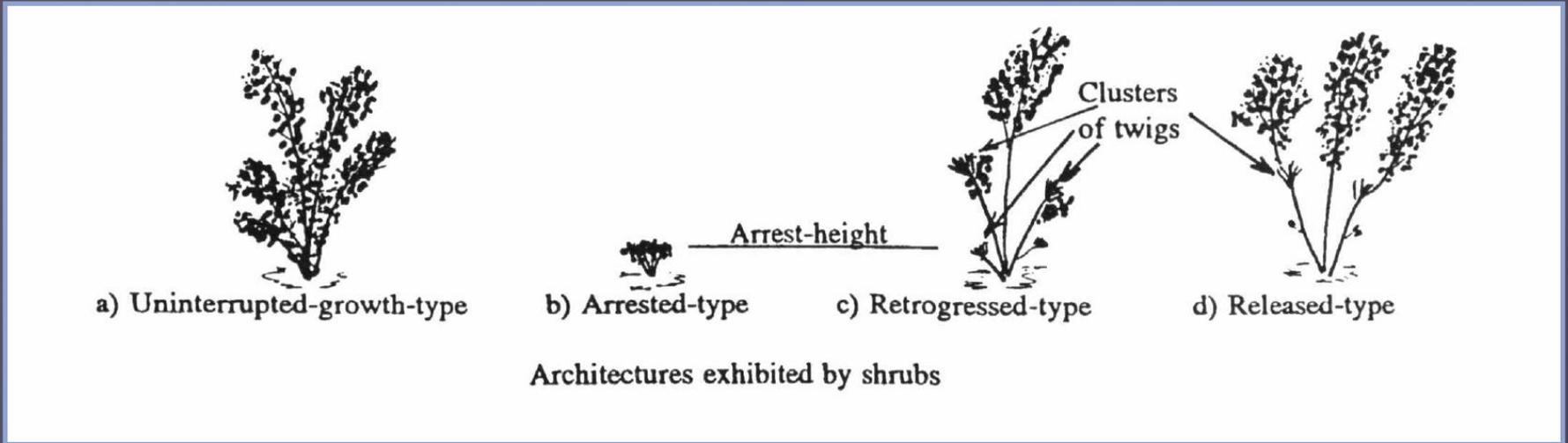
Focused on *Vaccinium* (blueberry) species

- Density
- Height
- Overwinter utilization
- Architecture of plant

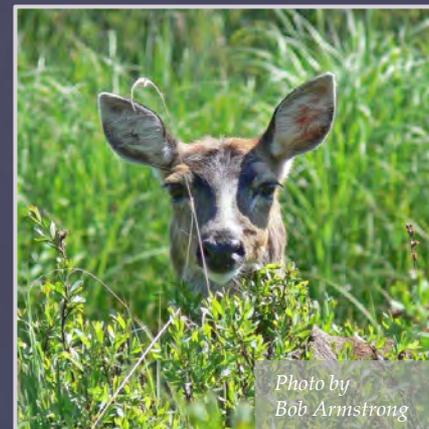


# Region I Deer Overwinter Habitat Assessment

Architecture Index  
Keigley et al. (2002)



Reflects condition of plant as it relates to the plant's browse history



# Region I Deer Overwinter Habitat Assessment

## *Methods*

Forb data collected in late August/early September 2014 at end of growing season

Collected percent cover of all forb species at same points browse data were collected in spring

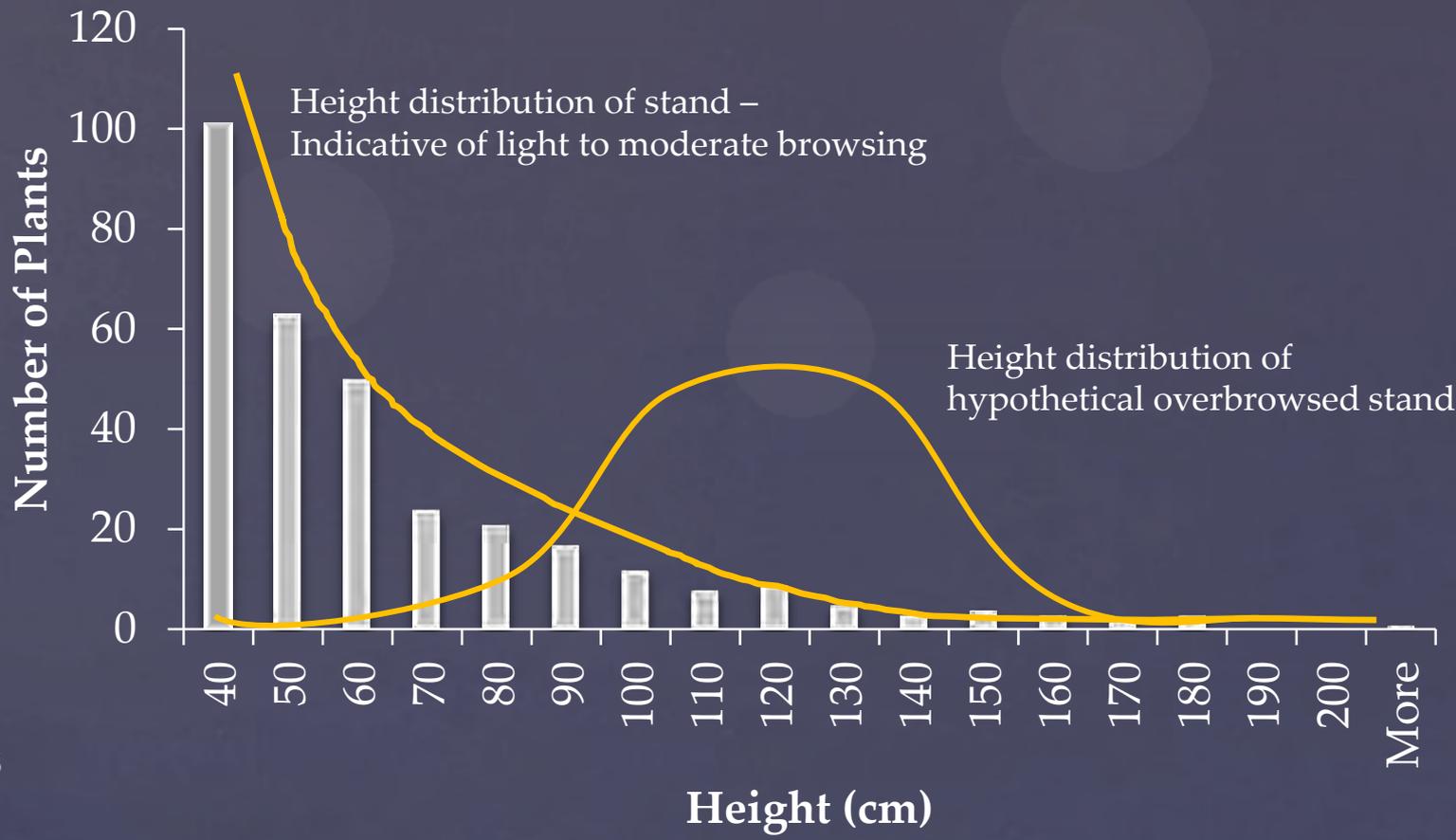
- Grouped into functional class for analysis -- evergreen and deciduous forbs



# Region I Deer Overwinter Habitat Assessment

## Preliminary Results

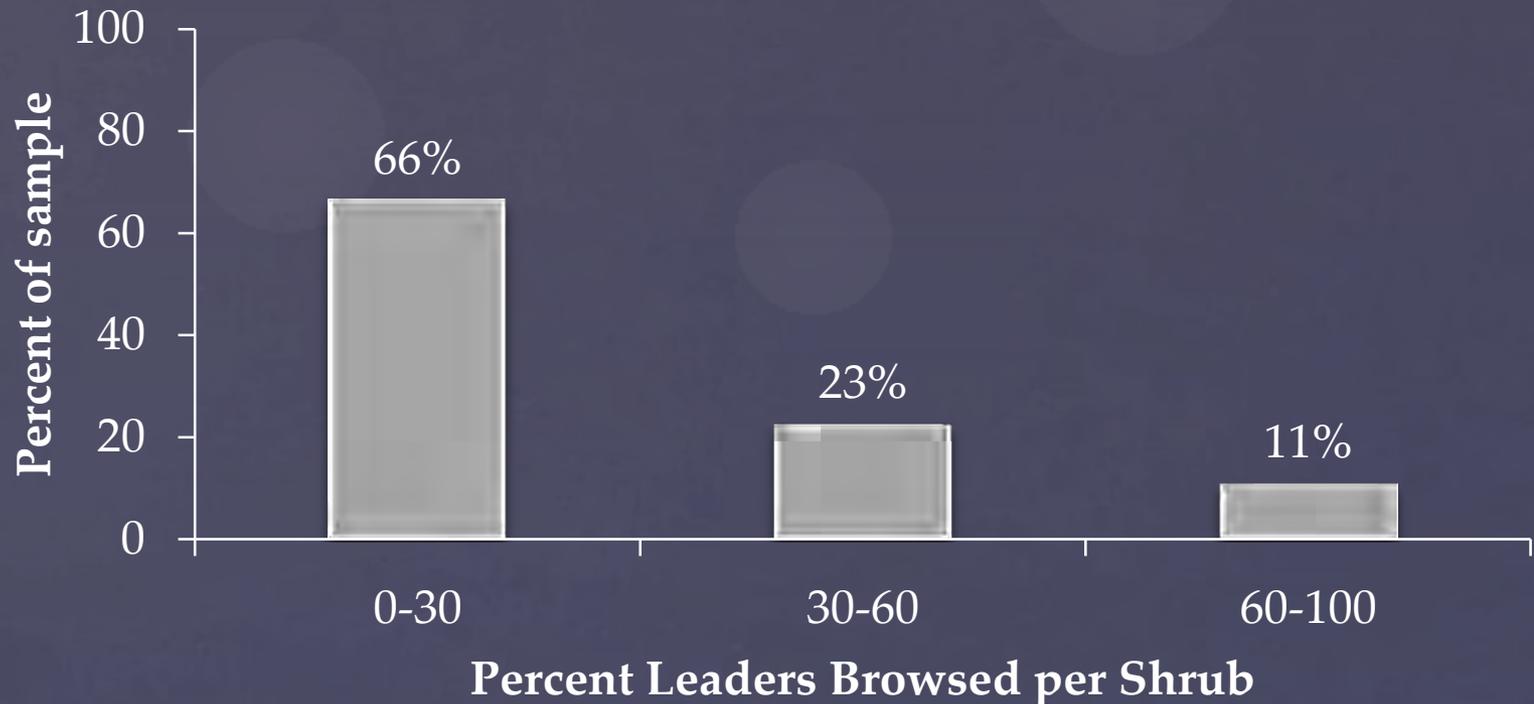
### Mitkof - *Vaccinium* Height Histogram



# Region I Deer Overwinter Habitat Assessment

## *Preliminary Results*

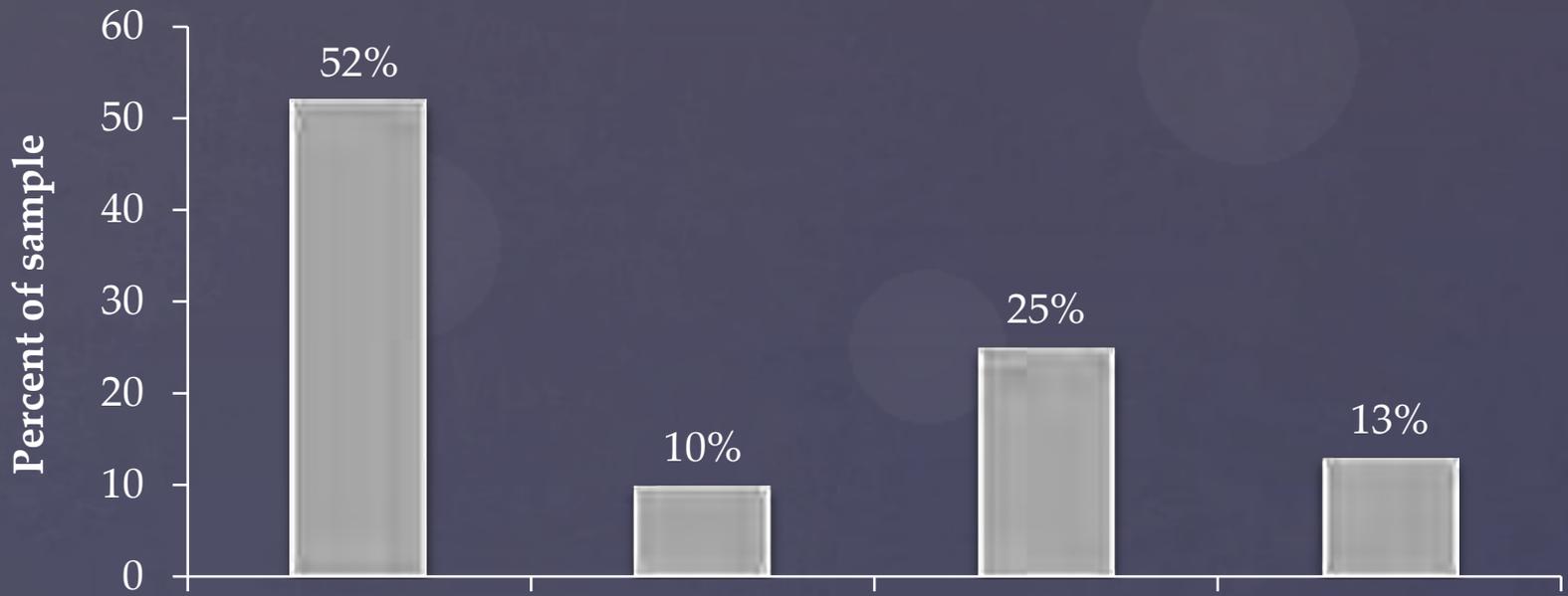
### Mitkof - Percentage of *Vaccinium* in Each Browse Category



# Region I Deer Overwinter Habitat Assessment

## *Preliminary Results*

Mitkof - Percent of *Vaccinium* Sampled by Keigley Condition Index

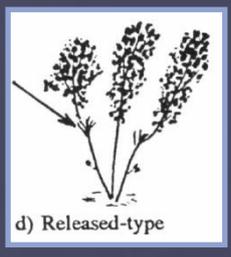
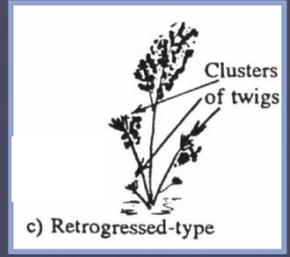
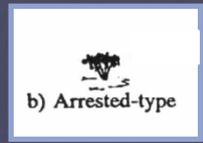


Uninterrupted

Arrested

Retrogressed

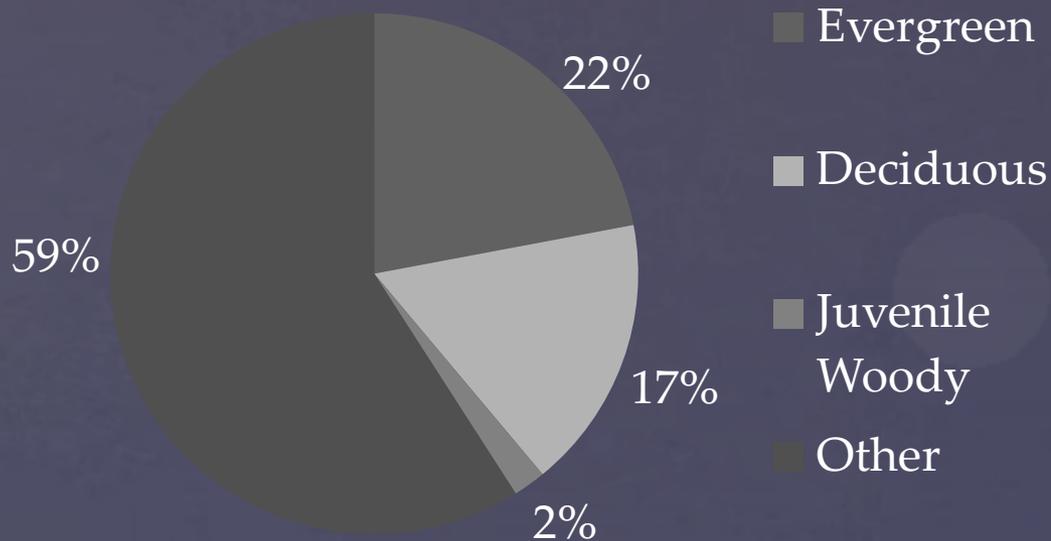
Released



# Region I Deer Overwinter Habitat Assessment

## *Preliminary Results*

Mitkof – Percent Cover of Forbs



# Region I Deer Overwinter Habitat Assessment

## *Next Steps*

Methods are objective, repeatable, easy to complete in field, and require only small crews and limited supplies.

Complete analysis of the data and link to deer density estimates, as well as winter severity data from last year

Assess feasibility and logistics for scaling up to a level appropriate for management decisions

See if we can compare vegetation data to previous work (e.g., H. Merriam and D. Person)

# Region I Deer Overwinter Habitat Assessment

## *Summary*

Methodology tested in this pilot study can provide relevant overwinter habitat data to help inform management decisions.

Implemented at a larger scale these habitat data can provide an efficient index of the status of key forage that can be compared over time. When combined with deer density estimates and winter severity data, we will be able to better discern deer carrying capacity on the landscape.



*Photo by  
Kim Titus*