

Stand Health and Growth Monitoring (SHAGM)



Alex Woods, Skeena Region

Objective:

To collect data on forest health, stand volume, and important FN values over a large sample population using a standardized mid-rotation assessment that can be collected by multiple parties and that can be compared to the current standardized yield projection for managed stands.

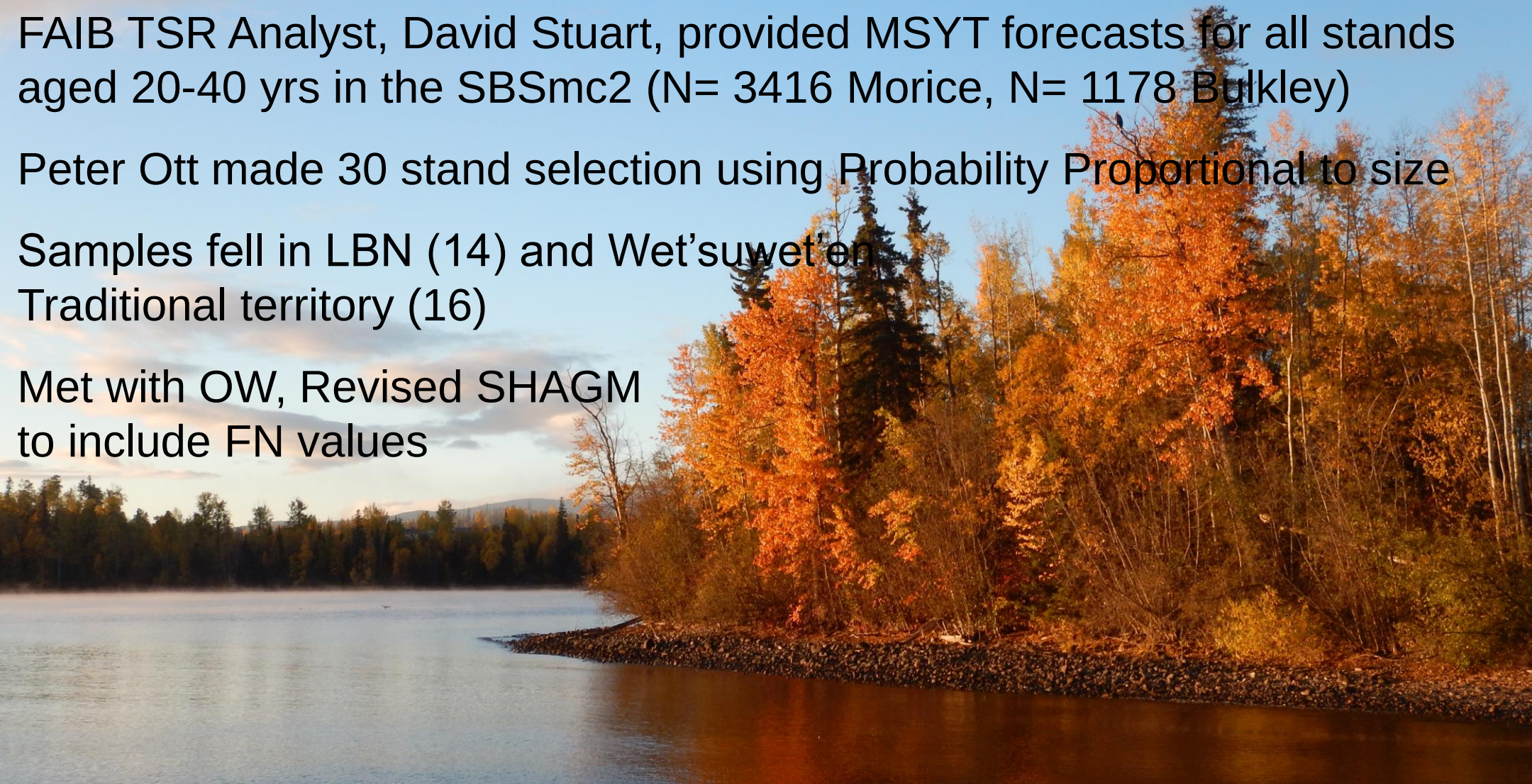
TSR scheduled for Bulkley and Morice TSAs, DM asked for monitoring
Met with Lake Babine FN (LBN) proposed conducting SHAGM survey in
their traditional Territory

FAIB TSR Analyst, David Stuart, provided MSYT forecasts for all stands
aged 20-40 yrs in the SBSmc2 (N= 3416 Morice, N= 1178 Bulkley)

Peter Ott made 30 stand selection using Probability Proportional to size

Samples fell in LBN (14) and Wet'suwet'en
Traditional territory (16)

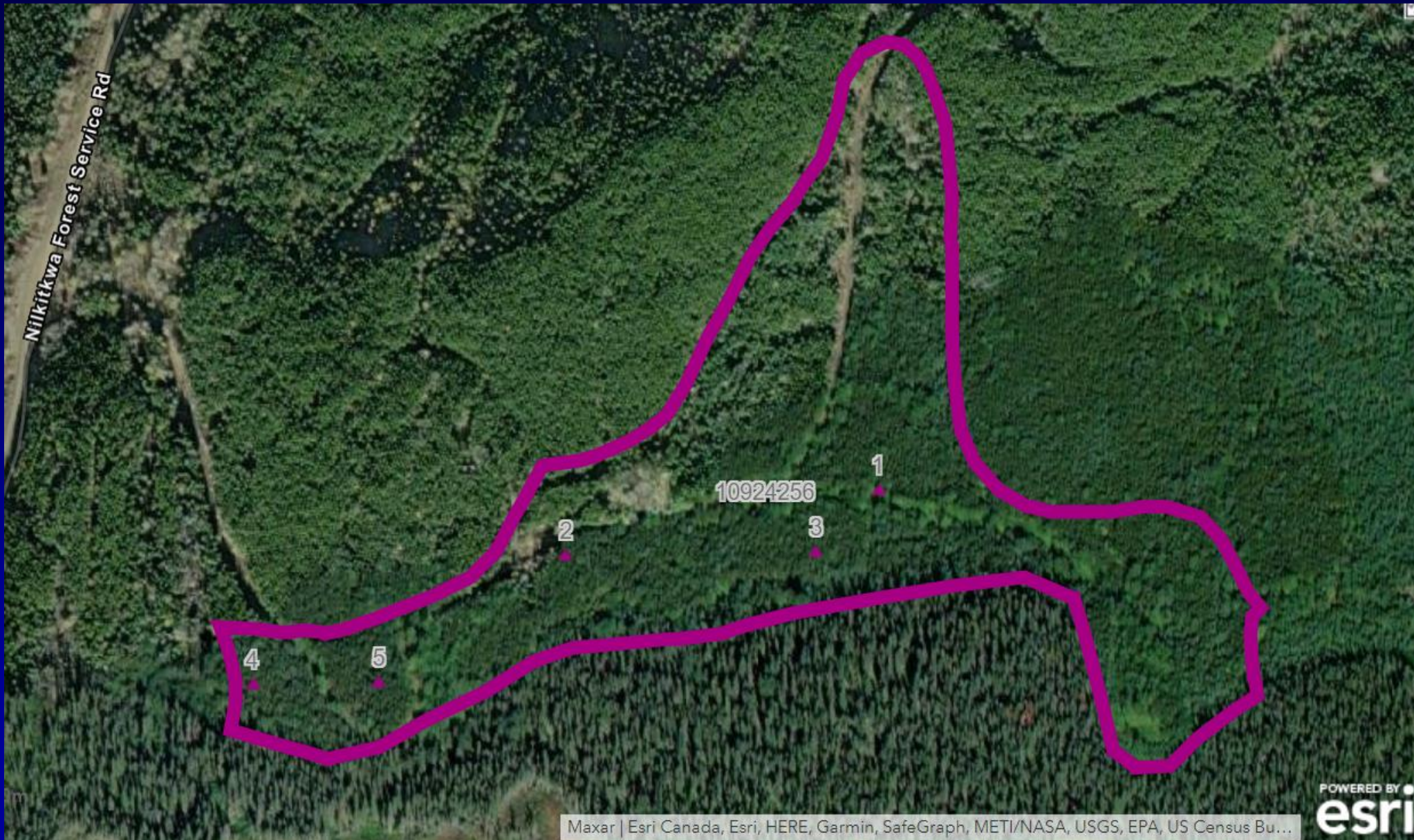
Met with OW, Revised SHAGM
to include FN values



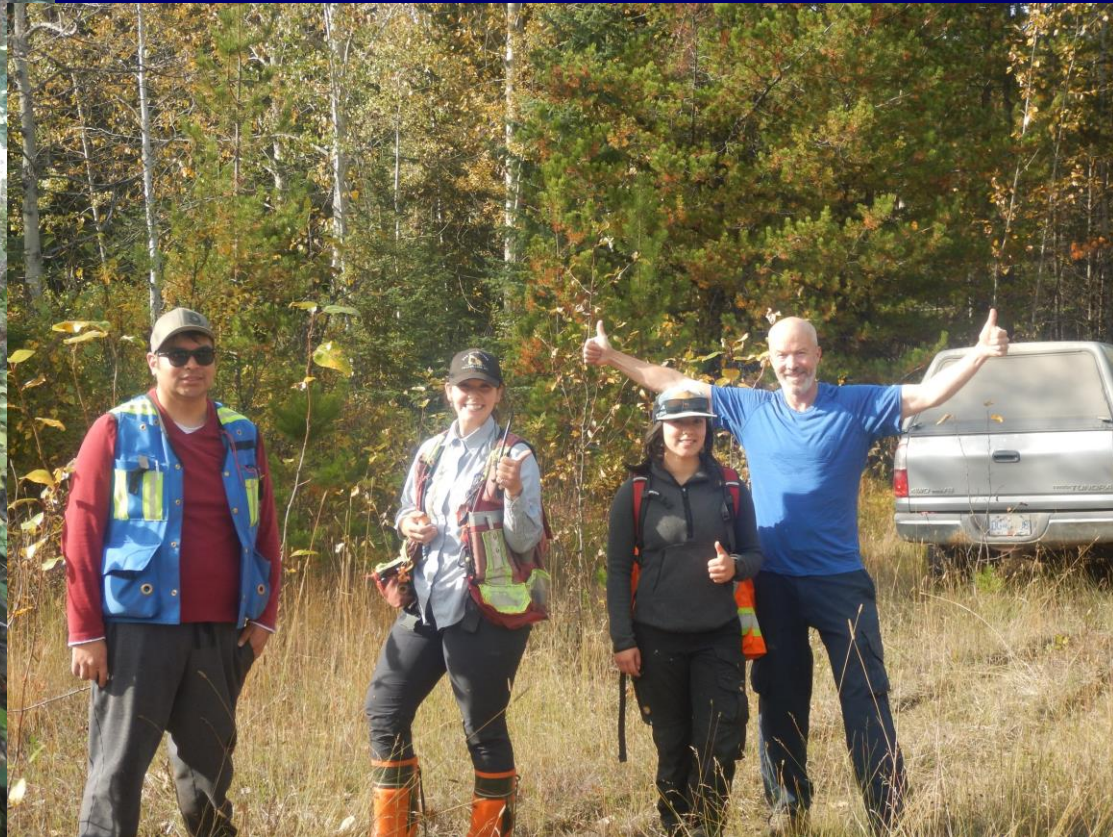
Paul Liu
developed
webmap using
MSYT shape files
provided by
FAIB,
and a Survey123
app for digital
data capture in
the field



SHAGM webmap included randomly pre-located plots



Field crews consisted of an experienced forest tech and local FN field staff, building local capacity



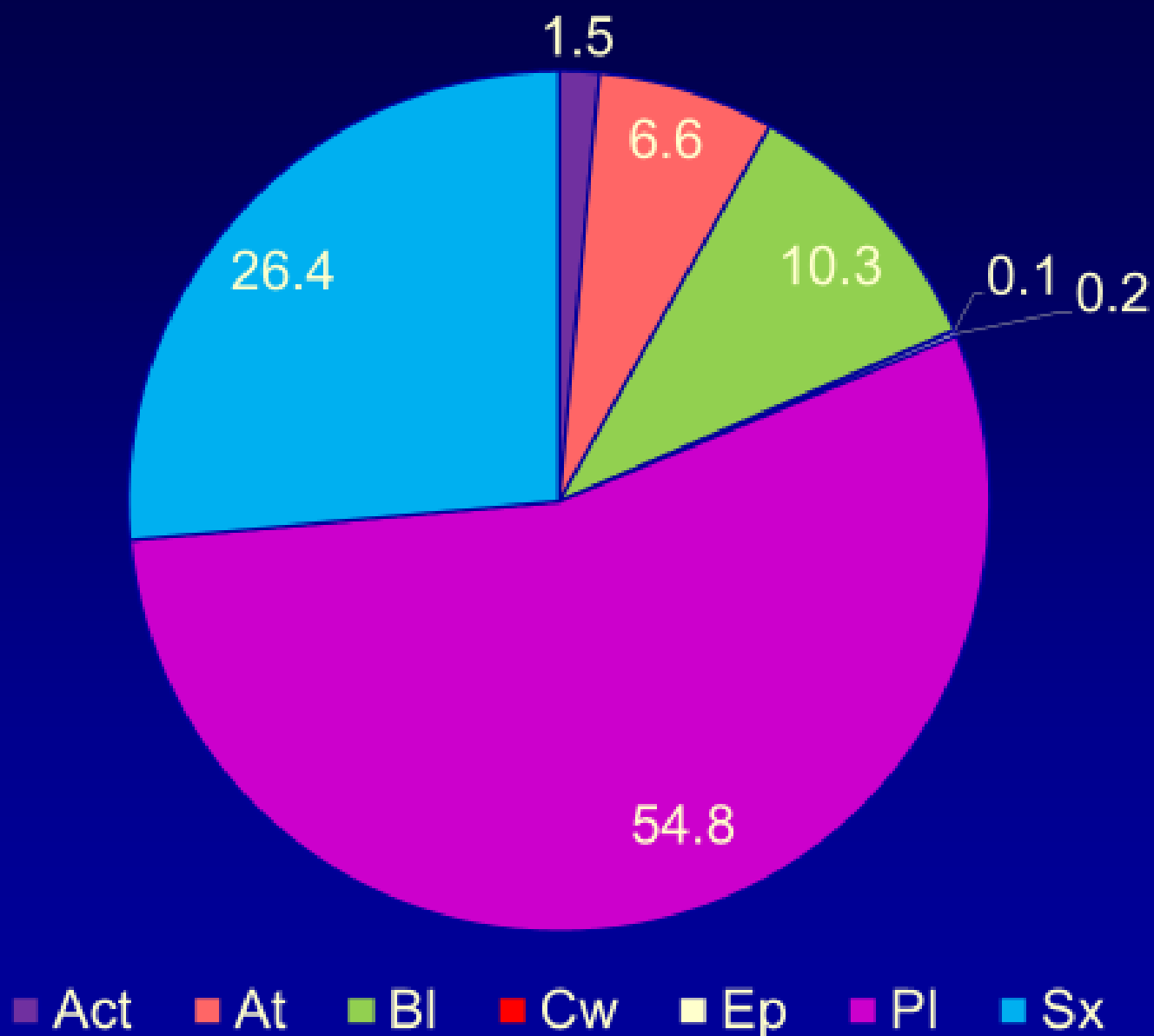




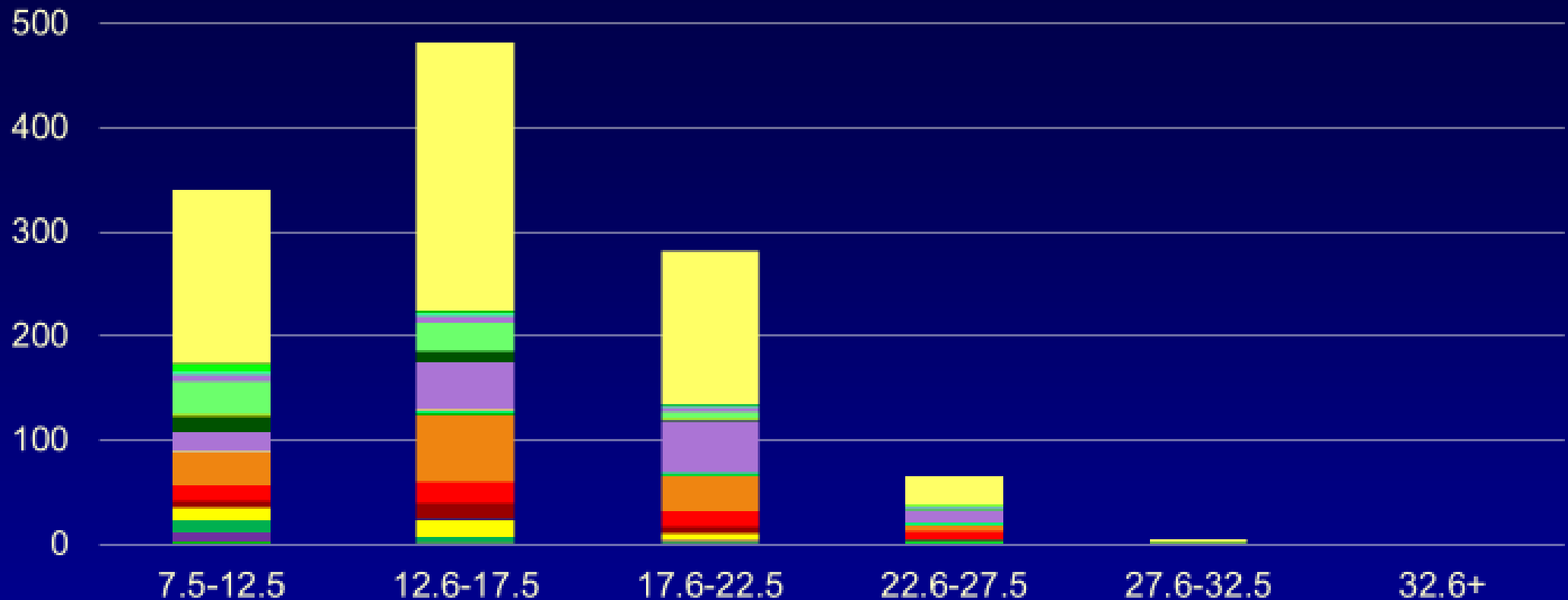
SHAGM includes standard tree measurements combined with forest health damage heights and % girdling...

Opening ID	Plot #	Tree Number	Species	DBH (cm)	Height (m)	Live/Dead	Forest Health Code 1	Percent Girdle 1	Height of Forest Health Defect 1 (m)	Forest Health Code 2	Percent Girdle 2	Height of Forest Health Defect 2 (m)
10924256	1	1	PI	14.1	10.9	Live	K		2.8			
10924256	1	4	PI	8.6	4	Dead	NY					
10924256	1	7	PI	14.5	10.1	Live	NY		7.9			
10924256	1	8	PI	15	10.5	Live	None - Healthy Tree					
10924256	1	9	PI	12	6.4	Live	K		4.9	AB	10	1.5
10924256	1	12	PI	17	8.9	Live	NY		7.7			
10924256	1	13	PI	21	9.1	Live	NY		8.1			
10924256	1	17	PI	17.2	12.2	Live	K		7.9			
10924256	1	18	PI	19.9	12.4	Live	NY		8.6			
10924256	1	21	PI	19.5	12.2	Live	NY		9.5			

Species Composition - All trees ≥ 7.5 cm dbh



FHF of pine by diameter class



- | | | | |
|------------|-------|-------|---------------------|
| AB | AM | AP | AX |
| Broken Top | Crook | DBF | DBS |
| DRT | DSA | DSC | DSG |
| DSN | DSS | DST | DSY |
| IBM | IWW | K | NB |
| NG | NGC | NW | NX |
| NY | NZ | Sweep | TL |
| TM | UNK | VT | None - Healthy Tree |

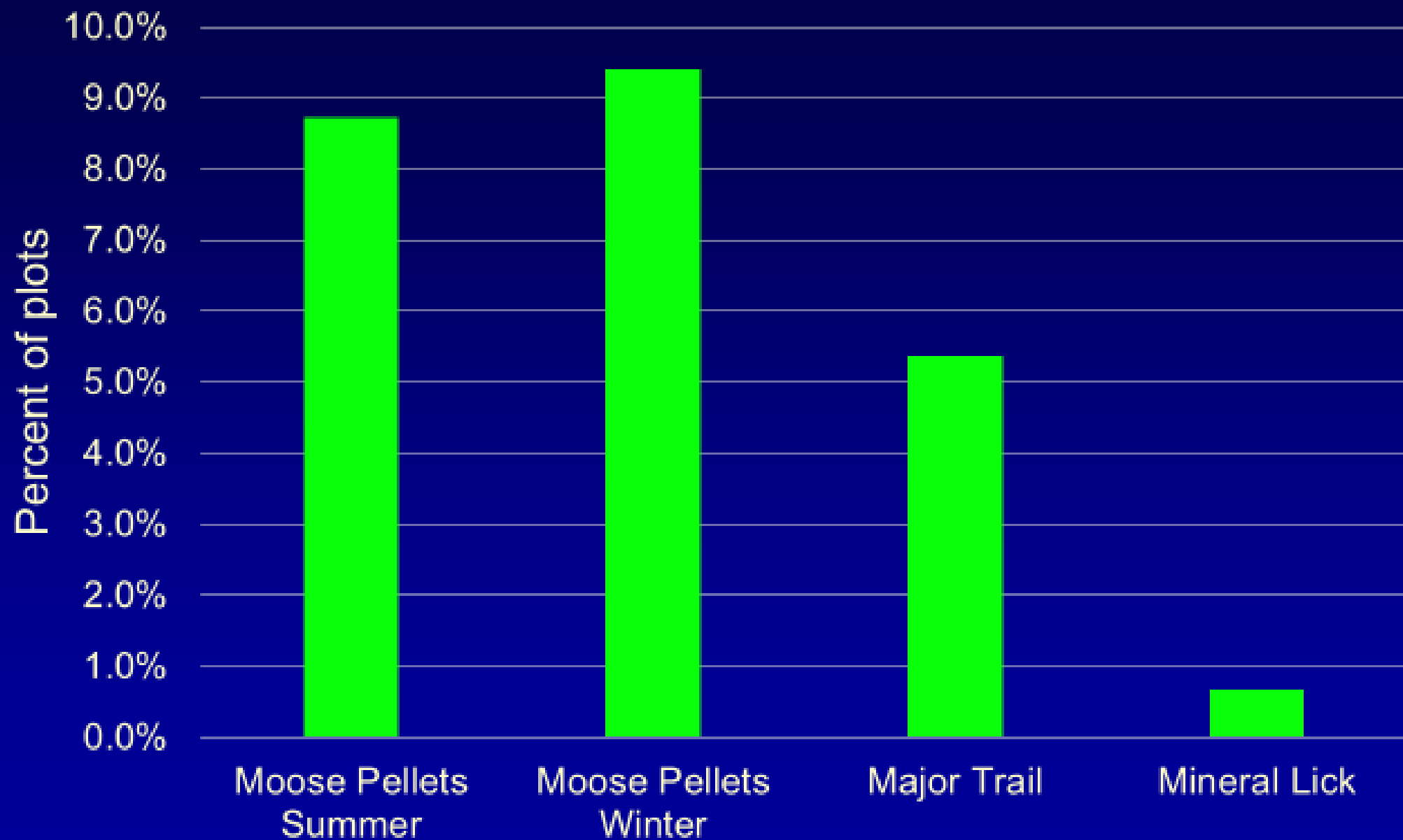
SHAGM takes a step toward incorporating values that local First Nations have expressed concerns about in managed forests on their traditional territory:

- Evidence of moose use and forage availability
poop, browse and significant signs
- Presence of culturally important plant species
Devil's club, Labrador tea, cow parsnip,
soopolallie, huckleberry
- Simultaneously tackling 2 large knowledge
gaps; managed stand condition and FN values
within those same stands

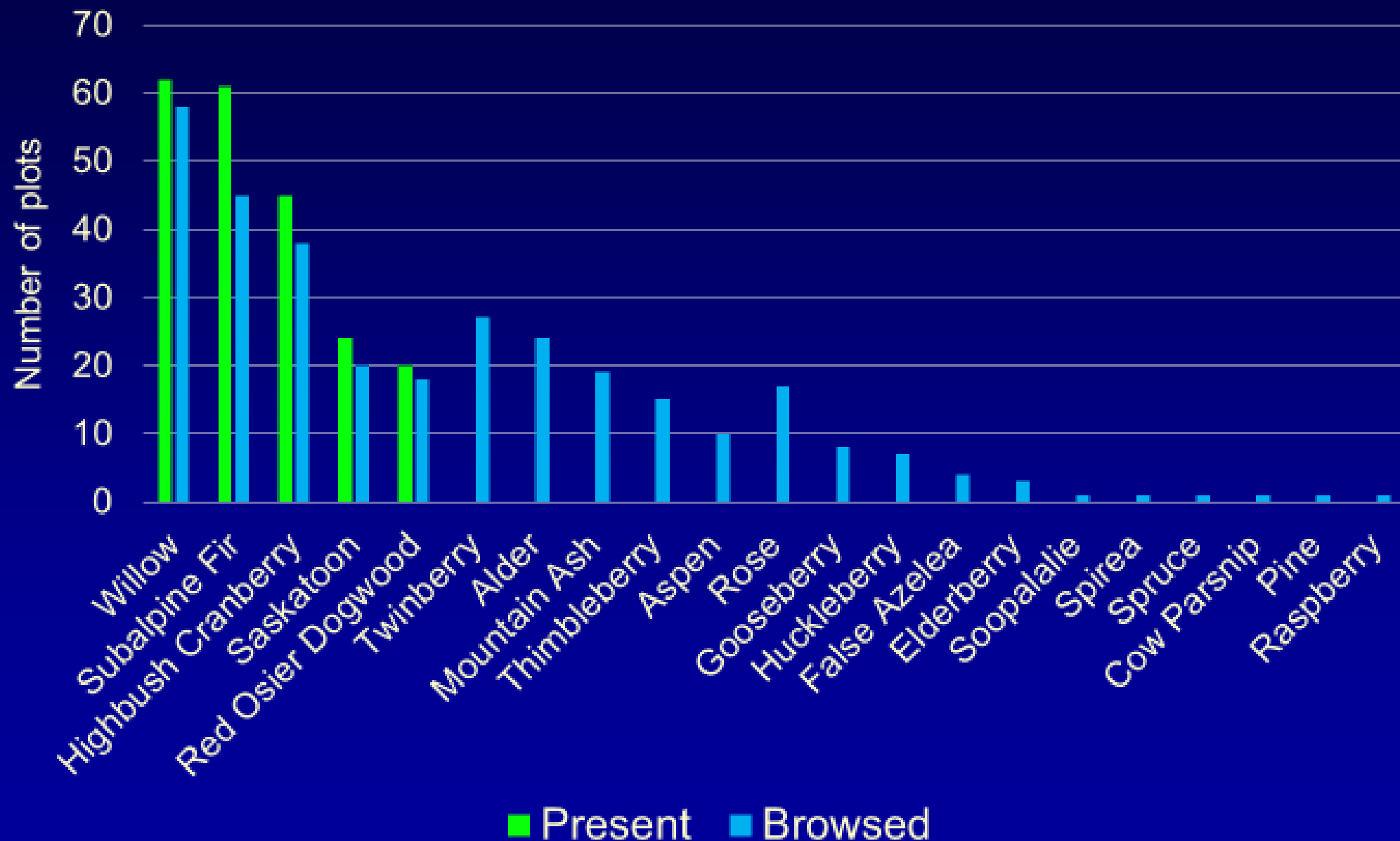
Clues to
seasonal
moose
use of
managed
stands...



Observed moose sign



Moose-browsed plants by species

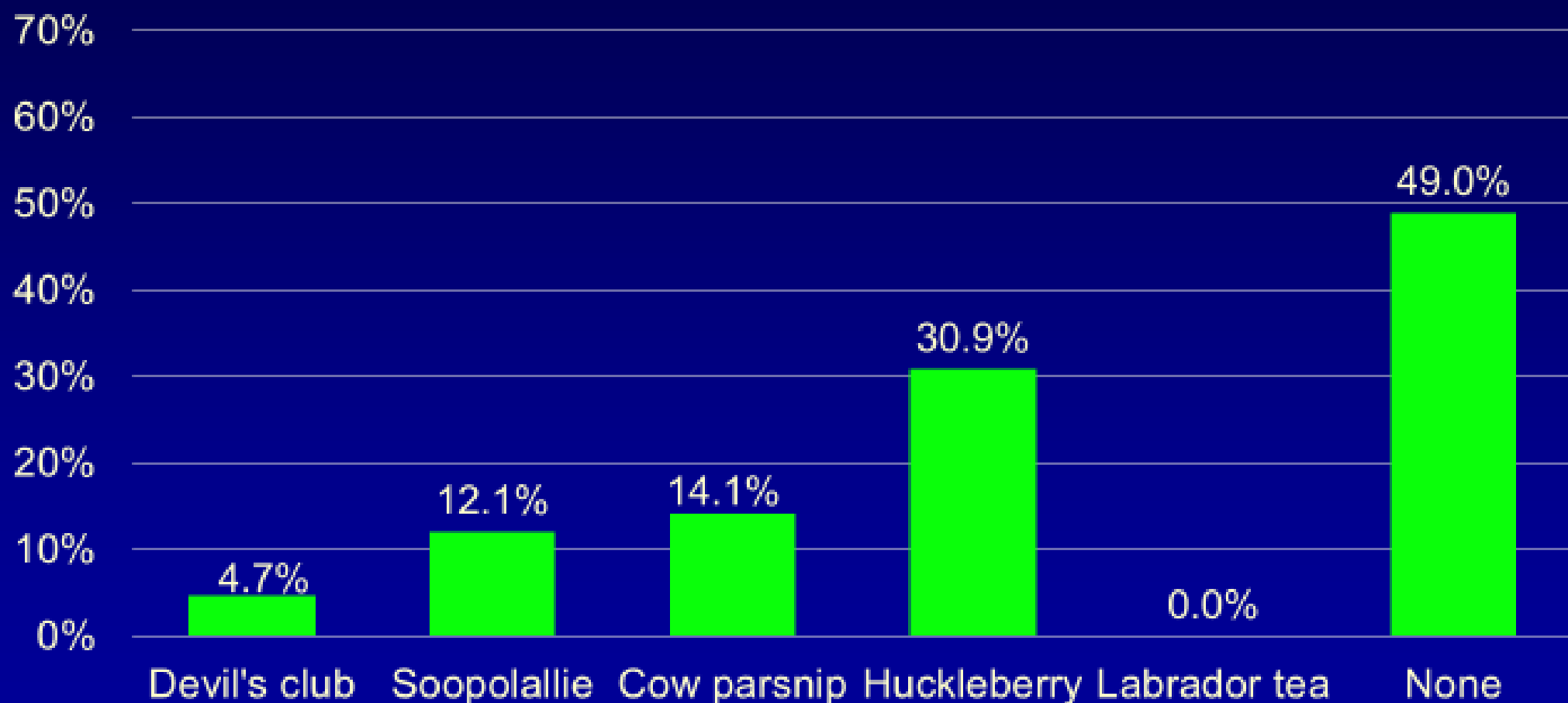


Culturally important plants for area

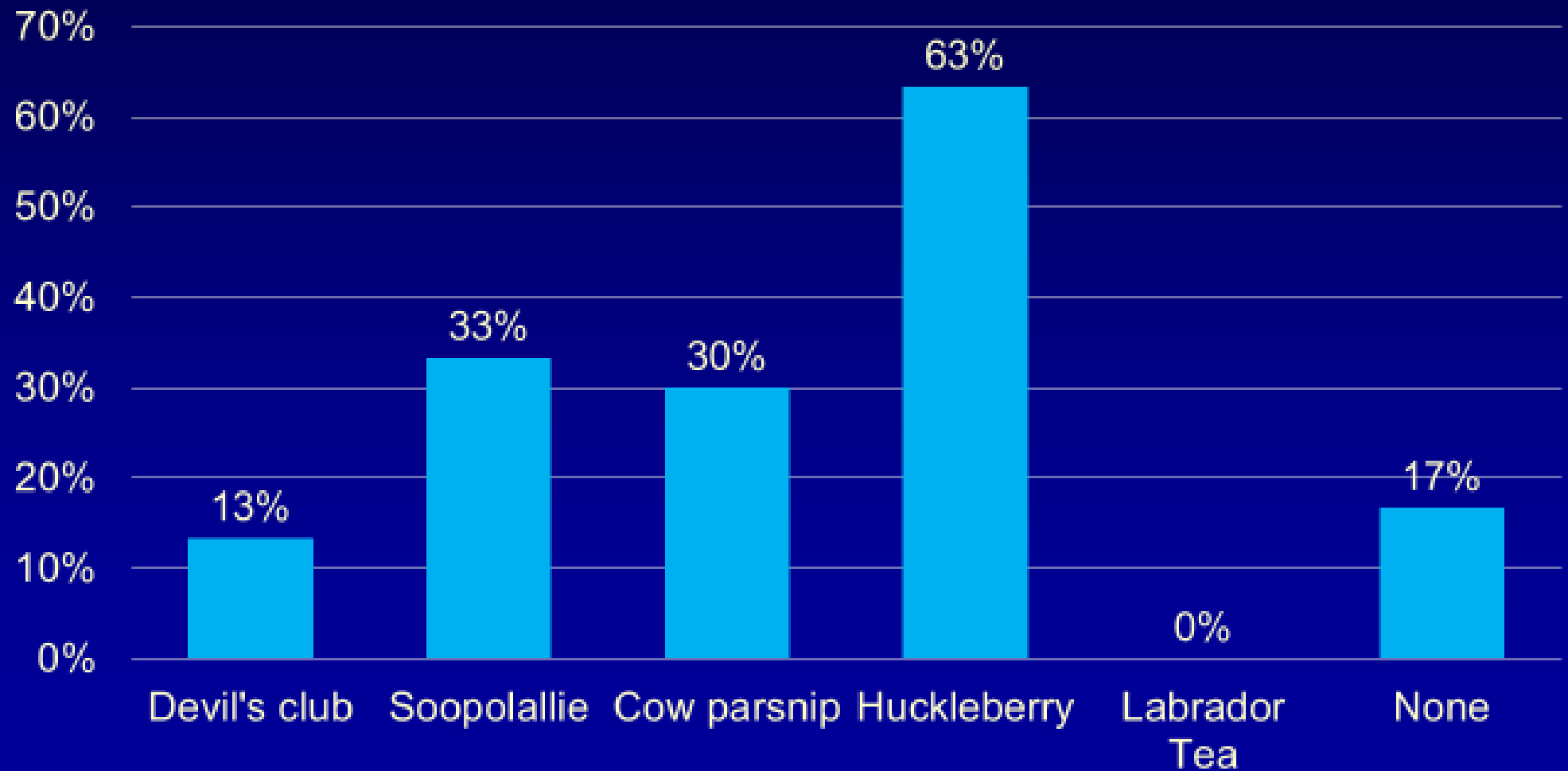


David de Wit
office of the
Wet'suwet'en

SHAGM plots with culturally relevant plants present (n=150)



SHAGM openings with culturally relevant plants present (n=30)





SHAGM could provide monitoring information needed for FLPs, particularly if First Nations are involved in data collection efforts

