



Keweenaw Bay Indian Community Wildlife Management and

Monitoring

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Today's talk:

<http://nrd.kbic-nsn.gov>

- Results of Wildlife Inventory on L'Anse Reservation
- Developing a KBIC Wildlife Management Plan

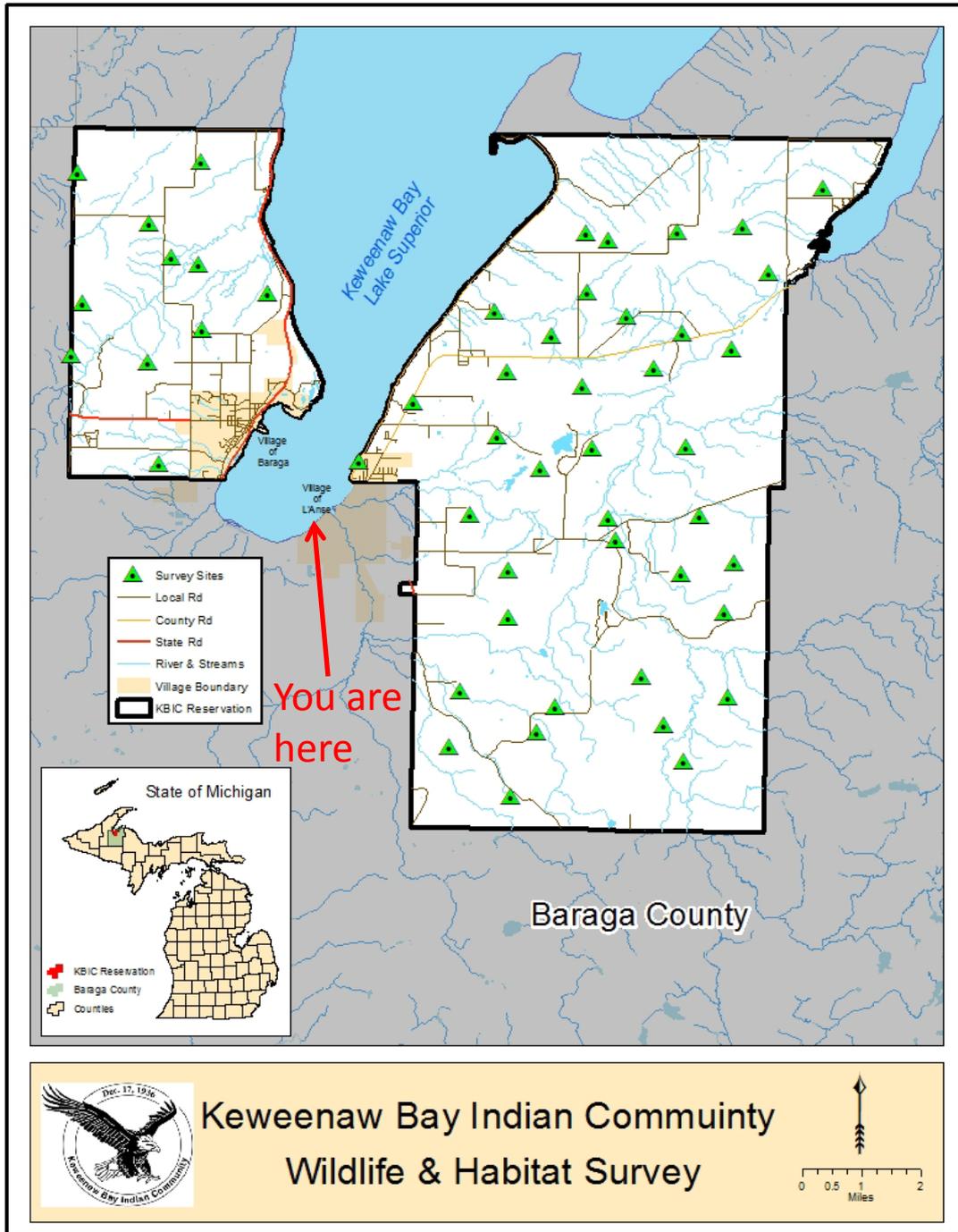




Community and Scientific Value

- Species presence (baseline data)
- Plant lists that include cultural plants and invasive species
- Evaluate habitat conditions (course woody debris, browse in winter habitat, disturbance)
- Bobcat specific information
- Wolf specific information
- Pine Marten/Fisher information
- Try methods and build partnerships





Keweenaw Bay Indian Community
Wildlife & Habitat Survey





Baseline Inventory



- Remote Camera Survey
- 50 sites
- Average camera days per site = 119 days
- Winter/Spring – Dec through May (Avg. 63)
- Summer/Fall – June through Nov (Avg. 56)
- Habitat data collected at each site
 - percent cover of plant species, volume of coarse woody debris, basal area of trees, and percent canopy cover



Esiban (Raccoon)



Waabizheshi

(Pine Marten)



(Weasel)

Zhingos



Ma'ingan (Wolf)



Wiisagazii-ma'ingan (Coyote)



Gidagaabizhiw

(Bobcat)



Nigig (Otter)



Makade waagoosh
(Gray Fox)



Misakokojiish

(Badger)



(Red Fox)
Waagoosh



Ojiig (Fisher)



Waabooz

(Snow Shoe Hare)



Makade makwa
(Black Bear)

2011-04-25 8:02:29 AM M 2/3 41°F

2010-12-14 1:05:15 AM M 1/3 11°F

PC90 COVERT PRO

PC90 COVERT PRO

2012-07-28 8:37:45 AM M 1/3 54°F

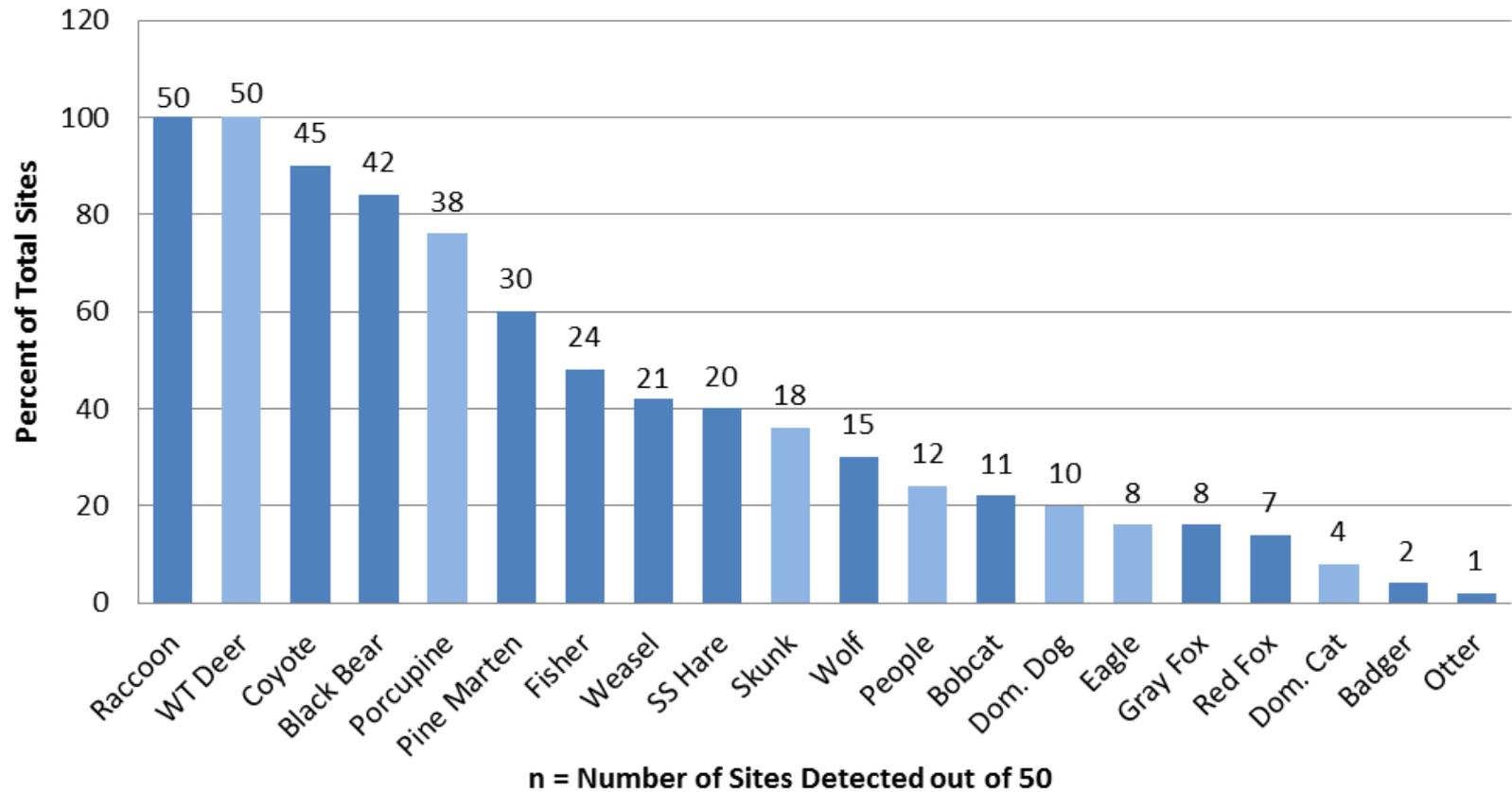
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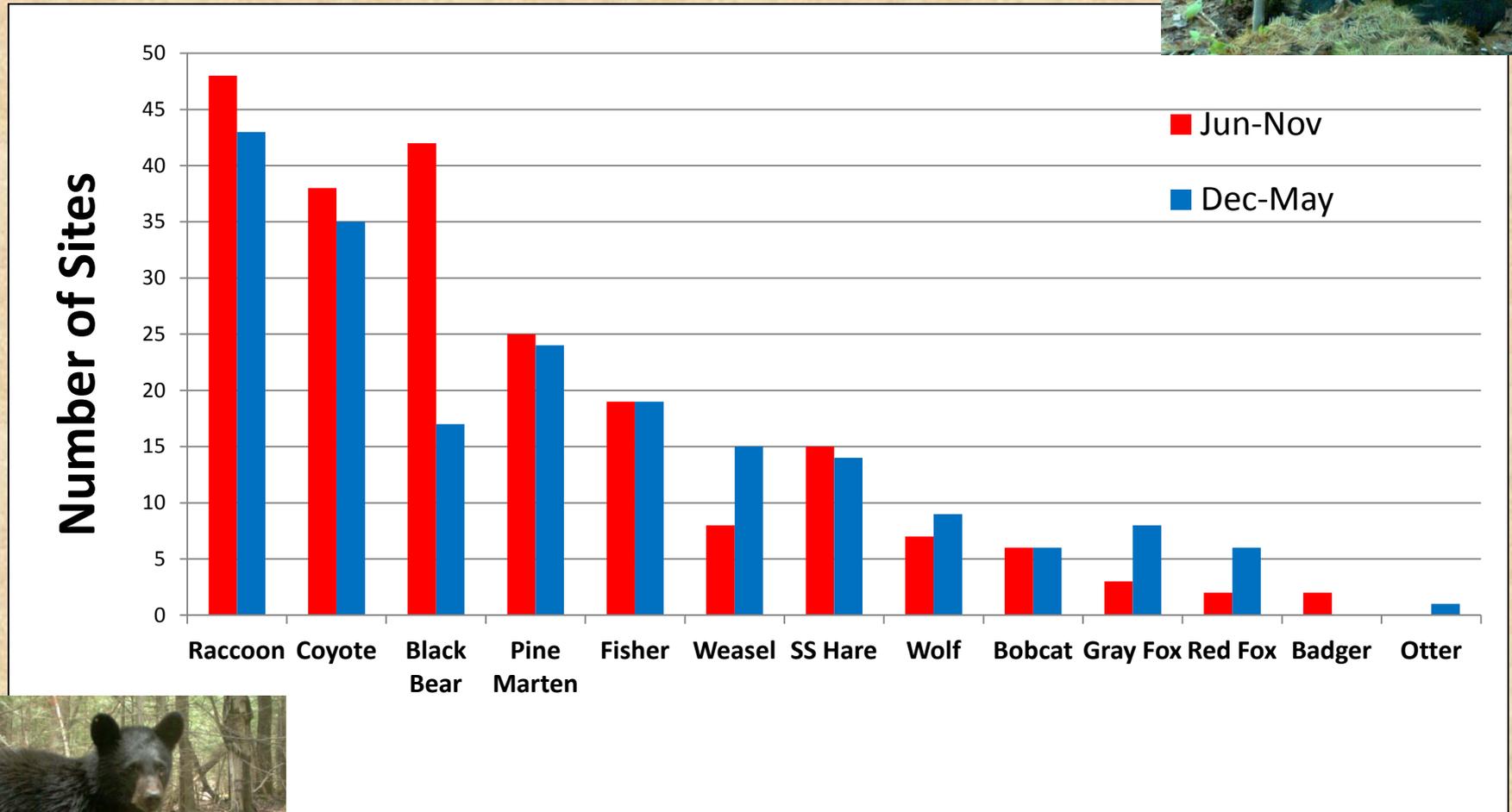
RECONYA



Species Detected



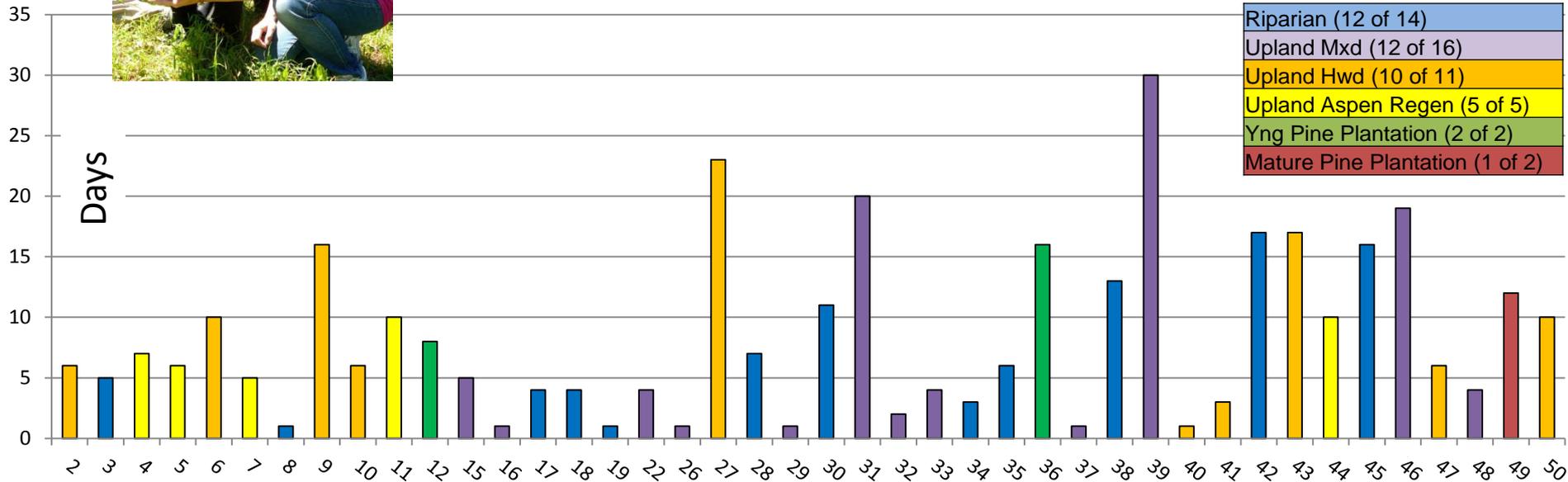
Species Detected by Season



Average Number of days for Jun-Nov = 63

Dec-May = 56

Black Bear



Study Site ID

42 of 50 sites (84%)
0.13 d.r. by camera day





Bobcat



- 11 of 50 Sites (22%)
- 16 days detected out of 1,314 total camera days (0.01 d.r.)
- Track Sign (4 additional sites = 30%)



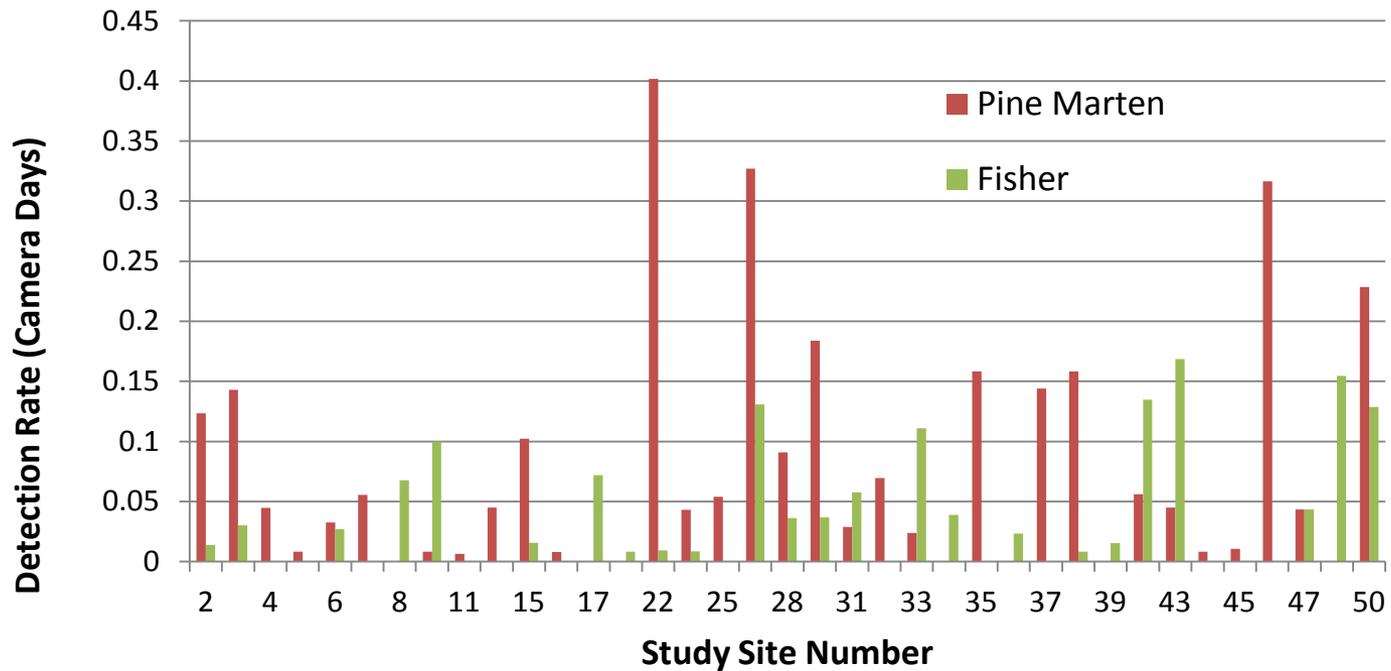
Waabizheshi



Ojiig



Pine Marten / Fisher



Pine Marten (335 days) vs Fisher (155 days);
30 sites (60%) vs 24 sites (48%)

Pine Marten & Fisher Facts



Waabizheshi



Ojiig

	Pine Marten	Fisher
Extirpated from U.P.	1929	1930
Re-introduced	1956-1981 released 276 martens (119 F, 157 M)	1961-1963 Reintroduced 61 fisher (19 F, 42 M) from Superior National Forest, MN 1988-1992 Translocated 192 fisher (101 F, 92 M) from western U.P. to eastern U.P. counties
Re-established trapping	2000 (first since 1924)	1989 (first since 1929)
Habitat	Older aged forest of deciduous, mixed and conifer (<i>course woody debris and snags</i>)	Older aged forest conifer preferred also found in mixed and dense deciduous (<i>high canopy closure</i>)
Food Habits	Omnivorous, squirrels , small rodents, insects, carrion	Carnivorous, porcupine , small mammals, hare, carrion



Ojiig



Marten/Fisher Challenges

	Pine Marten	Fisher
Threats	Decline in conifer and older age forests Increased biofuel harvesting Climate change	
State Trapping Results	Stable	Decline
State trapping season dates	Dec 1 to Dec 15	Dec 1 to Dec 15
State bag limit	1 marten per person OR 1 fisher per person	
KBIC trapping season dates	Dec 1 to Dec 31	Dec 1 to Feb 15
KBIC bag limit	5 marten	10 fisher

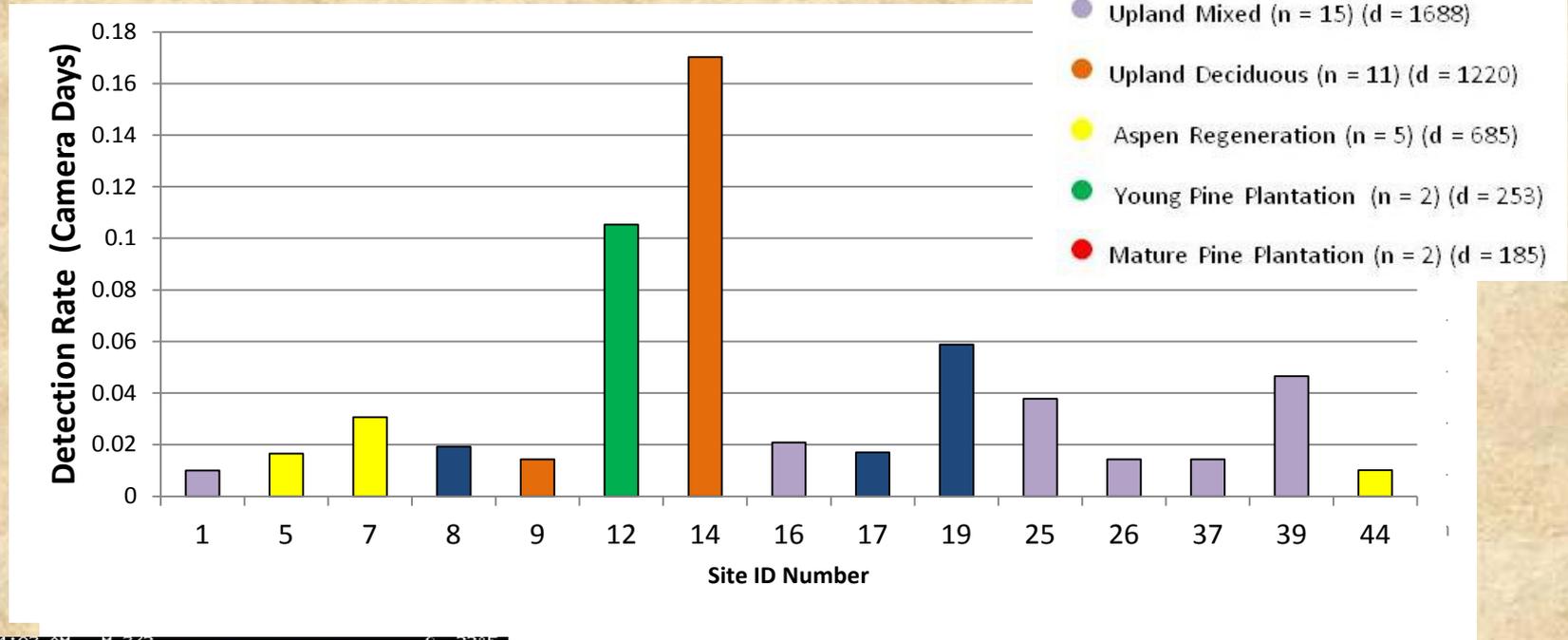


Waabizheshi

Management

- KBIC NRD recommends lowering tribal bag limits: 2 marten / 5 fisher; shorter season for fisher
- Partnerships for population evaluation and habitat use

Wolf



15 of 50 sites = 30%
 0.03 d.r. Camera Days
 0.15 d.r. Track/Sign

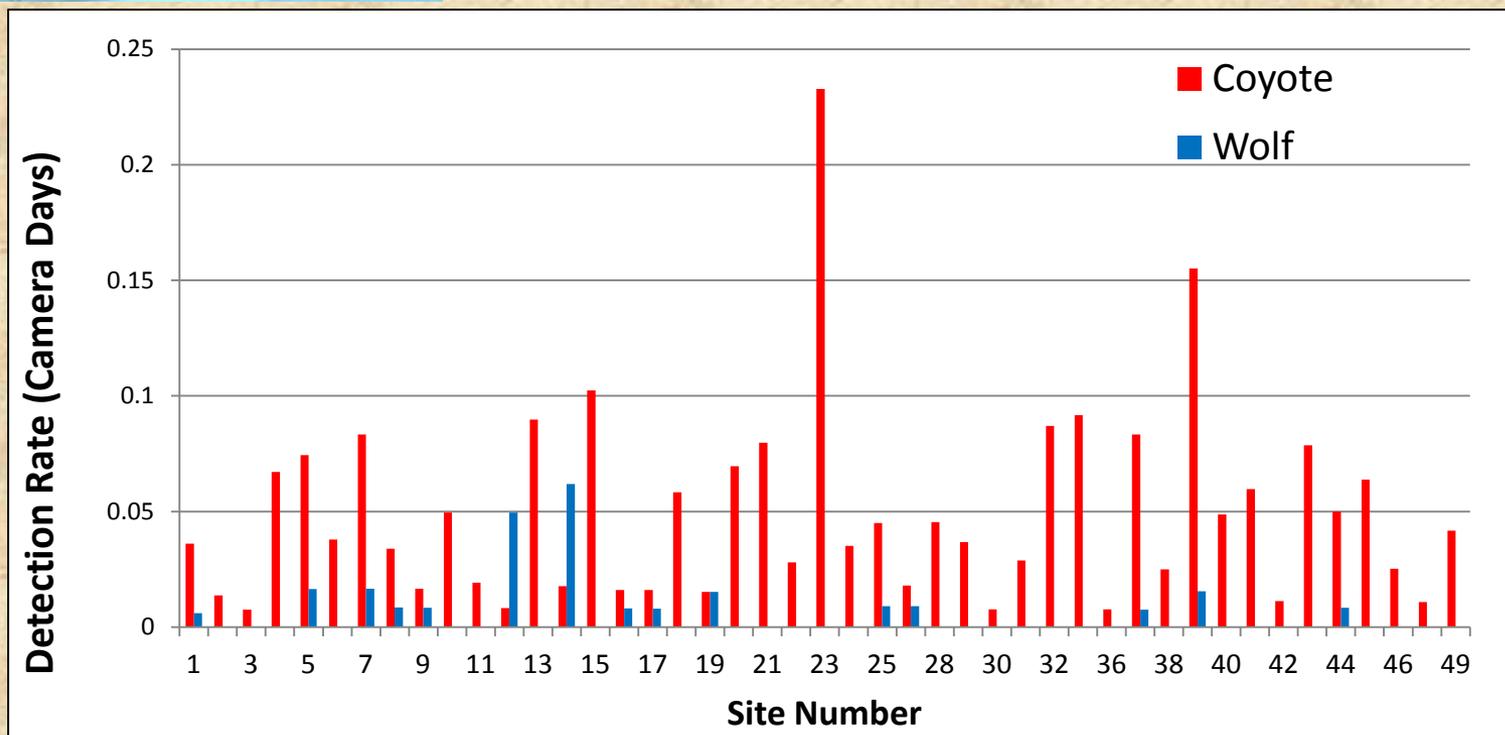


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Wolf vs Coyote

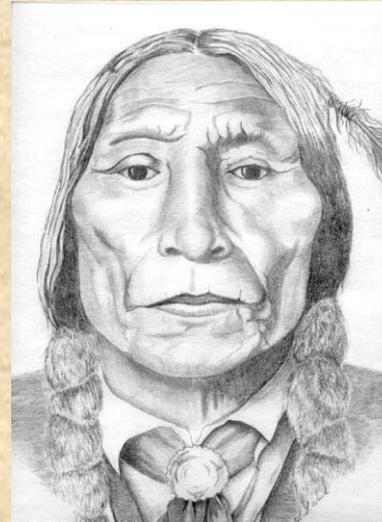
Wiisagazii-ma'iingan



Coyotes detected at 45 of 50 sites (90%) vs Wolves 15 of 50 sites (30%)
 Coyotes 274 days vs Wolves 30 days

Planning for **Seven** Generations

- 175 year plans
- Preserve current conditions
- Accommodate potential changes
- Compliment other plans



Anishinaabe

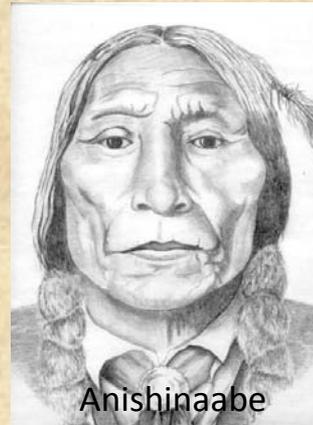
Brothers in fate



Ma'iingan

KBIC Wolf Plan Development

- Tribal Council Resolution (November 2012)
- Home Territory considered a wolf sanctuary
- Wolf Monitoring
- KBIC Committee Meetings
- Triennial Hunter Survey (2009)
- Website posting
- Poster notifications
- Tribal newsletter
- Outside reviewers



Brothers in fate

Wolf Management

The mission for KBIC is to maintain a healthy, self-sustaining population of wolves within the KBIC Home Territory thus preserving the cultural and ecological benefits for the next **seven generations** and beyond.

GOALS

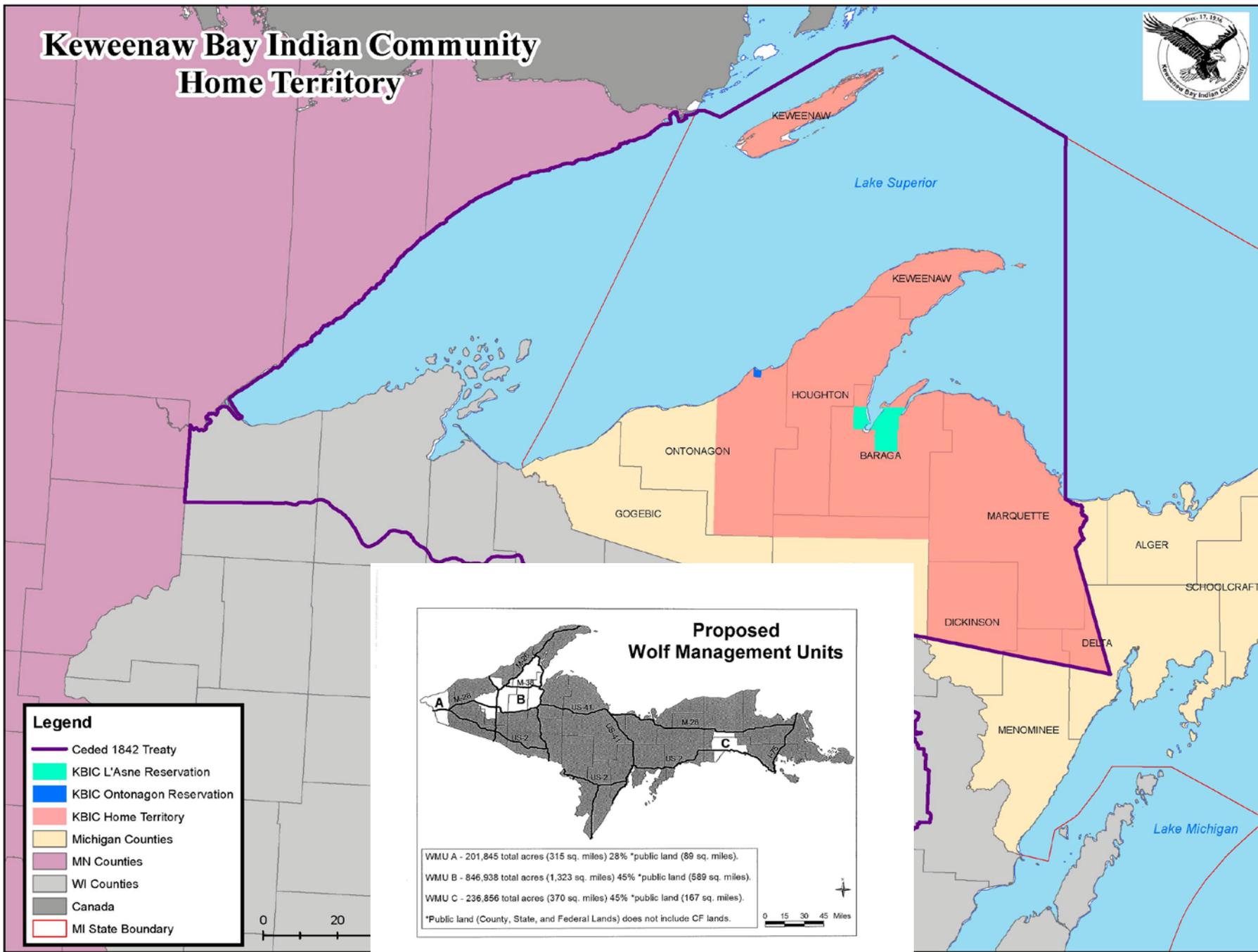
1. Establish and maintain active partnerships to ensure the most effective management and monitoring protocols as possible
2. Protect and maintain suitable wolf habitat
3. Maintain active levels of inventory and population monitoring
4. Provide public education regarding wolf ecology and behavior
5. Minimize wolf-related conflicts with Tribal Members and the general public



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Keweenaw Bay Indian Community Home Territory



Legend

- Ceded 1842 Treaty
- KBIC L'Asne Reservation
- KBIC Ontonagon Reservation
- KBIC Home Territory
- Michigan Counties
- MN Counties
- WI Counties
- Canada
- MI State Boundary

**Proposed
Wolf Management Units**

The map shows three proposed Wolf Management Units (WMU) on the Keweenaw Peninsula:

- WMU A** - 201,845 total acres (315 sq. miles) 28% *public land (89 sq. miles).
- WMU B** - 846,938 total acres (1,323 sq. miles) 45% *public land (589 sq. miles).
- WMU C** - 236,856 total acres (370 sq. miles) 45% *public land (167 sq. miles).

*Public land (County, State, and Federal Lands) does not include CF lands.

Scale: 0 15 30 45 Miles