Where's the Seed?!

Using AIM and other publicly available data to locate adequate seed populations

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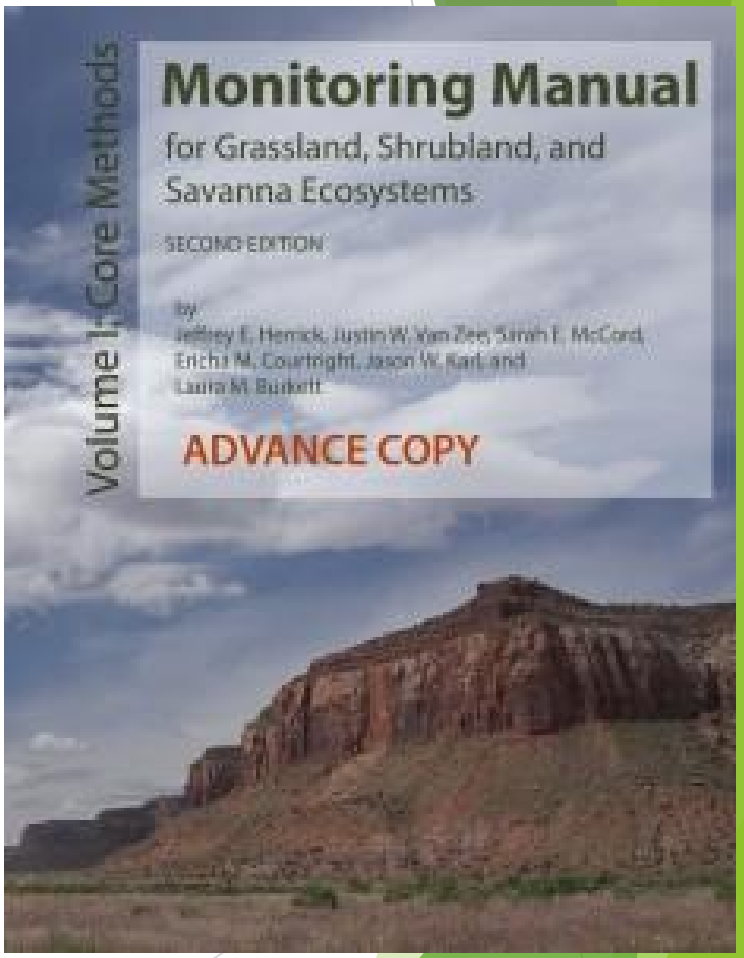
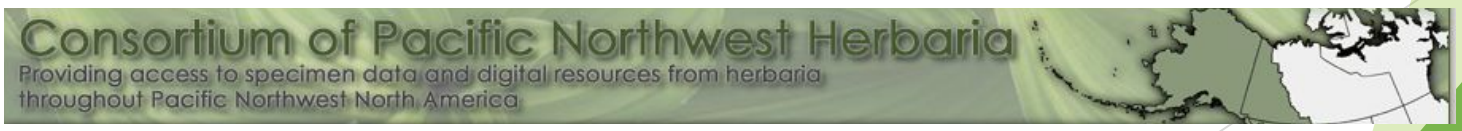
Assessment, Inventory and Monitoring (AIM)

- Herrick, Jeffrey E., et al. "Monitoring manual for grassland, shrubland and savanna ecosystems (2005).
- http://www.landscapetoolbox.org/
- Stratified, random sample design
- Provides collection sites across the landscape
  - Database for Inventory, Monitoring and Assessment (DIMA)
  - Terrestrial Assessment, Inventory and Monitoring Database (TerrADat)



Digital Herbaria



Additional Datasets

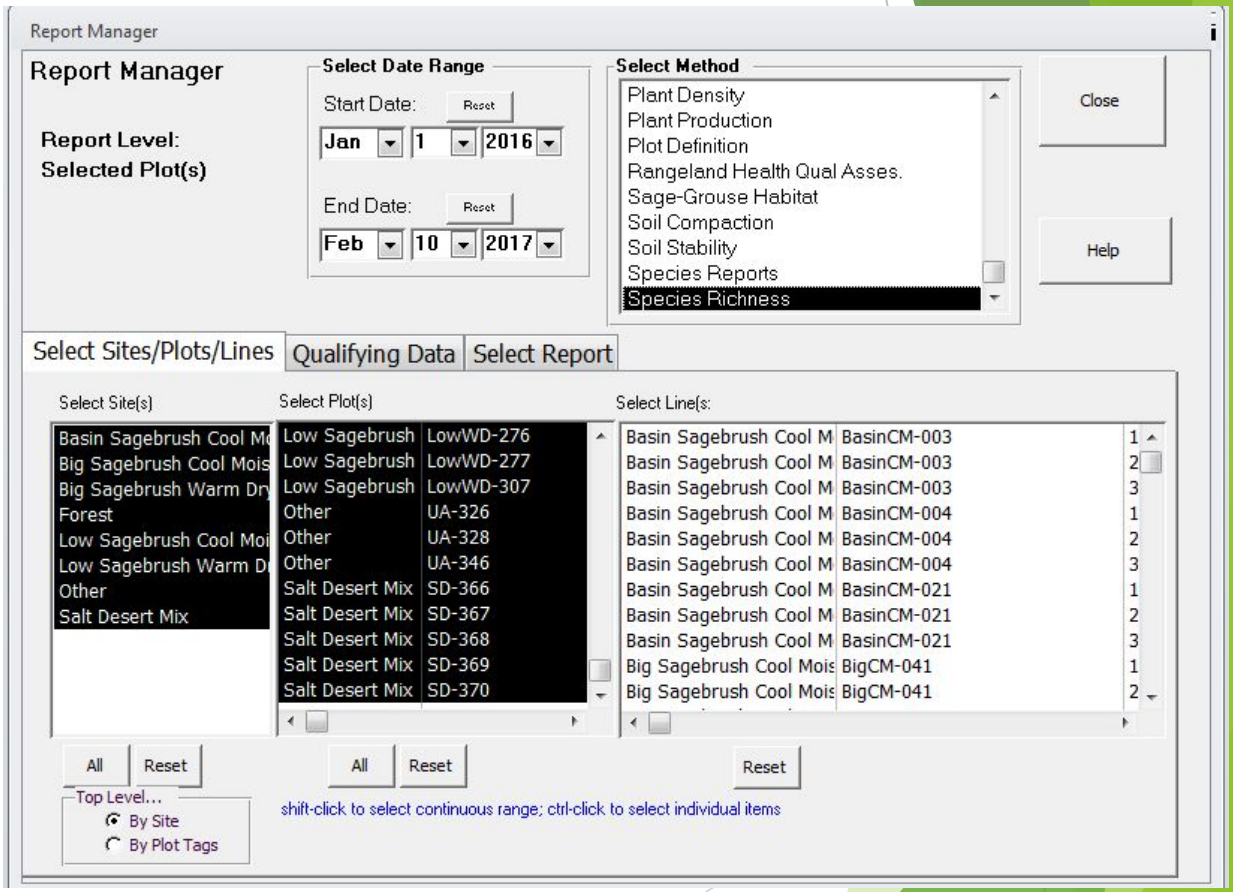
- Habitat Assessment Framework (HAF)
- Trend, Legacy
- Emergency Stabilization and Rehabilitation (ESR)
- Landscape Monitoring Framework (LMF) (NRI)
- LANDFIRE (Biophysical Setting – BPS)

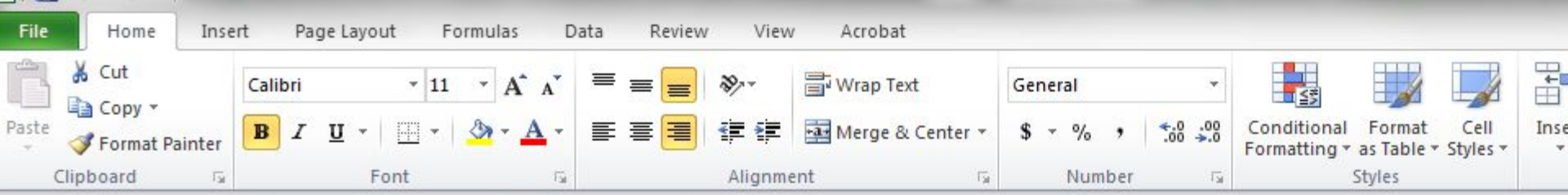
What You'll Need

- Target species list ("work horse", pollinator species, sage grouse preferred forbs) (see SOS protocol)
- Current collection data (if available)
- Spatial information of vegetation treatments, and other "no go" areas
- DIMA reports
- Herbarium shapefiles

Database for inventory, Monitoring and assessment

- Run a Species Report or Species Richness Report to correlate species with particular sites
- Run LPI Report for select sites with target species
- Use pivot tables!
- Join all these data to a plot shapefile (whether that's from TerrADat or DIMA)



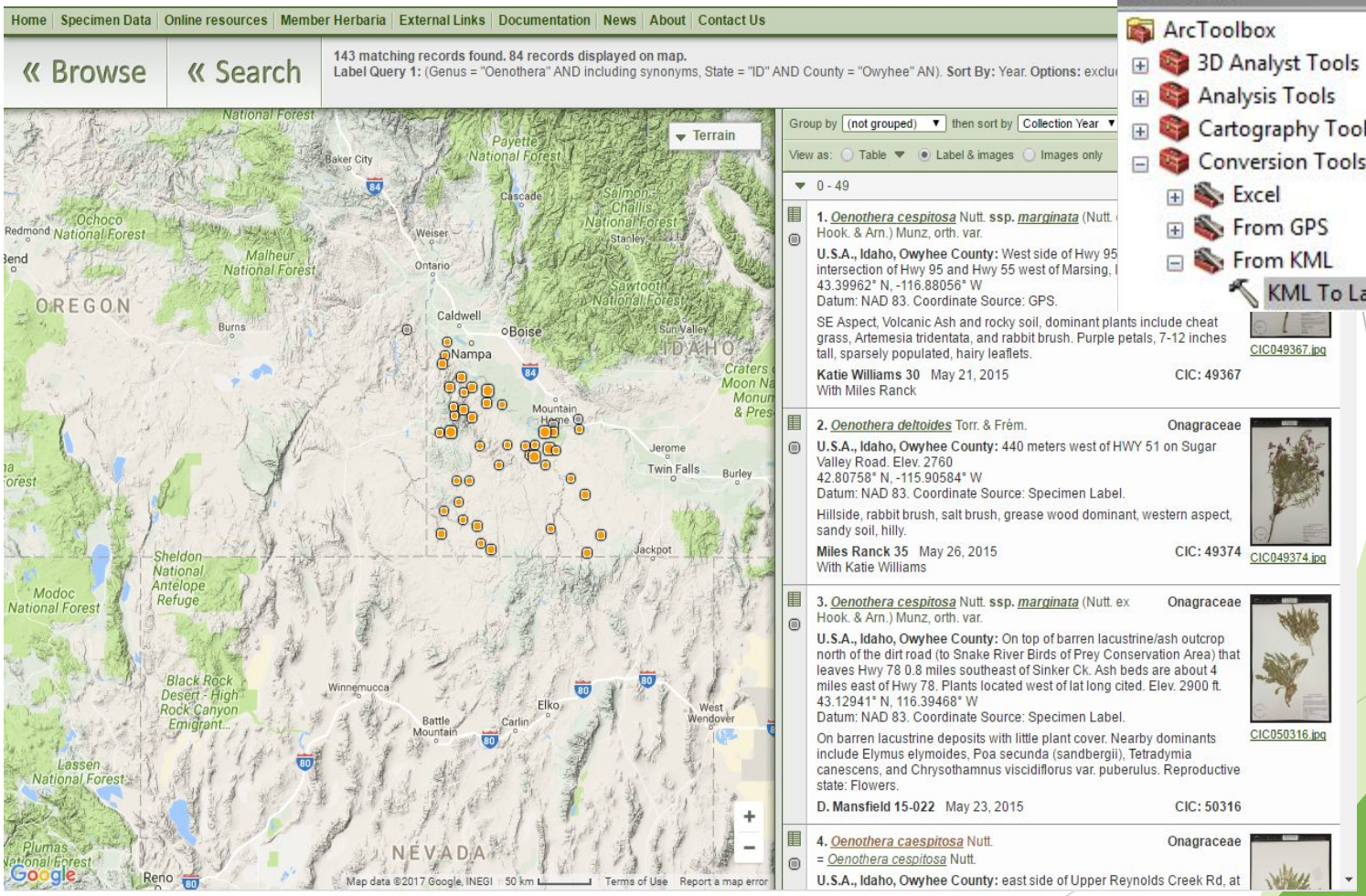


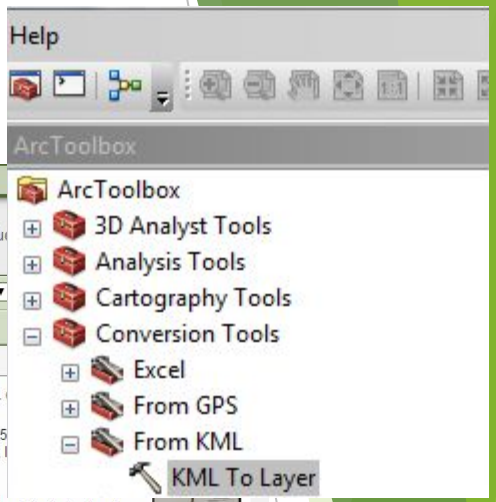
A1 | Basin Sagebrush Cool Moist/BasinCM-003

	A	B	C	D	E	F
1	**Basin Sagebrush Cool Moist/BasinCM-003**			**Basin Sagebrush Cool Moist/BasinCM-004**		
2	**Plot Species**	**Density Species**		**Plot Species**	**Density Species**	
3	ACMI2 (Achillea millefolium)			POSE (Poa secunda)		
4	FEID (Festuca idahoensis)			COLI2 (Collomia linearis)		
5	ARART (Artemisia arbuscula ssp. thermopola)			ALAC4 (Allium acuminatum)		
6	ARTRV (Artemisia tridentata ssp. vaseyana)			COGR2 (Collinsia grandiflora)		
7	ALAC4 (Allium acuminatum)			HOUM (Holosteum umbellatum)		
8	POBU (Poa bulbosa)			MIGR (Microsteris gracilis)		
9	POSE (Poa secunda)			LUPINPF (Lupinus)		
10	PUTR2 (Purshia tridentata)			PSSP6 (Pseudoroegneria spicata)		
11	CHVI8 (Chrysothamnus viscidiflorus)			LOMATPF (Lomatium)		
12	JUSC2 (Juniperus scopulorum)			ELEL5 (Elymus elymoides)		
13	ACTH7 (Achnatherum thurberianum)			PUTR2 (Purshia tridentata)		
14	PSSP6 (Pseudoroegneria spicata)			ARTRV (Artemisia tridentata ssp. vaseyana)		
15	DRVE2 (Draba verna)			PF58		
16	HOUM (Holosteum umbellatum)			ARHO2 (Arabis holboellii)		
17	PHLO2 (Phlox longifolia)			PF59		
18	PPSH			AF95		
19	AMAL2 (Amelanchier alnifolia)			FEID (Festuca idahoensis)		
20	COGR2 (Collinsia grandiflora)			PPSH		
21	LUPINPF (Lupinus)			JUSC2 (Juniperus scopulorum)		
22	AG03			PG16		
23	AF84			ARAR8 (Artemisia arbuscula)		
24	DEPI (Descurainia pinnata)			CREPIPF (Crepis)		
25	AF85			AF147		
26	CAMAM9 (Calochortus macrocarpus var. macrocarpus)			DELPHAF (Delphinium (annual forb))		
27	CRAC2 (Crepis acuminata)			GALIUAF (Galium (annual forb))		
28	ERAP (Erigeron aphanactis)			LASE (Lactuca serriola)		

Retrieving Herbarium Data

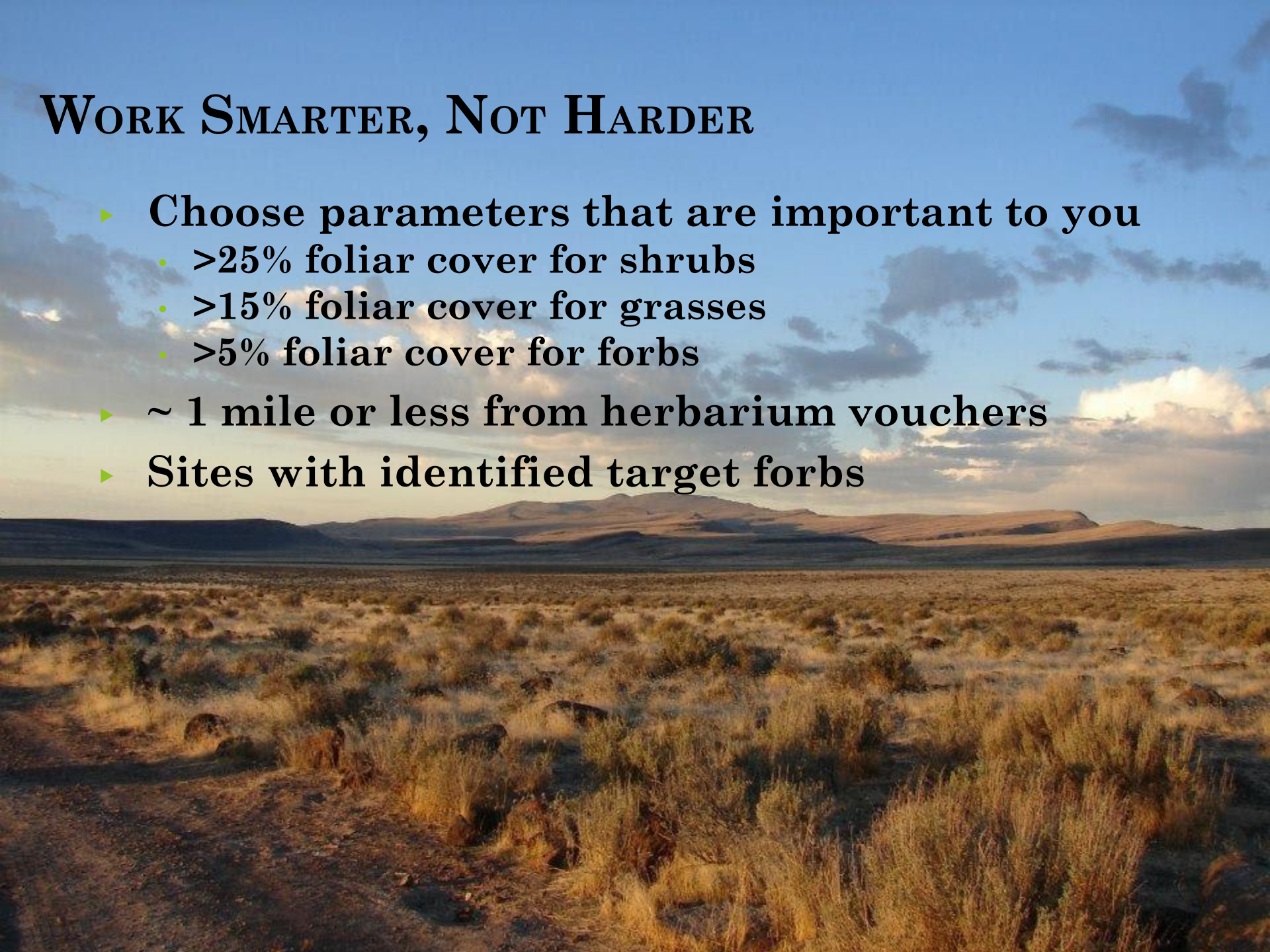
- Download data as kmz or kml files
- Join to AIM data layer





Work Smarter, Not Harder

- Choose parameters that are important to you
  - >25% foliar cover for shrubs
  - >15% foliar cover for grasses
  - >5% foliar cover for forbs
- ~ 1 mile or less from herbarium vouchers
- Sites with identified target forbs



This is all good, but…

What about forbs?

COMMUNICATE!

- Familiarize crews with SOS protocol
  - Incidental collections based on hikes TO plots
  - Populations adjacent to plots
- Send SOS crews out with AIM crews
- MOTIVATE!

Benefits

- Provides greater spatial distribution of collections
- Greater genetic diversity
- Unique collections
- Long term collection strategies

Questions?

Photo Credits:
Allie Heller
Lauren Price
Jessa Davis

The preceding presentation was delivered at the

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This and additional presentations available at http://nativeseed.info

NATIVE SEED NETWORK

Institute for Applied Ecology