

## Introduction to Photo Monitoring

Photographs are a valuable tool for managers

- Easily established
- Show trend over time
- Wide audience
- Supplement data



## Where to Photograph

- Key areas
  - Document changes in dominant species
  - Observe annual standing biomass/ grazing effects
- Revegetated areas
  - Seeded/planted areas
  - Document mortality
- Riparian areas
  - Upstream & downstream views
  - Across stream
  - Document streamside attributes
- Grazed areas
  - Livestock impacts
  - On/off photos document stubble height
  - Document use and recovery

## Measurable objectives

- Developing objective involves asking:
  - why? - why monitor. Sets the stage.
  - where? - location depends on why
    - ☒ fire, livestock grazing, logging, revegetation
  - what? - critical items
    - ☒ vegetation, soil, streambanks, animals
  - when? - critical times
    - ☒ season, specific times, following disturbances, multiple years
  - how? - procedures

## What to photograph

- What is expected to change?
- What will the photo represent?
- Depends on objectives



## Why Monitor?

Common Purposes:

- to describe or document current conditions (*baseline monitoring*)
- to describe or document abnormal or catastrophic events
- to detect and document change (*trend monitoring*)
- to confirm agency assessments
- to investigate perceived problems
- to document the application or implementation of management practices (*implementation monitoring*)
- to document the effectiveness of management practices (*effectiveness monitoring*)

## When to photograph

- Capture vegetation phenological stages
  - Peak biomass varies by life form
- Time progression
  - Year after year
- Disturbance events
  - Fire, flood event
- Pre/Post Livestock grazing

### *How to photograph*

- Common ground-based photographic procedures:
  - Transect photos
  - Landscape photos
  - Close-up photos (Plot-Photos)
  - Riparian photos

### *Landscape Photos*



### *Transect Photos*



### *Landscape Photo*



### *Transect Photos*



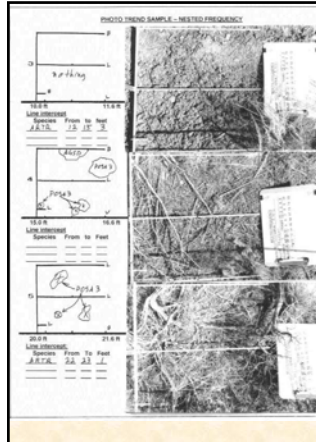
### *Landscape Photo*



**Landscape Photo**



**Close-up photos  
(Plot photos)**



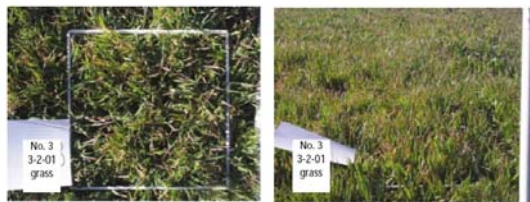
**Close-up photos (Plot photos)**



**Riparian Photo**



**Close-up photos (Plot photos)**



**Riparian photo**



## Riparian Photos



## Records

- Observations of general area
  - actual use, animal concentration, wildlife sign/use, rodent sign/use, insect infestation, flood, fire, rainfall, water availability, open gates, vandalism
- Record mileage to key area from prominent physical features
  - road intersections, other key areas
- Jot down your rationale for locating the photo-plot

## Supplies and Equipment

- Good quality camera
  - 35mm or digital
- Notebook and/or data sheets
- Photo Identification Label
- Labeling Pen
- Compass
- Steel Post
- Rebar or permanent stake
- Hammer
- Transect Tape
- Pencil

## Records

- Spray-paint stakes with brightcolored spray paint
- Organize your photos and forms in a 3-ring binder by date and photoplot identification number

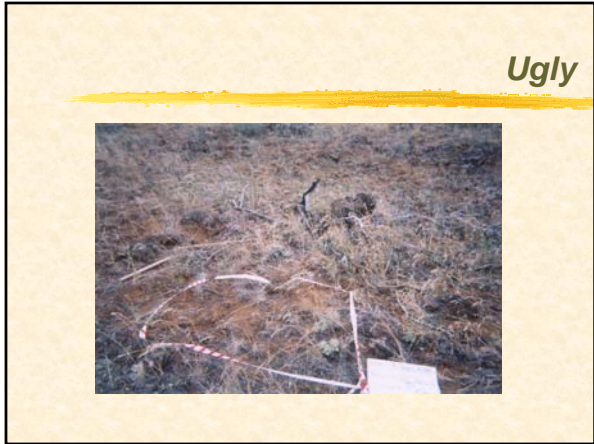
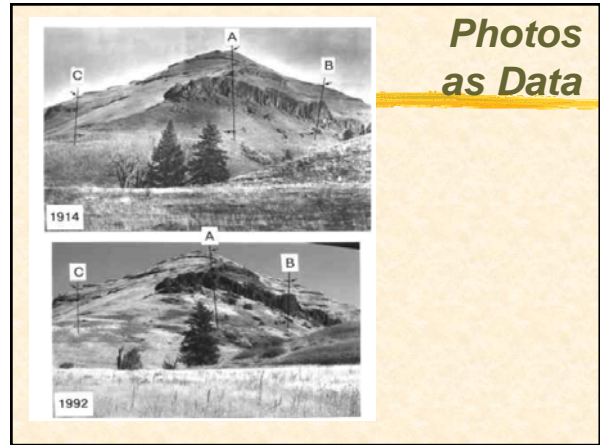
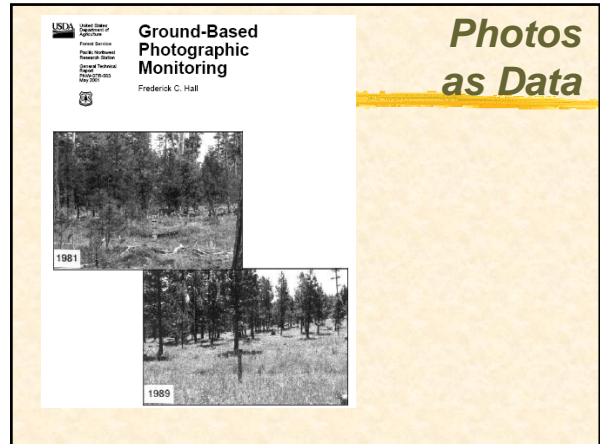
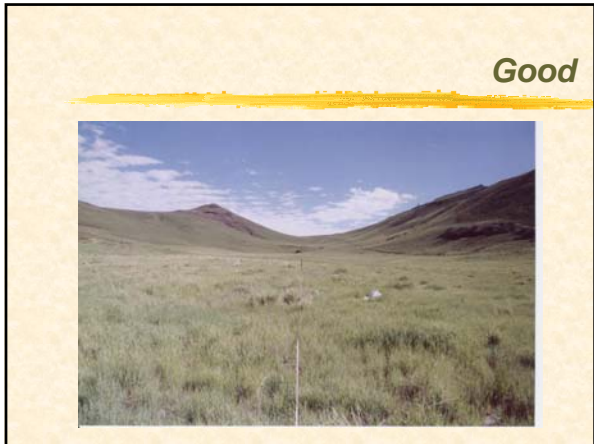
## Records

- Record on the study location
  - Compass bearing and distance
- Incorporate a witness post
- Sketch of prominent physical features of the key area
  - roads, trees, fencelines, rock outcrops, streams

## Example Photo Labels

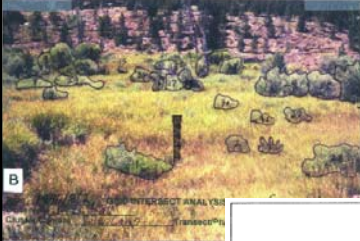
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NO. 035-27W-08-03  
R.A. Lost Mountain  
ALLOT. Quaking Aspen  
PAST. Sheep Creek







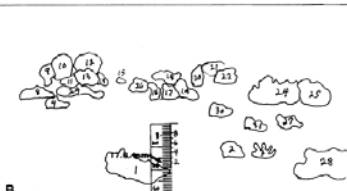
**Photos**



**B**

GRID INTERSECT ANALYSIS

Date: 1496/0/2    Area: Snow Mt.  
 Observer: E. C. Hall    Unit: Ecological Cr.  
 Cluster/Camera: Pole Camp    Transect/Photo: U22- W22&W



**B**

Date: 1496/0/2    GRID INTERSECT ANALYSIS    Area: Snow Mt.  
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**Compare**

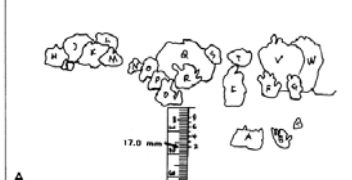
PHOTO GRID SUMMARY

Date: 1479/10/23    Observer: E. C. Hall  
 Area: Snow Mt.    Unit: Ecological Cr.  
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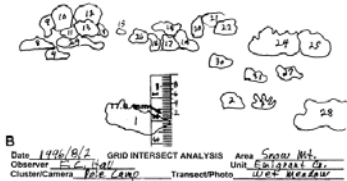
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**Compare**



**A**

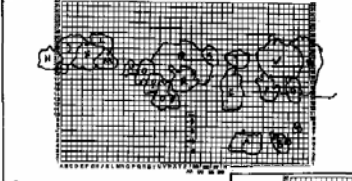
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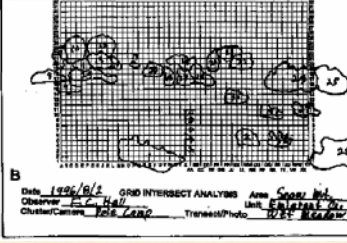
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