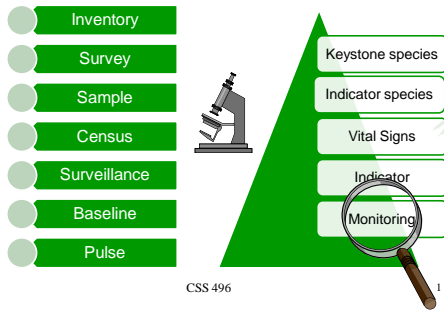


## Monitoring Definitions



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## Monitoring Definitions

- \* **Inventory** – a detailed list of natural resources.
- \* **Survey** – a sampling of facts, figures or opinions taken & used to indicate what a complete collection & analysis might reveal.
- \* **Sample** – a small part of or a selection from something, intended to show the nature of the whole.
- \* **Census** – an enumeration of the whole population.

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## Monitoring Definitions

- \* **Surveillance** – a continuous watch kept over someone or something, without their knowledge
- \* **Baseline** – a “mythical” standard or level or value that serves as a comparison or control (*Often erroneously assumed to be the true natural condition*)
- \* **Pulse** – a single, multifaceted assessment of prevailing natural conditions, attitudes or sentiment
- \* **Keystone Species** – a species typically at the top of the trophic level which is thought to be adversely affected by a variety of impacts in its environment

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## Definitions

- \* **Indicator** – Things which we can measure that tell us if desired resource & social conditions are changing because of human use.
- \* **Indicator Species** -- a plant or animal that indicates by its presence in a given area the existence of certain environmental conditions.
- \* **Monitoring** – the systematic observation of indicators to assess whether desired conditions are being attained. (*Webster's -- to watch, keep track of, or check usually for a special purpose*)

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## Long-term vs Short-term Monitoring

- \* **Short-term** monitoring is done to assess the consequence of management actions & determine if objectives are being met.
- \* Management oriented
- \* Site specific
- \* Quick detection

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## Short-term Monitoring Purposes

- \* To satisfy legal mandates & directives
- \* Determine if mgmt. actions are achieving objectives.
- \* Identify unintended consequences of mgmt.
- \* Provide information to justify corrective mgmt. actions
- \* Evaluate effects of activities on specific resource conditions

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## Long-term Monitoring

- \* Long-term monitoring normally extends more than 10 or 15 years.
- \* Is done to provide information on overall ecosystem health and trends.
- \* Science oriented in purpose.
- \* Also done to characterize an entire area.

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## Long-term Monitoring Purposes

- \* Identify long-term unidirectional or cyclic changes in ecosystems or ecosystem variables
- \* Collect info on functional relationships between ecosystem components
- \* Determine assimilative capacity of habitats (e.g. how much impact can be absorbed?)
- \* Establish "baseline" information to compare against unforeseen new impacts

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## Why Monitoring Programs Fail

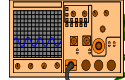
- \* **Unclear Purposes**
- \* **Abandonment** – initial measurements never repeated.
- \* **Sloppy Field Techniques** – poor initial documentation of sites, inadequate protocols, lost sites, untrained staff, boredom.

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## Why Monitoring Programs Fail

- \* **Complicated or Specialized Equipment** – Technical expertise or documentation lacking, equipment breakdown & obsolescence.
- \* **Data Pile-Up** – accumulates with no analyses.
- \* **No Action Taken** – data never used in decision making.



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