

Elements of a Vulnerability Assessment

Goals

Goal 1. Be able to identify, recognize, and discuss the different components of vulnerability, how they are measured, and why they matter.

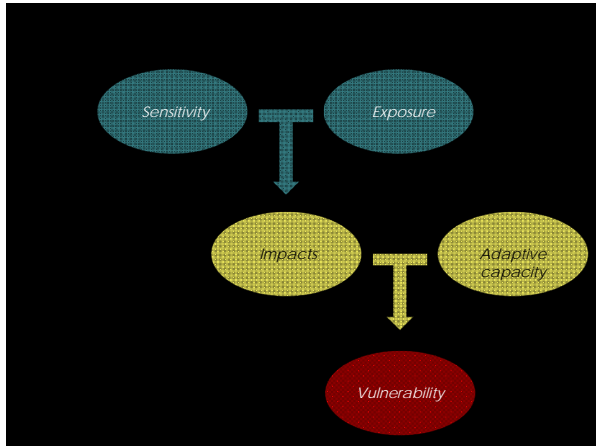
Goal 2. Recognize how to assess those components by comparing the data, tools, and models used in the assessment.

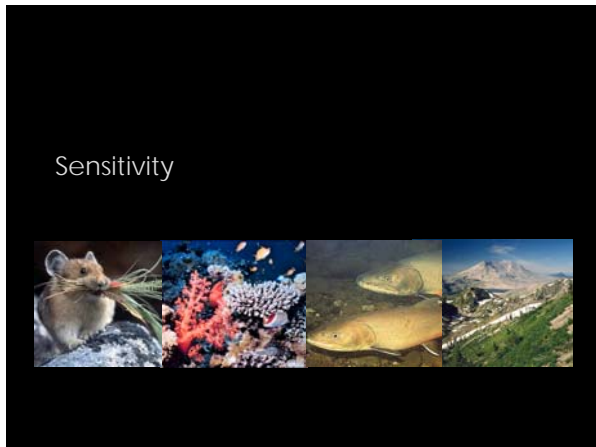
Vulnerability

Sensitivity – the degree to which the persistence or functioning of a species or system is dependent on climate or factors driven by climate

Exposure – the magnitude of the change in climate or climate driven factors that the species or system in question will likely experience

Adaptive capacity – the degree to which a species or system can change or respond to address climate impacts







Species' Sensitivities to Climate Change

Physiological sensitivity



Species' Sensitivities to Climate Change

Physiological sensitivity
Sensitive habitats and
disturbance regimes



Species' Sensitivities to Climate Change

Physiological sensitivity
Sensitive habitats and
disturbance regimes
Interspecific interactions



Species' Sensitivities to Climate Change

- Physiological sensitivity
- Sensitive habitats and disturbance regimes
- Interspecific interactions
- Phenology



Species' Sensitivities to Climate Change

- Physiological sensitivity
- Sensitive habitats and disturbance regimes
- Interspecific interactions
- Phenology
- Location and range



Species' Sensitivities to Climate Change

- Physiological sensitivity
- Sensitive habitats and disturbance regimes
- Interspecific interactions
- Phenology
- Location and range
- Additional stressors



Species sensitivity: Atlantic Croaker example

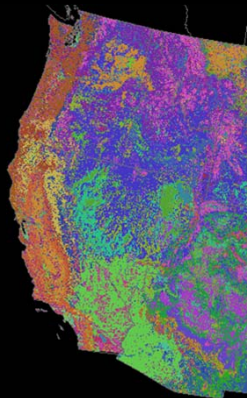


Sensitivity of Ecological Systems



System sensitivities to climate change

Climate breadth



System sensitivities to climate change

Climate breadth

Sensitivities of important species



System sensitivities to climate change

Climate breadth

Sensitivities of important species

Disturbance regimes



System sensitivities to climate change

Climate breadth

Sensitivities of important species

Disturbance regimes

Other stressors



System sensitivity: Coral Reef example



Activity 1. Assessing sensitivity
