

## **Breakout IV #3**

**CC&E Contributions Towards Analyzing  
Impacts and Consequences of Global Change:**

**Impacts on Organisms and Communities**

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Phil Townsend

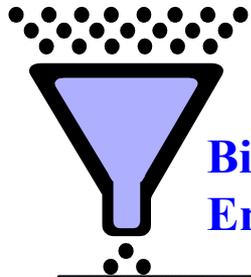
Bob Vaillancourt (rapporteur)

CC&E Contributions Towards Analyzing Impacts and  
Consequences of Global Change:

**Impacts on Organisms and Communities**

- What research can we conduct to better address the impacts and consequences of global change?
- What actions would be most useful to or supportive of future assessments?
- What are the greatest challenges and opportunities (relevant to the breakout topic)?

# Organisms and Communities



**Biome-level  
Emergent functional properties**

Current  
environment

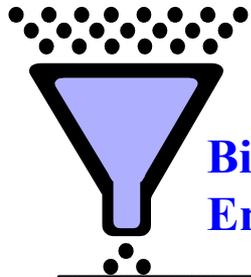
Predictive models

Future  
environment

Better understanding of processes, feedbacks, etc.  
Better parameterization of functions  
Reduced uncertainty in future environment

Temperature  
Atm. CO<sub>2</sub>  
Ocean pH  
Precipitation  
etc.

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Better understanding of processes  
Better parameterization of responses  
Reduced uncertainty in ecosystem response

Predictive models

**Regional/Local-level  
Individuals, communities**

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Atm. CO2  
Ocean pH  
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etc.

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What research can we conduct to better address the impacts and consequences of global change?

**A. ...**

**B. ....**

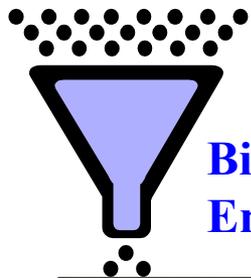
**C. ....**

**A. ...**

**B. ....**

**C. ....**

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**A. ...**

**B. ....**

**C. ....**

**A. ...**

**B. ....**

**C. ....**

# Organisms and Communities

- We haven't been specific, though you can be
- General categories:
  - Important resources
  - Pests
  - Charismatic
  - Keystone
  - Functionally important

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