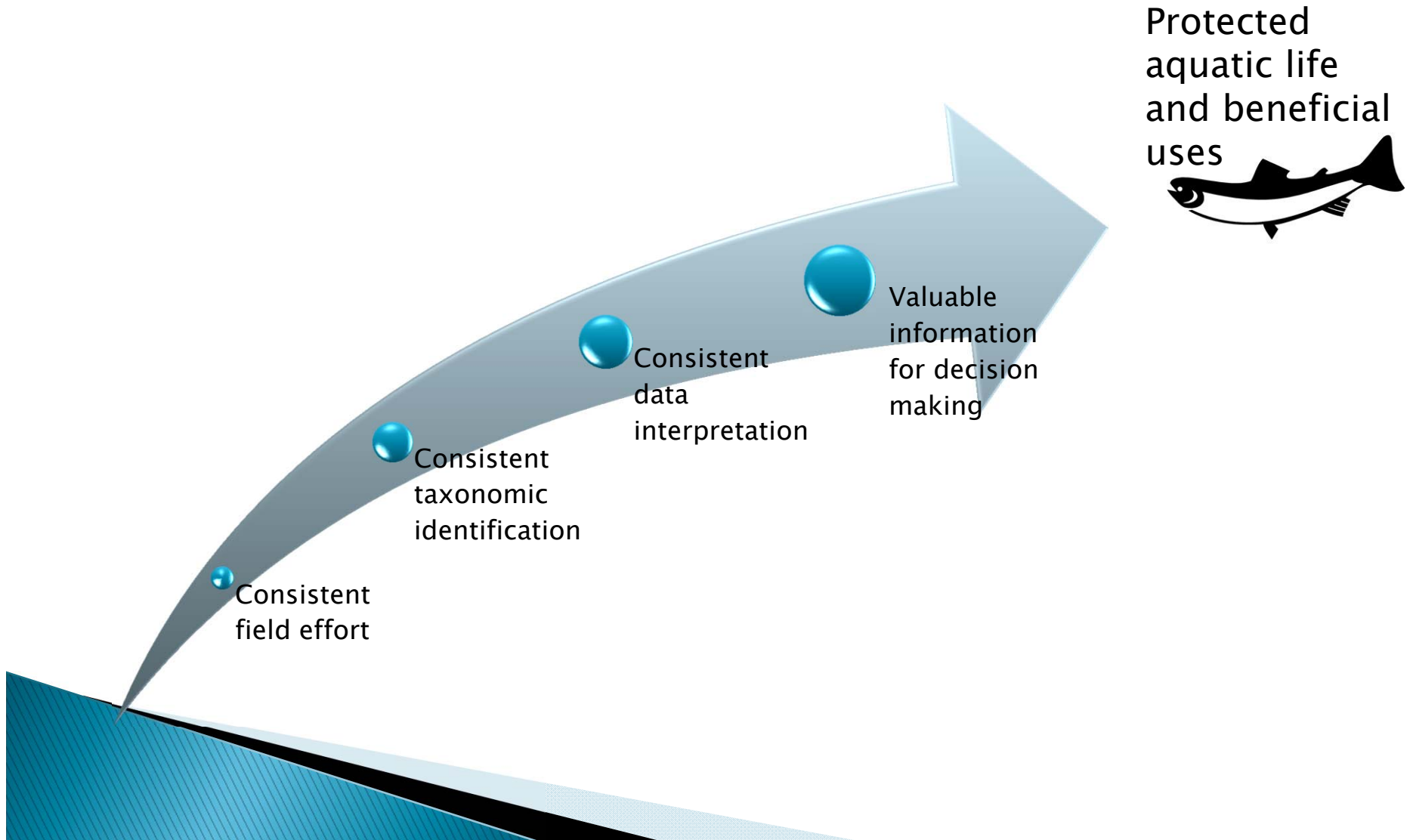


# Taxonomic consistency in water programs

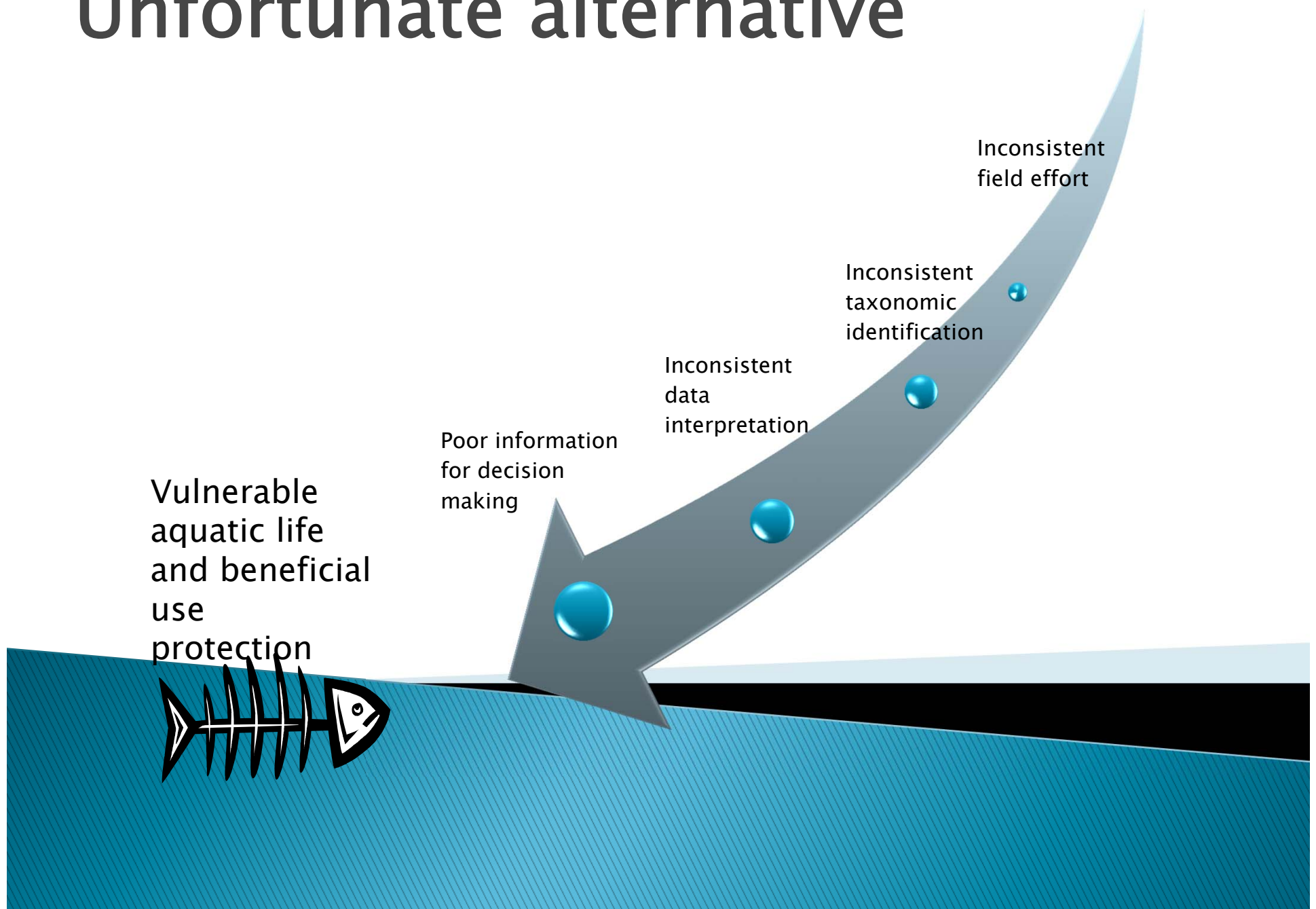
Aaron Borisenko  
National Water Quality Monitoring Conference  
Portland Oregon  
Tuesday, May 1 2012



# Ideal scenario



# Unfortunate alternative



Study objective 1 – Impact assessment	Study objective 2– Bioassessment invertebrates	Study objective 3 – Bioassessment Aquatic Vertebrates
Longitudinal survey from source	Random or targeted survey	Random or targeted survey
Consistent field effort	Consistent field effort	Consistent field effort?
100 count	500 count	~10 taxa –100 count
Taxonomy to Order Class or Family	Taxonomy to lowest possible level	Taxonomy to lowest possible level
% abundance for taxonomic groups	IBI or RIVPACS assessment	IBI or ATI
High confidence in information. Low probability of assessing impact when none exists.	Confidence dependent on sample timing, reference site selection criteria, # of discrete samples, consistent taxonomic resolution and quality assurance procedures.	Confidence dependent of sample timing, good taxonomic information, Assessment tools sufficiently sensitive.

# What would provide me with greater confidence

- ▶ Demonstration of capabilities (Accreditation?)
- ▶ Round robin studies
- ▶ Standardized metadata tracking
- ▶ Better and more life history information
- ▶ Better understanding of stressor response

