

# From Fact to Fiction: Straddling the Scientific and Literary Worlds

**Michael T. Barbour**

**Center for Ecological Sciences  
Tetra Tech, Inc.**

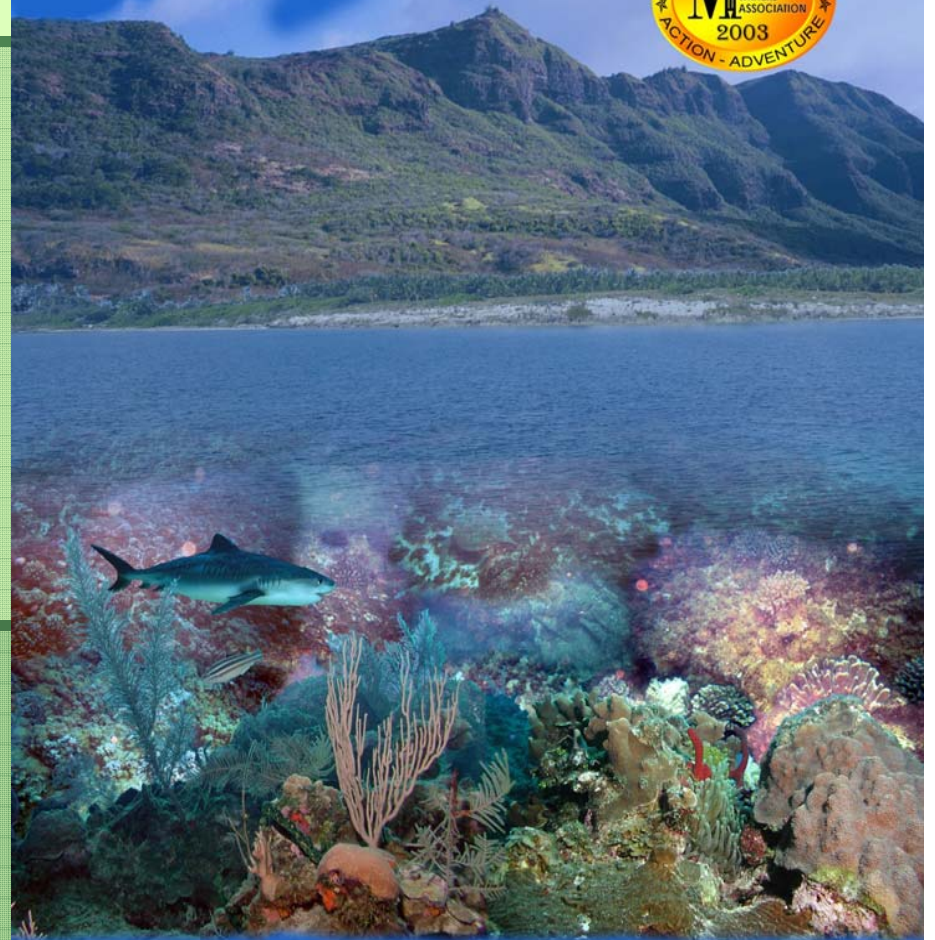


THE  
**KENAI**  
CATASTROPHE



MICHAEL T. BARBOUR

***BLUE WATER  
BLUE ISLAND***

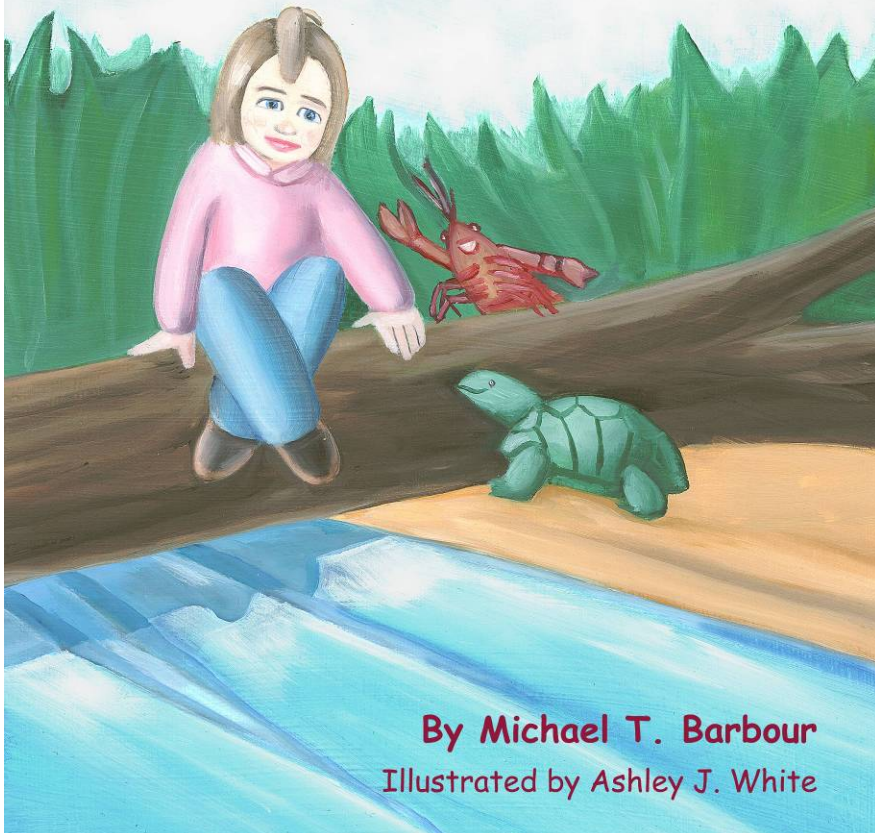


MICHAEL T. BARBOUR



# The Next Generation...

## Caitlyn and Craig the Crayfish (A Lesson on Stream Life)

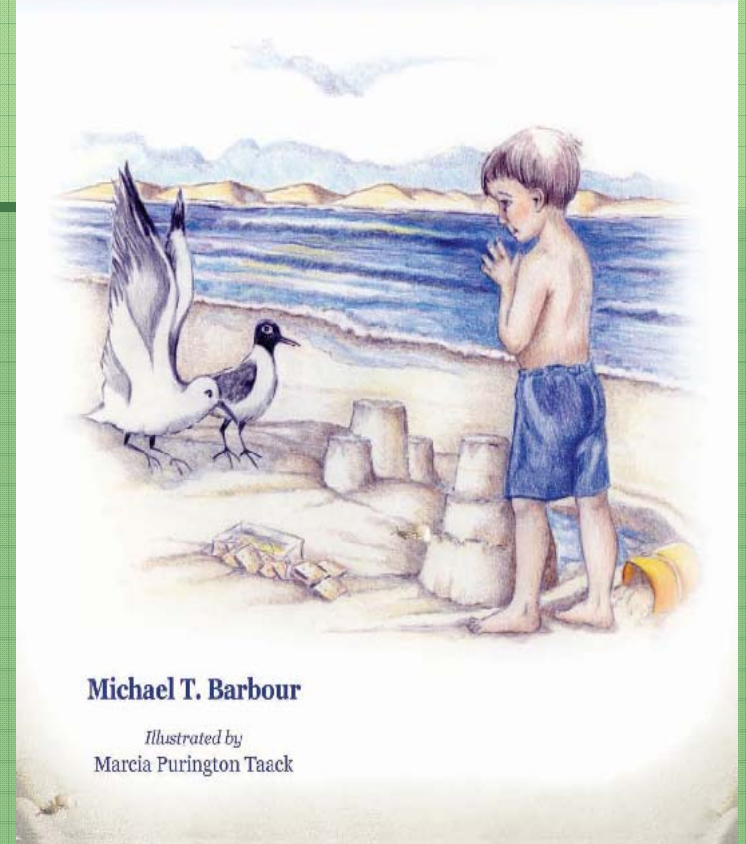


By Michael T. Barbour  
Illustrated by Ashley J. White

Go to

[www.michaeltbarbour.com](http://www.michaeltbarbour.com)

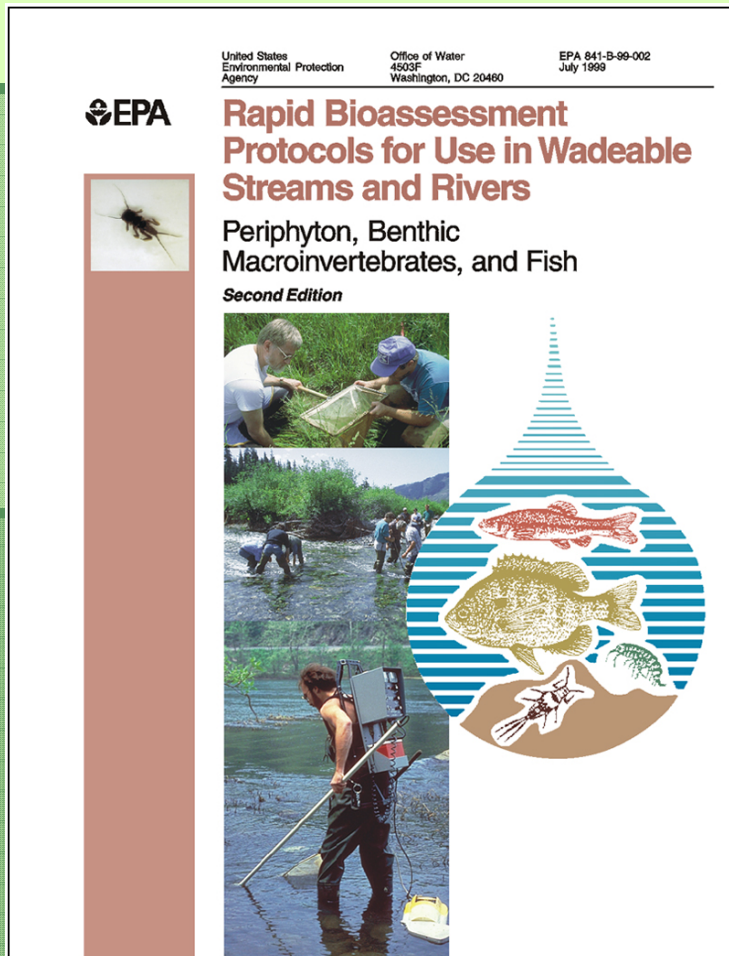
## Douglas Visits the Seashore (A Lesson on Seashore Life)



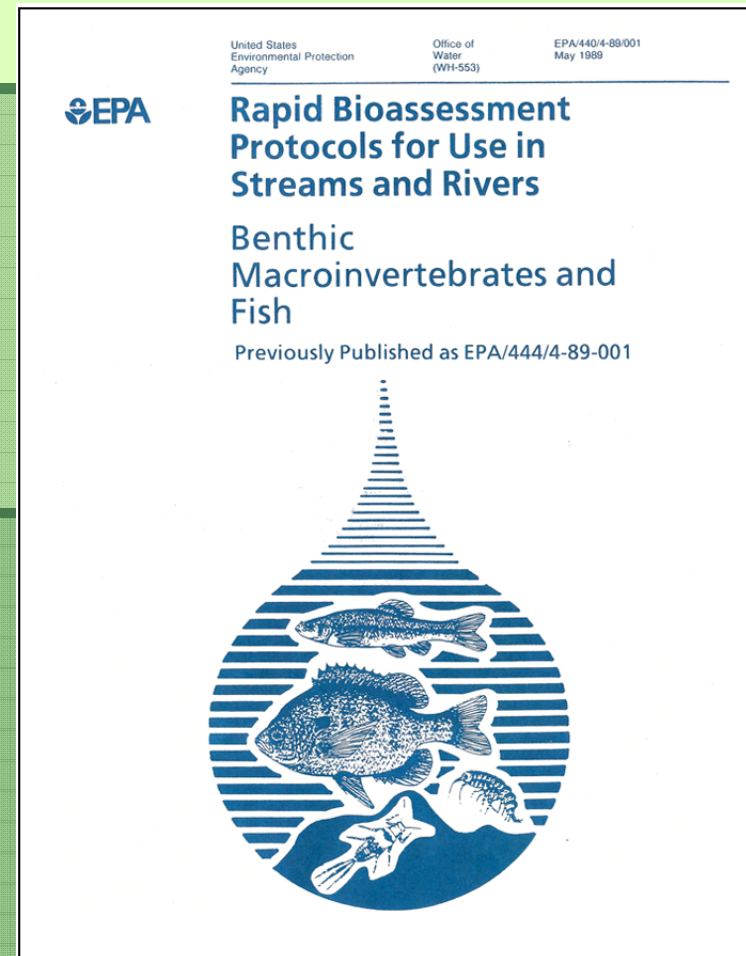
Michael T. Barbour

Illustrated by  
Marcia Purington Taack

# RBPs



2<sup>nd</sup> Edition - 1999



1989





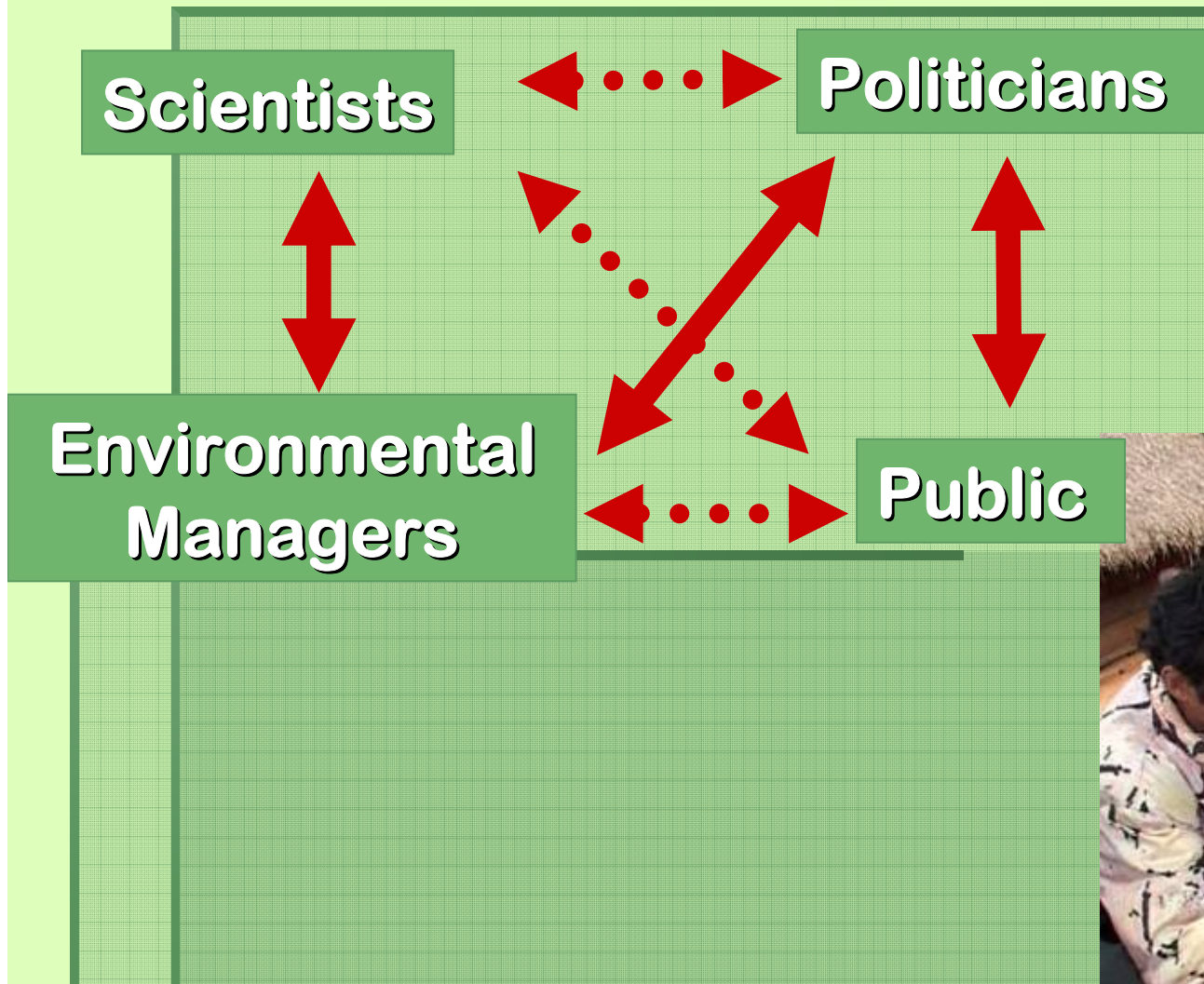
# ecological assessment of aquatic resources

LINKING SCIENCE TO DECISION-MAKING

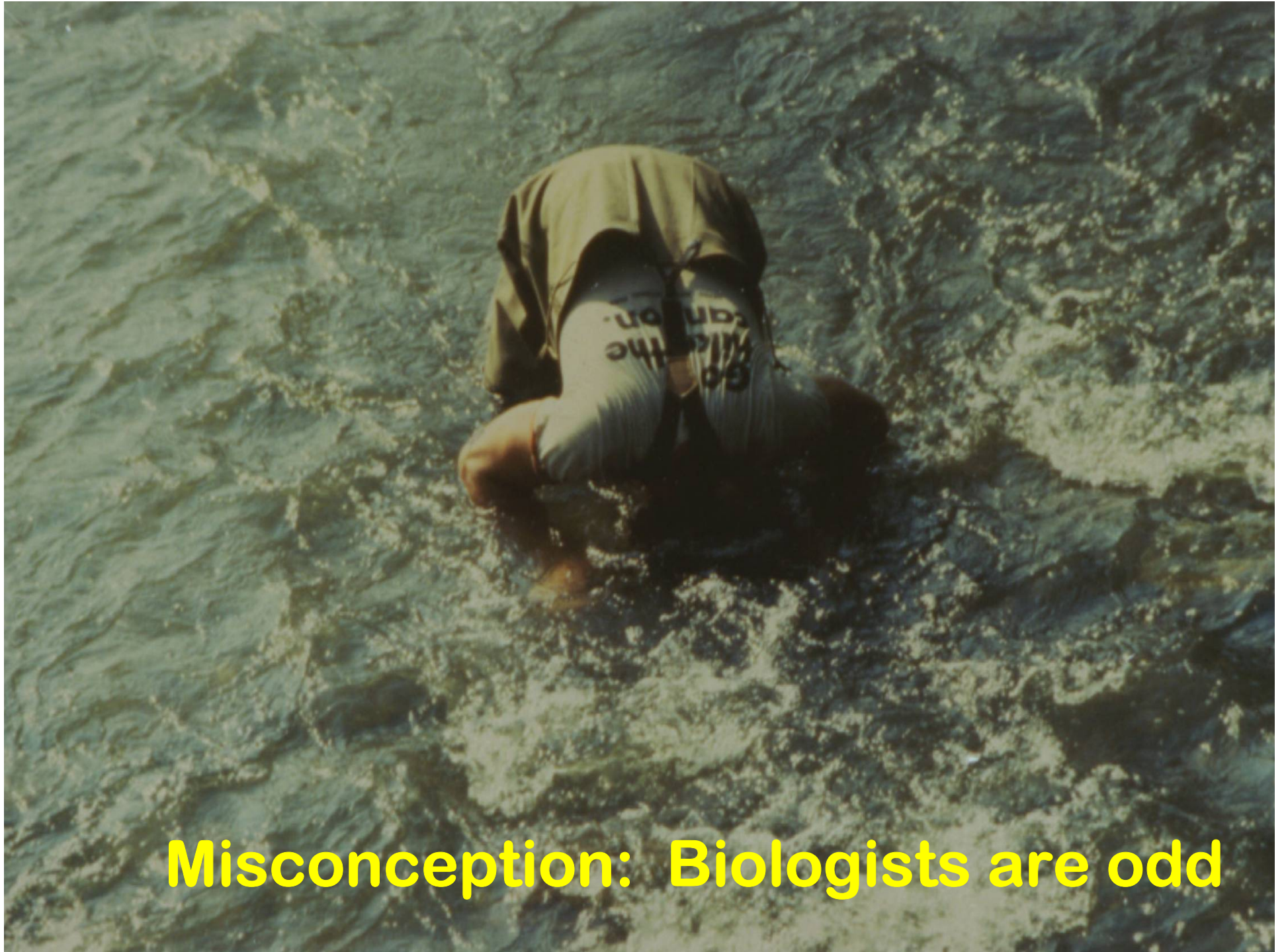
Edited by  
Michael T. Barbour  
Susan B. Norton  
H. Ronald Preston  
Kent W. Thornton



# Communication Challenge



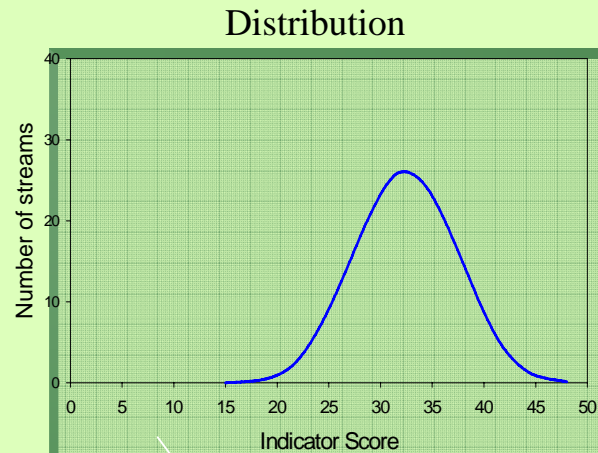




**Misconception: Biologists are odd**

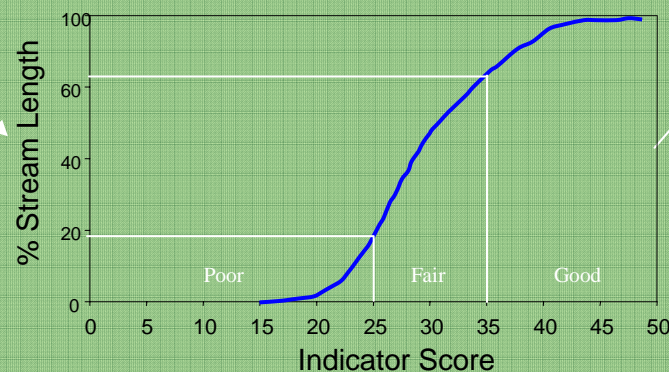
# Data Analysis and Interpretation

## Descriptive Statistics

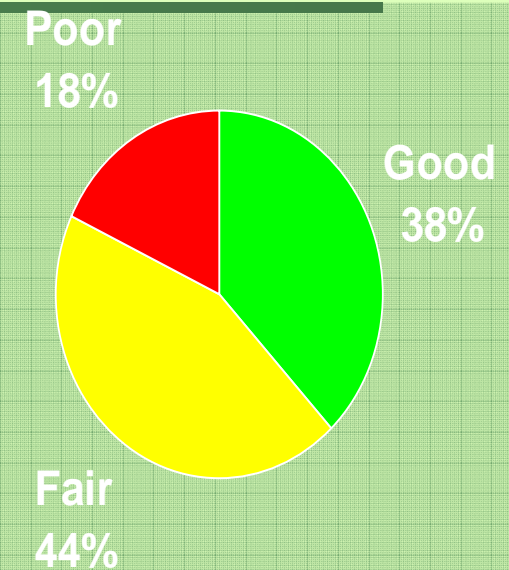


Threshold  
Development

## Cumulative Distribution

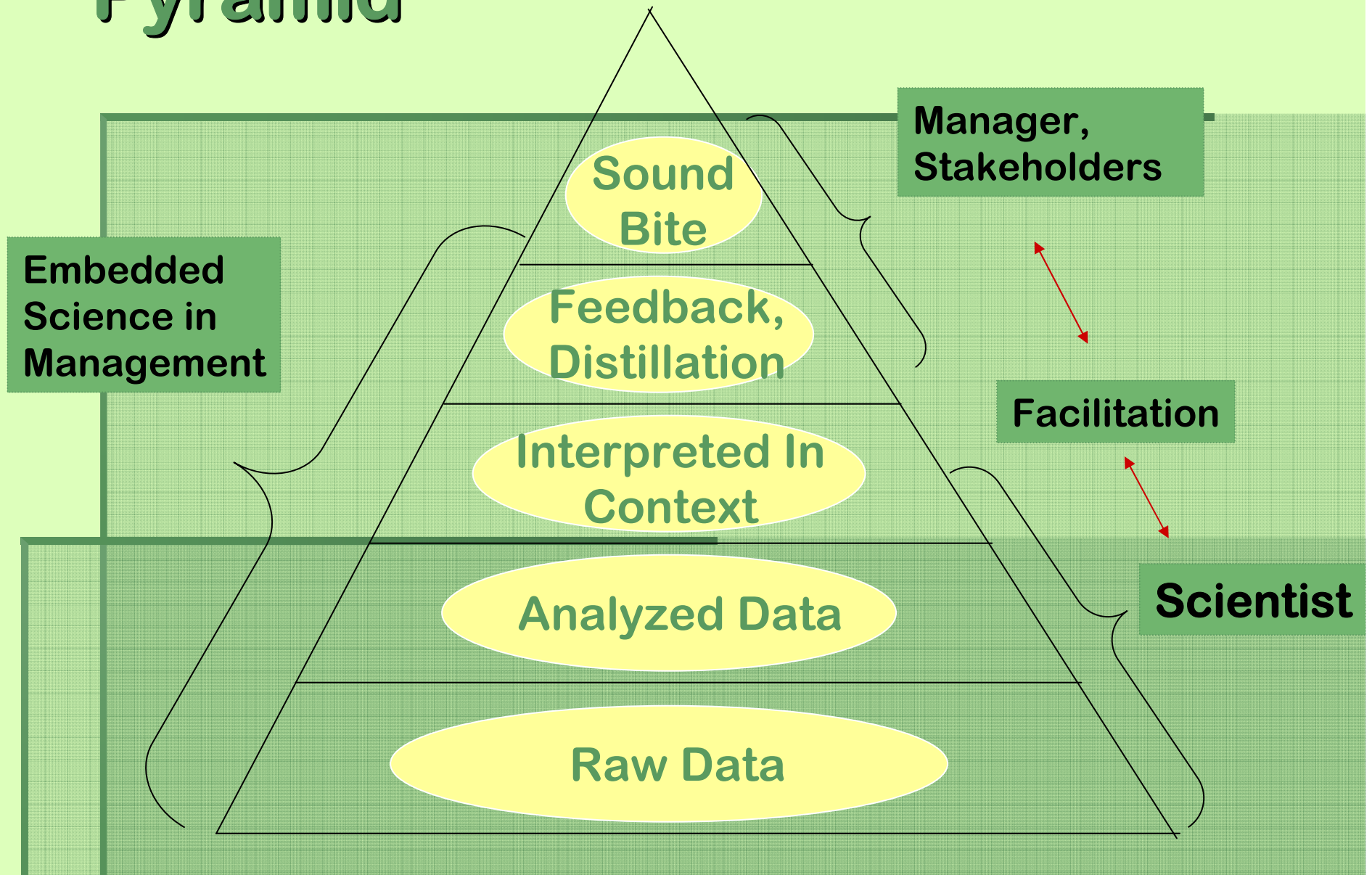


## Interpreted Statistics






# Knowledge Translation Pyramid







**“When scientists fail to make a strong case for decisions based on science, the long-term costs often outweigh the short-term economic arguments for NOT using scientific insights.”**

*- J. R. Karr  
2006 - BioScience*



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# J-NABS

Journal of the  
North American  
Benthological  
Society

## IN THIS ISSUE:

- Influence of land use on denitrification
- Quantitative crayfish sampling
- Porewater ammonia associated with asian clam die-offs
- Approach to establishing metric thresholds

Barbour, Poff, Allan, Norris  
(In Press)  
**Perspectives:  
Communicating Our  
Science to Influence Policy**

2006  
March  
Volume 25  
Issue 1







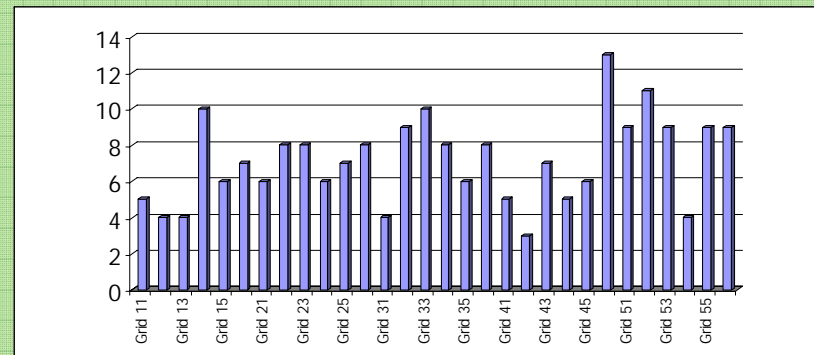
**As  
scientists,  
we need to:**

- **Talk with (and listen to) the public and policy makers**
- **Prepare reports for non-scientists**
- **Write outside of technical publications**

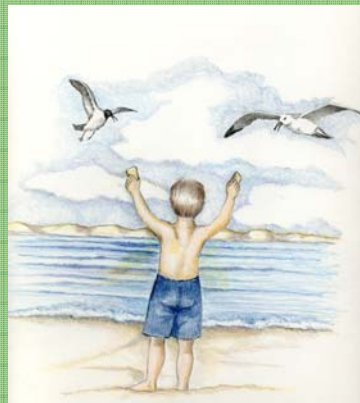


# Elements of a Good Story

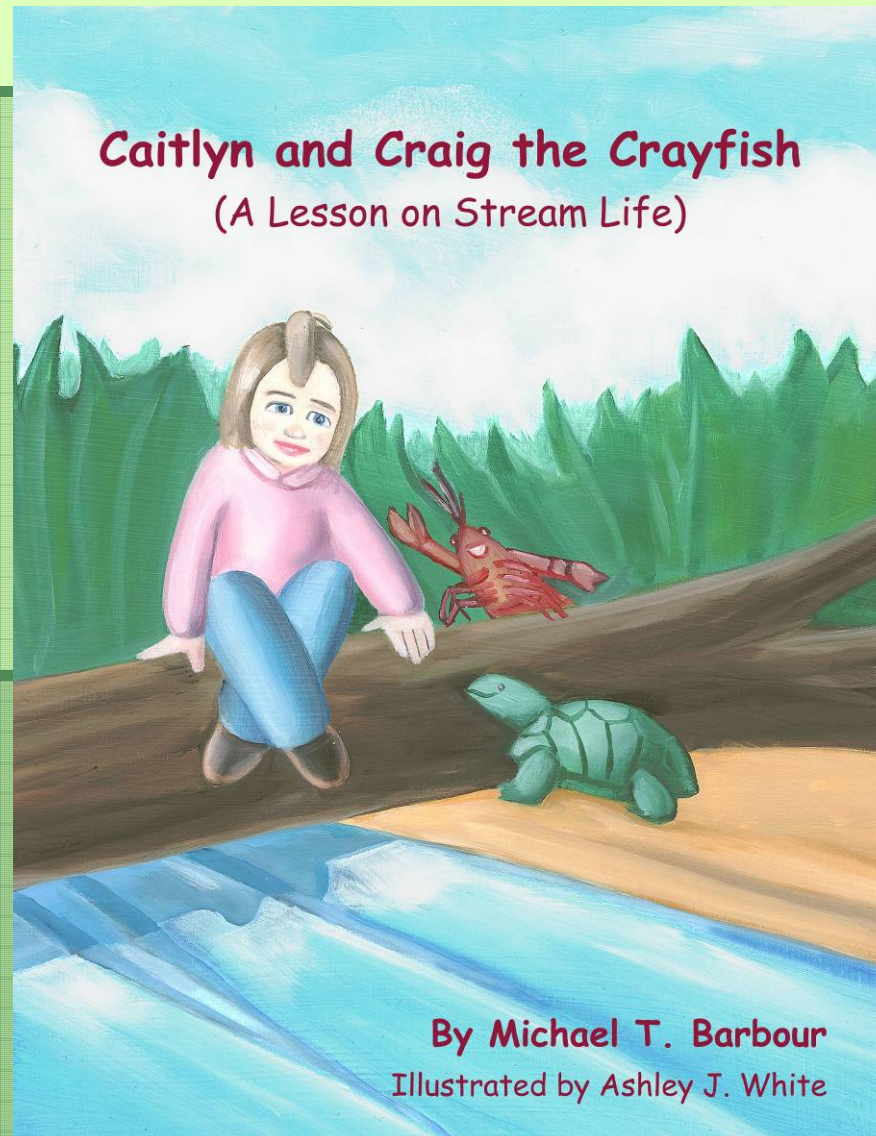
- For Scientific Writing
  - Clearly stated Research Questions
  - Objectivity
  - Supportive Evidence
  - Use Qualifiers



- For Writing Novels
  - Concise Prose
  - Point of View
  - Character Voice
  - Reduce use of Qualifiers



# A Crayfish versus a Crab





# Crayfish

*Orconectes virilis*



# Blue Crab

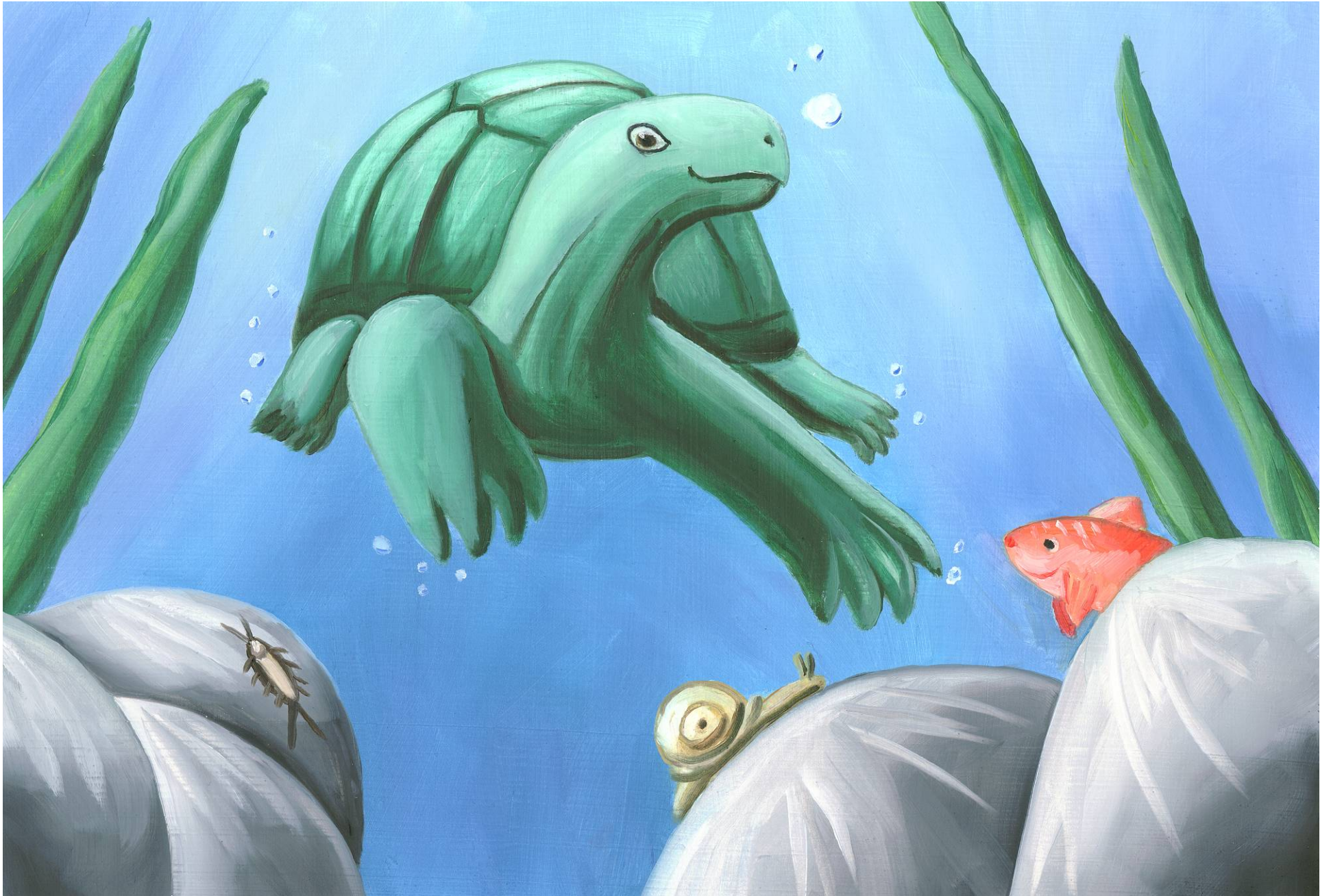
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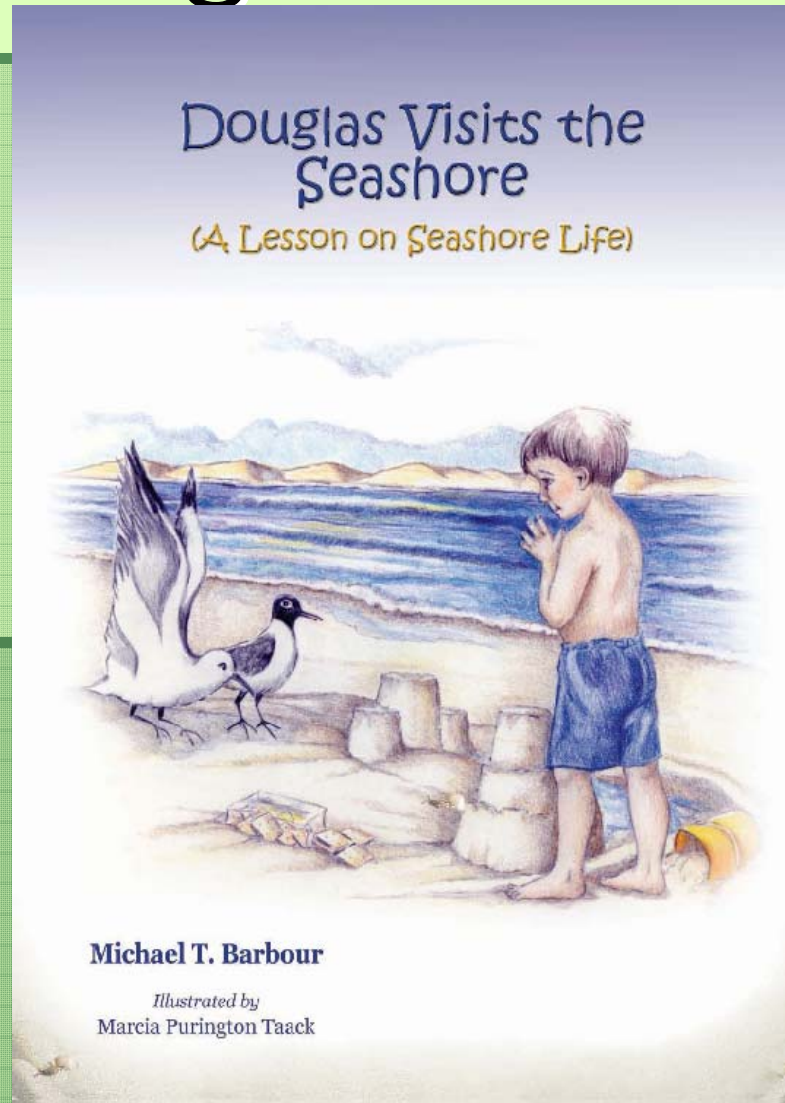








# A Herring Gull versus a Laughing Gull



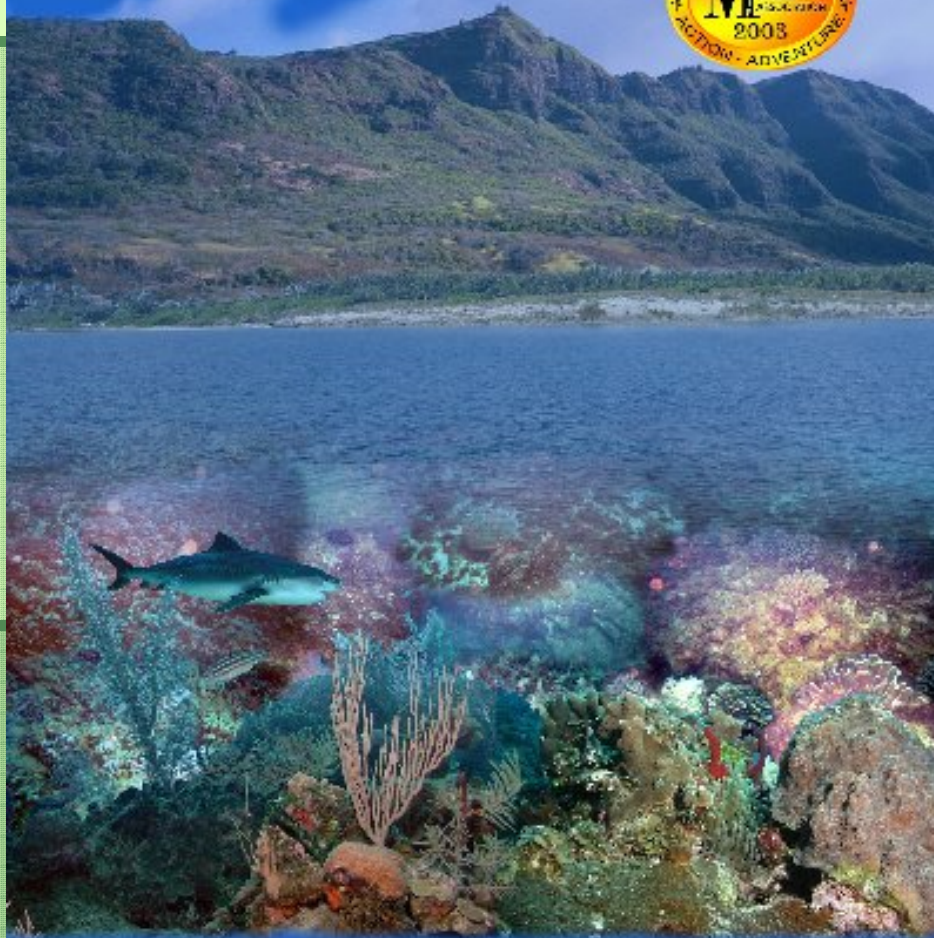








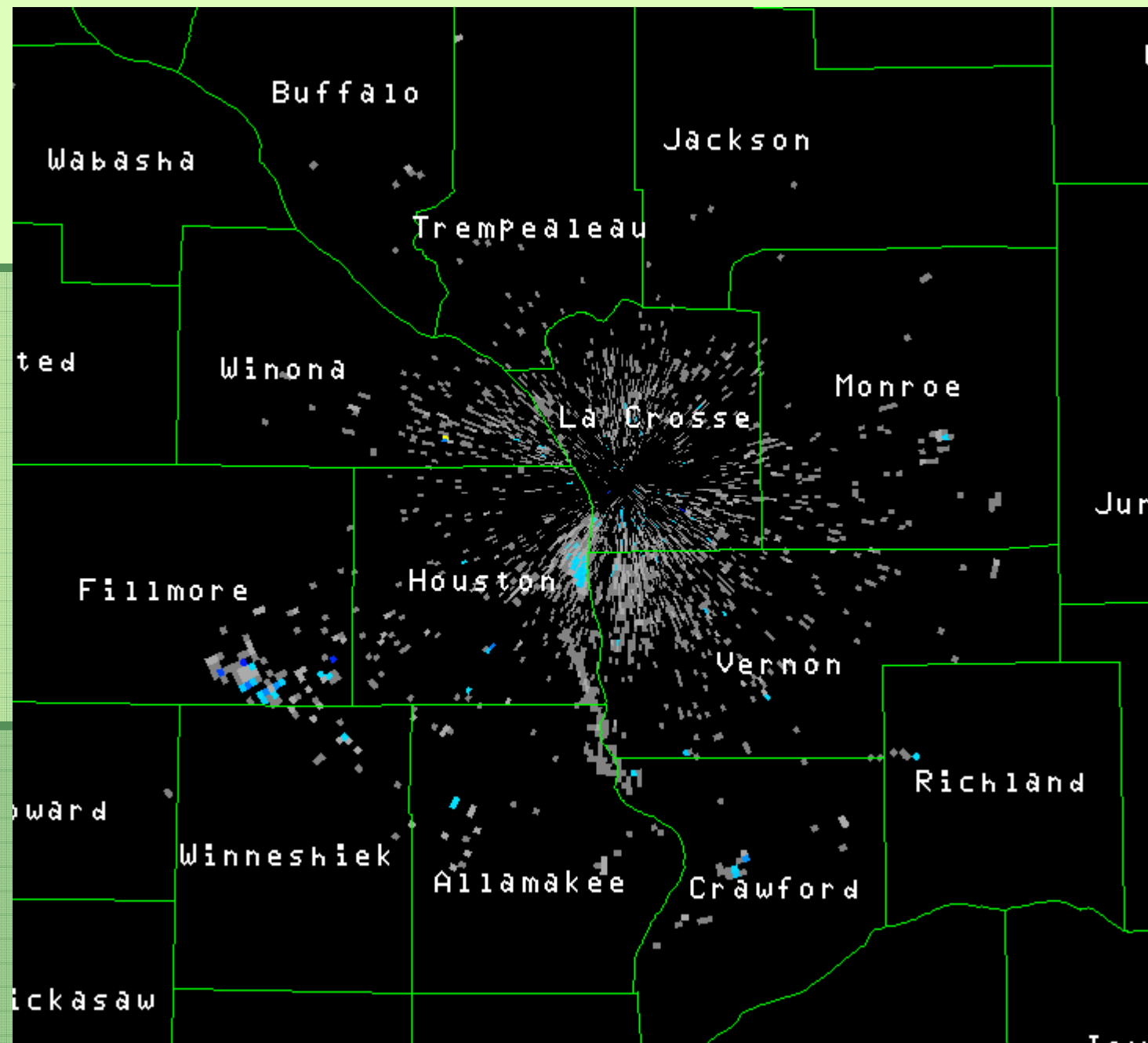
# ***BLUE WATER BLUE ISLAND***



**MICHAEL T. BARBOUR**













*Hexagenia* nymph



*Hexagenia* imago







Write it...

Edit it...

~~Edit it some more...~~

- Write it as you feel the story.
- Make sure the storylines are connected.
- Review it to be sure it says what you want it to say.
- ~~Edit it to make it clear.~~
- Have someone else review it to be sure it is clear.
- Tell yourself you are doing this for fun.