

# Guidelines for Applying the Regionalized IBI Metrics





Regionalization of the Index of Biotic Integrity  
for Texas Streams

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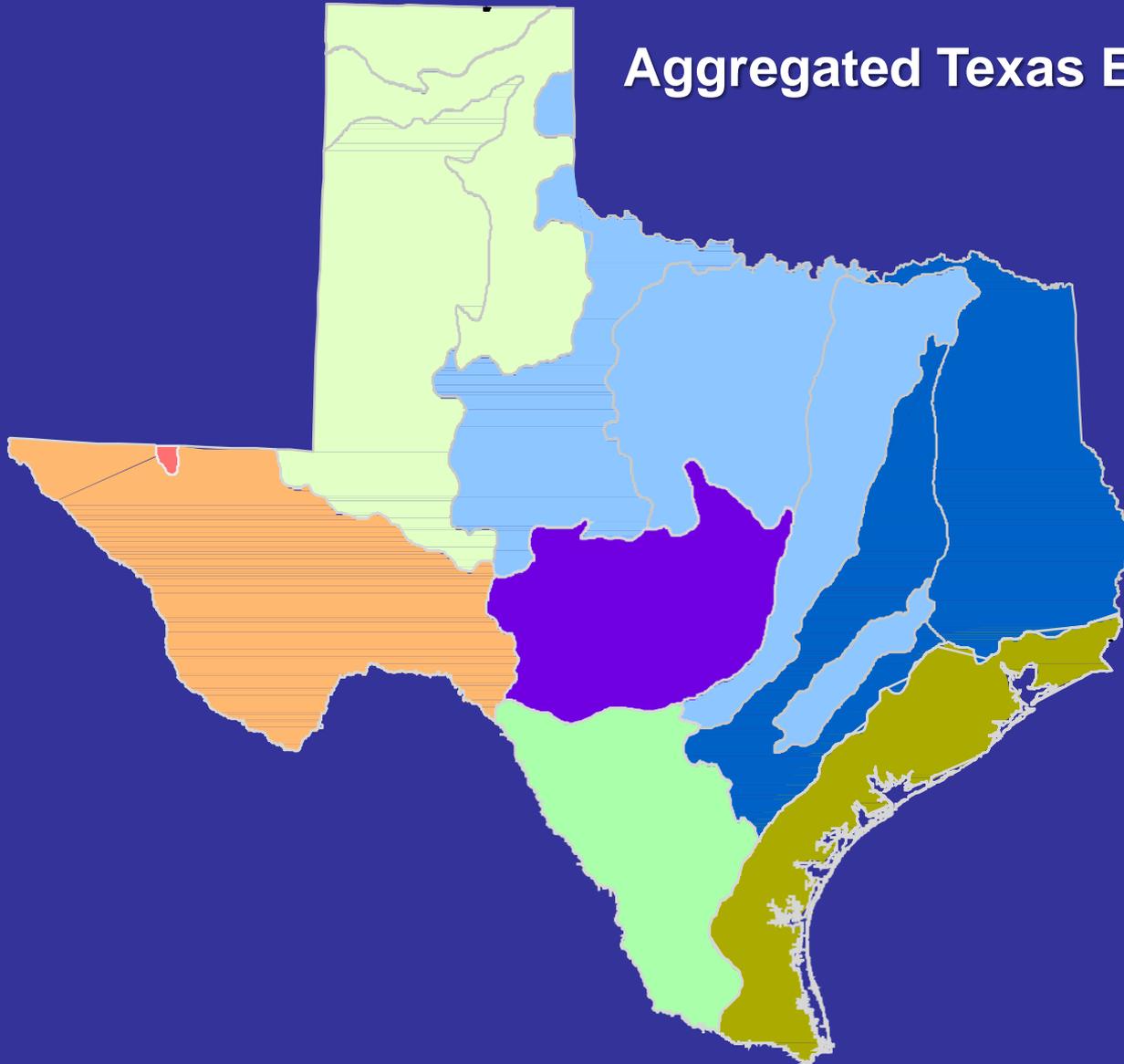
River Studies Report No. 17

Resource Protection Division  
Texas Parks and Wildlife Department  
Austin, Texas

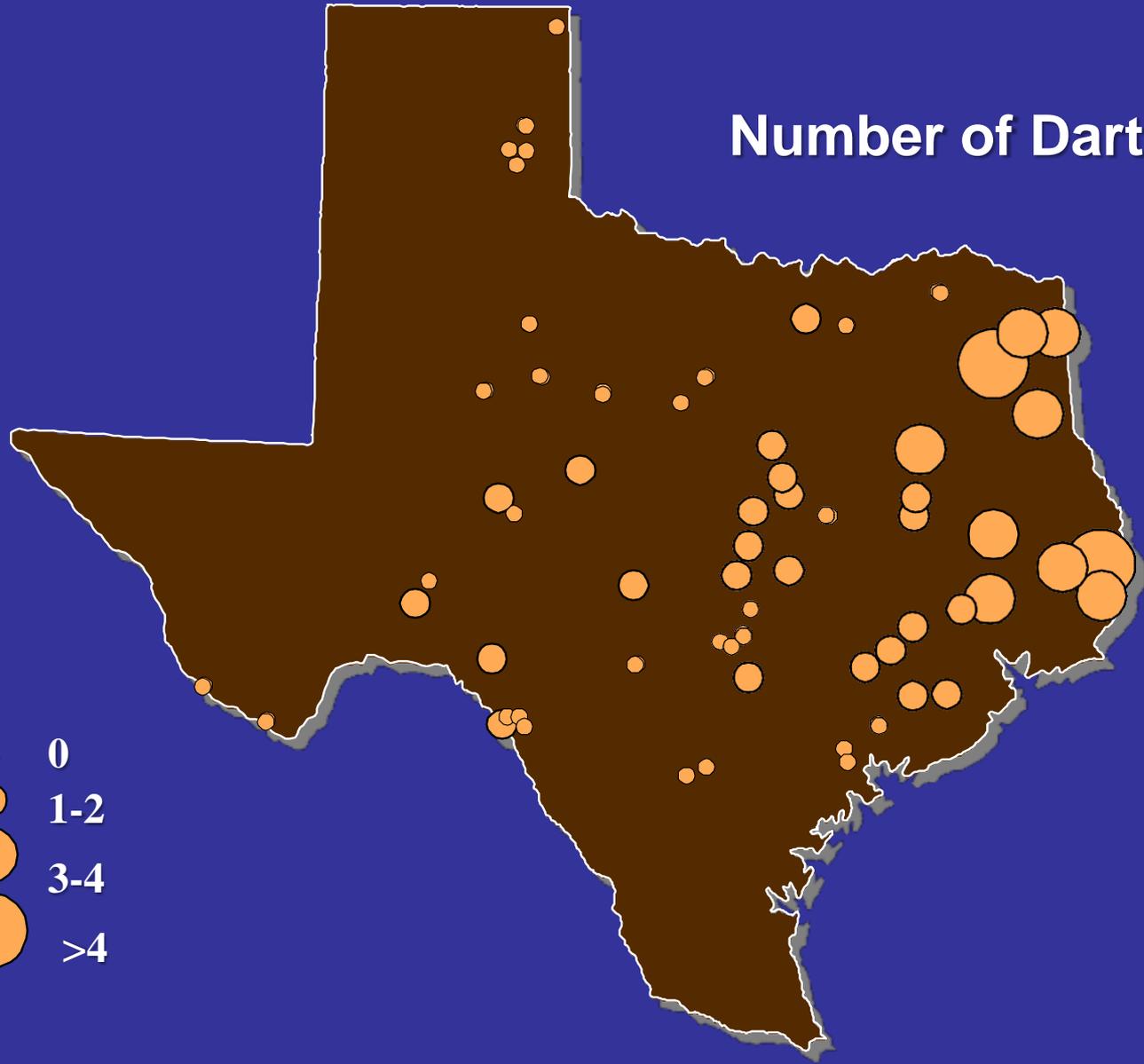
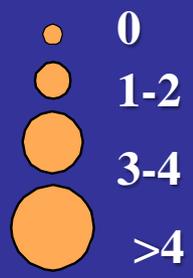
June 2002

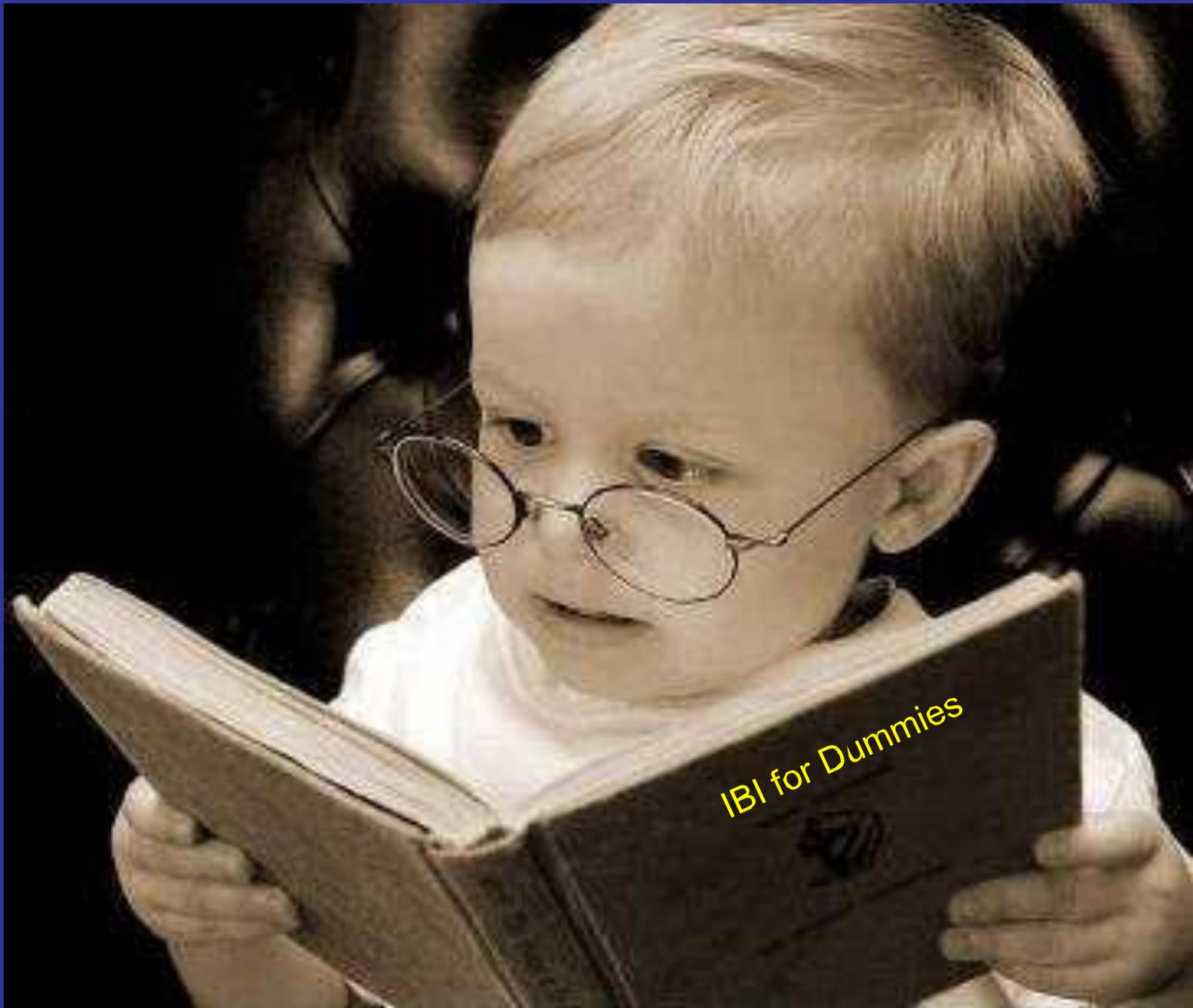


# Aggregated Texas Ecoregions



# Number of Darters





IBI for Dummies

# Index of Biotic Integrity

- Species richness and composition
- Trophic composition
- Fish abundance and condition



Scoring system

5

3

1

# **Aquatic Life Use**

**Exceptional**

**High**

**Intermediate**

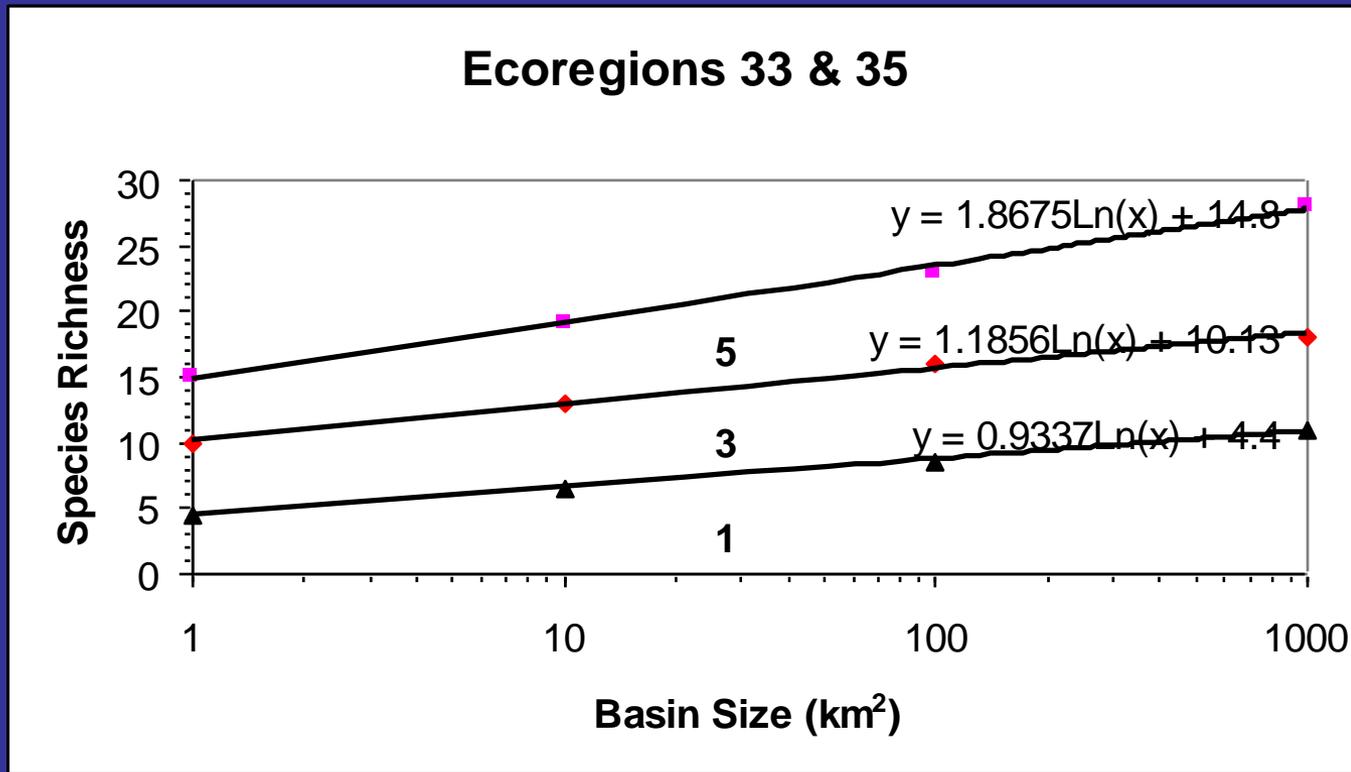
**Limited**

# IBI Metrics

- **Total number of fish species**

# IBI Metrics

- Total number of fish species



# IBI Metrics

- **Number of native cyprinid species**

# IBI Metrics

- **Number of native cyprinid species**

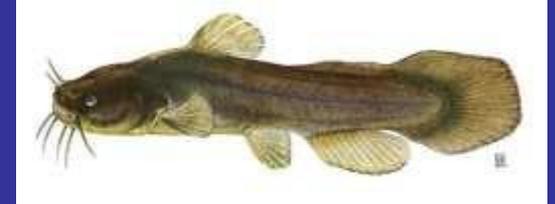


# IBI Metrics

- **Number of benthic invertivore species**
- **Number of benthic species (Ecoregion 31)**

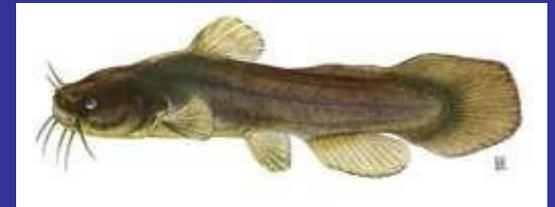
# IBI Metrics

- Number of benthic invertivore species
- Number of benthic species (Ecoregion 31)



# IBI Metrics

- Number of benthic invertivore species
- Number of benthic species (Ecoregion 31)



# IBI Metrics

- **Number of sunfish species**

# IBI Metrics

- **Number of sunfish species**



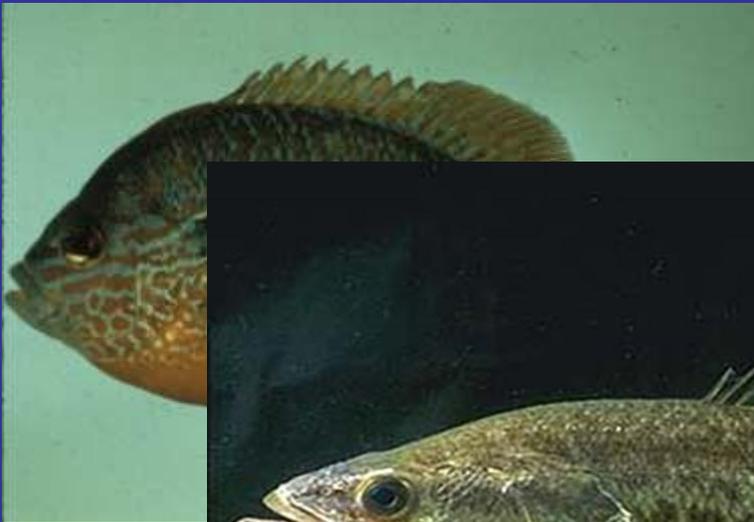
# IBI Metrics

- **Number of sunfish species**



# IBI Metrics

- Number of sunfish species



# IBI Metrics

- **Number of intolerant species**
- **% of individuals as tolerant species (excluding western mosquitofish)**

# IBI Metrics

- Number of intolerant species
- % of individuals as tolerant species (excluding western mosquitofish)

Common Name	Tolerance
Blue Sucker	I
Blacktail Shiner	
Red Shiner	T
Western Mosquitofish	T

# IBI Metrics

- % of individuals as omnivores
- % of individuals as invertivores
- % of individuals as piscivores

# IBI Metrics

- % of individuals as omnivores
- % of individuals as invertivores
- % of individuals as piscivores

Common Name	Trophic Group
Blue Sucker	IF
Blacktail Shiner	IF
Roundnose Minnow	O
Largemouth Bass	P

# IBI Metrics

- **Number of individuals in sample**

# IBI Metrics

- **Number of individuals in sample**
  - **Number of individuals/seine haul**
  - **Number of individuals/min electrofishing**



# IBI Metrics

- **% of individuals as non-native species**

# IBI Metrics

- % of individuals as non-native species



# IBI Metrics

- **% of individuals with disease or other anomaly**

# IBI Metrics

- % of individuals with disease or other anomaly

