



As a fisheries and aquatic ecologist, I study fishes and freshwater mussels in their natural habitats to learn about their life cycles, needs for survival, roles in the ecosystem, and how we can conserve them.

**Dr. Mel Warren**  
Fisheries/Aquatic Ecologist  
Ph.D., Southern Illinois University,  
Carbondale  
USDA Forest Service scientist

<http://www.naturalinquirer.org>



## Dr. Mel Warren



### Important Scientist Characteristics:

Important characteristics for my career include the ability to identify fishes, think critically, and understand statistical techniques for analyzing data. All of these characteristics are essential to producing good, solid science.

### Example of a simple research question I have tried

**to answer:** How do fishes use woody materials, like logs, branches, and leaf piles, as cover in small sand-bottomed streams?

### Technology or equipment used in research:

I use a backpack electrofisher to sample fishes. The backpack electrofisher sends electrical current into the water via metal probes; the current attracts fishes to the probe where they are stunned and can be netted for further study. After studying the fishes, we return them to the water.

### • Most Exciting Discovery

- Freshwater mussels are shellfish.
- Some freshwater mussel species
- use lures to attract specific kinds
- of fishes that serve as hosts for the
- mussel's larvae, the early stage of
- the mussel. Two of these mussel
- species use the same fish as a
- resource, but one mussel displays
- lures at night and the other
- displays during the day.

- **When did you know you wanted to be a scientist?** In college, I studied
- pre-medicine, called "pre-med,"
- which prepared me to become a
- medical doctor. I happened to take
- an ichthyology (the study of fish)
- class as a break from the pre-med
- classes, and the class changed
- my life.