



Dr. Rich MacKenzie



Important Scientist Characteristics

★ Working in remote locations around the world as well as sampling fish and invertebrates from challenging environments (mangroves, streams that frequently flood) requires creative ideas to design or modify equipment that can effectively and accurately sample fish and invertebrates from these areas.

Example of a simple research question I have tried

to answer: Pacific Island streams and wetlands support native fish, birds, and invertebrates found nowhere else in the world. I have been studying how the invasion of these ecosystems by nonnative tilapia and poeciliid fish affects the food resources that are also used by native fish and birds.

Technology or equipment used in research: Masks/snorkels and specialized nets are used to sample fish, shrimp, and crabs from streams and wetlands. Seines are long nets stretched between two poles that are then dragged through the water. Throw nets are large circular nets that are thrown in to the water.

• Most Exciting Discovery

• I have discovered two
• new species of shrimp and
• several new species of
• insects from streams and
• wetlands on the islands
• of Yap and Pohnpei in
• the Federated States of
• Micronesia.

• When did you know you wanted to be a scientist?

• I have been sampling fish
• and invertebrates from
• muddy environments since I
• was 5. A summer internship
• in college revealed that
• this could be a career. I
• designed a project that
• sampled streams for mayfly
• larvae and then videotaped
• them in special chambers
• to document how they
• responded to pollution.