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ISSUE PAPER
TWIN CITIES FIELD OFFICE

PRESCOTT BRIDGE

ISSUE: The Apparent Failure of a Mussel Relocation Project

LISTED SPECIES: Higgins' eye pearly mussel (Lampsilis higginsii)

LOCATION: Prescott, Wisconsin - The confluence of the St. Croix River and the Mississippi River

BACKGROUND: In the mid 1980's the Wisconsin DOT entered into Formal Consultation with the Service regarding the construction of a replacement bridge for U.S. Highway 10, which crosses the St. Croix River between Minnesota and Wisconsin. The Service required the WI/DOT to move listed mussel species to suitable habitat, just upstream and out of harm's way. The WI/DOT, working closely with the WI/DNR, fully funded and implemented the translocation project. The bridge was completed last year and the plan called for the translocated mussels to be returned to their original location this year, if such an action was thought to be warranted by DNR malacologists. On September 16, WI/DNR diver examined the temporary mussel bed and found that roughly 90% of the translocated mussels were dead.

CAUSE: Unknown. Mussel translocations are not uncommon and previous experience with this species did not indicate that the affected population would be at a significant risk with translocation.

ACTION: The LaCrosse Fish Disease Lab has been contacted (Dr. Lief Marking) and a response team has been hastily assembled to design a study and find the cause. The Team is composed of representatives from the WI/DOT, WI/DNR, MN/DNR and the Service.

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RESPONSE FOR PUBLIC/PRESS INQUIRY

Prescott Bridge Project: Freshwater Mussel Relocation Project
Highway 10 bridge replacement, at the mouth of the
St. Croix River, Prescott, Wisconsin.

Background: In the mid 1980's the Wisconsin DOT entered into Formal Consultation with the Service regarding the construction of a replacement bridge for U.S. Highway 10, which crosses the St. Croix River between Minnesota and Wisconsin. The Service required the WI/DOT to move listed mussel species to suitable habitat, just upstream and out of harm's way. The WI/DOT, working closely with the WI/DNR, fully funded and implemented the translocation project. The bridge was completed last year and the plan called for the translocated mussels to be returned to their original location this year, if such an action was thought to be warranted by DNR malacologists. On September 16, WI/DNR diver examined the temporary mussel bed and found that between 60% and 90% of the translocated mussels were dead.

Q. What happened?

A. We don't yet know that answer. However, we've examined the dead mussel shells, water quality data from the project site, and all records from the relocation project. We've also taken live (not-listed) mussels from the site and examined them for known diseases, contaminants, heavy metals and the like, and we have found no evidence of disease, toxicity or any other environmental cause for the high mortality.

Q. So, what now?

A. Now, we are faced with the probability that the high mortality was due to the actual relocation activity, itself. The constraints placed on the relocation effort were (and are) appropriate, and the lead agencies for this effort (WI DOT and WI DNR) followed prescribed methods carefully. What we might learn from this (what we hope to salvage from this) is a better understanding of the techniques and conditions necessary for a successful relocation effort.

Q. How?

A. The Prescott Bridge Project Task Force has resolved to find the answers. First, a preliminary survey of other mussel relocation projects has indicated that a high mortality is not that uncommon, and the actual handling of the mussels may have contributed to the unexpected mortality. Starting on Tuesday, October 29, 1991, the U.S. Fish and Wildlife Service Fish Disease Laboratory at LaCrosse, Wisconsin, began a study of the effects of handling under various conditions to compare mortality rates. The result should be a better understanding of what constraints and techniques are necessary for successful mussel relocations in the future.

STATS;

Q. How many mussels were relocated?

A. 7,976

Q. How many were endangered?

A. Only the Higgins Eye Pearly Mussel was on the federal list of T & E species.
Four other species were also on the state list of rare and endangered species.

Q. How many Higgins' Eye Pearly Mussels died?

A. Roughly 37 of the 42 individual mussels involved.

Q. Where were they relocated to?

A. To protect the surviving mussels, the exact locations are not for public release. In general the site is within a 1/4 mile distance of the original location, and in suitable habitat conditions.

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Prescott Bridge Project. Mussel Translocation
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