By ROB ANDERSON

Environment editor

Biologists fear zebra mussels will cause problems for Louisiana shellfish and other aquatic species.

They advise Louisiana boaters to make sure the mussels and their larvae are removed from their boats and trailers after they are used in the Mississippi and Atchafalaya rivers.

The mollusks attach themselves to the pincers and eyes, causing crawfish to starve. The prolific mussels also encrust shellfish and reduce food supplies for crawfish and juvenile fish, according to officials with the LSU Sea Grant Program.

One major concern expressed by those who have researched the immigrant bivalves on Lake Erie is that the mussels will ruin some spawning grounds for game fish.

Because of the large amounts of water the bivalves filter for food, researchers also are concerned they will deplete microscopic phytoplancton, which is important to that lake's food chain.

The mussels are already in the Mississippi and Atchafalaya rivers and can infest other waterbodies after being carried to them by boats, biologists said.

"Anybody who puts his boat in Mississippi River and then goes to another stream will spread them," said LSU biologist Thomas Dietz, whose research indicates the number of mussels in the river have increased dramatically.

Every liter of river water contains hundreds of zebra mussel larvae, he said.

Zebra mussels can attach inside the cooling system of boat engines and grow until they clog the system, said Greg Lata, a fisheries specialist with the LSU Agricultural Center.

The mussels can live out of water for up to two weeks under humid conditions, according to researchers.

Mussels can be found by rubbing the boat. Tiny mussels feel grainy and should be scraped or blasted from the boat or trailer before it is put in other waters, said Michigan officials.

They also recommend replacing pipes in the cooling systems of boat engines if mussels colonize there.

In addition to the huge costs to utilities and manufacturers, zebra mussels have caused an estimated $3 billion in damages to shipping, pleasure boaters and fisheries in one decade in the Great Lakes, according to Jon Stanley of U.S. Fish and Wildlife Service.

Biologists had hoped the mussels wouldn't breed well in Louisiana's warmer water, but that turned out to be "wishful thinking," Dietz said. "They've only needed a very short period of time to adapt," and have survived the summers of 1993 and 1994 and multiplied.

Officials with the U.S. Fish and Wildlife Service now say the mussels appear to be able to tolerate the water temperature all the way to the mouth of the Mississippi River.

"It's not surprising, because other types of clams have found this to be a very suitable environment," Dietz said.

Mollusks have long been expensive nuisances

By ROB ANDERSON

Eight years ago, zebra mussels arrived in the United States via the Great Lakes, where they apparently were released with ballast water from a ship that had picked them up in Europe.

The dime-sized mussels, identifiable by their beige shells with dark stripes, are natives of the Caspian Sea.

About 200 years ago the mussels, which attach themselves to the hulls of ships, began moving through the Volga River to the Baltic Sea and, over the past 100 years, have moved throughout Europe.

A hundred years ago, they clogged water pipes in Rotterdam and Hamburg, shut Berlin's water supply down for 27 days and forced factories to shut down for maintenance and removal of mussel colonies.

In Europe, mussel populations have been limited to some extent by predators, but the mussels have no significant predators in U.S. waters, according to fisheries experts.

Since the mussels historically were not a problem in the United States, most American plants and waterways were not designed to deal with rapid buildup of mussel colonies in their water systems.

Even in recent years, when the mussels became a problem in the Great Lakes, most Louisiana industries felt somewhat safe since biologists doubted the mollusks would be able to survive this far south, because of water temperature.

That premise has proven false and the mussels are multiplying rapidly throughout the length of the Mississippi River, experts say.

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For boats that remain in waters infested by zebra mussels, the mussels attach and grow, adding drag that slows boats and causes increased fuel consumption.

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