

## An Outbreak of Zebra Mussel, *Dreissena polymorpha* (Pallas), in Oklahoma Waters

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Zebra mussels (*Dreissena polymorpha*) were found initially in North America in Lake St. Clair in June, 1988 (1); they have spread rapidly throughout much of the upper Mississippi basin since their introduction. By January 1994, the mussel was identified in the Arkansas River in Oklahoma (1). Previous records were from the locks and dam of Robert S. Kerr Lake and W.O. Mayo Lake where they occurred at low density, 40 mussels/m<sup>2</sup>. The invasion of Oklahoma waters was attributed to transport by barges from the Mississippi into the Arkansas River.

On 26 July 1995, we first collected a single large adult (29 mm) zebra mussel from Robert S. Kerr Lake while seining near Cowlington Point, 4.8 km E of Star (T10N R23E S25), Haskell County. This specimen has been placed in the Oklahoma Department of Environmental Quality (DEQ) collections in Oklahoma City.

On 4 June 1996, we collected over 300 specimens while examining the walls of the locks, boat ramp, and rip-rap at the Robert S. Kerr Lock and Dam (T10N R24E S09), Sequoyah County, 6 km S on HW 59 from Sallisaw. We collected 410 specimens from a 1-m<sup>2</sup> area, on 22 July 1996, while examining the walls of the lock (Figure 1). Schooley reported that by the fall of 1996, the density had increased to 850 mussels/m<sup>2</sup> at the same site where we found the mussels. This is the largest known concentration of the mussels in Oklahoma waters (2).

We collected 150 specimens on 11 June 1996, at the boat ramp at Leflore Landing on W.O. Mayo Lake (T10N R26E S34), 6 km N of Spiro, Leflore County. On 22 July 1995, we collected 70 specimens in a five-minute examination of the rocks and boat ramp at the same site. All specimens were placed into DEQ collections.

In 1996, we also sampled sites on the Arkansas River at Webber Falls, Muskogee, Bixby, Haskell, Tulsa, and Sand Springs three times and failed to find the mussel. It appears that the mussel is not spreading as rapidly in the Arkansas River as it has in other areas.



Figure 1. Zebra mussels collected from the wall of the lock at the Robert S. Kerr Reservoir on 22 July 1996.

### REFERENCES

1. U. S. Department of the Interior, U. S. Geological Survey, Water Fact Sheet. Zebra mussels in the Eastern United States. 2 pp.
2. Schooley, J. Zebra mussel population skyrocket. Outdoor News. Oklahoma Wildlife Federation. Dec. 1996 14 pp.

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