



## Unheeded Alarms

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Scientists have been forecasting the introduction of zebra mussels to North America for over a century, and yet these alarm bells were ignored for decades.

T.F Nalepa and D.W. Schlosser summarize several of these warnings in the opening of *Zebra Mussels- Biology, Impacts and Control* (1993, Lewis Publishers, CRC Press Inc, Boca Raton, FL, 810 pp.) Quotes and reference citations from the book are listed below.

“The *Dreissena* is perhaps better fitted for dissemination by man and subsequent establishment than any other fresh-water shell; the tenacity of life, unusually rapid propagation, the faculty of becoming attached by string byssus to extraneous substances and the power of adapting itself to strange and altogether artificial surroundings have combined to make it one of the most successful molluscan colonists in the world.”

Kew, H.W. 1893 *The Dispersal of Shells. An Inquiry into the Means of Dispersal Possessed by Fresh-water and Land Mollusca* (London, England: Kegan Paul, Trench, Trubner and Company Ltd.

“The possibility of...the zebra mussel being introduced [to the United States] is very great. There is entirely too much reckless dumping of aquaria into our ponds and streams. A number of foreign fresh-water shells, etc., have been introduced in this way. Why not the mussel?”

Johnson, C.W. 1921 *Crepidula fornicata* in the British Isles. *Nautilus* 35:62-64

“There is the real possibility that *Dreissena polymorpha* will eventually become established in the North American continent despite all efforts to prevent introduction of exotic species.”

Sinclair, R.M. 1964 Clam Pest in Tennessee Water Supplies. *Journal American Water Works Association* 56:592-599

“...the occurrence of its veliger larvae in the plankton...greatly enhances its potential for introduction to the Great Lakes in ship ballast water. If introduced, *Dreissena* could establish itself in North America.”

Bio-environmental Services, Ltd. 1981 *The Presence and Implication of Foreign Organisms in Ship Ballast Water Discharged into the Great Lakes, Vol. 1 and 2*, Prepared by Bio-Environmental Services Ltd. for the Water Pollution Control Directorate, Environmental Protection Service, Environment Canada