

HYDRILLA IN IOWA

A SMALL, unobtrusive pond in eastern Iowa is home base for a thriving aquatic weed that previously was known to inhabit only southeastern U.S. subtropical climates.

Hydrilla has been positively identified less than a mile from the Mississippi River near Davenport, Iowa.

The discovery of this hard-to-control aquatic weed sheds new light on the adaptability of this species

to foreign environments.

How did the Hydrilla get to Iowa? The only explanation available is that a small piece of Hydrilla apparently rode the coattails of a water hyacinth shipment ordered by pond owner, Pete Riehle.

"The area around here was developed by Dr. J. R. Shorey, a local physician," said Riehle. "He ordered hyacinth every year to add color

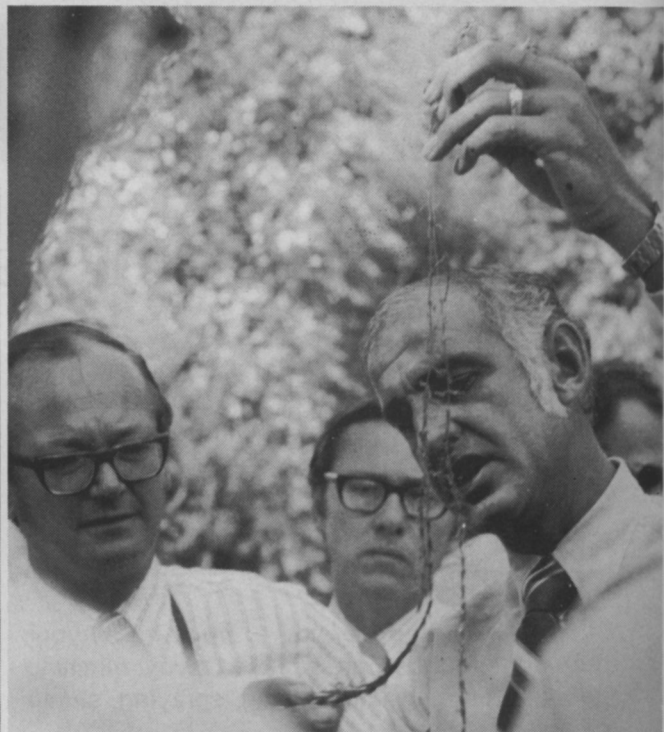
and beauty to the pond. When we moved here the practice was continued. Apparently Hydrilla was carried in with the hyacinth."

Earlier this year Riehle, who is a production superintendent for 3M Company, sent a sample of the weed to 3M headquarters for identification, after attempting to control it with little success. In St. Paul, Dr. William Paterson, manager environ-

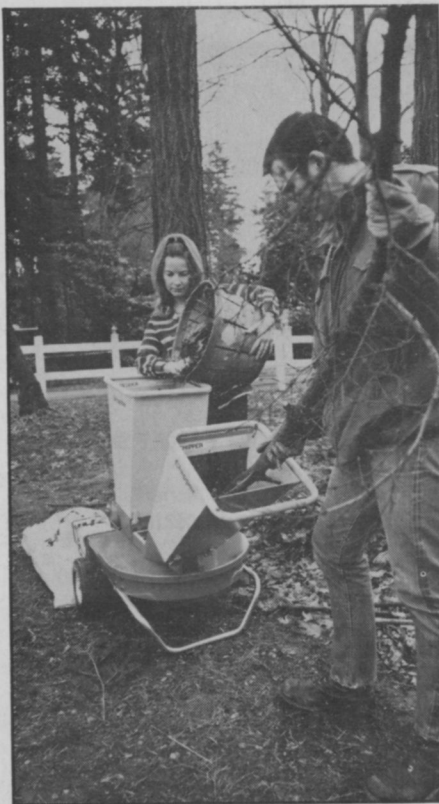
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Dr. William G. Paterson, (l) manager, environmental products project, 3M Company, examines strands of hydrilla with Robert D. Blackburn. Blackburn is considered a world authority on aquatic plant life. He is with the USDA Research Center in Fort Lauderdale, Fla.



Dr. Robert Geiger, manager of 3M's lakes and waterways management service, Pompano Beach, Fla. and Robert D. Blackburn discuss hydrilla taken from the Iowa farm pond near Davenport.



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HYDRILLA IN IOWA (from page 14)

mental products, identified it and sent it to Robert D. Blackburn at the USDA Research Center in Fort Lauderdale, Fla.

In late August, Blackburn, Patterson, other 3M Company officials as well as conservationists from Illinois and Iowa, a Wisconsin biologist and others gathered at the Riehle pond to witness the Hydrilla spectacle.

Blackburn quickly identified the plant as Hydrilla and told about 25 persons present, "It looks similar to *elodea canadensis* or American elodea. One of the identifying characteristics is the internode spacing. Spacing between internodes becomes less as the plant foliage approaches the water surface." Other characteristics of this weed are a flower and a tuber which develops under the soil. The density of tubers has been known to run between 35-125 tubers per square foot of soil.

Hydrilla is not native to the United States. It was imported several years ago as an aquarium plant. In documented cases, the weed has escaped and entered waterways and lakes in Florida where it has choked navigable waters. Hydrilla attaches itself to the bottom soil and sends out foliage in all directions.

The scientist noted that the Riehle pond water has a lot of calcium in it which is ideal for Hydrilla growth.

"I'm wondering if *elodea canadensis* is actually *elodea*," Black-

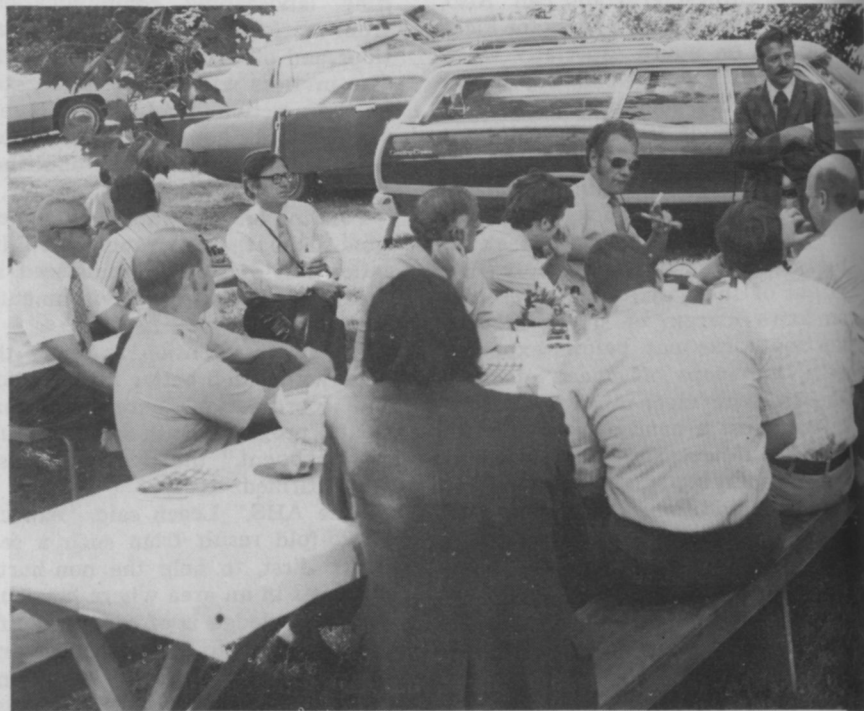
burn speculated. "If you compare it to Hydrilla, the two look alike." What has been thought to be *elodea* may in fact be Hydrilla.

Presently there are three aquatic herbicides available that control Hydrilla. They are: System E herbicide from 3M Company, Hydout weed killer from Pennwalt and the tank-mix combination of Cutrine and Diquat from Applied Biochemists, Inc. and Chevron Chemical Company, respectively. All products are registered for use in Florida only.

Is there an immediate danger of Hydrilla invading other ponds, streams, waterways or even the nearby Mississippi River? Blackburn indicated that initially he was surprised to learn about the adaption of the weed to this colder climate. He said that Hydrilla has been cited in only three southeastern states.

The danger that exists depends on where it can be established, he said. Of course, one effective way to decrease the incidence of the weed is to isolate and quarantine known infestation areas. Hydrilla in the Riehle pond is the first case of Hydrilla outside of the southeast. Thus, isolating the pond from other ponds may prevent the spread of the weed.

Tests will be conducted throughout the remainder of this year and a close monitoring system will be activated to hold any chance of a potential Hydrilla spread in check.



Peter Riehle, (standing) who first noticed the growth of the hydrilla in the pond, explains what happened. Environmental products experts from 3M Company, area newsmen, state and government officials and WEEDS TREES and TURF gathered at the pond for a quick breakfast before examining samples of hydrilla.



Proudly holding the Meritorious Achievement Citation received from Melvin R. Laird, Secretary of Defense, for the installation's outstanding conservation program, are Col. Arthur L. Knipp, Jr., Post Commander, Picatinny Arsenal and Frank Ferry, his deputy. Joining them are those who directly supervised work that brought award to Picatinny. Left to right, Michael George, grounds maintenance foreman; Joseph Bozzuffi, agronomist; and Alfred (Red) MacKinnon, chief, bldgs, roads & grounds branch.

Defense Conservation Award Won By Picatinny Arsenal

For the fourth time in the last five years, Picatinny Arsenal has won a Department of Defense conservation award.

With the Meritorious Achievement Citation, which was for the installation's 1970 conservation program and which complements similar awards for 1966, 1968 and 1969, came expressions of appreciation and congratulations from several highplaced officials, including Melvin R. Laird, Secretary of Defense.

Mr. Laird noted that the Arsenal's outstanding conservation program "reflects great credit upon the installation, the personnel thereof, the Army and the Department of Defense."

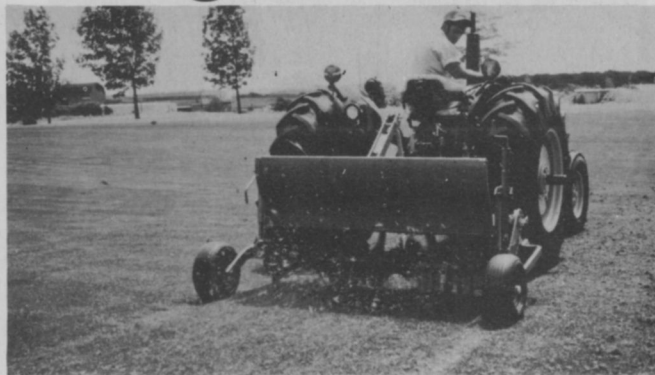
Lt. Gen Joseph M. Heiser Jr., the Army's Deputy Chief of Staff for Logistics, said the citation attests to "the vigorous efforts made by the installation to promote fish and wildlife activity, create new recreational opportunity, and further the application of conservation and management principles."

Each year, Defense Department installations throughout the United States submit reports with accompanying photographs of their achievements in land, forest, wildlife and select the winners based on accomplishments in woodland improvement and protection, wildlife management, weed control, grass, tree and shrub planting, soil improvement, safety and insect control.

The arsenal maintains close liaison with county, state and federal agencies having related responsibilities in the field of natural resources conservation, including the Morris County Extension Service, the Mosquito Control and Soil Conservation District, the New Jersey State Departments of Environmental Protection and Agriculture and the U. S. Departments of Agriculture and Interior.

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