

# Rollins biologist discovers damage can be done to lakes by new exotic species

By MISSY CLARK

Staff Writer

WINTER PARK—A potential threat to Winter Park's lakes exists in two new exotic species, a fish and a clam, which have been introduced recently and—if not monitored closely—could destroy the water's ecological balance, according to a Rollins College biologist who has been studying the lakes for nearly four years.

"These exotics," which have proved effective in some waters for short-term weed control, "may be very detrimental to our lakes in the long run," said Dr. James Small, Ph.D., who has been in charge of an ongoing study of the lakes by the Rollins College biology department.

The study, which consisted of monthly and bimonthly sampling of lake waters, lasted 45 months. Small was at Monday's city commission work session to explain and summarize the final report, which was submitted to the city last week. The Rollins study concluded June 1. In addition to Small, other biologists on the study were David Richard, Ph.D., and Eileen Gregory, Ph.D., also both from the Rollins biology department.

The exotic fish and clam, which Small said came into the lakes from the St. John's River, multiply rapid-

ly, depleting natural vegetation, stirring up the bottom and moving native species out of their habitats.

Small's report stated that "we expect major changes in the Winter Park lakes as a result of these new exotics, and the results may well be no less detrimental to the ecology of our lakes than the introduction of hydrilla proved to be."

Hydrilla, a plant introduced into the lakes in the 1960s, grows so densely that it chokes lakes, impeding storm runoff and preventing recreational use. When killed with herbicides, hydrilla also adds to the bottom sediments, accelerating the aging process of the lakes.

Since the long-term effects of the exotic fish and clam have not been well documented, Small said, he suggests that rather than try to wipe them out immediately the city should closely monitor their populations.

While Small's report warned about the dangers of the exotic fish, it also indicated that the Winter Park's lakes, though far from pristine, are not as bad as some might think.

"The Winter Park Chain has been fairly stable over the past three years," said Small. The lakes are in the early stages of a natural aging process, a process which cannot be reversed but can be slowed by alleviating man-made factors that

cause additional deterioration, or a speeding up of the aging process.

Those factors, studies have found, include urbanization of natural shorelines, storm-water and debris runoff and the introduction of exotic species.

To combat the pollution, the city has taken several steps, as advised by previous reports from the Rollins study and other consultants. These steps include fitting storm drains with filters to trap debris and runoff before they enter the lakes; encouraging lakefront homeowners to allow natural vegetation along shorelines; increased street-sweeping programs, and the use of the herbicide fluoridone (Sonar) to kill weeds and algae.

In its final report to the city, the Rollins group outlined several specific recommendations for present and future management of the lakes. They include:

- Continuing the present program of limited use of fluoridone for weed control while also encouraging the growth of desirable native vegetation.

- Continuing to construct leaf and street debris traps on all important storm drains and implement a frequent cleaning procedure. Leaf debris should be the major concern of lake managers.

- Encourage lakefront homeowners to allow natural vegetation along their shorelines. Natural vegetation acts both as a wildlife habitat and a nutrient filter.

- When new construction occurs, requiring owners to build berms and other barriers to impede storm-water runoff into the lakes.

- Continuing to monitor and evaluate the lake chain for changes in the current balance due to the exotic species.

"Impeding debris and storm-water run-off into the lakes should be the No. 1 concern," said Small, his statement based on the amount of debris caught by the one large trap on Webster Ave. as evidence.

In addition to the Rollins Study, Professional Engineering Consultants Inc., a consultant used frequently by the city, has also been studying the lakes and reporting similar findings. The Rollins Study, along with PEI's and other consultants' recommendations, are being used as guidelines for the city in developing a comprehensive plan for managing and improving the condition of the lakes.

After Monday's approval by the city commission, the Rollins report will now be referred to the lakes and waterways board for its review as well as to the city's consultants.