ENDANGERED

THREATENED 'ROCKS' IN LAKE RICHMOND

Microbialites are rock-like structures built by micro-organisms. Stromatolites are one form of microbialite, and those at Hamelin Pool, Shark Bay are probably the best known. They are not believed to be under threat, unlike others closer to Perth. Specific microbial communities responsible for creating microbialites were identified as threatened by CALM's Western Australian Threatened Species and Communities Unit (WATSCU) in an initial project funded by Environment Australia (*LANDSCOPE*, Autumn and Spring 1996 issues).

Fossil stromatolites represent the earliest record of life on earth, and some of the microbes that build them now are little changed from the earliest forms of life. The structures are formed from a type of limestone, and occur in restricted areas including the Bahamas, Bermuda and Western Australia. Microbialites may not be spectacular, but have scientific interest that belies their humble appearance as they provide evidence of historical environments through information held within their structure. Some in WA are 3.5 billion years old.

Thrombolites are a particular type of microbialite that have a clotted appearance in cross section, whereas stromatolites have a layered structure. Lake Richmond, at Rockingham, is a deep freshwater lake containing a thrombolite community that is critically endangered—it is subject to the pressures of being in an urban area. The thrombolites form around the lake where fresh groundwater flows in, which provides their building materials such as calcium and carbonates.

Many people visit the lake for bird watching or to see the strange, fragile structures. Unfortunately visitors often unknowingly damage thrombolites by treading on them. New signs funded by CALM now advise visitors to 'watch your step'!

Val English, Linda Moore and Bob Goodale

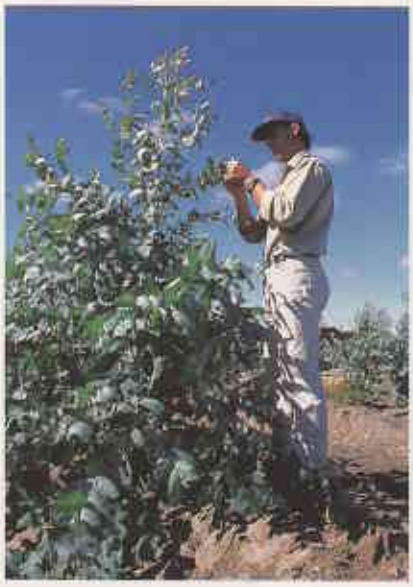
Photo – Bob Goodale

Unless carefully managed, developments in the lake's catchment could damage the thrombolites by affecting the supply or quality of fresh water essential for their survival. Nutrients, for example from fertilisers used on lawns, can enter ground or surface waters and cause algal blooms that smother the structures. A wide vegetation buffer around lakes can, however, help stop contaminants flowing in.

The Kwinana-Rockingham-Mandurah Branch of the WA Naturalists' Club (Inc) conducts surveys, rehabilitates, monitors and protects the lake, and informs the community about its importance. Their 1996 Management Plan, written for Rockingham City Council in whom most of the lake is vested, outlines broad steps for the continuing conservation of Lake Richmond.

A recovery team was recently established by CALM. The group is drafting a detailed Interim Recovery Plan intended to guide future management of the thrombolites.

The threat from below . . . How can we defeat our greatest environmental enemy? Read about salinity and what we can do about it on p. 10.



One of the best aids to plant conservation is completely invisible. See our plant DNA story on p. 18.

LANDSCOPE

VOLUME THIRTEEN NUMBER 1, SPRING 1997

Dryandra, one of the last refuges of the native wildlife. Now you can experience this woodland wonderland for yourself. Find out how on p. 36.

Europeans brought alien plants and animals to WA's rangelands, which have since become degraded. What can be done? See p. 42.

How old is the Stirling Range? Read about this stunning area in our story on p. 48.

FEATURES

REGULARS

COVER

The Fitzgerald River National Park boasts a startling array of habitats, mammals, birds and other species. Its wildflowers in spring are often spectacular. Our story on p. 28 is a fascinating tale of variety, beauty, and threat in this aged land.

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