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BCParks

Marble Canyon Provincial Park

Welcome to Pavilion Lake

Pavilion Lake is a slightly alkaline, freshwater lake with a maximum-recorded depth of 65m. Nestled in the limestone walls of Marble Canyon, at an elevation of 823m, the beautiful clear blue waters are groundwater fed. The lake falls within the traditional territory of the Ts'kw'aylaxw (pronounced "Ski-lak") people, also known as the Pavilion First Nations Indian Band, who have a special heritage and spiritual connection to this lake and its surrounding land.

On April 18th, 2001 the bottom of Pavilion Lake was formally added to Marble Canyon Provincial Park. The purpose of the Pavilion Lake park addition is to protect the unique and fragile structures on the bottom of the lake. The structures are of various shapes and sizes, some up to three meters high, and are estimated to have started forming 11,000 years ago after the glaciers receded from the area. The formations, called microbialites, are calcareous structures likely produced by microbial communities. Believed to be similar to some of the earliest life forms on earth, this lake is a potential window into ancient ecosystems on Earth and possibly early Mars. Pavilion Lake is one of only a few places in the world where these types of microbialite features can be found.

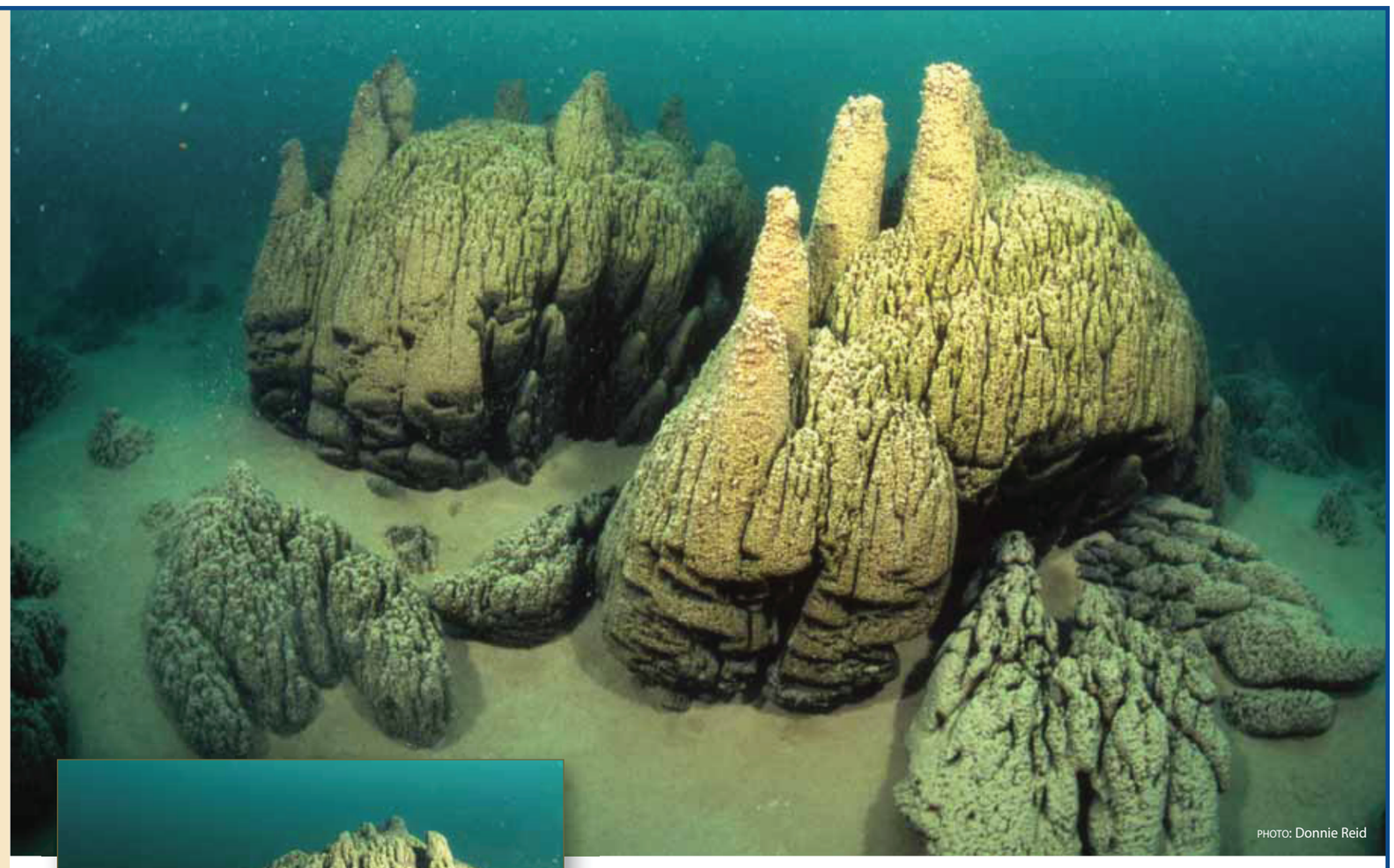

PHOTO: Donnie Reid

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Examples of varying microbialite forms in Pavilion Lake: *bottom photo,* shallow to upper intermediate (5-10m); *above photo,* intermediate to lower intermediate (20-30m); *left photo,* deep water (≥30m).

Research

Pavilion Lake has been designated a Canadian Analogue Research Network (CARN) site by the Canadian Space Agency, as it offers researchers from across Canada and the U.S. an exciting opportunity to study the formation of microbialites.

The Pavilion Lake Research Project (PLRP) was established in 2004 as a joint NASA-University of British Columbia effort to conduct science and exploration of this lake. Scientific study areas have been designated along much of Pavilion Lake with science equipment and experiments deployed along set transects. Recreational diving is only permitted in selected areas to avoid any disturbance of microbialites, scientific equipment or experiments.

The microbialites have been classified as: shallow to intermediate, intermediate, intermediate to deep and deep.

PHOTO: Donnie Reid

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