



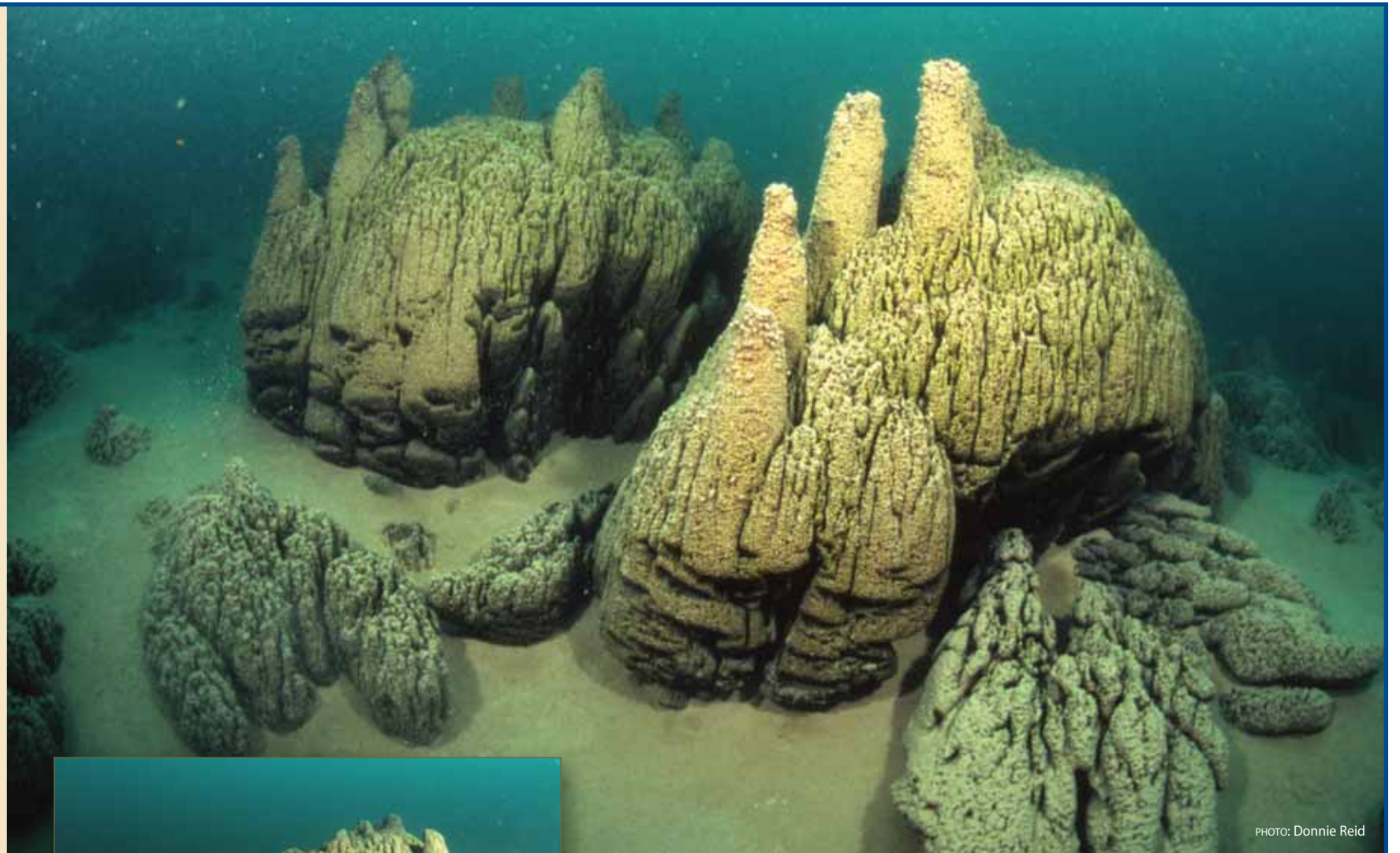
Marble Canyon Provincial Park



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 long, 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.



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.



Pavilion Lake

Pavilion Lake, part of Marble Canyon Provincial Park, contains internationally significant “microbialite” structures, thought to be comparable in some respects to microbial reefs that existed on earth over 500 million years ago. The importance of this resource demands special considerations. To ensure resource protection and visitor safety, please be aware of the following:



GENERAL

- Do not throw or deposit any fish parts or garbage into or on the water or ice;
- Please do not introduce alien species such as Milfoil or live bait/coarse fish as these can have disastrous affects on this sensitive lake ecosystem;
- The consumption of alcohol is prohibited in all park areas (including Pavilion Lake) except at your registered campsite.

SUMMER ACTIVITIES

- Anchoring and the use of down riggers are not recommended. These can impact and damage the microbialites;
- Camping is permitted only in Marble Canyon Campground at Crown Lake or at the private Sky Blue Water Resort on Pavilion Lake;
- Do not touch, damage or remove the microbialites. The microbialite structures are very fragile—please stay well back.
- Removal, damage or disturbance of any natural or cultural feature, or on-site research equipment, is prohibited.

WINTER ACTIVITIES

- Please keep motor vehicles off the ice; oil and gas residues damage water quality, microbialites and the general lake environment;
- Do not have fires on the ice.

DIVING SAFETY RECOMMENDATIONS

Diving is only permitted in portions of Pavilion Lake, as shown on this Park Zoning map. This allows divers to see microbialite structures in parts of the lake, and at the same time provides a higher level of protection for the study of these internationally significant structures in the rest of the lake.

Natural Environment Zone (recreational diving allowed):

South site - extending to the 40m depth in a 150m radius from point of access.

Island to Sky Blue - From the westerly end of Sky Blue Water Resort out to the 40m depth, following the 40m depth contour to roughly the easterly end of Sky Blue Water Resort; thence in curved boundary through roughly the middle of the lake to connect past the island at the locally known “3 poles point”. This site covers all of the area around the island and Sky Blue Water Resort where most of the scuba diving activity occurs.

North site - Along the wall off of the Highway on the northeast side of the lake down to the 40m contour.

Special Features Zone (recreational diving prohibited):

To cover all of the majority of the lake, including the area of primary interest for scientific study. BC Parks encourages all divers to adhere to safe diving practices, including:

Diving

- Do not touch, damage or remove the microbialites. Buoyancy control while diving is very important the microbialite structures are very fragile. Please stay well back.
- Certification: All divers should trained and certified by a recognized organization;
- We recommended you use a dive flag, the rule of thumb is vessels stay 30m (100ft) away and divers stay within 15m (50ft) of the dive flag.
- Never leave a boat unattended when used for diving, snorkelling and swimming. At least one person should be left on board.
- Never dive alone. The buddy system offers additional protection in the event of unexpected problems;
- Cold water: Low water temperatures even in mid-summer in this area can create special hazards – be prepared.

