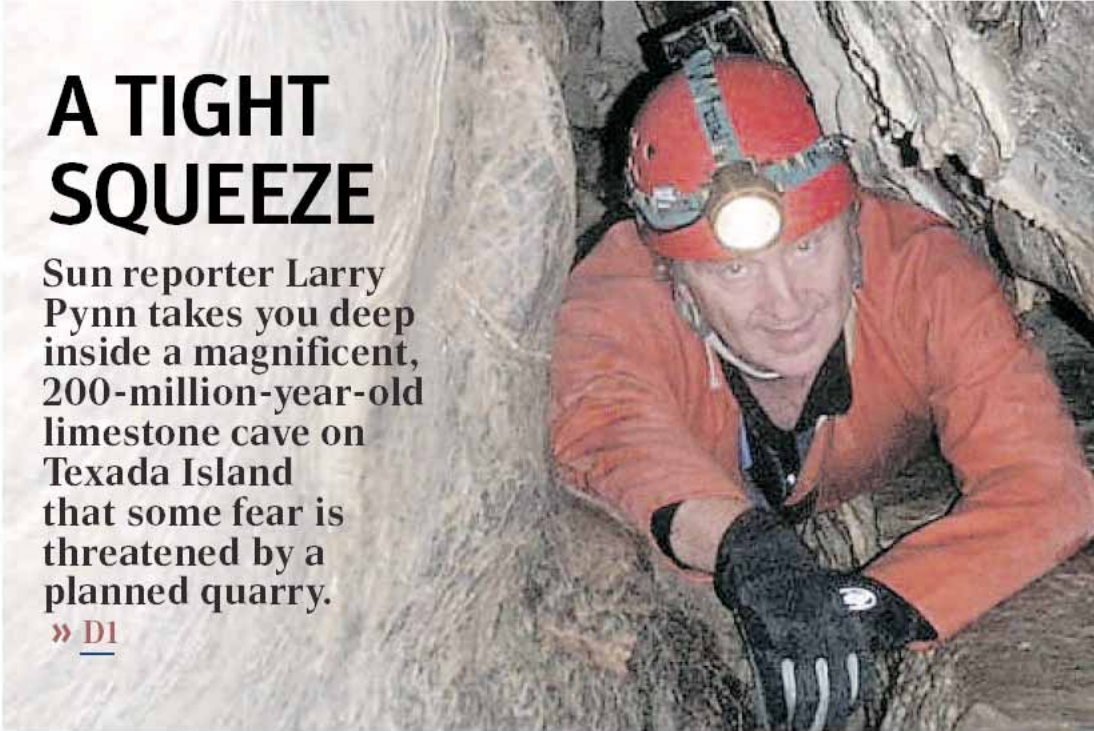


# A TIGHT SQUEEZE

Sun reporter Larry Pynn takes you deep inside a magnificent, 200-million-year-old limestone cave on Texada Island that some fear is threatened by a planned quarry.

» [D1](#)



## WEEKEND EXTRA



PAUL GRIFFITHS/SPECIAL TO THE VANCOUVER SUN

Reporter Larry Pynn negotiates a low passage in Cave X on Texada island. The cave, which contains 200-million-year-old limestone, is located next to a controversial proposed quarry.

# Between a rock and a hard place

Quarry plan skirts environmental assessment amid fears it could damage an important cave system

BY LARRY PYNN  
VANCOUVER SUN

GROW-OP CREEK, B.C.

Paul Griffiths stands atop the entrance to Cave X on Texada Island and allows that he doesn't really want me to be here.

As a global expert in management and protection of karst landscapes — delicate formations sculpted by naturally acidic water eroding subsurface carbonate rock — he knows the dangers of too much publicity and too many people.

But Griffiths feels he has no choice in this case, since the B.C. government to date has not ordered an environmental assessment of a 46-hectare limestone quarry proposed here near Davies Bay.

Saved-off western red cedar trees at the entrance to Cave X are evidence of past logging that occurred without consideration for the subterranean karst environment.

Griffiths hopes such practices wouldn't be repeated today, al-

though in the absence of provincial cave legislation and in the face of the current quarry plan, he has to wonder.

"The forest district has no legal mechanism to prevent logging of the site," says the Campbell River-based consultant who has studied karst around the world for more than 40 years.

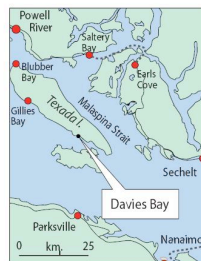
Griffiths and his colleague, Carol Ramsey, lead the way this morning, dropping five metres straight down into the cave entrance by hanging onto a rope and exposed tree roots.

Also along on the expedition are NDP MLA Scott Fraser, whose Alberni-Pacific Rim riding on Vancouver Island includes extensive karst formations, as well as Nicholas Simons, the Powell River-Sunshine Coast NDP MLA whose riding includes Texada Island.

Addressing the group at the bottom, Griffiths begins: "If you start to feel uncomfortable..."

To which Simons flatly finishes: "We'll tell you."

We turn on the battery lamps attached to our plastic helmets and squirm on our bellies



through running water and beneath an overhang of 200-million-year-old limestone that originated in tropical times.

Once through this initial constriction, we stand up to examine grey walls flecked with crickets, moths, and harvestmen or daddy longlegs, which look like spiders but fall within a different order.

"Sometimes we see them [harvestmen] in big balls," remarks Ramsey, who has been accepted in a PhD program in karstology through a university in Slovenia.

"They cluster, maybe for warmth."

This is known as the twilight zone — the point at which light from the cave entrance yields to dark — and the going only gets tougher from here.

Ahead lies one increasingly tight passage after another that would incapacitate anyone with even a hint of claustrophobia.

Griffiths — who should know — looks at my waistline and notes it can be good to be packing a few extra pounds. Should I become stuck, I can simply wait a few days for my body to waste away and eventually escape, the sort of option not available to a slimmer person. "But that's not going to happen," he assures.

We bend back at a 45-degree angle and inch between two slabs of limestone, do the limbo beneath another, and wedge slowly forward on our stomachs or sides through narrow crevices.

"It looks like a uvula," Fraser remarks at one point. "We're going into the throat of something."

Seconds later we observe cal-

cite features known as curtains, their ends serrated like the teeth of sharks.

Turn off the headlamp this far into the cave and you are engulfed by the sort of utter darkness not normally possible on the surface. Which makes the discovery of life forms here all the more remarkable.

On an earlier trip, Griffiths and Ramsey discovered a white millipede that may yet turn out to be a new species. Today they collect the carcass of a dead one to be shipped to an expert in Hampden-Sydney College in Virginia for identification. Caves elsewhere in the world have yielded unique blind fish and insects.

Along the way we also encounter evidence of soda straws, the early stage of stalactites, broken off by the bodies or helmets of previous visitors. Sections of creamy flowstone now carry a thin layer of dirt from hands and legs.

"If you see pristine calcite sur-

faces, avoid them," Griffiths implores.

After about an hour, we reach a chamber 120 metres from the entrance (still less than half of the 300 metres that cavers have explored here to date) where we can again stand and enjoy the calcified features.

Especially impressive are cylindrical stalactites formed one drip at a time over thousands of years and containing valuable information about the cave's environmental history and past climates.

The longest stalactite would have measured 4.4 metres — potentially a Canadian record — had the bottom one metre not been broken off, most likely through an act of vandalism or carelessness.

The chamber contains a waterproof notebook on which visitors can write their names. Griffiths figures no more than 50 people have found their way here over the past decade, mostly locals.

STORY CONTINUES ON **D2**

Article rank | 17 Oct 2009 | The Vancouver Sun | lpynn@vancouversun.com

# Caves 'neglected' by B.C. government

Someone has inscribed 4:20 on a wall, a reference to April 20, a day of celebration in cannabis culture.

PHOTOS, EXCEPT BOTTOM RIGHT, BY PAUL GRIFFITHS/SPECIAL TO THE VANCOUVER SUN



**ABOVE: A small chamber with a flowstone floor, calcite columns, and fine stalactites called 'soda straws'. The cave system of which it is a part is located next to a controversial proposed limestone quarry.**

"Graffiti," says Griffiths, shaking his head.

Research suggests that karst stream systems play a significant role in the productivity of downstream aquatic habitat, in part by regulating flow and temperature, as well as providing more nutrients and insects for fish populations.

Where surface soils are conserved, growth of trees and plants can be more productive over karst formations, which are better drained and rich in carbon dioxide; root systems can extend underground for up to 50 metres.

Surface streams on Texada Island can dry out during the heat of summer, but those that filter down into a cool karst system remain sheltered from the sun.

Where they reappear at the surface, they become the source of irrigation for marijuana operations, as

evidenced by plastic pipes and holding ponds abandoned by drug dealers for another year.

Grow-op Creek is an official name listed on mining maps of the area.

Griffiths notes he was hiking this area recently when a Rastafarian-looking man jumped out from the Crown land and asked what he was doing. When Griffiths said he came for the caves, the man said okay and that he'd call off the dogs.

One could argue that illicit drug dealers have a greater appreciation for the caves of Texada Island than the B.C. government — at least based on its actions to date.

Lehigh Hanson Materials Ltd., part of the Heidelberg Cement Group, proposes to mine 240,000 tonnes of limestone annually on Texada — 10,000 tonnes below the threshold required for a provincial environmental assessment.

Proposed quarry close to cave

"If it was more than 240,000 tonnes we would have to go through an EA, wouldn't we?" confirmed Greg Carriere, Lehigh's manager of industrial minerals. "We have no need to go there."

(Heidelberg was among six companies fined 660 million Euros in 2003 for cement price-fixing).

The quarry is proposed mostly on Crown land extending to within 500 metres of the cave. But Griffiths argues that in the absence of a proper karst assessment, there is no way of knowing whether it extends right into the quarry.

Griffiths has asked Environment Minister Barry Penner to use his powers under Section 6 of the Environmental Assessment Act to order a review of the Lehigh project, citing the potential for blasting as well as debris and pollutants to damage the cave system and its water quality.

"To date, the province has largely neglected its responsibility to take an active role in managing its cave resources even as the quality of some of the resources declines," Griffiths wrote to the minister.

"Cave management in B.C. in recent years may be most charitably characterized as benign neglect, with the responsibility for cave mapping, inventorying, assessing, planning and monitoring being downloaded in a very piecemeal, haphazard fashion on to private citizens and recreational caving organizations."

To accept Griffiths' request under the act, the minister must be satisfied that the project "may have a significant adverse environmental, economic, social, heritage or health effect ... is in the public interest ... (and) the project is not substantially started."

Karst features not 'an issue'

Penner has referred Griffiths' request to the Environmental Assessment Office for a recommendation, which is expected in about two weeks.

Jake Jacobs, public affairs officer for the ministry of energy, mines and petroleum resources, said there is a ministry review underway of Lehigh's proposed quarry, including a referral to local provincial and federal natural resource agencies, local government and first nations, as well as a public notification process.

"The company is aware of the cave/karst system," Jacobs wrote. "A mitigation and monitoring plan will be required as part of the proposal review."

Yet Lehigh's Carriere all but dismisses the importance of the karst features. "It's not a major resource as far as we're concerned," he told The Vancouver Sun. "We don't feel this is an issue." The Powell River Regional District board has asked the mines ministry to "weigh the short-term economic gain against the long-term economic, social and environmental impact on the island community when considering" Lehigh's proposal.

The board said "a karst assessment should be carried out by a qualified karst professional to identify any direct and indirect impacts that may result from the quarry operation and to determine what actions could be taken to prevent or mitigate these impacts."

Griffiths argues the quarry proposal only emphasizes the need for comprehensive cave legislation in B.C., something that is already in place on federal lands in the U.S. as well as in at least 22 states.

Fraser agrees and is in the process of drafting a private member's cave bill for the province.

"It's about protecting a sensitive ecosystem," he asserts. "The government isn't doing it."

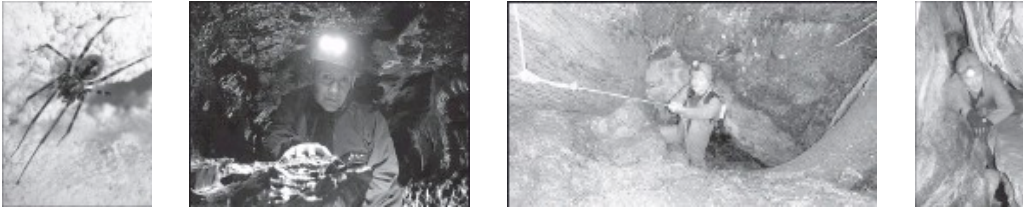
Only three of B.C.'s 29 forest districts so far have orders providing for protection of caves.

These orders apply only to forests, not other potentially damaging activities such as mining, hydro development, and recreational caving.

Griffiths adds that there is only case in B.C. in which the province went after an industrial operator for damaging a cave system — and that prosecution ultimately fell apart on a technicality.

The B.C. forests ministry fined Darren Smurthwaite \$45,000 for damaging karst in the Queen Charlotte Islands, a penalty overturned on appeal in 2006 in part because of the province's "complete failure to notify the director of his possible personal liability" for his logging company.

The province does have a Karst Management Handbook for B.C. and Best Management Practices for Palaeontological and Archaeological Cave Resources, but these are voluntary documents.



Penner chose not to be interviewed on the need for cave legislation. His public affairs officer, Lianne Bowness, noted several provincial parks protect caves and that "government staff are reviewing current practices pertaining to the protection of these valued resources, to help determine whether additional protections are needed."

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