



Assistant skeleton articulator, Jesse McBeath, works on the attachment between the ribs and vertebrae of the blue whale skeleton. DAVID GILBAR

## PEI whale finds new resting place in Vancouver

By JOAN DELANEY  
Epoch Times Staff

How do you exhume, disassemble, then reconstruct the skeleton of an immense blue whale that has been dead for 23 years? With quite a bit of difficulty, it turns out.

The story of the blue whale skeleton that will soon open for public viewing at the University of British Columbia begins on Prince Edward Island's remote northwestern coast where the whale died in 1987.

The whale was buried near the town of Tignish, P.E.I., and that's where it remained until Andrew Trites decided to dig it up and put it on display at UBC's new Beaty Biodiversity Museum.

Trites, director of UBC's Marine Mammal Research Unit and leader of the effort to recover the 26-metre skeleton and prepare it for exhibit, says he realizes now that he had no idea what he was letting himself in for.

"It's certainly not what I had thought I was getting into when I first suggested, 'Why don't we get a blue whale?'" It was one thing to say something so simple, but it was another thing once we were faced with the reality of what's involved to dig up the largest animal that's ever lived on the planet," he says.

The first surprise came with the discovery that the carcass had hardly decomposed at all.

"It was a shock as we dug through this frozen red soil to discover a very bluish-tinged skin and in fact to realize that the whole whale was still there intact after being underground for 20 years. It was something that none of us had predicted," Trites says.

It took eight days for a team from UBC along with volunteers from the University of P.E.I. that included biologists, carpenters, veterinary pathologists, knife sharpeners, and machinery operators to excavate the carcass and separate the stinking flesh from the bones.

"We left all the very, very smelly meat and just brought the smelly, smelly bones back," says Trites. "The bones were just full of rancid oil. I don't know how many people have smelled rancid oil before, but when it goes rancid you cannot be in the same room with it, it's so powerful."

One of the biggest challenges of

the whole undertaking was removing the oil from the bones, some of which are sponge-like and extremely porous. Trites notes there isn't much precedent for degreasing the bones of a blue whale.

"There was a huge learning curve," he says.

"We spent literally hundreds and hundreds of hours discussing our options and trying different things and consulting with specialists, but no one has ever tried to clean the oil out of a whale this big before."

Longer than two city buses parked one behind the other, the blue whale is the largest creature in existence. Its heart is as big as a small car and its tongue weighs as much as an entire elephant.

"You could effectively have 55 people standing on its tongue, and a child could crawl through its artery, it's that big," says Trites.

It is also the loudest animal. At 190 decibels, a blue whale's call is louder than a jet (140 decibels), and much louder than a person can shout (70 decibels).

This particular whale, a female about 70 years old, had been hit by a ship, with the result that part of its giant skull was shattered. That and any other missing bones were rebuilt by a company in Drumheller, Alberta.

The oil removal process took place in Victoria, after which a team of sculptors, technicians, scientists, and students set about repairing and re-assembling the 500 or so bones.

The fact that the body was so well-preserved provided a rare opportunity to examine the bone structure of the whale's flipper—something that hasn't been possible in the past—making this one the most accurately assembled blue whale skeletons in the world, Trites says.

The skeleton was moved to UBC last month where it will go on display May 22—International Day of Biodiversity—suspended in a glass atrium in the centre of the campus. The museum itself, to consist of over 2 million specimens, will open later this year.

Estimated to weigh about three-and-a-half tons, the skeleton will be in the shape of the blue whale's signature lunge-feeding pose, thanks to the expertise of master articulator Mike deRoos.

"He's really given this whale a second life and when you see it in its final spot it looks as though this animal is swimming through space. It's not flat and static, it breathes life and it's quite inspirational to see," says Trites.

There are just six blue whale exhibits in North America. The only other such exhibit in Canada will be unveiled at the Canadian Museum of Nature in Ottawa this summer.

With only about 4,500 blue whales remaining in the world, down from down from 350,000 before whaling began, Trites says the exhibit will help raise awareness about conservation and the threats facing much of Canada's marine life.

"The whale's going to help people to discover many different stories, but in particular to understand the importance of biodiversity and the need we have to conserve and protect it," he says, adding that blue whales, an endangered species, have disappeared in B.C. with numbers heavily depleted on the east coast.

"Personally I feel that it is a national treasure, and that's how we've seen it—as we've saved something."

# Family dynamics more influential than cost in higher education for youth

Decisions to attend college or university begin to form early in life, finds survey that tracked two groups over nine years

By CINDY CHAN  
Epoch Times Staff

OTTAWA—New research into what affects young people's ability to opt for higher education has found that although cost is an important consideration, it comes second to various complex family-related influences beginning early in life.

The research is based on data from the Youth in Transition Survey (YITS) developed by Statistics Canada and Human Resources and Skills Development Canada that studied two groups of youth over nine years.

"Probably the most significant [finding] is our understanding of the factors that affect access to post-secondary education," said Prof. Ross Finnie of University of Ottawa and Statistics Canada.

"Rather than being the narrow economic or financial factors that we thought in the past were most important, like tuition rates and student financial aid, at least in terms of affecting change at the margin or bringing new students in the system, it's more to do with what we've call 'cultural factors' related to the family."

These include a host of subtle, interrelated factors like a child's experiences growing up, parental education and attitudes towards schooling, preparation that a student receives for going to college or university, and the student's own aspirations, motivations, engagement with school, study habits, and high school outcomes.

"It's a complex process, it starts early, and it's rooted to a great degree in the family," Prof. Finnie said.

Prof. Finnie is among four co-authors of "New Perspectives on Access to Post-Secondary Education," an article in Statistics Canada's April 2010 issue of "Education Matters: Insights on Education, Learning and Training in Canada."

The YITS studied two groups

of youth as they moved from their mid-teens to their late twenties, making decisions about—and in some cases progressing through—post-secondary education while also making choices about moving into and out of the job market.

Each group was interviewed five times at two-year intervals, starting in early 2000, with the latest data referring to 2008.

### FEW TRUE DROPOUTS

Prof. Finnie said the new data has made it possible to identify a number of important educational pathways that have previously been insufficiently understood.

For example, in addition to access to post-secondary education, another key line of research concerns students' persistence toward post-secondary graduation. The YITS data showed that about half of all students failed to finish their initial program within five years, but only about 10 to 15 percent can be considered true dropouts.

Some switched programs, and of those who dropped out, many actually returned to school later. "A good number simply leave one institution but go to another one possibly at the same level—college or university—and they finish their studies there," Prof. Finnie said.

Financial factors were seldom behind the decision to leave, the survey found, and family background only had a small influence, unlike the decision whether to pursue post-secondary education. The most important factors were related to students not finding a good fit for their skills and interests.

The extent of this problem calls for further research into what, if anything, can be done to improve the situation, said Prof. Finnie. It could be that students need better information or tools to help them choose their program, or they need better assistance through tough spots.

Other key ongoing research in-



HIGHER LEARNING: University students walk between classes on campus. New research indicates that, for many students making the decision to attend college or university, cost often comes second to family-related factors such as income, parental education, and the students' own aspirations and preparation for higher education. JONATHAN REN/THE EPOCH TIMES

cludes understanding the cost of schooling, the student financial aid system, post-secondary students' workforce participation, and how these factors affect educational pathways.

Prof. Finnie and his co-authors, Richard Mueller of University of Lethbridge and Statistics Canada, Arthur Sweetman of Queen's University, and Alex Usher of Higher Education Strategy Associates, also co-edited "Who Goes? Who Stays? What Matters? Accessing and Persisting in Post-Secondary Education in Canada."

The book is a collection of analysis articles by noted Canadian contributors in the field examining choice, opportunity, and barriers related to post-secondary participation.

### POLICY INTERVENTIONS

Prof. Finnie said it's important to discover what policy interventions "might work to help those who don't get a full chance to prepare for post-secondary education, or to even think about going."

He noted a U.S. program that required graduating high school students to apply to a college or university even if they didn't think they wanted to go. A substantial number

got accepted and started realizing that post-secondary education was an option for them. The program increased the post-secondary enrolment rates.

"We need to focus our efforts at finding out what's been tried and as best as possible to evaluate those different approaches to see what works and what doesn't," Prof. Finnie said.

The new research also examined the effect of high school students' paid work. Previous research showed that a small amount seemed to correlate with higher grades while too many hours were detrimental.

However, the new data indicated that, once other individual characteristics are controlled for, "the effect of working during high school is negative, in any amount."

On the other hand, extra-curricular activities "do seem to be good for young people," Prof. Finnie said. "If it's work for money, not so much."

Beyond ensuring affordable schooling, "for researchers and policymakers, we now have to shift the focus of our interests to better explore the specific things that matter, and what policies can make a difference," he said.

## Vancouver coffee shop gears up for mob scene

Sales boon will pay for environmental upgrades

By ANDREA HAYLEY  
Epoch Times Staff

VANCOUVER—A mob numbering in the hundreds—some dressed as carrots—will descend on Salt Spring Island Coffee on Vancouver's Main Street this Sunday.

The mob will exercise their spending power in the coffee shop in exchange for a promise from store management to make environmental improvements.

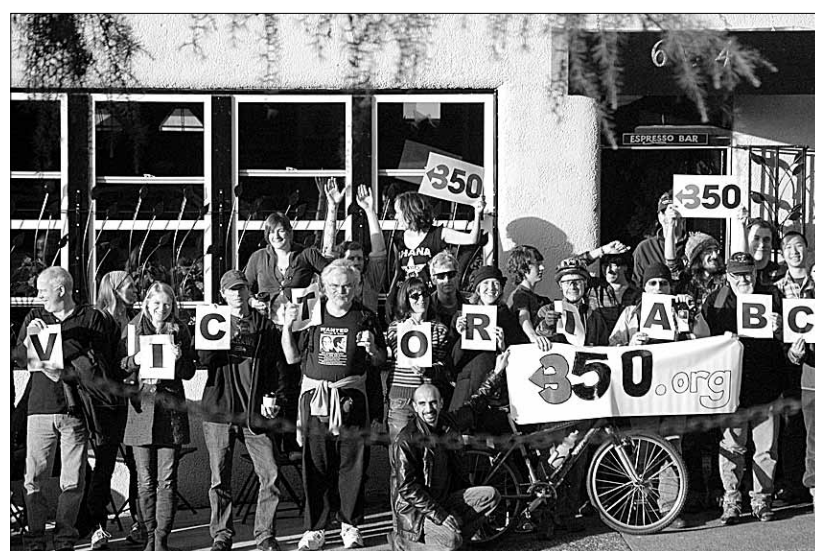
The shoppers are members of Carrotmob, an emerging global movement of environmentally conscious consumers that reward businesses that donate a percentage of their sales from the mob events toward sustainable upgrades.

"The Carrotmob is just a really cool way for businesses to engage with the community that they're in and also generate capital to be able to make changes, and that's something that's always a challenge for small businesses," says Emily Jubenville, volunteer co-organizer of Vancouver's first Carrotmob event.

To set up the "buycott," Jubenville and other volunteers approached 15 Main Street coffee shops. Each was asked what percentage of a day's sales revenue they would be willing to pledge toward green store renovations in exchange for the mob's business.

A third of the shop owners agreed to make a pledge, each of which was featured in a YouTube video and on the group's blog.

A bidding war ensued between shop owners, and more than 900 Vancouverites voted via a Facebook page set up for the purpose.



Mobs outside Discovery Coffee in Victoria during Canada's first Carrotmob. The event was put on in conjunction with 350.org for the Global Day of Climate Action. SUSAN JONES

Salt Spring Coffee, with a commitment of 110 percent, won the mob.

"Main Street is a really great artist location and a really trendy area of Vancouver that sometimes

some people it wouldn't even be a thought in their day."

All the day's takings—plus 10 percent—will be spent on installing more energy efficient lighting. In parts of the building, says Simpson, the lighting has remained unchanged since the 1950s.

With between 100 and 300 expected to show up, organizers say the mob has the potential to raise thousands of dollars of extra cash for the coffee shop. An event in Toronto last month raised \$9,516 in revenue for G's Fine Foods, which put a percentage of the takings toward making energy-efficient improvements and carrying 15 new Local Food Plus certified products.

After a Carrotmob in Victoria in March, Wannawaffel used the entire \$2,135 raised to improve waste management.

Saturday will mark Vancouver's first foray into the mob scene, which will feature entertainment by local musicians, jugglers, a magician, and spot prizes.

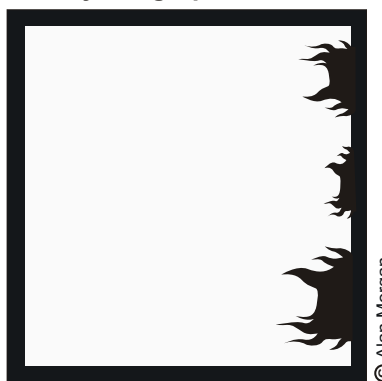
San Francisco-based Brent Schulkin conceived the idea for

"The Carrotmob is just a really cool way for businesses to engage with the community."

— Emily Jubenville

I kind of feel like it's been forgotten, so I was really excited to see them come in and do this," says Ronda Simpson, sustainability coordinator for Salt Spring Coffee.

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