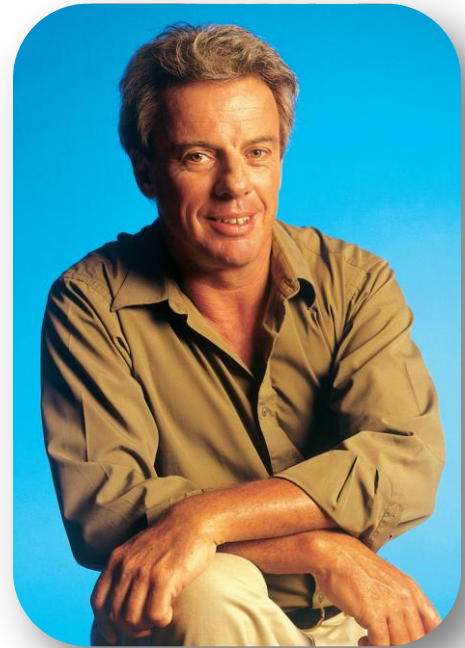


Bob McDonald captivates Pembroke crowd by making science fun

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Science is all about how we see things in the world around us, a perspective which is forever changing.

It is this fact which keeps Bob McDonald excited about his job as a science journalist. The host of CBC Radio's 'Quirks and Quarks' series since 1992, and a regular on The National with Peter Mansbridge as the CBC's chief science correspondent, spoke in Pembroke about how science is forever shaking up our perceptions of the world and the universe around us.

In a fast-paced and entertaining lecture entitled "Everything You Know is Wrong," Mr. McDonald told the audience packing Festival Hall the year 2009 marks two major milestones in science - the 150th anniversary of the publishing of Charles Darwin's groundbreaking book "The Origin of Species," and the 400th anniversary of Italian astronomer Galileo's first glimpse through a telescope at the night sky.

"Both of these people changed the way we saw the world," he said.

Galileo's observations changed how people would view the universe, in that he was one of the first to determine the Earth wasn't the centre of all things as was once believed, but revolved around the sun, a radical idea at its time.

It is the same with Darwin and his theories on natural selection, including the idea humans not only changed over the ages, but shared common ancestors with other primates. These forces continue to operate today.

"As Galileo saw through space, Darwin saw through time," Mr. McDonald said. Both individuals shook up the established ways in which people thought of how the world worked.

This isn't new, but has been going on throughout recorded history, Mr. McDonald added. He said when the Greek scholar Eratosthenes calculated the circumference of the Earth around 240 BC using mathematics and clever reasoning, he also set in motion the idea the world the ancients were aware of was only a small part of one much larger.

Back then, they were aware of the Mediterranean area, Europe, and portions of Asia, and thought that was all there was to the world, Mr. McDonald said. Eratosthenes' calculations showed there was so much more to the world beyond the horizon and their experience.

"This must have been a mind-blowing concept then," he said, adding it would have forced them to rethink their place in the world.

This continues to happen right to the present day, as new discoveries remind humanity of how much more there still is out there to discover.

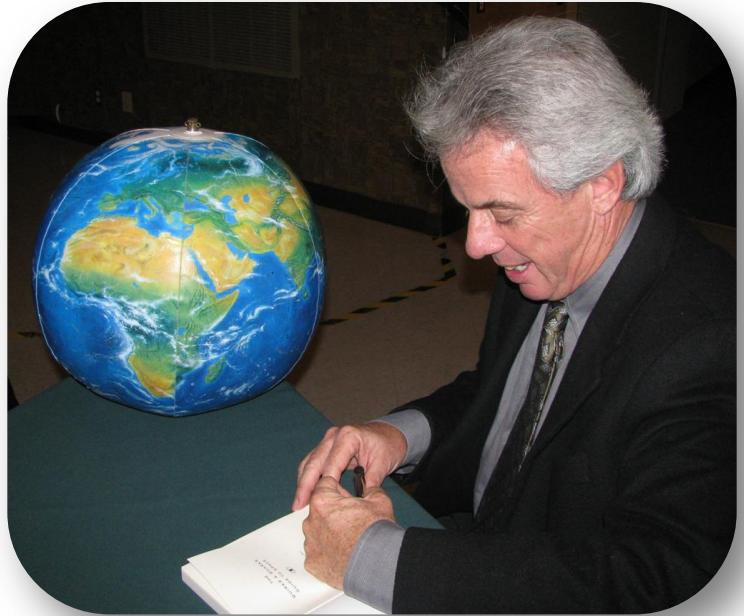
Our ignorance is greater than our knowledge, and this is still true today," he said, noting "what we see and experience is only a tiny fraction of what is out there."

The event was part of the Algonquin College Presents annual lecture series, co-sponsored by The Daily Observer and AECL. All proceeds went to support the college's capital campaign.

The audience was kept entertained and educated by Mr. McDonald, who covered a wide range of topics involving science and how it is everywhere.

"This is why I love my job," he said. "We're living in very exciting times right now" with each new discovery having the potential to cause people to look at their world differently.

Mr. McDonald said despite the best efforts of top scientists and the best technology out there, there remains a lot we don't know about the universe.



"We still don't know how gravity works," he said, which is a big stumbling block to efforts to draft The Theory of Everything, which would describe and account for all of the forces affecting the universe.

"We know how gravity works on a very large scale, and it works great," he but on the small scale, gravity seems to disappear, and the best minds cannot figure out why.

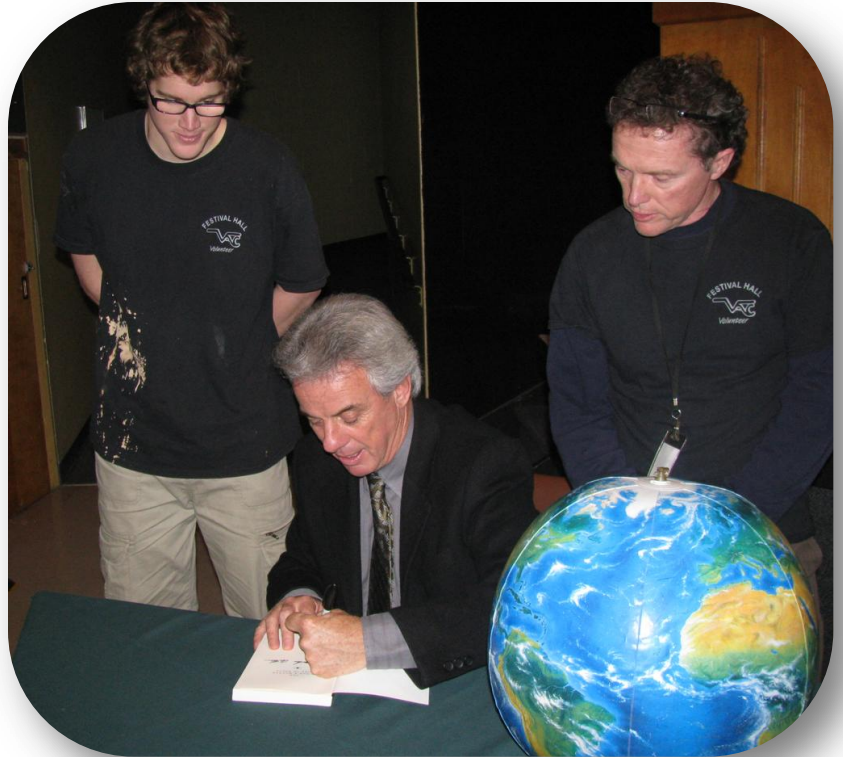
"Albert Einstein himself died frustrated by this."

Mr. McDonald said the search for another Earth-like planet, the Holy Grail of astronomy, is continuing, but so far hasn't turned up any candidates out of the 500 or so planet-like objects which have been found so far.

He said such searches only reinforce how unique our own planet is, and how important it is to maintain it.

"That's why climate change and water quality issues are so important," he said.

"We have to rethink the way we live with our planet. It is all we have."



After his presentation, there was a question and answer period followed by a book signing. Forty lucky people, including Donal and Mike O'Grady, above, purchased books and had them autographed after the show.

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