

NATIONAL POST, FRIDAY, JUNE 20, 2014

environment FP9

# ROOM

JUNK SCIENCE WEEK

## The Rubber Duckies

40,000 years under the sea



Get out the ponies and life-jackets. Global warming is going to down the world's major cities as sea levels rise. Images of Manhattan underwater have been around for years, created by National Geographic, the History Channel and others. London has been submerged with dramatic depictions of the Parliament building under water. Brasils will drown. The makers of World Under Water, a 2013 documentary, warned "It's a very real possibility" that Miami, New Orleans and New York City would be "completely under water".

Los Angeles, too. Rick in Max, California Governor Jerry Brown declared the official prediction of a five-foot rise in sea levels over the next 100 years spelled a wet end for Los Angeles, as cities such as Astoria, "if that happens, the Los Angeles airport is going to be under water." The next day, however, the governor had to issue a correction. Single problem. LAX is already more than 20 feet above sea level, so a gain of four feet would not affect the airport. "The governor mispoke about LAX," said a spokesman for Brown.

Toronto recently got the under water treatment from Rick, the city's largest weekly "alternative" news and junk science paper. Now produced as images as loopy it makes Jerry Brown seem well-informed.

So we hereby named this year's Rubber Duckie for Mitt Romney.

If that happens, the Los Angeles airport is going to be underwater

Junk Science Plus Migrating to New for its April Earth Day cover that showed Toronto's CN Tower, at 447 metres high, about 70% or 350 metres under the rising sea. That's metres, or about 1,000 feet above ground level. Making matters worse, at ground level Toronto is already 75 metres above sea level at the base of the CN Tower, implying that under-  
water illustrations the sea level in Toronto will have risen 447 metres, or 1,500 feet.

Even the worst Intergovernmental Panel on Climate Change estimate (RCP 8.5) projects a sea level rise of about one metre by 2100, an increase of about 20 millimetres per year. At that rate it would take 40,000 years to reach 447 metres.

James Cameron



Toronto NOW magazine Earth Day issue cover.

FROM THE AUTHORS OF THE BESTSELLING SLOW DEATH BY RUBBER DUCK

BRUCE LOURIE / RICK SMITH

### TOXOUT

GETTING HARMFUL CHEMICALS OUT OF OUR BODIES AND OUR WORLD

## Repeat winner Smith nabs 2014-Rubber Duck Award



For the past five years, Junk Science Week co-edited with dramatic finds of PP Consumer's annual Rubber Duck Awards, in which we do our small bit to formally recognize the scientists, NGOs, activists, politicians, journalists, media outlets, cranks and quacks who each year advance the principles of junk science. Junk science is defined as scientific facts are distorted, when risk is exaggerated or discounted, when science is adapted and warped by politics and ideology to serve another agenda. The Rubber Duckies were created in honour of Rick Smith, former president of Environmental Defence Canada and co-author of a remarkable piece of junk science literature, the 2009 Slow Death by Rubber Duck. In the book, Mr. Smith — now executive director of the Broadbent Institute — presented a science scam over bisphenol A and established himself as Canada's pre-eminent scammer and distorter of science.

This year, for our sixth annual Rubber Duck Awards, it is therefore fitting that the award should go to Mr. Smith and one of his long-time co-conspirators, Bruce Lourie, president of the Inky Foundation. Mr. Lourie wrote Slow Death by Rubber Duck with Mr. Smith, and the two have been influential forces for bad energy and regulatory policy across Canada. This year, the two masters of the pop-science genre combined again to produce another book, Thus: Toxic: Getting Rid of Chemicals Out of Our Bodies and Our World.

Out of our world is a good location to begin an assessment of *Thus*, since that is where much of the book takes place. Imagine, if you will, a world where everything from mercury tooth fillings to lipstick and applies to toxic to inhalants with filler chemicals. There are, say Smith and Lourie, 60,000 artificial chemicals in existence, repeating data being disputed as either wrong or misleading, one or both. They claim hundreds of chemicals (120 to be precise) were found in the umbilical cord blood of babies from racial and ethnic minority groups. Another study found "137 different chemicals" detected in a study of newborns.

That'll mean mothers everywhere. Whether any of these chemicals are doing any harm is another matter, a science issue that Smith and Lourie deal with by chugging up their book with footnotes citing science articles with alarming titles like Ethel with science jargon. For example, on the use of chemicals combined in the body to create a toxic cocktail, there's a footnote for a paper titled "Effects of Methyl Mercury in Combination with Polychlorinated Biphenyls and Brominated Flame Retardants on the Uptake of Calcium in Rat Brain Neocortex: A Mathematical Approach to the Study of Mixtures".

Whatever that means (which is nothing in terms of human health) it propels Moore, Smith and Lourie toward that core subject matter, the pursuit of detoxification. How can they get all these deadly chemicals out of their bodies? That's when *Thus* goes totally out of our world into a brand new galaxy filled with even more junk science.

The detox trip involves test-driving such loopy schemes as a Faraday Cage, intravenous chelation, various cleansings, regimens, water, lime cellular liquidation, colour therapy, and other procedures too many to mention. Needless to say, they don't work. Or as our two-man pseudobook in the cover world of detox get it: "Let's be honest. Scientific proof that these remedies are making us healthier is decidedly elusive."

That's an understatement. But for our intrepid explorers of the other world of detox, there's genuine credit and a bonus award. A second Rubber Duckie for repeating the junk science of detox behind the book science behind chemical alarmism.

James Cameron

## Bee deaths



Everyone loves bees, and not just for their honey. These hardworking insects play a crucial role in the agricultural industry by pollinating a wide variety of crops. But a mindless environmentalist campaign, intent on banning insecticides in the name of bee health threatens to harm bees — as well as farmers and consumers — worse off.

A field of corn, soybeans or canola at risk from the number of yield-destroying grubs, beetles and worms. It's up to modern crop science to defend these pests as helpfully as possible. Insecticides do that better than all other options. Applied directly to seeds before planting, insecticides eliminate the need for field spraying, greatly reducing the volume of insecticide in the environment. Plus, insecticides have replaced older organophosphate insecticides, which are more toxic to humans.

Despite their obvious advantages, insecticides have been blamed for a widely reported rash of bee deaths during 2012's "bee apocalypse" in Ontario and Quebec. Last year the European Union announced a two-year ban. The Sierra Club and David Suzuki Foundation infamously called for a similar ban in Canada. "These dangerous chemicals must be removed from the market NOW and remain so until proven safe," screams Sierra Club's John Bennett, invoking the impossibility of the precautionary principle in regard to pesticides.

Bees, as insects, will inevitably die at risk in any pesticide. But that insecticide will have been used with some producer deterring effects. No surprise there. Insect get the same result injecting household bleach into humans, but no one demands we ban that until it's proven safe. The question is whether insects balance the risk and reward of pest control better than other alternatives.

Remember, insects are inserted into the ground with the seeds, which have done their business in farmers' properly used, insecticide-resistant seeds.

Ontario's Pest Management Review Agency reports extremely low, and why conditions are met.

Quebec, in 2012, had more than 100,000 bees and dust to wash up in flowers and on bees.

To reduce this risk, farmers must use a special dust-avoiding habitat when planting insecticide seeds. But as reported in Pest Management Science shows that the 20 reported major bee deaths in Canada between 2007 and 2012 — all from ground bees — at least 1,000 bees in five or more colonies — only five ground bees were found.

And research by the same as has concluded on multiple occasions that given current Canadian 2012 bee health? Despite the public claim bee population is on a long, steady increase.

Peter Shapiro Taylor

## The vanishing herd

LAWRENCE SOLOMON

When vaccination rates are very high, as they still are in the nation as a whole, everyone is protected," explained USA Today in a recent editorial titled "Chicken-epoxy gets public health at risk."

"The best immunity protects the most vulnerable, including those who can't be vaccinated for medical reasons. Infants too young to get vaccinated and people on whom the vaccine doesn't work, but herd immunity works only when nearly the whole herd joins in. When some refuse vaccination and seek a free ride, immunity is broken down and everyone is more vulnerable."

The concept of "herd immunity" first materialized in the 1930s, when John Hoggins University's Arthur Huxley discovered that 95% of Baltimore's population acquired measles (and this immunity to measles), the rest of the population, or "herd," became protected. This concept provides today's rationale for insisting that everyone be vaccinated.

"If you only shield your own health by not getting vaccinated, it would be your business," mass vaccination advocates state. "But when your failure to get vaccinated endangers me or my child, that becomes my business." It's a powerful argument, except for one thing — herd immunity in vaccinated populations has been repeatedly disproven.

In November 2006, in announcing a mass vaccination program for measles that would cover the 10% level reached in Baltimore, the U.S. Public Health Service confidently announced that "Effective use of these vaccines during the coming winter and spring should insure the eradication of measles from the United States in 2007."

When measles failed to be eradicated, public health experts decided that a 70% or 75% vaccination rate would occur best immunity. When that proved wrong, the magic number rose to 80%, 85%, 90%, and then it became 95%, according to a 2004 Health Services Research report. Later health experts consoled only 95%.

But that too was insufficient — measles outbreaks occur even when the vaccinated population exceeds 95%, leading some to say 98% or 99% vaccination rate is needed to protect the remaining 1% or 2% of the herd, but even that may fall short, since outbreaks occur in fully vaccinated populations.

The report would be that 100% of the population vaccinated. Dr. Gregory Taylor of the Public Health Agency of Canada recently told CBC, "Having an increasingly common perspective among public health professionals. At all points, the balance of the level that would be protected through mass vaccination would be precisely zero."

But even vaccinating 100% of the population wouldn't be enough, an admission at the Mass. Dept. of Health's Vaccine Research Group, because the measles vaccine is a shot with some people, offering no protection at all, and its effectiveness wanes with others, even if they get boosters. According to Tetiana Chukhryak of Stanford University's School of Medicine, the measles vaccine was planned with only 25% of the population, leaving the majority of adults who have been vaccinated as children with little or no protection. Up to half of today's measles cases.

Childhood measles, adult measles is dangerous 20% of cases require hospitalization. Measles is especially dangerous when contracted by expectant mothers — studies of hospital outcomes in Los Angeles and Houston found that most suffered serious complications, some died, and their babies often died in the womb.

The danger extends to infants who, as USA Today points out, are too young to be vaccinated. These so-called indirect measles — the herd — depend on antibodies inherited from their mothers. If previously vaccinated mothers have few antibodies to pass on, depriving their babies of protection. The only tried-and-true way for mothers to safeguard their infants — those most at risk of death from measles — remains natural immunity by ensuring that the mother had previously contracted natural measles.

In fact, herd immunity — an elusive today — fully existed prior to the vaccine's introduction. Virtually 100% of the population there contracted measles, typically as children, giving everyone life-long immunity — and future mothers the means to protect their offspring. To mass vaccinating an infection of the 100% didn't make that inflicting us with the measles vaccine — a weak version of the natural measles virus — would give us a weak version of the defenses our bodies develop to the virus.

Ironically, the Public Health Service considered measles generally benign in the pre-vaccine era. "Vaccinations are infrequent and, with adequate medical care, usually safe. Immunity following recovery is solid and lasting in duration," as cited in epidemiologist, Abraham Langmuir, acknowledging "The limited cheap tests for eradication of measles in 1967."

Why, then, did it decide to eradicate measles? "To those who ask me, 'Why do you wish to eradicate measles?' I reply with the same answer that Hillary used when asked why she wished to climb Mount Everest. He said, 'Because it is there.' To this may be added, '...and it can be done.'"

Herd immunity sounds fine in theory. But as Stanford's Dr. Chukhryak concluded, "As with any garbage out type of theory, the expectations of the herd immunity theory are bound to fall in the real world."

Lawrence Solomon is research director of Consumer Policy Institute. [LawrenceSolomon@ancestry.com](http://LawrenceSolomon@ancestry.com)