



Top 10 science stories of 2009

Some of the biggest stories of the year, from the swine flu pandemic to the devastating tsuanamis that struck Samoa, had strong scientific angles to them.

The Science Media Centre, using media monitoring statistics from Meltwater News and its own media logs tracking coverage of SMC-generated releases, has assembled a list of the top 10 science-related stories attracting media coverage during the year.

We've also rated the media's coverage of the big science-related issues on a four-step scale – poor, mediocre, good, excellent.

The SMC has been tracking science-related key words since it opened its doors in July 2008 and presents the SMC Media Tracker covering the period July 1 2008 – September 30 2009.

The SMC Media Tracker will be published monthly from January, 2010.

1. Swine flu media frenzy

With little warning on ANZAC weekend the biggest science-related story of the year broke when a party of students from Rangitoto College returned from a trip to Mexico and was immediately quarantined with suspected cases of the A(H1N1) virus.

A blitz of media coverage followed and while swine flu was responsible for the deaths of at least 20 New Zealanders, the pandemic was much less severe than initially anticipated.

The swine flu story had numerous strands, including detailing the country's pandemic response plan through to examining the virus itself, which claimed the lives of several young and seemingly healthy people.

Global coverage escalated with the World Health Organisation's move to phase 6, indicating widespread human infection. As the story progressed, science-related coverage of swine flu focused on tracking down the origins of the virus and the race to develop a vaccine.

Locally, the country's top virologists worked closely with the media and the Ministry of Health held daily press briefings to keep journalists up to date with developments. Interest in swine flu tailed off rapidly with the end of winter, though the issue is likely



to pique the media's interest again early next year as efforts get underway to vaccinate the population against swine flu in pre-winter months.

From the SMC: [Scientists respond as WHO upgrades pandemic to phase 6](#)

Quality of media coverage: **Good**

2. Poles apart on climate change

The science-related issue attracting most attention in the opinion and editorial pages of newspapers this year was, without a shadow of a doubt, climate change.

There were three real blips of climate change related coverage this year – around the review of the Emissions Trading Scheme and its eventual passing into legislation with the support of the Maori Party, the setting of the Government's target to reduce greenhouse gas emissions 10 – 20 per cent below 1990 levels, and commentary in the build up to and during the Copenhagen climate change negotiations.

Coverage of climate science in the daily print media was largely driven by syndicated contributions from overseas newspapers, however the SMC detected a pick-up in locally generated news stories on climate science during the year.

But it was opinion rather than news that dominated on the issue of climate change with columns from prominent climate change sceptics appearing through the year, countered by environmentalists. Occasionally, contributions from scientists also featured.

Science-related coverage of the ETS tended to look at aspects such as the importance of forestry to meeting emissions reduction targets and the profile of New Zealand's agricultural emissions. However, discussion of the ETS was dominated by political writers and business/environmental lobby groups and focused on the economic impact of the legislation rather than on its potential effectiveness in reducing greenhouse gas emissions.

Commentary on the "climategate" emails leaked in November and reaction to economist Gareth Morgan's book *Poles Apart* also fed coverage of climate science issues.

From the SMC: [Warmest decade on record – experts respond](#)

Quality of media coverage: **Mediocre**

3. Folic acid debacle

Debate erupted in July over a plan that would have required bakers to add folic acid to bread from September.



The resulting back down by the Government over folic acid fortification, which has been suspended for at least two years, flew in the face of the scientific evidence on the issue: an issue which was generally handled badly by the media.

While other countries fortify bread with folate in a bid to reduce the risk of babies being born with neural tube defects, the proposal to add folate to bread here was vigorously opposed by lobbyists representing the baking industry and by commentators stoking up fear of “mass medication”. The best scientific evidence, presented by the likes of University of Otago nutritionist Professor Murray Skeaff suggested adding folate to bread was safe.

"Nowhere did the media try to give a balanced view of the science," Chief Science Advisor, Professor Sir Peter Gluckman complained.

The folic acid issue serves as a warning of what can happen when science is sidelined and vested interests are allowed to dominate an issue via the media. Australia began adding folic acid to bread in October with very little in the way of public opposition to the move.

From the SMC: [Latest evidence on folic acid](#)

Quality of media coverage: **Poor**

4. Pseudoephedrine ban

When the Prime Minister asked his new science advisor, Professor Sir Peter Gluckman to help him find an answer to New Zealand’s methamphetamine problem, it was an encouraging sign that the PM was, as he would later claim, determined to put “science at the heart of government”.

The Government moved in October to reclassify pseudoephedrine, a key ingredient in the manufacture of ‘P’, and to restrict over-the-counter sales of cold medication containing it. As such, the changes followed closely the recommendations of both the Chief Science Advisor and a panel of drug experts the Government also consulted.

While mainstream media coverage focused on whether restricting access to retail sales of pseudoephedrine would be effective in the fight against P, the science-related aspects of the story, including whether alternatives to pseudoephedrine are as effective, were reasonably well covered.

From the SMC: [The P problem – an SMC briefing](#)

Quality of media coverage: **mediocre**



5. Low immunisation rates

New Zealand's relatively low rate of immunisation compared to other western countries was highlighted this year in reports from both the OECD and UNICEF.

While immunisation for children against such diseases as measles, mumps and whooping cough is widely available in New Zealand, a large number of parents each year opt out of immunisation schemes.

Notified cases of measles jumped to seven times the annual average this year as unimmunised children spread the highly contagious disease at day care centres and schools.

The high number of measles cases prompted the Ministry of Health to issue a statement indicating that infected students and teachers would be excluded from school for seven days from the appearance of the rash indicating measles.

The media reflected an understanding of the need to improve immunisation rates in New Zealand and through the year featured extensive coverage of immunisation issues and gave over editorial space to allow scientists like Dr Nikki Turner, director of the University of Auckland-based Immunisation Advisory Centre, to sum up the case for immunisation in their own terms.

Immunisation was also in the news in relation to the widespread availability in schools of Gardasil, the vaccine offered to girls to guard against common strains of the human papilloma virus, which can cause cervical cancer. While uptake of Gardasil has been slow, research released in the Journal of the American Medical Association in August showed that after tens of millions of doses of Gardasil delivered in the US, there had been few serious adverse reactions to it.

From the SMC: [Why aren't we immunising our kids? An SMC briefing](#)

Quality of media coverage: Good

6. Auckland's toxic beaches

While very much an Auckland story, the cases of dogs becoming sick or dying after visiting North Shore beaches made a science-related story that received national attention.

The story unfolded over several weeks in August and September as tests by scientists at the Nelson-based Cawthron Institute and the Ministry of Agriculture and Forestry narrowed down the possible causes of the deaths to Tetrodotoxin - a potent neurotoxin found in sea slugs.

The story had a serious public health angle – with people being warned to limit their activity around the beaches.



Extensive coverage, particularly in the *New Zealand Herald* and on Radio New Zealand and TVNZ meant the science-related elements of the story received a lot of attention.

Quality of media coverage: **Good**

7. Chief scientist's debut

No one in science has attracted more attention this year than Professor Sir Peter Gluckman, who was appointed the Prime Minister's Chief Science Advisor in May.

A high profile series of speeches and lectures have kept Sir Peter in the headlines all year as he advocated a renewed focus on science to enable the country's economic development and a reorganisation of the science sector to boost innovation and output.

The paper on pseudoephedrine given to the Prime Minister constituted Sir Peter's first official advisory and was prominently covered by the media. But his other position papers and thought pieces on climate change and the commercialisation of research have also attracted attention, suggesting the science communication role of the Chief Science Advisor is being well-received by the media.

Quality of media coverage: **Good**

8. Devastating tsunamis

The tsunami that hit Samoa in September killing 149 people brought out the best in the New Zealand media which properly resourced coverage, mobilised rapidly and paid significant attention to science in explaining the devastating events that took place.

While confusion reigned in New Zealand the day of the tsunami, with a patchy response here from Civil Defence to the emergency, the causes of the tsunami and the seismic activity underlying it were well explained by local scientists, including those at GNS Science, which operates the national GeoNet earthquake monitoring network.

The science-related coverage moved from geophysics to public health as reported cases of dengue fever doubled in the wake of the tsunami.

The tragic story, even more significant to New Zealand given its large Samoan population, also rekindled media interest in New Zealand's preparedness for natural disasters, in the science of the Pacific Ring of Fire and in the potential activity along it that could have consequences closer to home.

From the SMC: [First major test of NZ tsunami gauge network](#)

Quality of media coverage: **Excellent**



9. GM breaches

Genetic modification has always been a controversial issue in New Zealand and this year intense scrutiny focused on containment breaches in GM trials underway here.

In February, a 10 year Plant & Food Research trial at Lincoln was cancelled two years in following the discovery last December of a flowering brassica plant outside the containment facility.

Another incident at Lincoln in November saw plants containing “GM constructs” growing outside a Plant & Food facility. An investigation is underway to determine where the plant came from. In June, applications lodged by Agresearch to undertake GM research on a number of species were challenged and blocked in a High Court ruling.

During the year, reports emerged of local councils considering their options relating to GM research, with some exploring whether they have the power to ban or limit GM activity in their districts.

While coverage of genetic modification in 2009 was largely driven by anti-GM groups, little coverage was given to the developing science of GM and the latest research published globally into the safety of GM techniques.

From the SMC: [Scientists comment on GM trial breach](#)

Quality of media coverage: **poor**

10. Anti-1080 campaign

The contentious issue of aerial drops of 1080 poison drew numerous headlines on the back of dedicated anti-1080 campaigning from protestors. A high-profile documentary *Poisoning Paradise – Ecocide New Zealand* received widespread media attention.

So too did terminally ill 1080 protestor Chris Short who had a *60 Minutes* segment devoted to his story in November as activists organised marches around the country to draw attention to their campaign.

While New Zealand has a number of scientists expert in the impact of 1080 use in New Zealand, they are generally underused by the mainstream media. With a few notable exceptions, where scientists were interviewed at length during the year, coverage of 1080 tends to focus on protest activity.

An attempt by activists to link 1080 use to the deaths of animals that came into contact with toxins on Auckland’s North Shore beaches was quickly discredited by scientists but received significant attention from the media. The saving grace for proponents of 1080 use to protect native species is the New Zealand public’s intense



interest in New Zealand's native bird life, which during the year was the subject of countless news items across all mediums, including the TV series *Birdland*.

From the SMC: [1080 use – is it justified?](#)

Quality of media coverage: [mediocre](#)

Other stories of note

[Living Cell Technologies' pig cell transplants](#)

[Controversial feedlot farming plan](#)

[The Salinger sacking](#)

[Superbugs in hospitals](#)

[Water quality issues](#)

[Agricultural emissions](#)

[The "unfortunate experiment" revisited](#)

[Rocket Lab launch](#)

[Review of the CRIs and science sector funding](#)

[200th anniversary of Darwin's birthday](#)

[International Year of Astronomy](#)

[Bovine genome sequenced](#)

[ANDRILL results published in *Nature*](#)

[40th anniversary of moon landing](#)

[Fiordland 7.8 magnitude earthquake](#)

[New Zealand support for Square Kilometre Array bid](#)

[70 million year-old dinosaur footprints discovered in Nelson](#)

Notes to Editors:

The Science Media Centre (SMC) is an independent source of expert comment and information for journalists covering science and technology in New Zealand. Our aim is to promote accurate, bias-free reporting on science and technology by helping the media work more closely with the scientific community. The SMC is an independent centre established by the Royal Society of New Zealand with funding from the Ministry of Research, Science and Technology.

The views expressed in SMC Science Alerts are those of the individuals and organisations indicated and do not reflect the views of the SMC or its employees. For further information about the centre, or to offer feedback, please email us at smc@sciencemediacentre.co.nz.



The SMC Media Tracker

The Science Media Centre, in conjunction with Meltwater News, has been tracking the coverage of science-related issues in the media, and introduces here the first of what will be monthly reports.

The SMC Media Tracker is aimed at identifying not only the incidence of science-related coverage in the media, but also the events which might contribute to increased coverage - this year's swine flu pandemic, for example.

The SMC Media Tracker shows coverage of the named topics from July 1 2008 to September 30, 2009 with analysis of some of the main trends and issues covered during the period.

1. Swine flu and Vaccination

Swine flu and immunisation-based articles peaked at the same time in the April-May period, as the increasing number of swine flu cases and swine flu related deaths prompted interest not only in flu vaccinations, but vaccination in general. Media coverage referring to vaccination increased again in July and August as unusually high numbers of measles cases were reported in several cities.

2. Climate Change and the ETS

Both climate change and ETS-related references peaked during the same periods, namely August 2008, November/December 2008, and September 2009. These were the points, respectively, when the Labour government won support in Parliament for its ETS scheme, discussion of the ETS in the run-up to the general election and most recently, the National Government's review of the ETS, accompanied by such events as the 10-20% emissions reduction target being set.

Coverage of "agriculture" and "pastoral greenhouse gas emissions" not surprisingly, tracks closely with coverage of the ETS and climate change.

3. Science and technology

References to "science" and "technology" in the New Zealand media follow a similar trend line during the year however the word "technology" is mentioned at least twice as much as "science".

Making up the difference are numerous references to consumer electronics, the internet and the general application of technology. In the period covered there were never fewer than 100 references to science in any given week and no more than 405. Technology-related stories peaked in October 2008 with over 900 stories published in the space of one week referencing "technology".



4. Seasonal dip

The January-February period is the dead zone of the year for science and technology with references to both tailing off rapidly during the Christmas and summer holiday period.

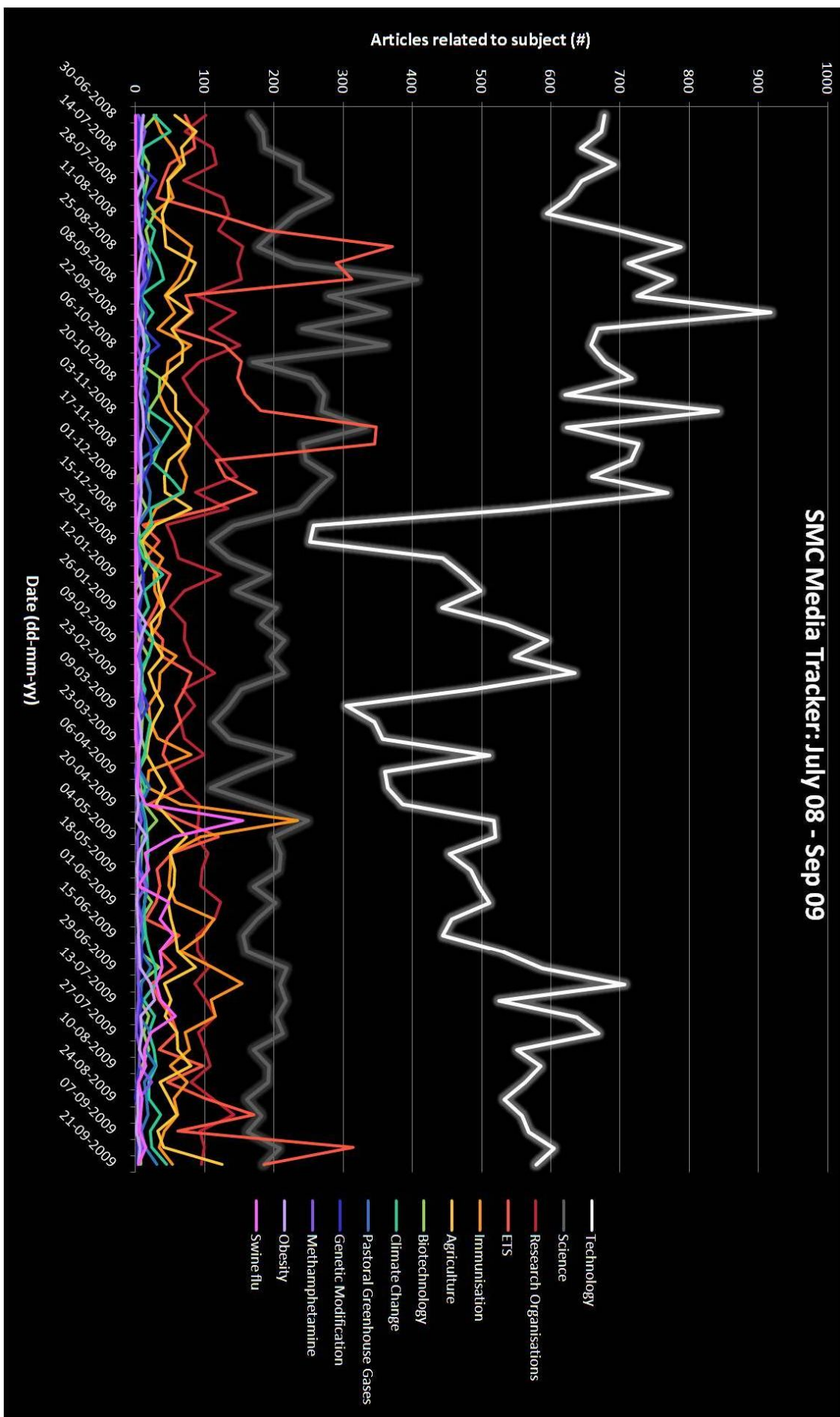
Generally, science and technology references in media stories were tracking higher in the second half of 2008 than they were in 2009, which may indicate a squeeze on specialist sections of magazines and newspapers that traditionally focused on science and technology coverage.

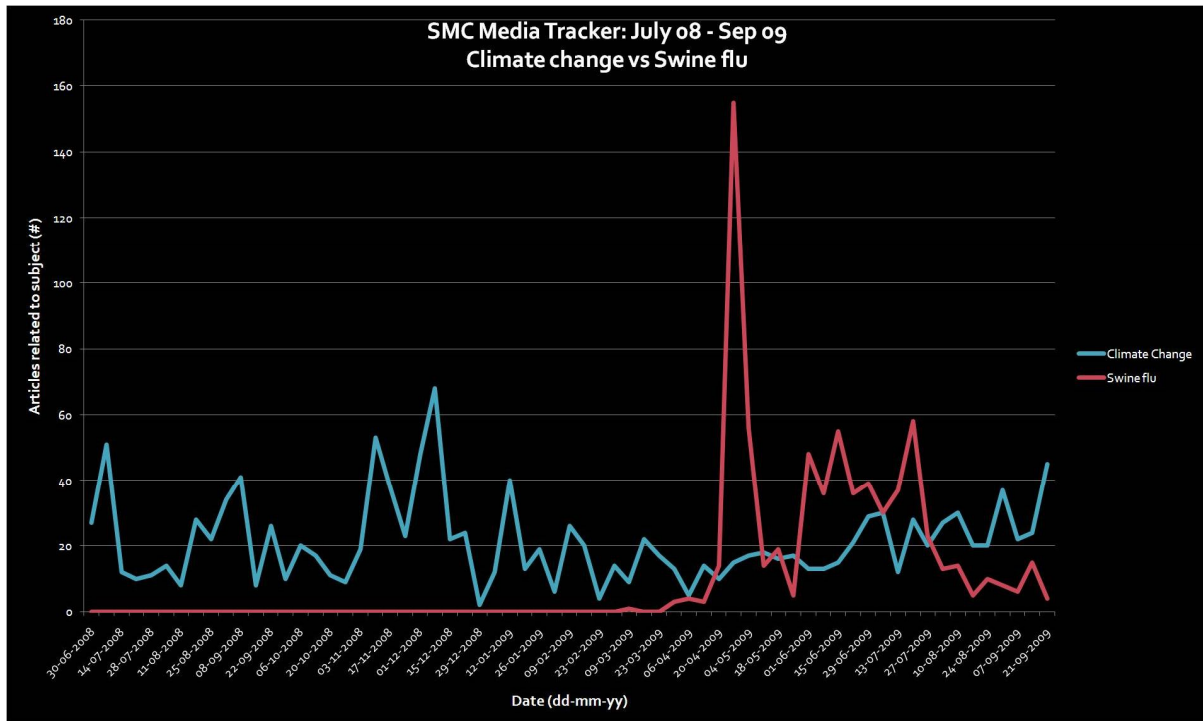
Disclaimer

*The SMC Media Tracker is meant to be indicative only, with its primary purpose being to pick up and highlight trends in topics over time - due to its measuring only the online print media landscape and the technology used to measure article numbers, it cannot be said to be completely definitive.

Research organisations are made up of New Zealand's universities, CRIs and COREs and measures mentions of these organisations in conjunction with the keyword 'research'







A tale of two stories: The above graph tracks references to “swine flu” and “climate change” in the New Zealand media over a fifteen month period.



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