

Altmetrics: getting credit
where credit is due

What are altmetrics?

Why do people talk about them?

How are institutions using them?

Ideally, your articles have...

- Quality
 - It's rigorous, significant, original, replicable, maybe a technical advance...
- Attention
 - The right people see it
- Impact
 - There is some social, economic, cultural benefit or it influences practice

Ideally, your outputs have...

- Quality
 - It's rigorous, significant, original, replicable, maybe a technical advance...
- Attention
 - The right people see it
- Impact
 - There is some social, economic, cultural benefit or it influences practice

TANGENT 1

Funder guidelines & mandates
increasingly reflect this

Datasets, Software Eligible for Listing in NSF Biosketches

OCT

9

posted by [Pamela Shaw](#) in [Biosciences](#) | [0 Comments](#)



This week, the National Science Foundation announced changes to its grant proposal guide (GPG). One of the changes is the acknowledgement of datasets, patents, software, and copyrights as citable products of research, eligible for inclusion in a researcher's biosketch. This is a great step forward in providing attribution to researchers' scientific output that falls outside of the traditional realm of manuscripts published in scholarly journals.

According to the [GPG Summary of Changes](#), NSF biosketches have been revised to:

"rename the "Publications" section to "Products" and amend terminology and instructions accordingly. This change makes clear that products may include, but are not limited to, publications, data sets, software, patents, and copyrights."

Up to 10 total products may be included in the biosketch. Unacceptable products include unpublished papers and invited lectures.

Curation of databases, creation of datasets from large experiments, software for analysis of "Big Data", and patents are all important products of research, but don't effectively contribute to a researcher's h-index or other measure of impact when tenure and promotion boards review the researcher's curriculum vitae. Perhaps NSF's acknowledgement of these other intellectual products will spur more funding agencies (and the status quo of science scholarship in general) to look at impact as more than just numbers of published journal articles.

Netherlands

Part 3 Section 3: Impact template and case studies (REF3a/b)

Definition of impact for the REF

140. For the purposes of the REF, impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia (as set out in paragraph 143).

141. Impact **includes**, but is not limited to, an effect on, change or benefit to:

- the activity, attitude, awareness, behaviour, capacity, opportunity, practice, process or product
- of an audience, beneficiary, constituency, organisation or community
- in any geographic location, regionally, nationally or internationally

142. Impact **includes** the harm, risk, cost or other negative effects

2 *Relevance to society*

The committee assesses the quality, scale and relevance of contributions targeting specific economic, social or cultural target groups, of advisory reports for policy, of contributions to public debates, and so on. The point is to assess contributions in areas that the research unit has itself designated as target areas.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

UK

USA

Traditional citations reflect
scholarly attention

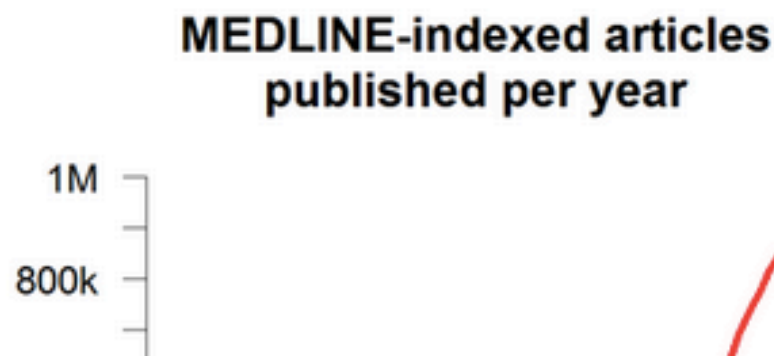
The Evaluation Gap

altmetrics: a manifesto

NO ONE CAN READ EVERYTHING. We rely on filters to make sense of the scholarly literature, but the narrow, traditional filters are being swamped. However, the growth of new, online scholarly tools allows us to make new filters; these altmetrics reflect the broad, rapid impact of scholarship in this burgeoning ecosystem. We call for more tools and research based on altmetrics.

As the volume of academic literature explodes, scholars rely on filters to select the most relevant and significant sources from the rest. Unfortunately, scholarship's three main filters for importance are failing:

- Peer-review has served scholarship well, but is beginning to show its age. It is slow, encourages conventionality, and fails to hold reviewers accountable.



[about](#)

[What's a](#)

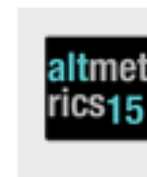
[Tools](#)

[Media](#)

[Press](#)



[works](#)



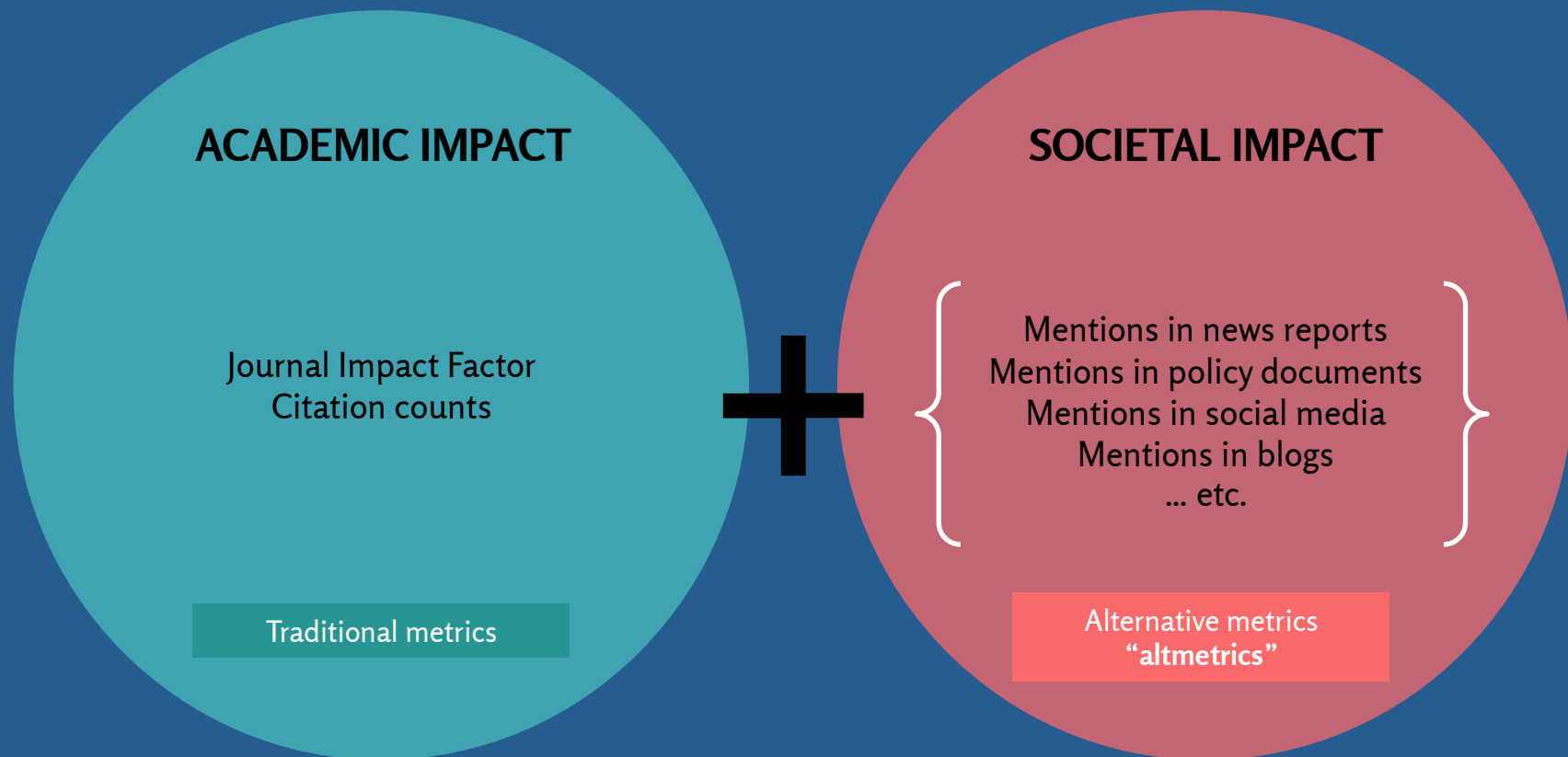


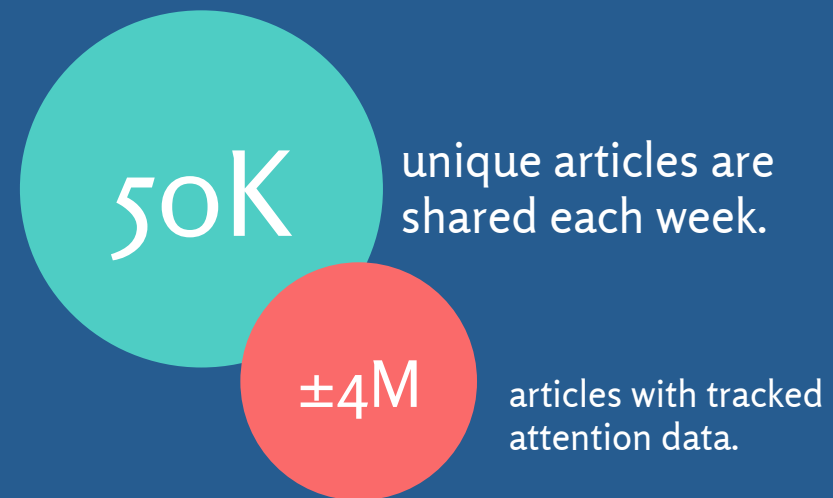
Altmetric.com looks beyond just articles and scholarly citations to help people get credit where credit is due.

**Impact
Story.**



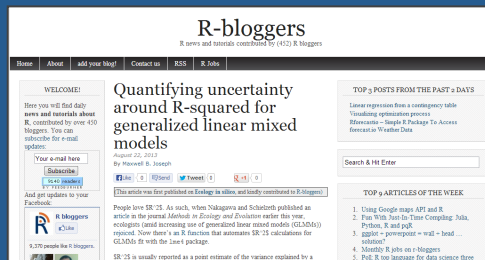
Complementing citations





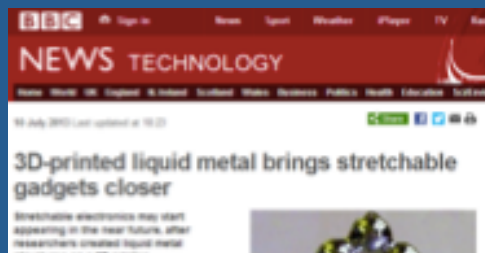
Source: Altmetric internal data, 2015

Social & mainstream media



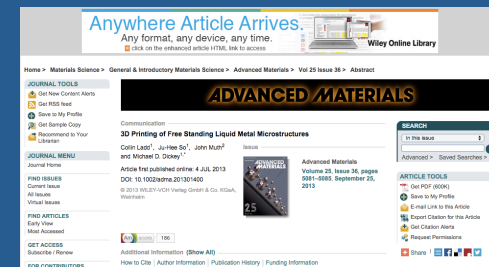
Blogs, reviews, comments

Including Faculty of 1000, PubPeer, MathOverflow and the world's largest curated index of academic blogs.



Newspapers & magazines

International titles, both mainstream and niche.



Social media



brant faircloth @brantfaircloth · Apr 8

What makes me happiest about our bird paper (plosone.org/article/metric...) is that largest % of readers are general public altmetric.com/details.php?ci...

[View summary](#)

[Reply](#) [Retweet](#) [★ Favorited](#) [More](#)

BBC Sign in News Sport Weather IPlayer TV Radio More... Search

NEWS HEALTH

Home World UK England N. Ireland Scotland Wales Business Politics Health Education Sci/Environment Technology Entertainment & Arts

17 October 2013 Last updated at 19:23

Share f t e

Sleep 'cleans' the brain of toxins

By James Gallagher
Health and science reporter, BBC News



The brain uses sleep to clear hard day's thinking, researchers say.

The US team believe the reasons for sleep.

Their study, in the journal *Science*, opens up the gaps between

theguardian

News Sport Comment Culture Business Money Life & style Travel

News Science

Why do we sleep? To clean our brains, say US scientists

Cerebral spinal fluid found to pump around the brain of sleeping mice, flushing out waste products like a biological dishwasher

Ian Sample, Science correspondent
theguardian.com, Friday 18 October 2013 10.11 BST

Scientists say they may have found the reason why we need to sleep. Photograph: Corbis

Scientists in the US claim to have a new explanation for why we sleep: in the hours spent slumbering, a rubbish disposal service swings into action that

Article f Share t Tweet +1 Pin it in Share Email

Science Animal Life and Sleep Society Health World United States More news

Top Stories



Syria talks 'm
Why Beckhar
Gid removed

Subscribe **Give a Gift**

TIME Health & Family

Home NewsFeed U.S. Politics World Business Tech **Health** Science Enter

Home Medicine Diet & Fitness Family & Parenting Love & Relationships Mental Health Policy & Industry Viewpoint



Committed
Life, love and the pursuit of sanity

SLEEP

Your Brain Cells Shrink While You Sleep (And That's a Good Thing)

By Belinda Luscombe @youseless | Oct. 17, 2013 | 4 Comments

f Share f Like 2.5k t Tweet 321 +1 28 in Share 20 Pin it Read Later

In a predatory world, sleep doesn't make much evolutionary sense. Why would any creature lie down, shut its eyes and not move for about a third of a day? It's like an invitation to be eaten.

Now a new study out of the University of Rochester Medical Center (URMC) suggests sleep is necessary for the brain to get rid of waste. The study, published in the journal *Science*, also reveals that the brain's cells shrivel up by 60% while we sleep to wash away the cellular garbage more effectively. Researchers believe that all the cleaning activity is one of the reasons the brain uses about as much energy while in

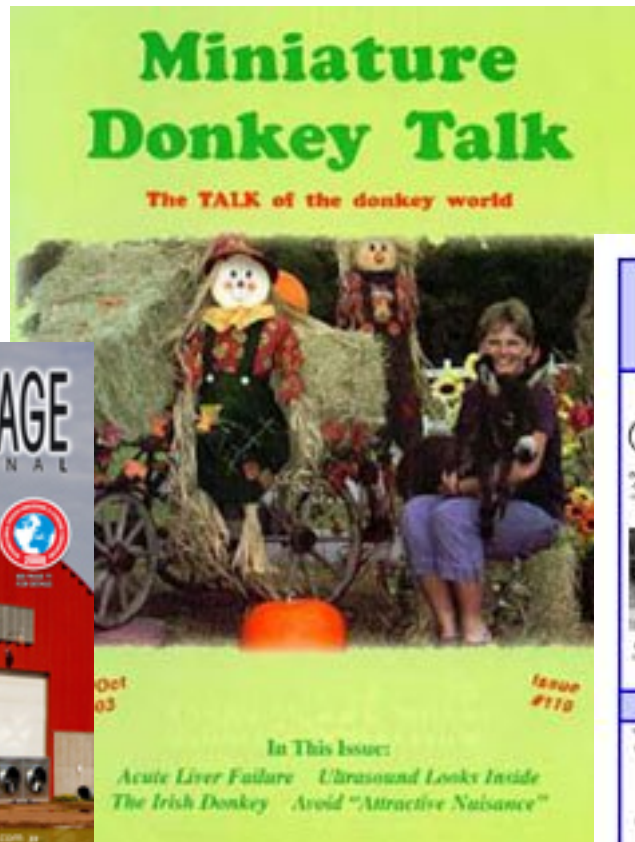


Getty Images/Flickr RM



Skull of Homo erectus throws story of human evolution into disarray

TANGENT 2



TANGENT 2

Policy documents



World Health Organization (WHO)

“WHO policy on collaborative TB/HIV activities: guidelines for national programmes and other stakeholders”



Intergovernmental Panel on Climate Change (IPCC)

“Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation”

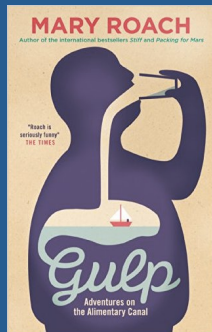


National Institute for Health and Care Excellence (NICE)

“Delivering Accident Prevention at local level in the new public health system: Road safety policy and links to wider objectives”

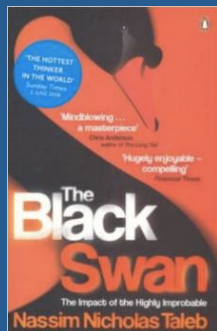


Popular non-fiction



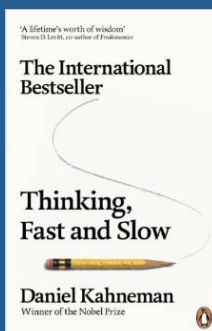
Gulp

“‘America’s funniest science writer’ (Washington Post) takes us down the hatch on an unforgettable tour.”



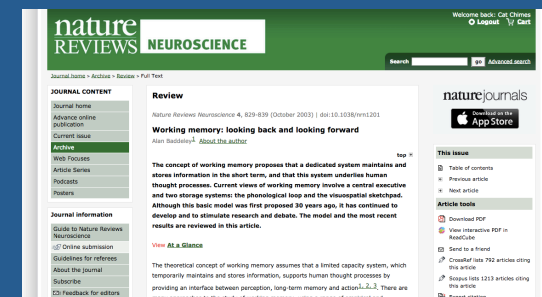
The Black Swan

“Since being published in 2007, as of February 2011 has sold close to 3 million copies. It spent 36 weeks on the New York Times Bestseller list; 17 as hardcover and 19 weeks as paperback. It was published in 32 languages.”



Thinking Fast and Slow

“The basis for his Nobel prize, Kahneman developed prospect theory to account for experimental errors he noticed in Daniel Bernoulli's traditional utility theory.”



Altmetric attention score and donut

Volume

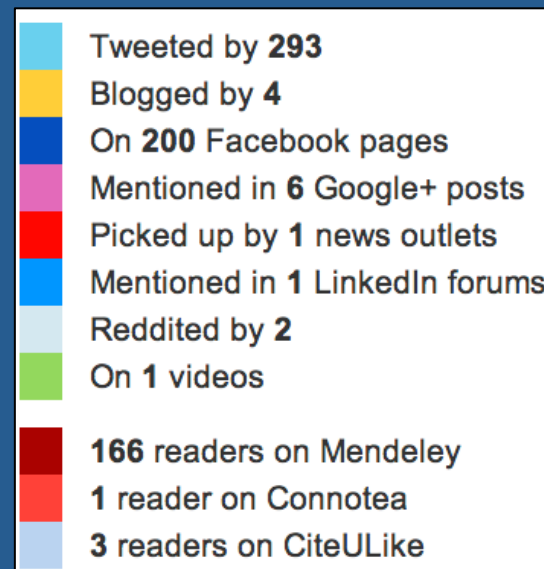
The score for an article rises as more people mention it.

Sources

Each category of mention contributes a different base amount to the final score.

Authors

How often the author of each mention talks about scholarly articles influences the contribution of the mention.





Taylor & Francis
Taylor & Francis Group

WILEY



nature publishing group 



THE COCHRANE
COLLABORATION®



Wolters Kluwer
Health



Springer

Altmetric details pages

Every article that is mentioned online gets its own Altmetric “details page”.

The details page shows article level metrics / indicators (raw counts), a score of attention, and the mentions (links to actual content).



Altmetric details pages

- 1 See all the conversations and mentions.
- 2 See the mentions, e.g., in the mainstream news.
- 3 Estimate attention with the “Altmetric score”.

See article-level metrics and a score of attention below.



More complementary than
alternative to really



Alt metrics



Implies an emphasis on the quantitative
that doesn't actually exist.

Metrics makes people think of being
judged (unfortunately)

TANGENT 3

How are institutions using this data?
To answer questions around impact &
attention.

Research Article

Measurement of boundary layer ozone concentrations on-board a Skywalker unmanned aerial vehicle



Sam Illingworth^{1,*}, Grant Allen¹, Carl Percival¹, Peter Hollingsworth², Martin Gallagher¹, Hugo Ricketts¹, Harry Hayes¹, Paweł Ładosz², David Crawley³ and Gareth Roberts²

Article first published online: 25 MAR 2014

DOI: 10.1002/asl2.496

© 2014 The Authors. *Atmospheric Science Letters* published by John Wiley & Sons Ltd on behalf of the Royal Meteorological Society.

This is an open access article under the terms of the [Creative Commons Attribution License](#), which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

Issue



Atmospheric Science Letters
Volume 15, Issue 4, pages
252–258, October/December
2014

SEARCH

In this issue

Advanced > Saved Searches >

ARTICLE TOOLS

- Get PDF (1717K)
- Save to My Profile
- E-mail Link to this Article
- Export Citation for this Article
- Get Citation Alerts
- Request Permissions

Share |



Additional Information (Show All)

[How to Cite](#) | [Author Information](#) | [Publication History](#) | [Funding Information](#)

Abstract

Article

References

Cited By

[View Full Article \(HTML\)](#) | [Enhanced Article \(HTML\)](#) | [Get PDF \(1717K\)](#)

No citations currently available for this article.



Score in context

Puts article in the top 25% of all articles ranked by attention

[show more...](#)

Mentioned by

1 policy source
4 tweeters

Readers on

This page shows you the mentions made of a scholarly article online, who made them and why. Click on the different tabs to see information on mentions in different places, or the "track this article" link in the left hand sidebar to get email updates. Want to learn more? [Read our FAQ](#)

Policy documents

Twitter

Score

Demographics

Help

So far Altmetric has seen 1 policy document that references this article.



[Feasibility of aerial measurements of methane emissions from landfills: report](#)

Publisher: UK Government (GOV.UK)

About this publisher: GOV.UK is a central website that covers all UK government departments, as well as many other agencies and public bodies. All policy papers and research publications by the UK government are listed on GOV.UK.

Countries: UK

21-Jul-2014

“This study delivers expert advice in the context of existing and emerging technology for the measurement of methane concentrations from instrumented unmanned aerial vehicles (UAVs) appropriate to the assessment of fugitive emissions from regulated landfill sites in the UK.”



Samuel Illingworth @samillingworth · Oct 30

@grantallen8 This is cool, how the UAV paper is picked up as being in a policy report as well: altmetric.com/details.php?do...



Altmetric

Report for: Measurement of boundary layer ozone concentrations...

Altmetric has tracked 3,457,101 articles so far. Compared to these this is in the top 25% of all articles ranked by attention.

[View on web](#)



1





Score in context

Puts article in the top 5% of all articles ranked by attention

[show more...](#)

Mentioned by

- 1859 tweeters
- 122 Facebook users
- 1 LinkedIn posts
- 10 news outlets
- 3 Pinners
- 4 science blogs
- 9 Google+ users
- 8 Reddit threads

The biological impacts of the Fukushima nuclear accident on the pale grass blue butterfly

[Twitter](#)[Facebook](#)[LinkedIn](#)[News](#)[Pinterest](#)[Blogs](#)[Google+](#)[Reddit](#)[Score](#)

Demographics

DER SPIEGEL

Atomkatastrophe: Forscher entdecken Fukushima-Mutationen

Der Spiegel

Die Augen deformiert, die Flügel geschrumpft: Der Atomunfall von Fukushima hat offenbar das Erbgut von Tieren geschädigt. Forscher ..

2012-08-14T13:58:00+01:00

CORRIERE DELLA SERA

Dopo Fukushima, le farfalle non hanno più le ali

Corriere della Sera

I risultati dello studio di un'equipe giapponese sulle Zizeeria: anomalie genetiche e fisiologiche dopo le radiazioni ..

2012-08-16T11:48:00+01:00

BBC NEWS

Fukushima butterflies 'abnormal'

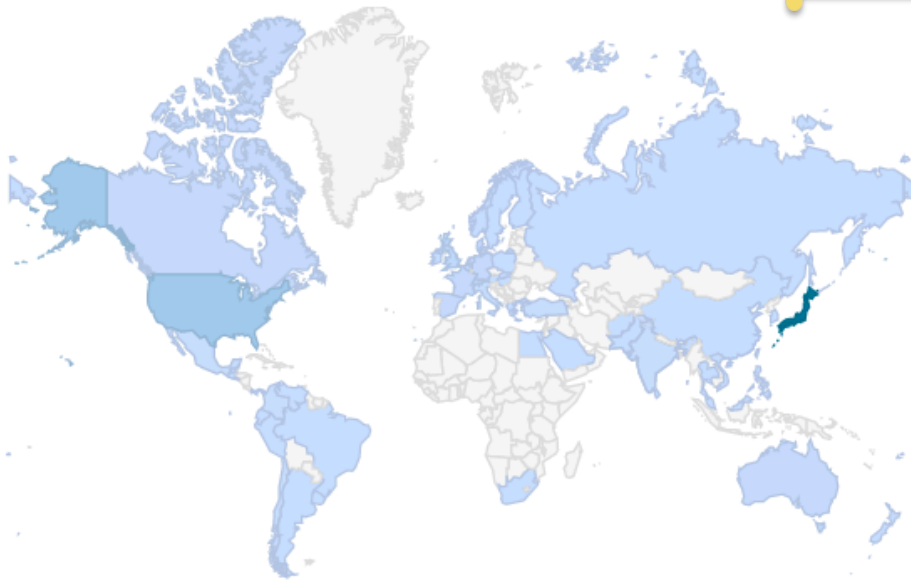
BBC

Exposure to radioactive material released into the environment has caused mutations in butterflies found in Japan, a study suggests ..

2012-08-13T16:17:00+01:00

Demographics

Geographical breakdown



Where are the readers?

#	Country	As %
1	JP	68%
2	US	12%
3	GB	2%
4	FR	1%
5	CA	1%
6	ES	1%
7	DE	1%
8	TW	1%
9	AU	1%

Tweeter demographics

Who are the readers?

Type	Count	As %
Members of the public	1700	77%
Scientists	414	18%
Practitioners (doctors, other healthcare professionals)	20	0%
Science communicators (journalists, bloggers, editors)	54	2%

Reaching a specific audience

- > 1,859 twitter accounts shared, combined follower count of 2.5M.
- 68% of tweets sent from Japan.
- 77% of tweets from members of the public.

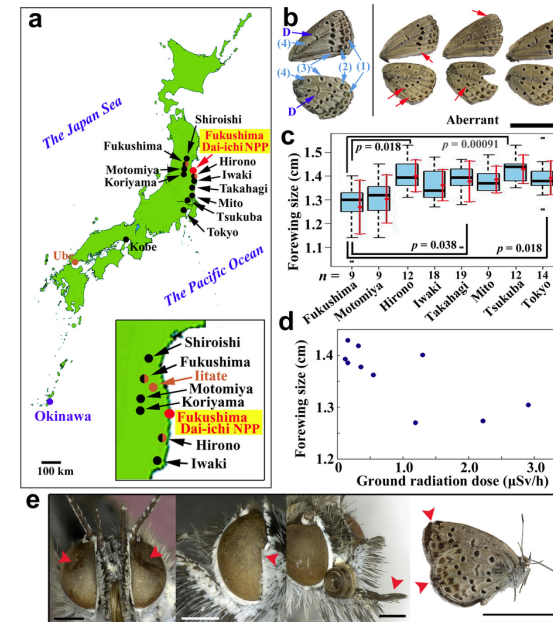


Figure 1 2012, *Scientific Reports* 2, 570

“A number of the comments were encouraging, whereas others were discouraging, and a number of the comments were scientific, whereas others were emotional and/or political.”

- Follow up correspondence in BMC Evolutionary Biology



The screenshot shows the BMC Winnower website interface. At the top left, there is a green banner that says "BETA" and "CLICK TO GIVE FEEDBACK HELP US IMPROVE THE WINNOWER!". The navigation bar includes links for TOPICS, AUTHORS, GRAIN & CHAFF, the WINNOWER logo, SUBMIT, ABOUT, and BLOG. On the right, there are buttons for login and search. The article title is "Understanding Fukushima through Butterfly Biology: Academic Freedom for Scientists and the Public" by Joji M. Otaki¹. The author's affiliation is listed as "1. The BCPH Unit of Molecular Physiology, Department of Chemistry, Biology and Marine Science, University of the Kyukyus, Ukenawa 903-0213, Japan". The article text begins with "The impacts of the Great East Japan Earthquake on people living in the Tohoku and Kanto districts and on Japanese society in general were, in many ways, beyond description. The earthquake and the accompanying tsunami destroyed many cities along the east coast of the Tohoku and Kanto districts. However, an additional long-lasting disaster was the nuclear pollution caused by the collapse of the Fukushima Dai-ichi Nuclear Power Plant (NPP). This event was the second worst nuclear accident in the world, next to the Chernobyl accident. At the time of the collapse of the Fukushima Dai-ichi NPP, Japanese government and TEPCO (Tokyo Electric Power Company) could not evacuate people efficiently from the area around the NPP, in part because they did not want to release information on the disaster. From the outset, it appeared that the Japanese government and TEPCO were making every conceivable effort to save the nuclear industry (but not to help people living in Fukushima". On the right side, there is a yellow circular icon, a comment count of 0, a view count of 563, and a section titled "THE GRAIN CITATION(S)" listing a citation by Hiyama, A., C. Nohara, S. Kinjo, W. Taira, S. Gima, A. Tanahara, J. M. Otaki. 2012. "The biological impacts of the Fukushima nuclear accident on the pale grass blue butterfly." Scientific Reports no. 2: 570. doi: 10.1038/srep00570.

Research groups...

- Are we reaching the audiences we want to see our work?
- Is anybody misrepresenting or confused about our work?
- How do we demonstrate “broader impact” to our funder?
- Are we engaging unexpected communities?

Data on a single paper is good Data on all your papers is better

Altmetric Explorer

Reports dashboard

Explore the data

Groups management

Help

Articles from "University of São Paulo" and in PubMed

Pick new articles:

> Mentioned in the past

> With keyword

> In these journals

> With identifiers

> From publisher

> With handle prefix

> With Medline subjects

> With subjects

▼ Matching PubMed query

Articles 1,000

Activity 18

Journals 598



A randomized double-blind placebo-controlled study of the long-term efficacy and safety of diethylpropion in the treatment of obesity

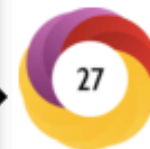


Creatine supplementation in fibromyalgia: A double-blind, randomized, placebo-controlled trial.

Arthritis care & research



The anxiolytic effect of cannabidiol on chronically stressed mice depends on sex and stressor



A spiderless arachnophobia therapy: comparison between placebo and treatment groups at a six-month follow-up study.

Neural plasticity



Treatment of advanced hepatocellular carcinoma with v



low levels of amplitude-modulat

Altmetric score of 27

Mentioned in 1 Google+ posts
Picked up by 1 news outlets
Blogged by 2

8 readers on Mendeley
0 readers on Connotea
0 readers on CiteULike

Click for more details

Search across database of all 4M+ outputs found in sources we track.

Also integrates with Symplectic Elements and figshare so you can quickly get view of just your outputs



Altmetric Explorer My workspaces Explore the data Groups management Help ▾

All mentioned articles

Pick new articles:

▼ **Mentioned in the past**

- ☐ 1 day
- ☐ 3 days
- ☐ 1 week
- ☐ 1 month
- ☐ 3 months
- ☐ 6 months
- ☐ 1 year
- ☒ Any time

➤ With keyword

➤ In these journals

▼ **With identifiers**


10.1016/j.fm.2014.03.003
10.1080/01635581.2014.916323
10.1111/cob.12040
10.1111/1541-4337.12076
and 13 others

Edit article identifiers


➤ From publisher

▼ With handle prefix

Articles Activity Journals




Fortified Foods Are Major Contributors to
Abstract [...]




Fructose, high-fructose corn syrup, sucrose
American Journal of Clinical Nutrition

Medical And Health Sciences Engineering




Beverage caffeine intakes in the U.S. Food
Abstract [...]

Food Sciences



Measurement of Nanomaterials in Foods

Multidisciplinary



Fortification: new findings and implication
Abstract [...]

Medical And Health Sciences Psychology And Cognitive

▼ **Matching PubMed query**

8381 results fetched from PubMed, 2307 matched when no time filter applied.

"University of California Los An

Fetch PubMed results

► **Funded by**

▼ **Mentioned at any time on**

- ☐ Twitter
- ☐ Google+
- ☐ News outlets
- ☐ LinkedIn
- ☐ Blogs
- ☐ Pinterest
- ☐ Videos
- ☐ Facebook
- ☐ Reddit
- ☐ F1000
- ☐ Research highlights
- ☐ Peer reviews
- ☐ Weibo
- ☒ Policy documents

Different groups at an institution want different things from the data, so you can apply a combination of filters.



Then pull out interesting looking data from the results

“Disappearing arctic lakes” – L.C. Smith, Department of Geography



Working Group I Report "The Physical Science Basis" (Full Report)

Intergovernmental Panel on Climate Change

The Intergovernmental Panel on Climate Change (IPCC) is the leading international body for the assessment of climate change. It reviews and assesses the most recent scientific, technical and socio-economic information produced worldwide relevant to the understanding of climate change.

“Predictors of HAV/HBV vaccination completion among methadone maintenance clients”
- School of Nursing / School of Medicine



Guidance on prevention of viral hepatitis B and C among people who inject drugs (Full guidelines (pdf, 1.77 Mb))

World Health Organization

The World Health Organization (WHO) is the directing and coordinating authority for health within the United Nations system.



Investigations of endocrine disruption in UK freshwater molluscs

UK Government (GOV.UK)

GOV.UK is a central website that covers all UK government departments, as well as many other agencies and public bodies. All policy papers and research publications by the UK government are listed on GOV.UK.



Prostatakarzinom: Früherkennung, Diagnose und Therapie der verschiedenen Stadien

The Association of the Scientific Medical Societies in Germany

The Association of the Scientific Medical Societies in Germany (AWMF) is an umbrella organization of over 150 societies, and advises the government of the Federal Republic of Germany as well as the governments of the German federal countries in all topics of scientific medicine and medical research and classification.

Adminstrators

- Are we in compliance with grant / govt mandates?
- Do our research outputs work toward our group / dept / institutional mission?
- Does our campus have global reach?
- Does our research influence policy, legislation, best practice?

Stream activity types related to your outputs...

Altmetric Explorer

My workspaces

Explore the data

Media monitoring

Groups management

Explore my institution

Help

Logged in as euan@altmetric.com

Articles with the selected PubMed query mentioned at least once in the past 1m

Pick new articles:

You've chosen to search the entire Altmetric database.

Or choose a person, subject or department

Mentioned in the past

☐ 1 day

☐ 3 days

☐ 1 week

☒ 1 month

☐ 3 months

☐ 6 months

☐ 1 year

☐ Any time

With keyword

In these journals

With identifiers

From publisher

With handle prefix

With Medline subjects

Summary report

Articles

Activity

Journals

Save this workspace

API

Show news stories

from past 1m

from any time

NEWS ARTICLE

BECKER'S
Hospital Review

10 emerging ethical issues medical schools should address

As healthcare and health technologies change, so do medical ethics. The American Medical Association recently provided a list of the top emerg...

26

The Essential Role of Medical Ethics Education in Achieving Professionalism: The Romanell Report

Academic medicine

1 Jun 15 21:18

NEWS ARTICLE

CTV
NEWS

The Age of Anxiety, and promising new research that could help

There are effective treatments for those with anxiety disorders, including psychotherapy, mindfulness meditation training, and medication. But...

93

The Intestinal Microbiota Affect Central Levels of Brain-Derived Neurotrophic Factor and Behavior in Mice

Gastroenterology

12

Treating anxious depression using repetitive transcranial magnetic stimulation.

Journal of Affective Disorders

14

Effects of jazz on postoperative pain and stress in patients undergoing elective hysterectomy.

Advances in Mind-Body Medicine

108

Animals may act as social buffers: Skin conductance arousal in children with autism spectrum disorder in a social context

Developmental Psychobiology

61

Chronic Stress Induces Anxiety via an Amygdalar Intracellular Cascade that Impairs Endocannabinoid Signaling.

Neuron

28 May 15 10:30

NEWS ARTICLE

Healio

Uninterrupted rivaroxaban feasible in patients undergoing catheter ablation for AF

BOSTON In patients undergoing catheter ablation for nonvalvular atrial fibrillation, uninterrupted rivaroxaban use was feasible and associate...

23

Uninterrupted rivaroxaban vs. uninterrupted vitamin K antagonists for catheter ablation in non-valvular atrial fibrillation.

European Heart Journal

20 May 15 20:51

NEWS ARTICLE

Press office / Communications

- Is anybody out there getting it wrong?
- Have we missed opportunities to get in front of a PR storm?
- Can we benchmark our outreach efforts?
- Are we reaching our target markets?
- Are we using the right media?

Explore further, get involved, give feedback

OPEN ACCESS Freely available online



Do Altmetrics Work? Twitter and Ten Other Social Web Services

Mike Thelwall^{1*}, Stefanie Haustein², Vincent Larivière³, Cassidy R. Sugimoto⁴

¹ School of Technology, University of Wolverhampton, Wolverhampton, United Kingdom, ² École de bibliothéconomie et des sciences de l'information, Université de Montréal, Montréal, Québec, Canada and Science-Metrix Inc., Montréal, Québec, Canada, ³ École de bibliothéconomie et des sciences de l'information, Université de Montréal, Montréal, Québec, Canada and Observatoire des sciences et des technologies, Centre interuniversitaire de recherche sur la science et la technologie, Université du Québec à Montréal, Montréal, Québec, Canada, ⁴ School of Information and Library Science, Indiana University Bloomington, Bloomington, Indiana, United States of America



2:AM



Thanks for listening!

ewan@altmetric.com

@altmetric