

Global Challenges

UOSM2010 2014

Group Assessment: Poster

Module leader
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Module webpage
www.gc.soton.ac.uk



Global Challenges

QUIZ

Global Challenges

ZINNO

Global Challenges

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Global Challenges

Remember to write group name

- 1 How many tons food wasted in UK?
- 2 What's bad about the maize-fermentation-ethanol chain?
- 3 Name a high water footprint bioenergy crop
- 4 Which country produces most biofuels for UK?
- 5 What is Beddington's Perfect Storm?

Part 1
Systems dynamics

Part 2
Apply systems dynamics to the Perfect Storm

Part 3
Communicate the Global Challenges

Currently working on marking
Feedback during class and via email

Part 1

Systems dynamics

Part 2

Apply systems dynamics to the Perfect Storm

Part 3

Communicate the Global Challenges

Global Challenges



Dyke & Weaver (2013) *PLoS Computational Biology* 9(5): e1003050

Global Challenges

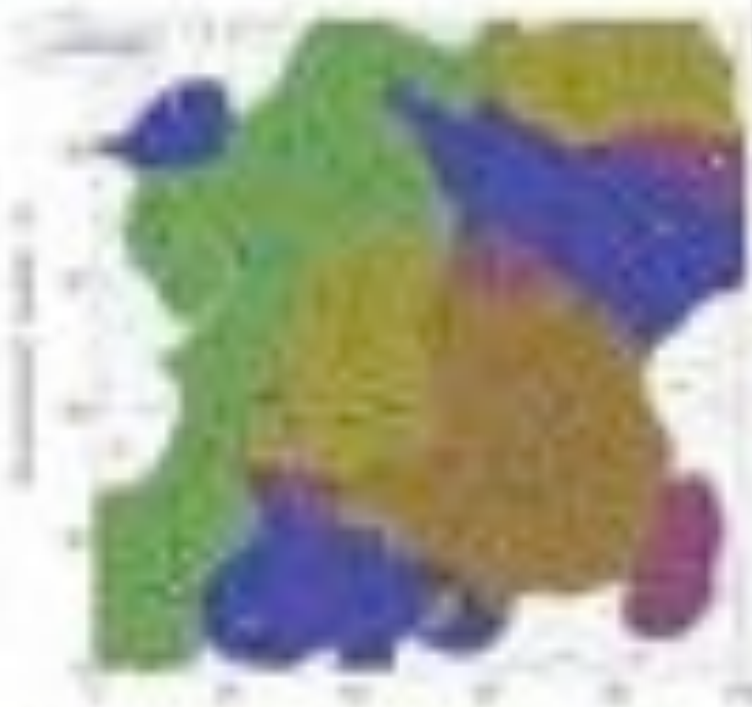
Science News

Free scientific journals and other research information

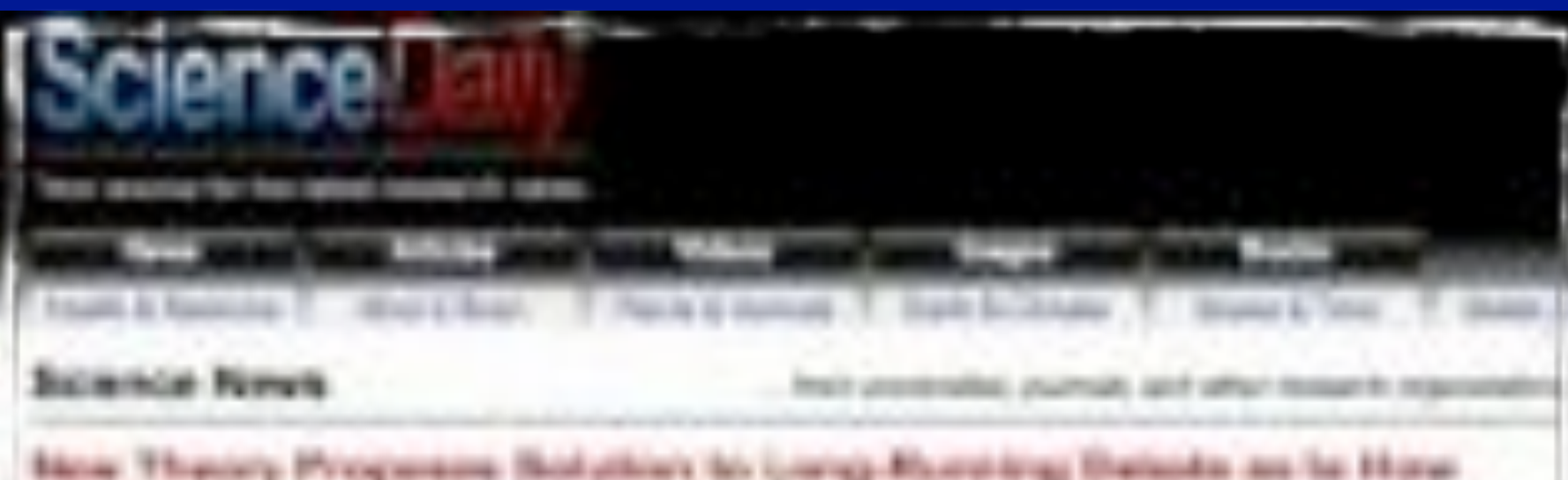
New Theory Proposes Solution to Long-Standing Debate on How Stable the Earth System is

June 16, 2011... Researchers at the University of Southampton have proposed an answer to the long-standing debate on how stable the Earth system is.

Key Findings:
- The Earth system is more stable than previously thought.
- The system can absorb significant perturbations without tipping into a different state.
- This stability is due to the Earth's natural feedback mechanisms.
- The findings suggest that the Earth system is more resilient to climate change than previously believed.
- The research was published in the journal *Nature*.



Results are particularly encouraging given the current state of the climate system.



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and finally how we can best understand more of the underlying mechanism by which such a planetary self-stabilising system could emerge.

In research published in *PLoS Computational Biology*, University of Southampton lecturer Dr James Dyer and PhD student Ian Weaver detail a mechanism that shows how when life is both affected by and alters environmental conditions, then what emerges is a control system that stabilises environmental conditions.

The control system was first described around the middle of the 20th Century during the development of the cybernetics movement and has until now been largely neglected. Their findings are in principle applicable to a wide range of real world systems - from microbial mats to aquatic ecosystems up to and including the entire biosphere.

Dr Dyer says: "The well as being a fascinating issue in its own right, we quite desperately need to understand what is currently happening to Earth and in particular the impacts of our own behaviour.

"Pretty much whatever we do, life on Earth will carry on, just as it did for the previous 3.5 billion years or so. It is only by discovering the mechanisms by which our living planet has evolved in the past can we hope to continue to be part of its future."

Life on Earth



Sample area

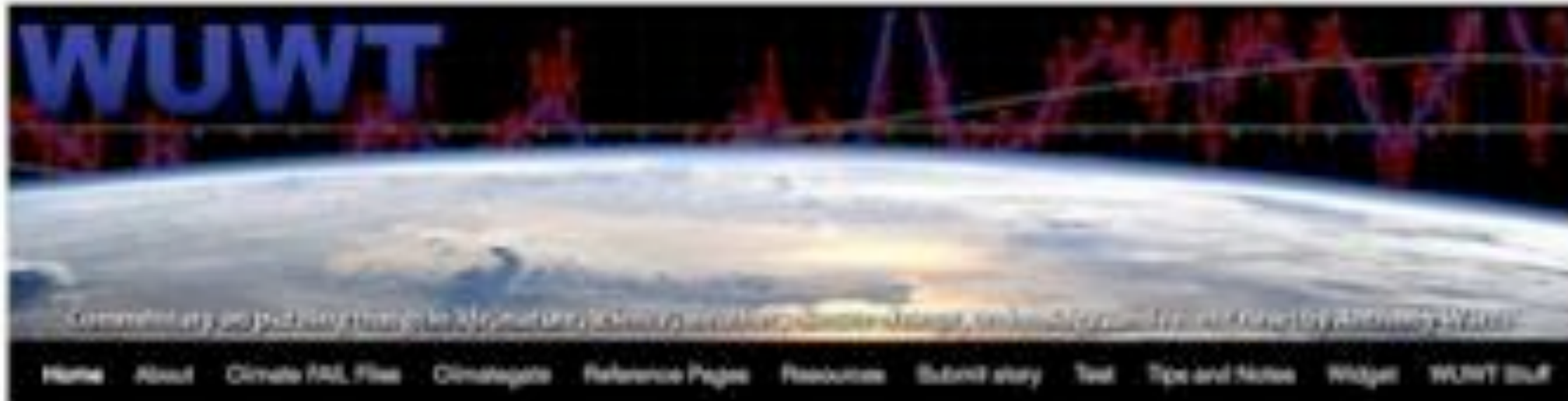


www.hockeyschtick.blogspot.co.uk/2013/06/newsflash-pretty-much-whatever-we-do.html

Global Challenges

Watts Up With That?

The world's most viewed site on global warming and climate change



New study proposes solution to long-running debate as to how stable the Earth system is

By Staff Writers, Southampton, UK (SPX), Jun 13, 2013

<http://www.terradaily.com/reports>

[/New_study_proposes_solution_to_long_running_debate_as_to_how_stable_the_Earth_system_is_009.html](http://www.terradaily.com/reports/New_study_proposes_solution_to_long_running_debate_as_to_how_stable_the_Earth_system_is_009.html)

Link to paper: The Emergence of Environmental Homeostasis in Complex Ecosystems

By James Dyke and Ian Weaver, PLOS, May 16, 2013

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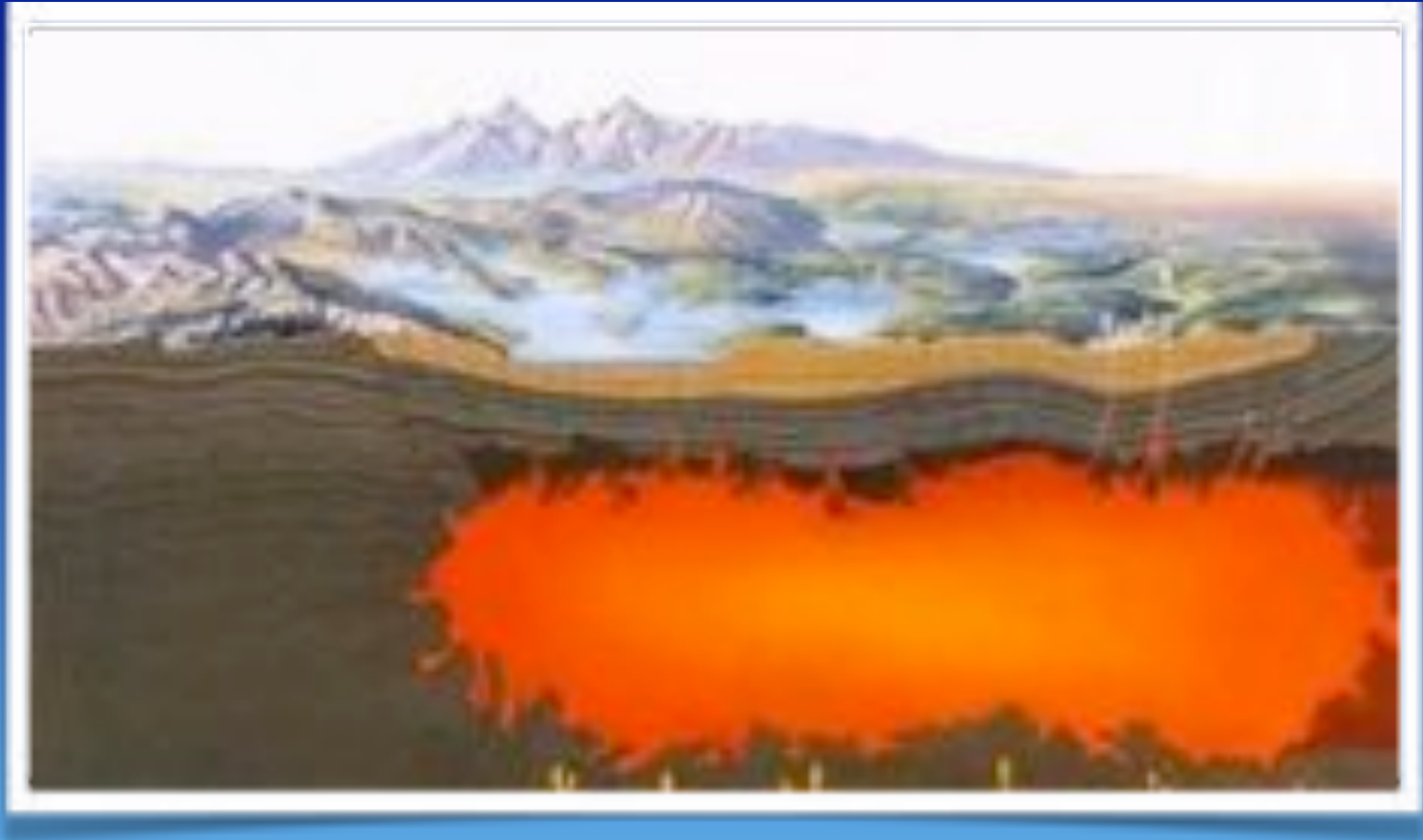


Image: National Parks Service

Global Challenges

Able to control
the planet



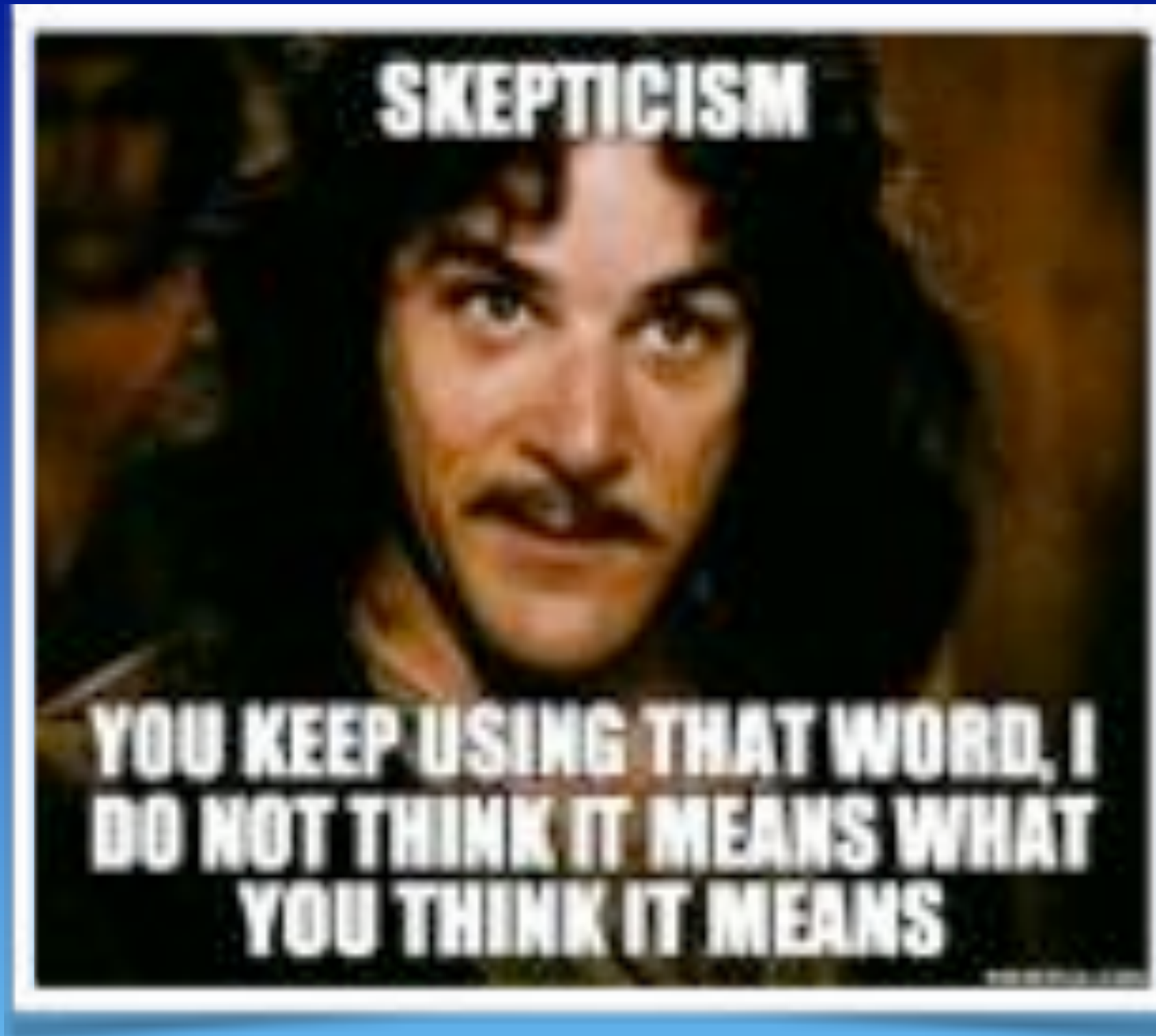
Too small to
have any effect

Global Challenges

You are about to die¹

You are about to die¹

¹ geologically speaking



Global Challenges

What do you want to say?

Who do you want to listen?

How do you want to say it

Message

What do you want to say?

Who do you want to listen?

How do you want to say it

Message

What do you want to say?

Who do you want to listen?

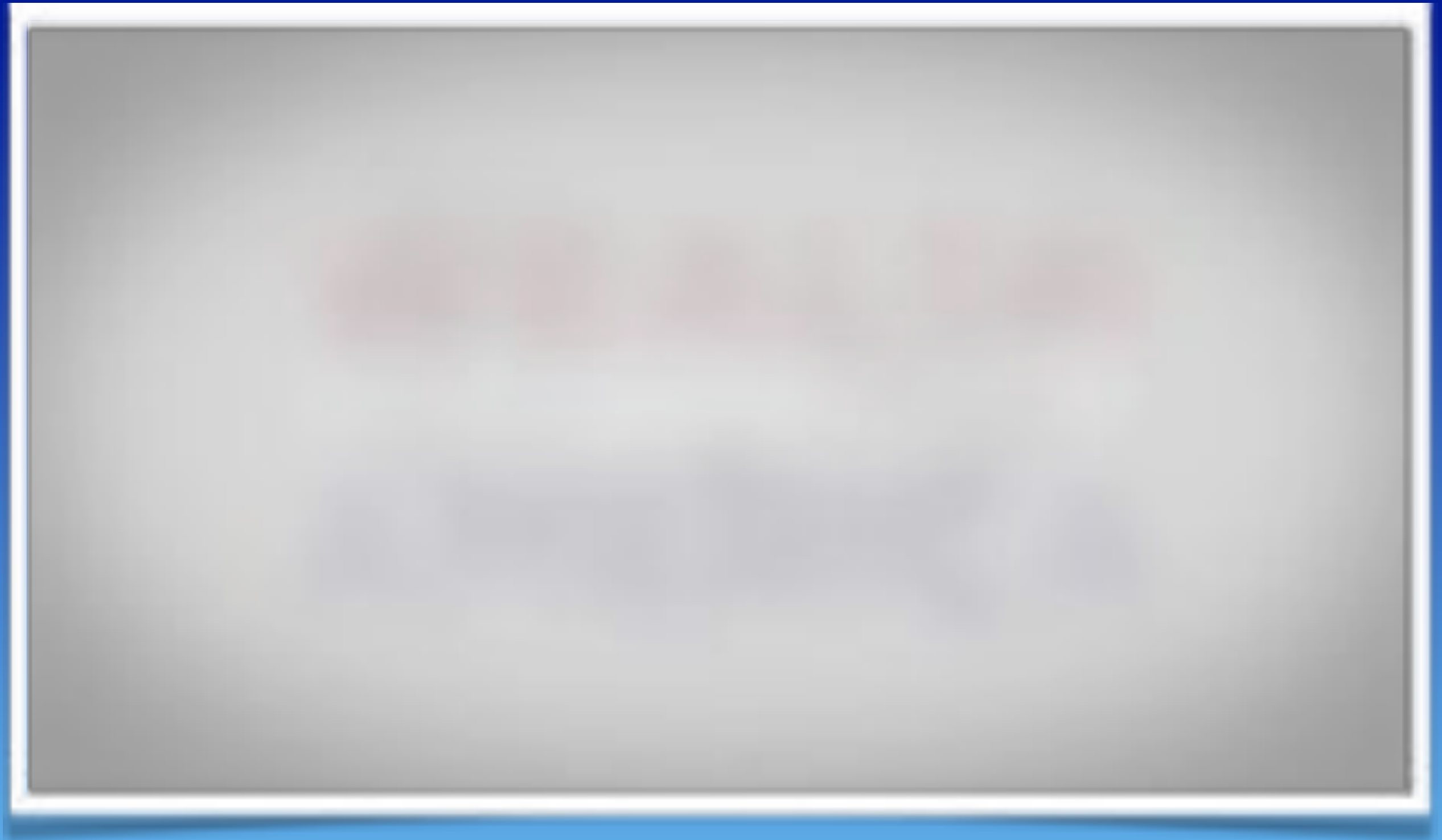
How do you say it?

Medium



<http://xkcd.com/1338/>

Global Challenges



<http://www.youtube.com/watch?v=QPKKQnijnsM>

Global Challenges

Take care of *editorialising*

“shockingly”
“mind blowing”
“dreaded”
“pretty great”



<http://piktochart.com>

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<http://piktochart.com/resources/tutorials>

<http://piktochart.com>

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<http://www.wherhaveallthewildlingsgone.com/>

James Dyke www.jamesgdyke.info

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Tips For Kicking Junk Food Cravings

Have your favorite foods forced on you to change and want the to larger sizes? Do you find it hard even impossible to resist getting that slice of pizza with one last more bite? If so, here are some great ideas to offer your body health.

Identify Your Triggers

Cravings are usually triggered by specific triggers. The first step to understanding what leads to a craving is to identify when and where you're most likely to get triggered. Common triggers include the sight, smell, or taste of junk food, when people are eating, hunger, feeling bored, stressed, sitting in front of the TV, etc.

Replace Your Triggers

- Exercise:** Running, walking, or any other physical activity can help reduce cravings.
- TV:** Turn off the TV or avoid watching TV when you're hungry.
- Meditation:** Meditation can help you stay focused and avoid cravings.
- Brain:** The brain is responsible for cravings. It's important to keep it healthy with a diet rich in omega-3 fatty acids.
- Stomach:** The stomach is responsible for hunger. It's important to keep it full with healthy food.
- Alcohol:** Alcohol can trigger cravings. It's important to avoid alcohol when you're hungry.

Additional Tips

- Water:** Drinking water can help reduce cravings.
- Alcohol:** Avoid alcohol when you're hungry.
- Beer:** Beer can trigger cravings. It's important to avoid beer when you're hungry.
- Fruit:** Eating fruit can help reduce cravings.
- Vegetables:** Eating vegetables can help reduce cravings.

Find A Support System

Find a support group with other people who are trying to kick junk food. Having others to share your experiences with can make a big difference in the long run.



One section per group member



One section per group member



Bibliography

One a *single* piece of A4

Group name

Title of poster

One section per group member listing
message
medium

For 11/3/2014

Read

Bid to Explain Climate Change
Risks Loosing the Argument

<https://theconversation.com/bid-to-explain-climate-change-risks-losing-the-argument-23903>

Watch

Guy Poppy TEDx talk on Food Security