

Communicating Ocean Acidification

NOAA Education Council

*Informational Sharing Session from
Oceans in a High CO₂ World Conference & Workshop
&*

What are we (NOAA) doing with OA?

Paulo Maurin, NOAA CRCP

Sources: Ocean Conservancy (Lisa Dropkin)
The Ocean Project (Wei Ying Wong), Upwell (Rachel Weidinger)

Jan 2013

Today...

- **Summary of messaging key information and strategies**

(Presentation material developed by outside partners – internal NOAA use reference only)

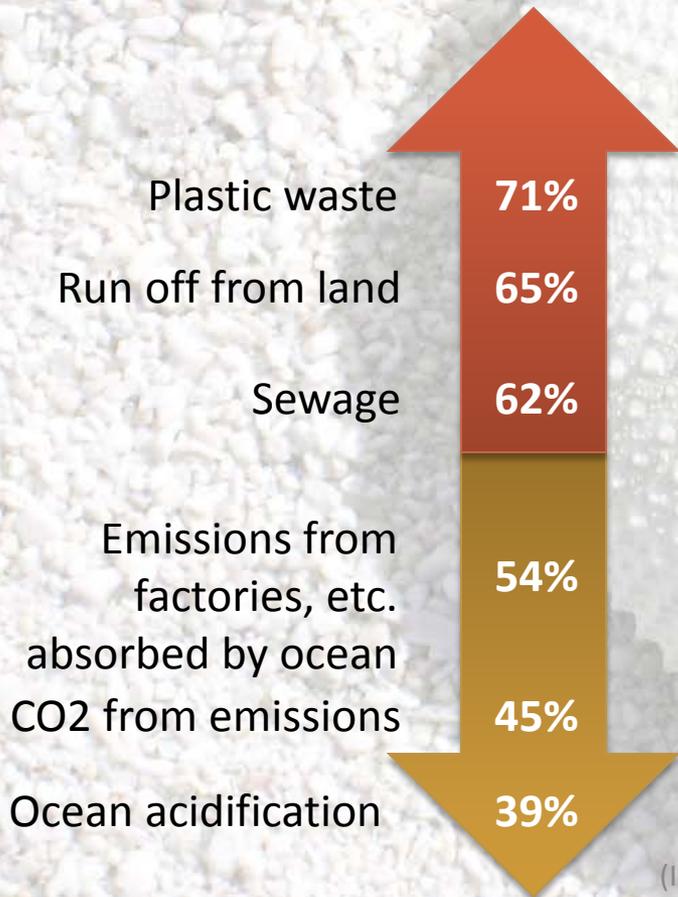
- **Overview/Discussion of current OA education efforts across the agency**

Communicating OA

- **Workshop put together following “*Oceans in a High CO2 World*” conference**
- **Organized by Laura Frances, Channel Is. MNS**
- **Funded by OAP, CRCP, NMS, and private funds**
- **To form a more cohesive and effective OA messaging, share lessons learned by community**

Context: New Polling in California and Focus Groups in Washington Underscore That This Is A New Issue

Among the most/very serious threat to CA's Ocean



I've heard of it but I just wasn't sure. What would they do to the ocean? Add acid to it? --
female

I wouldn't doubt it's happening. I don't know for sure, but I wouldn't doubt it with all the pollution and everything out there. The temperature changing and the water and stuff. Yeah, I could see why that would happen. -
female

Just that we'd heard on the news that the pods of whales were decreasing; they were getting skin conditions. It seems to me that would be related, so the health of your water directly reflects the health of all the things living in it. -
female

(Internal Document. Sources: Ocean Conservancy; The Ocean Project; Upwell.)

Climate Change

Risk

- The frame, public perceptions, and the various interest group camps are all established on climate change.
- The solutions are without immediate viability – they don't feel like solutions that can happen and that is not empowering

Recommendation

- Focus on establishing the problem first
- Make a strong statement on carbon, but refrain from national/international solutions that are tied to the climate change debate (those conversations can happen offline)

Scientific Uncertainty

Risk

- The success of the ongoing climate change debate (from the perspective of skeptics) can be attributed to the near-constant level of debate and uncertainty they were able to imbue into almost any discussion

Recommendation

- The science around ocean acidification impacts is complicated; the process isn't. Focusing on the rate at which we are driving change in the ocean is a way to rise above the idea that "the ocean will adapt, it will work out."
- **"Let's be clear – there is no uncertainty about carbon and ocean water. What we're trying to understand is what happening in these ecosystems and how to deal with the rapid amount of change these species are dealing with."**

Global cause vs. local actions

Risk

- As the trend on ocean acidification solutions moves towards local and regional solutions, there is scientific uncertainty about the relative impact of local contributors and the benefits of addressing them.

Recommendation

- Own it.
- **No question that the root cause is atmospheric CO₂. this is well established and we have to reduce it. The reality is that we can't wait to do what must be done. We must focus on what we can do now – this might be different in different places – reducing polluted run-off that makes OA worse, reducing overfishing, etc.**

Three Objectives for Communications At This Stage

- 1. Start where your audience is: Establish the Problem**
- 2. Raise the Level of Urgency from “Future” to “Impacts to People and Wildlife Now”**
- 3. Establish that Actions Can Be Taken To Help and Lay the Groundwork for Taking Action**



MESSAGE PLATFORM

1. Remind the audience of the role and function of the ocean

2. Do not open the door to debate; OA is real and measurable

3. A living ocean matters; OA is a real danger to the basis of the food chain, clean water, our economy

4. This is not a problem for tomorrow; it is happening today.

5. Coastal states need to be especially concerned

6. People have a role to play. Support for science, local initiatives and personal action are all needed.

Market Research Initiative

Phase 1: Baseline data

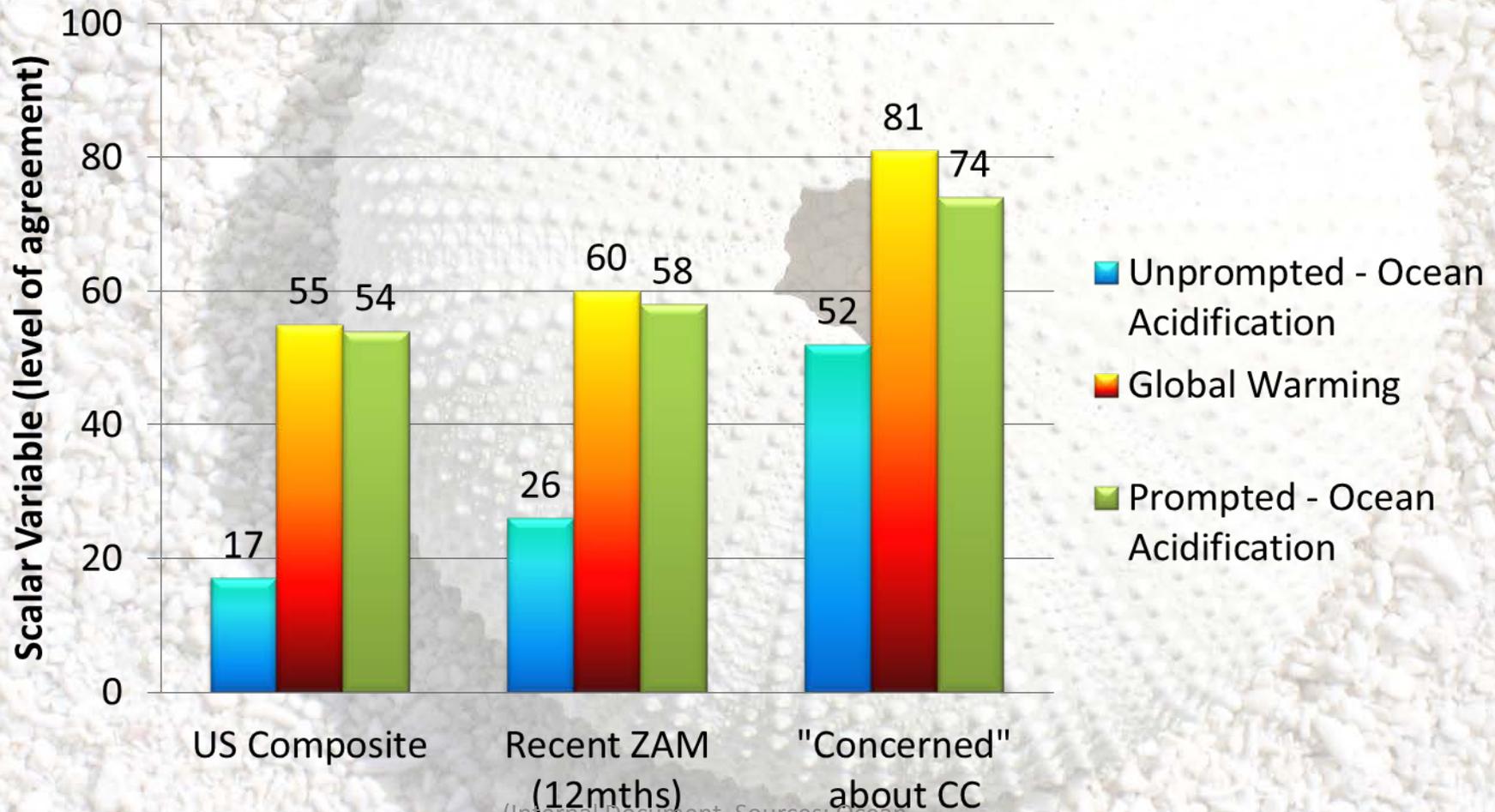
Time frame	Sample population
Aug – Nov 2008	<ul style="list-style-type: none">• 22,000+ US adults• Oversampling in 10 US markets, 2 in Canada• Additional data on youth, and 7 other nations

Phase 2: Tracking data

Timeframe	Sample population
Summer 2009	<ul style="list-style-type: none">• 4,800+ adults
Summer 2010	<ul style="list-style-type: none">• 8,500+ adults
Spring 2011	<ul style="list-style-type: none">• 12,000+ adults
Spring 2012	<ul style="list-style-type: none">• 17,000+ adults

(Internal Document. Sources: Ocean Conservancy; The Ocean Project; Upwell.)

I am worried about...



(Internal Document. Sources: Ocean Conservancy; The Ocean Project; Upwell.)

Current communication efforts

...reach the following audience...

- “General audience”
- “Aquarium visitors”
- “School age children”

...with the following message...

- “Ocean acidification is a serious problem”
- “The oceans are changing and we are the cause”

..leading to the following outcome...

- “Higher awareness”
- “Behavioral changes (to reduce carbon footprint)”

pinterest
tagged
photo

tagged youtube
video

blog post

facebook
post

SOCIAL MENTION

forum post

mainstream
news article

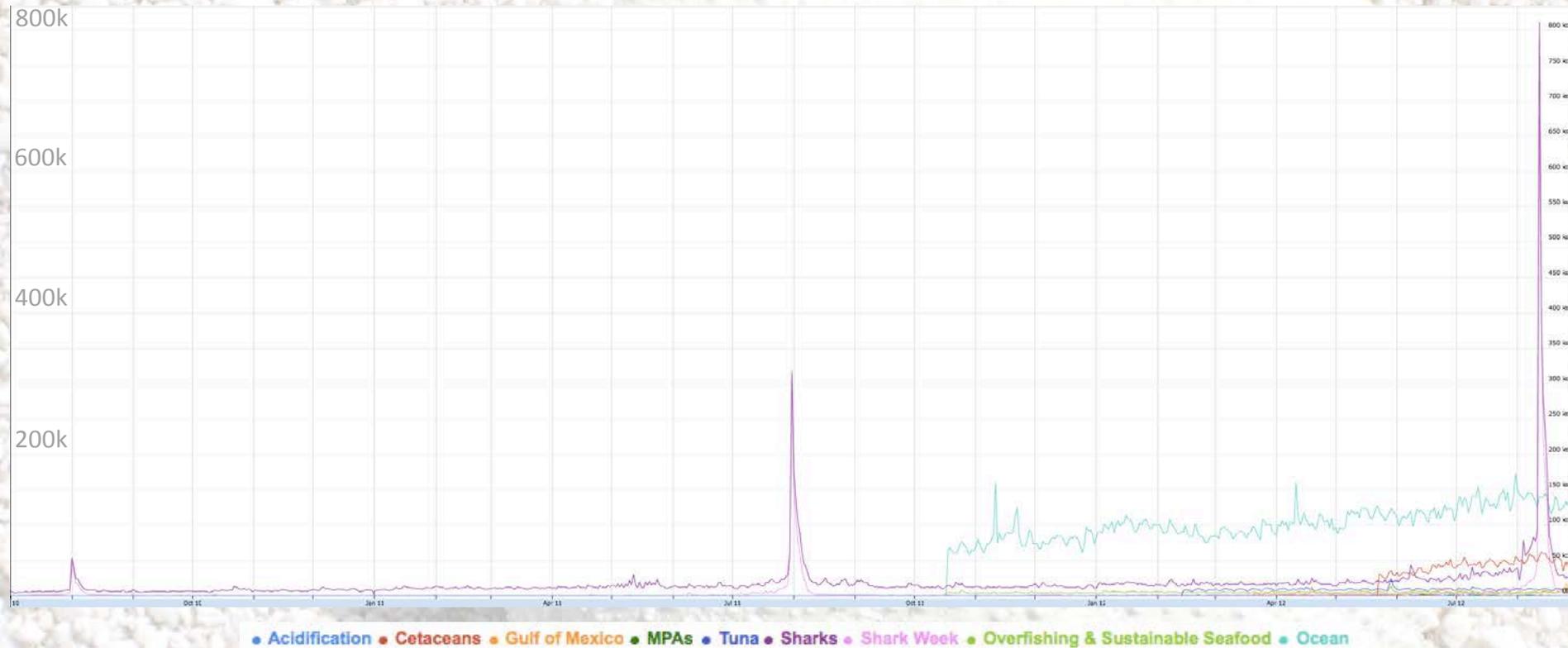
tweet

tagged
flickr
photo

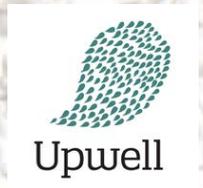
blog comment

Online Ocean Conversations

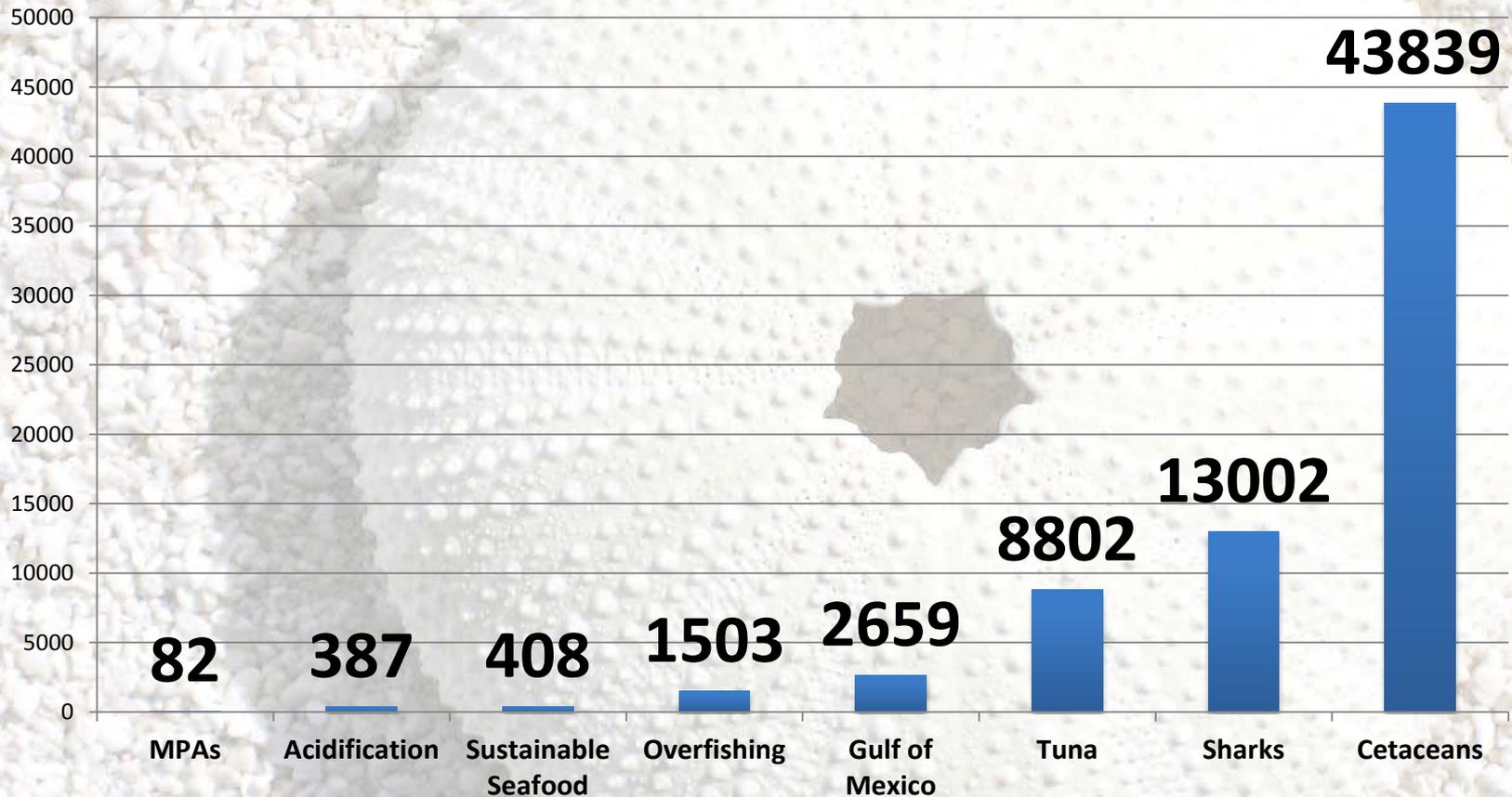
Social Mentions for Upwell Topic Profiles and Selected Keyword Sets, July 1, 2010 – Aug. 29, 2012



(Internal Document. Sources: Ocean Conservancy; The Ocean Project; Upwell.)



Baseline Social Mentions



(keyword groups as of August 29, 2012)

(Internal Document. Sources: Ocean Conservancy; The Ocean Project; Upwell.)



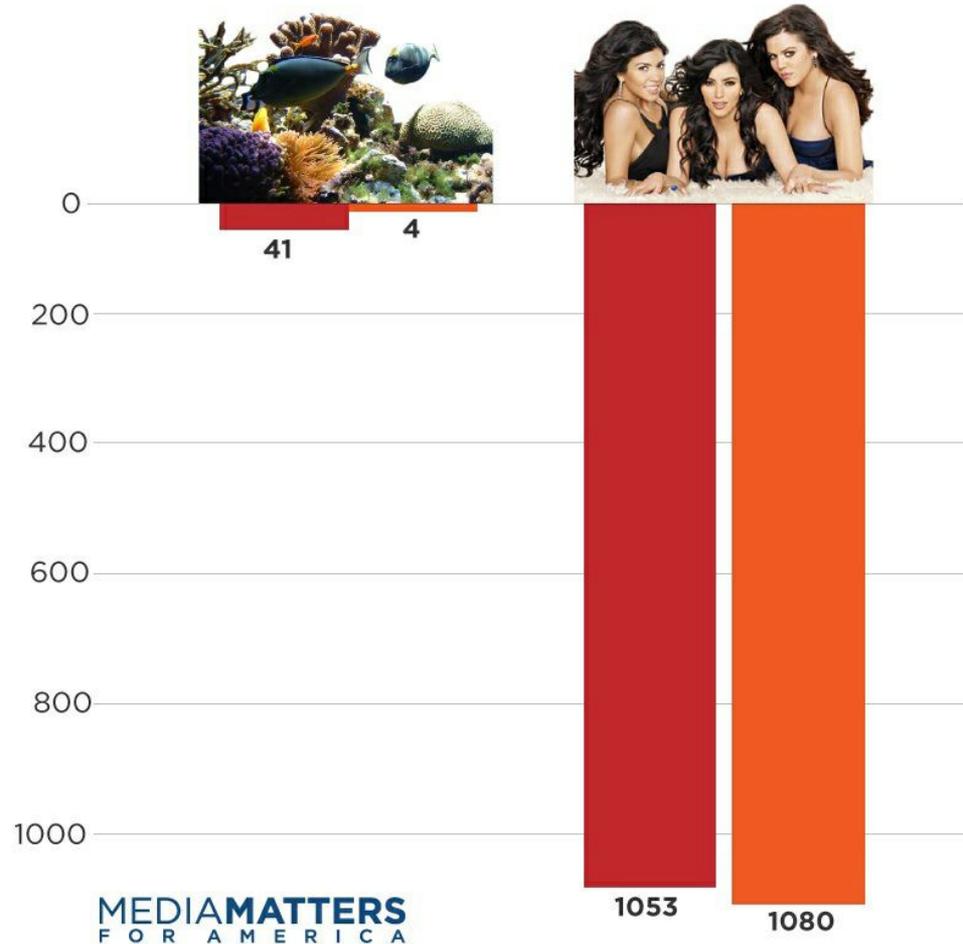
Ocean Acidification Keywords

"carbon dioxide" AND "ocean", "carbonate" AND "coral", "#oceanacidification", "ocean" AND "acidification", "ocean" AND "#acidification", "acidification" AND "shellfish", "ph" AND "ocean" AND -"philippines" AND -"tsunami", "acidity" AND "ocean", "acidity" AND "shellfish", "acidity" AND "coral", "ocean acidity", "acidification", "#ocean" AND "#acidification", "ocean" AND "acidic", "climate" AND "evil twin", "oceans" AND "acidic"

THE KARDASHIANS VS. OCEAN ACIDIFICATION

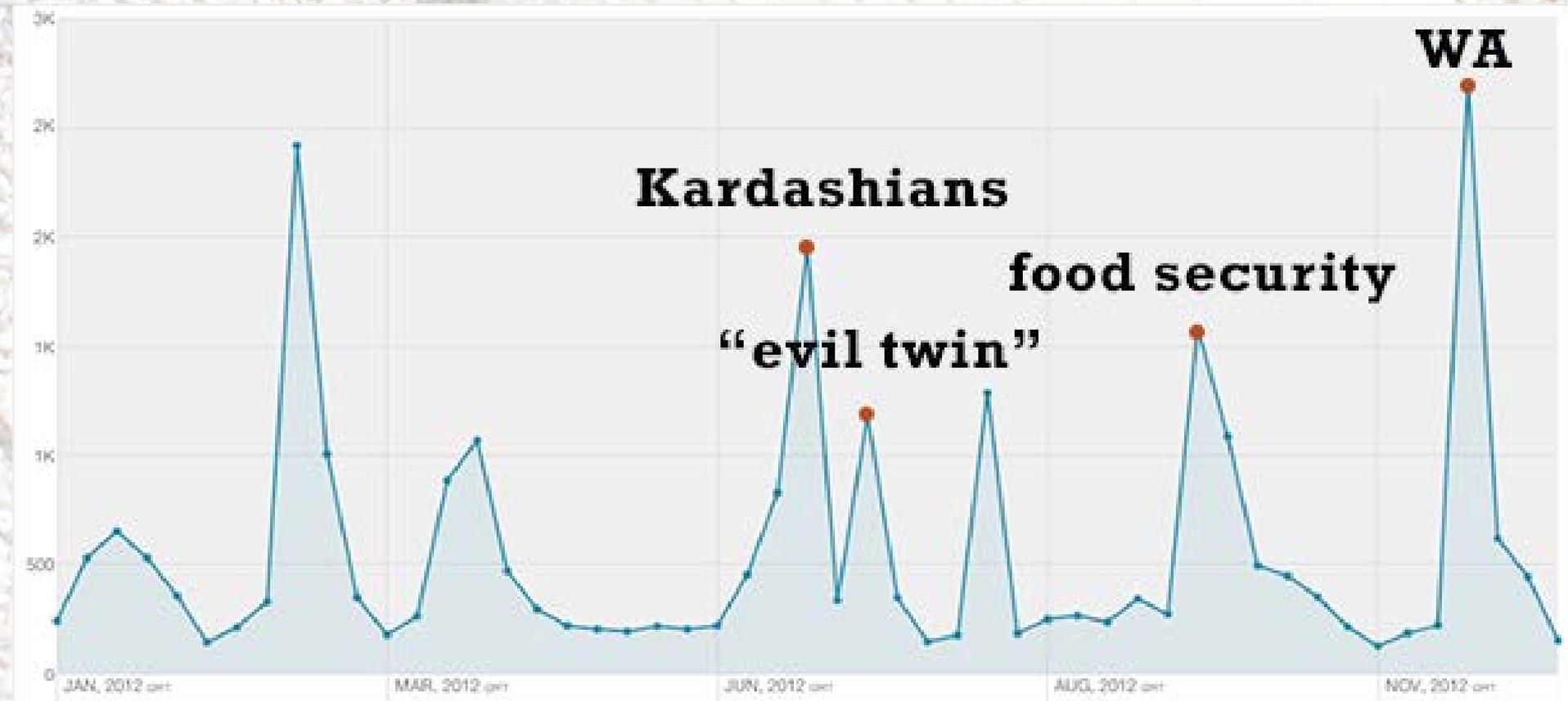
News Coverage Between Jan. 1, 2011 - June 26, 2012

■ NEWSPAPERS ■ TELEVISION

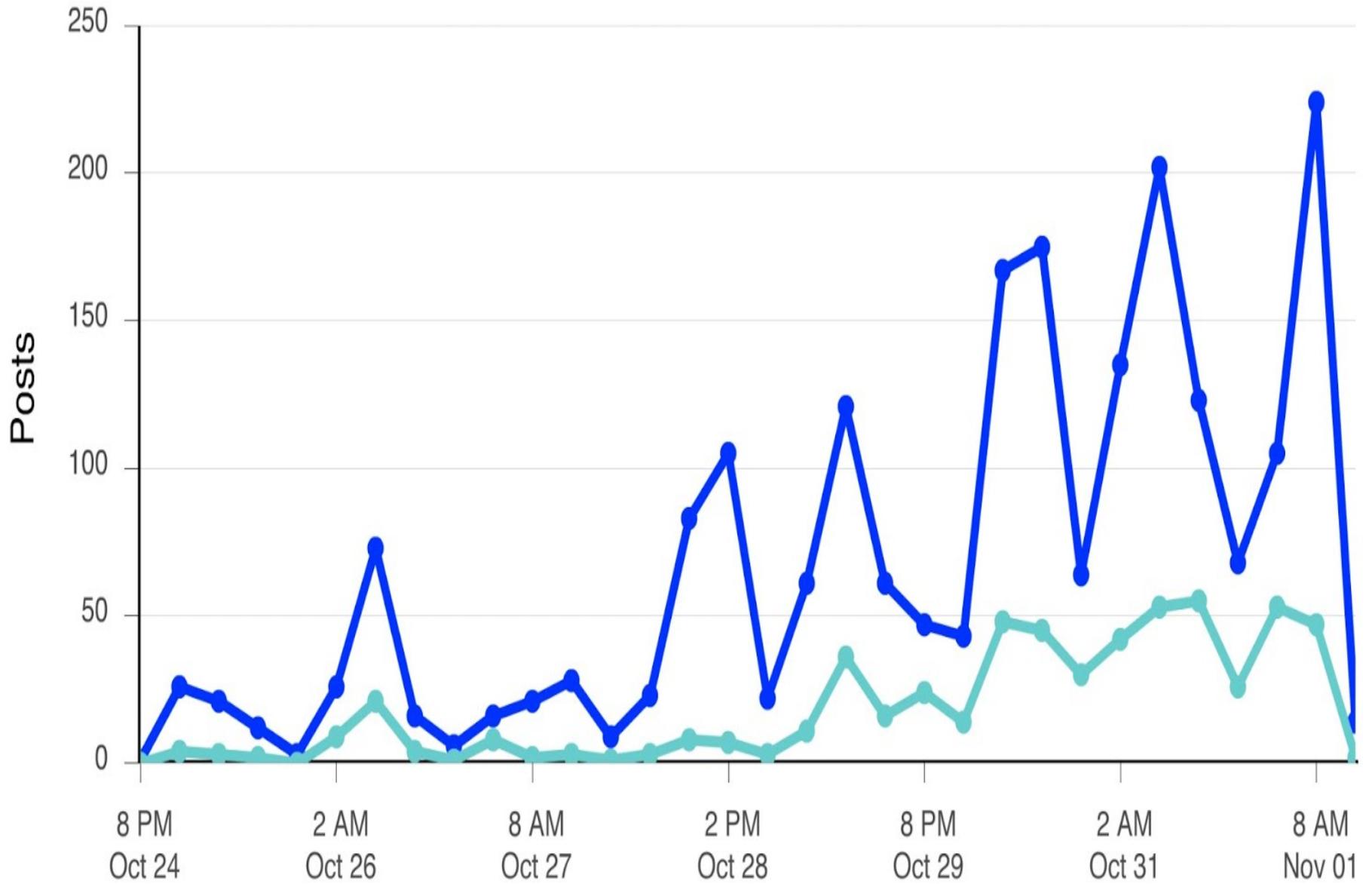


MEDIAMATTERS
FOR AMERICA

Newspapers: New York Times, Washington Post, Associated Press, Wall Street Journal, Los Angeles Times, USA Today. TV Channels: MSNBC, CNN, Fox News, ABC, CBS, NBC



(Internal Document. Sources: Ocean Conservancy; The Ocean Project; Upwell.)



Sandy AND Ocean AND (Climate OR Global Warming)
 Sandy AND (Climate OR Global Warming)

What is NOAA doing on OA ed?

- **Communicating OA Workshop**
- **OAP – Education**
- **BOAT – Building Ocean Awareness Together**
- **CRCP – NODE Data in the Classroom; OA ed site/DVD update**

BOAT

- **Funded by NOAA Env Lit grant**
- **Working closely with NAI and collaborating across NOAA groups**
- **Goal: to increase effectiveness of informal science educators to promote public understanding**
 - Oil spill
 - Energy literacy
 - **Ocean acidification**

Strategic Plan for OA Fed Rch & Mon

(draft)

- **Coordinate the design, implementation of the strategic plan for education and outreach**
- **Organize and host education and outreach events**
- **Make scientific assessments available to managers, policy makers, and the public**
- **Prepare materials for education and outreach events and any subsequent reports**
- **Develop a list of feedback metrics to measure the effectiveness of education and outreach campaigns**
- **Coord. investments in OA ed across fed govt**
- **Link researchers and students for structured, sustained, and meaningful educational opportunities**

NOAA OAP

- **OA State of the Science Factsheet (draft)**
- **NOAA OA Ed Implementation Plan – advancing:**
 - *Goal 1: Develop a needs assessment for E&O programming*
 - *Goal 2: Identify target audiences for ocean acidification ed*
 - *Goal 3: Determine programs and products for each audience*
 - *Goal 4: Match OA needs with existing E&O within NOAA*
 - *Goal 5: Develop innovative approaches for community involvement*
- **OA WG: agency-wide PI network**