

# How to Educate, Inspire, and Connect *with social media*

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@kamcclellan  
@IGERTwind  
@bycatchorg



katemcpress



# What audiences do we want to reach?

Partners

- New
- Existing

Funders

- New
- Existing

Policy makers

Industry groups

Students

- Age groups?

“General Public”

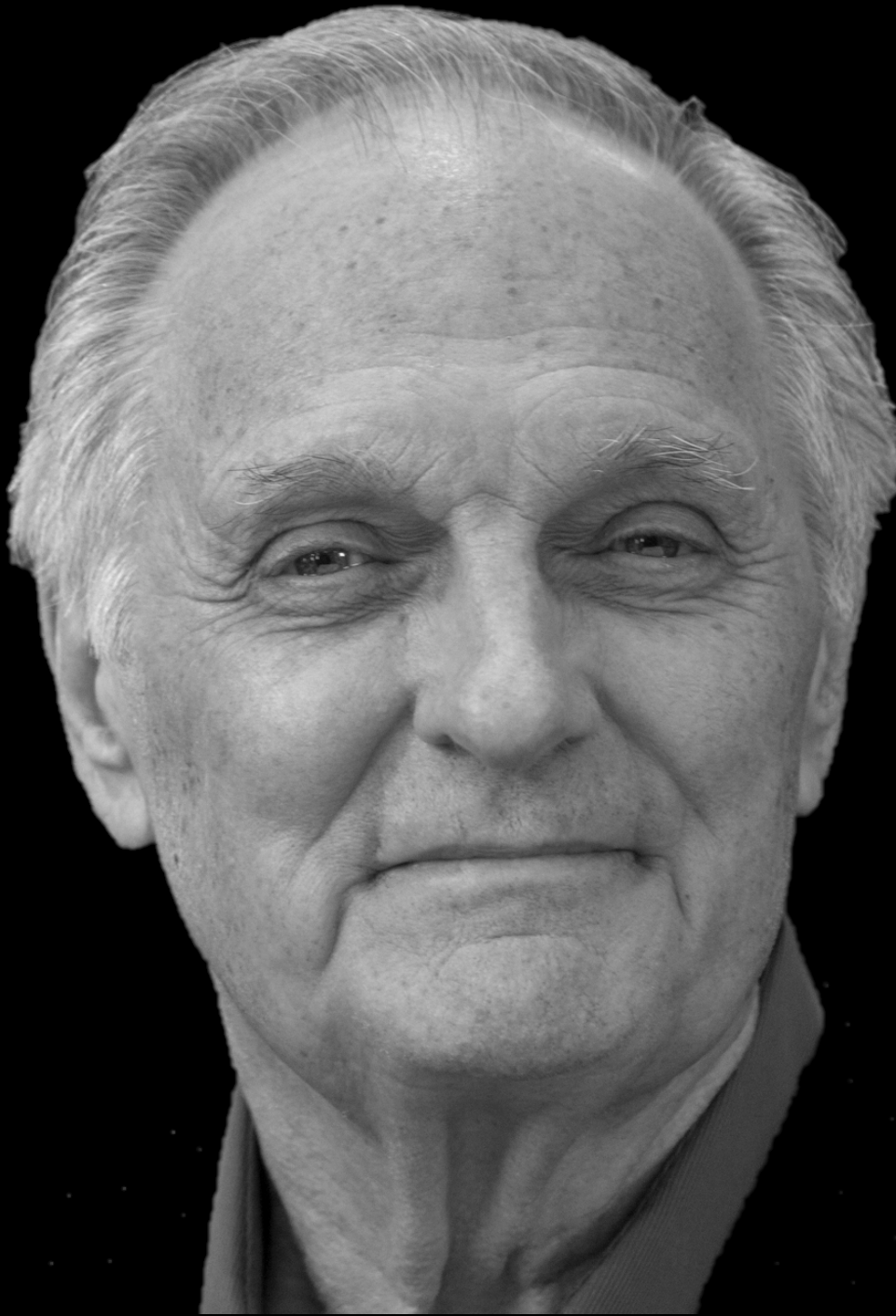
- Location
- Age groups?

28%

percent of Americans can  
pass a basic science literacy  
test

28%





“...if scientists could communicate more in **their own voices** – in a familiar tone, with a less specialized vocabulary – would a wide range of people understand them better? Would their work be better understood by the general public, policy-makers, funders, and even in some cases, other scientists?”

*Alan Alda*



# The Jargon Wall



# The Paywall



NCBI Resources How To

PubMed.gov  
US National Library of Medicine  
National Institutes of Health

PubMed

Advanced

Display Settings:  Abstract Send to:

Science. 2011 Jan 14;331(6014):226-30. doi: 10.1126/science.1198331. Epub 2011 Jan 6.

**Human tears contain a chemosignal.**

Gelstein S<sup>1</sup>, Yeshurun Y, Rozenkrantz L, Shushan S, Frumin J, Roth Y, Sobel N.

Author information

**Abstract**

 menu  NBC NEWS HOME LATEST SEARCH 

**THE BODY ODD**

DISCUSS AS:  Sign in

**Stop the waterworks, ladies. Crying chicks aren't sexy**

Thursday Jan 6, 2011 11:06 AM

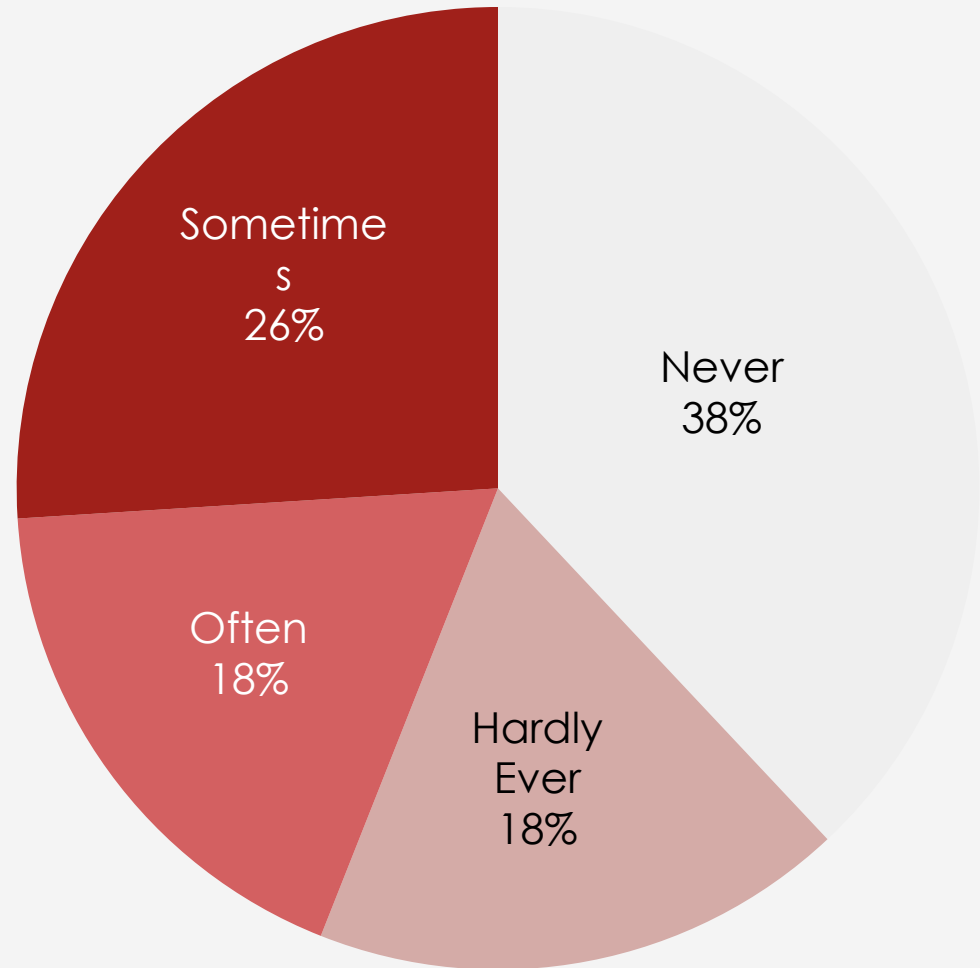
EMAIL  Like  9  Tweet  0



Last Week Tonight  
John Oliver

# 6-in-10 Americans get news from social media


% of US adults who get news on a social networking site



Survey conducted 2016  
Pew Research Center

56%

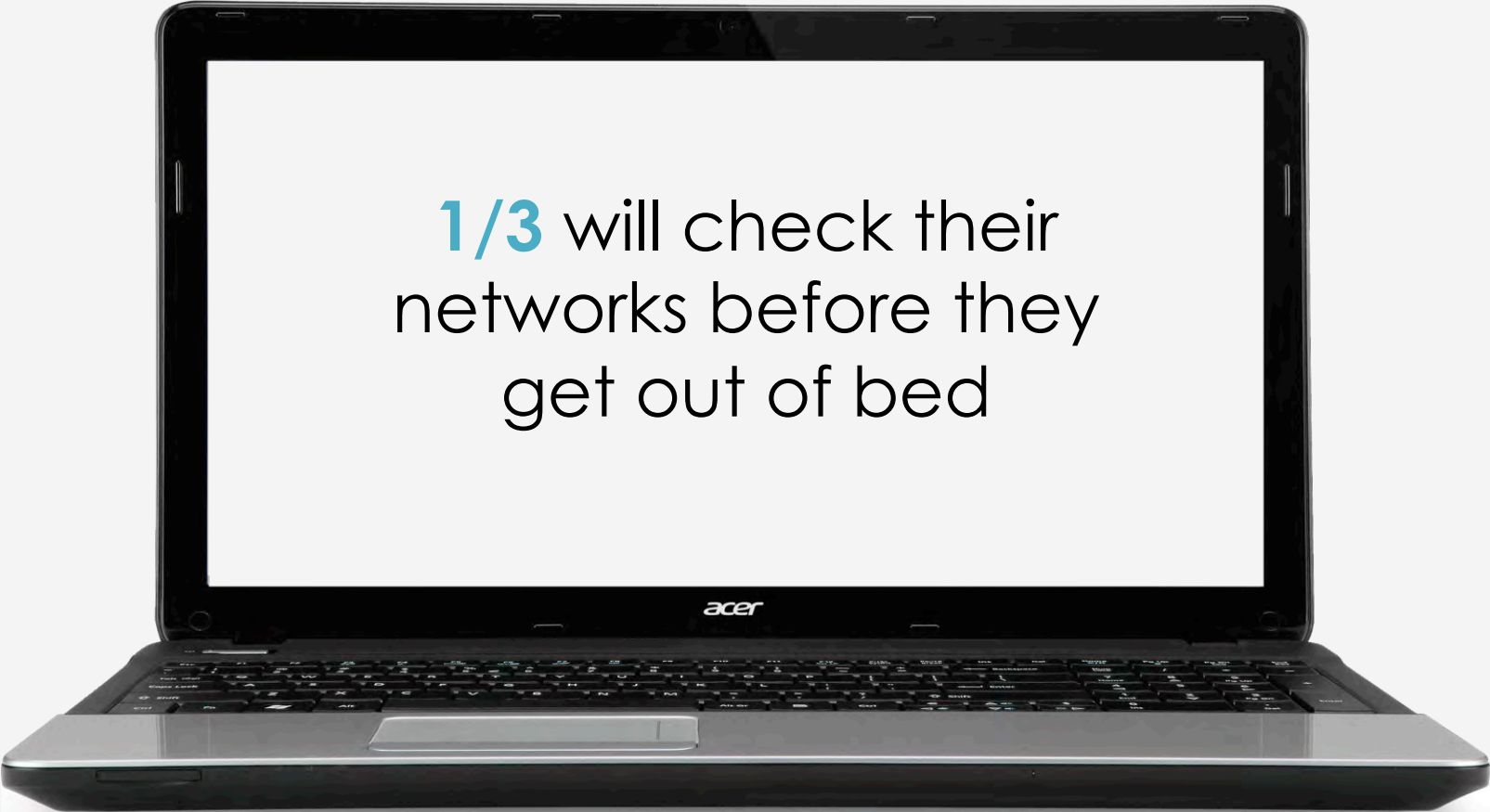
Of Americans get scientific  
information from the internet  
University of Chicago (2008)



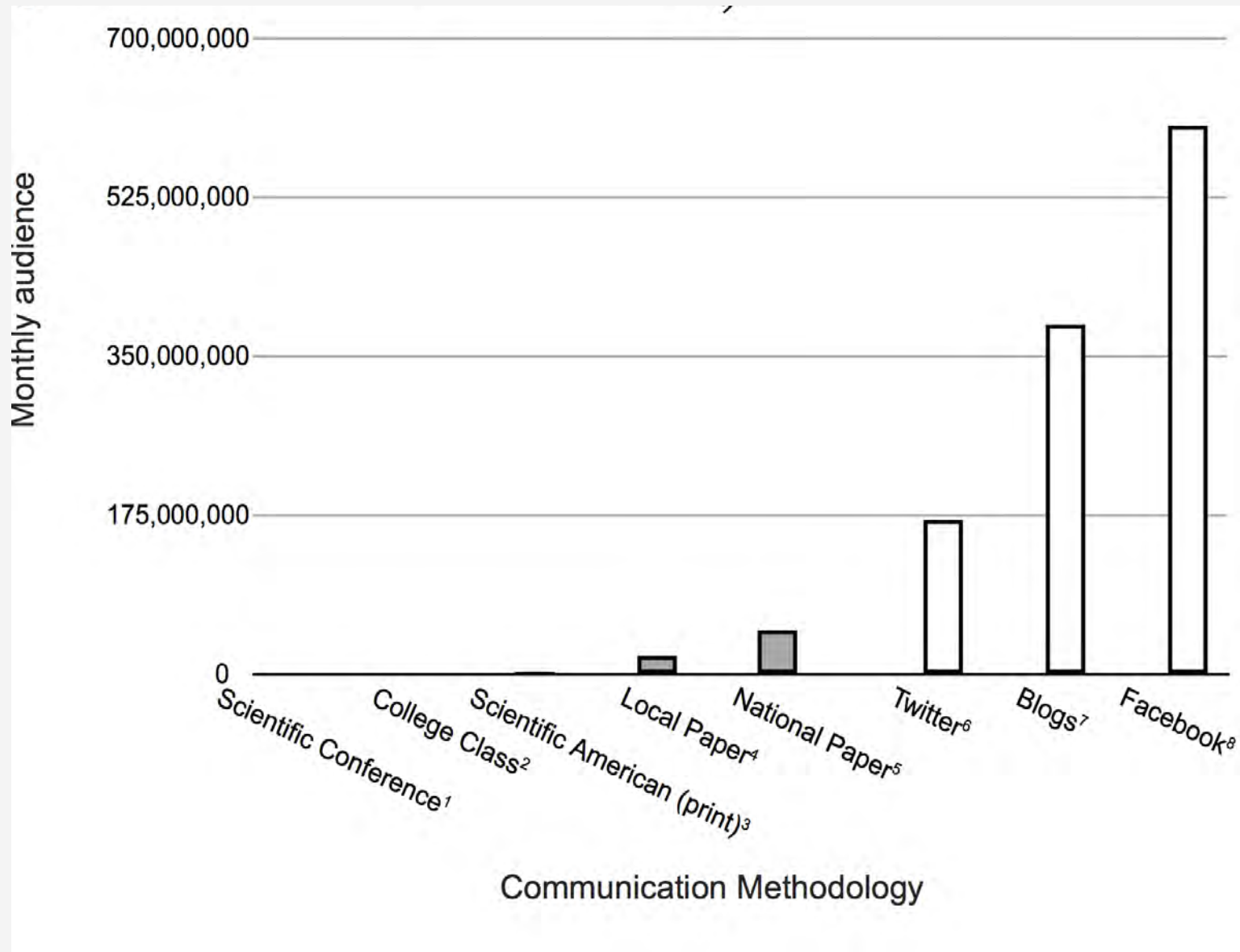
17% of all time spent  
online is spent on social  
networking sites

90%

Of 18-30 year olds have at least one social media account



**1/3** will check their networks before they get out of bed



@hollybik and @miriamgoldste

# Define your #scicomm – social media goals

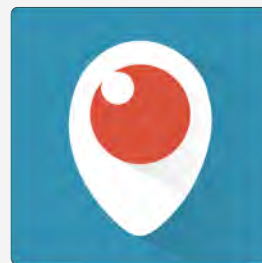
Increasing Engagement



- Outlet for opinions
- Increased visibility for your research/products
- Translation of science/conservation for a broad audience
- Feedback
- Conversation with key audiences
- Collaboration

# Create a diverse, coordinated communication portfolio

@SJC\_fishy et al 2017





# Create a diverse, coordinated communication portfolio

@SJC\_fishy et al 2017

72%

Of internet users



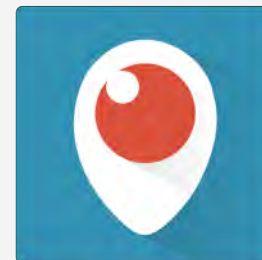
48%

Of < 30 use as primary news source



2.5

BILLION pieces of content shared daily



@nerdychristie



**MAR 16** Solutions for Healthy Waters Conference  
Public · Conference · Hosted by Watershed Action Alliance

Interested Share

🕒 Tomorrow at 8 AM - 3:30 PM  
Tomorrow · 16-34° Mostly Sunny

📍 1 Camp Kiwanee Rd, Hanson, MA 02341, United States [Show Map](#)

🎫 Tickets Available [Find Tickets](#)  
ticketpeak.com



**OCEARCH** was live.  
on Tuesday · 🌐

**Lowcountry Expedition: Science Team**  
#LowcountryExpedition: Science brief with the science team! OCEARCH.ORG SCDNR University of North Florida Georgia Aquarium Georgia Southern University University of South Carolina College of Charleston

16,892 Views

Like Comment Share

👍👎👏 406 Top Comments

52 shares

**Bob Hueter** · 0:52 Hi y'all, miss the science team and crew, sorry for the inclement weather, y'all look COLD!  
Like · Reply · 2 · 21 hrs  
1 Reply

**Barbaru Hunt** · 2:34 You guys are the greatest. Love learning about the "White" sharks from you. Especially MaryLee.  
Like · Reply · 3 · Yesterday at 1:43pm

**Deborah Lloyd** · 18:28 Thank you for caring and teaching the world !!! Love what you are doing !!! Hey Katharine swim hard girl !!!  
Like · Reply · 2 · Yesterday at 1:59pm

**Michelle Simerly Lewis** · 19:10 Love the lowcountry and the research you guys are doing in that area  
Like · Reply · 1 · Yesterday at 2:00pm

**Lorrie Gingras** · 28:00 Port colborne here,,,Save them all please,  
Like · Reply · Yesterday at 2:11pm · Edited

**Rachel Morgan** · 6:49 That's my brother!!! ❤️

Write a comment...



**Maria Gonzalez Ramos**

March 8 at 8:38am

Happy International Women´s Day Gills!!!! let's keep doing science... My second question is what is the most current shark research you've done?

Currently we want to know if the Chacahua lagoon is a nursery area for spotted eagle rays. This question began to surround our minds when a pregnant female gave birth to seven baby spotted eagle rays in our boat. In addition, fishermen mention that they have seen mostly females in the main lagoon year round and new-borns in shallow c... See More



Happy Weekend to you all. I apologize for the delayed answer, but I spent Games st few days in bed, so now I'm back to answer the Gills Club questions. My next question is: What is the most interesting thing you have learned from your research?

There are so many interesting things I learned from my research, so it's impossible for me to state which one is the most interesting. On the other hand, there is a quite funny thing that I learned from my research and from spending a ... See More



Like Comment Share

Heather Marshall and 33 others

2 shares

- Raul Barbon** I saw this proces but in sea turtles never in sharks .  
Like · Reply · 1 · January 21 at 9:42am
- Raul Barbon** It a good metodology and you can tag it too for biométric datas  
Like · Reply · January 21 at 9:44am
- Toni Martin** happy you are feeling better... thanks for the post  
Like · Reply · 1 · January 21 at 10:33am
- Ornella Céline Weideli** Thank you Toni Martin for you kind words.  
Like · Reply · 1 · January 21 at 1:49pm

- Raul Barbon** Thank you for share us  
Like · Reply · January 21 at 10:34am
- Ornella Céline Weideli** Thank you Raul Barbon for your comments. It's indeed a very good and useful method. One of the disadvantages though is that you only get an idea of the shark's latest meal. This is way I also collected blood samples for stable isotope analyses to get another approach on their diet.

# Create a diverse, coordinated communication portfolio

@SJC\_fishy et al 2017

1

BILLION new tweets daily



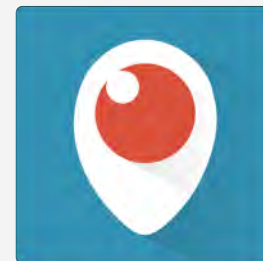
100

Million active daily users



21%

Of American internet users



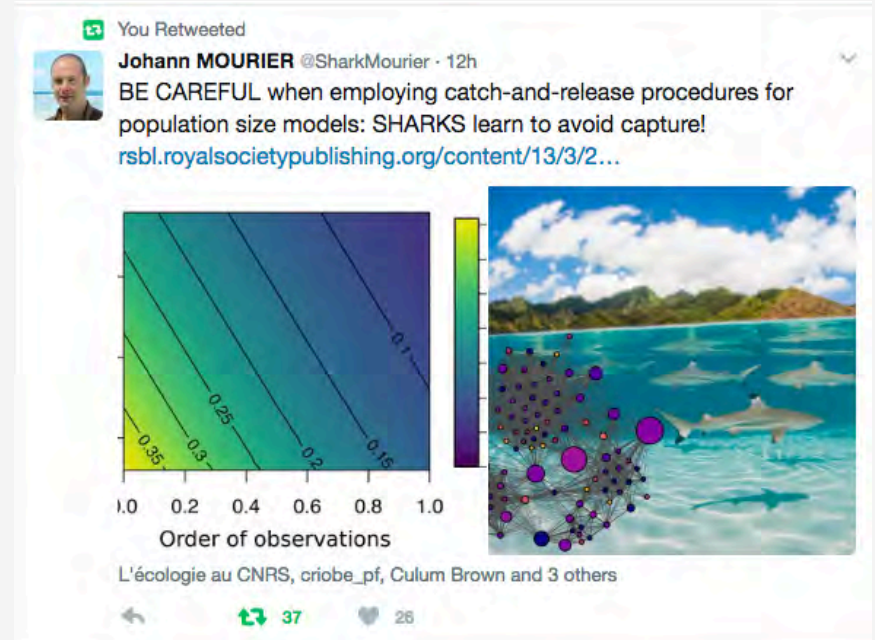
@nerdychristie



Live-tweet conferences



Start a conversation



Tweet your paper/follow research



Connect with students #scistuchat



Fisheries Home In the Spotlight Our Work Species Regional News All Stories

About Us Fisheries Home » Feature Stories

Programs **10 Things You Should Know about Corals**

Regions  
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December 2, 2015  
This #CoralsWeek, learn something new about corals. Here's the bottom line.



1. Corals are underwater rainforests.
2. Corals have a tiny footprint but a big impact. Covering only about one-tenth of one percent of the ocean floor, they provide habitat for more than 25 percent of marine life.
3. Coral reefs protect shorelines from erosion and storm damage. They also support commercial and recreational fisheries—an estimated annual fishery value of \$200 million nationwide and overall value of almost 2.4 billion nationwide (NOAA Summary Report on Economic Value of US Coral Reefs).
4. **Shallow corals**—the ones snorkelers and scuba divers see on tropical vacations—live all over in the U.S. Atlantic/Caribbean and Pacific Ocean jurisdictions of the USVI, Puerto Rico, Florida, American Samoa, Guam, Commonwealth of the Northern Marian Islands, Hawaiian Islands and Pacific Remote Islands Areas.
5. Not all corals are found in the tropics. **Deep-sea corals** live in cold oceanic waters especially between 200 and 6,000 feet deep. They are extremely slow-growing, but can survive for thousands of years. Scientists have dated living deep-sea corals to be more than **4,000 years old**.



**National Seafood Month**  
#SeafoodMonth

TWEETS 5,653 FOLLOWING 409 FOLLOWERS 34.4K LIKES 28 LISTS 1

**NOAA Fisheries** @NOAAFisheries  
Science-based conservation & management for sustainable living marine resources & healthy ecosystems. Visit us online: [fisheries.noaa.gov](http://fisheries.noaa.gov)  
United States  
[fisheries.noaa.gov](http://fisheries.noaa.gov)  
Joined April 2011

**Tweets** Tweets & replies Media

Pinned Tweet  
NOAA Fisheries @NOAAFisheries · 20h  
**WATCH—Where Does Your Seafood Come From?** QR code tags on seafood help trace how & where it was caught: [bit.ly/2dERmG8](http://bit.ly/2dERmG8) #SeafoodMonth

Who to follow · Refresh · View all

- Higher Education @Gdn... Follow
- God @TheTweetOfGod Follow
- ASC @SharkStudies Follow

Find friends

Boston Trends · Change



**NOAA Fisheries Service** @NOAAFisheries



Like Save Share More



Government Organization · Silver Spring, Maryland  
3.6 ★★★★★

Search for posts on this Page

58,241 people like this  
Maggie Winchester and 18 other friends

3.6 ★ 3.6 of 5 stars · 19 reviews  
View Reviews

Invite friends to like this Page

ABOUT >

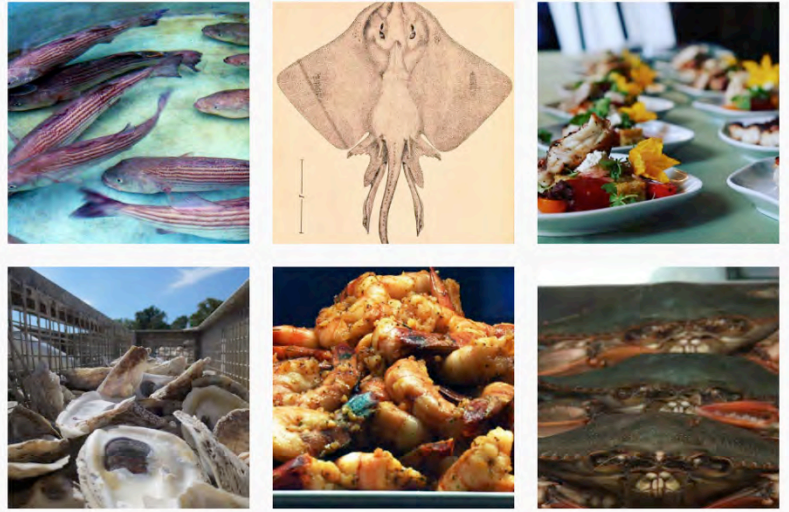
Ask for NOAA Fisheries Service's address



noaafisheries Following

589 posts 40.2k followers 26 following

NOAA Fisheries Science-based conservation & management for sustainable living marine resources and healthy ecosystems. @NOAAFisheries [www.fisheries.noaa.gov](http://www.fisheries.noaa.gov) [bit.ly/2e9ZmMX](http://bit.ly/2e9ZmMX)



# KATE MCCLELLAN PRESS

MENU

I am a PhD candidate in the Department of Environmental Conservation at University of Massachusetts Amherst and an NSF **Offshore Wind Energy** IGERT Fellow. I am currently researching elasmobranch (shark, skate, ray) electrosensitivity, specifically how interactions with offshore renewable energy power cables might affect elasmobranchs' behavior and physiology.

I have previous research experience in fisheries bycatch, coastal and marine spatial planning, and coral reef ecosystems.

You can find me on twitter talking about sharks and marine conservation [@kamcclellan](#) or offshore wind energy [@IGERTwind](#)



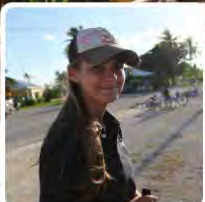
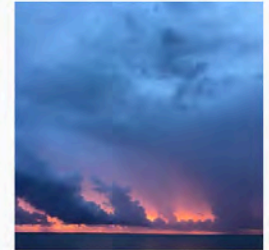
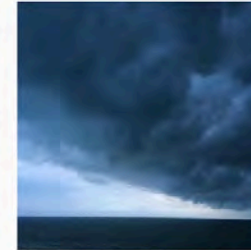
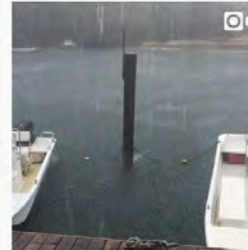
BLOG AT WORDPRESS.COM.



katemcpres Edit Profile

347 posts 187 followers 233 following

Kate McClellan Press Marine scientist



TWEETS 2,006 FOLLOWING 1,384 FOLLOWERS 1,135 LIKES 342 LISTS 10 MOMENTS 0 Edit profile

**Kate McClellan Press**  
@kamcclellan

Marine Science PhD candidate and IGERT fellow at UMass Amherst @IGERTwind Marine conservation and policy, sharks, rec fishing, offshore renewables!

[katemcpres.com](#)  
Joined February 2011

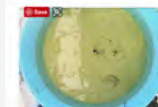
Tweets Tweets & replies Media

Pinned Tweet

**Kate McClellan Press** @kamcclellan · 1 Dec 2016  
My favorite image right now, Ampullae of Lorenzini of a juvenile lemon shark, which allows them to detect electric fields



Learning to suture so I can put transmitters into juvenile lemon sharks in Eleuthera. We will be tracking sharks inside tidal creeks for the next month and a half! #sharkscience #research



A juvenile lemon shark biting at an artificial electric field. Sharks are electroreceptive and use bioelectric fields from marine organisms to zero in on food.



Bull sharks and hammer sharks feeding on fish discarded in the marina.



Bull sharks in the marine come to feed on discards from fishermen. These sharks are commonly found here in the winter when the water is cooler. Five females were tagged in last winter and we have seen none of the return this year. Today we saw four bull sharks - two with tags and two without.



**IGERT IN ELEUTHERA**

Offshore wind IGERT research in Eleuthera, The Bahamas

ARCHIVE



# Getting started

@SJC\_fishy et al 2017

- Get help – build a network
- Build a brand
- Learn new skills, create opportunities
- Understand the science of science communication
- BE CREATIVE



# Visuals Matter!

36% of tweets are images



Including a photo or video in a press release increases views by over 45%

On Facebook, videos are shared **12x** more than links and text posts combined



@nerdychristie



## PROTECTING WETLANDS & GRASSLANDS

in the *Prairie Pothole Region*  
Natural Resources Conservation Service

### REGION STATISTICS

The Prairie Pothole region consists of



# 5 STATES,

provides breeding & nesting habitat for nearly **50%** of the nation's migratory birds,



and



home to rich soils and many shallow lakes and marshes.

### REGION CHALLENGES

The region is experiencing challenges, including:

# 35%

Reduction in over 3 million Conservation Reserve Program acres since 2007.

1995-2013



A marked rise in corn production in the region.



These reasons and others have contributed to a loss of grasslands and wetlands

### CONSERVATION ON THE GROUND

NRCS has worked with farmers and ranchers in Montana, North Dakota, South Dakota, Minnesota and Iowa to:

enroll

# 63,000+

acres in grassland easements (since 2003)



enroll

# 430,000+

acres in wetland easements (since 1992)



Protecting grasslands and wetlands can result in increased grassland and wetland acreages, enhanced wildlife habitat and improved water quality.

### PROGRAM GOALS

NRCS plans to invest up to

# \$35 MILLION

in the next three years in the five-state area.

To improve grazing on



# 45,000+

acres and



improve wildlife habitat and wetlands on **120,000+** acres

Sources: NEST database, Farm Service Agency and USDA, 2014  
USDA is an equal opportunity provider and employer.

# Infographics

- Charts
- Graphs
- Maps
- Diagrams
- Pictures

Mind the Graph,  
Vengage,  
Piktochart, etc.

- Submit Your Paper ▼
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- Guide for Authors ▼
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- Order Journal ▼

Journal Metrics

CiteScore: **0.59** Ⓢ

More about CiteScore

Impact Factor: **0.596** Ⓢ

5-Year Impact Factor: **0.592** Ⓢ

Source Normalized Impact per Paper (SNIP): **1.073** Ⓢ

SCImago Journal Rank (SJR): **0.858** Ⓢ

## Video Abstracts

On shifted Mascheroni series and hyperharmonic numbers



[Watch a Video Abstract](#)

Read full article [here](#)

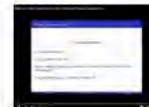
Critical numbers of intervals



[Watch a Video Abstract](#)

Read full article [here](#)

New normality constructions for continued fraction expansions



[Watch a Video Abstract](#)

Read full article [here](#)

Tutorial: @scientistvideographer

#overlyhonestmethods  
Conversations  
that make  
science  
RELATABLE



**mahzabin chowdhury**

@mahzabin

Follow

The experiment was left for the precise time that it took for us to get a cup of tea [#overlyhonestmethods](#) [#tealove](#)

12:09 PM - 8 Jan 2013

29 RETWEETS 9 FAVORITES



**Dr. Twittenheimer**

@DrTwittenheimer

Follow

A modified protocol was implemented because a certain graduate student seems unable to follow simple instructions. [#overlyhonestmethods](#)

12:14 PM - 8 Jan 2013

104 RETWEETS 59 FAVORITES



**Amy Freitag**

@bgrassbluecrab

Follow

we didn't test as many clams as oysters because we're pretty sure someone found the samples and ate them [#overlyhonestmethods](#)

12:52 PM - 8 Jan 2013

17 RETWEETS 17 FAVORITES



**Katy**

@th3k4ty

Follow

[@SciencyCheese](#) Steps 4 to 7 of the protocol were left out, because it gives the same result and saves one hour [#overlyhonestmethods](#)

12:01 PM - 8 Jan 2013

7 RETWEETS 4 FAVORITES



**Morgan Edwards**

@mangoedwards

Follow

I can't send you the original data because I don't remember what my excel file names mean anymore [#overlyhonestmethods](#)

12:11 PM - 8 Jan 2013

118 RETWEETS 68 FAVORITES



# #actuallivingscientist Conversations that make science RELATABLE

Craken MacCraic and 4 others Retweeted



**Claire Simeone** @Claire\_Simeone · Feb 3

Hi, I'm Claire & I study how to improve animal, human, and ocean health. I usually smell like a sea lion. #actuallivingscientist



15 349 1.3K

Christine Y. Chen liked



**KY Geological Survey** @KGSNews · Feb 27

I'm KGS geophysicist Zhenming Wang, an #actuallivingscientist helping Kentucky's National Guard plan its response to possible earthquakes.



4 6



**Kate McClellan Press** @kamcclellan · Feb 4

I'm an #actuallivingscientist studying sharks and offshore renewable energy #WomeninScience



22 61

# @realscientists

47.1K followers  
realscientists.org

realscientists Retweeted

 **screamingmd** @screamingmd · Mar 13

ACDC's "dirty deeds done dirt cheap" is "dirty deeds thundersheep" according to my kids.

**realscientists** @realscientists

Errors happen in speech perception - we mishear words (due to context and/or expectations. Tell me about song lyrics that you've misheard!

5 7 34

**realscientists** @realscientists · Jul 6

Aside from extracting beetles from infested trees, we also trap using soda bottle traps baited with hand sanitizer



8 31

**realscientists** @realscientists · Jul 5

Parenting at work and teaching him early!



5 81

# Integrate the science process into your #scicomm



# Be honest and accurate

- Avoid over-sensationalizing
- Be clear when you are presenting your opinions
- Link to original research (bit.ly, ow.ly, goo.gl)
- Use proper attribution for images, data, quotes, etc.



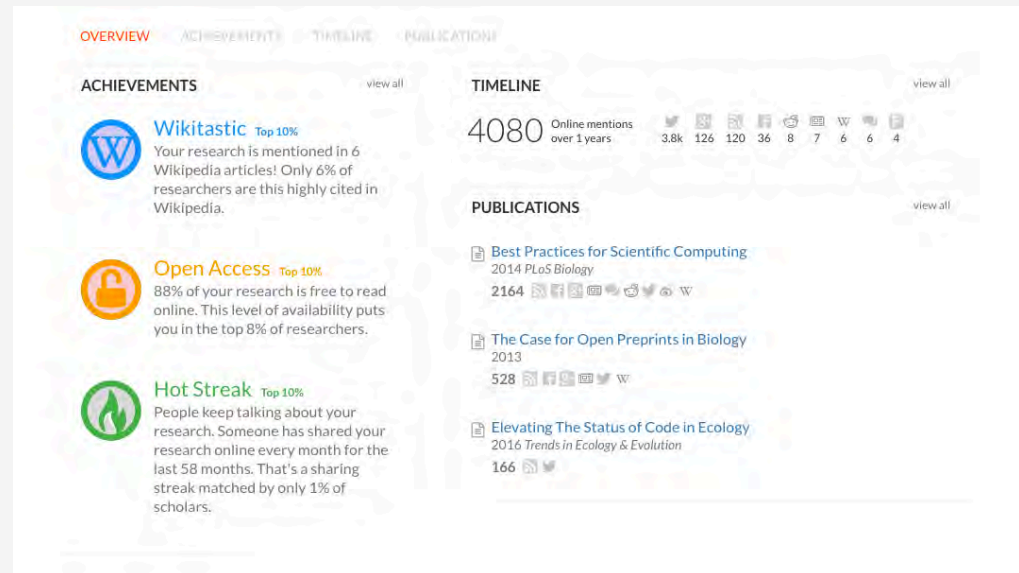
# Evaluate, reflect, and adapt

@SJC\_fishy et al 2017

- Metrics of success: citation, page views, tweets, shares, likes, community involvement, fundraising, attendance at events



**Impactstory**



@nerdychristie

If it was worth  
doing,  
its worth telling  
people

NETWORKING

x1000

# Broader Impacts

# Personal Branding

Become a Better  
Communicator

# THANKS



@NeardyChristie

@duffy\_ma

@SFriedScientist

@WhySharksMatter

@DrCraigMc

@ProfRubega

@FromTheLabBench

@SJC\_fishy

@scivideographer

@hollybik

@fishforward

@predatorscience

@vivmn

@drneilhammer

#####

#SciComm

#SciArt

#CitizenScience

#Conservation

#STEM

#phdchat

#WomenInSTEM

#ScienceMatters

#fridaynightscience

#openscience

#OA

#ALLCAPSPROPOSAL

#ActualLivingScientist

#JunkOff / CuteOff

#FieldWorkFail



#####





@kamcclellan  
@IGERTwind  
@bycatchorg



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