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SciComm - Effective Science Communication

9-24-2016

# Numbat Media: A case study in the challenges of starting an outreach project

Matt Wilkins University of Nebraska-Lincoln, m.r.wilkins06@gmail.com

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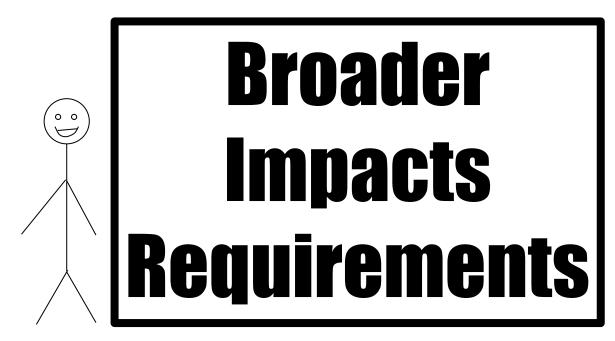
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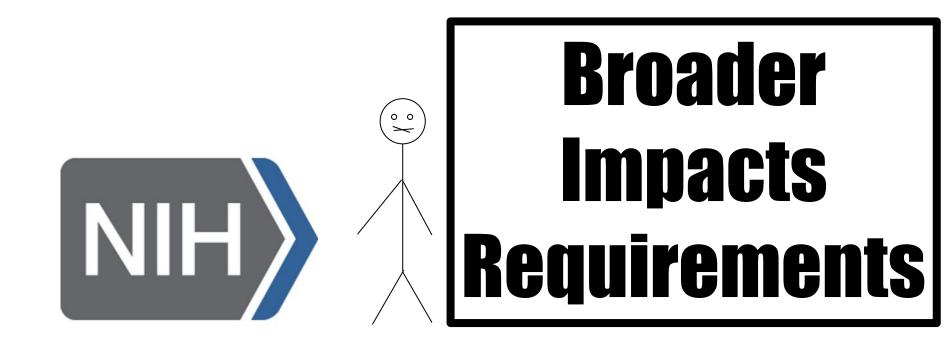
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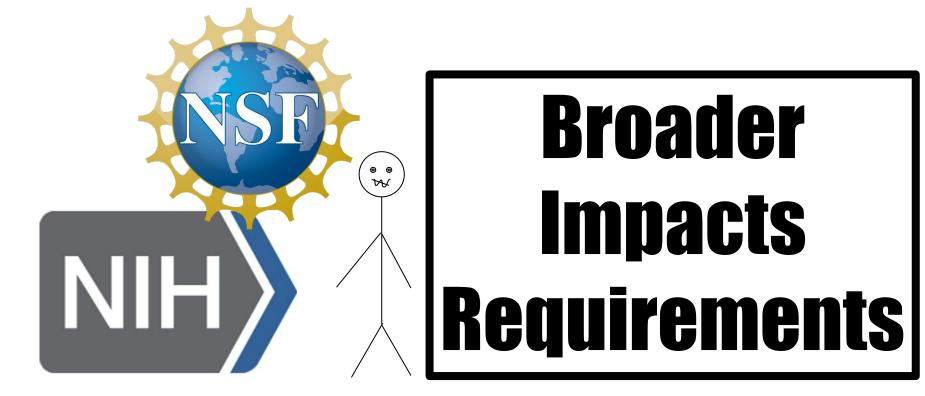
# Numbat Media: A case study in the challenges of starting an outreach project

https://docs.google.com/presentation/d/1PToCigmMw-cxdSV-iVBWkM20X2QGHfshtV0MnAOMrVI/edit#slide=id.g17e16daba9\_1\_216

Matt Wilkins Postdoctoral Fellow University of Nebraska-Lincoln School of Biological Sciences @mattwilkinsbio

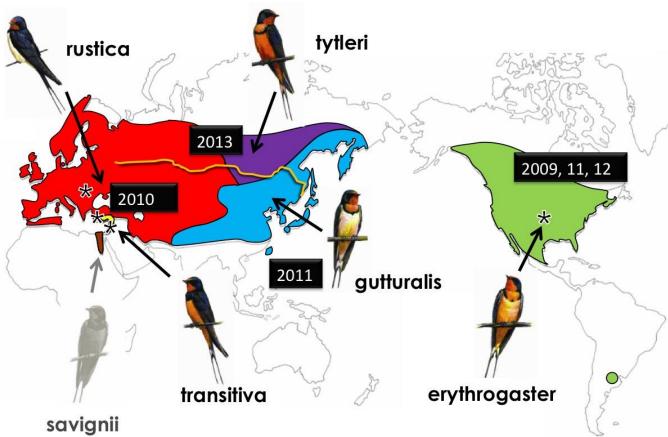








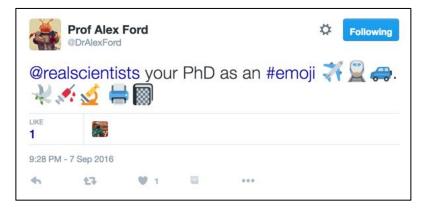
# Sampling for My PhD



# My 6 Year PhD in 25 Words

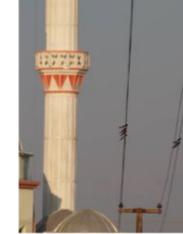
I studied how differences in female mate choice, based on song and feather ornaments, lead populations to evolve to look and sound different over time.

# Or Even More Succinctly...





























## Trans-Siberian Summer

## O Comments

## 0 Comments

## Why we're going to Siberia

This summer is our first field expedition on the new barn swallow grant, and Matt and I will be traveling across Russia studying three different subspecies - *H. r. rustica, H. r. tytleri*, and *H. r. gutturalis*. One of the big goals of this project is understanding why the subspecies look different (check out the About page for more info). Traits such as plumage, song, and morphology are used in mate choice decisions, and population-level variation in these traits can therefore initiate the speciation process by generating reproductive barriers. It's particularly important to study these traits in contact areas between different subspecies, because this is where barriers between differentiated groups are most likely to break down. When we visit these "contact zones," we can see if there's any evidence for hybridization (i.e., weak reproductive barriers), or if neighboring populations are very differentiated (i.e., strong reproductive isolation). These different patterns provide clues to the processes causing subspecies to diverge from each other.



June 2015

May 2015

June 2014 May 2014

April 2014

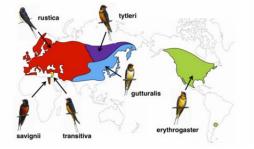
July 2013

June 2013 May 2013

February 2013

Categories

## RSS Feed



## barnswallowproject.com

## TransparentSci: Graduate Research, Start to Finish

Please feel free to post if you have questions or comments!

Friday, July 2, 2010

Bad news for birdies



10 Day Old nestling barn swallows wait for mom and pop to bring food

Throughout the field season, the birds in our study have worked diligently to pair up, build nests one beak full of mud at a time, lay and incubate eggs, feed nestlings, and in their down time, feed themselves by hunting down hundreds of fast-moving aerial insects. You have to be impressed with the little guys. But often times, despite all this effort, eggs disappear in the night, nestlings

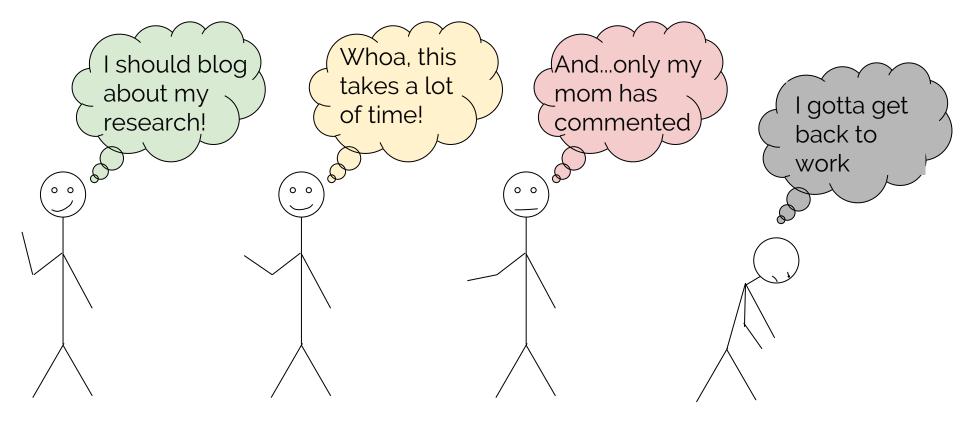
Click to See Field Photos



Useful Links 1-Field Season 2011 Photos 2-My First Trip to the Study Site (Turkey) 3-AB: Gen Field Assistant Jobs 4-BotNet–Field Jobs w/ Birds 5-OSINA-Field Jobs w/ Birds 6-SSAB: Field Jobs w/ Berdies

## transparentsci.blogspot.com

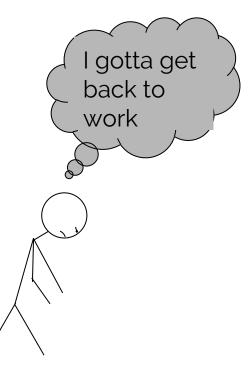
# **Familiar Outreach Trajectory**



# **Outreach Fatigue**

Symptoms May Include:

- Headaches
- Loss of sleep
- Feeling like you're not doing your research effectively
- Feeling like you're not doing your outreach effectively
- Intermittent, unguided hyperopic transfixia
  - AKA 'staring off into space'



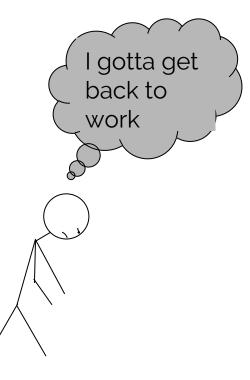
# **Outreach Fatigue**

Long-Term Effects on Researchers:

- Increased stress
- Reduced job satisfaction
- Reduced ambitions for outreach success
  - AKA 'Being Realistic'

Long-Term Effects on Outreach:

- Updates reduced or stopped
- Links get broken
- Functionality lost
- Audience shrinks & moves on



# Problem: We're asking too much of scientists

<u>Required duties you are</u> <u>rewarded for:</u>

- Do research
- Publish papers
- Write grants
- Win grants
- Design courses
- Teach courses
- Mentor students
- Serve on committees

<u>Required duties that don't really</u> <u>count for much:</u>

- Review papers
- Come up with outreach projects (for grants)
- Work out the logistics
- Outreach
  Fatigue
  Find an audience
  Grow the audience

# **Outreach is hard!**

How do we get our hard-won science resources out to more people?

# Possible solutions to the audience gap

- 1. Active promotion--doing the hard work to make personal connections through social media
  - (Preferably somebody else does this)
  - (Cuz who's got time?!)
- 2. **Collaboration**-- if we cross promote each other's projects, we can help each other out
  - Our small audiences combine to a large audience)



## Why Numbats?

A numbat is an endangered marsupial anteater with less than 1k individuals in the world!

They also have a funny name.

Speaks to the fragility, beauty, and humor of LIFE.

# Numbat

Started in February, 2016 to:

Connect scientists (including myself) to the general public

Aims:

- Grow an audience on Twitter, Facebook, Instagram & the web
- 2. Promote the work of myself & others (*new outreach*)
- 3. Promote great *existing outreach*
- 4. Increase connectivity & impact of science communicators

Creative multimedia to engage K-12 students & the general public in science

• Photo galleries from scientists







MARIA GOLLER







ASIA MURPHY

GEORGY SEMENOV

MATT WILKINS

Creative multimedia to engage K-12 students & the general public in science

- Photo galleries from scientists
- #InTheLineOfScience Blog

# #InTheLineOfScience



NATURAL SELECTION WORKS ON ECOLOGISTS, TOO

from Joe Mihaljevic: A story about moth caterpillars, their devastating effects on fir trees, viruses, fire, & suffering for science! All in a days' work for an ecologist!



I WILL NEVER FORGET WHAT A BOTFLY IS!

Maria Goller went to Belize to study birds. She came back with some amazing photos, great stories, and some stow-aways! Read on to hear about her rite-of-passage in the tropics!

eb 25, 2016



THE RUSSIAN DAIRY INCIDENT (AKA THE HAZARDS OF SPYING ON BIRDS)

from Matt Wilkins: A story of birds, their songs, and a terrible thing that happened to him in a Russian dairy. Mar 23, 2016



## CUANDO RUGE LA MARABUNTA (VERSIÓN NEMATÓFAGA)

de Fernando Mateos-González: ¿Qué hacer cuando una horda invasora de mosquitos tigre amenaza con aniquilar tu colonia de aves (y, con ella, tu tesis doctoral)? Sea lo que sea, jhas de actuar rápido!

eb 25, 2016



birds botfly call caterpillars cows ecology fieldwork fieldwork fails fire forest moths news parasites recording research song viruses x-ray

tags:

## CULVERT-1, JOEY-0

from Joey Hubbard: You don't think studying a tiny, 20g bird is dangerous?! Let me tell you a little story about barn swallows, sleep deprivation, and how I broke my arm in a ditch in the middle of the night!

Mar 14, 2016



FIND A STORY:

February 2016 (4)

**ARCHIVE:** 

April 2016 (1) March 2016 (2)

Q Search

Creative multimedia to engage K-12 students & the general public in science

- Photo galleries from scientists
- #InTheLineOfScience Blog
- Original short films



# "Pygids"

A short music video about Amblypygids, a cool group of Arachnids that we currently know little about



Creative multimedia to engage K-12 students & the general public in science

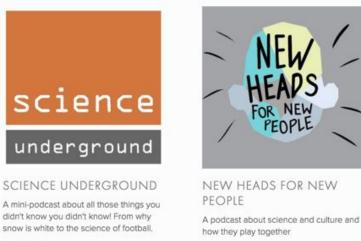
- Photo galleries from scientists
- #InTheLineOfScience Blog
- Original short films
- Numbat Recommends
  - Our favorite outreach projects from around the web



MAIN PHOTOS VIDEOS

ool science, straight from the source

PODCASTS



Aug 11, 2016

ug 11, 2016

## THEADORA BLOCK

## contributions: Photos

Theadora is working on her PhD at University of California Santa Cruz in Ecology and Evolutionary Biology. She facuses on Behavioral ecology, specifically studying the individual soap-opera-like lives of golden-crowned sparrows. She has spent more time watching them than most people would find healthy. She also enjoys bird watching, photography, sleeping and other things in any spare time. Find out more about her research here or look at more photos on her Flickr page.



## AARON COMEAULT

## contributions: .Photos

• Scientists to do outreach with minin

This is just the beginr

- An #InTheLineOfScience story
- A photo gallery

Numbat provides a forum for:

- Some other content we could create a sj
- Scientists to get the word out about
  - On social media
  - On the website with Numbat Recommer
- Students to get engaged & connecte
  - Not just the facts, but the people, their p

Aaron is currently working as a postdoctoral researcher in the lab of Dr. Daniel Matute at UNC, Chapel Hill, He studies the California stick insect in the genus *Timemo*, and more recently the common fruit fly *Drosophila melanogaster* to study how new species form. Even though Aaron is a real-life Canadian, he almost never says the word "Eh". He's also a huge fan of viszlas, climbing on rocks, and watching Xena: Warrior Princess reruns on Netflix. Follow Aaron **GAAComeault** and read about his research here.

## TYLER COREY

## contributions: -Film

Tyler is a PhD student at the University of Nebraska-Lincoln. He studies sexual communication in Amblypygids, a group of (sub)tropical arachnids that are super cool and are definitely NOT spiders! Tyler loves playing bass guitar, listening to the latest WTF podcast, & dreaming of dog ownership. His spirit animal is a meerkat. Follow Tyler @BassBugsJokes or read about his research in the Hebets Lab.

## MARIA GOLLER

## contributions: .Story "I Will Never Forget What a Botfly Is!" .Photos

Maria Goller is a PhD Student at the University of Nebraska-Lincoln. She works in Dr. Dai Shizuka's lab, studying how song dialects form in populations of European starlings (introduced to the US by a bunch of not-so-forward thinking literary fans in the 1800s). Maria loves bird watching, mud oozing between her toes, and her two pet guinea pigs, among many other things.









MAIN PHOTOS VIDEOS STORIES SCIENTISTS NUMBAT RECOMMENDS

Cool science, straight from the source

## USING NUMBAT IN THE CLASSROOM

A major impetus for starting this site was to create a portal for young students to find out about science and how it gets done. Ask any researcher how they got into science and they will usually tell you: 1) As a kid, I had NO IDEA how to get into a career in science, and 2) I only stumbled onto this career because of Person X. We want to change this, and provide a showcase of the diversity of science and scientists out there, and the wealth of fantastic outreach tools that are scattered around the web. Our goal is to make it clearer how one might pursue a career in science, but more importantly, to impress on students how essential science is in our daily lives.

Here are some suggestions for classroom exercises. If you have an idea for other exercises, please email us.

## EXERCISE 1: MEET A SCIENTIST

Give students 20 minutes to browse the Contributors tab. This will be a growing list of scientists--hopefully there will be someone who each student can identify with on some level. The rest of the class period can be spent summarizing the person, their work, and their personality/interests. If people overlap, they can fill in gaps that one person missed or share what they found most interesting/compelling about that person and their research.

## EXERCISE 2: RESEARCH AN ANIMAL

# Eight months on, how'd we do?

## **Audience Stats**

Facebook: 99 Likes

**89** Followers Instagram:

537 Followers Twitter:

numbatmedia.com:

1,435 Visits

3,822 Page Views

901 Audience Size



## M. fasciatus

A great blue heron ponders the nature of reality...or maybe just stares off into space #birds #nature #getoutside



# This project needs more hands. Let's collaborate!

- Write an #InTheLineOfScience
  - Contribute a photo gallery
- Spotlight your project on Numbat Recommends
- **Educators**: How can you use this in the classroom?
  - Become Numbat's voice on Social Media
    - Help curate materials

## Thanks!



## Matt Wilkins @mattwilkinsbio @numbatmedia