Science Writing Checklist.   *Entomological Society of America Lunch and Learn, Nov. 18 2014*

Clear headline:
- ☐ You can tell what the story is about from just the headline.
- ☐ Headline is not stated as a question. The headline is 7 words or less.
- ☐ Headline falls into one of these categories:
    - ☐ Surprise and Curiosity *(You won't Believe this Method for Writing!)*
    - ☐ How To (*How To Write a Great Science Story*)
    - ☐ Numbers (*Ten Ways to Write Awesome Science Stories*)
    - ☐ Audience referencing (*For Scientists who Think They Can't Write*)

Strong Lead and/or lede:
- ☐ The first sentence is interesting enough on its own to make you read more.
- ☐ The most important, interesting or attention-grabbing elements of a story are in the first paragraph.
- ☐ A reader in a hurry could read just the first paragraph and get the gist of the story.
- ☐ Fits into one or more of these categories of common "hooks" for science stories:

    - • Surprise & Curiosity: (*"Dragonfly larvae are jet-propelled via their anus!"*)
    - • How To: (*"10 simple tricks to get rid of stink bugs."*)
    - • Explainer: ("*Why do stink bugs stink?*")
    - • Debunker: (*"Brown Recluse bites aren't common."*)
    - • Timely: The work is new or especially relevant in this time period.
                            (*"New research: your stinky feet attract mosquitoes."*)

> *"The most important sentence in any article is the first one. If it doesn't induce the reader to proceed to the second sentence, your article is dead. And if the second sentence doesn't induce [the reader] to continue to the third sentence, it's equally dead. Of such a progression of sentences, each tugging the reader forward until [...] safely hooked, a writer constructs that fateful unit: the "lead."*
>
> William Zinsser, On Writing Well

It's clear WHY readers should care about topic. (WIFM = <u>W</u>hat's <u>I</u>n it <u>F</u>or <u>M</u>e?)
- ☐ Story connects to something that is relevant to reader or reader's life.
- ☐ Humans appear in the story; researchers or others are characters in the work. What were their challenges?
- ☐ Contains emotions (humor, surprise, pathos, etc.) to engage readers; not a list of facts.
- ☐ Story is written appropriately for the target audience. (Culturally sensitive and relevant)

Facts and Sources are Clear.
- ☐ Sources of material used and conclusions can be traced back to their source.
- ☐ Acronyms are spelled out, technical words defined. Specialized jargon removed if possible.
- ☐ Funding and possible conflicts of interest made clear, if relevant.
- ☐ If conclusions are controversial, some objections proactively addressed.
- ☐ The reader is primed for complex information with warning language
  ('this part is complex", "but that is a myth," etc.)
- ☐ One concept is introduced per paragraph; readers are not overloaded in an infodump.

Graphics

Supporting information is provided in sidebars and photos/graphics.

Graphics are attributed to the artist/photographer that created them, and copyright indicated if relevant.

Voice and Grammar

- ❑ No obvious typos or grammatical mistakes. (*Lice: An important pubic health threat.*)
- ❑ The story is in active voice; verb tense is consistent.
    - *Active: "The mosquito bit the researcher."*
    - *Passive: "The researcher was bitten by the mosquito. Mistakes were made."*
- ❑ Avoids using Carl Zimmer's Banned Words http://bit.ly/ZimmerWords
- ❑ These words/phrases been removed, or are rare: "*There are*" "*It*"   "*Very*" "*This*"
- ❑ Clichés are rare, and analogies used make sense.
- ❑ Colons and Semi-colons are evaluated for conversion to two sentences.
- ❑ Conversation and quotes are used reveal personality, rather than descriptors.
- ❑ No metadiscourse (Writing about your writing; "In this article I will...")

Structure:

- ❑ An outline of the story could be made from the first sentences of each paragraph.
- ❑ The flow of logic is clear from paragraph to paragraph. No steps of reasoning are left out.
- ❑ Nice-to-know information is pruned out to leave just need-to-know, or only info that supports the key focus of the story.
- ❑ The story is between 800 and 1,200 words.
- ❑ Sentences vary in length and structure.
- ❑ The story has a beginning, middle, and an end.
- ❑ The story glides to a "rolling stop" rather than ending abruptly.
- ❑ The story feels complete.

> **SUCCES** Acronym
> (Heath & Heath, Made to Stick, 2007)
>
> -**S**imple
> -**U**nexpected
> -**C**oncrete
> -**C**redible
> -**E**motional
> -**S**tories

Based/Modified from:

- ● http://blog.bufferapp.com/perfect-blog-post-research-data
- ● http://www.csb.pitt.edu/Faculty/zuckerman/ScienceWritingChecklist.pdf
- ● http://phenomena.nationalgeographic.com/2011/01/12/death-to-obfuscation/
- ● http://www.wired.com/2013/02/scio13-genre/
- ● http://heathbrothers.com/books/made-to-stick/
- ● Painful Personal Experience, Gwen Pearson.

Resources:

- • Readability Scores: https://readability-score.com/
- • The Open Notebook: http://www.theopennotebook.com/
- • Duke Graduate School https://cgi.duke.edu/web/sciwriting/index.php

> "When you have done your article, give it to a friend; if possible a fairly ignorant one."
>   J.B.S. Haldane: How to Write a Popular Scientific Article (1946)