

# Who cares about citations?

## Writers:

- Pass on information (what is known/unknown methods details similar or conflicting results)
- Establish authority (to support claims, demonstrate that you know the literature)

## Readers

- Receive information

## Source authors:

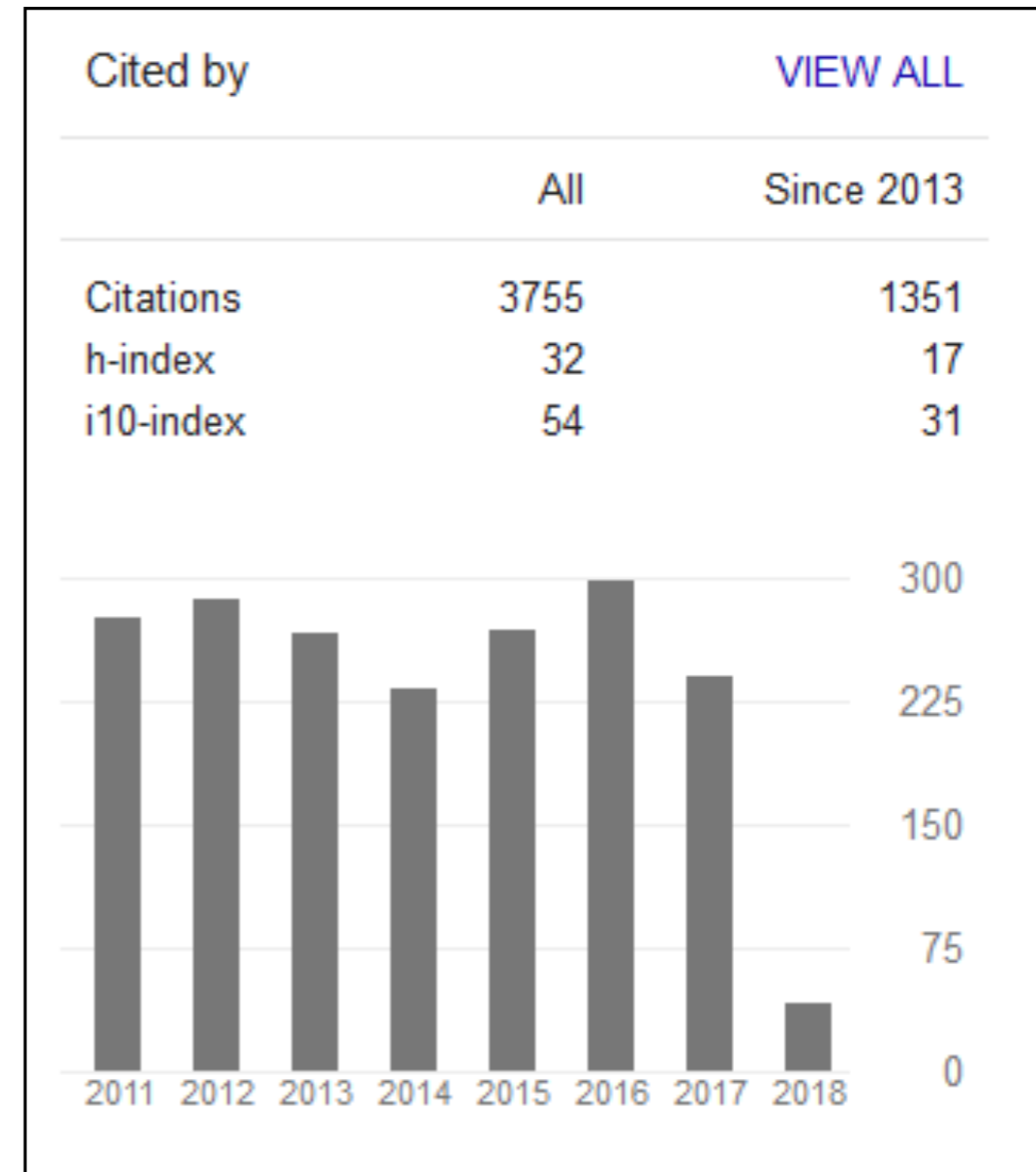
- Contributions acknowledged
- Career benefits
- "Social contract" of reciprocal citation

# Career benefits: *h*-index

***h*-index:** My *h*-index is *N* if my *N*<sup>th</sup>-most-cited paper has at least *N* citations

<u>Paper</u>	<u>citations</u>
1	21
2	14
3	9
4	7
5	6
6	3
7	1

*h* = ???



# How many citations do you need?

- Writer, reader: *minimum necessary*
- Publisher: *more from my own journal, fewer from others*
- Source authors: *more more more please!*
  
- What does NOT need citation:
  - claim that's widely accepted ("*all life on Earth has a single origin*")
  - factual claim, easily checked ("*milkweeds are perennials*")
  - methods standard in the field (*ANOVA, Sanger sequencing*)
- What DOES need citation:
  - claims readers might question
  - showing controversy
  - unfamiliar methods
  - value in offering readers more information

} judgement calls!

## How many citations do you need?

- How many citations *for one claim*?
  - in a review paper, might want to be comprehensive
  - otherwise, 1-3 citations should do
  - use “e.g.” to indicate you’re not being comprehensive (“e.g., Jones 2009”)
  - cite a recent review if one is available (“review: Li 2014”)
- How many citations *in one paper*?
  - Surprisingly little variation!
  - Most fields: 25-60 citations/paper for research articles

# Which citations should you use?

- Cite the most relevant source
- Cite the earliest source (to give credit)
- Cite the most recent source to establish current understanding
  
- Cite a source readers can locate:
  - Paper over a thesis, report, or conference abstract
  - Well-known journal over obscure
  - Websites are not references
  
- Cite the primary source
  - Cite a review only if need the summarize/synthesis

## Weird citations (all uncommon)

- “pers. comm.” = personal communication.
  - Identify clearly (“pers. comm., S.B. Heard, University of New Brunswick”)
  - May be asked to supply approval letter
- “pers. obs.” = personal observation
  - Not for claims that could be challenged!
  - When you use pers. obs., you may not need citation at all?
- “unpubl. MS” = unpublished manuscript
  - often not allowed
  - use for manuscripts that are actually in review
- “unpubl. data” or “results not shown”
  - sometimes used for alternative analyses which give the same result
  - sometimes used for minor points that would bulk up the paper
  - being replaced by online supplements

# Citations

Where are most of the citations?

Introduction

(1a) general context

(1b) narrower research area, and its importance

(2a) identification of knowledge gap

(2b) specific research question to close that gap

(3a) summary of approach to answer the research question

Discussion:

1a) Interpretation of results

1b) Relationship of results

2) Considerations of possible weaknesses

3) Broader implications

4) Prospects for future progress