...because authorship in peer-reviewed journals is an important factor in assessing professionals in research and science for promotions, future funding, and tenure-tracked positions. Assigning authorship position can be unclear and hold inherent bias; thus it is important to evaluate the process for assigning authorship position.

**Challenges:**
- Difficult to objectively determine exactly how much work any contributor has put into a paper (Laurance 2006; Tschamante et al. 2007)
- The number of authors listed per paper has grown over the last few decades (Wren et al. 2007). This could be from increased engagement in collaborative and cross-disciplinary research, and more pressure to publish

Authorship order has intent, can be politically motivated, and is culturally embedded within a system and the surrounding environment.

**OUR APPROACH:**
- In the entire JSTOR Corpus (~8 million papers), women hold only 21.9% of total authorship for papers published between 1666-2011 (West et al. 2013). For fisheries-related fields such as ichthyology and Aquatic Ecology, women represent 21.0% and 9.0% of total authors, respectively. This research, however, did not explicitly calculate authorship gender for the interdisciplinary field of aquaculture or correct for unknowns.
- We applied the West et al. (2013) methodology to the field of aquaculture to understand how gender has changed in aquaculture over time. We generated a subsample of the JSTOR corpus for aquaculture, and corrected for unknown gender designations:
  - 23,000 articles (43,146 authorships) in 8 aquaculture-related journals from the JSTOR Corpus (published since 1913) were assessed for authorship gender.
  - A curated international aquaculture database of 543 articles (1706 authors) in 121 journals, all published between 1983-2016, was analyzed for comparison to the JSTOR corpus and subsample.
  - The database draws from peer-reviewed papers whose research was supported by four separate international aquaculture programs at Oregon State University developed by Hilary Egna.
    3. AquaFish CRSP (2008-2013)
    4. AquaFish Innovation Lab (2013-Present)

**REFERENCES AND FOOTNOTES**

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**WHY LOOK AT AUTHORSHIP ORDER?**

While gender disparities are decreasing in some areas of academia, studies have shown that gender inequities in scholarly literature still persist (West et al. 2013; Breuning and Sanders 2007; Jagsi et al. 2006; Dubey et al. 2016; Arismendi and Penaluna 2016). West et al. (2013) found that men dominate in the first and last authorship positions and that women are underrepresented as single authors in more than eight million papers across disciplines in natural sciences, social sciences, and humanities. Other studies have assessed women authored in disciplines including political science and medicine, and found that not only does a gender gap in published literature still remain, women authorship has been levelling off in recent years (Breuning and Sanders 2007, Jagsi et al. 2006, and Dubey et al. 2016). While women's representation in science, engineering, technology, and academia has improved in general, studies reveal that women are not remaining in science at the same rate as men – a phenomena called the leaky pipeline (Blickenstaff 2005). This trend could also affect authorship in peer-reviewed literature.

Learning how gender authorship has changed in the aquaculture field over the last few decades is critical for promoting gender equity.

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