



# Breaking Barriers: Science Communication for Government Social Outreach

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## BACKGROUND

- The ability to communicate to a wide audience has become more accessible, but more complex to navigate because of the high volume of information on social media and potential pitfalls.
- Identifying pain points scientists and agencies face through effective communication establishes social outreach initiatives but limited time often diverts attention away from science simplification.
- A flagship species is an appealing species that become the face of a cause that is specific to conservation and relies on the public's attitude but is used for marketing purposes.
- The availability of high-quality documents for interns establishes a central location for interns to access information regarding social media and reduces the time taken away from creating science content.

## RESEARCH QUESTION

What internal factors and engagement metrics on social media assist/hinder effective science communication outreach for a government agency?

## INTERNSHIP & METHODS

- Collaborated with NOAA Fisheries West Coast Regional Office (specifically with California Central Valley) to curate content relevant to regional species.
- To answer the question, academic research along with internal recordings of experience regarding the creation of science content was gathered.
- Four posts were distributed through the months of February and March to prepare for spawning season through their current species activity.
- Metrics on Facebook, Twitter, and Instagram were recorded that consisted of likes, shares, and comments. (Fig. 1)

## RESULTS

### INTERNAL

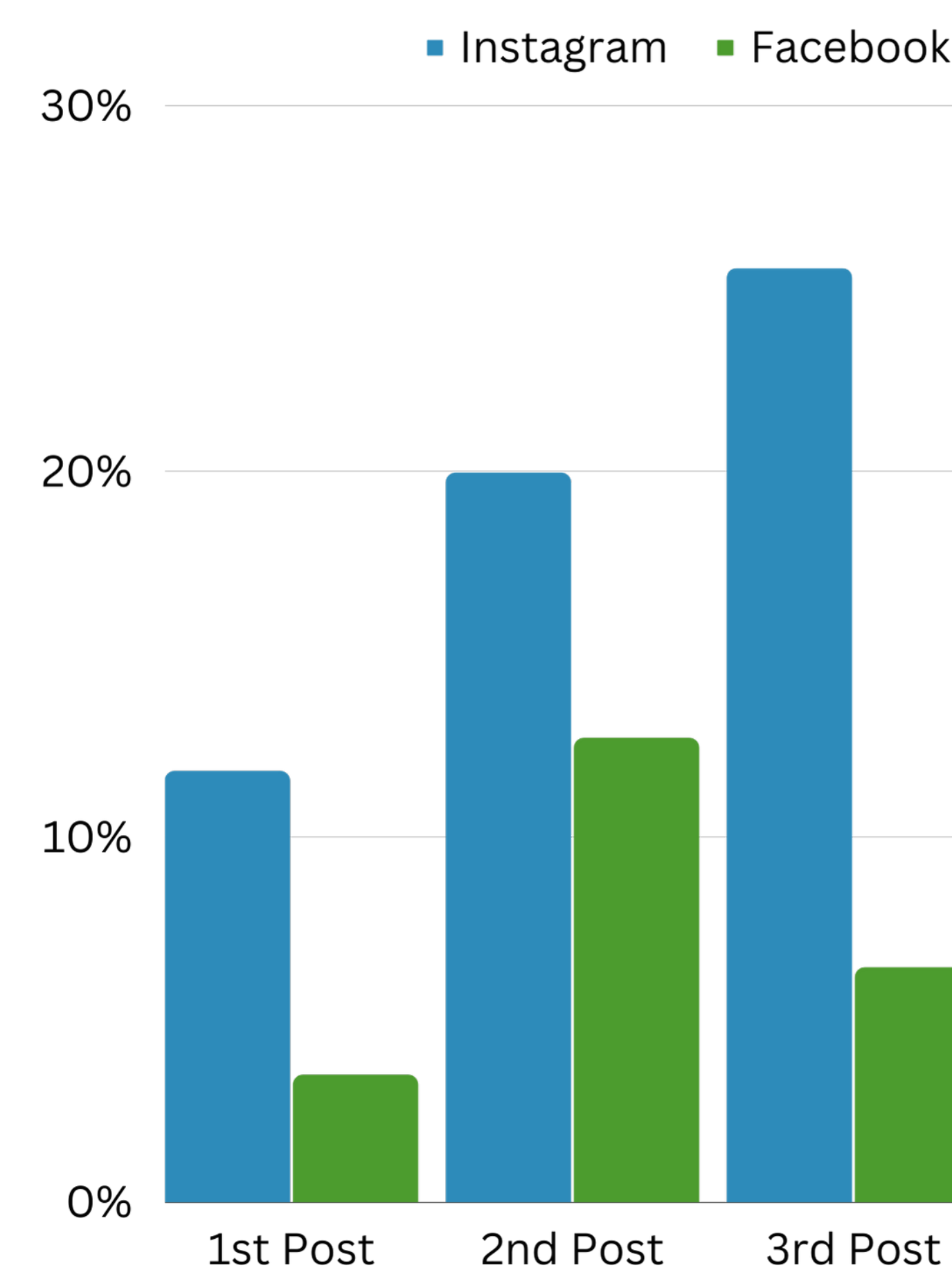
- Lack of confidence from scientists sharing with non-experts.
- Lack of time allotted for creating content.
- Social media as an outlet for science-based interactions came with varying negative and positive reports.

### PLATFORMS

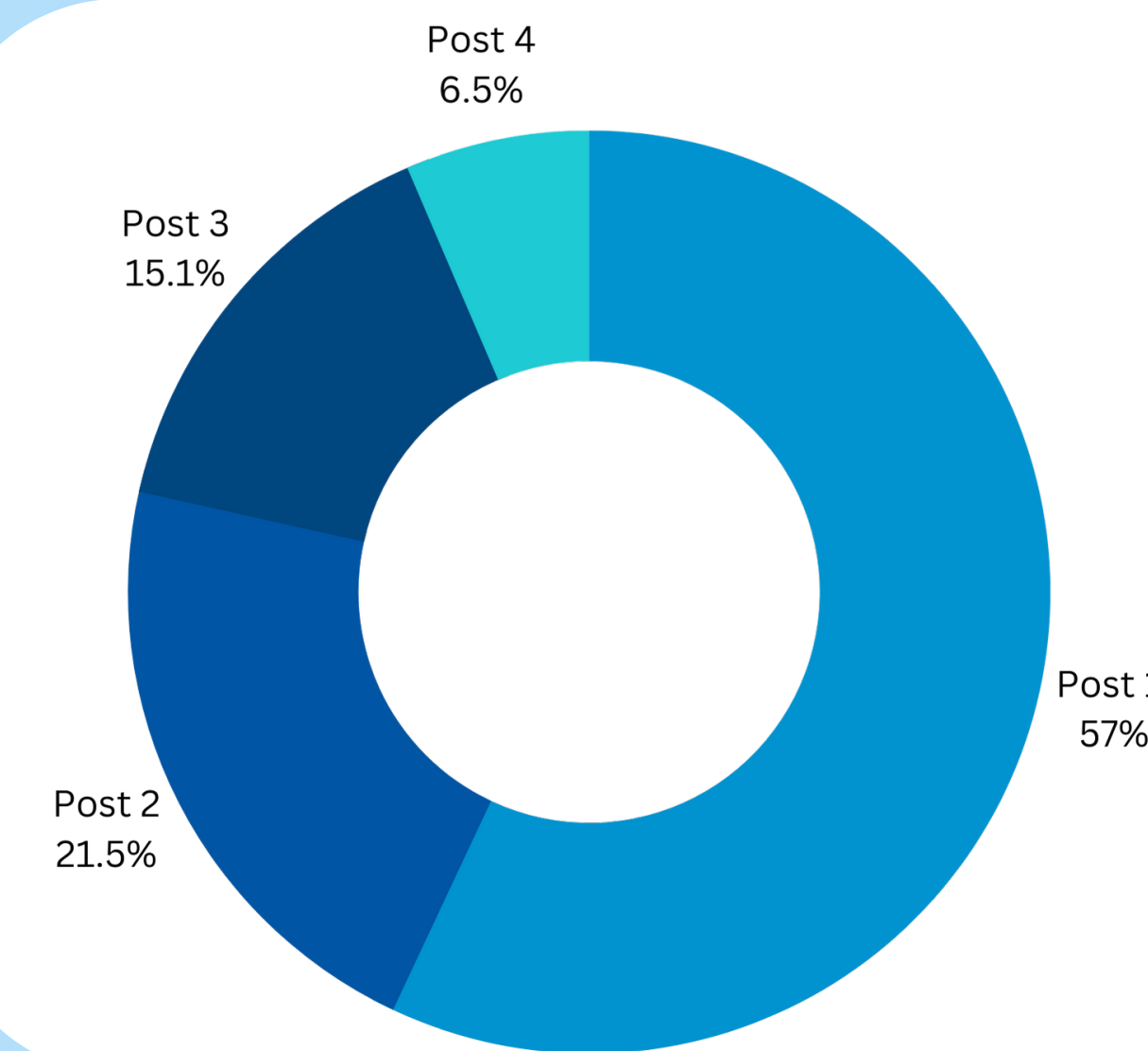
- Twitter does not have key metric indicators for performance.
- Clearance constraints created a loss of engagement with interactors.

### REACTIONS TO CONTENT

- Endangered and threatened species posts were 'successful'. (Fig. 1)
- Posts sparked various debates in the comments section over Chinook salmon recovery efforts.



**Fig. 1:** Posts on Instagram and Facebook had higher engagement results. Posts on Instagram outperformed the other two platforms while also being the newest account that launched in February 2023.








**Fig. 2:** Posts on Instagram reached many accounts that were not following NOAA. However, accounts seeing the posts decreased as the posts were published.

**Total of nine new followers were connected to the four posts**

## SIGNIFICANCE

- Non-flagship species content will bring more awareness to conservation needs and efforts.
- Allotting more time for social outreach will give scientists the ability to highlight their perspectives and current efforts.
- Handbook will mitigate time for interns finding appropriate documents for effective content.
- Spillover effects on tourism, development, and surrounding water quality can occur from communicating local ecosystems importance.

## RECOMMENDATION

-  Utilize the 'Story' feature on Instagram to stay at the top of feeds, creating polls to gauge current interests, and implementing 'Reels' for quick information. (Fig. 2)
-  The 'Live' feature on Facebook can let scientists and experts answer questions from followers and can be save onto their profile.
-  Mimic the approach of other government agencies on Twitter like the DNR.
-  Adding browser extensions for accessibility and updating the intern handbook frequently.
-  Apply AI generators, and switch to third-party sources for metrics.