

TIP-MAG example: Interest piece

Introduction

A TIP-Mag interest piece aims to present the findings of published research in a way that is accessible to your average forester on the ground. When looking at the accessibility of published research there are two things to take into consideration:

1. **Physical accessibility:** Few foresters have journal access, so are often only able to access abstracts of published articles.
2. **Academic accessibility:** The scientific nature of peer-reviewed, published research, often makes it inaccessible. This can be attributed, in part, to *unfamiliarity* with: the style of scientific writing; the presentation of statistical research; and scientific terminology used. This is often compounded by a lack of 'on the ground' examples provided, which are needed by a lay-audience to give insight as to how the findings will be translated into their day-to-day lives.

The TIP-Mag interest pieces look to address both these considerations by presenting recently published research in a format that a lay-forester can identify with. In essence, contextualising the science using lay-terms and illustrating key-findings with forestry examples.

New Scientist, a scientific magazine for the interested lay-person, is a perfect example of this approach. They present cutting edge science in a way that is accessible to an interested and informed lay audience. We want to replicate this approach with forestry-related research.

The New Scientist article below should be seen as a guide to help TIP-Mag interest piece authors present their research in this style. Comment boxes provide additional instructions.

Article example:

Taken from New Scientist No.3237 - How Our Minds Create Time: The Startling Truth about the fourth dimension (6th July 2019)

Article title: Be certainly uncertain:

[Title needs to be short, sharp, and catchy. Think newspaper headline rather than scientific article.]

Article subheading: Effective decision-making means being clear not just about what we do know, but what we don't, says Anne Marthe van de Bles.

[Make use of a sub-heading to give the reader a better idea of what the article is about. This should be in lay-terms, can be thought of as summarising how research findings could be put into practice – essentially the take-home message.]

1) Introducing the problem (in lay-terms)

Take a look at the headlines, and it seems we are pretty certain about the state of the world. “UK unemployment falls to 1.44 million”, “India’s tiger population bounces to 2,226”, “Saddam Hussein now has weapons of mass destruction”.

Yet all these statements come with uncertainty attached. People often shy away from admitting this, be they politicians, experts or journalist expounding in the media, or doctors talking to patients. Perhaps they assume it will undermine people’s trust or make decisions harder. **Yet making informed decisions also depends on knowing the unknowns.**

[This section lays out the research problem and finishes with the research aim, however it should be done in a way lay-individuals with a knowledge of forestry but not necessarily the science behind it would understand.]

2) Introducing the previously published article & key finding(s)

In a paper in *Royal Society Open Science*, my colleagues and I have reviewed the evidence about how best to communicate uncertainty without putting off or wrong-footing an audience (doi.org/gf2g9j). We suggest a checklist of questions communicators should ask to guide their approach.

[Always provide the title and a link to the full published article this interest piece is based upon.]

3) Provide an overview of the key finding(s) – trying to simplify these for a non-scientific audience

[With multiple research findings, even if they are linked, break them down into bite-size chunks. Trying to link each with ‘real world’ examples the reader can relate to when and if possible.]

First, are you dealing with an uncertain fact (summer Arctic ice cover has declined over the past decade), number (2226 tigers in India) or underlying hypothesis (bacon causes cancer)?

Second, where does the uncertainty come from: natural variation, measurement difficulty, limited knowledge, or expert disagreement? (We set aside the future effects of randomness and chance.) The practical problems of counting India’s tigers, for example, may cast the precision of that number in a different light.

Third, is the uncertainty direct (specific about the fact or number), indirect (about the quality or the underlying evidence) or a mixture of both? Conflating the two can sow confusion. Take the decision of the International Agency for Research on Cancer in 2015 to classify processed meat alongside cigarettes as “known carcinogens”. This expresses low indirect uncertainty: the evidence says that both processed meat and cigarettes increase cancer risk. It doesn’t mean that both increase cancer risk by the same amount, or that there is the same direct uncertainty surrounding that risk. Smoking increases cancer risk far more than eating processed meat – yet headlines such as “Bacon sandwiches are as bad as smoking” were the result.

A final factor is who you are communicating uncertainty to and their relationship to what you are communicating. Are they experts or lay audience? Is the topic potentially sensitive, as in medical situations? Is there an initial level of trust or distrust in the communicator?

Precision in uncertainty is key: words such as “likely” or “unlikely” are interpreted very differently by different people. Numerical statements uncertainty can add precision. But if we are talking about Arctic ice melt, say, uncertainty might be better presented by a graph showing the variation in melt over decades, or by those well versed in the issue telling a story about where they know uncertainty lies.

4) Round-off the article with a clear, strong and concise take-home message

Our initial studies suggest that done well, communicating uncertainty needn’t undermine trust. A structured approach to communicating the “what”, “why” and “how big” can allow us to express uncertainty confidently and unapologetically – and so help everyone in the know.

[If possible, contextualise the take-home message by showing how the findings will impact the forester on the ground.]

Additional information

- **References are not required.** Remember, this is a lay-summery of your published research, as such all the points made will have already been referenced there. By providing a link to the original published work, interested readers can go there if they want to find references supporting a point.

- **Two-page maximum** (+/- 1500 words). Please bear in mind that these articles are for a lay audience who have busy lives. 1500 is the maximum word count, we will happily accept articles between 500 and 1000 words.
- **No raw research.** Remember this is a lay-summary of your research **findings** (conclusions), not the research itself (methodology/data/data analysis). So please do not include graphs and tabulated data. If a diagram/photo helps communicate/illustrate how the research findings will impact the forester on the ground, this can be submitted.