Language Creep: Is the language in forest practitioner journals getting more complicated?

by Steve D'Eon¹

ABSTRACT

An examination of the length of titles for articles in scientific and practitioner forestry journals found that titles have become longer in the 35-year period from 1977 to present. The average title length in practitioner journals is approaching that of the scientific journals sampled. In comparison, titles of oral presentations targeted to practitioners have remained short. Using title length as an indicator of language there is a disjoint between oral presentations of research developments to practitioners and journal articles for the same audience. A common language is essential for effective knowledge exchange between researcher and practitioner for the new developments to be understood and applied in the correct context. Practitioner journals play an important role in knowledge exchange. Practitioner journal authors, reviewers, and editors should be leery of some potential factors impeding communication between researchers and practitioners in this media.

Key words: forest practitioner journals, article title length, knowledge exchange, language

RÉSUMÉ

Une étude de la longueur du titre des articles des revues scientifiques et techniques de foresterie a révélé que les titres sont devenus plus long au cours de la période de 35 ans allant de 1977 jusqu'à ce jour. La longueur moyenne du titre des revues techniques se rapproche de celle des revues scientifiques répertoriées. Par comparaison, les titres des présentations orales visant les praticiens sont demeurés courts. On constate en utilisant la longueur du titre à titre d'indicateur du langage qu'il existe un écart entre les présentations orales des travaux de recherche destinées aux praticiens et les articles des revues visant la même clientèle. Un langage commun est essentiel à l'échange effectif de connaissances entre le chercheur et le praticien pour que les travaux en cours soient compris et appliqués dans un contexte adéquat. Les revues techniques jouent un rôle important en matière d'échange de connaissances. Les auteurs des articles techniques, les réviseurs et les rédacteurs devraient se méfier de certains facteurs pouvant entraver la communication entre les chercheurs et les praticiens utilisant ce type de média.

Mots clés : revues techniques de foresterie, longueur du titre de l'article, échange de connaissances, langage

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Language Creep

Communicating innovation and research results to operational managers, practitioners, and end users is one of the most important activities a forest researcher does. New knowledge is of little value to society if it is not put into practice. Researchers publish their results in scientific and applied journals as well as present their results at conferences, symposiums, workshops, and field

days with the goal of communicating what they have found out and how it is a better way of doing something. When the audience is other researchers their common language does not impede the flow of information. When the audience is practitioners or operational managers, researchers should use the language of their audience to communicate effectively.

Practitioner journals are published to provide information

to forest practitioners about professional and scientific management of forests. *Language Creep* is when complex language is used where simpler alternatives would suffice. Therefore, an important question might be "are we experiencing Language Creep in forest practitioner journals and if so, is it impacting the transfer of research results to practitioners?"

In this paper I use the length of article titles as a proxy for the language within an article; longer titles being indicative of more complex language within an article. The validity of this proxy is open for debate. I compare the length of article titles over the past 35 years in the forestry-related scientific and practitioner literature. A further comparison is made with current forestry knowledge dissemination events such as technical workshops, association annual general meetings and electronic lectures to evaluate any trends in the language researchers use to convey their results in presentations.

Scientific or Practitioner Audience?

From each journal's Web site the stated objective was used to classify the journal as scientific or practitioner focused. Terms in the journal's objective statement such as "all aspects of for-

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est science, scientific articles, and significant articles in forestry research" were classified as scientific journals. Terms such as "to provide information to forest practitioners, keeping professionals informed, targeted to foresters and allied professionals, dedicated to technology transfer" led to the journal being classified as practitioner-focused.

Article titles were sampled from three two-year time periods: 1977–1978, 1993–1994, and 2010–2011. The first (1977–1978) was selected as the start date as it was the earliest common date for several journals. The second (1993–1994) was selected as a mid-point between the start date and the current date. A total of 4459 article titles in 14 journals were analyzed.

A random sample of current (2009 and later) technical workshops, association annual general meetings, and electronic lectures were included for analysis as a comparison of current language where the target audience was solely practitioners and the environment was a presentation rather than a paper.

Article titles were obtained from journal, conference, or workshop web pages that provided a table of contents. Only English articles with named author(s) were selected. Updates, editorials, opinions pieces, letters, discussion articles, and research notes were not included. Journal articles that were published as part of a conference were not included. Titles were processed in Microsoft Excel to remove extra spaces in a title and the *Word Count* function in Microsoft Word was used to count words. Word Count assumes that everything between spaces is a word and returns the number of words in a text. Word Count will count numbers and symbols as a word if they are separated by spaces.

Trends in Article Title Lengths

The average title length in scientific forestry journals has been steadily getting longer (Table 1). Our sample of seven journals showed an increase of 31% over the 35-year time period. Dobbertin and Nobis (2010) reported a similar trend with article title lengths getting longer at a rate of 0.8% per year from a sample of six scientific forestry journals analyzed for the period 1979 to 2008. The phenomenon of longer titles in the scientific journals was also observed in the scholarly ecology literature between 1970 and 2005 (Neff and Corley 2009). The increased complexity of language in scientific journals is not the theme of this paper but can serve as a baseline for comparison with the forest practitioner journals.

Practitioner journals increased in average article title length from 8.1 to 13.0 words per title (an increase of 60%) for the same time period or almost double the rate of the scientific journals (Table 1). For example, *The Forestry Chronicle* increased at a rate equivalent to 1.6% per year for the time period 1977 to 2011. Average article title lengths in practitioner journals have remained shorter than in scientific journals but increased from 69% of the length in scientific journals in the first two time periods to 84% in the last time period; a recent converging trend. This ratio was repeated when one re-selected for the longest title by category and time period.

In comparison to the trend in practitioner journals, the titles of presentations at current (2009 to 2011) events that were specific to forest practitioners were found to be much shorter than current practitioner journal titles; 8.7 vs. 13.0 words per title or 67% (Table 2). Although the presenters at

these events can be different from those who write for a journal, the shortness of the presentation titles indicates some change in the language between an oral presentation geared to a practitioner audience and a written paper intended for a practitioner audience. Most workshops are seen as less formal than a journal or a conference and there is not the same review process; this may influence the observed use of language.

Is It Language Creep or The New Normal Communication?

Some possible explanations for the observed changes in the forest practitioner journals are:

- language in general has changed and the increasing article title length in practitioner journals is reflective of a change in society as a whole,
- the language of practitioners is approaching the language of researchers so convergence between scientific and practitioner journals should be expected, and
- forestry topics have become more specific and detailed and the only way to communicate the differences is through complex language—even in practitioner journals.

In the first case, language is dynamic and can be expected to change over time. Park (2011) noted how terms describing a concept can mutate in a relatively short period of time. Helms (2002) reported that language is never static; words, terms, and spellings change with use over time and new science, technologies, lifestyles, and values are changing current language. In this context the need for precision in communicating between researchers and practitioners would lead to longer article titles and represent nothing more than a shift in society in general. The brevity of titles in practitioner workshops counters this argument.

The second case, practitioners and researchers sharing a common language, is a positive development. One could conclude that forest practitioners are much more scientific than they used to be and that their understanding and knowledge of scientific concepts has increased leading to a more common language with the scientific community. The converging language could indicate that the diction of practitioners is approaching that of scientists. This concept, if true, will greatly facilitate knowledge exchange as the two groups readily intermix. Practitioners are often included in the research team, which greatly aids communication. Sydoriak (2007) noted an evolution towards converging perspectives between scientists and public land managers, which would support the common language paradigm.

A third possibility is that topics have become very specific and longer titles are the only way to differentiate the theme of an article, even in a practitioner journal (Dobbertin and Nobis 2010). Over time forest management has become natural resource management. The current multidisciplinary aspect of forest science may require longer titles to distinguish the topic. The longer titles may simply represent a maturing of a field of study. The integration of traditional forest research topics with newer fields not present in the past such as DNA analysis or climate change may lead to longer titles to differentiate the diversity of the topic (Neff and Corley 2009).

The above explanations aside, the comparison with recent practitioner events where the titles of oral presentations are much shorter indicates the forest practitioner journals might be undergoing Language Creep. In this comparison one

Table 1. Comparison of article title lengths by publication theme for three time periods.

Type	Journal	Average words per article title			Longest title (# of words)		
		1977–78	1993–94	2010–11	1977–78	1993–94	2010–11
Practitioner journals	<i>Tree Planter Notes</i>	8.9	11.0	10.0	16	21	18
	<i>Journal of Forestry</i>	7.1	7.0	12.3	13	11	23
	<i>Journal of Extension</i>	5.0	6.0	12.3	10	12	21
	<i>The Forestry Chronicle</i>	8.5	10.6	13.5	15	21	24
	<i>Northern J. of Applied Forestry</i>	no data	10.9	13.8	no data	18	24
	<i>Southern J. of Applied Forestry</i>	9.6	11.5	13.8	16	17	24
	<i>Western J. of Applied Forestry</i>	no data	12.2	13.9	no data	18	25
	Practitioner journal averages:	8.1	9.7	13.0	14	16	24
Scientific journals	<i>Forest Science</i>	11.6	12.0	13.2	22	21	24
	<i>Scandinavian J. Forest Research</i>	no data	14.4	14.3	no data	24	26
	<i>Forestry</i>	12.0	13.8	15.2	20	27	24
	<i>Journal of Sustainable Forestry</i>	no data	12.5	15.3	no data	21	24
	<i>Canadian J. of Forest Research</i>	12.2	13.7	15.4	23	25	27
	<i>Annals of Forest Science</i>	no data	17.3	15.6	no data	31	30
	<i>Forest Ecology and Management</i>	11.0	14.8	15.8	22	29	28
	Scientific journal averages	11.8	14.0	15.4	22	25	26
	Practitioner as % of scientific	69%	69%	84%	62%	64%	90%

Table 2. Comparison of title lengths between recent practitioner events and recent practitioner journals.

Type	Source ^a	Year	Number of articles	Total words	Average words per title
Recent practitioner event	SAF Annual Convention	2010–11	166	1541	9.3
	CIF e-lecture	2010–11	76	686	9.0
	Biomass conferences	2009–11	60	469	7.8
	CIF Rocky Mountain Section Workshop	2010–11	38	235	6.2
	CIF Annual General Meeting	2011	37	359	9.7
	Canadian Woodland Forum	2011	30	281	9.4
	OPFA Annual General Meeting	2010–11	25	224	9.0
	CFS Emerald Ash Borer Workshop	2009	12	98	8.2
	Ontario Pest Review	2011	12	97	8.1
	CIF NL Section Workshops	2010–11	8	47	5.9
	Totals/averages:	–	464	4037	8.7
	Recent (2010–11) practitioner journals totals/averages	–	441	5749	13.0
	Recent practitioner event as % of recent practitioner journal	–	–	–	67%

^a SAF = Society of American Foresters, CIF = Canadian Institute of Forestry, OPFA = the Ontario Professional Foresters Association, CFS = Canadian Forest Service, NL = Newfoundland.

could assume the same content is being presented to the same audience but the language in the written article is much more complex than the language in the oral presentation. The simplified language when presenting orally might be part of the popularity of workshops among forest operations personnel and licensees when asked to rank preferred knowledge transfer mechanisms (Gregory and Satterfield 1999). Workshops ranked fifth and journal articles ranked second-last in 15th place.

Burkhart and Sullivan (1977) wrote in *The Forestry Chronicle*:

“In making a presentation where managers are a majority of the audience, the speaker must strive to

reach them and not rely excessively on technical jargon. Researchers making presentations often feel they are being carefully scrutinized by their scientific peers. There is a real temptation to slant their talks towards their research colleagues rather than the principal audience. A presentation aimed at scientific peers often fails to get the main points and results across to practitioners.”

Language is an important component of the process of disseminating innovations from researcher to practitioner (Rogers 2003). Sydoriak (2007) states that the most challenging block to science integration into policy and management appears to be the inability to communicate effectively. Reed

and Simon-Brown (2007) noted that language (a sub-set of communication), with other factors, can alter the receptor walk-away message from that intended by the speaker. Weetman (1966) wrote that scientific authors should know to whom they are writing and for what purpose; both audience and message must be specific.

In a recent editorial in *Science*, Gottfried Schatz (2012) pleaded "In science, simple and clear language in both spoken and written communication is not only a matter of style—it is also a matter of substance."

This analysis indicates forest practitioner journals should be leery of Language Creep impeding the valuable service the journals provide keeping professionals and practitioners informed of advances in research. New knowledge is of little value to society if it is not understood and put into practice. Authors, reviewers, and editors of forest practitioner journals must ensure the lines of communication stay open so practitioners can continually improve the management of forests.

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