Silva Fennica vol. 54 no. 3 article id 10350
Category: discussion article
https://doi.org/10.14214/sf.10350
SILVA FENNICA
http://www.silvafennica.fi

ISSN-L 0037-5330 | ISSN 2242-4075 (Online)
The Finnish Society of Forest Science

Maja Peteh[1,2]

A synthesis of the characteristics of current national, regional and international forestry journals

Peteh M. (2020). A synthesis of the characteristics of current national, regional and international forestry journals. Silva Fennica vol. 54 no. 3 article id 10350. 9 p. https://doi.org/10.14214/sf.10350

Highlights

- Currently, 451 forestry-related journals are published worldwide (41.7% in Europe, 37.3% in Asia) in 32 different languages (47.9% in English only).
- 6 categories have been defined for the geographical coverage of a journal (55.5% of which have been defined as national and 18.2% as international).
- The journals could increase their visibility and value by improving their websites and submitting relevant information to international indexing databases.

Abstract

One of the main objectives of the International Union of Forest Research Organization's WP 9.01.06 (Forest Science Publishing) is to clarify the range of forestry-related journals in the context of the overall objective of supporting authors and readers to deepen their knowledge of forestry. This study extended an earlier list of forestry journals using the ISSN database and the CAB abstracts. The study included 451 journal titles, each categorized by ISSN, publisher, language of publication, website, and geographical coverage (i.e. national, regional, international, or three mixed intermediate categories), as well as information on indexing in Web of Science, Scopus, DOAJ, and SherpaRomeo. The included journals are published in 61 countries and in 32 different languages. Those categorized as international are mostly published in English. 21.7% of the journals are indexed in Web of Science and 34.1% in Scopus. 95.6% of the titles are published online or in the print+online publishing model, but only 57.0% of the titles are published in Open Access, of which only 33.7% are indexed in DOAJ.

Keywords forestry; geographical coverage; journal title list; scientific publishing
Addresses [1]University of Ljubljana, Biotechnical Faculty, Večna pot 83, Ljubljana 1000, Slovenia; [2]Slovenian Forestry Institute, Večna pot 2, Ljubljana 1000, Slovenia
E-mail maja.peteh@gozdis.si
Received 6 May 2020 **Revised** 3 July 2020 **Accepted** 8 July 2020

1 Introduction

In 2008, Vanclay (2008) published a list of 180 forestry journal titles, that have contributed significantly to the development of the forestry profession. These were indexed by Web of Science (WoS), Database Forest, Ulrich's Periodical Directory, JournalSeek, Metla's Virtual Forestry Library and Google Scholar. The list should help researchers to find the most appropriate journal to reach their target audience (Vanclay 2008).

Klenk et al. (2010) highlighted the interdisciplinary aspects of articles in the field of forestry that are disseminated in forestry and other related WoS categories such as social sciences, economics, sociology, political science and law. Dreyer et al. (2014) conclude that only 10% of the articles on forestry published between 2002–2012 were published in journals "devoted to the forest science area". The fact that researchers publish the results of forest research in other journals reflects the multidisciplinary nature of forestry. Other analyses with different methodological approaches lead to similar conclusions (Chirici 2012). The term "forestry" appears in the Scopus collection in 1412 articles published in 389 journals, most of which are not related to forestry (Vanclay and Bornmann 2012).

The need to establish an updated list of forest-related journals has been recognised by the IUFRO (International Union of Forest Research Organisations) Working Party 9.01.06 "Forest Science Publishing" meeting in Helsinki 2015 (Changing scientific… 2015), focusing on the geographical scope of the journal (i.e. national, regional, international). It was agreed that the list should be as comprehensive as possible and include smaller national and regional journals.

2 Methods

The data were collected from seven databases: ISSN database, Web of Science, Scopus, CAB Abstracts, DOAJ, Ulrich's Periodicals Directory and JournalSeek. The search criterion was indexing in the category "forestry" or its replacement:

- ISSN database (UDC 630 for Forestry), https://portal.issn.org/, we used a database integrated into our library union catalogue system, COBISS,
- Web of Science (category forestry): Journal Citation Reports (JCR), https://jcr.clarivate.com/JCRLandingPageAction.action, we used a database available through national subscriptions and integrated into our library union catalogue system, COBISS,
- Scopus (category Forestry): Source Normalized Impact per Paper (SNIP), https://www.scopus.com/sources.uri, we used a database available through national subscription and integrated into our library union catalogue system, COBISS,
- CAB Abstracts (all): database available via the OVID platform http://ovidsp.ovid.com/autologin.html available through the subscription of Biotechnology Consortium,
- DOAJ (subject Forestry), https://doaj.org/,
- Ulrich's Periodicals Directory (subject Forests and Forestry), http://ulrichsweb.serialssolutions.com/,
- JournalSeek (Category Forestry Science), http://journalseek.net/.

As reported by Gu and Blackmore (2017), different sets of journal indicators are available from different databases, making direct comparisons difficult. Data consolidation was done manually. The first title list was revised by removing duplicate, ceased, non-academic, trade and governance titles. The following additional criteria for inclusion on the list were searched manually:

- the journal must have a website with general information and instructions to authors,
- journal articles, if they are not written in English, must be equipped with basic information in English (English title, abstract, keywords),
- the journal must have a peer review system.

Due to the large number of title duplicates obtained through the large number of databases (the first harvest yielded more than 2500 titles), it was difficult to count how many titles did not conform to the selection process due to lack of information in the database or on the journal's website. It must be emphasized that there is a problem of poor websites related to some journals. Data on language information was not recorded on the journal's website if it was not in English. Most of the Chinese journals' websites were not accessible or they were in Chinese characters. Nevertheless, it was decided to retain them on the list to show the quantity of Chinese forestry journal production.

Eight parameters were recorded for each title (Table 1). The main source of information for the journals was their websites at the time of data collection (first half of 2019). However, data on publisher, country and ISSN were mainly obtained from the ISSN and supplemented with data from the website when the data were clearly written. Data on geographical coverage (Tables 1 and 2) and publishing model were collected in the first half of 2019 and reflect current practice. Information on the impact factor (IF) and SNIP was collected in August 2019 from the WoS and Scopus database for the years 2017 and 2018. At that time, of course, the data for 2019 had not yet been calculated. In addition, research was conducted to determine whether the journals were indexed in DOAJ (in August 2019) and whether their open access policies were analysed by SherpaRomeo (end of 2019, http://www.sherpa.ac.uk/romeo/index.php).

Data on geographical coverage was added based on the titles of published papers and determination of the definition of regional, national and international (Table 2). The definition of geographical coverage was based on different opinions gained through editorial experience and information from interviews with editors, web forums and WOS's statement on "international focus" (Testa 2019). An international journal could be published in any language and have a large potential readership, and its scope can be understood as international. Three main categories of geographical coverage were defined: national, regional and international. However, in some cases journals had characteristics of more than one category (e.g. when they appeared to publish mainly in one geographical coverage but occasionally in another, largely national, but with some articles with a regional focus). Therefore, three mixed categories were added: national–regional, national–international and regional–international.

Table 1. Types of information collected for journals and their source.

Information	Source
Website address	Databases, internet browser
ISSN	Journal website, ISSN database
Publisher and country of publication	Journal website, ISSN database
Type of publication (print, online or print and online)	Journal website
Open Access	Journal website, DOAJ
Language(s) of publication	Journal website
Indexed by Web of Science (and WoS categories), Scopus, DOAJ and SherpaRomeo	Web of Science, Scopus, DOAJ, SherpaRomeo
Geographical coverage (local, regional, national, international)	According to the set definition (Table 2) Journal website

Table 2. Definitions of geographical coverage of journals.

Geographical coverage	Requirements
National	Local language. Local publisher. Usually published print only. The content of the articles relates only to that country in recent years. Most or all editorial board members are from the publishing country. Or if the information is written on webpage.
Regional	Published in more than one language (regional languages) or in international languages (English, Spanish, French, German). Cover regional topics (declared so on the website). Can be published in more than one country. Can be indexed by Web of Science or Scopus. Editorial board members are from different countries. Or if the information is written on webpage.
International	The information is written on webpage. International publisher (Elsevier, Wiley, OUP, Springer …). International language (English, Spanish, French, German). Indexed by Web of Science or Scopus. International editorial board.

3 Results

3.1 Country of origin and language of journals

Through a cross search in seven databases we have listed 451 titles of scientific forestry journals. The analysis showed that most forestry journals are published in Europe and Asia (Table 3). The headquarters of big publishing corporations, where 76 (16.9%) of the journal titles counted are published, also contribute to this. We consider a big international publishing house to be a publishing house dedicated to publishing and not belonging to a research organization or professional association that publishes more than one (forestry) journal.

25.2% of all titles are published in China (Table 4). Unfortunately, the websites of Chinese journals are not dedicated and accessible to international readers, so 87 out of 95 journals were categorized as national journals.

Table 3. Forestry journals across continents (n = 451*).

Continent	No. of journals*	%	No. of big international publishers** and no. of published journals
Europe (incl. Russia)	189	41.7%	6 / 61
Asia	170	37.5%	
South America	40	8.9%	
North America	37	8.2%	3 / 13
Africa	10	2.2%	
Australia and Oceania	7	1.5%	1 / 2

* Two journals recorded are published by two publishers from different countries/continent and were therefore counted twice.

** Big international publishers is understood to be a publisher that does not belong to research organization or professional union and it publishes more than one journal.

Table 4. Geographical coverage of forestry journals.

Type	No. of journals*	%
National	250	55.5%
National/Regional	51	11.3%
National/International	25	5.5%
Regional	32	7.1%
Regional/International	11	2.4%
International	82	18.2%

* Two journals are published by two publishers from different countries.

The analysis of the journal title list shows that 216 (47.8%) of all forestry journals are published only in English and 37.3% only in other languages. The remaining 14.9% of titles are published both in English and in one or more other languages (Fig. 1). In 74 (16.4%) of the journals, the language of publication is not limited to one language, and in some journals authors can choose between 4 languages. In total, 285 (63.2%) of the 451 titles are published in English, in Chinese 94 (20.8%), in Spanish 35 (7.8%), in Portuguese 16 (3.5%), in German 13 (2.9%), in Japanese 11 (2.4%), in French 10 (2.2%) and in Russian 9 (2.0%). The remaining 25 languages are represented in less than 2% of the journals per language.

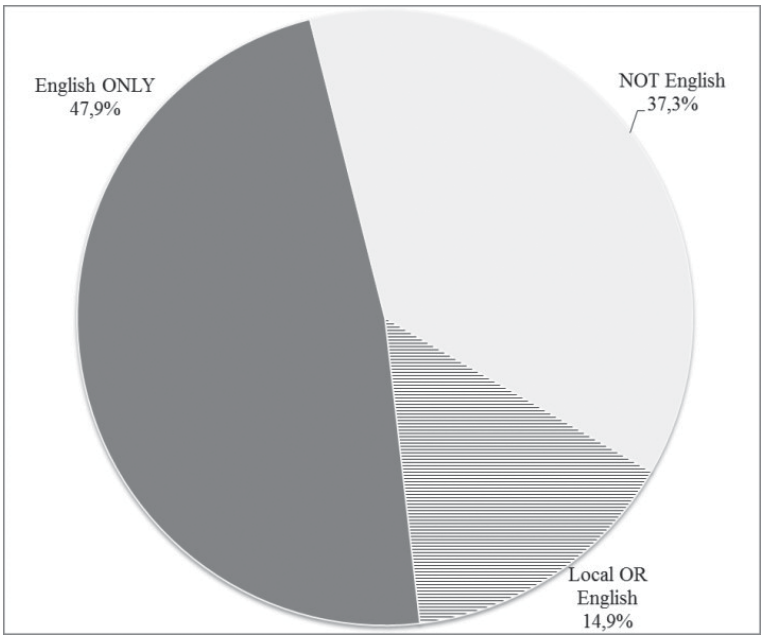

Fig. 1. Language of forestry journals (n = 451).

3.2 Geographical coverage of forestry journals

The majority, 250 (55.4%) of all titles were categorized as national and 83 (18.3%) as international (Table 4). Of the journals indexed as international, regional/international or national/international (n = 118), 93.2% (n = 110) were published in English only.

3.3 Publishing models

The "print+online" publishing model accounts for 86.5% of all journals in the year of data collection (2019), 9.1% of the journals are published in the online only publishing model and the rest, 4.4% of the journals, are published continuously in print only model. While the proportion of journals published online ("print+online" or "online only") is high, only 57.1% of journals are published in the open access model.

3.4 Representation of forestry journals in international databases

We have identified 118 titles that are indexed in the Web of Science (data for 2018). These journals are mostly published in English, only 6 (6.1%) titles are not published in English. Of all titles indexed in the Web of Science only 39 (39.8%) journals are published in open access.

A somewhat different picture emerges for the forestry titles indexed in Scopus, where 154 (34.1%) titles are indexed in Scopus, and the diversity of languages shows that 20 (13.0%) titles are published in a language other than English and 79 (51.3%) journals are published in open access.

In the Directory of Open Access Journals (DOAJ), where redears and potential authors can find links to high-quality, peer-reviewed Open Access journals, we have identified 83 (18.4%) titles. However, we recorded 246 titles published in Open Access, which means that only 19.3% of all journals on our list are indexed by the DOAJ. This could be the result of the new selection criteria of the DOAJ in 2013, an additional re-evaluation and the removal of titles from the list.

We checked the overlap of titles from our list with SherpaRomeo, where potential authors can find information on Open Access policies. For 107 (23.7%) titles on our list, SherpaRomeo has checked the OA policy. If we take into account that we identify 246 forestry titles published in Open Access, only 43.4% of these are available in SherpaRomeo. About half of these titles (48.6%) are published by big international publishers.

3.5 Mapping of forestry science

When collecting titles, one of the sources was Web of Science, category Forestry. Category Forestry is one of the 254 categories of Web of Science, divided into six different scientific fields used for journal classifications or mapping Web of Science categories (Natural sciences, Engineering and technology, Medical and health sciences, Agricultural sciences, Social sciences, Humanities). Each indexed title is assigned to at least one category (Web of Science Core Collection… 2018).

Web of Sciences indexes 98 (21.7%) of the titles from our list, 67 (68.3%) of which are indexed in the category Forestry. Due to the inclusion of titles indexed in categories other than the WoS category Forestry, but indexed in other database's category equivalent to Forestry, 31 additional forestry titles were identified which are not recognized and categorized as forestry journals by Web of Science.

In an effort to assess publishing patterns and scientific output, we mapped journals indexed in WoS to Frascati-related OECD FOS (Organization for Economic Co-operation and Development, Field of Science and Technology). We mapped the WoS categories of journals and counted each

category once if the journal was classified in more than one category (as Bartol et al. 2016). Twenty-six different categories were displayed in 4 different subfields. The highest proportion of journals indexed in Web of Science was indexed in the category of "forestry" (68.3%), followed by "materials science, paper and wood" (11.22%), "ecology" (7.14%), "agriculture, multidisciplinary"and "agronomy" (both 6.12%), "plant science" (5.10%). Twenty other categories with less than 5% share were also recorded. Thus, 88% of the titles are indexed in "agricultural sciences", 27% in "natural sciences", 19% in "engineering and technology" and 2% in "social sciences".

4 Conclusions

This study has identified 451 journals published in 61 countries and 32 different languages, which indicates the global nature of publishing in forestry.

Forestry journals are not always indexed in the Web of Science category Forestry which indicates a diverse range of publishing in this field. When creating the first title list of forestry journals, only journals that are indexed in the category Forestry were considered. As a result, all titles indexed in the WoS category Forestry were included. Since we also included titles from other databases (according to their category Forestry), an additional 66 titles indexed in the other WoS categories were included in the list. This shows the differences in the coding systems of the databases.

We counted 35 journals in which papers can be published in Spanish and 10 in French. The numbers are not negligible as these journals have a large potential readership. We have taken into account that journals with readers and authors from different Latin American countries can be international or regional/international, while many US journals are national.

We believe that the results of this analysis can also be used by journal editorial boards. If the journal does not have at least an informative website with general information about the journal (e.g. title, ISSN, publisher, contact, instructions to authors, publishing policy of the journal), editors should make an effort to do so. In the course of our research, we have also found that ISSN numbers are not sufficient; journals published in print and online versions should have two ISSN numbers. A high proportion of journals are published in the online model. At a time when open access publishing is becoming increasingly important, small publishers in particular should make efforts to increase the visibility of journals by including titles in DOAJ and SherpaRomeo. Publishing of forestry journals is present on all inhabited continents and reflects the development of the forestry profession and the dominance of the large publishers. The high proportion of English-language journals indicates that the majority of scientific communication is in English. However, there is a significant proportion of journals in other languages. This indicates an awareness of the evolution of professional terminology in these languages. Unfortunately, these journals remain national, perhaps to a lesser extent regional. National journals in particular are not visible internationally and are not indexed in citation indexes. With editorial activities to update publishing practise, all journals have the opportunity to be included in collections that are gaining influence in open access.

We hope that the list and the results of this research report will not only be published but also updated annually and made available on the IUFRO website so that they are accessible to forestry students, researchers, practitioners and can be used for further studies.

Acknowledgements

The author would like to thank Alan Pottinger of the Commonwealth Forestry Association who is also co-author of the Forestry journal title list and who has made a significant contribution to this paper. Marcus Robbins of the Commonwealth Forestry Association helped to determine the geographical coverage of the journals. The author would like to thank Pekka Nygen for his encouragement throughout the project and the editors and reviewers for their useful suggestions. This research was co-funded by project LIFEGENMON (LIFE13 ENV/SI/000148) LIFE for European Forest Genetic Monitoring System which is in line with goals of EUFORGEN (European Programme for Forest Genetic Resources).

References

Bartol T., Budimir G., Južnič P., Stopar K. (2016). Mapping and classification of agriculture in Web of Science: other subject categories and research fields may benefit. Scientometrics 109(2): 979–996. https://doi.org/10.1007/s11192-016-2071-6.

Bojović S., Matić R., Popović Z., Smiljanić M., Stefanović M., Vidaković V. (2014). An overview of forestry journals in the period 2006–2010 as basis for ascertaining research trends. Scientometrics 98(2): 1331–1346. https://doi.org/10.1007/s11192-013-1171-9.

CAB Abstracts: (via Ovid). http://ovidsp.ovid.com/autologin.html. [Cited 12 Sept 2019].

Changing scientific publication environment challenges forest science journals. https://metsatiede.org/toiminta/tarkeimpia-tapahtumia/changing-scientific-publication-environment-challenges-forest-science-journals/. [Cited 1 June 2020].

Chirici G. (2012). Assessing the scientific productivity of Italian forest researchers using the Web of Science, SCOPUS and SCIMAGO databases. iForest 5: 101–107. https://doi.org/10.3832/ifor0613-005.

DOAJ. https://doaj.org/. [Cited 12 Sept 2019].

DOAJ announces new selection criteria. (2013). https://www.stm-publishing.com/doaj-announces-new-selection-criteria/. [Cited 12 Sept 2019].

Dreyer E., Peiffer M., Bontemps J.D., Leban J.M. (2014). Annals of Forest Science changes its scope and complies with green open access rules. Annals of Forest Science 71(4): 425–426. https://doi.org/10.1007/s13595-014-0370-8.

Gu X., Blackmore K. (2017). Characterisation of academic journals in the digital age. Scientometrics 110(3):1333–1350. https://doi.org/10.1007/s11192-016-2219-4.

ISSN. https://portal.issn.org/. [Cited 12 Sept 2019].

Journal citation report. https://jcr.clarivate.com/JCRLandingPageAction.action. [Cited 12 Sept 2019].

JournalSeek. http://journalseek.net/. [Cited 12 Sept 2019].

Klenk N.L., Dabros A., Hickey G.M. (2010). Quantifying the research impact of the Sustainable Forest Management Network in the social sciences: a bibliometric study. Canadian Journal of Forest Research 40(11): 2248–2255. https://doi.org/10.1139/X10-138.

Malesios C., Arabatzis G. (2012). An evaluation of forestry journals using bibliometric indices. Annals of Forest Research 55(2): 147–164. https://www.afrjournal.org/index.php/afr/article/viewFile/55/83.

Peteh M., Pottinger A. (2020). Forestry journal title list: 2019. Slovenian Forestry Institute. https://doi.org/10.20315/Data.0001. [Cited 1 Feb 2020].

Scopus. https://www.scopus.com/sources.uri. [Cited 12 Sept 2019].

SherpaRomeo. http://www.sherpa.ac.uk/romeo/index.php. [Cited 12 Sept 2019].
Testa J. (2019). Journal selection process. https://clarivate.com/webofsciencegroup/essays/journal-selection-process/. [Cited 9 Dec 2019].
Ulrich's Periodicals Directory. http://ulrichsweb.serialssolutions.com/. [Cited 12 Sept 2019].
Vanclay J.K. (2008). Ranking forestry journals using the *h*-index. Journal of Informetrics 2(4): 326–334. https://doi.org/10.1016/j.joi.2008.07.002.
Vanclay J.K., Bornmann L. (2012). Metrics to evaluate research performance in academic institutions: a critique of ERA 2010 as applied in forestry and the indirect H_2 index as a possible alternative. Scientometrics 91(3): 751–771. https://doi.org/10.1007/s11192-012-0618-8.
Web of Science Core Collection Help. (2018). https://images.webofknowledge.com/images/help/WOS/hp_subject_category_terms_tasca.html. [Cited 9 Dec 2019].

Total of 22 references.

Supplementary files

S1.xslx; Peteh M., Pottinger A. (2020). Forestry journal title list: 2019. Slovenian Forestry Institute. https://doi.org/10.20315/Data.0001,

available at https://doi.org/10.14214/sf.10350.