

## From the editor

# Top-cited articles 2001–2009

"A scientific experiment, no matter how spectacular the results, is not completed until the results are published." This true statement by Robert Day (1998) could be followed by a subsequent one: A scientific publication, no matter how spectacular it is, has not proved useful until it has been cited by other scientists. There may of course be exceptions from the latter statement, e.g. if the results of an article are directly applied in the industry without passing other scientists. However, almost all scientific advancement is the result of researchers building bricks on top of other bricks. A small scientific discovery may be the key that opens a door for the next researcher to advance the frontier of science further. The proof of an article's impact is therefore to a large degree reflected by how often it has been cited by other scientists.

The table lists the top 20 most cited articles from Scandinavian Journal of Forest Research during the first decade of this century. The statistics are available at the ISI Web of Science and summarizes the total number of citations for articles over the whole period 2001–2009. Five of the top ten articles were notably related to laser scanning of forests, a

quickly developing field with a vast production of manuscripts. Another observation is that five of the articles all derive from one issue, a supplement published in 2001.

The detailed figures of the citations (which are not shown in the table) support the fact that forest science articles have a long life span. The traditional impact factor reflects the citations in the first two years after publication, but many citations appear much later. Cited half-life is a measure showing when 50% of the citations were recorded, and this is as long as 8 years for Scandinavian Journal of Forest Research. An example of how misleading the impact factor may be is the second article in the list (Kozlowski, 1999), which received no citations in the first two years after publication, but thereafter has been cited 71 times in journals indexed in Journal Citation Report. The time is therefore a key factor for the records in a list like this. As new citations are added, the order will likely change towards articles with later publication years.

Mats Hannerz

| Article   | Total number of citations 2001–2009 | Average citations per year (after publication) |
|---|-------------------------------------|--|
| 1) Naesset, E. (2004). Practical large scale forest stand inventory using a small footprint airborne scanning laser. <i>Scand. J. For. Res.</i> 19, 164–179.  | 84                                  | 14   |
| 2) Kozlowski, T.T. (1999). Soil compaction and growth of woody plants. <i>Scand. J. For. Res.</i> 14, 596–619.  | 71                                  | 6.5  |
| 3) Naesset, E. et al. (2004). Laser scanning of forest resources: The Nordic experience. Scand. J. For. Res. 19, 482–499.   | 68                                  | 11.3   |
| 4) Nilsson, S. G. et al. (2001). Biodiversity and its assessment in boreal and nemoral forests. <i>Scand. J. For. Res. Suppl 3</i> , 10–26.   | 53                                  | 5.9  |
| 5) Holmgren, J. (2004). Prediction of tree height, basal area and stem volume in forest stands using airborne laser scanning. <i>Scand. J. For. Res.</i> 19, 543–553.   | 47                                  | 7.8  |
| 6) Hannrup, B. et al. (2004). Genetic parameters of growth and wood quality traits in <i>Picea abies. Scand. J. For. Res.</i> 19, 14–29.  | 38                                  | 6.3  |
| 7) Vanha-Majamaa, I. & Jalonen, J. (2001). Green tree retention in Fennoscandian forestry. <i>Scand. J. For. Res. Suppl 3</i> , 79–90.  | 35                                  | 3.9  |
| 8) Naesset, E. (2004). Accuracy of forest inventory using airborne laser scanning: Evaluating the first Nordic full-scale operational project. <i>Scand. J. For. Res.</i> 19, 554–557.                          | 34                                  | 5.7  |
| 9) Saarsalmi, A. & Mälkönen, E. (2001). Forest fertilization research in Finland: A literature review. <i>Scand. J. For. Res.</i> 16, 514–535.  | 34                                  | 3.7  |
| 10) Lim, K.S. & Treitz, P.M. (2004). Estimation of above ground forest biomass from airborne discrete return laser scanner data using canopy-based quantile estimators. <i>Scand. J. For. Res.</i> 19, 558–570. | 33                                  | 5.5  |
| 11) Wilhelmsson, L. et al. (2002). Models for predicting wood properties in stems of <i>Picea abies</i> and <i>Pinus sylvestris</i> in Sweden. <i>Scand. J. For. Res. 17</i> , 330–350.                         | 31                                  | 3.9  |

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#### Continued

| Article   | Total number of citations 2001–2009 | Average citations per year (after publication) |
|---|-------------------------------------|--|
| 12) Rouvinen, S. & Kouki, J. (2002). Spatiotemporal availability of dead wood in protected old-growth forests: A case study from boreal forests in eastern Finland. <i>Scand. F. For. Res. 17</i> , 317–329.                              | 31                                  | 3.9  |
| 13) Nohrstedt, H-Ö. (2001). Response of coniferous forest ecosystems on mineral soils to nutrient additions: A review of Scandinavian experiences. <i>Scand. J. For. Res. 16</i> , 555–573.   | 30                                  | 3.3  |
| 14) Göthlin, E. et al. (2000). Attacks by <i>Ips typographus</i> and <i>Pityogenes chalcographus</i> on windthrown spruces ( <i>Picea abies</i> ) during the two years following a storm felling. <i>Scand. 7. For. Res.</i> 15, 542–549. | 28                                  | 2.8  |
| 15) Ehnström, B. (2001). Leaving dead wood for insects in boreal forests – suggestions for the future. <i>Scand. 7. For. Res. Suppl. 3</i> , 91–98.   | 27                                  | 3.0  |
| 16) Granström, A. (2001). Fire management for biodiversity in the European boreal forest. <i>Scand. J. For. Res. Suppl. 3</i> , 62–69.  | 26                                  | 2.9  |
| 17) Löfman, S. & Kouki, J. (2001). Fifty years of landscape transformation in managed forests of southern Finland. <i>Scand. J. For. Res.</i> 16, 44–53.  | 26                                  | 2.9  |
| 18) Clapham, D. et al. (2000). Gene transfer by particle bombardement to embryogenic cultures of <i>Picea abies</i> and the production of transgenic plantlets. <i>Scand. 7. For. Res. 15</i> , 151–160.                                  | 26                                  | 2.6  |
| 19) Ingersley, M. et al. (2001). Main findings and future challenges in forest nutritional research and management in the Nordic countries. <i>Scand. J. For. Res.</i> 16, 488–501.   | 25                                  | 2.8  |
| 20) Kouki, J. et al. (2001). Forest fragmentation in Fennoscandia: Linking habitat requirements of wood-associated threatened species to landscape and habitat changes. <i>Scand. J. For. Res. Suppl. 3</i> , 27–37.                      | 25                                  | 2.8  |

## Reference

Day, R. (1998). *How to write and publish a scientific paper* (5th ed). Cambridge: Cambridge University Press.