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## Most Frequently Cited Journals: A Study with Special Reference to Forestry Science Doctoral Thesis Reflected In Shodhganga Website.

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**Abstract:** The focus of the research is on the citation styles of Forestry PhD candidates. This research aims to find out how many doctorate theses in forestry science have been submitted each year, how many citations each one receives on average, what kinds of materials researchers examine, and which journals get the most citations on an individual thesis/dissertation.

**Keywords:** citation analysis, PhD thesis, Shodhganga E-thesis repository.

### 1. Introduction

Original research papers are published in periodicals. In Moore's view, they serve two functions: to facilitate the interchange of information between authors and their readers, and to provide a long-term record of research results. As products of learned societies, they tend to be long-lived and enjoy a high degree of longevity and prestige. Several primary publications are produced by commercial publishers, but the majority are published by learned organisations, research organisations, and other official or semi-official entities. They are the most often used type of scientific and technical writing. Accurately identifying the publishing patterns, rating of publications and authorship patterns

is the primary goal of this research, which uses the citation approach.

INFLIBNET, the organisation responsible for the upkeep of Shodhganga, was created as part of the IUCAA 1991 project. According to official records, the UGC established an autonomous interuniversity centre in 1996. These include automation, the construction of a union catalogue, support for scholarship and e-thesis repositories, as well as exchange of resources across university libraries. Students may deposit their doctoral theses and make them openly accessible to the whole academic community. It is possible for the repository to collect, index, and retain ETDs that have been submitted by Indian scholars.

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Dehradun, India's Forest Research Institute University.

Forest research institution was founded in 1906 at Dehradun, Uttar Pradesh. Forest officers and rangers have been trained and educated by the institute's research initiatives. Eight forestry science PhDs were conferred by the institution in 2011/12. Shodhganga E-thesis repository has these theses. Those eight theses were used as the basis for the current research.

## 2. Previous studies

There have been a number of worldwide studies. The following are some of the testimonials we've gathered: Between 1996 and 2000, Gooden (2001) conducted a citation analysis in the chemistry department at Ohio State University. A total of 3,704 citations were found among the 30 dissertations examined. After articles, monographs, dissertations, theses, and conferences, the most frequently mentioned works were articles. One hundred PhD dissertations submitted to Kashmir University between 1980 and 2000 in the subject of Natural Science were examined by Shafi in 2002. These dissertations were the source of around 8,000 citations. Following seminar proceedings are journals, according to an analysis. The reports are seldom ever accessed or used.

An investigation by Kushkowski (2003) looked at nearly 9,100 citations from 629 master's and doctorate thesis papers submitted at a Midwestern Land Grant University between 1973 and 1992. According to the findings, graduate students who are working on theses prefer to draw on recent findings. Graduate students' citation patterns are shown to have an unique tendency in this research. The study by Ravichandran and colleagues (2014) examines the choices and utilisation of various kinds of information resources by researchers in the field of Library and Information Science who are writing PhD theses. Cited sources included journal articles, books, databases and thesis and dissertation

references. Almost seven-fifths of the journals referenced in the study were from outside the United States, with a higher percentage of citations to non-English publications. In this case, Bankapur and Jayalaxmi (2017) Agricultural Sciences University of Dharwad doctorate dissertations in crop physiology are the focus of this research. Citation analysis is conducted on theses. During the period 1987 to 2013, 36 doctorate theses were granted, with 7499 citations from these 36 theses. Crop Physiology researchers at UAS Dharwad used these citations to track their own research habits. Bibliographic forms, citation distribution, regional distribution, and journal rankings are all determined by an examination of journal citations.

Anil and Dora are a happy couple (2013) The 49 PhD dissertations submitted to the Indian Institute of Management, Ahmedabad, between 2004 and 2009 were examined for citations in this research. Journals were found to be the most often mentioned sources in the research, and a list of journals with the highest local citation counts was compiled. When it comes to categorising journals, researchers employ Bradford's law. More than half of all journal citations were attributed to the top 48 journals, which were among the 30 most often cited.

Tezpur University, Assam, has awarded 30 PhDs in chemical sciences between 2008 and 2012, and Gohain&Saikia (2014) analysed 10983 citations found in theses. Authorship pattern and kind and style of literature referenced were examined in this research in order to identify essential journals in chemical sciences. Only 15.57 percent of all citations were made to books by academics in chemical sciences according to the findings of the study. There are 617 citations to this issue of the Journal of the American Chemical Society, making up 7.13 percent of all journal citations. After Macromolecules, the second-place journal is Journal of Molecular Catalysis A: Chemical 6.57 percent with 569 citations. Using journal citations, researchers may see how many citations were made by more than three authors, which indicates that chemical

research is becoming more collaborative. sciences. The findings of the study revealed that out of the total number of 8658 journal citation, 39.89% are by more than three authors, followed by two authors with 22.28 %.

### 3. Statement of the problem

Most frequently cited journals: A study with special reference to Forestry science doctoral thesis in Shodhganga website.

### 4.Objectives of the study

5. The purpose of this research is to determine the year-by-year distribution of doctorates conferred to forestry science students.

6. In order to figure out the average amount of citations per theses.

8. To determine the sorts of papers that the PhD students consult.

9. To find out which journals are most commonly referenced.

### 11. Scope of the study

12. PhD theses submitted to the University of Forest Research Institute, Dehradun in Uttaranchal state between 2011 and 2012 are the focus of this research project. There were a total of eight PhD theses considered for this investigation.

Number of thesis	Number of citations yielded in thesis	Average citations per thesis
08	2099	262.37

Table 2 describes the average number of citations per theses. In each thesis with a total of 262.37 citations.

Table 3: Types of documents consulted by Doctoral students

Sl no.	Rank No.	Types of documents used by Researchers	Number of citations	%
01	01	Journals	1467	69.90
02	02	Books	276	13.15
03	03	conference proceedings	133	6.34
05	04	Thesis and dissertations	53	2.53
06	05	E Resources	36	1.72
07	06	Reports	22	1.05
08	07	Handbooks	10	0.47
09	08	Atlas	9	0.43
10	09	Encyclopaedias	2	0.08

### 13. Methodology

14. MS Excel spreadsheets were used to rate the titles of PhD theses and bibliographic references from each thesis. The following tables, graphs, and visuals provide an analysis and interpretation of the 2099 citations found in the study.

### 15. Data analysis

Table 1. Year wise submission of doctoral thesis in Forestry Science.

Sl. No	Year	No. of Thesis submitted
01	2011	04
02	2012	04
Total		08

Submitted theses to the Forestry Science Department of the Forest Research Institute University in Dehradun, Uttaranchal, are shown in Table 1 by year. At least eight doctorate dissertations have been submitted for the granting of a PhD degree in 2011/2012.

Table 2. Average number of citations in per theses.

11	09	Patents	2	0.09
12	09	Standards	2	0.09
13	10	Dictionaries	1	0.05
14	10	Monographs	1	0.05
15		Incomplete references	85	4.05
Total			2099	100.00

It is seen in Table 3 that the researchers utilised a variety of documents. The thesis had a total of 2099 citations. Of the 1467 citations, 276 (13.15%) are from books, followed by 133 (6.34%) from conference proceedings, and 53 (2.53%) from theses and dissertations. Journal citations account for the vast majority (69.90%) of the total.

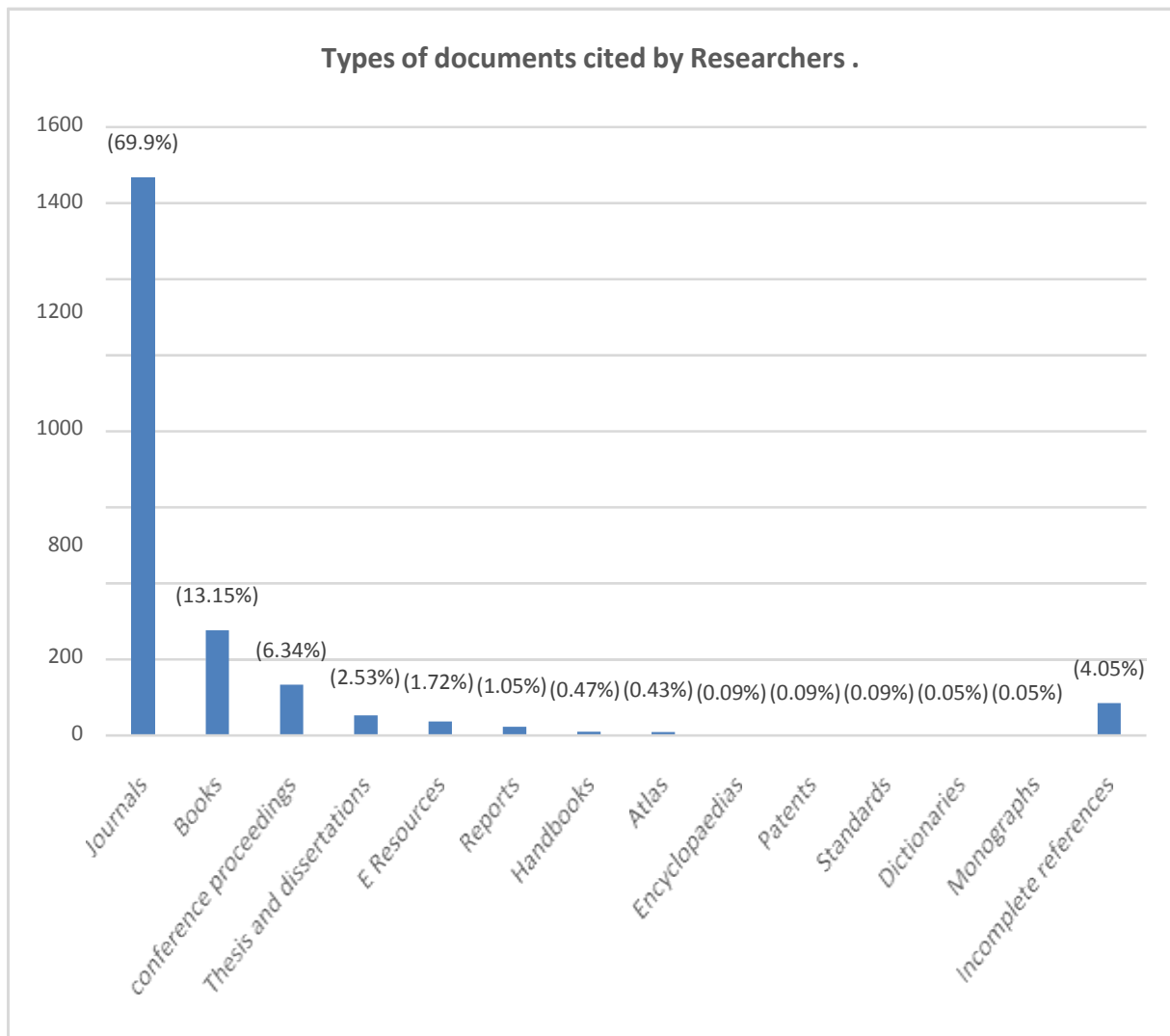


Table 4: Ranking of most frequently cited journals.

Sl. No	Rank No	Journal name	No. of citations	%	Cumulative Citation	%
1	1	J. invert. Pathol.	89	6.06	89	6.06
2	2	Plant Cell, Tissue and Org. Cult	67	4.56	156	10.63
3	3	Plant Cell Reports	63	4.29	219	14.92
4	4	In Vitro Cellular and Developmental Biology - Plant	50	3.40	269	18.33
5	5	Indian Forester	48	3.27	317	21.61
6	6	Plant science: an international journal of experimental plant biology.	21	1.43	338	23.04
7	6	Applied and Environmental Microbiology	21	1.43	359	24.47
8	7	Forest Ecology & Management	18	1.22	377	25.69
9	8	Current Science	16	1.09	393	26.78
10	8	Theoretical and Applied	16	1.09	409	27.88

		Genetics				
11	8	Mycological Research	16	1.09	425	28.97
12	9	My Forest j.	15	1.03	440	29.99
13	9	African Journal of Biotechnology	15	1.03	455	30.33
14	9	Indian Journal of Forestry	15	1.03	470	32.03
15	9	Ind. J. Exp. Biol	15	1.03	485	33.06
16	10	Environment and Ecology	14	0.95	499	34.01
17	10	Bioresource and Technology	14	0.95	513	34.96
18	11	TAPPI Journal	13	0.88	526	35.85
19	12	SilvaeGenetica	12	0.83	538	36.67
20	12	J. Econ. Entomol	12	0.81	550	37.49
21	13	Biotech. Adv.	11	0.74	561	38.24
22	13	BiologiaPlantarum	11	0.74	572	38.99
23	13	Agronomy journal	11	0.74	583	39.74
24	14	Hortscience	10	0.69	593	40.42
25	14	Crop Science	10	0.69	603	41.10
26	14	Biological Control	10	0.69	613	41.78
27	14	Biocontrol Science and Technology	10	0.69	623	42.46
28	14	J. Eukaryot. Microbiol	10	0.69	633	43.14
29	14	Journal of Tropical Forest Science	10	0.69	643	43.83
30	14	Molecular Biology and Evolution	10	0.69	653	44.51
31	14	Physiol. Plant	10	0.69	663	45.19
32	14	Insect Science and its Application	10	0.69	673	45.87
33	14	Int. J. Agri. Biol	10	0.69	683	46.55
34	14	J. Biotechnol.	10	0.69	693	47.23
35	14	Z. Pflanzenphysiol. J	10	0.69	703	47.92
36	14	Annals of Botany	10	0.69	713	48.60
37	15	American Journal Botany	9	0.61	722	49.21
38	15	New Forests	9	0.61	731	49.82
39	16	Acad. Sc(Proceedings of the National Academy of Sciences of the United States of America).	8	0.54	739	50.37
40	16	Plant Molecular Biology Reporter	8	0.54	747	50.92
41	16	Scientia Horticulturae	8	0.54	755	51.46
42	16	Sociobiology	8	0.54	763	52.01
43	16	Euphytica	8	0.54	771	52.55

44	17	Holzforschung	7	0.48	778	53.03
45	17	Nature Biotechnology	7	0.48	785	53.51
46	17	Plant Tissue Culture and Biotechnology	7	0.48	792	53.98
47	17	SvenskPapperstidning	7	0.48	799	54.46
48	18	Indian Journal of Biotechnology	6	0.41	805	54.87
49	18	J. Protozool	6	0.41	811	55.28
50	18	J. Seri. Sci. Jpn	6	0.41	817	55.69
51	18	Journal of Arid Environments	6	0.41	823	56.10
52	18	Journal of Forest Research	6	0.41	829	56.50
53	18	Journal of Zoology	6	0.41	835	56.91
54	18	MokuzaiGakkaiahi(Japanese),	6	0.41	841	57.32
55	18	Molecular Phylogenetics and Evaluation	6	0.41	847	57.73
56	18	Pakistan Journal of Botany	6	0.41	853	58.14
57	18	Pakistan Journal of Zoology	6	0.41	859	58.55
58	18	Physiol.Plantarum	6	0.41	865	58.96
59	18	Plant and Soil	6	0.41	871	59.37
60	18	Plant Growth Regulation	6	0.41	877	59.78
61	18	Native Plants Journal	6	0.41	883	60.19
62	18	Research Journal of Applied Sciences, Engineering and Technology	6	0.41	889	60.59
63	18	Seed Science and Technology	6	0.41	895	61.00
64	18	World Applied Science Journal	6	0.41	901	61.41
65	19	Alexander Journal Agricultural Research	5	0.34	906	61.75
66	19	Can. J. Zool	5	0.34	911	62.09
67	19	Canadian Journal of Botany	5	0.34	916	62.44
68	19	Can J. Biochem	5	0.34	921	62.78
69	19	Can.J.ofmicrobio.	5	0.34	926	63.12
70	19	Current Microbiology	5	0.34	931	63.46
71	19	Crop Protection	5	0.34	936	63.80
72	19	FEMS Microbiol. Rev	5	0.34	941	64.48
73	19	Fertilizer Research (Nutrient Cycling in Agroecosystems)	5	0.34	946	64.48
74	19	Florida Entomologist	5	0.34	951	64.82
75	19	Fungal Genetics and Biology	5	0.34	956	65.16
76	19	Gulf. J. Scient, REs.Agr.Biol.	5	0.34	961	65.50
77	19	Horticultural Science	5	0.34	966	65.84



78	19	Indian J. Biotech	5	0.34	971	66.18
79	19	Indian J. Seric	5	0.34	976	66.53
80	19	Indian Journal of Agricultural Sciences	5	0.34	981	66.87
81	19	Journal of Genetics	5	0.34	986	67.21
82	19	Indian Journal of Genetics and Plant Breeding	5	0.34	991	67.55
83	19	Indian Journal of Pharmacy	5	0.34	996	67.89
84	19	Industrial Crops and Products	5	0.34	1001	68.23
85	19	Insectes Sociaux	5	0.34	1006	68.85
86	19	Int. J. Indust. Entomol	5	0.34	1011	68.91
87	19	International Biodeterioration & Biodegradation	5	0.34	1016	69.25
88	19	International Journal of Botany studies	5	0.34	1021	69.59
89	19	International Journal of Integrative Biology	5	0.34	1026	69.93
90	19	International Tree Crops Journal	5	0.34	1031	70.27
91	19	J. Wood Chem Technol	5	0.34	1036	70.62
92	19	J. Parasitol	5	0.34	1041	70.96
93	19	J. Wood Sci	5	0.34	1046	71.30
94	19	Journal of American Bamboo Society	5	0.34	1051	71.64
95	19	Eur. J. Forest Res	5	0.34	1056	71.98
96	19	Journal of Ecobiology	5	0.34	1061	72.32
97	19	Journal of Ecology	5	0.34	1066	72.66
98	19	Journal of General Microbiology	5	0.34	1071	73.00
99	19	Journal of Indian Botanical Society	5	0.34	1076	73.34
100	19	Journal of Indian Society Soil Science	5	0.34	1081	73.68
101	19	Journal of Medicinal and Aromatic Plant Science	5	0.34	1086	74.02
102	19	Journal of Plant Biochemistry and Biotechnology	5	0.34	1091	74.36
103	19	Journal of Plant Physiology	5	0.34	1096	74.71
104	19	Journal of Science and Culture	5	0.34	1101	75.05
105	19	Journal Tropical Forest Science	5	0.34	1106	75.39
106	19	Emerging Microbes and Infections	5	0.34	1111	75.73
107	19	Microbiological Research	5	0.34	1116	76.07

108	19	Molecular Ecology	5	0.34	1121	76.41
109	19	Mycopathologia,	5	0.34	1126	76.75
110	19	Nucleic Acids Research	5	0.34	1131	77.09
111	19	Pakistan Journal of Biological Science	5	0.34	1136	77.43
112	19	Pakistan Journal of Forestry	5	0.34	1141	77.77
113	19	Paper Trade J	5	0.34	1146	78.11
114	19	Parasitology Res.	5	0.34	1151	78.45
115	19	Pesq. Agrop. Bras	5	0.34	1156	78.80
116	19	Pesticide Research Journal	5	0.34	1161	79.14
117	19	Phytochemistry	5	0.34	1166	79.48
118	19	Plant Physiol	5	0.34	1171	79.82
119	19	Polymer Degradation and Stability	5	0.34	1176	80.16
120	19	Flavour and Fragrance Journal	5	0.34	1181	80.50
121	19	Indian journal of Hill farming	5	0.34	1186	80.84
122	19	Tissue and Organ Culture	5	0.34	1191	81.18
123	19	Turkish Journal of Botany	5	0.34	1196	81.52
124	19	Wood SciTechnol	5	0.34	1201	81.86
125	19	World Journal of Agricultural Sciences	5	0.34	1206	82.20
126	19	Annual Review of Plant Physiology	5	0.34	1211	82.54
127	19	Current Genetics	5	0.34	1216	82.89
128	19	Genet. Biol	5	0.34	1221	83.23
129	19	Ind. J. Med. Microbiol	5	0.34	1226	83.57
130	19	Indian J physiology	5	0.34	1231	83.91
131	19	Indian J. Agroforestry	5	0.34	1236	84.25
132	19	Australian Journal of Agricultural Research	5	0.34	1241	84.59
133		17 journals cited 4 times (17x4)	68	4.64	1309	89.22
134		6 journals cited 3 times (6x3)	18	1.22	1327	90.45
135		44 journals cited 2 times (44x2)	88	6.00	1415	96.45
136		52 journals cited 1 times (52x1)	52	3.55	1467	100.00
Total			1467	100.00		

Table 4 lists the most commonly referenced journals according to the number of times they are cited by researchers. In the list of journals cited by researchers, Journal of Invertebrate Pathology comes in first place with an impressive 89 percent of the total number of citations, followed by Journal of Plant Cell Tissue and Organ Cult (4.56%), Journal of Plant Cell Reports (4.39%), Journal of In Vitro Cellular and Developmental Biology – Plant (3.30%), and Indian Forester (3.27%).

#### 16. Findings and conclusion

Table 1 shows that 8 theses were submitted during 2011 and 2012, with four per year.

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There are an average of 262 citations per thesis in Table 2.

•Table 3 shows that out of 2099 citations, 1467 (69.90 percent) come from journal articles, with the rest coming from other sources. There were 276 (13.15 percent) citations for books, 133 (6.34 percent) for conference proceedings, and 53 (2.53 percent) citations for theses and dissertations. Researcher-referenced journals appear in the fourth row of Table 4. There were 89 citations in the Journal of Invertebrate Pathology (6.06%), followed by the Journal of Plant Cell Tissue and Org. Cult (67%) and Journal of Plant Cell Reports (63%) and Indian Forester (48%), respectively, in the top five journals for citations by researchers. 'Journal of In Vitro Cellular and Developmental Biology – Plant' had 50 citations, followed by the Journal of Plant Cell Reports (63).

### Conclusion

Research like this may assist libraries and policymakers find and subscribe to relevant publications in the area of forestry science disciplines, which researchers can then utilise.

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### Appendix

The following is a list of PhD dissertations (Used for Data collection)

There are 268 species of Casuarina, and each one has its own unique performance characteristics.

No half-sibs in the Northern dry zone of Karnataka in 2012, (Guide Name: Syam and Dr. H. Shivanna). *Metarhizium Anisopliae* (Metsc.) Evaluation by Balachander M (Researcher) H. Robusta (Moore) on Mahogany and *Odontotermes* Spp. on chosen timber-producing trees (Guide Name; Remadevi OK and Sasidharan TO), 2012.

Improvements in delignification and fibre accessibility by Vipin Kumar Saini (Researcher): 3 *Dendrocalamus strictus* was infected by white rot fungus (Guide Name; Dr. Naithani, Sanjay and Thapliyal B P, 2011.

The genetic faithfulness of 334 was tested in vitro by researcher Bhimi Ram.

Guide Name: Dr. Rathore, TS; 4 *Melia Dubia* Cav. (Guide Name)

-Studies on somatic embryogenesis, endogenous biochemical alterations, and genetic fidelity of *Bambusa nutans* Wall Ex.

323 (Guide Name: Dr. Rathore, TS), 2011: 0 Munro.

research works on reproductive biology and genetics by Usmani, Mohd. Gufran 1776 In *Rauwolfia Serpentina*, there is no genetic variation for chemoagronomic characteristics (L). Ex. Kurz (Guide Name; Mandal, AK and Chawhaan, Pravin H), 2011.

Studies on Microsporidia in the woodland Lepidoptera of Jayeeta Bhattacharya (Researcher) 253

7. Defoliator pests (Guide Name; Remadevi OK and Sasidharan TO, Pravin H) in particular, 2012.

Study on the long-term viability of forestry under 109 Sharma, Dinesh Kumar

Development of an integrated watershed system (Guide Name: Dr. Hooda, Anil Kumar), 2012.Total2099