KFRI Research Report No 450

Indexing contents of the back volume collections of KFRI Library

[Final Report of the Research Project RP 581/2009]

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PROJECT PROPOSAL

a.	Project Number	KFRI 581/2009
b.	Title	Indexing contents of the back volume collections of KFRI Library.
c.	Funding Agency	KFRI Plan Grant
d.	Duration	July 2009 – June 2010 (Extended up to June 2011)
e.	Objectives	1. To develop a database of the contents of each journal and make it available for searching by author, subject and journal title. 2. Make it available in the library portal to be developed.
f.	Investigators	Sarojam, N Hussain, K.H George, K.F
g.	Expected Output	Final output of this project is the database and this database can be searched from divisions and eventually over internet.

ACKNOWLEDGEMENTS

We are grateful to Dr. K.V. Sankaran, Director, KFRI for his constant encouragement and Dr. K. Swarupanandan, Research Co-ordinator for valuable suggestions at all steps of programme implementation. We are indebted to Dr. P. Vijayakumaran Nair and Mrs. Ricy Eliner Varkey for developing the search interface and helping for the successful implementation of the project. We are also grateful to Dr. M.P. Sujatha, Dr. M. Amruth and Dr. P. Sujanapal for their editorial comments and suggestions. We are also grateful to Lijesh, T.K, Prejitha, C.K and Yamini, R for assisting in data compilation.

ABSTRACT

A number of core journals in forestry and allied subjects are subscribed in KFRI Library since 1975. Back volumes of these journals are kept bound and a separate collection of these volumes is maintained in the library. An index to the contents of these volumes was very essential to fetch the contents of these volumes for use. Hence a project was undertaken with the objective of developing a database of the contents of each journal and makes it available for searching by author, subject and title. Procedures that followed for developing a specialized information system for the collection are described in this report. The index to KFRI back volume collection is created and uploaded for online search.

INTRODUCTION

Results of scientific research are primarily disseminated through papers in journals. For researchers and scientists these are the most important source of information.

KFRI Library is subscribing a number of core journals in forestry and allied subjects from its beginning. Back volumes of these journals are kept bound and a separate section is maintained in the library. This is one of the precious collections used by researchers and students of KFRI as well as other institutions. Some of the volumes and issues in this rare collection are unavailable elsewhere in India. For accessing the contents of these volumes each article is to be catalogued and a specialized information system should be built and maintained. Considering the high demand of this content from students and researchers this project is undertaken.

A searchable database is developed by cataloguing each article as a single record. Database is structured using UNESCO's CDS/ISIS. At many levels of processing, Microsoft Access is also used. Extensive data formatting and conversions have been applied using both DBMS.

For many Indian journals, in-depth subject search of past issues is still an unattained target. Information system created at KFRI for back volumes is a step towards filling this gap, at least in the field of forestry.

Table 1 List of Indexed Journals

1.	Annals of Forestry	15
2.	Annual Review of Ecology and Systematics	12
3.	Annual Review of Entomology	13
4.	Annual Review of Genetics	12
5.	Annual Review of Phytopathology	12
6.	Annual Review of Plant Biology	13
7.	Biotropica	82
8.	Forest Science	69
9.	Holzforschung	74
10.	Iawa Journal	49
11.	Indian Bee Journal	8
12.	Indian Farming	53
13.	Indian Forester	1274
14.	Indian Journal of Agricultural Economics (IJAE)	54
15.	Indian Journal of Botany	4
16.	Indian Journal of Entomology	30
17.	Indian Journal of Experimental Biology (IJEB)	5
18.	Indian Journal of Forestry	124
19.	Indian Journal of Genetics and Plant Breeding (IJGPB)	48
20.	Indian Journal of Mycology and Plant Pathology	10
21.	Indian Journal of Plant Physiology	8
22.	Indian Journal of Plant Protection	14
23.	Indian Phytopathology	38
24.	Journal of Experimental Botany	47
25.	Journal of Forest Economics	43
26.	Journal of Indian Botanical Society	14
27.	Journal of Soil and Water Conservation	52
28.	Journal of the Indian Society of Soil Science	67
29.	Journal of the Timber Development Association of India	127
30.	Journal of Tropical Forest Science (JTFS)	32
31.	Journal of Tropical Forestry (JTF)	13
32.	Journal of Wildlife Management	59
33.	Journal of the Indian Academy of Wood Science	44
34.	My Forest	85
35.	Mycologia	63
36.	Seed Science and Technology	31
37.	Taxon	47

Total number of issues of different journals indexed 2745

Total number of individual articles indexed nearly 50,000

METHODOLOGY

Database in CDS/ISIS with bibliographic fields was defined (Fig. 1) and worksheet for entering data was created (Fig. 2). Author(s), Title, Source journal, Volume, Issue, Page, Year, Keywords and sometimes Abstract of individual articles were entered using the worksheet. Table of contents available in online sources were made use of to build up data.

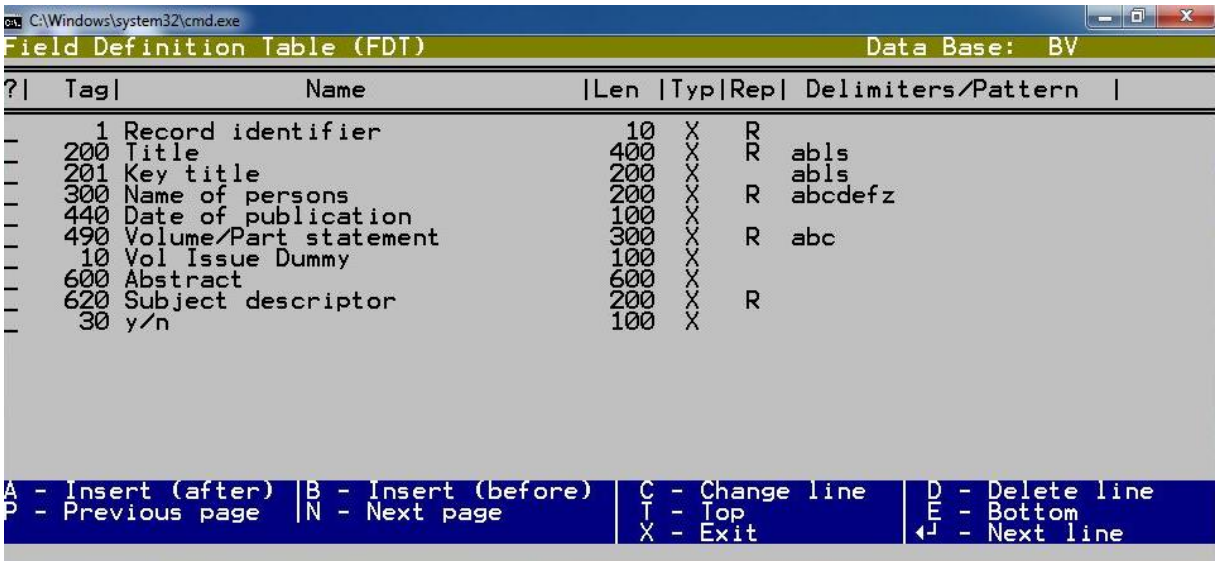

Fig. 1 Field definition table

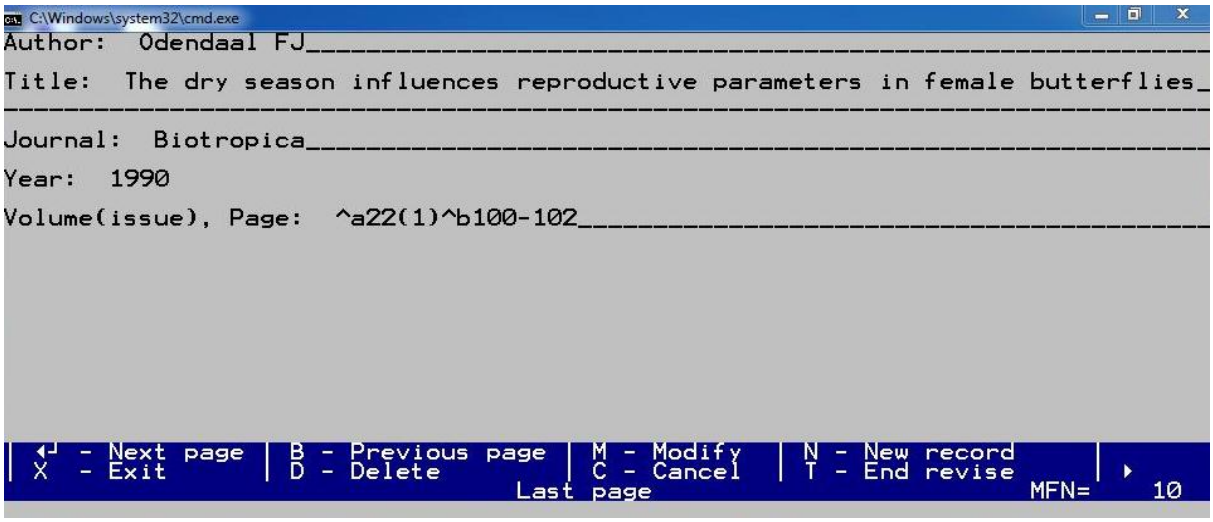

Fig. 2 Data entry worksheet

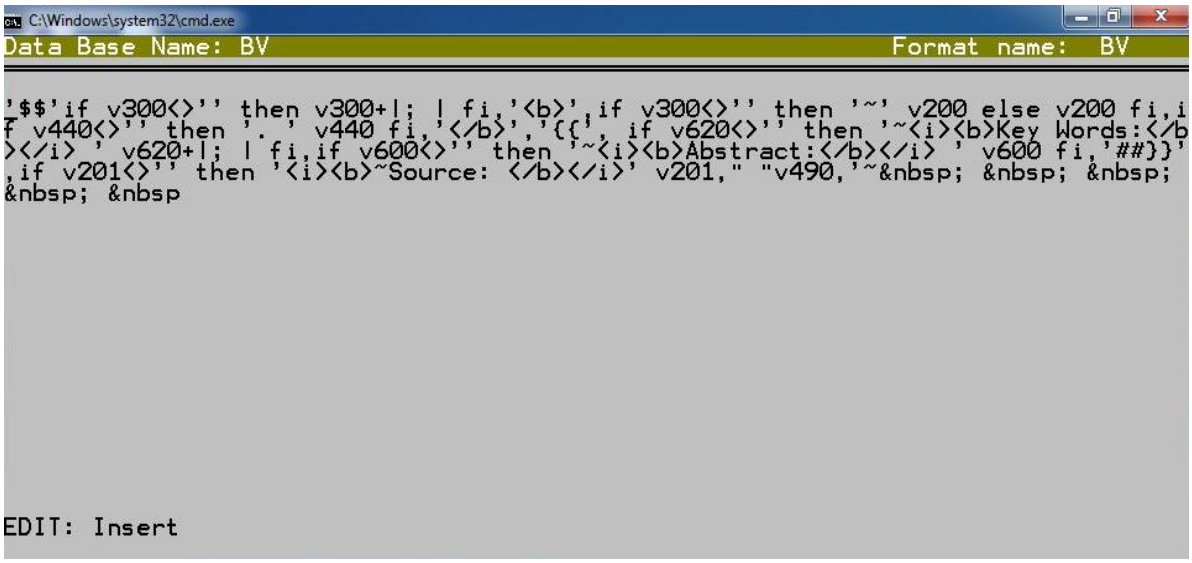

Fig. 3 Print format BV.PFT

Indexing of 37 journals having 2745 issues was carried out. Nearly 50,000 articles were available in this information collection (Table 1). Extensive editing was carried out to standardize authors.

The database developed was made available for online searching from KFRI library portal/website (Fig. 4). A web Search interface uniquely developed in KFRI by Dr. P. Vijayakumaran Nair and Mrs. Ricy in PHP was used to host the catalogue in intranet and internet. The important feature of this search interface is that it doesn't need a database to host in web and it is purely text based but formatted in a particular way. Uploading of the database is as simple as putting a text file in the site. Structuring of this text file is carried out for any number of records using a specially made CDS/ISIS format (Fig. 3).

Both the search program and formatted text are kept in a separate directory inside web folder. When the back volume link is invoked by clicking Books, Article, Reprint, etc. under catalogue section in the portal home page, query page will appear (Fig 5).

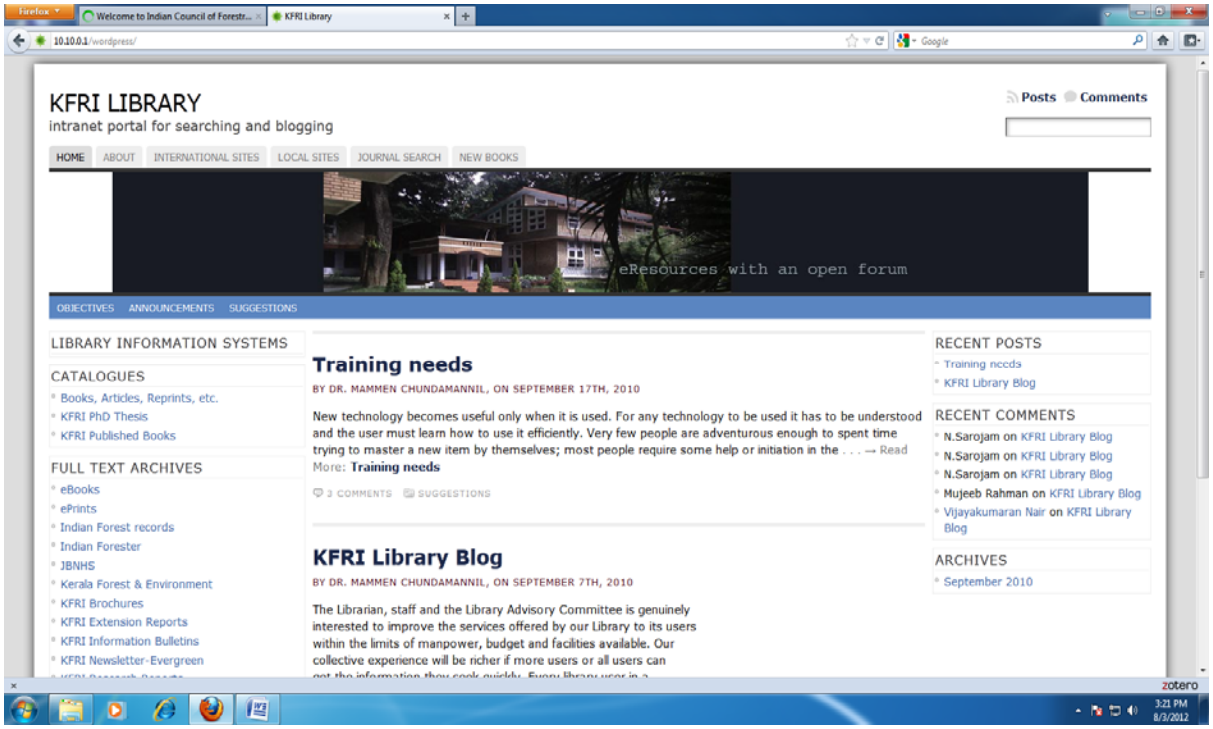

Fig. 4 KFRI Library Intranet Portal

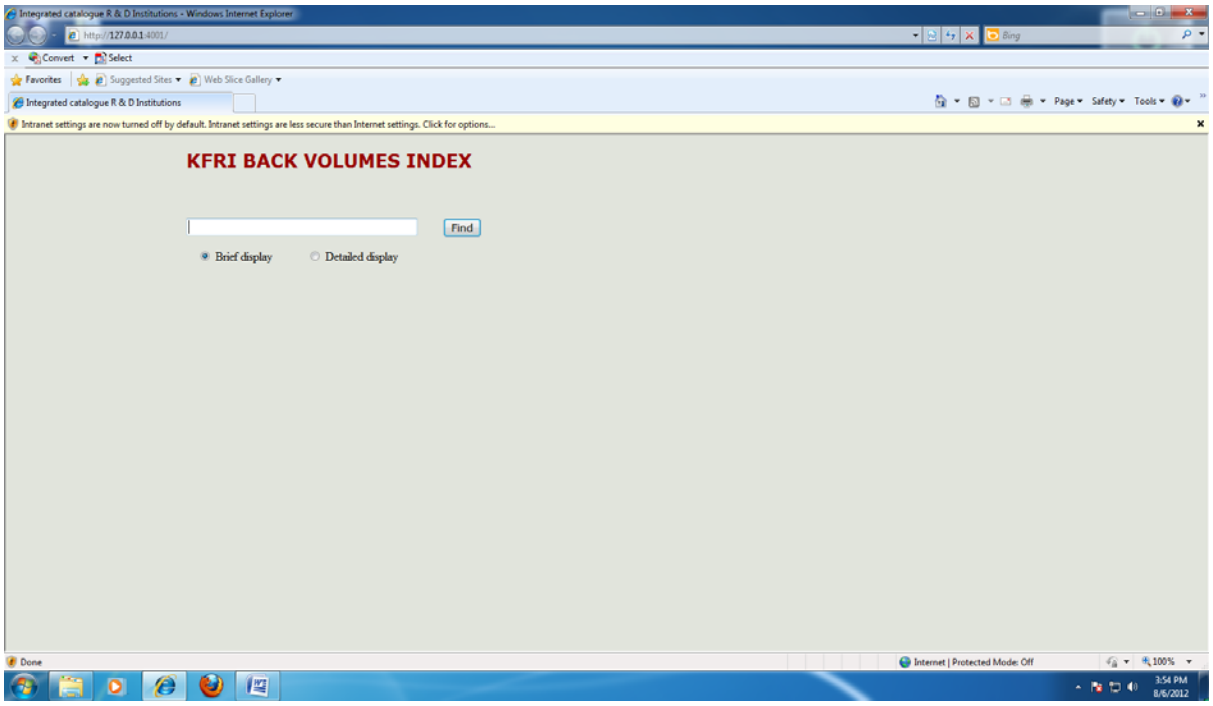

Fig. 5 Query Page

Queries may be made in Google fashion. The user can fill in one or more keywords. Space between the queries words are treated as Boolean AND. 'Silviculture Teak' gives those articles dealing with silviculture of teak. Words from Author, title and abstract fields can be combined in this way. Left and right truncations of query words are possible i.e., parts of keywords can also be entered. Search using 'iochem' will search 'Biochemistry', 'Biochemical', etc.

Search using the keyword 'TEAK' produces 566 hits. To arrive at exact requirements additional keywords are to be supplied. If articles of seed germination are required, user will have to search for 'TEAK SEED GERMI'. This will produce 34 hits. Successful use of information system depends upon intelligent choice of keywords. Much typing can be avoided by truncating words. The mechanism employed in the search interface is very versatile and is used to prepare a standalone CD of Back volume information system. For this purpose, a self running local server is included in the CD. The search engine and the database is placed in the /htdocs folder of the CD. A stand alone CD containing catalogue of KFRI back volumes is included in this report. Frequent users can copy the content of this CD to the hard disk of the PC.

The hit result of the search can be displayed in two ways: Brief and Detailed. Using the 'brief display' minimum information of the retrieved articles such as author title, source and page are displayed (Fig. 6). Using the 'Detailed display' abstracts and key words are also displayed (Fig. 7).

Search is very fast. Even a combination of five keywords may bring the result in seconds out of lakhs of records.

22. Sagreiya KP
Single stem silviculture (thinning in Teak plantations. 1947.
JOURNAL ARTICLE Indian Forester 73(7): 323-9

23. Takle GG; Mujumdar RB
Increasing growth and regeneration of Teak. 1956.
JOURNAL ARTICLE Indian Forester 82(1): 8-21

24. Naidu KK
Past, present and future of planting Teak in the Andamans. 1957.
JOURNAL ARTICLE Indian Forester 83(9): 539-45

25. **Recommendations of the all-India Teak study tour and symposium, December 1957-January 1958. 1958**.
JOURNAL ARTICLE Indian Forester 84(10): 593-602

26. Seth SK; Khan MAW
Regeneration of Teak forests. 1958.
JOURNAL ARTICLE Indian Forester 84(8): 455-66

27. Seth VK
Thinnings in young Teak coppice forests of the Betul division. 1958.
JOURNAL ARTICLE Indian Forester 84(9): 568-70

28. Seth SK; Yadav JSP
Teak soils. 1959.
JOURNAL ARTICLE Indian Forester 85(1): 2-16

29. Kadambi K
Observations on natural reproduction of Teak. 1959.
JOURNAL ARTICLE Indian Forester 85(11): 641-9

30. George MP
Teak plantations of Kerala. 1961.
JOURNAL ARTICLE Indian Forester 87(11): 646-55

31. Singh B
Degraded Teak forests of Rajasthan and their rehabilitation. 1962.
JOURNAL ARTICLE Indian Forester 88(4): 285-8

Fig. 6 Search and Display: Brief

22. Sagreiya KP
Single stem silviculture (thinning in Teak plantations. 1947
KW: Tectona grandis; wood thinning; Thinnings
Abstract: Continuing a previous article the author describes how the normal N/D curve could be used as a guide (a) to thin Teak plantations and (b) to measure and control the 'degree' [intensity] of thinning
JOURNAL ARTICLE Indian Forester 73(7): 323-9

23. Takle GG; Mujumdar RB
Increasing growth and regeneration of Teak. 1956
KW: Tectona grandis ecology; Tectona grandis regeneration; artificial natural; Tectona grandis silviculture
Abstract: Reviews the ecological status of mixed Teak forests in Madhya Pradesh, the current silvicultural methods (with special reference to thinning) and the state of natural regeneration. Some figures are given for growth and yield
JOURNAL ARTICLE Indian Forester 82(1): 8-21

24. Naidu KK
Past, present and future of planting Teak in the Andamans. 1957
KW: Choice of species; Regeneration; site preparation; Silviculture; Tectona grandis; planting
Abstract: Teak planting was abandoned some 25 years ago, but recent trials, using modern techniques, show promise. Recommended methods are careful choice of site, pre-monsoon planting preceded by clear-felling, burning, and interplanting with a crop of hill paddy
JOURNAL ARTICLE Indian Forester 83(9): 539-45

25. **Recommendations of the all-India Teak study tour and symposium, December 1957-January 1958. 1958**
KW: Silviculture; Tectona grandis; silviculture; general
Abstract: Recommendations are made for the regeneration, tending and management of the different types of Teak forest and plantation. The full proceedings of the symposium are to be published separately
JOURNAL ARTICLE Indian Forester 84(10): 593-602

26. Seth SK; Khan MAW
Regeneration of Teak forests. 1958
KW: Silviculture; Tectona grandis; regeneration
Abstract: Forests of the Teak zone of India are described. Champion's types of Teak forest are discussed and proposals made for a revised classification of types, to meet the requirements of intensive management practices at present followed. Factors controlling the occurrence and development of regeneration are detailed and proposals are made for future research to solve the problems of natural and artificial regeneration in the Teak zone of India. Authors' summary
JOURNAL ARTICLE Indian Forester 84(8): 455-66

Fig. 7 Search and Display: Detailed

CONCLUSION

The purpose and objective of this project derives from a simple question: “What is the use of storing the documents unless its contents are fetched and used”. The index to KFRI back volume collections is created and uploaded for online search to serve this purpose. A searchable CD of the index to nearly 50,000 scientific articles in the back volumes is also prepared.

Getting the contents of all the back volumes in a single click is a rare attempt among Indian libraries. Many inside and outside users are extensively using this information system for their research purpose and the attempt is greatly appreciated. We expect more use of this valuable resource in future.

Appendix i

HOW TO USE THE CD

The CD should auto start in PCs so configured. The back volume index can be searched from CD or from a folder in PC Hard disk. When invoked KFRI.EXE a splash screen followed by the search dialogue will appear.

Queries may be made in Google fashion. The user can fill in one or more keywords. Space between the queries words are treated as Boolean AND. 'Teak Propagation' gives those articles dealing with Propagation of Teak. (Fig.8)

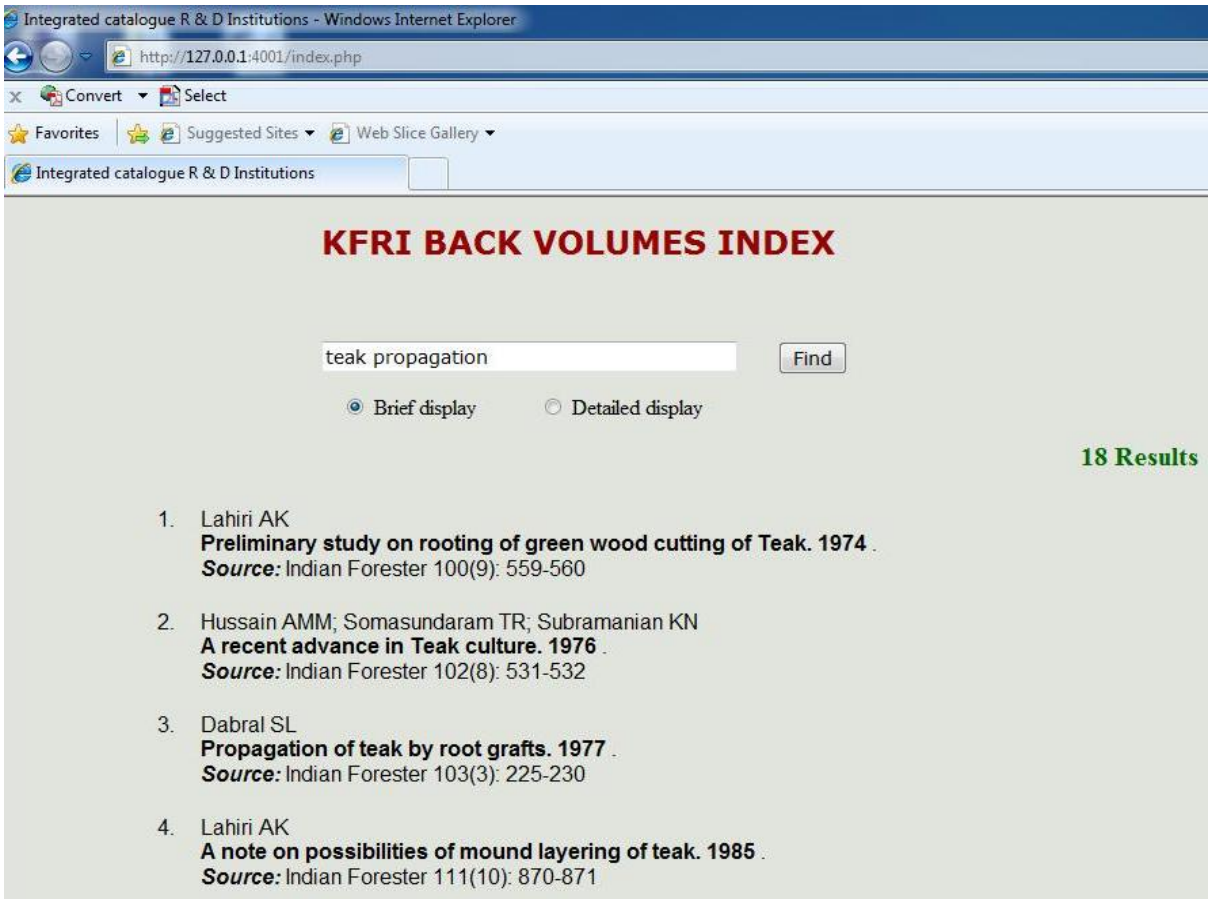

Fig. 8 Search and Display

INDIAN FORESTER

1(3)	26(4)	33(1)	39(9)	46(4)	53(11)	60(11)	68(8)	76(1)	82(12)	91(4)	103-4	109-11	116-6	123-1
1(4)	26(5)	33(2)	39(10)	46(5)	53(12)	60(12)	68(9)	76(2)	83(1)	91(5)	103-5	109-12	116-7	123-2
2(1)	26(6)	33(3)	39(11)	46(6)	54(1)	61(1)	68(10)	76(3)	83(2)	91(6)	103-6	110-1	116-8	123-3
2(2)	26(7)	33(4)	39(12)	46(7)	54(2)	61(2)	68(11)	76(4)	83(3)	92(1)	103-7	110-2	116-9	123-4
20(2)	26(8)	33(5)	40(1)	46(8)	54(3)	61(3)	69(1)	76(5)	83(4)	92(2)	103-8	110-3	116-10	123-5
20(3)	26(9)	33(6)	40(2)	46(9)	54(4)	61(4)	69(2)	76(6)	83(5)	92(3)	103-9	110-4	116-11	123-6
20(4)	26(10)	33(7)	40(3)	46(10)	54(5)	61(5)	69(3)	76(7)	83(6)	92(4)	103-10	110-5	116-12	123-7
20(5)	26(11)	33(8)	40(4)	46(11)	54(6)	61(6)	69(4)	76(8)	83(7)	92(5)	103-11	110-6	117-1	123-8
20(6)	26(12)	33(9)	40(5)	46(12)	54(7)	61(7)	69(5)	76(9)	83(8)	92(6)	103-12	110-7	117-2	123-9
20(7)	27(1)	33(10)	40(6)	48(1)	54(8)	61(8)	69(6)	76(10)	83(9)	92(7)	104-1	110-8	117-3	123-10
20(8)	27(2)	33(12)	40(7)	48(2)	54(9)	61(9)	69(7)	76(11)	83(10)	92(8)	104-2	110-9	117-4	123-11
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20(11)	27(6)	34(4)	40(11)	48(6)	55(1)	62(1)	69(11)	77(3)	84(2)	92(12)	104-6	111-1	117-8	124-3
20(12)	27(7)	34(5)	40(12)	48(7)	55(2)	62(2)	69(12)	77(4)	84(3)	97-7	104-7	111-2	117-9	124-4
21(1)	27(8)	34(6)	41(1)	48(8)	55(3)	62(3)	70(1)	77(5)	84(4)	98-1	104-8	111-3	117-10	124-5
21(2)	27(9)	34(7)	41(2)	48(9)	55(4)	62(4)	70(2)	77(6)	84(5)	98-2	104-9	111-4	117-11	124-6
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21(8)	28(3)	35(1)	41(8)	49(3)	55(10)	62(10)	70(11)	77(12)	86(1)	98-8	105-3	111-10	118-5	124-12
21(9)	28(4)	35(2)	41(9)	49(4)	55(11)	62(11)	70(12)	78(1)	86(2)	98-9	105-4	111-11	118-6	125-1
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22(1)	28(8)	35(6)	42(1)	49(8)	56(3)	64(3)	71(4)	78(5)	86(6)	99-1	105-8	112-3	118-10	125-5
22(2)	28(9)	35(7)	42(2)	49(9)	56(4)	64(4)	71(5)	78(6)	86(7)	99-2	105-9	112-4	118-11	125-6
22(3)	28(10)	35(8)	42(3)	49(10)	56(5)	64(5)	71(6)	78(7)	86(8)	99-3	105-9	112-5	118-12	125-7
22(4)	28(11)	35(9)	42(4)	49(11)	56(6)	64(6)	71(8)	78(8)	86(9)	99-4	105-10	112-6	119-1	125-8
22(5)	28(12)	35(10)	42(5)	49(12)	56(8)	64(7)	71(9)	78(9)	86(10)	99-5	105-11	112-7	119-2	125-9
22(6)	29(1)	35(11)	42(6)	50(1)	56(12)	64(9)	71(10)	78(10)	86(11)	99-6	105-12	112-8	119-3	125-10
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22(9)	29(4)	36(2)	42(9)	50(4)	57(3)	64(12)	72(2)	79(1)	87(2)	99-9	106-3	112-11	119-6	126-1
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23(1)	29(8)	36(6)	43(1)	50(8)	57(7)	65(4)	72(6)	79(5)	87(6)	100-1	106-7	113-3	119-10	126-5
23(2)	29(9)	36(7)	43(2)	50(9)	57(8)	65(5)	72(10)	79(6)	87(7)	100-2	106-8	113-4	119-11	126-6
23(3)	29(10)	36(8)	43(3)	50(10)	57(9)	65(6)	72(11)	79(7)	87(9)	100-3	106-9	113-5	119-12	126-7
23(4)	29(11)	36(9)	43(4)	50(11)	57(10)	65(7)	73(1)	79(8)	87(10)	100-4	106-10	113-6	120-1	126-8
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23(9)	30(4)	37(2)	43(9)	51(4)	58(3)	65(12)	73(6)	80(1)	88(3)	100-9	107-3	113-11	120-6	127-1
23(10)	30(5)	37(3)	43(10)	51(5)	58(4)	66(2)	73(7)	80(2)	88(4)	100-10	107-4	113-12	120-7	127-2
23(11)	30(6)	37(4)	43(11)	51(6)	58(5)	66(3)	73(8)	80(3)	88(5)	100-11	107-5	114-1	120-8	127-3
23(12)	30(7)	37(5)	43(12)	51(7)	58(6)	66(4)	73(9)	80(4)	88(6)	100-12	107-6	114-2	120-9	127-4
24(1)	30(8)	37(6)	44(1)	51(8)	58(7)	66(5)	73(10)	80(5)	88(7)	101-1	107-7	114-3	120-10	127-5
24(2)	30(9)	37(7)	44(2)	51(9)	58(8)	66(6)	73(11)	80(6)	88(8)	101-2	107-8	114-4	120-11	127-6
24(3)	30(10)	37(8)	44(3)	51(10)	58(9)	66(7)	73(12)	80(8)	88(9)	101-3	107-9	114-5	120-12	127-7
24(4)	30(11)	37(9)	44(4)	51(11)	58(10)	66(8)	74(1)	80(9)	88(10)	101-4	107-10	114-6	121-1	127-8
24(5)	30(12)	37(10)	44(5)	51(12)	58(11)	66(9)	74(2)	80(10)	88(11)	101-5	107-11	114-7	121-2	127-9
24(6)	31(1)	37(11)	44(6)	52(1)	58(12)	66(10)	74(3)	80(11)	88(12)	101-6	107-12	114-8	121-3	127-10
24(7)	31(4)	37(12)	44(7)	52(2)	59(1)	66(11)	74(4)	81(1)	89(1)	101-7	108-1	114-9	121-4	127-11
24(8)	31(5)	38(1)	44(8)	52(3)	59(2)	66(12)	74(5)	81(2)	89(2)	101-8	108-2	114-10	121-5	127-12
24(9)	31(6)	38(2)	44(9)	52(4)	59(3)	67(1)	74(6)	81(5)	89(3)	101-9	108-3	114-11	121-6	128-1
24(10)	31(7)	38(3)	44(10)	52(5)	59(4)	67(2)	74(7)	81(6)	89(4)	101-10	108-4	114-12	121-7	128-2
24(11)	31(8)	38(4)	44(11)	52(6)	59(5)	67(3)	74(8)	81(7)	89(5)	101-11	108-5	115-1	121-8	128-3
24(12)	31(9)	38(5)	44(12)	52(7)	59(6)	67(4)	74(9)	81(8)	89(6)	101-12	108-6	115-2	121-9	128-4
25(1)	31(10)	38(6)	45(1)	52(8)	59(7)	67(5)	74(10)	81(9)	89(7)	102-1	108-7	115-3	121-10	128-5
25(2)	31(11)	38(7)	45(2)	52(9)	59(8)	67(6)	74(11)	81(10)	89(8)	102-2	108-8	115-4	121-11	128-6
25(3)	31(12)	38(8)	45(3)	52(10)	59(9)	67(7)	74(12)	81(11)	89(9)	102-3	108-9	115-5	121-12	128-7
25(4)	32(1)	38(9)	45(4)	52(11)	59(10)	67(8)	75(1)	81(12)	89(10)	102-4	108-10	115-6	122-1	128-8
25(5)	32(2)	38(10)	45(5)	52(12)	59(11)	67(9)	75(2)	82(1)	89(11)	102-5	108-12	115-7	122-2	128-9
25(6)	32(3)	38(11)	45(6)	53(1)	59(12)	67(10)	75(3)	82(2)	89(12)	102-6	109-1	115-8	122-3	128-10
25(7)	32(4)	38(12)	45(7)	53(2)	60(2)	67(11)	75(4)	82(3)	90(1)	102-7	109-2	115-9	122-4	128-11
25(8)	32(5)	39(1)	45(8)	53(3)	60(3)	67(12)	75(5)	82(4)	90(2)	102-8	109-3	115-10	122-5	128-12
25(9)	32(6)	39(2)	45(9)	53(4)	60(4)	68(1)	75(6)	82(5)	90(3)	102-9	109-4	115-11	122-6	129-1
25(10)	32(7)	39(3)	45(10)	53(5)	60(5)	68(2)	75(7)	82(6)	90(4)	102-10	109-5	115-12	122-7	129-2
25(11)	32(8)	39(4)	45(11)	53(6)	60(6)	68(3)	75(8)	82(7)	90(5)	102-11	109-6	116-1	122-8	129-3
25(12)	32(9)	39(5)	45(12)	53(7)	60(7)	68(4)	75(9)	82(8)	90(6)	102-12	109-7	116-2	122-9	129-4
26(1)	32(10)	39(6)	46(1)	53(8)	60(8)	68(5)	75(10)	82(9)	91(1)	103-1	109-8	116-3	122-10	129-5
26(2)	32(11)	39(7)	46(2)	53(9)	60(9)	68(6)	75(11)	82(10)	91(2)	103-2	109-9	116-4	122-11	129-6
26(3)	32(12)	39(8)	46(3)	53(10)	60(10)	68(7)	75(12)	82(11)	91(3)	103-3	109-10	116-5	122-12	129-7

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JOURNAL OF WILDLIFE MANAGEMENT

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