

## INTERNATIONAL UNION OF FOREST RESEARCH ORGANIZATIONS AND FORESTRY LIBRARIANS

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*ABSTRACT: The International Union of Forest Research Organizations (IUFRO) is a global network whose aim is to foster cooperation among researchers in all areas of forestry and related sciences. Provided here is an overview of the IUFRO organizational structure and goals in general, and those that relate to information management in particular. Highlighted are the history and the recent accomplishments of Divisions 06.03 whose charge is centered on information services and knowledge organization within the forestry research community. Current issues facing forestry librarians are noted as is the need to take afresh look at their role within IUFRO.*

**KEYWORDS:** IUFRO, Forests and Forestry, International Librarianship, Oxford Forestry Information Service, Global Forest Decimal Classification.

### Introduction

"Trying to describe the Canadian forest is like trying to describe the sea.  
You see it but you can't hold it with a look;  
You admire it even as you fear it;  
It seems the same, but is constantly changing;  
It's quiet on the surface, but ready to burst into a torrent of flames.  
It is vast, diverse, living and working." <sup>1</sup>

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<sup>1</sup> Taken from *The State of Canada's Forests 2001-2002*

For a librarian, the International Union of Forest Research Organizations (IUFRO) bears some resemblance to the forest as described above. It is a vast organization which serves to connect researchers from opposite sides of the world who are working on common research problems. Its changing scope and organization has provided catalogers with challenges for several decades. From its earliest years, it has also acknowledged the importance of organizing research information about forests and forestry for the future.

The intent of this paper is to give an overview of the larger IUFRO organization but concentrate on IUFRO Division 6.03 and its sub-divisions which center on information services and knowledge organization. Also presented are some of the issues facing forestry librarians and the possible limitations of IUFRO as a vehicle for addressing these issues.

### **IUFRO Today:**

IUFRO is a global network for forest science cooperation. While other international organizations are involved in forest research including the Centre for International Forestry Research (CIFOR) and the World Agroforestry Centre (formerly the International Centre for Research in Agroforestry), IUFRO is the only organization that attempts to bring together research organizations, universities and individual scientists from throughout the world to address research questions and share new research findings. As such, IUFRO unites more than 15,000 scientists in almost 700 member organizations in more than 110 countries. It is a non-profit, non-governmental organization, open to all individuals and organizations dedicated to forests and forest products research and related disciplines.

Founded in 1892, it has a long history of promoting international forest science cooperation though it is important to note that cooperation within IUFRO is strictly voluntary. The IUFRO vision for the world's forests is that they will be managed in a sustainable manner for economic, environmental and social benefits. Inspired by this vision, IUFRO works towards achieving its mission which is to promote global cooperation in forest-related research and to enhance our understanding of the ecological, economic and social aspects of forests and trees as well as to disseminate scientific knowledge to stakeholders and decision-makers so as to contribute to forest policy and on-the ground forest management.

In pursuing its mission, IUFRO has identified three strategic goals and related objectives for the period 2006-2010:

- To strengthen research for the benefit of forests and people by addressing changing research needs; promoting quality research and strengthening the administrative, financial and legal foundations
- To expand strategic partnerships and cooperation by enhancing interdisciplinary cooperation; expanding partnerships and collaboration and strengthening cooperation within and between regions

- To strengthen communication and links within the scientific community and with students as well as with policy makers and society at large by enhancing communication within the scientific community and increasing interest and involvement of students in forest science; strengthening links between science and policy and by increasing public awareness about forest science

The scientific activities of IUFRO members is spread over eight permanent "divisions" each covering key forest research fields:

1. Silviculture
2. Physiology and Genetics
3. Forest Operations Engineering and Management
4. Forest Assessment, Modelling and Management
5. Forest Products
6. Social, Economic, Information and Policy Sciences
7. Forest Health
8. Forest Environment

The main function of these divisions is to support researchers in their collaborative work and to provide an organizational link among "research groups" and "working parties." This thematic structure brings together researchers who have a similar interest but work under different economic, political and environmental conditions. In total, there are about 280 research groups and working parties each addressing specific topics.

"Task forces" are established on a temporary basis for inter-disciplinary cooperation in inter-divisional forest research fields. Currently these include:

- Communicating Forest Science
- Endangered Species and Nature Conservation
- Forests and Carbon Sequestration
- Forests and Genetically Modified Trees
- Forests and Human Well-Being
- Forests and Water Interactions
- Forest Science-Policy Interface
- Illegal Logging and FLEGT
- Traditional Forest Knowledge

The aim of each task force is to strengthen IUFRO activities in a specific area.

"Special programmes" and "special projects" provide services that support the science collaboration in IUFRO. A special programme is a long-term activity with the aim of improving networks, research capacities and/or information exchange. Special projects are short term activities with specific objectives. Programmes and projects currently in process include the IUFRO Special Programme for Developing Countries, the SilvaVoc Terminology Project, the IUFRO Special Project on World Forests, Society and Environment, and of particular importance to librarians looking for forestry information, the Global Forest Information Service (GFIS).

GFIS is an initiative of the Collaborative Partnership on Forests (CPF) and is hosted by the FAO at: <http://www.gfis.net/gfis/>. The GFIS gateway provides access to catalogued information resources through metadata harvesting. It is a partnership of information providers and it provides an open exchange standard for its information categories. The standard is based on the Dublin Core Metadata Initiative (DMCI) and on AGRIS (FAO) metadata schemas. The website provides full documentation on the information exchange standard, as well as a control panel where partners manage their contribution details. Browsing and metadata search facilities allow the user to locate forest related information through a single entry point. Resources that can be located via GFIS include maps, datasets, web resources, as well as traditional print documents relevant to their forest information needs. GFIS also maintains and publishes a database of partner information services, as well as a Google-based search tool.

The interested researcher within IUFRO member organizations has access to a global network of forest research and related sciences. Member organizations receive documentation from the IUFRO Secretariat including an electronic newsletter, annual report, World Forestry Congress proceedings and brochures. Membership guarantees unrestricted access to the IUFRO website ([www.iufro.org](http://www.iufro.org)) via membership login and access to information on the IUFRO World Congress, Projects and Programmes, on-line databases and online publications. Member organizations may add a link to their homepage on the IUFRO website and individuals associated with member organizations may represent IUFRO at regional, national and international forums.

### **The Role of Librarians and Information Specialists in IUFRO**

A simple look at the IUFRO website (<http://www.iufro.org/>) hides the extent of specialization discussed above. Take a deeper look at Division 6 (<http://www.iufro.org/science/divisions/division-6/>), which is devoted to Social, Economic, Information and Policy Sciences and you get a sense of the overall structure and level of specialization that runs throughout IUFRO. Within Division 06, Section 03 is devoted to "information services and knowledge organization." This seemingly small portion of IUFRO has an impressive history related to the dissemination of forestry information in the twentieth century.

In order to appreciate this history, let us go back in time 100 years. The then, "Association" of Forestry Research Organizations, is just over 10 years old. At its third meeting, attendees observe the need to compile a bibliography of past and current forestry research.

In 1906, at the fourth meeting, the International Committee on Forest Bibliography is formed. It is also decided that the system used to organize this bibliography should be Dewey based and that this ongoing activity needs a permanent home or secretariat.

By 1908, this secretariat is authorized and set to be located at the Swiss Federal Institute of Forest Research at Birmensdorff. The decision is made to take subscriptions in order to maintain a current bibliography in the form of a quarterly magazine and also, to compile and publish references to the literature back to 1750 in book form.

Unfortunately the First World War puts a stop to this activity. Discussions do not resume until 1922 by which time the subscription funds have suffered from inflation and are gone. Without funds, the future of a permanent secretariat in Switzerland is in question. But soon, R. S. Troup a professor of forestry at Oxford University takes over as Chair of the Bibliographical committee. This move of the committee chair to Oxford begins a more or less permanent connection between Oxford and what is now known as Division 06.03.

Professor Troup sees the need to create an extended version of the Dewey Classification Scheme to aid in organizing material in a forestry specific bibliographic clearinghouse. Thanks to the work of Philipp Flury (Birmensdorff), who is serving as secretary of the Bibliographical Committee, the Forest Bibliography takes shape. In 1933, it is published in German, the language of forest research at the time. Three years later it is translated into French and English. It is widely referred to as the "Flury system" and authors are encouraged to add "Flury" numbers as keywords to their articles. At Oxford, the Flury system is immediately adopted by Professor Troup to organize references in the Current Monthly Record and in library catalog.

As the system grows and more material is amassed, maintenance of these services proves too much for only 1.5 staff. In response, with the full support of IUFRO, Oxford invites, the abstracting organization, the Imperial Agriculture Bureaux (now CAB), to form a new bureau for Forestry at Oxford. Their offer is accepted in 1938. This allows the Oxford Forestry Institute Library to continue as an archive and clearinghouse while the Imperial Forestry Bureau provides full indexing for each item received.

In 1939, as the Second World War begins, so does the publication of Forestry Abstracts taking the place of the Current Monthly Record but continuing to serve the original goal of the Bibliographical committee. The Second World War also marks the end for any effort by IUFRO to create a separate secretariat, for its bibliographic endeavors.

After WWII, with the IUFRO clearinghouse role falling by default to the Oxford Forestry Institute Library (OFI) in collaboration with the Imperial (later the Commonwealth) Forestry Bureau, an extensive library of international forestry material is amassed there. Today the OFI library receives over 2000 current forestry serials of which some 1900 are donated. This strong collection is due, at least in part, OFI's historical connection to early researchers via IUFRO.

In 1949, the bibliographical committee is revived as the Joint FAO/IUFRO Committee on Forest Bibliography and becomes IUFRO Section 01. Soon after, the Oxford System of Decimal Classification for Forestry is finalized. This extensive revision of the "Flury" system is published by CAB in 1953 and is adopted by both IUFRO and the FAO. Later, the Joint Committee takes on the publication of a multilingual terminology which is completed in 1971 and published by the Society of American Foresters.

By 1972, IUFRO is again restructuring, an activity that has made it a nemesis of catalogers and serial librarians. The Joint Committee, IUFRO Section 01, becomes Section 6.03 covering "information systems and terminology." A much needed revision of the Oxford Decimal Classification for Forestry is undertaken in 1981 by S6.03. It is published in 1990 and the word "oxford" is dropped from its title. Since then, the primary changes within Section 06.03 have been the addition of four sub-divisions in 1995 and, an effort to have the division names more accurately reflect current needs and words like networks, services, and knowledge organization are added to those of longtime "products" like terminology and classification.

### **IUFRO Section 06.03 today:**

Many recent activities have served to further the current goals of Section 06.03 which are listed below:

- to create networks among information professionals
- to coordinate efforts in the field of information services
- to contribute to the organization of knowledge through terminology, classification and indexing
- to evaluate and introduce latest technologies in communication and information services
- to strengthen the geographical diversity of information exchange, partly through partnerships

In 2002, Division 06.03.01, led by Carol Green, initiated the formation of an online International Directory of Forest Information Services available at <http://iufro.andornot.com/> and hosted by ANDORNOT Inc. on behalf of IUFRO. The only other international directory of forestry libraries at that time was compiled by Peter Evans and published by the US Forest Service in 1982 with revisions in 1987 and 1991. Carol solicited five volunteers to serve as regional coordinators. They helped encourage people to add information about themselves and their collections to the directory. In the future, these regional coordinators could also be used to facilitate the updating of these entries. As of 2004, there were 130 collections registered, including several IAMSLIC members

Issues of terminology have been a concern of IUFRO since the late 1960's. More recently, Section 06.03.02 has promoted what it calls "terminological awareness" by maintaining an online Directory of Experts who will answer questions related to terminology by email, phone or fax. This section also holds electronic conferences to inventory the extent of divergence for selected concepts such as old-growth, reforestation, and forest health and contributes terminology to the SilvaTerm Database one of the SilvaVoc Project initiatives.

Division 06.03.03, led by Barbara Holder, has the most long-lived effort - the maintenance of the classification schema for forestry now called the Global Forest Decimal Classification (GFDC). The most recent update of this schema was completed in late 2005, and published in spring of 2006 as No. 19 of the IUFRO World [publication] Series. The GFDC serves as the official Universal Decimal Classification expansion for 630, or forestry. Published first in English and German, French and Spanish translations are in process. Updating the GFDC is a collaborative process. An online toolkit is available (<http://iufro.andornot.com/GFDCToolkit.aspx>) for suggesting new concepts and sharing editing suggestions. The toolkit is hosted by Andornot Inc. on behalf of IUFRO.

Section 06.03.04 defines itself regionally to include Latin American and the Caribbean and maintains an active network of contacts via regional meetings. While to date, IUFRO has been structured by subject to serve researchers, this regionally focused subdivision may provide a needed precedent for librarians in IUFRO in the future.

### **Communication within Division 06.03:**

Coordinators of 06.03 sections have planned two international conferences during the past 4 years - both joint efforts. The first centered on issues of Interoperability and was planned with the computer and data keeping arm of IUFRO, Division 04.03.03. The second was the centennial celebration for the Oxford Forestry Institute. E-mail and web-conferencing served as the primary means for organizing these meetings. But coordinators of the division and its sub-divisions also try to meet in person annually in conjunction with some conference of mutual interest. In the North American Pacific Northwest, the annual Pacific Northwest Forestry Librarians Meeting has served as a convenient venue to keep up with IUFRO 06.03 division activities and to share concerns about the issues facing forestry librarians.

### **Issues of concern today:**

Issues facing forestry librarians are in many respects common to subject specialists and special librarians in other fields as well. First, there is the growing loss of expertise and institutional memory as specialized forestry collections decline in number or are subsumed within larger collections due to funding constraints and lack of space. Though it has a semi-autonomous web presence as the Oxford Forestry Information Service, even the Oxford Forestry Institute Library no longer stands alone but is part of the Oxford Biological Sciences Library. Likewise there is a growing loss of "forestry librarians" (at least at academic institutions) as the need to serve interdisciplinary institutional goals broadens their subject focus and position descriptions to include, for example, the "natural resources."

As more is available electronically the day-to-day visibility of historical collections declines. Somewhat ironically, even as references to discrete items within these older collections increases as a result of access to online bibliographies, that interest in the "tree," as it were, can serve to hide the information "forest" that surrounds it. As a result, the perceived relevance of sustaining the "library" as an information resource comes into question. Finally there is the burgeoning issue facing many librarians of locating, archiving, and providing a permanent home for research findings that are borne digital but housed very locally.

Whether IUFRO 06.03 is the right organization to address some of these issues is less clear than the fact that to date IUFRO has demonstrated a solid history of concern for the organization of forestry information globally. In the past, its success in addressing this concern resulted in large part from the prominent roles played by the Oxford Forestry Institute Library and the Commonwealth Forestry Bureau. In the last century these roles seemed to fit well with the mission of these two institutions and at a time when research findings needed to be organized centrally to be "findable," researchers in member organizations of IUFRO likely found this mediated, centralized model a better fit as well. But whether it is a model that will work in the future is the question.

#### **Future needs and the role of IUFRO in addressing these issues:**

In the future, forestry librarians currently active in IUFRO may have to create a different model, one that builds on their rich history of accomplishments but is more effective in fostering librarianship and better sharing of distributed resources. Such a model will likely require collaboration with other organizations.

To begin addressing the question of how to proceed in order to better serve the current and future needs of forestry librarians and their clientele, it seems useful to consider some of the services IUFRO is not offering currently.

In order to accomplish this, an important first step would be contacting as many forestry librarians as possible and creating a global network of forestry librarians. For this the International Directory of Forest Information Services and the Latin American and Caribbean Information Systems Network Sub-Division should prove invaluable resources. The next step might be to set up a listserv to which these librarians could subscribe.

Once the listserv is in place discussions could start concerning activities such as organizing regular meetings for these forestry libraries and establishing a Z39.50 distributed library. Likewise the issues related to collaboration with other library organizations (e.g. IAMSLIC, SLA, the Council on Botanical and Horticultural Libraries and the European Botanical Horticultural Libraries Group) could be addressed.

#### **Funding issues unique to IUFRO:**

Setting up services incurs costs and not surprisingly, lack of funds is an obvious barrier. But the structure of IUFRO offers some very specific hurdles related to funding Division 06.03 activities. The IUFRO membership fee is generally borne by the organization not the individual and it only covers the cost of running the Secretariat in Vienna which among other things organizes the World Forestry Congress on a five year cycle.

Furthermore, IUFRO Divisions cannot charge a subscription nor keep their own bank account. There are no individual 'members' as such in IUFRO and all staff of any institutional member of IUFRO may attend IUFRO group events. IUFRO tradition revolves around meetings being hosted and paid for voluntarily by the institutions organizing the meeting. While the Oxford Forestry Institute and CAB International have provided such an institutional affiliation in the past and are important collaborators, this role needs to be distributed to address global needs in the future. So finding a vehicle for even minimal funding is a challenge.

A few options come to mind as possible ways to get around the funding problem. At one extreme would be to abandon IUFRO and attempt to establish a new international forestry library organization. An alternative would be to find or establish a 'parallel' librarian group to which Division 06.03 could affiliate. Most participants in IUFRO Division 06.03 participate in other professional library organizations, though not the same groups. A variation of these two options would be the establishment of a "forestry" interest group within an existing library organization. Finally, IUFRO Division 06.03 could reorganize to include more regional divisions and push the affiliation "problem" down to a more local level.

While the solution is yet to be formulated let alone realized, the history of IUFRO does provide a certain confidence that obstacles can be overcome. Likewise, IUFRO provides a rich tradition of collaboration among forest researchers and so it is tempting to think librarians will find a way to make this organization work for their contributions to forestry as well.

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