

Between Tradition and Innovation

*IUFRO's work in forest classification
and terminology with a view to a
forest ontology*

Jarmo Saarikko and Renate Prüller

INTRODUCTION

Curious about

forest classification
forest terminology ?



PAST ACHIEVEMENTS

TERMINOLOGY WORK HAS TRADITION in IUFRO

These projects include:

- 1933 Flury International Bibliography System
- 1953 Joint IUFRO-FAO Bibliography Committee
- 1954 Oxford Decimal Classification (ODC)
for forestry (CABI)
- 1971 Terminology of Forest Science, Technology,
Practice and Products (F.C. Ford-Robertson)
- 1981 ODC revision started
- 1990 Vocabulary of Forest Management
- 1990 FDC trilingual short version
- 1992 FDC full version in German and English

cont.

PAST ACHIEVEMENTS

TERMINOLOGY WORK HAS TRADITION in IUFRO

- 2000 Forest Terminology (proceedings)
- 2000 Terminology of Forest Management
- 2003 Multilingual glossary of Forest Genetic Resources (with FAO)
- 2006 Global Forest Decimal Classification (with an online database)
- 2014 GFDC book published online
- 2017 GFDC multilingual online service (development version with additions to the Swedish and Spanish versions)

WHAT ARE WE TALKING ABOUT?

Classification

“... systematic arrangement in groups or categories according to established criteria” (Merriam-Webster)

“... system of coding, assorting and organizing (library materials) according to their subject”

WHAT ARE WE TALKING ABOUT?

Terminology

“... structured set of concepts and terms used to represent them in a specific subject field” (Wright & Budin, 1997)

“... make aware of difficulties in technical communication”

WHY ARE WE DOING IT?

variety of definitions

concepts change with time

English lingua franca ?

new terms - neologisms

... good terminologies reveal differences

MORE RECENT ACHIEVEMENTS

Global Forest Decimal Classification (GFDC)*

Main features:

- Custom designed by foresters
- Hierarchical subject divisions
- Developed over 100 years
- Classification provides language independent numeric subject hierarchy with 2752 categories and an alphabetical subject index
- GFDC is an official part of UDC
- Online GFDC (FPInnovations, Canada)

**coordinated by J. Saarikko*

International Union of Forest Research Organizations

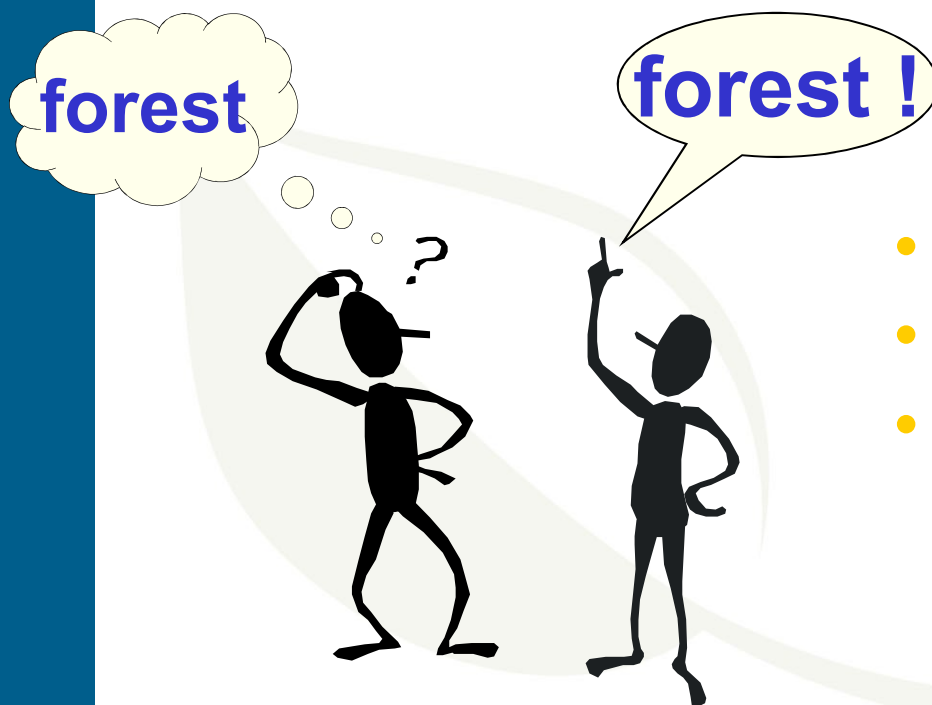
Union Internationale des
Instituts de Recherches
Forestières

Unión Internacional
de Organizaciones de
Investigación Forestal

Internationaler
Verband Forstlicher
Forschungsanstalten

SILVATERM: FACTS and FIGURES

Forest terms and definitions



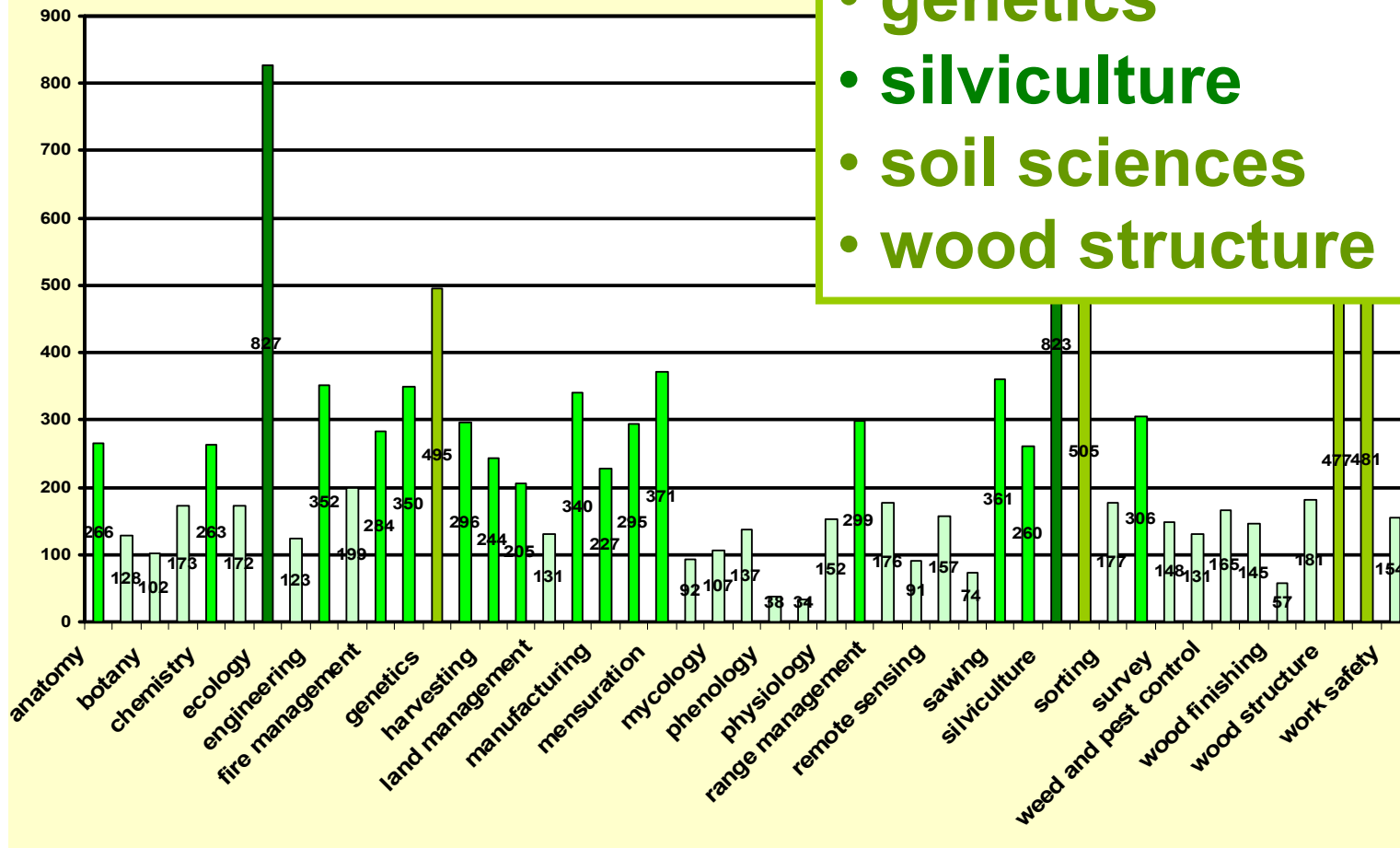
- **Designed in 1998**
- **online since 1999**
- **only database to specialize in forest**

for efficient communication

1 SILVATERM: FACTS and FIGURES

12,000 entries

- ecology
- genetics
- silviculture
- soil sciences
- wood structure



SILVATERM: FACTS and FIGURES

> 8 Languages

French	95%
Spanish	90%
German Japanese	30%
Italian Portuguese Hungarian	20%
Swahili	10%

**Other languages: Chinese;
Polish, Romanian, Swedish, Russian**



English Term:	afforestation
Short Form:	
Synonym(s):	
Definition:	The establishment of a forest, stand or tree crop on an area not previously forested, or on land from which forest cover has very long been absent.
Cross Reference:	
Note:	If on land from which trees have recently been removed it is termed reforestation.
Source:	*FR
Hyperlink:	http://f9010.ffpri-109.affrc.go.jp/forterm/http://home.att.net/~gklun/DEFpaper.html
IUFRO Unit:	4.04.07 SilvaPlan
Subject Field:	silviculture

Equivalent terms in other languages:

de:	Aufforstung
hu:	erdősítés
sp:	forestación
fr:	reboisement
pt:	reflorestamento
It:	rimboschimento
sh:	upandajimiti
...	...

WHO IS USING IT?



- Forest Scientists
- International Processes
- Decision-makers, politicians
- Students in forestry
- Translators, Interpreters
- Information managers

TOWARDS THE FUTURE

- Library classifications are **not dead**. They have a new life in ordering and searching content online.

The Universal Decimal Classification was created for information retrieval and management.

- Linking GFDC terms and categories with existing terminologies would help in developing a **forest ontology**.

WHAT ARE WE TALKING ABOUT?

Ontology

“... a machine-readable set of definitions that create [a taxonomy of] classes and subclasses and relationships between them” (WebOntology Working Group)

TOWARDS THE FUTURE

- ❖ To reorganize all the concepts included in both the SilvaTerm database and GFDC classification into a multilingual ontology with hierarchical and other relationships
- ❖ **Terminology brings the semantics and the content, the classification/thesaurus brings the structure and relationships and all mixed together with some more ingredients in a machine readable format builds up an ontology.**

Thank you for the attention

A large, light green, stylized leaf graphic is positioned behind the central text. It has a smooth, curved shape with a pointed tip and a rounded base, resembling a single leaf or a stylized 'C' shape.

International Union of Forest Research Organizations

Union Internationale des
Instituts de Recherches
Forestières

Unión Internacional
de Organizaciones de
Investigación Forestal

Internationaler
Verband Forstlicher
Forschungsanstalten