



StratiSankey

A TOOL TO EASE THE STRATIGRAPHY READINGS

Yves Vanbrabant

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Regard from a stratigraphy user

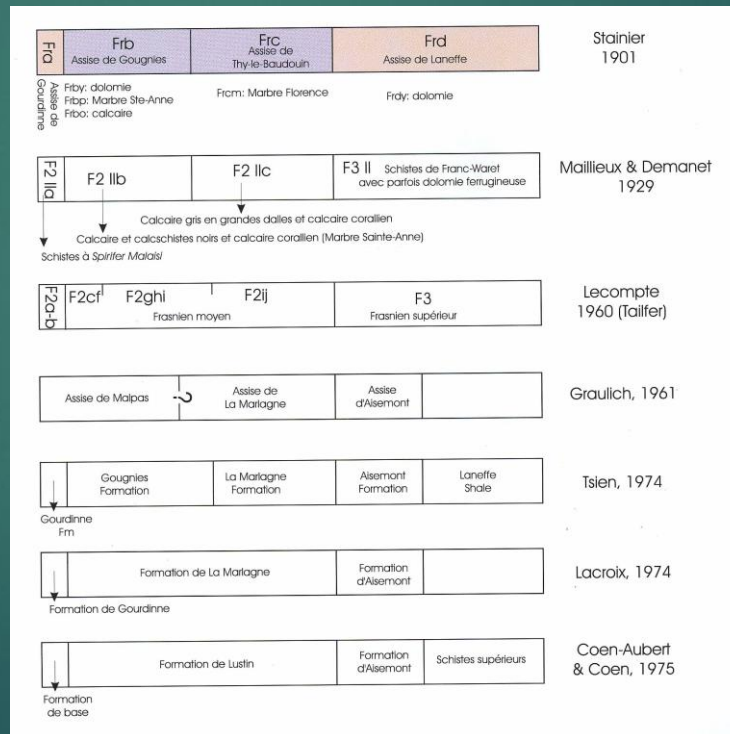
- ▶ Stratigraphy is a research topic for some researchers and it is a tool of other geologists (called here users)
- ▶ Stratigraphy for the users is frequently complex to assimilate and to refer to, since there are gaps between the current stratigraphy (NCS-website) and the one present in 'old' papers, reports,...
- ▶ As a result, some users apply an old stratigraphy (i.e. if a recent map is not available) or their production includes errors.
- ▶ Documents are available and the concept of StratiSankey project is to ease the access to the stratigraphy information
- ▶ StratiSankey concept aims to provide the references for the stratigraphy at a local scale (geol map) and for both old references and the new one;

Reference documents

FORMATIONS	FEFIN	MONDEPUS	OGNIES	SAINTHUBERT	MIRWART	VILLE	LA ROCHE	PERNELLE	PESCHIE	VIREUX	CHOOZ	HERGES	SAINT-JOSEPH
LEGENDES DE LA CARTE GEOLOGIQUE DE BELGIQUE, 1892, 1896	GEDINNEN			COBLENCIEN								BURNO-TIEN	COUVINIEN
LEGENDES DE LA CARTE GEOLOGIQUE DE BELGIQUE, 1900, 1909	COMME LEGENDES 1892, 1896			COMME LEGENDES 1892, 1896									
DE DORLOOT, H., 1901				SIEGENIEN				EMSIEN				COUVINIEN	
MAILLIEUX, E., 1910				Graulwacke, grès et psammite de Pesche et de Croupot									
MAILLIEUX E. & DEMANET, F., 1929	GEDINNEN			SIEGENIEN				EMSIEN				COUVINIEN	
MAILLIEUX, E., 1933 → 1941	COMME MAILLIEUX, E. & DEMANET, F., 1929			COMME MAILLIEUX, E. & DEMANET, F., 1929				COMME MAILLIEUX, E. & DEMANET, F., 1929					
ASSELBERGHS, E., 1946	GEDINNEN			SIEGENIEN				EMSIEN					
GODEFROID, J., 1979, 1982	Shales of Mondeputz			Formations of Anor				Formation de Pesche					
GODEFROID, J. & STANIER, P., 1982, 1989	Shales of Ognies			Formation of La Roche				Formation de Pesche					
GODEFROID, J., STANIER, P. & STREMAN, P., 1982	Shales of Ognies			Formation of La Roche				Formation de Pesche					
MEILLIEUX, F., 1984	Formation de Fépin												
CIBAJ, L., 1991, 1992								Grès de Vireux				Schistes de Chooz	

(Godefroid et al., 1994)

These documents exist, but there are scattered and even some users are lost (which reference do apply to my study zone?)



ENR FORMATION DE L'EAU NOIRE

P. BULTYNCK

- 1880 - DEWALQUE - Assise inférieure du schiste et calcaire de Couvin : schiste à *Spirifer cultrijugatus* (pro parte, seulement la partie supérieure; parties inférieure et moyenne = la Formation de Hierges et la Formation de St-Joseph).
- 1892 - Légende de la Carte géologique détaillée de la Belgique- Btb. Schistes de Bure. *Spirifer cultrijugatus* (pro parte, voir 1880).
- 1896 - Légende de la Carte géologique détaillée de la Belgique- Coa schistes, grauwacke et grès de Bure. Oligiste oolithique. *Spirifer cultrijugatus* et *Spirifer arduennensis* (pro parte, voir 1880 et remarques).
- 1912 - MAILLIEUX - Schistes calcaireux à *Spirifer cultrijugatus* pro parte : Schistes calcaireux à *Spirifer cultrijugatus*, *Spirifer elegans*, *Conocardium cuneatum*, *Rh. orbignyana* etc. (Co1b) et Calcaire schisteux à *Dielasma loxogonia*, *Retzia ? parvula* (Co1c).
- 1929 - Légende générale de la Carte géologique détaillée de la Belgique - Coa - Schistes calcaireux, grauwacke (Graulwacke de Bure). *Spirifer cultrijugatus*, *Rhynchonella (Uncinulus) orbignyana* (pro parte, seulement la partie supérieure; partie inférieure = Formation de St-Joseph).
- 1970 - BULTYNCK - Co1b + Co1c.
- 1974 - BULTYNCK et GODEFROID - Eau Noire Formation.
- 1974 - TSIEN - Bure Formation, Eau Noire Member.

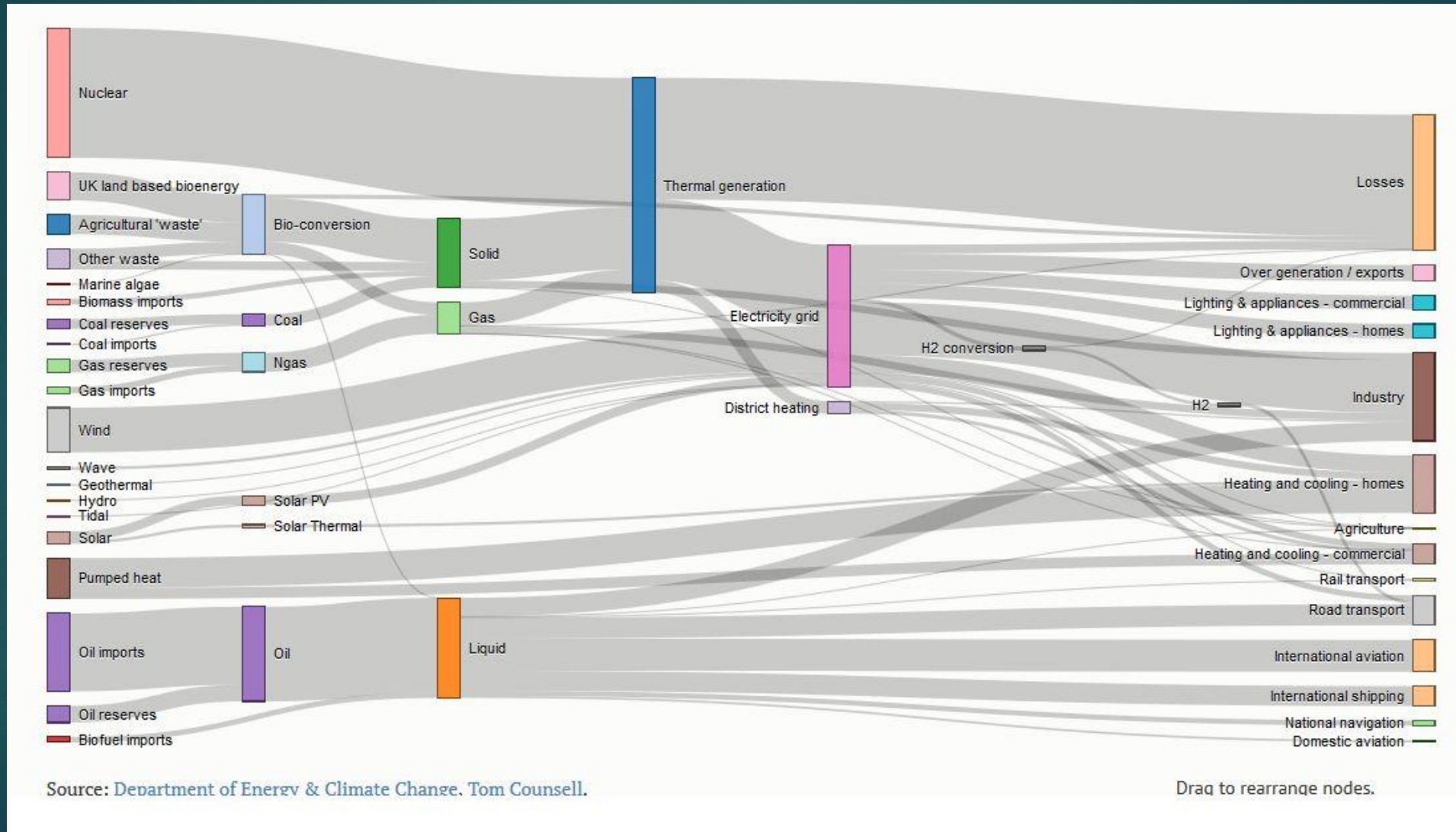
(Bultynck et al., 1991)

StratiSankey project: features

- ▶ Project is oriented towards a quick and easy reading;
- ▶ In some cases, we will need to take some shortcuts!
- ▶ The project is part of new services provided in the frame of the Geological Model of Belgium (priority axis @ GSB)
- ▶ StratiSankey concept is linked to a **PostgreSQL DB** and Sankey plots are generated automatically through a **C# software** developed in-house. End result is one **html webpage** for each geol. map
- ▶ Online: soon. Today 10 maps are done

Example of a Sankey diagram

<https://bost.ocks.org/mike/sankey/>



Demo

Chastre-Gembloux

Hannut-Montenaeken

Tavier-Esneux

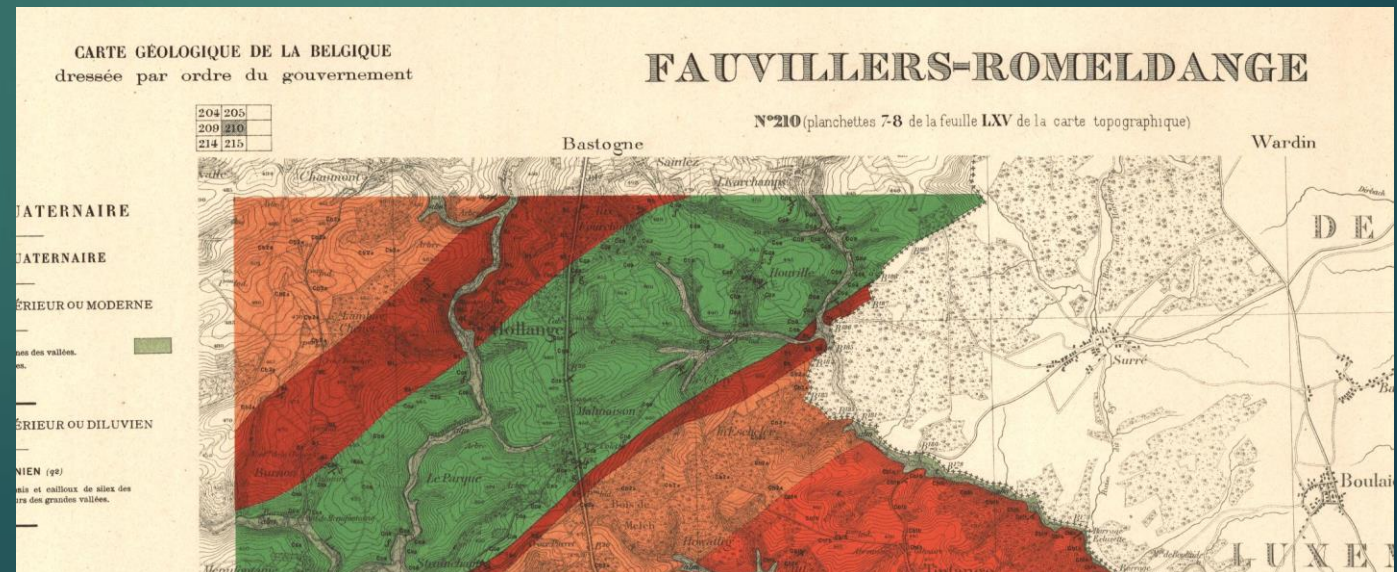
Henri-Chapelle - Raeren

Champlon – La Roche

Questions to NCS?

- ▶ Can I have the support of NCS or some of its sub-commissions to answer specific question?
 - ▶ Example: is the 3 characters unique? PER = Pernelle or Pepinster?
- ▶ More general questions? Example: how to deal with old errors?

Or which stratigraphy references apply to specific maps or in boreholes?



Chastre-Gembloux n°130 - 40/5-6

Mourlon et al., 1893

Delcambre et al., 2002

AMO
BXL
LON

FLL

BGP

BRT

HM

BNV

ITT

RIG

TRO

ADV

CHV

MST

TUB

BLM

alm
B
Cp2

SI2a

SI1b

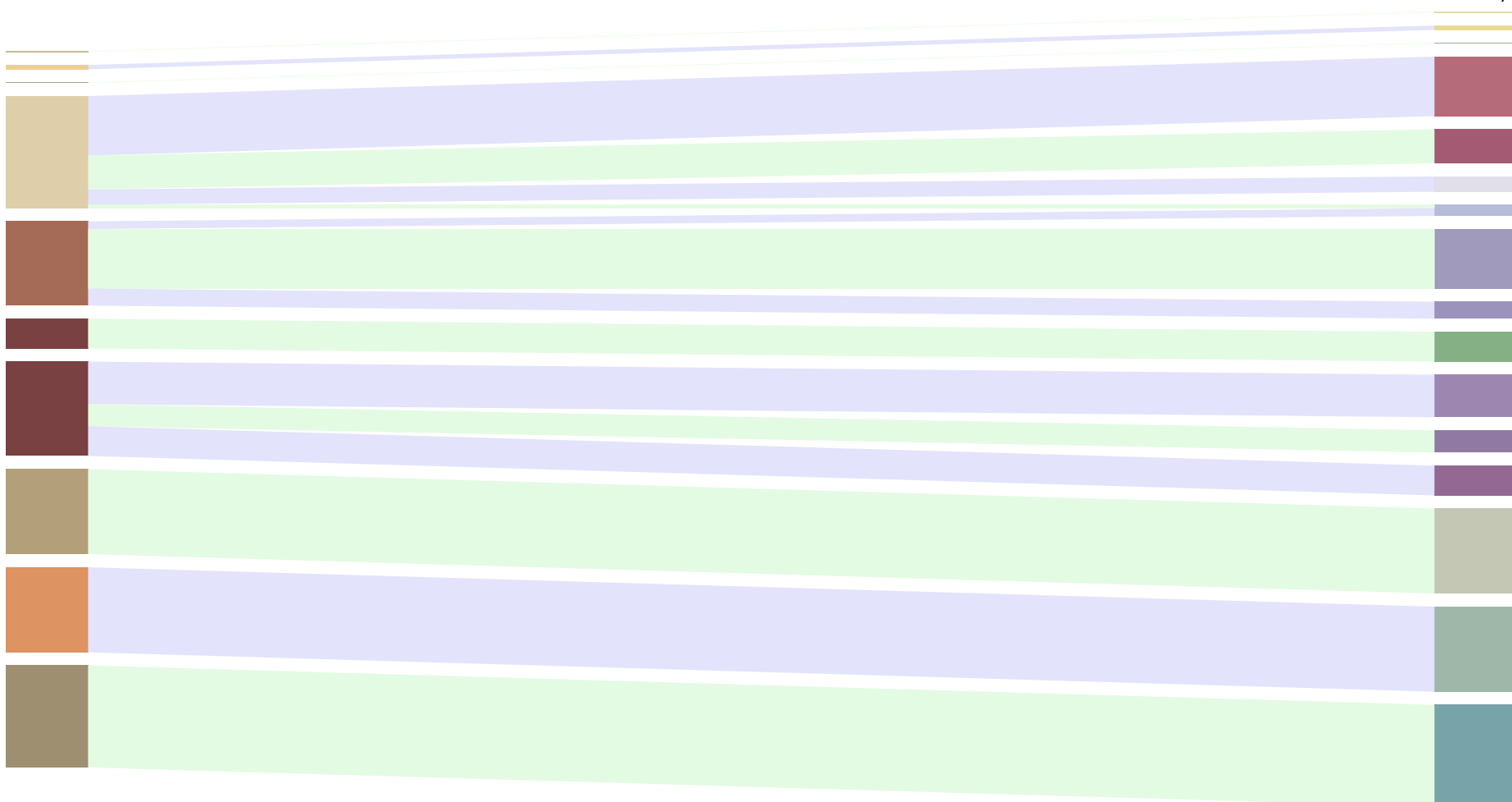
SI1a2

SI1a1

Rv

Dv2

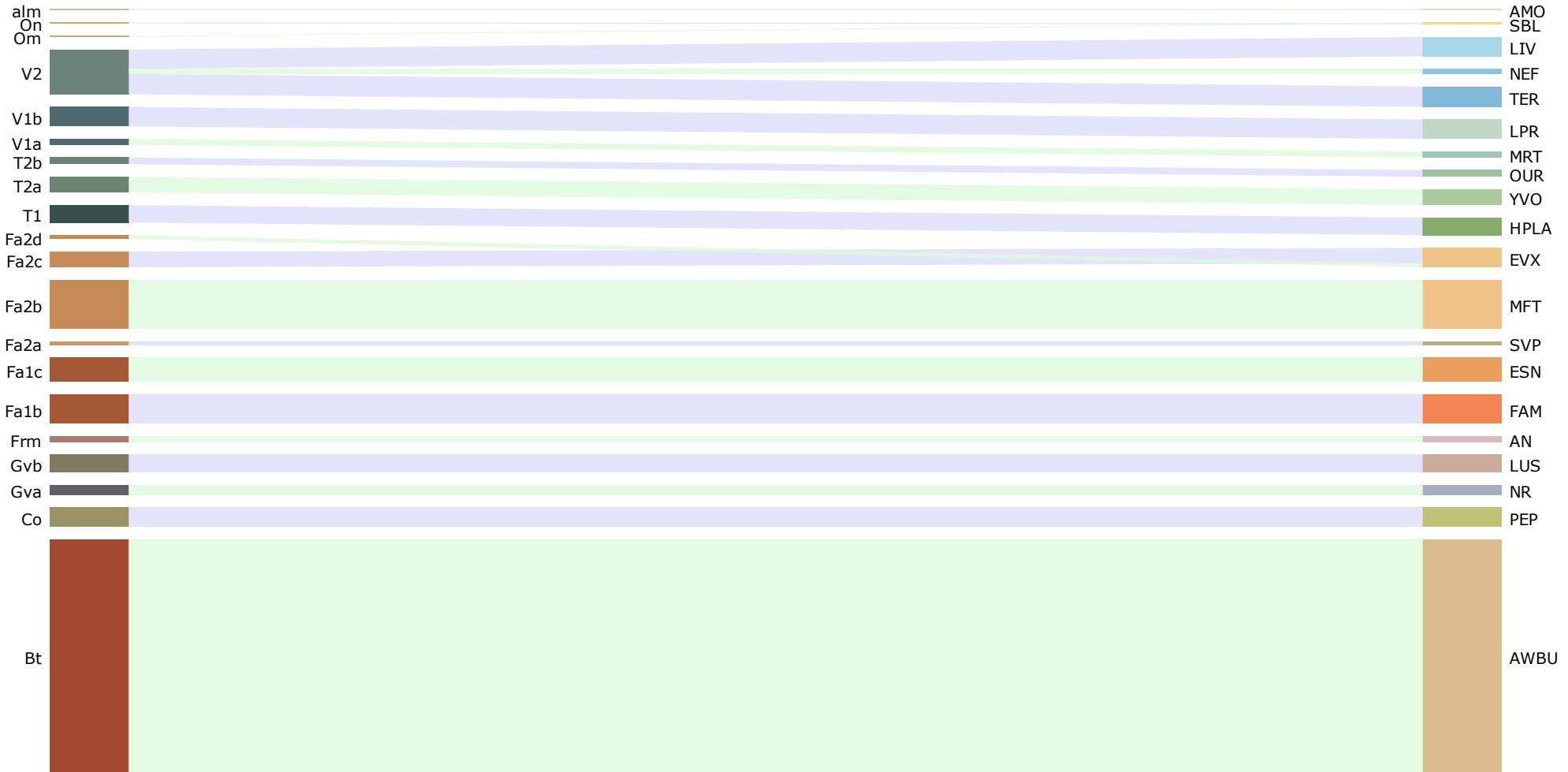
Dv1



Tavier-Esneux n°147 - 49/1-2

Lohest, 1896

Bellière et Marion, 2015



Champlon-LaRoche n°187 - 60/1-2

