

Chapter 1

Data Exploration

1.1 EU-Forest Dataset

EU-Forest is a dataset containing tree species and genera for nearly 250,000 plots across Europe Mauri et al. (2017). Each plot is $1\text{ km} \times 1\text{ km}$ and may contain multiple tree species and genera.

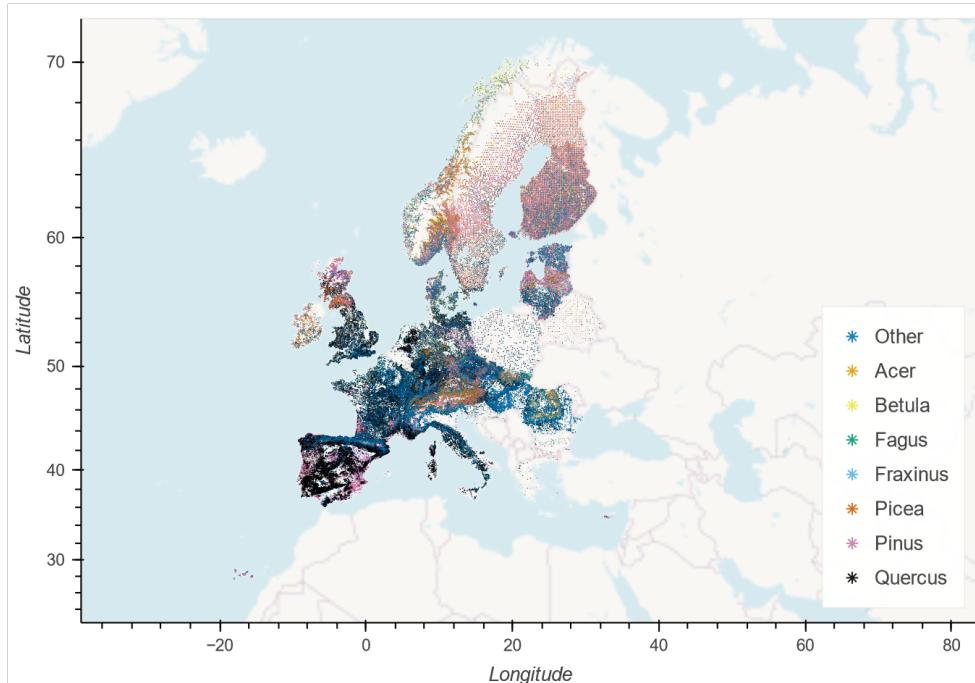


Figure 1.1: Map of the most common tree genera in EU-Forest.

Fig. 1.1 shows the distribution of tree genera in the EU-Forest dataset across 21 European countries. In this figure, the label 'Other' is an umbrella class for 70 tree genera.

In Fig. 1.2, both plots show a class imbalance. Classes with occurrences below 20 k were grouped and labeled as 'Other'.

1.2 Sentinel-2

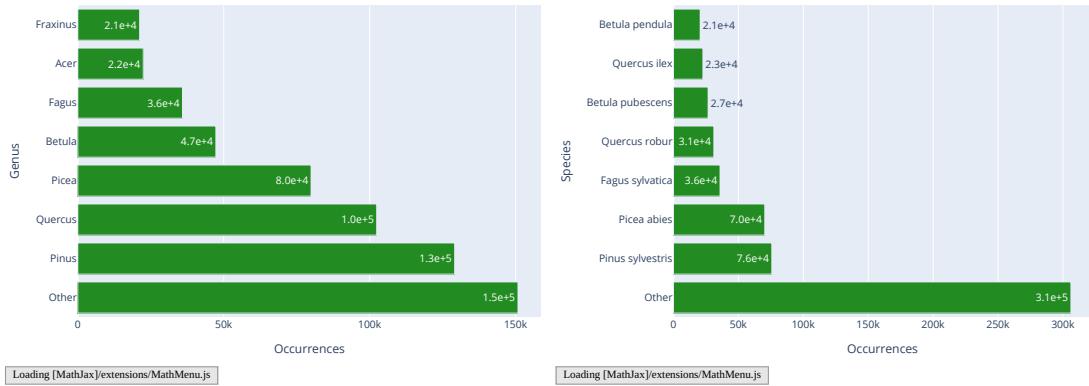


Figure 1.2: Distribution of genera (left) and species (right) in EU-Forest.

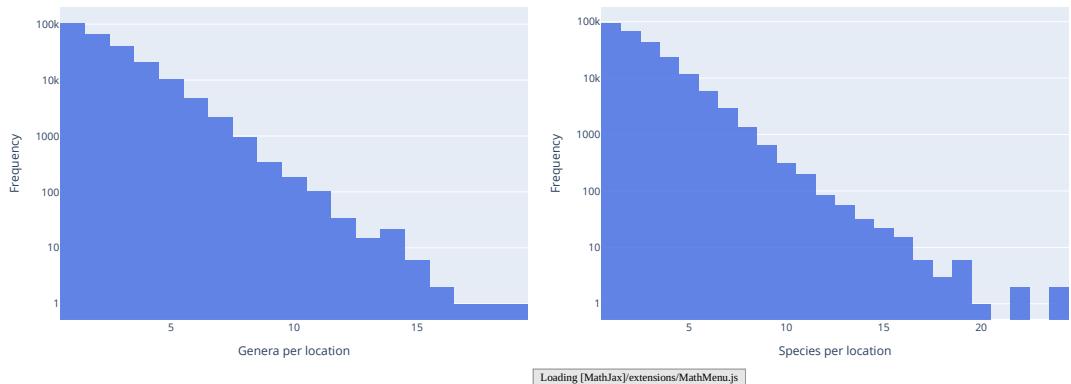


Figure 1.3: Distribution of genera (left) and species (right) per location.

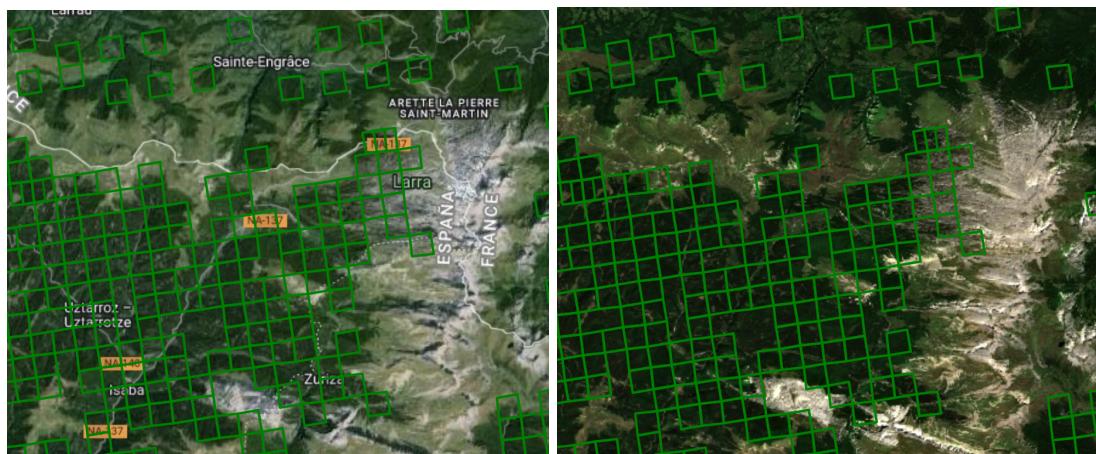


Figure 1.4: Sample locations overlayed on Google Earth (left) and Sentinel-2 (right).



Figure 1.5: Sample locations overlayed on Google Earth (left) and Sentinel-2 (right).

References

Mauri, A., Strona, G. and San-Miguel-Ayanz, J. (2017), 'EU-Forest, a high-resolution tree occurrence dataset for Europe', *Scientific Data* 4(1), 160123.