

# Data management group

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<sup>1</sup>Still dreaming

<sup>2</sup>Cat room-mate

<sup>3</sup>Dog room-mate

<sup>4</sup>Reunited with dog?

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## 1 A section

LaTeX is a fancier typesetting program. It can do almost anything and is incredibly customizable. It is open source and works similarly to Markdown: you write in a plain text file, then compile to the formatted version. I use it for my CV and for manuscripts. It is especially preferred by people with a lot of equations in their work, because it formats them well. However, it has other features that are broadly useful:

- It formats references and bibliographies.
- It is excellent for internal referencing. For example, when Figure 1 becomes Figure 2, those numbers change automatically (it can even do this with a separate supp mat file).
- It imports figures from files so that each time you compile a document it will have the freshest version of your figures.
- It makes pretty tables (theyre a bit of a pain to create but there are tricks in R).
- For me, the process matches my flow when writing. Theres a source doc that is a mess, with notes, alternative phrasings of things, etc. and also a clean compiled version that I can read without seeing all the underlying chaos.

## 2 Another section

I outlined some stuff about latex in Section 1.

### 2.1 What about references?

You can cite references pretty easily, either paranthetically [Turesson, 1922, Clausen et al., 1948] or in the text. For example, in Savolainen et al. [2007]...

### 2.2 What about equations?

Equations can be written in line, for example,  $\omega = \frac{xy+y^2}{V_S}$ , or in blocks:

$$\omega = \frac{xy + y^2}{V_S}. \tag{1}$$

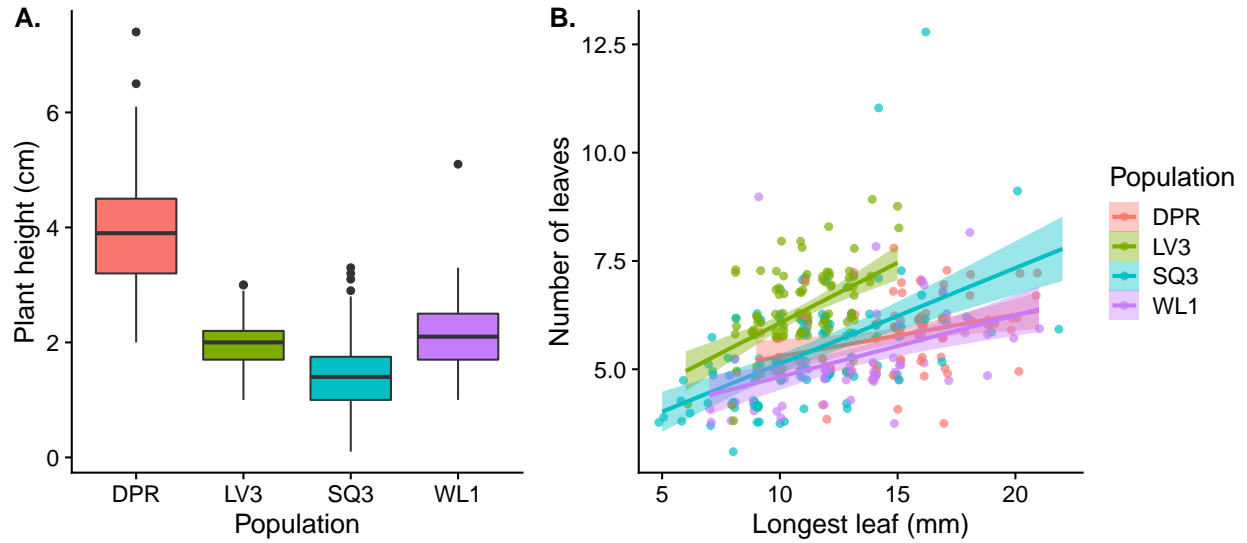
### 2.3 What about figures?

What if we include another figure? Well, they are numbered automatically and this new one is Figure 2.

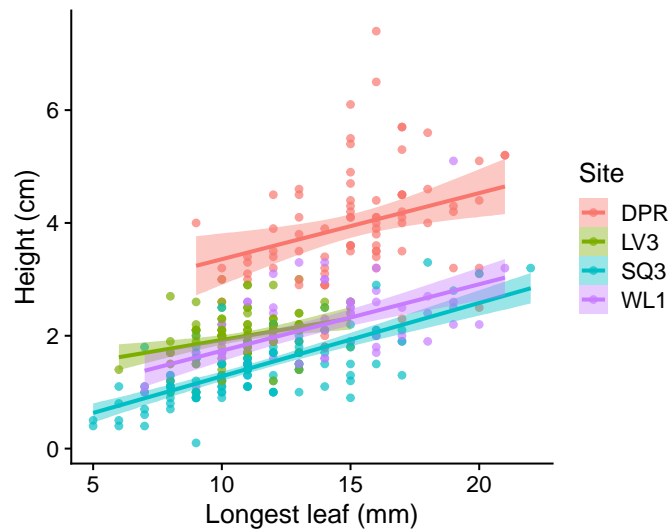
One of the really nice things about latex is that you reference figure files which get pulled into your pdf. For example, Figure 1 shows sizes for each population.

### 2.4 And tables?

Tables are a bit of a pain to make, but in addition to typing them in manually, you can use R to convert any dataframe or csv file into a text file with latex formatting, which can then be pasted in to your manuscript. An example of a simple table is in Table 1.



**Fig. 1.** A figure, which shows size by population in the vernalization experiment plants from the 10 week cohort of crossed plants.



**Fig. 2.** A figure, which shows the correlation between height and the length of the longest leaf. Each color is a different population.

**Table 1.** Studies included in our database. All studies were used in analyses of relative fitness, but only a subset of studies that included local populations in their design were included in our analyses of local adaptation.

Study	Taxon	Functional group	Number of sites	Number of sources
Abdala-Roberts and Marquis 2007	<i>Chamaecrista fasciculata</i>	annual	3	3
Adler et al. 2016	<i>Gelsemium sempervirens</i>	herb. per.	2	9
Afkhami et al. 2014	<i>Bromus laevipes</i>	herb. per.	10	6
Ågren and Schemske 2012	<i>Arabidopsis thaliana</i>	annual	2	2
Alexander 2010	<i>Lactuca serriola</i>	annual	5	10
Alexander et al. 2012	<i>Plantago lanceolata</i>	herb. per.	4	15
Andersen et al. 2008	<i>Abies guatemalensis</i>	wood. per.	2	9
Anderson et al. 2015	<i>Boechera stricta</i>	herb. per.	3	50

## References

- Göte Turesson. The species and the variety as ecological units. *Hereditas*, 3(1):100–113, 1922.
- Jens Clausen, David D Keck, and William M Heisey. Experimental studies on the nature of species III: Environmental responses of climatic races of *Achillea*, 1948.
- Outi Savolainen, Tanja Pyhäjärvi, and Timo Knürr. Gene flow and local adaptation in trees. *Annual Review of Ecology, Evolution, and Systematics*, 38:595–619, 2007.