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A very good preprint

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Abstract

Write your abstract here in a single paragraph, no line breaks. This is the abstract.

Keywords: one , two , optional , optional , optional

Introduction

This is an example of text. Note the use of {-} in headers in the code to suppress automatic header numbering. Do not forget it when you add your own custom headers and subheaders!

This realization is especially important because it can flip around our expectations about which species expand fast, and how to manage them. We tend to think of initial colonization and long-term abundance as two independent axes of variation among species or indeed as two ends of a spectrum, in the classic competition-colonization tradeoff (Levins and Culver, 1971). When both play into invasion speed, good dispersers might not outrun good competitors. This is useful knowledge, whether we want to contain an invasion or secure a reintroduction.

In their study "When higher carrying capacities lead to faster propagation", Familyname-One et al. (2019) combine mathematical analysis, Individual-Based simulations and experiments to show that various mechanisms can cause pushed fronts, whose speed increases with the carrying capacity K of the species. Rather than focus on one particular angle, the authors endeavor to demonstrate that this qualitative effect appears again and again in a variety of settings.

Methods

This is filler text. It is perhaps surprising that this notable and general connection between K and invasion speed has managed to garner so little fame in ecology. A large fraction of the literature employs the venerable Fisher-KPP reaction-diffusion model, which combines local logistic growth with linear diffusion in space. This model has prompted both considerable mathematical developments (Crooks et al., 2004) and many applications to modelling real invasions (Shigesada and Kawasaki, 1997). But it only allows pulled fronts, driven by the small populations at the edge of a species range, with a speed that depends only on their initial growth rate r.

Statistical analyses

Markdown documents can use LaTeX syntax to display equations, either inline: $y_i = x$, or as their own equation block:

$$y_i = x$$

Results

This is your Results part. Results are sometimes displayed in tables. Tables can be included in several ways. Either directly in the text using (Pandoc) Markdown syntax, as in Table 1. We can also make tables in RMarkdown, using packages such as `kable` and extensions, as in Table 2.

Table 1. This is a table

First Header	Second Header	Third Header
First row	Data	Very long data entry
Second row		*Cell*
Third row	**cell**	the last data

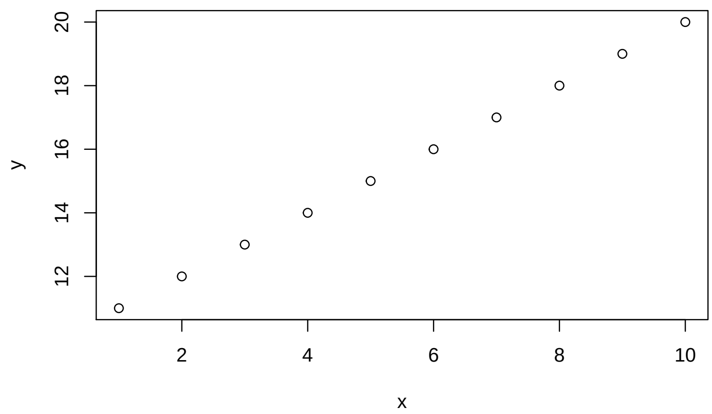

Figure 1. A good figure

Table 2. This is also a table

	mpg	cyl	disp	hp
Mazda RX4	21.0	6	160	110
Mazda RX4 Wag	21.0	6	160	110
Datsun 710	22.8	4	108	93
Hornet 4 Drive	21.4	6	258	110
Hornet Sportabout	18.7	8	360	175
Valiant	18.1	6	225	105

In both cases, note in the code where the caption is, and that tables are automatically numbered in the order of their introduction (in the `kable` table, independently of the chunk label). In Table 1, see one example of how cells can be left empty.

One can also easily add figures, either directly generated with code in-file (like Fig. 1), or imported (like Figs.2-3). There are several ways to import figures in RMarkdown; the preferred way in this template is to use `include_figures()` within a chunk. This makes in particular figure scaling much easier, and allows you to import pdf files as figures.

Figures will place themselves in order of their introduction in the code, but where there is room, so not necessarily where you placed them *relative to text*. Play with structure to obtain the effect you want.

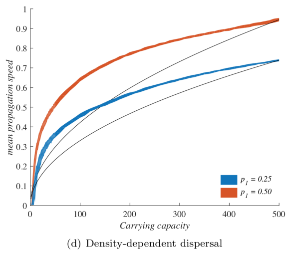

Figure 2. A great figure

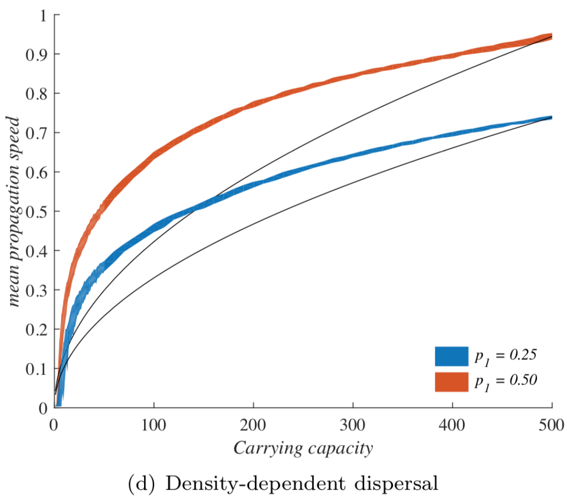

Figure 3. The best figure

Discussion

Some filler text again. It is perhaps surprising that this notable and general connection between K and invasion speed has managed to garner so little fame in ecology. A large fraction of the literature employs the venerable Fisher-KPP reaction-diffusion model, which combines local logistic growth with linear diffusion in space. This model has prompted both considerable mathematical developments (Crooks et al., 2004) and many applications to modelling real invasions (Shigesada and Kawasaki, 1997). But it only allows pulled fronts, driven by the small populations at the edge of a species range, with a speed that depends only on their initial growth rate r.

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Data accessibility

Data are available online: link and/or DOI of the webpage hosting the data

Supplementary material

Script and codes are available online: link and/or DOI of the webpage hosting the script and codes

Acknowledgements

This is where you place your Acknowledgements (may include funding sources; or that can be in its separate section).

Conflicts of interest disclosure

The authors of this preprint declare that they have no financial conflict of interest with the content of this article. XXX and XXX are recommenders for PCI XXX

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Appendix

This is your appendix 1 or the link to appendix 1
This is your appendix 2 or the link to appendix 2