#### ABMI Species Manual

ABMI Science Centre Team 2019-09-11

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#### Proposed TOC

Intro to ABMI (heavily relying on 10-yr review)

#### Data:

- Species data collection (heavily relying on 10-yr review)
- Species data manipulation (use the API and process the data)
- Describe predictor variables
- $\bullet$  Describe how predictor variables are processed (i.e. veg/HF proportions from log format attribute tables)

Species data analysis (describe the approach, point to code base when exists, again: relying on 10-yr review tech appendices):

- Modeling
- Prediction
- Stat validation

#### Outputs:

- visualizations
- maps
- API (cure4insect)

Applications (awesome things you can do with cure4insect):

- custom reporting
- custom prediction
- multi-species stuff (richness, intactness)

#### Introduction

You can label chapter and section titles using {#label} after them, e.g., we can reference Chapter 2. If you do not manually label them, there will be automatic labels anyway, e.g., Chapter 4.

Figures and tables with captions will be placed in figure and table environments, respectively.

```
par(mar = c(4, 4, .1, .1))
plot(pressure, type = 'b', pch = 19)
```

Reference a figure by its code chunk label with the fig: prefix, e.g., see Figure 2.1. Similarly, you can reference tables generated from knitr::kable(), e.g., see Table 2.1.

```
knitr::kable(
  head(iris, 20), caption = 'Here is a nice table!',
  booktabs = TRUE
)
```

You can write citations, too. For example, we are using the **bookdown** package (Xie, 2019) in this sample book, which was built on top of R Markdown and **knitr** (Xie, 2015).

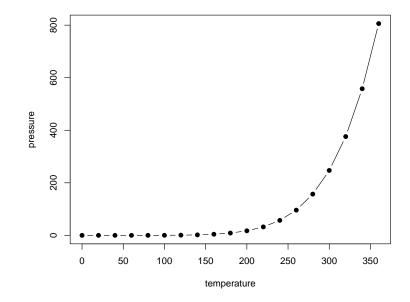


Figure 2.1: Here is a nice figure!

Table 2.1: Here is a nice table!

Sepal.Length	Sepal.Width	Here is a nice t Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	$\frac{3.0}{3.2}$	1.3	$0.2 \\ 0.2$	setosa
4.6				
	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa
4.6	3.4	1.4	0.3	setosa
5.0	3.4	1.5	0.2	setosa
4.4	2.9	1.4	0.2	setosa
4.9	3.1	1.5	0.1	setosa
5.4	3.7	1.5	0.2	setosa
4.8	3.4	1.6	0.2	setosa
4.8	3.0	1.4	0.1	setosa
4.3	3.0	1.1	0.1	setosa
5.8	4.0	1.2	0.2	setosa
5.7	4.4	1.5	0.4	setosa
5.4	3.9	1.3	0.4	setosa
5.1	3.5	1.4	0.3	setosa
5.7	3.8	1.7	0.3	setosa
5.1	3.8	1.5	0.3	setosa

## Literature

Here is a review of existing methods.

## Methods

We describe our methods in this chapter.

# **Applications**

Some significant applications are demonstrated in this chapter.

- 5.1 Example one
- 5.2 Example two

## Final Words

We have finished a nice book.

# **Bibliography**

Xie, Y. (2015). Dynamic Documents with R and knitr. Chapman and Hall/CRC, Boca Raton, Florida, 2nd edition. ISBN 978-1498716963.

Xie, Y. (2019). bookdown: Authoring Books and Technical Documents with R Markdown. R package version 0.13.2.