

# Package ‘learnrbook’

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**Type** Package

**Title** Datasets and Code Examples from P. J. Aphalo's ``Learn R'' Book

**Version** 2.0.1

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**Maintainer** Pedro J. Aphalo <pedro.aphalo@helsinki.fi>

**Description** Data, scripts and code from chunks used as examples in the book  
``Learn R: As a Language'' 1ed and 2ed by Pedro J. Aphalo.  
ISBN 9780367182533 (pbk 1ed); ISBN 9780367182557 (hbk 1ed); ISBN 9780429060342 (ebk 1ed).

**License** GPL (>= 2)

**LazyLoad** yes

**LazyData** yes

**ByteCompile** yes

**Depends** R (>= 4.0.0)

**Suggests** roxygen2 (>= 7.3.0), knitr (>= 1.46), devtools (>= 2.4.5),  
rmarkdown (>= 2.20)

**URL** <https://docs.r4photobiology.info/learnrbook/>,  
<https://github.com/aphalo/learnrbook-pkg/>

**BugReports** <https://github.com/aphalo/learnrbook-pkg/issues>

**Encoding** UTF-8

**VignetteBuilder** knitr

**RoxygenNote** 7.3.1

**NeedsCompilation** no

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**Repository** CRAN

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learnrbook-package	<i>learnrbook: Datasets and Code Examples from P. J. Aphalo's "Learn R" Book</i>
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## Description

Data, scripts and code from chunks used as examples in the book "Learn R: As a Language" 1ed and 2ed by Pedro J. Aphalo. ISBN 9780367182533 (pbk 1ed); ISBN 9780367182557 (hbk 1ed); ISBN 9780429060342 (ebk 1ed).

## Details

Package 'learnr' is a companion to the books Aphalo, P. (2020). Learn R (1ed). New York: Chapman and Hall/CRC, ISBN 9780367182533" and Aphalo, P. (2023). Learn R (2ed). New York: Chapman and Hall/CRC, ISBN 9781032516998". This package supplies a list of all the packages used in the book. It also contains all the original data sets used in the book as well as code for scripts and code chunks included in the book. Please, consult the "User Guide" under vignettes for instructions.

## Author(s)

**Maintainer:** Pedro J. Aphalo <pedro.aphalo@helsinki.fi> ([ORCID](#))

## See Also

Useful links:

- <https://docs.r4photobiology.info/learnrbook/>
- <https://github.com/aphalo/learnrbook-pkg/>
- Report bugs at <https://github.com/aphalo/learnrbook-pkg/issues>

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clean1000.df	<i>Subset of RNAseq gene expression data</i>
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**Description**

A data set containing the results from the analysis of data from RNAseq. Subset of 1000 genes.

**Usage**

clean1000.df

**Format**

A data.frame with 5 columns and 1000 row names.

**Details**

The variables are as follows:

- logFC (numeric)
- logCPM (numeric)
- LR (numeric)
- Pvalue (numeric)
- outcome (-1, 0, +1)

**Note**

A subset of size 1000 selected by random sampling,

**References**

Neha Rai et al. (2020) Plant Cell and Environment, <https://doi.org/10.1111/pce.13752>.

---

clean5000.df	<i>Subset of RNAseq gene expression data</i>
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---

**Description**

A data set containing the results from the analysis of data from RNAseq. Subset of 5000 genes.

**Usage**

clean5000.df

**Format**

A data.frame with 5 columns and 5000 row names.

**Details**

The variables are as follows:

- logFC (numeric)
- logCPM (numeric)
- LR (numeric)
- Pvalue (numeric)
- outcome (-1, 0, +1)

**Note**

A subset of size 5000 selected by random sampling,

**References**

Neha Rai et al. (2020) Plant Cell and Environment, <https://doi.org/10.1111/pce.13752>.

---

pkgs\_all\_1ed

*Packages used in book "Learn R: As a Language" (1ed)*

---

**Description**

Character vector of package names for the whole book.

**Usage**

```
pkgs_all_1ed
```

**Format**

A vector of character strings.

**Examples**

```
pkgs_all_1ed
```

---

pkgs\_all\_2ed

*Packages used in book "Learn R: As a Language" (2ed)*

---

**Description**

Character vector of package names for the whole book.

**Usage**

pkgs\_all\_2ed

**Format**

A vector of character strings.

**Examples**

pkgs\_all\_2ed

---

pkgs\_ch10\_2ed

*Packages used in ch. 10 of book "Learn R: As a Language" (2ed)*

---

**Description**

Character vector of package names for chapter 10 "Base R and Extensions: Data Sharing".

**Usage**

pkgs\_ch10\_2ed

**Format**

A vector of character strings.

**Examples**

pkgs\_ch10\_2ed

---

pkgs\_ch6\_1ed

*Packages used in ch. 6 of book "Learn R: As a Language" (1ed)*

---

**Description**

Character vector of package names for chapter 6 "New grammars of data".

**Usage**

pkgs\_ch6\_1ed

**Format**

A vector of character strings.

**Examples**

pkgs\_ch6\_1ed

---

pkgs\_ch7\_1ed

*Packages used in ch. 7 of book "Learn R: As a Language" (1ed)*

---

**Description**

Character vector of package names for chapter 7 "Grammar of graphics".

**Usage**

pkgs\_ch7\_1ed

**Format**

A vector of character strings.

**Examples**

pkgs\_ch7\_1ed

---

pkgs\_ch8\_1ed

*Packages used in ch. 8 of book "Learn R: As a Language" (1ed)*

---

**Description**

Character vector of package names for chapter 8 "Data import and export".

**Usage**

pkgs\_ch8\_1ed

**Format**

A vector of character strings.

**Examples**

pkgs\_ch8\_1ed

---

pkgs\_ch8\_2ed

*Packages used in ch. 8 of book "Learn R: As a Language" (2ed)*

---

**Description**

Character vector of package names for chapter 8 "R Extensions: Data Wrangling".

**Usage**

pkgs\_ch8\_2ed

**Format**

A vector of character strings.

**Examples**

pkgs\_ch8\_2ed

---

pkgs\_ch9\_2ed

*Packages used in ch. 9 of book "Learn R: As a Language" (2ed)*

---

**Description**

Character vector of package names for chapter 9 "R Extensions: Grammar of Graphics".

**Usage**

```
pkgs_ch9_2ed
```

**Format**

A vector of character strings.

**Examples**

```
pkgs_ch9_2ed
```

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viikki\_d29.dat

*Wind direction and speed data*

---

**Description**

A data set containing wind speed and direction measured in Viikki, Helsinki, Finland with a Vaisala Weather Transmitter WXT530 (sonic anemometer) during 2016-07-29 at 1 min interval.

**Usage**

```
viikki_d29.dat
```

**Format**

A tibble with 3 columns and 1440 rows.

**Details**

The variables are as follows:

- solar\_time (yyyy-mm-dd hh:mm:ss)
- WindDir\_D1\_WVT (degrees)
- WindSpd\_S\_WVT (m/s)

**References**

P. J. Aphalo, unpublished data.

**Examples**

```
names(viikki_d29.dat)
viikki_d29.dat
```

---

weather\_wk\_25\_2019.tb *Weather data*

---

**Description**

A data set containing weather data measured in Viikki, Helsinki, Finland. Values for all variables are means of 12 readings at 5 seconds intervals. Sun angles were computed with R package 'photobiology'.

**Usage**

```
weather_wk_25_2019.tb
```

**Format**

A tibble with 21 columns and 10080 rows.

**Details**

The variables are as follows:

- time (yyyy-mm-dd hh:mm:ss)
- PAR\_umol (umol m<sup>-2</sup> s<sup>-1</sup>)
- PAR\_diff\_fr (/1)
- global\_watt (W m<sup>-2</sup>)
- day\_of\_year
- month\_of\_year
- month\_name
- calendar\_year
- solar\_time (h)
- sun\_elevation (degrees above horizon)
- sun\_azimuth (degrees)
- was\_sunny (T/F)
- wind\_speed (m s<sup>-1</sup>)
- wind\_direction (degrees)
- air\_temperature\_C (C)
- air\_RH (
- air\_DP (C)

- air\_pressure
- red\_umol (umol m<sup>-2</sup> s<sup>-1</sup>)
- far\_red\_umol (umol m<sup>-2</sup> s<sup>-1</sup>)
- red\_far\_red (ratio)

**References**

P. J. Aphalo, unpublished data.

**Examples**

```
names(weather_wk_25_2019.tb)  
weather_wk_25_2019.tb
```

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