



## The R Project for Statistical Computing

## About R

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## R Project

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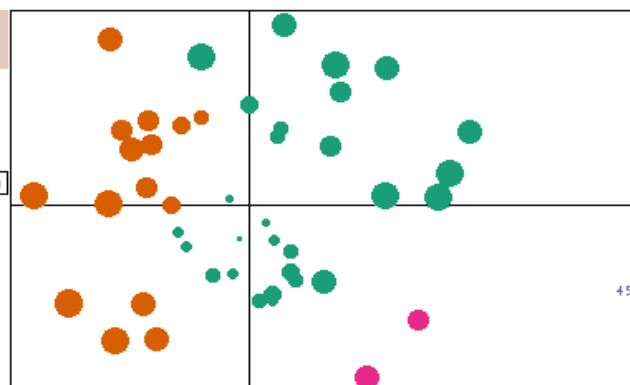
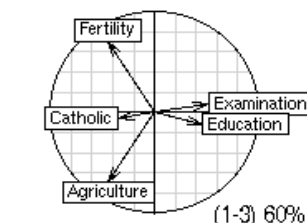
## Documentation

[Manuals](#)  
[FAQs](#)  
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[Books](#)  
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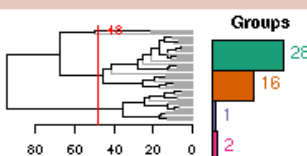
## Misc

[Bioconductor](#)  
[Related Projects](#)  
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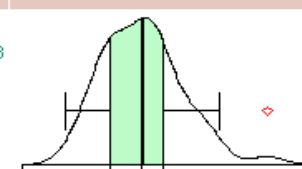
PCA 5 vars  
 princomp(x = data, cor = cor)



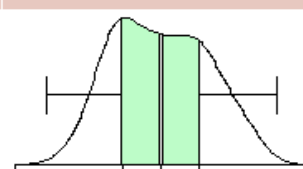
Clustering 4 groups



Factor 1 [41%]



Factor 3 [19%]



## Getting Started:

- R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. To download R, please choose your preferred [CRAN mirror](#).
- If you have questions about R like how to download and install the software, or what the license terms are, please read our [answers to frequently asked questions](#) before you send an email.

## News:

- [R 2.7.0 prerelease versions](#) are now in progress. Final release is scheduled for April 22, 2008
- [R project ideas](#) for the Google [Summer of Code 2008](#).
- [R version 2.6.2](#) has been released on 2008-02-08.
- [R News 7/3](#) has been published on 2007-12-18.
- [useR! 2008](#), the R user conference, will be held at Dortmund University, Germany, August 12-14, 2008.

This server is hosted by the [Department of Statistics and Mathematics](#) of the [WU Wien](#).

# Why R?

## PRO

- Free
- Command line
- Transparency (Lots of people look at code)
- Unconditional replication of analysis
- R can be used on most operating systems
- Publication quality graphics

## CON

- Command line
- Steep learning curve
- Some newer packages are not as well tested
- Some places still use SAS

# R in ecology

- Newer books are using R
- A stats package you can use after your graduated degree (NGO's, private consulting)
- New R in Ecology users group started yesterday
- R plays wells with others (other researchers, various software programs)

# R Resources

- Online documents- Intro to R, IcebreakR
- Websites: Quick R, StatsRus, R for ecology and epidemiology
- R help, Sig-R-ecology
- Linds Available at:  
<http://www.public.iastate.edu/~mcolvin/r.html>

# Overview

- Fancy calculator
- Object oriented command
- Built in help
- Getting data in
- Working directories
- Common data input types
- Summarizing input data
- Plotting input data
- Saving plots
- Plot formatting
- Simple regression
- AIC selection
- Export data

# Overview-continued

- Subsetting
- Packages
- Figure areas
- Questions?