

More information for the ADVANCED COURSE INTRODUCTION TO NETWORK ECOLOGY

Online databases:

The following databases have a variety of networks, including networks from ecological systems. These can be used in the case a student doesn't have its own set of ecological interactions to be analysed for the final presentation. It might also be useful for future studies.

Web of Life: <http://www.web-of-life.es/>

Interaction Web Database: <http://www.nceas.ucsb.edu/interactionweb/>

Global Biotic Interactions: <http://www.globalbioticinteractions.org>

Mangal: <http://mangal.io>

FoodWebs.org: <http://foodwebs.org/>

Resources in Complex Networks: <http://cyvision.ifsc.usp.br/cyvision/>

Network Science: <http://www.network-science.org/>

Online courses and tutorials:

Network visualisation tutorial: <http://kateto.net/network-visualization>

The R Programming Environment: <https://pt.coursera.org/learn/r-programming-environment>

Redes ecológicas Prof. Marco Mello: <https://www.coursera.org/instructor/%7E15197559>

Before the course, we strongly suggest the following readings:

Bascompte & Jordano (2006). Plant-animal mutualistic networks: the architecture of Biodiversity. *Annu. Rev. Ecol. Evol. Syst.*, 38: 567–93

Ings, T.C., Montoya, J.M., Bascompte, J., Bluthgen, N., et al. (2009) Ecological networks – beyond food webs. *Journal of Animal Ecology*, 78, 253–269.

Jordano (2016). Sampling networks of ecological interactions. *Funct. Ecol.* 30: 1883– 1893

Guimarães Jr, P. R. (The structure of ecological networks across levels of organization. *Annual Review of Ecology, Evolution and Systematics* 51: 433–60. <https://doi.org/10.1146/annurev-ecolsys-012220-12081>

Books that are part of the course literature:

Barabasi, A.-L. (2016) *Network Science*, 1st ed. Cambridge University Press, Cambridge.

Bascompte, J. & Jordano, P. (2014) *Mutualistic Networks*, 1st ed. Princeton University Press, Princeton.

Cohen, R. & Havlin, S. (2010) *Complex Networks: Structure, Robustness, and Function*. Cambridge University Press.

Dunne, J.A. & Pascual, M. (2005) *Ecological Networks: Linking Structure to Dynamics in Food Webs*, 1st ed. Oxford University Press, Oxford.

Some laboratories working with networks worldwide:

Albert-László Barabási, EUA: <http://barabasi.com>

Anna Traveset, Spain: <http://www.ibigbiology.com/team/ver.php?id=547>

Centre for Network Science, Hungria: <http://cns.ceu.edu/>

Carsten Dormann, Germany: <https://www.biom.uni-freiburg.de/mitarbeiter/dormann>

Damien Farine, Germany: <https://sites.google.com/site/drfarine/home>

Jane Memmot, UK: [https://research-information.bris.ac.uk/en/persons/jane-memmott\(f5e4be2c-143f-4e90-bb02-b3dc7b734166\).html](https://research-information.bris.ac.uk/en/persons/jane-memmott(f5e4be2c-143f-4e90-bb02-b3dc7b734166).html)
Jason Tylianakis, NZ: <https://www.tylianakislab.org/>
Jordi Bascompte, Switzerland: <http://www.bascompte.net/>
Mathias Pires, Brazil: <http://www.mathiaspires.net.br/>
Network Science Institute, EUA: <https://www.networkscienceinstitute.org>
National Centre for Ecological Analysis and Synthesis, EUA: <https://www.nceas.ucsb.edu/>
Nico Blüthgen, Alemanha: <http://www.bio.tu-darmstadt.de/ag/professuren/bluethgen/Bluethgen.en.jsp>
Paulo Guimarães Jr., Brazil: <http://www.guimaraes.bio.br/nets.html>
Pedro Jordano, Spain: <http://ebd10.ebd.csic.es/>
Wesley Dáttilo, Mexico: <http://www.wesleydattilo.org/>