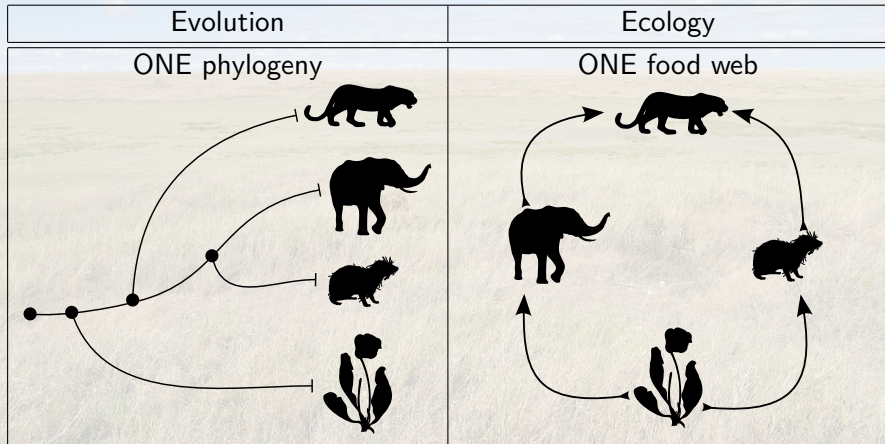


Stochasticity and Evolution in Food Webs

Giulio Dalla Riva
University of Canterbury, NZ

Granada Seminar June 16, 2015

species ARE related

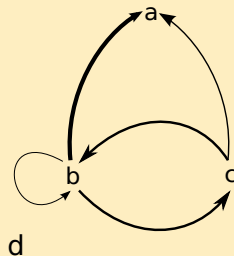
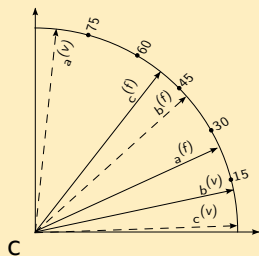
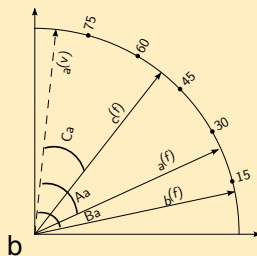
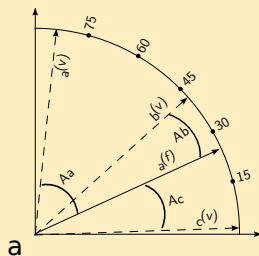


Evolution in/of Ecology

Evolution shaped the stochastic backbones of Food Webs
[Two images: Serengeti and Weddell]

Food Webs embedded

Random Dot Product Graphs



More questions (than answers)

- There is phylogenetic signal

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- ▶ There is phylogenetic signal
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- ▶ It is quite weak
- ▶ It saturates with dimensionality
- ▶ Fine wirings may be deceiving
- ▶ Evolutionary model is inadequate

(Not a) Conclusion

- Spoiler 1: Evolutionary distinctiveness vs. Web Centrality

(Not a) Conclusion

- ▶ Spoiler 1: Evolutionary distinctiveness vs. Web Centrality
- ▶ Spoiler 2: An ecological informed model of species evolution maybe it's (almost) there.

Thanks!

Joint work with Daniel B. Stouffer (University of Canterbury)

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Stouffer's & J. Tylianakis's labs; ...

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Evolution.

By the way, I'm looking for a postdoc.