



## Assembly of seed-associated microbial communities within and across successive plant generations

Submitted by Pascal Poupard on Tue, 01/16/2018 - 10:46

Titre	Assembly of seed-associated microbial communities within and across successive plant generations
Type de publication	Article de revue
Auteur	Rezki, Samir [1], Champion, Claire [2], Simoneau, Philippe [3], Jacques, Marie-Agnès [4], Shade, Ashley [5], Barret, Matthieu [6]
Editeur	Springer Verlag
Type	Article scientifique dans une revue à comité de lecture
Année	2018
Langue	Anglais
Date	Janvier 2018
Numéro	1-2
Pagination	67-79
Volume	422
Titre de la revue	Plant and Soil
ISSN	0032-079X
Mots-clés	Community assembly [7], Dispersal [8], Ecological drift [9], Heritability [10], Seed-associated microbial community [11]
Résumé en anglais	<p><b>Background and aims</b> Seeds are involved in the transmission of microorganisms from one plant generation to another and consequently may act as the initial inoculum source for the plant microbiota. In this work, we assessed the structure and composition of the seed microbiota of radish (<i>Raphanus sativus</i>) across three successive plant generations.</p> <p><b>Methods</b> Structure of seed microbial communities were estimated on individual plants through amplification and sequencing of genes that are markers of taxonomic diversity for bacteria (<i>gyrB</i>) and fungi (<i>ITS1</i>). The relative contribution of dispersal and ecological drift in inter-individual fluctuations were estimated with a neutral community model.</p> <p><b>Results</b> Seed microbial communities of radish display a low heritability across plant generations. Fluctuations in microbial community profiles were related to changes in community membership and composition across plant generations, but also to variation between individual plants. Ecological drift was an important driver of the structure of seed bacterial communities, while dispersal was involved in the assembly of the fungal fraction of the seed microbiota.</p> <p><b>Conclusions</b> These results provide a first glimpse of the governing processes driving the assembly of the seed microbiota.</p>
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua16655">http://okina.univ-angers.fr/publications/ua16655</a> [12]

DOI	10.1007/s11104-017-3451-2 [13]
Lien vers le document	<a href="https://link.springer.com/article/10.1007%2Fs11104-017-3451-2">https://link.springer.com/article/10.1007%2Fs11104-017-3451-2</a> [14]
Titre abrégé	Plant Soil

---

### Liens

- [1] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=24655>
- [2] <http://okina.univ-angers.fr/claire.campion/publications>
- [3] <http://okina.univ-angers.fr/philippe.simoneau/publications>
- [4] <http://okina.univ-angers.fr/m.jacques/publications>
- [5] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=27875>
- [6] <http://okina.univ-angers.fr/matthieu.barret/publications>
- [7] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=24119>
- [8] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=24120>
- [9] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=24121>
- [10] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=14740>
- [11] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=24118>
- [12] <http://okina.univ-angers.fr/publications/ua16655>
- [13] <http://dx.doi.org/10.1007/s11104-017-3451-2>
- [14] <https://link.springer.com/article/10.1007%2Fs11104-017-3451-2>

Publié sur *Okina* (<http://okina.univ-angers.fr>)