Widespread introgression does not leak into allotopy in a broad sympatric zone

Titre	Widespread introgression does not leak into allotopy in a broad sympatric zone
Type de publication	Article de revue
Auteur	Johanet, A. [1], Secondi, Jean [2], Lemaire, Christophe [3]
Editeur	Nature Publishing Group
Type	Article scientifique dans une revue à comité de lecture
Année	2011
Langue	Anglais
Date	2011/06
Numéro	6
Pagination	962 - 972
Volume	106
Titre de la revue	Heredity
ISSN	0018-067X
Mots-clés	broad sympatry [4], Haldane's rule [5], hybridization [6], introgression [7], Lissotriton helveticus [8], Lissotriton vulgaris [9]
Résumé en anglais	Species that overlap over a large part of their range and habitat requirements are challenging for the study of speciation and hybridization. In this respect, the study of broadscale introgressive hybridization has raised recent interest. Here we studied hybridization between two closely related amphibians Lissotriton helveticus and Lissotriton vulgaris that reproduce over a wide sympatric zone. We used mitochondrial and microsatellite markers on 1272 individuals in 37 sites over Europe to detect hybrids at the individual-level and to analyse Hardy–Weinberg and linkage disequilibria at the population-level. Morphological traits showed a strong bimodal distribution. Consistently, hybrid frequency was low (1.7%). We found asymmetric introgression with five times more hybrids in L. vulgaris than in L. helveticus, a pattern probably explained by an unequal effective population size in a study part wherein L. helveticus numerically predominates. Strikingly, significant levels of introgression were detected in 73% of sites shared by both species. Our study showed that introgression is widespread but remains confined to the sites where the two species reproduce at the same time. This pattern may explain why these species remain genetically distinct over a broad sympatric zone.
URL de la notice	http://okina.univ-angers.fr/publications/ua7758 [10]
DOI	10.1038/hdy.2010.144 [11]
Lien vers le document	http://dx.doi.org/10.1038/hdy.2010.144 [11]

Liens

[1] http://okina.univ-angers.fr/publications?f[author]=12001
[2] http://okina.univ-angers.fr/publications?f[author]=12724
[3] http://okina.univ-angers.fr/christophe.lemaire/publications
[4] http://okina.univ-angers.fr/publications?f[keyword]=11959
[5] http://okina.univ-angers.fr/publications?f[keyword]=11960
[6] http://okina.univ-angers.fr/publications?f[keyword]=11961
[7] http://okina.univ-angers.fr/publications?f[keyword]=11962
[8] http://okina.univ-angers.fr/publications?f[keyword]=11963
[9] http://okina.univ-angers.fr/publications?f[keyword]=11964
[10] http://okina.univ-angers.fr/publications/ua7758
[11] http://dx.doi.org/10.1038/hdy.2010.144