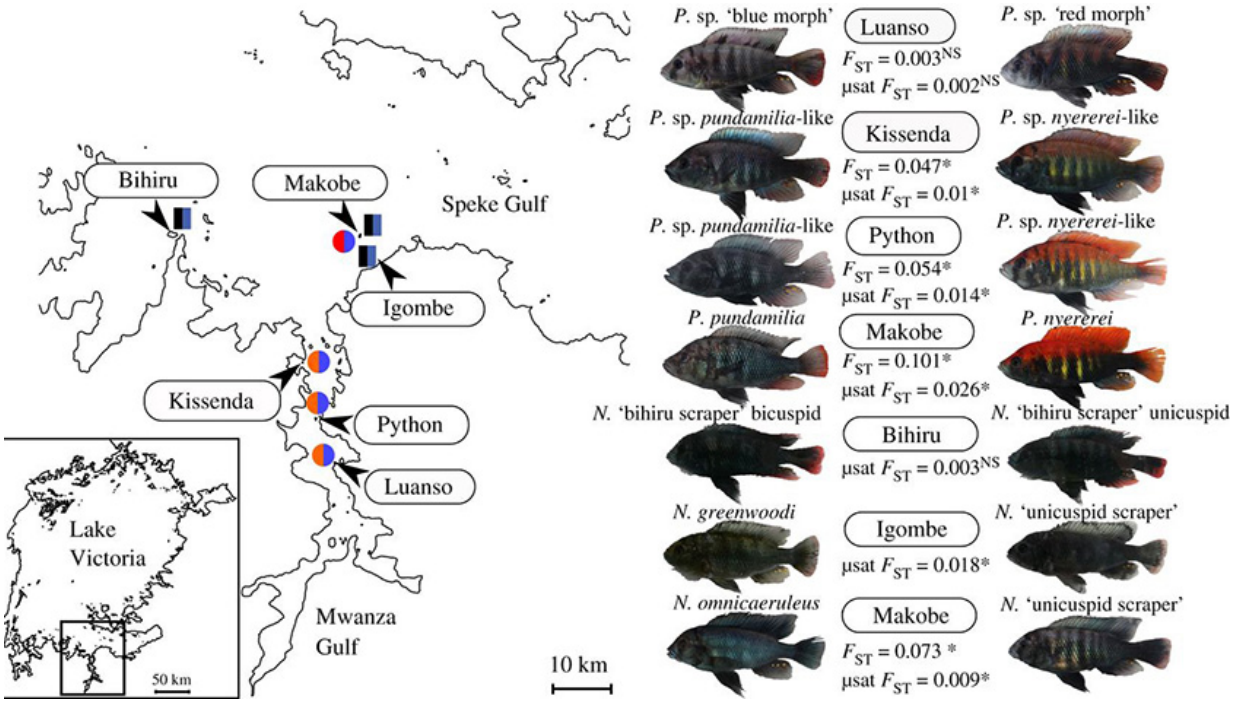

Prevalence of disruptive selection predicts extent of species differentiation in Lake Victoria cichlids

January 26, 2018 |

Jacco van Rijssel, Florian Moser, David Frei and Ole Seehausen have published a new paper in Proceedings of the Royal Society B on the influence of disruptive selection on gene flow in the evolutionary process. They ask whether differences in current divergent ecological selection can explain differences in genetic divergence between sympatric species. They have investigated this by comparing seven species pairs at different stages of speciation.

Some of these species pairs have differently coloured males (an indication of divergent sexual selection) and in others the difference in colouration is only slight. Disruptive ecological selection appears to be more common in the species pairs that are more genetically divergent and the number of traits and ecologically divergent selection is greater than in the species pairs with similar colouration. Their results suggest that there are two different mechanisms for speciation with gene flow: Speciation mainly by sexual selection closely followed by ecological character displacement (trait divergence) in some cases and speciation mainly by ecological selection in other cases.

Related Links

Original publication

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