

SCENE Project Information Summary

Title: Adaptation Genomics of Trophic Polymorphism

Researcher(s): Dr Kathryn Elmer

Department: Institute of Biodiversity, Animal Health and Comparative Medicine, MVLS

Institution: University of Glasgow

Brief Description: Dr Kathryn Elmer and her group are investigating the genetic basis of adaptive phenotypes in wild populations. How do fish change their gene expression and body shape in response to different diets? How are similar ecomorphs evolving repeatedly and independently in multiple populations? Using genome-wide analyses combined with insights from ecology, their research seeks to uncover the evolutionary origins of the breadth of biodiversity we see in nature. Study systems of focus are salmonid fishes such as whitefish and Arctic charr, and Scotland's reptiles and amphibians, because these groups hold great promise for understanding rapid diversification and local adaptation to environmental change.

Funding Source(s): Marie Curie Career Integration Grant (FP7), Wellcome Trust Institutional Strategic Support Fund (Glasgow Polyomics)

Funding Amount: GBP 92k

Project Status: running

Start Date: 01 Jan 2013

End Date: 31 Dec 2017

Outputs:

Key References:

Elmer KR, Meyer A (2011) Adaptation in the age of ecological genomics: insights from parallelism and convergence. *Trends in Ecology & Evolution*, **26**, 298–306.

Photos Available: Send photos relevant to the project to Hannah.Taylor@glasgow.ac.uk Please clearly state what the photo is of and a caption to go with the photos.