Dr Tom Jenkins

PhD

Curriculum Vitae

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Tom-Jenkins

Profile

An experienced scientist and research professional with a demonstrated history of working on highly diverse projects in both academic and public sector organisations. My areas of expertise include bioinformatics, geospatial analysis, data science and software development. Previous projects include population genomics, *de novo* nuclear and organelle genome assembly and annotation, predicting habitat suitability using machine learning, and developing web applications for internal and external customers.

Employment

Apr 2022–Present	**Bioinformatician & Software Developer**	Animal and Plant Health Agency
Feb 2021–Mar 2022	**Senior Data Analyst**	Natural England
Dec 2018–Jan 2021	**Postdoctoral Research Associate**	University of Exeter

Qualifications

2018	PhD	Evolutionary Biology	University of Exeter
2014	MRes	Biodiversity, Informatics and Genomics	Imperial Colleage London
2010	BSc	Marine Biology	Swansea University

Programming

Skill	**Bioinformatics, Data Wrangling, Data Visualisation, Geocomputation, Modelling, Statistics, Web Development**
Tools	**R, Bash, Linux, JavaScript, CSS, HTML, Nextflow, GitHub, HPC, AWS** Libraries: tidyverse, adegenet, vegan, tidymodels, sf, terra, dismo, shiny, leaflet.js, echarts.js

Recent Science Communication

2023	Seminar	Presentation at departmental meeting titled: "Whole genome sequencing: what, why and how is it used in outbreak investigations of bovine TB".
2022	Talk	Presentation at the annual Natural England marine conference titled "Maerl biodiversity: understanding species, genetic and ecosystem diversity."
2022	Interview	Live interview on *BBC Radio Wales Drive* to discuss published research on coral habitat suitability modelling.
2021	Interview	Pre-recorded interview on *BBC Radio Cornwall* to discuss published research on coralline algae population genomics.
2020	Webinar	Invited talk at Aquaculture Research Collaborative Hub UK annual conference titled "Developing genomic resources to advance the aquaculture of European lobsters".
2020	Comics	A collection of comic-style summaries to disseminate findings of lobster genetics: https://tomjenkins.netlify.app/research-projects/lobster-popgen/.

Selected Funding and Awards

2023	Funding	Co-investigator research grant from Natural Resources Wales (£5,000)
2022	Funding	Co-investigator research grant from Natural England (£20,000)
2019	Award	Genetics Society training grant (£1,000)
2019	Award	IDSAI early career researcher travel grant (£500)
2019	Funding	Principal investigator research grant from the British Ecological Society (£5,000)
2018	Award	Genetics Society junior scientist travel grant (£750)
2018	Funding	Heredity fieldwork grant (£1,284)
2017	Award	Genetics Society junior scientist travel grant (£500)
2017	Award	British Ecological Society travel grant (£500)
2014	Award	Illumina prize in Biodiversity Informatics and Genomics for best masters project (£1,000)

Selected Publications

- Macleod KL, **Jenkins TL**, Witt J, Stevens JR (*in review*). Rare, long-distance dispersal underpins genetic connectivity in pink sea fan, *Eunicella verrucosa*. Evolutionary Applications.
- Macleod KL, Paris JR, **Jenkins TL**, Stevens JR (*in review*). The first genome of the cold-water octocoral, the pink sea fan, *Eunicella verrucosa*. Genome Biology and Evolution.
- Ellis CD, Macleod KL, **Jenkins TL**, *et al*. (*in press*). Shared and distinct patterns of genetic structure in two sympatric large decapods. Journal of Biogeography.
- **Jenkins TL**, Stevens JR (2022). Predicting habitat suitability and range shifts under projected climate change for two octocorals in the north-east Atlantic. PeerJ 10, e13509.
- **Jenkins TL**, Guillemin M-L, Simon-Nutbrown C, Burdett HL, Stevens JR, Peña V (2021). Whole genome genotyping reveals discrete genetic diversity in north-east Atlantic maerl beds. Evolutionary Applications 14, 1558–1571.
- Houston RD, Bean TP, Macqueen DJ, Gundappa MK, Jin YH, **Jenkins TL**, *et al*. (2020). Harnessing genomics to fast-track genetic improvement in aquaculture. Nature Reviews Genetics 21, 389–409.
- **Jenkins TL**, Ellis CD, Triantafyllidis A, Stevens JR (2019). Single nucleotide polymorphisms reveal a genetic cline across the north-east Atlantic and enable powerful population assignment in the European lobster. Evolutionary Applications 12, 1881-1899.
- **Jenkins TL**, Castilho R, Stevens JR (2018). Meta-analysis of northeast Atlantic marine taxa shows contrasting phylogeographic patterns following post-LGM expansions. PeerJ 6, e5684.
- **Jenkins TL**, Stevens JR (2018). Assessing connectivity between MPAs: selecting taxa and translating genetic data to inform policy. Marine Policy 94, 165-173.