



Postdoctoral Scholar - Kelp Genomics Position Description

[Puget Sound Restoration Fund](#) (PSRF), in partnership with [Dr. Filipe Alberto's](#) lab at the University of Wisconsin-Milwaukee (UW-M), seeks a postdoctoral scholar for a one year position, to use genomics tools to understand the genetic underpinnings of bull kelp forests in Washington State. The postdoc's work is a critical piece of a broader project that will yield essential information for re-establishing and conserving kelp forests in the region, by maintaining genetic diversity of the kelp forests, and advancing in-water practices with tribal partners to directly support kelp forest restoration and farming. Applicants are required to have a PhD (in hand or near completion) in evolutionary ecology, plant breeding, population genetics/genomics, genetics or a similar field.

Preference will be given to candidates with a strong bioinformatics background, to tackle large data sets of Whole Genome Sequencing (WGS) sequenced individuals. We are looking for someone with demonstrated experience (as evidenced by publications and letters of reference) in at least two of the following broad topics: differential expression analysis from RNA-seq experiments; analysis of large sets of WGS data mapped to an annotated reference genome, including characterization of genomic regions under selection, demographic and seascape genomics analysis; simulation and analysis of population genomics data sets, genomic analysis of epigenetic variation. The candidate should be familiar with UNIX operating systems (e.g., Linux), bash scripting, and code in at least one programming language, preferably Python or R.

The postdoc will be responsible for: 1) Analyzing samples by RNA-seq to characterize gene enrichment associated with environmental responses of a kelp reciprocal outplant experiment, to discern degree of local adaptation; and 2) Conducting a population genomic analysis to detect putative local adaptation and infer population dynamics history. They will also prepare written reports and publications and presentations of findings; contribute to project reporting and development of outreach materials, and work collaboratively with the project team and other partners.

Salary for this 12-month position is \$60,000, as part of a grant from Washington Sea Grant. The postdoc will receive PSRF's suite of competitive benefits. The location of the position is flexible, with the postdoc being based either in the Puget Sound region or at the University of Wisconsin-Milwaukee. There is flexibility in the start date of the position, with a general target of winter 2023/2024. The postdoc will be supported jointly by PSRF and Dr. Alberto and his lab group at UW-M.

By way of background, PSRF works to restore abundant marine resources and our connections to them through a diverse portfolio of in-water projects throughout Puget Sound. The main focus of our restoration is living marine habitat and species, using structure forming species (Olympia oysters, bull kelp) and habitat enhancing species (pinto abalone). Our staff works to advance our mission of designing, testing, and spearheading in-water actions to restore Puget Sound's marine habitats, species, and waters – for people and place. We do so with a wide range of collaborators, from academics to managers and regulators, to community scientists, shellfish growers, and the public. The postdoc will be able to engage with the PSRF

and UW-M networks of other bull kelp scientists and restoration practitioners along the US West Coast, to conduct actionable research with real-world implications for kelp restoration and cultivation in the region.

PSRF recognizes that people build skills through all sorts of experiences, and welcomes applicants with a wide variety of backgrounds. We warmly welcome candidates from backgrounds that are underrepresented in marine science and restoration to apply. PSRF seeks to create an inclusive and equitable work environment at PSRF and in our work with partners, and we are committed to supporting staff. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, gender expression, national origin, age, protected veteran or disabled status, or genetic information.

To apply

Please email a CV, cover letter and names of 3 references to Jodie Toft (jodie@restorationfund.org). The team will begin to review applications on December 1st, and the position will remain open until filled.