Postdoctoral Fellow - University of Alberta

Predicting Spread of Whirling Disease in Fish using Belief Nets

We are seeking a postdoc to work on modelling the spread of whirling disease using Bayesian Belief and Decision Networks. Whirling disease infects fish and can have devastating effects on trout and related species. It was recently detected in Canada, with reports from Alberta in the summer of 2016. It was declared by the Canadian Food Inspection Agency to be present in the Bow, Oldman and Red Deer River watersheds in Alberta. The project will explore effective ways to model the spread of this disease in ways that will help inform policy makers on appropriate measures for prevention, and response. We anticipate this will involve the use of Bayesian Belief Networks, and related Probabilistic Graphical Models.

The ideal candidate will have experience with invasion biology and/or machine learning and/or fisheries biology/ecology. S/he must be comfortable with quantitative analysis, with strong skills in R or a similar language. S/he will need to be able to work well in an interdisciplinary team environment and be goal-oriented.

The candidate will be jointly supervised by Profs Russ Greiner (Alberta Machine Intelligence Institute) and Mark Lewis (Math/Stat Sciences and Biological Sciences) at the University of Alberta, and will collaborate with experts from Alberta Environment and Parks. The home base would be as a member of the research lab of Mark Lewis. This is a 2 year position (renewable after the first year).

This position will be at the University of Alberta, and have a competitive salary. The starting date is August 1, 2017 or when filled. To apply, please

- send a cover letter and CV by email to Kim Budinski (kbudinsk@ualberta.ca), and
- have two letters of recommendation emailed to this address.

If you have questions about the position, please feel free to contact Russ Greiner at rgreiner@ualberta.ca or Mark Lewis at mark.lewis@ualberta.ca.

(This page is https://docs.google.com/a/ualberta.ca/document/d/1IeALgFbFkM_e2mXucV-7GpEhJnqwWQPhSr2fhiEnfps/edit?usp=sharing )