

Supplement to: *Assessing the Impact of Meteorological variables on Machine Learning Flood Susceptibility Mapping*, Heather McGrath^{1,*}, Piper Nora Gohl¹

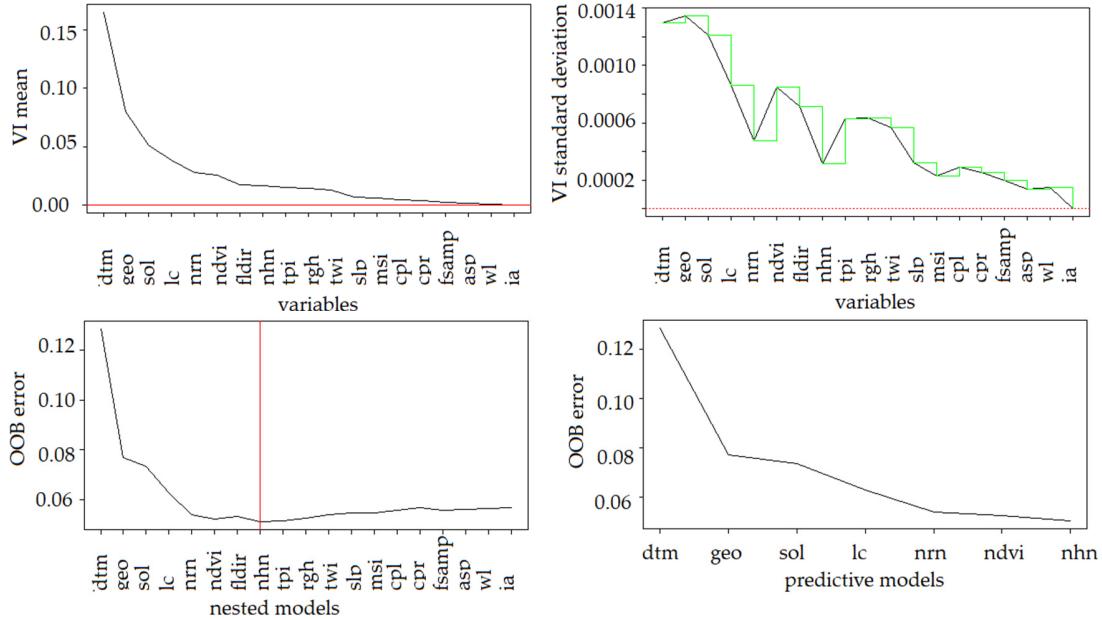


Figure S1. AB HG Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

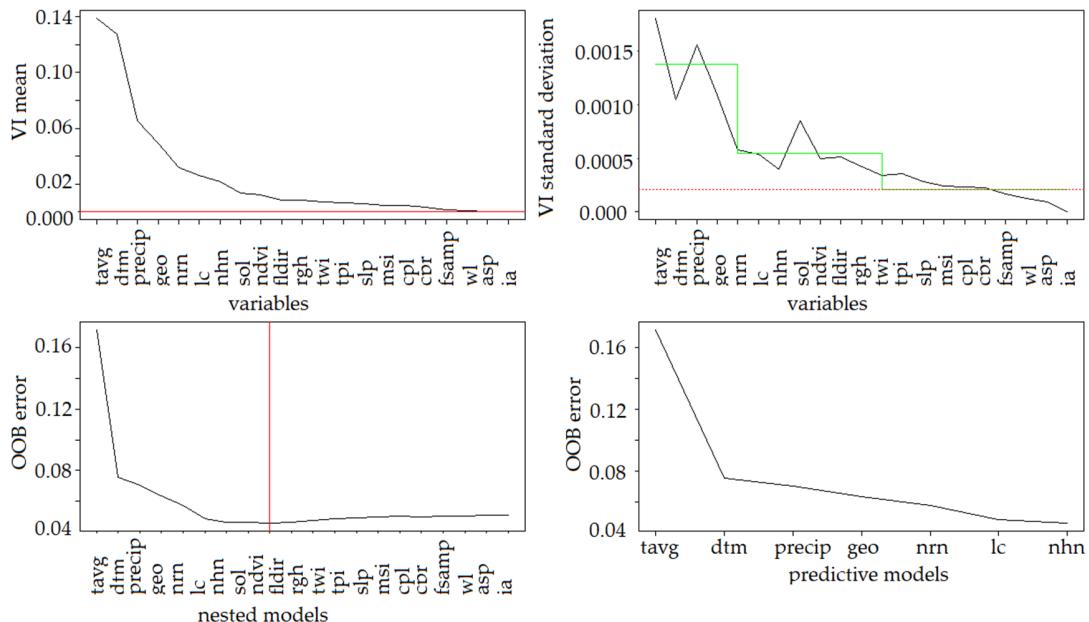


Figure S2. AB HG-PT Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

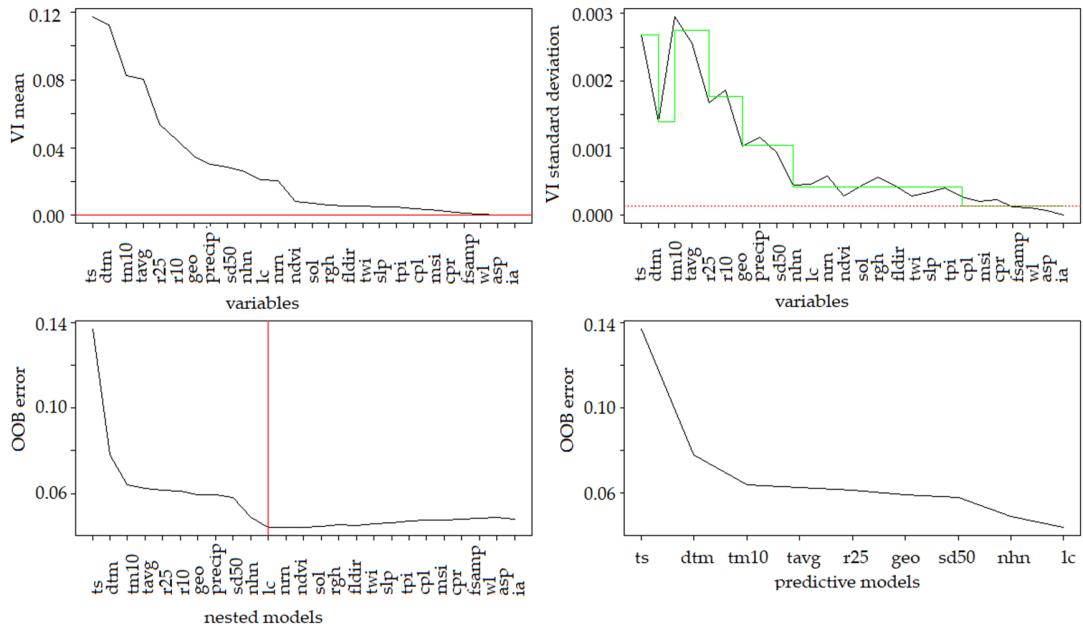


Figure S3. AB HG-8M Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

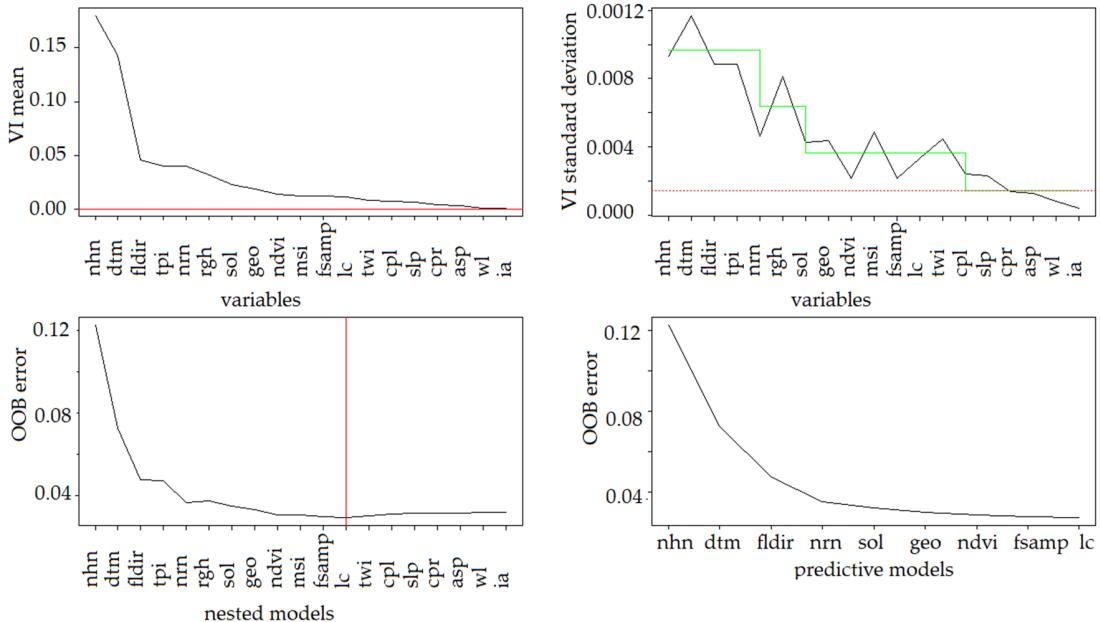


Figure S4. BC-HG Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

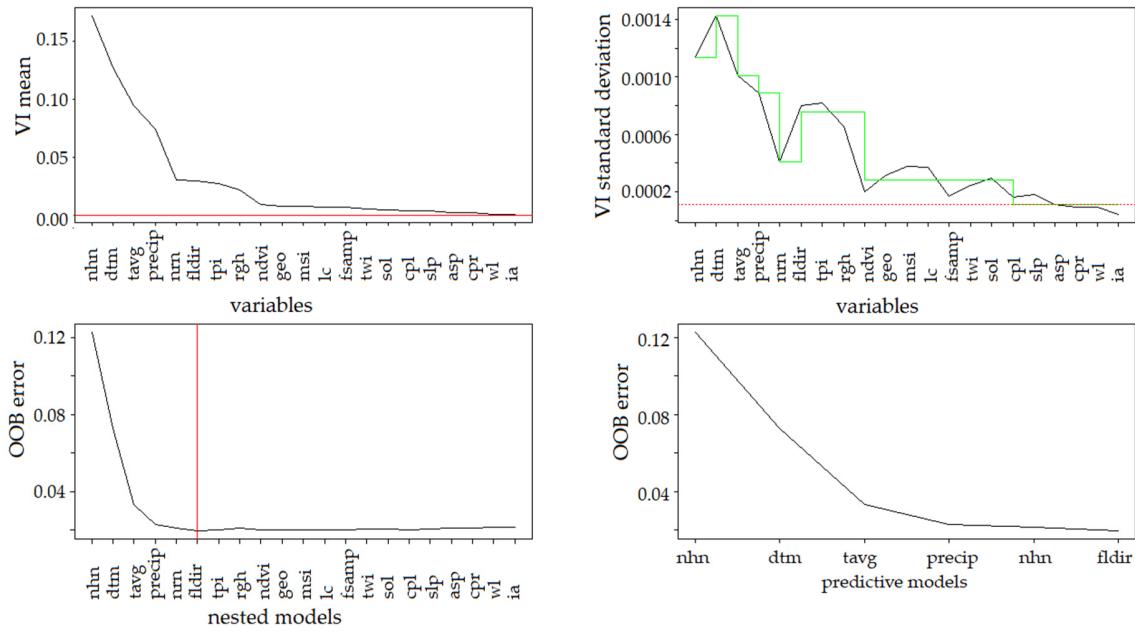


Figure S5. BC HG-PT Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

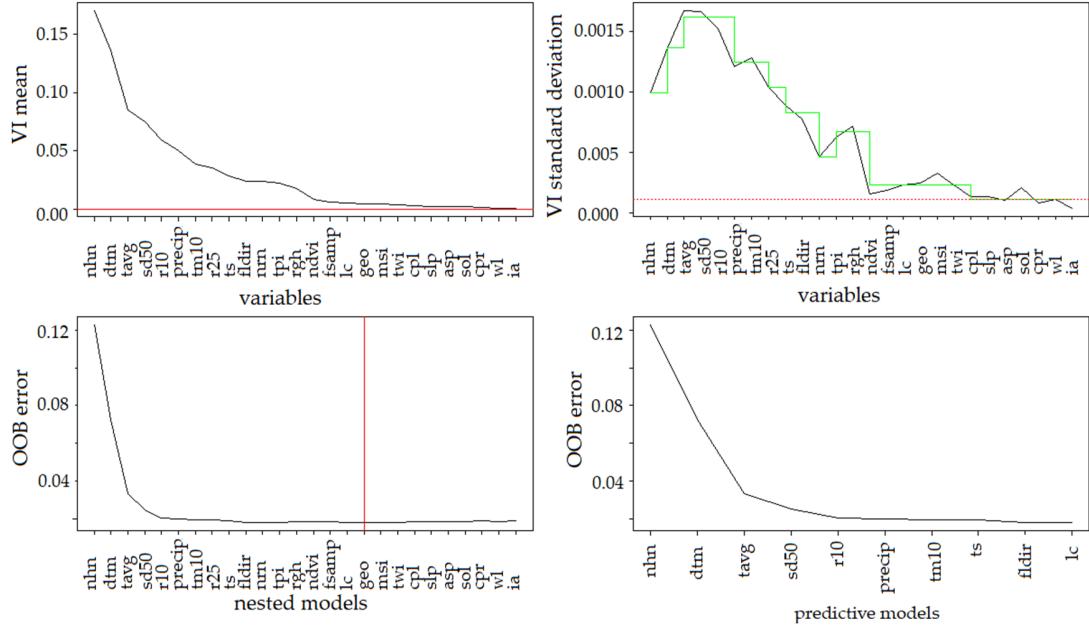


Figure S6. BC HG-8M Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

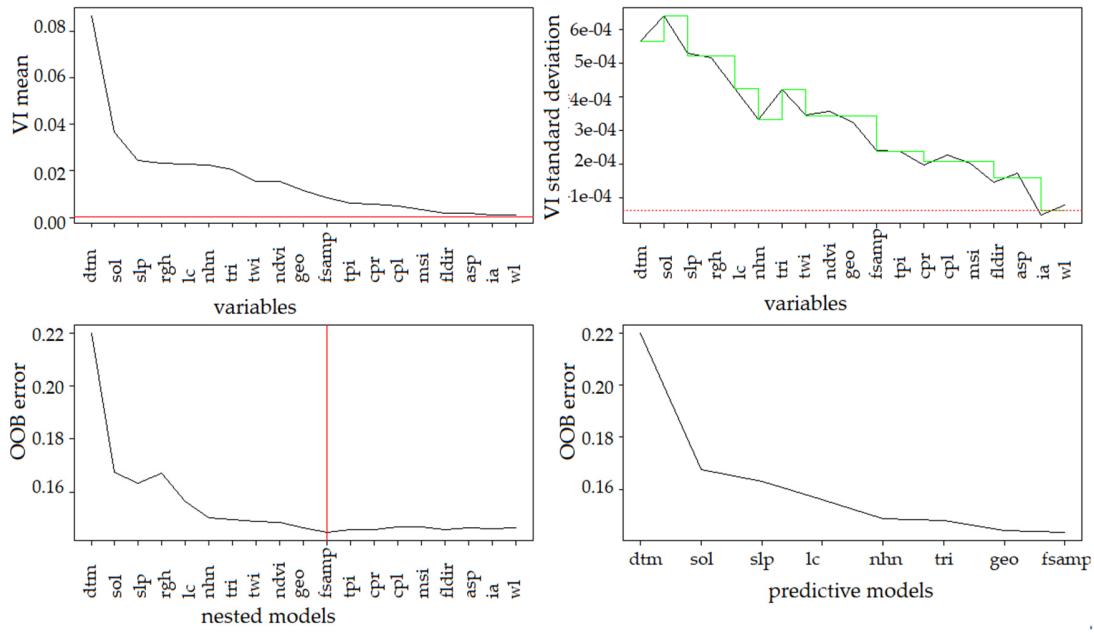


Figure S7. MB-HG Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

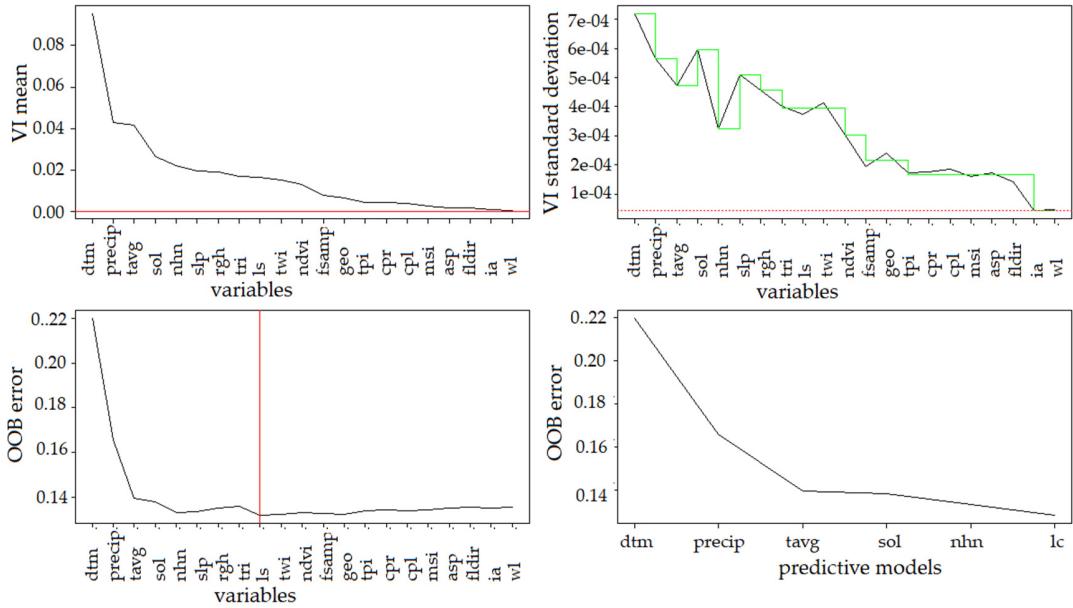


Figure S8. MB HG-PT Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations

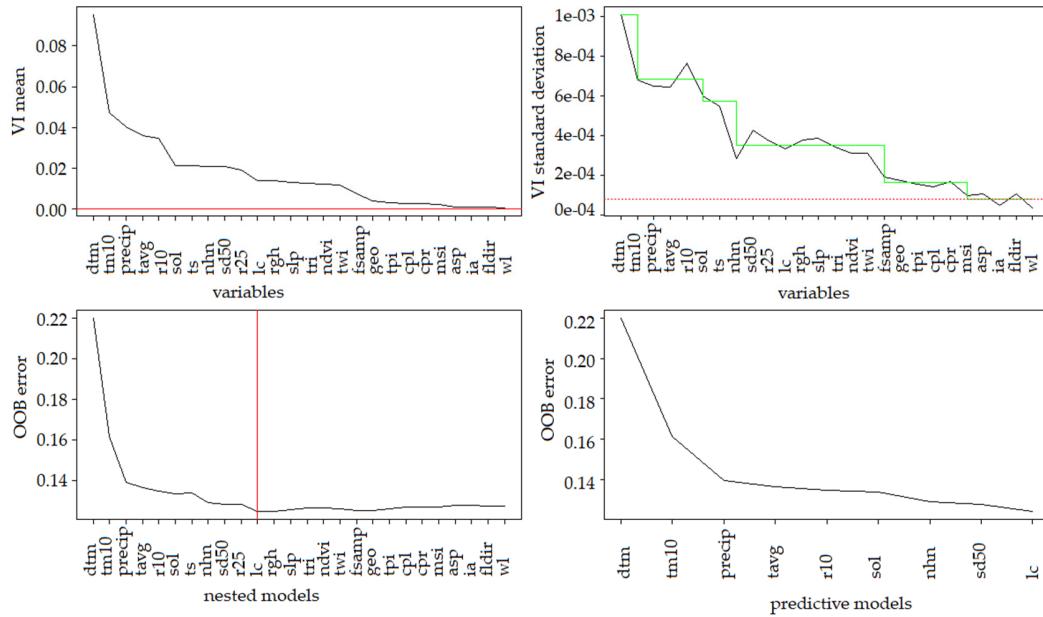


Figure S9. MB HG-8M Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

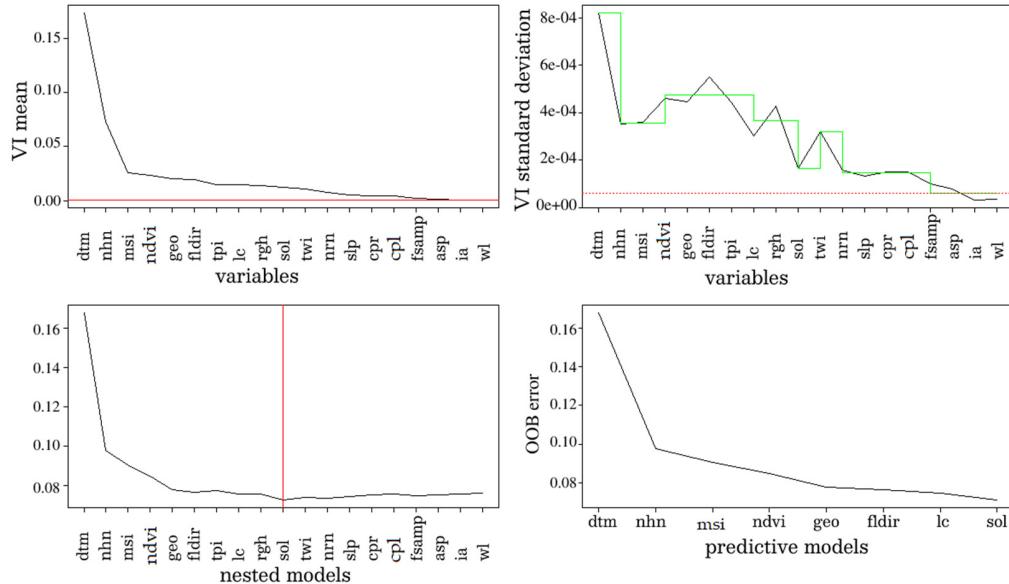


Figure S10. ON-HG Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

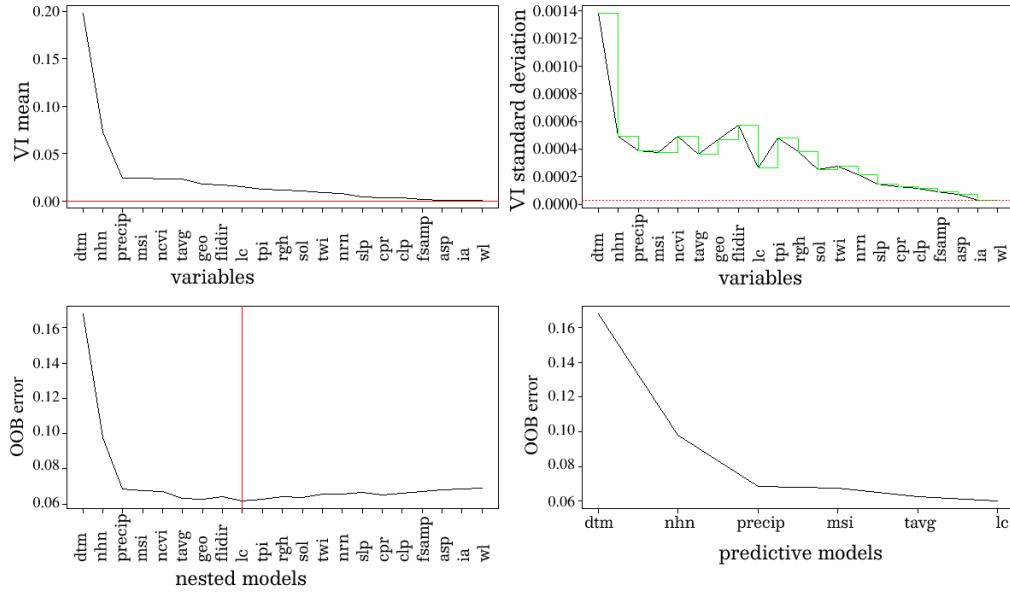


Figure S11. ON HG-PT Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

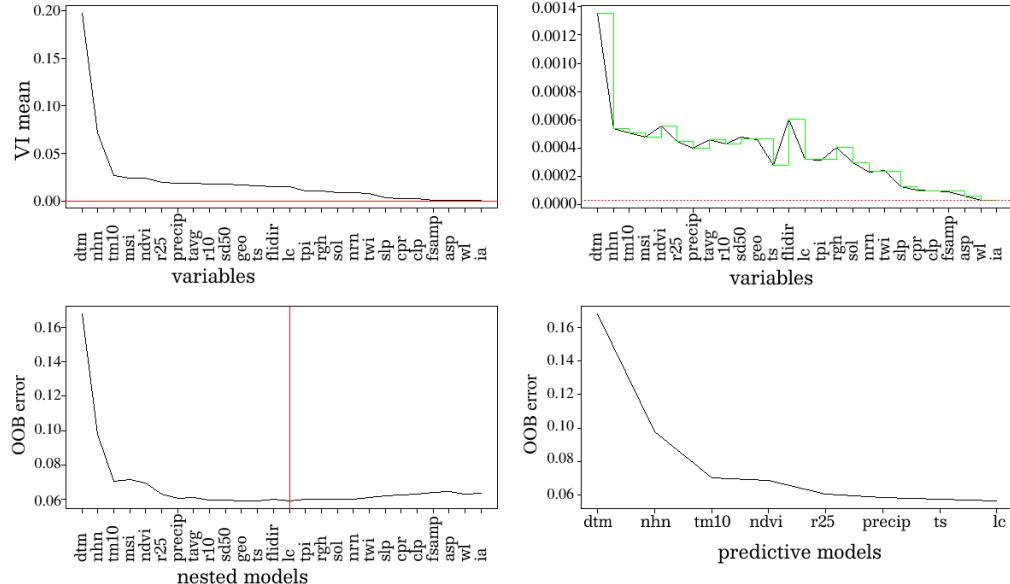


Figure S12. ON HG-8M Upper left, mean variable importance, upper right: standard deviation of the variable importance, bottom left: mean OOB error rate of interpretation step of RF models, bottom right: mean OOB error rate of prediction step of RF models. Red lines indicate thresholds, and green line predictions given by a CART tree fitted to standard deviations.

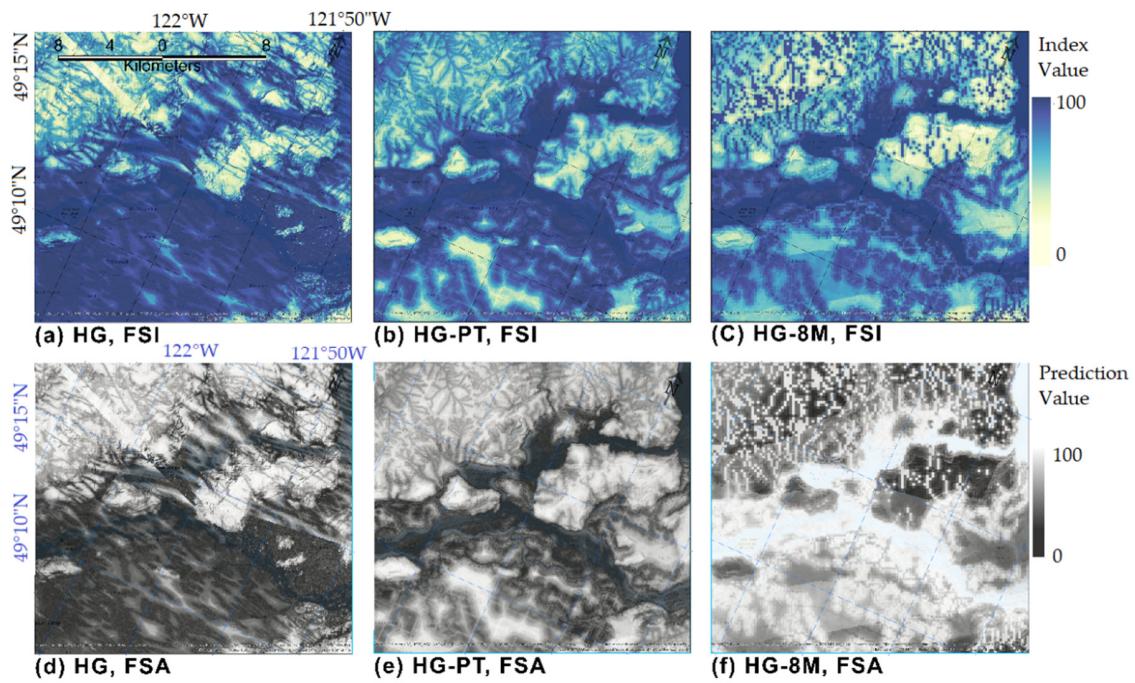


Figure S13. Index and estimated accuracy of prediction for the three tested variable groups in the BC study area

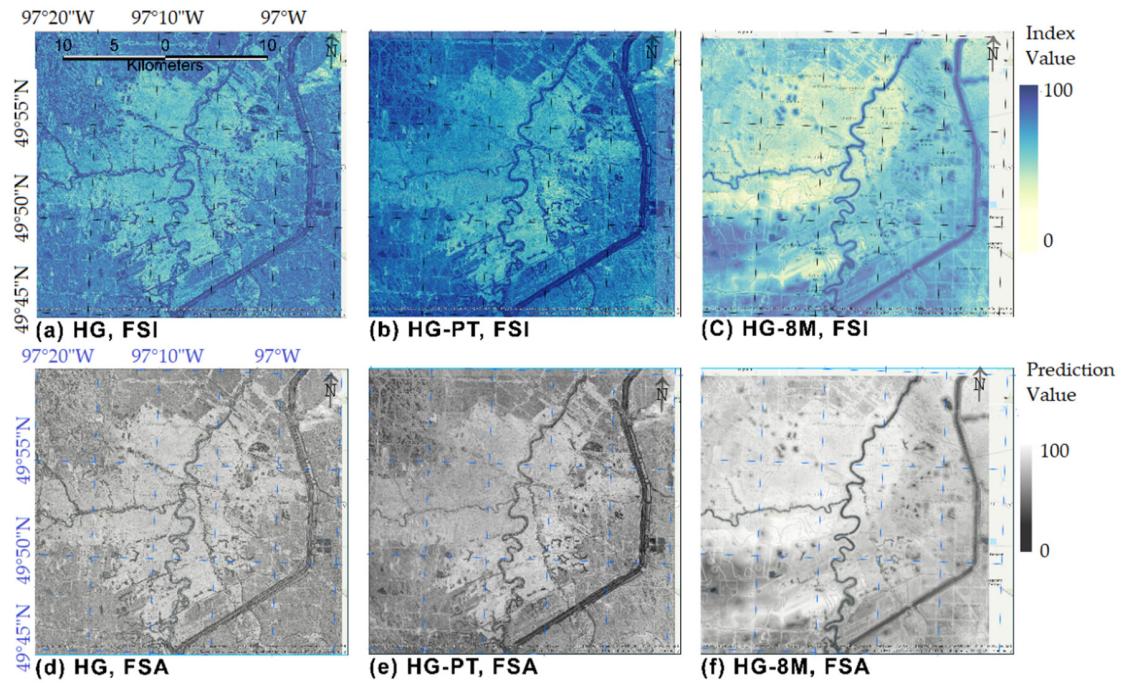


Figure S14. Index and estimated accuracy of prediction for the three tested variable groups in the MB study area

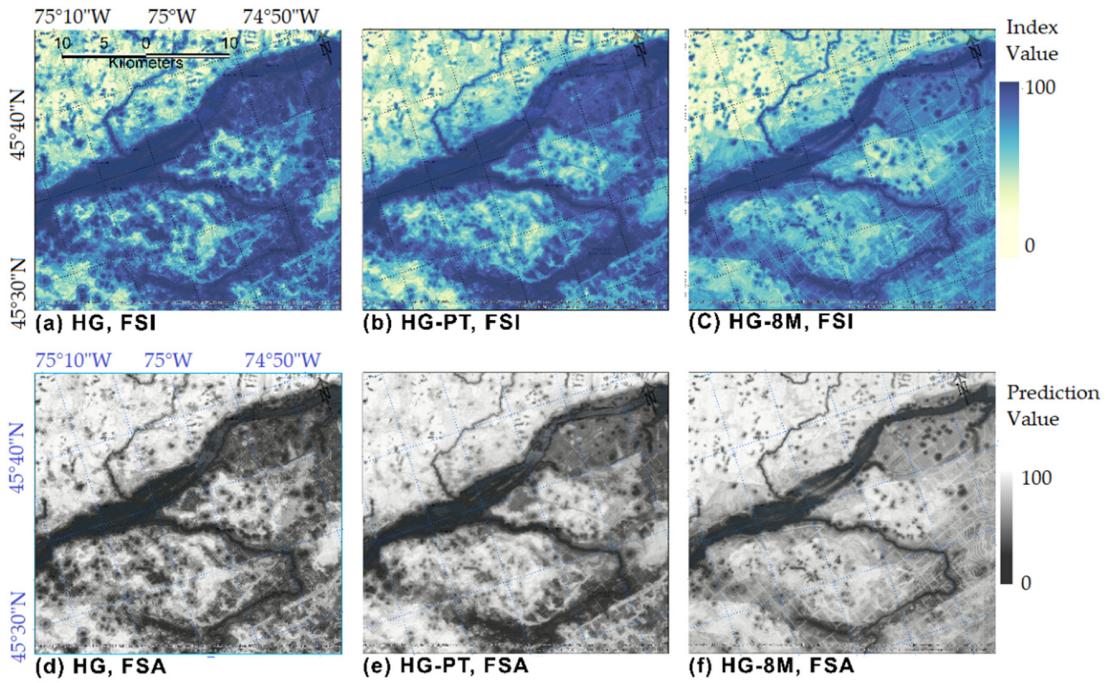


Figure S15. Index and estimated accuracy of prediction for the three tested variable groups in the ON/QC study area

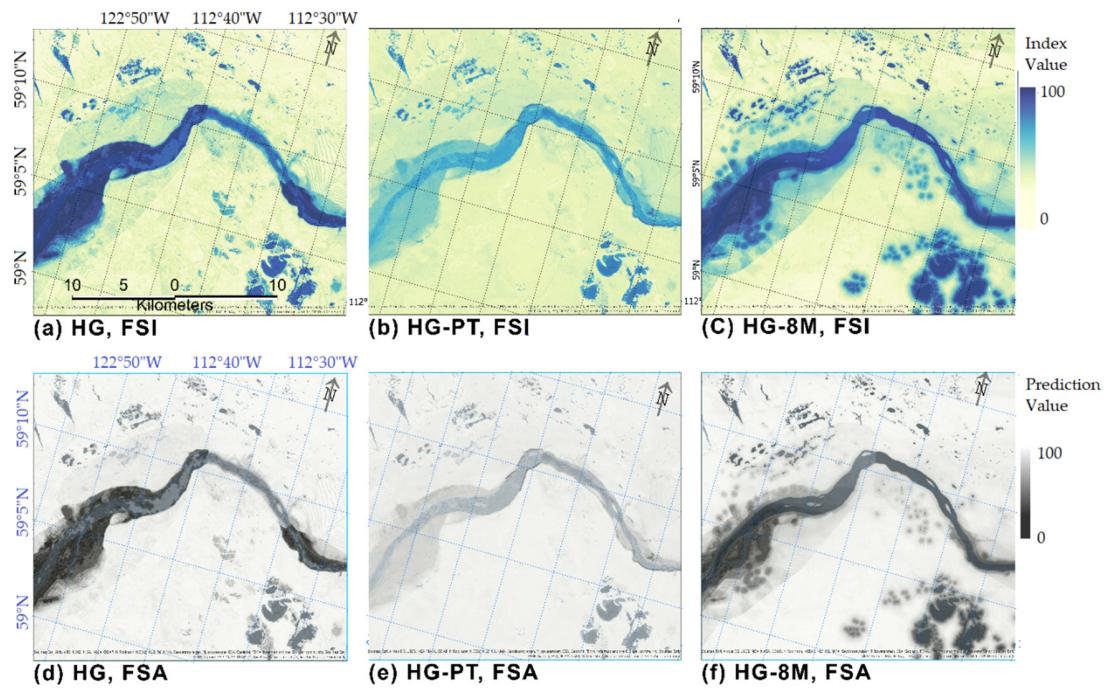


Figure S16. Index and estimated accuracy of prediction for the three tested variable groups in the AB/NT study area