

## Terms of use of the CRCM5-LE runs provided by Ouranos for the ClimEx project

For references and credits to CRCM5-LE ClimEx outputs used in reports, publications and presentations.

This document contains the following sections:

- TERMS OF USE FOR CRCM5-LE CLIMEX OUTPUTS FROM OURANOS
- CRCM5-LE CLIMEX DESCRIPTION
  - o MAIN REFERENCE DESCRIBING THE CLIMEX CRCM5 LARGE ENSEMBLE
  - o SUGGESTED TEXT AND REFERENCES FOR CRCM5
  - o TEMPLATES FOR THE DESCRIPTION OF CRCM5-LE SIMULATIONS (and driving data)
- LIST OF REFERENCES

### TERMS OF USE FOR CRCM5-LE CLIMEX OUTPUTS FROM OURANOS

- a) No individual(s), Ouranos, the Climate Simulation and Analysis group or the Climate Scenarios and Services group can be held responsible for any errors in the model or in the output data, or misuse of the model.
- b) Appropriate credits must be included in publications and reports that rely on the CRCM5-LE model output from the ClimEx project by the following acknowledgements:
 

The production of ClimEx was funded within the ClimEx project by the Bavarian State Ministry for the Environment and Consumer Protection. The CRCM5 was developed by the ESCER centre of Université du Québec à Montréal (UQAM; [www.escer.uqam.ca](http://www.escer.uqam.ca)) in collaboration with Environment and Climate Change Canada. We acknowledge Environment and Climate Change Canada's Canadian Centre for Climate Modelling and Analysis for executing and making available the CanESM2 Large Ensemble simulations used in this study, and the Canadian Sea Ice and Snow Evolution Network for proposing the simulations. Computations with the CRCM5 for the ClimEx project were made on the SuperMUC supercomputer at Leibniz Supercomputing Centre (LRZ) of the Bavarian Academy of Sciences and Humanities. The operation of this supercomputer is funded via the Gauss Centre for Supercomputing (GCS) by the German Federal Ministry of Education and Research and the Bavarian State Ministry of Education, Science and the Arts.
- c) There are potential limitations of the data obtained. These may include (but are not necessarily limited to) errors in the models, shortcomings in the experiment designs, the conjectural quality of the forcing scenarios used to drive the models, and statistical uncertainty of model results.
- d) Although the model output has been subjected to a quality control procedure, unrecognized errors almost certainly remain.
- e) Please contact the Climate Simulation and Analysis Group directly if you find any inconsistencies in the data.
- f) To aid the modelling group in understanding and improving upon their models' behaviour, please provide feedback about your research results (e.g. reporting model deficiencies, publications, reports, etc.), and we appreciate if you can remain available to answer to reasonable requests from our part.
- g) Please inform Ouranos of publications and reports that make use of the CRCM5 outputs.
- h) This dataset is distributed under the creative commons licence "Creative Commons Attribution-NonCommercial 4.0 International Public License" (<https://creativecommons.org/licenses/by-nc/4.0/legalcode>).

## MAIN REFERENCE DESCRIBING THE CLIMEX CRCM5 LARGE ENSEMBLE

Leduc, M., A. Mailhot, A. Frigon, J. Martel, R. Ludwig, G.B. Brietzke, M. Giguère, F. Brissette, R. Turcotte, M. Braun, and J. Scinocca, 2019: The ClimEx Project: A 50-Member Ensemble of Climate Change Projections at 12-km Resolution over Europe and Northeastern North America with the Canadian Regional Climate Model (CRCM5). *J. Appl. Meteor. Climatol.*, 58, 663–693, <https://doi.org/10.1175/JAMC-D-18-0021.1>.

## SUGGESTED TEXT AND REFERENCES FOR CRCM5

The Canadian Regional Climate Model (CRCM5 v3.3.3.1; Martynov et al. 2013, Separovic et al. 2013) was developed by the ESCER Centre at UQAM (Université du Québec à Montréal) with the collaboration of Environment and Climate Change Canada.

-For **CRCM5 v3.3.3.1**, please use the following references:

Martynov et al. 2013 :	validation of CRCM5 over North America
Separovic et al. 2013	validation of CRCM5 and response to increasing greenhouse-gasforcing over North America

Martynov A, R Laprise, L Sushama, K Winger, L Separovic, B Dugas. 2013. Reanalysis-driven climate simulation over CORDEX North America domain using the Canadian Regional Climate Model, version 5: model performance evaluation. *ClimDyn* 41:2973-3005. DOI 10.1007/s00382-013-1778-9.

Separovic L, AAlexandru, R Laprise, A Martynov, L Sushama, K Winger, K Tete, M Valin. 2013. Present climate and climate change over North America as simulated by the fifth-generation Canadian regional climate model. *ClimDyn* 41:3167-3201. DOI 10.1007/s00382-013-1737-5.