**Simulation (F:\Ryan(simulations)\2018 summer)**:

1. **CDmatrix.R** to create cost distance matrix for simulation
2. **patchvars\_creator.R** to create PatchVars.csv (need to resource **K\_cosinusoidal.R** and **refuge\_central.R**) and cdclimgentime.csv (replace cdclimgentime in PopVars.csv by the data in this file)
3. CDmetaPOP need four input files: Cdmatrix.csv; ClassVars.csv; Patchvars.csv and PopVars.csv.
4. All simulation outputs are saved at **F:\Ryan(simulations)\simulation\_grid\_nolimit.** Please find also the input files for different scenarios in their folder.
5. **F:\Ryan(simulations)\Workshop\_CDmetaPop\_Paul** contains the practical manual written by Paul, and his project data.
6. **F:\Ryan(simulations)\CDmetaPOP v1.0** is the version used for all the simulations

**ComputeCanada (F:\Ryan(simulations)\ComputeCanada)**

1. Premiers pas 2.0 : an introduction of how to use ComputeCanada
2. “use CDmetaPop on Cedar” is a list of useful commands on Cedar server
3. All the scripts for the simulations.

**Analysis the output (F:\Ryan(simulations)\2018 summer\analyses):**

1. **summary\_popAllTime\_to\_metadat.R** to extract all peaks and valleys. (use **summary\_popAllTime\_to\_metadat(loop).R** to extract data from all replicates)
2. to analysis pairwise Fst: **pairwiseFst\_mean\_sd\_replicat(loop).R**
3. to analysis expected heterozygosity: **He\_mean\_sd\_replicat(loop).R**
4. calculate the reproducing rate of females: **EggLayEvents\_Females(loop).R**
5. test the significance of dispersal, frequency and their interaction: **ANOVA\_disp\_freq.R**

**Figures in report (F:\Ryan(simulations)\2018 summer\R\_figure)**