

Population Growth...

- A population is a group of organisms of one species that interbreed and live in the same place at the same time (e.g. deer population).
- **Organism** → a living thing
- **Species** → level of classification
- The term "**population growth**" refers to how the number of individuals in a population increases (or decreases) with time.
- If a population has a constant birth rate through time and is never limited by food or disease, it has what is known as **exponential growth**.

EXAMPLE of Exponential Growth



Fluctuations of Human Populations...

- LOCALLY
- REGIONALLY
- GLOBALLY

Changing Population Sizes

Four variables affect changes in population sizes...

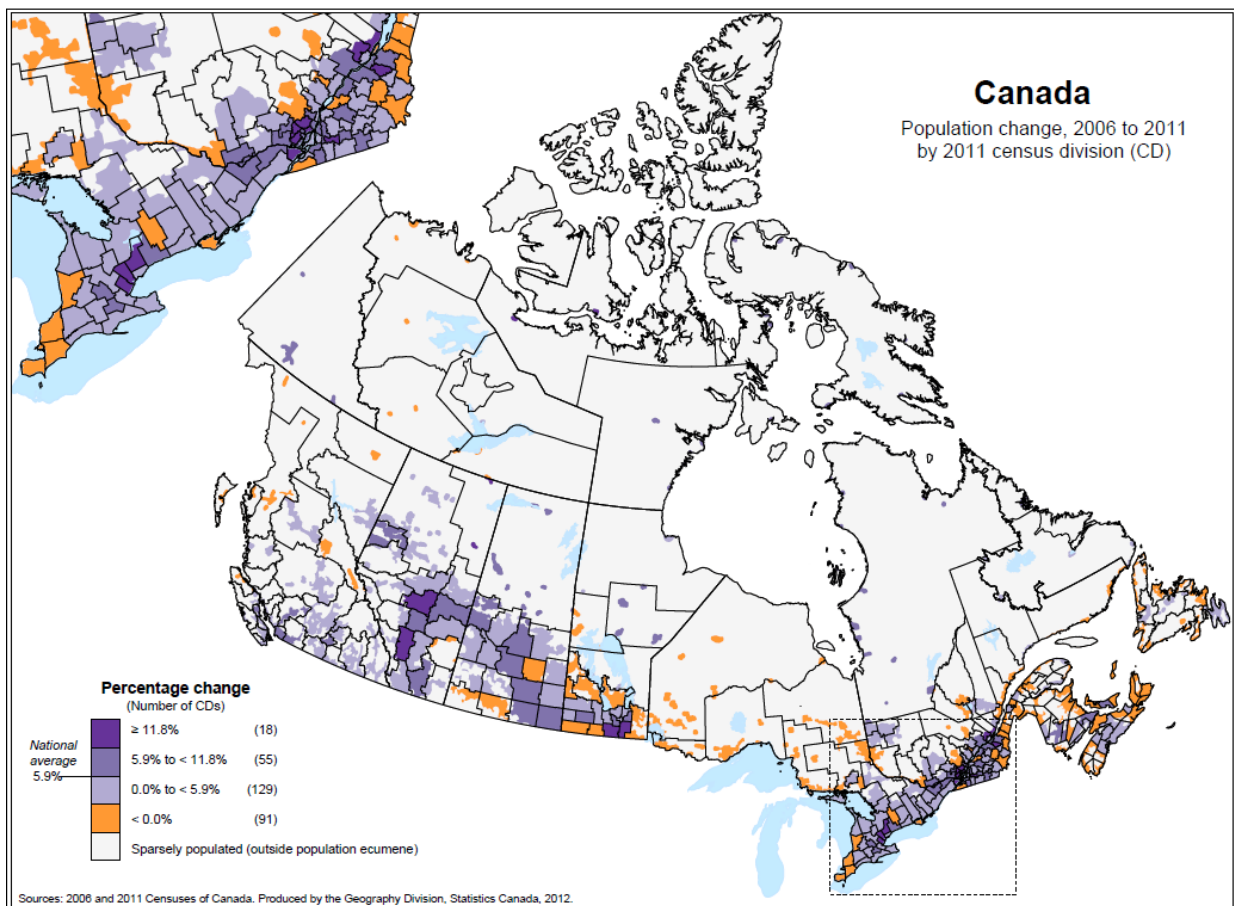
1. births
 2. deaths
 3. **immigration** - act of entering a nation
 4. **emigration** - act of leaving a nation
- [A person emigrates **from** Germany and then immigrates **to** Canada.]

$$\text{population change rate} = (\text{births} + \text{immigration}) - (\text{deaths and emigration})$$

↑
gains
in
population

↑
declines
in
population

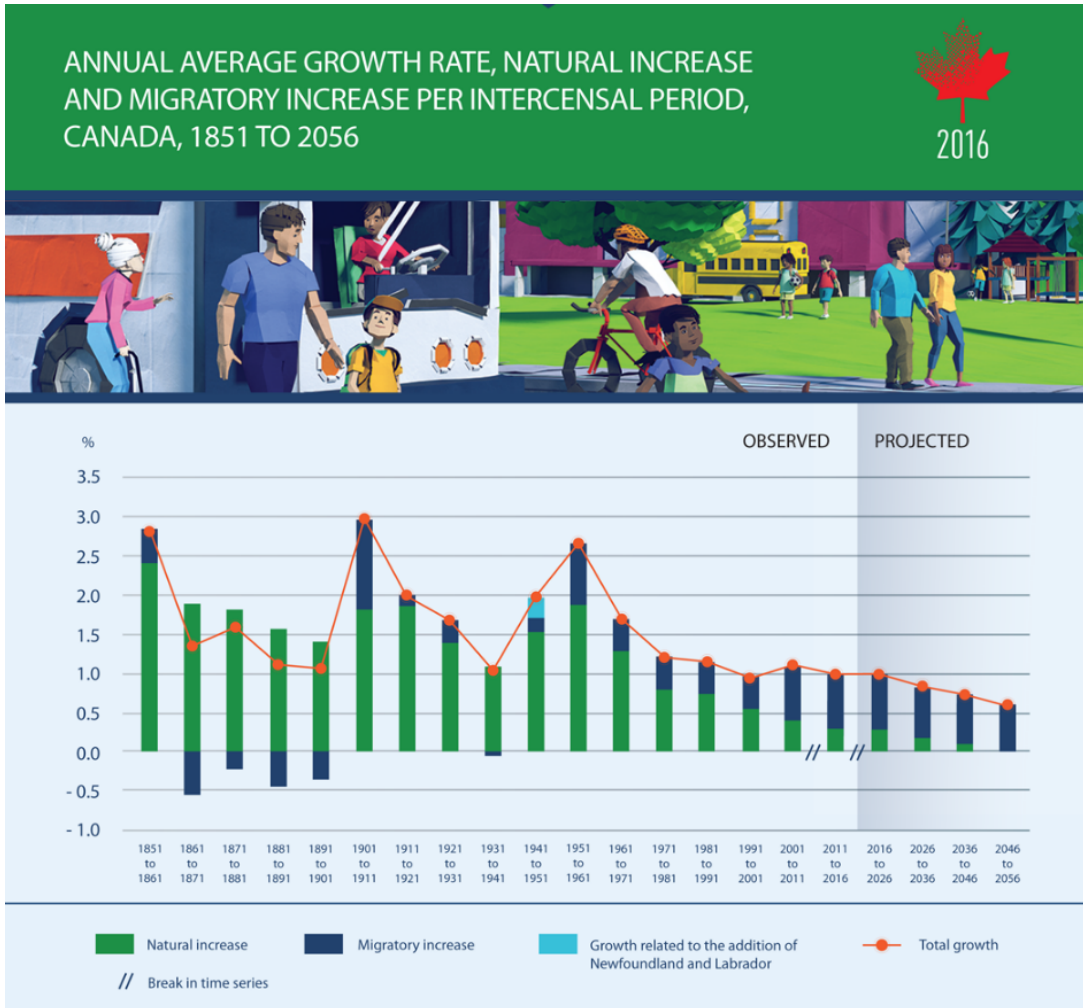
The term "**population growth**" refers to how the number of individuals in a population increases (or decreases) with time.



Let's look at some STATS from...

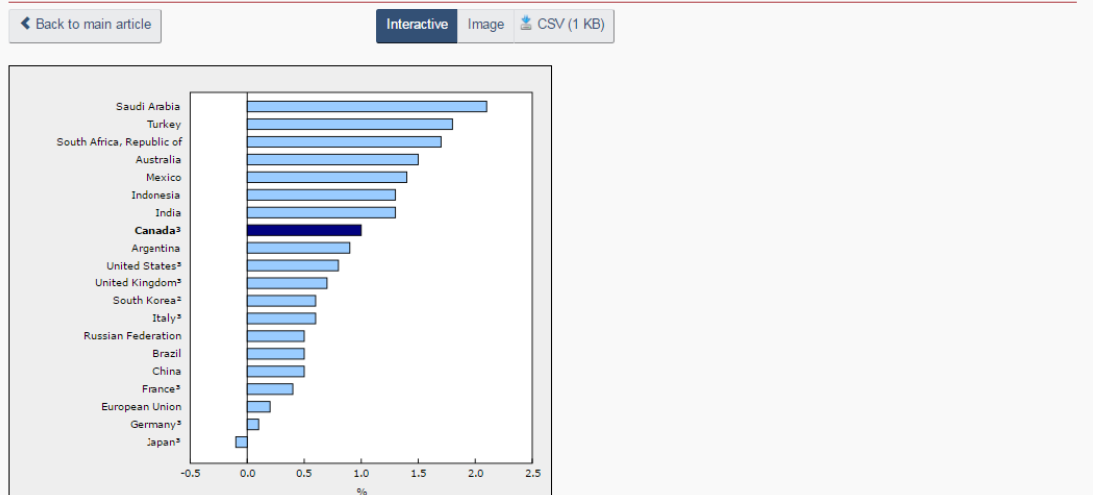
<http://www12.statcan.gc.ca/census-recensement/index-eng.cfm?HPA=1>





<http://www.statcan.gc.ca/daily-quotidien/170208/cg-a001-eng.htm>

Chart 1
Average annual population growth rate among G20 and G7 countries, 2011 to 2016¹

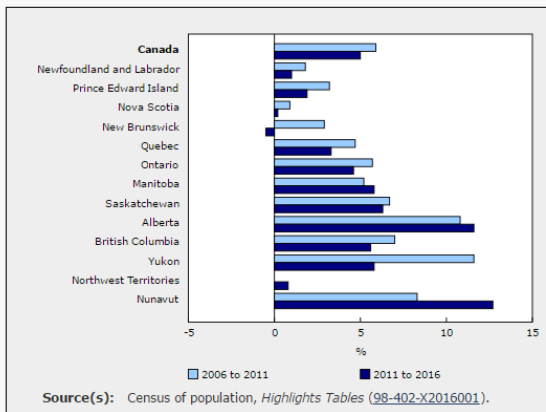


<http://www.statcan.gc.ca/daily-quotidien/170208/cg-a002-eng.htm>

Chart 2 Population growth rate, Canada, provinces and territories, 2006 to 2011 and 2011 to 2016

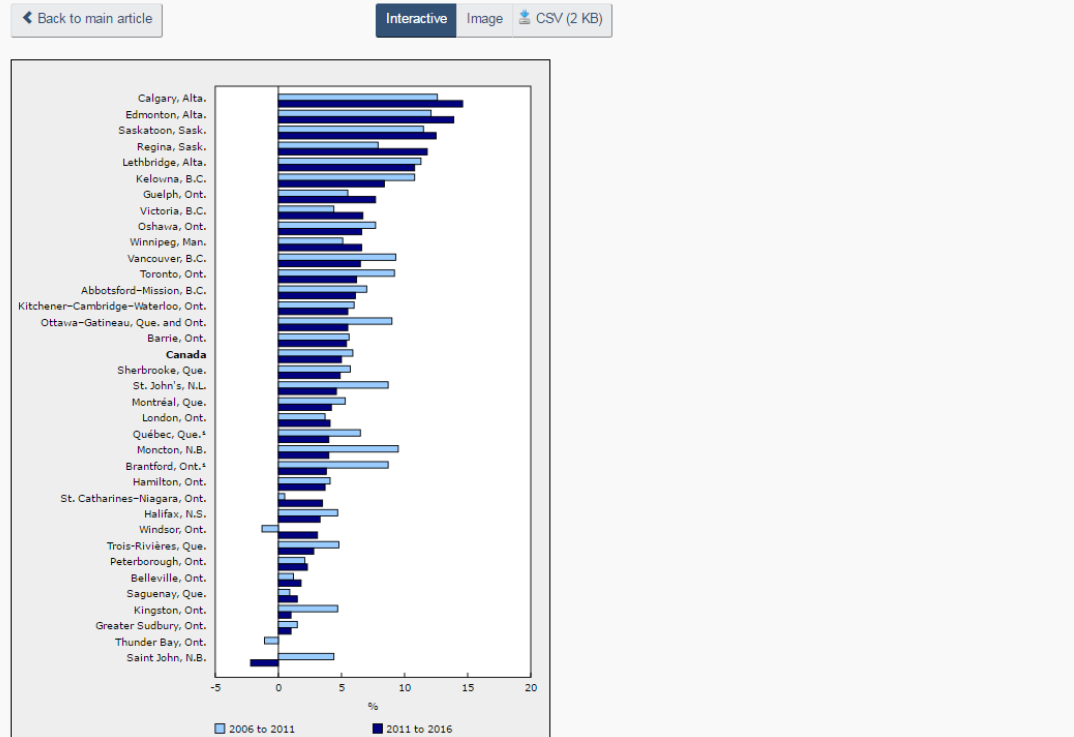
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[Interactive](#) [Image](#) [CSV \(1 KB\)](#)



<http://www.statcan.gc.ca/daily-quotidien/170208/cg-a003-eng.htm>

Chart 3
Population growth rate among census metropolitan areas (CMAs) in Canada, 2006 to 2011 and 2011 to 2016, ranked by percentage growth in 2016



LAB: Mark-Return-Recapture

1.2 A Sample Census-Wildlife.doc

Classroom



Lab - Mark_Return_Recapture.pdf

Lab Report - Mark_Return_Recapture.pdf

Field..Miramichi River



- NOTES:**
- Only 1 lab report needs to be passed per group.
 - If you are absent, see me to make it up during IS.
 - link is below for the extension question.

<http://www.miramichisalmon.ca/northwest-miramichi-river-smolt-study/>

DUE: By the end of class on Friday

Attachments

1.2 A Sample Census-Wildlife.doc

Lab - Mark_Return_Recapture.pdf

Lab Report - Mark_Return_Recapture.pdf