

Alanna Mitchell's slide during her talk at the Kitchener Museum (Nov 17, 2013)

Within only 263 years, humans increased carbon levels in air, ocean acidity and their heat content, which were the main reasons behind mass extinction events millions of years ago

DEEP TIME (years ago)

- 4.6 billion (earth formed)
- 3.6 billion (life appeared in oceans)
- 400 million (life appeared on land)
- 250 million
- 65 million (dinosaurs died)
- 55 million
- 20 million
- 400,000 (humans appeared as species)
- 263 (industrial revolution began)

Mass extinctions

CARBON LEVELS AND ITS IMPACTS

YEAR	AIR	OCEAN
	CO ₂ levels in parts per million (ppm)	Acidity levels from pH values*
1750 (beginning of industrial revolution)	280	8.2
2013 (present day)	400	8.05
2050 (37 years from now)	560**	7.8**

+42%

+41%

+100%

+150%

* The % increase in acidity is calculated from the concentration of H⁺, which equals 10^(-pH)

**Projected values with 'business as usual'

IT'S TIME TO BACK OFF HUMANS AND HELP THE PLANET HEAL !!