### Text 3 (con't)

## Battling Bacterial Evolution: The Work of Carl Bergstrom

Dr. Carl Bergstrom manages evolution. From his laboratory at the University of Washington, Carl figures out how to control the evolutionary future of microbe populations, nudging them towards particular destinies and away from others. His laboratory does not look like a traditional biology lab; rather than test tubes or microscopes or petri dishes, the rooms are full of computers, whiteboards, books, and coffee machines.

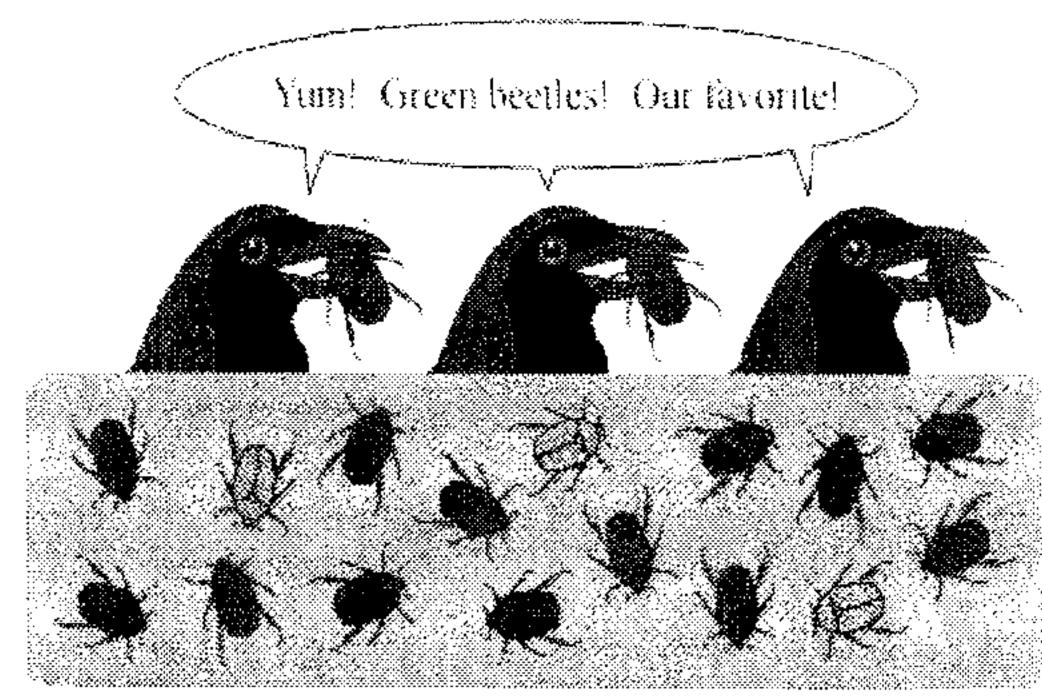
#### Hooked on natural selection

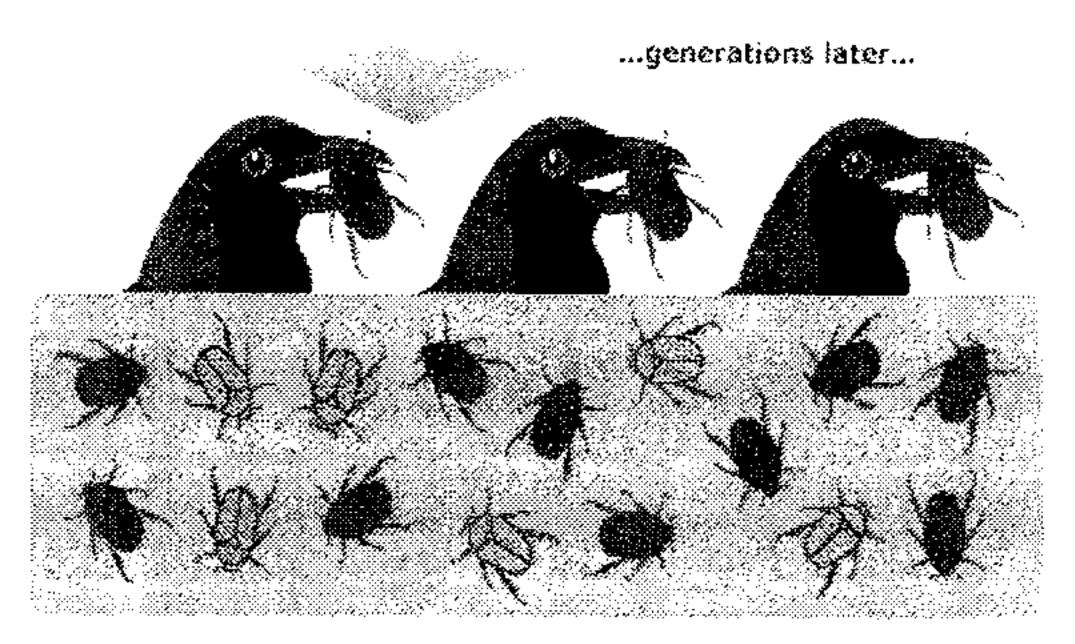
Carl had always been interested in biology but got hooked on evolution after encountering Darwin's basic idea of natural selection. The concept is simple, but incredibly powerful...

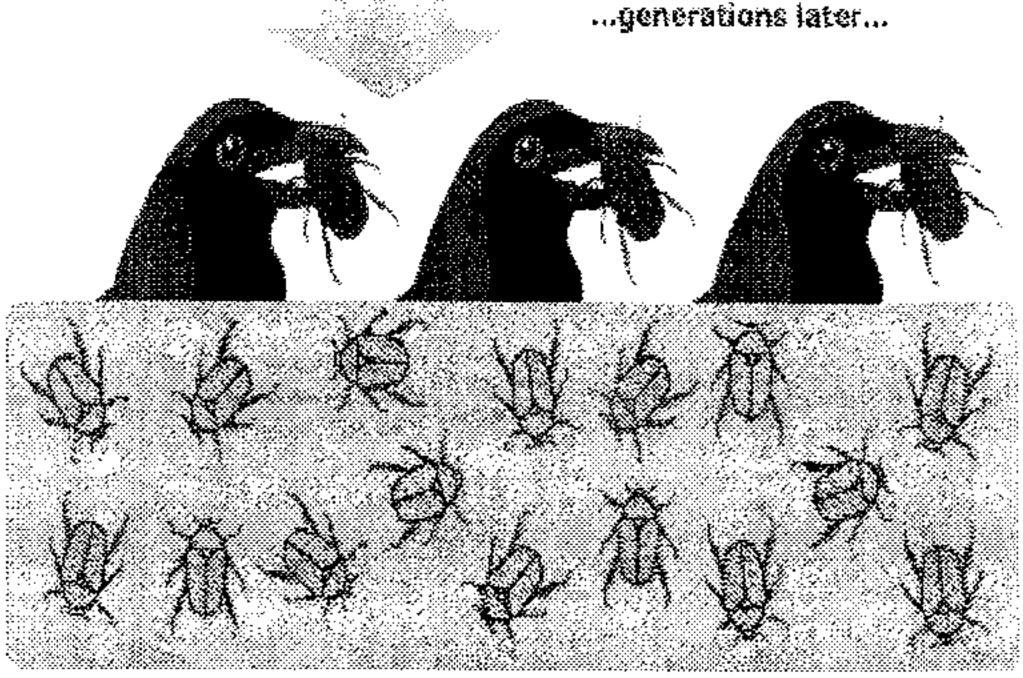
Natural selection is simply the logical result of four features of living systems:

- **variation** individuals in a population vary from one another
- inheritance parents pass on their traits to their offspring genetically
- **selection** some variants reproduce more than others
- time successful variations accumulate over many generations

# Natural selection, in a nutshell:







Green beetles have been selected against, and brown beetles have flourished.

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Source: "Battling bacterial evolution: The work of Carl Bergstrom." Understanding Evolution. University of California Museum of Paleontology, 7 November 2011 http://evolution.berkeley.edu/evolibrary/article/0\_0\_0/bergstrom\_03.