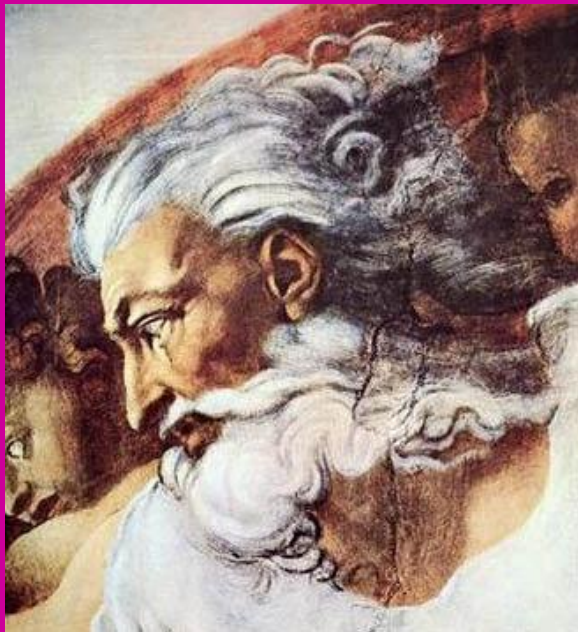




PHIL 101

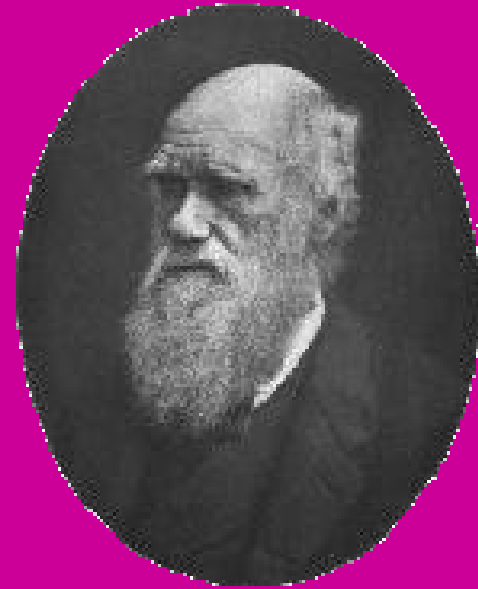
Winter 2007



Self, World,

& God

# CASE FOR COMMON DESCENT



- $e_1$ . Expanded age of the earth.
- $e_2$ . Fossil record.
- $e_3$ . *Scala Naturae*
- $e_4$ . Patterns of geographical distribution.
- $e_5$ . Morphological considerations
- $e_6$ . Embryological development
- =====
- $t_0$ . Descent with modification

# ALTERNATIVE EXPLANATIONS



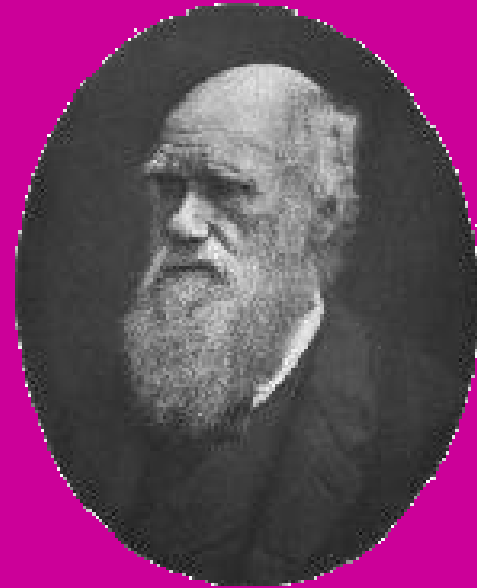
- $t_0$ . Descent with modification
- $t_1$ . Lamarkean evolution
- $t_2$ . Special creation
- $t_3$ . Something as yet undiscovered

# RANK ORDER



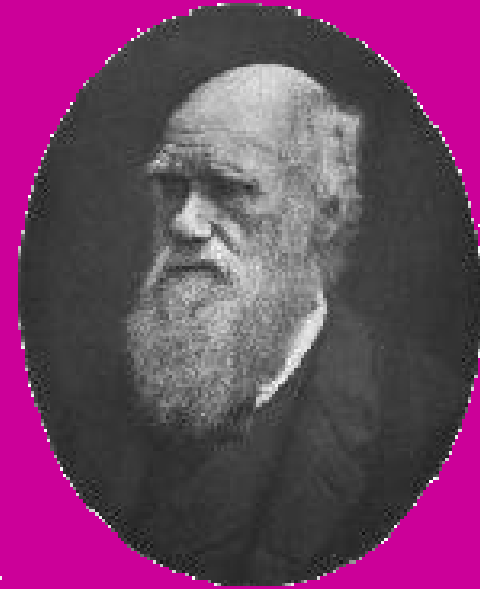
- Darwin's ranking
- Darwin's contemporaries' ranking
- Contemporary ranking
- Your own ranking
  - Doesn't have to deny God
  - What your intellectual conscience tell you - not your heart?

# Natural Selection



- Why the biological change implied by common descent?
- Lamarckian evolution - acquired characteristics
- Selection metaphor
- Artificial selection
- Background:
  - Expanded age of the earth
  - Malthus

# CASE FOR NATURAL SELECTION



$e_1.$

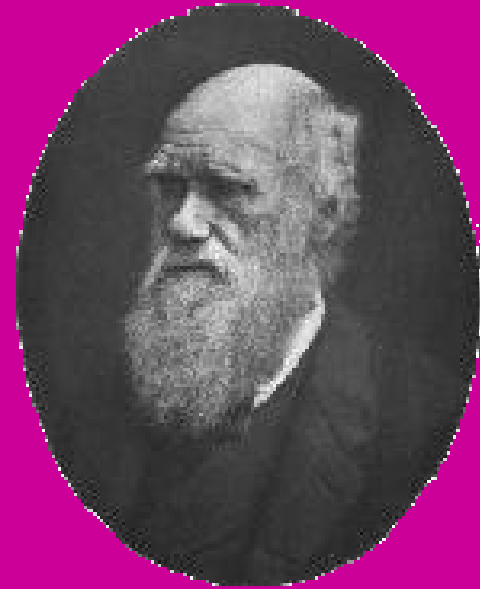
.

.

$e_6.$

$e_7.$  Artificial selection

# CASE FOR NATURAL SELECTION



$e_1.$

.

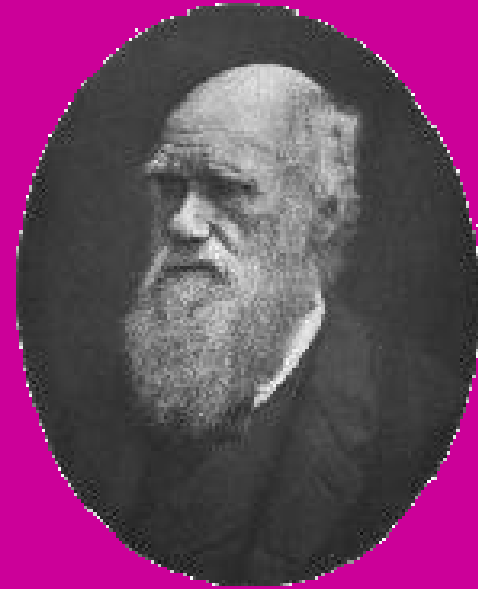
.

$e_6$

$e_7.$  Artificial selection

$e_8.$  Fecundity of all species

# CASE FOR NATURAL SELECTION



$e_1.$

.

.

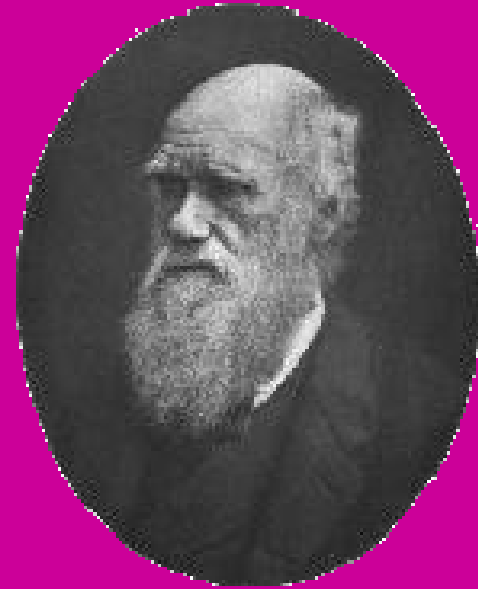
$e_6$

$e_7.$  Artificial selection

$e_8.$  Fecundity of all species

$e_9.$  General stability of populations

# CASE FOR NATURAL SELECTION



$e_1$ .

.

.

$e_6$

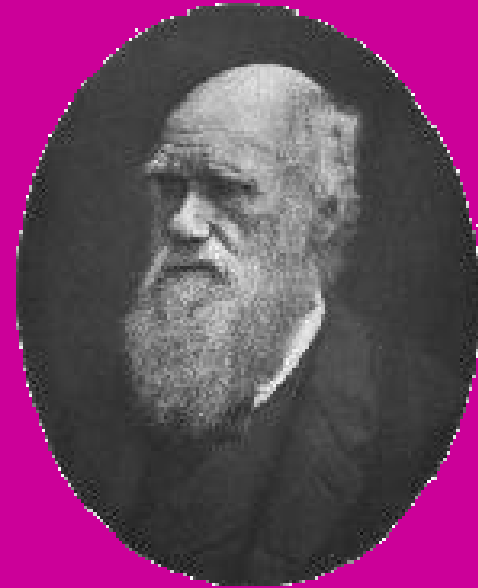
$e_7$ . Artificial selection

$e_8$ . Fecundity of all species

$e_9$ . General stability of populations

$e_{10}$ . Limited natural resources

# FIRST INFERENCE



$e_1$ .

.

.

$e_6$

$e_7$ . Artificial selection

$e_8$ . Fecundity of all species

$e_9$ . General stability of populations

$e_{10}$ . Limited natural resources

=====

$t'_0$ . Struggle for existence

# CASE FOR NATURAL SELECTION

$e_1.$

.

.

$e_6$

$e_7.$  Artificial selection

$e_8.$  Fecundity of all species

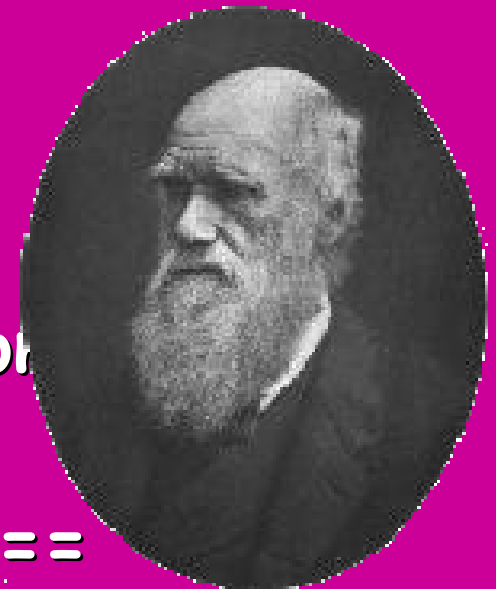
$e_9.$  General stability of population

$e_{10}.$  Limited natural resources

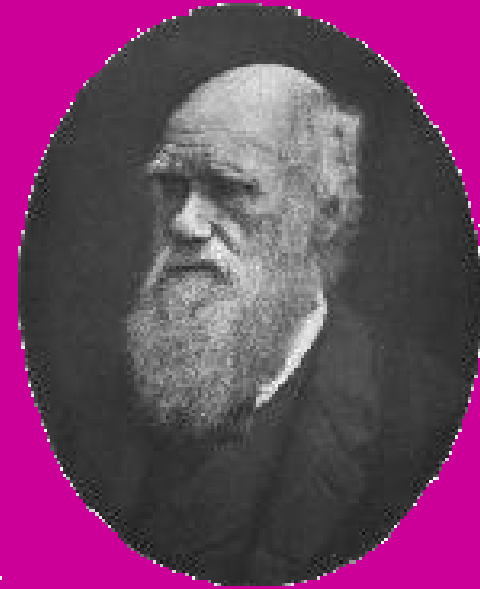
=====

$t'_0.$  Struggle for existence

$e_{11}.$  No two individuals are the same



# CASE FOR NATURAL SELECTION



$e_1.$

.

.

$e_6$

$e_7.$  Artificial selection

$e_8.$  Fecundity of all species

$e_9.$  General stability of populations

$e_{10}.$  Limited natural resources

=====

$t'_0.$  Struggle for existence

$e_{11}.$  No two individuals are the same

$e_{12}.$  Much of this variability is heritable

# SECOND INFERENCE

$e_1.$

.

.

$e_6$

$e_7.$  Artificial selection

$e_8.$  Fecundity of all species

$e_9.$  General stability of populations

$e_{10}.$  Limited natural resources

=====

$t'_0.$  Struggle for existence

$e_{11}.$  No two individuals are the same

$e_{12}.$  Much of this variability is heritable

=====

$t''_0.$  Struggle is not completely random - natural selection



# THIRD INFERENCE

$e_1.$

.

.

$e_6$

$e_7.$  Artificial selection

$e_8.$  Fecundity of all species

$e_9.$  Stability of populations

$e_{10}.$  Limited natural resources

=====

$t'_0.$  Struggle for existence

$e_{11}.$  No two individuals are the same

$e_{12}.$  Much of this variability is heritable

=====

$t''_0.$  Struggle is not completely random - natural selection

=====

$t'''_0.$  Over many generations - origin of new species

