The Edges of Life
A Series of 6 Lectures Exploring Our World and Ourselves
The University of Arizona
College of Science
Spring 2008

Topics of the public lectures
- Origins of life
- The limits of life/life on other planets
- The origin and extinction of species and human impact
- Animal and human cognition
- What is death
- Technology and human life

Other things you will learn:
- The tree of life
- A short history of life on earth
- What is science
- Critical evaluation of scientific topics
- Writing a summary
- What is a good presentation

The Edges of Life
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Course webpage:
http://www.eebweb.arizona.edu/Faculty/Dornhaus/courses/ecol195g.html

Anna’s research
Colony organisation
- Collective decision-making in ants
- Communication and pheromones in bumble bees
- Benefits of recruitment in honey bees
- Division of labor in ants and bees

Syllabus etc.
- Check out the website
  http://www.eebweb.arizona.edu/faculty/dornhaus/courses/ecol195g.html
- You are required to attend the 6 public lectures (Wed 7pm Centennial Hall) (30% of grade)
- And write a max. 300 word summary of each (30% of grade)
- Speak up in class! (30% of grade)
- No class on March 5th, but still go to lecture!
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| • Make sure to start in a way that explains what the topic is.  
• Make sure to end with a sentence that summarises the main point and the relevance of it all.  
• Give details in the middle.  
• Write 200-300 words (no more no less!!) | • Ideally, each sentence should link with the sentence before.  
• All sentences should be complete sentences.  
• If someone only reads the first and last sentence of each paragraph, she should get the main message. |

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| • Read what you've written again at the end - does it make sense?  
• Check for grammar and spelling  
• Give it to someone else to read. Did they understand what the lecture was about? | **Reading**  
• We will continue discussing these topics in class after the public lectures have finished.  
• Please choose one book from the reading list! (let me know which)  
• You will read a chapter of your book each week and present what you’ve learned to class from March 26. |

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| • How old is the earth?  
• How old is the oldest evidence of life?  
• How long was it before complex, multicellular life appeared? | • How old is the earth?  
And how would you find out if you don’t know?  
• How long was it before complex, multicellular life appeared? |
A history of life on earth

- How old is the earth?
  http://en.wikipedia.org/wiki/Age_of_the_Earth
- How old is the oldest evidence of life?
- How long was it before complex, multicellular life appeared?

The Hadean era

Stomatolites
complex communities of (mostly) cyanobacteria - produced all the atmospheric oxygen
A history of life on earth

The ‘Cambrian explosion’

Origins of other animal & plant groups

‘Ediacara fauna’ – first multicellular life?