

# CREATURE FEATURE

## Showcase of "Living Fossils"

### Introduction

There are some plant and animal lineages out there that are very long-lived, have a deep fossil record, and have been in relative morphological stasis for long periods of geologic time. If their duration reaches all the way up to the Recent they are sometimes referred to as "living fossils". Perhaps the most famous of these is the horseshoe crab (*Limulus*) though there are many others. Each student in the class will feature one of these long-lived creatures (or lineages) in a short 5 minute presentation with an associated handout. There are plenty to go around and we'll have a lottery for who gets to feature which creature next class session. Review the following creatures online and start strategizing to get the one you want!

We will proceed through the "living fossil" groups in concert with various fossil groups we study through the remainder of the semester. There will be two creature features every Monday starting next week until the end of the term. All featured creatures will be "fair game" come final exam time.

### Living Fossil Creatures/Lineages:

<i>Limulus</i>	<i>Lingula</i>
<i>Amia</i>	<i>Tuatara (Sphenodon)</i>
<i>Endoxocrinus</i>	Dragon Flies (generally)
<i>Latimeria</i>	<i>Ginkgo</i>
<i>Nautilus</i>	Amphioxus
<i>Neopilina</i>	



*Limulus* (D. Remsen - MBL)

### Products

1. A **five minute oral presentation** using whatever visual media you would like (chalk, overheads, slides, etc.).
2. A **one page handout** for the class giving the highlights of your creature and presentation.
3. A short **peer assessment** form for each of your fellow presenters.

### Topics to cover

- Fossil record of the genus or higher order group (FAD, evolutionary history, diversity history)
- Anatomy (both commonly and rarely fossilizable parts)
- Lifestyle (feeding, habitat, reproduction)
- Other fun facts (modern vs. ancient geographic distribution, ecology, etc.)

### Assessment

You will be assessed on the products listed above. With regard to the presentation & handout, you will be assessed via the rubric on the next page. The peer evaluations that you provide to others will be such that they give constructive feedback to the presenters about their speaking effectiveness and quality of the presented material. Although your assessments of others will not influence their grade, the quality of your feedback to your peers will be reflected in your grade for the whole activity (5 additional points). You will first turn in your assessment sheets to me for my evaluation of them, then I will cut your name off the top and give the feedback you wrote directly to the presenter.

CREATURE FEATURE RUBRIC

Criteria	Excellent - Very Good	Good - Adequate	Fair - Poor	Needs a lot of work
Focus/Content	15-13 -has fully anticipated questions in selecting information; presentation well-thought-out and carefully developed; interesting to listen to	12-10 -has anticipated most questions in selecting information; topic may not be fully explored; interesting in places	9-7 -has anticipated few needs in selecting information; topic explored only superficially and inadequately developed	6-0 -shows no awareness of needs; ideas superficial and/or uninteresting OR not enough to evaluate
Organization	10-9 - clear flow of ideas is logical; easy to listen to	8-7 -main ideas stand out but sequencing of ideas seems choppy or disconnected; some difficulty following flow	6-5 -logical breakdowns apparent; difficulty "getting the point"	4-0 -logical organization absent OR not enough to evaluate
Oral/Visual Style	5 -well articulated in every way; visually pleasing presentation style; no distractions	4-3 -well articulated in places with some breakdowns in others; visually pleasing most of the time; some distractions	2 -many distractions in the presentation; couldn't be heard; read from slides	1-0 -not at all prepared/ rehearsed, visuals don't work, etc.
Handout	10-9 - Succinct; visually pleasing; all sources cited; no grammatical errors; easy to study from	8-7 -missing some required information; some sources uncited; occasional grammatical errors	6-5 -list style handout; missing some required information; not well organized	4-0 -logical organization absent OR not enough to evaluate
Subtotal	/40	<i>This rubric can be used as a self-guide to better your writing</i>		

+

/5 (Reflecting the quality of your comments on other presentations)

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/45 TOTAL GRADE

Your Name \_\_\_\_\_

Speaker Name \_\_\_\_\_

Speaker Creature \_\_\_\_\_

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What was the best part about the presentation style/delivery?

How could the presentation flow have been improved with regard to the order of subtopics?

What did you find to be the most interesting aspect of the material presented?

Is there any part of the project that the speaker could have reduced emphasis on in order to place more on another? Which should be reduced? Which should be "beefed up"?

What question do you have for the speaker that you didn't get to ask?

Your Name \_\_\_\_\_

Speaker Name \_\_\_\_\_

Speaker Creature \_\_\_\_\_

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