

**In brief:** Find, read, and review (in 250-300 words) an important paper updating Keeling 2004 or Palmer et al. 2004. **Due Tues Sep 23. Value: 5%**

The papers by Keeling and Palmer et al. presented the latest knowledge as of summer 2004, and new information has been added constantly since then. Many new species have been sequenced, and some of these represent genera, families, orders or even higher taxa for which no sequence data had been available in 2004. New analyses have been done using better computer algorithms, bigger or better datasets, or driven by specific hypotheses made in the papers of 2004. Each taxonomic conclusion is in fact a hypothesis, to be tested by more and better data or methods in the future. As more data and analyses support each taxonomic conclusion, it becomes accepted and may be added to the text books that you or your children may read. Sometimes these taxonomic conclusions support classifications that are radically different from what we may have learned, sometimes the differences may be subtle, and occasionally a part of the old classification is supported and kept!

In your review, which will amount to about one page of text (250-300 words, counting just the text - not the title, your name, or your references), summarize the main points made by the paper that you found, how these were arrived at (a synopsis of their methods), and how their findings differ or result in a different classification to that proposed in 2004.

Be sure to use the scientific writing style. Most of what you write will be based on facts derived from Keeling (2004), Palmer et al. (2004) or your new paper (Whoever, 200x). For example, "Keeling (2004) suggested that secondary endosymbiosis of green algae led to the chloroplasts of the euglenids. However, based on the new evidence of xxxx gene sequences, Whoever et al. (200x) found that the chloroplasts of various euglenids had several separate origins, some from green algae and others from red algae. ..."

Do not quote from your sources – i.e., directly copy text and place in quotation marks. Use your own words to express what they said. In scientific writing, we rarely use quotes, except to credit authors with a particularly brilliant thought, a definition, or a specific error that we wish to correct.

The format of your paper should be exactly:

Title

Your name, SN

Body of text (several paragraphs, with logical organization including a beginning, middle, and a concluding statement at the end), of 250-300 words

References (use the format of American Journal of Botany – i.e., Keeling 2004 or Palmer et al. 2004)

Save your file as a Word file (.doc, **not .docx**) or pdf, and email it to me as an attachment, to [rgthorn@uwo.ca](mailto:rgthorn@uwo.ca) by 5 pm **Tues Sep 23**.

### **Grading:**

1. Suitable article chosen: **(+1)**
2. Clear, concise summary of the main points in the article, their methods, and how their results lead to different conclusions, including classification changes if any, from Keeling (2004) or Palmer et al. (2004): **(+4)**
3. Incorrect grammar or spelling: **(-1)**
4. Incorrect reference citation or reference formatting: **(-1)**
5. Plagiarism (copying any part of your paper from a classmate or from the web, etc.): **(-5, and will be reported to the Dean for possible academic sanction)**