Writing a Mini-Literature-Review
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The purpose of writing a literature review is to set your summer research in the context of previous work in your area of focus. Remember, science is a social and collaborative activity. When writing a research article, you are joining an ongoing conversation. The role of the literature review is to help you get a sense of that conversation and of how you can contribute to it by adding your own voice.

A literature review is not a book report in which you give your “thumbs up” or “thumbs down” on a particular publication. Rather, a literature review is a survey of published work in a specific field or sub-field, often with the purpose of setting an agenda for future research. A literature review is not a random listing of previous work, but rather assesses previous work for the purposes of suggesting further work. The logic behind the literature review you are writing is to make a case why your current work (or some more general research agenda) is appropriate and necessary.

There are several distinct forms of literature reviews. Some are published as free-standing articles in journals. Others take their place as a distinct chapter in a longer project, such as a dissertation or book. Still other literature reviews occur in the context of the “introduction” section of a research article. The literature review you will be writing this summer falls into this third category: it is a preliminary effort that will help you craft the introduction to your research article. Your literature review is not a final official “deliverable.” Rather, think of it as an early draft that can help you prepare for the next key writing assignment: a draft of the full introduction section to your research article.

How to proceed? Start by reading and taking notes on 3-4 reference articles, review articles, or key research articles, as supplied or recommended by your research mentor. Given your research project for this summer, ask yourself how your work is informed by, or builds on, or responds to this body of work. (You are, of course, welcome to conduct a library search for additional sources as your work proceeds. Such searches will be important as you become more informed about your work; ask your research mentor about what keywords would be appropriate when exploring library databases. However, for this preliminary literature review, you will want to stick to just a few key foundational studies, and your research mentor is in the best position to point those out to you.)

What should my literature review look like? Here are a few guidelines and pointers when drafting your literature review:

• Briefly characterize your area of research and what particular problem or question at issue you will address.
• Drawing on about 3-4 key studies, summarize how the authors addressed this area of research and why or how it is relevant to the field. After you have summarized a particular study, discuss insights and methods used by researchers and relate these to your own planned work. Clarify how you plan to confirm previous work, or try a new method, or extend in new ways previous approaches. In essence, your characterization of previous work should set up the relevance and importance of your own work. Your literature review should answer the question: how am I standing on the shoulders of others?
• Include a list of references in an accepted style (AMS, AGU, or other style as recommended by your research mentor). This list will be the start of your bibliography for your full research article.
• Your literature review should be approximately 3-4 pages long (double-spaced or equivalent).