Semester Project - List of potential communities

For the semester project, you will explore and communicate the ecology and environmental challenges of a focal ecological community. The goal for this assignment is to help you choose this ecological community.

Please answer the following questions:

1. What are 2–4 potential ecological that you might like to focus on for your semester project? What appeals to you about each possibility? Here are some pointers on what might constitute ideal focal communities:

    - Recall that ecological communities comprise *groups of species* that interact with one another in a meaningful way
    - This means that your semester project should not focus on one species in particular (unless you are specifically exploring the interactions that a central species has with other species in the community)
    - For the semester project, you will have to draw substantially on information from at least three peer-reviewed studies on your focal community. Thus, try not to choose an extremely specific location, and think more broadly about the *type* of system you want to focus on. (For example, if you want to learn more about the types of interactions going on in the Bluebonnet Swamp Nature Center, you might choose to focus on "swamplands in Louisiana" as your focal system).
    - Try to avoid thinking of ecological communities as "place names", but rather in terms of the ecology happening within. For example, rather than choosing "Yellowstone National Park" as your focal community, you might read into the biology happening within and decide to could focus on "microbial communities in geothermal geysers", which is a fascinating ecological community within Yellowstone.

2. For each possible system, do a web-search search on your favorite search engine about the ecology, climate, and/or environmental challenges. **Please use your judgement and stick to reputable sources; avoid tourism websites etc.** What are some intriguing things you learned about each system? (For example, what are the dominant plant species, herbivores, and predators in this system? What is are the seasonal patterns of of temperature and precipitation?) What sources did you use to get this information?

    Note: *Please avoid using generative AI tools like ChatGPT, as they don't provide their sources, which you are required to list for for this question.*

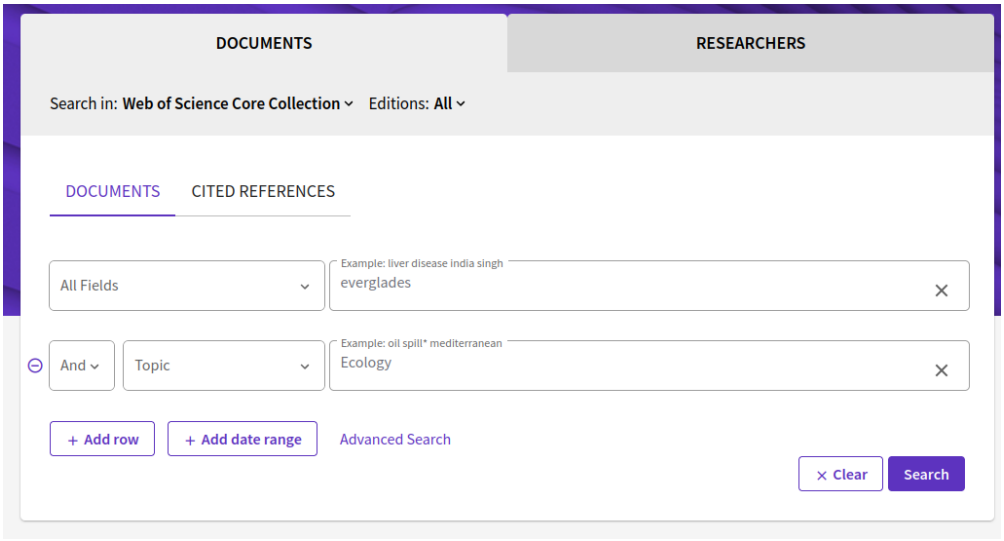
3. Use Google Scholar to search for primary ecological research articles about each system. For example, if I wanted to focus on the Everglades as my focal system, I might simply start with the search term "Everglades ecology". After exploring promising search results, report back on some of the following questions:

    a. What are some things you notice about the types of articles you are getting back from this search? For example, is there more literature or less literature than you expected? What are the types of journals in which the papers are published?

    b. If it seems that your search is too broad, what are some ways you can refine your idea to narrow in on a more tractable question? If your search term seems to narrow, what are some things you can do to cast a wider net?

4. While Google Scholar can be a useful starting point to search for primary literature, it is not always comprehensive and might miss important articles. Another excellent database is Web of Science, which you can access through LSU's library following the instructions at this link.

   Use Web of Science to search for primary ecological research about your focal communities. Unlike Google Scholar, you can use Web of Science to search to search for terms in specific fields. For example, if I was doing a project about the Everglades, I might start with a search for "Everglades" in all fields, and "Ecology" as the topic:



   Based on your search, address some of the following questions:

   a. What terms did you search for, and what are some things you notice about your Web of Science search results? It is the same set of papers as you saw in Google Scholar?

   b. Using the "quick filters" on Web of Science, limit your search results to Review Articles and read through the Abstracts of a few potential sources that you can explore in depth to shape your project. What papers are you choosing, and why?

5. After conducting this initial exploration of your chosen systems, do you feel that you will be able to develop a semester project around its ecology and environmental challenges? If there is an overwhelming list of potential topics, how do you think you can narrow down your focus? If you struggled to find good sources, how can you broaden your scope?