Master Level Sample Proposal #1

Drone Congregation Area (DCA) identification is an important service to honey bee researchers and the beekeeping industry. Creating a living map identifying DCAs across the United States will provide researchers and beekeepers with GPS information and study honey bee reproduction under natural conditions. Collecting this data from across our country will assist queen breeders, beekeepers and researchers in assessing and evaluating honey bee mating trends which can offer important evidence on honey bee health and reproduction.

One sentence: Get the reviewers attention with a specific situation and its current impact or significance
One or two sentences: Identify the importance and address the need and why it is such a problem or question

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In the past it's been hard to find DCAs but now with mechanical drone technology, or unmanned aerial vehicles, (UVAs), anyone can. Current honey bee research indicates a need to assess and collect more data on honey bee reproduction in the natural environment.

One or two sentences: Summarize the state of the art and its limitations; may include an example
One sentence: Describe the challenges to solving the problem and the gaps that remain in the field

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In this research paper, I plan to map the DCAs in my vicinity. I will upload my data to the "Map My DCA" website and add my findings to the map. UAV technology is still relatively new and for the first time ever researchers and beekeepers will have a comprehensive map of all DCAs in the United States. As honey bee health is an ongoing concern and health decline is linked to the disappearance of open land (pastures, meadows), it is imperative that we collect this data across our country and actively examine DCA trends. In my vicinity I have located a couple of DCAs and I have the equipment necessary to map and upload the information. I am a citizen scientist and Master beekeeper and my date will contribute to a better understanding of honey bee behavior.

Two or three sentences: Introduce your concept and establish its credibility; why is it novel?

Ensure reviewers that it is feasible.
One or two sentences: Describe your project's fundamental rationale and/or hypothesis. Why are you the one who can do this?

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The specific goals of this project are to:

1. Identify and discuss honey bee drone biology and genetics

2. Identify and discuss drone congregation areas (DCAs) in my vicinity

3. Begin mapping areas in March 2020 and locate DCAs

4. Add my citizen science research findings to the Map My DCA website
5. Prepare and deliver a presentation to the CAMBP staff and other bee clubs in my area and encourage others to map DCAs.

List 2-4 specific objectives of your proposal.
•These are NOT methods, rather they are more general aims of the research
•They should be linked to the overall hypothesis, or individual hypotheses to be tested
•They should be related, but not interdependent

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Should the research hypothesis be supported, researchers and beekeepers will have science-based data of the DCAs in my vicinity and I'll have contributed to a better understanding of honey bee health. Beekeepers and researchers will have a more comprehensive understanding of how DCAs contribute to honey bee health, and additionally, DCAs could support queen rearing in a more viable and controlled setting.
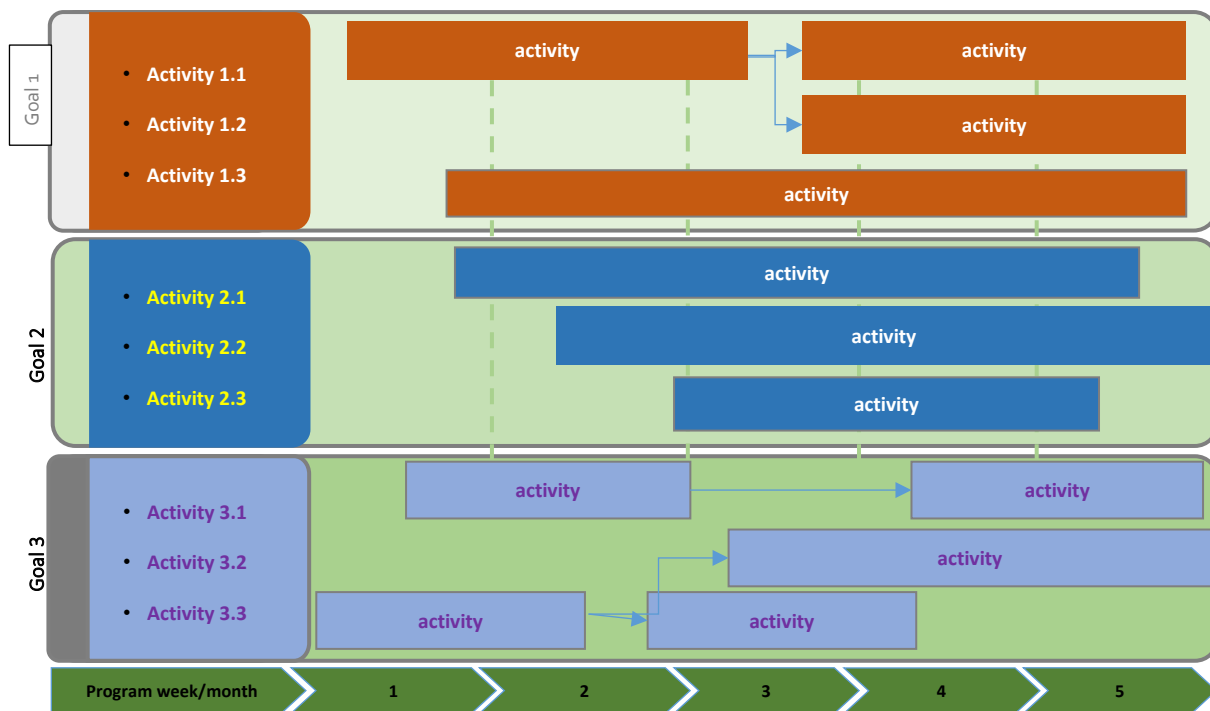
One sentence:
Show how your work will advance the field.

One sentence:
Envision the world with the originally stated problem solved.

Next steps for developing your proposal: develop a timeline, budget, and list of resources needed:

1. How long will the project take? (e.g. 6 months to 2 years)

2. For each of your goals listed above, what are the action items and main activities? (Break your goals down into steps over time)

3. What are the resources needed to complete those activities? Which are already available? Which do you need to obtain?

    a. Materials, methods and supplies

    b. Equipment

    c. Other costs

4. How will you know that you have been successful with each goal? What are the final deliverables?

5. Fill in a timeline so that you can see how the resources should be distributed into a budget over time.

Write your project description:

Finally, turn your one-pager into a complete project description. Keep the one-pager as your introduction, then add the following sections:

First Page
Lay out the Problem
- Background
- Significance

State the Theme and your
- Solution
- Hypothesis
- Objectives

Create a vision
- Outcomes
- Impact

Remaining Pages (more detail)
Overview (2-4 pages)
    Background (literature review)
    Significance
    Preliminary Studies (own work)
Theme and Solution (5-7 pages)
    Objectives and Hypotheses
    Innovation
    Approach and Methods (details)
    Potential Pitfalls and Alternative
Approaches
    Timeline and Milestones
Outcomes (1-2 pages)
    Deliverables
    Logic Model
    Broader Impacts