

# HOW TO UNDERSTAND BEE ROLES



**used by:  
QB, B, DB**

# ABOUT THE BEE ROLES

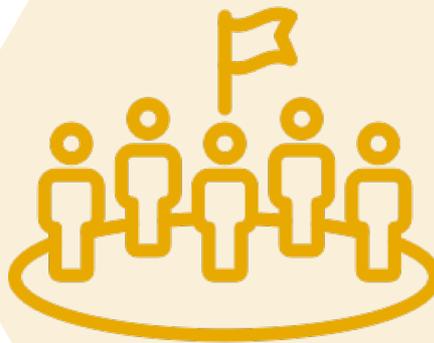
This short six-question survey will help Beekeepers to understand the potential roles that citizens can perform in terms of the skills and time they can devote to Citizen Science (CS) projects or campaigns. The procedure for questionnaire analysis is provided at the end of the document.

## Queen Bee

Hive leaders, who participate in and coordinate collective activities. They are knowledgeable participants who are interested in leading CS initiatives and who also aim to encourage others to participate. They understand the barriers that can be present in the creation of a new hive, but they have trust within the community to overcome these barriers.

## Worker Bees

They participate intensively in collective activities organised by the hive. This type of bee is aware; they have self-efficacy and have skills that allow them to work in the team. Pro-environmental values and attitudes drive their involvement. These are typically the most active bees in the hive and they take up a variety of tasks, from data collection to analysis.



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## Drone Bees

They are available to acquire information and be consulted. They do not actively collaborate in the campaigns but may participate in co-creation activities, as well as receive information on their results and ponder on the consequences. Their main role is increasing and raising awareness and making connections with people with decision-making power to make changes.



## Larvae

They do not care or are unaware of the involvement of CS in fighting against climate change. They do not participate in dissemination activities or other pro-environmental activities. However, if they receive the right information and incentives, they can become one of the previously described bees.



# QUESTIONS

**B1. I would be willing to participate in collecting air pollution data while walking the city and no more.**

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6

**B2. I would be willing to study the outcomes of air pollution campaigns and learn how to interpret the results.**

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6

**B3. I would be willing to reach out to people I know to join me to gather more and better air pollution data.**

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6

**B4. I would be willing to organise data collection campaigns in my neighbourhood / community.**

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6

# QUESTIONS

**B5. I can or I would like to reach out to third parties (e.g., policymakers, business actors, etc.) to promote changes in my neighbourhood / city / region, based on the results of the collected air pollution data.**

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6

**B6. I can or I would be willing to share the outcomes of the campaign with others and alert them about the consequences of air quality on our health and planet.**

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6

B1	WB
B2	WB & QB
B3	WB & QB
B4	QB
B5	DB
B6	DB

Average responses correspond to each role considering the scores they provide for each answer.

For WB: Add scores from B1, B2 & B3 and then take an average.

For QB: Add scores from B2, B3 & B4 and then take an average.

For DB: Add scores from B5 & B6 and then take an average.

The one with the highest score is the role closest to the respondent. In the case of draw / tie, the two roles are shown to the interviewee for them to select.

In case the highest role has a score of 3 or less, they are directly assigned to the Larvae role.

This is just an informative piece of information based on actions that the respondents would like to take. If they prefer to take on more responsibility or perform other actions that will take them less time, they are entitled to change their role at any point in the campaign.