

EDITORIAL

What does the term “Citizen Science” (CS) mean to you? How does it affect how you practice your interest for, or your work with, odonates? Be it on a personal level as a hobby or as a scientist. What is CS, you might wonder? CS has recently been described as “public participation in scientific research” or, more fully, “general public engagement in scientific research activities when citizens actively contribute to science either with their intellectual effort or surrounding knowledge or with their tools and resources” (Wikipedia). When you use definitions or explanations like that, it is easy to think that CS is something that science and the scientists only have use for, but it is not a one way contribution, it is a win-win situation. To quote Wikipedia once more: “Participants provide experimental data and facilities for researchers, raise new questions and co-create a new scientific culture. While adding value, volunteers acquire new learning and skills, and deeper understanding of the scientific work in an appealing way. As a result of this open, networked and trans-disciplinary scenario, science-society-policy interactions are improved leading to a more democratic research, based on evidence-informed decision making.” So everyone involved benefits, but not only that, CS may be performed not only by individuals but also by teams or networks of volunteers: “Large volunteer networks often allow scientists to accomplish tasks that would be too expensive or time consuming to accomplish through other means.”

What does CS mean for me? It is when I observe and submit a report on a database, which can then be used by someone else. It is when I help out museums with identification in their collections. It is when I administer survey projects, when I hold courses and give lectures to the general public or members of a dragonfly society. It is when I collect specimens or acquire legs for scientists for DNA sampling. It is when we raise the general awareness of dragonflies through media, websites and social media. In short, Citizen Science for me is everything done outside the “scientist box”, but something that scientists working on odonates can make use of.

Often the effort you put in is of a great importance to scientists. At other times, the effort is only for your own benefit. Sometimes you can achieve greatness, because in the concept of Citizen Science lies the possibility that you will inspire others. The largest Citizen Science project I have so far been involved in, was an atlas of the region I live in Southern Sweden. When we started out, there were only very few people who had ever submitted observations of dragonflies or even knew how to identify the species (including myself). Nevertheless, we started anyway, and through the grapevine, our enthusiasm and certainly no small amount of sheer

luck, we got hundreds to start attending courses, excursions, summer camps and so on. Before we knew it, the majority of the entire region was filled with enthusiasts submitting observations of dragonflies. This is for me the essence of Citizen Science: you do something from which that you get something in return. You feel that your effort, no matter how small, is important and a part of a whole. You might do it for your own sake, because it somehow fulfils you, but it contributes to something larger.

You can also get into a pioneering spirit, where you find that, even the most common species that you come across, has never been reported from your county, your municipality, your local pond. Even if you start out knowing almost nothing of dragonflies, and know only even the easiest to recognise species, they might never have been seen there before. That was one of the reasons I got hooked. I felt that I contributed to a greater whole, and at the same time I felt like a pioneer. Some people look upon CS as something that is done in or to a specific project. I tend to think of it also as something that can be a of benefit to future projects. The data you provide with your submitted observations might not be used for several years, but could prove to be invaluable in monitoring species or as a base for comparisons in future monitoring projects. All data, however trivial, can be of importance. Do you think it is tedious to report every single dragonfly every day where you live? Well, so do I, and I do not report everything from my day-to-day sites. But at least I do it every year. It might not be scientifically comparable, but it is something that may be valuable in future studies.

Are there problems associated with CS? Of course there are. Biased or uneven results are submitted which is a problem when you have people with different levels of knowledge, enthusiasm or amount of time available. Arguably, there are some CS projects that require people with specific knowledge or even some projects where CS is not an option. On the other hand, even if the results are biased or uneven, think of what you gain! More awareness and general knowledge on of odonates, more people submitting records, helping out in projects, more media coverage and so on. The chances that your CS project will give much more positive input than negative are so great that you should not hesitate to start one. In summary, just get out there in the field and submit records!

CS ftw!

Magnus Billqvist
Chairman, Swedish Dragonfly Society



Orthetrum nitidinerve (José Manuel Moreno-Benítez)