

“Really committing to observation brings about a beneficial sense of wonder”

Interview with Anne Dozières,
Director of the programme Vigie-Nature.

La Santé en action: What is Vigie-Nature?

Anne Dozières: Vigie-Nature is a participatory science programme that brings researchers and non-scientists together to monitor biodiversity. By observing biodiversity, everyone involved contributes to research to understand the impact of human activities on it. These programmes are aimed at a wide range of people including experienced naturalists, schoolchildren and teachers, farmers and managers of green or natural areas, and members of the public who have no specific knowledge but wish to get involved. The observatories are run by around twenty Vigie-Nature facilitators and partner associations. Our oldest observatory, STOC (*Surveillance temporelle des oiseaux communs*) monitors common birds over time; it was launched just over thirty years ago. We now have around twenty programmes, covering birds, bats, plants, pollinating insects, soil fauna and the coastline. In 2023, almost 49,000 people, including 11,000 schoolchildren, contributed towards these observatories.

S.A.: Why does this programme involve research in the humanities and social sciences?

A.D.: Alongside ecological research, we want to explore the issues of reconnecting with nature, environmental education and the scientific approach. A number of themes are

being explored: How can participation in Vigie-Nature change people’s relationship with nature and science? How does it encourage learning and the development of professional practices? For example, a study [1] showed that people taking part in the butterfly observation project sharply reduced their use of pesticides, especially in private gardens. We also want to find out what motivates participants [2] in order to better understand the factors that can mobilise citizens around biodiversity, such as working for the common good or being part of a collective project.

S.A.: Do these studies show an improvement in social connections and well-being?

A.D.: A number of studies have shown that a community of participants has emerged. For example, a sociology researcher studied thousands of comments posted on the data collection platform by those participating in SPIPOLL, a project to monitor pollinating insects through photos [3]. In addition to questions and exchanges on biology and ecology, there were a large number of friendly chats, building social ties and structuring mutual support. We have also received a great deal of informal feedback on the benefits of participating in Vigie-Nature. One participant recently told me that it was a breath of fresh air in his daily life¹. Another suggested that the French social security system² should support participation for its therapeutic value. Numerous studies have shown that a relationship with nature is important for human well-being:

KEY POINTS

■ **The Vigie-Nature programme, run by the Muséum national d’Histoire naturelle (MNHN) and the French Biodiversity Office (OFB), puts scientific observation of biodiversity within everyone’s reach: pupils and teachers, budding or experienced naturalists, farmers and municipal gardeners. Training the eye to see microcosms, helping others, working for the common good, taking time away from our fast-paced lives: there are significant benefits for both the general public and the professionals who take part.**

if people are getting out and really committing to observation, this brings a beneficial sense of wonder.

S.A.: What do the observatories offer for professionals in the sector?

A.D.: Two studies [4; 5] have been carried out on the Agricultural Biodiversity Observatory. They show that involving farmers in an active approach to biodiversity, by building an understanding that it is an ally in agricultural production, helps to change their relationship with their work. Those who are often accused of destroying biodiversity can regain a sense of peace by feeling more involved in its conservation. For staff taking care of green spaces, who carry out repetitive and physically demanding work, monitoring and observation practices mean they can shake up their daily routine and interact differently with their colleagues. This activity also gives meaning to

the development of their professional practices and to their work. Take the example of municipal gardeners [6; 7]: an end to using plant protection products in urban areas, the switch to sustainable management of green spaces and restrictions on mowing have been imposed on them with little support. What's more, these changes have not always been well received by local residents, who are unhappy with the appearance of certain areas. By taking part in Vigie-Nature, the gardeners become fully involved in the new measures to promote biodiversity and they have the knowledge to explain them to residents.

S.A.: Isn't the time investment a barrier to involvement?

A.D.: It's true that involvement in this type of programme is a time commitment. Observation protocols are demanding. There is also a learning curve to train the eye to see other worlds, particularly the microcosm. Among the general public, retired people are the keenest participants. Among professionals, the feedback varies. Farmers who choose to get involved can manage their time, even if it is limited. The situation is more complicated when it comes to municipal green spaces. Gardeners in public spaces are answerable to a hierarchy; they do not control their own work schedule. The policy of the local authority that employs them will impact how much leeway they have for observation. Some of them have told us how difficult it is to get started. On the flip side, some local authorities are keen to get involved in Vigie-Nature. To overcome these obstacles, we have tools available (training courses, guides) and we organise meetings with local elected representatives and professionals.

S.A.: How are your activities funded?

A.D.: The budgets are mainly from public sources, with a large part provided by the French Office for Biodiversity (OFB) and the Muséum national d'Histoire naturelle, along with contributions from the ministries for Education and Youth, Agriculture and Food Sovereignty, the Ecological Transition and the Regions.

Our other sources of funding are the French National Research Agency (ANR), European projects, the private sector and sponsorship. Participatory research has a cost: you have to run the communities of observers, organise time for meetings and exchanges, and develop the tools needed to collect the data. We're working on long-term projects, so it's complicated. For now, we're trying to keep existing observatories up and running rather than create new ones. That said, participatory science is increasingly recognised as a tool for innovative research.

S.A.: Are these programmes evaluated by an outside body?

A.D.: Vigie-Nature's results are examined every five years. As part of the Centre for Ecology and Conservation Sciences (CESCO), it adheres to the five-year schedule of the High Council for Evaluation, Research and Higher Education (HCERES). Financial backers such as the ANR and EU need reports of outcomes. We publish articles in peer-reviewed journals that are evaluated by the scientific community. However, the indicators used are very traditional, such as scientific output and number of programme participants. We are

working with the network *Science Ensemble* ("Science Together")³ to define new indicators, such as knowledge acquisition among participants or data use (e.g. in public policies to monitor biodiversity). ■

Interview by Joëlle Maraschin, journalist.

1. Read the interview with this participant in the *Sauvages de ma rue* ("Wild Plants On My Street") project. Online: <https://www.vigienature.fr/fr/actualites/florent-sortir-rang-retrouver-elan-prendre-tourmant-3805>

2. SPIPOLL participant who, in 2013 at the programme's national meeting, suggested that "on presentation of a medical certificate, [...] the social security system should reimburse all costs relating to this condition". Online: <https://spipoll.forumactif.org/t1193-1eres-rencontres-nationales-a-bois-le-roi-2013?highlight=rencontres+nationales>

3. *Science Ensemble* is supported by the institutions of the Sorbonne University Alliance. Online: <https://www.science-ensemble.org/>

For more information

- <https://www.vigienature.fr/>
- Publications based on data obtained from Vigie-Nature projects are listed at <https://mnhn.hal.science/VIGIE-NATURE>
- Proceedings of the conference on the evaluation of participatory sciences, July 2021: <https://www.science-ensemble.org/ressources/whldx-2021-evaluation-des-sciences-et-recherches-participatives-actes>

REFERENCES

- [1] N. Deguines, K. Princé, A.-C. Prévot, B. Fontaine. Assessing the emergence of pro-biodiversity practices in citizen scientists of a backyard butterfly survey. *Science of the Total Environment*, 2020, vol. 716, no. 136842. Online: <https://doi.org/10.1016/j.scitotenv.2020.136842>
- [2] A.-C. Prévot, A. Dozières, S. Turpin, R. Julliard. Les réseaux volontaires d'observateurs de la biodiversité (Vigie-Nature) : quelles opportunités d'apprentissage ? *Cahiers de l'action*, 2016, vol. 1, no. 47: p. 35-40. Online: <https://www.cairn.info/revue-cahiers-de-l-action-2016-1-page-35.htm>
- [3] A.-C. Torres, B. Bedessem, N. Deguines, C. Fontaine. Online data sharing with virtual social interactions favour scientific and educational successes in a biodiversity citizen science project. *Journal of Responsible Innovation*, 2022, no. 2019970: p. 1-19. Online: <https://doi.org/10.1080/23299460.2021.2019970>
- [4] S. Deschamps, É. Demeulenaere. L'observatoire agricole de la biodiversité. Vers un ré-ancrage des pratiques dans leur milieu. *Études rurales*, 2015, vol. 195: p. 109-126. Online: <https://journals.openedition.org/etudesrurales/10276>
- [5] O. Billaud, R.-L. Vermeersch, E. Porcher. Citizen science involving farmers as a means to document temporal trends in farmland biodiversity and relate them to agricultural practices. *Journal of Applied Ecology*, 2021, vol. 58, no. 2: p. 261-273. Online: <https://besjournals.onlinelibrary.wiley.com/doi/full/10.1111/1365-2664.13746>
- [6] I. Arpin, C. Mounet, D. Geoffroy. Inventaires naturalistes et rééducation de l'attention. Le cas des jardiniers de Grenoble. *Études rurales*, 2015, vol. 195: p. 89-108. Online: <https://journals.openedition.org/etudesrurales/10622>
- [7] M. Gabillet, I. Arpin, A.-C. Prévot. Peut-on s'occuper des papillons quand on est jardinier ? La mise en œuvre d'un programme de sciences. *Quand l'écologie s'urbanise*, 2022: p. 319-341. Online: <https://books.openedition.org/ugaeditions/26874?lang=fr>