
Growing vegetables: a gateway to biodiversity in home gardens ?

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Résumé

Worldwide urbanisation is reducing the area of arable land and contributing to the decline of many groups of living organisms. The role of home gardens in mitigating these negative impacts is an important topic of investigation in urban ecology. However, the possible conflicts between distinct objectives in home gardens, such as vegetable production or biodiversity conservation, are rarely addressed. The synergistic or antagonistic nature of these two objectives is not obvious : the use of pesticides or fertilisers in home gardens has been shown to have a negative impact on biodiversity but agroecological practices seem to be more favourable.

In this study, we looked at the impact of the presence of a vegetable garden on the garden socio-ecosystem. We use two data sets: an online survey on a representative sample of 795 French gardeners and a study of 31 home gardens located in the Yvette valley, a peri-urban area near Paris. A common questionnaire asked gardeners about their objectives, their connection with nature and their practices. The questionnaire for the 31 gardens in the Yvette valley went into more detail about practices and was combined with an inventory of floral resources between April and May 2023.

We found that vegetable production was positively and significantly associated with the importance of wild species and the connection with nature for French gardeners. Our surveys also seem to indicate that gardeners with a vegetable garden find their garden significantly more important and are more involved in it : they spend significantly more time in it and plant, mulch and fertilise more frequently. We also noticed a significantly greater diversity of ornamental flowers in gardens with a vegetable garden in the Yvette valley. These practices can have a contrasting impact on the conservation of biodiversity. Increased planting in the gardens may favour animals dependent on floral resources, whereas increased fertilisation of the garden with a vegetable garden may limit the diversity of spontaneous vegetation.

More research is needed to determine the form of the interactions between vegetable production and the conservation of biodiversity in gardens. However, our study shows the value of taking vegetable production into account in order to gain a better understanding of ecological dynamics in domestic gardens.

Mots-Clés: Vegetable garden, Urban agriculture, Biodiversity conservation, Socio, ecosystem, Urbanisation

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