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GARDENS AT BLOCKS OF FLATS AS PERSONAL SPACES OF BIODIVERSITY IN THE URBAN LANDSCAPE

INTRODUCTION

Urban green areas form a natural system of the city, that serves an environment-forming function, and allows a balanced development of urbanised areas.[1] It was identified as the foundation of functioning of living organisms in urban terrains, although, it also serves other functions, such as housing and aesthetic.[2] River valleys, connected with forests and urban parks, are the mainstays of the urban natural system. Smaller green areas, such as squares, allotment gardens, or community green spaces are supplemental elements.[3] Therefore, green areas

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[1] Barbara Szulczewska, and Ewa Kaliszuk, "Koncepcja systemu przyrodniczego miasta: geneza, ewolucja i znaczenie praktyczne," *Teka Komisji Architektury, Urbanistyki i Studiów Krajobrazowych* 1 (2005): 8; Margot Dudkiewicz, Marek Kopacki, Marcin Iwanek, and Paulina Hortyńska, "Problemy zachowania bioróżnorodności na przykładzie wybranych miast Polski," *Agronomy Science* 76, no. 1 (2021): 68; Szymon Chmielewski, Anna Łukasik, and Paulina Owczarek, "Ekologiczny System Obszarów Chronionych Miasta Lublin a miejscowe plany zagospodarowania przestrzennego," *Teledetekcja Środowiska* 48 (2013): 7; Barbara Bożętka, "Qualities of urban green systems and the issue of multi-functionality," *Teka Komisji Ochrony i Kształtowania Środowiska Przyrodniczego PAN* 5 (2008): 19.

[2] Szulczewska, and Kaliszuk, "Koncepcja systemu przyrodniczego," 8; Ewa Trzaskowska, and Magdalena Lubiarz, "Wpływ ukształtowania terenu na funkcjonowanie i rozwój systemu przyrodniczego miasta na przykładzie Lublina," *Problems of Geomorphology and Paleogeography of the Ukrainian Carpathians and Adjacent Areas* 11 (2020): 108.

[3] Trzaskowska, and Lubiarz, "Wpływ ukształtowania terenu," 109.

in cities are a vital element of high-quality residential spaces.[4] The importance of green areas is included in The 2030 Agenda for Sustainable Development.[5] It also corresponds with the goals of the EU strategy for biodiversity, postulating increase in use of urban green areas, which are crucial in maintaining biodiversity and quality of life of citizens.[6] Vegetation has a positive influence on human health. More deeply studied advantages of contact with nature are stress reduction,[7] and regeneration of attention.[8] Studies show, that not only direct contact with plants, but also the sight of them reduce stress symptoms[9] and contribute to quicker patient recovery.[10] The influence of plants on an individual, community, and the environment brings environmental, health-increasing, sociological, and economic effects.[11] Many programs of garden therapy have been created, including those for the elderly.[12] Studies show that activities in a garden contribute to reducing depression, anxiety, and Body Mass Index, as well as increasing contentment with life, quality of life, and the feeling of belonging to a community. It has also been stressed, that regular in-garden activity can contribute to increasing the level of public health.[13] Due to the arguments listed above, every type of area covered with vegetation – no matter how small – is important for the natural structure of cities.

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[4] Tomasz Bradecki, *Wskaźniki, parametry i modele w kształtowaniu intensywnej wielorodzinnej zabudowy mieszkaniowej* (Gliwice: Wydawnictwo Politechniki Śląskiej, 2021), 71.

[5] Zgromadzenie Ogólne Organizacji Narodów Zjednoczonych, Przekształcamy nasz świat: Agenda na rzecz zrównoważonego rozwoju 2030, A/RES/70/25 września 2015.

[6] European Commission: Directorate-General for Environment, EU Biodiversity strategy for 2030 – Bringing nature back into our lives, Publications Office of the European Union, 2021, https://data.europa.eu/doi/10.2779/677548.

[7] Chen-Yen Chang, and Ping-Kun Chen "Human response to windows views and indoor plants in the workplace," *HortScience* 40, no. 5 (2005): 1358.

[8] Rachel Kaplan, Stephen Kaplan, and Terry Brown, "Environmental preference: a comparison of four domains of predictors," *Environment and Behavior* 21, no. 5 (1989): 509–530.

[9] Roger S. Ulrich, Robert F. Simons, Barbara D. Losito, Evelyn Fiorito, Mark A. Miles, and Michael Zelosn, "Stress recovery during exposure to natural and urban environments," *Journal of Environmental Psychology* 11 (1991): 222.

[10] Roger S. Ulrich, "View through a window may influence recovery from surgery," *Science* 224, no. 4647 (1984): 420–421.

[11] Joanna Nowak, "Socjoogrodnictwo," *Postępy Nauk Rolniczych* 48, no. 3 (2001): 59.

[12] Joanna Nowak, "Programy terapii ogrodniczej," *Zeszyty Problemowe Postępów Nauk Rolniczych* 539 (2009): 545–548.

[13] Masashi Soga, Kevin J. Gaston, and Yuichi Yamaura, "Gardening is beneficial for health: A meta-analysis," *Preventive Medicine Reports* 5 (2017): 96–98.

1. RESEARCH METHODS AND OBJECTIVE

This paper presents the results of field analyses carried out across housing estates with multi-family housing development. The analysed objects included gardens at blocks of flats situated at the front of blocks of flats, at the entrances to stairwells, as well as at the back of these buildings, near balconies and ground-floor windows. Also studied were the gardens at the sides of the buildings. Observations were carried out in three cities: Lublin, Biała Podlaska, and Krosno. The studies encompassed three districts of Lublin (Czuby Południowe, Kalinowszczyzna, and Rury). In Biała Podlaska and Krosno, the area of all multi-family housing estates. An inventory of species and genera of plants growing in the studied gardens was made during field studies. Studies of species composition and frequency of occurrence of plants in gardens at blocks of flats was carried out in 2023–2025, in Spring, Summer, and Fall. In the course of the present study 320 gardens at blocks of flats visibly utilised by local people were analysed. Uniform plantings performed by the employees of the housing cooperatives and their administration were not included. While assessing the species composition only the ornamental vegetation planted by the citizens – which occurred in 30% of the studied gardens – was taken into consideration. The remaining gardens were covered in spontaneously growing plants or lawns.

As a part of the analyses, casual interviews were carried out with 43 people met within the studied areas. Each interviewee was asked: *Why do you grow plants in this garden?* The authors of this study would like to stress that the significant majority of people met in gardens at blocks of flats in the course of this study were female, largely 60 or more years old.

The goal of the present study was to show the species diversity of vegetation in gardens at blocks of flats. What is more, this article is to highlight the importance of small, bottom-up initiatives that pertain to forming vegetation in the natural structure of cities. An additional goal was to show the impact of gardens at blocks of flats on the aesthetic of housing estates, as well as their role in creating neighbour bonds, and local identity.

2. DEFINITION OF GARDENS AT BLOCKS OF FLATS

Front gardens are small forms of greenery localised in populated areas, including housing estates, at the front of buildings.[14] Back gardens, are their

[14] Beata Joanna Gawryszewska, *Ogród jako miejsce w krajobrazie zamieszkiwanym* (Warszawa: Wydawnictwo Wieś Jutra, 2013), 44.

counterparts situated behind blocks of flats, at the ground-floor windows.[15] Marek Siewniak and Anna Mitkowska stress that front gardens at blocks of flats are very small gardens, created within small strips of land between the line of residential buildings and the edge of the sidewalk, which are formed without adhering to any compositional rules, and constitute a transition form between a traditional, ornamental home garden, and an allotment garden. Due to their decorative value, gardens at blocks of flats fulfil the aesthetic needs of people living in monotone urban environments, as well as provide rest to the elderly in the nearest vicinity of their flats. Moreover, urban front gardens can also serve a utility function.[16] Ewa Mackoś-Iwaszko and Katarzyna Karczmarz suggest the name urban pocket gardens for front and back gardens at housing estates, as well as small strips of neighbourhood greenery cultivated by people living in Lublin housing estates. The aforementioned authors also use the term gardens at blocks of flats.[17] The present study encompassed front and back gardens, as well as gardens situated at the sides of blocks of flats. Therefore, it was decided to use the term: gardens at blocks of flats.

Front gardens in housing estates are categorised as terrain for common use, remaining under social supervision, and are semi-private spaces in character.[18] They are also considered as private or semi-private space, depending on the viewer.[19] As written by Beata Gawryszewska,[20] small green areas, such as front gardens at blocks of flats, filled with ornamental vegetation are a substitute for unkempt lawns, in order to show that the space has been taken over, and a place of value to the local community has been created. Such spaces are

[15] Beata Joanna Gawryszewska, "Modernizować modernizm? Zielone dziedzińce Czerwonego Żoliborza w programie rewitalizacji przestrzeni społecznej osiedla WSM," in *Przyroda i miasto tom VI*, ed. Jan Rylke (Warszawa: Wyd. SGGW, 2004), 57–72.

[16] Marek Siewniak, and Anna Mitkowska, *Tezaurus sztuki ogrodowej* (Warszawa: Oficyna Wydawnicza Rytm, 2021), 226.

[17] Ewa Mackoś-Iwaszko, and Katarzyna Karczmarz, "Rośliny ozdobne stosowane w ogrodach podręcznych," *Teka Komisji Architektury, Urbanistyki i Studiów Krajobrazowych OL PAN* 9, no. 1 (2013): 71.

[18] Krystyna Solarek, "Funkcje terenów zieleni kształtujących przestrzenie publiczne we współczesnym mieście," in *Zieleń miejska – naturalne bogactwo miasta. Zieleń w przestrzeni publicznej miast: funkcja – kreacja – identyfikacja*, ed. Elżbieta Oleksiejuk, and Alicja Jankowska (Toruń: Polskie Zrzeszenie Inżynierów i Techników Sanitarnych Oddział Toruń, 2009), 69–80.

[19] Oscar Newman, *Creating Defensible Space* (Washington: U.S. Department of Housing and Urban Development Office of Policy Development and Research, 1996), 15.

[20] Beata Joanna Gawryszewska, "Garden – non-garden. Contemporary trends in transformation of greenery as an instrument in the contest for the city," *Polish Journal of Landscape Studies* 1, no. 2–3 (2018): 60.

a statement of residency, directed at neighbours and passers-by, distinguishing a space that has an owner or a gardener, from a space that belongs to no one. Thus, gardens at blocks of flats become a substitute of private space.[21] This view is shared by the authors of the present work, who also view gardens at blocks of flats this way, since people living in multi-family development do not possess private gardens, but try to find private space in the shared space of a housing estate.

3. DIVERSITY OF VEGETATION IN GARDENS AT BLOCKS OF FLATS

214 plant species from 188 genera were identified within the analysed area. Plants such as: dahlia (*Dahlia* Cav.), hosta (*Hosta* Tratt.), blanket flower (*Gaillardia* Foug.), crocus (*Crocus* L.), day lily (*Hemerocallis* L.), sword lily (*Gladiolus* L.), daffodil (*Narcissus* L.), larkspur (*Delphinium* L.), and tulip (*Tulipa* L.), due to numerous cultivars were altogether identified at the genus level. Taxa occurring most frequently in gardens at blocks of flats were: hosta (*Hosta* Tratt.), rose (*Rosa* L.), garden phlox (*Phlox paniculata* L.), smooth hydrangea (*Hydrangea arborescens* L.), rough oxeye (*Heliopsis helianthoides* (L.) Sweet), golden marigold (*Tagetes tenuifolia* Cav.), ostrich fern (*Matteucia struthiopteris* (L.) Tod.), Chinese peony (*Paeonia lactiflora* Pall.), and bigleaf hydrangea (*Hydrangea macrophylla* (Thunb. ex Murray) Ser.). All taxa listed above were present in no less than 30 studied gardens. However, it is important to stress that hosta (*Hosta* Tratt.) was the most frequently occurring taxon, since it was noted in as many as 67 gardens. In the historic urban complex of Max Johow in Poznań it was determined that before revitalisation most of the gardens were in poor condition. Only a few were properly cared for by the citizens and had rich vegetation. The taxa noted most often in the developed gardens in Poznań were: marigold (*Tagetes* L.), heart-leaved bergenia (*Bergenia cordifolia* Sternb.), iris (*Iris* L.), hosta (*Hosta* Tratt.), day lily (*Hemerocallis* L.), showy stonecrop (*Sedum spectabile* Bor.), and lily-of-the-valley (*Convallaria majalis* L.). Also found were ground cover plants, such as: common ivy (*Hedera helix* L.), lesser periwinkle (*Vinca minor* L.), yellow archangel (*Lamium galeobdolon* (L.) L.). Shrubs and trees were noted as well.[22] In Szczecin, in the Śródmieście district, along John Paul II Alley,

[21] Gawryszewska, *Ogród jako miejsce w krajobrazie*, 74.

[22] Bożena Łukasik, "Przedogródki niczyje – problem zagospodarowania przestrzeni publiczno-prywatnej na przykładzie otoczenia luksusowych kamienic w zespole zabudowy Maxa Johowa," *Prace Komisji Krajobrazu Kulturowego* 10 (2008): 83–84.

at the tenement buildings, most of the front gardens were removed due to remodelling of the street. The remaining front gardens are largely dilapidated, ad no longer fulfil their decorative function, while their vegetation often consists of trodden lawns.[23]

The number of plants found in individual gardens within the studied area is similar and fluctuates between 5 and 20 taxa. However, there were also gardens with only 2 or 3 plant specimens, but those represented a small percentage out of the 95 gardens in which ornamental species were noted.

Found among the 214 identified taxa there were: 1 tree species (European spruce (*Picea abies* (L.) H.Karst)), 40 species of shrubs, and 173 taxa (species or genera) of herbaceous plants, including 127 perennial plants, as well as 31 annual and biannual herbaceous plants, and those that do not hibernate in the ground, as well as 15 species of bulbous and tuberous plants. In the years 2011–2012 in the Kalinowszczyzna and Rury districts of Lublin 136 plant species, including 14 species of shrubs were found in gardens at blocks of flats.[24]

The high number of plants identified during the present study gives evidence to the floral richness of gardens at blocks of flats and can be associated with biodiversity. However, while analysing the origins of the vegetation it was determined that non-native taxa comprise 86% (184 taxa), whereas the native ones – only 14% (30 taxa).

Among the plants identified in the course of the present study of plants, there were a few with medicinal properties, however, they were used only in the ornamental fashion. These plants included: narrow-leaved lavender (*Lavandula angustifolia* Mill.), fennel (*Foeniculum vulgare* Mill.), catnip (*Nepeta* × *fassenii* Bergmans ex Stearn), oregano (*Origanum vulgare* L.), wild thyme (*Thymus serpyllum* L.), tansy (*Tanacetum vulgare* L.), purple coneflower (*Echinacea purpurea* (L.) Moench), foxglove (*Digitalis purpurea* L.), common marigold (*Calendula officinalis* L.). There were also species that should be kept out of the reach of children. Among such plants one can note stinging plants, e.g. burning bush (*Dictamnus albus* L.), and poisonous ones, such as lily-of-the-valley (*Convallaria majalis* L.), mezereum (*Daphne mezereum* L.), honeysuckle (*Lonicera periclymenum* L.), wolfsbane (*Aconitum* L.), castor bean (*Ricinus communis* L.), and thornapple (*Datura* L.).

[23] Magdalena Rzeszotarska-Pałka, "Szczecińskie przedogródki z przełomu XIX i XX wieku," *Czasopismo Techniczne. Architektura* 109/6-A (2012): 131.

[24] Mackoś-Iwaszko, and Karczmarz, "Rośliny ozdobne," 72.

4. SPATIAL STRUCTURE OF GARDENS AT BLOCKS OF FLATS

The studied gardens situated in front of blocks of flats are usually similar in surface area – approximately 5–7 m^2. They are outlined by traffic routes running alongside the blocks and leading to the building entrances. In the case of buildings with multiple stairways the gardens are usually situated between the entrances, throughout the entire length of the building, however, they are most often divided into sections, in accordance with ownership of the ground-floor flats. Behind the blocks of flats, the gardens often occupy the entire back side of the building. Their boundaries are determined by traffic routes, small fences or hedges, and sometimes with a symbolic fence line made from stones. The gardens situated at the sides of the buildings are usually also outlined by traffic routes that connect individual sections of the estate. Bożena Łukasik states that in the Max Johow complex in Poznań the citizens outline the front gardens with curbs and hedges or fences made from angle bars, and if they are damaged by cars the gardens are protected by large stones.[25] In the "Brzozowy zakątek" estate in Szczecin front gardens are predominantly protected with lattice fencing, sometimes with linear plantings of thujas.[26]

The structure of vegetation in the studied gardens at blocks of flats is similar in terms of height of the plants used and their colour diversity. Plant composition is usually not representative in character. Vegetation is planted in an unplanned manner (figs. 1–2). This brings a little chaos to the gardens, and resembles traditional rural front gardens – rich from the floral point of view.[27] Very rarely the plants grow in a symmetrical setting or in repetitive, rhythmical sequences in subsequent sections outlined by the entrances to the blocks of flats. Lack of a planned plant setting is an important feature of these objects. It is important to note that urban front gardens used to have a different character, since in Szczecin they comprised a uniform strip of composed greenery in John Paul II Alley, and their composition was based on geometric – often symmetrical – settings. In modern times they have lost this characteristic.[28] Front gardens in housing estates in Ursynów Północny, and Kabaty in Warsaw are characterised by a symmetrical

[25] Łukasik, "Przedogródki niczyje," 83.

[26] Anna Kiepas-Kokot, and Aleksandra Żądłowska, "Rearanżacja przestrzeni osiedla przez lokatorów społecznego budownictwa czynszowego," *Środowisko Mieszkaniowe/Housing Environment* 26 (2019): 99.

[27] Monika Czechowicz, and Ewa Kozłowska, "Zmiany w zagospodarowaniu przestrzeni przydomowych na terenach wiejskich na przykładzie wsi dolnośląskich," in *Krajobraz i ogród wiejski, tom 2: Tradycje a współczesny krajobraz wsi polskiej*, ed. Janusz Janecki, and Zbigniew Borkowski (Lublin: Wydawnictwo KUL, 2004), 64–65.

[28] Rzeszotarska-Pałka, "Szczecińskie przedogródki," 130.

and rhythmical setting.[29] In the Max Johow complex in Poznań it was noted that trees and shrubs growing in random places, have changed the character and structure of front gardens.[30]

Fig. 1. Vegetation in the front gardens in Biała Podlaska (photo E. Mackoś-Iwaszko).

Fig. 2. Vegetation in the front gardens in Lublin (photo E. Mackoś-Iwaszko).

[29] Gawryszewska, *Ogród jako miejsce w krajobrazie*, 76–77.

[30] Łukasik, „Przedogródki niczyje," 85.

5. GARDENS AT BLOCKS OF FLATS AS PERSONAL SPACES

Gardens at blocks of flats are an element of common space, owned by the municipality, housing cooperative or homeowner association. However, their organisation by the citizens changes the social perception of such spaces. Beata Gawryszewska[31] highlighted that small forms of urban greenery, such as gardens at blocks of flats, when filled with vegetation, inform the viewer that this area has an owner and a caregiver. Such action gives the space a proprietary character, while formally remaining common space. That is why gardens at blocks of flats are a substitute of private space.[32]

This study included casual interviews, the results of which unequivocally showed that citizens maintaining the gardens at blocks of flats treat them as a form of personal space. Our interviewees elaborated that they provide care to the spaces of the gardens near their blocks of flats in order to increase their aesthetic value and that is why they plant and maintain ornamental plants. What is more, cultivation of plants brings them pleasure and allows regular physical activity. In our conversations they stressed that owing to their work in the gardens at their blocks of flats, they meet people (often neighbours), with whom they talk, not only about gardening. All of the above directly or indirectly influences their quality of life. The results of our analyses are confirmed by earlier studies, which showed that contact with nature not only brings health benefits, but also increases the quality of social relations.[33]

A good example is the garden situated at the back of a block of flats in the "XXX-lecia" estate in Lublin. Its condition indicates that people providing care to this place show great commitment in creating private space. Apart from diverse vegetation – seasonally supplemented and replaced – the garden boasts small forms of architecture: a well, a bench, and a small pond. The space is divided by small alleys, paved with stones. The caregivers of this garden also display seasonal decorations, such as Santa in his sleigh during the Christmas season, or mock-up models of bunnies for Easter time (fig. 3). What is more, the garden is equipped with lighting. The casual interview shows that maintaining this garden is a family tradition. Initially, over 40 years ago, care was

[31] Gawryszewska, "Garden – non-garden," 60.

[32] Gawryszewska, *Ogród jako miejsce w krajobrazie*, 74.

[33] Christine Milligan, Anthony Gatrell, and Amanda Bingley, "'Cultivating health': therapeutic landscapes and older people in northern England," *Social Science & Medicine* 58 (2004): 1781; Jemma L. Hawkins, Jenny Mercer, Kathryn J. Thirlaway, and Deborah A. Clayton, "'Doing' Gardening and 'Being' at the Allotment Site: Exploring the Benefits of Allotment Gardening for Stress Reduction and Healthy Aging," *Ecopsychology* 5, no. 2 (2013): 121.

provided by the mother of the present owner who, after her death, took over the maintenance of this garden. At the beginning, the garden did not differ in appearance from other gardens in the neighbourhood, however, with time, the utilised area became bigger, and filled with more elements. At present, the area of the described garden covers approximately 20 m^2.

Fig. 3. Seasonal decorations in the back garden in Lublin (photo E. Mackoś-Iwaszko).

Another example can be observed in the case of the garden also situated in the Kalinowszczyzna district in Lublin, in the Niepodległości estate. In this case, on the balcony and the adhering space, a decorative-utilitarian garden was created, in which vegetables were planted apart from ornamental plants. Strings were tied to the balcony railing, providing support for tomatoes growing in the garden. The described garden covers the area of approximately 7 m^2, however broadening it using the surface of the balcony distinctly highlights the private character of this space.

CONCLUSIONS

Modern cities are characterised by a fragmented structure of green areas, as well as anonymity, and limited neighbour interactions. Gardens at blocks of flats are an example of spaces which, maintained by the citizens, contribute to diversification of urban vegetation. They are small in terms of covered surface, but rich in flora. Gardens at blocks of flats form an important part of the green spaces of housing estates increasing the diversity of ornamental vegetation, but composed mainly of alien taxa. In the study area 214 plant species from 188 genera were identified, including 1 tree species, 40 species of shrubs, and 173 taxa (species or genera) of herbaceous plants. The most common taxon was Hosta (*Hosta* Tratt.). As our research showed, up to 86% of the taxa in the gardens at blocks of flats may be of non-native origin.

It should be emphasised that the estate residents can actively form their surroundings by cultivating plants in gardens at their blocks of flats. They can simultaneously improve their quality of life, since gardening has a favourable effect on human health and well-being.[34]

Gardens at blocks of flats also constitute a form of enlarging the private space of the citizens,[35] due to the fact that they are situated in the direct surroundings of the residents' flats, that is, at the windows and balconies, as well as building entrances. This allows the residents to increase the feeling of belonging to the space outside their homes. Gardens at blocks of flats also facilitate neighbourly interactions, and social integration, since they can become an excuse for conversation. It can be surmised that maintaining gardens at blocks of flats is a form of bottom-up management of urban space. Nonetheless, can gardens formed in this manner be perceived as a type of appropriation of space? It is worth continuing to study gardens at blocks of flats, especially in terms of social analysis related to interpersonal relationships.

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[34] Joanna Nowak, "Terapia ogrodnicza w krajach europejskich," *Zeszyty Problemowe Postępów Nauk Rolniczych* 525 (2008): 272; Nowak, „Socjoogrodnictwo," 59.

[35] Gawryszewska, *Ogród jako miejsce w krajobrazie*, 44.

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GARDENS AT BLOCKS OF FLATS AS PERSONAL SPACES OF BIODIVERSITY IN THE URBAN LANDSCAPE

Summary

Gardens at blocks of flats are small spaces covered with ornamental vegetation, established and maintained by the residents of housing estates. Species composition of these spaces is very

abundant, since in the studied housing estates in Lublin, Biała Podlaska, and Krosno, 214 plant taxa were identified. However, vast majority of the plants are of non-native origin. Only 14% are native species. Studies have shown that gardens at blocks of flats are often personal spaces in character, influencing the quality of life of the citizens.

Keywords: gardens at blocks of flats; personal space; urban green areas; quality of life

OGRÓDKI PRZYBLOKOWE JAKO OSOBISTE PRZESTRZENIE BIORÓŻNORODNOŚCI W KRAJOBRAZIE MIASTA

Streszczenie

Ogródki przy blokach mieszkalnych to niewielkie przestrzenie pokryte roślinnością o charakterze ozdobnym, które są zakładane i pielęgnowane przez mieszkańców osiedli mieszkaniowych. Skład gatunkowy tych przestrzeni jest bardzo bogaty, gdyż w badanych osiedlach mieszkaniowych w Lublinie, Białej Podlaskiej i Krośnie wykazano 214 taksów roślin. Jednakże większość roślin ma obce pochodzenia. Zaledwie 14% stanowią gatunki rodzime. Badania wykazały, że ogródki przyblokowe mają często charakter przestrzeni osobistej, która wpływa na jakość życia mieszkańców.

Słowa kluczowe: ogródki przyblokowe; przestrzeń osobista; zieleń miejska; jakość życia