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Protected areas in Polish Baltic seaside spa towns in 2019 and spatial order

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Abstract

The aim of this paper is to present an overview of protected areas in Polish seaside spa towns in order to preserve their nature value while focusing on the spatial order. Analyses were conducted considering the status of works on the Landscape Act concerning the interior of Polish spa towns and advantageous effects of that Act in the town space. This review paper presents protected areas based on the resources of the Central Register of Nature Conservation Forms (Centralny Rejestr Form Ochrony Przyrody CRFOP) available at the website of the General Directorate for Environmental Protection (Generalna Dyrekcja Ochrony Środowiska GDOŚ), which data may find multiple uses. The material for analyses is related to all the six Polish seaside spa towns (as for 01.2020). Polish seaside spa towns have many common natural characteristics. All of the six towns are located on the Baltic Sea, have sandy beaches and dunes and they are situated in the vicinity of protected areas. Frequently a green belt, typically a pine forest, separates the seaside zone from the town. Despite its very long seaside line Poland in 2019 has only six seaside spa towns (Kołobrzeg, Świnoujście, Sopot, Kamień Pomorski, Ustka, Dabki).

Keywords: seaside spa towns, seaside resorts, health resort, spatial planning



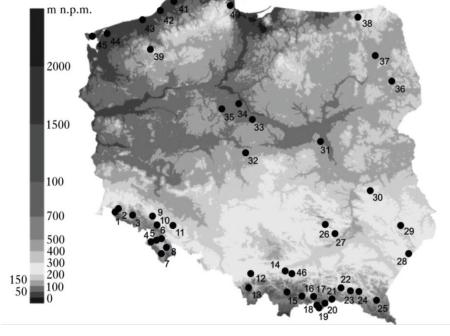
1. Legal conditions for Polish seaside spa towns

In the entre territory of Poland there are only 45 spa towns. Compared to other European countries it is a low number. According to Dryglas and Golba, in Germany there are over 350 spa towns, in Italy 300, in Spain 128, in France 107, in Portugal 44, in Austria 35, in Hungary 32, in the Czech Republic it is 30, in Romania 30, in Bulgaria 25, in Slovakia 21, in Switzerland 21, in Luxemburg 19, in Greece 16 and in Slovenia 15, respectively (Dryglas, Golba, 2017).

Most Polish spa towns are located in the mountains. In terms of the division based on topographic features the seaside spa towns, being only 6, constitute the smallest group. There are 16 lowland spa towns, while the rest are located in the mountainous or foothill areas. Poland has no spa town in high mountains. In turn, starting from the west the seaside spa towns include Świnoujście, Kamień Pomorski, Kołobrzeg, Dabki, Ustka and Sopot.

The aim of this paper is to show and to compare legally protected areas found in Polish seaside spa towns in 2019, including a list of current local law acts (referred to as local landscape acts or the so-called local advertising acts) in order to enhance spatial order in spa towns and their surroundings.

Green areas in seaside spa towns are their considerable assets. Despite continuous pressure from investors, spa town communes in Poland have managed to preserve large biologically active areas (both in the spa towns and on their margins). This is of tremendous importance — on the one hand for human health thanks to the release of oxygen by leaves and needles (derived from the photolysis of water, which plants take up through their root systems), while on the other hand these areas, e.g. parks and forests, have



a considerable advantageous effect on the perception of the entire town and they modify the local climate. An additional asset outside the areas of managed green areas is provided by forests. In Poland we have many seaside towns which may boast of rich historical traditions and large numbers of registered historical monuments, e.g. Kołobrzeg, Świnoujście, Sopot, Ustka and Kamień Pomorski. The human scale of architecture is this aspect, which is most universally accepted. The perception of space around immovable objects is completely different, more homely, full of architectonic details and elegance of building facades. It has a tremendous impact on the quality and prestige of spa town districts. Green areas in parks and squares, while being only an addition to architectural objects, may introduce the changing seasons of the year to town centres, attracting attention to their colours, smells, flowers. All this sensory world, also referred to as therapeutic landscape, has an advantageous impact on spa town visitors and patients. It is what patients and tourists in spa towns specifically expect of quality municipal areas. Thus these towns have to be aware that only by maintaining numerous quality green areas in forests, parks, squares and street green, etc. they will be able to provide specialist services (in sanatorium facilities, spa town hospitals, natural healing centres, as well as outside such facilities in open outdoors areas, such as e.g. outdoor therapy), since it will attract visitors.

Fig. 1. Location of Polish health resorts: 1 – Czerniawa-Zdrój, 2 – Świeradów-Zdrój, 3 - Cieplice, 4 - Kudowa-Zdrój, 5 – Duszniki-Zdrój, 6 – Polanica-Zdrój, 7 – Długopole-Zdrój, 8 – Lądek-Zdrój, 9 - Szczawno-Zdrój, 10 - Jedlina-Zdrój, 11 - Przerzeczyn-Zdrój, 12 - Goczałkowice-Zdrój, 13 - Ustroń, 14 – Swoszowice, 15 – Rabka-Zdrój, 16 – Szczawnica, 17 – Piwniczna-Zdrój, 18 – Żegiestów-Zdrój, 19 – Muszyna-Złockie, 20 - Krynica-Zdrój, 21 - Wysowa-Zdrój, 22 - Wapienne, 23 - Iwonicz-Zdrój, 24 – Rymanów-Zdrój, 25 – Polańczyk, 26 – Busko-Zdrój, 27 – Solec-Zdrój, 28 - Horyniec-Zdrój, 29 - Krasnobród, 30 - Nałęczów, 31 - Konstancin-Jeziorna, 32 - Uniejów, 33 - Wieniec-Zdrój, 34 - Ciechocinek, 35 - Inowrocław, 36 – Supraśl, 37 – Augustów, 38 – Gołdap, 39 – Połczyn-Zdrój, 40 – Sopot, 41 – Ustka, 42 - Dąbki, 43 - Kołobrzeg, 44 - Kamień Pomorski, 45 – Świnoujście (source: Meller, Bernat, 2019)

Fig. 2. West fragment of the Polish coast on the Baltic Sea with the location of several health resorts from the west: Świnoujście, Kamień Pomorski, Kołobrzeg, Dąbki and Ustka (own study based on Google Maps)



Fig. 3. A fragment of the Polish coast on the Baltic Sea with spa towns: Kołobrzeg, Ustka, Sopot (own study based on Google Maps)

In order to regulate land allocation and land use in spa towns this aspect was included in the Act on Health Resort Treatment (2005), which specifies zones A, B and C of spa town protection. As it is generally known, the closer to the sea coastline, beaches, promenades, the greater the interest and pressure from potential investors. This was one of the objectives for the identification of zone A, including obligations and bans thus providing grounds for the preservation of minimum 65% green areas. Thanks to this measure health resort patients and tourists may enjoy parks, squares, municipal green areas and forests. The Act prohibits the location of new building development in that zone, including both hotel infrastructure and permanent residence buildings. Even the continuous need to increase the number of parking spaces may not be met at the expense of these green areas. As we can see, there is a close dependence between the availability of these areas, comfort and convenience on the one hand and the maintenance of high nature value on the other hand (according to the Act of 2005).

In zone B, which may include the sea or forest, green areas should account for minimum 55% total area. The role of this zone is to protect zone A and thus it is also regulated based on specific obligations and bans. In turn, the objective of zone C is to protect both the landscape of spa towns and their climate. In Poland these zones vary greatly in size. Table 1 below gives information on all the six seaside spa towns. The next tables will present the other spa towns and their size in the national scale.

For example, the city of Kołobrzeg has a total of 2,567 hectares of land in protection zones A, B and C. It needs to be stressed here that it is the only spa town, which has managed to preserve as many as 627 hectares of green areas in zone A. It is the best result in Poland and in my opinion it is relatively high even on the European scale (Bernat, Meller, 2018).

Świnoujście is another large spa town, which has preserved a total of 970 ha in the three zones jointly. In contrast, Sopot is an example of close ties with the Tricity agglomeration (Gdańsk, Gdynia and Sopot); nevertheless, Sopot has huge forested areas and the protection zones cover jointly 1,723 ha. Analyses show that both the town of Kamień Pomorski and the smallest spa town of Dabki



Fig. 4. A view from the Perła Bałtyku hotel to the south, i.e. the city and numerous green areas (photo by author, 2018)



Fig. 5. A view of the Baltic Sea coast from the left of the frame to the east. The roof of the "Pearl of the Baltic" hotel in Kołobrzeg. Stand of the largest spa protection zone A in Poland, totaling over 627 ha (photo by author, 2018)

are comparable in that respect, having 3,816 ha and 3,382 ha green areas, respectively, in spa town protection zones A, B and C. Field studies and analyses of protection zone documentation clearly indicate the highest ranking spa town and the best figures for the seaside town of Ustka with its 6,899 ha of green areas (in spa town protection zones A, B and C).

How these figures compare to the other Polish spa towns may be seen from another paper by the author of this study, published in 2018 (Bernat, Meller, 2018). In the group of seaside spa towns Ustka has the greatest area of protection zones, but this is still much less than in the case of leading Polish spa towns representing other location regions.

The largest towns have the smallest total areas of all spa town zones. Five spa towns have zones A of 140–627 ha in area. Sopot, being a part of the Tricity agglomeration, has the smallest zone C. In turn, the smallest spa town of Dąbki has the largest zone B. In the group of lowland spa towns it needs to be stressed that in each of the four successively ranking towns the total area of all the protection zones is over 10,000 ha. Two foothill towns have approx. 11,000 ha of spa town protection zones. In mountain spa towns the total area of protection zones ranges from approx. 1,700 to approx. 9,500 ha (Bernat, Meller, 2018).

The following data were collected from the respective resolutions:

- Uchwała Nr XII/143/2007 Rady Gminy Darłowo z dnia 16 listopada 2007 roku w sprawie ustanowienia Statutu Uzdrowiska Dabki,
- Uchwała Nr IV/27/10 Rady Miejskiej e Kamieniu Pomorskim z dnia 28 grudnia 2010 r. w sprawie ustanowienia Statutu Uzdrowiska Kamień Pomorski,
- Uchwała Nr XL/526/13 Rady Miasta Kołobrzeg z dnia 26 listopada 2013 r. w sprawie uchwalenia Statutu Uzdrowiska Kołobrzeg,
- Uchwała Nr XXXVI/429/2010 Rady Miasta Sopotu z dnia 5 marca 2010 r. w sprawie uchwalenia Statutu Uzdrowiska Sopot,
- Obwieszczenie Rady Miasta Świnoujście z dnia 26 lutego 2015 r. w sprawie ogłoszenia tekstu jednolitego uchwały w sprawie ustanowienia Statutu Uzdrowiska Świnoujście,
- Uchwała Nr XVII.176.2012 Rady Gminy Ustka z dnia 30 marca 2012 w sprawie przyjęcia statutu Uzdrowiska Ustka.



Table 1	Sna town	protection	zones in	Polish sn	a towns

No.	Name of spa town	Zone A total area of green areas in (ha)	Zone A total area of green areas in (%)	Zone B total area of green areas in (ha)	Zone B total area of green areas in (%)	Zone C total area of green areas in (ha)	Zone C total area of green areas in (%)	Total area of all protection zones in (ha)
1	Dąbki	327.5	77	2,731.60	60	3,054.4	50	3,382
2	Kamień Pomorski	46.66	75	302		3,815.61		3,816
3	Kołobrzeg	627.05		1,276.85		663.1		2,567
4	Sopot	140		1,089		494		1,723
5	Świnoujście	159	75	173	44	638	77	970
6	Ustka	171.61	81.67	467.88	59.6	6,259.88	93.66	6,899

Several legal provisions have been enacted in order to protect land allocation in spa towns being subject to disputes. Among them one of the most important is the local spatial development plan binding in zone A, which is passed as a local law act. Its precise scale, the graphic and text sections specify land allocation and provide e.g. architectural guidelines for building development. The only problem is connected with the fact that the obligation to have such a plan is binding only for zone A or the area of a cultural heritage park. There is an urgent need in Polish towns and cities to extend the scope of local spatial development plans in order to maintain spatial order (as to date they are not compulsory apart from specific exceptional cases).

The landscape local law act, also called the advertising local law act

Thus in order to maintain spatial order and increase the scope of protection and quality of Polish landscapes, including also spa towns, another form of legal acts was established, the so-called landscape or advertising local law act (2015). A proposal of such an act has to apply to the entire area of one commune, but it also needs to be stressed here that it is not obligatory (it depends on the decision of commune authorities whether they will pass such a local law act). It is much easier and faster to prepare and pass than a local spatial development plan (Fogel). When analysing Polish spa towns we may easily observe in practice the positive results of such advertising local law acts e.g. in Sopot or Ustka.

The city of Sopot, being the central part of the Tricity agglomeration, on 26 March 2018 on the power of the Uchwała nr XXXIX/521/2018 Rady Miasta Sopotu established 8 zones. It referred to the conservation protection zones in the decision on the entry in the register of historical monuments in the Pomorskie province in the town planning and landscape regulations for the city of Sopot (Uchwała Nr XXXIX/521/2018 Rady Miasta Sopotu). To enhance spatial order and improve legibility the city was divided into 8 structural areas denoted with symbols: A – the area of prestigious spaces in the historical city centre, B – the area of historical urban space, C – the administration and business zone, D – the area of subdued advertising in the housing zone, E – the area of recreation and health resort value, F – the area of advertising in recreation and sports facilities, G – the area of advertising in the beach zone, H – the area excluded from advertising in the designated nature zone.



In Sopot various areas of paramount importance for landscape protection overlap. It needs to be stressed here that the Sopot city and landscape complex, entered in the register of historical monuments in the Pomorskie province, has two conservation protection zones established, i.e. zones A and B. Zone A comprises a cultural landscape reserve, the town layout preservation zone and the town layout restoration zone. In turn, zone B of spatial order protection establishes the zone of building size restrictions and the landscape protection zone (Annex 1 to Uchwała nr XXXIX/521/2018 Rady Miasta Sopotu). Additionally, the local law act distinguished the area of individual advertising comprising 13 objects such as e.g. the Aqua Park, the Opera Leśna amphitheater, the Hipodrom Sopot horse racing facilities, etc.

The results of these measures are already visible in the municipal space of the spa town. It has greatly improved the aesthetic quality of specific street frontages and emphasised the character of façades of both historical and contemporary buildings along main traffic routes. In this respect we may mention such proposals of this extensive project as unification of signboards and 3D lettering, or imposing a ban on shop window stickers and decals. These simple measures ensure improved legibility in the urban space. To realise this profound change it is enough to recall buildings wrapped in advertisements up to the first floor, as it was in the past, and compare them with the present-day view. Now the accompanying green introduces prestige and greater easthetic quality of the urban space in this city. This has provided a greater spatial order in this spa town.

In recent years also Świnoujście has undertaken specific measures aiming at the implementation of the landscape local law act. The slogan for the campaign advocated Świnoujście miastem wolnym od przypadkowych reklam [Świnoujście is a city free of accidental advertising] (http://www.swinoujscie.pl/pl/contents/600). In the Świnoujście landscape act four zones were established, i.e. the spa town zone sections A1, A2, A3, A4, the urban zone sections M1, M2, M3, M4, M5, M6, M7, the port zone sections P1, P2, P3 and the designated nature zone sections N1, N2, N3.

A review of the graphic annex to the landscape local law act for the city of Świnoujście indicates that on the western side of the seafront the respective zones A4, N1, A1, A2 cover the Isle of Usedom, further extending over the mouth of the Świna River. On the island of Wolin (also called Wollin in German) the port zone P2, P3 extends into a long, narrow seaside belt of zone N4, N3. In her work on this paper the author used data from a draft of that local law act. In the case of Świnoujście, a city located on three islands of Wolin, Usedom and Karsibór (German: Kaseburg) and the most westerly Polish spa town, measures undertaken to enhance spatial order are fully justified. The position of the city itself and its natural conditions provide solid grounds for such an approach. Thus the three designated nature zones will protect also the spa town space in that city.

It seems advisable both for Kamień Pomorski and Kołobrzeg to develop such landscape local law acts. This may bring considerable benefits, improving the visual attractiveness of the city and adjacent areas.

Only three of the six Polish seaside spa towns in 2019 have passed the landscape local law acts. It is only in very second spa town that such acts are available. However, in view of the condition and quality of urban spaces, cluttered by haphazard and frequently out of date advertisements such measures will definitely be implemented in other towns as well. Each of the towns which have already passed that act, i.e. Świnoujście, Ustka and Sopot, precisely delineated the natural landscape zone, which may be aptly and poetically referred to as advertising respite in the designated nature zone – similarly as it was done by the authorities in Świnoujście. These measures are highly advantageous both for the spa town patients and for the therapeutic landscape in the environs of the spa town.





Fig. 6. A topographic map of the region of Świnoujście – including the islands of Usedom, Karsibór and Wolin. In the western part of the map the town of Kamień Pomorski is shown. Both spa towns are most westerly (source: https://commons.wikimedia.org/wiki/ File:Wolin-Topomap.png)

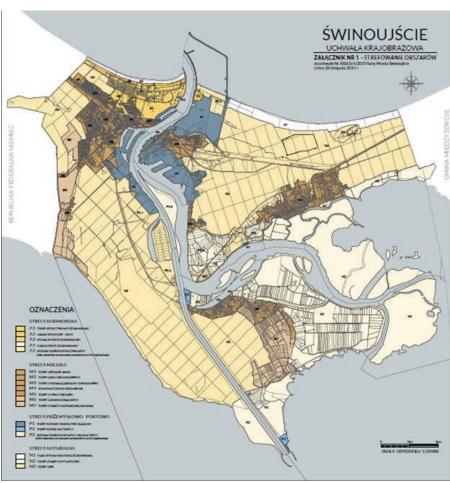


Fig. 7. Świnoujscie (source: Annex 1 to Uchwała nr XXII/164/2019 Rady Miasta Świnoujście, 28/11/2019)



Table 2. A list of zones specified in the landscape local law act for seaside spa towns – May 2019 (source: Patyńska, Kazem-Bek, 2017;
Uchwała nr XXXIX/521/2018 Rady Miasta Sopotu; Projekt Uchwały Krajobrazowej Świnoujście)

No.	Dąbki	Kamień Pomorski	Kołobrzeg	Sopot	Świnoujście	Ustka
Names of individual zones in the landscape act, the so-called adverising acts	none	none	none	A – the area of prestigious spaces in the historical city centre; B – the area of historical urban space; C – the administration and business zone; D – the area of subdued advertising in the housing zone; E – the area of recreation and health resort value; F – the area of advertising in recreation and sports facilities; G – the area of advertising in the beach zone; H – the area excluded from advertising in the designated nature zone Plus the area of individual advertising in 13 facilities	- spa town zone A1, A2, A3, A4, A5 - urban zone M1, M2, M3, M4, M5, M6, M7, - port zone P1, P2, P3 - designated nature zone N1, N2, N3	- zone I -protection zone for historical landscape, - zone II - protection zone for significant landscape and main approach streets, - zone III - protection zone for local landscape, - zone IV - protection zone for natural landscape
Total number of zones	0	0	0	8 + 13 = 21	4	4

2. Protected areas and areas of potential nature value in Polish Baltic seaside spa towns

It is of considerable value to present the list of nature protection forms in seaside spa towns in the table form, because it provides a comprehensive picture of nature value. The sheer number of these established forms and the rank of nature value clearly indicate the role of landscape in the environs of these towns. For this reason there is an urgent need to preserve this value for future generations.

Świnoujście is a definite leader in terms of the number of nature protection and conservation forms. Its location – highly advantageous in terms of nature value – on three islands and at the straits formed by the Szczecin Lagoon (also called Stettin Lagoon), as well as its location on the Baltic Sea provides ideal conditions for Natura 2000 areas protected both within the Habitat Directive (as many as 4 areas) and the Birds Directive (2 areas). Both these numbers are the highest when compared to the other Polish seaside spa towns. We also need to remember that Wolin has a moraine hill Grzywacz of 116 m a.s.l., as well as the highest cliff coastline in Poland (up to 80 m relative height) (Zygmańska, 2017).

Except for Świnoujście, none of the seaside spa towns has a national park within its area. The Woliński National Park was established in 1969 in an area of 109.37 km2. Its symbol is the white-tailed eagle, also called the white-tailed seas eagle (Zygmańska 2017). Only three or four eagle pairs breed there, but fortunately the population is growing. White-tailed eagles are covered by strict legal protection. It is impossible here to mention all of the 200 bird species, of which as many as approx. 100 species have their breeding nesting grounds there (Zygmańska, 2017). Insects in Wolin include the largest beetle in Poland, the stag beetle reaching 8 cm in body size. Beech forests forming the unique Pomeranian beech forests (the association Galio odorati-Fagetum) and mixed beech-oak-pine forests are characteristic of Wolin. It is in these forests that we may find numerous orchid species (Zygmańska, 2017). A well-known tourist destination is Jezioro Turkusowe, a lake famous for its turquois-coloured waters as the name itself implies, formed in the former chalk mine excavation pit. These are only a few of the numerous assets of nature value found in the natural landscape around Świnoujście. Thus it is truly justified in terms of both nature and landscape value for a town with such a location to be a spa town (with 970 ha within the established zones A, B, C of spa town protection). Landscapes of nature value are also situated in the environs of the spa town of Świnoujście, which additionally enhances the value of the entire area.



Table 3. A list of nature protection forms for Polish seaside spa towns (based on: CRFOP - Centralny Rejestr Form Ochrony Przyrody and korytarze.pl)

Nature protection forms according to CRFOP	Dąbki	Kamień Pomorski	Kołobrzeg	Sopot	Świnoujście	Ustka
NP National Park					Wolin National Park	
LP Landscape Park				Tricity Landscape Park		
PLA Protected Landscape Area			Koszalin Seaside Belt			
Natura 2000		Habitat Directive: 1. Mouth of the Odra and Szczecin Lagoon. Birds Directive, 2. Bagna Rozwarowskie marshes, 3. Trzebiatów coast, 4. Kamieński Lagoon and the Dziwna.	Habitat Directive: 1. the Parsęta basin, 2. Trzebiatowsko– Kołobrzeski Pas Nadmorski (Trzebiatów- Kołobrzeg seaside belt)	Habitat Directive: 1. Orłów cliffs – Klify i Rafy Kamienne Orłowa. Birds Directive, 2. Bay of Puck	Habitat Directive: 1. Mouth of the Odra and Szczecin Lagoon, 2. Wolin and Uznam, 3. refuge on the Bay of Pomerania - Ostoja na Zatoce Pomorskiej, 4. Bay of Pomerania. Birds Directive, 5. the Świna delta, 6. Szczecin Lagoon	Habitat Directive: Dolina Słupi
Ecological corridor (http://mapa. korytarze.pl)	Koszalin seaside belt –Koszaliński Pas Nadmorski	Mouth of the Odra and Szczecin Lagoon	Koszalin seaside belt – Koszaliński Pas Nadmorski		Wolin and Uznam refuge on the Bay of Pomerania – Ostoja na Zatoce Pomorskiej	– coastal zone west of Ustka, coastal zone east of Ustka
Nature reserve		Coniferous forest Bór Samliński im. Henryka Zięciaka		Zajęcze Wzgórze (forest phytocenosis)	Karsiborskie Paprocie (ferns)	Buczyna nad Słupią (forest phytocenosis)
Nature and Landscape protection complex					Torfowiska Uznamskie (peat bog)	Ostoja Łabędzi
Ecological sites			Ekopark Wschodni	1. Wąwozy grodowe, 2. Jar Swelini, 3. Kokoryczkowe zbocze, 4. Cisowe zbocze, 5. Konwaliowe wzgórza		

Sopot as a town is located within the immediate impact zone of the Tricity (Trójmiasto) agglomeration, thus being one of only three such towns in Poland. Spa towns within the impact zone of an agglomeration in 2019, apart from Sopot include also Konstancin Jeziorna near Warszawa and Swoszowice near Kraków. Nevertheless, on 3.05.1979 the Trójmiasto Landscape Park was established in an area of 19,930 ha (CRFOP, 2019). One of the protection objectives is to maintain the positive impact of the forests within the landscape park on climatic conditions in the Gdańsk agglomeration (CRFOP, 2019). In Sopot there are two Natura 2000 areas, one area covered by the Habitat Directive (Klify i Rafy Kamienne Orłowa) and one area established within the Birds Directive (the Bay of Puck). One nature reserve and five ecological sites are located there. It needs to be added here that in view of the urbanisation pressure of the Tricity (Trójmiasto) all the protected sites jointly comprise a huge area of 1,723 ha in zones A, B and C.



Other studies investigated green areas in terms of their area per capita and here this index was one of the highest in Poland. In Sopot it is over 280 m² green areas per capita (Świeczkowska, 2017).

However, the greatest area of protection zones in seaside spa towns in Poland was established by Ustka, where it is 6,899 ha (zones A, B and C). The town is located in the vicinity of forested areas in Orlowo with a scenic beach continuously at risk of erosion. In 2015 heavy vehicles and machinery driving several hundred meters into the sea made a huge impression anyone watching. All these efforts were made to maintain the beach and prevent the destruction of dunes washed away by the sea.





Fig. 8. Beach in Ustka in April 2015. Works at formation of escarpment on the beach to protect dunes and forests (photo by author)

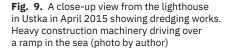






Fig. 10. A view in April 2015 of the sea through still leafless trees growing in the seaside park in Ustka (photo by author)

Fig. 11. A seaside promenade in Ustka in April 2015 – two pines growing at the promenade (photo by author)

Quality pavements of promenades and bicycle paths, greater peace and quiet compared to the other seaside towns in the spring attract nature lovers.

Kołobrzeg is a spa town with one of greatest tourist capacities in Poland. The urbanisation pressure there is huge. On the other hand, the continuously growing number of tourists require and expect new parking spaces. Thanks to the efforts of the authorities and zoning regulations this spa town has managed to establish the greatest zone A in Poland, extending over more than 627 ha (Bernat, Meller, 2018). While being in Kołobrzeg you experience the pervasive presence of numerous tourists, but the town also provides expanses of potential urban green areas. Kołobrzeg has one protected landscape area called the Koszaliński Pas Nadmorski, as well as one ecological site, Ekopark Wschodni. Despite such a close location west of the city centre and crowds of tourists within the city, Ekopark Wschodni is almost empty even in the tourist season. This lack of interest on the part of spa town patients is surprising, particularly since it is within the walking distance to the west of the city. Fortunately, the ecological site is visited by numerous cyclists. The city may also boast of two Natura 2000 areas within the Habitat Directive, i.e. Dorzecze Parsety and Trzebiatowsko--Kołobrzeski Pas Nadmorski.

The city is an evident example of the fact that despite pressure imposed by investors, as well as general urbanisation pressure and congestion (as everywhere in cities), it still has managed to establish within the seaside belt such an expanse of green areas in zone A as 627 ha. It is almost 2 times the size of Central Park in New York with its approx. 341 ha. Knowing its history it is obvious that nothing else has such an advantageous impact on the value of nearby real estate. It will be the case also in Kołobrzeg, it is only a matter of time.



In 2019 Kołobrzeg may also be viewed from two rooftop cafés open to the public and located near the sea. The author decided to take photographs from the Perła Bałtyku café. The other is a revolving café at a greater distance from the seafront. Preservation of this urban green needs to be a priority. As it has been indicated also by other researchers, buildings extending above the tree line and crown canopy should not be erected in the seaside. This hinders penetration of the sea breeze inland and thus it has an impact on the microclimate in the seaside towns. Such objects, being relics of the former socialist architecture, should never be imitated or introduced in the seaside space.

3. Conclusions

In Poland in 2019 we have only 6 seaside spa towns. None of them specialises in health resort and therapeutic services dedicated to children, although there is an urgent need to construct such facilities of a spa town for the youngest patients, where therapy would be financed by the National Health Fund. Only Kołobrzeg and Dąbki have offers for children. Many Polish spa towns are surrounded by landscapes of high nature and cultural value. Large areas have been entered in the Central Register of Nature Conservation Forms (Centralny Rejestr Form Ochrony Przyrody - CRFOP). In Poland one national park, the Woliński National Park, is loacted in the spa town of Świnoujście, and one landscape park, the Trójmieście Landscape Park, in the spa town of Sopot. As regards both the Habitat Directive and the Birds Directive, there are 15 Natura 2000 areas in Polish seaside spa towns. Additionally, the seaside spa towns also comprise 4 nature reserves (in Kamień Pomorski, Kołobrzeg, Świnoujście, Sopot and Ustka) as well as 6 ecological sites and 1 protected landscape area.

This paper has stressed the tremendous importance of nature protection forms found within and in the environs of towns serving highly specialised spa and health resort services. This has a huge importance for health protection and affects the local climate. It plays a therapeutic role and provides several other benefits, including also economic, as mentioned by the author. Urban green in a spa town is of paramount importance for the perception of the spa town and it enhances its spatial order. The urban landscape full of parks, green areas, squares and nearby forests will always remain a magnet attracting both spa town patients and tourists. For this reason conscious prevention measures and educational activity of the communes, such as e.g. establishing parking spaces at a distance from the sealine to protect the nature value, are highly advisable and justified. On the other hand, communes should ensure efficient accessibility for tourists and spa town patients thanks to adequate quality and high standard public transport. The spa town communes face these and many other challenges, which need to be overcome.

The huge nature potential of Polish seaside spa towns is related with the simple, unobstructed contact with nature, sandy beaches, dunes and fragrant seaside forests. They all need to be appreciated, valued and preserved for future generations, particularly considering Polish children, truly needing specialised seaside spa towns, which Poland is still lacking in 2019.

References

- Bernat, S., Meller, M. (2018). Zoning as an instrument of landscape protection of health spa resorts in Poland. Infrastruktura i Ekologia Terenów Wiejskich, IV(1), 985-998. https://doi.org/10.14597/INFRAECO.2018.4.1.068
- Centralny Rejestr Form Ochrony Przyrody Generalna Dyrekcja Ochrony Środowiska CRFOP. (2019). Retrieved from http://crfop.gdos.gov.pl/ CRFOP/search.jsf_(date of access:2019/06/07).
- Dryglas, D., Golba, J. (2017). Determinanty funkcjonowania i rozwoju uzdrowisk w Europie. Kraków: PWN.



- Fogel, A. (2017). Uchwała reklamowa. Przewodnik dla gmin. Warszawa.
- Gamalczyk, M. (2012). Prognoza oddziaływania na środowisko. Zmiany i aktualizacji studium uwarunkowań i kierunków zagospodarowania przestrzennego gminy Ustka, Sopot.
- Hałuzo, M., Kubicz, G., Wojcieszyk, H., Wojcieszyk K. (2008). Program ochrony środowiska dla Gminy Ustka na lata 2007–2010 z uwzględnieniem perspektywy do 2014. Ustka.
- Mapa korytarzy ekologicznych w Polsce. (n.d.). Retrived from http://mapa.korytarze.pl/ (date of access: 2019/06/07).
- Meller, M., Bernat S. (2019). Drzewa pomnikowe na terenie uzdrowisk w Polsce, *Sylwan*, 163(3), 258–264. DOI: https://doi.org/10.26202/sylwan.2018104
- Obwieszczenie Rady Miasta Świnoujście z dnia 26 lutego 2015 r. w sprawie ogłoszenia tekstu jednolitego uchwały w sprawie ustanowienia Statutu Uzdrowiska Świnoujście.
- Patyńska, M., Kazem-Bek, M. (2017). Projekt "Uchwały reklamowej" dla Gminy Miasto Ustka, spotkanie warsztatowe 13/14.11.2017 r. Retrived from http://www.ustka.pl/pl/wydarzenie/6/3378/prezentacja-ze-spotkanwarsztatowych-dot-uchwaly-reklamowej-dla-gminy-miasto-ustka-z-dnia-13-i-14-listopada (date of access: 2020/03/17).
- Projekt Uchwały Krajobrazowej Świnoujście. Zasady i warunki sytuowania obiektów małej architektury, tablic reklamowych i urządzeń reklamowych oraz ogrodzeń, ich gabarytów, standardów jakościowych oraz rodzajów materiałów budowlanych, z jakich mogą być wykonane, dla Gminy Miasto Świnoujście. (2019). Retrived from www.swinoujscie.pl/uploads/files/SW_proj_u_krajobrazowej%20 190607%20WY%C5%81O%C5%BBENIE_II.pdf(date of access: 2020/03/06).
- Świeczkowska, K. (2017). Analiza przestrzenna terenów zieleni w miejscowości uzdrowiskowej Sopot od XIX wieku. Poznań: Uniwersytet Przyrodniczy w Poznaniu.
- Świnoujście. Kraina 44 wysp. (2017). *Konsultacje społeczne. Reklama w naszym mieście*. Retrieved from http://www.swinoujscie.pl/pl/contents/600 (date of access: 2019/06/03).
- Ustawa z dnia 27 marca 2003 r. o planowaniu i zagospodarowaniu przestrzennym. Dz.U. 2003 nr 80 poz. 717.
- Ustawa z dnia 28 lipca 2005 r. o lecznictwie uzdrowiskowym, uzdrowiskach i obszarach ochrony uzdrowiskowej oraz o gminach uzdrowiskowych. Dz.U. 2005 nr 167 poz. 1399 z późniejszymi zmianami.
- Ustawa z dnia 25 kwietnia 2015 r. o zmianie niektórych ustaw w związku ze wzmocnieniem narzędzi ochrony krajobrazu zwana uchwałą krajobrazową lub uchwałą reklamową. Dz.U. 2015 poz. 774.
- Uchwała nr XII/143/2007 Rady Gminy Darłowo z dnia 16 listopada 2007 roku w sprawie ustanowienia Statutu Uzdrowiska Dabki.
- Uchwała nr XXXVI/429/2010 Rady Miasta Sopotu z dnia 5 marca 2010 r. w sprawie uchwalenia Statutu Uzdrowiska Sopot.
- Uchwała nr IV/27/10 Rady Miejskiej w Kamieniu Pomorskim z dnia 28 grudnia 2010 r. w sprawie ustanowienia Statutu Uzdrowiska Kamień Pomorski.
- Uchwała nr XVII.176.2012 Rady Gminy Ustka z dnia 30 marca 2012 r. w sprawie przyjęcia statutu Uzdrowiska Ustka.
- Uchwała nr XL/526/13 Rady Miasta Kołobrzeg z dnia 26 listopada 2013 r. w sprawie uchwalenia Statutu Uzdrowiska Kołobrzeg.
- Uchwała nr XXXIX/521/2018 Rady Miasta Sopotu z dnia 26 marca 2018 r. w sprawie uchwalenia zasad i warunków sytuowania na terenie miasta Sopotu obiektów małej architektury, tablic reklamowych i urządzeń reklamowych oraz ogrodzeń, ich gabarytów, standardów jakościowych oraz rodzajów materiałów budowlanych, z jakich mogą być wykonane.
- Uchwała nr XXII/164/2019 Rady Miasta Świnoujście z dnia 28 listopada 2019 r. w sprawie zasad i warunków sytuowania obiektów małej architektury, tablic reklamowych i urządzeń reklamowych oraz ogrodzeń, ich gabarytów, standardów jakościowych oraz rodzajów materiałów budowlanych, z jakich





mogą być wykonane, dla Gminy Miasto Świnoujście.

Obszary chronione polskich miejscowości uzdrowiskowych w 2019 roku nad Morzem Bałtyckim a ład przestrzenny

Streszczenie

W artykule przedstawiono przegląd obszarów chronionych w polskich nadmorskich miejscowościach uzdrowiskowych w celu zachowania ich walorów przyrodniczych przy jednoczesnym ukierunkowaniu na ład przestrzenny. Poddano analizie także stan prac nad ustawa krajobrazowa dotyczącą wnętrz polskich uzdrowisk i przedstawiono korzystne skutki tej ustawy w przestrzeni miejskiej. Przegląd obszarów chronionych stworzono na podstawie zasobów Centralnego Rejestru Formularzy Ochrony Przyrody CRFOP, dostępnego na stronie internetowej Generalnej Dyrekcji Ochrony Środowiska GDOŚ. Materiał do analiz dotyczy sześciu polskich nadmorskich miejscowości uzdrowiskowych. Polskie uzdrowiska mają wiele wspólnych cech przyrodniczych. Wszystkie rozciągają się nad Morzem Bałtyckim, w ich obrębie znajdują się piaszczyste plaże i wydmy oraz wszystkie położone są w pobliżu obszarów chronionych. Często zielony pas, zazwyczaj las sosnowy, oddziela strefę nadmorską od miasta. Mimo bardzo długiej linii nadmorskiej w 2020 roku (stan na 01.2020) w Polsce jest jedynie sześć takich miejscowości (Kołobrzeg, Świnoujście, Sopot, Kamień Pomorski, Ustka, Dabki).

Słowa kluczowe: nadmorskie uzdrowiska, kurorty nadmorskie, uzdrowisko, planowanie przestrzenne