

IMPRESSIVE LIME TREES IN THE LIPKA COMMUNE (WIELKOPOLSKA VOIVODESHIP)

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Abstract. In all, 105 impressive lime trees were inventoried in the Lipka commune of which *Tilia cordata* Mill. (95 trees) turned out to be the most numerous. The remaining taxa *T. ×europaea* L., *T. platyphyllos* Scop. and *T. tomentosa* Moench had only a very small share. Majority of valuable limes (67) were found to grow along district, local and dirt roads forming avenues. Lime trees in good and very good health condition predominated. From among the impressive lime trees, there were three current monumental trees as well as 55 trees with monument circumferences. Thanks to the elaboration of a comprehensive dendrological documentation, it will be possible to protect impressive lime trees which may become one of important touristic attractions of the Lipka commune.

Key words: Lipka commune, impressive lime trees, monumental trees

INTRODUCTION

Two lime species occur naturally in Poland, namely: *Tilia cordata* Mill. and *T. platyphyllos* Scop. *T. cordata* occurs in dispersion in the area of the entire country, whereas *T. platyphyllos* has its northern range boundary [Boratyński and Browicz 1976, Boratyńska and Dolatowski 1991]. Several lime species can be found growing in Poland. The most popular among them are: *Tilia tomentosa* Moench which derives from the Balkans and *Tilia* 'Euchlora', while *Tilia ×europaea* L., which is a hybrid of *T. platyphyllos* and *T. cordata* and *Tilia americana*, can be found much less frequently [Bugala 2000, Seneta and Dolatowski 2011].

Lime is a long-lived tree and in our country, it may live even 500 years [Pacyniak 1992, Seneta and Dolatowski 2011]. Pacyniak and Smólski [1973] maintain that in Poland, among trees considered as natural monuments, lime trees constitute 13% and occupy the second position after oaks. According to Zarzyński [2003 a, b], out of 104 998 monumental trees recorded in Poland in 2000-2002, lime trees constituted 35% (37 117 trees), of which 36 112 trees (97%) were *Tilia cordata* specimens and only

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1005 trees (3%) were *T. platyphyllos*. Apart from lime trees, maple, elm and ash trees are also quite frequently nature monuments [Kapuściński 2011]. According to Pacyniak [1992], *T. cordata* is the oldest lime tree in Poland; its circumference measures 992 cm and it is 520 years old. This particular tree can be found in Cielętniki (Dąbrowa Zielona commune, in Silesian Voivodeship). The oldest *T. platyphyllos* of 851 cm circumference and 480 years of age is growing in the village of Czarny Potok (Łącko commune, Małopolska Voivodeship).

Names of many towns and villages in Poland derive from lime, e.g. Święta Lipka, Lipnica, Lipusz [Stypiński 1973]. Moreover, the name of the commune and the place itself is by no means accidental. Auer et al. [1999] claim that the name of the commune can be traced back to the Latin word *Lyppa* and derives from wide-stretching and impressive limes growing in the village and neighbouring areas. A documented history of the village Lipka goes back to 1376. A Latin chronicle in which this place is mentioned dates back to this period. The coat of arms of the Lipka commune presents a lime leaf and flower against yellow background.

The documentation of natural resources of Lipka commune mentions only one hornbeam avenue, as well as 22 individual trees considered as nature monuments, including three lime trees: two specimens of *Tilia cordata* and one specimen of *T. tomentosa*. The remaining monumental trees include: *Fagus sylvatica* (5), *Quercus robur* (4), *Q. petraea* (1), *Fraxinus excelsior* (4), *Acer platanoides* (3), and *Alnus glutinosa* (1) and *Abies procera* (1). Until now, the only information about impressive lime trees growing in this commune referred to the three monumental limes. This was the reason which motivated the authors to undertake this investigation whose prime objective was to inventory impressive lime trees found in the commune region. The aim was to find and describe in detail the most valuable limes and, ultimately, to place them under protection. An important aspect of the performed inventory was a planned development of didactic materials regarding the most valuable and interesting lime trees, for example, in the form of a guidebook, Internet site or education pathway. These materials could be used to promote the Lipka commune.

OBJECT OF RESEARCH

Lipka commune is situated in the northern part of the Wielkopolska Voivodeship and north-eastern part of Złotów district, 22 km north-east of Złotów (Fig. 1). Its capital is a small town Lipka (GPS: 53°29'48.83" N, 17°14'51.98" E). The area of the commune is 191.01 km², which constitutes 11.5% of the total area of Złotów district [Juchniewicz et al. 2004]. The Lipka commune borders with the following communes: Debrzno, Sępólno Krajeńskie, Zakrzewo, Złotów and Okonek [Juchniewicz et al. 2004]. It is a rural commune which consists of 18 village communities (<http://www.gminalipka.pl>). The following rivers flow through the commune: Debrzynka, Łobzonka and Stołunia (left tributary of Łobzonka). There are also five lakes of the total area of 103.97 ha: Łąkie, Kiełpińskie, Gogolin Wielki, Świdnik and Staw Młyński Osowo [Juchniewicz et al. 2004] (Fig. 1).

The following two areas belonging to the Natura 2000 network are also situated in Lipka commune: Debrzynka River Valley (PLH300047) of 920.9 ha area and Łobzonka River Valley (PLH3015) of 5894.3 ha area (x).

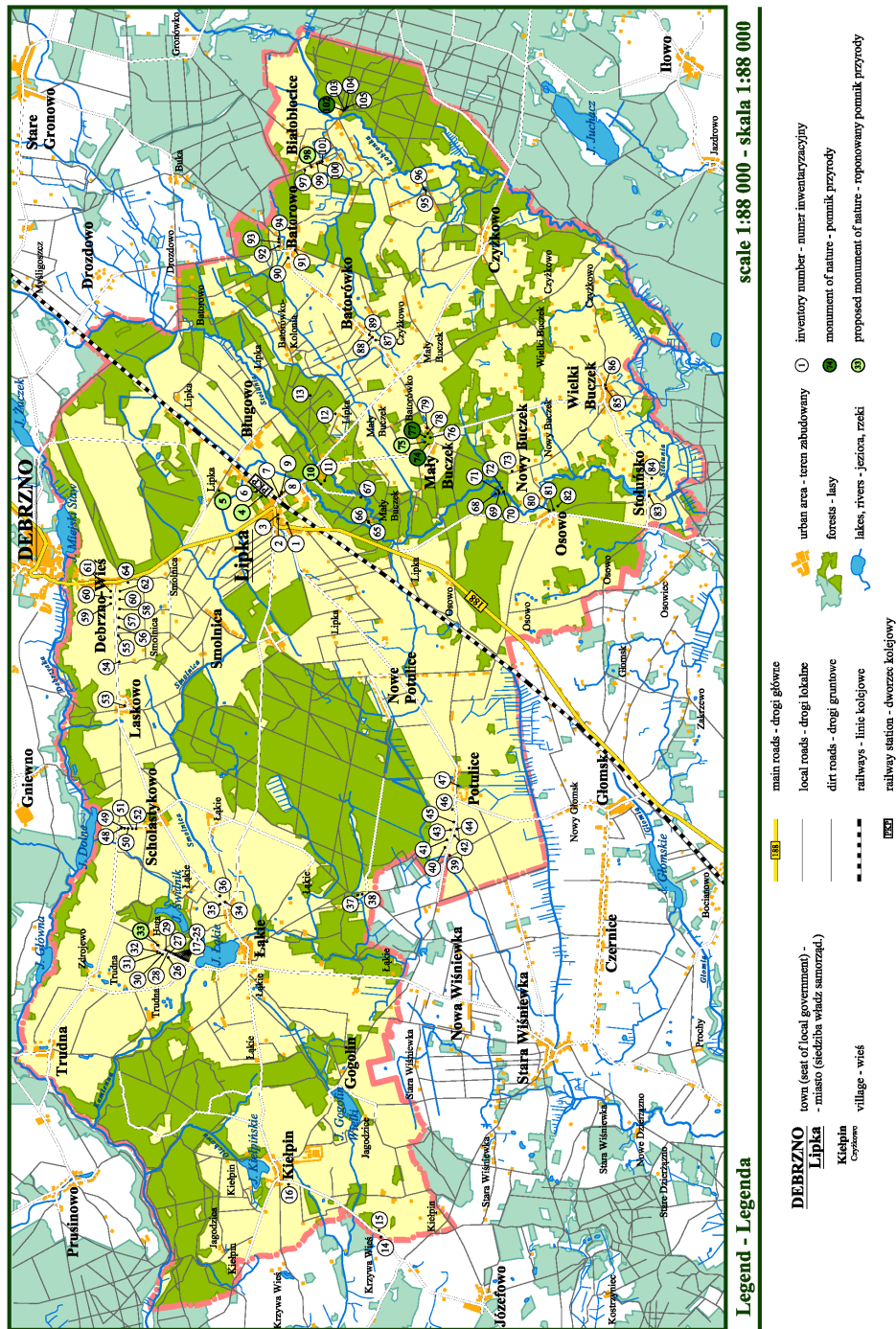


Fig. 1. Lipka commune – distribution of the impressive lime trees
 Rys. 1. Gmina Lipka – rozmieszczenie stanowisk okazałych lip

The prevailing soils in the commune include: podzol, sandy and sandy-clay soils [Juchniewicz et al. 2004].

The climate of the Złotów district and, consequently, of the Lipka commune is temperate with both ocean and continental influences. Masses of polar, arctic and tropical air intermingle. In the course of the year, 30-35 frosty days, approximately 107 days with frost and 38-50 days with snow cover occur in the area of Lipka commune. Mean annual precipitation is 546 mm and the length of the vegetation period varies from 210 to 215 days. Mean wind velocity amounts to about 3.4 m/s. In summer, easterly winds prevail, while in winter the prevailing winds blow from west or south-west directions. North winds are rare. Relative air humidity amounts to about 81% and cloud cover – about 56% [Juchniewicz et al. 2004].

MATERIAL AND METHODS

Investigations were carried out during the 2012 vegetation season. Tree species names are given after Seneta and Dolatowski [2011].

Each tree was allotted an inventory number. First, trees growing in the town of Lipka were allotted numbers and consecutive lime trees were numbered beginning from the western (Kielpin) to eastern part of the commune (Białobłocie). Positions of individual limes were marked in the field and then their geographical coordinates were read from the www.geoportal.gov.pl Website. The distribution of inventoried trees is presented on the map (Fig. 1).

Circumferences (in cm) of all the described trees were measured using a measuring tape at the height of 130 cm. The most valuable trees were classified into the following five circumference classes (monumental circumferences after the Instrukcja... [1996], as well as Ruciński [1998]): 1 – trees with monumental circumferences (the assumed circumference was 314 cm); 2, 3, 4 – successively, trees with circumferences 10%, 20% and 30% smaller than the monumental ones and 5 – existing nature monuments.

Tree heights were measured with the assistance of a Suunto PM-5/1520 altimeter.

Health condition of the examined lime trees was determined in accordance with the modified Kamiński and Czerniak [2000] classification. Trees were divided into five health classes: health condition: 0 – very good – trees completely healthy; 1 – good; 2 – moderate; 3 – bad, dry-wood up to 35% of the crown area; 4 – very bad, dry-wood more than 35% of the crown area; dying trees.

In addition, types of objects near which the examined lime trees were growing were also determined: roads (country, commune, local and dirt), sacred objects (churches, cemeteries – both Polish, as well as old – German or Jewish), early medieval settlements, old parks (with the exception of closed, private palace parks), railway station, forester houses, forest districts, forest parks, restaurants, former and new primary and secondary schools, education pathways or cycling routes.

Complete inventory data, as well as photographic documentation, can be found in Szczepański's manuscript [2012].

RESEARCH RESULTS

In all, 105 impressive lime trees belonging to the following four taxons: *Tilia cordata* Mill., *T. platyphyllos* Scop., *T. ×europaea* L. and *T. tomentosa* Moench were identified in Lipka commune (Table 1). The most common lime species was *T. cordata* – 95 trees (90%). The proportion of the remaining limes was small: *T. ×europaea* (6 trees), *T. platyphyllos* (3 trees) and *T. tomentosa* (1 tree).

Table 1. List of the impressive lime trees (monuments of nature, trees with circumferences monumental and close to monumental) inventoried in the Lipka commune
Tabela 1. Wykaz najokazalszych lip (pomników przyrody, drzew o obwodach pomnikowych i zbliżonych do pomnikowych) zinwentaryzowanych w gminie Lipka

Number Num- mer	Species Gatunek	Circumfer- ence Obwód cm	State of health Stan zdrowotny	Place Miejscowość	Location Lokalizacja
1	2	3	4	5	6
1	<i>Tilia cordata</i>	353	2	Lipka	“Sezam” restaurant restauracja „Sezam”
2	<i>Tilia cordata</i>	247	1	Lipka	St. Catherine Catholic Church kościół p.w. Św. Katarzyny
3	<i>Tilia cordata</i>	243	1	Lipka	St. Catherine Catholic Church kościół p.w. Św. Katarzyny
4*	<i>Tilia cordata</i>	380	2	Lipka	railway station dworzec PKP
5	<i>Tilia cordata</i>	333	0	Lipka	Leśna Street ul. Leśna
6	<i>Tilia cordata</i>	351	1	Lipka	railway station dworzec PKP
7	<i>Tilia cordata</i>	266	1	Lipka	cemetery cmentarz
8	<i>Tilia cordata</i>	272	1	Lipka	cemetery cmentarz
9	<i>Tilia cordata</i>	251	1	Lipka	cemetery cmentarz
10	<i>Tilia cordata</i>	330	2	Lipka	forest parking/educational path parking leśny/ścieżka edukacyjna
11	<i>Tilia cordata</i>	273	1	Lipka	forest parking/educational path parking leśny/ścieżka edukacyjna
12	<i>Tilia cordata</i>	325	1	Lipka	land route droga gruntowa
13	<i>Tilia cordata</i>	230	1	Lipka	land route droga gruntowa
14*	<i>Tilia cordata</i>	353	1	Kiełpin	district road no. 1026P droga powiatowa nr 1026P

Table 1 – cont. / Tabela 1 – cd.

1	2	3	4	5	6
15	<i>Tilia cordata</i>	250	1	Kiełpin	district road no. 1026P droga powiatowa nr 1026P
16	<i>Tilia cordata</i>	296	1	Kiełpin	district road no. 1026P droga powiatowa nr 1026P
17	<i>Tilia cordata</i>	281	1	Huta	district road no. 103002P droga powiatowa nr 103002P
18	<i>Tilia cordata</i>	336	1	Huta	district road no. 103002P droga powiatowa nr 103002P
19	<i>Tilia cordata</i>	318	1	Huta	district road no. 103002P droga powiatowa nr 103002P
20	<i>Tilia cordata</i>	291	1	Huta	district road no. 103002P droga powiatowa nr 103002P
21	<i>Tilia cordata</i>	310	1	Huta	district road no. 103002P droga powiatowa nr 103002P
22	<i>Tilia cordata</i>	298	2	Huta	district road no. 103002P droga powiatowa nr 103002P
23	<i>Tilia cordata</i>	282	1	Huta	district road no. 103002P droga powiatowa nr 103002P
24	<i>Tilia cordata</i>	272	1	Huta	district road no. 103002P droga powiatowa nr 103002P
25	<i>Tilia cordata</i>	320	1	Huta	district road no. 103002P droga powiatowa nr 103002P
26	<i>Tilia cordata</i>	355	3	Huta	district road no. 103002P droga powiatowa nr 103002P
27	<i>Tilia cordata</i>	291	1	Huta	district road no. 103002P droga powiatowa nr 103002P
28	<i>Tilia cordata</i>	305	0	Huta	district road no. 103002P droga powiatowa nr 103002P
29*	<i>Tilia cordata</i>	475	3	Huta	district road no. 103002P droga powiatowa nr 103002P
30	<i>Tilia cordata</i>	464	0	Huta	district road no. 103002P droga powiatowa nr 103002P
31	<i>Tilia cordata</i>	307	0	Huta	district road no. 103002P droga powiatowa nr 103002P
32	<i>Tilia cordata</i>	375	0	Huta	district road no. 103002P droga powiatowa nr 103002P
33	<i>Tilia cordata</i>	445	0	Huta	district road no. 103002P droga powiatowa nr 103002P
34*	<i>Tilia cordata</i>	330	3	Łąkie	district road no. 1026P droga powiatowa nr 1026P
35	<i>Tilia cordata</i>	283	3	Łąkie	district road no. 1026P droga powiatowa nr 1026P

Table 1 – cont. / Tabela 1 – cd.

1	2	3	4	5	6
36	<i>Tilia cordata</i>	305	1	Łąkie	district road no. 1026P droga powiatowa nr 1026P
37	<i>Tilia cordata</i>	308	1	Potulice	forester house Potulice leśniczówka Potulice
38	<i>Tilia cordata</i>	322	1	Potulice	forester house Potulice leśniczówka Potulice
39*	<i>Tilia cordata</i>	619	2	Potulice	local route droga lokalna
40	<i>Tilia cordata</i>	313	2	Potulice	local route droga lokalna
41	<i>Tilia cordata</i>	293	2	Potulice	local route droga lokalna
42	<i>Tilia cordata</i>	389	2	Potulice	local route droga lokalna
43	<i>Tilia cordata</i>	340	2	Potulice	local route droga lokalna
44	<i>Tilia cordata</i>	297	2	Potulice	local route droga lokalna
45	<i>Tilia cordata</i>	311	1	Potulice	local route droga lokalna
46	<i>Tilia cordata</i>	382	4	Potulice	local route droga lokalna
47	<i>Tilia cordata</i>	330	1	Potulice	monumental park zabytkowy park
48	<i>Tilia platyphllos</i>	276	0	Scholastykowo	local route droga lokalna
49*	<i>Tilia platyphllos</i>	359	1	Scholastykowo	local route droga lokalna
50	<i>Tilia platyphllos</i>	273	0	Scholastykowo	local route droga lokalna
51	<i>Tilia xeuropaea</i>	320	1	Scholastykowo	local route droga lokalna
52	<i>Tilia xeuropaea</i>	270	1	Scholastykowo	local route droga lokalna
53*	<i>Tilia cordata</i>	347	2	Laskowo	local route droga lokalna
54	<i>Tilia cordata</i>	361	3	Debrzno Wieś	district road no. 1026P droga powiatowa nr 1026P
55*	<i>Tilia cordata</i>	413	4	Debrzno Wieś	district road no. 1026P droga powiatowa nr 1026P
56	<i>Tilia cordata</i>	391	4	Debrzno Wieś	district road no. 1026P droga powiatowa nr 1026P

Table 1 – cont. / Tabela 1 – cd.

1	2	3	4	5	6
57	<i>Tilia cordata</i>	339	2	Debrzno Wieś	district road no. 1026P droga powiatowa nr 1026P
58	<i>Tilia cordata</i>	306	0	Debrzno Wieś	district road no. 1026P droga powiatowa nr 1026P
59	<i>Tilia cordata</i>	321	0	Debrzno Wieś	district road no. 1026P droga powiatowa nr 1026P
60	<i>Tilia cordata</i>	402	2	Debrzno Wieś	district road no. 1026P droga powiatowa nr 1026P
61	<i>Tilia cordata</i>	330	1	Debrzno Wieś	district road no. 1026P droga powiatowa nr 1026P
62	<i>Tilia cordata</i>	306	4	Debrzno Wieś	district road no. 1026P droga powiatowa nr 1026P
63	<i>Tilia cordata</i>	366	2	Debrzno Wieś	district road no. 1026P droga powiatowa nr 1026P
64	<i>Tilia cordata</i>	254	3	Debrzno Wieś	provincial road no. 188 droga wojewódzka nr 188
65	<i>Tilia cordata</i>	284	1	Mały Buczek	land route droga gruntowa
66	<i>Tilia cordata</i>	264	1	Mały Buczek	land route droga gruntowa
67	<i>Tilia cordata</i>	311	1	Mały Buczek	storehouse near the forest district Lipka wiata przy Nadleśnictwie Lipka
68	<i>Tilia cordata</i>	327	2	Mały Buczek	early medieval settlements grodzisko wczesnośredniowieczne
69	<i>Tilia cordata</i>	266	1	Mały Buczek	early medieval settlements grodzisko wczesnośredniowieczne
70	<i>Tilia cordata</i>	352	1	Mały Buczek	early medieval settlements grodzisko wczesnośredniowieczne
71	<i>Tilia cordata</i>	307	1	Mały Buczek	early medieval settlements grodzisko wczesnośredniowieczne
72	<i>Tilia cordata</i>	368	1	Mały Buczek	early medieval settlements grodzisko wczesnośredniowieczne
73	<i>Tilia xeuropaea</i>	316	2	Mały Buczek	land route droga gruntowa
74	<i>Tilia cordata</i>	450	1	Mały Buczek	monumental park zabytkowy park
75	<i>Tilia cordata</i>	369	1	Mały Buczek	monumental park zabytkowy park
76	<i>Tilia cordata</i>	230	2	Mały Buczek	monumental park zabytkowy park

Table 1 – cont. / Tabela 1 – cd.

1	2	3	4	5	6
77*	<i>Tilia tomentosa</i>	515	2	Mały Buczek	monumental park zabytkowy park
78	<i>Tilia cordata</i>	464	2	Mały Buczek	monumental park zabytkowy park
79	<i>Tilia cordata</i>	284	2	Mały Buczek	district road no. 103010P droga powiatowa nr 103010P
80	<i>Tilia xeuropaea</i>	268	1	Osowo	old German cemetery stary cmentarz niemiecki
81	<i>Tilia xeuropaea</i>	308	1	Osowo	old German cemetery stary cmentarz niemiecki
82*	<i>Tilia cordata</i>	310	1	Osowo	old German cemetery stary cmentarz niemiecki
83*	<i>Tilia cordata</i>	332	1	Stołuńsko	local route droga lokalna
84*	<i>Tilia cordata</i>	427	2	Nowy Buczek	land route droga gruntowa
85*	<i>Tilia cordata</i>	250	2	Wielki Buczek	former primary school dawna szkoła podstawowa
86	<i>Tilia cordata</i>	245	2	Wielki Buczek	former primary school dawna szkoła podstawowa
87*	<i>Tilia cordata</i>	385	1	Batorówko	district road no. 1036P droga powiatowa nr 1036P
88	<i>Tilia cordata</i>	374	1	Batorówko	district road no. 1036P droga powiatowa nr 1036P
89	<i>Tilia cordata</i>	333	1	Batorówko	district road no. 1036P droga powiatowa nr 1036P
90	<i>Tilia cordata</i>	268	2	Batorowo	district road no. 1036P droga powiatowa nr 1036P
91*	<i>Tilia cordata</i>	277	2	Batorowo	district road no. 1036P droga powiatowa nr 1036P
92	<i>Tilia cordata</i>	231	2	Batorowo	land route droga gruntowa
93	<i>Tilia cordata</i>	232	3	Batorowo	land route droga gruntowa
94	<i>Tilia xeuropaea</i>	242	1	Batorowo	land route droga gruntowa
95	<i>Tilia cordata</i>	313	0	Czyżkowo	land route droga gruntowa
96*	<i>Tilia cordata</i>	343	0	Czyżkowo	land route droga gruntowa
97	<i>Tilia cordata</i>	246	3	Białobłocie	district road no. 103016P droga powiatowa nr 103016P

Table 1 – cont. / Tabela 1 – cd.

1	2	3	4	5	6
98	<i>Tilia cordata</i>	392	0	Białobłocie	district road no. 103016P droga powiatowa nr 103016P
99	<i>Tilia cordata</i>	374	3	Białobłocie	former primary school dawna szkoła podstawowa
100	<i>Tilia cordata</i>	321	4	Białobłocie	former primary school dawna szkoła podstawowa
101	<i>Tilia cordata</i>	321	1	Białobłocie	former primary school dawna szkoła podstawowa
102*	<i>Tilia cordata</i>	410	1	Białobłocie	forester house Białobłocie leśnictwo Białobłocie
103	<i>Tilia cordata</i>	253	2	Białobłocie	forester house Białobłocie leśnictwo Białobłocie
104	<i>Tilia cordata</i>	297	2	Białobłocie	forester house Białobłocie leśnictwo Białobłocie
105	<i>Tilia cordata</i>	298	2	Białobłocie	forester house Białobłocie leśnictwo Białobłocie

*The thickest trees in given places. Shading – monumental trees. Bold – the trees proposed for protection as monuments of nature.

*Najgrubsze drzewa w danych miejscowościach. Cieniowanie – drzewa pomnikowe. Pogrubienie – drzewa proponowane do ochrony jako pomniki przyrody.

Lime trees were found to grow near 11 different objects (Fig. 2). Majority of limes (67) grow along roads with some of them (39) forming avenues along roads. Four such avenues were identified. The first of them leads from Łąkie to Huta (16 *Tilia cordata* trees with circumferences of 272 – 475 cm) and the second one – from Debrzna Wieś to Laskowo (10 *Tilia cordata* trees with circumferences of 306 – 413 cm). There are also two small avenues, one in Potulice (6 *T. cordata* trees with circumferences of 293 – 619 cm) and one in Scholastyków (3 *T. platyphyllos* lime trees and 2 *T. ×europaea* trees with circumferences of 270-359 cm). Apart from roads, impressive limes were also found to grow in the vicinity of forester houses, in old parks, in cemeteries, as well as in the neighbourhood of old schools, settlements and churches (Fig. 2).

From among the inventoried limes, trees assessed to be in good (49) or very good (13) health condition prevailed (Table 1). Health condition of numerous lime trees (29) was also classified as moderate and only some trees were evaluated to be in bad (9) or very bad (5) health condition.

The following three lime trees in Lipka commune are protected as nature monuments: *Tilia cordata* (circumference – 450 cm, height – 30 m), *T. cordata* (circumference – 410 cm, height – 18 m) and *T. tomentosa* (circumference – 515 cm, height – 30 m; Table 1). The first two trees grow in an old park in Mały Buczek and the third one – in the Białobłocie forest range.

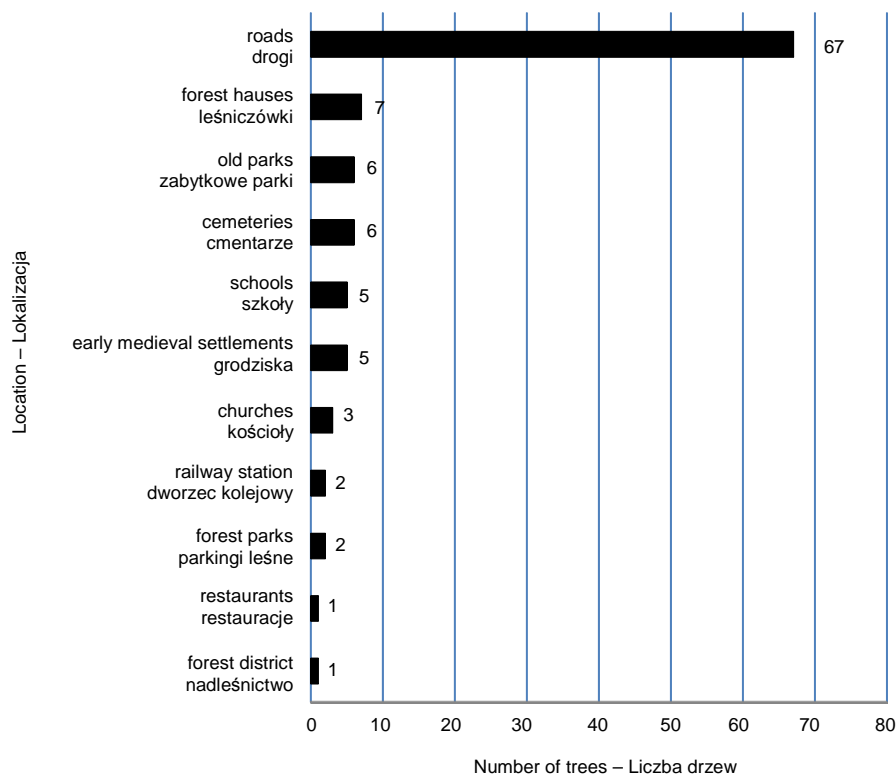


Fig. 2. Objects near which the examined lime trees were growing
Rys. 2. Obiekty, przy których rosną okazałe lipy

Majority of the examined trees, i.e. 55 (52%) comprise limes with monumental circumferences. The circumference by 10% smaller than the monumental one was determined in 21 trees (20%), 20% smaller than the monumental one – in 17 limes (17%). The smallest number of trees, i.e. 12 trees (8-9%) comprised limes with circumferences 30% smaller than the monumental circumference (Table 1).

Most trees with monumental circumferences were found growing along district, local and dirt roads, in early medieval settlements and old parks (Table 1). In the case of limes with circumferences 10% smaller than the monumental circumference, majority of them occurred along district and local roads, as well as near forester houses. Trees with circumferences 20% smaller than the monumental circumference were identified mainly along district and local roads, as well as cemeteries, whereas limes with circumferences 30% smaller than the monumental circumference were most numerous along dirt roads and near churches.

The thickest lime trees growing in 17 places in the Lipka commune (Batorowo, Batorówko, Białobłocie, Czyżkowo, Debrzno Wieś, Huta, Kiełpin, Laskowo, Lipka, Łąkie, Mały Buczek, Nowy Buczek, Osowo, Potulice, Scholastykowo, Stołuńsko, Wielki Buczek; Table 1) were identified. These trees undoubtedly constitute a tourist attraction. They usually grow along district or local roads. Their circumferences range from 250

to 619 cm. The thickest of them include: *Tilia cordata* with the circumference of 619 cm, growing along the local road in Potulice and *T. tomentosa* of the circumference of 515 cm, which is situated in the old park in Mały Buczek.

When choosing the most valuable trees proposed to be placed under protection in the form of nature monuments, the following factors were taken into consideration: their circumference and height, health condition and attractiveness from the point of view of touristic location. In this way, six small-leaved limes were selected with circumferences ranging from 330 to 445 cm (Table 1).

CONCLUSIONS

105 impressive lime trees were inventoried in the Lipka commune. They belong to the following four taxons: (*Tilia cordata*, *Tilia ×europaea* L., *Tilia platyphyllos* Scop., *Tilia tomentosa* Moench). *T. cordata* turned out to be most numerous (95 trees) and was the only one in this region occurring within the boundary of its natural range. These trees were found to grow mainly in roadside avenues.

Prior to the performed inventory, the only data about impressive lime trees in this commune were associated with the information about three monumental trees. At the present time, thanks to comprehensive dendrological documentation, it will be possible to elaborate a protection strategy of impressive limes. In the case of the most valuable trees, it should be protection in the form of nature monuments and in the case of other tree which happen to be in a worse health condition, it would be advisable to carry out tending interventions. The total of 55 lime trees has the monumental circumference and many of them (26) are in good or very good health conditions which qualify them to be placed under protection in the form of nature monuments. In the first stage, six most beautiful lime tree specimens with circumferences from 330 to 445 cm were proposed to be placed under protection.

This publication has also another important aspect. Tourism and recreation are important economic domains in the Lipka commune supported and favoured by nature and cultural values of this commune. Promotion of these values is an important task and impressive lime trees may become one of important tourist attractions of the commune whose name derives from these very trees. That is why the most impressive limes with circumferences ranging from 250 to 619 cm were selected in 17 places in this commune. These trees should be marked out (they can be identified by special notices with appropriate descriptions). These plates should serve to draw attention not only of tourists but also of local communities (this would assure their informal protection). In the next stage, a dendrological guidebook “following the path of impressive lime trees of the Lipka commune” is to be prepared which should serve promotion of this commune.

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OKAZAŁE LIPY GMINY LIPKA (WOJEWÓDZTWO WIELKOPOLSKIE)

Streszczenie. W gminie Lipka zinwentaryzowano 105 okazałych lip. Najliczniej występuje *Tilia cordata* Mill. (95 drzew). Pozostałe gatunki – *T. ×europaea* L., *T. platyphyllos* Scop. i *T. tomentosa* Moench – mają udział nieznaczny. Większość (67) cennych lip rośnie przy drogach powiatowych, lokalnych i gruntowych, tworząc aleje. Przeważają lipy znajdujące się w dobrym i bardzo dobrym stanie zdrowotnym. Wśród okazałych lip znaj-

dużą się trzy istniejące pomniki przyrody oraz 55 drzew o obwodach pomnikowych. Dzięki pełnej dokumentacji dendrologicznej można będzie chronić okazałe lipy, które mogą stać się jedną z ważnych atrakcji turystycznych gminy Lipka.

Słowa kluczowe: gmina Lipka, okazałe lipy, pomniki przyrody

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