

The History of Baublys – an Attempt at Evaluating Some Dendrometric Characteristics of the Most Famous Oak Tree in the History of Lithuania

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Szczepkowski, A., Tomusiak, R., Zarzyński, P. 2002. The History of Baublys – an Attempt at Evaluating Some Dendrometric Characteristics of the Most Famous Oak Tree in the History of Lithuania. *Baltic Forestry*, 8 (1): 35–41.

Baublys is the name of one of the most famous and magnificent oak tree in the history of Lithuania that was cut down in 1812. The great poet Adam Mickiewicz mentions the tree in his poem "Pan Tadeusz". On the basis of historical notes and by applying up-to-date methods the authors of this paper evaluated the age (836-1437 years), thickness (perimeter on DBH - 1093 cm), height (35.3-40.7 m) and volume (178.20-205.5 m³) of Baublys.

Key words: oak tree, Baublys, dendrometric traits, old trees.

Introduction

It is not often that a particular tree is present in world literature acknowledged by millions of readers as a national epic. This is what happened in the case of no longer existing specimen of the common oak (*Quercus robur* L.) called Baublys. Adam Mickiewicz, the most famous Polish poet inspired by a youthful vision remembers it in "Pan Tadeusz" (Mickiewicz 1982):

"..... You, among whom I rambled
As a boy. Mighty Baublys lives? – whose green cavern
The ages hollowed out; so spacious it could comfortably
House a banquet table and dozen dinner guests."

At the time when the poet wrote these words (Paris 1834) the famous Baublys was already dead for over 20 years. It was cut down in March 1812. It remained in the oral tradition as a tree of an extraordinary size, a giant unequalled throughout Lithuania. Thankfully written evidence is preserved which contains information about this extraordinary tree. Below are presented facts and speculations based on knowledge gained by successive generations of foresters.

This famous oak tree was found in the Skaudvilė parish, in the Bardžių (Bordzie) estate near Raseiniai, in the Raseiniai district, which was a part of the County of Žemaitija (Samogitia) on the Vyšniakalnis hill (Wiśniowa Góra – Cherry Hill). In the beginning of the 19th century this area and Baublys belonged to Dionizas Poška (Dionizy Paszkiewicz) (about 1757-1830) well

known among the Lithuanians as a writer, poet and expert on Lithuanian folklore. At this time the oak tree was dying. In spite of this the owner, a great enthusiast of nature and everything that is connected with the culture and history of Lithuania did not intend to raise his hand against the forest Methuselah. Unfortunately, the dying oak tree was facing destruction. In 1812, during an attempt at smoking out a fox from among the roots of Baublys, there was a small fire. Only due to the cold blood of the people present, the aged tree did not burn down. The fire was put out but the tree suffered because of this as Dionizas Poška being afraid that the situation might once again arise in the future decided to cut the tree down. In March 1812, a group of tree-cutters using only axes cut the giant tree down in one day. The falling of the tree was observed by many witnesses, among them by the Bishop of Samogitia, Count Juozapas Arnulfas Giedraitis (Józef Arnulf Giedroyć) and, of course, Dionizas Poška himself. He described this in a paper called "About an oak tree over a thousand years old called Baublys, which grew in Samogitia on the Bardžiu estate belonged to Dyonizy Paszkiewicz" and published it in *Dziennik Warszawski* (Warsaw Daily) (No. 8/IV/1926) (Paszkiewicz 1826) and in *Sylwan* (No. 1/1827) (Paszkiewicz 1827). On the basis of this paper it is possible, with a greater or lesser probability, to reconstruct a series of facts telling us about Baublys appearance and size.

Etymologists are not sure about the oak's name source. Some of them think it is possible that it came from the legendary god of bees and honey – Babylos (or Bubylos). Others suggest that it was built from the Lithuanian verb "baubti" (which means the voice of the bull) because of the wind sound in old-growth oak's branches (Narbutt 1835).

We learn that this oak tree was dry-rotted "three ells above ground but the upper part was completely healthy and only a little rusty for several inches". The Lithuanian ell was a length measure that was widely used during those times in Lithuania. According to Orgelbrandt's "Encyklopedyja powszechna" (General Encyclopaedia) (*Encyklopedija ...*) it was equal to 1.127914693 new Polish ell also called the Warsaw ell the length of which was 0.5760 m. Thus the Lithuanian ell was 0.6497 m. Therefore the height of the hollow in the lower part of the trunk was about 1.95 m. As a result the feast for 12 people described by Mickiewicz (Mickiewicz 1982) must have been very uncomfortable.

In the literature (Stamm 1935) one also finds the length of the Lithuanian ell equal to 0.6550 m that was calculated on the basis of measures from the 17th century and recommendations of the Treasury Commission from 1764. In the present paper, however, the

length of the Lithuanian ell is taken from the Orgelbrandt's Encyclopaedia (*Encyklopedija ...*).

The owner thus described the condition of this oak tree: "before felling this oak tree in 1811 still had leaves, so small, however, that they were less than half of the normal oak leaves and even they were weak and wilted; the branches for the most part were already dead" (Paszkiewicz 1826). The presented picture of the tree shows the advanced process of its dying and the author does not explain the reason for that. At present we can only conduct a circumstantial analysis of the causes for the weak condition of that famous tree. The main element influencing the vitality decrease of the tree should be attributed to its age. Oak trees live maximum about one thousand years (Seneta, Dolatowski 2000) and this could be the age of Baublys.

AN ATTEMPT AT RECONSTRUCTING DENDROMETRIC TRAITS OF THE OAK TREE

Diameter

The most interesting problem is still the question of Baublys dimensions. Dionizas Poška mentions that "the trunk of that oak tree, still as a whole, is 19 Lithuanian ells and six inches in perimeter, 7 ells in diameter in the widest part and five and a half ells in the narrowest part and the middle part of the habitable oak tree, i.e. my arbour is 13 ells and 5 inches in perimeter. These differences between the measurements of the oak tree trunk and its stump result from the fact that ten men spent a whole day in March cutting down the tree with the help of axes before they reached the diameter. They had to cut out a splinter of more than two ells in width and then the bottom was levelled thus a considerable part of the diameter was lost" (Paszkiewicz 1826).

We learn from the above report that after converting the measurements into contemporary units the perimeter of Baublys stump was 1250 cm on the level of the ground and the trunk was elliptical in shape with the longer diameter of 455 cm and the shorter amounting to 357 cm. The next measurement was taken in the half of the tree height. As we already know it was six ells high (390 cm). That should be increased by the width of the saw cut (the above mentioned 'splinter') which not very precisely was determined as a little over 2 ells (over 130 cm). Assuming the possibility of a small error it can be accepted that the centre of the tree was at the height of 5 ells over the ground, i.e. 325 cm. The perimeter at that level was evaluated as 857 cm.

Further attempts at determining the tree dimensions can only be a mathematical and dendrometric

speculation aiming at bringing closer the dimensions that could have been reached by Baublys. The basic trait of a tree that is used in forestry at present is the DBH (breast height diameter). The perimeter of Baublys at DBH was interpolated on the basis of the stump perimeter (on the level of the ground) and the perimeter at the height of 3.25 m. It could amount to 1093 cm and the diameter to 348 cm. Comparing to the presently existing trees in Poland this result is an absolute record. There are no such magnificent common oak trees within the present borders of Poland.

If the data contained in Dionizas Poška's report (Paszkievicz 1826) is accurate and no mistake was made in the analysis then the dimensions of Baublys are quite exceptional for Middle and East Europe. That tree would not have many rivals among the contemporary trees in this area. 'Stelmuže oak' – the most famous oak tree of Lithuania has the perimeter at the breast height equal to 880 cm (the diameter of 280 cm) (Lith.sov.encycl.) and 'Napoleon' – a magnificent example of the oak tree of the biggest diameter in Poland – 1043 cm (the diameter of 332 cm) (Maliński, Zatorski 1997). Only the greatest oak tree of Germany called Die Eiche von Ivenack has more impressive girth – 1125 cm (the diameter of 358 cm).

It should be stressed that some other species from the genus *Quercus* also reach similar perimeters. Here one can mention, e.g. the specimen of *Q. Virginiana* in Goose Island State Park in Texas or *Q. Chrysolepis* var. *Chrysolepis* from Cleveland National Forest in California. The perimeters of these trees measured, in agreement with American standard at the level of 4 and ½ feet (1.37 m) amounted to 1072 and 1034 cm, respectively (AFA's Social Reg.). Thus it can be assumed that the perimeters at the height of 1.3 m amounting to 10.5-11.0 m is a present limit value for the whole *Quercus* species. In the literature (Michalowski 1991) there are also reports concerning an oak tree called St. George that grows in Macedonia and whose perimeter was assuming the value of 15 m, however, they were not proved scientifically.

Age

Directly after cutting down the oak tree Dionizas Poška undertook a trial at determining the age of Baublys. As the basis for his analysis he accepted the number of annual rings at the level of about 520 cm from the soil surface (the 'top' of the arbour), where the rings were well visible and the rot took only a slight part of the cross section of the trunk. The result of this operation he described in a following way: "(...) we counted seven hundred and a few dozen [rings], and in the exact centre for several inches the rings were

poorly visible because the rot was taking over: what is more the perimeter of the oak itself touching the bark for a few inches could not be observed in the rings with the naked eye, only with the help of a magnifying glass" (Paszkievicz 1826). On the basis of the above, Dionizas Poška concluded that Baublys had to be over a thousand years old. He was probably right. Famous Lithuanian 'Stelmuže oak' is suspected to be 1500 years old (Lith.sov.encycl.). The oak tree 'Chrobry' which, at present, is considered to be the oldest deciduous tree in Poland and which grows in Piotrowice near Szprotawa was estimated as being 740 years old (Pacyniak 1992). This tree, despite significant losses of wood in the butt end of the trunk, does not show any signs of the approaching death. Thus the maximum age that can be reached by oak trees in our climatic conditions must be much higher.

On the basis of the above data one may attempt a more precise determination of Baublys age, of course within wide limits of tolerance. Due to the decomposition of wood Dionizas Poška (Paszkievicz 1826) was not able to determine exactly the number of rings in the central part of the trunk within the width of several inches. Assuming that several means from 11 to 19 inches, the mentioned fragment of cross section could have the diameter from 27.94 cm to 48.26 cm. The age span during which the oak tree could reach such dimensions was determined for 80-190 years. This determination was done on the basis of empirical material from the Department of Dendrometry and the Wood Productivity Science of Warsaw Agricultural University (SGGW).

Much more difficult was the determination of the number of rings in the outer part of the cross section, where they were too narrow to be noted with naked eye. According to the report they were observed on the distance of a few inches. Assuming that it can mean from 2 to 9 inches on the radius the difference can be from 5.08 to 22.86 cm.

The determination of the number of rings on the inner part of Baublys trunk was done in two ways. First, the authors assumed that the mean width of a ring in that part is the same as on the radius segment on which the annual increments were counted, i.e. in the central part.

Knowing the diameter of Baublys and the number of annual rings in the part of its cross section one could try to evaluate the mean value of diameter increment in this period of life. The result is again presented in the form of boundary values among which is the actual value. The discrepancies are caused by inaccurate determination of the number of rings (seven hundred and a few dozen) and the ignorance of the diameter of the trunk at the height of about 520 cm at

which Dionizas Poška (Paszkievicz 1826) performed his counting. The authors undertook a trial to determine that trait.

If one uses the two known diameters lying below, i.e. 398 cm (at the base of the tree) and 273 cm (at the height of 325 cm), then by means of extrapolation one can calculate the diameter of 198 cm at the height of 520 cm. The value is too low to be likely because old oak trees are not characterised by such a tapering in the butt part of the trunk. The extrapolation of the diameter of that part of the trunk on the basis of measurements taken below produces negative errors.

Thus the diameter at the height of 520 cm was determined differently – by a comparative method. To do that the tapering of a segment from the height of 325 to 520 an existing oak tree was calculated. The tree 'Mieszko' grows in Nowoursynowska street in the Warsaw district called Natolin. Considering the diameter of that oak tree it could be used as a proper comparative material for Baublys. The measurements of the diameter from the above mentioned heights were taken by an indirect method using the theodolite Theo 020B. The tapering of this part of the 'Mieszko' trunk amounted to -5.5 cm/m. Assuming that Baublys was characterised by the same tapering, then its diameter on the bark at the height of 520 cm would amount to 262.13 cm. After taking away the thickness of the bark (extrapolation on the basis of tables of the yield and stand increment (Szymkiewicz 1971) it was estimated that the length of the radius on which Dionizas Poška made his calculations of rings was more or less 122 cm.

Then the value was reduced by the thickness of the outer part of the cross section where the very narrow rings were not visible with the naked eye (a few inches, i.e. 5.08-22.86 cm) and decomposed by fungi the central part (a half of 'several inches', i.e. 13.97-24.13 cm). As a result the part of the radius containing the counted rings could fall within the boundaries from 75.01 to 102.95 cm. After assuming the number of counted rings as 720-790 the range of results presented in Table 1 was obtained.

The mean width of a ring in this segment could be included within the range 0.95-1.43 mm and thus

Table 1. An attempt at evaluating the mean value of the Baublys increment in diameter in the part of cross-section at the height of 5.2 m

Variant	Radius (cm)	Number of rings	Mean width of a ring (mm)	Increment in diameter (mm)
Minimum	75.01	790	0.95	1.90
Maximum	102.95	720	1.43	2.86

the increment in the width would amount to from widths of the ring may be the lack of knowledge of the exact length of 1.90 to 2.86 mm. The cause of significant discrepancies between the calculated average mentioned radius segment and ambiguously defined number of counted rings ('seven hundred and several dozen'). Thus it is clearly seen that the precision of such calculations leaves much to be desired.

Of course, the age range obtained this way for the outer part of the trunk should be treated as minimum values because in fact the rings in this part of wood must have been much narrower as, in opposite to the others, they could not be counted with naked eye.

The second method was based on the constant-boundary value of a ring, which could be observed with naked eye by an average and inexperienced observer. It was established in an empirical way that such value could be 0.5 mm.

An additional difficulty in precise determination of the Baublys age was the ignorance of the exact number of rings that Dionizas Poška counted 'with no doubt'. He determined their number as seven hundred and several dozen, thus it was assumed that there could be from 720 to 790. Thus formulated assumption caused the widening of the age range.

The final results concerning approximate Baublys age are presented in Table 2 analysing all values it can be stated that the age of Baublys must have been between 836 and 1437 years. Thus probably it germinated at the very latest between the year 375 and 976. Of course, between these dates there is a significant divergence, however, on the basis of preserved information a more precise determination of age seems to be impossible.

Height

Little is known about the height of Baublys. Dionizas Poška mentions that all other oak trees "of significant height (...) it twice exceeded" (Paszkievicz 1826). This note allows a supposition that this oak tree grew as a forest tree, i.e. with a long, full log. However, it should be mentioned that Baublys grew on a hill, which could increase the feeling of its height.

According to many authors, the maximum height of trees of the *Quercus robur* L. amounts to 40 m (Bugala 2000) or even to 50 m (Seneta, Dolatowski 2000; Tomanek 1987). Was the Lithuanian patriarch as high as that? To try answering this question, with the lack of direct data, a dendrometric speculation was performed with the help of proper charts from the Department of Dendrometry and Wood Productivity Science (Bruchwald et al 2000). Calculations were performed on the basis of the breast height diameter. The height

Table 2. The estimation of Baublys age on the basis of the number of annual rings

Variant	Age of the inner part	Number of rings in the part			Estimated age in years
		central	outer		
			min.length of radius (5.08 cm)	max.length of radius (22.86 cm)	
A. The width of the rings in the outer part the same as in the central part (mean value)					
1. min. age of the inner part and min. number of rings in the central part	80	720	36*	160*	836-960
2. min. age of the inner part and max. number of rings in the central part	80	790	53**	241**	923-1111
3. max. age of the inner part and min. number of rings in the central part	190	720	36*	166**	946-1076
4. max age of the inner part and max. number of rings in the central part	190	790	53**	241**	1033-1221
B. The width of the rings in the outer part – 0.5 mm (boundary value that can be seen with the “naked eye”)					
inner part and min. number of rings in the central part					
2. min. age of the inner part and max. number of rings in the central part		790	102	457	1972-1327
3. max. age of the inner part and min. number of rings in the central part	190	720	102	457	1012-1367

estimations obtained in this way (different variants) fall within the boundaries of 35.3 to 40.7 m (Table 3).

In order to compare, some specimens of other species of the *Quercus* gender may also reach similar heights, e.g. the specimen of *Q. durandium* in the Nox-ubee county in the American state of Mississippi which reached the height of 42.3 m. On the other hand, the specimen of *Q. palustris* from the region of Smithland in Kentucky was 40.8 m high (AFA’s Soc. Register). As a result the estimated height of Baublys is not unheard of among the trees of the *Quercus* gender.

Tree volume

Another problem is the attempt at evaluating the volume of Baublys. Of course, the reliable estimation may be performed only in relation to the tree trunk. As far as the crown is concerned Dionizas Poška mentions that “out of the branches alone I made 12 double billeted piles and I collected several dozen carts

of wood chips as well” (Paszkievicz 1826). Similarly as in the case of height, the lack of reliable reports allowing the estimation concerning the timber volume of that whole tree made it necessary to calculate this trait on the basis of the already mentioned charts (Paszkievicz 1826). Thus the volume of commercial timber of that tree may have fallen within the boundaries of 178.2 – 205.5 m³ (Table 3).

Table 3. The estimation height and volume of Baublys according to the “Charts for determination of the breast height diameter and tree volume on the basis of the stump diameter” (Paszkievicz 1826)

Height variant	Height (m)	Volume of commercial timber (m ³)
Very low	35.3	178.2
Low	36.7	185.3
Average	38.3	193.8
High	40.2	203.1
Very high	40.7	205.5

For comparison the volume of commercial timber of one of the biggest and most famous Polish oak trees “Bartek” in Zagnańsk (30 m in height and 9.85 m in perimeter) amounts to only about 65 m³ (Przyroda...2000).

Conclusions

The presented results of calculations should not be treated as absolutely unfailling. They result from a kind of retrospective attempt at reconstructing the past. Unfortunately, we will never be certain neither the look of Baublys nor its size because according to the knowledge of the authors no drawings of that oak tree survived. Probably it was one of the most magnificent oak trees in historic times that grew in the Central Europe, a thousand year old giant witnessing the lives of many dozens and dozens generations of Lithuanian people. “Probably” because we can find a following quotation in the literature (Narbutt 1835): “We have an undeniable proof concerning an oak tree which was bigger than Baublys. Not far from the city of Welau, in the village called Oppen, in a garden not far from the road, there was an oak tree of immense size, in the full meaning of the word. Prussian chroniclers talk about this oak tree with great admiration. This oak tree was empty inside and so big that a man

on a horse could ride inside and make a turn there as the late Margrave Albert Frederic did it. Earlier, when the tree was green and had the bark on kept 27 ells close to the ground (thus the diameter was close to 9 ells!) (...). Such an oak tree had already fallen down but it could have been still alive if it had been properly handled: as it was everybody cut his name and date on it as well as did whatever he wished on the tree or to the tree”.

Unfortunately, this report does not say what ells were used for measuring the oak tree. Thus the exact determination of its perimeter in the modern units is not possible. If we assume that Prussian chroniclers used Prussian ells (666.9 mm) that tree had to have 18 m in perimeter (5.73 m in diameter), which is rather not reliable.

Dionizas Poška also reports that in the Sterklavkai estate, close to the Prussian border, in the distance of 6 miles from his own estate “in the old times, there was a giant oak tree at the border of Sterklavkai and Jurbarkas (Jurborg) estates, which was called Bamblys and which had been mentioned in the commissar’s border decree” (Paszkievicz 1827). There are also reports about another oak tree growing in the Pokadusiai (Pokadusie) estate, the hollowed inside of which could have room for two cows. This tree survived until the Second World War (Rąkowski 1999).

The preparation of this paper was possible owing to the report left by Dionizas Poška who was fully aware of the naturalistic and historical value of Baublys. Even the fact of undertaking a trial aiming at determining the age of that tree in a scientific way points to the exceptional interests of Dionizas Poška. He developed them during the years of studies in the Jesuit College at Kražiai (Kroże), the school called the “Samogitian Athens” characterized by exceptional teaching and academic level of certain fields of knowledge. Dionizas Poška’s deep knowledge and intelligence left for successive generations the testimony that is the lasting reminder of this unusual monument of Lithuanian nature. Dionizas Poška, as a writer, poet and eulogist of the Lithuanian culture reached recognition in the successive generations. In 1930 a mound was heaped in his memory. After the Second World War in order to commemorate him the name of the estate was changed into Poškakaimis and in 1990 his monument was unveiled (Rąkowski 1999).

Another reminder of Baublys was an arbour. Dionizas Poška organised a museum of Lithuanian relics and curios there and also he kept a reference library there. Another part of book collection was located in a similar arbour made of a trunk of another magnificent oak tree called “Baublys’s brother” which grew nearby. The Napoleonian army marching for

Moscow in 1812 admired this unusual museum. It also aroused interest in the successive generations of scientists. Jan Łobojko described it in the following way “Two oak trees cut at the bottom and top in such a way that their height amounts to about six ells, put on the platform and covered with a roof as the arbours have doors and windows at their sides. In one of these oaks, there is a table and a bench by the window that can sit four people. Fifteen people standing one next to each other can get inside. Therefore, it is suspected that due to its exceptional size figures of pagan gods were built under the branches of this oak tree in pre-christian times” (Łoboyko 1823). Both trunks survived until now. In 1930 they were under conservation and covered with new roofs. After the Second World War they were again opened to visitors in 1947. In 1971 they were covered with glass pavilions to protect them against rain. Today they are one of the tourist attractions of the region that is mentioned and described in many guidebooks and albums. On the nearly two-century-old door there is still an original description put there by Dionizas Poška himself. A part of Baublys trunk presented by its owner to the Bishop of Samogitia is still at Naujatrobis (Nowotrzeby) near Ariogala (Ejragoła). It is said it had enough room for 10 people (Rąkowski 1999).

Baublys, although became famous after its cutting down, still remains in the history and culture. It was a biggest and most famous oak tree in the history of Lithuania. Vytenis (Witenes), Mindaugas (Mendog), Gediminas (Gedymin), Kęstutis (Kiejstut), Skirgaila (Skirgiełło), Algirdas (Olgierd) and Vytautas (Witold) could all listen to the rustle of its leaves. Polish kings – the descendants of famous Jagiellonian (Jogailaičiai) dynasty could retire in its shade. It was the symbol of Lithuanian power and indestructibility. For always it will remain the symbol of the bygone glory and power of the great, famous Samogitia.

References

- AFA’s Social Register of Big Trees. Collective work.
 Bruchwald A., Dudzińska T., Dudek A., Michalak K., Tomusiak R., Wróblewski L., Zasada M. 2000. Tablice służące do określania pierścieni i miąższości drzewa na podstawie średnicy pniaka [Charts for determining the tree breast height diameter and volume on the basis of the stump diameter] Department of Dendrometry and Wood Productivity Science SGGW in Warsaw. 2001(in Polish).
 Bugala W. 2000. Drzewa i krzewy [Trees and shrubs]. PWRiL. Warszawa. (in Polish).
 Encyklopedia powszechna Orgelbrandta. [Orgelbrandt’s General Encyclopaedia] (in Polish).
 Lithuanian soviet enciclopedia. I-XII. Collective work.
 Łoboyko J. 1823. Groby olbrzymie na Żmudzi i inne zabytki starożytności tego kraju, z rękopismu rosyjskiego. [Great

- tombs and other relics of Samogitia, from Russian manuscript]. Dziennik Wileński June, pp.145-157 (in Polish).
- Maliński T., Zatorski J.** 1997. Najgrubsze dęby w Polsce. [Oak trees of the biggest diameter in Poland]. Rocznik Dendrologiczny vol.45 pp.127-138 (in Polish).
- Michałowski A.** 1991. Drzewa w krajobrazie kulturowym. [Trees in cultural landscape]. Krajobrazy, 1/1991. (in Polish).
- Mickiewicz A.** 1982. Pan Tadeusz. Czytelnik. Warszawa (in Polish).
- Narbutt T.** 1835. Dzieje starożytne Narodu Litewskiego. [Ancient history of Lithuanian nation]. Wilno, vol. I, p.482 (in Polish).
- Pacyniak C.** 1992. Najstarsze drzewa w Polsce [The oldest trees in Poland]. Wydawnictwo PTTK "Kraj". Warszawa (in Polish).
- Poška D. (Paszkievicz D.).** 1826. O dębie maiącym przeszło lat tysiąc zwanym Baublis, który rósł na Żmudzi w majątności Bordzie należący do Dyonizego Paszkiewicza. [About an oak tree over a thousand years old called Baublys, which grew in Samogitia on the Bardzių estate belonged to Dyonizy Paszkiewicz]. Dziennik Warszawski No.8/IV/1826 (in Polish).
- Poška D. (Paszkievicz D.).** 1827. O dębie maiącym przeszło lat tysiąc zwanym Baublis, który rósł na Żmudzi w majątności Bordzie należący do Dyonizego Paszkiewicza [About an oak tree over a thousand years old called Baublys, which grew in Samogitia on the Bardzių estate belonged to Dyonizy Paszkiewicz]. Sylwan, No.1/1827, p. 96 (in Polish).
- Przyroda Województwa Świętokrzyskiego** [The nature of Świętokrzyski region]. Collective work. Kielce. 2000 (in Polish).
- Rąkowski G.** 1999. Ilustrowany przewodnik po zabytkach kultury na Litwie [Illustrated guidebook of cultural monuments in Lithuania]. Burchard Edition (in Polish).
- Scneta W., Dolatowski J.** 2000. Dendrologia [Dendrology]. PWN. Warszawa (in Polish).
- Stamm E.** 1935. Miary długości w dawnej Polsce [Linear measures in the ancient Poland]. reprint from Wiadomości służby geograficznej No.3/135. Warszawa, pp. 33 (in Polish).
- Szymkiewicz B.** 1971. Tablice zasobności i przyrostu drzewostanów [Charts of forest resources and increment] PWRiL. Warszawa (in Polish).
- Tomanek J.** 1987. Botanika leśna [Forest botany]. PWRiL. Warszawa (in Polish).

ИСТОРИЯ БАУБЛИСА – ПОПЫТКА ОПИСАНИЯ НЕКОТОРЫХ ДЕНДРОМЕТРИЧЕСКИХ СВОЙСТВ САМОГО ИЗВЕСТНОГО В ИСТОРИИ ЛИТВЫ ДУБА

Резюме

Баублис – это название одного из самых известных в истории Литвы дубов. Воспоминания о нем можно отыскать в мировой художественной литературе, примером чего может служить народная эпопея Адама Мицкевича „Пан Тадеуш”. В притчах и легендах говорится, что дуб был большим и за габаритами не имел себе равных на всю Литву. Было ли так на самом деле? Был ли Баублис одним из самых могучих деревьев в истории этой земли? Что стало причиной ухудшения состояния здоровья в начале XIX века? Основываясь на записях того времени и современных знаниях о лесе, авторы пытаются ответить на те или иные вопросы.

Перед тем, как дуб срубили в марте 1812 года, он рос в имении Бардзжяй, находящимся около Расейняй. Причиной плохого состояния здоровья в значительной мере мог быть его возраст. Однако, интенсивность процесса умирания дуба указывает на то, что на процесс могли иметь влияние и климатические факторы. Метеорологические данные за несколько последних перед срезанием Баублиса лет указывают на господство в этом периоде долгих и холодных зим, а также жарких летних периодов. Одновременно можно предположить, что в жаркие месяцы имел место недобор воды, тем более, что дуб рос на песчаной возвышенности. К этому нужно присовокупить гниение древесины в нижней части пня, хотя это не могло послужить причиной атрофии ассимиляционного аппарата и плохого состояния кроны.

Владелец дерева, Дионизас Пошка, писатель, поэт и знаток литовского фольклера, а одновременно, большой любитель природы, сделал несколько измерений и посчитал слои. Свои действия он описал в „Dziennik Warszawski” (№ 8/IV/1826), что послужило основой настоящих оценок и подсчетов дендрометрических свойств Баублиса. В результате интерполяции определили, что периметр близко земли был 1250, однако на высоте 1,3 м от земли – 1093 см. Следовательно диаметр дерева на этой высоте был бы 348 см. С помощью „Таблиц, служащих к определению диаметра дерева на высоте 1,3 м и объема древесины на базе данных о диаметре пня” определено высоту и объем древесины. Высота могла быть от 35,3 до 40,7. Объем древесины правдоподобно находился в пределах от 178 до 206 м³. По утверждению Пошки, гниль во внутренней части поперечного сечения пня на высоте около 5,2 м а также узкие, невидимые для невооруженного глаза слои внешнего сечения не позволили точно определить возраст. Авторы определили это примерно на 836-1437 лет. В среднем ширина годичных колец могла колебаться от 0,95 до 1,43 мм.

Представленные выше величины это только приближительная, ретроспективная попытка показать прошлое. Однако, если представленные размеры конкретных дендрометрических параметров действительно находились в приведенных выше границах, тогда можно сделать заключение, что Баублис был деревом исключительных размеров и необычных свойств. У него не было бы конкурентов среди самых могучих польских дубов, которые сейчас считаются памятниками природы. Можно предположить, что он был бы одним из наиболее ярких представителей своей породы, которые в историческое время росли на территории Центральной Европы.