APPLICATION FOR REGISTRATION OF THE DESIGNATION OF ORIGIN ~~/ GEOGRAPHICAL INDICATION~~ [1] FOR AN AGRICULTURAL PRODUCT OR FOODSTUFF

I. Applicant

1. Name[2]:

Stowarzyszenie Producentów Miodu Spadziowego z Beskidu Wyspowego producer association

2. Seat or residence and address:

Osieczany 365
32-400 Myślenice
E-mail: stowarzyszenie.miodspadziowy@gmail.com

3. Mailing address:

As above

4. Person acting on behalf of the applicant:

Tadeusz Sawicki – President of the association; Jerzy

Żwirski – Vice President of the association

5. Group:

The group consists of 15 producers of 'miód spadziowy z Beskidu Wyspowego.' They are beekeepers organised within the Stowarzyszenie Producentów Miodu Spadziowego z Beskidu Wyspowego producer association.

II. Specification

1. Name:

Miód spadziowy z Beskidu Wyspowego

[1] Delete as appropriate.
[2] Only a group is entitled to apply for registration. A natural or legal person may apply for registration after the European Commission has laid down the conditions under which such a person may be treated as a group.

2. Application for registration of:

Mark with a cross if the applicant is seeking to register the name referred to in point 1 as a designation of origin or geographical indication.

1) designation of origin	X
2) geographical indication	

3. Category:

Class 1.4 – Other products of animal origin (eggs, honey, various dairy products except butter, etc.)

4. Description:

'Miód spadziowy z Beskidu Wyspowego' is liquid or crystallised honeydew honey produced from fir honeydew. The raw material for the production of 'miód spadziowy z Beskidu Wyspowego' is fir honeydew from the fir forests of the Beskid Wyspowy Mountains and a small part of the Beskid Makowski Mountains called Beskid Myślenicki. It is produced from silver fir (*Abies alba*) by aphids belonging to the green-striped fir aphid species (*Cinara pectinata Nórdl*).

'Miód spadziowy z Beskidu Wyspowego' is produced exclusively by colonies of honey bees of the Carniolan breed (*Apis mellifera carnica*) of the Dobra strain or by cross-breeding with other bees of the breed (*Apis mellifera carnica*). In the cross-breeding the female must come from the Dobra strain while the male must be from the breed. Within the breeding area and its margins only bees of the Carniolan breed of the Dobra strain may be bred.

Honeydew produced from silver fir constitutes at least 95% of the total content of honeydew in 'miód spadziowy z Beskidu Wyspowego.' A maximum of 5% of the honeydew may come from deciduous trees.

Organoleptic characteristics

The consistency of 'miód spadziowy z Beskidu Wyspowego' is dense and viscous. The uncrystallised honey is black-green in colour and may have dark brown shades. After crystallisation, it appears lighter and grey-green to brown in colour. The colour of the honey is at least 86 mm on the Pfund scale. Crystallisation follows slowly after approximately 4 months after spinning, and is fine-grained or medium-grained in form. 'Miód spadziowy z Beskidu Wyspowego' has an intense aroma, with a specific fragrance reminiscent of resin, and a delicate, sweet taste.

'Miód spadziowy z Beskidu Wyspowego' – crystallised (left) and liquid (right). Photo by Joanna Sawicka Knapczyk.

Physico-chemical characteristics

Water content – not more than 17.5%

Conductivity in [mS/cm] not less than 1.20

in [10-4 S.cm-1] not less than 12.00

Diastase activity on the Schade scale – not less than 15

HMF (5-hydroxymethylfurfural) content – not more than 15 mg/kg.

Microbiological characteristics

In 'miód spadziowy z Beskidu Wyspowego' the following honeydew indicators are present: mushroom spores and algae. Of the mushrooms, the *Atichia* fungi predominate: *Hormisciumi, Triposporium, Capnophialophorapinophila* and *Triposporiumpinophilum*. These are typical species for this honey, appearing both in the honeydew and the honey. Of the algae, the *Pleurococcussp*, *Chlorococcus* and *Cystococcus* cells predominate. *Cyanophyceae* blue-green algae and *Diatomeae* diatoms may also be found. The black-green colour of the honey is the result of the presence of precisely those honeydew indicators.

5. Geographical area:

‘Miód spadziowy z Beskidu Wyspowego’ is produced in Małopolskie Voivodeship, in Limanowa and Myślenice Poviats.

6. Proof of origin

1. The production process must be recorded. This would allow a complete reproduction of each of the steps in the production. The use of the 'miód spadziowy z Beskidu Wyspowego' designation may only be used to refer to a product that meets all the requirements below:

a/ has been produced and bottled in retail packaging in the area listed in Chapter 5 Geographical area

b/ has the features listed in Chapter 4 Description

c/ has been produced in accordance with Chapter 7 Method of production

d/ its producers have submitted the relevant documents listed in Sections 3, 4, 5 to the Stowarzyszenie Producentów Miodu Spadziowego z Beskidu Wyspowego producer association.

2. Control of the production of 'miód spadziowy z Beskidu Wyspowego' is based on a system of quality management and supervision designed to ensure that only products complying with this specification are marketed under the protected designation. The origin of the honeys is confirmed by organoleptic and laboratory analyses, as well as by a system that makes it possible to trace the entire production process, from the appearance of nectar to the point of sale.

3. Any beekeeper wishing to produce the PDO product in question must submit a declaration to the association, which must include the following information:

a/ first name and surname of the beekeeper

b/ the number of bee colonies as of 1 June of the year in question

c/location of the apiary

d/ the breed and strain of bees

e/ a statement by the beekeeper that they undertake to comply with the specification.

f/ a copy of the documents required for the production of honey, i.e. application for registration of the apiary to the Poviat Veterinary Inspectorate (PVI), a decision assigning a direct sales number or an agricultural retail number.

4. Beekeepers should inform the association of any changes to the elements of this declaration. The register should be updated at least twice a year – at least once after winter and once after the honey harvest in November/December.

5. Any producer who wants to produce the PDO product in question must undergo specialised training in the production of 'miód spadziowy z Beskidu Wyspowego' held by the Stowarzyszenie Producentów Miodu Spadziowego z Beskidu Wyspowego producer association.

6. Beekeepers who are not registered but wish to produce the PDO product in question must submit a declaration on proceeding with the production of ‘miód spadziowy z Beskidu Wyspowego’ at the latest by 31 December of the previous year.

7. One label design must be used by all beekeepers. In addition to this label, beekeepers may include on the packaging any other information and markings permitted by law. The association distributes labels based on the data contained in the declaration. In order to identify the beekeeper, each label should have a serial number. Detailed rules and procedures for the distribution of labels among beekeepers by the association shall be submitted to the control body. These rules and procedures may not in any way discriminate against producers who do not belong to the association. Keeping records makes it possible to determine the origin of the honeys, as well as the quantity of product received and marketed. The introduction of the compulsory sale of ‘miód spadziowy z Beskidu Wyspowego’ under a common label is intended to ensure a proper level of control, to monitor the product and its quality and the quantity marketed. The obligation to use a single label is intended to guarantee that an original product is sold under a protected designation. This obligation is not a restriction for beekeepers, as labels can be obtained by both affiliated and non-member beekeepers. The same rules apply to entities involved in buying-in of the honey who engage in further packaging. The requirement to sell honey under a single label is also intended to reduce the possibility of counterfeiting and adulteration of honey.

8. The association will carry out an internal inspection, independent of the inspection carried out by the authority referred to in Chapter 10 (Inspection), of a certain percentage of beekeepers who have submitted declarations and who intend to produce the PDO product in question, consisting of an organoleptic test and an incomplete laboratory analysis.

9. If, as a result of an internal inspection carried out by the association, non-compliance with the specification is established, the issue of labels will be refused. The entity may request verification of this information from the control body. If the body confirms compliance with the specification, the association must issue the labels.

10. The association should have an up-to-date list of beekeepers interested in producing honey under the protected designation in a given year, as well as a list of entities interested in further packaging. The list may only include beekeepers who have submitted their declaration in good time and whose apiaries are located in the area defined in Chapter 5 (Geographical area). This list is forwarded to the control body along with information on the labels issued.

11. The beekeeper must always keep the following records up to date:

a) a current copy of the declaration submitted to the association;
b) current documents confirming the adequate sanitary condition of the bee colonies (application for registration of the apiary to the PVI);
c) if the apiary has been transported, you should also include information on where the 'miód spadziowy z Beskidu Wyspowego' was harvested;
d) a record of labels received and used;
e) a record of the total amount of honey produced and sold on the farm in a given year, indicating the amount of honey covered by the protected designation;
f) the results of the following tests, ordered or carried out independently: water content, conductivity, diastase activity on the Schade scale, HMF (5-hydroxymethylfurfural) content.

12. Entities wishing to buy the product from beekeepers for further packaging under the protected designation should notify the association. Such entities must be located in the area defined in Chapter 5 (Geographical area). The notification should include at least the name of the owner/company, the nature of the business, the location, the characteristics of the facility, the packaging system and capacity, and information on the operation of the business in accordance with the relevant regulations. Honey buyers distribute honey under the same common approved label as beekeepers. They obtain the labels from the association.

13. The association maintains a list of entities interested in buying honey from beekeepers and further packaging it under the protected designation. Entities interested in buying-in and packaging the honey must have the appropriate permits. Entities who are not registered but wish to buy and pack the PDO product in question must submit a notification no later than 31 December of the previous year. The list of entities is forwarded to the control body.

14. These entities must provide the association and the control body with information on the quantities of honey purchased and sold under the protected designation and on the beekeepers from whom the honey was purchased. The entities also provide information on the number of labels from the association they have used. This information should be submitted at the latest by the end of each year.

15. If the control body finds non-compliance at any stage of the production chain, the product may not be marketed under the protected designation.

Producers must comply with the conditions set out in Chapter 6(1)(a) and (b) from the moment application for registration is sent to the European Commission. Producers must comply with the conditions set out in Chapter 6(1)(c) and (d) no later than three months after the first publication of the application for registration in the Official Journal of the European Union.

Graphic symbol of the Stowarzyszenie Producentów Miodu Spadziowego z Beskidu Wyspowego producer association

7. Production method:

The apiary of Tadeusz Sawicki in Lipnik. Photo by Mariusz Knapczyk.

1. The apiary producing ‘miód spadziowy z Beskidu Wyspowego’ must be located in the area referred to in Chapter 5 Geographical area. In this area, beekeepers can place their hives in the places of their choice.

2. Beekeepers must have documents proving that they have registered their apiaries with the Poviat Veterinary Inspectorate and has been allocated a number. For the control of diseases and parasites, beekeepers may use only medicines authorised for use in Poland.

3. During the production of the honey no treatments using medicinal products may be carried out. The use of biological treatments which do not potentially contaminate the honey is permitted.

4. ‘Miód spadziowy z Beskidu Wyspowego’ may be produced exclusively by colonies of honey bees of the Carniolan breed (*Apis mellifera carnica*) of the Dobra strain or by cross-breeding with bees of the breed (*Apis mellifera carnica*). In the cross-breeding the female must come from the Dobra strain while the male must be from the breed. Within the breeding area and its margins only bees of the Dobra strain may be bred. A beekeeper producing ‘miód spadziowy z Beskidu Wyspowego’ must have certificates of origin of production queens or metrics of breeder queens.

Producers of fir honeydew – aphids belonging to the green-striped fir aphid species (*Cinara pectinata Nórdl*) on a branch of silver fir (*Abies alba*). Photo by Jerzy Żwirski.

5. The raw material for the production of ‘miód spadziowy z Beskidu Wyspowego’ is fir honeydew from the fir forests of the Beskid Wyspowy Mountains and a small part of the Beskid Makowski Mountains called Beskid Myślenicki. Honeydew is produced from silver fir (*Abies alba*) by aphids belonging to the green-striped fir aphid species (*Cinara pectinata Nórdl*) and constitutes at least 95% of the total content of honeydew in ‘miód spadziowy z Beskidu Wyspowego.’ The aphids collect the plant sap from the branches of the silver fir, from which they use the nutrients and expel the remaining, viscous liquid – honeydew – consisting mainly of carbohydrates. Initially colourless and transparent, the honeydew quickly darkens as it combines with algae and fungi, taking on a greenish-brown colour. The honeydew that is expelled by the aphids has to be found by the bees, collected and brought to the hive. Further processing and maturation of honey takes place in hives. The foraging bees transfer the honeydew from the crop to the hive bees. The freshly brought honeydew (raw nectar) is continuously passed on from one comb cell to another, upward, and is constantly enriched by the secretions of the bees’ glands and thickened by the evaporation of water. Bee enzymes break down sucrose into glucose and fructose. Once the honey is ripe, it is sealed with wax lids, which protect the ripe honey from absorbing moisture. It is assumed that it takes at least 5 days from the time honeydew is collected and brought to the hive by a foraging bee until it is sealed in the cell. ‘Miód spadziowy z Beskidu Wyspowego’ can contain a maximum of 5% of honeydew from deciduous trees. Such additives are not common, as the period when honeydew appears on deciduous trees is from late May to mid-June, whereas fir honeydew appears from late June to late September. Moreover, during this period, in the Beskid Wyspowy Mountains no nectar for commercial use is found, other than limes. If there is no honeydew during this period, bees in the apiaries should be fed with honey-and-sugar candy, as the insect-pollinated plants flowering at this time are not sufficient to provide the bees with nectar for their development. ‘Miód spadziowy z Beskidu Wyspowego’ has a greater proportion of pollen from anemophilous plants. The small addition of pollen from insect-pollinated plants is significantly lower than nectar-based honeys. The higher content of pollen from anemophilous plants ensures, inter alia, the absence or small amount of nectar from nectar-bearing plants and is a characteristic feature of honeydew honey from coniferous wood, in particular fir honeydew. It is especially noticeable in ‘miód spadziowy z Beskidu Wyspowego.’ The pollen of insect-pollinated plants in ‘miód spadziowy z Beskidu Wyspowego’ comes in part from the bee pollen flour, this is known as secondary addition.

6. Other nectars in the region should be monitored once the production of 'miód spadziowy z Beskidu Wyspowego' is under way. Before producing honeydew honey, it is necessary to first collect all the nectar honey from the colonies so that it does not alter the taste of the extracted honeydew honey, and only then proceed with the production of this honey. If the appearance of fir honeydew overlaps with the flowering of limes, the honey obtained is both nectar and honeydew, and does not meet the requirements for ‘miód spadziowy z Beskidu Wyspowego.’ With a very intensive flow of fir honeydew (at least 4 kg per day), bees collect only pollen from lime flowers and do not take nectar. Apart from limes, during the period in which silver fir honeydew appears in the Beskid Wyspowy Mountains, no nectar for commercial use is found, and any nectar for bee development is consumed by the bee colonies for their

nutritional requirement. However, the amount is so small, that it becomes necessary to supplement their diet with honey-and-sugar candy to ensure their thriving. Flowering in July, August and September, wild weeds make up no more than 1% of the nectar additive and go unnoticed in honeydew honey.

7. The bees may be fed with sugar syrup after production of ‘miód spadziowy z Beskidu Wyspowego’ has been completed. It is not permitted to feed the bees during the period of extraction of the honey. In non-productive periods, the bees may be stimulated with honey-and-sugar candy. Stimulative feeding in non-productive periods should be completed no later than 10 days before the honeydew begins to appear. Before that, the frames used to collect and spin the nectar honey should be dried by the bees.

8. Honey is obtained in honey extractors made of acid-resistant sheet metal. It flows out from the cells of the frames due to centrifugal force.

9. The extracted honey should be strained through sieves and poured into settling tanks or bulk containers. Bulk containers (barrels, buckets) must be labelled with basic information: honey type, place of origin, barrel number, net weight, producer’s details.

Honey extraction in radial extractor. Photo by Jerzy Żwirski.

10. After clarification, the honey should be bottled in retail packages. These can be glass containers of various capacities. The honey must be packed in the area described in Chapter 5 Geographical area. The honey should be stored in leakproof packaging, away from light, at a temperature of no more than 20 degrees Celsius and a humidity of no more than 80%.

11. Filtering the honey, mixing it with other honeys, pasteurising or heating it above 40 degrees Celsius is not permitted.

12. A sample and a replicate of honey must be taken from each batch and described with the batch number, the date and place of extraction. The sample should be sent to the laboratory for testing: water content, conductivity, diastase activity and HMF (5-hydroxymethylfurfural) content. If the test results confirm that the requirements for ‘miód spadziowy z Beskidu Wyspowego’ are met, the honey may be labelled and put up for sale. Honey stored before or during testing should have a yellow label with the word ‘quarantine’ and the batch number or type of honey, place and date of extraction. If the test results show that the requirements for ‘miód spadziowy z Beskidu Wyspowego’ are not met but confirm that the requirements laid down in the legislation on the commercial quality of honey are met,

the product may be placed on the market, but the designation ‘miód spadziowy z Beskidu Wyspowego’ or references to the Protected Designation of Origin, the abbreviation PDO, or the EU logo may not be used.

13. Honey with signs of fragmentation or fermentation may not be sold under the protected designation ‘miód spadziowy z Beskidu Wyspowego.’

14. After crystallisation of the honey in wholesale containers it may be liquefied in dedicated equipment (liquefying chambers) at a controlled internal temperature. During liquefaction the temperature may not be more than 40 degrees Celsius at any stage. The temperature inside the chamber must be recorded in the liquefaction logbook at least once a day.

15. Honey can only be obtained from honey houses that have the appropriate permits and are registered with the Poviat Veterinary Inspectorates. It is permissible for honey houses with a number of direct sales to other beekeepers to extract and preserve honey as a service, after signing an appropriate contract and documenting this with financial records.

16. All equipment and packaging in direct contact with honey must have the appropriate approvals for food contact from the National Hygiene Institute.

Packaging of honey in the extraction area

The requirement for honey to be bottled for retail or wholesale packaging in the area of extraction, as defined in Chapter 5, stems from traditional practice and serves to guarantee the appropriate quality of the product and to monitor and control the origin of the protected honey. For retail packaging, glass jars of various capacities can be used, for wholesale packaging – leakproof buckets and barrels. Beekeepers typically harvest honey in a traditional and artisanal manner, and bottle the honey produced in their own apiaries themselves for retail packaging. This avoids the risks associated with a possible change in physico-chemical characteristics. If the appropriate conditions are not maintained upon moving the honey it can, as a hygroscopic substance, absorb water or quickly crystallise. It is also possible that extraneous odours are absorbed, which may completely change the taste of the honey. This may lead to failure to meet the requirements specified in the product description. Furthermore, specially adapted vehicles should be used to transport the honey. This carries the risk that the product will not be of adequate quality. Transporting and bottling honey outside the area described in Chapter 5 can cause uncontrolled blending of honeys, defective liquefaction (consequently raising HMF content above the acceptable level). If it were permitted to transport honey outside the area defined in Chapter 5 before bottling, there would be a risk of ‘miód spadziowy z Beskidu Wyspowego’ being mixed with other honeys or of honeys from other regions being sold under the protected designation. The aim of the restriction is to maintain the high reliability of the control system and to eliminate a factor that could affect the quality of the honey sold.

8. Link with the geographical area:

Beskid Wyspowy, source: Wikipedia.

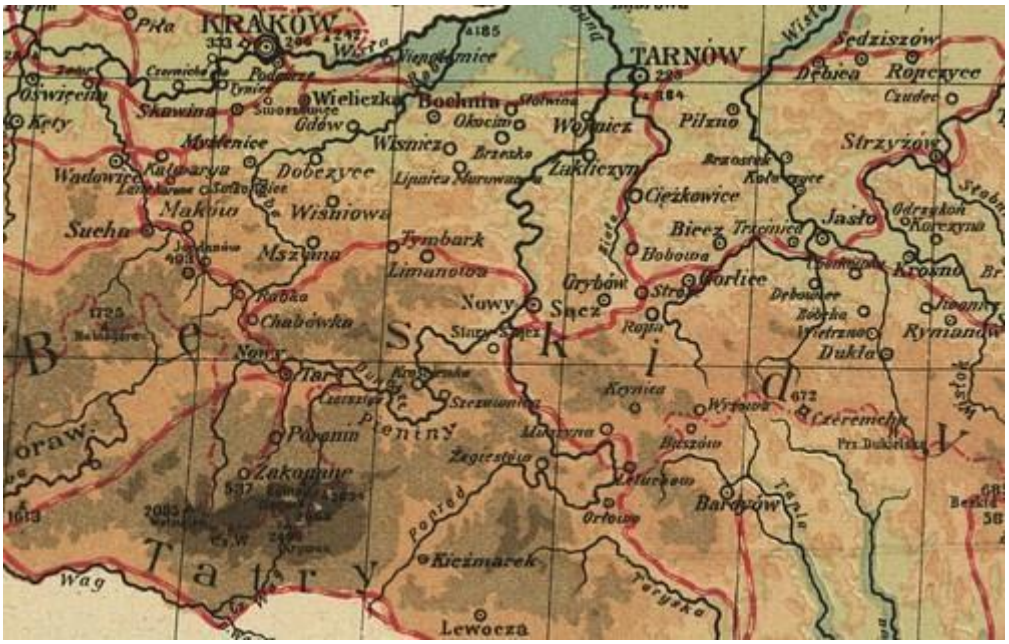
Geographical link

‘Miód spadziowy z Beskidu Wyspowego’ comes from a mountainous, forested area with a high proportion of silver fir, called Beskid Wyspowy, and a small part of the Beskid Makowski Mountains called Beskid Myślenicki. It is the administrative area of two poviats: Limanowa and Myślenice. Limanowa Poviat is a typically mountainous region. Its southern part encompasses the northern slopes of the Gorce Mountains, home to the Gorce National Park, while the remainder constitutes the Beskid Wyspowy Mountains. Adjacent to Limanowa Poviat is Myślenice Poviat. The larger portion of Myślenice Poviat lies nestled within the valley of the Raba river, surrounded by the peaks of the Beskid Wyspowy and Beskid Makowski Mountains, while its northern part comprises the Wieliczka foothills and picturesque Skawinka valley.

Beskid Wyspowy Mountains, view from the village of Wierzbanowa. Photo by Jerzy Żwirski.

It is widely believed that the term 'Beskid Wyspowy' was coined by Kazimierz Sosnowski, a teacher and trailblazer of mountain tourism in this region. Apparently, as they spent the night atop Ćwilin with a group of young people, they woke to find themselves enveloped in a sea of fog, with the mountain peaks emerging like islands (in Polish, *wyspy*). However, Sosnowski first used the name 'Limanowsko-Myślenicki Beskid Wyspowy' [Beskid Wyspowy Mountains in Limanowa and Myślenice] only in 1924. Prior to this, he used designations such as 'Gorce Limanowskie,' 'Beskid Limanowsko-Myślenicki,' and 'Beskid Limanowsko-Makowski.' According to Dariusz Gacek, who has conducted research in this field, the name 'Beskid Wyspowy' was first attributed to geographer Ludomir Sawicki, a professor at Jagiellonian University. It appears, for example, in the study *Z fizyografii Karpat polskich* [From the physiography of the Polish Carpathians], published in 1910, while the name started to gain wider recognition only in the mid-1930s. From Kazimierz Sosnowski's works, it is worth citing his two most famous publications: *Beskidy Zachodnie* [The Beskidy Zachodnie Mountains] and *Przewodnik po Beskidach Zachodnich i Pieninach* [A Guide to the Beskidy Zachodnie and Pieniny Mountains]. The first one is a travel and tourism monograph published in 1924. In the chapter 'Podział Beskidów Zachodnich' [Division of the Beskidy Zachodnie Mountains], we find details regarding the region's boundaries: *'The Limanowsko-Myślenicki Beskid "Wyspowy" mountains, an area challenging to encapsulate and define, roughly enclosed within the boundaries of the upper Raba, Mszanka, and Kamienica rivers to the south, the Skawa river to the west, the Dunajec river to the east, and the Łososina river to the north.'* In the chapter 'Krajobraz' [Landscape] we gain insights into the terrain of the region: *'Seldom do mountains rise as isolated mounds, as is the case in the Limanowa area around Dobra and Mszana Dolna.'* The chapter 'Limanowsko-Makowski Beskid' [Beskid Mountains in Limanowa and Maków] provides specifics: *'To the north and northeast of the Gorce Mountains, spanning wide from the Skawa River in the west to the Dunajec River in the east, stand several imposing peaks, intersected by the Sucha–Nowy Sącz railway line. These mountains defy classification as foothills, their elevations either surpassing 1,000 meters above sea level or falling just short of this mark. They predominantly present as solitary peaks, with only Mogielnica weakly linking to Jasień and Kudłoń in the Gorce Mountains; there's little*

observable coherence in their arrangement. Thus, in the Beskidy Mountains, typically characterised by ranges, these peaks are unique. Unlike the usual ridge formation, these mountains stand independently, manifesting mostly as lofty cones, forming a distinctive and separate group of "island-like" mountains in Limanowa and Maków. While the territorial designation is somewhat inaccurate, as both poviats encompass parts of the Gorce Mountains, Babia Góra region, and a significant portion of the foothills, this discrepancy is minor (...).' 'Among such island-like mountains in this group are other minor peaks, such as Zębalowa (not Cymbałowa), standing at 859 meters above Lubień, Ciecień at 885 meters above Skrzydlna, Łysina at 897 meters above Wiśniowa, boasting an astronomical observatory atop, Kotoń at 856 meters above the Raba River gorge near Myślenice, and Ostra, Kostrza, Babica, Parszywka, and Stołowa, situated to the north of Jordanów and Maków (...).'



A piece of a 1918 map covering the Beskid Wyspowy Mountains area.

In the passages quoted above, Kazimierz Sosnowski refers to the area of the Beskid Wyspowy Mountains as *'Limanowsko-Myślenicki Beskid Wyspowy.'* He delineates it as '*spanning wide from the Skawa River in the west to the Dunajec River in the east*,' which encompasses most of today's Beskid Makowski and Beskid Wyspowy Mountains. The addition of the term '*wyspowy*' [island] highlights a distinctive feature of the area. He explains this by stating that these peaks form '*a distinctive and separate group of "island" mountains in Limanowa and Maków,'* and by referring to them as the '*Limanowsko-Myślenicki Beskid "Wyspowy"*.' The quotation marks around the word 'Wyspowy' are significant. This, together with the sentence '*Among such island-like mountains in this group are other minor peaks,'* clearly suggests that the term 'group of "island-like" mountains' means only a feature of the morphology of the terrain, and is in no way part of the name of the Beskid Mountains in Limanowa and Maków, let alone the Beskid Wyspowy Mountains. Island mountains is a term used in geography, as we will learn later when discussing other tourist and geographic publications. The phrase from the chapter on landscape '*as isolated mounds,'* describes a feature of the Beskid Mountains in Limanowa and Myślenice, which belongs to the *'island-like mountains.'*

Citing the work of Adam Kapturkiewicz, *Wprowadzenie nazwy Beskid Wyspowy do literatury polskiej* [Introducing the name Beskid Wyspowy into Polish literature], we come across the first articles mentioning the name Beskid Wyspowy, published in 1931–1932. In the illustrated geographic monthly magazine *Ziemia*, issue 8–9 of 1932, there is an article by Tadeusz Prus Wiśniowski titled 'Beskid Wyspowy – trzydniowa wycieczka' [Beskid Wyspowy Mountains – a three-day excursion], with a very contemporary introduction: *'Among the beautiful yet lesser-known regions of southern Poland, Beskid Wyspowy deserves greater attention and interest. The area is situated within the Myślenice and Limanowa Poviats. The island mountains here form distinct mountain massifs, gently descending towards the south, standing isolated from one another, covered predominantly with coniferous forests.'* The name Beskid Wyspowy used in the article is a term currently in use, and not a description of the relief of the mountains functioning under a different name (such as *Limanowsko-Myślenicki Beskid 'Wyspowy')*. To determine how long this name has been in use, it is also worth looking at other works by this author. In his 1930 book, *Myślenice. Szkic Monografji Geograficznej* (Myślenice. Sketch of geographical monograph), Wiśniowski still uses Sosnowski's nomenclature. Furthermore, reading the book reveals that he is influenced by this eminent landscape explorer, as evidenced by a sentence identical to one in Sosnowski's monograph: '*In general, the Beskid landscape is more varied and wilder than the foothills, and consequently, it is more youthful*.' Wiśniowski uses the same name as Sosnowski, while the term 'island mountains' only emphasises the unique relief of the '*Beskid Limanowsko-Myślenicki.' 'Opposite Łysina rise the isolated island mountains of the Beskid Limanowsko-Myślenicki. (Wielki Luboń 1023 m, Śnieżnica 1006 m, Szczebel 977 m, etc.).'*

The first article referencing the name ‘Beskid Wyspowy’ is the one by Stanislaw Leszczycki ‘Graficzna metoda prowadzenia notatek w terenie dla badań osadniczych’ (Graphic method of conducting field notes for settlement research), published in the monthly *Wiadomości Geograficzne*, Yearbook IX No 5, Cracow, May 1931. The name can be found in the footnotes: *‘For illustrative purposes, find attached a key of characters forming graphic descriptions of houses, three examples of graphic descriptions of houses typical of the Beskid Wyspowy Mountains...’*

This footnote proves that the author used this name much earlier when conducting anthropogeographic research. Subsequent articles by Leszczycki, in which the name Beskid Wyspowy appears in the title, are: two articles from the ninth yearbook of *Wierchy* (1931), i.e.: ‘Grota lodowa na Strzeblu, w Beskidzie Wyspowym’ [Ice cave at Strzebel in the Beskid Wyspowy Mountains] and ‘Znaki ryte na głazach w Beskidzie Wyspowym’ [Cravings on boulders in the Beskid Wyspowy Mountains]; ‘Osadnictwo Kliszczaków w Beskidzie Wyspowym’ [Settlement of the Kliszczacy Highlander people in the Beskid Wyspowy Mountains] of the illustrated geographic monthly *Ziemia,* yearbook 17 No 4–5, 1932;
‘Badania geograficzne nad osadnictwem w Beskidzie Wyspowym’ [Geographical research on settlements in the Beskid Wyspowy Mountains] from the quarterly of the Military Geographical Institute *Wiadomości Służby Geograficznej,* Yearbook VI, Note 4, 1932;
‘Nieznane góry: Beskid wyspowy’ [Mountains Unknown: the island Beskid] from *Przegląd Turystyczny,* No 1, 1933. The name Beskid Wyspowy is also mentioned in the article ‘Znak ryty na głazie na Magórce’ [Craving on a boulder on Magórka] from the eleventh yearbook of *Wierchy* (1933).

In these works and in the article ‘Osadnictwo Kliszczaków w Beskidzie Wyspowym,’ Stanislaw Leszczycki includes a map of the western part of the Beskid Wyspowy Mountains, inhabited by the described Kliszczacy Highlander people. The fact that Leszczycki could be the originator of the name ‘Beskid Wyspowy’ can be confirmed by the fact that he was a long-time student of the western part of the Beskid Wyspowy Mountains and this must have attracted his attention to the terrain. It should also be mentioned that Leszczycki studied under prominent geographers: Ludomir Sawicki and Jerzy Smoleński. He received his master’s degree in 1930, based on his thesis *Demografia wsi Krzczonowa i Zawadki w powiecie myślenickim* [Demography of the villages of Krzczonów and Zawadki in Myślenice Poviat]. He submitted his dissertation on *Badania geograficzne nad osadnictwem w Beskidzie Wyspowym* [Geographical research on Settlement in the Beskid Wyspowy Mountains] in 1932. He must have conducted research in the area much earlier, as we can learn from the article ‘Grota lodowa na Strzeblu, w Beskidzie Wyspowym’ in which he writes about the observations made of the ice cover since 1929.

Ćwilin, Śnieżnica and Łopień peaks. Photo by Adam Kapturkiewicz.

In Walery Goetel’s article ‘Zagadnienia regjonalizmu górskiego w Polsce’ [Mountain regionalism in Poland] published in *Wierchy*, we learn about the borders of the Beskid Wyspowy Mountains. The article presents a division of the Carpathians into physiographic-tourist and ethnographic-cultural regions. This is the first article in *Wierchy* to include the Beskid Wyspowy Mountains with their current name when dividing the Beskidy Zachodnie Mountains, ‘6*) The Beskid Wyspowy Mountains lie between the valleys of rivers Skawa and Dunajec, north to the Beskid Wysoki and Gorce*. *The northern border runs along the line Sucha-Stróże-Myślenice-Dobczyce-Żegocina.’* The article also mentions Leszczycki: *‘The first of these divisions, which we carried out together with PhD S. Leszczycki...,’* and ‘*In determining the division, PhD S. Leszczycki and I took into account physiographic, as well as ethnographic and economic data, with particular attention to the needs of summer and winter tourism in the Carpathians.’*

After these articles by Stanislaw Leszczycki, nothing more was written about the Beskid

Wyspowy Mountains until the outbreak of World War II. Only brief notes appeared, reporting on the publication of maps, guides or scientific research conducted, including under Leszczycki's supervision.

'The Beskid Wyspowy Mountains have a very unique and distinctive relief – they are characterised by isolated "island" mountains, surrounded by vast valleys and separated by deep saddles of wide passes. (...) Between the highest "islands" stretch basins and ranges of lower hills. A distinctive feature of the peaks of the Beskid Wyspowy Mountains is their incredibly steep slopes, particularly on the northern sides. In contrast, the tops and short ridges are usually domed and gentle. (...) The highest peak in the Beskid Wyspowy Mountains is Mogielnica (1171 m above sea level) (...)' (Bzowski K., 2012). The Beskid Wyspowy Mountains have a vegetation system characteristic of mountains, but there are only two altitudinal zones: up to approx. 450–550 m – foothills, above that up to 1050 m – lower montane (only under the top of Mogielica there is a residual upper montane) (Gacek D., 2012).

The Beskid Myślenicki Mountains are characterised by similar terrain. *'Mountainous areas are characterised by rounded, wide ridges transitioning into convex-concave slopes. Usually, the hilltops transition into steep slopes, (...) with the southern slopes typically being longer and having gentler gradients than the northern ones. (...) In terms of vertical vegetation distribution, two zones can be distinguished: the foothills (up to 550 m above sea level) and the lower montane (above 550 m above sea level)'* (Dyląg D., Sadowski P., 2005).

There are no major cities (i.e. over 20,000 residents) in the Beskid Wyspowy and Beskid Myślenicki areas. The absence of environmentally burdensome industrial plants makes the area ecologically clean. Many farms are certified for organic production. A large part of the area here is forest (Łapiński W., 2012; Łapiński W. et al., 2013). In Limanowa Poviat, the forest ratio is 38.6%. This covers an area of 36,709 hectares [krakow.stat.gov.pl]. Nearly 88% is occupied by mountain forest habitats, and the remaining 12% by mixed mountain forest habitats. The species composition of the forest stands is dominated by three species: fir 42%, beech 39% and spruce 14%. Other species (e.g., sycamore, ash, larch, oak) occur less frequently, but are valuable admixtures that increase biodiversity [www.limanowa.krakow.lasy.gov.pl]. In Myślenice Poviat, the forest ratio is 35.4%. This covers an area of 23,824 hectares [krakow.stat.gov.pl]. Most forests here are dominated by fir (30.16%) or beech (26.29%). *'Stands dominated by pine and spruce occupy 14.62% and 13.96% of the forest area, respectively, with oak-dominated stands covering 6.58% and larch-dominated stands covering 4.33%. The share of other dominant species is 4.06%'* [www.myslenice.krakow.lasy.gov.pl]. *The current flora and fauna of the Beskid Wyspowy Mountains are the result of long-term climatic, geological, and human economic activities. Some 400–500 years ago, the entire area was covered by the dense Carpathian forest, which was connected to the forest complexes of the Gorce and Beskid Sądecki Mountains. It was only the intensive settlement drive of the 16th century, initially advancing along the main valleys of the Raba and Dunajec rivers and later moving deeper into the mountains, that caused significant changes in the vegetation'* (Gacek D., 2012). Some of the lower forests were converted into farmland and meadows, and the first fruit trees were planted. *'An*

interesting fact is that the area has the highest concentration of fir stands in the entire Carpathian region' (Gacek D., 2012a).

The following nature reserves are located in Limanowa and Myślenice Poviats:

- Białowodzka Góra nad Dunajcem nature reserve
- Kamionna nature reserve
- Kostrza nature reserve
- Luboń Wielki nature reserve
- Mogielica nature reserve
- Śnieżnica nature reserve.
- Zamczysko nad Rabą nature reserve
- Las Gościbia reserve

'Miód spadziowy z Beskidu Wyspowego' is a unique product, closely linked to its area of origin. It is extracted from the mountain fir forests of the Beskid Wyspowy Mountains, an area unpolluted by industry. The utilisation of silver fir honeydew by bees in this region dates back to time immemorial. One consequence of this was the development of a local bee, known as the Dobra strain since the 1930s. This fact alone highlights the significant connection between 'miód spadziowy z Beskidu Wyspowego' and its area of origin. Over centuries, the Dobra bee strain developed mechanisms allowing it to grow in that area, which is characterised by the dominance of honeydew as the main nectar, where bees of other breeds or strains were not able to exist on their own. Thanks to our efforts, the bee has been protected since 2014 as a genetic resource, and a conservation breeding region has been set up for it within the territory of two municipalities of Limanowa Poviat. The combination of all elements, i.e. saturation of silver fir forests, husbandry of the local bee, purity of the environment, appropriate microclimate, and traditional model of beekeeping, results in a product of the highest quality with a unique taste. The long history of beekeeping in that area has contributed to the development of the skills of local beekeepers They have developed principles for the production and extraction of honey and the keeping of bees which are directly reflected in the chemical composition and taste of honey. As Władysław Kaim (b. 1928) notes: ,'*When honeydew appears, you just need to make it easier for the bees to access the forest. Then wait for the honey to mature and collect it. Our honey is thick and black as tar. All good beekeepers make the same effort and have the same honey, thanks to the excellent honeydew here in the mountains.'*

Jerzy Żwirski's apiary in Pogorzany. Photo by Jerzy Żwirski.

Historical link

This Chapter is divided into two parts, describing beekeeping in Limanowa and Myślenice Poviats.

Fir honeydew honeys have been extracted in the Carpathians for a long time, as almost the entire Carpathians were covered by primeval forests. It was not until the intensive settlement campaign that began in the 16th century that changes in the vegetation cover of the present-day Beskid Wyspowy area began. Some of the lower forests were converted into farmland and meadows, and the first fruit trees were planted. Housing began to be built in the valleys of the rivers. Significant areas remain forested with the Carpathian primeval forest. Around 40 % of the surface area of the Beskid Wyspowy Mountains is covered with forests, located mostly on slopes and peaks. Lower mountain forests predominate there: beech-fir, fir and mixed fir-spruce forests. Saturation of silver fir forests is the highest in the whole of Poland. The open areas are dominated by pastures and meadows, especially in the higher mountains, such as in the mid-forest mountain glades found in large numbers in the central part of the Beskid Wyspowy Mountains and in the Łososina range, as well as in the Kotoń. River valleys are dominated by cultivated and developed land.

Honeydew honey has been present and extracted from time immemorial in the area of today's Myślenice Poviat. The first mention of honey harvesting in Myślenice Poviat dates back to 1515, and a document on the taxation of the Myślenice commune authorities' estate. It shows that Myślenice commune, along with the villages of Borzęta, Bysina and Polanka, represented a value of 6,135 grzywnas – from peddlers and town vendors, from fish and wine merchants, beer, and honey. From Dobczyce, in the years 1604–1609, a certain amount of honey, nuts, tallow, barrels, hoops, stone, and cattle was delivered to Krakow. Meanwhile, in 1643, Wawrzyniec Waligóra – a townsman from Myślenice, transported one full load of honey to Krakow, along with an additional 11 barrels of honey (Kiryk F., 1970).

Further information about beekeeping in the present-day Myślenice Poviat comes from more recent times. Roman Reinfuss in his Monograph of Myślenice Poviat (1970) writes:
Therefore, it is important not to overlook the information gathered in the area, indicating certain traditions related to beekeeping in the forests. In Kobielnik, for example, an 86-year-old informant heard from his father that there had once been beehives burned into thick tree trunks in the nearby forest, from which the ash was removed with a chisel. In Skomielna Biała, the grandfather of a 68-year-old interviewee had a tree-hive in the forest, while in Trzebunia, the grandfather of a 79-year-old farmer had three pines in his forest with carved-out hives. He claimed that honey harvested from these hives had special medicinal properties. In Więciórka, there were beehives up until 80 years ago, in Trzemeśnia 60 years ago, and in Rudnik na Dalinie 50 years ago. (...) It happened that beekeepers, having spotted wild bees in the forest, transferred the colonies to their own apiaries (Lubień). The tree in which the wild swarm lived was called a "stump" or "tree-hive" (Tenczyn)' (Reinfuss R., 1970). This implies that the last tree-hives existed in this area almost until World War I. However, much earlier, they began to be replaced with hollowed-out logs from tree trunks, which were placed near homesteads. These were called '*duple*' in Kobielnik, '*pnioki*' in Krzyszkowice and Rudnik, or '*okrąglok*' in Wiśniowa and Węglówka. These terms are still used today; for example, a hive inhabited by a bee colony is now called a '*pień*' [stump]. Roman Reinfuss further writes: '*A widespread form throughout the entire poviat was beekeeping in apiaries. Before World War I, almost every village had several apiaries*' (Reinfuss R., 1970). Later, during the interwar period, hollowed-out logs gave way to box hives made of planks. The oldest of these were called 'Słowianie' [Slavs] – they were equipped with movable frames and have survived to this day. Honey was harvested from the logs at various times. Until the early 20th century, it was most commonly collected on Good Friday, taking what remained after the bees had wintered. Exceptionally, honey was also harvested in July or August. 'In Bugaj, if the summer is warm and dry, honey harvesting takes place four times during the season. *The first time is in May, followed by July (honey from blooming rapeseed), August (honey from so-called honeydew), and in September, with the latter honey considered the best*' (Reinfuss R., 1970). Before World War I, honey was cut together with the combs and separated from the wax by pressing, heating, or even boiling. Only after the introduction of frame hives did the use of honey extractors begin. '*The obtained honey was partially sold, partially used for personal needs for sweetening or as medicine for various ailments (cough, in Trzemeśnia, rheumatism, throat diseases in Trzebunia)*' (Reinfuss R., 1970).

Honey as a food was used in the past for sweetening dishes on special occasions: for example, sliced noodles – one of the staple dishes served during the Christmas Eve supper (Marczakowa K., 1970). Of course, it was also used as medicine. For example, for colds: '*Hot milk with butter and honey (Jasienica, Zawada, Pcim), vodka with honey (Zawada), or vodka with honey and garlic (Poręba) were given to the sick to drink* .' Honey was also used in the treatment of one of the most dangerous diseases of the time – tuberculosis (Brylak M., 1970).

We learn about bee-keeping in today's Limanowa Poviat from an article written by Jan Czech in 1959, which was quoted in a brochure published on the occasion of the 80th anniversary of the Beekeepers' Circle (Koło Pszczelarzy) in Dobra. Jan Czech (1959) wrote: *'Until the mid-19th century, old methods were used in beekeeping. It wasn't until 1857 that Fr. John, the local parish priest, sent one farmer, Jan Liszka of Zadziel to a beekeeping school in Przemyślany [46 km southeast of Lviv]. It was the first beekeeping school in Poland, the Lubieniecki school from Lviv. He was an ardent enthusiast of bees, with an estimated 400 trunks in his possession in Przemyślany. A pioneering figure in our beekeeping industry.'*

Jan Liszka then learned the methods of modern apiary management. He introduced new Dzierżon's hives, with movable frames, which, however, have not gained popularity. The old, hollowed-out stumps were still used successfully – farmers said there were no better, warmer ones than round stumps. *'(...) Nature was favourable, and there was plenty of nectar. The forests were vast and abundant in undergrowth, half of the fields lay fallow, so the bees had something to gather all year round, and there were fewer bees than now because only the wealthiest farmers kept them. Very little was known about the life of bees, as beekeeping writings were not read, more faith was placed in spells and superstitions, and many attributed charms and enchantments to them'* (Czech J., 1959).

From 1800, in Dobra also lived Jan Klima from Bohemia. He brought with him his farmhand Jachna, who looked after the farm, the bees and the garden. Jachna built the first Dzierżon's hive, made of 3-inch boards nailed together with pegs instead of nails – he claimed that bees do not thrive in hives with nails. *'Jachna made several such hives and successfully raised bees in them. Farmers would come to him and observe these hives, although they didn't have great trust in them. At that time, there lived in the settlement near Brzezula a skilled carpenter named Judka. When he saw Jachna's hives, he began to make them himself, and not only the farmers from Dobra started buying from him, but also those from neighbouring villages, even from Szczyrzyc. Circular hives were starting to become scarce, as the heirs were cutting down the forests and sawing them into boards to send them out into the world, and the old hives were slowly decaying and disappearing. The new hives were viewed with suspicion, so before populating a new hive with a colony, it was fumigated with various herbs, treated with various sacred rituals, and subjected to various procedures. A specialist in these activities was Błażej Wyderka from Mrózek in Półrzeczki. He was the best beekeeper of those times'* (Czech J., 1959).

A well-known beekeeper since around 1855 was also Jan Chalcarz (known as Medyk), who owned the first honey extractor in Dobra, his own invention. Local beekeepers, who still had their hives without frames, often borrowed the machine. The extractor remained in use until 1940, when it burned down in a house fire.

Józef Pleń was an enthusiastic and progressive beekeeper. At the age of 16, he caught his first swarm in the forest. After two years, his bees died off, so he bought a new hive and started breeding. His beekeeping activities were interrupted by the war. It was only upon his return that he began managing a large apiary using modern methods, based on Lubieniecki's book. He became renowned as the best beekeeper in the area, making a living solely from beekeeping until his death in 1955. Also notable was Marcin Szewczyk, the headmaster of the school in Dobra, who was a skilled beekeeper. He taught about the life of bees and organized practical training sessions in his apiary with a dozen hives. During those times, beekeeping was also pursued by Stanisław Kudłacz, Szymon Gąsior, and Józef Kulig from Jurków, as well as a hermit from the Cistercian monastery at the hermitage on Diabli Kamień. In 1926, the reading of "Progressive Beekeeper" began in this area – a publication issued in Lviv, founded in 1875 and edited by Professor Ciesielski. He was an avid beekeeper who designed the frame hive called "Słowian." Since then, beekeeping improved, and apiaries became profitable. The years were good, with dry and sunny springs and frosty winters' (Czech J., 1959).

In the early 1930s, Father Bronisław Pałys arrived in Dobra, where he founded the Catholic Young Men's Union. Together with Władysław Karaś, he established an apiary. They owned 52 log hives, which they managed with the members of the Catholic Young Men's Union. On this basis, a beekeepers' circle was formed, and three young members were gifted with 2 hives each. Their task was to multiply the bees and pass them on to their colleagues. They harvested a lot of honey, and the colonies were in good condition but aggressive. One of the beneficiaries of the bees, Jan Czech, had two exceptionally gentle colonies. He decided to strengthen this trait by breeding queens from these bees. He killed the queens of the vicious ones, waited until all the brood was sealed, cut all the queen cells and transferred the brood from the gentle colonies to others. When they formed queen cells, he kept the two best. When the first queen emerged, he took her with a frame of brood and young bees and placed her in a new hive, which he moved to a different location. In this way he had two young queens who produced gentle offspring. And so within a few years, everyone had replaced aggressive queens with gentle, calm and highly productive ones. A much more modern method of breeding was also used, using a mating nuc. Beekeepers from further afield also sought queens here. The locally bred bee was called 'Dobra' or 'Czeszka.' Jan Czech was elected president of the beekeepers' circle. *'Year after year, more beekeepers and bee colonies joined, and a lot of honey was harvested – it was very tasty – and people called it 'smak tęczy' [taste of the rainbow] or 'siedem smaków' [seven flavours]'* (Kaim W., 2013).

Beekeepers' customs and beliefs

The excerpts quoted below are from Romuald Wróblewski's book, *Święta Pszczoła* [The Holy Bee]. *The death of the beekeeper, the guardian of the bees who protects them from all misfortune, brought about great changes in the apiary. In many areas it was believed that when the beekeeper died, so did his bees. However, a number of magical actions could prevent such an increase in misfortune. The first was telling the bees about the tragedy. You*

knocked on each beehive and said the words: Bees, your master has bidden you farewell. Once the announcement had been made, one could be sure that the bees would not follow their master away. The eldest of the household would go around the apiary and, after knocking on each hive, blow into the outlet. Another way of preventing misfortune was for the owner to sell the apiary before he died. (...)

One way to increase the number of bees was to bring Christmas gifts to the beehive. A wafer, a honey cake, a crumb of wax from a Christmas Eve candle were placed under the roof of the hive or in the hive entrance. It was also customary to say the formula: 'May the bees be blessed for the coming year.' (...)

In Poland, incantations were used to keep the bees from fleeing, as it was their duty to work for the glory of God. The wax dripping from the candles on the altar, transferred to the hive on the Day of Our Lady of the Thunder Candle, prevented future colonies from escaping and triggered them at the appropriate time. Oskar Kolberg heard of a method of stopping swarming bees in which the beekeeper, upon seeing a flying swarm, would turn towards the sun, then kneel at the mouth of the hive and, beating his breast, repeat three times: 'Praised be the Most Holy Sacrament, the Body and Blood of the Lord Jesus. Amen.' The beekeeper would then strike the hive firmly with his left hand, which was said to be a prohibition to prevent the bees from fleeing (...). The excerpts quoted below are from Romuald Wróblewski's book, *Święta Pszczoła* [The Holy Bee].

Another interesting description of swarming and its collection methods can be found in the already cited Monograph of Myślenice Poviat. *'Once the swarm is in the air, deafen the bees by hitting the scythe blade with a hammer. This will make them think it is thunder and they will lower their flight. Then sprinkle them with water or throw sand or earth at them. The bees will think it is rain and settle down on a branch or the ground. Sometimes beekeepers "hit" the flying swarm with a branch, and when it has settled, they dust it off to make it easier to collect and carry to the hive. The captured swarm is collected in a wooden* króbka *(Sułkowice), a basket (Tokarnia, Trzebunia) or a sack (Bilczyce) and taken to the prepared hive, where the queen is placed first. The new hive must first be fumigated with "honey herbs," otherwise "the bees will not make honey" (Tokarnia)'* (Reinfuss R., 1970).

Natural link

The history of beekeeping in the Beskid Wyspowy Mountains is inextricably linked with the local bee. Thanks to the unique characteristics it has developed over the centuries, the bee was able to live in the wild state in areas with fir forests. This bee, despite the difficult climatic and nectar-bearing conditions (with the predominating fir honeydew sometimes occurring late, which is very unfavourable for other bees), was able to survive the winter and thrive. Its unique qualities were recognised by beekeepers who farmed there, and breeding was undertaken in the early 20th century. The bee is best suited to harvesting 'miód spadziowy z Beskidu Wyspowego' as it finds it fastest, processes it best and therefore produces the most valuable honey.

'There is no better bee in this environment than the Dobra strain. It was born here naturally and nature knows what to do. (...) Among the most important advantages of the local breed are the following: discontinuance of egg laying at the end of August, very cautious resumption of egg laying after the first orientation flight, very intensive development during the apple blossom period, very low food consumption in winter, possible wintering on honeydew reserves, high gentleness, dry and white nest, reserves of bee pollen flour accumulated between the cells of the brood, resistance to diseases' (Leśniak T., b. 1947).

Thanks to the efforts of local beekeepers, it has been included in the genetic resources protection programme, and a conservation breeding area has been established for it in the Municipalities of Dobra and Tymbark.

History of the Dobra strain

Based on the 'Program ochrony zasobów genetycznych dla pszczoły rasy kraińskiej linii Dobra' [Programme for the conservation of genetic resources of bees of the Carniolan breed of the Dobra strain] by Jerzy Żwirski.

Originally, the territory of Poland was inhabited (covered) by the Central European breed (*Apis mellifera mellifera*), with the exception of the most southern lands, where the Carniolan breed (*Apis mellifera carnica*) lived. In the Beskid Wyspowy Mountains, on the land covered with fir forests, the native bee originally appeared, which has been able to adapt to the difficult climatic and nectar-bearing conditions. In the course of evolution an indigenous population arose, later called 'Dobra', which through natural selection has been able to adapt to the difficult local conditions. The bee developed a number of prized traits, such as: resistance to disease through very strong hygiene, strong resistance to cold, adaptation to wintering on honeydew, discontinuance of egg laying in September, conservative resumption of egg laying in the spring and rapid development after the weather has stabilised. These features have evolved over the centuries. This way the bees have lived in these areas naturally, and despite the fact that honeydew honey is not suitable as feed for wintering bees, the bees have wintered normally. Other breeds and strains of bees would not be able to survive winter on the honeydew supplies found here. The high content of mineral salts (3 to 5 times higher than in nectar-based honeys), which is desirable for humans, is harmful to bees in winter because they are unable to digest it and their colons overflow much earlier. Very dangerous diarrhoea occurs, bees are removed from their hives during the winter, nosemosis develops and eventually the colony dies. Bees found in these areas have developed a very resource-efficient way of feeding in winter. The queens did not lay eggs in winter, so the bees did not have to heat the brood or feed it. They started laying eggs only after the orientation flight, and intensive growth occurred only during the dandelion flowering period. Until then, they lived the life of a winter bee, never tired of raising offspring. Until the early 20th century, instead of harvesting honey in the autumn, which is now done in August and the first days of September, honey was extracted after the bees had wintered, often on Good Friday.

The first information about the Dobra bee came from Jan Czech, a beekeeper from Dobra. He carried out the first selection of the bees described above in the 1930s. The breed spread throughout Lesser Poland, and its qualities were appreciated by all beekeepers who had it in

their apiaries.

After the war, in 1947, a committee consisting of Prof. A. Demianowicz, M.A. Chwałkowski and M.S. Stefański (Burnus 1961), after examining the complete breeding records of the owner of an embryonic apiary, Jan Czech from Dobra, selected and chose the founding queen for the colony. The queen served as a breeding model with the following characteristics:

Length of the glossa:	6.15 mm
Sum of the width of tergits	3 and 4: 4.89
Number of hooks on the hind wing:	21
Cubital index:	57.2

The article also describes its characteristics: 'It is very gentle and of the domestic bees it sticks most to the combs, it is not shy. It does not swarm and even in breeding it lays few queen cells.'

Due to the dissolution of the beekeeping associations responsible for breeding in 1948, there is a lack of data to describe the subsequent stages of breeding work. However, this hiatus did not mark the end of breeding efforts. According to J. Stachalska (1964), A. Chwałkowski continued to select the Dobra strain during this period. The re-establishment of beekeeping associations and the establishment of the Bee Breeding and Insemination Station in Bochnia by A. Chwałkowski in 1963 marked a new chapter in the history of the Dobra strain breeding. Artificial insemination was employed to produce reproductive queens, initiating mass queen production for commercial apiaries. The use of embryonic material facilitated further breeding and inter-strain hybrids. The identification of the local (Dobra) bee was thoroughly examined in studies by Gromisz (1968) and Bornus, Demianowicz, Gromisz (1966). The former highlighted Limanowa Poviat as particularly abundant in the Carniolan breed (Dobra). In the Limanowa area, beekeepers who recognised and valued its breeding qualities maintained the Dobra strain naturally in their apiaries. It remained unchanged, as beekeepers resisted imported strains and crossbreeds unsuitable for the local climatic and nectar-bearing conditions. Professor Michał Gromisz, in one of his scientific papers, notes: '*Apis mellifera carnica* is valued for its rapid growth, gentleness, and adherence to combs. Polish beekeepers are particularly interested in another characteristic that is very important for them: its adaptability to honeydew nectar, a trait prevalent in *Apis mellifera carnica* from southern Poland. Proof of this can be seen in bees of the Dobra strain or those with representatives of this strain in their pedigree' (1968).

The Dobra strain survived this 'crazy' period of fascination with foreign breeds and strains thanks to the wisdom of beekeepers in the Dobra and Tymbark areas. It was from these apiaries that the material went to Jerzy Smoter from Tymbark in the 1970s and 1980s.

Thanks to his breeding work, the Dobra strain has remained unchanged to this day. Since 1995, Mr Smoter's apiary has been implementing the National Programme for Genetic Improvement of Bees using the System of Conservation Breeding for the Dobra Strain. The production effects of these bees and their unique adaptability to honeydew nectar were the driving force behind this work. Since 2014, the Dobra strain has been included in the genetic resources protection programme, and a conservation breeding area for these bees has been established in the Municipalities of Dobra and Tymbark.

A queen of the Carniolan breed *(Apis mellifera carnica*) of the Dobra strain in the apiary of Marta Żwirska. Photo by Jerzy Żwirski.

9. Control body:

Chief Inspector of the Agricultural and Food Quality, ul. Wspólna 30,
00-930 Warsaw
tel. 22 623-29-00
tel. 22 623-29-01
e-mail: sekretariat@ijhars.gov.pl

10. Labelling:

Beekeepers who produce and package 'miód spadziowy z Beskidu Wyspowego' and entities

engaged in the buying-in of the honey and its presentation are required to use one type of label. The label will bear the (Protected Designation of Origin) symbol or this symbol and the inscription 'Chroniona Nazwa Pochodzenia' [Protected Designation of Origin]. The single-label system is intended to guarantee the appropriate quality and enable easy product traceability. The labels will be distributed by the Stowarzyszenie Producentów Miodu Spadziowego z Beskidu Wyspowego producer association. It forwards the rules on the distribution of the labels and the records issued and used to the control body. The distribution rules may not in any way discriminate against producers who do not belong to the association.

11. Specific requirements introduced by current regulations:

Please indicate whether there are specific requirements imposed by European Union or national legislation concerning the agricultural product or foodstuff to be notified.

None

12. Additional information:

Provide additional information, if any, on the agricultural product or foodstuff to be notified.

None

13. List of documents attached to the application:

The following publications were consulted in the preparation of the application:

Bornus L., Demianowicz A., Gromisz M. (1966): Morfometryczne badania krajowej pszczoły miodnej *Apis mellifica* L. [Morphometric study of the domestic honeybee *Apis mellifica* L.]. *Pszczeln. Zesz. Nauk.* 10(1-2-3-4): 1–46

Brylak M., 1970. Medycyna ludowa [Folk medicine] [in]: Reinfuss R., Rydlowa M. (ed.), 1970. *Monografia Powiatu Myślenickiego* [Monograph of Myślenice Poviat]. Wydawnictwo Literackie Kraków, vol. 2. Kultura Ludowa, p.: 324–325 Bzowski K., 2012. *Powiat Limanowski. Ostoja natury i zdrowia. Przewodnik turystyczny po powiecie limanowskim* [Limanowa Poviat. A haven of nature and health. Tourist guide to Limanowa Poviat]. Kraków, p.: 10–13

Czech J., 1959. *Pszczelarstwo w Dobrej w powiecie limanowskim. Biuletyn Komisji Kulturalno-Oświatowej przy Prezydium Gromadzkiej Rady Narodowej w Dobrej* [Beekeeping in Dobra, Limanowa Poviat. Bulletin of the Cultural and Educational Commission at the Presidium of the National Council of Gromada in Dobra] (January 1959). Reproduced [in]:

Michorczyk D., 2013. *Towarzystwo Miłośników Regionu Dobrzańskiego. Koło Pszczelarzy w Dobrej. Wczoraj-dzisiaj-jutro. Publikacja wydana z okazji 80-lecia powstania* [Dobra Region Admirers Society. Beekeepers' Circle in Dobra. Yesteday-today-tomorrow. Published on the occasion of its 80th anniversary]

Dyląg D., Sadowski P., 2005. *Beskid Myślenicki. Przewodnik* [A Guide to the Beskid Myślenicki Mountains]. Oficyna Wydawnicza Rewasz. Pruszków, p.: 8, 13, 18–19

Gacek D., 2012. *Beskid Wyspowy. Przewodnik* [A Guide to the Beskid Wyspowy Mountains]. Oficyna Wydawnicza Rewasz. Pruszków, p.: 7–9; 13–15

Gacek D., 2012a. *Nasza Beskidzka Mała Ojczyzna* [Our Little Beskid Homeland]. Stowarzyszenie LGD „ Przyjazna Ziemia Limanowska." Limanowa, p.: 10–13

Gromisz M. (1968): Badania morfometryczne krainki selekcjonowanej w Polsce i Niemieckiej Republice Demokratycznej [Morphometric studies on Carniolan honey bee selected in Poland and German Democratic Republic]. *Pszczeln. Zesz. Nauk.* 12(3): 99–115

Kaim W., 2013. Historia działalności [History of activities] [in]: Michorczyk D., 2013. *Towarzystwo Miłośników Regionu Dobrzańskiego. Koło Pszczelarzy w Dobrej. Wczoraj-dzisiaj-jutro. Publikacja wydana z okazji 80-lecia powstania* [Dobra Region Admirers Society. Beekeepers' Circle in Dobra. Yesteday-today-tomorrow. Published on the occasion of its 80th anniversary]

Kapturkiewicz A., 'Wprowadzenie nazwy Beskid Wyspowy do literatury polskiej - cz. 2' [Introduction of the name Beskid Wyspowy into Polish literature – part 2], *Echo Limanowskie,* no 242–243 November-December 2014

Kiryk F., 1970. Dzieje powiatu myślenickiego w okresie przedrozbiorowym. Osadnictwo [The history of Myślenice Poviat in the pre-partition period. Settlement] [in:] Reinfuss R., Rydlowa M. (ed.), 1970. *Monografia Powiatu Myślenickiego.* [Monograph of Myślenice Poviat]

Wydawnictwo Literackie Kraków, vol. 1. Historia, p.: 61, 99, 149 Łapiński W., 2012. *Nadleśnictwo Myślenice* [Myślenice Forest Authority]. Myślenice, p.: 2–3

Łapiński W., Zygarowicz J., Jastrzębski R., 2013. *Nadleśnictwo Limanowa* [Limanowa Forest Authority]. Limanowa, p.: 4–5 Marczakowa K., 1970. Pożywienie [Nutrition] [in]: Reinfuss R., Rydlowa M. (ed.), 1970. *Monografia Powiatu Myślenickiego* [Monograph of Myślenice Poviat]. Wydawnictwo Literackie Kraków, vol. 2. Kultura Ludowa, p.: 217

Reinfuss R., 1970. Pasterstwo i hodowla [Shepherding and farming] [in]: Reinfuss R., Rydlowa M. (ed.), 1970. *Monografia Powiatu Myślenickiego* [Monograph of Myślenice Poviat]. Wydawnictwo Literackie Kraków, vol. 2. Kultura Ludowa, p.: 131–135

Stachalska J.,1964. *To dobra koncepcja. Pszczelarstwo 1* [A Good Concept. Beekeeping 1], 1964

Tworek K. (ed.), 1996. *Pszczoły na spadzi* [Honeydew Bees]. Wydawnictwo Sądecki Bartnik, Nowy Sącz, p.: 18–25, 58–76

Resolution of the Sejmik of Małopolskie Voivodeship No VII/109/15 of 30 March 2015 on allowing on the territory of the Municipalities of Dobra and Tymbark the keeping of bees of the Carniolan breed of the Dobra strain only [http://bip.malopolska.pl/umwm/Article/get/id,1043899.html]

Wilde J., Prabucki J., 2008. *Hodowla pszczół* [Bee Husbandry]. Wydawnictwo PWRiL, Poznań, p.: 464–467

Wróblewski R., *Święta pszczoła* [The Holy Bee], 2nd edition, Sądecki Bartnik 2009

Żwirski J., Kwiatkowski T., Kajak M., Polak G., 2014. *Program ochrony zasobów genetycznych dla pszczoły rasy kraińskiej linii Dobra* [Programme for the conservation of genetic resources of bees of the Carniolan breed of the Dobra strain]. Annex no 1 to the Ordinance of the National Research Institute of Animal Production no 6/14 of 10 February 2014 [http://www.bioroznorodnosc.izoo.krakow.pl/system/files?file=Zarzadzenie_nr_6_14_-_program_Dobra.pdf.]

Ethnographic interviews with:
Tadeusz Leśniak, Władysław Kaim, Jerzy Smoter, Jerzy Żwirski
2014 statistics for Limanowa and Myślenice Poviats [krakow.stat.gov.pl]

Nadleśnictwo Myślenice – Corporate Portal of State Forests
[www.myslenice.krakow.lasy.gov.pl]
Nadleśnictwo Limanowa – Corporate Portal of State Forests
[www.limanowa.krakow.lasy.gov.pl]