

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

I. Applicant

1. Name²⁾:

Lokalna Grupa Producentka Karpia Zatorskiego [Local Zatorski Karp Producer Group]

2. Seat or residence and address:

32-640 Zator

ul. Parkowa 7

3. Mailing address:

Telephone: (33) 8412 709; 506 146 777

Fax: -

E-mail: fsalaciak@poczta.fm

4. Person acting on behalf of the applicant:

Franciszek Sałaciak

5. Group:

Provide information on the composition of the group.

Lokalna Grupa Producentka Karpia Zatorskiego [Local Zatorski Karp Producer Group] was established by:

Instytut Rybactwa Śródlądowego im. Stanisława Sakowicza [Stanisław Sakowicz Inland Fisheries Institute] with its registered office in Olsztyn – Rybacki Zakład Doświadczalny w Zatorze [Experimental Fisheries Station in Zator], Plac Kościuszki 5, incorporating:

Gospodarstwo Przeręb,

Gospodarstwo Spytkowice,

Gospodarstwo Bugaj,

Gospodarstwo Laskowa

represented by: Jerzy Adamek – Director,

hereinafter referred to as ‘RZD’

Zatorskie Towarzystwo Wędkarskie [Zator Fishing Association] in Zator ul. Parkowa 7 as an association registered in the National Court Register maintained by the District Court for Kraków – Śródmieście under KRS number: 0000054735, represented by:

Franciszek Sałaciak – President

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.

Jan Szałaśny – Treasurer,
hereinafter referred to as 'ZTW'

II. Specification

1. Name:

Provide the name of the agricultural product or foodstuff.

‘Karp zatorski’

2. Application for registration of:

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

1) designation of origin

| |
|---|
| X |
| |

2) geographical indication

3. Category:

Indicate the category to which the agricultural product or foodstuff belongs.³⁾

4. Description:

Provide a description of the agricultural product or foodstuff and, where necessary to demonstrate the link referred to in Section 8, also information on the raw material composition, physical, chemical, microbiological, or organoleptic characteristics.



‘Karp zatorski’ offered for sale is a hybrid obtained from cross-breeding the pure ‘karp zatorski’ line with the following pure lines: Hungarian, Yugoslav, Gołysz and Israeli (Dor-70). ‘Karp zatorski’ is characterised by good body depth and compact shape. It is a fast-growing fish with a high flesh yield. ‘Karp zatorski’ is a live fish sold fresh and unprocessed.

³ For completion by the body submitting the application to the European Commission.

External appearance:

- bodyweight of marketable fish: 1,100-1,800 g
- colour: olive or olivey blue
- scalation: mirror scales arranged in a dart, stripe or saddle pattern.

The flesh of 'karp zatorski' is characterised by a fresh fishy smell and a specific, delicate taste.

Chemical composition of 'karp zatorski' flesh:

- dry mass: 22.50%
- crude ash: 1.23%
- total protein: 19.25%
- crude fat: 1.55%

Fatty acid profile – average values (% of total acids):

| | |
|---------------------------|-------|
| C ₁₄ | 1.78 |
| C ₁₅ | 0.52 |
| C ₁₆ | 20.94 |
| C _{16:1} | 10.82 |
| C ₁₈ | 7.18 |
| C _{18:1} | 31.12 |
| C _{18:2} | 7.54 |
| C _{18:3 n=6} | 0.25 |
| C _{18:3} | 5.72 |
| C ₂₀ | 0.54 |
| C _{20:1} | 2.37 |
| C _{20:2} | 0.56 |
| C _{20:3 n=6} | 0.53 |
| C _{20:4 n=6} | 2.68 |
| C _{20:3 n=3} | 0.58 |
| C _{20:5 n=3} EPA | 4.06 |
| C _{22:5} | 0.46 |
| C _{22:6 n=3} DHA | 1.52 |

5. Geographical area:

Indicate geographical area.

‘Karp zatorski’ is produced in three neighbouring municipalities located in the western part of Małopolskie Voivodeship. These are: Zator and Przewodów, in Oświęcim Poviát, and Szytkowice, in Wadowice Poviát. These municipalities have been jointly implementing the ‘Carp Valley’ project since 2003. The geographical area of production of ‘karp zatorski’ covers a total of 134 km², with production concentrated mainly in Zator municipality.



6. Proof of origin:

Please indicate the method used to confirm that the agricultural product or foodstuff originates in the defined geographical area.

The production of carp is carried out in accordance with the plant's internal guidelines. One of the main lines used for inter-line cross-breeding is the native 'karp zatorski' line, which was bred in the geographical area. All the carp lines used for breeding have their own files and records. A line mark is burned on the body of each brood fish and pure line selector using liquid nitrogen. In early spring, after harvesting the pond where the brood fish have been kept over the winter, a strict selection for spawning and stocking of spawning grounds is carried out. After spawning, the males and females are re-marked with liquid nitrogen for better visibility. Receipts for harvesting and stocking the pond, fish storage facilities, spawning ground, and transplantation pond are issued each time the pond is harvested and stocked. For internal trade, the following receipts are issued for fish transferred between the farms of the Experimental Fisheries Station: warehouse issue, warehouse receipt. For external sales, an invoice or receipt from the cash register is issued. Detailed records of fish are kept at each farm. The Experimental Fisheries Station (RZD) has veterinary numbers assigned by the

Powiat Veterinary Inspectorate in Oświęcim and Wadowice. The plant also keeps records of feed purchased and used. Receipts and records are always available for inspection.

7. Method of production:

Provide a description of the production method for the agricultural product or foodstuff and provide information on packaging if there are reasons why packaging should take place in the geographical area defined in Section 5 and indicate those reasons.

PRODUCTION STEP 1:

SPAWNING

One of the most important production steps at a fish farm is the production of healthy, fast-growing stocking material.

At the Inland Fisheries Institute in Olsztyn – Experimental Fisheries Station (RZD) in Zator, a selection of pure carp lines has been carried out for many years, with the most important being the pure ‘karp zatorski’ line. This line is of local origin and has been bred inbred for several generations. The first selection work was conducted after the Second World War by associate professor Z. Rychlicki, focusing mainly on rapid growth and scalation arranged in the stripe and saddle patterns. Through rigorous, controlled selection of brood fish, a homozygous line was developed and has been maintained through generations of inbreeding. The Zator line carp is a mirror carp with scales arranged in a dart, stripe or saddle pattern and an olive-blue skin colour. They are characterised by a fast growth rate, a body depth factor of 2.2–2.4, and a condition factor of between 3.9 and 5.0.

This ‘karp zatorski’ line is of particular importance in producing interbreeding crosses to obtain heterozygous progeny with high production characteristics. The indigenous line of carp has never been commercialised.

The production of ‘karp zatorski’ is carried out by cross-breeding the pure line of ‘karp zatorski’ with pure Hungarian, Yugoslav, Gołysz and Israeli (Dor-70) lines. The progeny obtained has excellent production characteristics and a high survival rate. The progeny from such crossings grow faster, are more resistant to disease, have better flesh yield, and are well-adapted to the natural conditions prevailing in the designated area specified in Section 5.

In spring, when the water temperature approaches 15°C, the pond containing the brood fish of the pure carp lines is harvested. It is crucial to handle the brood fish gently, as large specimens are susceptible to internal injuries and mechanical damage. The carp are caught gently with large hand nets, then removed from the pond using tarpaulin stretchers and loaded onto tractor trailers into specialised fish transport tanks. The water in these tanks is oxygenated using oxygen cylinders. The brood fish are transported to a washer for conditioning. After washing, the brood fish are inspected after about 2 hours. Females and males with the best characteristics (gravid, soft females and milt-releasing males) are selected and separated into different ponds (males and females separately), to prevent uncontrolled spawning. When the water temperature reaches 18°C, the brood fish are caught again with care and handled gently. The fish are carried in tarpaulin sacks, and then transported by specialised transport to the spawning grounds (there are three sets of spawning grounds at the RZD, for 5, 6 and 5 fish in each), or to the hatchery in spawning tanks. Artificial spawning can also be conducted in the hatchery, where fertilised eggs are incubated in Weiss apparatus.

Spawning grounds are shallow ponds with a water depth of 0.7 metres. Water is not fed directly from a feedlot but from a suitable pond called a ‘heater.’ Water is only pumped

before the brood fish are stocked, and in spring before spawning, they are specially prepared: the grass is cut high, and the monks are sealed. The grass before stocking the brood fish should be about 20 centimetres high. After pumping the water, the spawning grounds are stocked with sets of 2 females and 3 males, with round-the-clock supervision to observe the behaviour of the fish and ensure silence in the vicinity. It is important to regulate the water supply to maintain a constant water level (there should be no flow-through). Spawning usually takes place in the morning or evening. Once spawning has occurred, the brood fish should be caught early in the morning. To achieve this, the water is lowered to a depth of about 20 centimetres. The short-term exposure of the eggs, which are stuck to the vegetation, does not adversely affect their development, provided they are not dried out and exposed to intense sunlight. Once the brood fish have been harvested, the water is aerated as much as possible to prevent rapid temperature drops. Throughout the incubation period, no water flow should be applied to the spawning grounds. The purpose of controlled natural spawning is for the hatchlings to obtain their first contact with natural food while the yolk sac is still of sufficient size.

Carp is a phytophilous fish, so its eggs contain a sticky coating that makes them adhere to vegetation in the water and develop at a certain distance from the bottom, which provides them with better oxygen conditions. During the development period, eggs are particularly sensitive to fluctuations in water temperature, so it is necessary to keep the water level as high as possible. Within 2 to 4 days, a black pigment appears in the eye of the developing embryo, indicating the eggs are at eyed stage. The embryonic development of the carp egg lasts from 3 to 6 days, depending on the water temperature (the higher the temperature, the shorter it lasts). To determine the length of embryonic development, the concept of degree days is used ($^{\circ}\text{D}$), meaning a defined sum of daily temperatures. For carps, this is about 95°D . The freshly hatched larvae attach themselves vertically to the plants, initially feeding on the contents of the yolk sac. The hatchlings (K_0) on the second or third day after hatching begin to swim and feed on plankton. The suitability of the hatchlings for harvesting is determined by the size of the yolk sac, which should be resorbed to about one-third of its volume. When two-thirds of the yolk sac is resorbed, the hatchlings submerge below the water surface and fill the swim bladder with air.

Specially prepared hand nets lined with milling gauze are used to catch the hatchlings from the spawning grounds. Tubs, buckets, cups, glasses, and white plastic spoons are also necessary. The spawning ground is fished for hatchlings at high water. During the removing process, the tub is filled with enough water from the spawning ground for the vessel to float freely on it. The person catching the hatchlings using a hand net scoops them up with slow movements and then quickly transfers them to the floating tub. Removing the hatchlings should start in the late morning on sunny days, when they float out of the grass to the surface of the spawning ground. The hatchlings caught in the tub are counted by lightly stirring the water to achieve even dispersal. A cup is then filled and poured in small quantities into glasses, from which employees count the hatchlings by scooping them onto plastic spoons along with the water before pouring them into a bucket filled with water. Two to three samples are taken, and the average content of hatchlings in the tub is calculated. Double oxygen-filled polyethylene film bags are used to transport the hatchlings.

PRODUCTION STEP 2:

REARING OF FRY

The hatchlings removed from the spawning grounds are transported to Transplantation ponds 1, where summer carp fry are reared. It is crucial to create optimal nutritional conditions in these ponds to achieve rapid growth rates in a short period. The ponds should be well cultivated and maintained. In spring, the bottom should be cultivated with a disc harrow one week before the anticipated inundation. Before the water is poured, the ponds are fertilised with piled manure (100 to 200 q/ha). Pouring the water into Transplantation ponds 1 typically starts as soon as the brood fish have spawned. This timing allows for the development of protozoa and rotifers in the pond, which the hatchlings feed on during their first days of life. Later, larger forms of zooplankton are necessary. The water for Transplantation ponds 1 should be filtered through dense netting to prevent predatory fish and food competitors for the carp from entering the pond. The stocking density is 200,000 hatchlings per hectare.

The inundation depth of Transplantation ponds 1 should be between 0.7 and 1 metre. The maximum inundation level is maintained for the first two weeks. In the third and fourth weeks, the flow is closed to cause a natural lowering of the water level, giving the carp better access to bottom food. The growth of the hatchlings during this period varies greatly and depends largely on the stocking density and the amount of food in the pond. Therefore, control fishing should be carried out weekly. For this purpose, hand nets lined with tulle are used; juvenile fish are weighed in groups with water to an accuracy of 1g. The summer fish from Transplantation ponds 1 should be harvested when the fish reach a size of 2–4g. If kept too long in Transplantation ponds 1, the fish may starve. When harvesting, the pond water should be drained slowly (through a dense strainer to prevent the fry from escaping with the water) without using an inflow of water. This allows the fish to flow into the grooves and not remain in the cavities. A dense strainer is then inserted into the groove to prevent the fry from spreading out and to allow harvesting at this point once fresh water is allowed (fish swim against the influx of fresh water). There should be a fish crate in the close vicinity of the transplantation pond being harvested. After being caught, the fry should be conditioned and counted, and their individual weight determined. The average weight is determined by weighing 500 randomly selected individuals in the water. The weighing is carried out using a smooth-walled measuring cup, into which the fry are transferred by hand net and then quickly counted. This process is repeated several times to determine the average number of summer fry in the measuring cup. Then, the concentrated summer fry are scooped with a measuring cup and transferred to a bucket of water. Using the average number of fish per measuring cup and the number of cups, the total number of fish can be calculated. Once counted, the fish are packed into polyethylene bags with oxygen or specialised oxygenated tanks and transported to the nursery ponds.

PRODUCTION STEP 3:

REARING AND OVERWINTERING OF AUTUMN FRY

In July, nursery ponds are stocked with summer fry or, in some cases, with hatchlings taken from spawning grounds, skipping the Transplantation ponds 1 stage. When stocking nursery ponds with hatchlings, stocking rates of 20,000 to 30,000 fish per hectare are used, while stocking with summer fry requires stocking rates of 10,000 fish per hectare. In nursery ponds, the fish are fed cereal feed from local producers (wheat, barley, triticale, maize), initially ground into a fine meal. As the fish grow, a feed with more structure is introduced.

The fish are fed three times a week until the end of September, with quantities adjusted based on growth intensity, following a predetermined schedule. Test catches are conducted every fortnight using a hand lift net to determine weight gain. These test catches are performed at feeding sites where the fish gather to forage. By the end of the first season, the fish should have a unit weight of 60–150g, and overwintering autumn fry are left in the nursery ponds. During winter, it is crucial to create ice breaks at the inflows and outflows of the ponds to allow a slight flow of water through the pond, gas exchange, observation of fish behaviour and measurement of water parameters. Daily monitoring of the pond is essential.

PRODUCTION STEP 4:

STOCKING OF COMMERCIAL PONDS

In spring, after the carp have overwintered in the nursery ponds, harvesting starts, followed by stocking of commercial ponds. To this end, the water is drained from the pond (using a drain monk), and the fry are removed from the fishery or trap using hand nets. The fish are transported to specialised transport tanks in tubs with water. The fish are transported to a washer for conditioning. After conditioning, the fish are sorted by size, weighed, and transported to the commercial pond using specialised transport. They are released into the water using a spillway. Stocking rates for commercial fish range from 600 to 900 fish per hectare. Carp in the commercial ponds are reared in polyculture with other fish species that do not compete for food. Carp in these ponds are fed three times a week with cereal feed (wheat, barley, triticale, maize). During the initial feeding period, the feed is crushed with a crusher, and later, depending on growth rates, they are fed whole grains. Unit growth rates are checked during test catches at the feeding site using a hand lift net. Feeding follows a set schedule from May to September, with more intensive feeding in June, July, and August. In October, the harvesting process begins. The water is drained from the pond using a drain monk, and the fish are caught in the fishery, either in front of the drain monk or in special traps into which the fish flow with the draining water. The fish are removed using hand nets and transferred in metal tubs to special transport tanks. After being transferred to a washer and conditioned, the fish are sorted according to size, then weighed and transported to fish storage facilities. The fish storage facilities are ponds that are 1.7–2.0 m deep, with no vegetation but with good water flow and oxygenation, ensuring good conditions for fish at high densities. This treatment means that the flesh of ‘karp zatorski’ does not smell of mud.

PRODUCTION STEP 5:

FISH SALES

In the pre-Christmas period, the fish are removed from fish storage facilities and then transported as the final product, ‘karp zatorski’ (fish weighing between 1100 g and 1800 g), using specialised fish transportation means. The fish are transported to pre-prepared sales points, where they are unloaded into special oxygenated tanks. The tanks bear clearly visible inscriptions that read **‘karp zatorski.’**

‘Karp zatorski’ is also sold throughout the entire year. A major customer is anglers, especially the Zator Fishing Association, who use it to stock their water bodies. ‘Karp zatorski’ is the basis for traditional dishes of the Carp Valley, such as ‘Smoked Karp Zatorski’ and ‘Zator-style carp.’

The fish feed on food naturally available in ponds. At all stages of production, this is supplemented only by natural cereal feeds (wheat, barley, triticale, maize). Cereals produced in the geographical area defined in Section 5, owing to the specific soil and climatic characteristics, are of high quality and meet high sanitary standards. This is reflected in the health of 'karp zatorski' and the product's exceptional organoleptic characteristics. In order to maintain the high quality of the final product, the feed used for 'karp zatorski' consists of at least 70% materials sourced from the area specified in Section 5. When purchasing cereals, account is taken of their quality and of their moisture content, which must not exceed 11%. No feed supplements are used in the production of 'karp zatorski.'

The majority of the work connected with the production of 'karp zatorski' is carried out manually, with human knowledge and experience playing an important part. Through years of experience, fish-farmers have developed the ability to adapt the coarseness and dosage of the feed depending on the weight of the fish. The production process has not been significantly modified over the years, with the exception of replacing horse-drawn carriages with specialised transport equipment, allowing the fish to be transported in better and more humane conditions, and replacing wooden boats with aluminium ones.

8. Link with the geographical area:

When applying to register the name indicated in Section 1 as a geographical indication, provide elements demonstrating the link between the specified quality, reputation or a characteristic of the agricultural product or foodstuff and the geographical origin in the area referred to in Section 5.

8.1. Natural link to the region

Geology

The geological structure of the Zator Municipality allows for the distinction of two parts: the northern part lies in the Carpathian Foredeep Basin (*Zapadlisko Przedkarpackie*) area, while the southern part lies in the Outer Carpathians (*Zewnętrzne Karpaty*) area. The oldest Quaternary sediments are sands, clays, and gravels. Beneath them, at depths below 300 meters, significant deposits of hard coal are found in Carboniferous formations. The most widespread formations in this area are those of the younger Pleistocene. In the Hügelland, they occur as diluvium, loess, or loess-like formations. In the area of higher accumulation terraces of river valleys, these are sands, gravels, and loess-like silt formations. The lowest terraces of river valleys are composed of Holocene formations such as gravels and sands, covered by muds, silts, and floodplain clays. The Vistula Valley in the Zator region takes the form of a wide river valley (up to 12 km wide), with a flat, even terrain that rises towards the south. The Skawa Valley, in its lower section, is a flat-bottomed river valley up to 2 km wide. In the river valleys, slope and accumulation terraces have formed, with varying heights from 8 to 20 meters above the river level.

Natural resources

Natural aggregate is the most abundant resource in the municipality. The following extraction sites are being exploited: 'Zakole B' – 3.54 ha, 'Smolice – Zakole' – 36.16 ha, 'Smolice – Zakole A' – 8.44 ha, 'Zakole, a – Starorzecze' – 10.35 ha, 'Smolice – Zakole B' – 23.00 ha, 'Zator – Podolsze Nowe' – 30.10 ha. Documentation work is being conducted regarding the occurrence of aggregate in the 'Rabusiowice' area – approximately 58 ha. Quaternary clay is also being exploited - the 'Zator' open pit – 4.70 ha. Hard coal has been located in two seams: 'Rejon Zator' – 6,000 ha in the municipalities of Zator, Preciszów, Spytkowice, and 'Rejon Spytkowice' – 8,000 ha in the municipalities of Zator, Spytkowice.

Surface waters

Due to the numerous complexes of water reservoirs in the municipality, the Zator municipality is called 'Carp Valley' (*Dolina Karpia*). Fish ponds and flooded pits from aggregate extraction occupy approximately 22% of the municipality's area. The main fish pond complexes are: Przeręb, Spytkowice, Laskowa, Bugaj, Rudze, and the main flooded pits are: Garboszyce, Trzebieńczyce, Podolsze. The area of the Zator municipality is located in the Vistula River basin. The municipality is crossed by the Skawa River, a right-bank Carpathian tributary of the Vistula. The Skawa flows into the Vistula in the village of Podolsze. In the Zator municipality, the Bachorz also flows into the Vistula. The Skawa is a river with a balanced flow regime, experiencing meltwater and summer rainfall floods. The water level of the Skawa shows a declining trend, while floods are becoming more frequent and their magnitude is also increasing. This increasing trend is associated with the construction of flood embankments and the regulation of certain watercourses. The hydrographic network in the municipality is highly developed. The Skawa is joined by: the Wieprzówka, Łowiczanka, and Czarczówka rivers, and the river network is supplemented by a dense network of drainage ditches and channels supplying water to individual ponds.

Ground waters

The Zator municipality is located in the Pre-Carpathian hydrogeological region. The water table is 5-10 m below the surface. The average thickness of the aquifer is estimated to be 4.8 m, with an infiltration coefficient of 244/24 h. The waters are of good quality (class Ib), but this quality is unstable due to the lack of deposit insulation. The risk of contamination is exacerbated by the low level of groundwater in the river valleys, as well as the presence of population centres and roads along the valleys, and agricultural areas where plant protection products and artificial fertilisers are used. In the Skawa Valley, there is the main groundwater reservoir No. 444 – 'Skawa River Valley' – (Quaternary formations in the river valleys). A small part of it is located in the Zator municipality. There is significant variation in the depth of groundwater in the municipality, ranging from 2 meters to 11 meters.

Climate

The Zator municipality is located within the Central European climatic zone, in the Carpathian climatic region, in the lower part of the moderately warm climatic level. The area's climate is subject to both continental and maritime influences. The climate is also influenced by the proximity of mountainous areas (the effect of cooling and warm currents from the Moravian Gate, which increase precipitation and raise temperatures). Throughout the year, polar maritime air masses dominate (62%), followed by polar continental air (26%), with tropical and arctic air each accounting for about 6%. Winds from the west predominate (about 60%), with calm conditions accounting for around 8%. The average wind speed ranges from 2.5 to 3.0 m/s. There is a higher frequency of windy days and stronger winds during the winter months (mainly foehn winds). Precipitation does not exceed 800 mm, with 40% of it occurring from June to August. The snow cover typically appears around 30 November and lasts for an average of 69 days per year. The average annual temperature is about 8°C, with July being the warmest month (average 20°C) and January the coldest (average -2.5°C). The vegetation period (average daily temperature over 5°C) is 224 days, and the period of intense vegetation (average daily temperature over 10°C) lasts from the end of April until mid-October, and the frost-free period is 172 days.

Soils

The municipality exhibits a wide variety of soil cover, with the main soil units being:

- brown and pseudopodzolic soils – in the south-western part of the municipality, excessively moist,
- fluvial muds – in the northern part of the municipality, in the Skawa Valley, with unfavourable air-water relations,
- gley soils – in areas with a high groundwater level, clay, and silt,
- black soils – in the western part of the municipality,
- peat and muck soils – several complexes in the western part of the municipality.

The municipality has favourable soil and climatic conditions for growing the four main cereals, as well as clover and beets. Parts of the municipality also have favourable conditions for horticulture. The indicator representing the natural potential of the Zator municipality for agricultural purposes is nearly 80 points (67.4 points for Małopolskie Voivodeship and 66.6 points for the country).

This area is home to the Zator pond complex, which belongs to the Inland Fisheries Institute in Olsztyn – Experimental Fisheries Station based in the town of Zator. It has 1156 ha of embanked carp ponds, of which 800-850 ha are production areas. The facility comprises four fish farms located in the municipalities of: Zator, Przeciszów, and Spytkowice:

1. Bugaj – 186.60 ha Municipality of Zator
2. Przeręb – 461.02 ha Municipalities of Zator and Przeciszów
3. Spytkowice – 444.20 ha Municipalities of Zator and Spytkowice
4. Laskowa – 41.20 ha Municipality of Zator

The individual complexes rely on water from different watercourses.

1. Bugaj – draws water from the Wieprzówka and Włosień streams
2. Przeręb – from the Łowicki and Bachorz streams
3. Spytkowice – from the Skawa River and the Spytkowicki stream
4. Laskowa – from the Skawa River

The ponds of the Przeręb complex are located below the town of Zator, to the west of the village of Podolsze, in the municipalities of Zator and Przeciszów. The pond areas are bounded to the north by the right-bank protective levee of the Vistula River, to the west by the Bachorz stream, and to the east by the Łowicki stream. To the south of the pond areas runs the Skawina–Oświęcim railway line and the Zator–Oświęcim road.

The Bachorz stream is a local, right-bank tributary of the Vistula River. It originates near the village of Głębiowice and flows north through hilly agricultural areas. The catchment area of the Bachorz stream at the intake for the Przeręb ponds is 37.0 km².

The Łowicki stream is a local, right-bank tributary of the Vistula River, flowing from the vicinity of the village of Łowiczki. The catchment area of the stream is 10.5 km², with 5 km to the intake at the Przeręb ponds.

The Bugaj ponds are among the oldest, dating back to the 13th century. They draw water from the Włosień stream and the Wieprzówka River, a typically mountainous river characterised by significant variations between maximum and minimum water flow.

The Laskowa Experimental Facility and the ponds in Spytkowice are located in the municipalities of Zator and Spytkowice, in a triangle formed by the Skawa and Vistula rivers. The Laskowa facility is situated to the south, and the Spytkowice Farm to the north of the Skawina-Oświęcim railway line and road. These farms are supplied with water from the Skawa River, except for the Kasztelan pond and the Kasztelańska pond (Spytkowice Fish Farm), which are supplied with water from the Spytkowicki stream, dammed by a weir near the Spytkowice castle.

The Skawa is a right-bank tributary of the Vistula, originating from the northern slopes of Bald Mountain. In its upper and middle course, it flows through a narrow mountain valley and then through hilly terrain, eventually joining the Vistula in the village of Podolsze, in the Zator municipality. The river is approximately 97 km long. The catchment area of the Skawa is 1,158 km², and up to the intake for the Spytkowice – Laskowa ponds, it is 979.3 km².

The Spytkowski stream is a right-bank tributary of the Vistula with its mouth in Spytkowice. The catchment area is 12.71 km², and up to the intake for the Kasztelan facility, it is 12.61 km².

The fish pond complexes belonging to the Experimental Fisheries Station in Zator are areas of exceptional natural value. These areas are home to the most numerous and rarest species of fauna and flora. Owing to this great abundance of wildlife, these areas have been selected by the Polish Society for the Protection of Birds (OTOP), on the basis of Birdlife International criteria, to be part of the Natura 2000 network — the Lower Skawa River Valley (PL 125) — as a special protection area. This network is intended to play a key role in safeguarding the natural resources of the European Union.

These areas are breeding grounds for bird species that are endangered at the European Union level and species listed in the Polish Red Data Book of Animals (*Polska Czerwona Księga Zwierząt*, PCK).

At least 17 bird species from Annex I of the Birds Directive (Natura 2000 network) and 7 species from the PCK are found here. In total, 313 bird species have been recorded in this area (71% of those recorded in Poland), of which 173 are breeding species (76% of breeding species in the country).

These ponds are among the few breeding sites in Poland for the ferruginous duck (*Aythya nyroca*), a globally endangered species, with up to 50% of the national population concentrated here. Other species endangered in Europe that have breeding sites in this area include: the black-crowned night-heron (*Nycticorax nycticorax*), the avian symbol of this region, with nearly the entire national population concentrated around Zator, the whiskered tern (*Chlidonias hybridus*, listed in the PCK), which has the largest population in the country in this area, as well as the common tern (*Sterna hirundo*) and the black tern (*Chlidonias niger*). Both of these species, according to Annex I of the EU Birds Directive, require special protection along with their habitats. It is also worth mentioning the rare heron species: the great bittern (*Botaurus stellaris*) and the little bittern (*Ixobrychys minutus*), both listed in the PCK, the black-necked grebe (*Podiceps nigricollis*), with at least 1% of the European population breeding here, the very rare red-necked grebe (*Podiceps grisegena*) and the great crested grebe (*Podiceps cristatus*) – the largest and most numerous in Europe. The area is inhabited by many duck species, such as the red-crested pochard (*Netta rufina*), which sporadically occurs in Poland, the tufted duck (*Aythya fuligula*), the garganey (*Anas querquedula*), the Eurasian teal (*Anas crecca*), and the greylag goose (*Anser anser*), wader birds like the Northern lapwing (*Vanellus vanellus*), the common greenshank (*Tringa nebularia*), the redshank (*Tringa tetanus*), the spotted crane (*Porzana porzana*), the black-

tailed godwit (*Limosa limosa*), the common snipe (*Gallinago gallinago*), and the little ringed plover (*Charadrius dubius*), as well as the ruff (*Philomachus pugnax*), the mute swan (*Cygnus olor*), the western marsh harrier (*Circus aeruginosus*), and less desirable species such as the great cormorant (*Phalacrocorax carbo*), the grey heron (*Ardea cinerea*), and the great egret (*Egretta alba*) due to the significant damage they cause to fish populations.

During spring and autumn migrations, the pond complexes serve as resting and feeding grounds for numerous species of water and marsh birds. They also provide excellent conditions for breeding and living, with an abundance of food and a variety of habitats. The richness of avifauna attracts frequent observations by ornithologists and nature photography enthusiasts. With a bit of luck, one can spot the beautiful and rare bluethroat (*Luscinia svecica*) and the common kingfisher (*Alcedo atthis*).

The fish ponds in the 'Carp Valley' are also the most important habitat for endangered and rare aquatic and marsh plants. They include, for example:

- the three-cornered rush (*Schoenoplectus mucronatus*), considered endangered in the Polish Red Data Book of Plants, with its habitats located in the Oświęcim region,
- the water caltrop (*Trapa natans*), listed in the Polish Red Data Book of Plants in 1946 and legally protected. Very rare in Polish flora, with about 40 sites mainly concentrated in the Oświęcim Basin. It has survived in the Laskowa and Przeręb complexes. Currently, reintroduction efforts are being conducted in unused reservoirs and oxbow lakes of the upper Vistula. It has persisted in the Oświęcim Basin due to the presence of numerous fish ponds and fish farming. About 30% of the national population is located here, making it the floral symbol of the Oświęcim-Zator region,
- the fringed water lily (*Nymphoides peltata*), a plant threatened with extinction and legally protected since 1983, listed in the Polish Red Data Book of Plants. It is abundant in the fish ponds of Spytkowice, Przeręb, and Bugaj. It blooms yellow in July-August, covering the entire pond surface with beautiful flowers,
- the floating watermoss (*Salvinia natans*), a rare and strictly protected species, but common in water bodies in this area. It is the only representative of the water fern in Poland,
- the ostrich fern (*Matteucia struthiopteris*), protected and found along the Skawa River in riparian forests,
- the great horsetail (*Equisetum telmateia*), a rare and protected species, found along rivers and streams.

This vegetation and the surrounding area provide excellent shelter for many species of amphibians, such as the common toad (*Bufo bufo*), the European green toad (*Bufo viridis*), the European tree frog (*Hyla arborea*) – the only arboreal amphibian in Poland, and the fire salamander (*Salamandra salamandra*).

This area abounds in many valuable nature and landscape reserves, which are protected, as well as nature and landscape complexes.

Eighteen species of protected plants grow here, including three orchids listed in the Polish Red Data Book of Plants:

- the red helleborine (*Cephalanthera rubra*),
- the white helleborine (*Cephalanthera damasonium*),
- the early coralroot (*Corallorhiza trifida*).

In the municipalities of Zator and Przeciszów, there are hornbeam forests, whose undergrowth includes the snowdrop (*Galanthus nivalis*) and the green false hellebore (*Veratrum lobelianum*). In the Lipowiec reserve, covered with natural Carpathian beech forests, one can find floral rarities such as the small-leaved helleborine (*Epipactis microphylla*) and the native species with the most spectacular flowers – the lady's slipper orchid (*Cypripedium calceolus*).

The Przeciszów reserve, with its protected fragment of forests of a natural character, is dominated by sub-continental hornbeam forests with over a hundred-year-old oak stand, as well as local depressions covered with ash-alder riparian forests. These conditions favour the nesting of several woodpecker species: the European green woodpecker (*Picus viridis*), the great spotted woodpecker (*Dendrocopos major*), and the black woodpecker (*Dryocopus martius*).

Currently, the Oświęcim Basin and the 'Carp Valley' hold irresistible charm for tourists. Thanks to their clean natural environment and scenic values, they provide an excellent place for relaxation, fishing, and ecological education. Cycling enthusiasts can enjoy bike trails along the rivers and ponds, such as the Greenways, specifically the green route Kraków – Moravia – Vienna, which is planned to connect with the proposed Amber Trail (Budapest – Kraków – Warsaw – Gdańsk) in the future. These trails aim to showcase the natural, traditional historical trade routes along natural corridors that have remained unchanged for many years, embedding in visitors' memories the numerous fauna and flora species that are often unique to this area.

Clean air, along with the abundance of rich and rare fauna and flora, supports the thesis of the unique and specific character of the entire geographical area encompassing the Zator region and the 'Carp Valley.'

This area, remarkable for its natural values, includes the largest and oldest carp ponds dating back to the 12th century, renowned throughout the region for producing the famous 'karp zatorski.'

The exceptional quality of 'karp zatorski' is inextricably linked with the natural environment of the geographical area described in Section 5. The quality of 'karp zatorski' results not only from the fish-farming and breeding traditions but also from the natural environment, with which it is inextricably linked. The aforementioned natural factors contribute to the formation of a sufficient amount of high-quality natural food in the fish ponds. Its production area also has favourable soil and climatic conditions for growing four major cereals. As a result, the local cereal production is sufficient to fully meet the nutritional needs of the carp. Thanks to the above-described natural conditions, it is possible to base the carp's diet on natural food and supplement it only with cereal feed (wheat, barley, triticale, maize) without using feed supplements. The quality of 'karp zatorski' results not only from the fish-farming traditions but also from the natural environment, with which it is inextricably linked.

8.2. Historical and human link

Fishing in the Polish territories has been practised since ancient times. The strengthening of Christianity in the 12th and 13th centuries contributed to the development of agriculture, leading to the creation of many fish ponds, known as ‘rybniki,’ mainly in the upper Vistula and Oder river basins.⁴ Ponds were constructed like strings of beads alongside the rivers. This facilitated the gravitational inflow and outflow of water, including the drying-out of pond beds. In this way, fish ponds were created in the areas around the Upper Vistula, Soła, and Skawa rivers. The favourable topographical conditions allowed for the construction of deep fish ponds, also known as ‘sadzawki,’⁵ or in Latin ‘piscina,’ where all the fish released from the nearby river were kept. The fish stayed in one pond for several years, undergoing their development cycle. Only after 5 to 7 years did they reach the appropriate size and consumer value. The first written information about carp comes from the chronicles of Jan Długosz (1415–1480), who describes the coats of arms of the knights fighting in the Battle of Grunwald. Apart from other fish, he also mentions carp. The Korczbok coat of arms features three carp, while in 1505, Andrzej Zborowski mentioned Mikołaj Jaxicz Zimliński with the Carp coat of arms. Additionally, there is a reference to carp in the Teutonic Order’s accounting books from 1399. Therefore, it can be assumed that various fish species were known in medieval Poland. It is not known who introduced and popularised carp farming in Polish lands, but there is some information regarding the time when the construction of fish ponds and planned fish-farming began.⁶ In Poland, planned rearing of domesticated mirror carp began at least in the mid-12th century.⁷ References to carp farming can be found for example in source materials by Stanisław Krzyżanowski and Bolesław Ulanowski,⁸ as well as in a manuscript of the Kraków cathedral chapter from 1450.

Fishing (fish-farming) in Zator date back to the 14th century.⁹ In his work *Ryby i ich hodowla* [Fish and Fish Farming], published in 1904, A. Strzelecki writes that ‘the ponds were to be dug by Tatar prisoners taken captive by Tęczyński, and they received names from their founders, and those that still exist today are: Boner, Kasztelan, Starosta.’¹⁰

The oldest documents relating to Zator and the surrounding area date back only to the 15th century. The parish priest of Zator, Father Kamelski (from 1765), tried to write down the oldest history of Zator based on various documents. From Father Kamelski’s manuscript, it appears that Casimir, Duke of Zator, confirmed (on 26 July 1468) all donations to the parish church, including ‘three ponds by the forest in Rudze... and fishing rights in the Skawa.’¹¹ Also in 1468, Margaret, the widow of Duke Waclaw of Zator, donated to the parish church the

⁴ R. Wojda, *Karp. Chów i hodowla* [Carp. Breeding and Farming], Olsztyn 2004, pp. 5–9.

⁵ *Słownik Staropolski* [Old Polish Dictionary], ed. St. Urbańczyk, Wrocław 1977-1981, Vol. VIII, p. 111.

⁶ E. Rudziński, *Karp w Polsce. Gospodarka rybna* [Carp in Poland. Fish Farming], 1963, Vol. 15, No 1, p. 8.

⁷ J. Guziur, H. Białowąs, W. Milczarzewicz, *Rybnictwo stawowe w stawach karpowych, urządzeniach przemysłowych oraz małych zbiornikach śródlądowych* [Pond Fishery in Carp Ponds, Industrial Facilities and Small Inland Reservoirs], Warsaw, pp. 9–13.

⁸ *Słownik Staropolski* [Old Polish Dictionary], ed. St. Urbańczyk, see entry ‘Karp,’ Vol. III, Issue 1, Wrocław, p. 247.

⁹ K. Koźbiał, *Wadowice na tle osad starostwa zatorskiego. Zarys dziejów do 1772 roku* [Wadowice in the Context of the Settlements of the Zator Starosty. Outline of History until 1772], Wadowiana – Przegląd Historyczno-Kulturalny, No 3, Wadowice 1999, p. 43.

¹⁰ A. Strzelecki, *Ryby i ich hodowla* [Fish and Fish Farming], Warsaw 1904, p. 7.

¹¹ Manuscript of Ossoliński Library 653, *Słownik Staropolski* [Old Polish Dictionary], ed. St. Urbańczyk, Vol. III, Issue 1, Wrocław, p. 247.

‘Burkat’ pond established in 1378 by Bishop Florian of Kraków. This donation was confirmed by Stefan Batory only on 27 June 1585.

On 24 June 1493, Prince Janusz IV, one of the new rulers of Zator, signed a permission for digging two ponds in the village of Dąbrowa and filling them with water brought by the prince from the Wieprzówka River, as well as for the creation of two ‘odrastaliszczy’ for nurturing fry. The prince also gave the townspeople part of a pond called ‘Sitowiec’ or ‘Wierchowina,’ located between the ‘Górski’ and ‘Chobotek’ pools. Sigismund I confirmed the privileges granted by Prince Janusz IV in a document issued on 30 April 1524. The translated document from Czech to Latin also contains information about flooding the city pasture with water from the prince’s pool, and about designating new areas for pasture, and exempting the townspeople from paying fees.¹² On 9 July 1569, in Lublin, Sigismund August granted the inhabitants of Zator a privilege allowing them to own eleven pools on municipal lands.¹³

The 16th century saw the development of planned fish farming in the former Commonwealth. The most characteristic feature of fish farming was the fact that it is so widespread. Fish ponds were built not only on large estates, such as those of magnates, clergymen and kings, but also at the mansions of many nobles. Fish farming also developed on estates of the middle and even petty nobility. Information on the development of fish farming may be found in the 16th century surveys and inventories. The fish farms in western Lesser Poland, particularly in the Duchy of Oświęcim, the Duchy of Zator, and the Land of Wieluń, deserve special mention.

In the *Lustracji województwa krakowskiego z 1564* [1564 Inspection of Kraków Voivodeship], we find documents containing information about villages in the vicinity of Zator and Oświęcim. The preserved documents provide the location of individual ponds, their technical condition and the need for repairs, the number of fry ponds and spawning grounds, and the quantity of fish caught. The ‘Borowy’ pond was located on municipal land, and the ‘Szydłowieczki’ pond, belonging to the Gierałtowski family, ‘was stocked with fish in autumn.’ It was stocked with ‘50 kopa of carp’ [kopa equals 60 pieces]. Some ponds had names such as ‘Nowy,’ ‘Krzowy’ and ‘Chobota.’ In the village of Piotrowice, there were ponds named: ‘Młynski,’ ‘Konieczny’ or ‘Dulny.’ Information about the ponds near Zator indicates that ‘Boner’ pond was good, but the best was the ‘Niżny’ spawning pond, while the ‘Dąbrowny,’ ‘Trecziany’ and ‘Podwieszony’ ponds ‘were overgrown with bulrush and reed’ and the ‘Olszowy’ pond was ‘not bad’ but ‘had been standing empty for a year.’ Information about the village of Laskowa concerns the work performed by the subjects for the castle and manor, as well as the repair of fish ponds and ‘transporting fish to the Vistula.’¹⁴ The 1678 stock records, drawn up by Marianna Komorowska née Przyłęk, starost of Oświęcim, in the Gierałtowski estate, contain information on stocking ponds with ‘stopniakami’ [advanced fry], ‘kroczkami’ [fingerlings], ‘młodemi’ [young fish].¹⁵ Some documents provide highly detailed information on the quantity of fry released, as well as information on the duties of the subjects, primarily regarding the preparation of fry and the maintenance of ponds.

¹² *Matricularum Regni Poloniae Summaria*, part 4, No 13922, State Archives at Wawel.

¹³ W. Heck, *Archiwa miejskie Księstw Oświęcimskiego i Zatorskiego* [Municipal Archives of the Duchies of Oświęcim and Zator], Kraków 1981, pp. 92–95, 98–99.

¹⁴ *Lustracja województwa krakowskiego 1564* [Inspection of the Kraków Voivodeship 1564], ed. J. Małecki, part 1, Warsaw 1962, pp. 217–228.

¹⁵ State Archives at Wawel, ref. ADZ.8

In the 16th century, many fish-farming guides were printed. The best known include the work by Olbracht Strumiński

O sprawie, sypaniu, wymierzaniu i rybieniu stawów, a także o przekopach, o ważeniu i prowadzeniu wody. Książki wszystkim gospodarzom potrzebne [On the Matter of Filling, Measuring, and Stocking Ponds, as well as Digging Ditches, Weighing, and Leading Water. A Book Necessary for All Farmers] (1573), in which the author encouraged the establishment of fish ponds. However, he warned against creating ponds like those in the vicinity of Oświęcim and Pszczyna (.?.. There are many ponds and small ponds that have no springs or streams, but only water collected in spring from snow and rain'),¹⁶ which do not bring the expected income.

The 16th century in Poland was not only a period of development in pond farming techniques but also a time of significant technical breakthroughs in pond construction. In the 15th century, ponds in Lesser Poland were still commonly drained not by drainage devices but by digging through the embankment. O. Strumiński wrote about new methods and devices for draining water in his guide.¹⁷ The quantitative growth of fish farms in Poland in the 16th century did not match the appropriately high technical level of fish farming. The breeding process in individual fish farms also varied. In the 16th century, rational fish farming, mainly carp farming, was practised on the one hand, and semi-natural fish farming in artificial waters on the other. Carp farming at that time involved dividing ponds into different categories, systematically stocking them, and fish 'translocation' (transportation) depending on their age and breeding needs to new ponds.

In the 16th century, carp farming was most developed in the Kraków Voivodeship. The three leading fish farming estates were the Duchy of Zator, the Duchy of Oświęcim, and the Czernichów estate belonging to the Kraków administrators.

In the 16th century, the Duchy of Zator included parts of the Szczyrzyc and Proszowice poviats. It bordered the Duchy of Oświęcim and Cieszyn Silesia. The Zator Starosty had many similarities in carp farming with the Upper Silesian pond farming. During this period, fish-farming in the Zator starosty reached a high level of breeding practices, and it had the highest number of farms engaged in carp production. Fish farming was commonly present not only on noble, royal, and ecclesiastical estates but also in peasant farms.

¹⁶ O. Strumiński, *O sprawie, sypaniu, wymierzaniu i rybieniu stawów, także o przekopach, o ważeniu i prowadzeniu wody. Książki wszystkim gospodarzom potrzebne* [On the Matter of Filling, Measuring, and Stocking Ponds, as well as Digging Ditches, Weighing, and Leading Water. A Book Necessary for All Farmers], ed. K. Kwaśniewska-Mżyk, Opole 1987, p. 197.

¹⁷ O Strumiński, p. 163 et seq.

Carp production in the Zator starosty from the 16th to the 18th centuries¹⁸

| | 1532-1578 | 1548 | 1549 | 1564 | 1569 | 1660 | 1720 | 1773 |
|--|-----------|--------------|----------------|-------|------|------|------|------|
| Number of stocked main ponds | 9 | 12 | 19 | 16 | 15 | 3 | 1 | 4 |
| Stocking level of the main ponds in kopas [kopa = 60 specimen] | 365 | 408.5 | 591 | 466 | 436 | 18 | 15 | 103 |
| The estimated yield in kopas | 240 | 247 (307) | 396 (443) | 350.5 | 327 | 13 | 11 | 77 |
| Volume of production in tonnes | 7.2 | 8.2 (9.2) | 11.9 (13.3) | 10.5 | 9.8 | 0.4 | 0.3 | 2.3 |

Information about the number of ponds and fish ponds in the Zator starosty can be found in the publication *Regiony gospodarcze Małopolski Zachodniej w drugiej połowie XVIII wieku* [Economic Regions of Western Lesser Poland in the Second Half of the 18th Century], in which the authors Helena Madurowicz and Antoni Podraza list villages located in the western part of the Vistula River Basin. The list was prepared based on calculations from the Josephine Metric. It includes mainly manor or peasant ponds of over 100 morgens. Among the listed localities, many currently belong to the ‘Carp Valley.’¹⁹

| Village name | Manor ponds in morgens | Peasant ponds in morgens | Total |
|----------------------|------------------------|--------------------------|-------|
| Bestwina | 117 | 217 | 334 |
| Bestwinka | 456 | 50 | 506 |
| Brzeszcze | 520 | 95 | 615 |
| Brzeźnica | 183 | - | 183 |
| Dankowice | 478 | 28 | 506 |
| Fryrychowice | 247 | 25 | 272 |
| Grójec | 141 | - | 141 |
| Harmęże | 303 | - | 303 |
| Jawiszowice | 388 | - | 388 |
| Kaniów Bestwiński | 944 | - | 944 |

¹⁸ W. Szczygielski, *Z dziejów gospodarki rybnej w Polsce w XVI – XVIII wieku. Studia z dziejów gospodarstwa wiejskiego* [From the History of Fish Farming in Poland in the 16th-18th Centuries. Studies on the History of Rural Economy], Vol. 9, Issue 2, Warsaw 1967, p. 24.

¹⁹ H. Madurowicz, A. Podraza, *Regiony gospodarcze Małopolski Zachodniej w drugiej połowie XVIII wieku* [Economic Regions of Western Lesser Poland in the Second Half of the 18th Century], Wrocław 1958, p. 92.

| | | | |
|----------------|-----|-----|-----|
| Monowice | 390 | - | 390 |
| Osiek | 434 | - | 434 |
| Palczowice | 112 | - | 112 |
| Piotrowice | 10 | 94 | 104 |
| Pisarzowice | 126 | 5 | 131 |
| Podolsze | 190 | 86 | 276 |
| Polanka Wielka | 138 | 3 | 141 |
| Poręba | 297 | 6 | 303 |
| Przecieszyn | 146 | - | 146 |
| Przeciszów | 364 | - | 364 |
| Przebradz | 124 | - | 124 |
| Rudze | 143 | 2 | 145 |
| Skidzin | 102 | 7 | 109 |
| Smolice | 120 | - | 120 |
| Spytkowice | 505 | - | 505 |
| Stara Wieś | 82 | 41 | 123 |
| Tomice | 150 | - | 150 |
| Witkowice | 118 | - | 118 |
| Zaborze | 216 | - | 216 |
| Zator | 205 | 122 | 327 |

Significant contributions to the development of large-scale translocation carp farming in the first half of the 16th century were made by Seweryn Boner and Wawrzyniec Myszkowski. The largest private owners of fish ponds in the 16th century were the Myszkowski family, who owned about 35 % of the total manor pond area in the Oświęcim-Zator centre.²⁰ Leading carp farmers were the brothers Marcin and Wawrzyniec Myszkowski, sons of Piotr from Przeciszów. Marcin Myszkowski ran exemplary fish farming on his estates located in the southwestern part of the Duchy of Oświęcim (Bestwina, Jawiszowice, Żebrawce, Kaniów Bestwiński, Dankowice, and neighbouring villages). According to direct source data, the annual production from large ponds was approximately 26–31 tons.²¹ After Marcin Myszkowski's death in 1541, the estate was divided, and the fish farming operation became fragmented; part of the estate ended up in the hands of the Porębski family due to family ties. The large-scale carp farms belonging to Wawrzyniec Myszkowski were situated near Zator: in Podolsze, Przeciszów, and Palczowice. In 1532, Wawrzyniec Myszkowski received a privilege from King Sigismund I to establish a fish pond between the royal village of Piotrowice and the village of Polanka, which belonged to his estate.²² Wawrzyniec Myszkowski had a dispute with Duke Jan of Zator over the use of pond water. For the murder of Duke Jan (in 1513), Wawrzyniec Myszkowski was sentenced to banishment, but was

²⁰ W. Szczygielski, pp. 26–27.

²¹ W. Szczygielski, p. 26.

²² *Lustracja 1564*, part 2, p. 227.

pardoned by the king for his heroic conduct in the Battle of Orsza. The murder enabled Sigismund I to finally incorporate the Duchy of Zator into the Commonwealth.²³ In *Lustracja województwa krakowskiego 1564*, the document *Stawy circa oppidum Wadowicze* contains information about ponds, the flooding of the royal village of Piotrowice with water from a pond built with the permission of the late King Sigismund I by the also late Wawrzyniec Myszkowski, the castellan of Sącz. The subjects complained that the embarkment they repair every year should in fact be repaired by the peasants of Wawrzyniec Myszkowski.²⁴ In some documents Wawrzyniec Myszkowski is referred to by the nickname Carp. The achievements of the castellan were commemorated by naming some ponds after him ('Wawrzek,' 'Kasztelan,' 'Myszkowski').

Among the largest fish farming estates of the mid-16th century were the reservoirs owned by Balcer Porębski in Osiek, Grojec, and Poręba. In 1570, the Porębski family owned 58 fish ponds, as well as spawning grounds and fry ponds. The annual production in these farms is estimated to be approximately 26–30 tons.²⁵

In small ponds, characterised by rainwater and runoff, peasants conducted carp spawning and fry rearing or produced small consumer carp. Most peasant ponds were located on royal estates in Zator, Brzeszcze, Piotrowice, and on the Myszkowski estates in Bestwina and Podolsze. Peasants typically sold a few to several dozen kopas of fry. Fry used to be sold also by village leaders, parish priests, and innkeepers. The stock records of 1678 for the Gierałtowski estate provides precise quantities of 'stopniki,' 'kroczi' i 'młode' needed for stocking the ponds in the farm.²⁶

In the first half of the 17th century, there was a collapse in fish-farming in the area of Zator, with a decline of 25–50%. The reasons were numerous. It is likely that the relocation of the capital from Kraków to Warsaw reduced the absorbent market. The royal court in Kraków used to receive dozens of tons of carp from the ponds around Zator and Oświęcim.²⁷ During the wars in the mid-17th century, many fish ponds were destroyed. In the second half of the 17th century and until the First Partition of Poland, attempts were made to revive fish-farming, but they were unsuccessful. After the First Partition, the lands of the Zator Starosty were separated from Poland. The productivity of the remaining fish farms fell sharply, leading to many ponds being drained and converted to more profitable crops (mainly wheat). In the 19th-century tax records for the town of Zator, the names of arable fields and their owners are listed, retaining the former names of ponds.²⁸ Austrian authorities planned a general drainage of all water reservoirs.²⁹

In the second half of the 19th century, there was a revival in pond fish-farming and carp farming. The introduction of new breeding methods and the application of J. Dubisch's translocation system, which involved moving yearling fish to successive flooded ponds, which allowed for the thinning and selection of fry. Information about the successes of fish-farmers from the Zator area can be found in Zygmunt Fiszer's report from the National Exhibition of 1894, where the author lists the major fish farming estates in Galicia: the **Zator treasury** (115

²³ W. Szczygielski, p. 27.

²⁴ *Lustracja 1564*, part 2, p. 227.

²⁵ W. Szczygielski, p. 28.

²⁶ National Archives in Kraków, Wawel Branch, ref. ADZ.8.

²⁷ E. Rudziński, *Karp w Polsce. Gospodarka rybna* [Carp in Poland. Fish Farming], 1963, Vol. 15, No 1, p. 8.

²⁸ Tax records for the villages of Brzezinka, Piotrowice, Ponikiew, Stare Stawy, town of Zator, State Archives in Kraków, Wawel Branch, ref. ADZ 209.

²⁹ W. Szczygielski, p. 29.

ponds in Gierałtowiec, Przeciszów, Podolsze, Zator, Palczowice, Laskowa, and Smolice, owned by Count August Potocki), **Kaniów** (several dozen ponds covering 461 morgens, exclusively carp farming – owned by Archduke Frederick), **Grojec** nad Sołą (34 ponds, where owner J. Chwaliboga raises carp in a three-year rotation period), **Tomice nad Skawą** (ponds covering 237 morgens, with a rotational system where half the ponds are under water and half under cultivation – established by the late Aleksander Gostkowski), **Poręba Wielka** (6 ponds with a total area of 200 morgens, exclusively carp farming – owned by Countess Cez. Aleksandrowiczowa), **Brzeźnica Radwańska** (4 ponds with a total area of 180 morgens, where carp are farmed ‘in a rotation system with a three-year cycle’).³⁰

In the second half of the 19th century, fish from pond farms in western Lesser Poland were sold directly, without intermediaries. In 1895, the largest fish sales came from farms in Zator, Tomice, Kaniów, Nowe Dwory, Brzeźnica, and Polanka. Fish were shipped in barrels by road, water, or rail. The most fresh fish (mainly carp) from areas around Bestwina, Zator, and other localities were sent to Berlin, Hamburg, Wrocław, Pest, and Warsaw.³¹

Thanks to the implementation of a new fish farming system developed by Czech fish farmer Tomasz Dubisz and the introduction of a new breed of Galician (Polish) carp,³² the productivity of ponds improved, and the achievements of Polish fish farmers at the turn of the 19th and 20th centuries secured a leading position for Polish fish-farming in Europe.

The dynamic development of fish-farming during the Renaissance is reflected in contemporary descriptions of Poland written by both Poles and foreign travellers. The Apostolic Nuncio to Poland, Julius Ruggieri, in his 1568 *Relacji o stanie Polski* [Report on the State of Poland] to Pope Pius V, writes, ‘There are almost countless lakes and ponds...’ (J. Ruggieri, *Polska czyli opisanie topograficzno-polityczne Polski w wieku XVI* [Poland: A Topographical and Political Description of Poland in the 16th Century], translated and edited by S. Budziński, Warsaw 1952, p. 90). Contemporary poets depicted idyllic rural life, and in these descriptions, we find information about fish, their farming, and fish dishes. In *Żywot szlachcica we wsi* [The life of a nobleman in a village], Andrzej Zbylitowski (1597) describes fish-farming on noble estates.

‘Zaś pojrzym na ogrody pięknie ogrodzone,
I na stawy porządnie wszędzie narybione:
Awo w tym tłuste karpie i leszcze pływają,
W drugim dosyć karasi, w innym zaś biegają
Z ostrym grzbietem okunie i szczuki zuchwałe,
Pstrągi i brzany wsadzeniu, i śliżki małe.’³³

³⁰ Z. Fiszer, *Rybackwo. Powszechna Wystawa Krajowa 1894 r. i siły produkcyjne kraju* [Fishing. The National Exhibition of 1894 and the Productive Forces of the Country], Vol. 2, Issue 7, Lwów 1986, pp. 129–131.

³¹ *Wiadomości statystyczne o stosunkach krajowych* [Statistical Information on Domestic Relations] ed. T. Pilat, vol. XVII, Lviv 1898, p. 48, 55, 57.

³² M. Nowicki, *O rybach dorzeczy Wisły, Styru, Dniestru i Prutu w Galicji* [On the Fish of the Vistula, Styry, Dniester, and Prut River Basins in Galicia], Kraków 1889, pp. 24, 44.

³³ A. Zbylitowski, ‘Żywot szlachcica we wsi’ [The life of a nobleman in a village], ed. S. Kot, ‘Uroki wsi i życia ziemiańskiego w poezji staropolskiej’ [Charms of the countryside and land life in Old Polish poetry], Warsaw 1937, p. 82.

Fish have graced the tables of kings, noblemen, and peasants for centuries. In 1508, ponds from the Oświęcim-Zator centre supplied the royal court in Kraków with several tens of tonnes of carp.³⁴ The observance of numerous fasts increased the consumption of fish. Poets of the Renaissance period described daily and festive meals in their poems. In his poem ‘Wieśniak’ [Villager], Zbylitowski writes:

”Z rzeki zaś obiady miewam częste,
Brzany i certy, lipienie
Łowią się pstrągi, bolenie,
Karpie, leszcze, śliże małe,
Karasie, szczuki zuchwałe,
Węgorze, kielbie, jazice,
Ukleje, trzeble, płocice,
I łosoś też podczas bywa,
Gdy w odmęcie szarym pływa.”³⁵

The widespread consumption of fish is attested to by the first cookbook. Stanisław Czerniecki, court chef to the voivode of Kraków, Sandomierz, Zator, Niepołomice, Lubaczów, and others, of Count Aleksander Michał Lubomirski, published a book in 1682 entitled *Compendium ferculorum albo zebranie potraw* [Compendium ferculorum, or a collection of dishes], in which he gave recipes for fish dishes, among other. Among the 300 recipes, one third were dishes made from various species of fish, including carp (‘carp without bones,’ ‘royal grey carp,’ ‘Moravian carp’).³⁶

In some works, the importance of the fish trade was emphasised. Remigiusz Ładowski, in *Historia naturalna kraiu polskiego* [Natural history of the Polish land], published in 1783, included entries: ‘carp’ and ‘carp-crucian carp.’ In addition to the description of the carp, he noted that ‘the Zator and Oświęcim Duchies abundantly supply Kraków with carp.’³⁷

The popularity of this occupation was the reason why the inhabitants of Zator and the surrounding area were still called ‘Karpik’ or ‘Karpian’ at the turn of the 20th century.³⁸

History of Zator ponds.

³⁴ E. Rudziński, p. 8.

³⁵ A. Zbylitowski, p. 45.

³⁶ S. Czerniecki, *Compendium ferculorum albo zebranie potraw* [Compendium ferculorum, or a collection of dishes], Lviv 1757, p. 6, 90, 91, 98.

³⁷ R. Ładowski, *Historia naturalna kraiu polskiego czyli Zbior krótki przez Alfabet ułożony, Zwierząt, Roślin, i Mineralów znajdujących się w Polsce i Litwie, zebrana z Pisarzów godnych wiary z Rękopismow i świadków oczywistych* [The natural history of the Polish country, or a short alphabetically arranged collection of animals, plants, and minerals found in Poland and Lithuania, compiled from credible writers, manuscripts, and direct witnesses], Kraków 1804, T.I., pp. 232–235.

³⁸ B. Marczewski, *Powiat wadowicki pod względem geograficznym, statystycznym i historycznym* [Wadowice Poviát in geographical, statistical and historical terms], Kraków 1897, pp. 58–59.

The carp farming centre in Zator is one of the oldest facilities of its kind in the region. The beginnings of fishing and carp farming in Zator date back to the reign of Bolesław III Wrymouth (1086–1138), who handed over the Zator land to his son Władysław (1105–1159). Subsequently, the dominion was taken over by his son Mieszko (1132– or 1146–1211), who in 1291 allowed three mills to be built on river Skawa, and in Bachowice agreed to restore the lake, silted up by the Vistula's overflow, and to start fishing there. After many years, in 1493, Prince Janusz IV of the then Zator Duchy allowed the Zator townspeople to dig two ponds and fill them with water. Additionally, the first two *odrastaliszcz* (ponds) for nurturing fry – the counterparts of today's fry transplantation ponds – were created. This land thus became a seedbed of the fishing activity, and the water a pretext for frictions.

The watercourses supplying the ponds were the cause of much dissension at the time. In a dispute over water supplying the ponds in Laskowa in 1513, castellan Wawrzyniec Myszkowski killed Duke Janusz IV of Zator. As a result of this murder, the Duchy of Zator was annexed to Poland.

Periods of peace were conducive to the development of the fishing industry, while wars led to the destruction of ponds and the decline in carp farming.

The Thirty Years' War in the 17th century brought devastation, famine, and pestilence – but despite this, the ponds still occupied quite considerable areas at this time. There was a return to primitive rearing methods, caused by falling groundwater levels and the intensive development of metallurgy and mining.

The Austro-Prussian War in the middle of the 18th century, marches, and the stationing of foreign and Confederate troops brought a halt to the development of Poland's hitherto leading fish-farming centre.

A turn for the better came after 1870, when M. Naimski took over the lease of the Spytkowice farm. It was then that the entire fish pond complex was rebuilt, doubling its surface area. Additionally, fish storage facilities and ponds were built in Laskowa between 1891 and 1894.

The activities of the Zator ponds were documented in detail in pond books, with a great deal of information recorded on fish stocking, health, and export. Such extensive knowledge of fish breeding and husbandry, as well as economics, meant that in 1914 the Zator ponds were an example of modernity in technical terms.

The start of the First World War saw the crisis and decline of fish farming once again. Overgrowth, staff shortages, price imbalances, and feed shortages resulted in a rapid decline in the productive area of the ponds. Improvement only came after the end of the war. Some of the destroyed ponds and staff housing began to be rebuilt. New ideas and projects were implemented, such as 'artificial fisheries' using the rheotaxis effect, with the modernisation of the ponds. Soil was transported by field railway and American shovel, vegetation on the ponds was mowed with a Resing scythe, and a French 8 hp Jaques Collas internal combustion engine was used. As Zator was the largest producer of fish in the Lesser Poland region, the then administrator of the Zator goods, eng. Załuski, decided to regulate the wild fish trade that prevailed in the markets of Lesser Poland and Silesia. In order to limit trade by small merchants, who made the biggest profits for themselves, a fish purchasing centre was opened in 1933 on Dietla Street in Kraków. Fast delivery of fish and a fixed margin of 30% for intermediaries: wholesalers and retailers contributed to price stability, and benefitted the producers.

The subsequent Second World War wiped out all the effort and contributions made to rebuilding the Zator ponds. After the war, the financial situation was difficult. The state provided no subsidies or loans. To start any work on the estate, workers agreed to work without pay until crops were harvested and fish caught. There was a shortage of fry and juvenile fish to stock the ponds, grain seeds, equipment, and money. To survive, the workers collected seagull eggs and crayfish, selling them to restaurants in Kraków and Katowice. Vegetables and fruit from the garden in Zator were sold at markets.

In April 1946, the State Estate at Zator was taken over by the Jagiellonian University and the Zootechnical Institute was set up. The Institute's task was to carry out scientific research on small livestock and fish to improve their utilitarian value. For this purpose, the pre-war fish storage facilities in Laskowa were used for fishery research.

Eight years after the end of the war, in 1953, the Ministry of Agriculture granted and released the first quota for the reconstruction and restoration of the Zator ponds. It was decided that the farms of Spytkowice, Bugaj, and Przeręb should be renovated first. The aim was rational pond management with a priority on breeding juvenile fish and fry. Spytkowice had the best conditions in terms of water supply. The renovation of the farm took 14 years (1972–1985) and included the addition of new ponds and irrigation and drainage water lines.

According to the records of the Zator Starosty, the production of 'karp zatorski' in the Duchy of Zator initially increased (1532–1549) due to good market for fish, but declined in the following years (from 1564 – 10.5 t, to 1773 – 2.3 t). The subsequent data come only from the inter-war period. Thus, in 1931, production increased and remained above 200 t, reaching a peak of 290 t in 1934. After massive fish die-offs from septicaemia, production dropped to 100 t in 1938. The start of the Second World War brought production to a halt. Despite the lack of feed during the war, the production of 'karp zatorski' revived, producing a favourable financial result (181.4 t were obtained in 1948). The 1950s saw an average production of 204.4 t of fish, the 1960s an average of 224.3 t, the 1970s an average of 402.9 t, and it continued to rise to 489.3 t (in the 1980s and 1990s).

From 1946, the 'Zator rearing method' for carp was gradually introduced, based on a two-year system, resulting in an increase in the bodyweight of the fish from 60 to 150 g in the first year and a survival rate of up to 86%. This method is still used today.

In three fish farms of the Experimental Fisheries Station of the Inland Fisheries Institute (IRŚ) in Olsztyn (Spytkowice, Przeręb, and Bugaj), semi-intensive carp farming, from hatching to commercial fish, is carried out. At the Laskowa Experimental Station, pure carp lines such as Zator, Hungarian, Yugoslav, Israeli (Dor-70), and Gołysz are maintained and used for mating. The hybrids created in this way are ideal genetically selected material, characterised by a positive heterosis effect and a high utility value, extremely useful for production. Based on the above experiments and using carp of the pure Zator strain, the 'karp zatorski' (PDO) was produced.

There is currently quite high demand for 'karp zatorski,' due to the product's long-standing reputation dating back to old times. Organic farming, based on feeding only plant-origin feed (primarily cereals), results in the flesh having a specific aroma and taste.

The close proximity of rivers and old gravel pits well-tended by the Fishing Association in Zator [Zatorskie Towarzystwo Wędkarskie, ZTW] has fostered close cooperation in the marketing and promotion of carp consumption. This has turned the 'Carp Valley' into a place for relaxation, fishing, and water sports.

To maintain the fishing traditions of the area, ZTW has been carrying out a stocking programme for the old gravel pit reservoirs for many years. These include Zakole A and B, Tęczak, Piastowski, and the three reservoirs in Graboszyce, all with appropriately prepared fishing grounds stocked with ‘karp zatorski’ produced at the Experimental Fisheries Station. Every year, ZTW organises the international ‘Big Carp Fishing’ competition at Cypriniad, where appropriately selected brood fish donated from the Station are a real attraction for participants (with no-kill stations). For those passing through Zator, non-anglers, and gourmets, fresh carp and the speciality smoked ‘karp zatorski’ can be purchased at a special commercial fishery on the Zator-Oświęcim road.

To commemorate the history of the town and area, particularly fish farming including the famous carp, the most important event in the region has long been the annual ‘Carp Festival,’ held at the end of June or beginning of July. During the three-day celebration, visitors can enjoy performances by many national and international bands and have a good time. The celebrations are always accompanied by a freshwater fish exhibition organised by the Experimental Fisheries Station in Zator. The festival is an opportunity to taste carp served in many ways, such as ‘Zator style’ in cream with mushrooms, green parsley and cheese, as well as marinated, and smoked carp.

The regional reputation of the ‘Carp Festival’ was confirmed by its victory in 2005 in the ‘Great Discovery of Małopolska’ plebiscite. This year alone, smoked ‘karp zatorski’ has won several awards at various competitions held in southern Poland. It was awarded the Golden Eagle for the best regional product of western Małopolska and took second place in the ‘Our Culinary Heritage – Pearls 2006’ competition.

Thus, the Carp Valley is first and foremost associated with the historical tradition of producing and consuming carp. For centuries, the people of the Zator area have been brought up in reverence and respect for the work of the fishermen who supplied their tables with ‘karp zatorski.’ This unique symbiosis of ponds and production continues unbroken to this day. The popularity of this occupation was the reason why the inhabitants of Zator and the surrounding area were still called ‘Karpik’ or ‘Karpian’ at the turn of the 20th century.

9. Control body:

Provide the name and address of the body or departments³⁹⁾ carrying out the control of compliance with the specification and the scope of controls.

| | |
|--|---|
| Name of the competent body or organisational unit: | Chief Inspector of the Agricultural and Food Quality |
| Address: | ul. Wspólna 30 00-930 Warsaw |
| Telephone number: | +48 22 623 29 00 |
| Fax number: | +48 22 623 29 98 +48 22 623 29 99 |

³⁹⁾ More than one department may be involved in the control.

10. Labelling:

Provide, if any, specific labelling rules for the agricultural product or foodstuff in question.

The name 'karp zatorski' is used for the purposes of marketing live fish; therefore, in the case of wholesale deliveries of the fish in transport tanks using motor vehicles, this name appears on the invoices, delivery receipts and transport documents, and may also appear on the tank or motor vehicle. At retail outlets, the fish are placed in special oxygenated tanks. The tanks bear clearly visible inscriptions that read 'karp zatorski.'

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.

13. List of documents attached to the application:

Please provide a list of materials and publications referenced in the application and a list of accompanying annexes.

References:

1. Czerniecki Stanisław, *Compendium ferculorum albo zebranie potraw* [Compendium ferculorum, or a collection of dishes], Lviv 1757.
2. Fiszer Zygmunt 'Rybacktwo' [Fishing] [in:] *Powszechna Wystawa Krajowa 1894 r. i siły produkcyjne kraju* [The National Exhibition of 1894 and the Productive Forces of the Country], Lviv 1896, vol. II, z. 7.
3. Guziur Janusz, Białowas Henryk, Milcarzewicz Witold, *Rybacktwo stawowe w stawach karpionych, urządzeniach przemysłowych oraz małych zbiornikach śródlądowych* [Pond Fishery in Carp Ponds, Industrial Facilities and Small Inland Reservoirs], Warsaw 2003.
4. Heck Walerian, *Archiwa miejskie Księstw Oświęcimskiego i Zatorskiego* [Municipal Archives of the Duchies of Oświęcim and Zator], Kraków 1891.
5. *Lustracja województwa krakowskiego 1564* [Inspection of the Kraków Voivodeship 1564], ed. Jan Małecki, Warsaw 1962, parts 1–2.
6. Ładowski Remigiusz, *Historia naturalna kraiu polskiego czyli Zbior krótki przez Alfabet ułożony, Zwierząt, Roślin, i Mineralów znajdujących się w Polsce i Litwie, zebrana z Pisarzów godnych wiary z Rękopismów i świadków oczywistych* [The natural history of the Polish country, or a short alphabetically arranged collection of animals, plants, and minerals found in Poland and Lithuania, compiled from credible writers, manuscripts, and direct witnesses], Kraków 1804, T.I.
7. Koźbiał Krzysztof, *Wadowice na tle osad starostwa zatorskiego. Zarys dziejów do 1772 roku* [Wadowice in the Context of the Settlements of the Zator Starosty. Outline of History until 1772] [in:] *Wadoviana (Przegląd Historyczno-Kulturalny)*, Wadowice 1999, No 3.
8. Madurowicz Helena, Podraza Antoni, *Regiony gospodarcze Małopolski Zachodniej w drugiej połowie XVIII wieku* [Economic Regions of Western Lesser Poland in the Second Half of the 18th Century], Wrocław 1958.
9. Marczewski Bolesław, *Powiat wadowicki pod względem geograficznym, statystycznym i historycznym* [Wadowice Poviats in geographical, statistical and historical terms], Kraków 1897.
10. Nowicki Maksymilian, *O rybach dorzeczy Wisły, Styru, Dniester and Prutu w Galicji* [On the Fish of the Vistula, Sty, Dniester, and Prut River Basins in Galicia], Kraków 1890.
11. Nyrek Aleksander, *Gospodarka rybna na Górnym Śląsku od połowy XVI do połowy XIX wieku* [Fishery Management in Upper Silesia from the Mid-16th to the Mid-19th Century], Wrocław 1666.
12. Pociecha Władysław, *Królowa Bona (1449–1557). Czasy i ludzie Odrodzenia* [Queen Bona. Times and People of the Renaissance], Poznań 1949.
13. Rudziński Edward, *Karp w Polsce. Gospodarka rybna* [Carp in Poland. Fishery management], R. 15 1963 Nos 1,2.
14. Strumieński Olbrycht, *O sprawie, sypaniu, wymierzaniu i rybieniu stawów, także o przekopach, o ważeniu i prowadzeniu wody. Książki wszystkim gospodarzom potrzebne*

[On the Matter of Filling, Measuring, and Stocking Ponds, as well as Digging Ditches, Weighing, and Leading Water. A Book Necessary for All Farmers], ed. Kwaśniewska-Mżyk Krystyna, Opole 1987.

15. *Słownik Geograficzny Królestwa Polskiego i innych krajów słowiańskich* [Geographical Dictionary of the Kingdom of Poland and Other Slavic Countries], ed. Bronisław Chlebowski, Warsaw 1895, vol. XIV.
16. *Słownik Staropolski* [Old Polish Dictionary], ed. Stanisław Urbańczyk, Wrocław 1958.
17. Szczygielski Wojciech, *Z dziejów gospodarki rybnej w Polsce w XVI – XVIII wieku* [From the History of Fish Farming in Poland in the 16th–18th Centuries], Warsaw 1967.
18. *Wiadomości statystyczne o stosunkach krajowych* [Statistical Information on Domestic Relations] ed. Pilat Tadeusz, Lviv 1898, vol. XVII.
19. Wojda Ryszard, *Karp. Chów i hodowla* [Carp. Rearing and breeding], Olsztyn 2004.
20. Strzelecki Aleksander, *Ryby i ich hodowla* [Fish and Fish Farming], Warsaw 1094.
21. Strategia Rozwoju Gminy Zator 2004 rok [Development Strategy of the Zator Municipality, 2004].
22. Rychlicki Z., ‘Monografia stawów zatorskich’ [Monograph of Zator ponds].
23. Dobjasz B. et al., ‘Opis gospodarstwa rybackiego – Zator oraz analiza produkcji ryb’ [Description of the Fish Farm – Zator and Analysis of Fish Production], ART Olsztyn, Faculty of Water Protection and Inland Fisheries, 1996.
24. Majewska G., ‘Gatunki dodatkowe w stawach kroczkowych i towarowych – obsady i efekty’ [Additional Species in Fry and Commercial Ponds – Stocking and Results], ART Olsztyn, Faculty of Water Protection and Inland Fisheries, 1995.
25. Ledwoń M. et al., ‘Przyroda kompleksu leśno – stawowego w Brzeszczach – Nazieleńcach’ [The Nature of the Forest and Pond Complex in Brzeszcze – Nazieleńce], 2004.
26. Polish Society for the Protection of Birds ‘Ptasie ostoje nr 8’ [Bird Sanctuaries No 8], 2004.
27. Ledwoń M. et al., ‘Stawy doliny górnej Wisły – ludzie, ryby i ptaki’ [Ponds of the Upper Vistula Valley – People, Fish, and Birds], 2005.
28. Nikiel A. et al., ‘Ziemia Oświęcimsko – Zatorska’ [The Oświęcim-Zator Land], 2005.
29. Nature and Sightseeing Map ‘Carp Valley,’ 2005.
30. Advertising folders of the Zator Municipality, 2006.

Archival sources for the history of pond carp farming in the Duchy of Zator

1. The oldest information on *fish* farming dates back to the 14th century. It is the name *sadzawka* [pool] mentioned in Dok.Mp IV 187 under the date 1377. In the Middle Ages, it described a body of water in a natural depression or dug into the ground used for fish farming, and it also means a fish pond. The Latin name is *piscina*. See *Słownik Staropolski* [Old Polish Dictionary], ed. St. Urbańczyk, Wrocław. References to King Władysław Jagiełło's pools have survived; *item a poracione piscine in Schloniky videlicet szaczowka* (Piekosiński F., *Rachunki Dworu króla Władysława Jagiełły i królowej Jadwigi z lat 1388-1420* [Accounts of the Court of King Władysław Jagiełło and Queen Jadwiga from 1388–1420], Kraków 1896, p. 555).
2. The name 'carp' (from Latin *cyprinus carpio*) first appears in 1413 in the materials for the history of Polish law and heraldry by Bolesław Ulanowski: *Karp vel karasz cassidulus, de clenodio. proclamacione Crakwiczy gerentibus tres pisces super clipeo cum vno capite vlg. trszy carpe* (AKH III 307); - in 1424, in the archival study by Stanisław Krzyżanowski, *Podwody kazimierskie 1407-1432* [Kazimierz Transport Services]: *equos versus Bochnya ducentes pisces karpye* (AKH XI 427); - in 1450, in the manuscript of the Chapter of the Cracow Cathedral No 233: *gorillus...est quidam piscis vlg. Carpy* (Rp.Kap.Kr.); - in 1466, in *Akta grodzkie i ziemskie z czasów Rzeczypospolitej Polskiej z archiwum tak zwanego bernardyńskiego we Lwowie – najdawniejsze zapiski sądów halickich 1435-1475* [Municipal and land records from the times of the Republic of Poland from the so-called Bernardine archives in Lviv – the earliest records of the Halicz courts 1435–1475], Lviv 1868: *carpotricula..., est quidam - piscis carp; unum piscem al. Carp eztradere debet* (AGZ XII 313); - in 1472, source materials for the natural vocabulary of the Middle Ages in Poland by Józef Rostafiński (Kraków 1900, vol. 1) – Rost No 1424; in 1478, in the earliest records of the Przemyśl Land Court 1469–1506: *ipsa familia tua et coadiutores tui expandiderunt al. whilowyly pisces ipsius in eadem piscina..., videlicet cassidoros al. Carpye et percas al. Okvnye* (AGZ XVIII 175); in 1500, in Bolesław Erzpk's contributions to the Medieval Polish Vocabulary (*Roczniki Towarzystwa Przyjaciół Nauk Poznańskiego* [Annals of the Society of Friends of Sciences in Poznań], XXXIV 1–139): *Karp gorillus* ib. 13; *Carp carumpus* ib. 32; *Karp calumpus*. See *Słownik Staropolski* [Old Polish Dictionary], ed. St. Urbańczyk, Vol. III, Issue 1, Wrocław 1960.
3. In 1393, among the expenses of the court of King Władysław Jagiełło was the amount spent 'for live fish purchased and intended to be sent by the Vistula River to ponds in Niepołomice.' See F. Piekosiński, *Rachunki Dworu króla Władysława Jagiełły i królowej Jadwigi z lat 1388-1420* [Accounts of the Court of King Władysław Jagiełło and Queen Jadwiga from 1388–1420], Kraków 1896, p. 563.
4. Privilege of 24 June 1493, in which Jan, the Duke of Oświęcim and Zator, permits the townspeople of Zator to establish two pools, ref. Zator I. See a copy of the privilege from the State Archives in Kraków.
5. Privilege of 1524 by King Sigismund confirming the privilege of Jan, the Duke of Oświęcim and Zator of 1493, ref. Zator I. See a copy of the privilege from the State Archives in Kraków.
6. Privilege of 1532 by King Sigismund allowing Wawrzyniec Myszkowski to build a pond between his hereditary village Polanka and the royal village Piotrowice. See

Matricularum Regni Poloniae Summaria, part 4, No 16669; as cited in: *Lustracja województwa krakowskiego 1564* [Inspection of the Kraków Voivodeship 1564], part 1, Warsaw 1962, p. 227, part 2.

7. Privilege of 1546 by King Sigismund granting 11 pools to the inhabitants of Zator in perpetuity. See *Matricularum Regni Poloniae Summaria*, part 4, No 7800, as cited in: *Lustracja województwa krakowskiego 1564* [Inspection of Kraków Voivodeship 1564], part L, Warsaw 1962, p. 227, part 2.
8. Records of 1678 for the Gierałtowski estate made by drawn up by Marianna Komorowska née Przyłek, starost of Oświęcim, which lists the duties of stocking the ponds with ‘stopniaki’ [advanced fry], ‘kroczi’ [fingerlings], ‘młode’ [young fish], ref. No ADZ 8, Document of the National Archives in Kraków, Wawel Branch.
9. Records of the village of Porąbka for Zator starosty, dated 1709, specifying the duty of peasants to transport fish from the ponds, ref. No ADZ 11, Document of the National Archives in Kraków, Wawel Branch.
10. Records of Grawiczniki of 1738 – summery of income from individual ponds in the entire Zator estate, ref. No ADZ 11, Document of the National Archives in Kraków, Wawel Branch.
11. Records of Zator starosty of 1773, ref. No ADZ 4, Document of the National Archives in Kraków, Wawel Branch.
12. Registers of products or stock of all farmsteads of Zator (1798–1866), listing fields under cultivation that were fish ponds with their names, ref. No ADZ 44, Document of the National Archives in Kraków, Wawel Branch.
13. Tax records for the villages of Brzezinka, Piotrowice, Ponikiew, Stare Stawy, town of Zator (until mid-19th century), listing ponds and their owners in the town of Zator (items 1006–1008, 1011, 1014, 1025–1026, 1028), ref. No ADZ 209.

Annexes:

Annex I: Nature of Zator ponds.

Annex II: Archived documents

Annex III: Archived photographs

Annex IV: Works on the ponds of the Experimental Fisheries Station in Zator.

Annex V: Map of the 'Carp Valley'

Annex VI: Diplomas and certificates

Annex VII: Recipes

Annex VIII: Photographs from the celebration of the Carp Festival

Annex IX Film about the 'Carp Valley'

Annex X: Electronic version the application

Annex I/1

Zator – the Capital of the ‘Carp Valley’ (Spytkowice and Laskowa pond complex in the background)

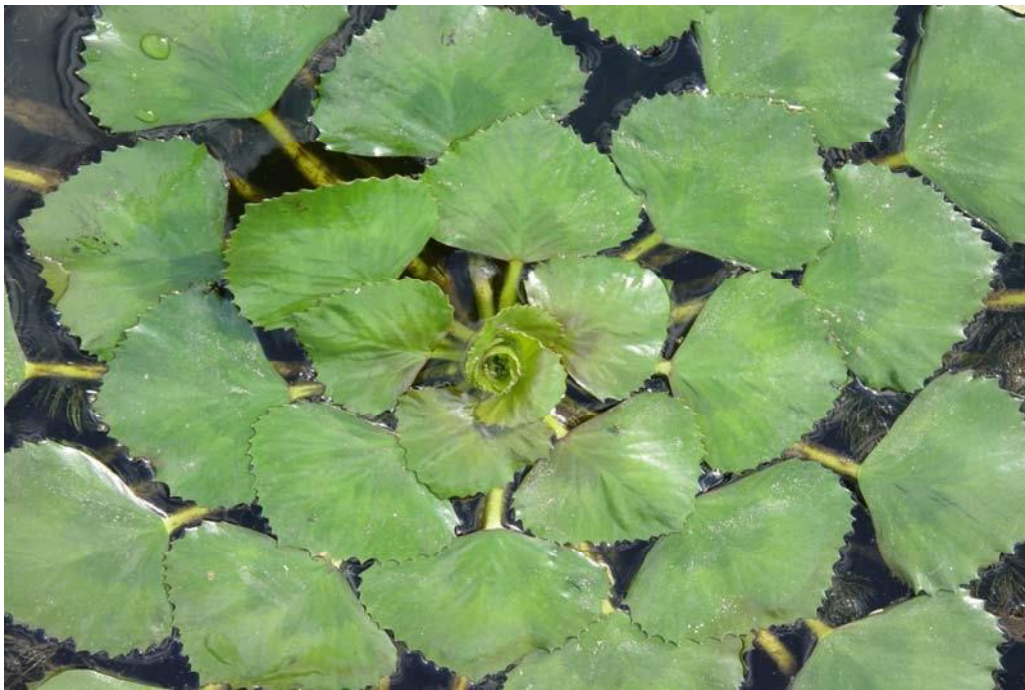


Annex I/2

Przeręb ponds



Annex I/3
Water caltrop



Annex I/4
A family of swans



Annex I/5
European tree frog



Annex I/6
Whiskered tern



Annex I/7

Black-crowned night-heron





Annex I/8

Little bittern with chicks



Annex II/1

Privilege of 1524 by King Sigismund confirming the privilege of John – Duke of
Oswiecim and Zator of 1493

 Stanislaus Augustus 
Dei gratia Rex Poloniae
Magnus Dux Lithuanie, Russie,
Prussie, Masoviae, Samogitiae,
Kijoviae, Volhyniae, Podoliae,
Podlachiae, Livoniae, Smolensciae,
Severiae, Czernicchoriaeque.

Significamus presentibus literis
Nostris quorum interest universis
et singulis. Reperiri in Archivo
Metricae Regni Librum Actorum
Cancellariae Minoris Regni, regnan-
te olim Serenissimo Sigismundo
Primo Rege Poloniae Praedecessore
Nostro, literis A.A. signatum,
in eo contineri Folio 705. Privi-
legium ejusdem Regis tenoris
sequentis. — Sigismundus 3.
Significamus tenore presen-
tium universis et singulis presen-
tibus et futuris harum notitiam
habituris. Quia Civitas Nostra La-
thorionensis exhibuerunt coram
Nobis literas in pergamenis ser-
mone

monie Bohemico scriptas, Illustris
olim Principis Domini Joannis Du-
cis Brevienensis et Lathoriensis,
ejus sigillo appendenti roboratas,
facultatem per eundem Ducem il-
lis concessam edificandi duas pisci-
nas, in se continentes, salvas, inte-
gras, non vitiatas, nec in aliqua
parte suspectas. Supplicaruntq[ue]
Nobis, ut eandem literas auctorita-
te Nostra Regia innovare, ac ap-
probare, ratificare et confirma-
re dignareretur. Quas quidem lite-
ras ex ipso sermone Bohemico in
Latinum traduci, et presentibus
inseri jussimus, sub hoc qui sequi-
tur, verborum tenore: Nos Joan-
nes Dei gratia Dux Breviemen-
sis et Lathoriensis etc. Mani-
festum facimus tenere presentium
universis et singulis illas visuris
vel legi audituris. Quia Nos cum be-
na deliberatione Nostra, et consilio
de hoc praehabito, admisimus et
concessimus supra piscinam No-
stram in nemore seu borra sitam

intelli-



Annex III/1

Harvest in the Pilawa pond 1949 (photo credit: B. Pietrzyk)



Annex III/2

Landing of fish from a barrel, 1936, Przeręb (photo credit: Zbigniew Rychlicki)



Annex III/3

Harvest in the Górecznik pond – 1930s (photo credit: Mieczysław Rychlik)



Annex III/4

Foreman Szczepan Sanak of Las – Przeręb, 1939 (photo credit: Mieczysław Rychlik)



Annex III/5

Harvest of the fry – Mr. Rysowy and his employees, 1928



Annex III/6

Deputy Foreman Władysław Sanak of Podlesie – Przeręb, 1935 (photo credit: Mieczysław Rychlik)



Annex III/7

Rybaczki – Przeręb, 1949 (photo credit: Bogumił Antoniewicz)



Annex III/8

Mowing of the Leliwa pond with a Zator mower, 1948 (photo credit: Mieczysław Gabriel)



Annex III/9

Sorting of fish in Spytkowice, Jakubowiec pond, 1959



Annex IV/1

Harvests in the ponds of the Experimental Fisheries Station in Zator







Annex IV/2

Sorting of fish in the Experimental Fisheries Station in Zator



Annex IV/3

Sorting of fish in the Experimental Fisheries Station in Zator



Annex IV/4
Feeding the fish



Annex IV/5
Harvest of the karp zatorski brood fish



Annex IV/6

Control fish harvesting (with a jigging line)



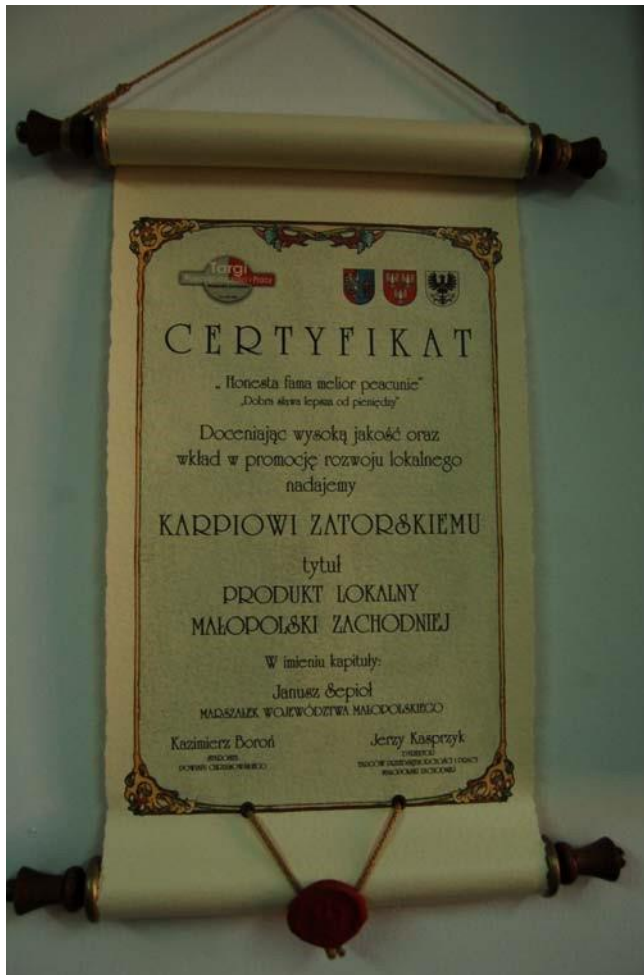
Annex V

Map



Annex VI/1

Certificate for 'karp zatorski' for the best local product of Western Lesser Poland



Annex VI/2

Diploma for the Mayor of Zator for organising the Carp Festival 2005



GAZETA Krakowska



DYPLOM

dla

Pana Burmistrza

Zbigniewa Biernata

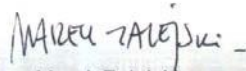
Urząd Miasta i Gminy Zator

za zorganizowanie

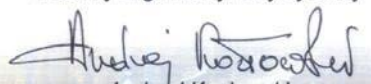
“Święta Karpia”

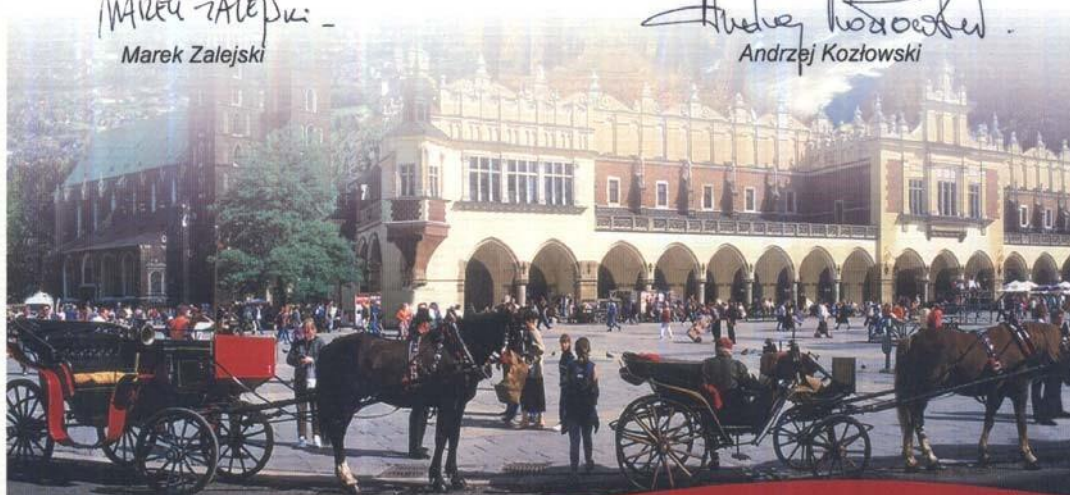
w kategorii “WYDARZENIE ROKU”
w plebiscycie czytelników “Gazety Krakowskiej”
“Wielkie Odkrywanie Małopolski”
Kraków, 2005

Redaktor Naczelny
Gazety Krakowskiej


Marek Zalejski

Prezes
Polskiej Organizacji Turystycznej


Andrzej Kozłowski



Polska Organizacja Turystyczna

Annex VI/3

Diploma for Franciszek Sałaciak – President of the Carp Valley Association

Dyplom

dla
Pana Franciszka Sałaciaka
Prezesa Stowarzyszenia
Dolina Karpia w Zatorze
za Dolinę Karpia

Laureat
w kategorii ATRAKCJA TURYSTYCZNA
w plebiscycie Czytelników "Gazety Krakowskiej"
"Wielkie Odkrywanie Małopolski 2006"
Kraków, 2006



Redaktor Naczelny
Gazety Krakowskiej
Janusz Kozioł
Janusz Kozioł

Prezes
Polskiej Organizacji Turystycznej
Tomasz Wilczak
Tomasz Wilczak

Annex VI/4

Diploma for the community of Zator municipality for promoting 'karp zatorski'



GAZETA Krakowska

Wyróżnienie
w plebiscycie
Małopolski Smak
dla społeczności gminy Zator

*za kultywowanie
małopolskich tradycji
kulinarnych i promowanie
zatorskiego karpia*

W imieniu kapituły

Janusz Sepiol
Marszałek Województwa Małopolskiego



2nd prize for Franciszek Sałaciak in the 'Nasze Kulinarne Dziedzictwo' culinary competition



Smoked karp zatorski



Clean the carp weighing between 1.5 kg and 2 kg, cut into steaks, rinse, and place in a large dish or pot. Arrange the fish in layers, alternating with onions and sprinkling with spices to salt and flavour the fish. The seasoning consists of: salt, pepper (ground black), fish seasoning, and Vegeta. Leave the prepared fish in a cool and dark place for about two days, mixing the steaks twice a day to ensure even seasoning.

After two days, rinse the fish, dry it, and place it in a smoker. It is best to use fruitwood for smoking, adding alder wood towards the end to give the fish a nice golden colour. Smoke for 8 to 10 hours, depending on the size of the fish. Store in layers, separated by young nettles, preferably in a wicker basket. Nettles act as a natural preservative, allowing the fish to be stored for a long time.

Annex VII/2

Zator-style carp

1 kg of fish

2 eggs

100 g of cheese

100 g of mushrooms

parsley salt, paprika,

pepper flour sour

cream butter or

margarine

Cut the gutted fish into pieces and salt them, coat in flour mixed with paprika and a pinch of pepper. Fry in hot fat until golden. Place the fried pieces in layers in a roasting pan or an ovenproof dish. Sprinkle each layer with hard-boiled and chopped eggs, chopped green parsley, grated cheese, and fried mushrooms. Top with pieces of butter or margarine and bake covered for half an hour. Before serving, pour over with sour cream and bake again.

Annex VIII

Carp Festival



III. SINGLE DOCUMENT

COUNCIL REGULATION (EC) No 510/2006 on the protection of geographical indications and designations of origin

'karp zatorski' EC

No:

PDO

PGI

1. Name:

'Karp zatorski'

2. Member State or third country: Poland

3. Description of the agricultural product or foodstuff:

3.1. Type of product:

Category: Fresh fish, molluscs and crustaceans and products derived therefrom. Class 1.7.

3.2 Description of product to which the name in Section 1 applies:

'Karp zatorski' (*Cyprinus carpio*) is a hybrid obtained from cross-breeding the pure 'karp zatorski' line with the following pure lines: Hungarian, Yugoslav, Gołysz and Israeli (Dor-70). 'Karp zatorski' is characterised by good body depth and compact shape. It is a fast-growing fish with a high flesh yield. 'Karp zatorski' is a live fish sold fresh and unprocessed.

Appearance:

- bodyweight of marketable fish: 1,100–1,800 g,
- colour: olive or olivey blue,
- scalation: mirror scales arranged in a dart, stripe or saddle pattern.

The flesh of 'karp zatorski' is characterised by a fresh fishy smell and a specific, delicate taste.

Chemical composition of 'karp zatorski' flesh:

- dry mass: 22.50%,
- crude ash: 1.23%,
- total protein: 19.25%,
- crude fat: 1.55%.

3.3 Raw materials (for processed products only)

3.4

Feed (for products of animal origin only)

The fish feed on food naturally available in ponds. At all stages of production, this is supplemented only by natural cereal feeds (wheat, barley, triticale, maize). Cereals produced in the geographical area defined in Section 4, owing to the specific soil and climatic characteristics, are of high quality and meet high sanitary standards. This is reflected in the health of 'karp zatorski' and the product's exceptional organoleptic characteristics. In order to maintain the high quality of the final product, the feed used for 'karp zatorski' consists of at least 70% materials sourced from the area specified in Section 4. When purchasing cereals, account is taken of their quality and of their moisture content, which must not exceed 11%. No feed supplements are used in the production of 'karp zatorski.'

3.5. **Specific steps in production that must take place in the identified geographical area**

To ensure that the product is of the highest quality, the entire 'karp zatorski' production cycle must take place in the geographical area defined in Section 4. This is due, among other things, to the fact that the fish feed on food naturally available in ponds in the area, and supplementary feeding includes mainly cereal feeds produced in the geographical area defined in Section 4. The genetic material for the production of 'karp zatorski' is the pure line of 'karp zatorski' bred in this area, which is crossed with pure Hungarian, Yugoslav, Gołysz and Israeli (Dor-70) lines. The progeny from such crossings grow faster, are more resistant to disease, have better flesh yield, and are well-adapted to the natural conditions prevailing in the designated area specified in Section 4. All production is based on farming methods traditional to the region. Most of the work is done by hand. Therefore, the skills of local breeders, shaped over centuries, play a crucial role. 'Karp zatorski' is raised exclusively in earthen carp ponds.

The 'karp zatorski' production cycle comprises the following five stages:

1. Spawning

Specimens with the best features are selected for spawning. Spawning takes place in natural spawning pools in the ground. Artificial spawning in a hatchery is also permitted. Hatchlings obtained in this way are placed in nursery ponds, without the use of summer fry rearing ponds.

2. Rearing of fry

Hatchlings removed from spawning grounds are transferred to ponds in which the summer fry are reared. The ponds have to be maintained in a highly cultivated state. The stocking density is 200,000 hatchlings per hectare. The summer fry are removed when they reach a weight of 2–4 g.

3. Rearing and overwintering of autumn fry

In July, nursery ponds are stocked with summer fry or, in some cases, with hatchlings taken from spawning grounds. In nursery ponds, the fish are fed cereal feed (wheat,

barley, triticale, maize), produced in the geographical area defined in Section 4. The feed is initially ground to a fine flour and then, as the fish grow in size, feed of a coarser structure is used. Through years of experience, fish-farmers have developed the ability to adapt the coarseness of the feed depending on the weight of the fish. The fish are fed three times a week until the end of September. At the end of the first season, the fish should have a unit weight of 60–150 g. The autumn fry are left in the nursery ponds to overwinter. Daily supervision of the ponds is essential.

4. Stocking of commercial ponds

In spring, the carp are removed from the nursery ponds and placed in commercial ponds. The fish are fed in accordance with a predetermined feeding schedule from May to September. The most intensive feeding phase occurs in June, July and August. In October, the harvesting process begins. The fish are removed and transferred to special transport tanks. After being transferred, the fish are sorted according to size, then weighed and transported to fish storage facilities. The fish storage facilities are ponds that are 1.7–2.0 m deep, with no vegetation but with good water flow and oxygenation. This treatment means that the flesh of ‘karp zatorski’ does not smell of mud.

5. Removal of the carp from fish storage facilities

In December (during the pre-Christmas period), the fish are removed from the storage facilities, and the final product, i.e. ‘karp zatorski,’ is transported to points of sale, where the fish are placed in special oxygenated tanks.

3.6 **Specific rules concerning slicing, grating, packaging, etc.**

3.7 **Specific rules concerning labelling**

The name ‘karp zatorski’ is used for the purposes of marketing live fish; therefore, in the case of wholesale deliveries of the fish in transport tanks using motor vehicles, this name appears on the invoices, delivery receipts and transport documents, and may also appear on the tank or motor vehicle. At retail outlets, the live fish are placed in special oxygenated tanks. The tanks bear clearly visible inscriptions that read ‘karp zatorski.’

4. **Concise definition of the geographical area**

‘Karp zatorski’ is produced in three neighbouring municipalities located in the western part of Małopolskie Voivodeship. These are: Zator and Przeciszów, in Oświęcim Powiat, and Spytkowice, in Wadowice Powiat. The area covers a total of 134 km², but production is concentrated mainly in Zator municipality.

5. Link with the geographical area

5.1. Specificity of the geographical area

5.1.1. Natural factor

The area in which 'karp zatorski' is farmed is distinguished in particular by its clean air and an abundance of rich and rare fauna and flora. Owing to the numerous systems of lakes, ponds and pools in the geographical area defined in Section 4, this area is commonly known as 'Dolina Karpia' (Carp Valley). The natural and climatic conditions prevailing in the designated area are uniquely conducive to the farming of 'karp zatorski.' The decisive influence on the quality of the final product is the link with the region – local natural conditions and the use in its production of the local pure karp zatorski line crossed with other lines to obtain high quality fish (heterosis effect).

Surface waters

Fish ponds occupy approximately 22% of the area of Zator municipality. The origins of fish-farming in Zator date back to the 12th and 13th centuries. It is the oldest centre of its kind in the region. The development of fish-farming was favoured by the dense network of waterways (the rivers Soła and Skawa, and the upper Vistula), the right soil, a temperate climate and the possibility of transporting fish by river to Kraków and surrounding areas. A river network is supplemented by a dense network of drainage ditches and channels supplying water to individual ponds.

Ground waters

The 'karp zatorski' production area is located in the Pre-Carpathian hydrogeological region. The water table is 5–10 m below the surface. The average thickness of the aquifer is estimated to be 4.8 m, with an infiltration coefficient of 244/24 h. The waters are of good quality (class Ib). Climate

The 'karp zatorski' production area is located within the Central European climatic zone, in the Carpathian climatic region, in the lower part of the moderately warm climatic level. The area's climate is subject to both continental and maritime influences. The climate is also influenced by the proximity of mountainous areas. The vegetation period (average daily temperature over 5°C) is 224 days, and the period of intense vegetation (average daily temperature over 10°C) lasts from the end of April until mid-October, and the frost-free period is 172 days.

Soils

The 'karp zatorski' production area is characterised by a highly differentiated soil cover: brown earths and pseudo-podsols, fluvial muds, gley soils, black earths, and peaty and marshy soils.

Protected rural areas

These areas are home to the most numerous and rarest species of fauna and flora. Owing to this great abundance of wildlife, these areas have been selected by the Polish Society for the Protection of Birds (OTOP), on the basis of Birdlife International criteria, to be part of the Natura 2000 network — the Lower Skawa

River Valley (PL 125) — as a special protection area. This network is intended to play a key role in safeguarding the natural resources of the European Union.

5.1.2. Human factors involved

The beginnings of fishing and carp farming in Zator date back to the reign of Bolesław III Wrymouth (1086–1138), and fisheries have continued to evolve here since that time. Ponds were constructed like strings of beads alongside the rivers. This facilitated the gravitational inflow and outflow of water, including the drying-out of pond beds. Fish-farming developed considerably after the end of World War I. The ponds destroyed during the war were being rebuilt, new technologies were introduced, and the trade in fish by small traders was regulated, with the first fishmonger's shop opening in Kraków. In 1946, the State Estate at Zator was taken over by the Jagiellonian University and the Zootechnical Institute was set up, where work was carried out to improve the performance of the carp.

The indigenous line of carp, maintained as an inbred line since 1955 and never commercialised, was bred in the geographical area described in Section 4. As a result of their observations, research and experience, local breeders and scientists selected the carp best adapted to the conditions prevailing in the area. From 1946, the 'Zator rearing method' was gradually introduced, based on a two-year system, resulting in an increase in the bodyweight of the fish from 60 to 150 g in the first year and a survival rate of up to 86%. This method, adapted to the needs of the line bred in the area and the prevailing natural conditions in the area, is still used today. Based on the above experiments and using carp of the pure Zator strain, the 'karp zatorski' (PDO) was produced. The majority of the work connected with the production of 'karp zatorski' is carried out manually, with human knowledge and experience playing an important part. Through years of experience, fish-farmers have developed the ability to adapt the coarseness and dosage of the feed depending on the weight of the fish.

5.2. Specificity of the product

'Karp zatorski' is characterised by good body depth and compact shape. It is a fast-growing fish with a high flesh yield. The flesh of 'karp zatorski' does not smell of mud and is characterised by a fresh fishy smell and a delicate taste. The production of 'karp zatorski' is carried out by cross-breeding the pure karp zatorski line with the following pure lines: Hungarian, Yugoslav, Gołysz and Israeli (Dor-70). The progeny obtained also has excellent production characteristics and a high survival rate. The progeny from such crossings grow faster, are more resistant to disease, have better flesh yield, and are well-adapted to the natural conditions prevailing in the designated area specified in Section 4.

5.3. Causal link between the geographical area and the quality or characteristics of the product (for PDO) or a specific quality, the reputation or other characteristic of the product (for PGI):

The exceptional quality of ‘karp zatorski’ is inextricably linked with the natural environment of the geographical area described in Section 4. The quality of ‘karp zatorski’ results not only from the fish-farming and breeding traditions but also from the natural environment, with which it is inextricably linked. The natural factors described in 5.1.1. contribute to the formation of a sufficient amount of high-quality natural food in the fish ponds. Its production area also has favourable soil and climatic conditions for growing four major cereals. As a result, the local cereal production is sufficient to fully meet the nutritional needs of the carp. Thanks to the above-described natural conditions, it is possible to base the carp’s diet on natural food and supplement it only with cereal feed (wheat, barley, triticale, maize) without using feed supplements.

The production of ‘karp zatorski’ is closely linked to its place of origin, as the proximity of natural watercourses and bodies of water, including rivers and their tributaries, means that the area has an abundance of water, which is essential for fish-farming. The construction of such large and functional pond complexes has been made possible owing to the area’s terrain. The soils on which the ponds have been constructed and the climatic conditions (in particular the long vegetation period), as well as the abundance and exceptional quality of the natural food supply, have a direct bearing on the high natural productivity of the ponds (i.e. the amount of fish that can be obtained per hectare without feed), which varies from 150 to 300 kg/ha. However, the quality and attributes of ‘karp zatorski’ result not only from the natural environment, with which it is inextricably linked, but also from breeding traditions and techniques in the area. The method of rearing is adapted to the peculiarities of carp reared in the area, and is known as the ‘Zator rearing method.’

REFERENCE TO PUBLICATION OF THE SPECIFICATION

(Article 5(7) of Regulation (EC) No 510/2006)

<http://www.minrol.gov.pl/DesktopDefault.aspx?TabOrgId=1620&LangId=0>