

# **INTERNATIONAL WATERWAY**

A GUIDE FOR BOATERS

**E70** 

# THE POLISH PART CONSISTS OF:

THE ODRA, THE WARTA, THE NOTEĆ, THE BYDGOSZCZ CANAL,
THE BRDA, THE VISTULA, THE NOGAT,
THE SZKARPAWA, THE ELBLĄG RIVER, THE VISTULA LAGOON





Lubuskie voivodeship part of IW E70 is 122 km long, in which 68,2 km is the Warta, 47 km is the Noteć, and the remaining 6 km is the Odra. The most important towns in this area are Kostrzyn nad Odrą (it is situated from the mouth of the Warta to the Odra, up to the fifth kilometer of this stage), Gorzów Wielkopolski (situated on 54th-60th km of the Warta), Santok (70th km) and Drezdenko (192nd km). The section from the mouth of the Warta up to its 29th km is the area of the National Park of the Mouth of the Warta together with the adjacent landscape park. On the 70th km of Warta River, close to Santok, there is the Reserve of Santok Bend. The Noteć flows into the Warta exactly in this place.



LUBUSKII

The wielkopolskie section of IW E70 begins with two-kilometerlong section of Noteć River (177th – 179th km of the river) which is a border between the lubuskie and wielkopolskie voivodeships. This section is 121 km long part of the Noteć meandering through the picturesque landscapes among meadows, fields, numerous old river beds and canals. Noteć Wetlands are birds' sanctuary for 22 bird species protected by European Directive. Sailing through Wielkopolska, you can visit towns like Krzyż (175th km), Wieluń (162nd km), and the towns having new harbours: Drawsko (175th km) and Czarnków (132nd- 134th km) and Ujście (105th – 107th km). In this section IW E70 partly covers with the sailing route Wielka Petla Wielkopolski.



WIELKOPOLSKIE

The route IW E70 in the kujawsko-pomorskie voivodeship consists of 145 km of rivers and canals in total. It begins in the 58th km of the Noteć and leads through its 19-km-long part. Then, it covers 24,5 km of Bydgoszcz Canal, 14,5 km of the Brda and 87 km of the Vistula. The ones who sail from the northern border of the voivodeship heading east can visit the towns: Nakło near the Noteć (40th km of the Noteć) with its new harbor, Bydgoszcz (together with Bydgoszcz Interchange Water System, which is a junction point on the Polish part of IW E70), with its unique hydro technical buildings and two new harbours "Gwiazda", and "Bydgoszcz" and "Grudziądz" (832nd – 836th km of the Vistula). From the mouth of the Brda up to 859th km of the Vistula there is Chełmiński and Nadwiślański Complex of Landscape Parks. In the distance of 30 km from the mouth of the Brda upstream of the Vistula (on its 728th - 744th km) lies Toruń with its monumental old town complex registered on the list of world heritage of UNESCO.



KUJAWSKO-POMORSKIE

The pomorski route of IW E70 contains 182,5 km of river routes, covering the Vistula together with its branches: the Nogat and the Szkarpawa as well as, the Vistula Lagoon. On the 886th km of the Vistula its first branch, the Nogat, begins. It flows on its 15th – 24th km through Malbork where you can admire a castle of Teutonic Knights registered on the list of world heritage of UNESCO, and then on the 38th km it marks the border between pomorskie and warmińsko-mazurskie voivodeships. On the 931st km we reach next branch of the Vistula – the Szkarpawa, flowing into Vistula Lagoon 25 km further. There are Kąty Rybackie, Krynica Morska and Piaski. The section of the Vistula from 932nd km is its drift flowing on 941st km into the Bay of Gdańsk.



POMORSKIE

The route IW E70 which is in warmińsko-mazurskie voivodeship covers 24km long, common with pomorskie voivodeship, section of the Nogat (from its 38th km to the month of Vistula Lagoon), Elbląg River (flowing through port town Elbląg) together with Elbląg Bay, altogether 20 km, and the Vistula Lagoon with towns like: Kadyny, Tolkmicko, Frombork and Nowa Pasłęka. In the mouth of the Nogat to the Vistula Lagoon, there is a Reservoir of the Mouth of the Nogat , whereas on the area of Elbląg Bay there is an Ornithological Reservoir of Elbląg Bay.



WARMIŃSKO-MAZURSKIE

# HOW TO USE THE GUIDE

The guide is divided into four major parts. The first two parts describe the latitudinal and longitudinal course of International Waterway E70 – a total of over 700 km (430 mi) of waterways. The other two contain practical information, which boaters need to navigate the waterways comfortably.

The latitudinal part of IW E70 runs from Bydgoszcz – from Brdyujście, to be precise – in a westward direction, to the Odra (Oder) River and the waterway systems of Western Europe. The guide describes its successive sections: the Brda, the Bydgoszcz Canal, the Noteć, the Warta and the Odra.

The longitudinal part, which also has its starting point at the confluence of the Brda and the Vistula, situated at km 772 of the queen of Polish rivers, leads in the direction of the Vistula Lagoon and towards the waterways of Eastern Europe. Its description contains information on the following watercourses and water bodies: the Vistula, the Nogat, the Szkarpawa, the Martwa Wisła, the Jagiellonian Canal, the Elbląg River, and the Vistula Lagoon.

The third part of the guide provides information about the opening hours and contact data of ports, harbours, marinas, tourist information points and the most interesting museums, as well as the contact data of local water management stations and emergency telephone numbers. The last part of the guide is a collection of all the signs you can encounter along IW E70. In addition, on the last pages we have presented the diagrams of selected ports and marinas along the Polish section of the IW E70.

The description of each watercourse contains navigational information (transit depths, stopping places, locks, obstacles, etc.) and a general profile of the river (regulation, regime, widths). In order to encourage tourist exploration of the IW E70 route, a few tourist and hydrotechnical attractions are presented. The guide can also function as support for navigation, since its main text is ordered by river kilometres. An additional aid that helps you get your bearings along the route is the graphic scheme presented in the margins. Many of the attractions and hydrotechnical facilities can be found in photographs, which correspond to the information provided.

Abbreviations used in the guide:

LB – left bank (when heading downstream, towards river mouth)
RB - right bank (when heading downstream, towards river mouth)
HNW – high navigable water
LNW – low navigable water





# **INTERNATIONAL WATERWAY E70**

IW E70 joins western Europe, from Antwerp and Rotterdam, through the Berlin Interchange Waterway System and the Northern Poland, with the Kaliningrad region, and farther, by the system of water way through Pergoła and Dejma Rivers to Klaipeda. The Polish section goes through the Odra to Kostrzń, where it joins the water way Odra-Vistula. The route leads for 68 km by the Warta, 187 km by the Noteć, 24,5 km by the Bydgoszcz Canal and 14,4 km by the Brda until it joins the Vistula (and IW E40) in Bydgoszcz Interchange Water System. Next, the route goes 114 km by the Vistula, 62 km by the Nogat, 35 km by The Vistula Lagoon up to the border with Kaliningrad district. To IW E70 system we also count the Szkarpawa, Elblag River and Jaqiellonian Canal.

The Polish section of IW E70 is a very picturesque and diverse route. Beginning with the Odra, where it meets the very high level of international standards of sailing routes, through the Noteć, where it meanders lazily among the meadow landscapes. Currently, IW E70 can be classified to the II class, except for the part of the Noteć from the mouth of the Drawa to the link with the Bydgoszcz Canal, where only parameters of class I b are fulfilled, and the part of the Odra, which corresponds to parameters of III class of sailing route. E 70 is canalized by means of 28 water levels, one of which- Czersko Polaskie Lock in Bydgoszcz is a new one, put into use in 1999. The other locks are mostly not electrified buildings, built at the turn

of the 19th and 20th centuries. Gdańska Głowa and Przegalina are the only exceptions. The width of the water route fluctuates between 16 m and 25 m. The minimum arc radius is 4m. The guaranteed depth of this route is 1,2 m to 1,5 m, and the border speed limit of the ships is 8 km/h.

The major part of the route is now the place of dynamic self-government and private investments which significantly improve water sports infrastructure. The most spectacular projects executed between 2010 – 2018 are: rebuilding the east boulevard in Gorzów Wielkopolski, building marinas and ports in Czarnków, Drawsko, Nakło nad Notecią, building marina in Bydgoszcz and Ujście, carrying out the project of' the Żuławy Loop- the development of water tourism stage I' (ports and harbours in Tczew, Drewnica, Biała Góra, Malbork, Osłonka, Błotnik, Braniewo, Krynica Morska, Nowa Paslęka, Elbląg and Tolkmicko) or modernization and adaptation of Zygmunt August boulevard in Elbląg to water sports enthusiasts' needs. These are only some of numerous self-government and private projects and initiatives, which are going to change the conditions for inland sailing in Poland for good and restore its due place, both in field of logistics and tourism.

# IW E70 – THE EAST-WEST (E-W) STRETCH

The first of the described parts of the Polish section of International Waterway E70 is one of the most interesting and immensely diversified water routes in Poland. This can be said for both the landscape and the hydrotechnical facilities. Natural and anthropogenic conditions make this waterway fit not only for water tourism but, above all, for cargo shipping. Except for the 50-kilometre border fragment of the Odra, its main part is the latitudinal Vistula-Odra Waterway (V-O W). This route lies in the Toruńsko-Eberswaldzka ice-marginal valley formed during the north (Baltic) glacial period – the most recent of the glacials, which extended over Poland and shaped the lakeland areas here. The V-O W is a nearly 300 km (186 mi) long class II waterway and smoothly passes from one watercourse to another, changing its character many times.

Our trip begins in Bydgoszcz and continues towards the Odra. The kilometres of the V-O W are also counted in this direction, starting from km 0.00 in Brdyujście, at the junction with the queen of Polish rivers – the Vistula – at its km 772.5. During the trip we will discover the route's five major sections, each being a separate ecosystem significantly different from the others:

- 1. The Brda River (the canalised section) from km 0.00 (km 772.5 of the Vistula) to km 14.4 (absolute length - 14.4 km / 8.95 mi) - class II waterway;
- 2. The Bydgoszcz Canal from km 14.4 to km 38.9 (abs. l. 24.5 km / 15.2 mi) class II waterway;
- 3. The Noteć River from km 38.9 to km 226.1 (abs. l. 187.2 km / 116.3 mi);
- Section: the Bydgoszcz Canal- the mouth of the Drawa River water way of I b class, section: The mouth of the Drawa - the mouth of the Warta - II class;
- 4. The Warta River from km 68.2 to km 0.00 (km 617.6 of the Odra) (abs. I. 68.2 km / 42.4 mi)- class II waterway;

Covering exactly 294.3 km (182.9 mi) of the V-O W, we will travel across three voivodeships: kujawsko-pomorskie, wielkopolskie, and lubuskie. We will cross the former Polish-German border, reach the highest point of the route, and then proceed by slowly descending towards the Odra. We will see the enchanting spots of the Dolina Noteci (Noteć Valley) and the Ujście Warty (Mouth of the Warta); we will also admire the effects of engineering thought when passing the Bydgoszcz Canal and numerous locks. Finally, we will navigate Poland's second largest river, the Odra, pass the Hohensaaten Lock after nearly 50 km (31 mi) and head for Antwerp.

#### **KOSTRZYN NAD ODRA** Lubuskie voivodeship

Kostrzyn nad Odra is a town of 17.000 residents in the lubuskie voivodeship, near the Polish-German border. For centuries, the town has been a meeting place of two cultures: Slavic and Germanic. It used to be a perfect place for defence and trade, which made it one of Europe's greatest strongholds in the 16th c. There is a large river port here at present, and visitors are recommended to see the ruins of a 16th c. Prussian fortress. Moreover, the town lies near the Uiście Wartv National Park, with picturesque pools and numerous breeding grounds of birds in it.

#### **GORZÓW WIELKOPOLSKI Lubuskie voivodeship**

Gorzów Wielkopolski is one of the capitals of the lubuskie voivodeship and the present seat of its Governor. The 125,000-strong city lies on the Warta, at river km 53-61. Gorzów has a functioning shipyard as well as a river port, where the Kuna (the Marten) icebreaker docks. The ice-breaker is in the care of Gorzów Boaters' Association, which organizes cruises on that vessel. When visiting the port in Gorzów, it is worthwhile taking a walk along Bulwar Nadwarciański (the Warta Waterside Boulevard) and see the city's fountains, the Lubuskie Museum, the Assumption of the BVM Cathedral and 15th c. fortifications.

# woiewództwo wielkopolskie KRZYŻ 160 190 180 WIELEN DREZDENKO **SANTOK**

# GORZÓW WIELKOPOLSKI

50

40

30

SANTOK

Notec

210

220 Warta 68

# KOSTRZYN NAD ODRĄ

# Lubuskie voivodeship



lubuskie voivodeship, is situated where the Noteć flows into the Warta. The name derives from the old Polish word 'satok', which meant 'river confluence'. Santok's major monuments include a neo-Gothic Church from 1858, a stone observation tower from 1934 and a medieval fortified settlement. For nature lovers, there is the Santockie Zakole Reserve on the southern side of the river.

Santok, almost eight-thousand community in the

Warta



#### UJŚCIE Wielkopolskie vojvodeship

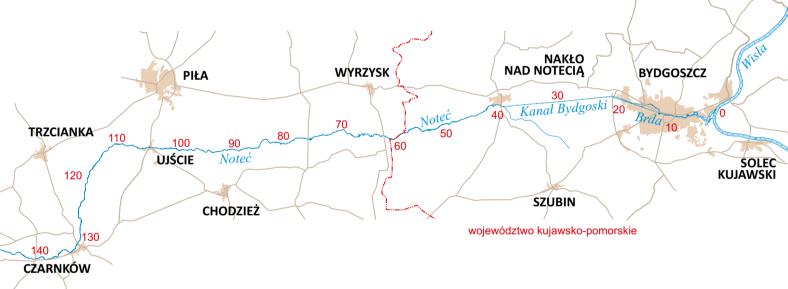
Ujście is a nearly 4,000-strong town in the wielkopolskie voivodeship, situated on km 105-107 of the Noteć. It lies on the border between two regions: Wielkopolska (Greater Poland) and Pomorze, marked by riverside escarpments broken up by ravines. The town has a river port and a lock built in 1896. Its major attractions include the neo-baroque St Nicholas Church, Ujście Calvary, and an eclectic 19th c. Town Hall. Those mooring in the port can take a walk to the Orla Góra (Eagle Mount), to admire a beautiful view of the Noteć Valley and Piła.

### NAKŁO NAD NOTECIĄ Kujawsko-Pomorskie voivodeship

Nakło nad Notecią is a town with population of 19000 people. It is placed on 39th – 40th km of Noteć River. In Nakło, the Noteć meets the Bydgoszcz Canal, whose construction contributed to the town's fast economic development. The town's name derives from the word 'nakieł', which meant' a place to moor a boat'. When visiting Nakło, it is worthwhile seeing St Lawrence's Church and the former Prussian barracks from the first half of the 19th c. Nakło's indisputable attraction is the proximity of the Noteć Forest, and especially the Noteć Valley.

#### BYDGOSZCZ Kujawsko-Pomorskie voivodeship

Bydgoszcz is the largest city of the kujawsko-pomorskie voivodeship, with over 356,000 residents. As the meeting point of two international waterways, E70 and E40, it constitutes an important inland navigation junction. In Bydgoszcz, the only fully ecological solar ship in Europe – the Słonecznik (the Sunflower) – sails regularly. In Bydgoszcz there is also the only in Europe, environmentally friendly, fleet of solar ships.



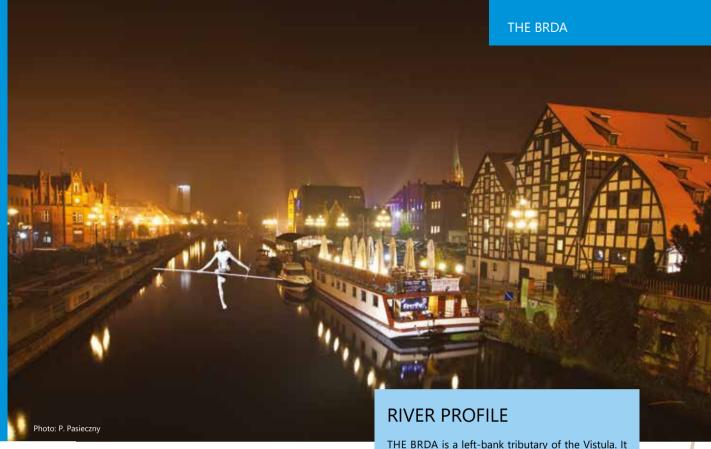
### DREZDENKO Lubuskie voivodeship

Drezdenko is a small 10,000-strong town in the lubuskie voivodeship, at km 187 of the Noteć. Its name derives from the name of a tree and is connected with the town's location in forested and marshy areas. When visiting Drezdenko, it is worthwhile seeing the late baroque palace from 1766, converted into a school at present, and the museum located in a half-timbered granary from 1640, which used to serve as an arsenal.

# CZARNKÓW Wielkopolskie voivodeship

Czarnków, an 11,000-strong town in the wielkopolskie voivodeship, at km 132 of the Noteć, is well known to beer lovers. In the 19th c., Czarnków used to be an important grain trade centre from which barges carried grain along the Noteć. At present, there is a revitalised marina for yachts on the river there. The major historic monuments in Czarnków include the town hall, St Mary Magdalene's Church and a late 19th c. brewery. Another attraction is the no longer functioning winter sports facilities: the ski jump Pod Grzybkiem and the toboggan run Śniegowa Baśń.





# NAVIGATIONAL INFORMATION

#### **DEPTH**

On the canalised stretch of the Brda – from km 14.8 to Brdyujście – depth reaches 3-4 m (10-13 ft), but the depth considered safe for two-way traffic is 1.5 m (4.9 ft). POWER LINES AND BRIDGES

All power lines run at the sag height of over 8 m (26.2 ft) at HNW. The lowest bridge on the entire canalised section of the Brda is the two-span truss railway bridge – the first one as you travel from the Vistula – with a clearance of c. 3.2 m (10.5 ft) at HNW. LOCKS

There are two locks on the canalised stretch of the Brda. The first one – Czersko Polskie – is 115 m (377.3 ft) long and 12 m (39.37 ft) wide, and replaced the run-down 19th-century Brdyujście Lock in 2002 r. The dimensions of the other one are typical of IW E70 – that is, c. 57 m (187 ft) in length and 9 m (29.5. ft) width. In order to pass through locks quicker, phone their staff.

#### **VEGETATION**

The bed of the Brda is rather thickly overgrown with water vegetation, so be particularly careful or plants may get entangled in the screw propeller. Also duckweed, floating on the surface from mid-August until the end of October, may impede the journey. When navigating the canalised Brda, keep to the middle of the navigable channel and stay within the marked clearance gauge when passing under bridges. In Bydgoszcz, riverbed vegetation is mown at least once a year. The current of the Brda flows at the speed of 0.5 to 0.8 m/s (1.6-2.6 ft/s), which enables fairly fast fluming of the mown plants.

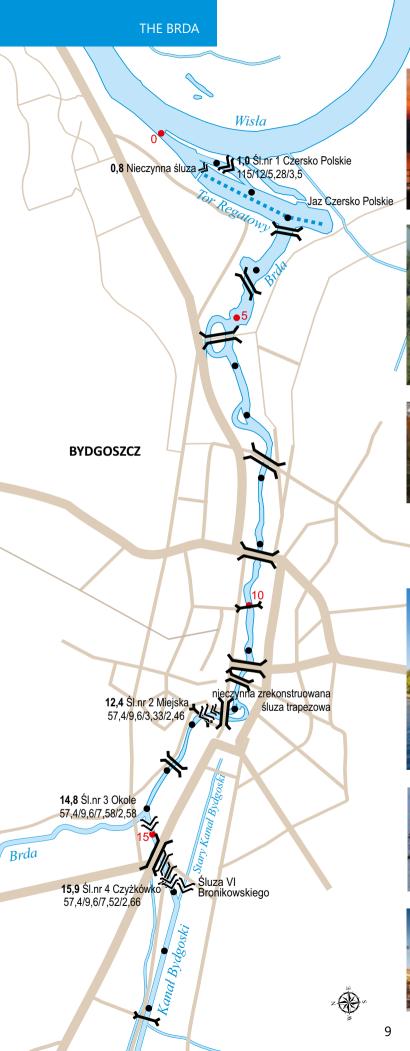
#### **MOORING**

It is possible to moor in many water sports clubs in Bydgoszcz, which willingly welcome the guests. In the city center the banks of the river are concreted and equipped with mooring rings, and in some places also with bits and bollards. However, it is crucial to pay attention to numerous stop and anchor bans marked with special signs. The 'Bydgoszcz' harbour is a representative complex, located in the city center on Wyspa Młyńska (Mill Island). It has become inherent, balanced and creative part in the present architectural and urban cityscape and in the water city character. It uses existing bay, which will also enable mooring to the piers of the adopted building which used to be Rother's mill. It consists of two identical buildings with hotel function, culinary function and practical function connected with the harbour. Along the east bank of weirs, lower then Solidarność Bridges, there are stop stands for about 18 vessels. This harbor will be also useful for rowers and canoeists.

flows from Lake Smołowe near the town of Miastko, 238 km (148 mi) from the outlet in Bydgoszcz. It may be divided into two stretches. The first one, not classified as an inland waterway - from km 238 to 14.8 - provides ideal conditions for water tourism, e.g. kayaking. The second, canalised stretch - from km 14.8 to Brdyujście – recognized to be a class II navigable waterway, flows through Bydgoszcz. In its upper reaches, the Brda has the features of a mountain river, which is why kayakers begin their trips almost at its very source. The middle section has a more lazy current. The river scenically meanders through forests and flows through a number of lakes, known to sailors, in the Tuchola Forest. In the village of Mylof (Zapora), its artificial branch begins, called the Great Brda Canal. After passing three water power plants, already within the borders of Bydgoszcz, the river has a surprisingly wild character. From c. km 15, it becomes a canalised watercourse on its last characteristic stretch. The width of the Brda in Bydgoszcz ranges from 40 to 50 m (130-165 ft), and the width of the navigable channel from 20 to 35 m (65-115 ft). Here and there, information about river kilometres is visible, either on boards or as figures painted on quays. Along the canalised section, when navigating upstream, you pass a number of locks and weirs, and in the centre of Bydgoszcz you pass the historic Młyńska Island



(Mill Island) and the so-called Bydgoszcz Venice.



# HYDROTECHNICAL HIGHLIGHTS



#### THE BRDYUJŚCIE LOCK

Until recently, the brick lock opened in 1879 was the first lock along the Vistula-Odra Waterway. Its width is 18 m (59 ft) and its length 57 m (187 ft), which enables simultaneous locking of a set of two barges or a barge with a tug or a pushboat. Put out of service in 2002, after the Czersko Polskie Lock was put into operation. In 2015, the lock renovation works were completed and it has been preserved as a heritage monument. The monument serves educational, cultural and tourism purposes.

# THE CZERSKO POLSKIE WEIR



Built in 1904-1907, the historic roller gate dam is the oldest facility of this kind in Poland. The red-brick building beside the weir houses an engine room with a water power plant, and on the opposite side there is a modern hydroelectric plant from the 1990s. Below the weir, there is the natural, though unfortunately non-navigable, outlet of the Brda into the Vistula. During World War II, combat troops of Detached Unit "Wisła" were stationed here and sailed out for their defence tasks in September 1939 from here, defending e.g. the bridge in the Fordon district.

#### "KUJAWY" POWER PLANT ON THE BRDA MŁYNÓWKA



Dammed up by the Farny Weir, the Brda River swiftly flows around Młyńska Island and propels the hydroelectric plant's water turbines at the very heart of the city (km 11.87, RB). Formerly, the Royal Mint was located here, and later an oat mill. In order to see the hydroelectric plant as well as the exhibits collected, approach the staff.

# **TOURIST HIGHLIGHTS**



# THE CANALISED BRDA

Together with the Bydgoszcz Canal, the river connects two inland waterway systems: eastern and western. Only through Bydgoszcz can you get from Gdańsk to Wrocław or from Cracow to Szczecin by water. Since the emergence of the Bydgoszcz Canal in 1774, Bydgoszcz developed from a small town of less than 1,000 inhabitants to an 80,000-strong agglomeration in the early 1920s. The factories, mills, sawmills, brickyards and power plants emerging on the river that had a port gave employment to local inhabitants, and the products of their work were exported by water to Berlin and further to the west of Europe.

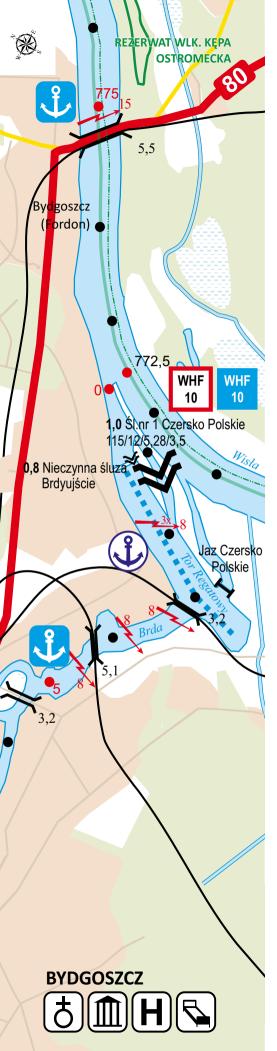
# A TIGHTROPE WALKER CROSSING THE RIVER

At km 11.7, before the bridge, on a rope stretched across the Brda, you will see a figure of a tight-rope walker balancing over the river, ceremonially unveiled on May 1, 2004 – the day Poland joined the EU. It is said that the tightrope walker is heading for the Archer – the famous statue, a symbol of Bydgoszcz, which used to stand at Plac Teatralny.



#### **GRANARIES: BYDGOSZCZ WATERFRONT**

On the stretch between the Bernardyński Bridge (km 11.34) and the Sulima-Kamiński Bridge (km 11.7), on the LB you will first see the modern buildings of two banks, stylised to look like granaries, and then the historic granaries built in the 18th and 19th c. At present, they are the seat of the Leon Wyczółkowski District Museum.



#### LB -left bank | RB - right bank

The banks are labelled according to how you see them when navigating downstream; that is, when heading downstream, you have the left bank (LB) to port and the right bank (RB) to starboard, with green marks placed along the left side of the navigable channel and red ones along the right side. In the case of the Brda, the marking is "inverted," since we are heading upstream. Therefore, the left bank (LB) is to starboard and the right bank (RB) is to port.

#### 0 km

After leaving the bend of the Vistula at km 772.5, we proceed westwards from its left bank and enter the Vistula-Odra Waterway at km 0.00 - sailing into a calm backwater called the lower outer port of Brdyujście. About 1000 m (0.62 mi) away, we see the gate and dolphins at the 19th-century Brdyujście Lock, out of service since 2002. Proceed slightly to the left in order to enter Lock no. 1, opened in 1999: the Czersko Polskie Lock (km 1.43). In the lower outer port, on the port side, lead-in piers are visible that guide barges into the lock – do not moor there! On the starboard side mooring dolphins are visible - unfortunately, only for cargo vessels. Since climbing the 6-metre high (20 ft) vertical steel stairs may be dangerous, it is better to notify the lock-keeper about your arrival by phone. After entering the lock with the vessel's starboard side, tie up to the floating bollard where shown by the staff. The exploitation parameters of the lock are as follows: length: 115 m (377.3 ft), width: 12 m (39.37 ft), lower sill depth at LNW: 3.5 m (11.48 ft), max. head: 5.28 m (17.32 ft) vertical clearance of the road bridge at HNW: 5.57 m (18.27 ft).

Leaving the Czersko Polskie Lock, head for the junction with the Brdyujście Regatta Course, located c. 200 m (650 ft) away, obeying the local navigation signs. After entering the route, head left along the embankment that runs between you and the roller gate dam and the mouth of the Brda.

#### 18-21 km

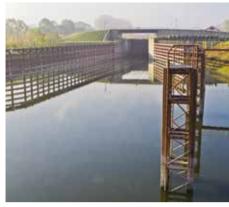
Ahead, three power lines run at the height of 8 m (26.2 ft). At LB, we see marinas of several sailing clubs (incl. Yacht Klub Polska, Water Sports Club in Bydgoszcz). There is a possibility of mooring – marinas have electrical connections, potable water and toilet facilities.

Caution! Do not crossover to the other side in vessels with a draught above 90 cm (3 ft). Steel cables are stretched along the regatta course, 1 m (3.3 ft) below water surface.

3,1 km – The Portowy Bridge – the lowest bridge over the canalised Brda

The vertical clearance for vessels at HNW is about 3.2 m (10.5 ft). The navigable span width is 12 m (39.4 ft).

Head to the right (to the left there is the already mentioned roller gate dam with hydroelectric plants – do not approach it, the current is strong! Ahead is the two-span truss railway bridge in Łęgnowo (a district of Bydgoszcz), dating back to 1860.



Mooring dolphins. Photo: P. Pasieczny



The Czersko Polish Weir Photo: Województwo Kujawsko-Pomorskie



The Czersko Polish Weir. Photo: L. Turowski

#### 4,3 km – The railway bridge of the coal trunk line

A French bridge, as if turned truss down, lies on the route from Bydgoszcz to Inowrocław. The width of passage is 22 m (72.2 ft) and the vertical clearance at HNW is 5.15 m (16.9 ft).

#### 4,3-5,4 km

A section of the fairway limited by steel, wooden and concrete dolphins, and the entrance to the port

Kayakers on the Brda. Photo: R. Sawicki



#### THE BRDA



Bridge. Photo: M. Szelest



Regatta course in Bydgoszcz.
Photo: Województwo Kujawsko-Pomorskie



The Kazimierza Wielkiego Bridge. Photo: M. Szelest



The "Słoneczny Młyn" Hotel. Photo: S. Skrzypek

of Bydgoszcz Shipping Company (Żegluga Bydgoska) in the old river bed.

#### 5,4 km – The Żeglugi Bydgoskiej Bridge

On the LB, an island is visible where numerous water and marsh birds have their breeding grounds, including: mallards, grebes, royal swans, grey herons and cormorants.

#### 5,6 km

A repair shipyard and the quay of a plywood factory are in sight on the LB; outside the fairway, panels made of wooden beams are moored to concrete dolphins. On the RB, a backwater may be seen that emerged after the right wall of the Kapuściska Lock chamber was blown up in 1906.

#### 6,2 km

On the LB, the remaining wall of the Kapuściska Lock is visible, and beside it stand the brick buildings of the former lock house – you can moor there. Galeria Pomorska (Pomorska Gallery) – a shopping centre popular in Bydgoszcz – is not far from here (c. 400 m / 1300 ft).

#### 6,2-7,4 km

This stretch was dug at the beginning of the 20th c. On the LB lies the so called Ptasia Island (Bird Island – mooring prohibited), formed between the old river bed and the dugthrough stretch of the Brda. The breeding grounds of birds are located there, and deer occur seasonally.

7,4 km – A heat-pipe at the height of over 6 m (19.7 ft)
On the LB, there is a second-hand car sale and a go-cart track of Bydgoszcz Automobile Club.

7,9 km – The Kazimierz Wielki (Casimir the Great) Road Bridge

Clearance at HNW: 6.27 m (20.57 ft).

### 9,32 km – The Pomorski Bridge

A road and tram bridge. Clearance at high water: 6.29~m (20.64~ft).

### 9,3-10,2 km

On the right, there is the Słoneczny Młyn Hotel with a mooring pier, and on the left – a water tram stop at Tesco (mooring prohibited); 200 m (656 ft) further stands the "Łuczniczka" Sports and Entertainment Hall and a permanently moored motor barge, the Molly, the site is currently for sale.

10 km – a footbridge for pedestrians Vertical clearance at HNW: 5.63 m (18.47 ft).

#### 10,2-11,34 km

Photo: S. Skrzypek On this stretch, on the RB, numerous rowing and kayaking clubs are visible at the waterfront – watch out for the numerous rowers training here.

At km 11.00 the highest road bridge in Bydgoszcz – the height of its pylon is nearly 63 m (206.7 ft)!

#### 11,34 km – The Bernardyński Bridge

Vertical clearance at HNW: 4.5 m (14.75 ft)

Caution! Just behind the bridge, move about 3-4 m (10-13 ft) away from the LB: a boulder lies at the bottom that could damage your vessel. The city's waterfront is visible on the RB, with Plac Solny (Salt Square) Rybi Rynek (Fish Market). On the LB lies the waterside street Stary Port (Old Port) with a 19th-century granary and the brick buildings of Poczta Polska (Polish Mail), also dating back to the 19th c. This place is near from Stary Rynek (Old Market Square), where you can see the Memorial to the Struggle and Martyrdom of the Bydgoszcz Land – and from the famous Karczma Młyńska (Młyńska Inn) on the Brda Młynówka River. Mooring is possible at the RB – that is, on the port side – before beer barges and the water tram stop. Making waves is prohibited here, and there is a speed limit of 6 km/h (3.72 mph).

# 11,7 km – The Jerzy Sulima-Kamiński Bridge

Vertical clearance at HNW: 5.13 m (18.47 ft).

The oldest bridge crossing in the city was located here – the first one was built in the mid-13th c. The bridge has been reconstructed many times (last time in 1961) and has had its name changed – it bears the present one since 2002. In front of the bridge, one of the new symbols of Bydgoszcz makes a splendid sight: the suspended statue of a tightrope walker crossing the river.



observation point with a view of Młyńska Island and the nearby historic monuments. After passing the bridges, you will see the lower outer port of the Miejska Lock no. 2. Wait for the green light before the lock. Vessels with a small draught can moor starboard side and those with a big draught can moor port side to the over 5-metre (16.4 ft) high dyke between you and the Brda Młynówka, where water level is

At LB, a renovated, closed trapezoidal lock. Commissioned in 1884, it was the predecessor of the current city lock. It was the only lock in the world of this type, constructed at the time, it was built only in Bydgoszcz and as an experiment. Peculiar was not only the trapezoidal shape of this airlock, but also its

#### 12,44 km - The Miejska (Municipal) Lock

8,72

12,4 Śl.nr 2 Miejska

śluza trapezowa

80

57.4/9.6/3.33/2

4,5

A brick lock, reconstructed in 1905-1913. length: 57 m (187 ft), width: 9.4 m (30.8 ft), head: c. 3.3 m (10.8 ft), footbridge clearance at HNW: 3.79 m (12.43 ft)

In the years 2014-2016, the lock was thoroughly modernized.

Caution! When passing through the lock, hold on to the ladder using a boat hook or attach a mooring line to the bollards mounted in walls while holding its other end in your hand. There are no floating bollards, so do not make fast. Keep close to the right when leaving the lock, since current is strong before the lock at the upper level, near the lead-in piers visible to port.

#### 12,7 km - Tram-bus bridge of Władysław Jagiełło

On the LB you can see a 19century brick building of former railway management. On the RB there is a High Economy School campus with a water tram stop - moor ban. A modern tram bridge of Władysław Jagiełło was built in this place.

### 12,84 km – The Królowa Jadwiga (Queen Jadwiga) Road Bridge

Clearance at high water: 3.96 m (13 ft).

The medieval Bydgoszcz's coats of arms, in ancient gold colour, is visible at the top, and the abutments are decorated with fish-head motifs. This is the only bridge in the city centre that survived World War II undamaged.

#### 13,05 km - LB - Water tram stop Astoria

Caution! When navigating further upstream, pay attention to the signs on the banks as well as on railway bridges. It is necessary to crossover to the left side of the waterway in order to pass under the central span of the railway bridges.

#### 13,55-13,65 km - 3 arch railway bridges

Clearance at NHW is 9.25 m (30.34 ft) and the width of passage is c. 10 m (32.8 ft).

Caution: strong current! Put the engine into higher gear in advance in order to maintain the vessel's



# THE BRDA



The canalised Brda, Photo: M. Szeles

stability. Due to the upstream and downstream traffic separation scheme and to the vegetation occurring here, it is absolutely necessary to follow marks and signs! When navigating upstream, select the central span of bridges.

13,65-14,4 km – The final section of the canalized Brda Due to the very lush riverbed vegetation, it is advisable to navigate in the middle of the current. 100 m (328 ft) before the bridge, which you will not be passing under, there is the outlet of the Flis River – do not approach the LB due to a shoal patch. On the left side, the entrance to the Bydgoszcz Canal is in sight – you need to steer to the left, moving along a gentle curve and keeping to the middle of the waterway. After turning left - when entering the Bydgoszcz Canal leave the second shoal patch on this stretch to port (the obstacle being a continuation of the promontory at the junction of the Brda and the Canal).

14,3 km – An overhead power lines Clearance at HNW: 8 m (26,25 ft).

#### 14.4 km

We leave the canalised Brda and enter the Bydgoszcz Canal. So far, we have been navigating upstream, and from km 14.4 km of the Vistula-Odra Waterway we shall proceed downstream.

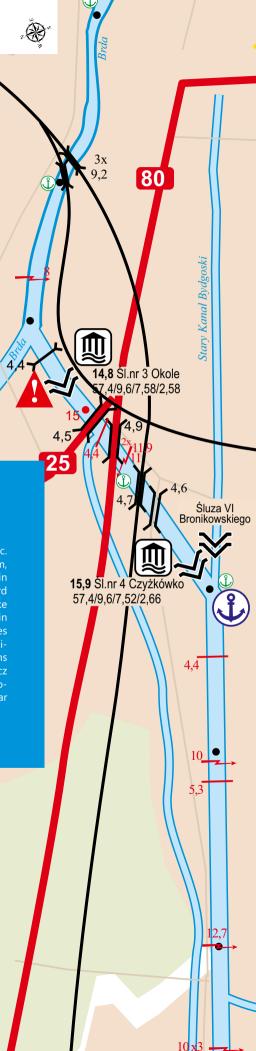


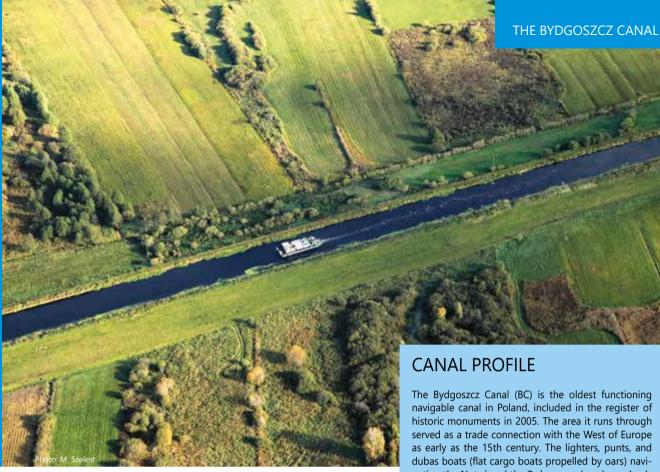
The Miejska Lock. Photo: S. Skrzypel

# DID YOU KNOW THAT...

Since 2004, a tug built at the beginning of the 20th c. has been sailing regularly in Bydgoszcz as a water tram, and in 2008 the first solar-powered passenger ship in Europe was put into operation. Two years later, the third passenger vessel joined them. The modern ships take 28 passengers each and are used for object lessons in physics, biology and history for students of all types of schools from the Bydgoszcz area. The nearly 8-kilometre (5 mi) route is one of many tourist attractions for groups visiting Bydgoszcz. The sailors of Bydgoszcz Shipping Company, who man these guiet ships, are flooded with questions about their unconventional solar propulsion.







# **NAVIGATIONAL INFORMATION**

#### **DEPTH**

The navigable channel of the Bydgoszcz Canal (BC) is 28-30 m (91.9-98.4 ft) wide and 1.6-2 m (5.25-6.5 ft) deep.

#### **POWER LINES AND BRIDGES**

Power lines run at the height of at least 8 m (26.2 ft) above water surface. The lowest bridge over the canal, located near Lock no. 6 Osowa Góra, has a clearance of c. 3.7 m (12.1 ft) at HNW, and its width is equal to that of the locks.

There are 6 locks in operation on the Bydgoszcz Canal: km 14.8 the Okole Lock; km 15.97 the Czyżkówko Lock; km 20.0 the Prądy Lock; km 20.97 the Osowa Góra Lock; km 37.2 the Józefinki Lock; km 38.9. the Nakło Wschód (Nakło East) Lock.

All the locks on the BC have the same dimensions: 57.4 m (188.3 ft) in length and 9.6 m (31.5 ft) in width. Except for two locks – Okole and Czyżkówko – all the others require the work of human muscles. For small watercrafts, the staff usually open only one wing of the double-wing gate. The actual width at the entrance is 4.7 m (15.4 ft). When passing through the lock, you can ask the staff to phone and ask the lock-keeper of the next facility to prepare, which will considerably shorten your locking time. The charge, as everywhere, is payable in the lock chamber, at the upper water level.

#### VEGETATION

As on the entire V-O W, also on the BC water vegetation occurs that is not mown very often. The greatest impediment to navigation in this region is Lemna minor, popularly called duckweed. Between mid-July and the end of October, it forms large green carpets that may cover 100% of channel width with a layer 5 cm (2 in) thick. It is often a nuisance for vessels with weak engines and for those with external cooling – clean the filter frequently. MOORING

The banks of the BC are not fit for mooring but, in exceptional cases, it is possible to "poke" the boat gently into waterside vegetation. It is also possible, with the consent of the staff, to moor in the lower or upper outer port of each lock. Professional service is offered at only marina on the BC – "Gwiazda", and it is located in the place of joining the old Bydgoszcz Canal to present section of Bydgoszcz Canal. It is on its right bank, at Sports Club 'Gwiazda" ("Star") buildings. It is next to three monumental locks: Czyżówko, Okole and Bronikowski lock on the Old Bydgoszcz Canal. It is the beginning of Park and a pedestrian way along the Old Bydgoszcz Canal leading to the city center. The infrastructure consists of about 15 stop stands for vessels with essential facilities. The harbor is also the last stop of 'Szlak Śluz" ("Lock Route") Of Bydgoszcz Water Tram.

The Bydgoszcz Canal (BC) is the oldest functioning navigable canal in Poland, included in the register of historic monuments in 2005. The area it runs through served as a trade connection with the West of Europe as early as the 15th century. The lighters, punts, and dubas boats (flat cargo boats propelled by oars) navigating the Noteć and the Brda were placed on wheels and rolled from one river to the other. The canal was built in 1772-1774, and its construction took only 18 months. Initially, it was only 26.6 km (16.5 mi) long and consisted of 9 locks built of wood and clay. This kind of material did not work well, and soon - at the beginning of the 19th century – the locks began to be converted to the still surviving stone and brick ones. The reconstruction of the BC in 1908-1915 marked out its eventual course: a shorter branch was opened, connecting it with the Brda, and the number of locks was reduced to six. The oldest fragment of the canal is nicknamed "Old" and, surrounded by an extensive park, constitutes a tourist attraction of Bydgoszcz.

Currently, the BC measures 24.5 km (15.2 mi) in length and is the only artificial artery connecting the two longest Polish rivers: the Vistula and the Odra. Recognised as a class II waterway, it is divided into 6 sections separated by 6 locks. The canal begins in Bydgoszcz, at km 14.4 of the V-O W, and ends at km 38.9, in Nakło. In the west, it is a right tributary of the Noteć, and in the east – a right tributary of the Brda. It is fed by the waters of the Noteć, drawn through the Upper Noteć Canal, connected with it at the peak section. The direction from Bydgoszcz to Nakło is treated as the downstream direction. The current is barely perceptible, although heads on the locks are quite high: from 1.9 m (6.23 ft) to over 7.5 m (24.6 ft). Every few kilometres, on the right bank (RB), posts are visible with kilometres of the V-O W.



#### THE BYDGOSZCZ CANAL HYDROTECHNICAL HIGHLIGHTS THE OKOLE AND CZYŻKÓWKO LOCKS Built in 1908-1915, the locks allow to move through the elevation of 7.5 m (24.6 ft). Each has two water saving basins, which we see filled or drained when locking. This used to make a difference when traffic was heavy on the canal. The use of the basins ena-**BYDGOSZCZ** bled a 40% saving of water. The Okole Lock was the place where episodes of the famous series "Four Tankmen and a Dog" (Czterej pancerni i pies) were shot – its gate served as the scenery for blowing up Białe a dam. Also known is the scene of the destruction Błota of the tank Rudy and its turret getting thrown off. Since 2010, the turret can be seen on the escarp-20,0 Śl.nr 5 Prady ment over the lock. In August, battle scenes are 57,4/9,6/3,82/2,56 Photo: P. Pasieczny acted out near the lock. 20,9 Śl.nr 6 Osowa Góra 57.4/9.6/3.55/2.55 THE PEAK SECTION OF THE VISTULA-ODRA This stretch of the BC is enclosed by locks: Osowa Góra in the east and Józefinka in the west. It is the highest elevation of the Odra and Vistula rivers watershed. The gradient in both directions is minimal, and the difference of water levels between this sec-Photo: P. Pasieczny Łochowo tion and the Vistula is c. 32 m (105 ft). This is the place where the route called the Great Wielkopolska Loop 25 begins. Kanał Bydgoski Zamość **TOURIST HIGHLIGHTS** Kamieniec MARINA "GWIAZDA" Opened in 2009, this marina for about 25 vessels of different sizes is situated at km 16 of the V-O W. Minikowo 30 Comfortable stay is guaranteed by access to water and electricity at the quay, 24-hour video surveil-Tur lance, the possibility of disposing of the wastes, access to showers, a launderette, a drying room, and Gorzeń a sauna. Nearby, there are groceries, a petrol station and a public transport station. In the season, **Hote**c the marina is also used as a water tram stop. Potulice THE BYDGOSZCZ BRIDGEHEAD The fortified area defending Bydgoszcz in 1939. Between Zielonczyn and Osówiec, 17 ferroconcrete bunkers were built, connected by trenches. In front 35 of them, there were barbed wire entanglements and minefields. These fortifications delayed the Występ entry of German troops into Bydgoszcz for three days. At about km 24, utility buildings are visible to 36,9 Śl.nr 7 Józefinki starboard; it is possible (with the host's permission) **NAKŁO** 57.4/9.6/1.83/ 2.56 to moor to a pier and take a 3-4 km (1.8-2.5 mi) NAD NOTECIA hike to see the open-air museum of fortifications in Zielonczyn as well as the tourist route along the Bydgoszcz Bridgehead fortifications. 38,9 Sl.nr 8 Nakło Wsch 57,4/9,6/1,91/2,63 Paterek CARDINAL'S PONDS Stopping at km 31.7 near the road bridge, you can take a walk in the northern direction in order to see the remains of Lake Ślesińskie, the so called Cardinal's Pond (Staw Kardynalski). The neighbouring area is a sanctuary of many protected species of birds. After a "hunt" with a pair of binoculars and 42,7 Śl.nr 9 Nakło Zach. 57,4/9,6/2,72/ 2,60 a camera, it is possible to replenish your provisions Photo: M. Szelest in the village of Gorzeń. 15

LB - left bank | RB - right bank

Remember that, since we are heading downstream, the LB is to port and the RB is to starboard.

#### 11 1 km

Enter the BC from the canalised Brda. Keep to the LB and proceed along the curve to the left, entering the 400-metre (1300 ft) stretch to Lock no. 3 Okole.

14,6 km – Railway siding bridge to the former paper mill Clearance at HNW: 4.7 m (15.4 ft).

#### 14,8 km - Lock no. 3 Okole

length: 57.4 m (188.3 ft), width: 9.6 m (31.5 ft), head: c. 7.5 m (24.6 ft), technical footbridge clearance: 6.84 m, Locking time: c. 20 minutes

In the years 2017-2018, the lock was thoroughly modernized. Caution! Because the surface of the brick walls of the lock chamber is covered with mud, it is advisable to wear protective gloves. Following the staff's instructions as to which side to moor to, put on fenders accordingly. Just like in the Miejska Lock, there are no floating mooring bollards here. There are fixed bollards, mounted horizontally in chamber walls at about 3-metre (10 ft) intervals, and two ladders to hold on to. Tying up is prohibited and you are advised to use a boat hook; the engine should be turned off.

After mooring to the RB at the upper outer port, you can see the turret of the T-34 tank Rudy.

#### 14,8-15,9 km

A straight stretch of the BC, dug in 1908-1913. There are a number of obstacles over this section of the river. These are, in order:

the St Anthony road bridge (road no. 25) – clearance at HNW: 4.5 m (14.76 ft);

heat-pipe, Młyńska St. - 4.4 m (14.44 ft);

road bridge, Grunwaldzka St. - 4.8 m (15.75 ft);

the railway bridge on the Bydgoszcz-Piła route – 4.6 m (15.09 ft);

road bridge, Młyńska St. - 4.8 m (15.75 ft).

#### 15,95 km – Lock no. 4 Czyżkówko

length: 57.4 m (188.3 ft), width: 9.6 m (31.5 ft), head: c. 7.5 m (24.6 ft), technical footbridge clearance: 7.44 m (24.6 ft), Caution! Proceed as at Lock no. 3: Okole.



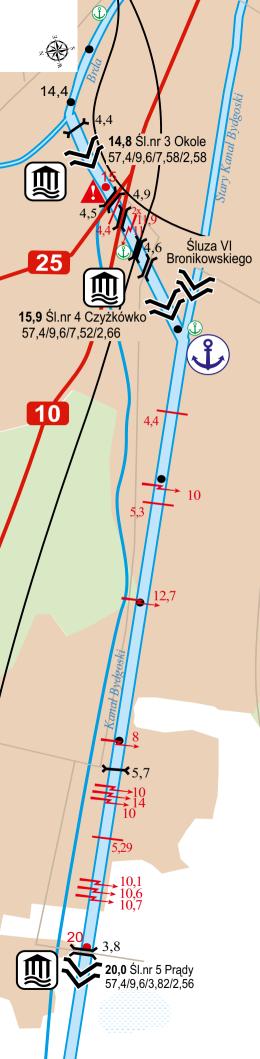
Lock no. 3. Okole. Photo: P. Pasieczny

#### 16 km – the old Bydgoszcz Canal

A passage to the so-called old Bydgoszcz Canal is visible on the LB, out of operation since 1915 and currently used for the harbour's purposes. There is a possibility of visiting the historic lock VI in Bronikowskiego St. The very professional Marina "Gwiazda" is situated here. The popular Bydgoszcz park (so called "planty") stretches along this section of the canal.







# THE BYDGOSZCZ CANAL



The western ring-road of Bydgoszcz.

#### 16.1-20 km

A nearly 4-kilometre (2.5 mi) straight stretch of the canal, with numerous overhead obstacles

16,35 km – Overhead pipeline – height: 4.4 m (14.4 ft)

16,65 km – Gas pipeline– 5.3 m (17.39 ft)

18,3 km - A footbridge with a pipeline - 5.7 m (18.7 ft)

19,15 km - Sewage pipeline - 5.3 m (17.39 ft)

#### 20 km - Lock no. 5 Prądy

length: 57.4 m (188.3 ft), width: 9.6 m (31.5 ft), head: c. 4 m (13.1 ft), clearance under the road bridge at the lower head of the lock: c. 3.8 m (12.5 ft), Locking time: c. 25 minutes, hand-operated lock.

#### 20,8 km - A road bridge

The western ring road of Bydgoszcz on the way from Warsaw to Szczecin; clearance at HNW: 5.1 m (16.7 ft).

#### 20,9 km - Lock no. 6 Osowa Góra

length: 57.4 m (188.3 ft), width: 9.6 m (31.5 ft), head: c. 4 m (13.1 ft), clearance under the road bridge at the lower head of the lock: c. 3.8 m (12.5 ft), Locking time: c. 25 minutes, hand-operated lock From the mast, placed on the left side, a white, red and blue flag is flying with Bydgoszcz's coat of arms on it. This is where we cross the administrative border of the city. The Bydgoszcz Canal changes its direction by about 20 degrees to the left, from WWN to WWS. A straight stretch of nearly 20 km (12.4 mi) lies ahead.

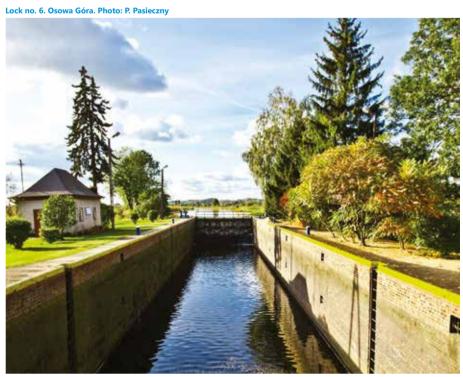
# 22,8 km – A road bridge

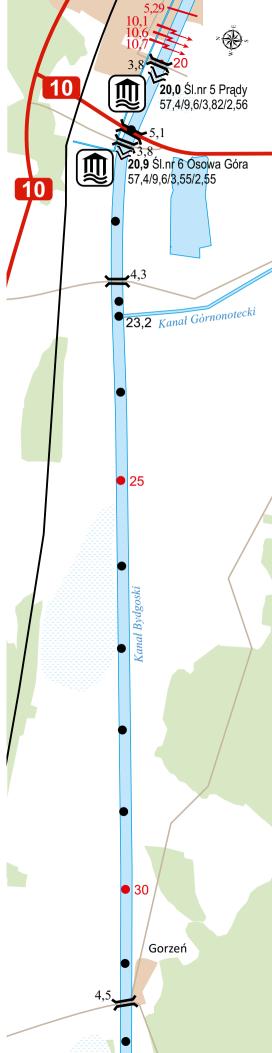
Vertical clearance at HNW: 4.3 m (14.1 ft).

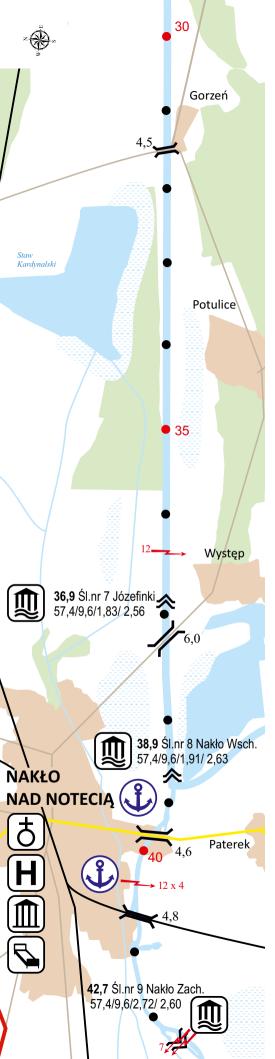
A characteristic rusty steel bridge of local importance. You can stop nearby to take an interesting photograph from it of the waterway junction where the Bydgoszcz Canal meets the Upper Noteć Canal.

# 23,2 km – LB – Entrance to the Upper Noteć Canal

This is the place where, on the LB, class Ib waterway Warta-Bydgoszcz Canal ends. Heading south, you can reach Poznań, the capital of the Wielkopolska region (through Lake Gopło and the legendary Kruszwica and Konin), or travel the entire Great Wielokopolska Loop trail (about 700 km / 435 mi in length), returning to the same place from the direction of the Noteć.







31,5 km – A road bridge on the Gorzeń-Ślesin route Clearance at HNW: 4.5 m (14.76 ft).

#### 34 km – LB – Potulice

In the village, there was a Nazi Germany Displacement Camp Lebrechtdorf – a place of torment for Polish and Russian people during World War II. After the war, the camp was converted into the Central Labour Camp for Germans. About 3,500 German prisoners were killed here in the 5 years of the camp's existence. There is a military cemetery here at present, and in 1969 a memorial was unveiled to the victims of Nazi crimes committed during the war.

#### 37,2 km – Lock no. 7: Józefinki

length: 57.4 m (188.3 ft), width: 9.6 m (31.5 ft), head: c. 1.8 m (5.9 ft), clearance under the road bridge at the lower head of the lock: c. 6 m (19.7 ft), Locking time: up to 25 minutes, hand-operated lock

Before the entrance to the lock, a relief weir is visible on the RB, damming up the water on the final stretch together with the relief channel called Paramelka. The construction of the lock draws attention – as if reversed compared to the previous ones in Bydgoszcz. This is the first lock in which, when navigating downstream, you first pass through a flap gate, placed at the upper sill of the lock, and the steel doubleleaf mitre gate comes second: at the lower head of the lock. Keep to the LB when leaving the lock. You can moor to the concrete guay of the lock's lower outer port, about 1 m (3.3 ft) deep; the bottom is silted up, so do not stop. A grocery is nearby (300 m / 1,000 ft).

There is practically no water movement on stretch between locks no. 7 and 8, except through the internal culvert or during the de-watering and filling of the chamber of lock no. 8.

#### 38,9 km - Lock no. 8: Nakło Wschód (Nakło East)

length: 57.4 m (188.3 ft), width: 9.6 m (31.5 ft), head: c. 2 m (6.56 ft), Locking time: up to 25 minutes, hand-operated lock

As you leave the last lock on the Bydgoszcz Canal, 200 m (655 ft) further on the LB there is the natural branching-off of the so called Stara Noteć Rynarzewska (Old Rynarzewo Noteć), and after another 150 m (492 ft), on the LB, the already mentioned Paramelka relief channel starts.

This is where the Lower - canalised - Noteć begins.



Lock no. 7. Józefinki. Photo: P. Pasieczny





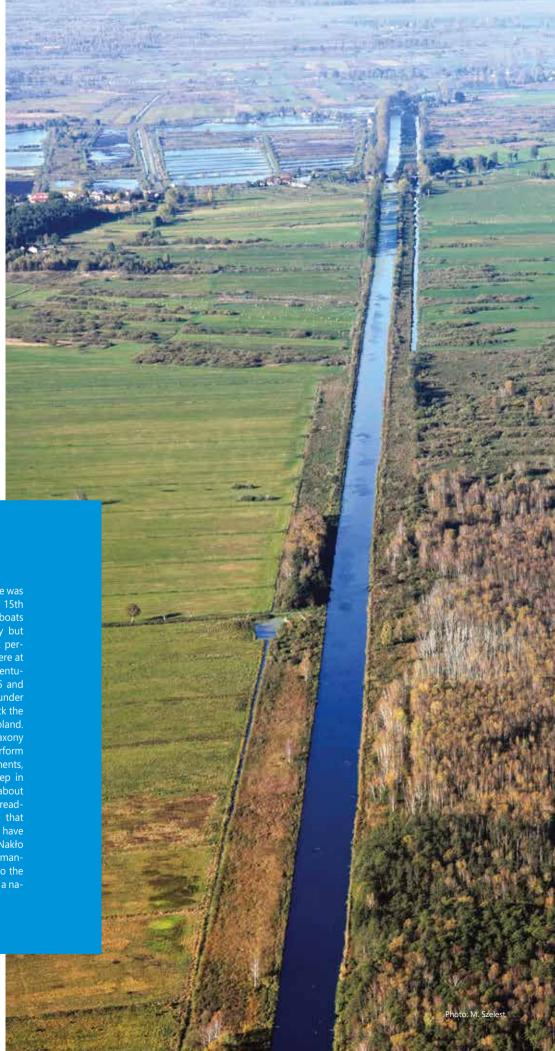
# THE BYDGOSZCZ CANAL

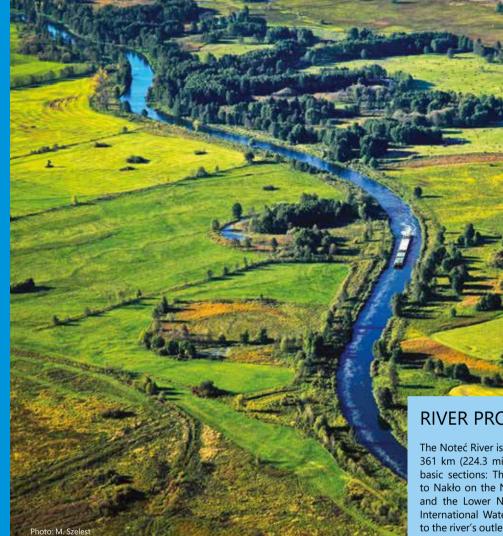


Lock no. 8. The Nakło Wschód. Photo: M. Szelest

# DID YOU KNOW THAT...

The decision to dig the BC in this place was influenced not only by its being the 15th century route for the transport of boats along the floor of the Noteć Valley but also by the land improvement work performed by the Mennonites arriving here at the turn of the 17th and the 18th centuries. The decision was made in 1765 and the building of the canal began just under 8 years later on the orders of Frederick the Great, after the first partition of Poland. Over 12,000 settlers from Lower Saxony and Bohemia were brought to perform the construction. During peak moments, over 8,000 people worked waist-deep in water digging the bed of the canal; about 2,000 of them died as a result of spreading diseases and epidemics. Since that time, the Polish and German nations have strongly pervaded each other in the Nakło and Bydgoszcz region. Poles with German-sounding surnames live in this area to the present day, which is not regarded as a nationality problem by anyone.





# NAVIGATIONAL INFORMATION

#### **DEPTH AND WIDTH**

The transit depth of the canalised stretch of the Lower Noteć (km 38.9-176.2) is between 1.2 and 1.6 m (3.94-5.25 ft). In the case of the freely flowing part (km 176.2-226.1) the depth is 1.2 m (3.94 ft) at MLW and 2 m (6.56 ft) as MW. As regards navigable channel width, its values are between 25 and 30 m (82-98.5 ft) for the former stretch and 30-35 m (98.5-115 ft) for the latter.

#### **LOCKS**

There are as many as 14 of them along the Lower Noteć. All of them are monuments of hydraulic engineering and date back to 1906-1914. Passing through them is a timeconsuming way to add variety to your trip (you need to allow about 25 minutes for each). On the Noteć Leniwa (The Lazy Noteć) there are three locks: no. 9 - Nakło Zachód (Nakło West, km 42), no. 10 - Gromadno (km 53), no. 11 - Krostkowo (km 68). On the Noteć Bystra (The Rapid Noteć) there are 11 of them, at about 6 km (20 ft) intervals, starting from Lock no. 12 in Nowe (km 111) and ending with Lock no. 22 in Krzyż (km 176). POWER LINES AND BRIDGES

Power lines occur on the stretch from Nakło on the Noteć as far as Drezdenko. The lowest ones run at the height of 5-6 m (16.4-19.7 ft). Bridges usually guarantee a clearance of above 4 m (13.1 ft). The lowest one, with a clearance of 3.4 m (11.15 ft) is located at km 170, between Wieleń and Drawsko. If you have bicycles packed on top of the vessel's superstructure, make sure each time to take them down before the bridge.

AIDS TO NAVIGATION

River kilometre signs along the entire length. Along the watercourses, traffic regulation signs are placed that are commonly found on inland waterways. MOORING

On the 187 km of the lower Noteć there are eight port towns, in which you can use comfortable harbour basins or port quays. On the route you will also find modern marinas in Czarnków or Drawsko as well as a boating harbour in Nakło on the Noteć.

**CURRENT** The speed of the current, with normal damming levels at the weirs, is the following: between Nakło and Krostkowo - 0.4 m/s, between Krostkowo and the outlet of the Gwda - 0.35 m/s, and from the Gwda to Krzyż - 0.6 m/s

# RIVER PROFILE

The Noteć River is the largest tributary of the Warta, 361 km (224.3 mi) in length. It is divided into two basic sections: The Upper Noteć, from the source to Nakło on the Noteć - 174 km (108.1 mi) long and the Lower Noteć, constituting a fragment of International Waterway E70, stretching from Nakło to the river's outlet into the Warta, 187 km (116.2 mi) long. The Lower Noteć owes its present shape to the fact that it was canalised in 1906-1914. The course of the Noteć that belongs to IW E70 is characterised by varied gradients, which allows to distinguish several sections described below:

THE NOTEĆ

The section with a marked gradient (0.29 ‰), about 15 km (9.3 mi) in length, from Nakło on the Noteć (km 39) to Gromadno (km 54).

The Noteć Leniwa (The Lazy Noteć) - about 50 km (31 mi) long, with a small gradient of 0.016 % stretches from the outlet of the Łobzonka (km 57) to the outlet of the Gwda (km 106).

The Noteć Bystra (The Rapid Noteć), also called the Lower Canalised Noteć – about 70 km (43.5 mi) long, with a gradient of 0.2 ‰, stretching from the outlet of the Gwda in the town of Ujście (km 106.1) to Krzyż (km 175). It owes its name to the fact that after the confluence of the Noteć with its largest tributary, the Gwda, the flows for the river's channel increase 2.5 times per second.

The freely flowing Noteć – about 50 km (31 mi) long. From the lock in Krzyż (km 175) to the mouth of the Warta (km 226). The lower freely flowing Noteć is encased with regulation structures, both crosswise and lengthwise, fascine with rock fill for reinforcement.



# HYDROTECHNICAL HIGHLIGHTS



#### LOCK NO. 10 KROSTKOWO

The Krostkowo Lock is probably unique in Poland and in Europe. It is a so called an earth (fascine-turf) lock, since only the heads are made of concrete and wall reinforcements are wooden. The lock is filled through a manually opened steel gate. Together with a needle weir, it constitutes the Krostkowo barrage. What adds spice to the lock is that in the period of the Second Polish Republic it used to lie at the country border. The weir just beside it was already in the Third Reich.



#### HIGH-CABLE FERRIES IN CISZKOWO WALKOWICE

In Ciszkowo and Walkowice, high-cable ferries function. Their construction is based on a cable stretched above water level, with so-called guiding cables attached to it, fastened to the other side of the ferry, at both ends. By lengthening or shortening them, it is possible to steer the ferry in such a way that the river's current directs it in the desired direction. Unlike in the case of low-cable ferries, there is no danger here that plants or objects carried with the current might get caught in the cables.



#### **GLASSWORKS IN UJŚCIE**

Glass production requires the availability of sand and clean water. This made Uiście an excellent location for a glassworks. It was built in 1809 and is the oldest manufacturer of glass containers in Poland. It manufactures green and brown bottles of various capacities for domestic and foreign customers.





#### CRUISES ON THE NOTEĆ

The region's most interesting attractions include cruises on the scenic Noteć River on a ship called the Władysław Łokietek (Władysław the Elbow-High). During the trip, you can admire the abundance of riverside nature. The cruises are offered by one of Poland's few Complexes of Schools of Inland Navigation in Nakło. It is also a good idea to ask the crew about the story of the man the school is named after – Cdr Bolesław Romanowski, remembered for his escape to Great Britain on the ORP Wilk (Wolf) warship during the Polish September Campaign of 1939 and for the daring operations of the ORP Dzik (Boar) warship.



#### SUNBURNT TWIN DAY

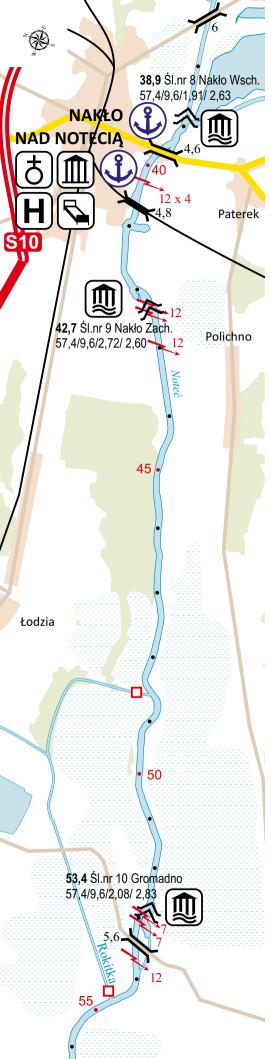
Every year, on the last weekend of August, visitors to Czarnków see double. Twins from all over Poland gather in the town at that time. Young and old ones have fun together, taking part in a parade and a variety of attractions, and the event ends with the resolution of the contest for the most similar-looking pair of siblings.



#### THE PARK OF WORLD CULTURES

In the renovated historic park complex in Drezdenko, the Park of World Cultures will be set up. Apart from monuments of nature, it will feature replicas of the most famous buildings from all over the world, e.g. the Eiffel Tower, the Statue of Liberty or the Taj Mahal temple. When passing by each sculpture, you will hear the most interesting information about its prototype. In the park, there will also be a small amphitheatre and numerous places encouraging children and adults to rest in the fresh air.





#### 39,1 km - Entry to the canalised Noteć

It is advisable to keep to the right bank, since near the left one an extensive bar has formed at the outlet of the Stara Noteć Rynarzewska (the Old Rynarzewo Noteć). Opposite the outlet of the Paramelka, turn 45° left, moving to the middle of the navigable channel.

39,7 km – RB – The river port of Nakło District Marina in Nakło by Noteć – fully modernized and adapted for the needs of water tourists with the necessary port and sanitary facilities. A convenient place for mooring, well visible when approaching from distance by the silhouette of the MS "Władysław Łokietek". All sanitary facilities are available: water, toilets, access to electricity, the possibility of water replenishment and sewage discharge. A slipway;acrane booking possible. Winter docking for yachts. At the school workshops it is possible to make small repairs. Fuel can be bought at the nearby Petrol Station – 300 m (1000 ft) from the harbour. The marina is open and guarded 24 hours a day. RB, 1 km (0.62 mi) – town centre.

 $39.8 \ \text{km}$  – The old marina of the Inland Navigation School Complex; out of operation.

39.9 km – road bridge on the Nakło-Kcynia provincial road no. 241, HNW – 4.6 m (15.09 ft)

40 km - RB - Water Management Station in Nakło

40,1 km – a wintering harbour and a loading berth 80 m (262.5 ft) in length

40,1 km-40,7 km – Four overhead power lines Clearance at HNW: 12 m (39.3 ft).

40,9 km – A steel railway bridge on the Nakło-Kcynia route, HNW 4.8 m (15.75 ft)

Behind the railway bridge, on the RB, lies a silted-up harbour basin with a quay by the Mill.

41,4 km – A loading berth, 110 m (360 ft) in length

#### 42,7 km - Lock no. 9 Nakło Zachód (Nakło West)

Technical parameters: a pound lock, hand operation, head 2.72 m (8.92 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). Locking time: 25 minutes. The lock with two weirs (northern and southern) make up the Nakło Zachód (Nakło West) Barrage. The southern weir and the northern weir together serve to maintain damming level on the Noteć. The task of the weirs is to make water level fluctuations as small as possible. The barrage was built in 1914.

The lower outer port of the lock is very short, also after leaving the lock at the RB, the outlet of the southern weir. The water is shallow near both banks. Keep to the middle of the waterway. At the LB, the outlet of a ditch has accumulated an extensive bar.

2 overhead power lines, clearance at HNW: 7 m (23 ft).

43 km - Overhead power line, HNW - 12 m (39.3 ft).

53,4 km – Lock no. 10 Gromadno, Samostrzel-Gromadno road bridge, HNW – 5.67 m (18.6 ft)

Technical parameters: pound lock, hand operation, head 2.08 m (6.82 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The locking time is c. 25 minutes. Lock no. 10 together with the northern and the southern weirs make up the Gromadno Barrage. The lock was built in 1914 and the weirs in 1913. A road bridge runs over the lower head of the lock.

The lock is made of concrete, with brick and stone facing. Its bottom and sills are concrete. The weirs, just like those at other barrages, serve to make water level fluctuations as small as possible. A water power plant functions in



Nakło nad Notecią. Photo: P. Piaseczny



Lock no. 9 Nakło Zachód. Photo: P. Pasieczny



Lock no. 10 Gromadno. Photo: P. Pasieczny

# THE NOTEĆ



Lock no. 10 Gromadno. Photo: P. Pasieczny

Gromadno, located on the northern weir of the barrage. It was put into operation in 1995 and has a power of 88 kW. Caution! The outer port of the lock is strongly overgrown with water vegetation. In summer, pay special attention to the impediments this vegetation causes to the work of the screw propeller.

2 overhead power lines, clearance at HNW: 7 m (23 ft)

53,6 km - Overhead power line, HNW - 12 m (39.3 ft).

54.6 km - RB - The outlet of the Rokitka River

55.0 km – LB – The tower of the church in Gromadno

THE NOTEĆ LENIWA (The Lazy Noteć) from km 57 (the outlet of the Łobzonka) to km 106.1 (the mouth of the Gwda)

The width of the navigable channel of the Noteć Leniwa varies from 21 to 40 m (69-131 ft); the average depth is 1.2 m (3.94 ft) at MW and 0.9 m (2.95 ft) at MLW.

The river flows along the middle of the valley at first, and approaches the forested southern escarpment opposite Ujście. This section of the river flows through a broad valley, in which there are large areas of meadows with thick peat and gyttja, and some areas are depressions relative to the water surface maintained in the watercourse. The river has minimal free surface slopes, and under favourable conditions it becomes overgrown with water vegetation (this phenomenon has intensified particularly in the recent period, with very little traffic on this stretch of the river). Its banks, outside outer ports and weirs, have residual fascine protection and generally have no permanent reinforcement. In depression areas, embankments began to be built that will protect the valley, and the hydrographic conditions within the protected polders have become independent of the water level in the river (this refers to Antoniny-Szamocin and Wolsko-Dworzakowo polders).



Bridge. Photo: P. Pasieczny



Lock no. 11 Krostkowo. Photo: M. Szelest



Bridge. Photo: P. Pasieczny

The village and the church are about 8 km (5 mi) away.

#### 57 km - RB - The outlet of the Łobżonka River

The navigable channel runs closer to the LB. Depths at low water are 80 cm (2.62 ft) at the shifting sandbar. Caution! The outlet of the Łobzonka is a difficult place to navigate through, since it lies in a bend. Initially, the fairway runs along the right (concave) bank, in keeping with the principles of river navigation. At the outlet of the Łobżonka, move from near the right bank to the middle, since the river carries large amounts of eroded material, accumulating it as a shoal. Next, move close to the left bank.

61,8 km - Overhead power line, HNW - 8 m (26.2 ft).

62 km – Road bridge on provincial road no. 194 (Wyrzysk - Gołańcz), HNW– 5.9 m (3.67 ft)

By the bridge there is an angling pier that small vessels can moor to – on the RB, about the 3rd kilometre of the village of Osiek on the Noteć.

#### 62,15 km - Fishing platform

68,2 km – Technical parameters: hand operation, head 0.43 m (1.41 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). An earth lock, making up the Krostkowo Barrage together with a weir.

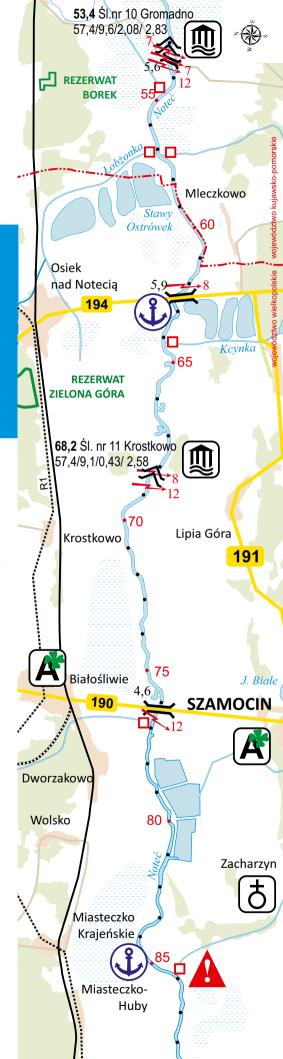
The lower entrance to the outer port is marked out by a river bar (LB) and the pointed tip of the weir (RB). After passing through the lock, the Noteć flows closer to the northern side of the ice-marginal valley, then turns gently right opposite Miasteczko to reach the opposite side about 20 km (12.4 mi) further.

Two overhead power lines, Clearance at HNW – 12 m (39.3 ft) and 8 m (26.2 ft).

76,09 km – Road bridge on the Białośliwie-Szamocin provincial road no. 190.

76,1 km - Overhead power line, HNW - 12 m (39.3 ft).

82 km – LB – the church in the village of Zacharzyn The village lies on the route from Chodzież to Szamocin,







The marina in Ujście. Photo: P. Pasieczny

road no. 191. The church and the village are about 5 km (3.1 mi) away.

# 84,0 km – RB – Miasteczko Krajeńskie

In the village, situated about 5 km (3.1 mi) from the navigable channel, there is the grave of the national hero Michał Drzymała, who became a symbol of the struggle against Germanisation. Near Miasteczko Krajeńskie, the river starts turning sharply south-east, making a broad 2 km (1.24 mi) curve. Landscapes are very attractive here.

84,1 km - RB - Fishing harbor

94,8 km – The road bridge on the Kaczory-Chodzież district road

95,3 km - 2 overhead power lines, HNW: 10 m (32.8 ft)

THE NOTEĆ BYSTRA from Ujście (km 106.1) to the Krzyż Lock (km 176.2)

The width of the river bed varies between 25 and 40 m (82-131 ft). The average depth of the channel is 1.6 m (5.25 ft) at MW (medium water) and 1.1 m (3.6 ft) at MLF (mean low flow).

The above stretch of the river flows through a broad valley, in which there are large areas of meadows and fields with well-developed rural infrastructure and melioration systems. The river has favourable free surface slopes. Its banks – outside outer ports and weirs, which are reinforced with pavements resting on sheet pile walls – have rock fill scarp reinforcement both under and above water, often separated with a wooden palisade.

Flow size depends directly on the basin run-offs and flows of the Gwda River, which are adjusted to mean-year conditions by the Jastrowie Hydroelectric Plant Complex, depending on water resources and energy needs (flows from 20.1 m3/s – one turbine working; flows up to 40.2 m3/s – two turbines working).

The stretch also has 123 floodgates, serving for irrigation. Their faulty gates (entrance gates in particular) can make it difficult to maintain operational states.

97,6 km – The Piła-Chodzież railway bridge, HNW – 5.4 m (17.7 ft)

99,6 km – Overhead power line, HNW: 19 m (92.3 ft)

100,4 km - Overhead power line, HNW: 9 m (29.5 ft)

105,4 km - Overhead power line, HNW: 10 m (32.8 ft)

105,8 km – The road bridge in Ujście on the Piła-Ujście national road no 11, HNW – 4.7 m (15.4 ft)

Navigating the Noteć Leniwa, we arrive in Ujście. After the road bridge, on the LB, there is a stopping place.

105,9 km - LB - a pier

Moor to the pier opposite the fire station in Ujście. You can replenish drinking water supply here and connect to electricity.

# 106,1 km - RB - The outlet of the Gwda River

The beginning of the Noteć Bystra. When entering the Noteć Bystra, give a warning sound signal, due to the junction with harbour entrance. Keep closer to the right side of the navigable channel because the strong current of the Gwda River pushes the boat's side to the left, and there is a sharp bend ahead with a bar and a stone-covered bight. The current has increased and, along with it, so has the centrifugal force acting on the vessel.

Pass the entrance to the River Port of Ujście (RB) and enter the bend, navigating along the middle of the channel; turning left, pass by the high wharf of the Glassworks. Next, navigate under the railway bridge – following the signs – along the 60-metre (197 ft) high escarpment of the Chodzież Lake District Upland.

The mouth of the Gwda River in Ujście. Photo: M. Szelest





# THE NOTEĆ



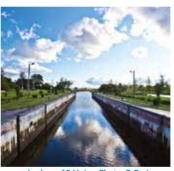
Lock no. 12 Nowe. Photo: M. Szelest



The ferry in Walkowice. Photo: P. Pasieczny



Lock no. 14 Romanowo. Photo: P. Pasieczny



Lock no. 15 Lipica. Photo: P. Pasieczny

The Noteć describes a broad curve and flows southwards for the nearest 20 km (12.4 mi). The bends on this stretch are rather sharp, so navigate close to the corner. It is good sailing practice to give a warning signal before entering sharp bends. Be particularly cautious when entering the outer ports of locks, since they tend to be silted up. River bars have formed, corresponding to water movement. In lower outer ports, at low water, it is the bars – usually exposed – that show the way out. This makes entry into the lower outer port more difficult, especially for long vessels.

106,2 km - 2 overhead power lines, HNW: 12 m (39.3 ft)

106,23 km – RB – Entrance to the harbour basin with a long inlet channel

106,3 km – LB – The wintering harbour and loading wharf of the Glassworks in Ujście, 525 m (1722 ft) long A visible glass factory complex.

106.6 km – Railway bridge on the route from Piła to Mirosław. A freight line, HNW – 4.3 m (14.1 ft)

106,9 km - Overhead power line, HNW: 12 m (39.3 ft)

109,3 km - overhead power lines, HNW: 9 m (29.5 ft)

#### 111.8 km - RB - Stobno

About 5 km (3.1 mi) from the waterway lies the village of Stobno, where a production plant of Atlas company is located.

#### 111,8 km - Lock no. 12 Nowe

The barrage consists of a lock and a weir. Technical parameters of the lock: a pound lock, hand operation, head 1.71 m (5.61 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The facility was built in 1896. Next to the weir there is a World War II bunker.

Overhead power line, clearance at HNW: 9 m (29.5 ft).

### 117,73 km – Lock no. 13 Walkowice

The Walkowice Barrage, consisting of Lock no. 13 and a weir. Technical parameters of the lock: a pound lock, hand operation, head 1.84 m (6.04 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The facility was built in 1913.

Two overhead power lines, clearance at HNW – 9 m (29.5 ft) and 12 m (39.3 ft).

#### 119,6 km - High-cable ferry in Walkowice. RB Radolin

A ferry with a small carrying capacity of 10 tonnes connects the villages of Radolin and Romanowo Górne. Radolin lies on the right bank of the Noteć. On the left bank, from Walkowice to Czarnków, stretches the longest village in Poland: Romanowo Górne, Romanowo Środkowe and Romanowo Dolne (Upper, Middle and Lower Romanowo). Ground clearance under the line at HNW – 8 m (26.2 ft).

121 km – LB – Romanowo Górne

#### 122,6 km – Lock no. 14 Romanowo

The Romanowo Barrage, consisting of a lock and a weir. Technical parameters of the lock: a pound lock, hand operation, head 1.59 m (5.22 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The facility was built in 1912. The lock in Romanowo is situated on the former Polish-German border, which is why the barrage includes buildings that used to serve as watchtowers. After World War I, the Polish-German border ran from the outlet of the Gwda as far as the outlet of the Drawa, along the middle of the Noteć and also through the middle of lock chambers. Under an agreement between Poland and Germany, locks from Nowe to Lipica were operated by Polish staff and those below Czarnków – from





Pianówka to Krzyż – by German staff. Overhead power line, clearance at HNW: 7 m (22.9 ft).

122,7 km – Overhead power line. HNW: 7 m (22.9 ft).

124 km - RB - Estuary of the Łaga River

126,5 km - LB - Romanowo Dolne

127 km – RB – Kuźnica Czarnkowska

#### 128,3 km - Lock no. 15 Lipica

The Lipica Barrage consists of a lock and a weir. Technical parameters of the lock: a single pound lock, hand operation, head 1.69 m (5.54 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The facility was built in 1895.

From this point, for 15 km (9.3 mi) along the RB, the Stara Noteć flows parallel to the river channel. It flows into the Noteć at km 143, at Lock no. 17 in Mikołajewo.

Overhead power line, clearance at HNW: 8 m (26.2 ft).

128,9 km - RB - The outlet of the Rudnica Canal

129,7 km - LB - The outlet of the Romanowo Canal

130 km – The town of Czarnków visible on a hill

The Noteć starts to change direction and begins flowing west before the Pianówka, approaching the left edge of the ice-marginal valley.



THE NOTEĆ

The marina in Czarnków. Photo: P. Piaseczny

130,5 km – Overhead power line. Clearance at HNW: 10 m (32.8 ft)

130,8 km – 2 Overhead power lines. Clearance at HNW: 9 m (29.5 ft)

#### 131,89 km – LB – LB – Czarnków Quay – a harbour

A stone quay by the former municipal water park (łazienki) in Czarnków. LB – stone quay. Short wing dams pose danger. The area is open and accessible to everyone. The petrol station nearest from the Noteć is the one in Rybaki St., near the bridge.

132 km – The road bridge on the Trzcianka-Czarnków provincial road no. 178, HNW – 5 m (16.6 ft) Behind the bridge, there is a water-level gauge – a limnigraph (a device recording the changes of water level in the form of a line drawn automatically on a specially scaled strip of paper). Bank signs demand keeping a distance of 15 m (49.2 ft) from the left bank.

132,1 km - Overhead power line. Clearance at HNW: 7 m (22.9 ft).

#### 132.1 km – LB – The marina in Czarnków

30 Rybaki St. The dock of the marina admits vessels up to 8 running metres (26.25 ft) long. The marina has all social and washing facilities. The harbour has a slipway; a modern harbour master's office is located in it as well as a repair shop enabling small repairs of vessels. The entire facility is enclosed and monitored. Beside the marina there is a campsite and a place for a bonfire. The Czarnków marina is fitted with a pump for the reception of sewage from yachts. Tourists can hire water equipment there. In the summer season, the facility is open from 8:00 to 22:00 on weekdays and from 9:00 to 21:00 on Saturdays and Sundays. In September, it is open from 8:00 to 20:00 on weekdays and from 9:00 to 20:00 on Saturdays and Sundays. In October and November, it is open on weekdays from 7:00 to 15:00.

132,2 km – LB – The River Shipyard of Bydgoszcz Shipping Company (Żegluga Bydgoska) in Czarnków The 70-metre (230 ft) long quay of the River Shipyard of Bydgoszcz Shipping Company and entrance to the harbour basin. A convenient place for replenishing water supply, connecting to electricity or using a washing facility. The place has a crane for slipping boats, a slipway, and repair shops.

134 km - LB - Steico Sp. ZO.O.

Lock no. 16 Pianówka. Photo: P. Pasieczny



# THE NOTEĆ



The ferry in Ciszkowo. Photo: P. Pasieczny

Lock no. 17 Mikołajewo. Photo: P. Pasieczny



Water stop Wrzeszczyna. Photo: P. Pasieczny

#### 136,2 km – Lock no. 16 Pianówka

The barrage consists of a lock and a weir. Technical parameters of the lock: a pound lock, hand operation, head 2.18 m (7.15 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The facility was built in 1915.

Under favourable hydrological conditions, watercrafts can try to pass through the weir (this refers to each lock between no. 16 and no. 22). This is made possible by the expandable navigable span.

Overhead power line, clearance at HNW: 7 m (22.9 ft).

137,0 km – Overhead power line. Clearance at HNW: 10 m (32.8 ft)

#### 137,3 km – RB – Pianówka

The village of Pianówka touches the bank of the Noteć here. From this point, the river meanders strongly.

### 141,2 km – High-cable ferry Ciszkowo

The ferry connection between Ciszkowo and Gajewo coincides with provincial road no. 153

Clearance under the line, 9 m (29.5 ft)

# 143,14 km – Lock no. 17 Mikołajewo

The lock and the weir together make up the Mikołajewo Barrage. Technical parameters of the lock: a pound lock, hand operation, head 1.97 m (6.46 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The facility was built in 1913. Overhead power line, clearance at HNW: 7 m (22.9 ft).

#### 145 km - RB - Jędrzejewo

About 3 km (1.9 mi) from the channel of the Noteć lies the village of Jędrzejewo. Parallel to the river runs provincial road no. 174, leading to Wieleń and further to Krzyż.

#### 147 km – LB – Gulcz

About 2 km (1.25 mi) from the navigable channel lies a village with a characteristic slender church steeple.

#### 148,4 km – Lock no. 18 Rosko

The Rosko Barrage, with a weir and a lock with the following technical parameters: a pound lock, hand operation, head 1.53 m (5.02 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The facility was built 1898 r. The seat of Water Management Station in Lipica.

149,5 km – LB – the outlet of the Gulczanka River

150 km – RB – the village of Nowe Dwory

#### 155,53 km – Lock no. 19 Wrzeszczyna

The Wrzeszczyna Barrage consists of a weir and a lock, with the following technical parameters: a pound lock, hand operation, head 1.55 m (5.09 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The facility was built in 1913.

Overhead power line, clearance at HNW: 6 m (19.7 ft).

157,65 km – LB – Wrzeszczyna. At the bend of the river, a water stop is located. It features a jetty for 2-3 vessels, toilets, a campsite, a beach, and in the distance of approximately 1 km – a shop.

158 km - RB - Folsztyn

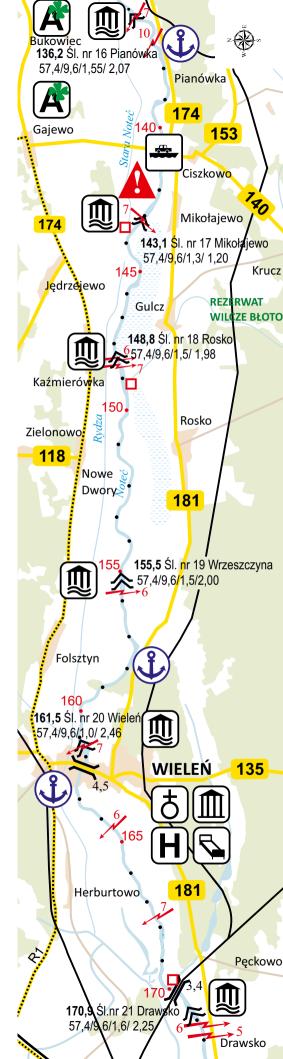
### 161,5 km – Lock no. 20 Wieleń

The Wieleń Barrage consists of a lock and a weir. Technical parameters of the lock: a single pound lock, hand operation, head 1.93 m (6.33 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The facility was built in 1913. Overhead power line, clearance at HNW: 7 m (22.9 ft).

#### 162,1 km – RB – Water Management Station in Wieleń

Stopping is possible at the right bank, below the bridge. There are shops in Wieleń. The petrol station is far, but can be used if necessary.

162,2 km - the road bridge in Wieleń on national road no. 177 (Wieleń-Człopa), HNW- 4.57 m (15 ft)





164,3 km - Overhead power line, HNW: 6 m (19.7 ft).

167,2 km - Overhead power line, HNW: 7 m (22.9 ft).

170,3 km – Krzyż-Poznań railway bridge, HNW – 3.4 m (11.15 ft)

Watch out for the low bridge! At medium water, the bridge has a clearance of only 4.8 m (15.75 ft). At high water, it is the greatest obstacle to navigation on the Noteć and can make navigation impossible for a large number of vessels.

170,9 km - Overhead power line, HNW: 6 m (19.7 ft).

#### 170,9 km – Lock no. 21 Drawsko

The barrage consists of a lock and a weir. Technical parameters of the lock: a single pound lock, hand operation, head 1.6 m (5.25 ft), length 57.4 m (188.3 ft), width 9.6 m (31.5 ft). The facility was built in 1898.

171,5 km - RB - The outlet of the Molitka River

171.7 km – Two overhead power lines, clearance at HNW – 5 m (16.4 ft) and 6 m (19.7 ft).

173 km – Two overhead power lines, clearance at HNW – 6 m (19.7 ft) and 7 m (23 ft).

#### 174 km - Drawsko

It is worthwhile mooring just behind the bridge, on the LB. The necessary provisions may be bought at Powstańców Wlkp. Street, the main street in the town.

174,05 km – The road bridge on the route from Drawsko to Krzyż, HNW – 5 m (15.1 ft)

For another 2 km (1.25 mi), as far as Lock no. 22 Krzyż, we will be navigating the Noteć Bystra (the Rapid Noteć), part of the canalised Noteć. Next, from Krzyż as far as Santok, stretches the freely flowing Noteć.

#### 174,4 km – LB – Marina Yndzel in Drawsko

The marina is located on the Stara Drawa River in Drawsko. Its name, Yndzel, derives from the term that the residents of Drawsko have been using for years to refer to the peninsula there. The building of the marina comprises the leisure part with accommodation, washing facilities and an equipment storehouse. The marina also offers a campsite and two beaches – one on the mainland and the other on the peninsula. Boaters also have a beach volleyball court at their disposal, as well as floating piers with mooring anchors and gangway ladders, a slipway, and an inclined ramp descending from land into water, which enables launching small vessels or pulling them out to the bank.

# THE NOTEĆ



Lock no. 21 Drawski Młyn. Photo: P. Pasieczny



Remains of a dam, railway bridge. Photo: M. Szelest



Lock no. 22 Krzyż Wielkopolski. Photo: P. Pasieczny

Marina Yndzel in Drawsko.. Photo: P. Pasieczny



# THE NOTEĆ

#### 176,2 km – Lock no. 22 Krzyż Wielkopolski

The barrage consists of a lock and a weir. Parameters of the lock: a single pound lock, hand operation; head: 1.85 m (6.07 ft); length 57.4 m (188.3 ft); width 9.6 m (31.5 ft). The lock is a convenient stopping place, offering access to electricity and a possibility of water replenishment. It is situated 1.5 km (0.93 mi) from Krzyż Wielkopolski. The town has a Mac-Benz petrol station, at 1 Kosynierów Gdyńskich St. The facility was built in 1913.

After leaving the Krzyż lock, the navigable channel runs along the right bank, allowing for the river bar opposite the weir outlet. After passing by the promontory on the right, at the entrance to the port of Krzyż, turn the helm to port and navigate downstream along the bight. An extensive river bar at the corner reduces the depth to 70 cm (2.3 ft). After passing the sharp right bend, you will see the mouth of the Drawa River on the RB.

### THE LOWER NOTEĆ, flowing freely from river km 177.2 to km 226.1.

The width of the navigable channel is 30-35 m (100-115 ft). The regulation route has many meanders with curve radii from 400 to 100 m (1300 to 330 ft), with a predominance of curves with a radius of 250 m (820 ft). Depths within the current at medium water are about 2 m (6.5 ft), but at medium-low water they decrease to 1.25 m (4.1 ft).

The Drawa River feeds the Noteć with water at the rate of 19 m³/s, on average. After c. 3 km (1.9 mi), the Noteć flows near the right edge of the ice-marginal valley. Because of the huge pebbles occurring there (up to 12 m / 40 ft), the right bank and the bottom are dangerous to navigation. The navigable channel from km 180.5 to km 181.7 runs closer to the left bank. The place is marked with mandatory signs on the banks. The escarpment is high and overgrown with forest.



The outlet of the Drawa and Bydgoszcz Shipping Company Port in Krzyż Wlkp. Photo: M. Szelest

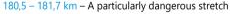
176,8 km – RB – Former Port of Żegluga Bydgoska S.A in Krzyż Wielkopolski

It is located at ul. Portowa 8. It is out of operation, with no possibility to get water or electrical supply.

#### 177,2 km - RB - The outlet of the Drawa River

The Drawa River is the largest tributary of the Noteć. It is 185.9 km (115.5 mi) long. Its source lies in Połczyn Zdrój in the Drawski Landscape Park. The river constitutes the border between the Wielkopolskie and the lubuskie voivodeships. The Drawa is part of the kayak route called Rev. Karol Wojtyła Silver Trail, running from Czaplinek through Drawsko as far as the Noteć.

182,6 km – The road bridge in Stare Bielice on the Krzyż-Drezdenko provincial road no. 174, HNW – 8.5 m (27.88 ft)



A considerable impediment to navigation is the huge pebbles (above 10 m / 33 ft in diameter) occurring at the bottom and near the right bank of the river. For this reason, it is advisable to keep to the navigable channel,, which runs near the left bank. Its crossover to the left bank is marked. The river is surrounded by a high escarpment overgrown with forest.

185,55 km – Railway bridge on the route from Krzyż to Skwierzyna, HNW – 6.6 m (21.6 ft) The bridge is no longer in operation.

185,7 km - RB - Remains of a dam from the time of World War II.

187.5 km – Two overhead power lines, clearance at HNW – 30 m (98.4 ft) and 28 m (91.9 ft)

187,6 km – RB – RB – The port of Water Management Station in Drezdenko

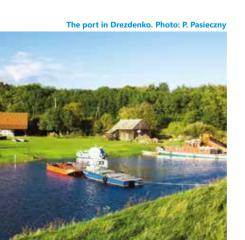
The port offers access to electricity and running water. It is accessible to vessels with a draught up to 70 cm (2.3 ft).

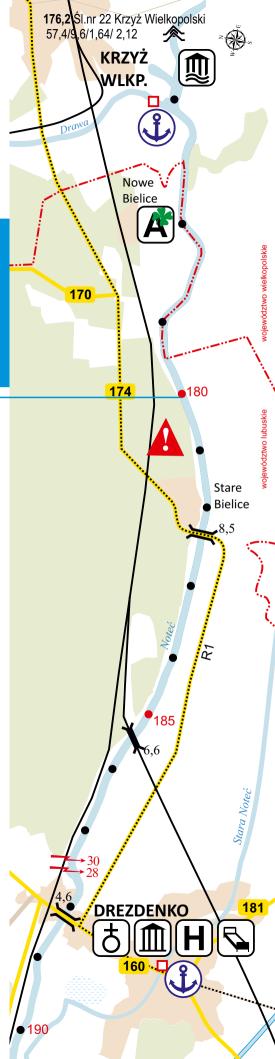
188,15 km – the road bridge in Drezdenko, HNW – 4.6 m (15.1 ft)

188,2 km – LB – Park Harcerza (The Scout's Park) in Drezdenko After the bridge in Drezdenko there is a mooring place,



Stare Bielice - Bridge. Photo: P. Pasieczny







located between the flood embankment and the river bank. It is popularly known as Park Harcerza (the Scout's Park). In the centre of the town you will find well-stocked shops and an Orlen petrol station at 1 Niepodległości St.

191,1 km – LB – The outlet of the Stara Noteć (Old Noteć) River

Along the Stara Noteć, we can reach the centre of Drezdenko. The river's channel admits vessels with a draught up to 80 cm (2.62 ft). The end of the route is a low-span bridge in the very centre of the town.

197,6 km – The road bridge on provincial road no. 154 (Stare Kurowo - Trzebicz), HNW-4 m (13.1 ft) The village of Trzebicz

206,5 km – LB – The outlet of the Gościmka River The river flows from the lakes in the nature reserves situated about 8 km (5 mi) from the Noteć, on its left side.

207,2 km - the road bridge on provincial road no. 157 (Zwierzyn-Gościmiec), WWŻ – 4 m (13.1 ft)

214 km – LB – the village of Lipki Wielkie, Church buildings are visible, situated about 2 km (1.25 mi) from the watercourse.

219,8 km - LB - Ludzisławice, with a towering steeple of the church

The banks, once reinforced with stone, have been covered with warp and overgrown with grass, which makes them easy to moor to.

224,1 km - LB -The outlet of the Stara Noteć

225 km - LB - The outlet of the intermediate pumping station channel

225,6 km - The road bridge on provincial road no. 158 (Skwierzyna-Gorzów Wlkp.), HNW - 4.6 m (2.86 ft)

225,6 km - Napowietrzna linia energetyczna, WWŻ - 12 m

225,6 km - RB - The harbour in Santok

The harbor is equipped with bollards and mooring dolphins where a few dozen vessels can be moored. Next to the harbor there is a Stanok promenade, where you can find some roofed sheds, a concert scene, an eating place and a sanitary place with showers. There is possibility to connect to the power and to take water. Two most important rivers of Great Wielkopolska Loop meet in Santok: the Noteć and the Warta. The Santok harbor is the place of meeting of water sport participants from Poland and abroad, for example because of Flis Notecki ('Noteć River Rafting') and cruises organized by water sports associations. The Santok history can be discovered by visiting the Museum of Santok Town (Muzeum Grodu Santok), which is 1,5 km from the harbor.

# THE NOTEĆ



Sunset over the Noteć. Photo: G. Nadolny



The mouth of the Stara Noteć Photo: M. Szelest



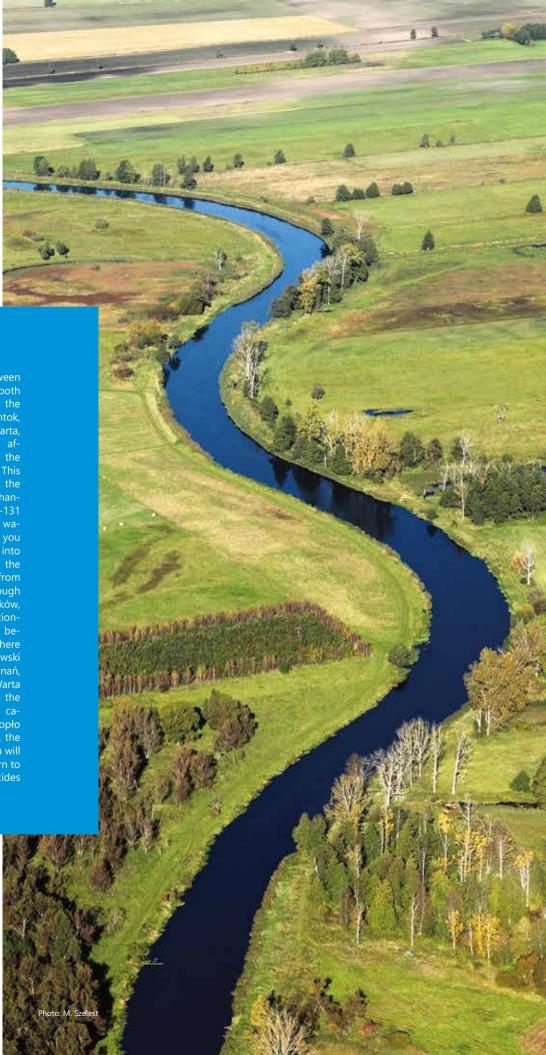
The harbour in Santok. Photo: K. Kinal

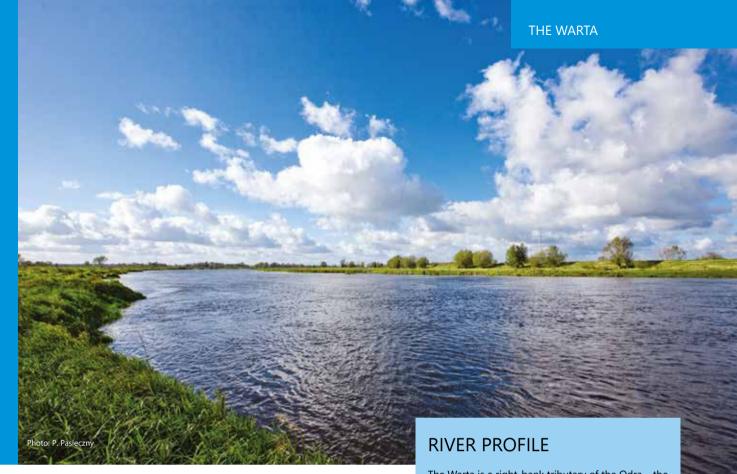






Nakło and Santok is part of both Great Wielkopolska Loop. From Santok, instead of proceeding down the Warta, you can navigate upstream and, after about 180 km (112 mi), reach the capital of Wielkopolska – Poznań. This slowly flowing section is called the Middle Warta. The width of the channel is between 35 and 40 m (115-131 ft), and transit depths at medium wawill pass by the outlet of the Obra into the Warta and the place where the Wełna flows into the Warta. Apart from Poznań, you will be passing through Skwierzyna, Międzychód, Sieraków, Obrzycko and Oborniki. An exceptionally picturesque stretch is the one between Międzychód and Chojno, where the river flows through the Sierakowski Landscape Park. After passing Poznań, you can continue the trip up the Warta as far as Konin and then turn into the Ślesin Canal. After travelling the canal and passing through Lake Gopło Noteć. Navigating downstream, you will reach Nakło on the Noteć and return to the river stretch where IW E70 coincides with the Great Wielkopolska Loop.





# NAVIGATIONAL INFORMATION

From the mouth of the Noteć to the confluence of the Warta and the Odra, the Warta is a class II navigable waterway. The length of this stretch is 68.2 km (42.4 mi). River kilometres are counted from Kostrzyn nad Odra in the upstream direction. When navigating the Warta, bear in mind that, along the entire length of this stretch, both banks have wing dams projecting 20-25 m (65-82 ft) into the river channel. The wing dams are often damaged or destroyed and for this reason invisible, hidden under water. The unawareness of regulation structures frequently results in hitting a wing dam and damage to the boat.

#### **DEPTH**

Transit depths on the Warta for two-way traffic, at medium water levels, are c. 1.5 m (4.9 ft). Information about the current water level is given on the information board at Lock no. 22 Krzyż, at km 176.2, and in Kostrzyn, at km 4 of the Warta, on the RB, in front of the building of Regional Water Management Board. Valid information is also given on the notice board in Santok, km 67.7 PB, where the minimum waterway depth for safe navigation in the directions to Krzyż, Poznań and Kostrzyn by Odra are given. You can also check water levels yourself on river gauges: at km 3.65 (RB) in Kostrzyn, at km 28.5 (RB) in Świerkocin, and at km 57.35 (LB) in Gorzów.

#### **WIDTH**

The width of the river channel is up to 90 m (295 ft), but the width of the navigable channel alone for MW is between 50 and 70 m (165-230 ft). It is limited by wing dams (often washed away) and indicated with bank signs from km 9 downstream. Along the entire stretch there are also floating marks indicating the edges of the navigable channel: red cylinders on the RB and green cones on the LB.

# POWER LINES AND BRIDGES

Regarding overhead high-voltage and medium-voltage lines, the Santok-Kostrzyn stretch of the V-O Waterway does not present navigational difficulties. The lowest bridge is the road bridge in Kostrzyn at km 2.45 of the Warta, with a clearance of 3.9 m (12.8 ft) at HNW.

On the section of the Warta in question we encounter 2 ferries: the first one in Santok, at km 67.7, and the other one connecting the town of Witnica with the village of Kłopotowo at km 22.3.

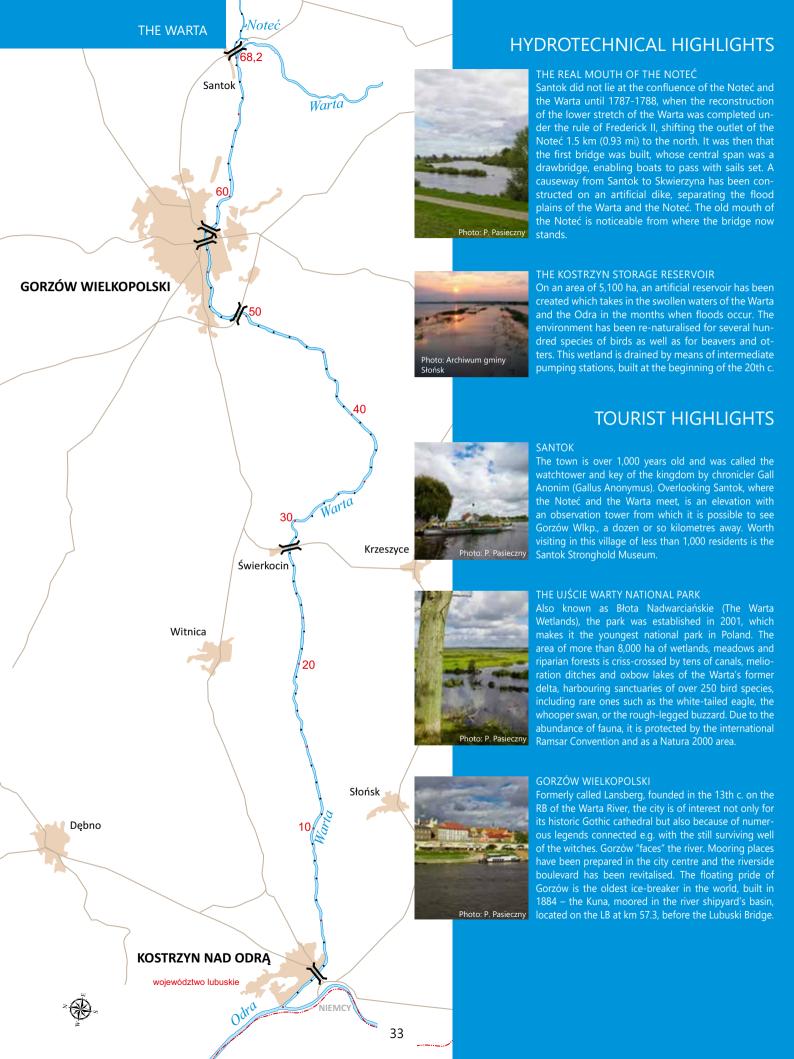
#### **VEGETATION**

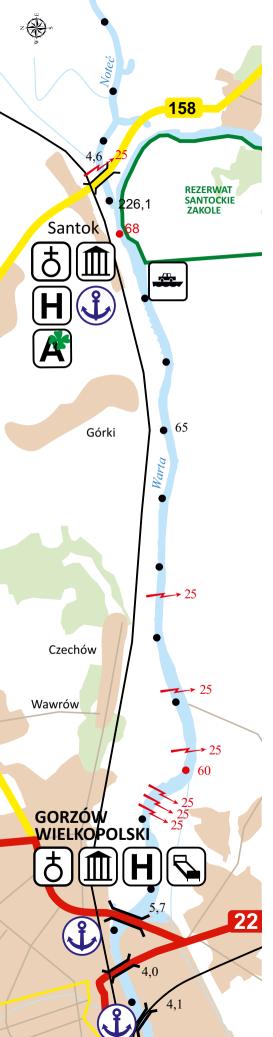
Navigation on the Warta is unimpeded by water vegetation.

#### MOORING

The sandy and green banks of the Warta invite you to stop, but the frequently washed away and often invisible wing dams can effectively make that impossible. It is therefore advisable to use yacht club harbours, primarily in Gorzów Wlkp. small marinas or loading berths, which abound along this stretch of the river. The hosts are always hospitable and willing, to give you access to utilities or even keep an eye on your boat for a small fee.

The Warta is a right-bank tributary of the Odra – the longest one, measuring 808 km (502.1 mi), and at the same time, after the Vistula, the second longest river flowing entirely within the borders of Poland. It starts in Zawiercie in the Cracow-Częstochowa Upland and strongly meanders in its upper reaches, changing direction a countless number of times from longitudinal to latitudinal and the other way around. Before Poznań, the river flows through Poland's oldest protected postglacial area - the Wielkopolski National Park. Human activity has most strongly shaped the final stretch of the Warta, located in the lubuskie voivodeship - the unruly river has been tamed by means of embankments and flood-banks. A large part of the Warta's navigable channel is at the same time the longest part of the Great Wielkopolska Loop and constitutes a transportation artery, not utilised before, connecting Poznań with other towns of the Wielkopolska region and with Polish sea ports. Along its entire course, the Warta does not have a single navigable lock, and the hydroelectric plant with a dam and a storage reservoir in Jeziorsko is the main hydrotechnical facility regulating its water level. In order to raise the water level on some sections of the Warta, stone and fascine wing dams have been built at 50-90 m (160-300 ft) intervals, resulting in transit depths of over 1 m (3.3 ft) in the midstream. Daily fluctuations of water level reach 1 m (3.3 ft), and annual fluctuations sometimes reach as much as 4 m (13.1 ft). In order to ensure proper water management in this hydrologically complex area, numerous technologically interesting intermediate pumping stations have been built, e.g. in Słońsk, Kłopotowo or Kostrzyn-Warniki. During high water stages on the Odra and the Warta, the so-called backwater current phenomenon occurs in the Lower Warta valley. The river's waters spill over the embankments into the storage reservoir prepared for this purpose. The average gradient on the entire length of the Warta is 0.45 ‰, and on the final 68 km (42.3 mi) – only 0.13 ‰, which gives 13 cm (5.12 in) per km.







Marina in Santok. Photo: P. Piaseczny

#### 68.2 km

Leaving the hospitable mooring dolphins of the quay in Santok, at km 226.1 of the Noteć, we are also leaving the Noteć River itself to find ourselves, after less than 150 m (500 ft), on the Warta, flowing from the port side. It is advisable to keep to the middle of the river channel.

#### 67,7 km

A low-cable gravity ferry – propelled by the river's current. On the right, we see an observation tower with a red roof on a hill, overlooking the area. The ferry in Santok takes not only local people but also tourists to the old stronghold of Santok, situated on the left bank of the Warta. The archaeological excavations there are worth visiting. Additionally, on the right bank, opposite the ferry, there is the Museum of Santok with very interesting collections concerning the 1200-year history of the Santok Stronghold.

#### 65.5 km

On the RB, not very far, a concrete bunker of a former watchtower is visible.

Caution! Kilometre signs are placed on both banks of the Warta, without following the rule according to which odd kilometre signs are on the left bank and even kilometre signs on the right bank – a rule that is followed e.g. on the Odra. Keep a sharp lookout for point bars, which occur on the inside on numerous meanders. Navigate along the cutbank – that is, along the outside curve of the river channel, close to the bank, at a dozen or so metres from it at most. Particularly hazardous shoal patches and underwater obstacles to navigation are marked with red and green buoys.

62,6 km - An overhead power line. HNW: 15 m (49.2 ft).

#### 61,1 km - An overhead power line

Clearance at HNW: 15 m (49.2 ft). A line of high poplars, as if bald, is visible on the LB.

### 60,5 km – RB – Czechów

The place is famous for rowing and kayaking regattas, organised already before World War II. A church tower is in sight. Along the bank, closest to the Warta here, runs the railway line connecting Santok with Gorzów.

60,1 km – An overhead power line. HNW: 15 m (49.2 ft).

 $59.9 \ \text{km} - \text{LB}$  – The outlet of the old channel of the Warta in sight

59,5 km – An overhead power line. HNW: 15 m (49.2 ft).



The vicinity of Czechów. Photo: P. Pasieczny



Road bridge in Gorzów Wielkopolski. Photo: P. Pasieczny

# THE WARTA



Gorzów Wielkopolski. Photo: P. Pasieczny



Most Staromiejski. Photo: R. Wasil

#### 57,5 km – LB – Entrance to the shipyard basin

You can stop here, taking advantage of the hospitality of Gorzów's boaters.

# 57.34 km – The Lubuski Bridge

A road bridge on the E65 road. Clearance at HNW: 5.7 m (18.7 ft).

Gorzów's revitalised waterfront stretches along the RB – the municipal boulevard with numerous restaurants, cafés and pubs, including the Ana barge, before which (looking downstream) you can moor. A good choice for longer mooring will be Admira harbour, on the LB, where the km 57 sign stands. You can leave your boat here and go shopping to the nearby groceries, refuel, or visit the J. Dekert Lubuskie Museum. In the centre of Gorzów, at the quay, beavers not afraid of humans have their feeding ground.

Note: Almost the entire left-bank Gorzów is accessible for boaters at medium water. Do not enter the harbour of Sports Club ADMIRA at low water, and at medium water enter only from the downstream direction. In 2011, the reconstructed Bulwar Wschodni (East Boulevard) was opened, with decent conditions for mooring. Bulwar Wschodni is the section on the right bank between the LOK (National Defence League) building and the Staromiejski Bridge. It is the mooring place of the historic ice-breaker, the Kuna, and the floating restaurant Ana. There are electricity terminals there and the possibility of replenishing water supply. Mooring is free for pleasure boats.

#### 56,4 km - The Staromiejski Bridge. Clearance at HNW: c. 4 m (13.1 ft).

Lamps in the early 20th-century style are visible on the bridge, and at its end, on the LB, there is a characteristic steel tower structure, topped with a stylised geographical grid of the globe. Pass under the central, marked span of the bridge.

#### 55,9 km - RB - The outlet of the Kłodawka River

55,7-54,7 km - The Gorzów-Zbąszynek railway bridge. Clearance at HNW: 4.1 m (13.45 ft).

The left-bank stretch of Gorzów, on which there is the harbour of the AZS AWF (with a shower, a toilet and utilities available) and a closed transshipment harbour.

We navigate westwards as far as km 52, then head exactly to the south together with the meandering Warta and take the 165 degrees course (SSE) on a short stretch.

#### 53,8 km - An overhead power line. Clearance at HNW: 33 m (108.3 ft)

#### 53,5 km – RB – A sports and recreation centre with a harbour basin

The first real marina in Gorzów. European standards are met thanks to washing facilities, electricity terminals, slipways and cranes for launching boats. Accommodation in good-standard cottages is available. The marina also has sports facilities, including tennis courts.

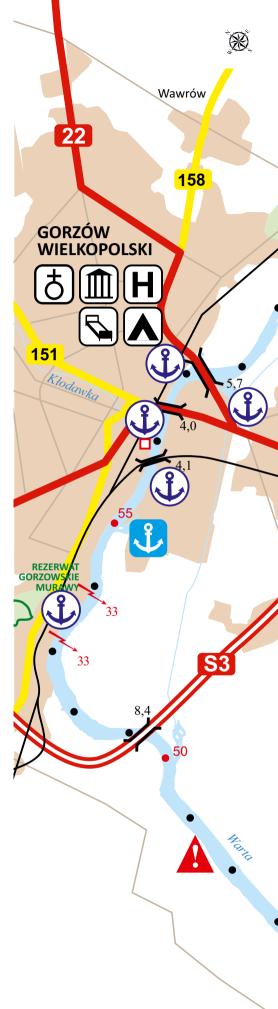
### 53,1 km - An overhead power line. Clearance at HNW: 33 m (108.3 ft)

50,23 km – Two road bridges of the S3 route and also the Gorzów Wielkopolski ring road Clearance at HNW: 6,33 m (20.8 ft).

# 49,5 km – LB – A river bar. Marked with a green buoy.

Caution! The Warta starts meandering, which continues as far as km 9.







Bolemin)

Dzierżów

Keep to the LB, navigating near the cutbank. Red buoys are visible to starboard; next, the river's current changes direction to SW; there is also a change of boards from the RB to the LB and the other way round.

- 43,3 km An overhead power line HNW: 15 m (49.2 ft).
- 40,2 km RB A white brick plinth with a cross on top.
- 38,2 km An overhead power line. Clearance at HNW: 15 m (49.2 ft).

# 38 km – RB – A kilometre sign

The river changes direction to W only to change it once again to NW at km 34.4.

#### 30,5 km – A deep and short meander

Be careful! On a stretch of less than 1 km (0.6 mi) the course changes to N, after which you have to proceed along the right cutbank (a green buoy is visible on the port side, marking a point bar), and change to SW, into a somewhat shorter bend on the Warta.

#### 28,5 km - Road bridge on the route from Nowiny Wielkie to Krzeszyce

Clearance at HNW: 5.1 m (16.7 ft). On the RB the aforementioned water gauge at the marina and RZGW Poznań complex – the Management Board of Water Management Station in Gorzów Wlkp. (the Water Management Station Office moved to Gorzów Wlkp., ul. Mazowiecka 2. One may stop to visit the Dinosaur Park in Nowiny Wielkie, located just 2 km away.

#### 27,9 km – An overhead power line

Running at the height of 28 m (92 ft), it is visible from a distance. The course changes to 2350 (i.e. WWS).

25,3 km - LB - Inlet of the drain channel with the Oksza pumping plant

#### 22,3 km – The low-cable ferry "Lubusz"

Located on the Witnica-Kłopotowo route. The border of the Ujście Warty National Park.

- 21,9 km Inlet of the drain channel from the Witnica pumping plant
- 21,7 km intermediate pumping station in Kłopotowo
- 17,5 km RB Damaged fishway

17-15 km – RB – Lowered ostrogi, visible at very low water level, i.e. on the water gauge in Kostrzyn, about 160 cm, in Świerkocin 210 cm. Up to km 13 we may sail by the centre of the river current. At km 15, the 3-4-metre (10-13 ft) high flood-bank stretching along the left bank turns south, forming the beginning of the Słońsk polder, which is part of the Ujście Warty National Park. The polder is also known as the Kostrzyn Storage Reservoir.

## THE WARTA

12,5 km – A shallowing on the right bank and damaged groynes on the right marked by two green buovs

CAUTION: Please exercise caution.

- 9,5 km A red buoy visible to starboard
- 9,5-4 km In hazardous areas, floating caution signage is placed.

CAUTION: No typical signage along river bank.

8 km – RB – The building of Kostrzyn-Warniki intermediate pumping station

#### 4,1 km - RB - A red buoy

The buoy marks the outlet of the Stara Warta (the Old Warta), also known as the Maszówek Canal.

#### 4 km - RB - A post of Water Management Station

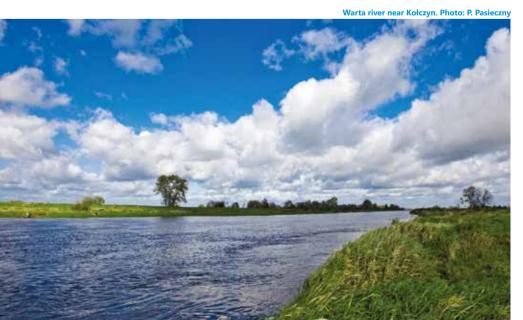
The one-storey white-brick building and a concrete quay is the water management post in Kostrzyn, subordinated to the Water Management Station in Gorzów Wlkp., with the seat in Świerkocin. The facility serves as a harbour for ice-breakers and a wintering harbour for ships and barges. Still, there is a possibility of mooring large vessels here and exploring Kostrzyn. Important! On the quay there is a board with current transit depths for the Warta as far as Konin and for the lower Noteć as far as Krzyż. The area is enclosed. Stopping at the quay and access to it (going into town and returning) will be possible only with the permission of and on conditions set by waterway administration.

3,65 km – RB – Water-level gauge Kostrzyn

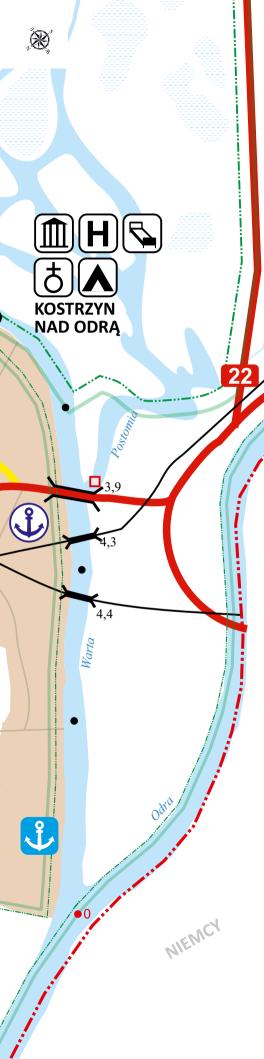
2,5 km - LB - The outlet of the Postomia River



The Ujście Warty National Park. Photo: R. Wasil







## 2,45 km – The road bridge in Kostrzyn.

Clearance at HNW: 3.9 m (12.8 ft).

This is the administrative border of the Ujście Warty National

## 2,4 km - LB - Yacht harbour

Wooden stairs descending to the water level; old wooden stilts with stone fill driven into the quay are visible from the upstream direction. There is a possibility of dropping anchor or tying up to the bank. 200 m from here towards the border there is a petrol station.

## 2,3 km – RB – Stone municipal quay

It is fairly deep here, but slightly too high for small boats.

# 2,25 km – Railway bridge on the Kostrzyn-Górzyca route Clearance at HNW: 4.3 m (14.1 ft). The railway line running across the bridge is one of the main railway lines in Poland (from Szczecin to Silesia), used for transporting coal to the port of Szczecin.

1,78 km – The cross-border railway bridge on the Kostrzyn-Kietz route

Clearance at HNW: 4.4 m (14.44 ft). The railway line runs from Warsaw to Berlin, which is why the bridge is also called the Berlin bridge. The town of Kietz on the German side was a border station. Today there is no border and you can get to Berlin by trains, which depart from Kostrzyn every hour. This gives an excellent opportunity to visit Berlin, especially as a two-way ticket in the so-called cross-border traffic is cheap and, importantly, entitles you to use public transport in Berlin without having to buy extra tickets.

#### 1,4 km - RB - A concrete quay

Once belonging to Bydgoszcz Shipping Company, the place is now in private hands. No possibility of mooring or using the infrastructure, except by arrangement with the owner.

0,83 km - RB - The concrete quay of the former paper mill

0,15 km – RB – "Keep a particularly sharp lookout" sign We enter a major waterway – the Odra. A red buoy is visible to the right, marking the edge of the Odra's navigable channel at its km 617.6. This is the end of the Vistula-Odra Waterway.

## THE WARTA



The harbour in Kostrzyn. Photo: P. Pasieczny



Railway bridge on the Kostrzyn nad Odrą Photo: P. Pasieczny



The Quay of Bydgoszcz Shipping Company in Kostrzyn. Photo: P. Pasieczny

The confluence of the Warta and the Odra. Photo: P. Pasieczny



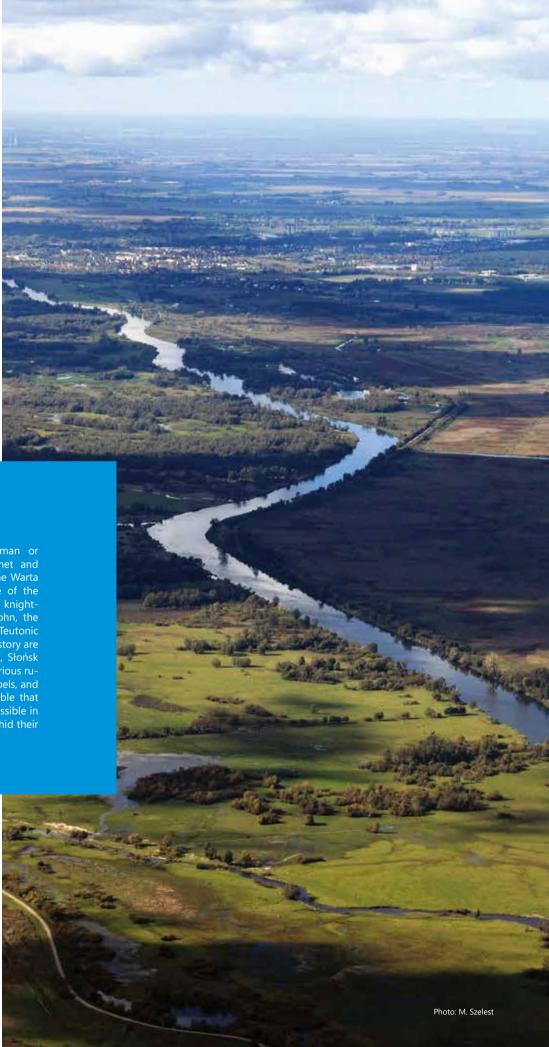
## THE WARTA

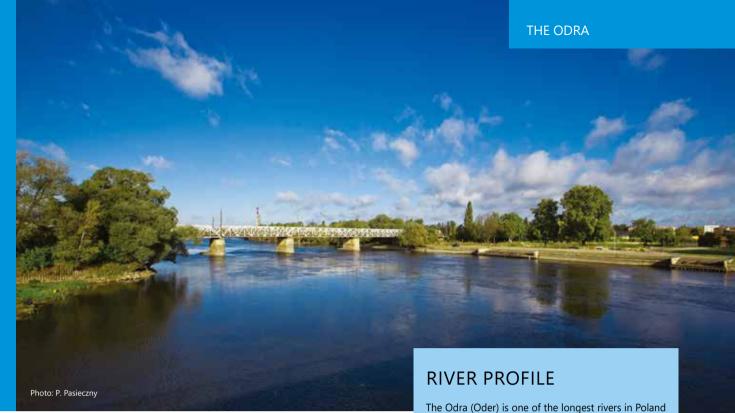


The Ujście Warty National Park. Photo: P. Pasieczny

## DID YOU KNOW THAT...

It was not only Polish, German or Pomeranian influences that met and clashed at the confluence of the Warta and the Odra, but also those of the three most powerful medieval knightly orders: the Knights of St John, the Knights Templar, and the Teutonic Knights. To this day, traces of history are visible in this area – in Santok, Słońsk or Chwarszczany – in the mysterious ruins of fortified settlements, chapels, and renovated churches. It is possible that in these Warta wetlands, inaccessible in the Middle Ages, the Templars hid their famous treasure.





## NAVIGATIONAL INFORMATION

THE ODRA River on the described part of 46,5th km, it means from Kostrzyń near Odra River to Hohensaaten in Germany, it belongs to the third class of navigable roads, which makes it a communication artery that can be used by units with a capacity of up to 1000 tons. Night navigation is allowed on the border stretch of the Odra (km 542.4-704.1). Still, the decision on whether it is possible is communicated, in the form of a navigation announcement, by The State Water Management Agency of Polish Waters The Regional Water Management Board in Szczecin and the National Waterway Office and the Water and Shipping Office in Eberswalde. Sports and pleasure watercrafts are prohibited from night navigation.

After the outlet of the the Warta into the Odra, transit depths increase by about 20-30 cm (8-12 in). Because the river's flows and depths, on the freely flowing stretch, are mainly determined by maximum precipitations, they are not constant and range from about 100 cm (3.28 ft) to as much as 250 cm (8.2 ft), depending on month and year. Maximums for the section of the river described here usually occur in March and April, and minimums occur in the summer months. Maximums are recorded during thaw, which is typical for unregulated rivers. The number of navigation days on the Odra is variable and ranges from 250 to 365 days a year, depending on the navigation outages associated with the flood wave transitions (when the water levels reach and exceed the high navigable water states and ice phenomena that occur practically every year. Along the international E-70 waterway, at the border section of the Odra River, an international Polish-German ice-breaking action is conducted which also contributes to shortening the navigation outage.

The stretch is characterized by considerable widths of the river bed (about 80 m/262 ft), which results in a changeable course of the current and numerous shallows. Navigation is impeded by the shifting sandbars that are formed at the mouth of the Warta. The Odra is regulated; the good condition of its regulation facilities as well as the depths and widths of the channel would make it much more favourable to navigation. Still, the river's channel is devastated. The lack of maintenance work led to its advanced renaturation.

## POWER LINES, BRIDGES AND FERRIES

Due to the maintenance of the described fragment of the Odra as a class III inland waterway, no power lines run across it at 12 m (39.4 ft) at HNW (the highest navigable water). There are no bridges or ferries across this section of the river. In Gozdowice, at km 645, the Bez Granic (Without Borders) ferry sails regularly in summer, from April to October. It is a paddle wheel vessel, self-propelled.

#### **VEGETATION**

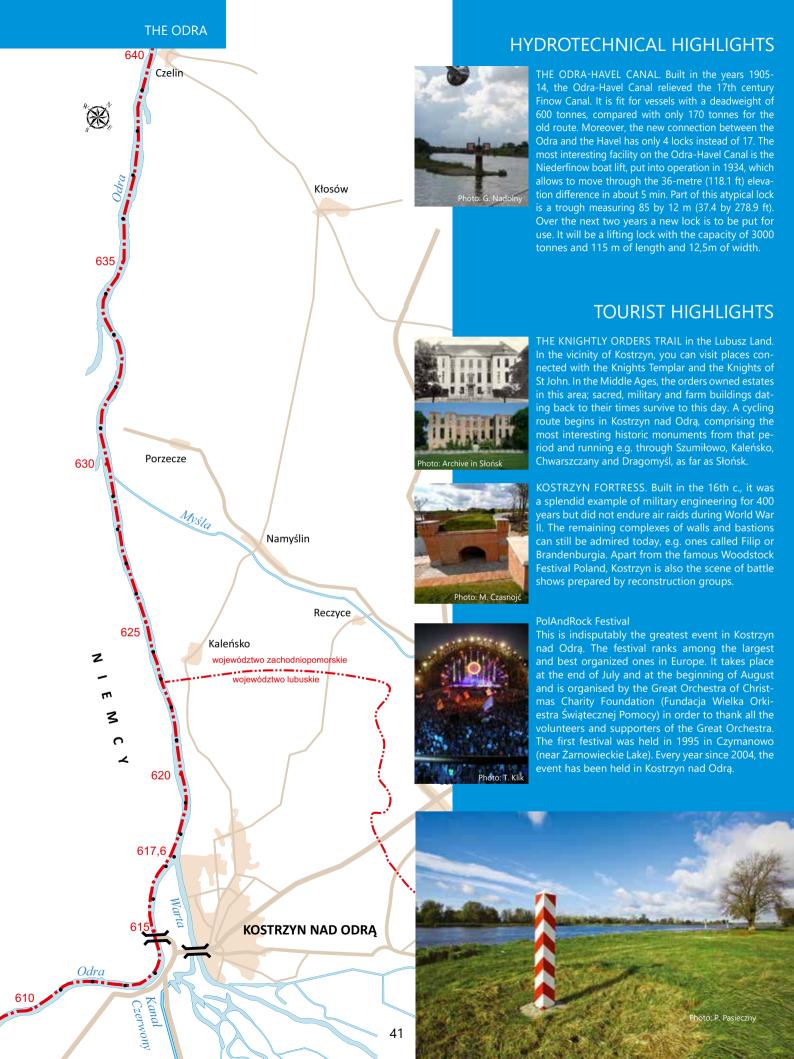
Navigation on the Odra is unimpeded by water vegetation. MOORING

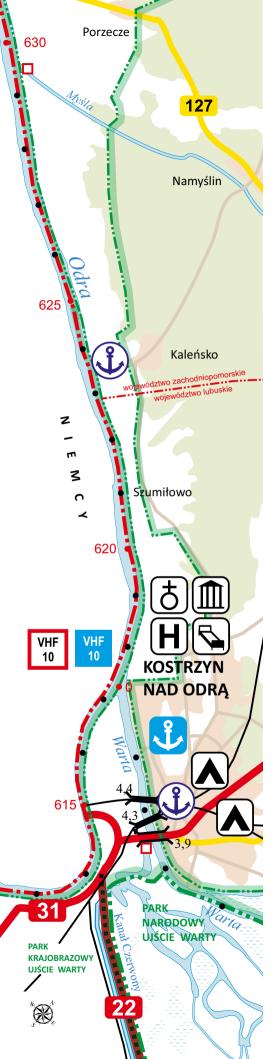
You will not find many club harbours or marinas along the Odra that encourage recreational use of the river. The only port on this section that can be mentioned is the port in Kostrzyn, at the mouth of the Warta (km 617.6). Additional spots for night mooring are located on the Polish as well as on the German side, e.g. at km 617 and 625. At km 623.7, in Kaleńsk, there is a marked mooring place for sports and pleasure watercrafts. At km 632, in the town of Kienitz, there is a marina.

as well as the longest inland waterway in the country. It is also an important communication artery of Eastern Europe. The Odra ranks second among Polish rivers in terms of total length, but if we consider only the length of its course in Poland, it ranks third after the Vistula and the Warta. The river is 854.3 km (530.8 mi) long, including 742 km (461 mi) in Poland. The Odra flows through the śląskie, opolskie, dolnośląskie, lubuskie, and zachodniopomorskie voivodeships. Together with the Gliwice Canal, it forms the Odra Waterway, which is an element in the European system of waterways and part of E30 International Waterway. The importance of the Odra River as an international communication route stems from its connections with other waterways. These connections include: the Odra-Spree Canal entrance at km 553.4, the possibility of entering the Vistula-Odra Waterway at km 617.6, and the Odra-Havel Canal entrance at km 667.2. Both the Spree-Odra and the Havel-Odra Waterways connect the Odra with Berlin. Kilometre zero for both these waterways is situated below the Spandau Lock, where the Spree flows into the Havel. The Havel Canal was built during the blockade of West Berlin. After the fall of the Berlin Wall and the construction of the new

In its upper reaches, the Odra is a regulated river – perhaps even too much so, as shown by the catastrophic floods that recur every dozen years or so. As many as 25 locks have been built there. Works on taming the river were in progress since the 18th century, and regulation proper began in 1819. In its lower reaches – more specifically, on the stretch between Kostrzyn on the Odra (km 617.6) and Hohensaaten (km 667.2 - entrance to the Odra-Havel Canal), where the Odra constitutes an element of IW E70, it is a river regulated by means of wing dams, built towards the end of the 19th c. A nearly 180-kilometre (112 mi) stretch of the Odra marks the border between the Republic of Poland and the Federal Republic of Germany. This section is jointly managed by the Regional Water Management Board in Szczecin (Poland) and the Magdeburg-based Water and Shipping Management East, local branch Eberswalde Water and Shipping Office (Germany).

Spandau Lock, the canal lost in importance.







The mouth of the Warta. Photo: G. Nadolny

We enter the Odra from the Warta River at km 617. Along the entire border stretch there are aids to navigation: bank signs and floating markers. Bank signs are placed by the water management authorities of each country on their respective bank; the floating markers along the border stretch from the outlet of the Nysa Łużycka (the Lusatian Neisse) to the outlet of the Warta are placed by the Water Management Station in Słubice, and below the outlet of the Warta as far as the end of the border stretch in Widuchowa – by German water management authorities.

We navigate the next 13 km (8.1 mi) almost in a straight line. The Odra does not meander much. Its navigable channel runs closer to the right and left bank alternately.

617,6 km - RB - The mouth of the Warta River

#### 619,1 km - LB - A night mooring place

On the German side, a flood bank runs along the river, with an asphalt road on it that leads from the Nysa Łużycka (the Lusatian Neisse) to the Baltic Sea. Scenic and several hundred kilometres long, the route is often used by cyclists and hikers

## 621 km - RB - Szumiłowo

The border of Lubuskie and Zachodniopomorskie provinces.

From this point the Odra River separates the West Pomeranian Voivodeship and Brandenburg – one of German States.

622,8 km - RB - The border between the lubuskie and zachodniopomorskie voivodeships From this point on, the Odra becomes the border separating the zachodniopomorskie voivodeship from the German Federal State of Brandenburg.

## 623,7 km – RB – Kaleńsko

A marked mooring place for sports and pleasure ships.

625,1 - 625,9 km - LB - A night mooring place







The Odra, km 619. Photo: G. Nadolny

629,5 km - RB - The mouth of the Myśla River

At km 630 - the Odra curves gently right and meanders to the left for the next 2 km (1.25 mi).

630,7 km - RB - The Porzecze Reserve

632 km - LB - The town of Kienitz - a marina

635 km – LB – The town of Gross Neuendorf with a mooring quay

639 km - RB - Czelin

Buildings are visible from a distance.

After 28 km (17.4 mi) from that place, at km 667,, we reach the Odra-Havel Canal, which is a continuation of International Waterway E70. This stretch of the river is described below.

645 km - RB - Gozdowice Water Management Station.

A self-propelled ferry, a mooring place for sports and pleasure watercrafts, a shop, the Museum of the Odra Crossing in 1945, the military cemetery in Siekierki.

653,9 km – A railway bridge (closed)

662,3 km – The Osinów Dolny/Hohenwutzen road bridge

667 km – LB – entrance to the Hohensaaten Ost Lock canal

The beginning of the Havel-Odra Waterway.

The Odra, km 653,9 - A railway bridge. Photo: G. Nadolny



## IW E70 – THE SOUTH-NORTH (S-N) STRETCH

The second part of the Polish stretch of International Waterway E70 described in this guide has an impressive variety of water bodies and a multitude of tourist attractions along its course. Its total length is 280 km (174 mi) in a straight line, if we count the Vistula, the Nogat, and the Vistula Lagoon stretches. But the route may also lead along the Szkarpawa and the Elblag River. Our trip begins in Bydgoszcz, at km 772 of the Vistula, where the Brda has its outlet, and leads through a number of historic towns, which were set up ages ago in strategic places on the Vistula to perform defensive functions. You can still admire the castles left by the Prussians, e.g. in Chełmno, Grudziadz, Świecie, Kwidzyn or Gniew. After 115 km we reach the village of Biała Góra, where the historic lock bearing the same name separates the main channel of the Vistula from the Nogat and protects Żuławy Wiślane (the Vistula Delta Plain) against high water. The Nogat is the Vistula's east outlet branch, which used to carry over 80% of its waters a few centuries ago, and is practically devoid of current since the reconstruction at the beginning of the 20th c. We shall follow this route to the Vistula Lagoon and Elblag, admiring the charming landscape of Żuławy on the way and the splendid Gothic castle in Malbork – the medieval capital of the state of the Teutonic Order. Remaining on the broad waters of the Vistula, however, we will reach Gdańsk – the historic Free City, the cradle of Solidarity and the capital of Baltic Sea amber. The river flows into the Baltic Sea by forming a delta, whose numerous branches make up the so called Żuławy Loop. All these watercourses together provide excellent conditions for water tourism and make cargo shipping possible in the kujawsko-pomorskie, pomorskie and warmińsko-mazurskie voivodeships. The following water bodies are described in the guide:

- 1. The Vistula River from km 771.4 to km 941.3 (absolute length 169.9 km / 105.6 mi);
- 2. The Nogat River from km 0.00 (km 886.6 of the Vistula) to km 62 (abs. l. 62 km / 38.5 mi);
- 3. The Szkarpawa River from km 0.00 (km 931 of the Vistula) to km 25.4 (abs. l. 25.4 km / 15.8 mi);
- 4. The Elblag River from km 0.00 do km 16.3 (abs. l. 16.3 km / 10.1 mi);
- 5. The Vistula Lagoon the length of the Polish section is 35.1 km (21.8 mi).

The largest Polish river surprises with its beautiful natural landscape and impresses with its size. Flowing lazily, the Nogat scenically meanders through the fertile lowlands of Żuławy Wiślane. The Vistula Lagoon, with its maritime aids to navigation, may be an excellent school of sailing before setting out for more challenging waters. All this makes the S-N stretch of IW E70 a perfect place for a water holiday, with something for everyone to enjoy.





#### GDAŃSK Pomorskie voivodeship

Gdańsk is a port city at the Baltic Sea, at the mouth of Motława River to Martwa Wisła (Dead Vistula River) at Gdańsk Bay, on Gdańsk coast. It is the cultural, scientific and economic center and the interchange of the Northern Poland, the capital of pomorskie voivodeship and of Gdańsk archdiocese and of Białostok-Gdańsk Orthodox diocese.

#### **TCZEW**

## Pomorskie voivodeship

Tczew is a town in the pomorskie voivodeship, at km 904-910 of the Vistula. It has a river museum, the first one in Poland and the third one in the world. The country's first Maritime School functioned here as well. Music lovers visit Tczew during Grzegorz Ciechowski Memorial Festival.

#### **GNIEW**

#### **Pomorskie voivodeship**

Explosive attractions await tourists in the nearly 7,000-strong Gniew, in the pomorskie voivodeship, located at km 876 of the Vistula. At the castle here, it is possible to fire a historic cannon as well as watch knights' tournaments and battle reconstructions. Apart from the Teutonic Knights' castle, the town has a palace which King John III Sobieski built for his wife, Marysieńka (Marie Casimire).

#### **ŚWIECIE**

### **Kujawsko-Pomorskie voivodeship**

At km 811-814 of the Vistula, in the Kujawskopomorskie voivodeship, lies Świecie (nearly 26,000 residents). The castle here is one of Europe's few medieval water fortresses, and the fara (old parish church) took about 100 years to build, which made it a blend of various architectural styles.

## CHEŁMNO Kujawsko-Pomorskie voivodeship

**BYDGOSZCZ** 

Chełmno is Haenzatic town, incredibly picturesque, at the Vistula River, laid on nine hills on the 84th km of the river. It is an old historical capital of Chełmińskie land. It encourages tourists with its medieval defensive system and a Renaissance town hall. It is also known as a Town of Lovers because of St. Valentine's relic, which can be found in a Gothic parish church.

**ŚWIECIE** 

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790

780

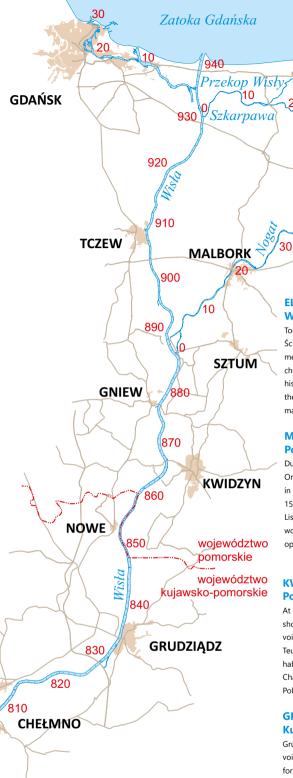
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**CHEŁMŻA** 

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TORUŃ

740

## ELBLĄG Warmińsko-Mazurskie voivodeship

**ELBLAG** 

województwo warmińsko-mazurskie

Zalew Wislany

**FROMBORK** 

Tourists visiting Elblag should take a walk along Ścieżka Kościelna (Church Lane), which is a fragment of the original medieval passage between three churches of the old town. Still, this is only one of many historic monuments in the town located at km 3-9 of the river bearing the same name, in the warmińskomazurskie vojvodeship.

## MALBORK Pomorskie voivodeship

Due to the castle of the Grand Masters of the Teutonic Order, nearly everyone has heard of Malbork, a town in the pomorskie province, lying on the Nogat (km 15-20). The castle has been included in the UNESCO List of World Heritage Sites, and on its grounds the world's largest exhibition of siege machines has been opened.

## KWIDZYN Pomorskie voivodeship

At km 863 km of the Vistula, enthusiasts of history should stop in Kwidzyn, in the kujawsko-pomorskie voivodeship, where three Grand Masters of the Teutonic Order were buried. In the town of 38,000 inhabitants, there is also the castle of the Pomesanian Chapter and the old Consulate of the Republic of Poland – formerly an intelligence post.

#### **GRUDZIADZ**

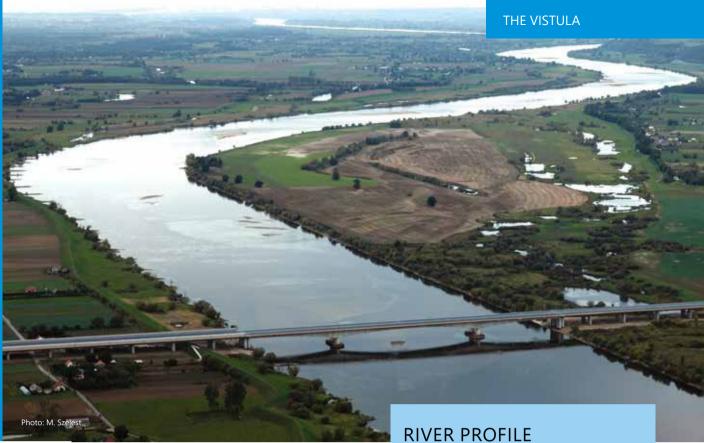
## Kujawsko-Pomorskie voivodeship

Grudziądz, situated in the kujawsko-pomorskie voivodeship at km 831-837 of the Vistula, is famous for the granaries that stretch along the river, dating back even to the 14th c. Another interesting historic monument is the market square with beautiful townhouses. Thanks to the local Flying Club, it is possible to see a bird's-eye view of the entire 100,000-strong town.

## TORUŃ Kujawsko-Pomorskie Voivodeship

Toruń – the city of gingerbread – is one of the oldest cities in Poland, with beginnings going back to prehistoric times. The city lies between km 730 and 738 of the Vistula. The right-bank side of the city lies in Pomorze (Pomerania) and the left-bank side in Kujawy (Kuyavia).

Toruń has been included in the UNESCO List of World Heritage Sites.



## NAVIGATIONAL INFORMATION

#### **DEPTH**

From the outlet of the Brda (km 771.4) to Tczew (km 910), the Vistula is recognised to be a class II navigable aterway, with a transit depth of 1.4 m (4.6 ft). From here as far as the mouth (km 941.3), it is a class II waterway and guarantees a depth of 1.6 m (5.25 ft). Still, caution should be exercised, since the current of the Vistula carries a considerable amount of aggregate forming sandbars, which often block he main channel – depth may fall below 1 m (3.3 ft).

## WIDTH

The width of the river is in the region of 500 m (1640 ft). A pair of binoculars is indispensable on board, facilitating the recognition of signs on the opposite bank. When navigating along the bank, keep a safe distance – from several dozen to as much as 200 metres (150-650 ft) - to avoid hitting the hidden and often damaged wing dams, which sometimes protrude far into the river channel.

#### **POWER LINES AND BRIDGES**

All the power lines run high (above 8 m / 26 ft at HNW), not obstructing navigation. The lowest bridge over this section of the Vistula is in Grudziądz – its clearance is over 5 m (16.4 ft) at high water level and nearly 9 m (29.5 ft) at medium water level.

#### AIDS TO NAVIGATION

The lower stretch of the Vistula has bank signs required by regulations for inland waterways. During low water stages, the signs must absolutely be obeyed! Kilomere signs are frequently destroyed, which is why they appear on river banks very irregularly.

## **MOORING**

Apart from the few harbours along the Vistula's banks, you should only choose sandy coves between wing dams as mooring places (watching out for fishing nets). When approaching the bank, be particularly careful: stone reinforcements, occurring along the entire length of the river, pose danger to vessels. In Toruń (on IW E40), in the distance of about 30 km from IW E70, from the direction of Old town complex, on the 1,5 km part between the bridges of road and rail, the bank of Vistula River was modernized. It is an element of river landscape of Toruń. The bank is adopted to moor big passengers' vessels. All of this enables the direct relations Vistula River - Old Town, which marks Hanzeatic and river identity of Toruń. The terrace strengthening of the central part of it is especially highly estimated place of meetings and relaxation of tourists and inhabitants at the Vistula River bank. The harbour Of AZS (Academic Sports Association) is also rebuilt. It is located at Philadelphian Boulevard in close distance to Old Town. In enables mooring of about 20 little vessels.

## WIND AND CURRENT

Due to the fairly rapid current of the Vistula (c. 3 km/h – 2.7 ft/s), avoid quick manoeuvres. Wind may be an impediment as well - when it blows from the north waves may reach a height of even 1 m (3.3 ft). At strong south wind, increase the engine's revolutions.

Poland's longest river and at the same time the longest river flowing into the Baltic. It is 1047 km (650.6 mi) long, and its basin takes up more than half of the area of Poland. The Vistula is called the Queen of Polish Rivers – also because of the huge role it played in the history of our country. Its banks witnessed the turbulent history of the Polish nation. Ages ago, towns such as Cracow, Warsaw, Toruń or Gdańsk were set up on it. The Vistula can be divided into 3 basic sections: upper, middle and lower. The source of this division lies in history and in the layout of borders between the partitions. The upper section, c. 270 km (167.7 mi) in length - from the source on the slope of Barania Góra in the Beskid Śląski (the Silesian Beskid) to the mouth of the San River - has no particular significance to economy or shipping due to poor regulation and too low water levels. However, it constitutes a landscape and tourist attraction of places such as Oświęcim, Cracow, Tarnobrzeg or Sandomierz. The longest, middle section is characterised by a natural landscape of a wild river, unique in Europe. As the Vistula is regulated only by flood embankments, sandy islands are often formed and on the fields along its banks grazing cattle can be noticed. The participants of the increasingly popular kayaking trips can visit historic places such as Janowiec, Kazimierz Dolny, Puławy or Deblin. From Płock to the mouth of the Vistula in Gdańsk flows the lower section of the Vistula, regulated during the German partition. On the way, you pass the dam and hydroelectric plant in Włocławek and Poland's largest water reservoir - Włocławek Reservoir. Travelling further, you can visit a number of castles erected by the Teutonic Knights, e.g. in Toruń, Świecie, Grudziądz or Gniew. In the Żuławy area, the Vistula forms a delta, forking into the Nogat, the Szkarpawa, the Martwa Wisła (the Dead Vistula) and the Wisła Śmiała (the Bold Vistula). At present, the river's main outlet into Gdańsk Bay is the canal (Przekop) built in 1895.

# Zatoka Gdańska THE VISTULA **GDAŃSK** 920 910 TCZEW hoto: M. Opitz 890 880 **GNIEW KWIDZYN** Photo: M. Opitz województwo pomorskie województwo kujawsko-pomorskie NOWE GRUDZIADZ **ŚWIECIE** 810 CHEŁMNO 800/ 790 Photo: P. Pasieczny BYDGOSZCZ **TORUŃ** 760 740 Photo: M. Opitz SOLEC **KUJAWSKI** 47

## HYDROTECHNICAL HIGHLIGHTS

#### THE GDAŃSKA GŁOWA LOCK

Built in 1895 during the reconstruction of the Vistula's estuary, the lock measures 12.5 by 61 metres (41 by 200.1 ft) and takes its name after the fortress that was pulled down in the 17th c. In the times when Przekop Wisły was not yet in existence, this was the only strategic place enabling the control of Gdańsk trade.

## THE PRZEGALINA LOCK

This is the only barrage on the so-called Gdańsk Vistula (Wisła Gdańska). Its construction enables navigation on the Martwa Wisła and the barrage itself protects nearby areas from flood. Two locks are situated here at present. The first one (northern) was built in 1895. In 1981 the second one was put into operation: the modern and much larger southern lock, measuring 11.9 by 188 m (39.04 by 616.8 ft). In 1992, the Northern Przegalina was put out of service and entered into the Register of Historic Monuments.

## RIVER GAUGE IN KORZENIEWO

This historic river gauge was erected in the 1840s, during the construction of the river port in Korzenie-wo. Its mechanism was automated, dependent on the water level in the Vistula and in the port thanks to the large dial mounted on the building's turret, the readings of the river gauge could be seen from the deck of a barge or a tug. The building resembles a chapel or an Orthodox church, and few people are aware of its original function.

## **TOURIST HIGHLIGHTS**

CHELMNO is called a Town of Love, because in the fara (old parish church) there, dating back to the turn of the 13th and 14th centuries, relics of St Valentine are kept. Numerous themed events are held here on February 14. Apart from Valentine's Day, the town has many other attractions for those in love. Achitecture lovers will be interested to know that the town was built to a scheme adopted in advance, based on the so-called Chełmno rod, which used to be a unit of length. The standard has been placed in the town hall, and the effects of the town having been built using this method (referred to as the law of Chełmno) can be seen from the fara tower.

#### GRUDZIĄDZ

What rivets the eye in Grudziądz is the 16th-century brick granaries, located near the old town and give the impression of being huge when looked at from the river, although they are only several floors high. The buildings that lie closest to Brama Wodna (Water Gate) house The Rev. Dr W. Łęga Museum, which presents e.g. archaeological, ethnographic or numismatic collections. Other buildings of former granaries are inhabited or are still to be adapted for various purposes.

#### **TCZEW**

Tczew has Poland's first Museum of the Vistula River, which is the third museum in the world devoted to a river; the museum promotes the region's history and traditions. Other places worth visiting include Tczew's oldest historic monument – the 13th-century fara church – and the old town, also dating back to the Middle Ages.



#### THE MAJOR ATTRACTIONS OF TORUŃ

#### **OLD TOWN HALL**

Built towards the end of the 14th c. An interesting fact is that the town hall has as many windows as there are days in a year, as many rooms as there are weeks and as many towers as there are seasons.

#### SAINT JOHNS' CATHEDRAL

This is the oldest Gothic church in the Chełmno Land. Its construction began in 1233, the year Toruń was granted a city charter. In the church, there is a Gothic font at which Nicolaus Copernicus was baptised.

## CONTEMPORARY ART CENTRE "ZNAKI CZASU"

It was opened in 2008 and is one of the most modern centres in Poland dedicated to contemporary art. The exhibition space is over 4,000 m2 (43,000 sq ft). In addition, the centre has a cinema, Księgarnia Sztuki bookshop and the Sömmerings' Reading Room.

#### COPERNICUS' HOUSE

It is here that the Toruń's most eminent resident and the author of the heliocentric model of the world, Nicolaus Copernicus, was born in 1473. At present, the building houses a museum devoted to the astronomer with exhibitions concerning his life and work.

#### THE GINGERBREAD MUSEUM

Located at 9 Rabiańska Street. This is an interactive museum, located in a 15th-century bakery, where gingerbread cakes are produced in accordance with old recipes and by means of such tools as were used 500 years ago.

## THE RIVERSIDE TORUŃ

Between old city walls and the Vistula, there is Bulwar Filadelfijski (Philadelphia Boulevard). The name of the boulevard derives from that of Toruń's partner city – Philadelphia. In return, one of the squares in Philadelphia bears the name of Toruń Triangle. At the boulevard, you can find inscribed quotations from the cult film Rejs (The Cruise) – it was at the boulevards that the first scenes of this film were shot.

The right-bank and left-bank Toruń are connected by the J. Piłsudski Road Bridge, the E. Malinowski Railway Bridge and the Armia Krajowa (Home Army) Motorway Bridge.

Not far from the Old Town, there are 13th-century granaries, testifying to the city's wealth in the times when it used to be an international commercial centre. During the greatest trade boom, there were more than 100 granaries here.

Toruń lies on International Waterway E40, connecting the Baltic Sea with the Black Sea; it is also an element of the Bydgoszcz Waterway Junction.

There are river ports in Toruń: Drzewny and Zimowy, as well as numerous sailing harbours: AKS (Amateur Sports Club), AZS (Academic Sports Association) near the Old Town, KS Budowlani, Szkwał, Towimor, Walter, Yacht Klub Toruń, Liga Morska i Rzeczna (Maritime and River League).

In the tourist season, river communication functions: the Katarzynka boat, connecting Bulwar Filadelfijski (Philadelphia Boulevard) with Kepa Bazarowa island and Dybowski Castle; passenger ship the Wanda (cruises on the Vistula); passenger ship the Wiking (cruises on the Vistula).

(Pomerania) and the left-bank side in Kujawy (Kuyavia). The city's attractive location, on the river and on the amber trail, determined its significance in the history of Poland and Europe. In 1230 the Teutonic Knights settled here, and in 1280 Toruń became a member of the Hanse – an association of Northern European commercial cities. In 1411, a year after the battle of Grunwald (Tannenberg), a peace treaty was signed in Toruń, ending the great Polish-Teutonic war, but as soon as 1454 the outbreak of an anti-Teutonic uprising in Toruń led to the Thirteen Years' Polish-Teutonic war. During the war, Casimir IV Jagiellon issued an act incorporating Prussia into the Kingdom of Poland and incorporated Toruń into Poland as well, granting privileges that gave it independence and political autonomy. The 16th and 17th centuries were the golden age for Toruń, a time when the city grew wealthy mainly through river trade and international fairs. It was also in this period that rafters' tradition began to emerge in Toruń – rafters' initiation ceremonies took place here. Moreover, Toruń became a Lutheran city at that time. The 18th century Swedish invasions caused much damage, especially that in 1703, which led to the burning of a large part of the market square, the city hall and churches. Five years later, a plague epidemic broke out that decimated the city's population. In 1793, as a result of the second partition of Poland, Toruń was incorporated into the Kingdom of Prussia. In Napoleonic times, Toruń was pillaged and destroyed many times by passing troops. After the Congress of Vienna, Prussian authorities began to convert the city into a stronghold. After World War I, Toruń returned to Poland and started to develop dynamically After World War II, in the times of the Polish People's Republic, the city lost in importance, giving way to the more working-class Bydgoszcz. At present, the city has 205,000 residents and is the seat of the Office of the Marshal of the kujawsko-pomorskie voivodeship (Bydgoszcz is the seat of Voivodeship Office).

In 1997, Toruń was included in the UNESCO List of World Cultural Heritage. The heritage sites put on that list are the 13th-century complex of old and new town as well as the ruins of the Teutonic Knights' castle.

## THE VISTULA



Bulwar Filadelfijski in Toruń. Photo: Województwo Kujawsko-Pomorskie



Toruń, The harbour of AZS. Photo: P. Piaseczny



E. Zawacka road bridge. Photo: L. Turowski



Toruń, winter port. Photo: L. Turowski



Wharf in Solec Kujawski. Photo: S. Wroński

Toruń - Old Town from the Vistula. Photo: Miejska Pracownia Urbanistyczna w Toruniu



Toruń - Railway bridge. Photo: R. Wasil

730 km - Shifting sandbar

731,3 km – E. Zawadzka Road Bridge – a bridge of a two-span steel structure, with one support on an island in the river current centre. Bridge length is 540 m (two spans of 270 m each), height of the arch – 50 m, number of lanes:

2/2 (two roadways with two lanes in each direction). High navigable water – 9.44 m (30.9 ft).

733 km – Shifting sandbar

733,6 km – The Ernest Malinowski railway bridge

The bridge is 997 m, breadth 94 m span, HNW: 7,85 m (25,75 ft)

Philadelphian Boulevard (Bulwar Filadelfijski) – it goes along the whole length of the town's defensive walls. There is a little wooden building with water level indicator called 'limn graph" from 1892. The limn graph records the fluctuation of water level of Vistula River.

734 km – The harbour of Toruński Klub Sportowy "Budowlani"

735~km – The Józef Piłsudzki Road Bridge. HNW – 5,17 m (16,96 ft).

735,7 km – The harbour of AZS – newly renovated and equipped with floating jetties for 20 vessels, the marina invites you to moor and rest here. In the immediate vicinity some recreational facilities are located, featuring sports grounds, playgrounds, a gym and a barbecue area.

736 km – Shifting sandbar Toruń

736,4 km – Port Zimowy (Winter Port) – built in 1879 has a 4.25 ha area with a total length of 345 m and a depth of 3 m. It features a ramp for hauling river vessels for inspection and repair and some repair workshops.

740 km - Shifting sandbar

743 km – Shifting sandbar Wielka Niszewska

744,8 km - The Canal to Wooden Port

The canal is 1500m of length and 60 m of width. The harbour basin is 1800 m long and 350 m wide.

The end of right bank Toruń

744,85 km – An overhead power line Clearance at HNW: 14,56 m (47,76 ft)

745 km - Shifting sandbar Dybowo

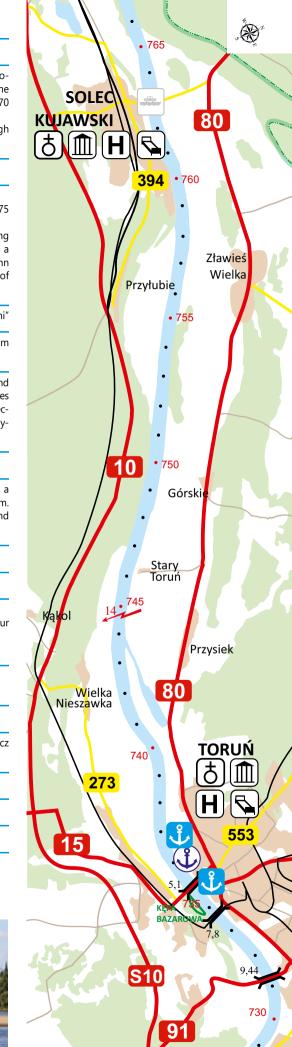
745,8 km – The mouth of the Zielona River – Bydgoszcz Forest approaches the river

749 km – Shifting sandbar Górsk

752 km – Shifting sandbar Smolno

755 km - Shifting sandbar Przyłubie

759 km – Shifting sandbar Zławieś Wielka





The Wielka Kępa Ostromecka Reserve. Photo: M. Szelest

## 760 - 765 km – Solec Kujawski

The town with population 16000peole is in the center of Bydgoszcz Forest, in the distance of 6 km from the borders of Bydgoszcz and 35 km from Toruń.

762 km – Shifting sandbar Kujawski

763,8 km - Watchtower WOPR Salina The place of ancient ferry crossing.

764 km – Shifting sandbar Czarnowo

766 km – Shifting sandbar Otorowo

771 km – The mouth of the old Brda River !NO SAILING!



The outlet of the Brda into the Vistula. Photo: M. Szelest

771,4 km – LB – The outlet of the Brda into the Vistula

#### 774,84 km – The railway and road bridge in Fordon

Navigable span width: 90 m (295 ft); clearance: 9.1 m (29.86 ft) at medium water and 5.55 m (18.2 ft) at high water.

Just behind the bridge, on the LB, there is Witold Łożewski's harbour and equipment storehouse – by arrangement with the owner, it is possible to moor, replenish water supply and use the services of a repair shop. On the right side of the bridge, several hundred metres from the river, there is the Jermir Motel (accommodation, restaurant), but the only way to get to the left bank (Łożewski's harbour) is to walk the distance of about 1 km (0.62 km).

773 km – Shifting sandbar Fordon

## 775 km - LB - Fordon

Once a separate town, it is now (since 1973) the largest (nearly 80,000-strong) district of Bydgoszcz. It has always been connected with the Vistula - in Prussian times, the Customs and Excise Office had its seat here, and in the interwar period the town had a river harbour. The times of Fordon's glory are recalled by its monuments, notably by the neo-baroque St. Nicholas Church from 1928, located in place of a medieval temple.

## 776 km - RB - Ostromecko

Nearly 1.5 km (0.9 mi) from the river lies a very interesting park and palace complex. The surrounding park is immensely beautiful; apart from larch, lime and chestnut trees, one-hundred-year-old oak trees grow in it as well. The two palaces, of which the oldest one, rococo, used to belong to castellan Mostowski and the newer one, classical, was built by the next owners, the Schoenbrun family, are wonderfully integrated into the beautiful park landscape. In the second half of the 18th c., a coach mail station on the route from Berlin to Königsberg was opened in Ostromecko. Ostromecko is also famous for mineral water, sold under the same brand name that was mentioned as early as the late 16th c.

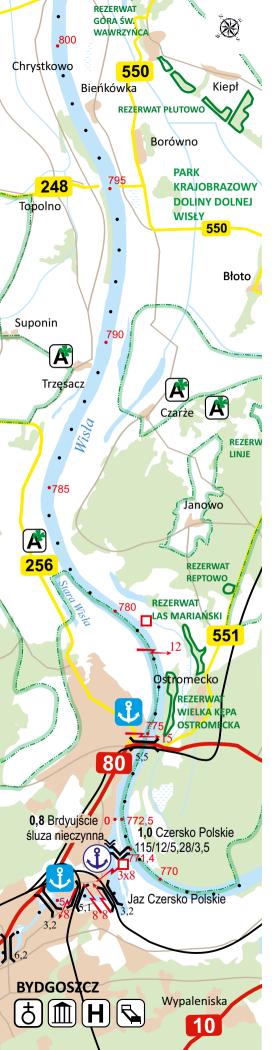
#### 776 km – RB – Wielka Kępa Ostromecka Nature Reserve

The reserve protects riparian forest, preserved in a very good condition. This reserve, just like all the others that follow as far as Nowe, lies within the Nadwiślański and Chełmiński Landscape Park Complex, which takes up a nearly 100-kilometre (62 mi) long area of the Vistula's valley.

777 km - Shifting sandbar Ostromecko

#### 787,5 km - RB - Czarże

Stopping is possible in a small cove, where a local fisherman is based - Mr Głaszkiewicz (you can buy fresh fish). The spot is not a very convenient for stopping, but sometimes a good one to hide from the high wave encountered on this part of the Vistula. The village has an interesting Gothic church.



## THE VISTULA



Ratusz w Chełmnie, Photo: P. Pasieczn

781 km - Shifting sandbar Łoskot

785 km - Shifting sandbar Rafa

786 km – LB – Trzęsacz

The village has an early 19th c. manor house and a high water mark from 1889.

787 km – Shifting sandbar Zła Wieś

792 km – Prz Shifting sandbar emiał Kokocko

774,5 km – LB – Topolno

Worth seeing here are a late 17th c. church and an interesting late 19th c. park and palace complex.

#### 799 km - LB - Chrystkowo

After mooring to the left bank, you must take a walk across the embankment and then several hundred metres further along a country lane to Chrystkowo. In the village, there is an original Mennonite cottage from 1770, one of few that are so well-preserved. The place is owned by Mr and Mrs Kwiatkowski, who live in the neighbouring building.

## 801 km - LB - Gruczno - approximately 3 km from the river

In a deep valley, just beside Gruczno, stands a historic building of a late 19th c. mill, with characteristic half-timbered (post and pan) walls. Every year, towards the end of summer holidays, the Friends of Lower Vistula Society organise a Taste Festival. During this wonderful event, the rich cuisine of the Lower Vistula region is presented. You can see the techniques of preparing dishes and, more importantly, taste everything that is on the tables. It is worthwhile trying plum jam and the various kinds of honey produced at the farms of the riverside area. It is thanks to the efforts of the Society that the tradition of making plum jam has been revived in the region. The festival is accompanied by the Flavour of the Year contest and best liqueur contest, as well as by numerous concerts and cookery demonstrations.



w Chełmnie. Photo: L. Turowski



okolicy Trzęsacza. Photo: P. Pasieczny

801 km - LB - The Ostnicowe Parowy Gruczna Nature Reserve

The reserve protects xerothermic grasslands and a valuable site of greyish feather grass (Stipa joannis) - a species of perennial grass, rare in Poland.

802 km – Shifting sandbar Starogród

802 km - RB - The Ostrów Panieński Nature Reserve Fine specimens of oaks can be seen in the reserve, many of them over 250 years old.

805,5 km - RB - The Łegi Nature Reserve on Ostrów Panieński (Panieński Holm)

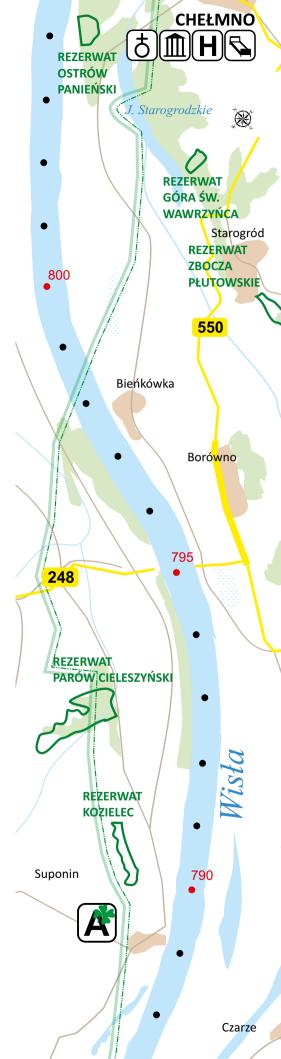
The reserve protects riparian forest.

807 km - Shifting sandbar Chełmno

## 807 km – LB – Entrance to a harbour and a river shipyard.

Stopping is possible by arrangement with the owner. At the entrance, there is the seat of the Water Management Station (Regional Water Management Board in Gdańsk) - there is little space but you can moor here, too. Exactly opposite the port entrance, on the RB, there is a concrete quay you can moor to as well. Chełmno is the closest from here.

Chełmno is now primarily associated with Valentine's Day – the holiday of lovers. The town's authorities cleverly used he fact of St Valentine's relics being stored at the local fara church to launch a promotional campaign. The peak of celebration is, naturally, February 14. Many events take place at the market square in Chełmno that day. Still, the history and monuments of Chełmno are much more interesting than a modern holiday. The Gothic fara itself in which the relics are kept deserves attention. It was built at the turn of the 13th and 14th c. It is worthwhile visiting the temple and climbing its high tower, which affords a marvellous view over the valley of the Lower Vistula and over the town itself. An exceptional town, built according to a meticulously thought-out architectural concept, called the Chełmno law. This charter served the Teutonic Order as a pattern for setting up successive towns and villages. The urban layout was determined in advance and based on the so-called Chełmno rod as the basic standard unit of length measurement. On that basis, streets, squares and pavements were marked out, as well as the walls that beautifully surround the town. All this can be seen from the high tower of the Chełmno fara, and the standard – the Chełmno rod – is suspended on the wall of the town hall. The most eminent citizen of Chełmno was undoubtedly Ludwik Rydygier, an eminent surgeon famous for carrying out innovative, modern methods of treatment, thanks to which he laid the foundations for the development of modern medicine. The town has a museum dedicated to his person.





## THE VISTULA



The castle in Świecie. Photo: P. Pasieczny

## 807,6 km - Road bridge in Chełmno

Navigable span width: 90 m (295 ft); clearance: 11.52 m (37.8 ft) at medium water and 7.80 m (25.59 ft) at high water

#### 813,5 km - LB - The mouth of the Wda River

It is often possible (even for boats with a draught of up to 50 cm / 1.6 ft) to navigate over 1 km (0.62 mi) upstream, as far as Świecie. In the town you can moor at the foot of the castle, next to a small campsite. The town centre is closest from here.

Świecie, currently known for its large paper mill, is one of the oldest towns in Pomorze (Pomerania). The castle on the Wda, at the foot of which we moor our boat, looks like a rook chess piece from a distance. It is a so-called water fortress, whose natural fortifications used to be the Wda River and a system of artificial ditches and moats. The castle is famous for cultural events, organised there for nearly 30 consecutive years under the name of "Night-Time Singing." The suprising fact is that Świecie has the lie of the land resembling foothill towns, with most streets and even the market square itself sloping. It is, then, worthwhile taking a walk along the old streets, visit the historic fara church – which, due to frequent expansions, is a blend of many styles, from Gothic to baroque – and the baroque Bernardine monastery.

## 817 km - LB - Grabowiec Nature Reserve

The reserve occupies a much diversified hilly area, criss-crossed by ravines and covered by broadleaf forest with a predominance of hornbeam.

## 819 km – LB – Sartowice

A late 18th c. palace with an English-style park of great beauty.

#### 827,8 km - Road bridge - the A1 Motorway

Clearance at HNW – 9.05 m (29.69 ft). The crossing was built in 2009-2011. The total length of the bridge is 2 km (1.25 mi), and the length of trestles is 994.9 m (3264.1 ft, 21 spans) and 562.9 m (1846.8 ft, 12 spans). It links A1 motorway interchange "Nowe Marzy" with interchange "Grudziądz." The structure consists of the midstream bridge over the main channel of the Vistula and two trestles, one on each side of the river. The length of the midstream bridge is 400 metres (1312 ft), which is divided between three spans. The longest of the spans is 180 m (590.5 ft) wide and is the longest ferroconcrete span in Poland in 2012.

### 832 km - Shifting sandbar Grudziądz

834,05 km – The railway and road bridge in Grudziądz Navigable span width: 60 m (196.85 ft); clearance: 8.98 m (29.46 ft) at medium water and 5.23 m (17.16 ft) at high water.

Shifting sandbar Grudziądz. Photo: M. Szelest



The A1 motorway Bridge over the Vistula. Photo: P. Pasieczny



The rowing club in Grudziądz. Photo: P. Pasieczny





Bridge in Grudziądz. Photo: P. Pasieczny

#### 834.3 km - RB - Grudziadz

Just after the bridge, an unimaginable view opens up in front of us. A dense line of brick structures of several floors, simply monumental, stretches several hundred metres along the entire old town of Grudziądz. They are the famous 16th-century granaries. Stretching along the river, they at the same time mark the town's western border, and from the other side they constitute an integral part of the architecture of downtown Grudziądz. This is why the buildings, which seem to be giants with a height of many storeys when looked at from the river look like two-storey (though somewhat untypical) townhouses when looked at from the town. The view is unique and breathtaking. The first granaries (looking from Brama Wodna) house the Grudziądz Museum, others are occupied by residents. Most of them, however, stand empty, deteriorating and waiting to be put to some use.

#### 834,5 km - RB - The harbour of a rowing club

A large harbour basin. With the consent of the hosts, you can moor there and use the infrastructure (toilets, showers). You will find nowhere else to moor in Grudządz, since the bank along the granaries is covered with stones, which makes safe stopping impossible, but a new harbor is being built; the opening will be in halfway of 2013.

## 838 km – LB – Wielki Lubień

Worth seeing is a late 17th c. Dutch-type wooden house.

#### 842 km - PB - Zakurzewo

Paragliders often take off from the high escarpment on the right bank of the Vistula. The place offers excellent conditions for practising this sport.

#### 844 km - LB - Matawy

From the 16th c., Dutch (Hauländer) settlers began to arrive in the village in large numbers. Matawy became their religious centre as well. Numerous elements of traditional Hauländer architecture survive, including an arcaded cottage and a Mennonite cemetery.

#### 852, 5 km - LB - Nowe

Unfortunately, there are no places adapted for mooring. The best one to stop at is as the cove near the former ferry crossing. From the Vistula, from a considerable distance, the town looks impressive. The red colour of the defensive walls, the church tower, and the caste stands out against the riverside landscape. Despite poor conditions for mooring, it is worthwhile stopping for a while and climbing the steep escarpment in order to see, from the level of several dozen metres, a beautiful panorama and the historic monuments of the somewhat destroyed but immensely beautiful town of Nowe.

854 km – Shifting sandbar Bochlin

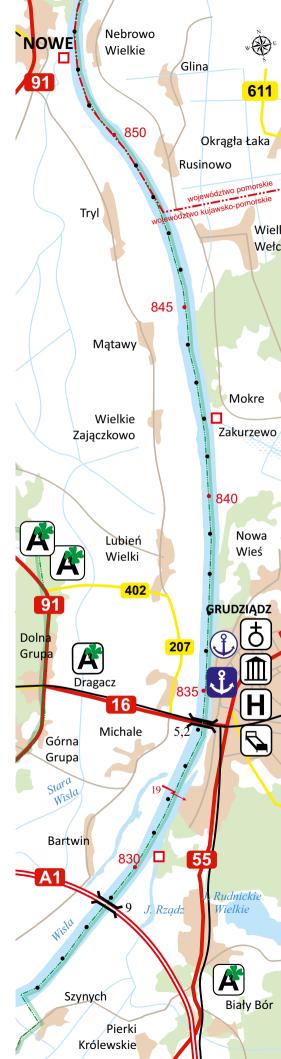
857 km - Shifting sandbar Kozielce



Chełmno. Photo: P. Pasieczny

Grudziadz, the port basin, Photo: P. Pasieczny











Nowe. A view of the Vistula. Photo: P. Pasieczny

#### 863,75 km - The piers of a no longer existing bridge

The piers sticking out of water near Opalenie considerably narrow the navigable channel – proceed close to the left bank, following the signs. The history of the crossing that existed here is strange and a little ironic. The road and railway bridge were built by Germans in 1909. After the 1920 Treaty of Versailles, the Vistula - more precisely, the right-bank embankment along the Vistula - constituted the border between Poland and East Prussia. Under the terms of the treaty, this small strip of land along the right bank of the river was left to Poland to ensure that Poles get free access to the river and cargo shipping possibilities. This made the bridge useless as leading, in fact, nowhere. Just across the Vistula ran the border that could not be crossed. At the turn of the 1920s and 1930s, Polish authorities decided to dismantle the spans of the bridge and move them to Toruń. They serve there to this day as the Marshal Józef Piłsudski Bridge. However, the Vistula is much broader in Opalenie than it is in Toruń; therefore, the remaining spans were used on the Warta, in Konin. Germans used the fact of the relocation of the bridge for propaganda purposes, presenting it as a case of the Polish State destroying the work of German technology. Later, towards the end of the war, Germans built another (railway) bridge in Opalenie, which they eventually destroyed themselves in 1945, in fear of the approaching Soviet Army. At a small distance from the bridge, a wooden crossing built by sappers functioned for some time until it finally disappeared from the landscape in 1947.

The Vistula near Korzeniewo. Photo: Województwo Kujawsko-Pomorskie

864 km - 864 km - Shifting sandbar Opalenie

## 866 km – Wing dams

Caution! The wing dams are not visible except at low or medium water – there is a danger of hitting them and damaging the vessel.



#### 866,9 km – RB Korzeniewo

Until July 2013, there was a ferry crossing operating in Korzeniewo. The ferry stopped running due to the bridge construction on the Vistula River in Lipiany in the year 2013. On the Korzeniew embankment there is a characteristic green building – it is a historic water gauge (read more in hydrotechnical fun facts). Just before the slip on the right bank there is a concrete quay, which can be moored in emergency situations. However, this is not the safest place for a tourist vessel. A more convenient spot can be seen just past the slip – on the right bank the Water Management Office in Korzeniewo is located with its port basin, where it is possible to moor. By 2020, a mooring marina for kayaks and for sailing vessels will be built in Korzeniewo. The construction of the marina will be co-financed with the EU funds within the framework of the project Water Tourism Offer Development in the area of Żuławy Loop (Pętla Żuławska) and Bay of Gdańsk – Construction of the Sailing Marina in Korzeniewo.

When in Kwidzyn you must visit the Castle of the Pomezanian Chapter, with characteristic latrine towers called Gdanisko. The construction of the bridge started in 1233, but it has been extended and reconstructed many times over the centuries. For the site visitors it is a must to visit the 14th-century Gothic Cathedral of St. John the Evangelist. Inside the building you can admire impressive antique furnishings and rich decorations, including 22 frescoes and a bishop's throne from the beginning of the 16th century In the Kwidzyn Commune there is a trail of Mennonite cemeteries and several historic churches, well worth seeing. In Korzeniew there is the former building of the Border and Customs Office (1920-1939), which later served as the Waterways Management Office in Tczew (1945-1980). A few kilometres north of Korzeniewo, there is the village of Janowo, where the Institute of National Remembrance is located, housing memorabilia related to the plebiscite held in Janów in 1920.



Gniew. Photo: M. Opitz

#### 869,5 km - Road bridge - National Road 90

The bridge was commissioned in 2013. The bridge connects the national road 91 (formerly road no. 1 - "jedynka") with the national road 55. The construction of the bridge has provided the residents of Kwidzyn and the Kwidzyn Commune to direct access to the A1 motorway.

#### 870 km – Wing dams

They are not visible except at LNW. Exercise special caution not to damage the vessel. Be careful not to damage your vessel.

#### 876,7 km - LB - The mouth of the Wierzyca River

## 876.9 km – LB – Gniew

Gniew is a small town whose national status has changed many times in its history. In the 13th c. these areas fell to the Teutonic Knights, who built a huge castle in Gniew due to its strategic location and granted the town a charter. The quadrilateral castle gives splendour to the town's panorama and is currently its major attraction. Numerous events are held there, such as knights' tournaments, "living" history lessons, symposia, banquets, or camps with Harry Potter.

In Gniew, you can stop "in the wild" after the ferry crossing, on the LB. Still, at low water it is only possible to moor on the right side, directly to the sandbar. In that case, in order to get to town it is necessary to use the ferry – which, paradoxically, does not run during low water stages. In the high season there is a gondola pier.

#### 879 km - Ciepłe - A shifting sandbar obstructing navigation

#### 884 km – A wing dam, broken away on the side of the land

Due to the unfavourable course of the river's current relative to the sandbar and the broken-away part of the wing dam, as well as due to strong stream currents, there is a danger of the boat getting pushed against the undamaged part of the wing dam, situated about 70 m (230 ft) from the bank.

## 886, 6 km – RB – The Biała Góra Lock

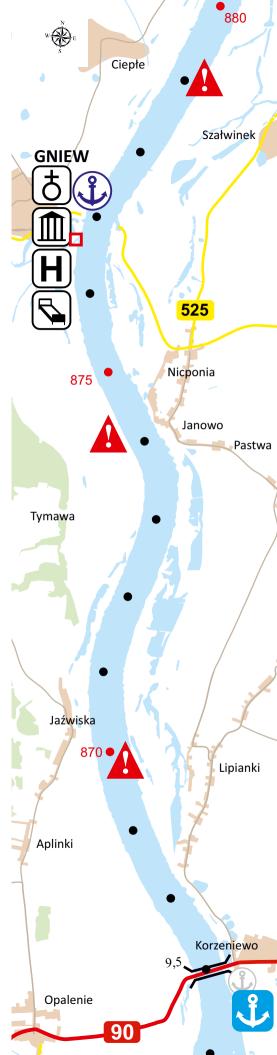
A bifurcation of the Vistula – this is the beginning of the Nogat, leading to Malbork and to the Vistula Lagoon In the vicinity of the lock, dredgers work and barges anchor that carry sand away down the Nogat. It is advisable to keep a particularly sharp lookout when passing these vessels: as commercial shipping, they always have the right of way. Buoys placed on water show the direction to take when passing by them. It is possible to moor before the lock, in a cove behind a stone wing dam, or on the other side of the lock. Caution: When approaching the lock from the side of the Vistula, heading towards the Tczew direction, one should keep to the right bank.

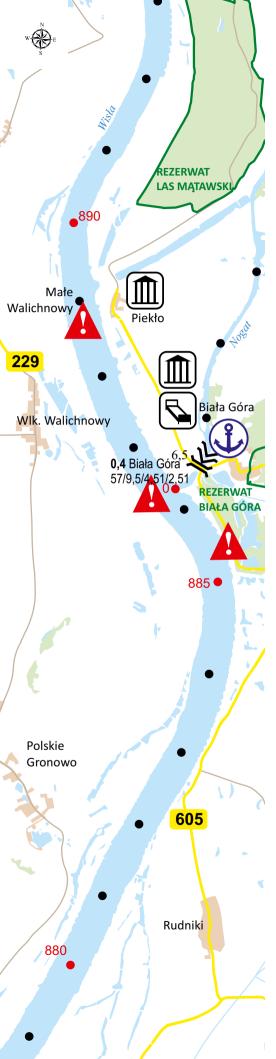
## 888 km – LB – Wielkie Walichnowy

In the village of Wielkie Walichnowy you can visit a well-preserved Gothic church, rebuilt in the 17th c. after Swedish invaders had burnt it. The village used to be the largest settlement of Mennonites – the Dutch inhabitants of these areas centuries ago – in the Vistula Valley. What survives of them is cemeteries as well as a few wooden and brick buildings.

#### 888,5-889,4 km - Piekło - A stone reef

Caution! Erratic boulders pose a threat to vessels, especially at low water.





#### 888.95 km - RB - Piekło

Piekło became famous as a symbol of struggle for Polish identity during the period of the Partitions and German occupation. In the 19th c., as many as 85% of its residents declared Polish nationality, compared to only 9% in Gdańsk. In order to avoid Germanisation, Poles from Piekło (literally, this translates as "hellish Poles") opened the "Polish Home" (Dom Polski), comprising a private school, a nursery school, flats for teachers and a chapel. The school's employees and students were regularly persecuted by German storm-troopers. After the outbreak of the war, the school was closed and its director, Jan Hinz, was shot in the Piaśnicki Forest near Wejherowo as part of operation "Intelligentsia." At present, the former building of the Polish Home houses a primary school named after its founder.

890-892 km – RB – The Las Mątawski Nature Reserve. The edge of the forest is visible on the right bank.

## 891,7 km – LB – Międzyłęż

In the village, there is a former Evangelical cemetery with surviving steles, covered with characteristic low reliefs.

## 896,5 km – LB – Rybaki

In the village there is a drainage pump station and the Międzyłęska Lock from 1896, whose aim is to drain the Walichnowy Lowland. The lock's gates close by themselves, under the pressure of high water from the Vistula.

897 km – Rybaki, a shifting sandbar obstructing navigation

#### 897 km – LB – Wielka Słońca

This village with an unusual name is one of the oldest in Pomorze (Pomerania).. First mentions of it appear in documents from the times of Świętopełk II the Great – that is, from the 13th c.

## 897,2 km - RB - Matowy Małe

This village is separated from the Cistula with two embankments, but only the one closer to the river performs the protective function: the other one remained after a reconstruction in Prussian times. The strip of land between the embankments is used for wicker cultivation.

## 898 km – RB – Mątowy Wielkie

This village is the birthplace of a 14th c. Polish stigmatic, the Blessed Dorothy of Montau (Mątowy). She received stigmata already as a young girl. After a life full of tragic events, she died as an anchoress, walled in inside a small cell in a church in Kwidzyn.

902 km – Gorzędziej – a shifting sandbar obstructing navigation.

902 km – LB – Gorzędziej – a shifting sandbar obstructing navigation

## THE VISTULA



The Las Matawski Reserve. Photo: M. Opitz



The Biała Góra Lock. Photo: M. Opitz

Tczew. Photo: H. Gonera





Most knybawski. Photo: H. Gonera

#### 902 km – LB – Gorzedziei

In the village there is the Shrine of St Adalbert, who, as legend has it, said a field mass here during his Prussian mission in 997. Relics of the saint, brought from Gniezno in 1995, are kept in the 14th c. church (whose high tower is visible from a distance).

#### 902,1 km - RB - Bystrze

In the village, there are two historic half-timbered arcaded houses and a 14th c. Gothic mortuary.

## 903,9 km – The Knybawski Bridge

Navigable span width: 60 m (196.8 ft); clearance: 9.78 m (32 ft) at high water and 15.52 m (50.9 ft) at medium water.

The first bridge here was built by Germans in 1939 with the aim of improving the road connection between Berlin and Königsberg. The bridge was strongly fortified, with bunkers and firing-posts on bridgeheads. In 1945, retreating German troops blew the bridge up. It was rebuilt after the war using original as well as new elements of spans.

## 906 km - LB - The outlet of the Drybok River (the Struga Subkowska)

## 908 km – LB – Tczew

Since the end of the 19th c., this 60,000 strong town has been an important railway junction, in both passenger and freight traffic. For this reason, after Germany attacked Poland in 1939, the enemy wanted to seize control of this strategic point as soon as possible. The air raid on Tczew began 11 minutes before the attack on Westerplatte. When visiting Tczew, it is worthwhile seeing the 13th century Fara church and Poland's first Museum of the Vistula River, which, after the modernisation of 2004-2007, constitutes one complex together with the Lower Vistula Regional Exhibition Centre. In the museum, you can get to know the interesting history of the construction of the river port in Tczew and see one of many exhibitions organised by the Central Maritime Museum in Gdańsk. There is a tourist information point in the town, run by the Local Tourist Organisation "Kociewie."

#### 908 km - LB - Mooring Platforms in Tczew.

The mooring piers were built as part of "The Żuławy Loop Project – Water Tourism Development. Stage I."

## 908 km - LB - The marina in Tczew

The first, outside Gdańsk, modern harbor is located on the route of Żuławy Loop and the whole Vistula River. There is a comfortable pier for yachts, made of floating concrete pontoons, from the bank side carried on pillars. It provides a safe stand for vessels with a low freeboard, regardless to changeable water levels. Power and water are available here. On the land there is a building with toilets and showers, a restaurant and a café. The old town is just around the corner. Next to the harbour there is The State Water Management Centre "WODY POLSKIE" – the Management of Catchment in Tczew.

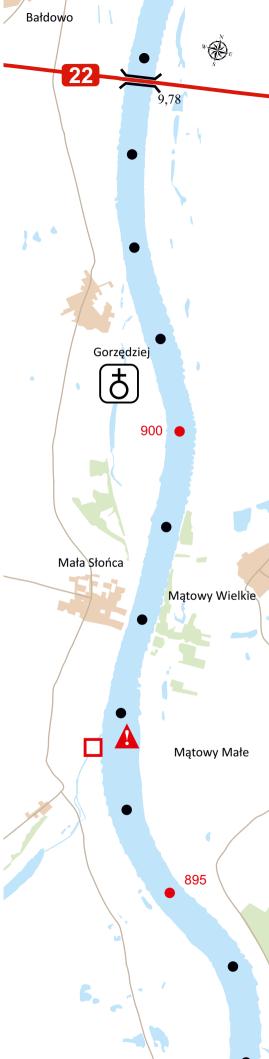
## 908,57-908,6 km – The Tczew Bridges

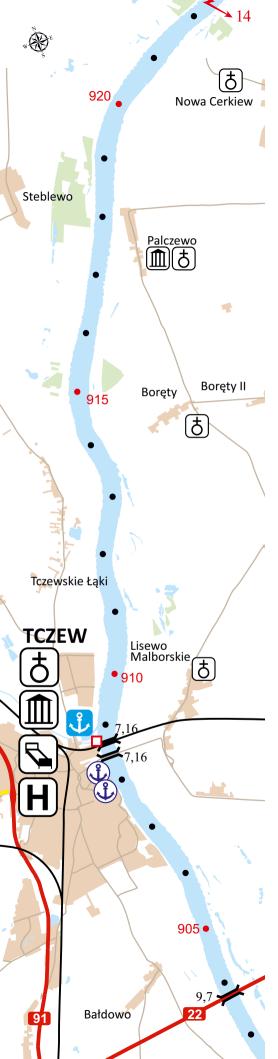
Navigable span width: 60 m (196.8 ft); clearance: 7.16 m (23.49 ft) at high water and 11.58 m (37.99 ft) at medium water.

The first of the bridges – called the Lisewski Bridge – is a road bridge built in 1851-57. Its characteristic element is the neo-Gothic towers decorating the piers of the bridge. The other one is a truss railway bridge, erected in the immediate vicinity of the road bridge towards the end of the 19th c. Due to the strategic location of the bridges – which connected the Third Reich with East Prussia – the Germans planned their quick seizure. Polish defenders, with the help of railwaymen, managed to repulse the enemy's attack and performed their task by blowing up both bridges. The bridges owe their present form to the reconstruction carried out in 1958.

#### 908 km - RB - Lisewo

Worth visiting is a small 14th-century church as well as its ossuary (one of two surviving Gothic crematoriums in Żuławy). On the southern tower of the church, a carved letter "K" can be seen, which historians









The Lisewskie Bridges in Tczew. Photo: M. Opitz

explain as an abbreviation of Kumische Rute, meaning the Chełmno rod (Culm rod). From the 13th to the 18th c. this used to be a popular unit of length, equal to 4.30 m (14.1 ft).

908,8 km – LB – A concrete pool Icebreakers Marina.

909 km – LB – A concrete-encased basin A stopping place of ice-breakers.

#### 909 km - LB - Entrance to port and shipyard

A concrete basin and slipways of the former river shipyard and repair workshop. It is possible to use a crane with a high lifting capacity.

910 km – Tczew – A shifting sandbar obstructing navigation

#### 915,3 km - LB - Koźliny

In the village, there is a historic 15th century Our Lady of the Rosary Church, with a characteristic half-timbered tower added in the late 17th c.

#### 918 km - RB - Palczewo

An obligatory stopping place on the route. In the village, a beautiful Dutch windmill can be seen, built in the 1st half of the 19th c. A revolving dome allows it to turn in the right direction relative to the wind. The lower storey is made of brick and the upper storey is wooden, with frame construction. The windmill has the height of a five-floor building, which makes it visible from a large distance. Some milling appliances are preserved inside.

Another must-see in Palczewo is a three-hundred-year-old wooden church – the only one built in this manner in Żuławy. Its doors and walls are covered with colourful polychromes, and biblical scenes are also represented on wooden pews. Original equipment items and interior elements complete the beautiful whole: e.g. a baroque organ and the main altar from 1754.

## 918 km - LB - Steblewo

Steblewo is considered to be the capital of the wicker industry in Żuławy. In the village, you can admire impressive ruins of a Gothic church – one of the largest in Żuławy. The 16th century church was burnt by the Red Army in 1945. There are also historic arcaded houses with frame construction in Steblewo, erected by the Mennonites, who lived here centuries ago.

## 921-923 km - PB - Nowa Cerkiew

In the village, you can admire a neo-Gothic church and a historic 19th-century arcaded house, yet another one on the route. The next such house is located 2 km (1.25 mi) further north, in the village of Gniazdowo.

922 km – An overhead power line Clearance at HNW: 14,1 m (46.3 ft)



The marina in Tczew. Photo: H. Gonera



Mooring Platforms in Tczew. Photo: P. Brozdowski



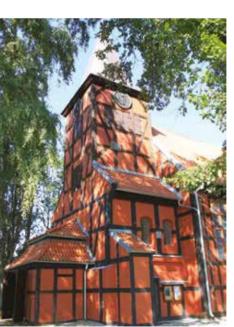
The Dutch windmill in Palczewo. Photo: M. Opitz

## THE VISTULA



An arcaded house in Steblewo. Photo: H. Gonera

The bridge in Kiezmark. Photo: H. Gonera



The church in Kiezmark. Photo: M. Opitz

#### 926.2 km - RB - Ostaszewo

In the village you can see historic polychromes in a late 19th c. former Evangelical church in Ostaszewo, there are also ruins of a Gothic church from 1330, which was burnt by Germans during the evacuation of the village in 1945. At the walls of the temple, there is the grave of a soldier shot for refusing to carry out that order. For children, a very old fire engine will be an attraction.

About 927,5 km – LB – Concrete quay covered with tyres. Mooring possible.

#### 928,2 km - LB - Leszkowy

It is worthwhile stopping here in order to see the 14th-century brick church dedicated to St Brother Albert Chmielowski. Every year, towards the end of summer, "Flood-Bank Holiday" is organised – an event that draws on the region's nature and history and promotes the memory of the strategic role of the Vistula's embankments for Żuławy. The local Country Housewives' Club prepares traditional delicacies for the occasion, e.g. breads and liqueurs.

About 929 km - Concrete abutments on both banks

## 929,6 km – The road bridge in Kiezmark

Navigable span width:  $75\,\mathrm{m}$  (246 ft); clearance: 10.55 m (34.61 ft) at medium water and 6.79 m (22.28 ft) at high water.

Put into operation in 1973, this is the northernmost bridge over the Vistula; it replaced the ferry crossing that used to function in the same place. The concrete quay in the LB is not fit for mooring due to concrete reinforcement jutting out. Just after the bridge, on the RB, there is a gravel pit, and the dredgers working on the river occupy a large part of the navigable channel – pay attention to buoys.

#### 930,1 km - two road bridges - S7 in Kiezmark

The width of the navigable span – 75m, the height at medium water level (right/center/left span) 11.21/12.22/12.69m, at high water level 8.02/9.03/9.50m.

About 930,2-930,8 km – Two power lines at the height of 16 m (52.5 ft)

## 930,25 km – LB – Kiezmark

In the village, there stands a former Evangelical historic church from 1727, but there are elements of an older, 16th and 17th century structure in it. In the half-timbered temple we can admire Gdańsk's coats-of-arms made of stone as well as tombstones and sumptuous furnishings dating back to that period. After the Reformation period, this was a Lutheran church, and it was not consecrated again as Catholic until 1945. It currently houses the seat of Our Lady of Częstochowa parish. Also located in Kiezmark is a wooden building of a 19th c. Vistula's Flood-Bank Watchtower. A granite post in its vicinity shows the high water level recorded on June 27, 1884.

#### 931 km - RB - The Gdańska Głowa Lock

The lock with a characteristic swing bridge is the beginning of the eastern branch of the Vistula – the Szkarpawa (a route to the Vistula Lagoon and Elbląg). During high water level, the flood-gate may be closed for a long period. The outer port is not an effective shelter against the strong current of the Vistula which makes it difficult to enter the lock. Mooring is possible at the right bank.

933 km - The beginning of Przekop Wisły



## THE VISTULA



The Przegalina Lock. Photo: D. Paciorek

## 936 km - LB - the Przegalina Lock.

Entrance to the Martwa Wisła (the Dead Vistula) – the route to Gdańsk and Górki Zachodnie. Behind the lock entrance there is a harbour basin belonging to the Regional Water Management Board. The lock lies within the administrative borders of Gdańsk, in the Wyspa Sobieszyńska district. Together with the river port in Przegalina, it makes up the Przegalina waterway junction. The lock protects the parts of Gdańsk located on the Martwa Wisła against flood. The drawbridge over the lock is one of the key investments in the "The Żuławy Loop Project – Water Tourism Development. Stage I." It has removed another barrier to mast yachts from the waterway between Gdańsk and the Vistula Lagoon.

## 938,5 km – Świbno-Mikoszewo ferry crossing.

After Przekop Wisły was completed in 1895, it became necessary to open a ferry crossing between Sobieszewska Island and the nearby Mikoszewo. The ferry that runs at present takes up to 21 cars and 100 passengers. Passage from one bank to the other takes less than 5 minutes. The "Świbno" is a cable ferry; therefore, just like in previous situations of this kind, it is necessary to keep a sharp lookout and carefully observe the cable stretched across the river (for instruction, see km 866.9 – Korzeniewo). Until the 1950s, a ferry crossing of the narrow-gauge railway connecting Gdańsk with Żuławy existed here as well. In Mikoszewo, a memorial plaque has been placed, dedicated to the inmates of the nearby Concentration Camp Stutthof. On the opposite bank, in Świbno, there is a stone commemorating the centenary of Przekop Wisły.

Ferry crossing Świbno-Mikoszewo. Photo: A. Wołosz



The stone dedicated to the centenary of Przekop Wisły. Photo: M. Opitz



Drawbridge in Przegalina. Photo: Fotografia-dronem.pl





Reserve Mewia Łacha. Photo: Fotografia-dronem.pl

938,9 km – LB – The harbour basin in Świbno.

A base for local fishing cutters and ice-breakers as well as a maritime rescue station. A possible stopping place, but with no infrastructure at all.

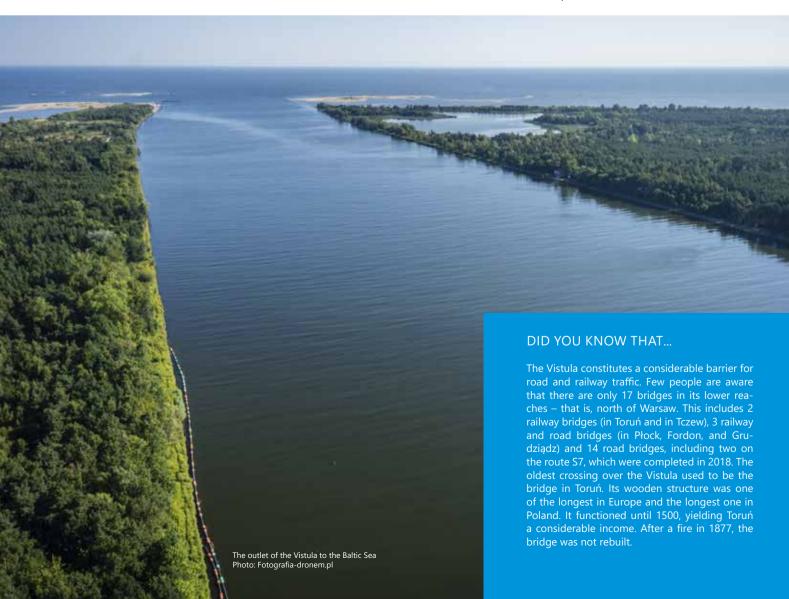
939.5 km - PB - RB - a former post of Border Defence Army.

The building is currently used by fishermen.

941,3 km – the outlet of the Vistula into the Baltic Sea. Caution! Entrance to Gdańsk Bay through Przekop Wisły is connected with a danger, caused by high waves and changeable depths at the estuary as well as by unmarked fishing nets.

On both sides of the Vistula's mouth, the Mewia Łacha Nature Reserve was marked out. The reserve is a sanctuary and breeding ground of many bird species and an area for the protection of plants, e.g. the sea holly. On the sandbanks of Gdańsk Bay, grey seals and common seals are also regularly observed. On Sobieszewska Island, in the reserve, an educational route was marked out, with information boards and observation decks, from which it is possible to observe birds

Caution: Entering the Gulf of Gdańsk via Vistula Piercing may be dangerous due to a number of nets, variable depth and high waves. Entering the Bay of Gdansk is facilitated by the construction of direction strips of the following length: eastern – 600 m and western – 550 m. On the heads of the breakwaters navigation lights are fixed – the western – green pole and the eastern – red pole.





## NAVIGATIONAL INFORMATION

#### DEPTH

The Nogat is recognised as a class II navigable waterway and can be divided into two sections. On the first, canalised section – from the Biała Góra Lock (km 0.4) to the barrage in Michałowo (km 38) – depth is 1.6 m (5.25 ft). On the second section – from Michałowo to the outlet of the Nogat into the Vistula Lagoon (km 62) – the maximum draught is 1.4 m (4.6 ft).

## POWER LINE AND BRIDGES

The lowest power line runs at the height of c. 12 m (39.4 ft), and the lowest bridge is located in Kępki (km 50.8) – its clearance at high water is c. 3.3 m (10.8 ft). VEGETATION

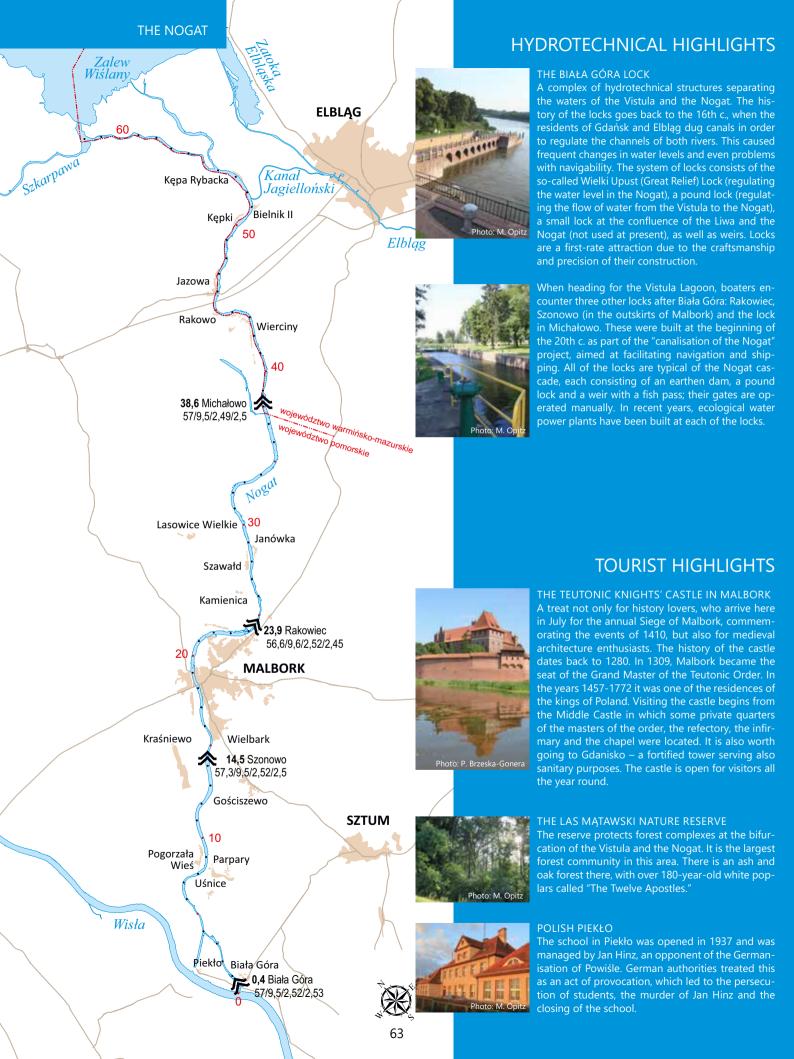
The lazy current of the Nogat favours the overgrowing of water surface with vegetation. The thickly growing floating salvinia (water fern) may, from August until September, form tight green carpets on the river. Navigate along the middle of the channel to prevent plants from getting entangled in the motor's propeller.

We pass through 4 consecutive locks on the Nogat: Biała Góra, Szonowo, Rakowiec and Michałowo. All the locks on the Nogat have similar dimensions: c. 57 m (187 ft) in length and c. 9.5 m (31.2 ft) in width. With only one gate usually open, the real entrance width is less than 5 m (16.4 ft). You can save time by phoning the lock staff and notifying them in advance about your arrival – the gate will be waiting open.

MOORING

We can choose a marina by the sluice in Biała Góra and three marinas in Malbork. The banks of the Nogat are covered with rushes, among which some nice beaches for mooring and camping may be found.

gable channel is about 30 m (98.5 ft) wide. Slow current and the wild nature of Żuławy attract more and more groups of kayakers to these waters. Weak current is what distinguishes the Nogat from the Vistula, and starting from August the water surface in some places here becomes covered with a tight carpet of water vegetation. Riverside areas densely covered with trees as well as beautiful beaches quarantee plenty of picturesque spots for stopping and camping. The waters of the Nogat irrigate the fertile areas of Żuławy Wiślane (Vistula Fenland), and a long stretch of the river is surrounded by flood-banks. Approaching Malbork, from a distance, we will see the red walls of the medieval castle of the Teutonic Knights – a monument of Gothic architecture unique in Europe. From 1309, for nearly 150 years, Malbork was the capital of the Teutonic Order's State and the castle was its major fortress. You absolutely have to make a longer stop here in order to visit these old walls and feel the medieval atmosphere. It is also worthwhile taking part in one of the numerous open-air events organised in summer, e.g. a knights' battle reconstruction. In the 15th c. the Nogat gained a connection with the Elblag River thanks to the construction of the Jagiellonian Canal, the oldest structure of this kind in Poland. To this day, the canal considerably shortens the inland water route from Gdańsk to Elbląg, making it unnecessary to enter the Vistula Lagoon on the way.





A sailing harbour in Biała Góra. Photo: P. Brozdowski

#### 0,2 km - A road bridge

Located just before the lock, it connects the villages of Biała Góra and Piekło. Span width: 9.6 m (31.5 ft); clearance: 9.52 m (31.2 ft) at medium navigable water, 6.5 m (21.3 ft) at high water.

# About 0.4 km - LB – The village of Piekło – c. 2 km (1.25 mi), a grocery Polish Piekło.

The school that goes down in the nation's history as a symbol of struggle for Polish identity can still be visited in Piekło. It was opened in 1937 together with a nursery school, flats for teachers, and a chapel, in a village squeezed between the Nogat and the Vistula in which as much as 85 percent of residents (out of a total of 800 people) declared Polish nationality. The man who became its headmaster was Jan Hinz, an ardent fighter against Germanisation. The Germans treated this move as an act of provocation and began their unscrupulous fight with the organisers of the school. Persecution and intimidation led to the closing of the school, and in 1939 Jan Hinz was murdered. Today the people of Piekło proudly say: This school was not destroyed by Hitler, Goebbels, or Stalin. In the history of Poland, it will forever remain a symbol of struggle for Polish identity in Powiśle.

When visiting Piekło (the Polish name of the village means "Hell"), try to find the house of Barbara Wichrowska, who bakes hearts from hell. These are made by means of a device handed down in her family from generation to generation. The marzipan hearts are tiny, cream-white, and topped with chocolate or jelly. The recipe is protected. The Voivodeship Marshal has included it in the list of traditional products. Whoever falls in love with this sweet can also taste Ms Wichrowska's sourdough bread or Piekło sausage with black (devilish) mustard.

About 0,4 km - RB - The village of Biała Góra - c. 500 m (1640 ft)

Charming countryside housing; a grocery situated closest to the lock.

## 0,41 km – The Biała Góra Lock

Length: 57 m (187 ft); width: 9.53 m (31.26 ft).

Opening hours in the summer season: every day from 7.00 to 19.00. ŚLocking should be arranged with the lock staff by phone, about half an hour in advance (phone: 55 277 16 91, 797 511 541). Locking should be arranged by phone about half an hour in advance with the lock staff. During high water stages on the Vistula, the Biała Góra Lock (just like Przegalina and Gdańska Głowa) is permanently closed until the Vistula is stabilised at a safe level. For this reason, it is worthwhile checking water level announcements and asking the staff or the director of Water Management Station about the current hydrological situation.

The Biała Góra waterway junction would not have emerged if it had not been for violent quarrels between the residents of Gdańsk and those of Elbląg, who stole water from each other. Treacherous ditches drained the sources of the Vistula or the Nogat, blocked navigation and arrested the development of one or the other community alternately. The lock put an end to disputes and forever separated the drowsy, slow waters of the Nogat from the swift current of the Vistula. It was methodically developed from the 16th to the early 20th c. into an attractive system. Also the waterway of the Liwa River (ending at the second lock in Biała Góra and no longer used for shipping purposes) used to serve the transpor-

The Biała Góra Lock. Photo: M. Opitz





The Biała Góra Lock. Photo: M. Opitz



Piekło. Photo: H. Gonera



tation of cargo, mainly timber, from Kwidzyn. In the interwar period, the locks were the border between three states: Poland, East Prussia and the Free City of Gdańsk. Today they impress with their architecture and technical solutions. Expanded in the 20th c., they make up an interesting complex of intricate constructions of flood-gates and weirs as well as a good observation point with a panorama of the Vistula Valley. From the bridge running over it, the complex resembles a huge stronghold – which makes it worthwhile climbing up there. It is possible to moor your boat conveniently before lock entrance (by arrangement with the lock staff); you leave the lock on the side of the Nogat through the lower gate.

## About 0,45 km - RB - A sailing harbour

The mooring piers were built as part of "The Żuławy Loop Project – Water Tourism Development. Stage I." At the local marina, there are 17 mooring slots and a passenger ship berth available. The maximum yacht length is 15 m. The jetties are equipped with mooring facilities and water and electricity supply points. The facility has a slip for boats, marina administration office, sanitary facilities and a winter hangar.

About 0,45 km – RB – The Biała Góra Nature Reserve Among other things, you will find stenothermal thickets there, characteristic of steppe landscape. A number of rare and endangered plants occur in the reserve, such as leafless iris, lady's-slipper orchid, lady orchid or snowdrop anemone.

## About 4 - 6 km - LB - The Las Matawski

Nature Reserve.In this forest reserve you will find enchanter's nightshade with egg-shaped leaves or tussock grass growing in tufts, rare and unique plants as well as birds (white-tailed eagles, black and red kites). The reserve includes the area of "Las Łęgowy nad Nogatem" (Riparian Forest on the Nogat) and "Mątowy" reserves as well as new areas, e.g. Cypel Mątowski (the Mątowy Promontory). It is supposed to protect the elm and ash forest as well as the willow and poplar riparian forest growing on marshy areas in the valleys of great rivers. Valuable trees can be found here, such as old white poplars (age: c. 180 years, average diameter: 580 cm / 19.03 ft) called the Twelve Apostles by local inhabitants.

4 km – LB – The outlet of the closed Stary Nogat (Old Nogat) Canal.

## About 9 km - LB - Pogorzała Wieś

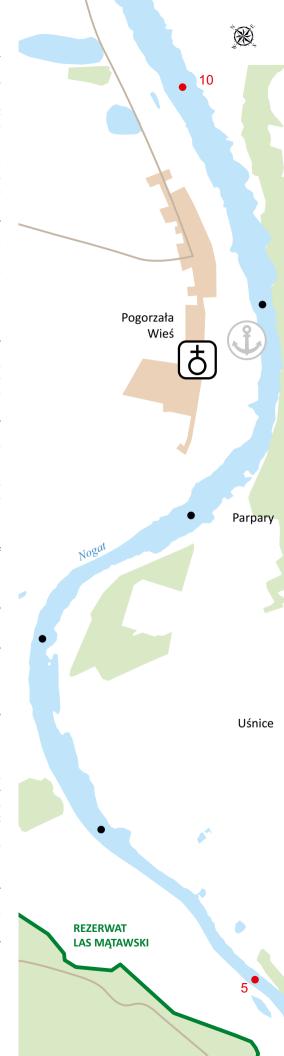
At the bank, there is a characteristic building with a wind turbine. In the village, you can visit a church and a historic cemetery. There is also a grocery there.

## About 9 km - RB - Parpary

Kasseler straight from Parpary. You need over a kilogram of pork loin, three or even four onions, sauce made of two spoonfuls of butter and flour, as well as two glasses of milk. Add chopped onion, grated spicy hard cheese and white mustard seed. We learn the recipe for Confraters' Kasseler (Kasseler Konfratrów) from its author, the Chancellor of the Great Confraternity of Good Food, Beverage and Handicraft – a society aimed at reviving the achievements, identity and heritage of this land. You can prepare it on your own or taste it at Mr Witold's agritourism farm at number 28a in Parpary, with the superb meads that the owner is famous for making.

About 10,5 km – RB – The Parów Węgry Nature Reserve Situated c. 750 m (260 ft) from the Nogat. Oaks and pines more than 150 years old grow in it.

13,5 km – An overhead power line HNW: 14 m (45.9 ft)







Szonowo Lock. Photo: M. Opitz

## 14,5 km - The Szonowo Lock

Length: 57.33 m (188.1 ft); width: 9.58 m (31.43 ft).

Opening hours in the summer season: every day from 7.00 to 19.00. Locking should be arranged with the lock staff by phone, about half an hour in advance (phone: 55 272 20 49, 509 219 551).

The Szonowo Lock, together with the newly built 0.5 MW power plant, lies in the outskirts of Malbork and is a typical lock of the Nogat cascade. It is opened manually, and its construction resembles that of other locks on the Nogat - in Rakowiec and Michałowo. The power plant built on the barrage enables using the river's water power for the production of pure, "green energy." During the construction of the barrage in the 1930s, fish migration was not forgotten: a fish pass was built at each weir. An overhead power line HNW: 12 m (39.4 ft).

#### 17,6 km - An overhead power line HNW: 14 m (45.9 ft)

## 18,05 km – RB – The harbour of OSIR (Sports and Recreation Centre)

Open only in the holiday season. Note: This is not a very convenient mooring place, being a swimming pool on the river rather than a quay. Access to water, electricity, toilets, showers (clean, although not renovated for a long time). A post of Volunteer Water Rescue Service (WOPR).

## 18,21 km – Road bridge on national road no. 22

Navigable span width: 27 m (88.6 ft); clearance: 6.1 m (20 ft) at medium water and 5.7 m (18.7 ft) at high

## 19 km – a footbridge for pedestrians.

Navigable span width: 20 m (65.6 ft); clearance: 5.2 m (17.06 ft) at medium water and 4.6 m (15.1 ft) at high water.

When passing under the footbridge, we clearly see the red, medieval castle of Malbork.

## 19,2 km - RB - Marina Zamek in Malbork

Mooring wharf, 17 m long, suitable for disabled people.

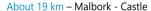
## 19,3 km - LB - "U Flisaka" Restaurant on a barge

At the restaurant, on the left bank long side mooring is available (after necessary arrangements with the host). This is the closest guarded mooring place located near the castle. The fabulous view of the illuminated fortress is truly impressive. Security, access to toilet facilities, water and electricity.





Malbork Castle. Photo: P. Brzeska-Gonera



The construction of the castle began in the thirteenth century, when it was decided to move the commandry (the administrative district centre) of the Teutonic Order to Malbork. It started with two sections – the high castle and the trade-centre castle borough, and ended with the greater castle complex. Today, the western wing of the middle castle is most impressive – with its refectory and private quarters. The castle effectively resisted several armies – as King Jagiełło failed to conquer it after a three-month siege nor did it surrender during the Thirteen Year's War campaigns. However, the castle did not resist the argument of money: Kazimierz Jagiellończyk in 1457 bought it from the hands of the mercenary army. It is worth taking a look at Malbork starting from the kitchen: the monastery kitchen in the high castle, or the treasury, where several money chests are located. To the inquisitive visitors we recommend the toilet tower (dansker, gdanisko), with a small sour-faced devil figure. In front of the castle entrance, on the wall of St Lawrence's Church (Zamkowa café at present), a mark is preserved that indicates the water level recorded on March 25, 1888, at 13.27 m (43.54 ft) asl.

The castle is open to visitors all the year round. Interesting exhibitions are frequently organised in it. There is also a possibility of taking a night walk and watching a Light and Sound show. Every year in July the Siege of Malbork is staged, reconstructing the events of 1410.

## About 19 km – LB – The village of Stogi – c. 5 km (3.1 mi) from Malbork

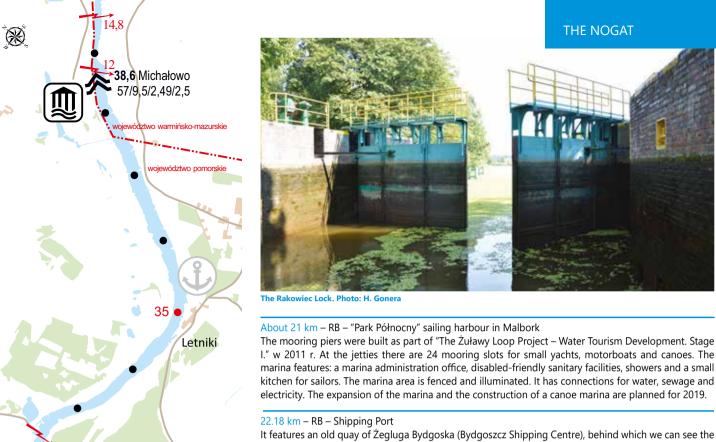
In the village, there is one of the largest and most beautiful Mennonite cemeteries in Europe, set up in the 17th c. Among limes, spruces and oaks, there are over 70 gravestones, most of them of the stele type (more than 2 m / 6.5 ft) high. We will see steles there that are characteristic of 18th-century sepulchral art, with rich symbolism. Typical Mennonite surnames are inscribed on them, e.g. Klasen. A 300-year-old oak tree grows here, 20 m (65.6 ft) high.

19.6 km – Railway bridge on the main route from Warsaw to Gdańsk Navigable span width: 20 m (65.6 ft); clearance: 9 m (29.5 ft) at medium water and 8.2 m (26.9 ft) at high water.

The harbour of "Park Północny in Malbork".Photo: P. Brozdowski







I." w 2011 r. At the jetties there are 24 mooring slots for small yachts, motorboats and canoes. The marina features: a marina administration office, disabled-friendly sanitary facilities, showers and a small kitchen for sailors. The marina area is fenced and illuminated. It has connections for water, sewage and electricity. The expansion of the marina and the construction of a canoe marina are planned for 2019.

characteristic, high elevator building. Mooring is rather not recommended.

#### 23,95 – The Rakowiec Lock

Length: 56.64 m (185.83 ft); width: 9.57 m (31.4 ft). Opening hours in the summer season: every day from 7.00 to 19.00. Locking should be arranged with the lock staff by phone, about half an hour in advance (phone: 55 272 83 71, 515 549 552).

Another lock on the Nogat and a water-power plant. The barrage was built in 1914-1916, as part of a project adapting the river for navigation. Still before the war, a hydroelectric plant was added to it, which continues to produce "green power" effectively to this day. Stopping is possible within the lock (by arrangement with the lock-keeper). The nearest petrol station (a shop, access to toilet and shower) is several hundred metres walk away along a footpath across the fields. Lock gate (lattice) with clearance up to 10 m.

24 km - An overhead power line HNW: 13.8 m (45.3 ft)

26,7 km – An overhead power line HNW: 12 m (39.4 ft)

#### About 28 km - LB - The village of Szawałd

Relatively close to the river lies a charming village. You can visit a historic 19th c. half-timbered church there and see several gravestones around it hidden in the grass. There is also a grocery.

About 29 km - RB - The village of Janówka Planned canoeing marina.

## About 29 km - RB - The village of Stare Pole - c. 4 km (2.5 mi) from the river

Modern tractors, combine harvesters, and beautiful cows - all this you can admire every year in June during Żuławy Agricultural Fair and the Regional Livestock Exhibition in Stare Pole. These rank among the largest events of this kind in Poland, organised by the Agricultural Counselling Centre. Another event held in Stare Pole is the spring and autumn Gardening and Seed Production Fair. In 2011, for the first time, the Fair was accompanied by the Milk Festival, during which dairy products were presented.

32,2 km - An overhead power line HNW: 13.8 m (60.7 ft)

## About 33 km - RB - The village of Zabrowo

A high observation tower. Remains of a military training ground. Forested at present. This is an interesting area, left to nature: there are no traces of civilisation for a dozen or so kilometres, though floodbanks unused for a long time may be seen, overgrown with bushes and small trees - unfortunately, pulled down in places. Planned canoeing marina.

## About 35 km - RB - The village of Letniki

The village is non-typical due to the facilities of the Central Waterworks of Żuławy towering over it – well visible from the river and resembling an abandoned base of Warsaw Pact troops. It is here, in Letniki, that





The bridge in Kępki. Photo: H. Gonera



The Michałowo Lock. Photo: M. Opitz



The bridge in Jazowa. Photo: H. Gonera

the water intake is located for Żuławy Wielkie and Żuławy Elbląskie regions. The water comes from a Quaternary basin – the major water layer in Żuławy and is under special protection. It is extracted from deep wells, situated along the Nogat. The CWŻ is the largest water supply system in Europe (in terms of water pipe length from the water intake).

## 38,59 km – The Michałowo Lock

Length: 57.01m (187.04 ft); width: 9.54 m (31.3 ft). Opening hours in the summer season: every day from 7.00 to 19.00. Locking should be arranged with the lock staff by phone, about half an hour in advance (phone: 55 247 14 17, 511 603 316).

The fourth, and the last, lock on the Nogat. You will find peace and quiet here. The barrage in 1912-1915 has preserved its original structure and principles of operation. Since recently, a small water-power plant has been functioning at the Michałowo Lock, with three turbines yielding a combined power of 0.5 MW. The construction of this facility completed the investment project of fitting the system of three barrages on the Nogat with turbines for the production of "green power."

An overhead power line HNW: 12 m (39.4 ft).

39,5 km - An overhead power line HNW: 14,8 m (48.6 ft)

#### About 44 km - LB - The village of Wierciny

The settlement dates back to the mid-14th c. Its inhabitants were farmers and cross-river carriers. In the 16th c., the area began to be settled with arrivals from the Netherlands and North Germany.

44,5 km - An overhead power line HNW: 13 m (42.6 ft)

#### 45 km - Route S7 Road Bridge

The width of the navigable span is 49 m, the height at medium water level is 7.7 m and at high water level, 7.0 m.

## 45,85 km – The road bridge in Jazowa

Navigable span width: 23 m (75.4 ft); clearance: 6 m (19.6 ft) at medium water and 5.2 m (17 ft) at high water.

The village of Jazowa. Mooring to the left bank, in the wild, just before the bridge (a small beach is visible) or just after it, to a small pier. It is possible to get food provisions here; a petrol station is also available. Along the left bank, downstream of the bridge, there are numerous remains of characteristic farms.

47,8 km - An overhead power line HNW: 33 m (108.3 ft)

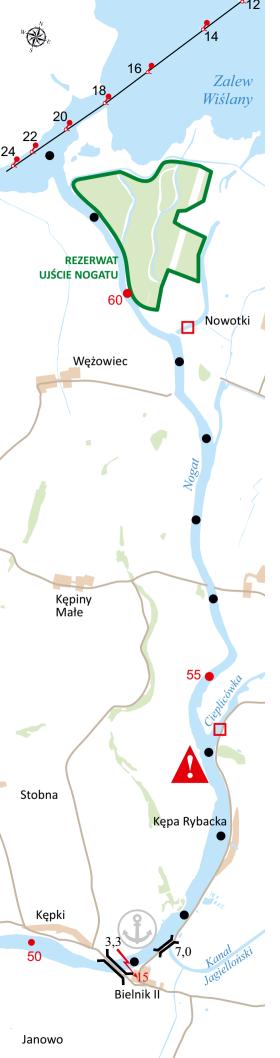
About 49 km – LB – The characteristic body of the modern church in Kepki

By the church there is a pier, but lush vegetation makes it inaccessible from the waterway.

## 50,8 km – The road bridge in Kepki

Navigable span width: 35 m (114.83 ft); clearance: 3.7 m (12.14 ft) at medium water and 3.3 m (10.83 ft) at high water. This lowest bridge over the Nogat (built relatively recently in place of a ferry crossing) constitutes a significant impediment to navigation! High yachts must approach slowly, check the clearance each time, and if it is insufficient – retreat immediately. A possible stopping place: a metal pontoon before the bridge, on the left side (caution, sharp edges!). Descent is difficult – you have to jump. The jump will take you right to Kępki. You can take a walk round the village, buy food provisions, or get on the stairs of the former inn. The inn is now being renovated by a private owner and will be converted into a dwelling house.







Flood-gate at the Jagiellonian Canal entrance. Photo: M. Opitz

50,9 km - LB - Planned Canoe Marina in Kepki

51 km - An overhead power line HNW: 15 m (49.2 ft)

#### 51,6 km - RB - Entrance to the Jagiellonian Canal

After a few kilometres of navigation you could be in the centre of Elbląg, and then further to the Elbląg Canal.

A flood-gate, out of operation, is visible from the water. Be careful when entering the canal: it is narrow there and the visibility is poor – give a sound signal. Just after the flood-gate on the Jagiellonian Canal there is a convenient mooring place.

On the left bank, opposite the canal entrance, there is a sandy cove – very convenient for mooring and a good place for a bonfire. You can walk to Kepki from here and get food provisions (c. 1 km / 0.62 mi).

## 54 km - RB - Entrance to the Cieplicówka (the old channel of the Nogat)

Caution! Difficult conditions for navigation, overgrown banks, abandoned nets, low bridges. You are strongly advised against entering, except in a kayak and preferably in spring or autumn.

#### 51,6-62 km - RB - Nowakowska Island.

This flat island, criss-crossed by ditches and canals, hides many mysteries. It is full of tall grasses and bushes, bridges and gates. There are two intermediate pumping stations there, too. Nearly all the houses are built on artificial mounds called terps (terpy), which are supposed to protect them against high water. Not far from the ferry crossing, you can see a memorial to the inmates of the Stutthof camp, which had its branch in this vicinity. It was erected to honour those sent for hard labour at flood-bank construction during World War II.

55,4 km – former location of low-rope ferry in Kępiny. The ferry connected the Nowakowska Island with the mainland and used to be a local tourist attraction at this Nogat section. On the other hand, it was an obstacle and even a threat to shipping, because it featured a rope hanging across the navigable route, at the approximate height of 1 m. In order to pass, it was then necessary to call the ferry ask for permission. It is possible to stop on the side of the former ferry booth, however in emergency situations only. The old tarmac ramps may be used as boat slips. However, this is not easy, because the banks are steep on both sides and the surface is slippery.

## 58,7 km - RB - The beginning of the so-called Łososiowy (Salmon) Canal

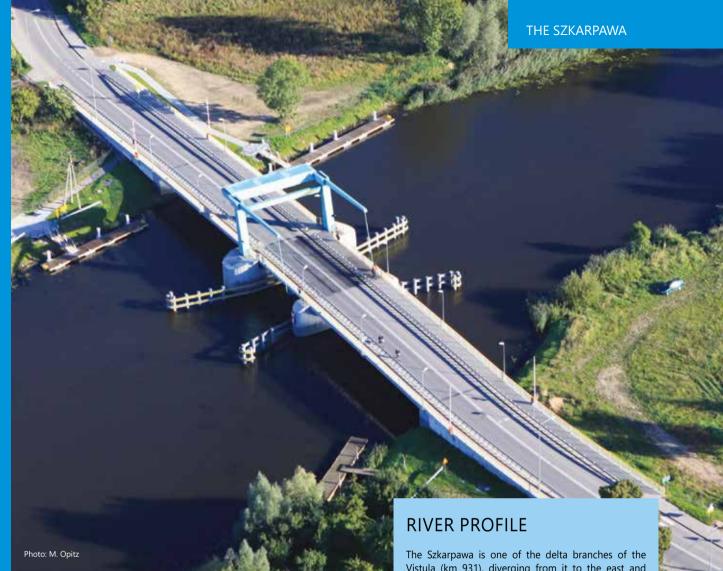
Built by the insurgents of the November Uprising and no longer in operation, the canal now plays a role in land improvement.

## 62 km – The mouth of the Nogat

Sea buoys are visible. Following them (to the right), you will get to the Vistula Lagoon and further to Elblag, Krynica Morska or Kaliningrad; selecting the opposite direction (to the left), you will enter the Szkarpawa River, with waters as lazy as the Nogat. In a small cove of the Lagoon, which both the Nogat and the Szkarpawa flow into, there is a good deal of vegetation – the propeller and the engine's cooling system may need more frequent cleaning. In the estuary there is a six-metre (20-feet) deep water area, valued by anglers – interesting perch specimens may be caught there.

This entire area lies in the Ujście Nogatu (Nogat Estuary) Reserve – an ornithological sanctuary preserving water and marsh birds and their habitat.





## NAVIGATIONAL INFORMATION

#### DEPTH

The Szkarpawa is a class II waterway with a guaranteed depth of 1.6 m (5.25 ft). Still, within the marked navigable channel the depth is usually greater and rarely falls below 2 m (6.5 ft). POWER LINES

You will see a few power lines along the Szkarpawa, of which the lowest runs at about 14 m (45.9 ft) above water surface.

## **BRIDGES**

All the bridges along the route are drawbridges or swing bridges. The staff opens them at specified hours and sometimes also at boaters' request. When trying to pass under a closed bridge, bear in mind the relatively high fluctuations of water level (up to 1 m / 3.3 ft over a short time) caused by backwater current from the Vistula Lagoon.

#### LOCK

The only lock on the route – Gdańska Głowa – has the following functional dimensions: 12.5 m (41 ft) in width and 61 m (200.1 ft) in length.

#### **VEGETATION**

The Szkarpawa's barely perceptible current is conducive to the growth of water vegetation. Just like on the Nogat, floating salvinia – water fern – develops intensively here from August. For this reason, it is necessary to navigate along the middle of the waterway in order to avoid the cooling system getting clogged or the screw propeller getting entangled in plants.

## **MOORING**

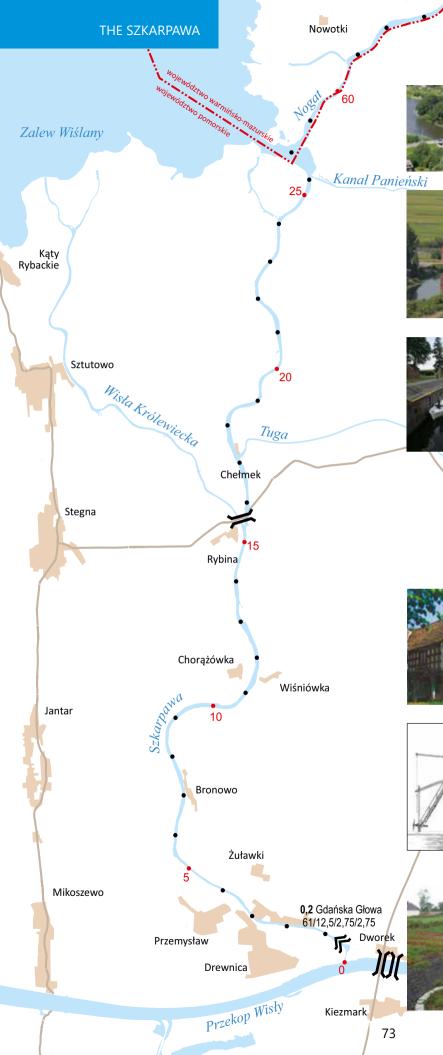
You will find several places along the river that are intended for mooring, e.g. in Drewnica, Żuławki, Rybina and Osłonka. Wild coves among rushes are also fit for stopping. VESSELS

In the high season, high-displacement commercial vessels, for both freight and passengers are frequent along the entire Szkarpawa. Such ships always have priority.

Vistula (km 931), diverging from it to the east and enabling inland navigation from Gdańsk to Elblag. At present, separated from the mainstream Vistula by the Gdańska Głowa Lock, it has practically no current. It measures 25.4 km (15.8 mi) and flows into the Vistula Lagoon with two branches. At km 15.3, the Wisła Królewiecka (the Königsberg Vistula) begins, which flows slightly more to the north from the main channel of Szkarpawa. The navigable channel is 30 m (98 ft) wide but spreads to 100 m (328 ft) in places, which makes it possible - with a favourable wind - to try tacking when navigating a sailboat. When doing that, watch out for fishing nets near the banks and for water vegetation. The landscape and other features of tourist interest make the Szkarpawa an attractive water body. Numerous meanders flowing through the plains of Żuławy add variety to navigation and, thanks to scenic landscapes, provide aesthetic experiences. Flat banks overgrown with rushes gradually give way to low flood banks, protecting fertile depression areas. Numerous drawbridges and swing bridges run across the Szkarpawa – one of them is part of the route of Żuławy Narrow-Gauge Railway (Żuławska Kolej Dojazdowa).







# HYDROTECHNICAL HIGHLIGHTS

THE NARROW-GAUGE RAILWAY BRIDGE IN RYBINA Before Rybina lies the bridge of Żuławy Narrow-Gauge Railway (ŻKD), built in 1905. The narrowgauge railway runs on it in summer. The mechanism of the bridge is based on a system of gears and transmissions, and muscle power is necessary to operate it.

# THE LAND DRAINAGE SYSTEM OF ŻUŁAWY

It includes e.g. Osłonka and Chłodniewo pumping stations. The latter is the largest facility of this kind in Poland and drains c. 22,000 ha (85 sq mi) of ond! Together with Osłonka, the two stations have replaced 69 polders. After contacting the management of the Water Management Office in Nowy Dwór Gdański, it is possible to observe the functioning of both these facilities with your own eyes.

# THE GDAŃSKA GŁOWA LOCK

The construction of the Gdańska Głowa Lock in 1895 made navigation on the Szkarpawa possible again. The facility was named after the former fortress, which existed until the late 17th century at the bifurcation of the Vistula into the Martwa Wisła (the Dead Vistula) and the Szkarpawa. Apart from performing its main function, the lock protects the inhabitants of Żuławy from floods. Its buildings may only be seen from the outside. As a part of 'Żuławy Loop' project the electrical control was introduced in place of manual drive.

# **TOURIST HIGHLIGHTS**

Photo: M. Opitz

# ARCADED HOUSES

Arcaded houses, with frame construction and brick filling, are one of the major monuments of Żuławy. They are distinguished by the arcade – a protruding floor resting on a few pillars. They initially performed a storage function, and, with the years, more and more often a residential function as well. Buildings of this type can be seen e.g. in: Żuławki, Żuławki Książęce and Izbiska.



Windmills used to be a typical element in the landscape of Żuławy. A majority of those several hundred located here used to drain polders. The others would grind flour. Their construction differed, too – the simplest wooden windmills (koźlaki) were found here as well as more elaborate Dutch windmills (holendry). Gradually, however, windmills sank into oblivion, supplanted by steam pumps. Those found in Drewnica and Palczewo are among the last ones remaining.

# THE ŻUŁAWY DEPRESSION

The Żuławy region attracts tourists not only with interesting architectural or hydrotechnical monuments but also with the landscape, so unique in Poland. It is one of the youngest and lowest-lying Polish geographical regions. 28% of the Żuławy is placed below sea level. On the youngest Żuławy polder near Marzęcin, there is a point located 2.07 m ppm, so 30 cm lower, than a similar place in Raczki Elbląskie.



# 0 km - The beginning of the Szkarpawa.

# 0,25 km – The Gdańska Głowa Lock

The length of the lock: 61 m (200.1 ft); width: 12.50 m (41 ft); a swing bridge opened on request – the clearance of the closed bridge: 9.58 m (31.43 ft) at medium water and 7.08 m (23.22 ft) at high water. It is an interesting monument of hydraulic engineering. The lock was built in 1895, taking its name from Gdańska Głowa Fortress, which had been an important defence post of Gdańsk and played a considerable role during Polish-Swedish wars (it was pulled down in 1660, after the Peace of Oliwa). This building reopened the Szkarpawa to navigation. Apart from the closing gate, the Gdańska Głowa also has a flood-gate.

During high water stages on the Vistula, the Gdańska Głowa Lock (just like Przegalina and Biała Góra) is permanently closed until the Vistula is stabilised at a safe level. For this reason, it is worthwhile checking water level announcements and asking the staff or the director of the Water Management Station about the current hydrological situation.

# 2,85 km – The drawbridge in Drewnica

A modern bridge, built a few years ago in place of the pontoon crossing that used to be quite a problem to many boaters. The place was even called the Pillars of Heracles, as being so difficult to make your way through.

The vertical clearance of the closed bridge is c. 2.9 m (9.51 ft) and depends on the water level, which is changeable (and has to be checked each time). Before the bridge, you can stop near the right bank, at a convenient pier, or moor to a new pier on the left side, the mooring piers were built as part of "The Żuławy Loop Project – Water Tourism Development. Stage I.". An identical pier of the same kind has been placed just after the bridge. The pier on the left bank is closer to the bridge staff hut and to the cult restaurant Szkaprawianka, famous for its excellent traditional hand-made dumplings (cowberry dumplings are fantastic), duck blood soup, and pink orangeade; these dishes are served by the hospitable owners of the place. Open from the morning until the last guests.

# 1,5-4 km – LB – Drewnica

The village was probably set up in the 2nd half of the 14th c. As early as 1400, it already had two mills and two windmills, which testified to its wealth. It played an important role on the route to Gdańsk. Today, the greatest attraction of the village is a wooden windmill (koźlak) from 1718. Although it is no longer in operation, its interesting top, resembling an inverted boat, can still be seen. It has a charming small wooden gallery, with ladder stairs leading to it. On the way to the windmill, there is a grocery.

# 1,5-4 km – RB – Żuławki

This village is a unique complex of Żuławy-type housing (including neighboring Drewnica) with many open-air historical sights. One may get a glimpse of how the German and Dutch settlers, Mennonites and Prussians lived by looking at their manor-style, arcade farm houses - buildings with sizeable arcades and wooden frame construction, with beautifully ornamented gables making up a chequered pattern of spandrel beams, pillars and angle struts, filled with small brick called "holenderka" (Dutch brick). You can buy groceries here, too.

# About 3 km - RB - A private harbour "Szwedowo"

Stopping by arrangement with the owner. There is access to electricity, water and toilet here, as well as the only professional slipway in Żuławy.

# About 3,5 km - LB - The village of Przemysław

The village has a history that more than one city could envy. Its beginnings go back to early Middle Ages, when a settle-

# THE SZKARPAWA



The Gdańska Głowa Lock. Photo: H. Gonera



The drawbridge in Drewnica. Photo: A. Wołosz



The watchtower Zabi Brzeg in Izbiska. Photo: R. Wasil



A sailing harbour in Drewnica. Photo: A. Wołosz

# A harbour in Rybinia. Photo: Fotografia-dronem.pl





The drawbridge in Rybina, Szkarpawa, Photo: Fotografia-dronem.pl

ment existed in this place, and later a border town between the territories of the Teutonic Knights and those of Duke Świętopełk. The village was established in the 2nd half of the 14th c. and was given its final shape by Dutch settlers. A few houses remain from the historic wooden settlement, some of them arcaded.

6,7 km – LB – The watchtower Zabi Brzeg in Izbiska (in construction)
The hostel was rebuilt on the pattern of riverside hostel from the halfway of 18century.

About 11 km-LB - Marina Chorążówka

14,5 km - An overhead power line HNW: 18,2 m (59.7 ft)

# 14,98 km - The swing bridge of the narrow-gauge railway in Rybina

The swing bridge is an extraordinary structure. It has three spans. The first one is the steel construction, the second one is the actual bridge, built out of riveted girders resting on the vertical pier that constitutes the axis of rotation. The bridge is operated manually, by means of a system of gears and transmissions. A fantastic narrow-gauge train with carriages runs on it, which has been an attraction in Żuławy for 10 years. Żuławy Narrow-Gauge Railway (ŻKD) has been revived thanks to the efforts of the Pomeranian Society of Railway Enthusiasts. It runs from Nowy Dwór Gdański to Stegna, then back and forth along the Vistula Spit between Sztutowo and Mikoszewo, and finally it returns to the station in Nowy Dwór. Its rolling stock consists of box cars and the so called letniaki (summer cars). It is possible to travel in them according to the timetable or hire them by placing an individual order. The vertical clearance of the closed bridge is c. 2.7 m (8.8 ft) and depends on the water level in the Szkarpawa.

# 15-15,45 km - LB - Rybina

Just after the bridge there is a fairly large backwater and a branch of the Wisła Królewiecka (the Königsberg Vistula). Rybina is a real waterway junction and the only place in Poland where three functioning historic bridges are in sight: two drawbridges, on the way from Nowy Dwór Gdański to Stegna, and a swing bridge, built in 1905 for the narrow-gauge railway. Unfortunately, in the blooming season the place is full of floating vegetation, including salvinia, which considerably affects navigation possibilities. On the Szkarpawa in Rybina it is possible to moor in a marina built under the "Żuławy Loop – Water tourism Development Project. Stage I". The marina consists of a 100 m long wharf and three mooring jetties at the drawbridges on the Szkarpawa and Wisła Królewiecka rivers. At the quay there are electricity and water supply points and a yacht sewage discharge facility. The land facilities of the marina feature a marina administration office, sanitary facilities and a shower. Two grocery stores are located close to the marina. One of them is open also on Sundays in the evening hours. The village has a health centre and a community centre.

# 15,3 km - LB - Sailing Marina and Passenger Quay in Rybina.

Constructed under the "Żuławy Loop – Water tourism Development Project. Stage I. "The marina consists of a 100 m long wharf for servicing passenger vessels and three mooring jetties at the drawbridges on the Szkarpawa and Wisła Królewiecka rivers. The site features sanitary facilities, a marina administration office, an access road with a manoeuvring square and a car park for 9 vehicles. The equipment of the wharf includes cast iron mooring bollards, steel ladders, columns for potable water and electricity supply, a sewage discharge pedestal and rescue equipment.

It is planned to expand the marina with infrastructure for canoeing.







15,3 km – RB – Fork of the river - Wisła Królewiecka. Haus-

# 15,3 km - RB - Chłodniewo pumping station in Rybina

7,000 litres per second – so much water can be pumped by the machines of Chłodniewo pumping station, which was built in 1929. The station connected small polders that were meant to drain the depression areas of Wielkie Żuławy Malborskie (the Great Malbork Żuławy). It closes the outlet of the Linawa into the Szkarpawa, near Rybina. The facility has two electricity-driven sets and a spare one with combustion engines, kept in reserve. Organised groups can see the work of the machines by arrangement with the management of the Melioration and Water Facilities Board of the pomorskie voivodeship.

# 15.45 km - The drawbridge in Rybina

The bridge lies on provincial road No. 502 from Nowy Dwór Gdański to Stegna.

It stands on wooden stilts driven into the river bed. Four concrete spans rest on them. The last of these – movable ones – have a riveted steel truss construction. Originally, the spans were lifted manually; today they can be opened by means of electric engines. The bridge is yellow in colour, which makes it visible from a distance.

The vertical clearance of the closed bridge is c. 2.58 m (8.46 ft) (depending on the water level in the Szkarpawa).

From here, it is closest way to Nowy Dwór Gdański, where the famous Żuławy Museum is located. In the vicinity of the city there are several arcaded houses, typical for Żuławy, whose interiors are partly open to visitors by owners (Żelichowo-Cyganek, Marynowy, Orłowo).

# 16,79 km - The mouth of the Tuga River

A post of Water Management Station and water police. The bridge before the river's outlet into the Szkarpawa is in sight.

17,79 km – Two overhead power lines HNW: 14 m (45.9 ft)

20,5 km - Chełmek Osada - planned canoeing marina.

22 km - LB - A grove. Branch – Płonina Channel. A non-navigable route.

A good stopping, camping, and fishing place (opposite the board marking km 22).

ok 23 km - An overhead power line HNW: 14 m (45.9 ft)

# 23,5 km - RB - Osłonka yacht harbour

At the jetty there are 6 mooring slots for yachts up to 7 m length. The jetty itself is equipped with mooring bollards, fenders, lighting, a water and energy supply point, and a lifebuoy. The marina features a marina administration office, sanitary facilities, festive shelter, facilities to prepare meals and wash dishes, a volleyball court, parking spaces, a campsite, and a water supply point. The marina area is illuminated and fenced.

Built as part of "The Żuławy Loop Project – Water Tourism Development. Stage I."

Caution: There may be problems with the approach of vessels of draught exceeding 1 m. Just before the bridge (approx. 5 m), in the centre part, there is a shallowing. It is deeper adjacent to the jetty itself.

Planned canoeing marina.

# About 23,5 km - LB - The Marzecino Depression

The youngest piece of Poland. Draining of a small bay of the Vistula Lagoon, called Zakątek Stobiecki, began in 1942. It re-joined the Lagoon, when the defending German troops blew up the flood embankments. This condition lasted until 1949, until the area, which was again incorporated into the territory of Poland was drained. In the polder, the lowest

# THE SZKARPAWA



Pumping station Chłodniewo. Photo: Fotografia-dronem.pl



The drawbridge in Rybina. Photo: P. Pasieczny



The outlet of the Tuga into the Szkarpawa. Photo: M. Opitz

# Osłonka yacht harbour. Photo: A. Wołosz





Pumping station in Osłonka. Photo: M. Opitz

spot in Poland was located, whose ordinate is 2.07 m ppm.

23,9 km - Dublewo Branch - no swimming

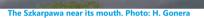
# 25,3 km – Osłonka pumping station

# Stopping prohibited!

Osłonka, also called pumping station 3W, was built in 1939-42 together with the embankments in the pass at the Vistula Lagoon's Zakatek Stobiecki (Stobiecki Corner). It was fitted with three pumps: two electric pumps and one with a combustion engine, with a delivery of 7 m3 per second each. After it was built, Osłonka replaced more than 30 smaller pumping stations. Destroyed by the defending German troops in March 1945, it was rebuilt by Polish authorities and serves Żuławy to this day. You can make an emergency stop before the pumping station, at a fishing port in a cove. Caution: shallow water!

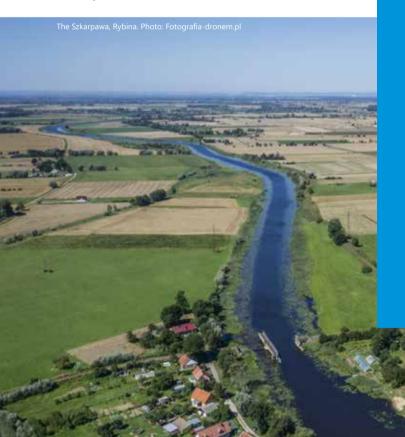
# 25,4 km - Outlet into the Vistula Lagoon

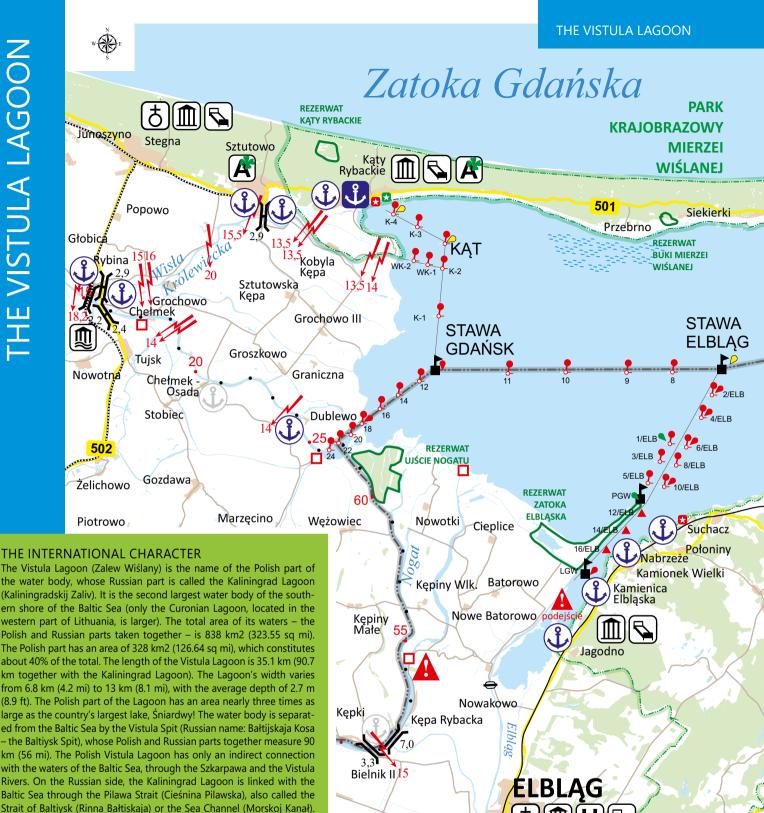
A large pool. Water depth in some places reaches 6 m (19.7 ft) – an excellent angling spot, particularly abounding in fine specimens of perch. This is where sea marks begin – buoys, which serve as aids to navigation on the entire Vistula Lagoon. Watch out for lush vegetation! Entrance to the Nogat is somewhat inconspicuous – turn right between the second and the third fairway buoys.





The Żuławy Loop is a natural, attractive for tourists, network of water routes connecting Vistula, Martwa Wisła, Szkarpawa, Wisła Królewiecka, Nogat, Jagielloński Canal, Elbląg and Pasłęka rivers, as well as the waters of the Vistula Lagoon. It equals to 303 km of an unforgettable adventure that you can experience by canoe, yacht, motorboat or houseboat. After all, the Żuławy Loop is a network of highest quality harbors, marinas and mooring jetties, constructed under the "Żuławy Loop – Tourism Development" project, co-financed by the European Union from the European Regional Development Fund and implemented by self-government partners from the Pomeranian and Warmian-Masurian Voivodeships. In addition to the water routes around the Vistula delta and the infrastructure for water tourists, the Żuławy Loop combines numerous attractions related to the cultural heritage of the Żuławy Wiślane. This area boasts a unique richness of national historical objects: gothic castles or arcaded houses, as well as hydrotechnical monuments: drawbridges or locks. The area of the Żuławy Loop is undoubtedly a place to rest, be active and experience unusual landscapes and admire fascinating nature. www.petla-zulawska.pl





# **ELBLAG BAY**

waterways with Russian and Lithuanian waters.

This very strait is the deepest water body on the Lagoon. Russian authorities maintain its depth at 10.5 to 11 m (34.5-36.1 ft), with commer-

cial and military aims in view. The Vistula Lagoon and the Kaliningrad Lagoon connect the networks of Polish and Western European inland

> The Bay is the southernmost part of the Vistula Lagoon, resembling the Masurian Lakes or Lake Jeziorak. The shelter provided by Nowakowska Island makes the wind lighter and the waves smaller here than on the Lagoon's open waters. The Bay is a very shallow water body. Its average depth is 1-1.5 m (3-5 ft), and the farther south you go, the more shallow it gets. The exception is the Lagoon-Elblag fairway. In Elblag Bay, the guaranteed fairway depth is 2.2 m (7.2 ft), and further – on the Elblag River – from 3.5 to 4 m (11.5-13 ft).

Adamowo

Kazimierzewo

The Bay's ports are small, with poorly developed boating infrastructure. The region's largest port is Suchacz, accessible to yachts with a draught up to 1.5 m (4.9 ft). The remaining ports are accessible to yachts with a lower draught: Nadbrzeże (1.2 m / 3.9 ft), Kamienica Elbląska (1.2 m) and Jagodna (0.8 m / 2.6 ft). Since 1991, the Zatoka Elblaska (Elblag Bay) Nature Reserve has existed here.



# MARITIME OR INLAND WATERS?

The Lagoon is internal maritime waters. Maritime aids to navigation are used here, managed by Maritime Office administration. Still, the term "maritime waters" does not imply maritime depths or salinity. The depth of the Lagoon does not exceed 5.5 m (18 ft) – except on the Kaliningrad Lagoon. The average depth for the entire Lagoon is only 3.5 m (11.48 ft), and only about 2m (6.6 ft) on the Polish waters. Due to the depths, relatively small for its area, the Lagoon can only be used by watercraffs with a draught up to 1.5 m (4.9 ft). Most of the ports on the Vistula Lagoon are prepared to admit such vessels. In order to turn from the Lagoon's main fairway to the ports, you must keep to the approach fairways and head for the leading marks. This procedure is familiar to maritime sailors but may be a novelty to inland boaters and sailors. The salinity of the Polish part of this water body is about 2 per mille – half the figure for the Baltic. The closer we get to the strait connecting the Lagoon and the Baltic Sea, the higher the salinity.

# THE GENESIS OF THE VISTULA LAGOON.

When considering the geological time, the Vistula Lagoon is a young body of water. Its previous name was Zatoka Świeża (Fresh Lagoon) or Zatoka Fryska (from the German frische – fresh) because of its low salinity. The current name was not adopted until 1950. This is a lagoon-type water body, formed through the accumulation of sand material brought by sea currents flowing from the west. With time, the spit reached the opposite shore of the bay, cutting the inshore shallows off from the sea. Today, the Vistula Spit stretches over a distance of 90 km (56 mi) and its average width varies between 1 and 2 km (0.62-1.25 mi). The process of the Lagoon getting closed off took place only a few thousand years ago. Today, analogous phenomena are responsible for the formation of the Hel Peninsula.

# GEOGRAPHICAL AND ADMINISTRATIVE LOCATION

The border between the pomorskie and the warmińsko-mazurskie voivodeships runs across the Lagoon, more or less through the middle. What is interesting, the whole water boarder with the Kaliningrad region of Russian Federation is in warmińsko-mazurskie voivodeship and the land boarder on Vistula Sandbar is in pomorskie voivodeship. Looking eastwards, the following towns and villages are located on this side: Kamienica Elbląska, Nabrzeże, Suchacz, Kadyny, Tolkmicko, Frombork and Nowa Pasłęka. On the northern side of the Lagoon, administered by the pomorskie voivodeship, the following places lie (looking from east to west): Kąty Rybackie, Krynica Morska and Piaski. The Lagoon borders on the Vistula Spit in the north, on the Elbląg Upland and the Old Prussian Coast (Wybrzeże Staropruskie) in the south, and on Żuławy Wiślane (the Vistula Delta Plain) in the west. These areas differ in their lie of the land. The Spit has considerable elevations of the sand dune type; Żuławy is a flat land formed out of alluvial warp and in result of the efforts of land melioration specialists; the Old Prussian Coast is a plain, whereas the Elbląg Upland comprises high hillsides overgrown with beech forests. These hillsides afford unforgettable panoramas of the Vistula Lagoon.

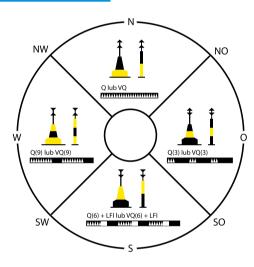
# MAJOR AIDS TO NAVIGATION ON THE VISTULA LAGOON



THE LIGHTHOUSE in Krynica Morska. The easternmost lighthouse in the country. Geographical location: 54°23′07.2″ N 19°27′03.6″ E. Tower height: 26.5 m (86.9 ft). Light height: 53 m (173.9 ft) asl. Light range: 18 nmi (33.336 km / 20.7 mi), Light characteristics: Group flashing light: Flash: 2 s, Interval: 2 s, Flash: 2 s, Interval: 6 s, Period: 12 s. Administered by the Maritime Office in Gdynia. The light and the silhouette of the lighthouse are visible from the open sea as well as from the Vistula Lagoon.



BEACONS: fixed structures – navigation lights on truss towers placed on a fixed base: on stone islands. This considerably increases their range of light compared to usual buoys. Some of them indicate the Vistula Lagoon's fairway.



CARDINAL BUOYS: with a combination of yellow and black and with black cones positioned appropriately to the region in which they restrict navigation. They indicate the outermost points of shoals and shallow waters as well as other dangerous places. The buoy marking the west edge of danger is the so-called "Francuzka" (Frenchwoman), with two cones point to point as the topmark. The buoy situated at the east edge of a dangerous water area is "Rosjanka" (Russian woman), with two cones pointing up and down. The buoy marking the north edge of danger is "Eskimoska" (Eskimo woman), with two cones pointing up; finally, the so-called "Murzynka" (Black woman), with both cones pointing down, marks the south edge of a dangerous water area. Sometimes a buoy has no cones, only a spar painted yellow and black. The flashing of such buoys corresponds to clock face



LATERAL BUOYS: they are green and red. They mark the edges of the fairway and approach fairways. They are often placed in pairs, which we refer to as "gates." The direction of the approach fairway is towards the harbour, which means that red buoys (spar or can) stand on the port (left) side of the fairway and green buoys (spar or can) on the starboard (right) side. Red-and-white as well as green-and-yellow buoys mark the country border.



LEADING MARKS: they indicate the approach to the port. By day, they are triangles, rectangles, or rhombuses – white or red, placed on special truss towers, pierheads, passenger piers, or in other places visible from a distance. By night, leading marks flash. There are often two leading lights: the front and the rear one. Navigate in such a manner as to make them coincide. The front signal is fixed lower.



# ON THE VISTULA LAGOON, FOLLOW THE FAIRWAY

The fairway runs from the mouth of the Wisła Królewiecka (the Königsberg Vistula), the Szkarpawa and Elbląg Bay to the country border. Its shape, looked at from the west, can be compared to a trident. Having an imagination that could match those who gace names to constellations, we could call the fairway of the Vistula Lagoon "Crocodile." Its gaping jaws would be formed by Elblag Light (Światło Elblag) and Gdańsk Beacon (Stawa Gdańsk). The back line would be marked by Elblag Beacon (Stawa Elbląg) as well as buoys: Tol, Fro and Pas. Approaches to the ports in Krynica Morska, Piaski, Tolkmicko and Frombork would be the legs. Finally, the crocodile's tail would end at the port of Nowa Pasłęka.

# AIDS TO NAVIGATION ON THE VISTULA LAGOON

The Vistula Lagoon is sea in a nutshell. It has a lighthouse; it has navigation lights – or, beacons; it has buoys, being the floating marks indicating the fairway; it has leading marks, which indicate safe approach to ports; it also has unmarked nets awaiting sailors. The Vistula Lagoon is a good school of maritime habits, also due to the fact that it is marked with aids to navigation conforming to the international maritime buoyage system, the IALA – A System. This means that we will find exactly the same marks and signs on the maritime waters of the entire Europe, Africa and Australia, as well as on most waters of Asia.

# AIDS TO NAVIGATION ON ELBLAG BAY

Across the west part of Elbląg Bay runs the fairway leading from the Vistula Lagoon, up the Elbląg River, to Elbląg. Sailing from the Vistula Lagoon, we first pass the Starboard Entrance Beacon (PGW), situated on top of a green truss tower on a granite base. A group flashing light (2 flashes in a group), green, with a period of 6 seconds. On the map, this will be indicated as FI (2) G 6 s.

The Starboard Entrance Beacon and 10/ELB buoy make up a fairway gate. 10/ELB is a red lighted spar buoy with a red cylinder, marking the port side of the fairway. It flashes just like the PGW, but the light is red: FI (2) R 6 s. Next, the port edge of the fairway is indicated by lateral marks - cylinder-shaped red spar buoys: 12/ELB, 14/ELB and 16 ELB. Please note that, instead of spar buoys, ordinary red can (cylinder) buoys may be used, resembling typical inland marks. Next, we pass the Port Entrance Beacon (LGW) – a red truss tower on a granite base, with a fender bar and mooring gear, enabling emergency mooring. It flashes red light with a period of two seconds (FI R 2 s). Sailing further, we enter the Elblag River (the Elblażka), which takes us to Elblag.

# DANGEROUS AREAS IN THE VISTULA LAGOON

A ROCKY SHOAL OPPOSITE THE VILLAGE OF RÓŻANIEC, stretching between Frombork and Nowa Pasłeka.

A WRECK EAST OF THE APPROACH TO KRYNICA MORSKA. The western edge of the wreck is marked with a cardinal mark.

THE KRYNICA SHOAL (Mielizna Krynicka), located between the passenger-yacht and fishing ports. Marked with two cardinal mark buoys. The buoy marking of the eastern edge of the shoal features a lamp and is the eastern edge of the approach fairway to Krynica.

THE TOLKMICKO SHOAL is located west of Tolkmicko and is marked with a yellow cardinal buoy.

PRZEBRNO SHOAL (Mielizna Przebrno) stretches between Kąty Rybackie and Krynica Morska, at the height ofpposite the Skowronki and Siekierki villages.

FROMBORK. Underwater stone palisades between the western head of the Frombork port and the pier of the former passenger and yacht marina. They are marked by yellow basin buoys of the basin for turning of inland vessels. A buoy closer to the shore marks the edge of underwater obstacles.

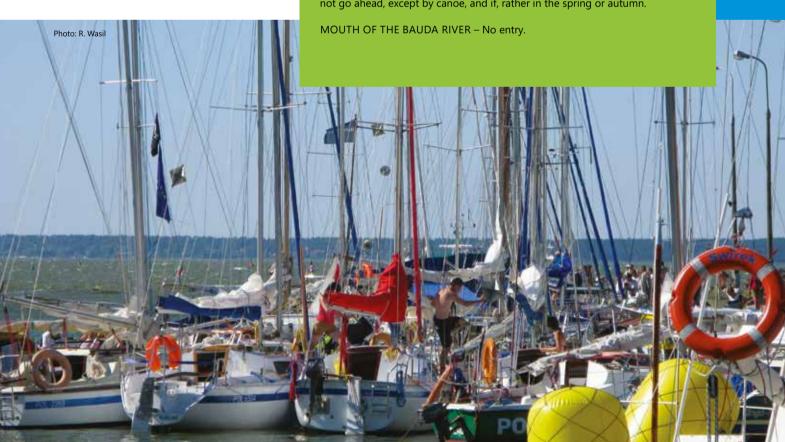
THE SURROUNDINGS OF THE GDAŃSK AND ELBLĄG POLES. Some stones are located in the water, which is shallow. It is not recommended to approach the basin.

KĄTY RYBACKIE. A wreck of a motor yacht at the shore between the "Barkas" marina and the Old Fisherman's Harbor.

NOWA PASŁĘKA – MOUTH. Flooded eastern breakwater at the entrance to the Ujście Port on the Pasłęka Canal.

JAGODNA – the approach to the marina is obstructed by reeds. It's hard to get here, piercing through the carpets of water vegetation.

MOUTH OF CIEPLICÓWKA – a non-navigable and unmarked route. Bushy banks, abandoned fish nets, low bridges and power lines. You definitely should not go ahead, except by canoe, and if, rather in the spring or autumn.









FROMBORK. The town, whose beginnings date back to the Middle Ages, was immortalised in the annals of history thanks to Nicolaus Copernicus, who lived and worked here for over 30 years. In 1510-1543, the famous astronomer lived on the Cathedral hill as a canon of Warmia. When visiting the town, you must not forget to see the following: Cathedral Basilica of the Assumption of the BVM and St Andrew (in the summer season, every week, virtuosi from Poland and from abroad give concerts there on the famous Frombork organ); the Radziejowski Belfry Tower (Wieża Radziejowskiego), in which there is a Foucault pendulum; Copernicus' private tower; the Nicolaus Copernicus Museum; the planetarium located on the so-called octagon – an octagonal tower on the Cathedral hill. Also worth visiting, though less known, is he Museum of Medicine at the Św. Ducha Hospital (the Holy Spirit Hospital).

KRYNICA MORSKA. The broad beaches of Krynica Morska will lure every enthusiast of blissful idleness. In this former fishing settlement there is seldom any reason to complain about no sunshine and from the lighthouse there is a marvellous view stretching over the Baltic Sea and the Vistula Lagoon. The lighthouse is 26.5 m (87 ft) high and has a range of 18 nautical miles. In Krynica, there is also a port with a yacht and tourist section and a fishing harbour. In the vicinity of the town there is a dune called Wielbłądzi Garb (Camel's Hump), recognised to be Europe's highest.

TOLKMICKO. The beautiful beach and the nearby nature make Tolkmicko an excellent place for rest. Interesting historic monuments also abound here. They include the town's layout, a Gothic tower and St James Church. Additionally, the so-called Wały Tolkmita (Tolkmit's Embankments) are located near Tolkmicko, being the remains of an old Prussian fortified settlement.

# HYDROTECHNICAL HIGHLIGHTS

# THE SHIPPING CANAL ACROSS THE VISTULA SPIT

The plan to build a shipping canal across the Vistula Spit is aimed at connecting the Vistula Lagoon with Gdańsk Bay, shortening the waterway and making Elbląg a sea port. The planned site of the Vistula Spit canal is located in the area of the former Nowy Świat settlement, in the Sztutowo Commune. The length of the canal is 1.1 km (0.68 mi), and the width is 80 m (262.5 ft). The project stirs up controversy, since the canal is to run across Natura 2000 protected areas.

# CRUISES ON THE VISTULA LAGOON

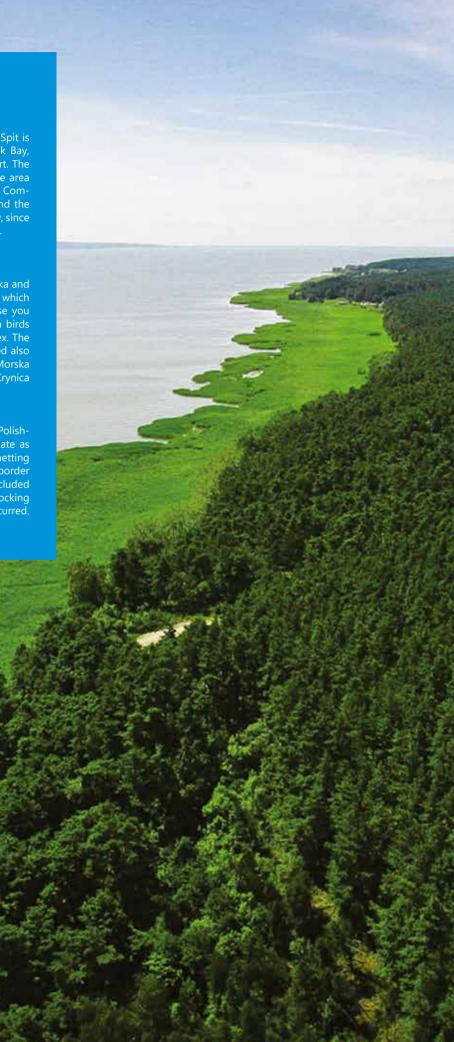
On Vistula Lagoon, on the part between Krynica Morska and Frombork, in high season, there are numerous cruises which are operated by a few ship owners. During the cruise you can admire the nature of the basin, especially marsh birds and waterfowl, and in Frombork the cathedral complex. The cruise takes one hour and a half. Cruises are organized also on the route from Tolkmicko and Elblag to Krynica Morska and the cruises on the Vistula Lagoon from ports in Krynica Morska and Katy Rybackie.

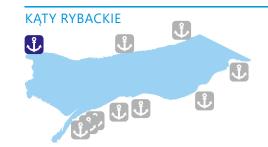
Not far from Nowa Karczma and Nowa Pasłęka, the Polish-Russian border crosses the Vistula Lagoon. Even as late as the 1990s, its course was still marked by steel wire netting stretched over border waters. The situation on the border was unstable until 2009, when an agreement was concluded regulating vessel traffic. Before that, incidents of blocking navigation and closing the border for Polish vessels occurred.

Photo: M. Opitz











The port in Katy Rybackie is situated at the very beginning of the Vistula Spit, near the mouth of the Szkarpawa River. Just beside the port, there is the Museum of the Vistula Lagoon, a branch of the Maritime Museum in Gdańsk. It presents interesting exhibitions of old-time boatbuilding and fishery. An undeniable attraction of Katy is a walk across the spit – in 20 minutes you can get to a beach by the sea.

# HARBOUR PROFILE:

In Kąty Rybackie, there are three places for mooring yachts: the Port of Kąty Rybackie, "Neptun" Harbour, and the Old Fishing Port located in a quiet cove. The Port of Kąty Rybackie is available for boaters as well as for fishing and passenger ships. Entry to the harbour is possible for yachts with a draught up to 1.5 m (4.9 ft). There are two basins in the port: eastern and western. The west quay in the eastern basin is intended for yachts. The north quay in the western basin is the mooring place of passenger ship the Krystyna, and at the east guay there is a boat hoist. The Harbour Master's Office has its seat at the radio station's building and is open from 7:00 to 15:00 (tel. 55 247 87 19). Until 2014 as part of "Żuławy Loop Project - water tourism development stage I' the marina will be extended. "Neptun" Harbour is available for sailors only and is located west of the the port of Katy Rybackie. When entering the harbour, watch out for the low-hanging power line, which is scheduled to be removed. The harbour offers sheltered berths. You will also find electricity terminals, showers, and sanitary facilities there.



# FOR TOURISTS:

Krynica Morska is the most popular holiday resort on the Vistula Lagoon, also regarded as the Lagoon's sailing capital. Its major attractions include clean sea beaches and pine forests. When visiting Krynica, it is worthwhile making a trip to the lighthouse, from which a beautiful view stretches over the Vistula Lagoon. From the port situated on the Lagoon's side, you can set off on a cruise to Frombork, Elblag or Kaliningrad.

# HARBOUR PROFILE:

In Krynica Morska, there are two yacht harbour basins and a fishing port. The basins intended for yachts are separated by a passenger pier. The first one is called the Old Yacht Port, and the other one is the Leonid Teliga Yacht Basin, with impressive dimensions of 250 by 160 m (820 by 525 ft). The latter has been modernised as part of "The Żuławy Loop Project - Water Tourism Development. Stage I." and currently consists of three harbour basins. Boaters have the largest yacht basin on the Vistula Lagoon at their disposal, with floating piers in it. Berths for yachts are equipped with a water and sewerage network, electricity terminals, and lighting. The guaranteed depth in the yacht port is 1.5 m (4.9 ft). At the west quay of the port, white fleet vessels are moored that can surprise you during port manoeuvres. On the north side, there is a parade ground with a flagpole, and a funfair just behind it. Further expansion of the marina is planned to feature new land facilities (hangars, sanitary facilities).



# THE WAY TO THE PORT:

The approach fairway leading to the port is 2.5 m (8.2 ft) deep. Regardless of the time of day or night, the way to the port is best shown by the Lighthouse in Krynica Morska, located east of the port. Approach to Krynica Morska from the main fairway of the Lagoon begins at the TOL buoy (a red and white light buoy with a sphere, white light with a period of 10 s). Next, you are guided by unlighted fairway buoys (red, with a red cylinder as the topmark - marking the port edge of the fairway; leave it to port) 2/E and 4/E. Then there is a lighted cardinal buoy KM-E, black, yellow and black, with a topmark of black cones pointing up and down. Its light characteristics are: white light with a period of 10 s. The lighthouse marks the east edge of the Krynica Shoal and the port side of the fairway. The next unlighted fairway buoy 6/E - red, with a red cylinder on top - marks the port side of the fairway. Slightly closer to the harbour, on the east side, there is a black, yellow and black cardinal buoy, with topmark cones point to point. Heading for Krynica, leave it to starboard. Yachts with a draught above 1 m (3.3 ft) should absolutely follow the fairway axis when approaching; other vessels should only pay attention not to damage the centreboard. The Krynica Shoal, lying west of the port, constitutes an obstacle for yachts with a draught above 1 m (3.3 ft). It is marked with two cardinal buoys: KM-S and KM-E. For precise approach to the port, use the leading marks: The front light/mark: a red post with a white triangle pointing up. Red isophase light, with a period of 2 s. The rear light/mark: red truss tower with a white triangle pointing down. Fixed red light.



At the very end of the Polish part of the Vistula Spit, 4 km (2.5 mi) from the Russian border, lies a charming and quiet settlement – Piaski. It is a perfect place for those who want to rest in peace and quiet, on Poland's most beautiful beaches, surrounded by virgin nature. There are shifting dunes in this vicinity as well as a nude beach. This is the last port on the Vistula Spit. As can be expected in the country's borderlands, there is little entertainment or noise here, and you will easily find remote beautiful beaches. The name Piaski was probably inspired by the shifting sands that engulfed the village and the inn that used to stand in place of the present-day Piaski. The character of the place may change radically when a border crossing is opened here. There is a chance for that, since the relationships with the Kaliningrad Enclave have been improving. If the project is realised, it will be possible to travel to Baltiysk and Kaliningrad.

# THE PORT OF PIASKI

The harbour basin is not sheltered from waves, which is felt particularly when south winds blow. The place is dominated by fishermen, and therefore sailors will find themselves surrounded by cutters and drying nets (oppressive smell). The port is small and you must moor to the sides of the already moored yachts. Formerly, yachts would moor to the central pier, which separates two harbour basins. The remaining berths were reserved for fishermen. Today, the proportions between the fleets are changing and yachts compete for berths in the entire port. If you are lucky and have a chance to choose your berth, we recommend the western basin, where the surrounding trees will shelter the yacht from the sun. The port borders on a tent site, where it is possible to use washing and other facilities.

# APPROACH TO THE PORT:

Sailing in a yacht with a draught up to 0.8 m (2.6 ft), you do not actually have to keep to the approach fairway. Depths vary, and shallowings occur after every storm of considerable strength. Pay special attention to engines, making sure that cooling system inlets do not get blocked. Another risk factor during approach is nets, commonly found here. From the main fairway of the Lagoon the approach fairway to the port begins at the PIA buoy (unlighted). Next, there are 3 fairway buoys: P/1, P/2 and P/3. Just before the port, there are fairway gates of red and green buoys. The local leading marks are the following. The front light/mark: red column on the central wooden pier of the harbour basin, topped with a white upward red-rimmed triangle. Red flashing light with a period of 5 s. The rear light/mark: on the hill behind the port, a red column with a white downward red-rimmed triangle. Red flashing light with a period of 5 s. Caution! It has happened several times in recent years that the rear leading light or both leading lights were out of order.





# FOR TOURISTS:

Kamienica Elbląska sailing harbour lies on the route of the Elbląg-Frombork-Braniewo Bayside Railway, at the station called Kamionek Wielki.

# HARBOUR PROFILE:

This is in fact a small fishing port in Elblag Bay. There are no facilities for sailors or sanitary infrastructure there. There is, however, a grocery by the port, where you can replenish provisions.

The harbour basin is a rectangle biting into the flat bank at the foot of the hills of the Elblag Upland. The banks of the Bay are not reinforced and overgrown with reeds that make access difficult. Here and there, you can find remains of mooring piers projecting from the shore. You can use them for mooring. The most convenient stopping places are located on the southern wharf, which closes the harbour basin. There are solid concrete quays with bollards there. The hosts of this place are fishermen. It is proper to respect this and ask their permission if you plan to make a longer stop.

# APPROACH TO THE PORT:

Approach the port from the direction of Nadbrzeże and Suchacz, navigating along the Elbląg Upland. Entrance to the port begins behind the visible poles.

# KAMIENICA ELBLASKA









Located approximately 15 km from Elbląg, within the Boundaries of the Elbląg Upland Landscape Park. In the Park, the wall of the closed Elbląg loam pit excavation presents the geological structure of Elbląg Upland. Also the spa court complex (18th/19th century) and a brickyard complex (19th/20th century) are well worth visiting. During the World War II, in Nadbrzeże the sub-camp of Stutthof-Hopeehill concentration camp was located. The monument here is a memorial to the murdered prisoners.

# HARBOUR PROFILE:

# Water Station in Nadbrzeże

Quay by the floating jetty and the shore. Water and electricity at the quay. Depth at the quays: 1.00-1.50 m, 4 holiday cottages, training room, toilet, showers in the main building. Toilet building and showers at the parking lot. Barbecue and recreational sheds, beach, playground, volleyball, basketball, football fields and ping-pong table. Unguarded parking, free. A seasonal catering point run by the local so called Country Housewives Club and the Association of Themed Villages. In the summer, the boatswain season works between 8.00-22.00. Between 22.00-8.00 – security quard.

Yacht charter (cabin and open deck), training for children and teenagers on Optimist and Laser class yachts, canoe rental. In winter – a boat rental DN, Ice-optimist, Monotype 15. Ice reports are published on regular basis. Safety is ensured by a quad and protective equipment. Contact: stanicanadbrzeze@gmail.com; telephone no.: +48 519 865 607

#### APPROACH TO THE MARINA

Access by land: Provincial road 503, exit at the blue cross marked with two wooden notice boards: "Stanica Wodna w Nadbrzeżu".

Access by water: From the approach fairway to the Port of Elblag – traverse at the red buoy no. 12 – head for the brickworks chimney. Entry to the port on the right side of the head of port. Depth at entry at medium water level:

0.70-1.10 m. The Water Station is located on the left side of the port, a characteristic white building, a grill roof and a bridge with a slip ramp.



# Photo: M. Opitz

# FOR TOURISTS:

Suchacz is the largest port in Elbląg Bay, located 12 km (7.5 mi) from Elbląg. It is situated in the Wysoczyzna Elbląska (Elbląg Upland) Landscape Park, a Natura 2000 protected area. There are ruins of a castle in Suchacz. On the Vistula Lagoon not far from Suchacz, a sea battle took place in 1463 between the fleet of the Teutonic Order and those of Elbląg and Gdańsk.

# HADROLID DDOELLE

The largest port of Elblag Bay is located about 10 minutes' walk west of Suchacz. It is worthwhile beginning or ending your Vistula Lagoon trip here. The harbour comprises two ports: a yacht port and a fishing port.

The yacht port is located at the western quay. Well sheltered from waves and winds, it allows you to leave the yacht there also for a longer stop. Fit for vessels with a draught up to 1.2 m (3.9 ft) and managed by the Vistula Lagoon Sailing Enthusiasts' Club. You can charter yachts of various sizes here. Sailors have washing facilities, a club room, and a place for a bonfire at their disposal. It is also possible to draw water and connect to electricity.

The fishing port is located at the far end of the harbour basin. Fishing boats moor to several short piers. If your stop is short or if there is no space left in the yacht port, the kind fishermen let pleasure yachts moor there.

# APPROACH TO THE PORT:

Entrance to the port is located almost opposite the Elblag Light (Andzia, green flashing light with a period of 6 s, PGW). The distinctive feature is the breakwater of the port, with the red column of the leading mark with a white stripe on it and red flashing light (QR). It is worth knowing that stones lie under water on its both sides and that there are many nets and fykes in this area. It is recommended to approach from the western direction, which allows you to retain orientation in the port canal. Entering the port with sails set is dangerous and difficult. The port canal turns at an angle of 90 degrees, and it may be difficult for two yachts to pass each other. The port is fit for vessels with a draught up to 1.2 m (2.3 ft).

Kadyny is a small village, located where, in the Middle Ages, there was a fortified settlement of the Old Prussian tribe of the Pomesanians. Its name derives from that of Old Prussian princess Kadyna, the founder of the village. One of the major attractions of Kadyny is the former residence of Emperor Wilhelm II. On his orders, the village was designed and built in such a way as to accommodate the Emperor's entire court, including guards, physicians and procurement services. This is why the streets in Kadyny are as wide as those in Paris. There is also a renowned stud-farm, where Warmia and Masuria Horse Jumping Championships are held every year. Kadyny lies on the route of Bayside Railway (Kolej Nadzalewowa), connecting Elblag with Braniewo.

# HARBOUR PROFILE:

Revitalised thanks to a private initiative, the port is suitable for a short, one-day stop and fit for boats with a draught up to 0.8 m (2.5 ft), during good weather and with no waves. You can hire water equipment here and use an eating place. The location of the harbour is very attractive, being right beside the beach – one of the most attractive beaches of the Vistula Lagoon.

# APPROACH TO THE PORT:

There are no marks or navigation lights. You will recognise the port by its visible breakwater, sandy beach, and thatched gastronomic building. Watch out for shallows and make sure to keep to the fairway. The course during the entrance manoeuvre should be perpendicular to the shore. Mooring is only possible at the exit from the harbour basin. Deeper inside there are numerous obstacles.





# FOR TOURISTS:

The port in Tolkmicko is the largest sailing port on the Vistula Lagoon. The history of Tolkmicko is connected with the legend of Tolko and Mita, the founders of the town. Also related to this legend are Wały Tolkmita (Tolkmit's Embankments), the ruins of an Old Prussian fortified settlement in the Elbląg Upland – 3 km (1.9 mi) south of the town.

# HARBOUR PROFILE:

The marina in Tolkmicko is impressive. It was built as part of "The Żuławy Loop Project – Water Tourism Development. Stage I," implemented by the Offices of the Marshals of the Pomorskie and the Warmińsko-Mazurskie Voivodeships. Located in the west part of the port, it offers complete infrastructure necessary to sailors: mooring piers, washing facilities, the possibility of connecting to electricity and drawing water. There is a petrol station 200 m (650 ft) away.

The fishing port is a long, rectangular basin with an entrance canal with breakwaters. The Eastern Quay is intended for SAR rescue vessels in its initial stretch, and further – for cutters and fishing boats. There is a slipway here and a hoist for boats, as well as a building of the Harbour Master's Office, lifeguards, and a fishing base. The Harbour Master's Office (tel. 55 231 66 14) is open from 07:00 to 15:00, Monday to Friday.

# SAR – SEARCH & RESCUE

This is the only post of this kind on the Vistula Lagoon. You must remember that the mission of SAR is to rescue people. There is a high charge for calling them to save a yacht. If human life is not in danger, you should contact the Harbour Master's Office and fishermen.

# APPROACH TO THE PORT:

Tolkmicko can be recognised by the white and blue building of the fish-processing plant – east of the port's entrance. On the roof of that building, there is a triangle pointing up. From the fairway of the Vistula Lagoon, approach starts at the TOL buoy (a red and white light buoy with a sphere, white light with a period of 10 s). Before the very port, two fairway gates stand, made up of red and green buoys. Yachts with a draught up to 0.8 m (2.6 ft) do not have to keep to the fairway. When entering the port from the east, bear in mind the Tolkmicko Shoal, marked with the black and yellow and black cardinal buoy TOL-N. On the west side, there are no problems with depth.

On the east pierhead of the port, a fixed green light on a green column with a gallery shows the way to the port.













Frombork is the largest port town on the Vistula Lagoon. It owes its fame to Nicolaus Copernicus, who spent more than 30 years of his life there as canon of the Warmia Chapter. Frombork's major tourist attractions include: the cathedral hill complex overlooking the town, the Nicolaus Copernicus Museum, as well as a planetarium and an astronomical observatory.

# HARBOUR PROFILE:

In Frombork, a fishing port with a harbour for sailors awaits boaters. The long port canal ends with a basin with berths for yachts – there are not many of them, however. Yacht Club "Dal" has its residential berths here, but you need to contact its representative if you wish to use them. In emergency situations, you can ask for the Harbour Master's permission to moor in the port canal. The Harbour Master's Office is open from 07:00 to 15:00. Boaters have access to electricity. It is possible to draw water from the fishermen. Toilets are located near the quay, but there are no showers. These are available at the campsites in Braniewska and Elbląska Streets, about 30 minutes walk one way. There are a few bars near the harbour and restaurants in town.

In the coming years, a reconstruction of the Frombork port is planned.

# CLOSED PASSENGER AND YACHT HARBOUR

There is also a closed yacht harbour in Frombork – a jetty of several hundred metres, without a host. Mooring alongside is possible for yachts with a draught up to 0.8 m (2.5 ft). Still, it is advisable to watch out and stay parallel to the jetty, since there are metal elements jutting out from the quay.

# APPROACH TO THE PORT:

From the main fairway of the Vistula Lagoon, the approach fairway to Frombork begins at the lighted buoy FRO. Beside it, there are anchor grounds with a technical depth of 2.2 m (7.2 ft). The approach fairway leading from the buoy to the port has a depth of 2.4 m (7.87 ft) and a width of 30 m (98.5 ft). The fairway is 500 m (1640 ft) long and is marked by three fairway buoys: 1/F, 2/F, and 3/F. Just before the harbour basin, there are gates made up of red and green buoys.

The front light/mark is a truss tower with a triangle, located at the end of the harbour basin. Fixed red light.

The rear light/mark: in the church tower window. Fixed red light.

On the east pierhead stands a red column with a gallery. The pierhead is painted in yellow and black diagonal stripes. Red light with a period of  $2\ s$ .

On the west pierhead stands a green column with a gallery. The pierhead is painted in yellow and black diagonal stripes. Green light with a period of 2 s.



Nowa Pasłęka and Stara Pasłęka are the easternmost Polish villages on the Vistula Lagoon. In terms of architecture, Pasłęka resembles German and Dutch port towns. The Pasłęka River has its outlet here; you can navigate it to Braniewo, where there is a yacht harbour, built as part of "The Żuławy Loop Project – Water Tourism Development. Stage I". The attractions of Braniewo include: the baroque Holy Cross Church, Mariacki Granary (Spichlerz Mariacki) from 1831, and the remains of 14th c. fortifications.

#### HARBOUR PROFILE

We can choose from three harbours at the Vistula Lagoon: calmer port in Nowa Pasłęka and a marina built as a part of "Żuławy Loop Project- water tourism development stage I' located in Stara Pasłęka. After sailing 7 km on Pasłęk River we get to Braniewo, where we can find a newly built marina close to overpass, built as a part of "Żuławy Loop Project - water tourism development stage I'. Nowa Pasłęka port belongs to Maritime Office in Gdynia. It is located picturesquely in Pasłęk Canal, in a distance of 300 m from the mouth of Vistula Loop. There is lack of infrastructure in the port. You can enter the harbor in Stara Pasłęka through the mouth of Pasłęka River or through Pasłęka Canal. 22 stop stands, toilets and showers, power sockets the possibility of bunkering fresh water are waiting for water sports enthusiasts.

# APPROACH TO THE PORT:

From the Lagoon's main fairway. The beginning of the approach fairway is marked by the PAS buoy (unlighted). From that buoy, proceed towards the shore. The entrance to Nowa Pasłęka is located where the shoreline projects into the Lagoon. Entry may be a problem for yachts with a draught above 1.2 m (3.9 ft). Before the port, gates made up of buoys are placed. When sailing from the direction of Frombork, remember about the underwater stones opposite the village of Różaniec. Approaching along the fairway axis, watch out for the stone embankment that is an extension of the east breakwater. Leading marks: the front light/mark (a green truss tower with a nautophone, on the west breakwater). At the rear, behind the tower, stands the wind vane mast. There is no rear leading light or mark.

# UP THE PASŁĘKA RIVER TO BRANIEWO

Seven kilometres upstream. We can begin by entering the river mouth – or, at low water level, the port canal. After passing the bridge, turn 90 degrees right, entering the Pasłęka River. The west side of the river is embanked. On the east bank, there is an overflow area, a few dozen metres wide – the "bypass outlet" of the Pasłęka. This way the river's waters escape during a flood. Further on, there is harbor in Stara Pasłęka; 200 m further – a drawbridge. Just behind it, on the west bank, a fishing base. From the bridge onward navigate with the mast down. Halfway, at the east bank, a short blind river branch diverges to the left. The sign that Braniewo is near will be a monastery building, visible from a distance. Next, we pass by a brewery on the west bank. The sailing harbour built as part of "The Żuławy Loop Project – Water Tourism Development. Stage I" is located just before the footbridge. The marina features a jetty of a length of approx. 25 m, suitable for small vessels and canoes, marina administration office and sanitary facilities.

# NOWA PASŁĘKA, STARA PASŁĘKA, BRANIEWO



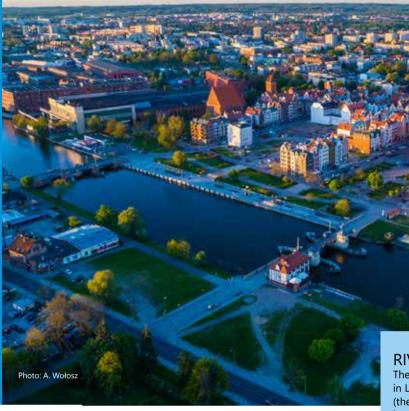












# NAVIGATIONAL INFORMATION - THE ELBLAG RIVER DEPTH

At medium water, depth is about 3 m (9.8 ft). This enables navigation to virtually all recreational and sports vessels as well as the development of commercial shipping. Consequently, the stretch between Elblag and the Vistula Lagoon is characterised by a considerable traffic of watercrafts. Yachts and motor boats sail this way, and so do anglers' boats, ships of the Harbour Master's Office or the border guard, pushboats with barges, and – slightly less often – Elblag–max ships, meaning sea vessels heading for Elblag through the Baltiysk Strait and the Vistula Lagoon.

# POWER LINES AND BRIDGES

The lowest power line is located at the beginning of the route, where Lake Druzno becomes the Elblążka. Two others, at the height of 21 and 19 m (68.9 and 62.3 ft) run across the river between km 3 and 4. Thanks to the efforts of the boaters' community, the power line with a clearance of 10 m (9.8 ft), placed at the outlet of the Jagiellonian Canal, has been installed under the bottom of the watercourse. The lowest bridge, with a clearance of 3.5 m (11.5 ft) is located between km 4 and 5 of the waterway.

# MOORING

Elblag abounds in convenient stopping places for sailors. In the very centre, just next to the old town, there is Bulwar Zygmunta Augusta quay (Sigismund Augustus Boulevard), where you can moor for a short stop. Heading further towards the Vistula Lagoon (km 5.3 of the route), you can stop at the marina Fala (LB), which is a convenient place for a longer stop. These are professional marinas, where it is possible to dock a yacht for a longer period or for the winter. At km 6.5 of the route, two professional marinas are located: Jacht Club Elblag and Bryza. Both offer possibilities of a convenient longer stay, including slipping. CURRENT

The Elblążka has a minimal current, and sometimes, with the wind blowing from the Vistula Lagoon, backwater current occurs: the river changes direction and flows towards Lake Druzno, flooding Elbląg and the nearby villages. The last disastrous flood took place in October 2009.

# NAVIGATIONAL INFORMATION - THE JAGIELLONIAN CANAL

Navigating the canal presents no particular problems. Yachts need to have their masts laid down because of the bridge at the meeting point of the Jagiellonian Canal and the Nogat. The banks are mostly overgrown with reeds and long stretches of the canal are reinforced with wooden stakes. The surrounding landscape is mostly cultivated land. Quite a few anglers are seen along the entire route.

# RIVER PROFILE

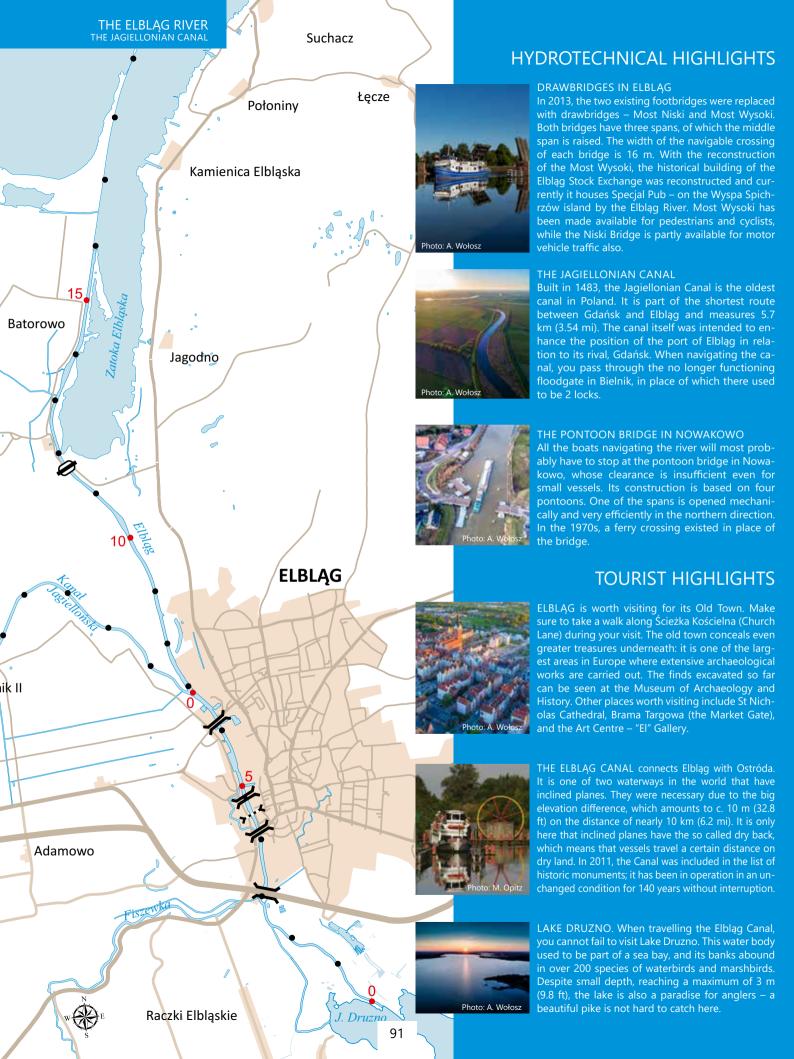
The Elbląg River, also known as the Elblążka, starts in Lake Druzno and flows through Żuławy Elbląskie (the Elbląg Fenland) to the Vistula Lagoon. Its length is about 15 km (9.32 mi), although different data may be found in the literature (from 14.5 to 17.7 km / 9-11 mi). These divergences stem from the fact that the river's outlet into the Lagoon is considered by some to be located at the red entrance beacon and by others at the green entrance beacon of the Vistula Lagoon fairway. The river begins its course in Lake Druzno. The lake itself resembles a canal overgrown with reeds. This makes it hard to be sure if you are already on the river, which is a natural continuation of Druzno.

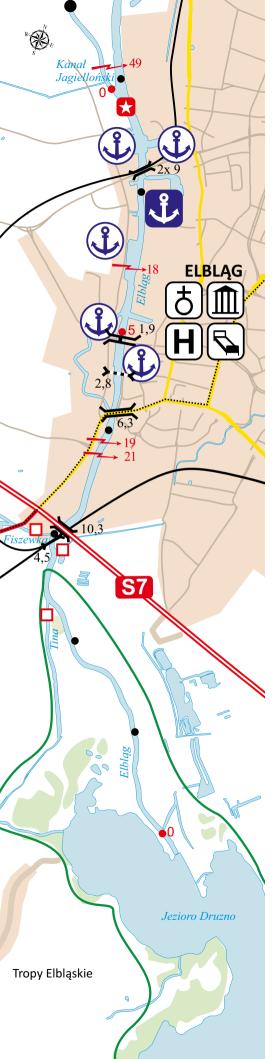
The watercourse described here is an important artery, connecting the Elbląg Canal and the Iława Lakeland with Elbląg and the Vistula Lagoon. Its tributaries are the Tina and the Fiszewka. The Elblążka is connected with the Nogat (and, further, with the Lagoon) by the Jagiellonian Canal, which begins at the boundary of Elbląg. This canal is the oldest one in Poland, dating back, as its name suggests, to the reign of the Jagiellonian dynasty. The construction of the canal gave Elbląg a connection with the Nogat and Gdańsk, contributing to the economic development of the town and the region. It is worth noting that, below Elbląg, the river is treated as inland maritime waters, which means sailors are required to have special equipment.

# KANAL PROFILE

The canal (class II waterway) with length of 5,8 km (2,70 mi), connects the Nogat with the Elblążka near the village of Kępki. It enables navigating between Gdańsk and Elbląg without entering the Vistula Lagoon. It is also the alternative route from Elbląg to the Vistula Lagoon. This makes a difference when the pontoon bridge over the Elblążka in Nowakowo is not opened (during too high or too low water stages).

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# 0 km - Lake Druzno

A white rhombus sign (LB) indicates the place where Lake Druzno becomes the Elblag River. Convenient stopping places are also located here.

# 2.5 km – LB – The mouth of the Tina River

A short trip on the Tina River is a good idea. It is worthwhile sailing as far as Jeziorno, where there is a beautiful two-span bridge.

# 3,1 km - LB - The mouth of the Fiszewka

The Fiszewka will take you to the pumping station, which is the farthest point on the river that can be reached in a yacht. After the first bridge there are convenient stopping places.

# 3,1 km – A road bridge of the Gdańsk-Warsaw route (S7)

3,6–3,8 km – Two overhead power lines HNW: 19 m (62.3 ft) and 21 m (68.9 ft)

4,1 km – A road bridge, Kardynał S. Wyszyński Avenue

4,6 km – High drawbridge (Wysoki)

4,7 km – RB – Bulwar Zygmunta Augusta. A drawbridge Stopping is possible at the very centre of Elbląg's old town, at the modern yacht quay. Ships of Żegluga Elbląsko-Ostródzka (Ostróda-Elbląg Shipping Company) moor here as well.

# 4,9 km – The Orla-Studzienna drawbridge

Just behind the bridge (RB) there is the passenger terminal Elbląg, from which the ships of Żegluga Gdańska (Gdańsk Shipping Company) operate.

# 5,3 km – LB – Marina Fala

Fala is a well-equipped marina, also good for long stops. It is also possible to slip small vessels here.

# 5,5 km – RB – The port of Elbląg – turning basin

This is a first-rate hydrotechnical attraction. The turning basin, as the name suggests, serves for turning large vessels (the so called "Elblag-max" ships) whose port of destination is Elblag. The facility makes harbour manoeuvres considerably easier for vessels of great length and little steerability. In the north-west corner of the turning basin lies the kayak pier of the Municipal Sports and Leisure Centre's (MOSiR). A slipway for small vessels; toilets and showers.

6,0 km – An overhead power line HNW: 18 m (49 ft)

6,3 km – The Unii Europejskiej (European Union) Road Bridge and a railway bridge

Just beside the bridges, to the south, lies the port of the Maritime Office (LB) and Elblag Shipyard (RB). In the canal leading to the shipyard you can see an interesting facility: a historic swing bridge, no longer in operation.

6,5 km – Marinas: HOW Bryza (RB) and Yacht Club Elbląg (LB) Both marinas have their particular pros. The one belonging to Elbląg Yacht Club was modernized in 2012 under the "Żuławy Loop – Water tourism Development Project. Stage I." It is also a slightly better starting point to get to the Centre. The port itself has 40 mooring berths and a 10-ton capacity hoister, a slip, a marina administration office and sanitary facilities. Yachts moored in the basin are provided with access to electricity and potable water. The port has a mobile sewage collection point for vessels. Bryza has a friendly scout atmosphere, organizes boatbuilding workshops and engine service station also operates here. Both marinas are professionally equipped and can accommodate for longer stops, including overwintering.

# THE ELBLAG RIVER THE JAGIELLONIAN CANAL



Elbląg River. Road bridge S7 i railway bridge Photo: A. Wołosz



The High drawbridge. Photo: A. Wołosz



The Orla-Studzienna drawbridge. Photo: A. Wołosz



Marinas: HOW Bryza and Yacht Club Elbląg. Photo: A. Wołosz

# Przystań Fala. Photo: A. Wołosz



# THE ELBLAG RIVER THE JAGIELLONIAN CANAL



The outlet of the Elblag River into the Vistula Lagoon. Photo: M. Opitz



Elblag River in Nowakowo. Photo: R. Wasil

# 7 km – LB – The outlet of the Jagiellonian Canal

# 11,7 km - The Nowakowo pontoon bridge

The pontoon bridge in Nowakowo consists of four pontoons, which constitute its spans. One of them opens to the north. A spare pontoon is moored at the LB of the bridge. On both sides of the bridge, in the water, there are protective lead-in piers in the form of stilts covered with metal slats. Bridge opening hours in the 2011 season: 07:00, 08:00, 09:00, 10:00, 12:00, 14:00, 15:00, 17:00, 19:00; from May 1 to August 31 additionally: 20:00, 22:00. During high water stages on the Elblag River, the bridge is closed.

# 14 km - Nowe Batorowo

After passing the pumping station in Nowe Batorowo, the river widens considerably. By the embankment lies the village of Nowe Batorowo. Emergency stops are possible here. The river turns right. The right bank is Cow Island (Krowia Wyspa).

# 14,5 km – RB – A pass to Jagodna

In the strip of reeds (RB) there is a pass to Elblag Bay. Entering it, you can reach Jagodna, which is a good point of departure for the Vistula Lagoon. You can also make your way through the verdure and, steering clear of nets, sail on through the Bay towards the Vistula Lagoon.

# 16,3 km – The Elblag River Port Entrance Beacon (LGW, red light)

A fixed navigational structure. Caution! Several dozen metres before Elbląg Light (red), Nowakowska Island ends and the waters of Elbląg Bay meet with the Elbląg River. Do not, however, try to enter Elbląg Bay on that stretch, since the water there conceals treacherous remains of a stone weir and a wooden palisade! These underwater surprises continue for several dozen metres after Elbląg Light. Keep to the fairway axis. Entry to Elbląg Bay is only safe once you have reached the vicinity of the red buoy 16/ELB.

# 16,3-20,9 km – Starboard Entrance Beacon (PGW, green light)

On the right, the waters of Elblag Bay spread widely. A stretch of charming small harbours and ports are located along the bank: Kamienica Elblaska, Nadbrzeże, Suchacz, and the abandoned but awaiting revitalisation Kupta. The end of the route is the Starboard Entrance Beacon (Elblag Light), also called Andzia (Angie).

The fairway leading to the Vistula Lagoon runs along the river's left bank and Złota Island (Golden Island) which tapers off to a dyke-like shape. The starboard side of the fairway is marked by red buoys (usual buoy-shaped ones at first), numbered: 16/ELB, 14/ELB, 12/ELB, 10/ELB. The last one is a high spar buoy, forming a "gate" together with a green one. Further on, the Vistula Lagoon begins. Elbląg Light (Starboard Entrance Beacon) is often confused with Elbląg Beacon (also called Piotruś – Eng. Pete).

The Elblag River and The Jagiellonian Canal. Photo: A. Wołosz







# NAVIGATIONAL INFORMATION SHIP TRAFFIC

Watch out for water traffic along the entire route - including sea ships, tugs, pushboats with barges, and other professional vessels. Since inland waterways meet maritime fairways here, the navigational marking along most of the route is compatible with sea marking. BRIDGES

The Martwa Wisła route begins at the Przegalina Lock. The permanent bridge beside the lock is a drawbridge since the summer of 2012. There is also a drawbridge on the route, in Sobieszewo, and permanent ones after the Stogi district: a cable-stayed bridge, a swing railway bridge (not opened), and the Siennicki Bridge.

# HOW TO WATER

The final stretch of the Martwa Wisła is port waters and the Polish Hook. In the turning basin, at the Polish Hook, there are four directions to choose from:

- 1. To the north, along the Kashubian Canal through port waters to Wisłoujście, Westerplatte, and Gdańsk Bay.
- 2. To the west, down the "real" Martwa Wisła through the former areas of Gdańsk Shipyard and the Port of Gdańsk (navigation prohibited), and back to the Kashubian Canal near
- 3. Going south, you enter the Motława, which takes you to the Old City of Gdańsk and to Marina "Szafarnia."
- 4. To the east, you turn back to the Martwa Wisła in the direction of Górki Zachodnie, Sobieszewo, and Przegalina.

# **SHALLOWS**

Shoals occur beyond the fairway on the stretch between the Przegalina Lock and the bridge in Sobieszewo. After Górki Wschodnie, there is a narrowing several hundred metres long, where the Pleniewo Lock used to be. With unfavourable wind, tacking may be difficult here. Then the river is broad again until the cable-stayed bridge.

# **MOORING**

There are numerous yacht harbours and ports on the route. In 2012 the harbour Błotnik close to Przegaliny was put for use. We can moor 5 km from the lock in Wiślanka, in harbours close to Sobieszewo, in Górki Zachodnie port, in Stogi port and Rudniki. In the harbours there are boat builder's workshops, engine workshop and sails workshops. There are slips and cranes to launch the yacht.

Wisła. It became "dead" after the Przekop Wisły Canal was built in Świbno and the main river mouth cut off by means of locks in Przegalina and Pleniewo. The latter was dismantled after the war. The Martwa Wisła constitutes an important watercourse and enables reaching Gdańsk from the side of the Wisła, bypassing Gdańsk

THE WISŁA ŚMIAŁA emerged in the winter of 1840, when waters blocked by ice broke through the strip of seaside dunes. Until the digging of the Przekop Wisły Canal in 1895, this was the main mouth of the Wisła. It is also called the Śmiała Wisła Gorge or the Śmiała Wisła Broads.

THE MOTŁAWA is a river crossing the Gdańsk Żuławy Gdańskie and flowing into the Martwa Wisła at the Polish Hook (Polski Hak). The Żuławy Loop includesonly the final stretch of the Motława, in Gdańsk. The remaining part of the river is described in the chapter Kayaking the Loop.



Photo: D. Paciorek

Miłocin

Błotnik

# THE MARTWA WISŁA **GDAŃSK** Przejazdowo Wiślinka 📶 🔾 Bogatka Zatoka Sobieszewo Gdańska Świbno 0,5 Przegalina 188/11,9/3,28/3,28 940 Prekop Wisły Wisła J. Mikoszewskie Mikoszewo Drewnica Przemysław rpawa5

# HYDROTECHNICAL HIGHLIGHTS



THE STONE SLUICE (STOPIEŃ KAMIENNA GRODZA)

A fragment of 16th and 17th century Gdańsk fortifications, situated on the Motława (in line with Kamienna Grobla and Na Szańcach Streets). In place of the former lock, a flood-gate now functions. It closes and opens automatically when the water level in the Motława rises. It is possible that after passing through the gate and on returning from a trip along the Motława we will find the gate closed. The Regional Water Management Board opens it for the period when there is no danger of flood.



# THE WATER TRAM NETWORK IN GDAŃSK

The project aims to activate waterways through the creation of infrastructure: piers, water tram service, and marinas. Water tram stops have emerged at Westerplatte, at the National Sailing Centre, at Wiosny Ludów Street, at the Green Bridge, near Wisłoujście Fortress – at Barge Quay, at the Fish Market, and in Stogi. Sailing harbours will also be built in Sienna Grobla II and Tamka, as well as a kayak and motorboat harbour in Żabi Kruk Street.



YACHT AND MOTORBOAT HARBOUR MARINA GDAŃSK Built in 1997, when Gdańsk was celebrating its millenary. The 290-metre harbour lies along Szafarnia Quay, opposite the Gdańsk Crane. It has electricity, light, water, and washing facilities. A new back of marina is located in Granary of Nowa Pakownia where Hotel Gdańsk and Restaurant Brewery BROVARNIA are placed. There are two sailing shops in the hotel and the granary. The marina is closed by Stagiewny Bridge and Stagiewna Tower.

# **TOURIST HIGHLIGHTS**



# SAINT DOMINIC'S FAIR IN GDAŃSK

Saint Dominic's Fair in Gdańsk. The Fair has a 750-year tradition. It was originally meant to encourage the faithful to attend the indulgence mass. Year by year, the event grew in scale and importance. World War II disrupted the tradition. Revived in 1972, the fair lasted two weeks, and since 2004 it lasts three weeks. It is a commercial event nowadays, with handicraftsmen, collectors, and artists participating.



# AMBER ROUTE

Gdańsk is an important place on the amber trail of the pomorskie voivodeship. It is worthwhile visiting the Museum of Amber – a branch of the City of Gdańsk Historical Museum, seeing the Amber Altar in St. Brigit's Church and the Museum of Amber Inclusions at the University of Gdańsk; you can also go shopping to the enchanting Mariacka Street, where galleries and amber shops are situated.



# WISŁOUJŚCIE FORTRESS

It is an unusual fortification structure, situated on an island. Its history goes back to the 15th century. Until 1758 the fortress served as a lighthouse, in the 19th century it used to be a prison, and in the interwar period it housed a sailing club. Since 1947 the fortress houses a branch of the City of Gdańsk Historical Museum. It is one of the largest wintering places of bats in the voivodeship.



# THE MOST IMPORTANT TOURIST ATTRACTIONS OF GDAŃSK

# DŁUGA STREET AND DŁUGI MARKET (TARG)

Długa Street and Long Market (Długi Targ) creating Royal Road belong to the most beautiful streets in Europe. They go perpendicularly to Motława River from Golden Gate (Złota Brama) to Green Gate (Zielona Brama). The Long Market in 16 and 17 century was a market place.

# **GDAŃSK CRANE**

In the present shape the crane was built between 1442 and 1444. It served as a port device loading cargo (mainly beer) and for ballasting the vessels, and for putting up the masts. The device was able to lift the weight of 4 tonnes, at the height of 11 m.

# HALL OF THE OLD CITY

The most impressive and the most valuable secular building of ancient Gdańsk, the seat of city government with its most beautiful inside, which we can admire up to now. In this huge painting-sculpturing complex the creators presented, generally speaking, the moral patterns of behavior and norms for the ones who govern the city.

# THE ARTUS COURT

For many years it was one of the greatest buildings of such type in Northern Europe. The Artus Courts were founded in great numbers all over the Europe, especially in Hanseatic towns as meeting place for the town's wealthiest traders, craftsmen and leading dignitaries as a pattern of legendary Round Table of King Arthur's knights.

# NEPTUN FONTAINE

It has stood in front of Artus Court since 1633. It is the symbol of Gdańsk. ST. MARY'S BASILICA

The Church of the Blessed Virgin Mary, called the 'crown of Gdańsk', is the largest brick, Gothic temple in the world. It was built in several stages for 159 years, in years 1343 – 1502.

# MONUMENT TO THE FALLEN SHIPYARD WORKERS

The three majestic crosses with anchors – symbols of hope- have been erected to commemorate the bloody victims of the workers' strikes in December 1970.

as in Poland, despite the fact that almost the entire historical city centre had to be rebuilt after the last war and a significant part of movable cultural property was destroyed or dispersed. At the end of the Middle Ages Gdańsk became the most important centre for arts in Pomerania. During the Renaissance and Baroque period some remarkable artists worked here, e.g. Willem, Abraham and Izaak van den Blocke, Antoni van Obberghen or Andreas Schlüter.

Significant monuments of Gdańsk are located in the Midtown (Main Town Hall, Artus Court, Uphagen's House) and the Old Town (Great Mill, Old Town Hall, St. Catherine's Church), the main ones are located along the Royal Route of the representative street of Gdańsk – Ul. Długa. The main town also houses the St. Mary's Basilica of the Assumption of the Blessed Virgin Mary, the largest medieval brick temple in Europe. Until 1939, the Great Synagogue was located here.

Interesting places in Gdansk include Westerplatte, the Wisłoujście Fortress, the European Solidarity Center, the Museum of the Second World War, the National Maritime Museum and Oliwa, where the cathedral complex is located.

Gdańsk's sights are located on the European Route of Brick Gothic.



Przegalina Lock. Photo: Fotografia-dronem.pl



Wiślinka riverside hostel. Photo: R. Wasi





# 0,55 km – The Przegalina Lock

Before the lock, there is a power line at 15 m (49.2 ft). There are two locks. One of them, a historic one (out of order), is called the Northern Lock. A few dolphin structures and piers stand here now, sometimes occupied by ships. Two locks functioned here once: the historic one, for the transport of rafts, and the new one, called the Southern Lock, for professional navigation. Since 2012, the bridge near the lock is a drawbridge.

0,55 km - An overhead power line HNW: 15 m (49.2 ft)

# 0,7 km – LB – Marina in Błotnik

The marina is located in the oxbow of the Vistula near the Przegalina lock. A three-kilometer long branch from the main route (Błotnik Basin). No marking. When entering the Błotnik Basin (branch), you should circumnavigate the reeds, staying well clear of them. At the beginning of the branch a rusty dolphin - it should be bypassed the west, but with a near distance (approx. 10 m). The average depth on the approach to the Fender is approximately 2.5 m, but at the end of the trail a shoal is located. At the end of the branch there is one of the larger marinas, constructed under the "Żuławy Loop – Water Tourism Development Project. Stage I." It has 80 Y boom-type mooring slots for 2.5 m-draft vessels. Floating jetties are equipped with posts for electricity and water connection. The marina in Błotnik is equipped with a modern marina administration office building, featuring social and sanitary facilities.

It also has harbouring slots and supports boat slipping as well as has a self-propelled crane for vessels up to 15 T.

# 3 km - RB - A mooring place

A convenient place for mooring. Sandy, with individual sto-

4,4 km - LB - Trzcinisko - Planned canoeing marina

4,5 km – An overhead power line HNW: 15 m (49.2 ft)

# 5,7 km – LB – Wiślinka

Formerly a harbour for handling phosphogypsum production waste. Today, a technical harbour of Polish Maritime Club. The size of the dump is impressive. In its immediate vicinity lies the base of Galeon Shipyard.

8,50 km - LB - Harbours; Brama Sobieszewska and Tecza Two harbours on the south bank. The former is attached to a hotel, whose infrastructure is available. The latter is a berthing place for yachts and motor boats. You can hire a kayak or other water equipment here.

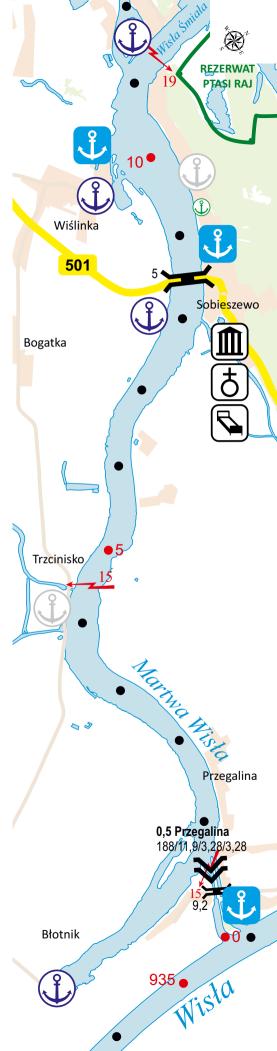
# 9 km – Drawbridge in Sobieszewo

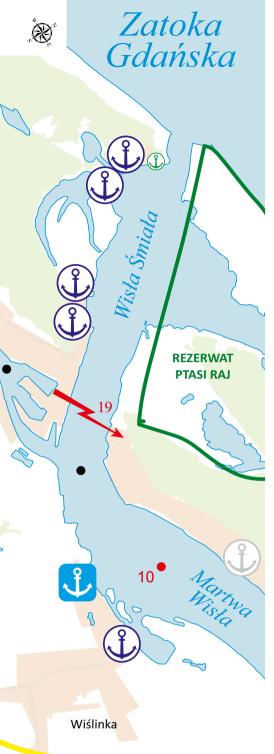
The building of the bridge staff is on the right bank. Let the staff know – using a sound signal or by phone – that you are waiting for the bridge to be opened a few minutes before the specified opening hour.

See - information.

Marina in Błotnik. Photo: R. Wasil









National Sailing Centre. Photo: Fotografia-dronem.pl

9,2 km – RB – The Martwa Wisła Broads and Sobieszewo Quay It stretches from the pontoon bridge to the Pleniewo Narrows, making up a navigable water body with the Śmiała Wisła Broads. A concrete quay on the right, with mooring prohibited were indicated. Caution! On the right bank, there are stone breakwaters extending 100 metres out into the water. That is Sobieszewo Quay with berthing places. Worth recommending is the one with an L-shaped breakwater. The water tram from Gdańsk moors to its western stretch. At the end of the south bank there is a sandy beach.

It is planned to expand the sailing marina in Sobieszewo (RB).



Located in a small cove. The complex of facilities makes it possible to service inland water tourism, including the amenities for the disabled. It features moorings, sanitary facilities, a hangar and a slip. In 2018, the marina was been extended. Also inflow cannal to the facility, a quayside wharf (erratic) and a jetty for 32 vessels with fittings were constructed.

10,3 km – RB – Górki Wschodnie. A mooring place for fish cutters, with small slipways.



"Tęcza" - marina. Photo: A. Wołosz



Marina AZS. Photo: A. Wołosz

# 11,5 km – RB – Górki Zachodnie and the Śmiała Wisła Gorge

On the right, the Śmiała Wisła Broads with entrance to Gdańsk Bay. Yacht harbours make up the largest centre for sea yachts in Poland here. Górki Zachodnie is called the maritime capital of Poland. You can moor your yacht here, have it slipped or repaired, and refuel. Several harbours are available to sailors, e.g. the National Sailing Centre, Gdańsk Shipyard Yacht Club, Neptun, Maritime Yacht Club, Academic Sports Association in Gdańsk, Academic Maritime Club in Gdańsk, Gdańsk Shipyard Yacht Club or Joseph Conrad Yacht Club.

11,5 km – An overhead power line HNW: 19 m (62.3 ft)

# 12 km - RB - The Pleniewo Narrows and Wisła Shipyard (RB)

A narrow after the Śmiała Wisła Broads. A lock and a flood-gate used to be here, protecting Gdańsk from flooding. They lost importance after the digging of the Przekop Wisły Canal and the building of the lock in Przegalina in 1895. Pulled down in the 1970s. After the narrows, on the right, there are wet docks of Wisła Shipyard.



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Martwa Wisła. Photo: Fotografia-dronem.pl



Marina Tamka. Photo: R. Wasil

Yacht Klub Północny. Photo: R. Wasil



Cable stayed bridge. Photo: R. Wasil



14 km - LB - LOTOS Refinery

A magnificent wharf that you can not moor! Emergency only. 16-17 km – marinas in Stogi and Rudniki. On the left bank, directly over the Martwa Wisła, the Sternpost of the Gdansk Powerboat Training Center. A bit ahead of it, in the Rozwójki Bliza Cannal and the Youth Centre Manor (Pałac Młodzieży). On the right bank of the marina of the Maritime Club, then the North Yacht Club. Behind it, the repair dock of the Gdańsk Shipping Company, the fishing yard, and the Conrad Shipyard just ahead the cable-stayed bridge. The southern shore ahead of the bridge is not suitable for mooring.

14,32 km – An overhead power line HNW: 55 m (180.4 ft)

# 16-17 km - Marinas in Stogi and Rudniki

On the left bank, right on the Martwa Wisła, lies Stewa, the marina of Gdańsk Motorboat Training Centre. Slightly before it, in the Rozwójki Canal, lie Bliza and Pałac Młodzieży (Youth Palace) marinas. On the right bank lie the harbours of Gdańsk Maritime Club and, further, of Northern Yacht Club. Further there is the repair harbour belonging to Gdańsk Shipping Company, a fishing shipyard, and the Conrad Shipyard before the cable-stayed bridge. The south bank before the bridge is not fit for mooring.

17,93 km - Cable stayed bridge, HNW: 7,4 m (24.3 ft)

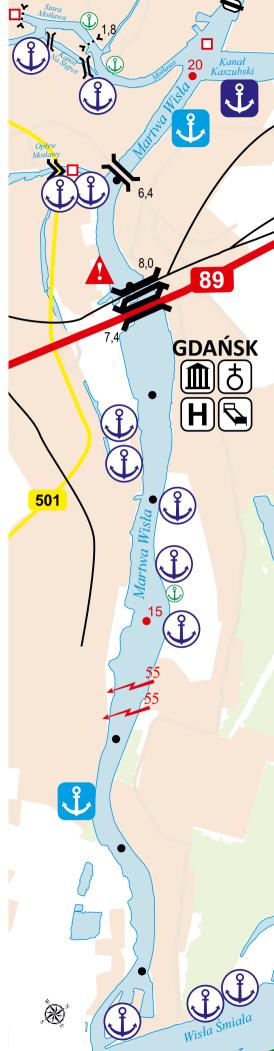
17,9-20 km – From the cable-stayed bridge to the Polish Hook

After the bridges, on the left, there is a cove. Further on, near the left bankt here are underwater obstacles marked with a cardinal buoy and the Siennicki Bridge in the distance. On the south bank before the bridge, there is the destroyed Retman's Quay while the north bank is called Skippers' Quay. On the left, before the bridge, lies the mouth of the Motława Flow-Around, and at its other end: the rowing harbour of the Academic Sports Association (AZS), the sailing harbour of Polish Scouting and Guiding Association (ZHP), and the harbour of Volunteer Water Rescue Service (WOPR). After the bridge, there are port quays: on the right, Cracow Quay - the property of Dredging and Underwater Works. The vessels mooring here are yellow and green. Opposite lies Rafters' Quay, occupied by LOTOS Petrobaltic, with bright orange vessels. The Martwa Wisła becomes noticeably narrower.

18 km – Railway bridge, HNW: 8 m (26.2 ft)

19 km – Siennicki bridge, HNW: 6,4 m (21 ft)

 $20\ km$  – LB – Polish Hook, the mouth of the Motława. Heading to the left, to the Motława River we reach the Old Town, and right, the Kashubian Canal on Westerplatte and the Baltic Sea.



# THE MARTWA WISLA THE COANSE MOTLAWA



Marina Gdańsk. Photo: Fotografia-dronem.p

# Up the Motława from the Polish Hook to Marina Gdańsk in the Old City

After passing the Polish Hook, we turn sharply left, into the Motława. After several hundred metres the river turns sharply right. A panorama of the Old City opens ahead. On the left we can see the mouth of the Na Stepce Canal and Ołowianka Island and new marine Sienna Grobla II. On the right, a floating petrol station and a quay are in sight. Yachts and motor boats can moor along a stretch of it. Turn left, and on the right you will see the characteristic Crane and the Long Waterfront. On the left, the Philharmonic Hall and the Maritime Museum. A ferry runs here – without a cable. At the turning basin the river forks into the Old and the New Motława. Between them lies Granary Island. Turning left, we sail into the New Motława and reach Marina Gdańsk. The Old Motława is closed by the Green Bridge (not opened). A passenger quay is located here from which ships set off for Gdańsk Bay cruises or for Westerplatte. There are other bridges further on. The next few hundred metres are navigable. At the end of the stretch, a water tram stop has been built as well as a harbour for kayaks and motor boats, Żabi Kruk.

# Along the Kashubian Canal to Wisłoujście, Westerplatte, and Gdańsk Bay

Sailing with the motor on, you will cover this distance in about an hour. Watch out for the passing sea vessels, barges, and tugs. Just before Wisłoujście Fortress, the route is crossed by the Wisłoujście ferry (without cables). In the northern moat of the Fortress, Polish Maritime Club has its seat.

Gdańsk, Old Town. Photo: A. Wołosz



Motława. Photo: A. Wołosz

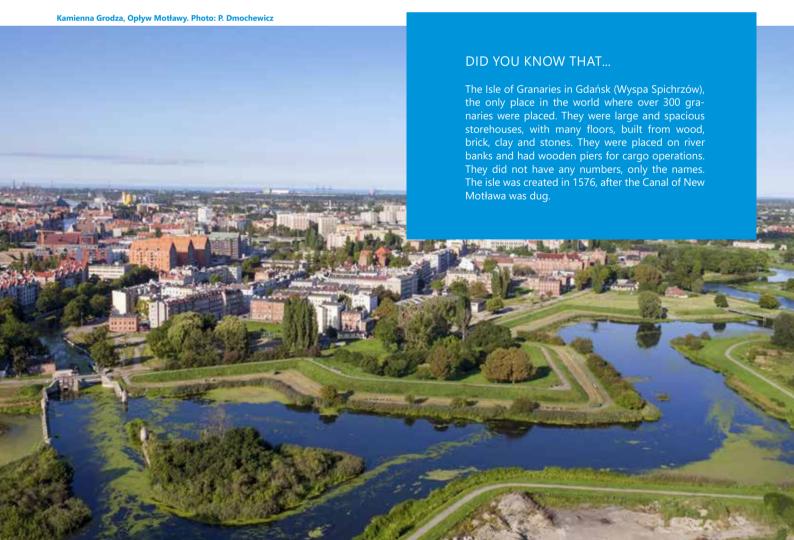








Plac Solidarności in Gdańsk. Photo: A. Wołosz



EMERGENCY TELEPHONE NUMBERS		THE VISTULA	
Rescue Coordination Centre	112	Toruń: Tourist Information Centre, ul, Rynek Staromiejski 25 56 621 09 31   56 62	651 08 12 Mon
Police	997	9:00-16:00, Tue-Fri 9:00-18:00, Sat 9:00-16:00, Sun (May-Aug) 9:00-13:00	
Emergency Ambulance Service	998	Bydgoszcz: Bydgoszcz Information Center, ul. Batorego 2	52 340 45 50
Fire Brigade	999	(Jan 1 - Aug 31): Mon-Fri 9:00-19:00, (Sep 1 - May 30 ): Mon-Fri 9:00-18:00, Sat-Su Chełmno: Ratusz – Rynek 28 56 686 21 04   693 473 156	
Border Guard Górki Zachodnie	58 524 23 02	Mon 08:00-15:00 (Nov-Apr: closed on Mon),	
Border Guard Elbląg	55 237 64 00	Tue-Fri 08:00-16:00, Sat 10:00-15:00, Sun 11:00-14:00	
Maritime Search and Rescue Station SAR Tolkmicko	55 231 61 55	Świecie: Tourist and Cultural information Point, ul. Wojska Polskiego 139	52 331 27 20
Maritime Search and Rescue Coordination Centre SAR Gdynia	58 620 55 51   505 050 971	Mon-Fri 8:00-15:00	
Maritime Search and Rescue Station SAR Górki Zachodnie	58 307 31 12	Grudziądz: Rynek 3-5, X-IV: 08.00 – 17.00, V-IX: 08.00 – 17.00, sob 09.00 – 14.00	56 46-123-18
Coastal Search and Rescue Station SAR Sztutowo	55 247 80 54   505 050 976	(Oct-Apr): 08:00-17:00, (May-Sept): 08:00-17:00, Sat 09:00-14:00,	
	channels 11 and 16 VHF	(Jul-Aug): Mon-Fri 08:00-17:00, Sat 09:00-14:00, Sun 10:00-14:00	
Coastal Rescue Station Gdańsk Świbno	58 308 05 23   505 050 982	Gniew: ul. Plac Zamkowy 2	58 535 25 37
Harbour Master's Offices of the Vistula Lagoon's ports	channel 71 UKF	Tczew: Tczewskie Centrum Sportu i Turystyki, ul. Wojska Polskiego 28A	58 531 56 02
Gdańsk Harbour Master's Office	channel 14 UKF		
Emergency channel (calling for help)	channel 16 UKF	THE MOTŁAWA	
Weather forecast from IMGW Gdynia	58 620 34 22		
(07:05, 13:05, 19:05)	channel 71 UKF	Gdańsk: ul. Długi Targ 28/29, Mon-Sat 09:00-17:00, Sun 09:00-16:00 58 301 43	55   683 54 85
REGIONAL WATER MANAGEMENT BOARDS AND WATER MANAG	GEMENT STATIONS	THE NOGAT	
Regional Water Management Board in Gdańsk:	58 3261 888	Malbork: ul. Kościuszki 54	58 647 47 47
- Water Surveillance in Elbląg	55 232 57 25		
- Water Surveillance in Tczew	58 530 41 20	THE WISŁA KRÓLEWIECKA (THE KÖNIGSBERG VISTULA)	
- Water Surveillance in Grudziądz	56 461 30 02		
- Water Surveillance in Chełmno	56 676 19 71   508 268 335	Sztutowo: ul. Gdańska 55, Mon-Sun 09:00-17:00 (open in the season)	55 247 80 88
- Water Surveillance in Bydgoszcz	52 365 2190   508 268 299	(all-year-round telephone information service)	
- Water Surveillance in Toruń	515 275 065	THE ELBLAG RIVER	
Regional Water Management Board in Bydgoszcz	52 33 91 100	THE ELDER OF THE ELDER	
- Water Surveillance in Bydgoszcz	52 376 84 51	Elbląg: ul. Stary Rynek 25	55 239 33 77
- Water Surveillance in Nakło nad Notecią	52 385 26 05	(May-Sept) Mon-Sun 10:00-18:00, (other months) Mon-Fri 8:30-16:30	
- Water Surveillance in Chodzież			
- Water Surveillance in Trzcianka	67 216 23 36	THE VISTULA LAGOON	
- Water Surveillance in Wieleń	882 062 904		
- Water Surveillance in Drezdenko	95 762 01 55   604 792 249	Frombork: ul. Portowa 4 (open in the season)	55 243 70 52
		Kąty Rybackie: ul. Rybacka 64, Mon-Sun 09:00-17:00 (open in the season)	55 247 87 86
Regional Water Management Board in Poznań	61 8567 700	Tolkmicko: Miejski Ośrodek Kultury, ul. Świętojańska 1, Mon-Fri 08:00-20:00	55 231 61 82
- Water Surveillance in Gorzów Wielkopolski	95 722 60 42	Krynica Morska: ul. Gdańska 108	55 247 63 76
- Water Surveillance in Kostrzyń nad Odrą	573 901 688	Braniewo: ul. Katedralna 7	55 644 33 03
		Mon-Tue, Thu-Fri 09:00-17:00; Wed 09:00-15:00; Sat 08:00-14:00	
Regional Water Management Board in Szczecin	91 44 11 200	Stegna: ul. Gdańska 60: 1.VII – 30.VIII: Mon-Sat 8:00-20:00, Sun 10:00-18:00	55 247 86 92
- Water Surveillance in Myślibórz		Off-season: Mon-We 7:00 - 15:00, Thu 7:00 - 16:00, Fri 7:00 - 16:00	
- Water Surveillance in Chojno		THE MOST INTERESTING MUSEUMS	
TOURIST INFORMATION POINTS		THE BRDA	
THE BRDA		The Leon Wyczółkowski District Museum, Bydgoszcz, ul. Gdańska 4	52 585 99 66
		(Apr 1 – Sept 30): Tue-Fri 09:00-17:00, Sat-Sun 11:00-18:00,	
Bydgoszcz: Bydgoszcz Information Center, ul. Batorego 2	52 340 45 50	(Oct 1 – Mar 21): Tue-Fri 09:00-16:00, Sat-Sun 10:00-16:00	
(Jan 1 - Aug 31): Mon-Fri 9:00-19:00, (Sep 1 - May 30 ): Mon-Fri 9	9:00-18:00, Sat-Sun 10:00-16:00	THE NOTEĆ	
THE NOTEĆ		The Mark of the Kotte Lord Nellowed Notice   1 Proceeds 44	F2 20C 00 C4
Czarnków District Office ul Bubaki 2 Mar. 5-: 7.20 15:22	67 255 20 00	The Museum of the Krajna Land, Nakło nad Notecią, ul. Pocztowa 14	52 386 08 64
Czarnków: District Office, ul. Rybaki 3, Mon-Fri 7.30 – 15:30	67 255 20 88	Tue-Sun 09:00-16:00	67.255.50.01
Drezdenko: plac Wolności 1 (at the Franciszek Graś Museum of th (Jun 6 – Nov 30): Mon-Fri 08:00-18:00, Sat 10:00-16:00	95 762 09 48	The Museum of the Czarnków Land, Czarnków, ul. Wroniecka 32 Tue-Fri 10:00-16:00, Sat 11:00-16:00	67 255-59-81
		The F. Graś Museum of the Drawsko and Noteć Forests, Drezdenko, plac Wolności 1	
THE WARTA			95 762 09 48
		Mon-Fri 08:00-16:00 (Jun 1 – Sept 30): Tue & Thu 08:00-17:00, Sat 10:00-16:00	508 054 163
Gorzów Wielkopolski: ul. Wełniany Rynek, Mon-Fri 10:00-18:00	664 171 109	THE WARTA	
THE ODRA		THE WARTA	
THE ODION		The Santok Stronghold, Santok, ul Wodna 4, Tue-Thu 09:00-16:00, Sat-Sun 12:00-17:00	95 731 61 08
Vector and Directowsky 9 (at the "Dom Tungty" Hetal). The Set 0	10:00 12:00 0F 7F2 26 72	The L Dekert Lubuskie Museum Corzów Wielkenelski ul Warszawska 25	05 722 20 14

The J. Dekert Lubuskie Museum, Gorzów Wielkopolski, ul. Warszawska 35

Tue-Thu 09:00-16:00, Fri 11:00-19:00, Sun 10:00-17:00

95 732 38 14

95 732 28 43

95 752 36 73

607 770 603

Kostrzyn: ul. Piastowska 8 (at the "Dom Turysty" Hotel), Tue-Sat 09:00-13:00

ul. Berlińska 1, Tue-Fri 09:00-16:00, Sat-Sun 10:00-16:00

# THE ODRA

 The Kostrzyn Fortress Museum, Kostrzyn nad Odrą, office ul. Graniczna 1
 95 752 23 60

 Berlin Gate ul. Berlińska 1, Tue-Fri 09:00-16:00, Sat-Sun 10:00-16:00
 607 770 603

 Bastion Filip, ul. Chyżańska 48
 607 770 603 | 607 833 905

 Tue-Sun 10:00-16:00 (by appointment)

BYDGOSZCZ CANAL

Museum of the Bydgoszcz Canal Sebastian Malinowski in Bydgoszcz 693 765 075

Bydgoszcz, ul. Nowogrodzka 3

Tue - Fri 8:30 - 15:30: Sat-Sun for a telephone call

THE VISTULA

The Museum of the Vistula River, Tczew, ul. 30 stycznia 4 58 530 22 52 wew. 21/22

Ju 30 - Sep 2: Mon – So 10:00 - 16:00, after season Tu – Sun 10:00 - 16:00

Ethnographic Museum in Toruń 56 622 80 91

- Olender Ethnographic Park in Wielka Nieszawka, ul. Mennonitów 14 56 622 80 91

- Ethnographic Park in Kaszczorek, ul. Turystyczna 130 56 622 80 91 w. 27. Only in the season. The exposure is available only for groups (at least 10 persons) Tue-Sun 9.00 – 16.00.

Early subscriptions apply.

 $The \ Museum \ of the \ Chełmno \ Land, \ Chełmno, \ Town \ Hall - Rynek \ 28 \\ Tue-Fri \ 10:00-16:00, \ Sat \ 10:00-15:00, \ Sun \ 11:00-15:00 \ (December \ and \ January: \ closed \ on \ Sun)$ 

The Rev. Dr W. Łęga Museum, Grudziądz, ul. Wodna 3/5 56 465 90 63/64/65

(May 1 – Sept 30): Tue-Thu 10:00-16:00, Fri 10:00-18:00, Sat-Sun 10:00-15:00;

(Oct 1 - Apr 30): Tue-Thu 10:00-15:00, Fri 10:00-18:00, Sat-Sun 10:00-15:00

#### ΜΟΤΙ ΔΙΛΙΔ

National Maritime Museum, Gdańsk, ul. Ołowianka 9-13, Tue-Sun 10:00-16:00 58 301 86 11

The crane - a branch of the National Maritime Museum in Gdansk 58 301 69 38 | 58 329 87 60

Gdańsk. ul. Szeroka 67/68.

Dec – Jan: Tue-Sun 10:00 – 15:00; Feb – Apr, Sep – Nov: Tue-Sun 10:00 – 16:00; Ju – Aug: wt – nd 10:00 – 18:00

Museum of the Second World War, Gdańsk, pl. W. Bartoszewskiego 1 58 760 09 60

Tue - 10:00 - 19:00, Wed - Sun - 10:00 - 20:00

# THE NOGAT

The Castle Museum in Malbork, ul. Starościńska 1 55 647 08 00 (May - Sep) smuseum rooms Tue-Sun: 9:00 – 19:00; castle grounds (every day): 9:00 – 19:00 (Sep – Apr) smuseum rooms Tue-Sun: 10:00 – 15:00; tcastle grounds (every day): 10:00 – 16:00

THE TUGA (a tributary of the Nogat)

The Żuławy Museum, Nowy Dwór Gdański, ul. Kopernika 17 55 247 57 33 Tue-Sun 11:00-16:00 (May-Sept), out of season 11:00-15:00

THE ELBLAG RIVER

The Museum of Archaeology and History, Elbląg, ul. Bulwar Zygmunta Augusta 11 55 232 72 73
Tue-Sun 09:00-17:00

HE VISTULA LAGOON

The Nicolaus Copernicus Museum, Frombork, ul. Katedralna 8, Tue-Sun 09:00-16:00 55 244 00 71
The Museum of the Vistula Lagoon, Kąty Rybackie, ul. Rybacka 64, Mon-Fri 08:00-16:00 55 247 87 77

MARTWA WISŁA

Wisłoujście Fortress - Branch of the Historical Museum of the City of Gdańsk 58 767 91 64 Gdańsk. ul. Stara Twierdza 1

May 1 – 5, Ju – Aug: every day 10:00 – 18:00; Sep - May every day 10:00 – 16:00

# LOCKS

Locks are opened on request, at specified hours. Phone the staff of each lock half an hour before your planned entry; telephone numbers are given below.

Caution! The current water level should be checked before the trip. During high water levels on the Vistula, the Gdańska Głowa, the Przegalina, and the Biała Góra Locks are closed.

# THE LOCK ON THE BRDA

CZERSKO POLSKIE (km 1.40)

Opening hours: Mon-Fri 07:00-15:00 | Sat-Sun & holidays 09:00-13:00 on telephone request Staff telephone number: 52 343 51 11

MIEJSKA (MUNICIPAL) (km 12.40)

Opening hours:

until Sept 30: Mon-Fri 08:00-19:00 | Sat-Sun &holidays 10:00-19:00

from Oct 1: Mon-Fri 07:00-15:00

Staff telephone number: 52 322 37 01

# LOCKS ON THE BYDGOSZCZ CANAL

OKOLE (km 14.80)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-17:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 52 32 25 620

CZYŻKÓWKO (km 15.97)

Opening hours:

(Jun 1 – Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-17:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455

Staff telephone number: 52 37 97 572

PRĄDY (km 20.00)

Opening hours:

(Jun 1 – Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 696 721 036

OSOWA GÓRA (km 20.97)

Opening hours:

(Jun 1 – Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and

Staff telephone number: 52 37 22 042

JÓZEFINKI (km 37.20)

Opening hours:

(Jun 1 – Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 696 720 829

NAKŁO WSCHÓD (NAKŁO EAST) (km 38.90)

Opening hours:

(Jun 1 – Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 608 581 029

# LOCKS ON THE NOTEĆ

NAKŁO ZACHÓD (NAKŁO WEST) (km 42.70)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 606 774 127

55 247 17 07 | 786 876 454

GROMADNO (km 53.40)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 606 774 136

KROSTKOWO (km 68.20)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 67 28 33 726

NOWE (km 111.86)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 608 582 351

WALKOWICE (km 117.73)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455

Staff telephone number: 606 774 142

ROMANOWO (km 122.66)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 606 774 143

LIPICA (km 128.33)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455

Staff telephone number: 696 720 877

PIANÓWKA (km 136.21)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 696 721 029

MIKOŁAJEWO (km 143.14)

Opening hours:

(Jun 1 – Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number:

696 721 092

ROSKO (km 148.84)

Opening hours:

(Jun 1 – Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 666 879 013 | 67 25 63 727

WRZESZCZYNA (km 155.53)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 67 25 61 096

WIELEŃ (km 161.50)

Opening hours:

(Jun 1 – Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 67 2561 065

DRAWSKO (km 170.97)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 67 25 69 641

KRZYŻ (km 176.20)

Opening hours:

(Jun 1 - Sept 30): Mon-Fri 09:00-18:00 | Sat-Sun & holidays 10:00-16:00

out of season: Mon-Fri 07:00-16:00 | Sat-Sun & holidays – when a large number of boats need locking and after prior notification to the Noteć Basin Board in Bydgoszcz, tel. 52 37 68 454 and 52 37 68 455.

Staff telephone number: 67 25 64 254

**STHE LOCK ON THE SZKARPAWA** 

GDAŃSKA GŁOWA (km 0.25): THE SZKARPAWA – THE VISTULA

Opening hours in the summer season: every day from 07:00 to 19:00

Staff telephone number:

Off-season, the lock operates on working days between 7:00 and 15:00 until the disadvantageous hydrological and weather conditions and ice phenomena occur (winter season).

ŚLUZY NA NOGACIE

MICHAŁOWO (38,59 km)

Opening hours in the summer season: every day from 07:00 to 19:00

Staff telephone number: 55 247 14 17 | 511 603 316

RAKOWIEC (23,95 km)

Opening hours in the summer season: every day from 07:00 to 19:00

Staff telephone number: 55 272 83 71 | 515 549 552

SZONOWO (14,50 km)

Opening hours in the summer season: every day from 07:00 to 19:00

Staff telephone number: 55 272 20 49 | 509 219 551

BIAŁA GÓRA (0,41 km) NOGAT – WISŁA

Opening hours in the summer season: every day from 07:00 to 19:00

Staff telephone number: 55 277 16 91 | 797 511 541

Off-season, the Nogat locks operate on working days between 7:00 and 15:00 until the disadvantageous hydrological and weather conditions and ice phenomena occur (winter season).

THE LOCK ON THE MARTWA WISŁA (THE DEAD VISTULA)

PRZEGALINA (km 0.55): THE MARTWA WISŁA – THE VISTULA

Opening hours in the summer season: every day from 07:00 to 19:00

Staff telephone number: 506 129 588

Off-season, the lock operates on working days between 7:00 and 15:00 until the disadvantageous hydrological and weather conditions and ice phenomena occur (winter season).

# BRIDGES

Bridges - mostly drawbridges - are opened at specified hours. It is worthwhile talking to the staff each time about the exact hour of the next opening. Telephone numbers are given below.

# THE SZKARPAWA

DREWNICA (km 2.85) – road bridge (drawbridge)

Opening hours:

(May 1 - Sept 15): 8:00, 9:00, 11:00, 12:15, 13:15, 15:00, 17:30, 19:00

out of season: 08:00, 12:00

Staff telephone number: 788 403 023

RYBINA (km 14.98) - the narrow-gauge railway swing bridge

Closed during the passage of trains – at the following times in the holiday season: 08:55-09:25; 11:15-11:45; 13:40-14:10; 15:25-15:55; 16:35-17:05; 18:25-18:50.

RYBINA (km 15.45) - road bridge (drawbridge)

Opening hours:

(May 1 - Sept 15): 09:40, 11:30, 13:55, 15:40, 16:50, 19:10

out of season: 09:00, 14:00

Staff telephone number: 55 247 86 17

# THE WISŁA KRÓLEWIECKA (THE KÖNIGSBERG VISTULA)

SZTUTOWO (km 6.50) - road bridge (drawbridge)

Opening hours:

May 1 - Sept 15: 10:00, 12:00, 14:00, 16:00, 18:00

# THE MARTWA WISŁA (THE DEAD VISTULA)

SOBIESZEWO – road bridge (drawbridge)

Opening hours:

(Jun 1 - Sept 15): 08:30, 10:00, 13:00, 17:00, 19:00 or when 10 vessels gather

Out of season: 08:30, 14:00, 17:00

Staff telephone number: 58 308 07 61 Due to the large number of yachts navigating near the bridge without intending to pass it, the

bridge may not be opened automatically at the specified hour but only after a sound signal from a vessel or after a telephone request. Caution! Anchors do not hold near the bridge!

# THE ELBLAG RIVER

NOWAKOWO - pontoon road bridge

Opening hours:

All the year round: 07:00, 08:00, 09:00, 10:00, 12:00, 14:00, 15:00, 17:00, 19:00

(May 1 - Aug 31) additionally: 20:00, 22:00

55 231 27 27 Staff telephone number:

ELBLAG - two drawbridges

Opening hours: 07:00, 09:00, 11:00, 13:00, 15:00, 17:00, 19:00, 21:00

Staff telephone number: 55 234 46 31, 602 218 346

# PORTS, HARBOURS AND MARINAS

# THE BRDA

MARINA BYDGOSZCZ 52 585 96 01

BYDGOSZCZ CANAL

MARINA "GWIAZDA" 52 379 78 01

THE NOTEC

THE MARINA OF THE CDR B. ROMANOWSKI COMPLEX OF SCHOOLS OF INLAND NAVIGATION IN NAKŁO 693 855 017 | 693 855 016 THE MARINA IN UJŚCIE 67 285 00 32 | 601 586 768 MARINA CZARNKÓW 784 681 214 (bezpośredni) | 608 350 684 | 669 048 257

THE MARINA IN DRAWSKO 535 953 490

THE WARTA

THE HARBOUR OF SPORTS CLUB "ADMIRA" (GORZÓW WLKP.) 95 722 40 48 THE RIVER HARBOUR OF THE AWF (GORZÓW WLKP.) 95 7279 135 MARINA GORZÓW 508 056 448

THE ODRA

RECREATION CENTRE "DELFIN" – THE HARBOUR AT THE MUNICIPAL SPORTS AND RECREATION CENTRE IN KOSTRZYN ON THE ODRA 609 765 610

THE VISTULA

MARINA GRUDZIADZ 726 921 919 603 653 129 | 198 967 810 MARINA BRDYUJŚCIE THE MARINA AND PASSENGER HARBOUR IN TC7EW 513 068 895 MARINA AZS IN TORUŃ 56 622 88 75 HARBOR AND QUAY IN GRUDZIADZ 604 977 186

THE MOTŁAWA

HARBOUR "MARINA GDAŃSK" 58 301 33 78 POLISH MARITIME CLUB 602 249 490 SIENNA GROBI A II 506 056 264 ŻABI KRUK 506 056 073

COSA ACADEMIC SPORTS ASSOCIATION GÓRKI ZACHODNIE

THE WISŁA ŚMIAŁA

ACADEMIC MARINE CLUB GÓRKI ZACHODNIE 698 442 218 MARINA DELPHIA YACHTS GÓRKI ZACHODNIE 58 350 55 00 NATIONAL SAILING CENTRE 58 322 26 01 CONRAD YACHT CLUB 58 307 39 12

58 324 81 00

58 307 09 27

502 11 11 88

55 247 60 76

MARITIME YACHT CLUB "NEPTUN" THE MARTWA WISŁA

STEWA 58 307 09 03 GDAŃSK MARINE CLUB LOK 58 305 04 50 NORTHERN YACHT CLUB 58 305 05 07 CITY YACHT MARINA - GÓRKI ZACHODNIE 58 524 18 08

MARINA BŁOTNIK 697 557 306 WIŚLINKA RIVERSIDE HOSTEL 501 953 536

THE NOGAT

"PARK PÓŁNOCNY" HARBOUR IN MALBORK 55 247 63 49

YACHT HARBOUR BIAŁA GÓRA

THE SZKARPAWA

HARBOUR OSŁONKA 605 206 835 HARBOUR RYBINIA 55 247 86 17 THE WISŁA KRÓLEWIECKA

MARINA SZTUTOWO

THE ELBLAG RIVER

THE MARINA OF YACHT CLUB ELBLAG 55 642 77 64 HOW "BRYZA" SAILING HARBOUR IN ELBLAG 515 938 094

THE VISTULA LAGOON

THE YACHT PORT IN SUCHACZ 605 685 071 | 609 623 228 THE FISHING PORT IN TOLKMICKO 55 231 66 14 THE FISHING PORT IN FROMBORK 55 243 72 19 THE PORT OF MARITIME OFFICE IN NOWA PASŁĘKA 55 243 72 19 55 241 90 88 | 510 19 19 35 THE SAILING HARBOUR IN NOWA PASŁEKA THE FISHING PORT IN KATY RYBACKIE 55 247 87 19 THE MARINA IN KRYNICA MORSKA 55 247 60 99

THE PASŁĘKA

THE PORT OF PIASKI

**BRANIEWO** 511 311 131

# SIGNS REGULATING TRAFFIC ON INLAND WATERWAYS

# A. PROHIBITORY SIGNS

1. No entry

R 40 \$ 1 1 1 1 1

lub lub R 13 SPORT 14 15 15

12 2 45 30 13 10 11 40

43 lub lub lub lub

VHF 11 37 35 VHF

- 2. No overtaking
- 3. No overtaking of convoys by convoys
- 4. No passing or overtaking of other vessels
- 5. No berthing (no anchoring or making fast) on the side of the waterway on which the sign stands
- 6. No anchoring or trailing of anchors, chains or cables on the side of the waterway on which the sign stands
- 7. No mooring on the side of the waterway on which the sign stands
- 8. No turning
- 9. Do not create wake or wash (suction effect)
- 10. No passing outside the area marked with boards or green lights
- 11. No passing outside the area marked with boards
- 12. Entry prohibited but prepare to get under way
- 13. Motorised vessels prohibited
- 14. Sports or pleasure craft prohibited
- 15. Water skiing prohibited
- 16. Sailing vessels prohibited
- 17. Rowing boats prohibited
- 18. Use of sailboards prohibited
- 19. End of zone of high-speed navigation of small sports or pleasure craft
- 20. No launching or beaching of vessels
- 21. Water scooters prohibited

# B. MANDATORY SIGNS

- 22. Proceed in the direction shown by the arrow
- 23. Move to the side of the fairway on your port side
- 24. Move to the side of the fairway on your starboard side
- 25. Keep to the side of the fairway on your port side
- 26. Keep to the side of the fairway on your starboard side
- 27. Cross fairway to port
- 28. Cross fairway to starboard
- 29. Stop as prescribed in the regulations
- 30. Do not exceed the speed indicated (in km/h)  $\,$
- 31. Give a sound signal
- 32. Keep a particularly sharp lookout
- 33. Keep a particularly sharp lookout when entering the main waterway
- 34. Keep a particularly sharp lookout when crossing the main waterway
- 35. Vessels proceeding on the main waterway must, if necessary, change course or speed to allow vessels to leave tributary waterways
- 36. Obligation to enter into a radiotelephone link
- 37. Obligation to enter into a radiotelephone link on the channel indicated

# C. RESTRICTIVE SIGNS

- 38. Depth of water limited (in metres)
- 39. Headroom above water level limited (in metres)
- 40. Width of passage or fairway limited
- 41. There are restrictions on navigation: make enquiries
- 42. The fairway lies at the distance indicated from the right (left) bank (in metres)

# D. RECOMMENDATORY SIGNS

- 43. Passage in both directions
- 44. Passage only in the direction indicated (passage in the opposite direction prohibited)
- 45. You are recommended to keep within the area indicated
- 46. You are recommended to proceed in the direction shown by the arrow

# E. INFORMATIVE SIGNS

- 47. Entry permitted
- 48. Overhead power line crossing (height above the highest navigable water level)
- 49. Weir close ahead
- 50. Cable ferry
- 51. Ferry boat moving independently
- 52. Berthing permitted

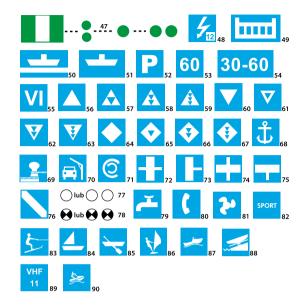
- 53. Berthing permitted on the stretch of water of the breadth measured from and shown on the board in metres
- 54. Berthing permitted on the stretch of water bounded by two distances measured from and shown on the board in metres
- 55. Maximum number of vessels permitted to berth abreast.
- 56. Berthing area reserved for pushing-navigation vessels that push but do not carry hazardous materials
- 57. Berthing area reserved for pushing-navigation vessels that are required to carry one blue light or one blue cone
- 58. Berthing area reserved for pushing-navigation vessels that are required to carry two blue lights or two blue cones
- 59. Berthing area reserved for pushing-navigation vessels that are required to carry three blue lights or three blue cones
- 60. Berthing area reserved for vessels other than pushing-navigation vessels that are not required to carry marking
- 61. Berthing area reserved for vessels other than pushing-navigation vessels that are required to carry one blue light or one blue cone
- 62. Berthing area reserved for vessels other than pushing-navigation vessels that are required to carry two blue lights or two blue cones
- 63. Berthing area reserved for vessels other than pushing-navigation vessels that are required to carry three blue lights or three blue cones
- 64. Berthing area reserved for all vessels that are not required to carry marking
- 65. Berthing area reserved for all vessels that are required to carry one blue light or one blue cone
- 66. Berthing area reserved for all vessels that are required to carry two blue lights or two blue cones
- 67. Berthing area reserved for all vessels that are required to carry three blue lights or three blue cones
- 68. Anchoring or training of anchors, chains or cables permitted
- 69. Making fast to the bank permitted
- 70. Berthing area reserved for loading and unloading vehicles
- 71. Turning area
- 72. Crossing with secondary waterway ahead
- 73. Junction with secondary waterway ahead
- 74. Crossing with main waterway ahead
- 75. Junction with main waterway ahead
- 76. End of a prohibition, obligation, or restriction applies to traffic in one direction only
- 77. One or two fixed white lights before an obstacle stop if the regulations so require
- 78. One or two flashing white lights before an obstacle you may proceed
- 79. Drinking water supply
- 80. Telephone
- 81. Motorised vessels permitted
- 82. Sports or pleasure craft permitted
- 83. Water skiing permitted
- 84. Sailing vessels permitted
- 85. Rowing boats permitted
- 86. Use of sailboards permitted
- $87.\ High\mbox{-speed}$  navigation of small sports and pleasure craft permitted
- 88. Launching or beaching of vessels permitted
- $89. \ Possibility \ of obtaining \ nautical \ information \ on \ the \ radio telephone \ channel \ indicated$
- 90. Water scooters permitted

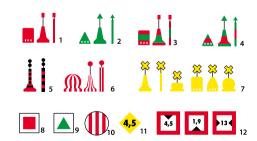
# MARKS INDICATING FAIRWAY LIMITS ON MARITIME WATERS

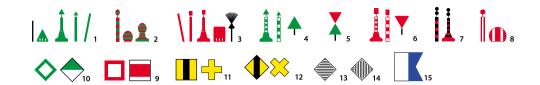
- 1. The port side of the fairway
- 2. The starboard side of the fairway
- 3. Starboard bifurcation (main fairway on the right)
- 4. Port bifurcation (main fairway on the left)
- 5. Isolated danger marks
- 6. Safe water marks
- 7. Special marks
- 8. Navigable passage under fixed bridges port side
- 9. Navigable passage under fixed bridges starboard side
- 10. Navigable passage under fixed bridges best

# passage point

- 11. Vertical clearance under bridge span at medium water level
- 12. Limited headroom, depth, or width of passage







# MARKS INDICATING FAIRWAY LIMITS ON INLAND WATERWAYS

- 1. The left side of the fairway
- 2. Fairway bifurcation
- 3. The right side of the fairway
- 4. Dangerous place near the left edge of the fairway.
- 5. Dangerous place in mid-fairway
- 6. Dangerous place near the right edge of the fairway.
- 7. Isolated danger mark
- 8. Safe water mark
- 9. Fairway near the left bank
- 10. Fairway near the right bank
- 11. Fairway cross-over from right to left bank
- 12. Fairway cross-over from left to left right bank
- 13. Mark placed on the left side of exit from lake or broad waterway
- 14. Mark placed on the right side of exit from lake or broad waterway
- 15. The "A" (Alpha) flag. Caution! Diver down.

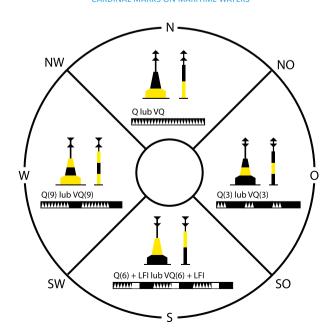
#### CAUTIONI

Inland waterways (with the river current)
Red colour – the right (starboard) side of the fairway
Green colour – the left (port) side of the fairway
Maritime waters

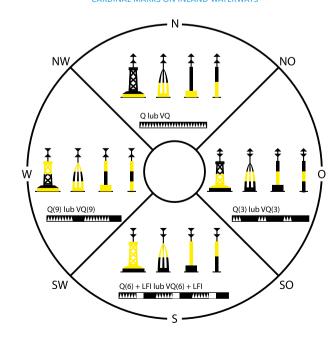
Red colour - the left (port) side of the fairway

Green colour - the right (starboard) side of the fairway

# CARDINAL MARKS ON MARITIME WATERS

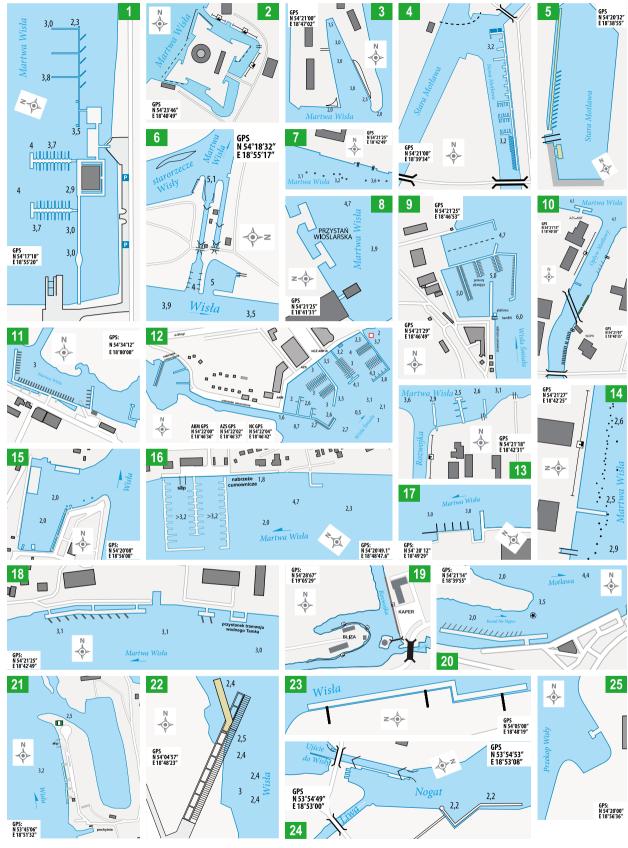


# CARDINAL MARKS ON INLAND WATERWAYS



built-up areas in major towns and cities / forests waters / wetlands A1=S11= motorways, express roads, junctions national roads provincial roads other roads railway lines narrow-gauge railway lines cycling route R1 reserves national parks landscape parks country border province border Sites in towns recommended for exploring: 古圃 sacred monument / secular monument  $\mathbb{H}$ hotel / another accommodation facility a possibility of putting up a tent within harbour area Sites outside the recommended towns: hydrotechnical monuments A agritourism farms selected by project partners BYDGOSZCZ provincial capitals GRUDZIĄDZ other towns and cities Rynarzewo villages - Sc navigable waterway kilometres 1 35 × waterway kilometre / length / width / head / depth at lower sill (m) power lines with clearance other obstacles with clearance navigation hazards non-navigable route bridge and clearance above water level (HNW) drawbridge  $\ominus$ pontoon bridge **---** ---footbridge / drawbridge for pedestrians ferry crossings / planned crossings ŮŮ seaport and inland port 1 marina / marina under construction 1 water tram / passenger harbour navigation lights / harbour lights beacons / approach gates 7 buoys VHF 10 obligation to enter into a radiotelephone link on the channel as indicated on the board VHF 10 the radiotelephone channel on which navigational information can be obtained 24240 shallow





- Marina in Błotnik
- Polish Maritime Club Harbour (Wisłoujście)
- Maritime Yacht Club "Neptun"
- Marina Gdańsk Harbour at Żabi Kruk
- The Przegalina Lock
- Gdańsk Marine Club LOK
- Gdańsk Rowing Club "Drakkar" City Yacht Marina - Górki Zachodnie / Conrad Yacht Club / Marina Delphia Yachts
- WOPR Gdańsk Harbour / AZS-AWF Rowing Harbour
- Wiślinka riverside hostel
- "Academic Marine Club /
  - Cosa Academic Sports Association, National Sailing Centre of the Academy of Physical Education and Sport in Gdańsk"
- Stewa Harbour
- Northern Yacht Club
- The fishing port in Świbno. 15 Sobieszewo Marina (planned)

- "Tęcza" marina
- Harbour at Tamka
- 19 Marina Bliza / Kaper
- 20 21
- Marina Sienna Grobla II Marina in Korzeniewo (planed)
- The piers in Tczew
- The passenger and yacht harbour in Tczew The Biała Góra Lock and yacht harbour The fi shing harbour in Mikoszewo 23