

As of 1 December 2022, there are 1628 navigation aids in Estonia, of which 55 are lighthouses, 235 are beacons, 33 are daybeacons and 1305 are navigation buoys.

RUHNU LIGHTHOUSE

Geographical coordinates: 57° 48.081'N; 23° 15.607'E.

The metal tower with a lantern room, a balcony and support pillars is situated in Liivi Bay on the eastern side of Ruhnu Island, on the Häubjärre Hill (also known as Ouberg, Hochberg or Högberget). Ruhnu Lighthouse along with the Sörve and Kolka lighthouses helps the movement of ships through Irbe Strait and Liivi Bay (the Gulf of Riga).

Ruhnu Lighthouse is the only lighthouse in the whole world that was designed and constructed (a steel pipe with telescopic supports) in the 19th century and is still fulfilling its original purpose today. There is one similar remaining lighthouse in the world that is no longer in use. It is the Ras Gharib Lighthouse near the Red Sea.

Ruhnu Lighthouse is among the IALA's (International Association of Lighthouse Authorities) 100 most notable lighthouse-architectural monuments in the world.

LIGHTHOUSE HISTORY AND INFORMATION

- In 1646** with Gustav II Adolf's orders, the **first wooden lighthouse** was constructed in the Pärssi Cape on the western coast of Ruhnu. The simple sea mark was a wooden construct that was used to raise a live flame in a metal cage to a height of around 110 ft (33 m). To keep the fire in the lighthouse, it took around **50 fathoms (approximately 150 m³)** of wood a year.
 - In 1811** the existing tower was replaced with a new one: it was **octagonal** and 79 feet (approximately 24 m) tall, a **truncated pyramid shaped wooden lighthouse**. Catoptric lighting devices (hemp oil lamp) were installed in the lantern room, which would illuminate the water routes to the north and west of the island from up to 14 miles away, yet leaving the water routes to the east of the island unmarked.
 - In 1851** the initial lighthouse mansion was finished on Häubjärre Hill and construction on the lighthouse began. Fields were created at the foot of the hill which was cleared of trees.
 - In 1854**, during the Russo-Crimean war, an English navy squadron entered the Baltic Sea. Due to the situation, the foundation and stone socket of the now finished lighthouse were covered in a layer of moss. Thus the foreign enemy was tricked into thinking it was a broken down building and the possible destruction of the lighthouse by enemy ships was avoided.
 - In 1860** the next Häubjärre lighthouse was finished: it was a **hexagonal wood lined, yellow truncated pyramid shaped tower**, which had an omnidirectional light capable of illuminating up to 16 nautical miles away. The lantern was approximately 61 m from sea level.
 - In 1877** the **metal lighthouse** which has been preserved to this day was built on the Häubjärre Hill. The lighting device, the lantern of which was 66 m above sea level, operated on a T. R Sautter, Lemonnier & Cie 2nd order dioptric device (a four-wick kerosene lamp) and was visible from 17 nautical miles away. A cellar, kerosene store and forge were constructed by the lighthouse.
- The design and metal components had been ordered 2 years earlier from France, from the port city of Le Havre from the company *Forges et Chantiers de la Mediterranee*. The author of the design was L. E. Lecoindre, (rumours that the lighthouse was designed or produced by the famous architect G. Eiffel are myths and are not true).
- In 1904** the lighthouse got its red colouring.
 - In 1915**, during World War I, the lantern room of the lighthouse was destroyed with explosives by the Germans during military operations. It was restored as a temporary building by **1921**.
 - In 1936-1937** the service and lantern rooms were restored and modified. A rotating dioptric device was installed in the lantern room, which illuminated up to 21 nautical miles away from a height of 63 m.
 - In 1958-1964** a technical building with installed diesel generators was built in the light station. In the same period, the rotating lighting device was switched out for an electric flashing lantern 65 m above seal level and visible from 20 nautical miles away.
 - In 1994** the 110 V direct current stationary prismatic lens lantern ЭМН-500 was switched out for a new 12 V direct current system which used incandescent light bulbs with a capacity of 500 W.
 - In 1997** the lighthouse light was connected to a remote sensing system.
 - In 2000** an ekta™ E602 lighting system with an automatic lamp switcher and 500 W incandescent bulbs was installed. Visibility was considered to be 11 nautical miles.
 - In 2007** the existing lighting system was replaced with a Sabik LED lantern, with a total consumable power of 80 W.
 - Since 2015** the Sabik LED omnidirectional lantern has been in use, with a maximum light intensity of **6350 cd** (one candela (cd) is equal to the light intensity of one lit candle) and a consumable total power of 66 W. The visibility distance of the light in the dark has been set to 11 nautical miles on the nautical chart.
 - With good weather, the lighthouse is visible even **30 km away**, but visibility from farther is limited by the curvature of the Earth. **Otherwise the light would reach even farther, up to 33 km away.**
 - Since 2016** the lighthouse has been open to visitors.
 - In 2021** the first full renovation/reconstruction since the initial construction of the tower took place.
- Ruhnu Lighthouse was declared a protected national heritage site in the year 1999 as a building monument with the register number 21071.
- 198 steps lead up to the balcony of the lighthouse.

Sources:

Peeter Peetsalu „Merekultuurilugu“ (Cultural History of the Sea),
Jaan Vali „Eesti tuletornide ajalugu“ (History of Estonian Lighthouses).

NAVIGATION AID FACTS

Navigation aid number: 990
Surface elevation above sea level: 30 m
Aid elevation above surface elevation: 38.3 m
Light height above sea level: 64.7 m
Light characteristics: Fl W 4 s Flashing light



Fl

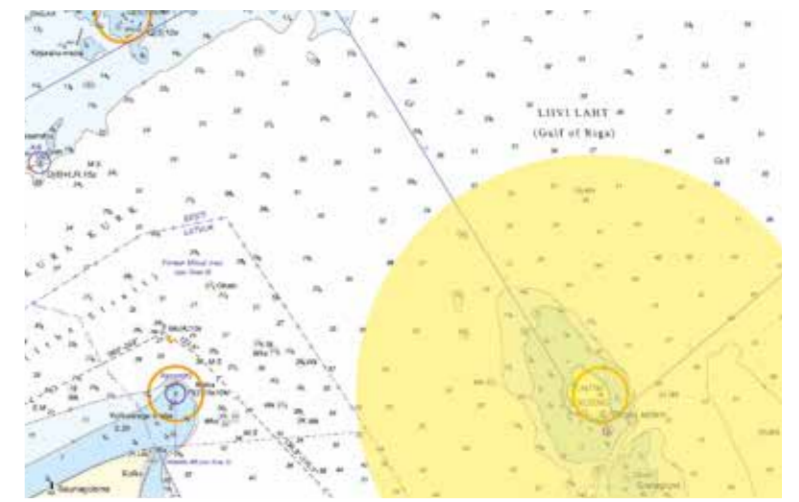
Flashing period description: 1+3=4

1. The lighthouse
2. The kerosene cellar
3. The meteo station
4. The overseer's residence
5. The vegetable cellar
6. The ice cellar
7. The sauna
8. The woodshed
9. The warehouse
10. The well
11. The rain gauge
12. The barn
13. The forge

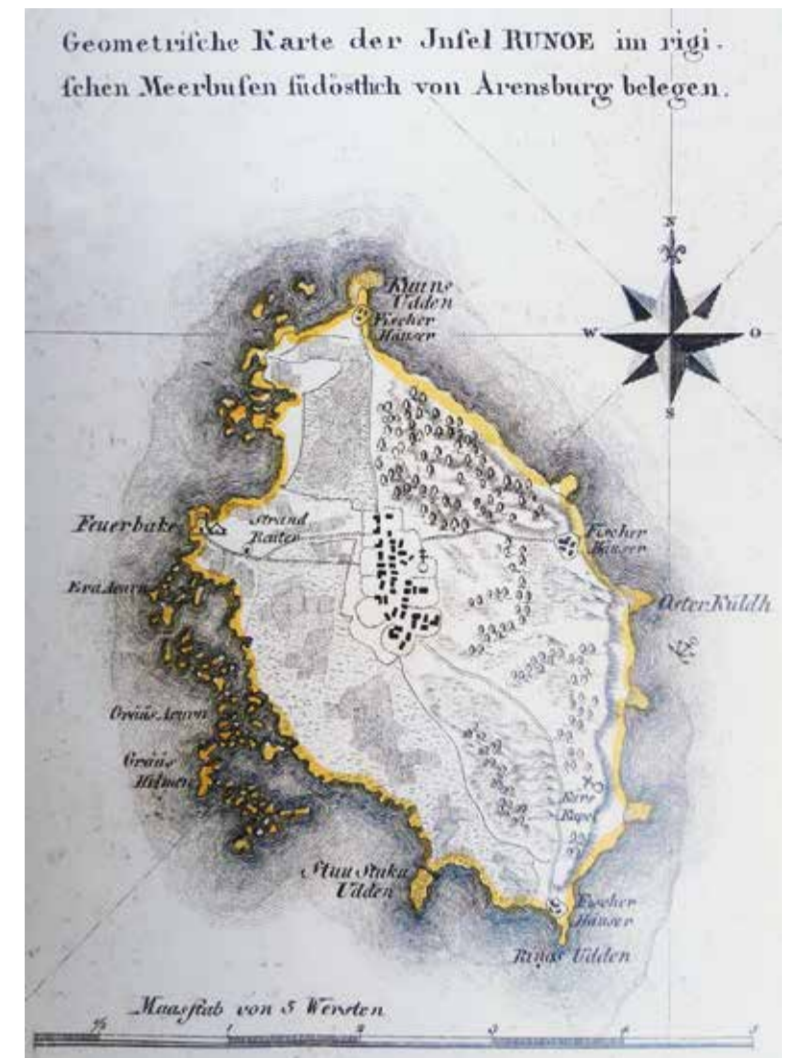
Ruhnu light station in the year 1910



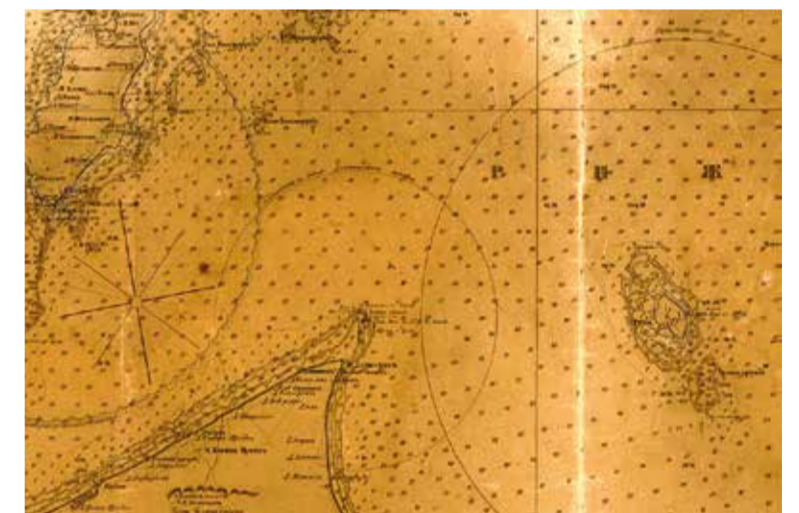
A stamp issued in 1997, designed by Roman Matkiewicz



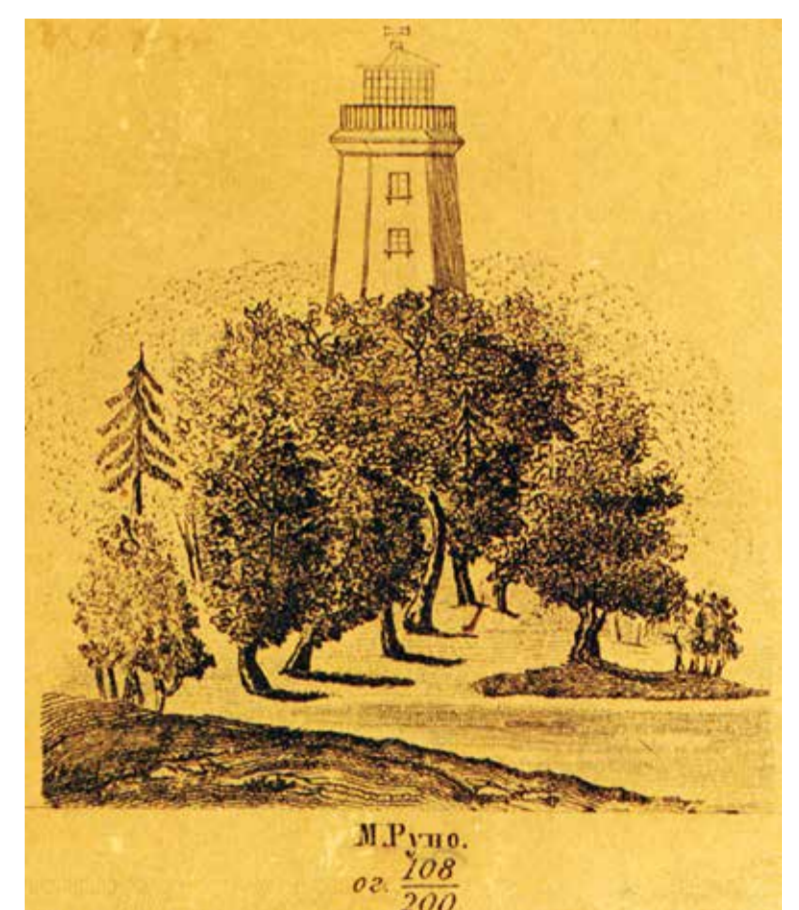
Extract from the map atlas "Eesti merekaardid" (Nautical Maps of Estonia) from the year 2022 with the lighting sector of the lighthouse



Extract from L. A. Mellin's 1798 atlas shows the initial location of the lighthouse at Pärssi Cape



Extract from a 1862 nautical chart detailing the Gulf of Riga "Карта Рижского залива с Моон-Зундом" (Map of the Gulf of Riga with Moonsund Archipelago)



Hexagonal wooden beacon on the Häubjärre Hill, sketch from a 1862 nautical chart "Карта Рижского залива с Моон-Зундом" (Map of the Gulf of Riga with Moonsund Archipelago)



Ruhnu Lighthouse in the year 1901



Ruhnu Lighthouse with a temporary lantern in the year 1930