

Solar eclipses in the Finnic-Ugric traditions

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A solar eclipse is only visible as complete in a very narrow band and is therefore a very rare natural phenomenon. For example, a century may pass without a total solar eclipse visible in Estonia. The last total solar eclipses seen in Estonia were in 1914 and 1990, with the next coming in 2126. The maximum diameter of a full shadow disk can be 264 km, but in most cases, it is significantly smaller. Therefore, a total solar eclipse may not be visible all over Estonia at once.

Similar solar eclipses occur every 18 years (this cycle is called saros) but shifted by about 1/3 the circumference of the Earth. The saroses themselves are also cyclical phenomena, one series of solar eclipses begins with a partial solar eclipse at the north or south pole, lasts for about 13 centuries, and ends the cycle with a partial solar eclipse at the opposite pole. There are 70-80 solar eclipses in one saros cycle, of which about 50 are total. Since there are two to five solar eclipses per year, there are about 40 saros cycles going on at once, of which about 25 have reached the age to cause total eclipses. For example, *Saros 145* (1981, 1999, 2017) began in 1639 with a partial solar eclipse at the North Pole, the first total eclipse (annular) was in 1891. According to the oldest and universal idea, the Sun or the Moon is eaten, the eater is usually a dragon, the embodiment of primordial forces. Many peoples used to shout loudly during an eclipse and forge all kinds of rattling household objects. It was hoped that the dragon would be frightened by the noise and go away. Although the absence of the sun lasted only a few minutes and the total eclipse only a little over an hour and a half, the total blackout was perceptibly quick, and it is easy to imagine the panic it caused at a time when the arrival of eclipses was not very precisely known.

The presentation examines the beliefs narratives and folklore about the eclipses by the Finnic Ugric Peoples.