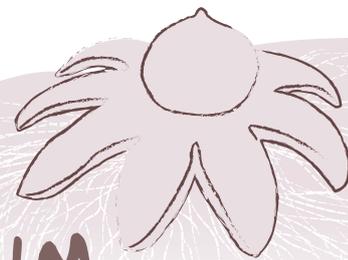


DABAS KONCERTZĀLE 2020.

ZEMESZVAIGZNE

GEASTRUM



Fairy rings

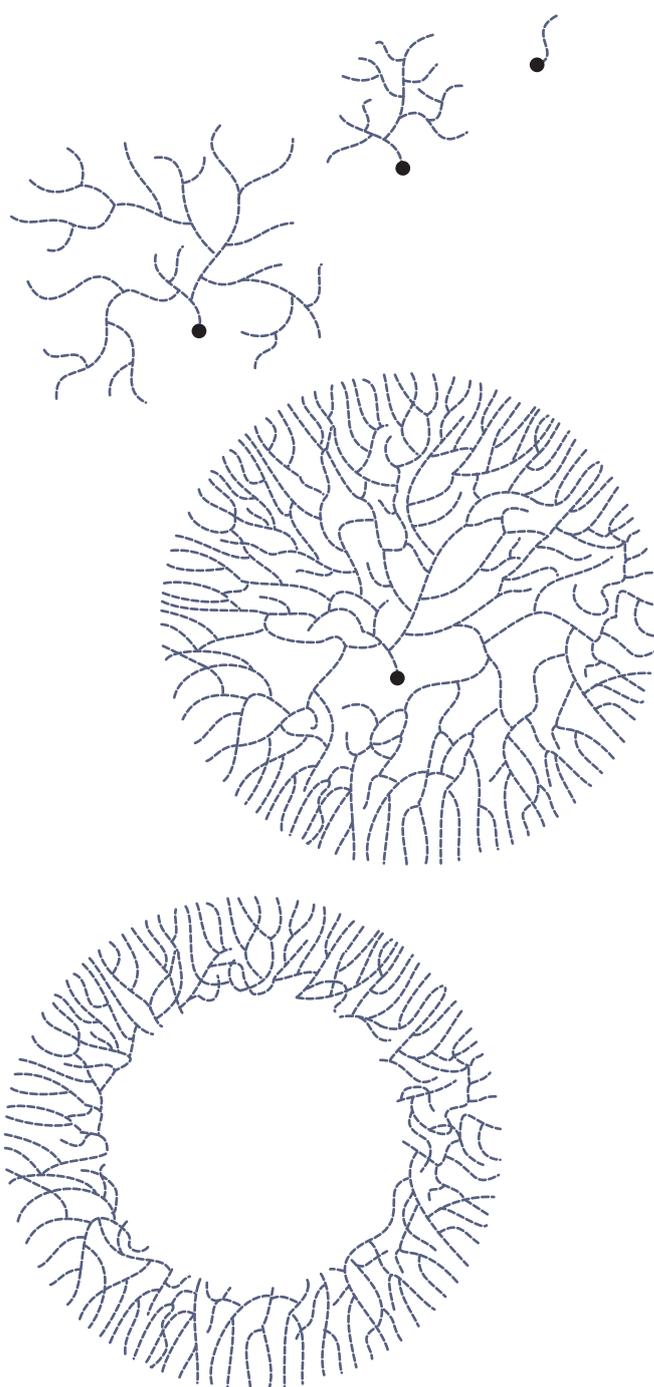
Inita Dāniele, mycologist

Fairy rings are arid, circular areas with thicker grass growing on their edges and fungi growing in the center, as if dancing in a circle. In ancient times and even nowadays, from seeing only the fruitbody and not having knowledge about the underground living patterns of fungi, the formation of such circles was attributed to various supernatural forces. The origin of these rings has traditionally been related to dances of witches or fairies in Germany, thinking that hidden treasures are buried in such areas in Sweden, while in Holland it was believed that devils churn butter in such places. Nowadays rumours persist that UFOs have landed in areas like these.

The truth is that this occurrence is related to the growth of mycelium. When the spores germinate, their thread-like hyphae grow in all directions away from the centre. Mycelium is very voracious and consumes all available nutrients very quickly, therefore the thread-like hyphae die off in the centre of the circle. Meanwhile the mycelium continues to spread outwards in all directions and the fruitbodies form on the topsoil. During formation of the fruitbodies, the mycelium starts to resemble a narrow band with an empty centre. In the centre, the dying mycelium releases nutrients, making it possible for grass to start regrowth. A similar phenomenon also takes place outside the circle, where the mycelium breaks down nutrients, favouring growth of plants. This is how the two circles of darker grass, with a band of poorly developed flora in-between, are formed. Circles with a diameter reaching hundreds of metres and 200-500 years of age, have been found in uninhabited regions. The circles found in Latvia rarely exceed 3-5 metres in diameter and their age is usually under 15-25 years. The rings can be noticed most easily in meadows, gardens and lawns in urban areas.

Mycelium finds a lot of obstacles in its path in the forest (trees, stumps, decaying trees), hence

it is difficult to create a geometrically precise ring. Besides, mycorrhizal fungi rarely create rings such as these. Usually, these circles are created by clitocybe, the giant funnel-caps and the fairy ring champignon. From mycorrhizal fungi, such circles can be formed by the fly agaric and even chanterelles.



Drawing: Andris Soms

Find a fairy ring in the garden, meadow, forest or elsewhere; photograph the ring as well as a close-up of the creator of the ring – the fruitbodies of the fungi.



Keeping in mind that the ring expands by around 10 cm annually, measure the radius of the circle and calculate the estimated age of the mycelium.



If you do not come across this type of ring – draw it or construct it in any other way (modelling clay, felting, etc.)



Now that you have discovered the true origin of the fungi circles, give way to your imagination! What would be your fairy tale about the origins of the fairy rings?



Photo: Inita Dāniele, Andris Soms

