

crevices, although most of the speleothem was removed during touristic development.

Having got gradually nearer the surface as the slope of Tamás Hill eroded, the cave only holds traces of a thin dripstone encrustation, i.e. white limestone precipitation on the wall. The rockbeds that make up the ceiling of chambers have partly collapsed due to the hoop tension caused by the lack of support from below. According to the explorers' accounts, this debris filled some of the chambers. Mixing karst water still works quietly in the depths, as indicated by the carbon dioxide released from dissolution to the bottom of Lejtős corridor.

Cave **WILDLIFE** became known by the studies of Imre Loksa in 1958. He detected the presence of 21 animal species, but only the tiny, 2-mm long isopod is a true cave-dweller, confirmed by its white appearance. Being isolated from the surface, the chambers do not host bats. In earlier decades, too bright lighting helped the growth of undesired lamp flora, but reduction of light succeeded in forcing the green patches back from the walls.

Having entered the iron door, VISITORS descend a few stairs leading them a couple of metres down, and reach the natural chambers through a short artificial passage. During the half-an-hour guided walk, they have an opportunity to stroll through and learn about the connecting chambers set at slightly different levels and admire the strongly tilted layers of Triassic limestone or the spherical hollows formed therein. After returning to the surface, it is worth climbing up to the top of Tamás Hill, which offers a splendid panorama over the eastern basin of Lake Balaton, from the high banks at Kenese to the Tihany peninsula.



The cave is managed by: **Balaton National Park Directorate**
8229 Csopak, Kossuth u. 16.
Phone: 87/555-260, Fax: 87/555-261

Open: 1 May – 30 September 10⁰⁰-18⁰⁰ hours
Only for groups of 15 or above on advance notice.

Duration of the tour: 30 min

Tour group size: max. 25 persons

Information: 87/555-291



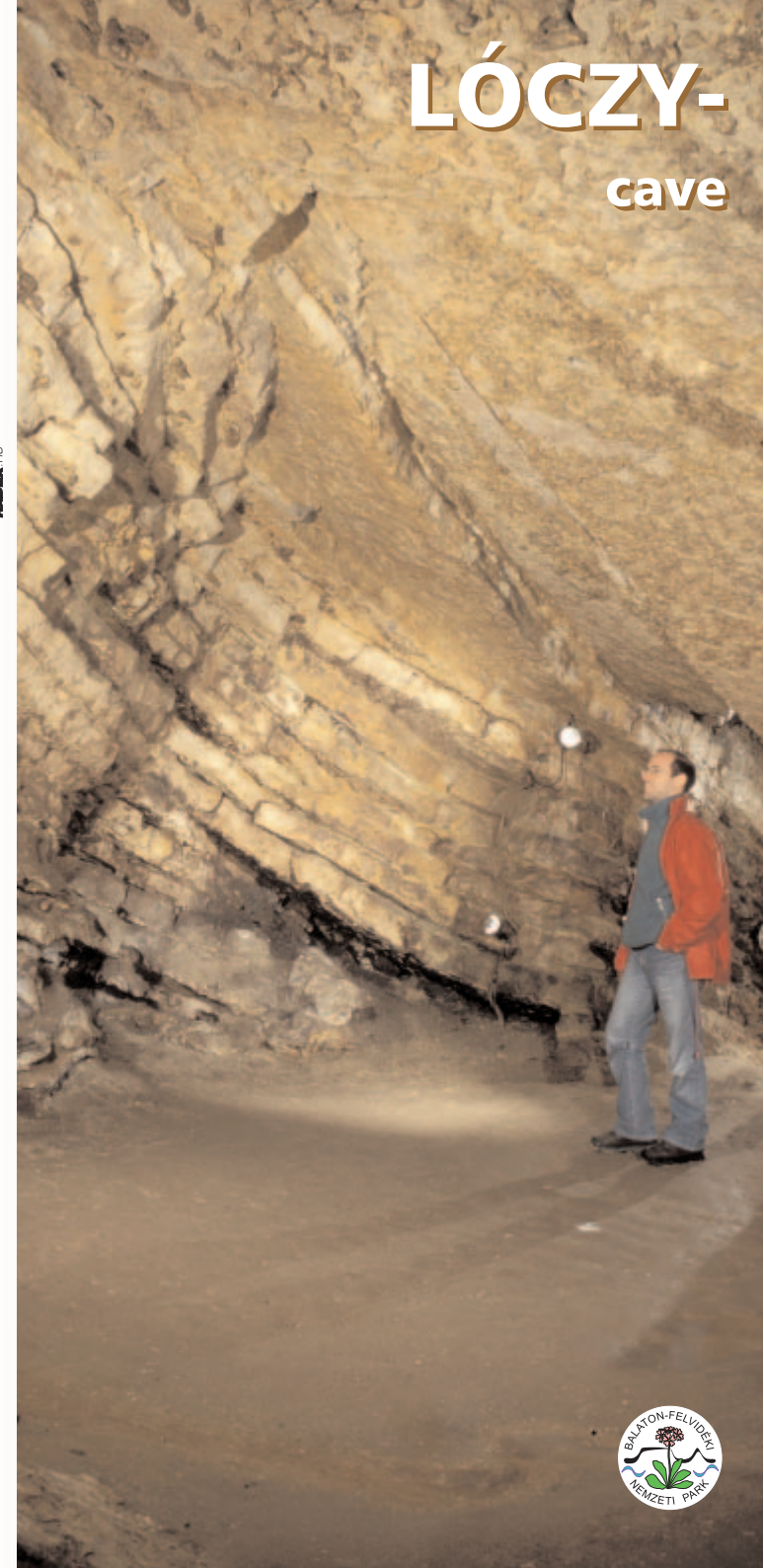
Other showcaves managed by the national park directorates:

Abaliget Cave	Duna-Dráva National Park Directorate, information: +36 72/498-766
Anna Cave	Bükk National Park Directorate, information: +36 46/334-130
Baradla Cave	Aggtelek National Park Directorate, information: +36 48/503-000
Lóczy Cave	Balaton National Park Directorate, information: +36 87/555-291
Pál-völgy Cave	Duna-Ipoly National Park Directorate, information: +36 1/325-9505
Szemlő-hegy Cave	Duna-Ipoly National Park Directorate, information: +36 1/325-6001
Szent István Cave	Bükk National Park Directorate, information: +36 46/334-130

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Editing: **Futó János**



LÓCZY- cave



LÓCZY CAVE

Among the numerous cultural, historical and natural monuments of Balatonfüred, the Lóczy Cave, situated at the edge of the town, has a distinguished position. Named after the world-famous researcher of Lake Balaton, Lajos Lóczy sr., the nearly 150 m long and 20 m deep cave is renowned for its special morphology.

Strictly protected since 1982, this natural monument is situated at the foot of Tamás Hill, in Arács district, on the border between the inhabited area and the karst scrub woodland. A marked trail leads there from the centre of Füred, and road signs also facilitate access. The famous cave can be approached on foot or by car, turning right at the end of Öreghegyi street, and across the small parking lot.

The **DISCOVERY** of the cave is a merit of quarrying. The western slope of the hill had been quarried for centuries for the easy-to-carve limestone, excellent for building purposes. In late October 1882, workers in the quarry noticed a newly opened cleft among the rocks: having descended, they found themselves in a shaft that widened downwards. At the bottom, about 20 m deep, they saw passages branching out in several directions, where the walls of chambers were richly decorated with dripstone rosettes, i.e. cave corals. The cave soon sank into oblivion, and was only visited by local children for "treasure-hunting". It was probably them, who broke off the formations covering the walls. At the request of worried parents, the dangerous opening was plugged in the mid-1910s.

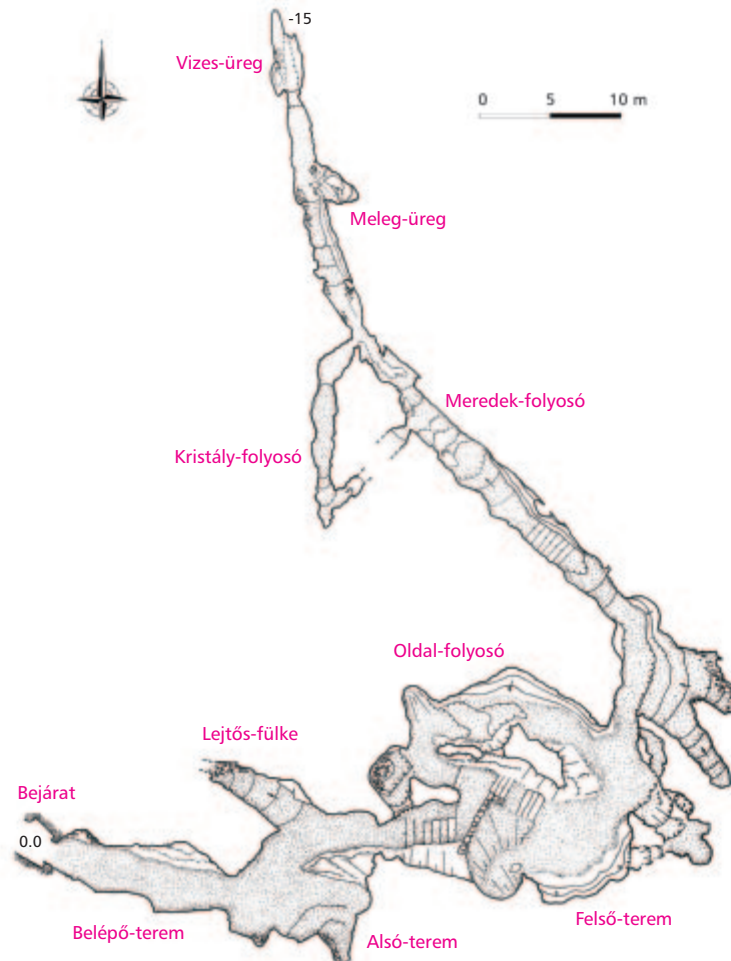
The **DEVELOPMENT** of the cave only started two decades later, despite the fact that the journalist Gusztáv

Mangold wrote two official letters to the Institute of Geology, requesting help to explore this neglected natural monument. Finally, in summer 1930, the entrance shaft was re-opened under the leadership of the geologist Ottokár Kadić. Parallel with surveying the general outline of the passages, he also conducted scientific research, and proposed touristic development of the cave. In 1933, a local carpenter, named Gábor Kéry, using external funding but



eventually spending also his own possessions, opened a new lateral entrance shaft to the chambers. The next year, again supported by the Institute of Geology, the rock debris was carried out through this passage, the floor was levelled and steps were made. A third entrance, more suitable for visitors, was created by explosions, and the earlier entrances were plugged. Even a new, passable road was built from the town in 1935. Despite all this work, a few years later the cave became completely neglected again; its door had disappeared and its entrance was covered with debris.

In 1951, the municipal council decided to restore and re-open the cave. The work took two years to accomplish, but visitors could afterwards enjoy electric lighting in the cave now managed by the Veszprém County Tourism Board. The cracked and slightly dislodged rock layers of the ceiling were already problematic at that time and were re-inforced by arched steel



buttresses in 1976. As the entrance section had become dangerous, the Bureau for Nature Conservation had it renovated in the 1980s, and took over management officially in 1989. To replace the not quite aesthetic steel buttresses, the ceiling was stabilised by roof timbering in 1992, and lighting was also modernised a year later. Established in 1997, the Balaton Uplands National Park Directorate set up an information board illustrated with a map next to the entrance and tidied up the surroundings.

Details of the **EVOLUTION** of the cave are still partly unclear, even though several researchers have studied this question since the 1930s. The embedding füredi limestone, consisting of spectacular rockbeds and layers of clay set between them, was formed approximately 230 million years ago, in the pelagic seafloor of the tropical Tethys Sea. Much later, tectonic movements tilted the horizontal rock layers. In some places, the mighty forces bent the layers in an arc, a nice example of which can be seen along Lejtos (Sloping) corridor.

During the late Tertiary, or in a drier period during the ice ages, thermal water rich in carbon dioxide gushed forth from the depths through the fissures of the cracked rock. Mixing with cold surface water, it began to dissolve smaller spherical hollows in the limestone, which later grew into spherical niches and finally into chambers. The dissolving effect could not "destroy" the chert nodules, so they clearly stand out from the rock surface. The upsurging karst water formed upward shafts, and cave coral precipitated on the walls of chambers filled with hot water.

As the area rose tectonically, water descended: at present, it reaches surface in the form of cold acid water in several springs around the cardiological hospital. Since the cave turned dry, ferric-manganic solutions have seeped in from the surface and coated it with a black film of precipitation. Remnants of this film can still be found in some smaller