

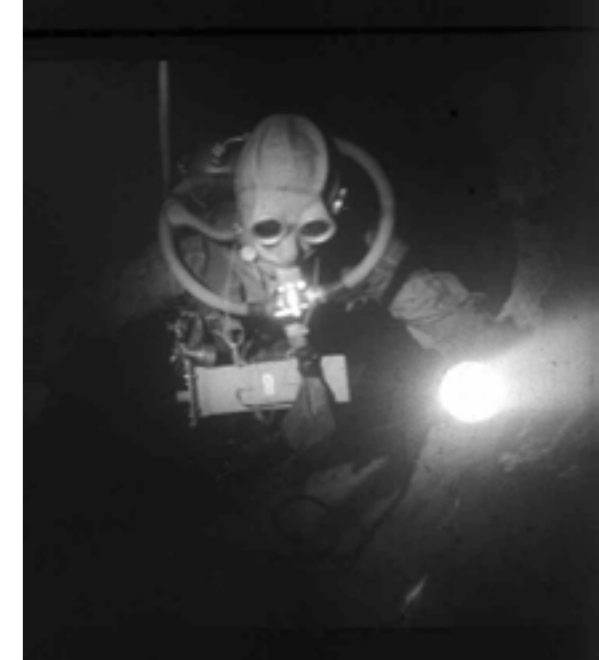


*The longest underwater cave in Russia*

# Ordinskaya Cave

Text and photos  
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The first cave diving exploration in the USSR took place in May 1964 (image taken from an old film movie). The date marks the official birthday of Soviet cave diving science



**Cave diving is very fascinating, but it is also a most dangerous passion to have. The advances in underwater cave exploration have always been determined by the state of the available equipment. In Russia, the first underwater cave exploration took place in 1964 when a group of enthusiasts managed to get past the first sump (a section of completely flooded cave passage) in the cave system of Ayan on the Crimean Peninsula. Without fins, they passed the sump by walking on the bottom. The length was seventy meters, and the maximal depth was five meters. Not much by today's standards it seems, but this achievement is now considered the birth of underwater speleology in the former USSR.**

Decades have now passed since this pioneering event. Inventors of diving equipment have steadily created more perfect and trouble-free underwater devices, but cave diving in Russia is still an activity for a devoted few.

Today, in Russia there is an estimated fifty thousand certified SCUBA divers, among which no more than 50 (only 0.1 percent of the population of divers) venture into cave diving. These people use special equipment for diving, and they are easily recognised. They always use at least two regulators, carry dual cylinders (either a twin set on the back or a side mount configuration where two or more tanks are carried on each side), a minimum three torches, a helmet, a reel with a strong thin rope (the guide line) and their particular swimming style, *frog kicking*, which prevents whirling mud or silt to kick up from the bottom. They reel out a guide line to mark their route during the dive. Wreck divers use very similar techniques for wreck penetration.

To perfect cave diving technique and skills, it is necessary to undergo a long training program and to be passionate about diving

in underwater caves. Insufficiently trained divers can perish in caves only too easily. Therefore, few people venture there.

In this little community, most divers know each other well. Members of this little select group are at the same time heroes and outcasts of the diving community. Their passion for underwater speleology is "vicious", but the performers are also seen as idols and brave individuals such as Sheck Exley and Jocben Hasenmayer.

Underwater cave explorations and the achievements of Soviet and Russian cave divers were so insignificant on a global scale that very few people in general knew about the existence of underwater caves in our country. Russian caves, with their difficult entrances, vertical pits, narrow passages and cold muddy water, are strikingly different from those in the warm-water recreational destinations such as those in Florida or Mexico where it seems that only the laziest divers don't pursue diving in the underwater caves found there. Recreational cave divers in these spots can set up a dive rigging directly out of their car trunks.

The hitherto previously unknown underwater world of Russia, Ordinskaya Cave—huge underground cavities filled with crystal clear cold water. This is exciting darkness that beckons







## Ordinskaya

◀ This is a nook in the endless underwater cave system. Many narrow and wide passages divide into different directions, so cave explorers have to search for the right way out. Big heavy stones that have fallen from the ceiling to the floor of the cave remind one about the dangers

Igor Lavrov, the well-known scientist and researcher of the Ural caves, visited the cave for the first time in 1993, where he made topographical maps of the dry part of the cave. He also invited Victor Komarov, a cave diver from Ryazan City, to do the first reconnaissance dive in one of the cave's underground lakes in April 1994.

Much to their surprise, they found that the cave lakes were covered with a 20cm-thick layer of ice. Not letting this stand in their way, Lavrov and Komarov asked local fishermen if they could borrow some of their special devices for ice drilling. With these tools, they made a small hole in the lake ice that was big enough to squeeze a diver

underwater tunnel. Subways with snow white walls spread out in different directions, leading the cave diver further and further into this underground realm.

Komarov had already let out 70 meters of the guide line when it became stuck in the narrow entrance crack underwater. He couldn't go any further and had to turn back. Komarov gathered up the rope by rolling it around his elbow and managed to untangle it and

through.

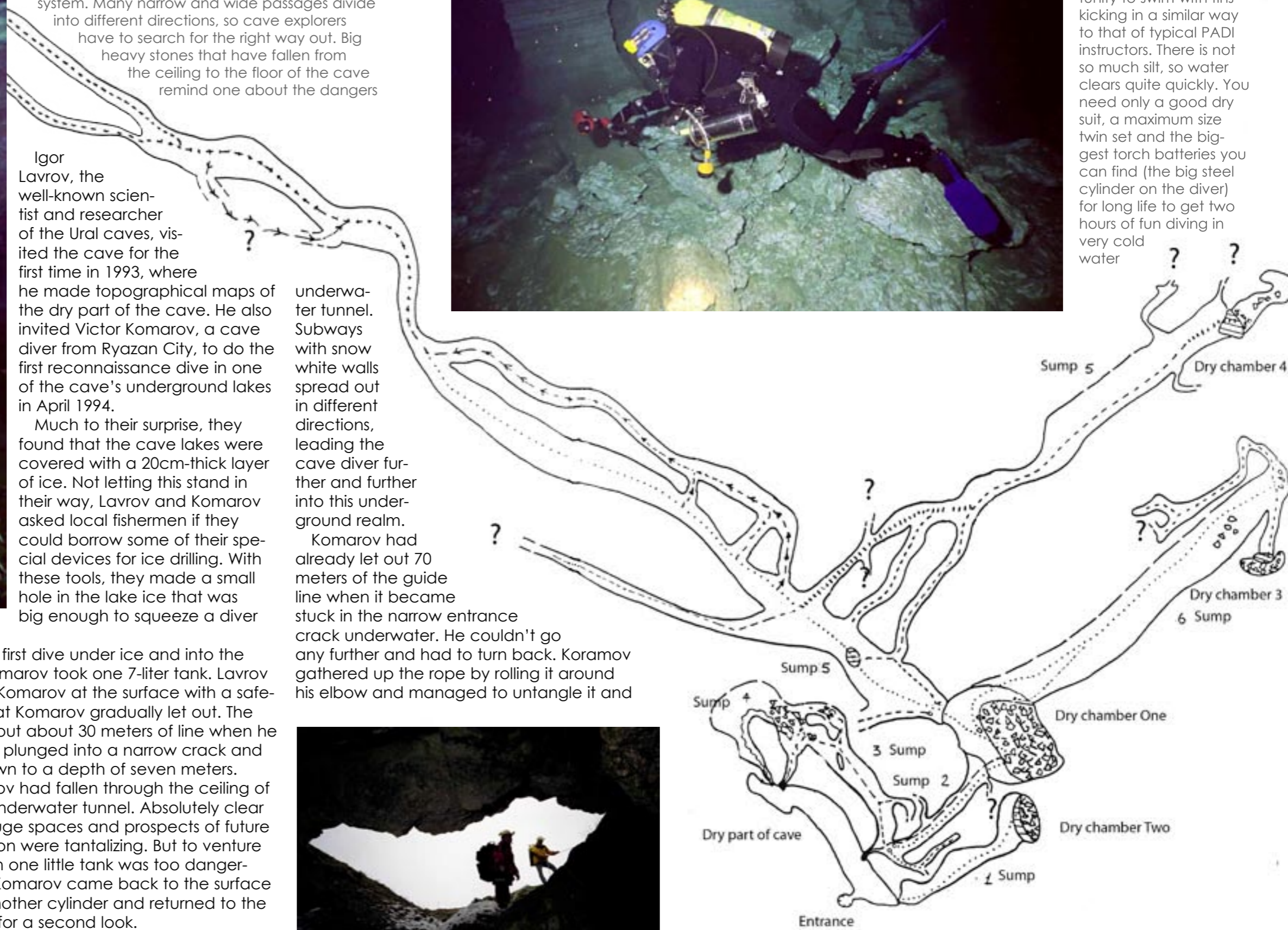
For this first dive under ice and into the cave, Komarov took one 7-liter tank. Lavrov secured Komarov at the surface with a safety line that Komarov gradually let out. The diver let out about 30 meters of line when he suddenly plunged into a narrow crack and went down to a depth of seven meters.

Komarov had fallen through the ceiling of a wide underwater tunnel. Absolutely clear water, huge spaces and prospects of future exploration were tantalizing. But to venture further on one little tank was too dangerous. So, Komarov came back to the surface to get another cylinder and returned to the location for a second look.

This time, Komarov went much further into



A lot of underwater space and clear water gives inexperienced beginners the opportunity to swim with fins kicking in a similar way to that of typical PADI instructors. There is not so much silt, so water clears quite quickly. You need only a good dry suit, a maximum size twin set and the biggest torch batteries you can find (the big steel cylinder on the diver) for long life to get two hours of fun diving in very cold water



Cave divers descend into the entrance of Ordinskaya Cave

### The beginning of modern cave diving in Russia

The picture in Russia was about to change when a landslide on the banks of Kungur River, which is about 80 kilometers from Kungur City in the Ural Mountains of the Perm's region, exposed an entrance to a hitherto unknown cave.

The first visitors to the cave were local people who had gone down the slope of clay in search of a cow which had fallen down into the cave. When they got down there, the rescuers caught a glimpse of the big cave halls, chambers and three underground lakes with crystal-clear water. The cave was named Ordinskaya in honor of the nearby Orda village.

captions





## Ordinskaya

The first Russian cave divers used old military stuff or homemade equipment and unduplicated breathing devices. It was a time when divers thought that it was very unprofessional to use fins for swimming, and they got past sumps by walking on the bottom

in the body of the mountain named after Kazakova. The greatest part of the cave labyrinth is filled with very strong mineralized water, so after each dive, all dive gear is covered by a thick coating of gypsum salts. Gypsum is not very solid—a frag-

Modern equipped underwater cave explorer



ile mineral—so collapses occur quite frequently in gypsum caves above the surface, especially after strong rains in the spring and in the autumn. Underground halls of gypsum caves on dry land very seldom exceed 20-30 meters in size. But in the underwater gypsum caves, water helps to support the caves against the tug of gravity, which is why the underwater tunnels and halls of underwater gypsum caves are bigger than their above water counterparts.

However, vaults in Ordinskaya Cave have collapsed every year. Huge gypsum boulders break loose from the ceiling and fall to the bottom stirring up a lot of silt. On one occasion, a five-ton plate collapsed from the ceiling and fell onto several meters of the main guide line of a group of divers. It forced the cave divers to do a lengthy search for a new way out to exit the cave. Despite the seeming simplicity and ease of navigating these caves, one should always remain alert, cautious and prepared to handle any

unforeseen occurrences or incidents under the surface.

The maximum depth of any of the known underwater passages in Ordinskaya Cave does not exceed 20 meters. Therefore, even the longest dives during the exploration of the cave did not require decompression.

Cave divers from Krasnoyarsk, Chelyabinsk, Novokuznetsk, Ekaterinburg, Perm, Arkhangelsk, Chernomorsk, Alapaevsk and Moscow have found underwater passages connecting all the lakes of the cave and have navigated through all the widest underground tunnels, which have many smaller branches and air chambers under arched ceilings. They have laid out several kilometers of guide lines from thin cords the size of cheap packing string up to thick mountaineering ropes marking each new passage. Now, it all looks like a horrible mess—a confused cobweb put up by some new species, the “cave spider-monster”.

If you swim up from permanent guide lines in some places in the cave, you can find air bells on the ceiling. But please don't try to breath there without a regulator



pull out the guide line from the crack. He eventually made it out of the sump.

Intent on having this cave for themselves and not having other cave divers running around in it, Lavrov and Komarov decided not to speak to anybody about the cave for the time being.

Only three years later, in the snowy winter of 1997, 20 cave divers from different Russian cities arrived in Orda village at the invitation of Lavrov. The joint team of underwater cave explorers organized dives right

away into all the underground lakes of the cave.

They dived in buddy teams a couple of times a day, and there were enough first explorations in this huge system to go around for everybody. New underground labyrinths crossed huge halls, underwater passages and canyons disappeared in different directions and seemed endless.

### Current views

Today, it is known that the Ordinskaya Cave system is a horizontal gypsum labyrinth with-







Dry chambers past the sumps were explored. Topographical measurements, description and a map of the cave were made.

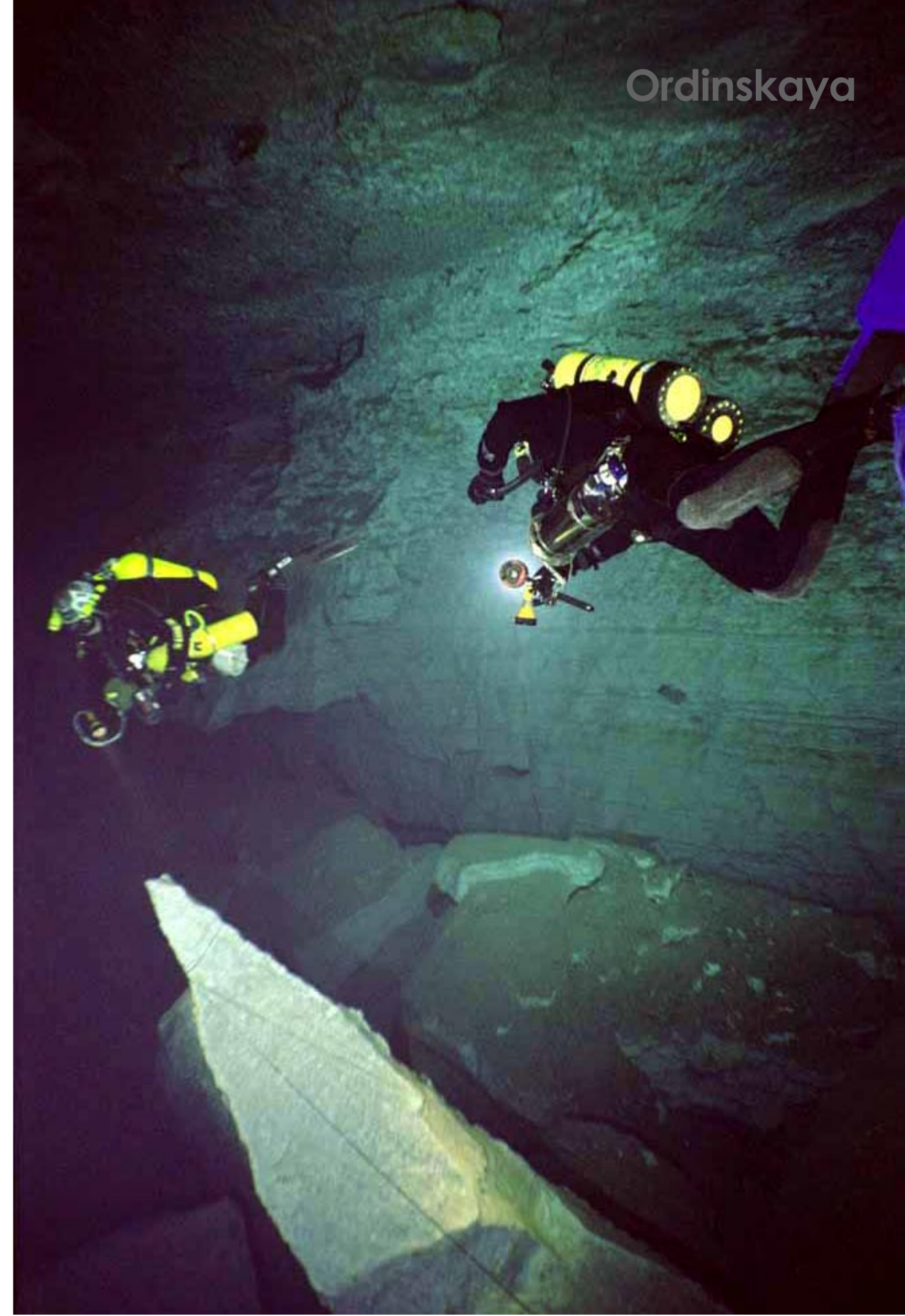
The total length of all known underwater cave passages exceeds 3.5 kilometers. The distance between the entrance lake and the furthest known underwater point in the cave equals one kilometer and 50 meters. The biggest underwater chamber has a diameter of about 60 meters. The water is so clear in this chamber that two divers swimming at the opposite ends of the chamber can still see one another.

The ongoing speleological exploration of Ordinskaya Cave has made it the most famous underwater Russian cave in a span of less than two years.

### Repeat customers

Underwater explorations in Ordinskaya Cave are so amazing and interesting that many divers, having dived there once, tend to come back again and again. The beauty of the cave has such a strong attraction that one simply does not want to get out of the water despite its numbing temperature of only 5° C. Some of the dives in Ordinskaya Cave have exceeded two hours.

Successful explorations of the



New snow falls out on the cave diver's camp close with Ordinskaya Cave. Peering down from the camp, you can see the Kungur River and Orda village on the opposite shore

CLOCKWISE FROM TOP LEFT: Many more people come to dive Ordinskaya Cave every year—an experience that makes them forget all about the Red Sea and the Maldives



## Ordinskaya

longest underwater cave in Russia have had a huge influence on the development and popularity of cave diving in our country. Enthusiastic accounts about diving this cave, about the accessibility of its entrance, the (relative) uncomplicated access to a very aesthetically and pleasant dive in clear water, huge underground spaces and the possibility of making new explorations keep enticing the curious and adventure-minded divers to this astonishing place. Even open water divers say that they experience something miraculous in Ordinskaya Cave that make them forget all about the Red Sea and the Maldives.

Local entrepreneurs have started to equip the cave for touring and to take money from visitors, so the outlook for the future of Ordinskaya Cave is somewhat dubious.

Ecological problems have already started to be an issue and a serious threat to the cave and its beauty. For many years the big limestone sinkhole, located above one of the cave chambers, was used as a huge rubbish pit—a big garbage bin. Now, the sinkhole, undermined from below by cave water, has started to collapse or cave in, so that now, all the decaying matter and sewage have started to percolate through the area and threaten to poison the once perfectly pure water in the cave. ■

For millions of years, layer upon layer, the cave accumulated gypsum sediment. Then water penetrated through the cracks into the deep parts of the Earth dissolving the gypsum over tens of thousand of years building the magnificent underground cave labyrinths we see today. Now cave explorers and enthusiasts study its underground phenomena and draw maps of this unique underwater cave system

