

The Longest and the Deepest Caves in Croatia

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Abstract

Here is the list of the longest and the deepest caves and pits in Croatia. In cadaster of the Croatian speleological features (caves and pits) are more than 8650 caves and pits. It is important to say that this cadaster does not contents all the speleological and karst phenomena, but only the speleological features - caves and pits according to the internationally recognised classifications namely, in some speleological cadasters we can find bigger doline, the bigger fissures in the rocks, natural bridges, all the karst springs, under sea springs, and some where even the artificial speleological objects (tunnels, catacombs, old mines, etc.). Also here are conditions for organising speleological expeditions in Croatia proposed by Croatian Speleological Federation, which will help foreign cavers and speleologists in organising such expeditions

Introduction

In almost 25 years of collecting and sorting the speleological data, with the help of the computers, we managed to make the cadaster of the Croatian speleological objects, that includes more than 8650 caves and pits. It is important to say that this cadaster does not contents all the speleological and karst phenomena, but only the speleological features - caves and pits according to the internationally recognised classifications namely, in some speleological cadasters we can find bigger doline, the bigger fissures in the rocks, natural bridges, all the karst springs, under sea springs, and some where even the artificial speleological objects (tunnels, catacombs, old mines, etc.). The rule of this cadaster is that only treated objects are those in which can be physically entered, in which diving's were done, and not those that are supposed to be connected with some speleological feature, with not enough evidence for that conclusion. Other objects must be added according to the degree of exploring (for example, springs and sinkholes, but only dived through and classificated in speleological objects, dolines only when are digged down the connection with some real speleological object, fissures enough widened for entering, etc.). According to geological and hydrogeological characteristics, it can be presumed that there are at least 20000 speleological objects in Croatia, most of them unknown and not explored yet.

There is a list of the 37 deepest and 45 longest caves in Croatia.

The deepest pits

In Croatia were explored about 6834 pits or 79 % of all speleological features in Croatian Dinaric Karst area. This means that vertical speleogenesis is more often than horisontal speleogenesis. Here is official list of 37 deepest pits deeper than 250 meters in Croatia (till 31.05.2001.):

1. Lukina jama - Trojama system	1392 m
2. Slovacka jama	1301 m
3. Stara skola	576 m
4. Vilimova jama (A - 2)	572 m
5. Patkov gust	553 m
6. Ledena (Ledenica) jama u Lomu	536m
7. Ponor na Bunjevcu (Bunovcu)	534 m
8. Jama Olimp I	531 m
9. Crveno jezero	528 m
10. Jama pod Kamenitim vratima	520 m
11. Amfora	515 m
12. Fantomska jama	477m
13. Munizaba	448 m
14. Stupina jama	413 m
15. Nova velika jama	380 m
16. Jama kod Raspora	361 m
17. Biokovka	359 m
18. Ponor Pepelarica	358 m
19. Punar u Luci	350 m
20. Klementina III	333 m
21. Podgracisce II (Titina jama)	329 m
22. Xantipa	323 m
23. Klanski ponor	320 m

24. Puhaljka	320 m
25. Zaboravna jama	311 m
26. Klementina IV	300 m
27. Burinka	290 m
28. Jama Kobiljak	286 m
29. Kicljeve jame (system)	285 m
30. Balinka	283 m
31. Ponor Bregi	273 m
32. Klementina I	269 m
33. Jama kod Matesic stana	260 m
34. Lokvarka	252 m
35. Pretnerova jama	252 m
37. Jama Marianna	250 m

23. Kaverna u tunelu "Ucka"	1490 m
24. Punar u Luci	1478 m
25. Debela Ljut	1448 m
26. Strmotica ponor	1437 m
27. Sariceva spilja	1378 m
28. Gornja Cerovacka spilja	1295 m
29. Ponor Kolinasi	1278 m
30. Rudeliceva spilja	1252 m
31. Matesiceva spilja	1246 m
32. Babina jama	1230 m
33. Mijatova jama	1204 m
34. Gatica	1195 m
35. Hajdova hiza	1188 m
36. Horvatova (Bezdanjaca pod Vatinov.)	1176 m
37. Jama kod Raspora	1106 m
38. Tamnica	1093 m
39. Jankoviceva spilja mala (ponor Adios.)	1087 m
40. Lukina jama - Trojama system	1078 m
41. Kicljeve jame system	1075 m
42. Rujnica	1052 m
43. Spilja Piskovica	1036 m
44. Kaverna u tunelu "Velebit"	1030 m
45. Rokina bezdana	1016 m

The Longest Caves

In Croatian Karst area were explored and surveyed about 1718 of caves or 20 % of all known speleological features in this Karst region. This means that in Dinaric karst area, caves are more rare than pits. Also there are about 1 % of caves which have entrances like pits, or pits which have entrances like pits. Their characters are unknown - pits or caves. We called them complex speleological features.

Here is official list of the longest 45 caves (longer than 1 km) in Croatia (till 31.05.2001.):

1. Dulin ponor (Dula) - Medvedica system	16396 m
2. Muskinja - Panjkova spilja system	12385 m
3. Spilja u kamenolomu Tounj	8487 m
4. Veternica	7100 m
5. Jopiceva spilja - Bent system	6570 m
6. Vilinska jama - Ombla cave system	3063 m
7. Gospodska spilja	3060 m
8. Donja Cerovacka spilja	2682 m
9. Slovacka jama	2414 m
10. Klementina I	2403 m
11. Mandelaja	2326 m
12. Munizaba	2300 m
13. Ponorac - Suvaja (sustav)	2232 m
14. Spilja za Gromackom vlakom	2171 m
15. Izvor Gojacke Dobre	2160 m
16. Ponor Bregi	2055 m
17. Kotlusa	2015 m
18. Kaverna u tunelu "Plat"	1985 m
19. Provala	1802 m
20. Spilja Miljacka II	1750 m
21. Markov ponor	1650 m
22-Ponor Vele vode	1495 m

The deepest and longest sumps

In the caves there are thousands of sumps, several hundreds of them were dived. Here is the list of deepest and longest sumps (deeper than 85 meters and longer than 400 meters) in Croatia.

1. Crveno jezero (depth 281 m, dive with heliox -181 m)
2. Glavas (-115 m), dive with heliox
3. Sinac (-103 m), dive with heliox,
4. Vruja Dubci (-102,5 m), dive with air,
5. Majerovo vrelo (depth-93 m, long 450 m), heliox
6. Izvor Kupe (-86 m), with air

The biggest vertical (pitch)

Croatian Cvaes are rather vertical, and the deepest pitch in one step is 553 meters in Patkov gust pit on Velebit mountain Here is the list of biggest verticals in caves and pits in Croatia (deeper than 200 meters)

1. Patkov gust	553 m
2. Lukina jama	320 m
3. Podgracisce II	237 m

4. Lukina jama	228 m
5. Balinka	218 m
6. Slovacka jama	213 m
7. Jama Marianna	210 m
8. Mamet	206 m
9. Munizaba	206 m
10. Stupina jama	205 m
11. Xantipa	200 m

Conditions for Organising Speleological Expeditions in Croatia

Croatian Speleological Federation, as national speleological association is proposing this terms that are following documents accepted by majority of UIS (Union Internationale de Speleologie) members at 12th International Speleological Congress, La Chaux-de-Fondes, Switzerland, 10th August 1997. For organising speleological explorations or visits (speleological expeditions) in Croatia, it is necessary to contact legitimate representative of UIS (association or individual) in the country from which the initiative comes. UIS representative from such country must send a letter of approval and support in the name of national speleological association (meaning also responsibility) to Croatian UIS representative. In the letter is needed to determine the expedition area, dates and time period, names of the expedition members, their associations, addresses, aims and objectives of the expedition, certifications about life insurance for all members, and certified document about paying eventual speleological rescue in Croatia. Letter must be sent no less than 6 month before expedition, and has to be addressed at:

CROATIAN SPELEOLOGICAL FEDERATION, Nova Ves 66 HR - 10000 Zagreb CROATIA, EUROPE
 fax/phone: **385 1 4666 586; **385 1 4668 475; GSM: **385 98 283 657; e-mail: mgarasic@public.srce.hr, URL: <http://jagor.srce.hr/~mgarasic/speleo.html>

Croatian Speleological Federation will take care for permissions (if such are needed for particular expedition) according to the Croatian Constitution and Laws, and will inform the organiser about it. Simultaneously Croatian Speleological Association will insure detail topographic and geological maps for expedition area. Submitting permissions and topographic (and geological) maps are to be paid by organiser. According to the number of participants, location, objective and other needs, Croatian Speleological

Association can order the escort for particular foreign speleological expedition. In Croatia it is forbidden and treated as criminal act to bring out any biological, geological, archaeological or other material from speleological objects (caves, pits and mines). For scientific or other purposes special licence can be issued by authorised Ministries, but the requisition has to be made in advance.

A newly discovered caves and pits - speleological features (without previous names) should be named according to the local toponimes in researched area. Each new cave entrance will get identification number (from Central speleological Cadastre, Croatian Speleological Association) for registration. Organiser should suggest the name but it has to be approved by Croatian Speleological Association. Without such approval none can publish the data about new found caves in Croatia. The leader of the expedition has to inform the Croatian escort and Croatian Speleological Association about the results of expedition in short written report. No later than 6 months after expedition, organiser is obligated to submit complete and detail report (position of the cave or pit, detailed outline, description, photos, and other data) in 2 copies. The future possibilities for certain association to organise such expeditions in Croatia is determined by respectation of this terms. If foreign speleologists are participating in expedition organised by some Croatian speleological societies or clubs, and are invited by Croatian Speleological Federation, they need not apply to Croatian Speleological Federation in order to get permissions, because Croatian organiser will take care of that according to the Constitution and Laws.

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