

cave system: ŠKOCJANSKE JAME

result of a river with two names and two faces

REKA – TIMAVO

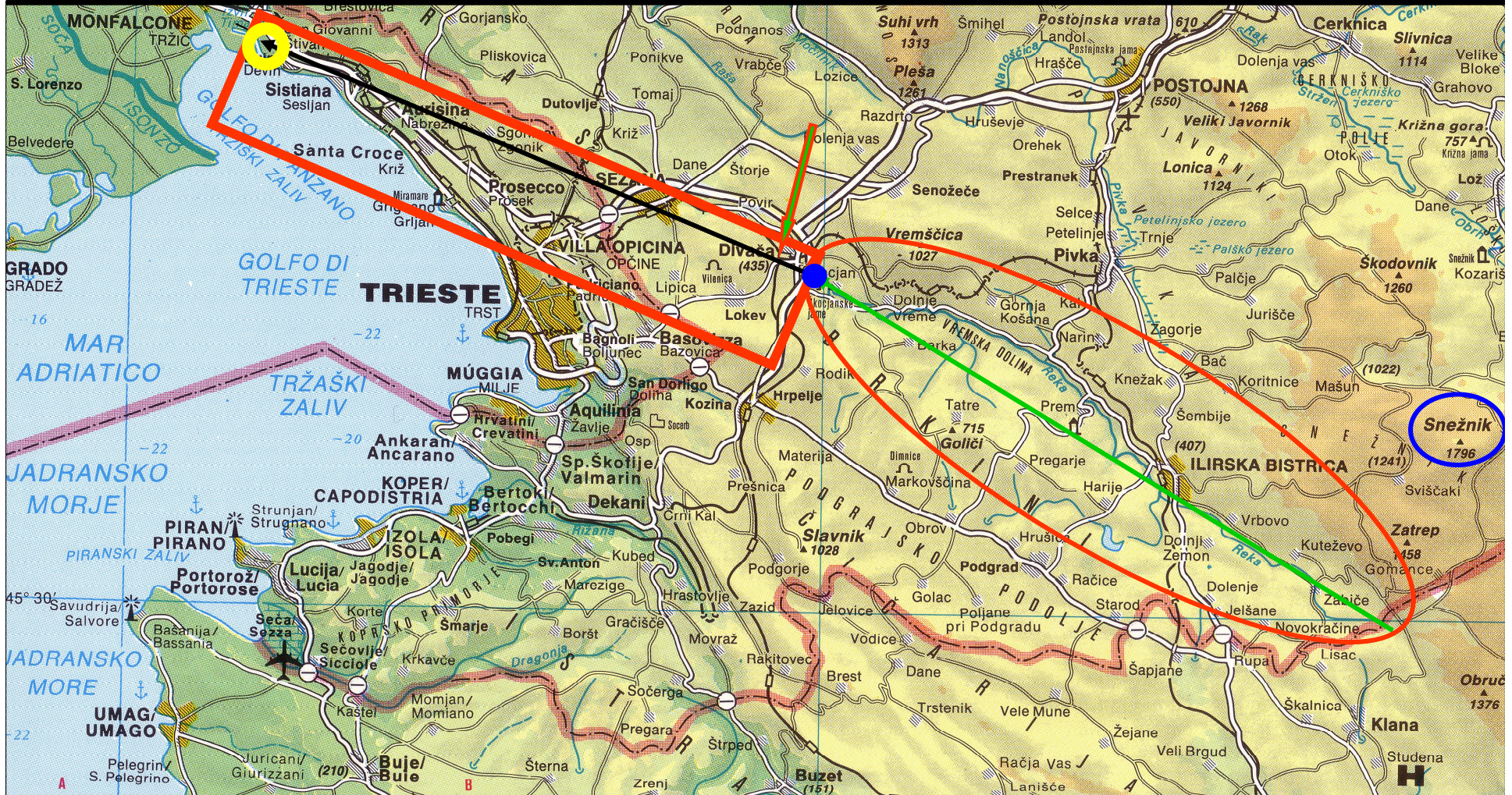
(Slovenia)

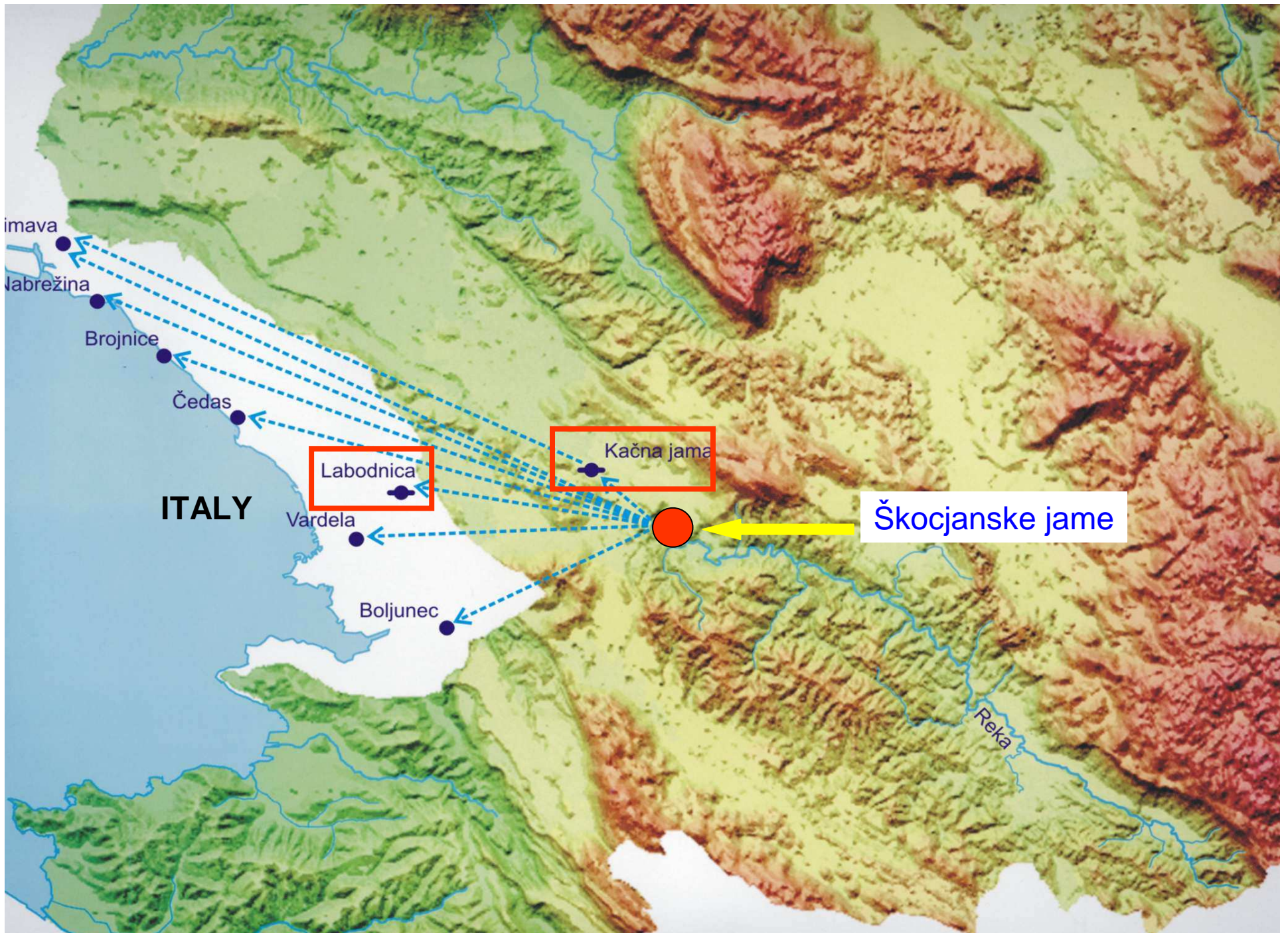
(Italy)

Anton BRANCELJ
National Institute of Biology
Večna pot 111
1000 Ljubljana

Some facts:

- catchment area (surface only): 323 square km
- length of the surface river network: 617 km
- spring to source - as crow fly: 110 km (aprox.)





FACTS ABOUT ŠKOCJANSKE JAME:

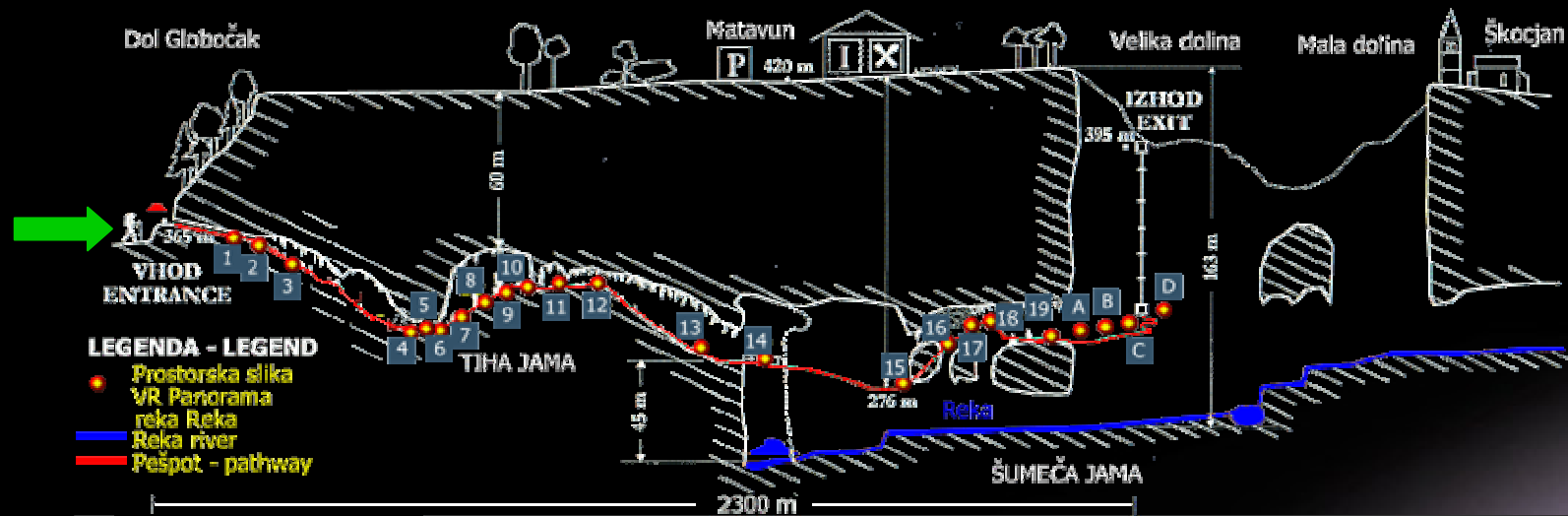
- length – 6200 m
- depth – 233 m
- water level oscillations – 20 /100/ 132 m

Two parts: - dry galleries (*fossil part*)
- channel (canyon) with river (*active part*)

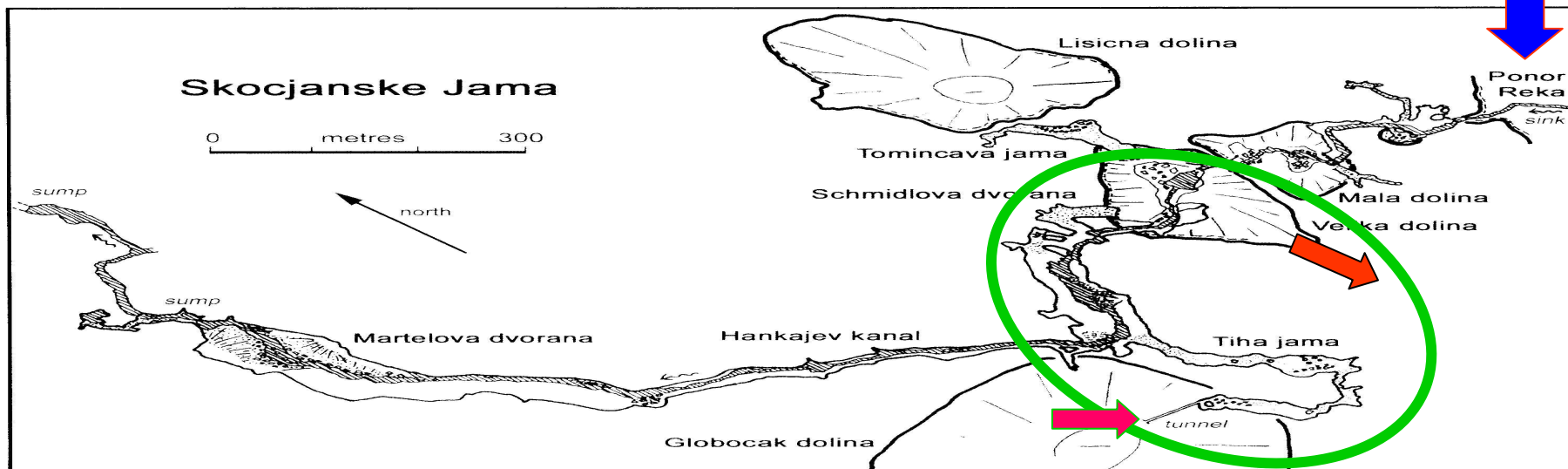


- Hanke's Passage
- c. 1 km long
 - min. 10 – 15 m wide
 - max. 95 m high
 - huge hall at the end

PLAN of the system of ŠKOCJANSKE JAME



654 ŠKOCJANSKE JAMA, SLOVENIA



FACTS ABOUT ŠKOCJANSKE JAME (& park):

- **UNESCO world (natural) heritage** – since 28.11.1986
- **Ramsar site: Underground Karst Wetland**– since 18.5.1999
- **Natura 2000** - since 2000
- **M&B (UNESCO): The Karst Biosphere Reserve** -since 29.10.2004

FAUNA IN THE RIVER REKA:

- epigeal part:
 - fauna typical for inland water (dominance of insects' larvae)
- subterranean part:
 - heavily polluted in the past
 - improving in the last decade



HYPOGEAN FAUNA:

Terrestrial fauna: rich in troglobionts

(arthropods: Colleoptera, Millipeds, Mollusca, ...)

Egon PRETNER

- entrance part: colony of bats →
guano deposits !

Aquatic fauna:

History:

Stammer – 1931 – the most complete survey

Plesa – 1968 - epikarst

Petkovski & Brancelj – 1986 – epikarst

Stoch – Italian part of the river (1980-90)

Pipan & Brancelj – 2002 - epikarst

SOME REPRESENTATIVES OF STYGOBIONTS FROM THE RIVER:

- *Niphargus timavi* – endemic



- *Marifugia cavatica*

- *Sphaeromides virei*



- *Asellus aquaticus cavernicolus*

- *Troglocaris* sp.



LIST OF SPECIES FOUND IN ŠKOCJANSKE JAME

Acanthocyclops	hypogeus		Astacus	fluviatilis		Niphargus	krameri timavi
Acanthocyclops	venustus stammeri		Atractides	amplexus		Ephidatia	muelleri
Attheyella	crassa		Baetis	sp.		Zospeum	spelaeum spelaeum
Bryocamptus	pygmaeus		Bourletiella	signata		Titanethes	dahli
Canthocamptus	staphylinus		Caenis	sp.		Trichodrilus	sp.
Diacyclops	bisetosus		Centroptilum	sp.		Paranais	naidina
Diacyclops	clandestinus		Ceriodaphnia	laticaudata			
Diacyclops	languidus		Chloroperla	sp.			
Echinocamptus	pilosus		Choroterpes	sp.			
Elaphoidella	cvetkae		Cyclops	strenuus			
Elaphoidella	kieferi		Cyclops	vernalis			
Elaphoidella	jeanneli		Cyclops	viridis			
Eucyclops	serrulatus		Cypridopsis	vidua			
Macrocyclus	albidus		Dina	lineata			
Megacyclus	viridis		Ecdyonurus	sp.			
Moraria	stankovitchi		Ephidatia	muelleri f. typica			
Moraria	varica		Eucyclops	serrulatus			
Moraria	scotenophila		Haber	monfalconensis			
Paracyclops	fimbriatus		Habrophlebia	sp.			
Speocyclops	infemus		Hygrobates	calliger			
			Hygrobates	longipalpis			
			Hypogastrura	armata			
			Leptodora	pellucida			
			Limnius	sp.			
			Macrocyclus	albidus			
			Megapus	abditus			
			Nais	communis			
			Paraleptophlebia	sp.			
			Perla	abdominalis			
			Rhithrogena	sp.			
			Rivulogammarus	pulex danubialis			
			Tubifex	speciosus			

58 taxa

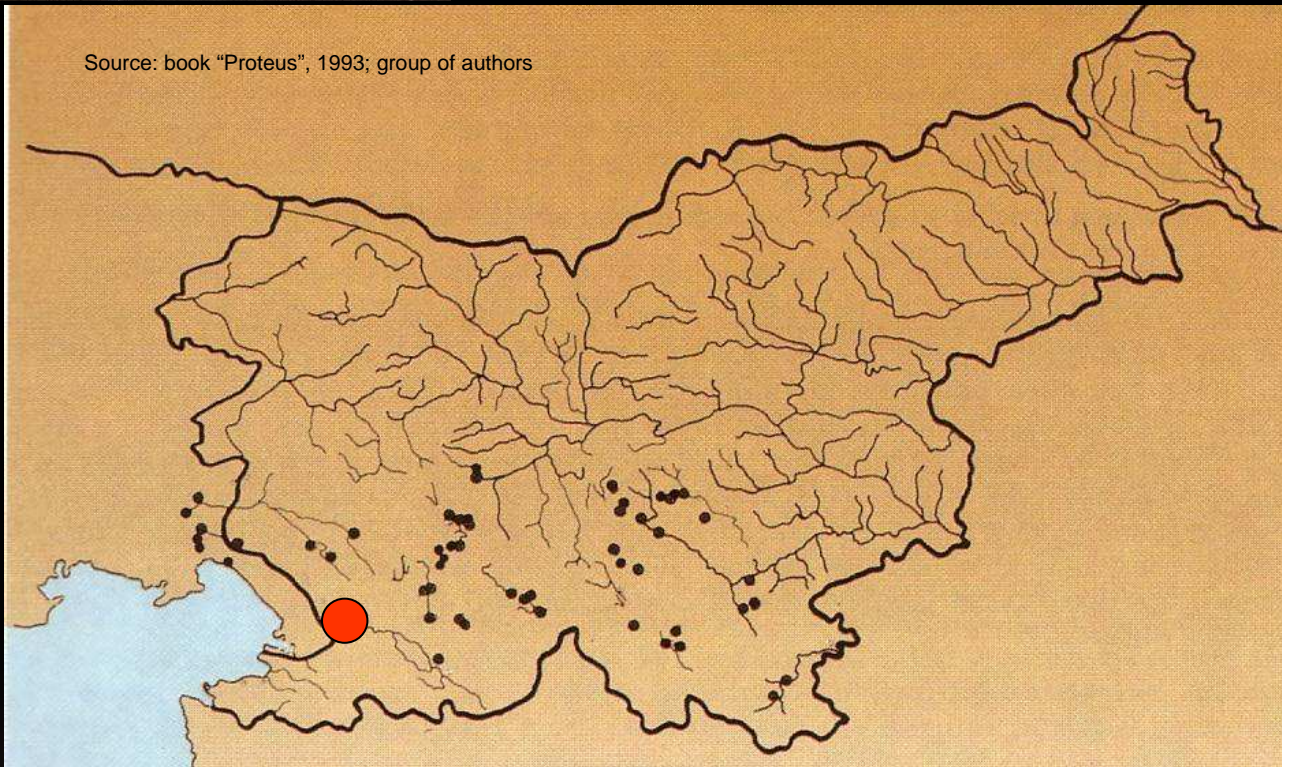
Proteus anguinus = cave salamander = “human fish”



Photo: Arne Hodalič

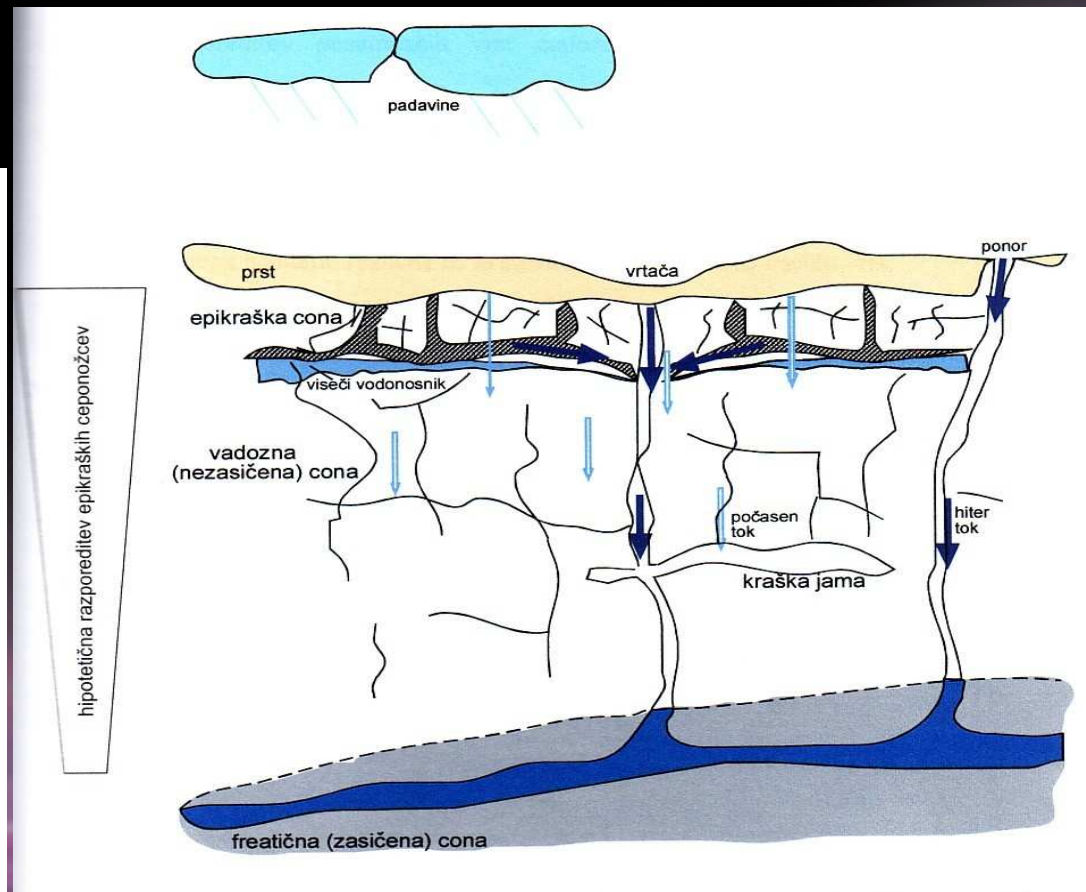
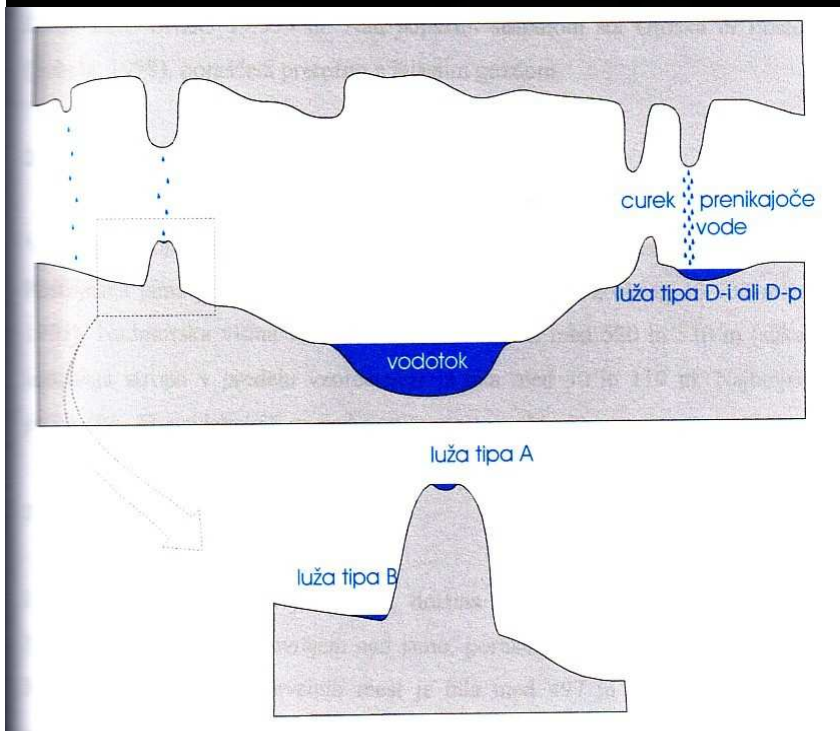
Lacations in Slovenia
and Italy

Source: book “Proteus”, 1993; group of authors



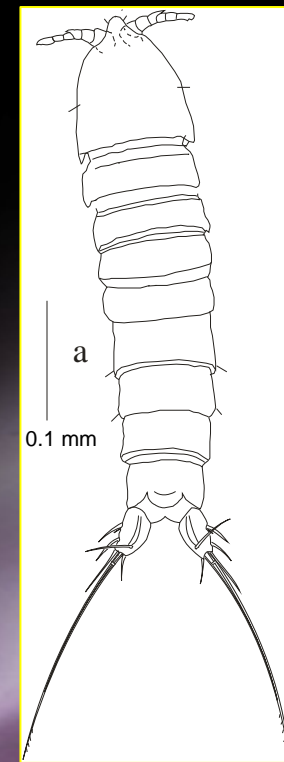
EPIKARST IN ŠKOCJANSKE JAME

- **epikast** – upper part of vadose zone = “skin of the karst”
- special sampling technique



EPIKARST IN ŠKOCJANSKE JAME

- very rich in fauna of Copepoda (15 taxa)
- a lot of endemics
- not directly connected with the river





THANK YOU FOR YOUR ATTENTION!

Some more information during the excursion!

