

YTIVARG - There, and back again. Sump II, JF-4 Kazad-Dum, Junee-Florentine Karst, Tasmania.

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Southern Tasmanian Caverneers

Kazad-Dum Cave terminates in a sump at -267 m. Only two attempts have previously been made to push this sump; the results were inconclusive. What does it take to get diving gear to this remote location? What was found?

The slides for this presentation are provided in Appendix F.



Appendix F - YTIVARG - There, and back again. Sump II, JF-4 Kazad-Dum, Junee-Florentine Karst, Tasmania.



YTIVARG – There, and back again



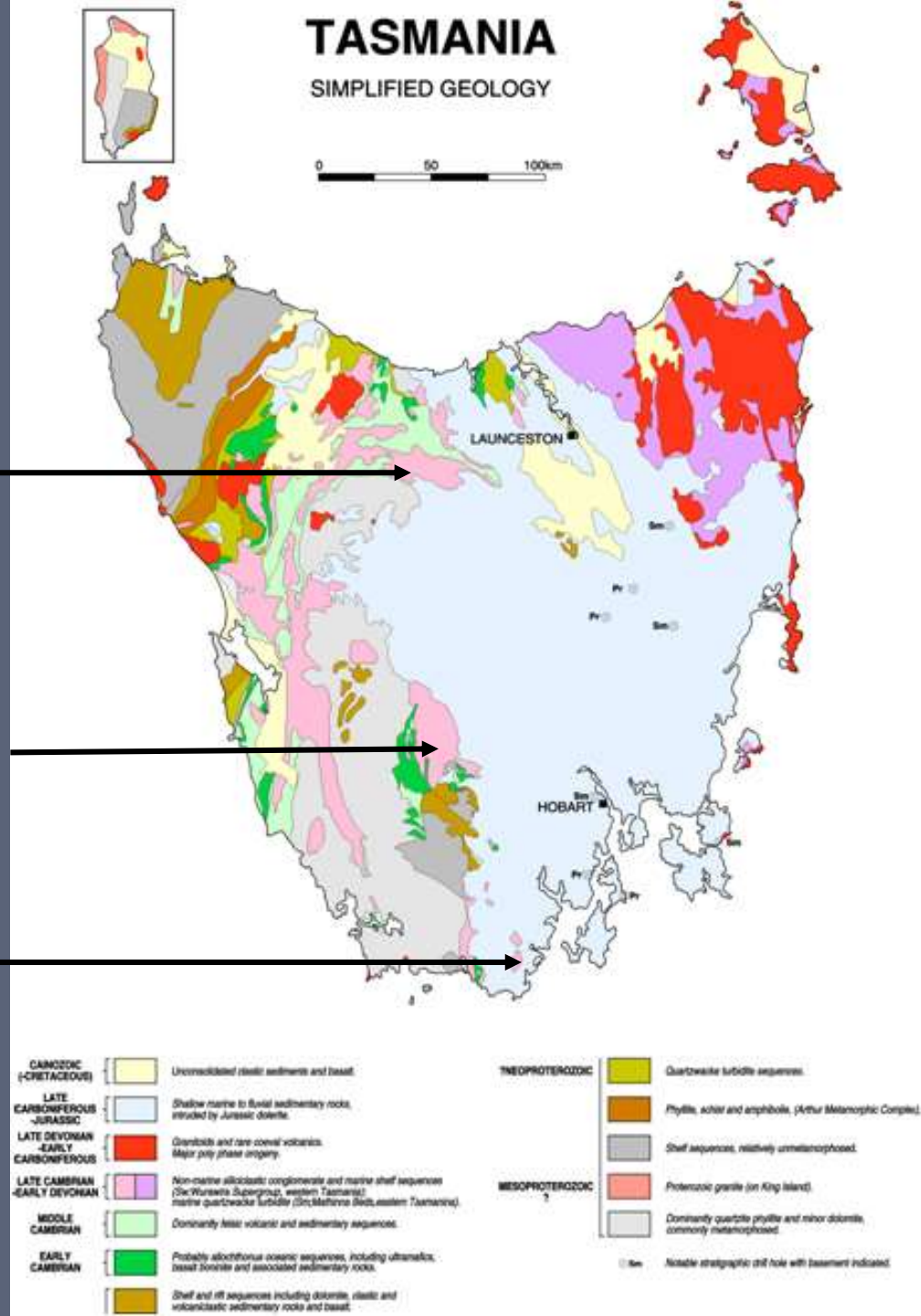
Exploration in:
Sump II, *JF-4 Khazad-Dum*
Junee-Florentine Karst, Tasmania.

Major Karst Areas

MC Mole Creek

JF Junee Florentine

IB Ida Bay



JF-11 Rainbow Cave



Florentine River

Surface Divide

Junee River

JF-36 Growling Swallet



JF-4 Khazad Dum

Junee Cave catchment boundary

JF-8 Junee Cave



1000m

**JUNEE RIVER KARST STUDY
CAVES AND KARST HYDROLOGY**

- streamlink
- mapped cave passages
- confirmed subterranean flow path with flow direction indicated
- inferred subterranean flow path with flow direction indicated
- Junee Cave catchment boundary

A map to accompany:

Blackard, S. 1996.
Inventory & Management of the Junee River Karst System
Tennessee, a report to **Tenneco**.

Cave sources depicted here have been carried out by members of the Tennessee Caving Club and the Southern Caving Society. This map incorporates the result of earlier water tracing studies by Horne (1951), Goode (1975), and Chesser (1975).











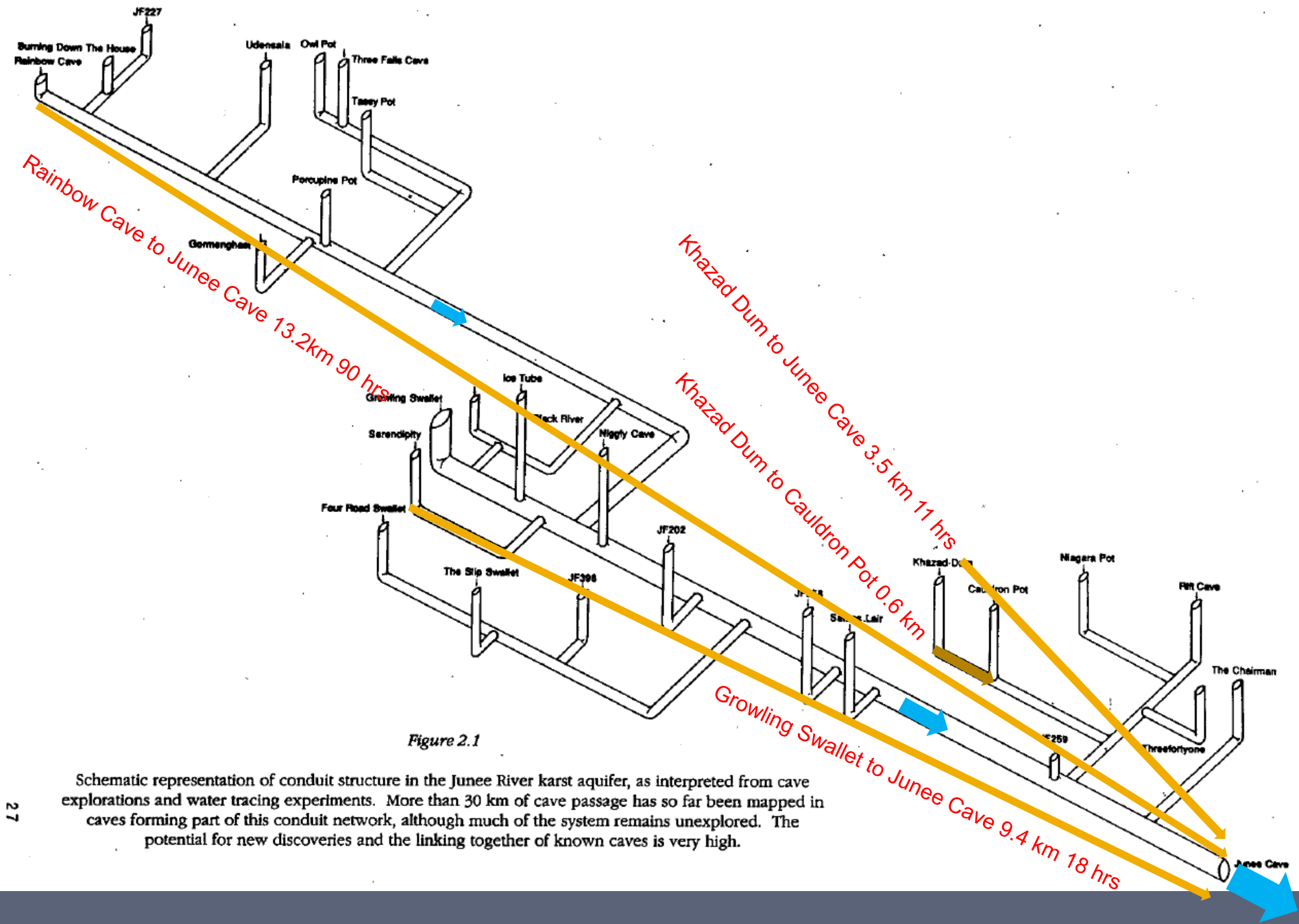








Cauldron Pot



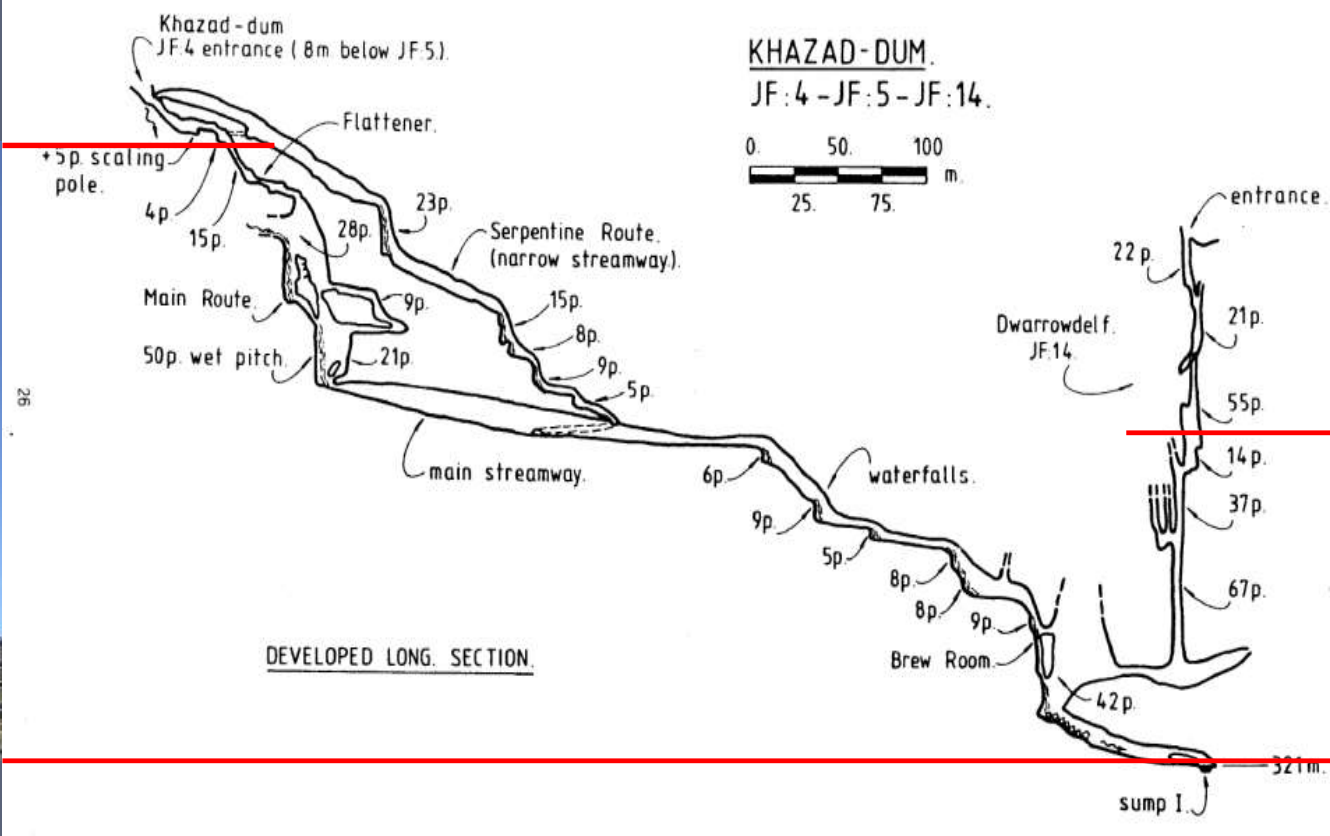




Sump II, JF-4 Khazad-Dum

Why?

- Add 50m to cave system depth.
- Open lead.
- Because it's there.



Eureka Tower
Melbourne
298m
(Tallest
building to
roof in
Australia)

JF-4 Khazad Dum extended section

Central
Park
Perth
226m to
roof

How?

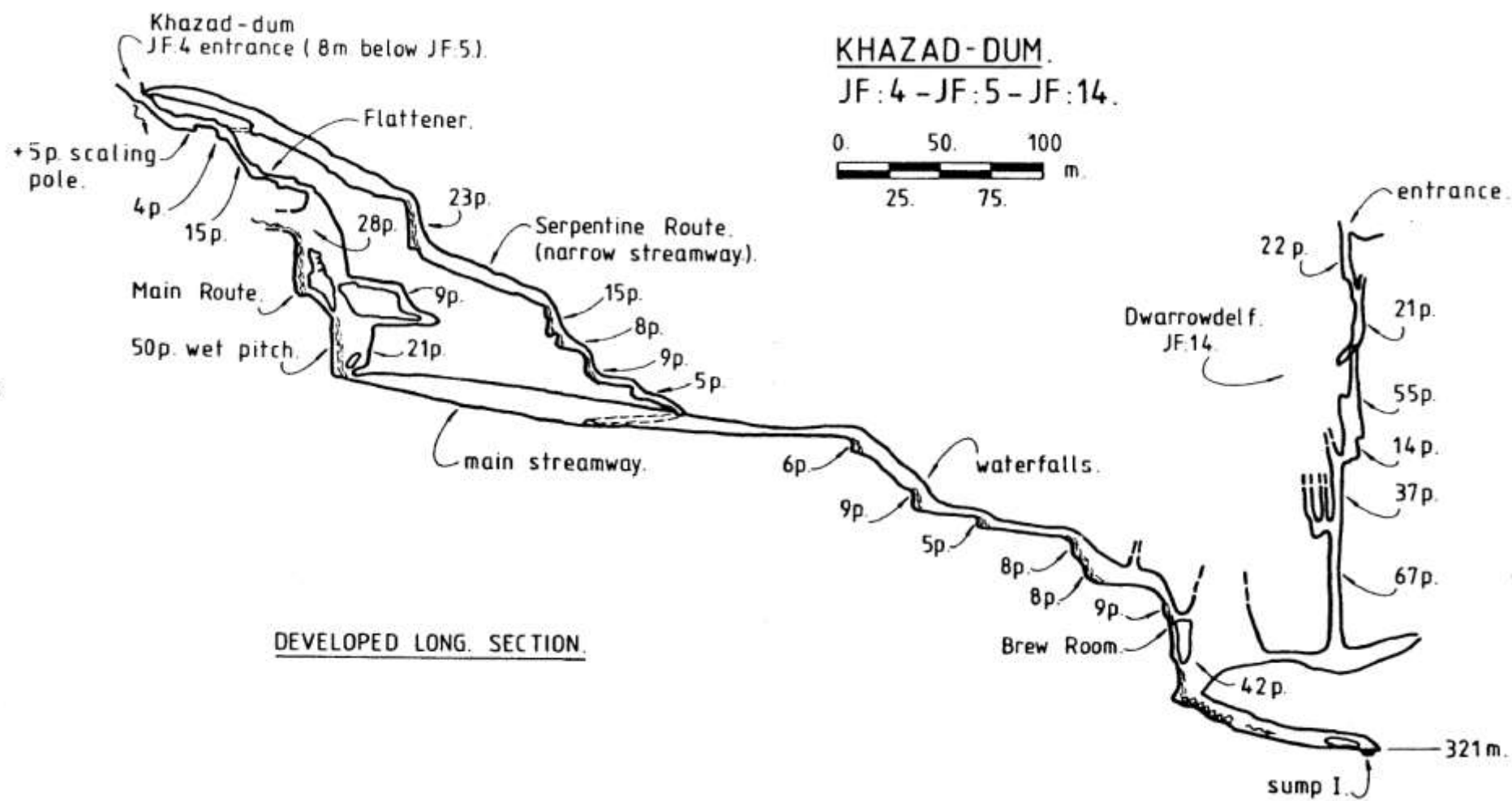
- Research.

Previous dives

- **1987.** Phil Hill. 1 dive. 7 minutes. N direction along rift. Too narrow after 35m.
- **2005.** Stefan Eberhard. 1 trip/2 dives. SW direction.
- He “...continued on through small horizontal passage ...The passage curved to the right and appeared to be trending upwards slightly at my furthest point,.. i.e. it's still going .”

How?


- **Research.**
- **When?**
- **Access - KD or Dwarfrowdelf ?**





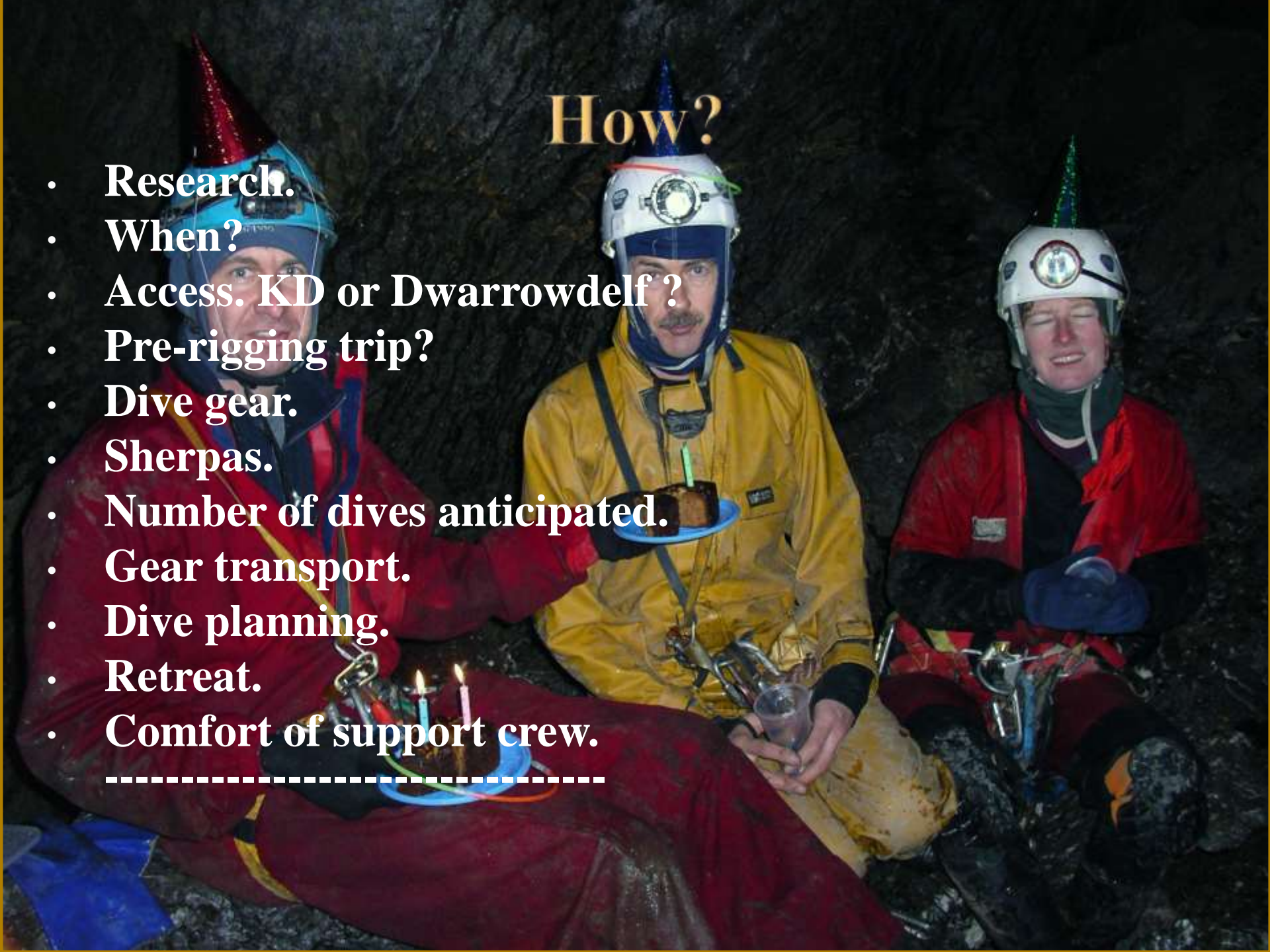


Dwarrowdelf access

- 
- A person wearing a yellow protective suit, a silver helmet, and green gloves is working on a dark, layered rock face. They are positioned in the center-left of the frame, facing right. The rock surface is highly textured with horizontal layers and some vertical cracks. A metal ring is visible on the rock face to the right of the person. The background is a continuation of the rock face, showing more layers and some lighter-colored areas.
- ▣ pitches - 22m, 21m, 55m, 14m, 37m, 67m
 - ▣ then 20m handline
 - ▣ then along about 100m of crawls and restrictions.

How?

- Research.
 - When?
 - Access. KD or Dwarrowdelf ?
 - Pre-rigging trip?
 - Dive gear.
 - Sherpas.
 - Number of dives anticipated.
 - Gear transport.
 - Dive planning.
 - Retreat.
 - Comfort of support crew.
-











Dive trip 1



























Dive 1

- Pool depth 17m.
- Line buried in deep silt but intact.
- Small passage (0.5m H X 1.5m W) going SW.
- Reached end of Stefan's exploration.
- Water temperature: 6°C.
- Numerous white *Anaspides tasmanie*



Anaspides tasmanie

Dive 2

- ▣ Visibility in pool cleared to 0.5m again, visibility in side passage still zero.
- ▣ Added 7 metres new line.
- ▣ Passage tending upward at 45 degrees, narrowing significantly, and lowering.
- ▣ Dive time: 25 minutes.

Dive trip 2

- One week later.
- Tanks refilled. Drysuit, undersuit, delicate gear carried in again.
- Heavy rain during the week.

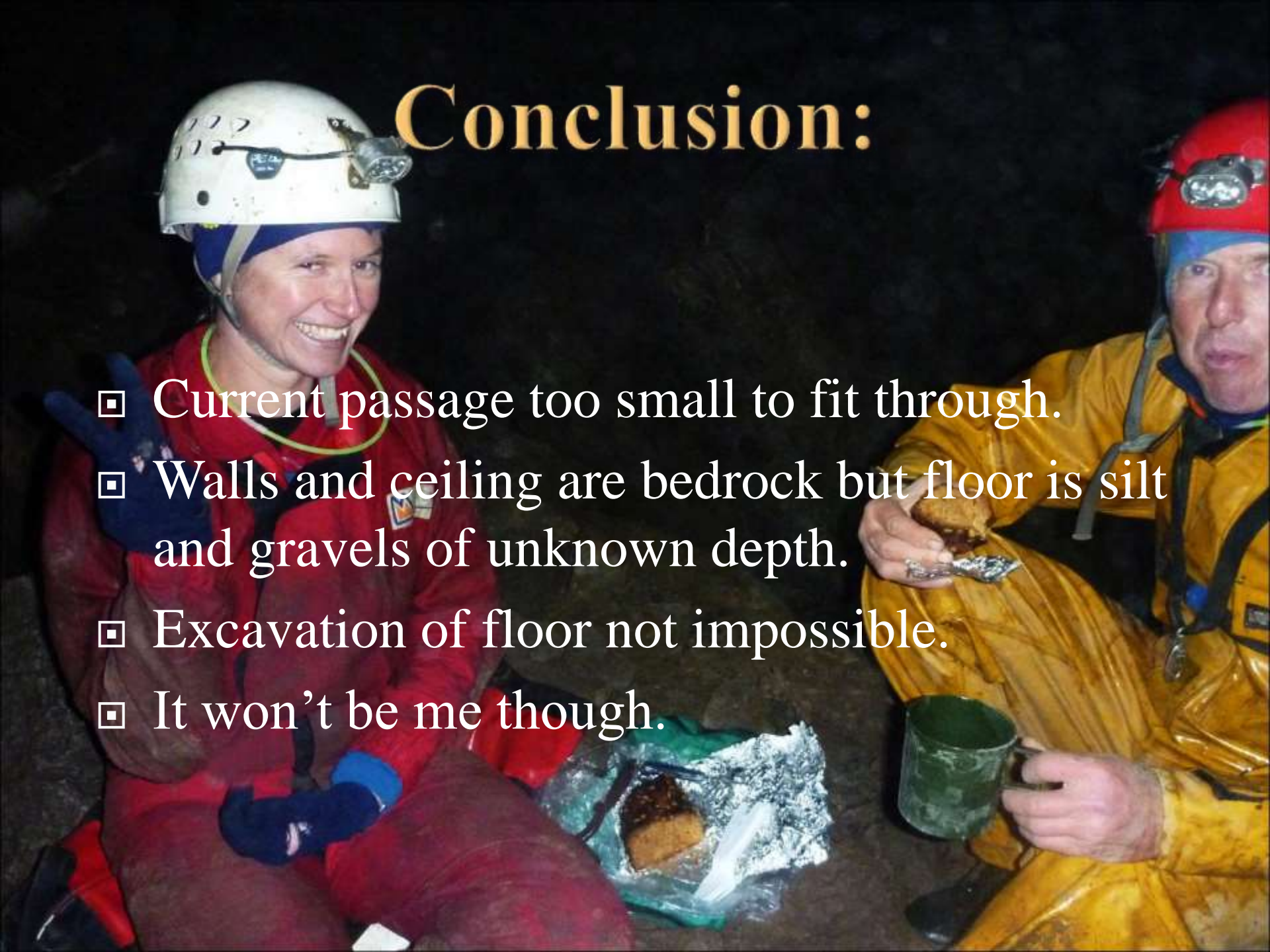


Dive 3

- ▣ Visibility 15 cm.
- ▣ Gained 5 m more.
- ▣ Unable to fit head through restriction.
- ▣ Started systematic search of pool.
- ▣ No other leads found.
- ▣ Dive time: 30 minutes

Conclusion:


- ▣ Current passage too small to fit through.
- ▣ Walls and ceiling are bedrock but floor is silt and gravels of unknown depth.
- ▣ Excavation of floor not impossible.
- ▣ It won't be me though.



Surveying - why not?

- ▣ Exploration line did not have knots.
- ▣ 6°C water temperature limits dive time per dive. Extra dives required.
- ▣ Inflow, high silt dive. Very short survey time per dive.
- ▣ Skills and fitness required of sherpas limits available sherpas for multiple survey trips.
- ▣ Cave does not “go”.

Overview

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- A diver wearing a bright yellow wetsuit and a red helmet with a headlamp is rappelling down a dark, moss-covered rock face. The diver is smiling and looking towards the camera. Two ropes are visible, secured with carabiners and red slings at the top. The background is filled with dense green ferns and moss.
- 4 trips - 1 Rigging, 2 dive, 1 de-rigging
 - 40 kgs of dive gear to sump and return once
 - 25 kgs of dive gear did the trip twice
 - Approx. 12m new cave gained

Special thanks to:
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Photo credits:
Janine McKinnon
Jane Pulford
Ric Tunney
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