

EUCRYPHIA CAVE F60, RICHEA CAVE F59

Surveyed : S. Harris, R. Cosgrove, C. Rathbone

Drawn : S. Harris

Surveyed on 5th March 1982

A.S.F. Grade 54

Scale :

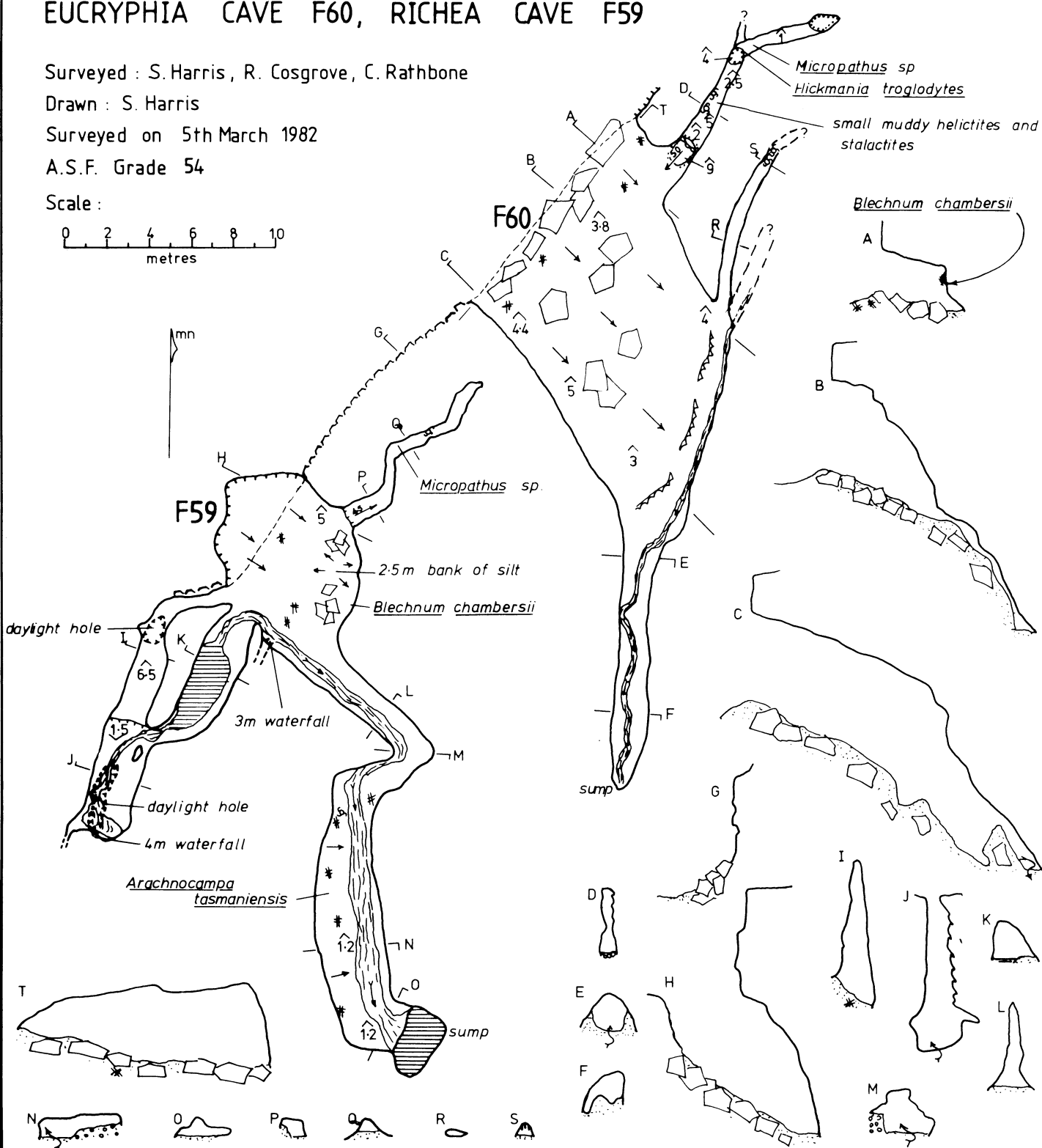
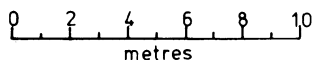


FIGURE I MAP OF RICHEA CAVE F59 AND EUCRYPHIA CAVE F60.

NEW CAVES ON THE FRANKLIN RIVER

by

Stephen Harris

Tasmanian National Parks & Wildlife Service

Six new caves discovered on the Franklin River (South West Tasmania) during March 1982 have been mapped, these include the longest known cave in the Franklin River area - Biglandulosum Cave with a surveyed length of 366 metres and passages yet to be explored and surveyed. Two caves discovered and explored by the Sydney Speleological Society Expedition in January 1977 have been resurveyed and these contiguous caves have been named Richea Cave (F59) and Eucryphia Cave (F60).

Five of the eight caves contain archaeological relics. All these caves have been named for plants which are typical of the South West Tasmania riverine rainforest.

HYMENOPHYLLUM CAVE F61

Surveyed: R COSGROVE , S.H.

Drawn: S.H.

Surveyed on 7th March 1982

ASF Grade 44

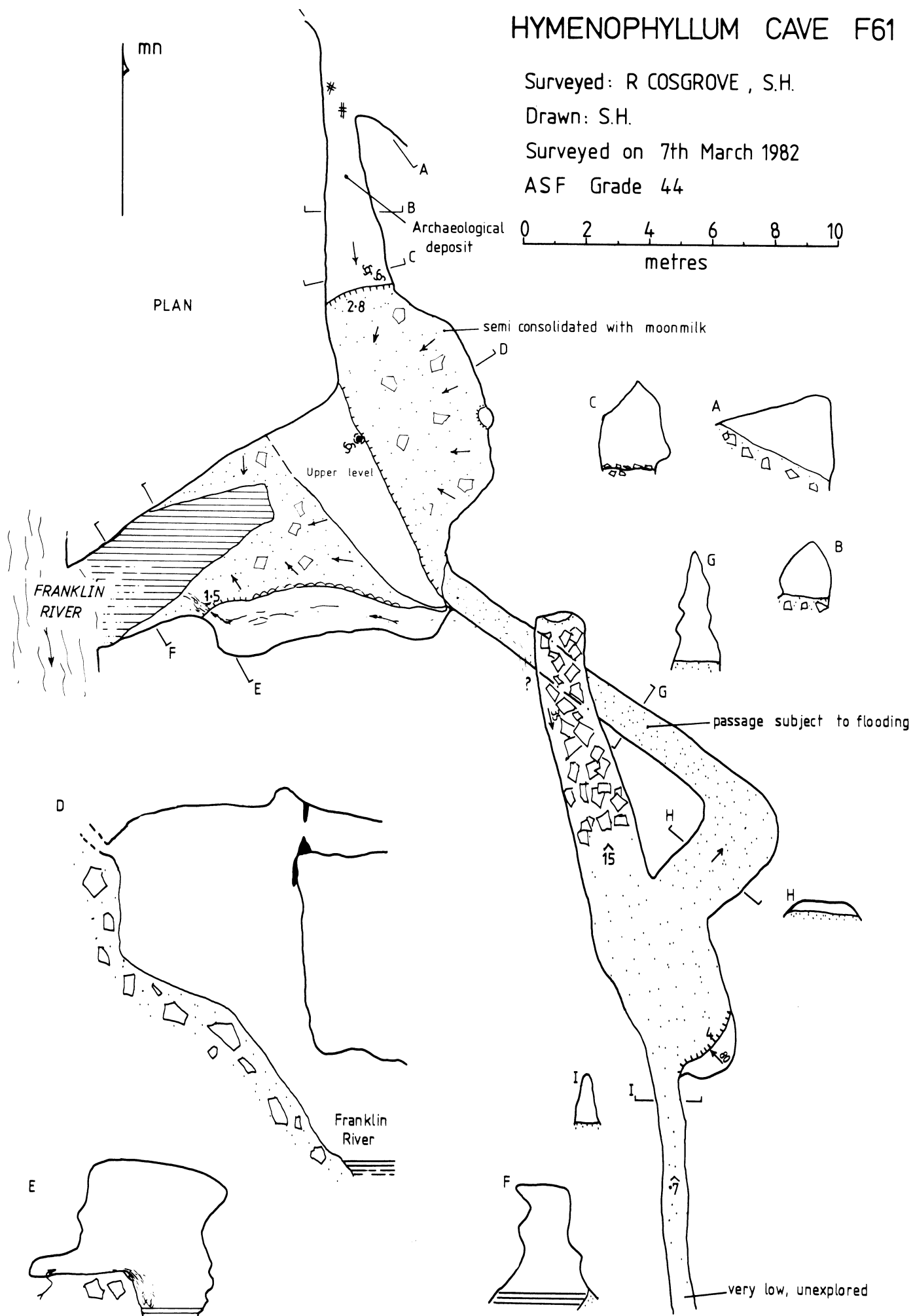


FIGURE II MAP OF HYMENOPHYLLUM CAVE F61.

INTRODUCTION

Between 22nd February and 16 March 1982 a joint Tasmanian National Parks and Wildlife Service and Australian National University expedition, continued the systematic search for archaeological sites in the densely forested Franklin River valley, south west Tasmania.

Following the discovery of prehistoric sites in suitable cave entrances in 1981 (for example see Kiernan, Jones and Ranson 1983), the continuing search for sites was guided by maps and information compiled by various expeditions of the Sydney Speleological Society and summarised by Middleton (1979). In the course of examining known caves, a number of new caves were discovered. Lack of time precluded proper surveying of all of them and only the six which were surveyed are described here. In addition two known and previously surveyed (see map No: 35 in Middleton, 1979) caves were resurveyed, named and given numbers (F59, F60).

Five of the caves contain archaeological relics, these being Eucryphia Cave (F60), Hymenphyllum Cave (F61), Milligania Cave (F63), Biglandulosum Cave (F66), Aristotelia Cave (F69).

The caves have been named at the suggestion of Dr. Rhys Jones, for plants which are typical of the South West Tasmania riverine rainforest. These names should be regarded as temporary, pending Tasmanian Nomenclature Board approval.

CAVE DESCRIPTIONS

RICHEA CAVE (F59). (Figure 1)

This cave was discovered and surveyed by the Sydney Speleological Society in January 1977, a brief description and a rough sketch map appearing in Middleton (1979). The cave was resurveyed. It is an active stream cave with a sizeable creek entering by a 4m waterfall. Within the cave a tributary creek enters from an unexplored upper level by a 3m waterfall.

The cave is about 62m long with a cliffed entrance doline and 2 daylight holes. The downstream end terminates in a sump. That portion of the passage upstream from the 3m waterfall tributary has smooth limestone floor and walls and no silt or rubble, in contrast to the passage further downstream.

There is no noteworthy speleothem development in this cave.

Glow worms (*Arachnocampa tasmaniensis*), cave crickets (*Micropathus* sp) and freshwater shrimp (*Anaspidies* sp) were observed. A fly of the family Tipulidae (Crane Flies) was observed at the sump.

Richea is the generic name of the pandani palm (*Richea pandanifolia*) common along the Lower Franklin River, particularly above limestone bluffs near the river.

EUCRYPHIA CAVE (F60). (Figure 1)

This cave was also discovered and surveyed along with F59, by S.S.S. in 1977. In 1982 stone tools were discovered in the entrance chamber which prompted a careful re-survey of the cave.

The cave, 53m long, contains some stalactites and small helictites in its small passages but otherwise exhibits poor speleothem development. At the base of the steep talus and mud-floored slope in the entrance chamber is a trickle of a stream which meets a sump. This presumably flows towards the sump in F59, a connection postulated by Middleton (1979).

Cave crickets (*Micropathus* sp) and the Tasmanian cave spider (*Hickmania troglodytes*) were observed in the upper level passage. The fern *Blechnum chambersii* occurs on a back wall of the entrance chamber in low light conditions.

The Tasmanian endemic leatherwood, *Eucryphia lucida* is a major component of the rainforest.

MILLIGANIA CAVE F63

Surveyed: S. Harris R. Cosgrove

Drawn: S.H.

Surveyed on 1st March 1982

ASF Grade 54

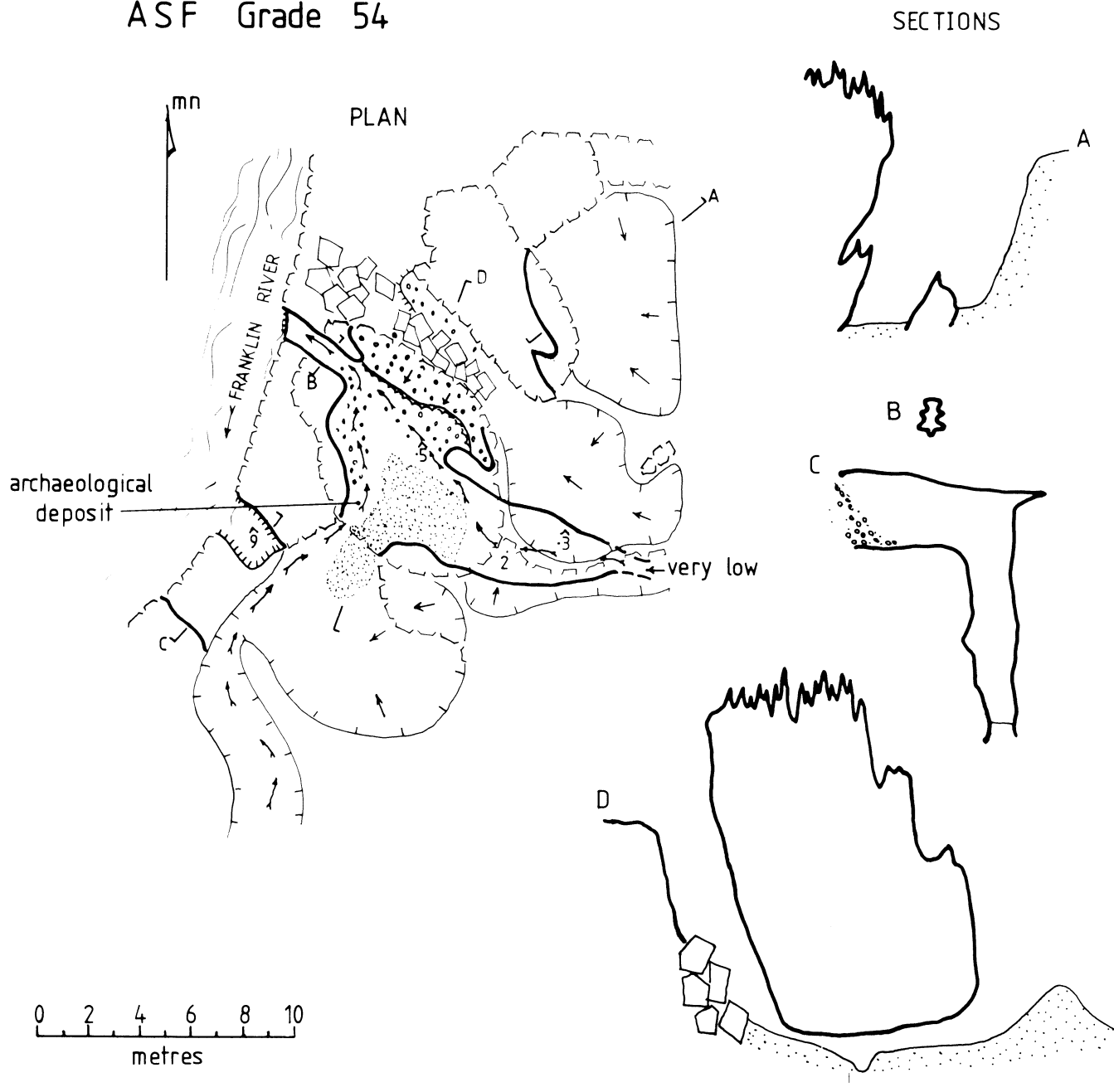


FIGURE III MAP OF MILLIGANIA CAVE F63.

HYMENOPHYLLUM CAVE (F61). (Figure II)

Artefacts were discovered in 1982 in the northern entrance to this cave.

This cave remains to be fully explored but the present surveyed length is 61m and comprises 2 major levels, the upper level conforming to a direction of 340° while a lower level passage is developed in a direction of 307° .

Some attractive stalactites, stalagmites and flowstone occur on an upper level balcony. Speleothem development elsewhere in the cave is minimal. The lower level passage contains much silt and would completely fill with water during any normal flood of the Franklin River.

Hymenophyllum is the generic name of a group of delicate filmy ferns which are ubiquitous in these rainforests.

MILLIGANIA CAVE (F63). (Figure III)

Although it is only 22m long this attractive cave is surrounded by a complex microtopography of cliffs, dolines and bluffs. Stone tools were found on the floor of this cave.

Although there is little speleothem development, the cave and its immediate surroundings are geomorphologically fascinating. For example the passage at cross section B has the classic form of a phreatic tube with scalloping on the smooth walls, while the floor has a neat small vadose trench carrying the present tiny stream. On the bluffs above the cave there is spectacular rillenkarr development often on either side of sharp crests.

Milligania longifolia is the endemic lily known only from the riverside limestone cliffs of the Lower Franklin and Lower Gordon Rivers.

ANOPTERUS CAVE (F65). (Figure IV)

This small cave of 17m length occurs in a low ridge about 200m north east of Bingham Arch. It is dry, floored with angular limestone boulders, and is nowhere subject to total darkness. Some stalactites and stalagmites occur.

Cave crickets (*Micropathus* sp) and Tasmanian cave spiders (*Hickmania troglodytes*) are present. There are signs of the cave having been used as an animal lair.

Surrounding this cave, the Tasmanian endemic *Anopterus glandulosus* is a prominent and attractive tree in the rainforest understorey.

BIGLANDULOSUM CAVE (F66). (Figure V)

This basically horizontal cave is strongly joint controlled with two sets of passage directions more or less at right angles (trending 334° and 64°). With a surveyed length so far of 366m, it is the longest cave known for the area. The cave has 6 known entrances, each of these being in small dolines on the north western side of a large ridge. The extensive archaeological deposit occupies the largest of the entrances. Elevation of this main entrance above the present average summer water level of the Franklin River is 33m^{\pm} .

The cave passages seem to be of phreatic origin with domed ceiling pockets and generally smoothly sculptured profiles. Thick banks of alluvial sediments occur in the cave, these apparently once filling the cave, but since this time there has been settling and weak consolidation of the deposits and subsequent subsidence and basal re-excavation of these sediments by very small present streams occupying a poorly developed lower level set of passages.

This cave is richly endowed with speleothems and includes the following formations : gypsum flowers and crusts, straws up to 1.5m long, flowstone, heligmites, helictites, stalagmites and straw columns up to 1m high. Some clay floor deposit has shrunk into polygons and such areas are extensive in part of the cave.

BIGLANDULOSUM CAVE F66

Surveyed: S. HARRIS M. SOUTON M. FREESTONE

Drawn: S. HARRIS

Surveyed on 13th and 14th MARCH 1982

A.S.F. Grade 54

Surveyed Cave Length: 366 metres

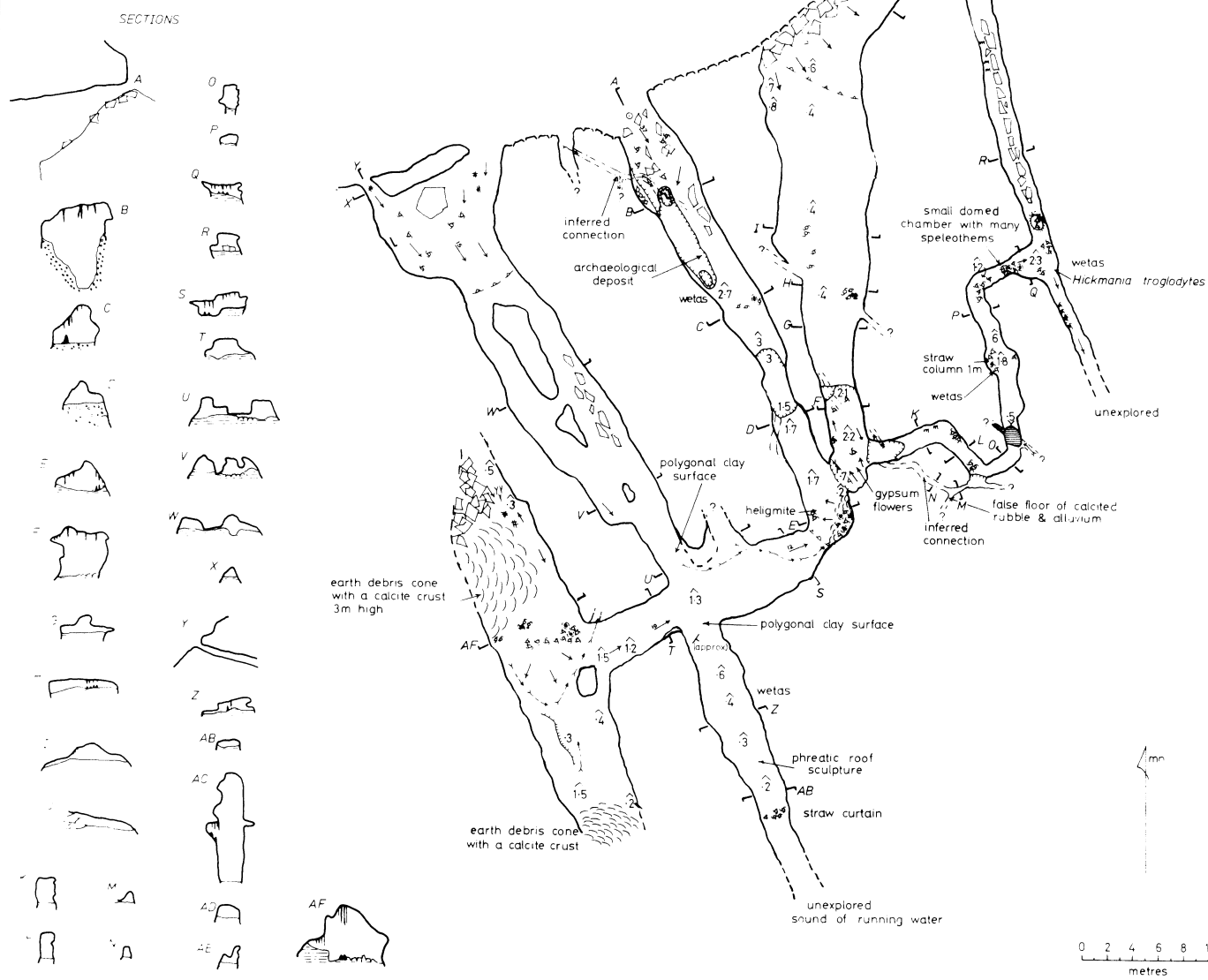


FIGURE V MAP OF BIGLANDULOSUM CAVE F66.

Among the creatures observed in the cave were cave crickets (*Micropathus* sp) and the Tasmanian cave spider (*Hickmania troglodytes*). Enough other invertebrates were observed to give the impression that this cave is rich in its diversity of insect fauna.

Anodopetalum biglandulosum ("Horizontal") is a tree which often grows in a confused tangle and is difficult to walk through. It is a common component of the rainforest.

RIPARIUM CAVE (F67) (Figure VI)

The cave is 45m long with a small stream issuing from it. The stream near the cave mouth, is very close to the average level of the Franklin River, into which it trickles through a mound of alluvium and cliff fall debris.

The north western wall of the main passage is comprised of a continuous large bank of alluvium, part of a river terrace deposited by the Franklin River. Most of the surveyed portion of the cave probably originated as an undercut notch formed by the Franklin River prior to deposition of the terrace.

There is no speleothem development within the cave and it is most likely that during periods of prolonged high winter water levels on the Franklin, most of this cave becomes flooded.

Cave crickets (*Micropathus* sp) occur in the cave.

The cave is adjacent to Shingle Island where a vegetation dominant is the endemic riverine tea tree (*Leptospermum riparium*).

ARISTOTELIA CAVE (F69) (Figure VII)

Containing a total length of 34m of passages, this small cave is strongly joint controlled along directions trending at 20° and 110°. The entrances to the cave are from overhangs in a cliff several metres above the level of Verandah Cliff Creek. A small archaeological deposit was located at a southern corner of the overhang.

A tiny stream occurs in the cave but has played no significant role in the development of the cave apart from some erosion of infill. The passages of the cave appear to have a phreatic origin probably from an ancient Verandah Cliff Creek, and are floored by more than 1m of stratified clay and gravel deposits.

The cave contains populations of *Micropathus* sp., and *Hickmania troglodytes*.

Specimens of the endemic shrub *Aristotelia peduncularis* occur in the rainforest at the mouth of the cave.

SUMMARY

The work of the 1982 Wild Rivers Archaeological Expedition to South West Tasmania increased both the number of known prehistoric sites and number of known caves. While discussion of the prehistoric sites will be dealt with elsewhere by other authors, one conclusion emerges from the observations of locations of prehistoric sites. Most sites occupy the entrances to caves which are commodious, have a more or less northwesterly aspect and are generally presently dry. However, since these features were used as a search criterion for the archaeological discoveries, the sites found will include this bias. *Biglandulosum* Cave, discovered by Richard Cosgrove and Melvin Freestone contains a rich archaeological deposit which makes this cave now one of the most important in Australia.

Some aspects of the caves mentioned in this paper are summarised in table 1. Note that most of the cave passages fall into either of two major joint directions at right angles to each other.

Further exploration for archaeological sites will continue this summer, and new caves found will be mapped wherever possible.

RIPARIUM CAVE F67

Surveyed: S. Harris, R. Cosgrove

Drawn: S. Harris

Surveyed on 1st March 1982

A.S.F. Grade 54

Scale:

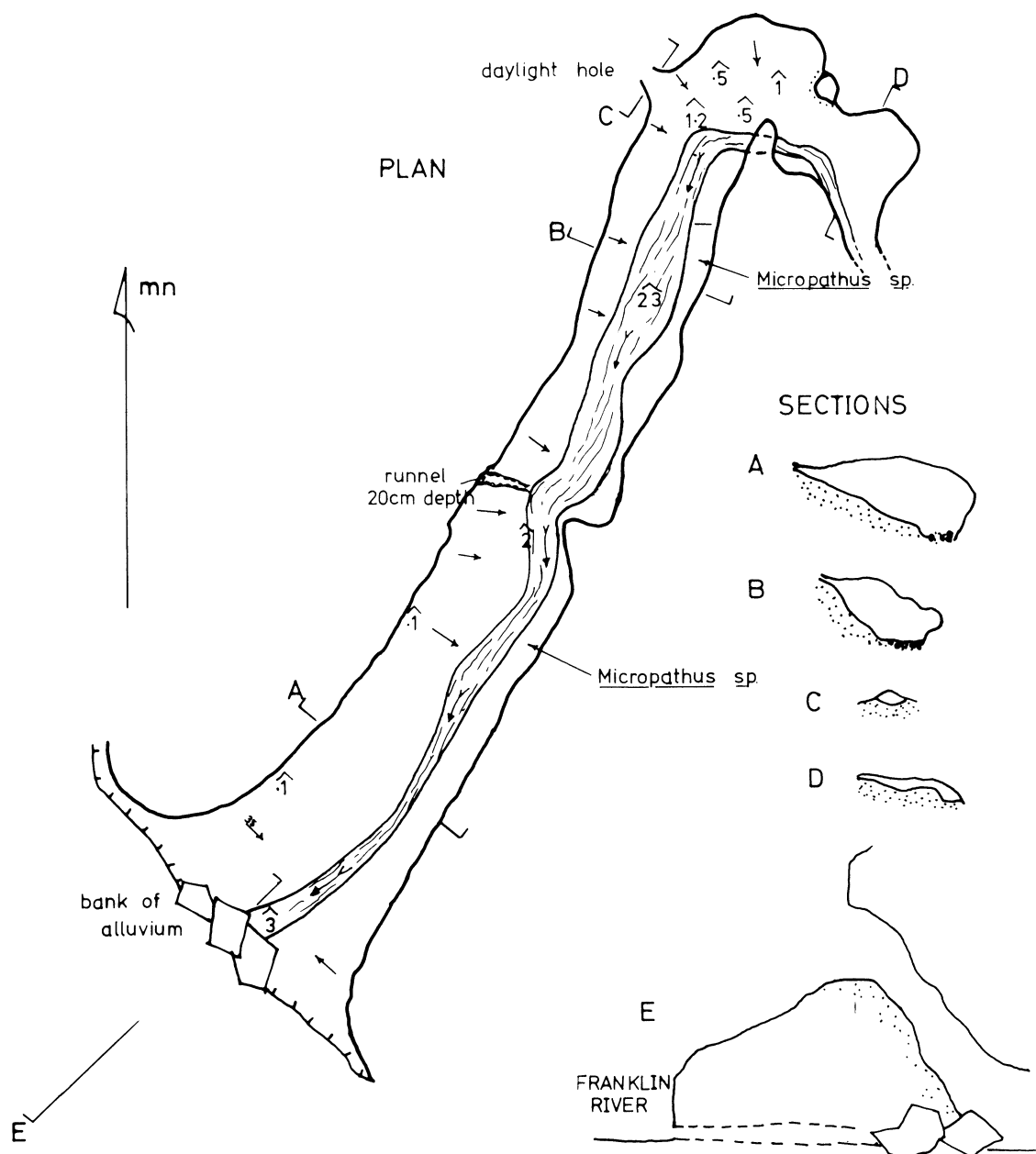
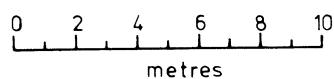


FIGURE VI MAP OF RIPARIUM CAVE F67.

Proceedings of 14th Conference of the ASF 1983

CAVE	No:	Surveyed length (metres)	Major directions of passage development.	Presence of Archaeological deposit	Approximate location of cave
RICHEA	F59	62	26 ⁰ , 130 ⁰ , 175 ⁰		approx. 1km upstream of F34.
EUCRYPHIA	F60	53	30 ⁰ , 184 ⁰	+	near F59.
HYMENOPHYLLUM	F61	61	307 ⁰ , 340 ⁰	+	short dist. upstream of F34.
MILLIGANIA	F63	22	125 ⁰	+	near Flat Id.
ANOPTERUS	F65	17	133 ⁰ , 212 ⁰		near Bingham Arch.
BIGLANDULOSUM	F66	366	64 ⁰ , 334 ⁰	+	east of Big Fall.
RIPARIUM	F67	45	209 ⁰		near Flat Id.
ARISTOTELIA	F69	34	20 ⁰ , 110 ⁰	+	Verandah Creek.

TABLE 1.

Tabular Summary of various aspects of the caves listed in this article.

REFERENCES

KIERNAN, K.W., JONES, R.M., RANSON, D. (1983)

New Evidence from Fraser Cave for Glacial Age Man in South-west Tasmania -
Nature (6 Jan 1983)

MIDDLETON, G.J. (1979)

Wilderness Caves : A preliminary survey of the caves of the Gordon-Franklin
River system, South-west Tasmania, **Occasional Paper II**, Centre for Environm.
Studies. University of Tasmania.

ACKNOWLEDGEMENTS

The presentation of information in this paper would not have been possible without the hard work of all members of the team, which comprised Jim Allen, Barry Blain, Richard Cosgrove, Andrew Febey, Melvin Freestone, Rhys Jones, Don Ranson (leader), Chris Rathbone, Mike Southon and Eric Stadler. Thanks to Geoff Tyson for reductions of the maps. Don Ranson offered useful comments during the preparation of this paper. The expedition was organised by the Tasmanian National Parks and Wildlife Service and the Australian National University.

DISCUSSION

Still much limestone not searched for caves, especially areas away from the rivers. The terrain makes travel off the river very difficult. It is easy to walk next to a cave and not know it. The larger caves are not on the rivers.

Marsupials are not as rare in the forest as was once thought, but pollen evidence indicates an alpine environment at the time of cave occupation by the Aborigines.

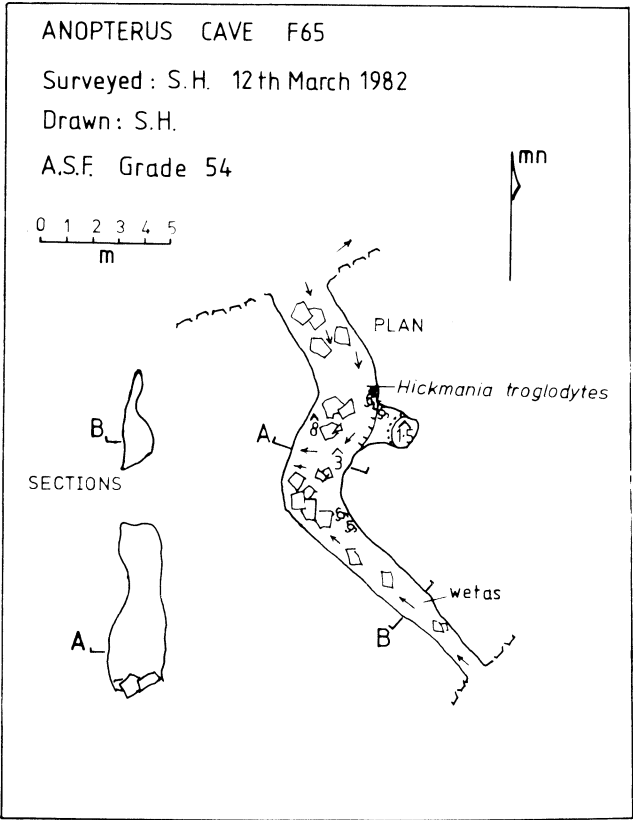


FIGURE IV MAP OF ANOPTERUS CAVE F65.

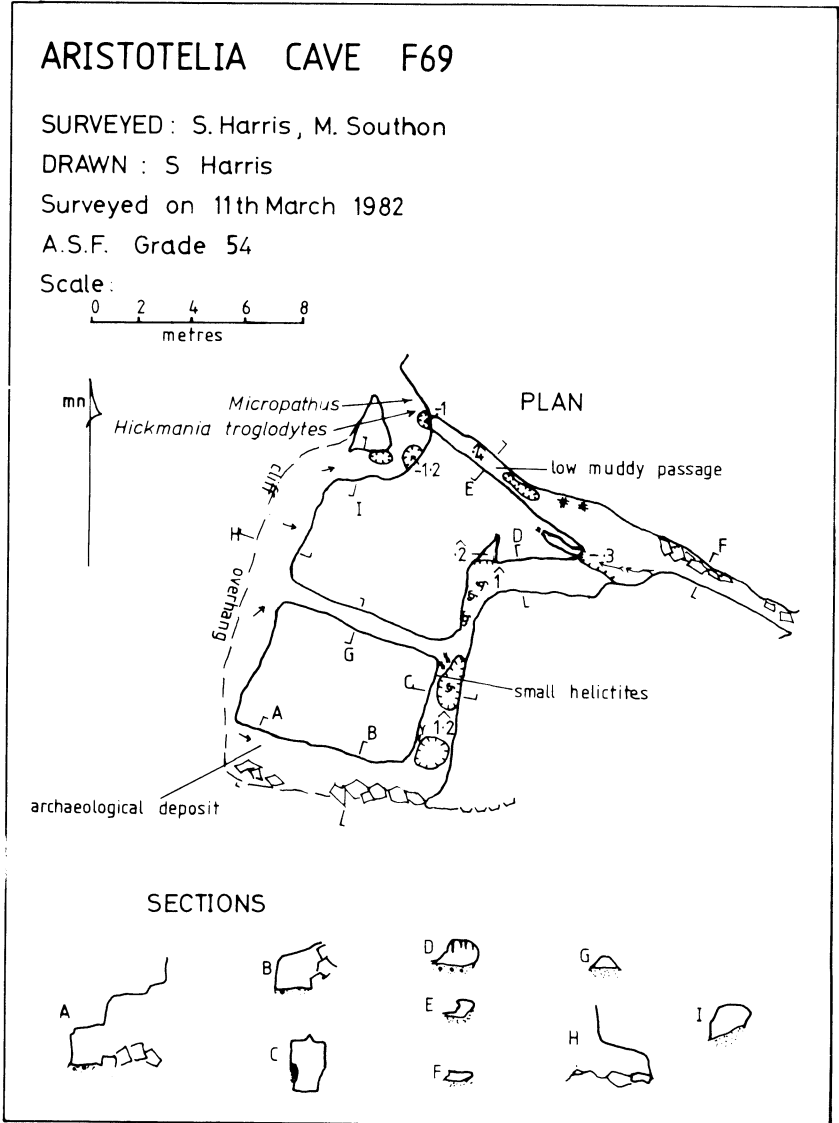


FIGURE VII MAP OF ARISTOTELIA CAVE F69.