

**Anthropogenic extension of bat habitat in New
England (NSW):**

A mine of their own.

by

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A thesis submitted as partial fulfillment of the requirements for the degree of
BSc (Hons) in the school of Earth Sciences, Macquarie University.

November 1999

Abstract

Australia has a paucity of karst and in particular cavernous karst landscapes. Many of these sensitive cave systems are under pressure from land uses such as mining forestry, agriculture, recreational caving and tourism. These activities not only place direct pressure on the subterranean environment but also the biotic communities present.

Within Australia approximately one third of Microchiroptera bat fauna utilise caves as roosts. Many have been forced to abandon traditional natural roost sites as a result of disturbance or destruction. The result has been the decline or loss of a number of bat populations.

On the upside, the past exploitation of widespread mineral resources has created a range of alternative habitats, as unproductive or uneconomic mine sites were abandoned with no attempts at rehabilitation. Many of these derelict mine sites have become valuable habitat to a number of fauna species and in particular Microchiroptera.

This study assesses the hypothesis that derelict mines are providing an alternative habitat, which may go some way to compensate for the disturbance or destruction of natural habitat by human activities in caves. The impact of habitat disturbance on a degraded cave system (Ashford Cave) and the value of two late nineteenth - early twentieth century mining fields (Barraba and Hillgrove) in the New England region of NSW are assessed. Two Microchiropteran cave dwelling species have been the focus of the study, *Rhinolophus megaphyllus* (Eastern Horseshoe Bat) and *Miniopterus schreibersii* (Large Bentwing Bat).

This is to certify that this work has
not been submitted for credit to
any other University or Institution.

K.M. Harrison
November, 1999.

Acknowledgments

First and foremost the two people without who I would still be very much wandering around in the dark and to whom I am eternally indebted. Peter Mitchell, who is more than a supervisor and goes beyond the call of duty, and Brendon Neilly who is more than a friend.

There are a number of other people without which this thesis would have been exceptionally more difficult and to whom I owe enormous thanks.

Special thanks to Glen Boyle, from New England Antimony Mines, for his time, enthusiasm, wealth of knowledge and generously assisting me in many ways, not least of all trudging around the Hillgrove gorge and the orange goo of Sunlight. Thanks to the managers of NEAM for permission to work within the lease area and all assistance provided. Thanks to the Barraba landholders.

I would also very much like to thank Neville Michie for his cave climatology insights and generously supplying his time, gadgets and passion for his field research.

I would also like to thank the staff of the Glen Innes District NPWS office for their many forms of assistance and all my work colleagues. They lent a hand when needed, put up with the bat babble and the occasional bag full of pungent smell.

Thanks must also go to the staff of the Department of Mineral Resources, Armidale, who told me where to go, geographically that is.

Bruce Thomson, your enthusiasm rubbed off on me, thank you for your helpful hints and showing me that positive results can be obtained.

Thanks to Emily Cracknell, Paula Crighton and Liz Peterson for field assistance.

To my family, thank you for your encouragement and your unwavering belief in me.

Finally, the bats, for putting up with the annoyance, I hope it helps in the long term.

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