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

A mine of their own.

by

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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.

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