

# **IAIA Special Symposium**

## **Biodiversity Risk Assessment and Conservation Priorities: Identifying Biodiversity Values**

### **Cave and Karst Biodiversity**

Tony Whitten

Regional Director, Asia-Pacific, FFI



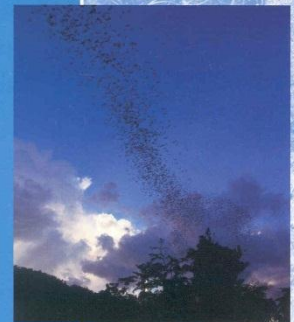
***‘There are No Tigers or  
Elephants,  
So Blow it to Bits’***

DIRECTIONS IN DEVELOPMENT

Biodiversity and  
Cultural Property  
in the Management of  
Limestone Resources

*Lessons from East Asia*

JAAP VERMEULEN AND TONY WHITTEN





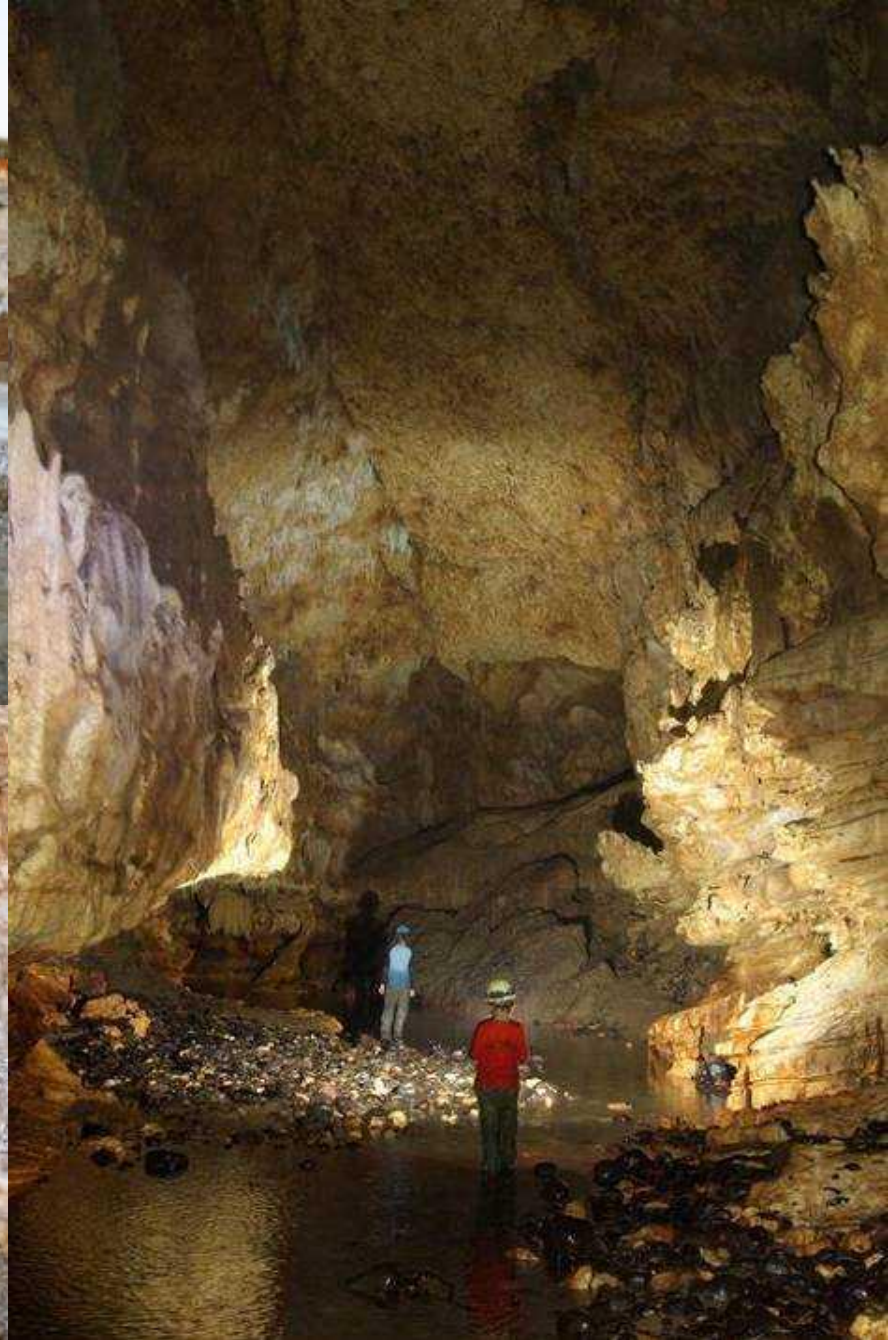
# Cave Characteristics

- Lack of light → No plants
- Low energy systems – sources external
- High and even humidity
- Specific air flow patterns

*all lead to*

- Extreme adaptations among cave animals  
(blind, no pigment, no wings, long legs)
- Highly range-restricted endemics





Photos: Speleolosko drustvo Buje





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AP News

### Threatened Vietnam cave bugs draw little

By Mike Ives on September 12, 2012 | [Twitter](#) [Facebook](#) [LinkedIn](#) [Google+](#) | 0 Comments

HON CHONG, Vietnam (AP) — The limestone caves of Hon Chong are home to many of them are found no... ing blown apa

**the guardian**

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### Threatened Vietnam cave bugs draw little sympathy

foreign, Thursday September 13

The Washington Post

## BUSINESS

In the News

Apple stock

Mitt Romney

AD



AT&T sets sales record for iPhone 5



Wonkbook: Romney campaign in disarray

### Little sympathy for cave creepy crawlies threatened by cement boom in Vietnam



## Regenerating and restoring local communities

### Heathland restoration at Rugeley Quarry voted 'outstanding'.

CEMEX UK is working alongside the Royal Society for the Protection of Birds (RSPB) to restore the lowland heath surrounding its Rugeley Quarry. This has been so successful that the area is used to promote best practice to other quarries and mines.



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Circularity  
Carbon emissions  
Life cycle assessment  
Climate by 2050  
Investment in energy projects

**Quarry Restoration**  
Leaving a lasting legacy for generations come

**Aggregates**  
Ready mix  
Asphalt & Contracting  
Construction

**RSPB Partnership**  
Since 2000 Lafarge has been a partner of the RSPB, a leading conservation charity. In 2010, Lafarge UK signed a 10-year partnership with the RSPB. This commitment is a key part of our sustainability strategy.

**HeidelbergCement Group**

## HEIDELBERGCEMENT

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Group > Sustainability > Environment > Biodiversity

### Land use and biodiversity

HeidelbergCement takes into account both economic and environmental sustainability when deposits are suitable for extraction. Quarries and gravel pits completely reshape the landscape, destroy local habitats and alter the morphology of the surrounding area. After all, the plant seeds, tubers and roots are a vital archive of the variety of life.

We need to develop feasible approaches for minimising our interventions and their consequences. That is why we adhere to a complex permission process before starting any project.

**Biodiversity: a pillar of our Sustainability Ambitions 2020**

"We deliver a positive contribution to biodiversity"

**Main principles:**

- We encourage dialogue with all stakeholders
- We encourage the increase of biodiversity through the planning and implementation of site specific restoration plans.
- We give priority to local plant species.
- We protect soil and subsoil.
- We avoid to contaminate groundwater or surface water (during exploitation or after-use)

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**Italcementi Group**

**Sustainable Development**

**Biodiversity reappears at Mijas quarry**

Country : Spain

Company: FYM - Compañía General de Canteras

**Objective:** safeguarding biodiversity and ecosystems through quarry restoration schemes that include progressive rehabilitation of the soil used as well as restoration at the end of plants' life. In particular, to reproduce the Mediterranean forest, in order to achieve integration of the restructured zone.

**Project:** the implementation of the restoration Plan for the Mijas quarry "Los Arenales", in Spain, began in 2000, the same year that it was approved, although some rehabilitation works took place beforehand.

The Mijas quarry was restored as an open site with simultaneous progress by plot. This process has created 12 plots. Mijas was the first limestone quarry in Andalucía to be fully restored in this way, with complete rehabilitation of the entire surface. This is an important project for many reasons. The animal and plant species to

**Italcementi Group**

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**Sustainable Development**

**Restoring management of quarries to support biodiversity**

Country: France

Company: GSM

**Objective:**

- Rehabilitate the quarries to preserve biodiversity and protect the ecosystems;
- Turning quarried land into a stable, safe state compatible with its natural environment and suitable for the proposed future use of the land.

**Project:** GSM worked together with local authorities and a number of environmental experts, in order to create the best possible scenario in terms of landscape, biodiversity and rehabilitation plans for its sites. One of its sites is the Mijas quarry in Spain.

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Implementing the restoration plan at the "Los Arenales" quarry



- These are **not** the urgent biodiversity issues for cement companies
- To eliminate unique communities of invertebrates and replace them with meadows and duck ponds is **not** restoration – and is irresponsible
- Conservation partnerships between cement companies and conservation NGOs have **not** resulted in any appropriate surveys – even after 10 years
- If no interest in invertebrates, let's be honest

# Good News?

- Various regulations require attention only to protected sites and Red List species
- The less companies do, the less they will have to do anything extra - and it seems global extinctions will likely result
- What is the role of the EIA community?  
Currently it is not “**identifying biodiversity values**” in cement and related projects
- No guidance from the Equator banks available
- Is ‘business as usual’ good enough?



# Good News

## An FFI Exception

- The only good case study known
- In the cave work for “?” there were two foreigners and a small local team of 10 for three weeks (~\$15,000, 15 days)
- **40 species new to science**
- Wonderful cooperation and engagement from the local company concerned
- No ‘cost’ to the company
- Planning to move into engagement in local spatial planning in the wider landscape beyond their fences.

