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KARST BIOLOGY AND ECOSYSTEMS

Physical attributes of cave ecosystems

No sunlight

Little food, low quality food

Stable temperatures and humidity



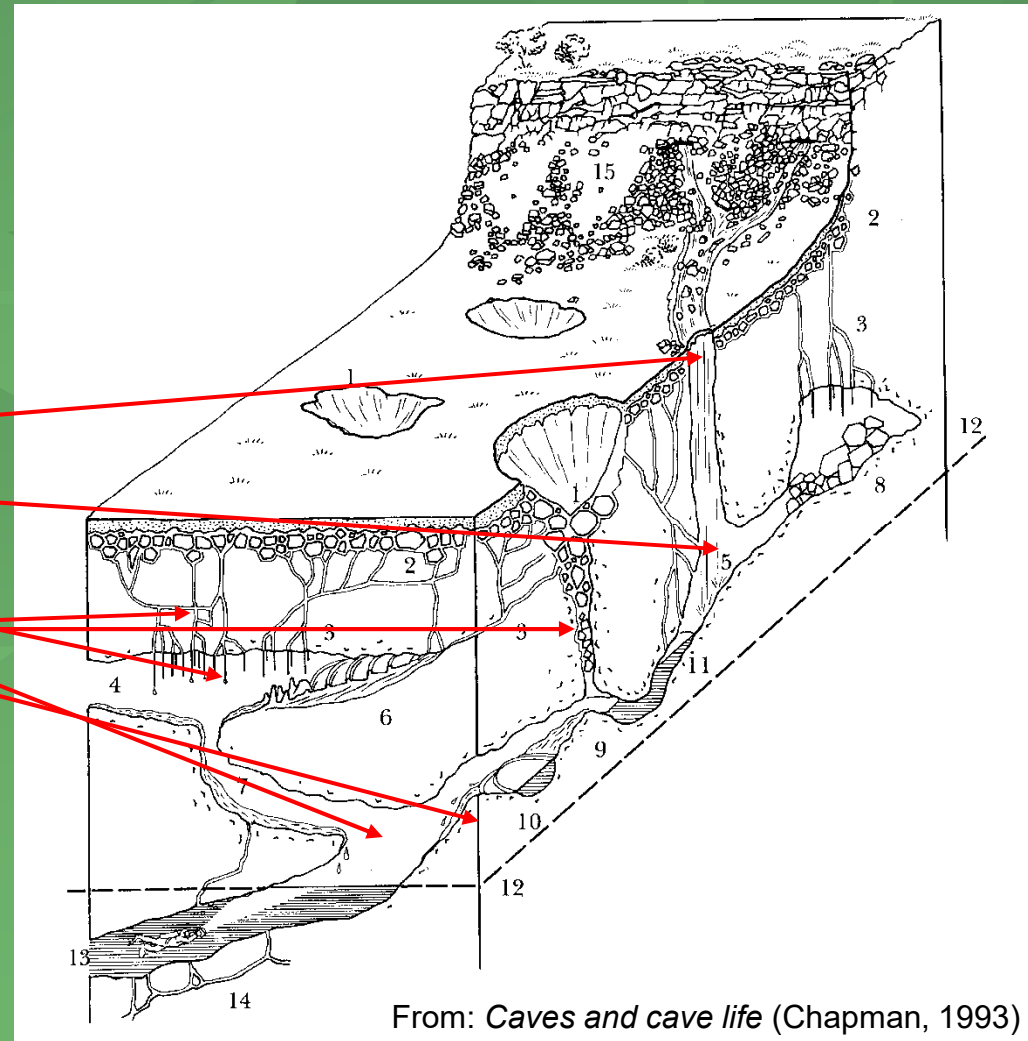
Karst ecosystem zones:

Entrance

Twilight

Dark

Interstitial



From: *Caves and cave life* (Chapman, 1993)

Classes of cave species:
Based on degree of adaptation
to the cave environment

Accidentals



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Accidentals
Trogloxenes



Classes of cave species:
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Accidentals
Trogloxenes
Troglophiles



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Troglobites/stygobites



Photo: courtesy of Jean Krejca



Photo: courtesy of James Cokendolpher

Most cave species evolve by retreating into caves for shelter as surface conditions change and become less favorable

Many are relicts of past climates with no surface relatives or relatives in far away areas

Troglobites as well as less cave adapted species often prove new species to science



Protection of forests and agriculture

Benefits from cave species Tourism

Medicines and indicators of healthy ecosystems



Photo courtesy of Jason Pielemeier