## Fossil Identification

## **Most Common**

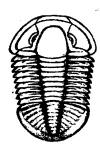
## Less Common



Elrathia Kingi



Bolaspidella Housensis

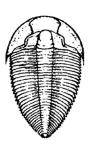


Asaphiscus Wheeleri





Peronopsis Interstricta (Agnostus)



Alokistocare Harrisi



Brachiopod



Olenoides Nevadensis

Trilobites flourished from about 550 million years ago to about 250 million years ago. They swam, crawled, and floated in ancient seas and oceans. Trilobites and the materials that encase them provide evidence of dramatically changed conditions of Utah. Earth scientists deduce from trilobite, coral, and sponge fossils that what-is-now Utah was south of the Equator and resembled today's Bahamas.

What has happened since then? Note how the layers of bedrock that you hunt trilobites in today are tilted. That tilting is evidence of tectonics. During dinosaur time, compressional tectonics built mountain ranges across this region of Utah and those processes tilted the bedrock units. That was about 75 – 65 million years ago... long after the trilobites swam and died in the shallow seas.

Our present geologic environment is dominated (a) by extensional tectonics that has created the basins and ranges of the Great Basin over the past 20 million years and (b) by climate change that has changed scenery over the past 4 million years. The basins of the Basin and Range physiographic province are dry during global interglacial climate regimes, and have large lakes during global glacial times. Lake Bonneville is the most recent of the large lakes and dates from the Ice Ages of only about 30,000 – 13,000 years ago. So... don't confuse the seas of the trilobites with the lakes of the Ice Ages.

What a difference a half-billion years makes!