
How useful is the Ibexian Series?

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The Ibexian Series is commonly used as the correlation standard for latest Cambrian–Early Ordovician sedimentary rock sequences developed around the ancient continental margin of Laurentia. It was proposed to replace the previously accepted Canadian Series. It is defined in the Notch Peak, House, Fillmore, and Wah Wah formations of the Great Basin (western United States), originally part of Northern Laurentia. In ascending order, it is subdivided into the following stages: Skullrockian, Stairsian, Tulean, and Blackhillsian. The bases of these stages are defined by the First Appearance Datums (FADs) of individual trilobite species. The stages are further subdivided into zones, again based on trilobites, except for the *Hesperonomiella minor* brachiopod zone at the top of the Ibexian. A subsidiary conodont zonation is also defined within the Ibexian sequence. In most cases, trilobite-based correlations with regions outside the Ibexian type area of Northern Laurentia are difficult, due to a lack of common species. In practice, most correlations are done using the widespread conodonts. In contrast, correlations are easy along the length of the Caledonian–Appalachian–Ouachita orogen in Southern Laurentia, due to the wealth of common trilobites and other macrofossils. It is in this belt of rocks that the Canadian Series was originally developed. Two solutions are possible:

1. Revision of the Ibexian Series. Redefine the four stage bases using conodont species FADs. Relegate the trilobite zonation to a subsidiary role.
2. Two separate zonations: the Ibexian Series (Northern Laurentia) and the Canadian Series (Southern Laurentia).