

GRAND JUNCTION GEOLOGICAL SOCIETY

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SEPTEMBER MEETING

Joint meeting with the CMU geology students

SEPTEMBER 16, 2015

7:30 PM

SACCOMANNO LECTURE HALL

(In the Wubben Science Building)

DR. JOANIE KLEYPAS

SCIENTIST III, CLIMATE & GLOBAL DYNAMICS

NATIONAL CENTER FOR ATMOSPHERE RESEARCH

BOULDER, CO

Will speak on

**“Ocean Acidification and Coral Reefs
Geological Perspectives From a Coral Reef Ecologist”**

Abstract: Large limestone reefs have come and gone throughout Earth history, but most were deposited because a few key reef species could produce large volumes of calcium carbonate that accumulated faster than it was removed. Ocean acidification is likely to affect not only the rates of CaCO_3 production on today's coral reefs but also dissolution rates. Several studies point to a threshold in reef development near the middle of this century, when atmospheric pCO_2 levels reach about double the concentrations of the preindustrial period. At this concentration, predicted net calcification rates suggest that modern day reefs will shift to a net dissolution state. This talk will present a summary of research on the role of ocean carbon chemistry in reef building, both present and past, with the goal to invite geological discussion from the audience on a topic that has so far been dominated by biological concerns.

Guests Are Welcome