Turonian ammonites from the type area of the Juana Lopez Member of the Mancos Shale, Santa Fe County, New Mexico

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At the type section of the Juana Lopez Member of the Mancos Shale at Galisteo Dam in central New Mexico, the unit is approximately 33 m thick and consists of three lithostratigraphic intervals—lower calcarenites, a middle shale and upper calcarenites. It is underlain by the Carlile Shale and overlain by the D-Cross Member of the Mancos Shale. The ammonite fauna includes Scaphites whitfieldi Cobban, Prionocyclus novimexicanus (Marcou), Prionocyclus wyomingensis Meek, Prionocyclus macombi Meek, Scaphites warreni Meek and Hayden and Coilopoceras colleti Hyatt. Most of the ammonite diversity in the Juana Lopez Member at Galisteo Dam is in the upper calcarenite interval and is dominated by P. novimexicanus, S. whitfieldi and S. warreni with an occasional P. wyomingensis. The middle shale interval has a low diversity ammonite assemblage dominated by P. macombi with an occasional C. colleti.

The Juana Lopez Member encompasses three widely recognized Turonian ammonite zones, the P. macombi, P. wyomingensis and P. novimexicanus zones. The P. macombi Zone also occurs in many other places in New Mexico, including the basal part of the Juana Lopez Member in Colfax County where the lectotype of P. macombi was collected. In New Mexico, the P. wyomingensis Zone occurs in the Juana Lopez and D-Cross Members. The zone of P. novimexicanus also occurs in various New Mexico locations, especially in the D-Cross Member of the Mancos Shale. The P. macombi and P. wyomingensis Zones are of late-middle Turonian age, whereas the P. novimexicanus Zone is of late Turonian age.

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