



New and revised species of the aulacopleurid trilobite *Maurotarion* from the Lower Devonian (Pragian) of Nevada

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Abstract

Deep water silicified trilobite faunas occur in argillaceous limestones of the Lower Devonian (Pragian) Wenban Limestone in the Cortez Mountains, Eureka County, central Nevada, USA. Trilobites occur as a stratigraphic series of three low diversity assemblages, including the odontopleurids *Nevadaprusia* Adrain, Chatterton, and Kloc, 2008, and *Kettneraspis* Prantl and Přibyl, 1949, the phacopids *Paciphacops* Maksimova, 1972, and an unnamed new genus, undetermined dalmanitids, a tropidocoryphid, and the brachymetopid *Mystrocephala* Whittington, 1960. Aulacopleurids are common elements of all three assemblages and, unusually, are represented by multiple articulated silicified specimens, permitting a complete assessment of the holaspid morphology of some of the species. All belong to the genus *Maurotarion* Alberti, 1969, and new species are *M. chryson*, *M. fooi*, and *M. wenbanense*. *Maurotarion periergum* (Haas, 1969) was described on the basis of a few fragmentary sclerites but is now represented by multiple articulated dorsal exoskeletons.

Key words: Trilobita, silicified, Aulacopleuridae, *Maurotarion*, Devonian

Introduction

The Great Basin of the western United States contains abundant outcrop of Devonian marine rocks rich in fossils. Many systematic works have been published on, for example, the brachiopods (e.g., Johnson, 1990, and references therein), corals (e.g., Pedder and Murphy, 2003, 2004), and other groups. Trilobites, however, have received only sporadic systematic attention despite their common occurrence in faunas. One of the few taxonomic works to appear is that of Haas (1969), who described several species based on silicified samples from the Pragian Wenban Limestone of the Cortez Mountains, central Nevada. Haas's (1969) paper featured good photographs, but the paucity of material for most taxa along with the number of species reported in open nomenclature suggest a relatively small sample size was available.

Although most of the species have yet to be adequately documented, the Wenban Limestone faunas are important, as they represent a very poorly known Early Devonian deep subtidal trilobite habitat. Hence, new field work was carried out in an attempt to make more extensive collections and expand the documentation of the faunas. This work was successful: in addition to locating the most prolific fauna studied by Haas, two distinct stratigraphically higher faunas were recovered, each of which was composed entirely of new species. Description of these faunas was begun by Adrain et al. (2008) who described species belonging to their new koneprusiine odontopleurid genus *Nevadaprusia* Adrain, Chatterton, and Kloc, 2008.

The goal of the present work is to document species of Aulacopleuridae Angelin, 1854, one of the most common groups occurring in the faunas. Four species (three new) were recovered in the course of new sampling, all of which are assigned to the genus *Maurotarion* Alberti, 1969. Remarkably, three of the four species are represented by articulated dorsal exoskeletons which, given the silicified preservation, can be studied in both dorsal and ventral aspect.