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A new hurdiid radiodont with a uniquely spinose carapace from the middle Cambrian Wheeler Formation of Utah, USA

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Radiodonts are non-biomineralized panarthropods emblematic of the lower Palaeozoic, whose taxonomy, morphology, and ecology have attracted considerable interest over the past two decades. Whereas the early Cambrian evolutionary history of the clade was dominated by anomalocaridids and amplectobeluids, the Miaolingian witnessed a major radiation of hurdiids, which became the most diverse and abundant radiodonts. Here we describe *Acanthopahvantia boardmani* gen. et sp. nov., the fifth hurdiid species reported from the Drumian (middle Cambrian) Wheeler Formation of the House Range, Utah. Although currently known from a single central carapace element, this new taxon exhibits a distinctive morphology combining a lanceolate outline, a robust anterior sagittal spine, and prominent spiniform lateral extensions. Phylogenetic analyses recover *A. boardmani* gen. et sp. nov. within Hurdiidae, in a clade with some (Bayesian inference) or all (parsimony) hurdiines. With its elongate outline and pronounced spinosity, the new taxon further expands the known morphological disparity of hurdiids.

Key words: Panarthropoda, Radiodonta, Hurdiidae, Wheeler Formation, Drumian, Cambrian, House Range, Utah.

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