Poster Session IV (Saturday)

EXCEPTIONAL TAXONOMIC DIVERSITY FROM A SINGLE SITE: THE UPPER TRIASSIC MONCURE MICROVERTEBRATE LOCALITY, CUMNOCK FORMATION, SANFORD SUB-BASIN, NORTH CAROLINA, USA

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Late Triassic nonmarine vertebrate assemblages are often paucispeci.c and dominated by archosaurs, synapsids, or temnospondyls. The Moncure microvertebrate fauna is unique in preserving abundant, albeit fragmentary, fossils of dipnoans, temnospondyls, archosauromorphs, and synapsids. Dipnoan toothplates from the site are minute (3-8 mm anteroposterior length) with 5-7 sharp ridges radiating through 120° from the mesial corner, thus we refer them to *Asiatoceratodus* (=*Arganodus*). These are the first records of lungfish from the Newark Supergroup. Other osteichthyans include abundant semionotids and probable redfieldiids, both represented by scales, teeth, and fragmentary skull and dentulous elements. Temnospondyl fossils are isolated small centra and textured skull elements consistent with assignment to Metoposauridae indet. aff. *Apachesaurus*. Amniote fossils include numerous teeth of both archosauriforms and cynodonts. The archosauriform teeth include representatives of typical larger taxa (phytosaurs, "rauisuchians"), mid-sized taxa (*Revueltosaurus* sp.), and several smaller morphotypes, including teeth assignable to the putative ornithischian *Galtonia gibbidens* (Huene), which is best considered Archosauriformes *incertae sedis*. The *Revueltosaurus* teeth range from tiny (1 mm) to more typical 3-6 mm crown height and are distinct from the type species *R. callenderi* Hunt. Teeth we refer to *Galtonia* are small (<2 mm crown height), conical to recurved, with relatively few (~7) denticles that are oblique to the tooth margin and occupy prominent carinae that are laterally compressed relative to the main body of the tooth. This is the first record of *Galtonia* from outside the type locality in Pennsylvania. Synapsid fossils consist of numerous small, polycuspate teeth similar to the chiniquodontid *Microconodon* as well as less common traversodont teeth. Few of *Microconodon* teeth posses a cingulum, but many have an incipiently bifurcated root. The Moncure fauna thus demonstrate how a single microvertebrate locality can alter our understanding of a basin's fauna as it includes many new records as well as taxa not normally associated with the Newark Supergroup.