

counterpart slab of *O. buccichi* that possesses the posterior two thirds of the skull. Despite crushing during fossilization, the elements of the braincase and temporal arcade are well preserved. The right pterygoid is twisted and distorted, but pterygoid teeth, previously unknown in aigialosaurs, are plainly visible. Preserved in a groove of the parietal is the stapes, also previously unknown in aigialosaurs.

*A. dalmaticus* and *O. buccichi* have previously been considered separate genera on the basis of several cranial characters. This study indicates only a single character that differs between the two taxa: the size of the parietal foramen. Based on these findings it is suggested that *O. buccichi* be placed in the genus *Aigialosaurus*.

The systematics of the family "Aigialosauridae" remain somewhat of a mystery. The "Dallas" and "Trieste" aigialosaurs have not been properly described in the literature and *C. marchesetti* lacks cranial material, making all three specimens difficult to code in a character matrix. Including these three taxa in a systematic analysis with mosasaurs results in a paraphyletic "Aigialosauridae," but the results are poorly supported due to the amount of missing data. When including all well described and relatively complete aigialosaur specimens (all two of them) in a systematic analysis, it is hardly surprising that aigialosaurs are recovered as a monophyletic sister group to mosasaurs.

73. **Stocker, M., Parker, W., Irmis, R. and Shuman, J.:** NEW DISCOVERIES FROM THE UPPER TRIASSIC CHINLE FORMATION AS THE RESULT OF THE ONGOING PALEONTOLOGICAL INVENTORY OF PETRIFIED FOREST NATIONAL PARK, ARIZONA

STOCKER, Michelle, Ann Arbor, MI; PARKER, William, Petrified Forest National Park, Petrified Forest, AZ; IRMIS, Randall, Northern Arizona Univ., Flagstaff, AZ; SHUMAN, Jeffery, Univ. of Massachusetts, Amherst, MA

Continuation of the paleontological inventory of exposures of the Upper Triassic Chinle Formation in Petrified Forest National Park has resulted in the discovery and collection of numerous significant specimens. New finds include an associated postcranial skeleton of a phytosaur probably referable to the species *Leptosuchus adamanensis*, a complete skull of the phytosaur *Leptosuchus crosbiensis*, and a partial phytosaur skull referable to the poorly known species *Pseudopalatus mccauleyi*. The *L. crosbiensis* specimen represents the first complete phytosaur skull to be recovered from the park in almost two decades.

In addition, much aetosaur material has been recovered resulting in the addition of two new taxa to the known fauna of the park. Both taxa are closely related to *Paratypothorax* with the first representing a new genus and species, and the second being referable to the recently described "*Desmotosuchus*" *chamaensis*. This find represents the first occurrence of "*D.*" *chamaensis* outside of New Mexico. In all known occurrences, "*D.*" *chamaensis* co-occurs with the aetosaur *Typothorax*, while its strong similarities to *Paratypothorax* and dissimilarities to *Desmotosuchus* warrant placement of this species in a distinct genus.

Other significant finds include cranial and skeletal material of several small reptiles including *Trilophosaurus*, *Vancleavea*, and a possible new form. An important new site from the Petrified Forest Member has produced new material of the herrerasaur *Chindesaurus bryansmalli*, several theropods, a poposaur, and the first cranial and possibly postcranial material of the purported ornithischian dinosaur *Revueltosaurus*.

74. **Stoecker, N. and Froebisch, J.:** A LOWER JAW FROM THE RHAETIAN OF THE NORTHERN CALCAREOUS ALPS OF SWITZERLAND REPRESENTING A POSSIBLE NEW TAXON OF EUDIMORPHODONTID PTEROSAUR