## BIRDS ARE DINOSAURS. WERE SOME DINOSAURS BIRDS?

PAUL, Gregory S., 3109 N. Calvert St., Baltimore MD, 21218 The hypothesis that birds descended from derived predatory dinosaurs is as well founded as is the therapsid-mammal link. The skeletons of basal birds and advanced theropods share multitudes of detailed derived features in their cranial sinuses, palates, braincases, forelimbs, pelves, hindlimbs and the rest of the skeleton. Available evidence favors the progressive evolution of a preavian pulmonary air-sac complex in theropods. Theropods even possessed feathers and bird-like egg shell microstructures. Convergence cannot explain such an extreme degree of similarity. Dromaeosaurs, troodonts, caudipterygians, oviraptorosaurs, therizinosaurs and protoarchaeopterygians further exhibit ossified uncinate processes and sternal ribs, horizontal scapula blades, sharply reflexed coracoids that articulate via a hinge joint with large, plate-like sterna, folding arms with a semi-lunate carpal block, tails that are either very reduced or are similar to those of pterosaurs and urvogels, and symmetrical brachial feathers. Some of these avian features are not found in Archaeopteryx, but they are common to secondarily flightless birds. The above dinosaurs also possess some other avian features not present in archaeopterygiforms. A number of predatory dinosaurs may have evolved from ancestors whose flight ability approached, matched or even exceeded that of Archaeopteryx. It is also possible that such dinosaurs were closer to modern birds than the original bird.