The Great American Carbonate Bank (GACB) comprises the carbonates (and related siliciclastics) of the Sauk megasequence, which were deposited on and around the Laurentian continent during Cambrian through earliest Middle Ordovician, forming one of the largest carbonate-dominated platforms of the Phanerozoic. The Sauk megasequence, which ranges upwards of several thousand meters thick along the Bank’s margins, consists of distinctive lithofacies and fauna that are widely recognized throughout Laurentia.

A refined biostratigraphic zonation forms the chronostratigraphic framework for correlating disparate outcrops and subsurface data, providing the basis for interpreting depositional patterns and the evolution of the Bank.

GACB hydrocarbon fields have produced 4 BBO and 21 TCFG, mostly from reservoirs near the Sauk-Tippecanoe unconformity. The GACB is also a source of economic minerals and construction material and, locally, serves as either an aquifer or repository for injection of waste material.

This memoir comprises works on biostratigraphy, ichnology, stratigraphy, depositional facies, diagenesis, and petroleum and mineral resources of the GACB. It is dedicated to James Lee Wilson who first conceived of this publication and who worked on many aspects of the GACB during his long and illustrious career.