

FINAL REPORT ON DOCUMENTING METHODS AND RESULTS  
FOR THE PROJECT ENTITLED: PALEONTOLOGICAL INVENTORY OF DENALI  
NATIONAL PARK AND PRESERVE (TASK AGREEMENT NO. J8W07110023)

by

Robert B. Blodgett, Ph.D.  
Consulting Geologist  
2821 Kingfisher Drive  
Anchorage, Alaska 99502

The project area of Denali National Park and Preserve (DNA) has long been of great interest to the investigator. His formal introduction to the geology of the Park arose from his participation in the 1974 Summer Field Camp program of the Department of Geology, University of Alaska Fairbanks, in which over 85% of the 6 week course of study was spent mapping in the northeast part of the Park (West Fork of the Toklat River and Triple Lakes area) and the adjoining Suntrana River drainage east of Healy. The investigator was formerly a paleontologist/stratigrapher with the Branch of Paleontology & Stratigraphy of the USGS until the untimely destruction of the unit in the 1995 reorganization of the USGS (which destroyed Alaskan paleontological research at the USGS). During his time at the USGS, the investigator was able to photocopy the complete archives of the USGS Alaskan paleontological reports (known as E&R report) which were used internally by USGS paleontologists and Alaskan-based field geologists. This data set is of utmost significance in reconstructing the course of geological field mapping of the rock units exposed in DNA. On several occasions during the 1990's the investigator conducted field work on Devonian age rocks in the company of Phil Brease (deceased, former DNA park geologist), visiting outcrops and documenting their stratigraphic character and fossil content on the East Fork of the Toklat River and in the remote area of Shellabarger Pass (research in the latter area was supported by a research grant to the investigator from the National Geographic Society's Committee for Research and Exploration). A number of publications resulted from these studies (Blodgett, 1998; Blodgett and Boucot, 1999; Blodgett and Brease, 1997, 1999; Blodgett et al., 2002; Garcia-Alcalde and Blodgett, 2001; Rigby, Blodgett and Anderson, 2009; and Savage, Blodgett and Brease, 1995, 2000 – see Bibliography also submitted with this Task Agreement). Additional field experience to rocks exposed in the southeastern-most part of DNA came about from the field work of the Alaska Geological Survey (DGGs) in the Chulitna district in which the investigator was involved for its two-year duration resulting in a number of publications in which he was a co-author (Blodgett and Clautice, 1998a, b, 2000; Clautice et al., 1999a, b, 2001a, b). This mapping effort included rocks both within and just outside of DNA. Finally, the investigator was co-author of the recent NPS report entitled “Paleontological resource inventory and monitoring: Central Alaska Network” that included a summary of DNA paleontological data (Santucci, Blodgett, Elder, Twett, and Kenworthy, 2011).

The first phase for the current work done on this inventory involved separation of all USGS fossil reports on DNA, as well as compilation of all known paleontological/stratigraphical publications for DNA. Digital scanning of these reports into PDF format was conducted when no previous PDF copies were available. The second phase involved entering all individual fossil localities into a tabular spreadsheet, nearly identical to one the investigator recently completed on paleontology of Glacier Bay National Park & Preserve (GLBA). Data sets captured included identified fossil fauna and flora, field locality numbers and archived museum locality numbers, repository, interpreted age, field locality descriptions and latitude/longitude data among others. Latitude/longitude data was entered either according to original coordinates given by the investigator in the E&R report or publication, or by calculation of digitized point using field or published maps. In several cases (fortunately for a minor number of Tertiary plant localities) virtually no lat/long data was given, only the vaguest of description in the fossil plant reports of J. Wolfe of the USGS.

The resulting spreadsheet captured over 300 field localities citations (some localities had multiple records) of all known Paleozoic, Mesozoic, and Cenozoic age fossil localities represented in the literature or the USGS E&R reports. It should prove to be a most valuable tool for future paleontological and geological mapping efforts within DENA. The final phase of this study involved the delivery of the promised products (spreadsheet and PDFs of pertinent literature and E&R reports) to Denny Capps, Geologist at DENA.