

“Stratigraphic Notes”—An Outlet for Stratigraphic Studies

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Abbreviations

GNC	Geologic Names Committee
NACSN	North American Commission on Stratigraphic Nomenclature
NASC	North American Stratigraphic Code
NGGMP	National Cooperative Geologic Mapping Program
NGMDB	National Geologic Map Database
USGS	U.S. Geological Survey

Chapter A

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Introduction

Welcome to the resurrected series of U.S. Geological Survey (USGS) reports on stratigraphy, entitled “Stratigraphic Notes”; this initial volume is called “Stratigraphic Notes—Volume 1, 2022.” For several decades, until the mid-1990s, the USGS published volumes of short papers that highlighted stratigraphic studies, changes in stratigraphic nomenclature, and explanations of stratigraphic names and concepts used on published geologic maps. The purpose was to encourage formal documentation on these topics. Today (2023) the need for such documentation has become especially important because of the increasing number of published field-trip guidebooks and open-file reports that use new or updated stratigraphic nomenclature; however, field-trip guidebooks and open-file reports cannot be referenced as authoritative documentation of stratigraphic studies because the North American Stratigraphic Code (NASC) considers such guidebooks and reports to be informal and does not recognize them as proper publications to formalize stratigraphic studies (see Article 4 of the NASC, in North American Commission on Stratigraphic Nomenclature [NACSN], 2021). Hence, a report series such as “Stratigraphic Notes” is needed to bridge this gap.

Discussion

The papers in the “Stratigraphic Notes” series are meant to be an outlet to communicate changes in stratigraphic nomenclature, to support geologic map publications, and to facilitate compilation of new geologic maps and their databases. The goal is to publish a new volume each year, each containing papers that present results of stratigraphic studies drawn from scientific interpretations of stratigraphic and biostratigraphic changes related to changes in environments of deposition and facies, as well as interpretations of igneous and metamorphic units.

According to strategic goals articulated by the National Cooperative Geologic Mapping Program (NCGMP), the USGS and the Association of American State Geologists (representing the Nation’s State Geological Surveys) plan to develop a seamless geologic framework for the Nation

(Brock, 2017). A major challenge to that goal is demonstrating how (and rectifying, if necessary) stratigraphy changes across states. As the geoscience community moves forward to reconcile stratigraphic changes across diverse boundaries that range from geopolitical to lithological, the “Stratigraphic Notes” series can be an outlet for formal publication of new or updated nomenclature that then can be included in Geolex (<https://ngmdb.usgs.gov/Geolex/>), which is the USGS National Geologic Map Database’s (NGMDB’s) geologic names lexicon. Many issues related to human-defined boundaries between map areas (for example, state lines, quadrangle boundaries) are real—stratigraphy does change laterally owing to facies changes, changes in sedimentation related to tectonics and sea level, and changes in paleoenvironments and climate. “Stratigraphic Notes” can provide a platform for discussions of these interpretations as they affect stratigraphic nomenclature.

We are serving as editors of the “Stratigraphic Notes” series with the full support and endorsement of the USGS Geologic Names Committee (GNC) and the NGMDB project. These entities recognize the importance of consistent communication in the geosciences, and, therefore, they support the stratigraphic concepts articulated in the North American Stratigraphic Code (NACSN, 2021), hereafter referred to as “the Code.” The Code is published by the North American Commission on Stratigraphic Nomenclature, which consists of experts who represent geoscience organizations across the United States, Canada, and Mexico. The USGS has three (of 25) seats on the Commission.

We welcome papers for the “Stratigraphic Notes” series from geoscientists of the USGS, of State Geological Surveys funded by the STATEMAP component of NCGMP, and of academicians funded by the EDMAP component of NCGMP.¹ This initial volume includes articles that provide guidance for those who wish to submit papers to the “Stratigraphic Notes” series, as well as information on how to make your manuscripts compliant for geologic names reviews and how to organize your paper’s content to facilitate inclusion of new or revised names in Geolex. Papers can be submitted for publication in “Stratigraphic Notes” by contacting the GNC (gnc@usgs.gov).

¹STATEMAP and EDMAP are components of NCGMP that fund geologic mapping projects by State Geological Surveys and universities, respectively, as established by the Geological Mapping Act in 1992.

References Cited

Brock, J.C., 2017, A new decadal strategy for the future of geologic mapping in the U.S.: Geological Society of America Abstracts with Programs, v. 49, no. 6., <https://doi.org/10.1130/abs/2017AM-299105>.

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