

Preface of the editors of the second reprint of *The Geology of Colombia: Multivolume book*



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Three years have passed since the four volumes of the work *The Geology of Colombia: Multivolume book* was presented during The Geology of Colombia Symposium: The Geological History of the Colombian Territory, held from November 24 to 27, 2020. This event had an average daily audience of 3800 people and a maximum simultaneous attendance of 4100 people.

In 2021, the printing of 200 sets of books was completed, of which 60 were distributed to major libraries in Bogotá, the libraries of the 12 schools of geology, geological engineering, and geosciences in the country, and the libraries of the Servicio Geológico Colombiano (SGC) in its various central and regional offices. The remaining copies were distributed among the main authors and leaders of partner institutions of the SGC in its mission, including the Unidad Nacional para la Gestión del Riesgo de Desastres (UNGRD) and the Dirección General Marítima (Dimar).

For the outreach of the printed work, three in-person seminars were held in the first quarter of 2021 at the Universidad de Caldas, the Universidad Pedagógica y Tecnológica de Colombia, and the Universidad Nacional de Colombia Sede Bogotá. These seminars had approximately 600 attendees, including geology students, professors, and geoscience professionals. Additionally, during these events, some sets of the work were given away.

Once all the copies were distributed, many colleagues expressed their interest in obtaining printed copies for personal reference, library consultation, and the presentation and promotion of Colombian geology. For this reason, an agreement was reached with the general director of the SGC, geologist Héctor Julio FIERRO MORALES, to carry out a second printing.

To achieve this objective, during the second half of 2023, the printing files of *The Geology of Colombia* were reviewed and adjusted. Approximately 1000 corrections were made during this process to address typos in the text without modifying its content, such as incorrect word spacing or letter omissions. Geologists Vanessa REY LEÓN, Ana María SALDARRIAGA NIETO, Gabriel GONZÁLEZ RODRÍGUEZ, Carolina MORALES FERNÁNDEZ, Daniela MATEUS ZABALA, and Jorge GÓMEZ TAPIAS conducted the review. Geologist Eliana MARÍN RINCÓN handled adjustments to the figures, and geologist Ana María SALDARRIAGA NIETO handled layout adjustments.

Alongside the reprint of the work, we wanted to assess the impact that *The Geology of Colombia* has had since its publication in 2020. To achieve this, citations received by chapters in scientific articles published in the Índice Bibliográfico Nacional Publindex by Minciencias, and internationally in Web of Science were compiled. Additionally, citations in books published by the Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, the Servicio Geológico Colombiano, the Universidad Industrial de Santander, and the Universidad de Caldas were considered. Citations in internal reports, map memoirs, non-indexed journals, and undergraduate, master's, and doctoral theses were omitted, as these are products that do not undergo a peer review or academic evaluation process.

To categorize the journals, the Scimago Journal Rank classification (<https://www.scimagojr.com/>) was used. For journals with citations from 2023, whose impact would be reflected in the ranking of the following year, the categorization assigned was based on the journal's status for 2022. Citations from books produced by publishers such as

Supplementary Information:

S: <https://www2.sgc.gov.co/LibroGeologiaColombia/tgc/sgcpubesp352023Prefacerse.pdf>

The Geological Society, Geological Society of America, Elsevier, and Springer, which undergo a rigorous peer-review process, were considered in the Q1 category.

The results of this research are highly satisfactory. As of November 3, 2023, *The Geology of Colombia* has received 502 citations: 260 citations in Q1 quartile journals, 128 citations in Q2 quartile journals, 36 citations in Q3 quartile journals, 39 citations in Q4 quartile journals, and 39 citations from other journals indexed in Publindex or Web of Science and books (see Table 1 in the supplementary information).

The five most cited chapters of the work are as follows:

1. *Colombia in the Quaternary: An Overview of Environmental and Climatic Change* by Hooghiemstra & Flantua (2019) with 31 citations.
2. *Jurassic Evolution of the Northwestern Corner of Gondwana: Present Knowledge and Future Challenges in Studying Colombian Jurassic Rocks* by Bayona et al. (2020) with 30 citations.
3. *The Permian–Triassic History of Magmatic Rocks of the Northern Andes (Colombia and Ecuador): Supercontinent Assembly and Disassembly* by Spikings & Paul (2019) with 26 citations.
4. *Construction of the Eastern Cordillera of Colombia: Insights from the Sedimentary Record* by Horton et al. (2020) with 25 citations.
5. *Cretaceous Record from a Mariana-to-An Andean-type Margin in the Central Cordillera of the Colombian Andes* by Cardona et al. (2020) with 22 citations (Table 1).

It's worth noting that other South American countries have used *The Geology of Colombia* as a reference for planning and constructing their compilations on national geology. In fact, the Servicio Geológico Colombiano (SGC) was invited to participate as a speaker at the 24th Bolivian Geological Congress in 2021 to share its editorial experience in producing *The Geology of Colombia*.

These results demonstrate that the work has been consulted within the national and international geological community, aligning with our initial goal of making the work a reference for Colombian geology. Finally, we would like to express our gratitude to the Executive Committee of the SGC for its support in the production of this new edition.

Jorge GÓMEZ TAPIAS and Daniela MATEUS-ZABALA
Bogotá, November 14, 2023

Table 1. The most cited chapters of *The Geology of Colombia*: Multivolume book.

No.	Chapter	Chapter's name	Citations
1	Volume 4 Chapter 2	Colombia in the Quaternary: An overview of environmental and climatic change	31
2	Volume 2 Chapter 5	Jurassic evolution of the northwestern corner of Gondwana: Present knowledge and future challenges in studying Colombian Jurassic rocks	30
3	Volume 2 Chapter 1	The Permian – Triassic history of magmatic rocks of the northern Andes (Colombia and Ecuador): Supercontinent assembly and disassembly	26
4	Volume 3 Chapter 3	Construction of the Eastern Cordillera of Colombia: Insights from the sedimentary record	25
5	Volume 2 Chapter 10	Cretaceous record from a Mariana– to an Andean–type margin in the Central Cordillera of the Colombian Andes	22
6	Volume 1 Chapter 6	The Putumayo Orogen of Amazonia: A synthesis	19
7	Volume 3 Chapter 4	Late Cretaceous to Cenozoic uplift of the northern Andes: Paleogeographic implications	19
8	Volume 1 Chapter 3	Tectonostratigraphic terranes in Colombia: An update. First part: Continental terranes	17
9	Volume 2 Chapter 6	140 million years of tropical biome evolution	15
10	Volume 2 Chapter 4	Diverse Jurassic magmatic arcs of the Colombian Andes: Constraints from petrography, geochronology, and geochemistry	14
11	Volume 1 Chapter 10	Fragments of a Permian arc on the western margin of the Neoproterozoic basement of Colombia	13
12	Volume 2 Chapter 2	The Petrologic Nature of the “Medellín Dunite” Revisited: An Algebraic Approach and Proposal of a New Definition of the Geological Body	11
13	Volume 3 Chapter 5	The Eastern Foothills of Colombia	11
14	Volume 3 Chapter 10	From facies analysis, stratigraphic surfaces, and depositional sequences to stratigraphic traps in the Eocene – Oligocene record of the southern Llanos Basin and northern Magdalena Basin	11
15	Volume 2 Chapter 14	Two Cretaceous subduction events in the Central Cordillera: Insights from the high P–low T metamorphism	10
16	Volume 4 Chapter 3	The volcanic front in Colombia: Segmentation and recent and historical activity	10
17	Volume 4 Chapter 12	The Algeciras Fault System of the Upper Magdalena Valley, Huila Department	10
18	Volume 2 Chapter 12	Barremian deposits of Colombia: A special emphasis on marine successions	9
19	Volume 3 Chapter 6	Structural styles of the Eastern Cordillera of Colombia	9
20	Volume 4 Chapter 7	Geological Evolution of the Nevado del Ruiz Volcanic Complex	9
21	Volume 4 Chapter 11	Subduction geometries in northwestern South America	9
22	Volume 4 Chapter 15	Interplate coupling along the Nazca subduction zone on the Pacific coast of Colombia deduced from GeoRED GPS observation data	9

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Prefacio de los editores a la segunda reimpresión de la obra *The Geology of Colombia*



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Tres años han pasado desde la entrega de los cuatro volúmenes de la obra *The Geology of Colombia* en el evento *The Geology of Colombia Symposium: The geological history of the Colombian territory* realizado del 24 al 27 de noviembre de 2020. Este evento contó con una audiencia promedio de 3800 conectados diariamente y un máximo de 4100 personas conectadas de forma simultánea.

En 2021 se realizó la impresión de 200 juegos de libros, de los cuales 60 se entregaron a las bibliotecas más grandes de Bogotá; las bibliotecas de las 12 escuelas de geología, ingeniería geológica y geociencias del país, y las bibliotecas del Servicio Geológico Colombiano (SGC) en las diferentes sedes y regionales. El resto de los ejemplares fueron distribuidos entre autores y líderes de las instituciones aliadas del SGC en su quehacer misional, entre ellas la Unidad Nacional para la Gestión del Riesgo de Desastres (UNGRD) y la Dirección General Marítima (Dimar).

Para la divulgación de la obra impresa se realizaron tres seminarios presenciales en la Universidad de Caldas, la Universidad Pedagógica y Tecnológica de Colombia y la Universidad Nacional de Colombia Sede Bogotá en el primer trimestre de 2021. Estos contaron con cerca de 600 asistentes, entre estudiantes de geología, profesores y profesionales de las geociencias. En estos espacios, además, se sortearon algunos juegos de la obra.

Una vez distribuidos todos los ejemplares impresos, los usuarios de la producción científica del SGC manifestaron su interés por contar con ejemplares impresos para consulta propia, consulta en bibliotecas y presentación y promoción de la geología colombiana; por esta razón, se acordó con el director general del SGC, geólogo Héctor Julio FIERRO MORALES, realizar un segundo tiraje.

Para cumplir con este objetivo, durante el segundo semestre de 2023 se revisaron y ajustaron los archivos de impresión de *The Geology of Colombia*. Durante este ejercicio se realizaron alrededor de 1000 ajustes para corregir erratas en el texto sin modificación del contenido —p. ej., separación incorrecta de palabras u omisión de letras—. Los geólogos Vanessa REY LEÓN, Ana María SALDARRIAGA NIETO, Gabriel GONZÁLEZ RODRÍGUEZ, Carolina MORALES FERNÁNDEZ, Daniela MATEUS ZABALA y Jorge GÓMEZ TAPIAS realizaron la revisión; la geóloga Eliana MARÍN RINCÓN, los ajustes a las figuras, y la geóloga Ana María SALDARRIAGA NIETO, los ajustes en la diagramación.

Junto con la reimpresión de la obra quisimos hacer un balance del impacto que ha tenido *The Geology of Colombia* desde su publicación en 2020. Para ello, compilamos las citas que han tenido los capítulos de la obra en artículos científicos publicados en revistas indexadas reconocidas en el Índice Bibliográfico Nacional Publindex de Minciencias y a nivel internacional en Web of Science. También, se consideraron citas en libros que han sido publicados por el Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, el Servicio Geológico Colombiano, la Universidad Industrial de Santander y la Universidad de Caldas. No se tuvieron en cuenta citas en informes internos, memorias de mapas, revistas sin indexación y tesis de pregrado, maestría y doctorado, ya que son productos que no cuentan con un proceso de revisión por pares o evaluación académica.

Supplementary Information:

S: <https://www2.sgc.gov.co/LibroGeologiaColombia/tgc/sgcpubesp352023Prefacerss.pdf>

Para asignar el cuartil a las revistas se usó la clasificación de Scimago Journal Rank (<https://www.scimagojr.com/>). Para las revistas que tienen citas del 2023, cuyo impacto quedará reflejado en la clasificación del otro año, se asignó la categorización que tenía la revista para 2022. Las citaciones de los libros producidos por editoriales como The Geological Society, Geological Society of America, Elsevier y Springer, que realizan un riguroso proceso de arbitraje, se consideraron como categoría Q1, ver Tabla 1 de la información suplementaria.

El resultado de esta pesquisa no pudo ser más satisfactorio. **Al 3 de noviembre de 2023, la obra *The Geology of Colombia* tiene 502 citaciones:** 260 citaciones en revistas del cuartil Q1, 128 citaciones en revistas del cuartil Q2, 36 citaciones en revistas del cuartil Q3, 39 citaciones en revistas del cuartil Q4 y 39 citaciones de otras revistas indexadas en Web of Science y libros (Tabla 1 de la información suplementaria).

Los cinco capítulos más citados de la obra corresponden a *Colombia in the Quaternary: An overview of environmental and climatic change* de Hooghiemstra y Flantua (2019), con 31 citaciones; *Jurassic evolution of the northwestern corner of Gondwana: Present knowledge and future challenges in studying Colombian Jurassic rocks* de Bayona et al. (2020), con 30 citas; *The Permian – Triassic history of magmatic rocks of the northern Andes (Colombia and Ecuador): Supercontinent assembly and disassembly* de Spikings & Paul (2019), con 26 citas; *Construction of the Eastern Cordillera of Colombia: Insights from the sedimentary record* de Horton et al. (2020), con 25 citaciones, y *Cretaceous record from a Mariana– to an Andean–type margin in the Central Cordillera of the Colombian Andes* de Cardona et al. (2020), con 22 citas (Tabla 1).

Vale la pena resaltar que otros países suramericanos han tomado como referencia *The Geology of Colombia* para la planeación y construcción de sus obras compilatorias sobre la geología nacional. De hecho, el SGC fue invitado a participar como ponente en el XXIV Congreso Geológico Boliviano durante 2021 para compartir su experiencia editorial con la producción de *The Geology of Colombia*.

Los resultados demuestran que la obra ha sido de consulta en la comunidad geológica nacional e internacional, lo que va en línea con nuestro propósito inicial de que la obra llegue a convertirse en un referente de la geología colombiana. Finalmente, queremos agradecer a las directivas del SGC por el apoyo para la producción de esta nueva impresión.

Jorge GÓMEZ TAPIAS y Daniela MATEUS-ZABALA
Bogotá, 14 de noviembre de 2023

Tabla 1. Capítulos más citados de la obra *The Geology of Colombia*.

N.º	Capítulo	Nombre del capítulo	Citaciones
1	Volumen 4 Capítulo 2	Colombia in the Quaternary: An overview of environmental and climatic change	31
2	Volumen 2 Capítulo 5	Jurassic evolution of the northwestern corner of Gondwana: Present knowledge and future challenges in studying Colombian Jurassic rocks	30
3	Volumen 2 Capítulo 1	The Permian – Triassic history of magmatic rocks of the northern Andes (Colombia and Ecuador): Supercontinent assembly and disassembly	26
4	Volumen 3 Capítulo 3	Construction of the Eastern Cordillera of Colombia: Insights from the sedimentary record	25
5	Volumen 2 Capítulo 10	Cretaceous record from a Mariana- to an Andean-type margin in the Central Cordillera of the Colombian Andes	22
6	Volumen 1 Capítulo 6	The Putumayo Orogen of Amazonia: A synthesis	19
7	Volumen 3 Capítulo 4	Late Cretaceous to Cenozoic uplift of the northern Andes: Paleogeographic implications	19
8	Volumen 1 Capítulo 3	Tectonostratigraphic terranes in Colombia: An update. First part: Continental terranes	17
9	Volumen 2 Capítulo 6	140 million years of tropical biome evolution	15
10	Volumen 2 Capítulo 4	Diverse Jurassic magmatic arcs of the Colombian Andes: Constraints from petrography, geochronology, and geochemistry	14
11	Volumen 1 Capítulo 10	Fragments of a Permian arc on the western margin of the Neoproterozoic basement of Colombia	13
12	Volumen 2 Capítulo 2	The Petrologic Nature of the "Medellín Dunite" Revisited: An Algebraic Approach and Proposal of a New Definition of the Geological Body	11
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