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REPORT OF THE METEORITE NOMENCLATURE COMMITTEE



Audrey Bouvier

The Nomenclature Committee (NomCom) of the Meteoritical Society (MetSoc) continued its activities despite the major challenges we have all faced over the past few months. I would like to thank all the NomCom members for volunteering their time and effort, as well as Tasha Dunn (Colby College, Maine, USA) for her two terms on NomCom, and Devin Schrader (Arizona State University, USA) for joining us last January.

NomCom is currently composed of nine appointed members: Audrey Bouvier (Chair; Universität Bayreuth, Germany), Emma Bullock (Carnegie Institution of Washington, USA), Hasnaa Chennaoui Aoudjehane (Université Hassan II de Casablanca, Morocco), Vinciane Debaille (Université Libre de Bruxelles, Belgium), Massimo D'Orazio (Università di Pisa, Italy), Mutsumi Komatsu (Sökendai, Japan), Francis McCubbin (Deputy Editor; NASA Johnson Space Center, USA), Bengkui Miao (Guilin University of Technology, China) and Devin Schrader (Arizona State University); and three ex-officio NomCom members: Jérôme Gattacceca (*Meteoritical Bulletin* Editor; CEREGE, France), Jeff Grossman (Database Editor; NASA, USA) and Brigitte Zanda (MetSoc Vice President; Muséum national d'Histoire naturelle, Paris).

The purpose of the NomCom is to approve new meteorite names, to establish guidelines, and to make decisions regarding the naming and classification of meteorites. New meteorites, dense collection areas, type-specimen repository collections, and revisions are published through the *Meteoritical Bulletin* and the Meteoritical Bulletin Database (MBDB) (<https://www.lpi.usra.edu/meteor/>).

Meteorites

The 2018 entries of the MBDB, totaling 2,714 meteorites, have been published by Gattacceca et al. (2020) in issue 107 of the *Meteorite Bulletin*. The full write ups of 1,145 non-Antarctic meteorites and supplementary tables can be found online as Supporting Information and in the MBDB Archive. The number of Northwest Africa (NWA) meteorites reached a new peak with 799 meteorites. Antarctic and NWA meteorites make up 58% and 29% of the total number of meteorites, respectively. Over 200 submissions from South America were also approved. Notable entries are 7 meteorites from fall events reported in 2018: Hamburg (H4, USA, 16 January), Ablaketa (H5, Kazakhstan, 16 February), Aba Panu (L3, Nigeria, 19 April), Mangui (L6, China, 1 June), Ozerki (L6, Russia, 21 June), Renchen (L5-6, Germany, 10 July), and Gueltat Zemmour (L4, Morocco, 21 August).

Meteoritical Bulletin No. 108, containing the 2019 entries, is in preparation. It will contain 2,141 meteorites, including 12 newly approved falls, from which 4 more are from 2018: Benenitra (L6, Madagascar, 27 July), Komaki (L6, Japan, 26 September), Ksar El Goraane (H5, Morocco, 28 October), Mhabes el Hamra (H4/5, Mauritania, 23 December). Notable 2019 reported falls are Viñales (L6, Cuba, 1 February), Aguas Zarcas (CM2, Costa Rica, 23 April), Oued Sfayat (H5, Algeria, 16 May), and Taqtaq-e Rasoul (H5, Iran, 10 August).

The total annual numbers of lunar and martian meteorites reached 45 and 23, respectively, last year. Most of these were found in NW Africa. Coordinates are known for several lunar meteorites (e.g., Errachidia in Morocco; Swayyah in Western Sahara), plus the largest lunar so far: 103 kg of lunar feldspathic breccia designated as NWA 12691. New Martian meteorites are mostly shergottites, but two new nakhlites (Caleta el Cobre 022, first nakhlite from Chile; and NWA 12542) and five polymict breccias (including Rabt Sbayta 010 and 012 with coordinates) paired with NWA 7034 were reported. Martian meteorites that are likely paired with NWA 7034 are now classified as "Martian (polymict breccia)."

Dense Collection Areas (DCAs)

There are currently over 340 named dense collection areas (DCAs).

Thirteen new DCAs were defined last year in Chad (Bardaï), China (Dunlike, Hongshagang, Huangtuya, Korla, Shanshan, Tamusubulage, Wubao), Libya (Hamadat Zegher), Morocco (Hassi Arsane), United States of America (Sunfair, Daveytown), and Western Sahara (Swayyah).

Type-Specimen Repositories

Nine new type-specimen repositories were approved from 8 countries:

- BGI – Botswana Geoscience Institute, Lobatse (Botswana)
- CUG – Planetary Science Institute, China University of Geosciences, Wuhan (China)
- LeMans – Musée Vert, Muséum d'histoire naturelle du Mans, Le Mans (France)
- Wits – University of the Witwatersrand, Johannesburg (South Africa)
- MCNB – Museu de Ciències Naturals de Barcelona (Spain)
- KirkU – Faculty of Aeronautics and Space Sciences, Kirklareli University (Turkey)
- NASU – National Museum of Natural History, National Academy of Sciences, Kyiv (Ukraine)
- LVNHM – Las Vegas Natural History Museum, Las Vegas (Nevada, USA)
- Marietta – Marietta College, Marietta (Ohio, USA)

Procedures

Write-up instructions for the three most common groups of meteorites (ordinary chondrites, eucrites, and ureilites) are now available. These guidelines enable the editor and deputy editor to review and approve meteorites (ordinary chondrites, eucrites, and ureilites) from dense collection areas. Any submission not meeting these criteria will be reviewed by the committee as usual.

Guidelines to Authors

Following the *Meteoritics & Planetary Science* article "Best Practices for the Use of Meteorite Names in Publications" by Heck et al. (2019), the guidelines to authors were updated in both the *Meteoritics & Planetary Science* and *Geochimica et Cosmochimica Acta* journals. Please use these guidelines when preparing your manuscripts for publication.

Meteorite Naming

Remember to send your write-ups for new and provisional names to the *Meteoritical Bulletin* Editor at least three weeks before submitting your conference abstract or manuscript to journals to avoid potential issues with naming and classification and delays in publication. The release of the write-up to the database may be held on request if there is an embargo from publishers.

Finally, please do not hesitate to contact us with questions or concerns about the NomCom, especially with suggestions for improvement.

Audrey Bouvier

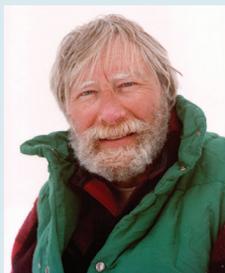
Chair of the Nomenclature Committee
Universität Bayreuth

REFERENCES

- Gattacceca J, McCubbin FM, Bouvier A, Grossmann J (2020) The Meteoritical Bulletin, No. 107. *Meteoritics & Planetary Science* 55: 460-462
- Heck PR and 29 coauthors (2019) Best practices for the use of meteorite names in publications. *Meteoritics & Planetary Science* 54: 1397-1400

IN MEMORIAM: WILLIAM A. CASSIDY (1928–2020)

William A. (Bill) Cassidy, emeritus professor in the Department of Geology and Planetary Science at the University of Pittsburgh (Pennsylvania, USA), quietly passed away on 25 March 2020 aged 92 at his home in Monroeville. Bill leaves behind a deep legacy of contributions to the fields of impact crater studies and meteoritics.



While pursuing a BS in geology at the University of New Mexico (USA) in the early 1950s, Bill was made aware of Campo del Cielo and the lost Meson de Fierro iron of Argentina during a class taught by Lincoln LaPaz. A Fulbright Scholarship in Australia and a PhD from Penn State University (Pennsylvania, USA) followed, leading to a research scientist position at the Lamont–Doherty Earth Observatory (New York, USA) from where Bill would mount the first of many expeditions to the Campo del Cielo crater field. Bill's studies of the site proved of historic importance. It was relatively young (4,000 years old) and consisted of over two dozen individual craters, most small enough to be fully excavated to reveal their original geometry and impactor trajectories. Meteorites were recovered from most of these craters, providing an early indisputable link between these two planetary phenomena. Bill's research on the Campo del Cielo site continued into his eighties, and he was loved throughout the region for his consistent efforts to include Argentine scientists, technicians, artists and laypeople in the work. Bill was involved in other seminal crater studies, including investigations of the Aouelloul and Tenoumer craters in Mauritania and the Monturaqui impact site in Chile. He also conducted pioneering research on Australasian microtektites (especially the very interesting but poorly studied "bottle green" variety), Muong Nong-type tektites, and lunar samples.

Another enduring part of Bill Cassidy's legacy is as founder of the US-led Antarctic Search for Meteorites (ANSMET) program. Bill was one of the first outside of Japan to recognize that nine meteorites recovered in 1969 from the Yamato Mountains of Antarctica were the vanguard of a huge number of specimens. He persistently submitted proposals to the US Antarctic Research Program until he finally achieved funding for the 1976–1977 field season, the first of several conducted jointly with Japanese collaborators. Since that time, the ANSMET program has operated without interruption, sending field parties to Antarctica annually and recovering over 24,000 meteorite specimens. These include several paradigm-shifting specimens,

such as EET 79001 (the first meteorite determined to be Martian in origin), ALH 81005 (the first Lunar meteorite), and many samples from rare, scientifically valuable, and previously unknown classifications. The inherent altruism of the US Antarctic meteorite program, which provides samples of all recovered specimens to scientists from around the world, is a direct result of Bill's decision to give up privileged access to the meteorites in favor of a program (partnering with NASA and the Smithsonian Institution) that allows other scientists to make their own discoveries. The results have been extraordinary: a program that has lasted for generations, whose long-term impact on science easily rivals that of Apollo.

Ultimately, Bill led fourteen ANSMET expeditions, the last in 1994. He returned to Antarctica again in the late 1990s as a part of a NASA-funded Carnegie Mellon University (Pennsylvania, USA) project to develop robotic meteorite search technologies.

Multiple honors have been bestowed upon Bill in recognition of his contributions to planetary science. He was awarded the Barringer Medal of the Meteoritical Society in 1995 for his lifelong work on impact craters and their debris. The mineral *cassidyite* [$\text{Ca}_2\text{Ni}(\text{PO}_4)_2 \cdot 2\text{H}_2\text{O}$], a rare mineral from Wolf Creek Crater (found in cracks and cavities in weathered meteorites), was named in his honor. Bill was awarded the Antarctic Service Medal in 1977, and also had a glacier named after him: the Cassidy Glacier, a tributary of the Taylor Glacier in the Dry Valleys region of Antarctica, which places his legacy firmly on the map. Asteroid 3382 Cassidy also places his legacy firmly in the heavens. And in 2015, a hall of the Parque Campo del Cielo Museum (Argentina) was named in his honor.

Bill will be long remembered for his dry sense of humor, his humility, and his generosity. His legacy extends far beyond the craters he explored and the tens of thousands of meteorites his projects recovered. Hundreds of scientists forged bonds of friendship, respect, and trust as a direct result of Bill's efforts during six decades of field work, both in Antarctica and elsewhere, learning to put aside personal gain or comfort in the pursuit of science.

Ralph P. Harvey, John W. Schutt

Case Western Reserve University (Ohio, USA)
Christian Koeberl, University of Vienna (Austria)

GIFTS AND GRANTS GUIDELINES

The stated mission of the Meteoritical Society is "to promote research and education in planetary science with emphasis on studies of meteorites and other extraterrestrial materials that further our understanding of the origin and history of the solar system." Besides the society's publications, the annual scientific meetings, establishing official names for newly found meteorites, and the awards sponsored by the society, there are other ways by which we work toward furthering our mission. These include supporting student travel to conferences and workshops; supporting student research; assisting scientists from economically disadvantaged countries; supporting classes or field schools, especially those that bring meteoritics and planetary science to developing countries; compiling oral histories from prominent members of the society; and supporting outreach to the broader public community on meteoritics and planetary science.

To support these activities, the society has created an endowment fund. The majority of the endowment consists of the General Fund which can support one-time activities that are not part of normal society business. The endowment fund also has named funds: the Nier Fund, the McKay Fund, and the Travel for International Members Fund. Details about activities supported by all of these funds are given under Activities Supported on the society's website.

For those who wish to assist in this mission, donations can be made to the General Fund or to any of the specific funds (see Ways to Contribute on the society's website).

ANNUAL MEETING SCHEDULE

Due to the worldwide restrictions caused by the Covid-19 pandemic, the 2020 Meteoritical Society meeting has been postponed. The schedule will be as follows: Chicago remains the meeting location for 2021, with Glasgow moving to 2022. The meetings for Perth (Australia) and Brussels (Belgium) have each been pushed back by one year to 2023 and 2024, respectively. We thank our members for their understanding, and our meeting hosts for their flexibility during this time of uncertainty.

2020	Glasgow (Scotland), 9–14 August [POSTPONED]
2021	Chicago, Illinois (USA), 14–21 August
2022	Glasgow (Scotland), dates TBD
2023	Perth, Western Australia (Australia) dates TBD
2024	Brussels (Belgium), dates TBD

RENEW YOUR MEMBERSHIP NOW!

Please don't forget to renew your membership for 2020. Students—this is particularly important if you are interested in applying for one of our student presentation awards, as you must be a member to be eligible. You can renew online at: <http://metsoc.meteoritical-society.net>.