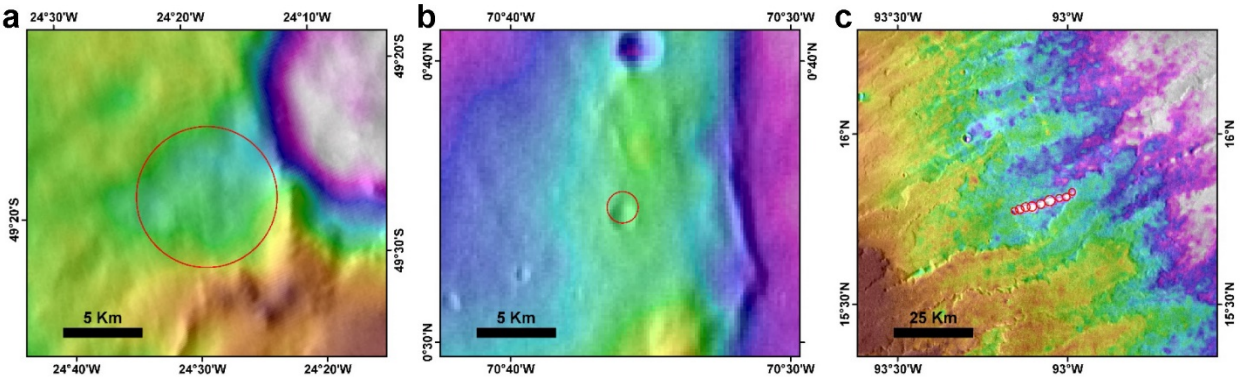
This Supplemental Material accompanies Lagain, A., Bouley, S., Baratoux, D., Marmo, C., Costard, F., Delaa, O., Pio Rossi, A., Minin, M., Benedix, G.K., et al., 2021, Mars Crater Database: A participative project for the classification of the morphological characteristics of large Martian craters, *in* Reimold, W.U., and Koeberl, C., eds., Large Meteorite Impacts and Planetary Evolution VI: Geological Society of America Special Paper 550, https://doi.org/10.1130/2021.2550(29).

APPENDIX

Appendix A: Examples of secondary craters contained in the Robbins & Hynek's database not recognized as secondaries in our survey. They are all not located into a crater cluster and are far away from a large crater potentially being the source of these craters. The Robbins' database entries are indicated by a red circle superposed with transparency to THEMIS imagery and MOLA data. a: An 8.89km in diameter entry in the Robbins & Hynek's database classified as a misidentified crater in our survey. b: This 1.04km crater has been classified as "standard" in our study. c: Chaplet of 9 kilometric craters classified here as misidentified entries. These circular structures are located on the northeast edge of the Tharsis bulge and are clearly formed by the volcanic and tectonic activity.



Appendix B: Database content

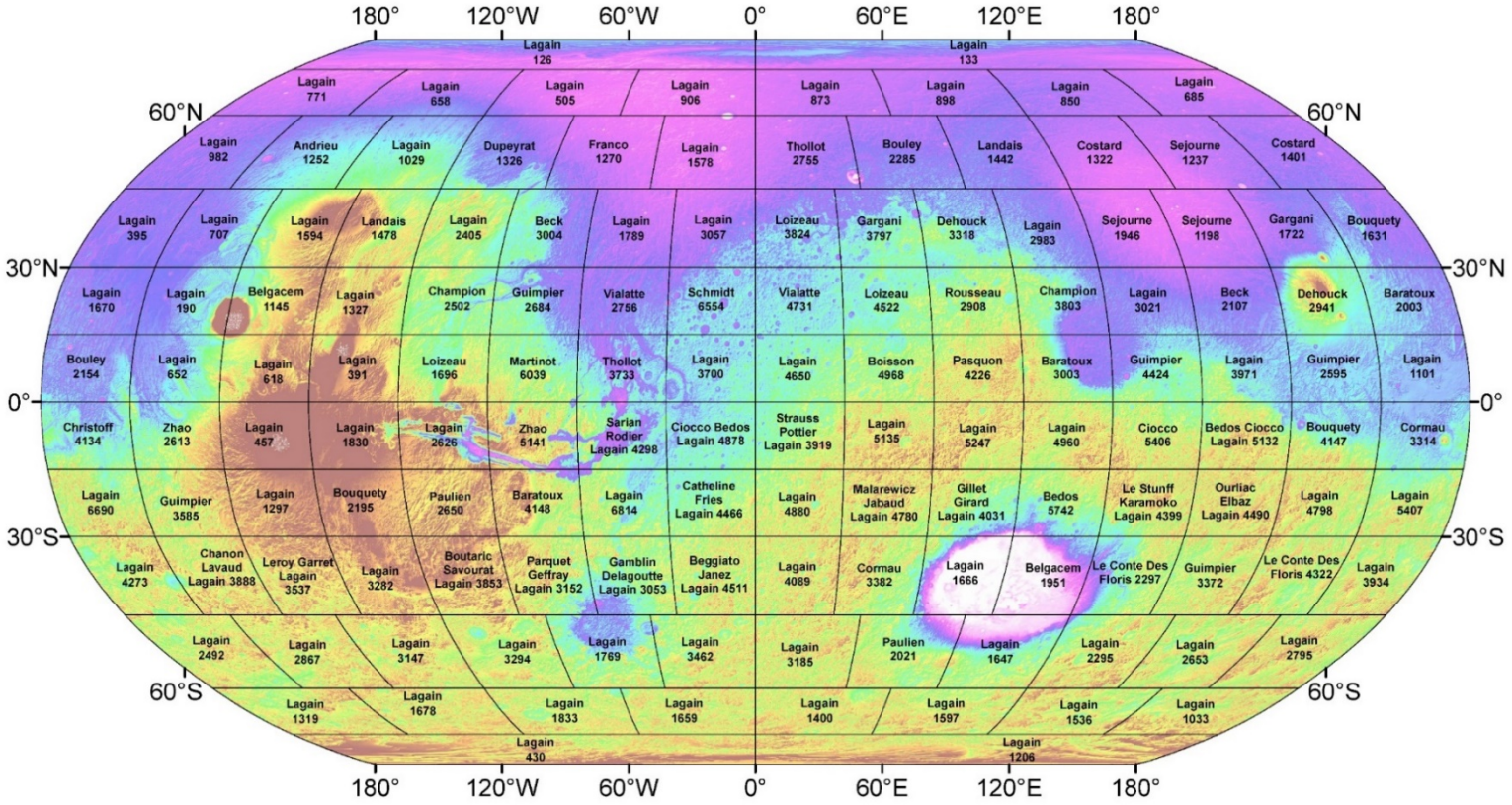
- CRATER_ID: Same as Robbins' database except for craters added for which ID has been built from their location: northern hemisphere = 100-xxx, southern hemisphere = 200-xxx, -xxx corresponds to the order of creation.
- RADIUS: Same as Robbins' database, in meters, except for craters added for which the radius has been determined from three points placed on the crater rim.
- X, Y: Coordinates, same as Robbins' database except for craters added for which it corresponds to the centroid of circle shape created on Cesium.
- TYPE: Crater classification (numerical): 1 = Standard, 2 = Layered Ejecta Rampart Sinuous (LERS) and Low-Aspect Ratio Layered Ejecta (LARLE) crater, 3 = Buried / degraded craters, 4 = Secondary.
- STATUS: Crater classification (text).
- LRD_MORPH: Ejecta morphology for layered ejecta craters: SLE (Single Layered Ejecta), DLE (Double Layered Ejecta), MLE (Multiple Layered Ejecta), LARLE (Low-Aspect Ratio Layered Ejecta).
- ORIGIN: Secondary craters for which the primary crater source has been identified. The primary CRATER_ID is indicated. In case of double primary craters being produced secondaries, CRATER_IDs of the couple is mentioned.
- ADDING: Empty = Craters already contained in the Robbins' database, 1 = Craters added in this study.

Appendix C: Revision team contribution

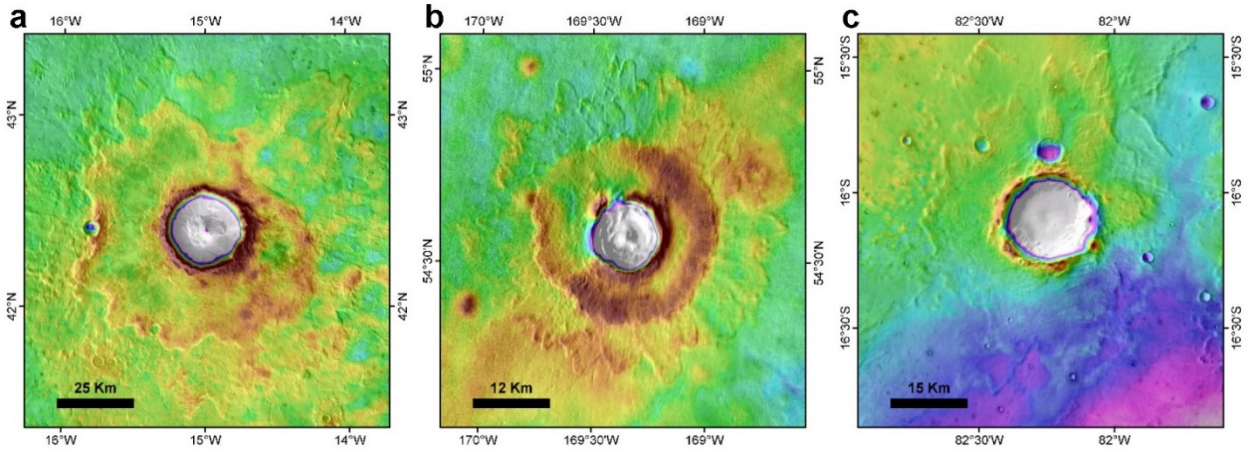
Name	Number of quadrangles reviewed	Number of craters reviewed
ANDRIEU François	1	1258
BARATOUX David	3	9166
BECK Pierre	2	5180
BEDOS Bastien	2	10876
BEGGIATO Gautier	½	2256
BELGACEM Ines	2	3123
BOISSON Joséphine	1	4985
BOULEY Sylvain	2	4436
BOUQUETY Axel	3	7973
BOUTARIC Angélique	½	1926
CATHELINE Marion	½	2231
CHAMPION Jason	2	6313
CHANON Clémentine	½	1942
CHRISTOFF Nicole	1	4134
CIOCCO Marine	2	10284
CORMAU Maël	2	6743
COSTARD François	2	2723
DEHOUCQ Erwin	2	5261
DELAGOUTTE Mark-Anthony	½	1526
DUPEYRAT Laure	1	1326
ELBAZ Lazare	½	2239
FRANCO Maximilien	1	1287
FRIES Morgane	½	2231
GAMBLIN Olivier	½	1526
GARGANI Julien	2	5518
GARRET Emeline	½	1767
GEFFRAY Marie-Charlotte	½	1575

GILLET Alexandre	½	2015
GIRARD Sebastien	½	2016
GUIMPIER Anthony	5	16663
JABAUD Benoît	½	2237
JANEZ Gatien	½	2256
KARAMOKO Aboubacar	½	2199
LAGAIN Anthony	69	155005
LANDAIS François	2	2920
LAVAUD Pauline	½	1942
LE CONTE DES FLORIS Elisa	2	6620
LE STUNFF Florent	½	2199
LEROY Etienne	½	1767
LOIZEAU Damien	3	10094
MALAREWICZ Virgile	½	2387
MARTINOT Mélissa	1	6051
OURLIAC Camille	½	2239
PARQUET Loïc	½	1575
PASQUON Kelly	1	4229
PAULIEN Nicolas	2	4671
POTTIER Mathilde	½	1958
RODIER Jean	½	2142
ROUSSEAU Batiste	1	2904
SARIAN Romain	½	2141
SAVOURAT Marion	½	1926
SCHMIDT Frédéric	1	6557
SEJOURNE Antoine	3	4382
STRAUSS Shani	½	1958
THOLLOT Patrick	2	6493
VIALATTE Anne	2	7489
ZHAO Jinjin	2	7744

Appendix D: Quadrangles assignment to the crater database reviewing participants. Numbers indicated under each name corresponds to the number of craters contained in the Robbins' database within each quadrangle. When several names are indicated, the quadrangle has been subdivided and each reviewer has corrected only one part.


180°
120°W
60°W
0°
60°E
120°E
180°
60°N
30°N
0°
30°S
60°S
Lagain 126
Lagain 133
Lagain 771
Lagain 658
Lagain 505
Lagain 906
Lagain 873
Lagain 898
Lagain 850
Lagain 685
Lagain 982
Andrieu 1252
Lagain 1029
Dupeyrat 1326
Franco 1270
Lagain 1578
Thollot 2755
Bouley 2285
Landais 1442
Costard 1322
Sejourne 1237
Costard 1401
Lagain 395
Lagain 707
Lagain 1594
Landais 1478
Lagain 2405
Beck 3004
Lagain 1789
Lagain 3057
Loizeau 3824
Gargani 3797
Dehouck 3318
Lagain 2983
Sejourne 1946
Sejourne 1198
Gargani 1722
Bouquety 1631
Lagain 1670
Lagain 190
Belgacem 1145
Lagain 1327
Champion 2502
Guimpier 2684
Vialatte 2756
Schmidt 6554
Vialatte 4731
Loizeau 4522
Rousseau 2908
Champion 3803
Lagain 3021
Beck 2107
Dehouck 2941
Baratoux 2003
Bouley 2154
Lagain 652
Lagain 618
Lagain 391
Loizeau 1696
Martinot 6039
Thollot 3733
Lagain 3700
Lagain 4650
Boisson 4968
Pasquon 4226
Baratoux 3003
Guimpier 4424
Lagain 3971
Guimpier 2595
Lagain 1101
Christoff 4134
Zhao 2613
Lagain 457
Lagain 1830
Lagain 2626
Zhao 5141
Sarian Rodier Lagain 4298
Ciocco Bedos Lagain 4878
Strauss Pottier Lagain 3919
Lagain 5135
Lagain 5247
Lagain 4960
Ciocco 5406
Bedos Ciocco Lagain 5132
Bouquety 4147
Cormau 3314
Lagain 6690
Guimpier 3585
Lagain 1297
Bouquety 2195
Paulien 2650
Baratoux 4148
Lagain 6814
Catheline Fries Lagain 4466
Lagain 4880
Malarewicz Jabaud Lagain 4780
Gillet Girard Lagain 4031
Bedos 5742
Le Stunff Karamoko Lagain 4399
Ourliac Elbaz Lagain 4490
Lagain 4798
Lagain 5407
Lagain 4273
Chanon Lavaud Lagain 3888
Leroy Garret Lagain 3537
Lagain 3282
Boutaric Savourat Lagain 3853
Parquet Geffray Lagain 3152
Gamblin Delagoutte Lagain 3053
Beggiato Janez Lagain 4511
Lagain 4089
Cormau 3382
Lagain 1666
Belgacem 1951
Le Conte Des Floris 2297
Guimpier 3372
Le Conte Des Floris 4322
Lagain 3934
Lagain 2492
Lagain 2867
Lagain 3147
Lagain 3294
Lagain 1769
Lagain 3462
Lagain 3185
Paulien 2021
Lagain 1647
Lagain 2295
Lagain 2653
Lagain 2795
Lagain 1319
Lagain 1678
Lagain 1833
Lagain 1659
Lagain 1400
Lagain 1597
Lagain 1536
Lagain 1033
Lagain 430
Lagain 1206

Appendix E: Three layered ejecta craters for which classification of their ejecta blankets morphology differ between Robbins & Hynek, (2012) and this study. a: Arandas crater: this layered ejecta crater has been identified as a MLERS in the Robbins' catalog and as a MLERS in this study, in consistency with the detailed geological map published by Lagain et al., (2020a). b: Steinheim crater: Impact crater classified as a DLERS in our survey, mapped and classified by Pietrek et al., (2013) as a double layer ejecta crater. This crater is classified as a MLERS in the Robbins' catalog. c: Unknown crater (-16.091°N, -82.232°W) crater: this crater is classify as a DLERS in the Robbins catalog and as a MLERS in our survey but also in the Barlow & Perez (2003) database.



Appendix F: Examples of misidentified entries contained in the Robbins & Hynek's catalog.

The Robbins' database entries are indicated by a red circle superposed with transparency to THEMIS imagery and MOLA data.