

Hannah C.M. Susorney
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Department of Earth and Planetary Science
Johns Hopkins University
Baltimore, MD 21210
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EDUCATION

Graduate Student, Earth and Planetary Science
Johns Hopkins University, Baltimore, MD
Advisors: Dr. Olivier S. Barnouin and Dr. Darrell F. Strobel
September 2013-Present

Masters of Art, Earth and Planetary Science
Johns Hopkins University, Baltimore, MD
May 2015

Bachelor of Science, Earth Science-Geology
Montana State University, Bozeman, MT
Minor: Mathematics
May 2013

RESEARCH EXPERIENCE

The Johns Hopkins University Applied Physics Lab/NASA Internship
Laurel, MD
Advisor: Dr. Carolyn Ernst and Dr. Nancy Chabot
June-August, 2013

- Exploring the Morphology of Simple Craters that Host Polar Deposits on Mercury: Implications for the Source and Stability of Water Ice

Advisor: Dr. Carolyn Ernst
June-August, 2012

- Investigating Mercury's Geology with the Mercury Dual Imaging System (MDIS)

Field Assistant
Robertson Glacier, Alberta
Advisor: Dr. Mark Skidmore (Montana State University)
July-August 2011

- Microbiology of Robertson Glacier Basal Runoff

NSF International Research Experience for Students (IRES)
Hangzhou, China
Advisor: Dr. Frankie Jackson (Montana State University)
May-June 2011

- Morphology and Associated Sedimentology of Cretaceous Egg Clutches

PROFESSIONAL ACTIVITIES

Local Organizing Committee for the Geological Society of America Annual Meeting, *Student Member* 2015
Lunar Planetary Institute's Meteor Crater Field Camp, *Participant* 2014
Geological Society of America Planetary Geology Division, *Student Representative* 2014-present

TEACHING EXPERIENCE

<i>Johns Hopkins University</i> Guest Lecture Tour of the Solar System (1 lecture)	Spring 2015
<i>Montana State University</i> Undergraduate Teaching Assistant for Honors Earth System Science	Fall 2011, 2012

OUTREACH ACTIVITIES

Roots and Branches Elementary School West Baltimore, MD <ul style="list-style-type: none"> Presented on asteroids and impact craters to 200 elementary age children. 	May 2015
The Johns Hopkins University Applied Physics Lab Laurel, MD <ul style="list-style-type: none"> Produced Images of the Day for the MESSENGER Public Website Assisted in responding to the public's question about Mercury and the MESSENGER mission 	Summer 2012, 2013
Father Marquette Middle School Marquette, MI <ul style="list-style-type: none"> Presented an hour long talk to two 6th grade classes (approximately 30 students each) about my experience studying science in college and recent research activities I was involved in 	May 2012

HONORS

Dwornik Award Best Graduate Student Poster	2015
Johns Hopkins Applied Physics Laboratory Graduate Student Fellowship	2014-present
Johns Hopkins University Earth and Planetary Science Department Best 30 minute Journal Club Graduate Student Presentation	2014
National Science Foundation Graduate Research Fellowship <i>Honorable Mention</i>	2014
Montana State University Top Geology Undergraduate	2013
Montana Space Grant Consortium Best Undergraduate Poster	2013
Montana State University Undergraduate Scholars Program Research Grant	2011, 2012
Montana State University Earth Science Colloquium Best Undergraduate Poster	2012

PUBLICATIONS

1. **Susorney, H.C.M.**, Barnouin, O.S., Ernst, C.M., Johnson, C.L. Impact Crater Morphology on Mercury from MESSENGER (in review, 2015)

TALKS

2. **Susorney, H.C.M.**, and Barnouin, O.S. (2014) Surface Roughness using a Range of MLA Baselines. 32nd MESSENGER Science Team Meeting
1. **Susorney, H.C.M.**, Chabot, N.L., Ernst, C.M., and Barnouin, O.S. (2013) Exploring the Morphology of Simple Craters that Host Polar Deposits on Mercury: Implications for the Source and Stability of Water Ice. 31st MESSENGER Science Team Meeting

CONFERENCE ABSTRACTS

10. **Susorney, H.C.**, Barnouin, O.S., and Ernst, C.M. (2015) The Surface Roughness of Mercury: Investigating the Effects of Impact Cratering, Volcanism and Tectonics. 46th Annual Lunar and Planetary Science Conference. Abstract 2088.
9. Barnouin, O.S., Ernst, C.M., **Susorney, H.C.** (2015). The Remarkable Hokusai Crater, Mercury. 46th Lunar and Planetary Science Conference. Abstract 2672.
8. Kring, D. A. ...**Susorney, H.C.M.** (2015) Distribution of Kaibab Ejecta North of Meteor Crater, Arizona. 46th Lunar and Planetary Science Conference. Abstract 1186.
7. **Susorney, H.C.M.**, Barnouin, O.S., and Ernst, C.M. (2014) Investigating the Surface Roughness of Mercury. American Geophysical Union Fall Meeting. Abstract P34C-08*
6. **Susorney, H.C.M.**, Barnouin, O.S., and Ernst, C.M. (2014) The Role of Target Properties and Projectile Velocity on Final Crater Morphology of Craters on Mercury. 45th Lunar and Planetary Science Conference. Abstract 1276.
5. Ernst, C. M., Chabot, N. L., **Susorney, H.C.M.**, Barnouin, O. S., Harmon, J. K., and Paige, D. A. (2014) Exploring the Morphology of Simple Craters that Host Polar Deposits on Mercury: Implications for the Source and Stability of Water Ice. 45th Lunar and Planetary Science Conference. Abstract 1238.
4. Ernst, C.M., Chabot, N.L., **Susorney, H.C.**, and Barnouin, O.S. (2013) Exploring the Morphology of Simple Craters that Host Polar Deposits on Mercury: Implications for the Source and Stability of Water Ice. Geological Society of America Annual Meeting. Abstract 383-10.
3. **Susorney, H.C.**, Barnouin, O.S., Ernst, C.M., and Head, J.W. (2013) Impact Crater Morphometry on Mercury from MESSENGER Observations. 44th Annual Lunar and Planetary Science Conference. Abstract 1650.
2. Barnouin, O.S., Ernst, C.M., **Susorney, H.C.**, Neumann, G.A., Johnson, C.L., Balckerski, J and Hauck, S.A. (2012). Impact Velocity as a Source of Variations in Crater Depth on Mercury, American Geophysical Union Fall Meeting. Abstract P33B-1941.
1. Barnouin, O.S. Runyon, K.D., **Susorney, H.**, Ernst, C.M., and Wada, K. (2012). Experimental Investigation of Ejecta Emplacement. Geological Society of America Annual Meeting. Abstract 202-9.

* denotes oral presentation

COMPUTING SKILLS

IDL, ISIS, Mathematica, R, GMT, MATLAB, \LaTeX

MEMBERSHIPS

American Geophysical Union, Planetary Sciences Section, 2011-present
Geological Society of America, Planetary Geology Division, 2010-present