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PROFESSIONAL INTERESTS

Teaching and research interests intersect across the domains of Geomorphology (surface processes), Active Tectonics, Natural Hazards, and Geoarchaeology.

EDUCATION

- 2008 **Ph.D.**, Earth and Environmental Sciences
 Lehigh University, Bethlehem, Pennsylvania, USA
- 1999 **M.S.**, Earth and Planetary Sciences
 The **University of New Mexico**, Albuquerque, New Mexico, USA
- 1996 **B.A.**, Geology, Cum Laude, with Honors
 Whitman College, Walla Walla, WA, USA

PROFESSIONAL EXPERIENCE

- 2017– **[Center for Geospatial Analytics](#)**, North Carolina State University
 Faculty Fellow
- 2015– **[Dept. of Marine, Earth & Atmospheric Sciences](#)**, North Carolina State University
 Associate Professor
- 2008–2015 **Dept. of Marine, Earth & Atmospheric Sciences**, North Carolina State University
 Assistant Professor
- 2004 **Washington State Dept. of Natural Resources – Division of Geology & Earth Resources**
 Geologist 3 / Natural Resource Scientist 3
- 1999–2004 **Washington State Dept. of Natural Resources – Division of Geology & Earth Resources**
 Geologist 2
- 2000-2004 **Peninsula College, Port Angeles, WA**
 Distance Learning Instructor - Geology

- 1998 **New Mexico Bureau of Mines & Mineral Resources and Univ. of New Mexico Office of Contract Archeology**
Contract Geologist
- 1996 **U.S. Geological Survey – Seattle, WA**
NAGT Geology Intern

PROFESSIONAL LICENSES

2002–present Washington State Licensed Geologist & Engineering Geologist (License # 733).

RESEARCH FUNDING

- 2020-2021 *RAPID: Sparta Earthquake Surface Deformation Characterization* | National Science Foundation | \$29,752 | Co-Principle Investigator.
- 2020-2021 *Utilization of airborne lidar to evaluate regional landslide area-volume scaling relationships after a large rainfall-triggered mass wasting event in western North Carolina* | National Center for Airborne Laser Mapping – Seed Data Grant Program | Awarded to Ph.D. student Corey Scheip | ~\$24,000 | Co-Principle Investigator.
- 2020-2021 *Late Quaternary Earthquakes from Multiple Sources on the Olympic Peninsula – Using the Sedimentary Record from Lake Crescent, Washington to Improve Regional Seismic Hazard Probability Estimates* | U.S. Geological Survey National Earthquake Hazard Reduction Program | \$102,041 | Co-Principle Investigator.
- 2019-2020 *Characterization and Geochronology of Climatically-Triggered Landslides along the southern Blue Ridge Escarpment of North Carolina via Surficial and Bedrock Geologic Mapping* | U.S. Geological Survey EDMAP Program | \$17,497 | Principal Investigator.
- 2018-2019 *Exploration of a Location-Based Learning Platform for Higher Education* | NC State University Distance Education and Learning Technology Applications (DELTA) | \$8,000 | Co-Principle Investigator.
- Geomorphology and geochronology of artifact-bearing late Quaternary landforms near Sweeney Pass, Anza-Borrego Desert State Park, California* | Anza-Borrego Foundation | \$5,000 | Principal Investigator.
- 2018-2019 *Geology and Landscape Evolution along a portion of the Rio Chama Corridor, Rio Arriba County, New Mexico* | U.S. Geological Survey EDMAP Program | \$17,496 | Principal Investigator.
- 2017-2020 *GP-Impact: Expanding Geoscience Discovery Opportunities Beyond the Classroom* | National Science Foundation | \$326,376 | Co-Investigator.

- 2017-2018 *Geology, landscape evolution, and natural hazards of the Mesa Lakes 1:24,000-scale Quadrangle, Grand Mesa, Colorado* | U.S. Geological Survey EDMAP Program | \$17,484 | Principal Investigator.
- 2017 *Evaluating the Potential for Down-Stream Water Quality Improvements of Incised Stream Systems in Eastern North Carolina using Natural and Analog Beaver Dams* | North Carolina Sea Grant – MiniGrant | \$4,356 | Principal Investigator
- 2015-2017 *Freshwater Bivalve Survey for Endangered Species Branch, Fort Bragg, North Carolina* | U.S. Army Corps of Engineers | \$103,500 | Co-Investigator
- 2015-2017 *Establishing a high-resolution post-glacial chronology of surface rupture on the Lake Creek – Boundary Creek Fault, Puget Sound Region, Washington State* | U.S. Geological Survey Nat'l Earthquake Hazard Reduction Program | \$99,989 | Principal Investigator.
- 2014-2015 *Surficial Geology and Geomorphology of the Burnt River Corridor, Eastern Oregon: Investigating Late Cenozoic Landscape Response to Snake River Downcutting* | U.S. Geological Survey EDMAP Program | \$17,452 | Principal Investigator.
- 2012-2015 *Investigating the long-term record of seismically induced erosion preserved in the stratigraphy of Lake Quinault, Washington* – National Science Foundation | \$99,945 | Co-Investigator.
- 2012-2014 *Assessment of the Potential Association of Stream Bank Erosion and Sedimentation with the Distribution and Abundance of Unionids in Streams of Fort Bragg, North Carolina* | U.S. Geological Survey | \$89,623 | Co-Investigator.
- 2011-2015 *Active Outer Forearc Basin Formation by Syn-Convergent Extension above the Hellenic Subduction Zone, Crete, Greece* | American Chemical Society – Petroleum Research Fund Doctoral New Investigator Grant | \$100,000 | Principal Investigator.
- 2010-2015 (extended through 2017) *Collaborative Research: Intracontinental Deformation and Surface Uplift: Geodynamic Evolution of the Hangay Dome, Mongolia, Central Asia* | National Science Foundation | \$541,059 | Principal Investigator.
- 2010-2011 *Geochronology of the Hvsgl Rift, Mongolia: Integrating Tectonics and Climate Change Across an Active Intracontinental Orogen* | NCSU Faculty Research & Professional Development Fund | \$4,000 | Principal Investigator.
- 2010-2011 *Legacy Sediments and Stream Water Quality: Estimating Volume, Nutrient Content, and Stream Bank Erosion in 303(d)-Impaired Waterways of the North Carolina Piedmont* | Water Resources Research Institute of North Carolina | \$50,000 | Co-Investigator.
- 2010-2011 *Lake Hvsgl: An Integrative Natural Laboratory for Quaternary Tectonics, Glaciation, and Climate Change in Northern Mongolia* | Keck Geology Consortium | \$57,210 | Project Director & Co-Investigator.

- 2010 *Geomorphological Investigation of the City of Port Angeles Waterfront* | City of Port Angeles, Washington | \$79,835 | Co-Investigator.
- 2008 *Testing for Deep Motion on the Hellenic Subduction Interface and Vertical Tectonics of Crete, Greece: Implications for Great Mediterranean Earthquakes* | National Science Foundation – Postdoctoral Fellowship Award | \$160,000 | Principal Investigator (declined due to Assistant Professor appointment at NC State University).
- 2008-2009 *Quaternary Tectonic and Geomorphic Evolution of the Deluun Nuruu, Mongolian Altai, Western Mongolia* | Keck Geology Consortium | \$53,200 | Co-Investigator.
- 2007 *Seismogenic Nature of the Central Hellenic Subduction Zone and Late Quaternary Marine Terrace Stratigraphy on the Island of Crete, Greece* | Lehigh University College of Arts & Sciences Summer Research Fellowship | \$3,600 | Principal Investigator.
- 2006-2007 *Broadband Geodesy, Great Earthquakes, and Vertical Tectonics of the Hellenic Subduction Zone, Crete, Greece* | Sigma Xi Grants-in-Aid of Research | \$1,000 | Principal Investigator.
- 2006 *Great Earthquakes and Vertical Tectonics of Crete (Greece) Utilizing Synthetic Aperture Radar Interferometry* | European Space Agency – Category 1 Data Grant | 200 SAR Scenes | Co-Investigator.
- 2005-2006 *Integration of Late Quaternary marine terrace records as a proxy for uplift rates from the subaerial Hellenic accretionary wedge, Crete, Greece* | Geological Society of America Graduate Student Research Grant | \$1500 | Principal Investigator.

PUBLICATIONS

ADDITIONAL PUBLICATION INFORMATION AVAILABLE VIA [RESEARCH GATE](#) AND [GOOGLE SCHOLAR](#)

STUDENT CO-AUTHORS ARE DENOTED BY AN ASTERISK (*)

In Progress Publications

- *Bayasgalan, G., **Wegmann**, K., Amgalan, B., *Submitted*, Contrasting Late Miocene to present landscape evolution across Mongolia's Khangay Mountains through the lens of chemical and physical weathering processes: *Journal of Asian Earth Sciences*
- *Bayasgalan, G., **Wegmann**, K., Giachetta, E., Khuut, T., and Amgalan, B., *Submitted*, Paleoenvironmental reconstruction of Late Quaternary lacustrine sediments and their tectonic implications, southern Khangay Mountains, Mongolia: *Geomorphology*.
- *Bruni, E.T., Ott, R.F., Picotti, V., Haghypour, N., **Wegmann**, K.W., and Gallen, S.F., *In Review*, Stochastic alluvial fan and terrace formation triggered by a high-magnitude Holocene landslide in the Klados Gorge, Crete: *Earth Surface Dynamics*, <https://doi.org/10.5194/esurf-2021-4>.
- Caves Rugenstein, J.K., Methner, K., Kukla, T., Mulch, An., Lüdecke, T., Fiebig, J., Meltzer, A., **Wegmann**, K., Zeitler, P., and Chamberlain, C.P., *Submitted*, Clumped isotope constraints on warming and precipitation seasonality in Mongolia due to Altai uplift: *Journal of Geology*.

*Kling, C.L., Byrne, P.K., *Atkins, R.M., Wegmann, K.W., *In Revision*, Tectonic deformation and volatile loss in the formation of Noctis Labyrinthus, Mars: *Journal of Geophysical Research – Planets*.

Peer-Reviewed Journal Articles; $n = 34$; most recent first

*Scheip, C.M., and **Wegmann**, K.W., 2021, HazMapper: a global open-source natural hazard mapping application in Google Earth Engine: *Natural Hazards and Earth System Sciences*, v. 21, p. 1495–1511, <https://doi:10.5194/nhess-21-1495-2021>.

Ott, R.F., **Wegmann**, K.W., Gallen, S.F., Pazzaglia, F.J., Brandon, M.T., Ueda, K., and Fassoulas, C., 2021, Reassessing Eastern Mediterranean tectonics and earthquake hazard from the 365 CE Earthquake: *AGU Advances*, v. 2, p. e2020AV000315, <https://doi.org/10.1029/2020AV000315>.

*Holcomb, J.A., Runnels, C., and **Wegmann**, K.W., 2020, Deposit-centered archaeological survey and the search for the Aegean Palaeolithic: A geoarchaeological perspective: *Quaternary International*, v. 550, p. 169-183, <https://doi:10.1016/j.quaint.2020.04.043>.

*Ott, R.F., Gallen, S.F., **Wegmann**, K.W., Biswas, R.H., Herman, F., and Willett, S.D., 2019, Pleistocene terrace formation, Quaternary rock uplift rates and geodynamics of the Hellenic Subduction Zone revealed from dating of paleoshorelines on Crete, Greece: *Earth and Planetary Science Letters*, v. 525, <https://doi:10.1016/j.epsl.2019.115757>.

*Smith, S.G., **Wegmann**, K.W., Leithold, E.L., and Bohnenstiehl, D., 2019, A 4,000 year record of hydrologic variability from the Olympic Mountains, Washington, USA: *The Holocene*, v. 29, no. 8, p. 1273-1291, <https://doi:10.1177/0959683619846975>.

*Langhorst, T., Pavelsky, T. M., Prata de Moraes Frasson, R., Wei, R., Domeneghetti, A., Altenau, E. H., Durand, M. T., **Wegmann**, K. W., and Fuller, M. R., 2019, Anticipated improvements to river surface elevation profiles from the Surface Water and Ocean Topography mission: *Frontiers in Earth Science*, v. 7, no. 102, <https://doi:10.3389/feart.2019.00102>.

Leithold, E. L., **Wegmann**, K. W., Bohnenstiehl, D. R., *Joyner, C. N., and *Pollen, A. F., 2019, Repeated megaturbidite deposition in Lake Crescent, Washington triggered by Holocene ruptures of the Lake Creek-Boundary Creek fault system: *Geological Society of America Bulletin*, v. 131, no. 11/12, p. 2039-2055, <https://doi.org/10.1130/B35076.1>.

*Smith, S.G., and **Wegmann**, K.W., 2018, Precipitation, landsliding, and erosion across the Olympic Mountains, Washington State, USA: *Geomorphology*, v. 30, p. 141-150, <https://doi:10.1016/j.geomorph.2017.10.008>.

Leithold, E., **Wegmann**, K., Bohnenstiehl, D., *Smith, S., Noren, A., and O'Grady, R., 2018, Slope failures within and upstream of Lake Quinalt, Washington, as uneven responses to Holocene earthquakes along the Cascadia subduction zone: *Quaternary Research*, v. 89, p. 178-200, <https://doi:10.1017/qua.2017.96>.

Gallen, S.F., and **Wegmann**, K.W., 2017, River profile response to normal fault growth and linkage: an example from the Hellenic forearc of south-central Crete, Greece: *Earth Surface Dynamics*, v. 5, p. 161-186, <https://doi:10.5194/esurf-5-161-2017>.

*Morriss, M.C., and **Wegmann**, K.W., 2017, Geomorphology of the Burnt River, eastern Oregon, USA: Topographic adjustments to tectonic and dynamic deformation: *Geomorphology*, v. 278, p. 43-59, <https://doi:10.1016/j.geomorph.2016.09.015>.

*Wall, J., Bohnenstiehl, D.R., **Wegmann**, K.W., and Levine, N.S., 2016, Morphometric comparisons between automated and manual karst depression inventories in Apalachicola National Forest, Florida, and

- Mammoth Cave National Park, Kentucky, USA: Natural Hazards, p. 1-21. <https://doi:10.1007/s11069-016-2600-x>.
- *Smith, G.A., **Wegmann**, K.W., *Ancuta, L.D., Gosse, J.C., and *Hopkins, C.E., 2016, Paleo-topography and erosion rates in the central Hangay Dome, Mongolia: Landscape evolution since the mid-Miocene: Journal of Asian Earth Sciences, v. 125, p. 37-57, <https://doi:10.1016/j.jseaes.2016.05.013>.
- Leithold, E.L., Blair, N.E., and **Wegmann**, K.W., 2016, Source-to-sink sedimentary systems and global carbon burial: A river runs through it: Earth-Science Reviews, v. 153, p. 30-42, <https://doi:10.1016/j.earscirev.2015.10.011>.
- Gallen, S.F., Pazzaglia, F.J., **Wegmann**, K.W., Pederson, J.L., and Gardner, T.W., 2015, The dynamic reference frame of rivers and apparent transience in incision rates: Geology, v. 43, p. 623-626, <https://doi.org/10.1130/G36692.1>.
- *Lyons, N.J., Starek, M.J., **Wegmann**, K.W., and Mitasova, H., 2015, Bank erosion of legacy sediment at the transition from vertical to lateral stream incision: Earth Surface Processes and Landforms, v. 40, no. 13, p. 1764-1778, <https://doi.org/10.1002/esp.3753>.
- Runnels, C., *DiGregorio, C., **Wegmann**, K.W., *Gallen, S.F., Strasser, T.F., and Panagopoulou, E., 2014, Lower Palaeolithic artifacts from Plakias, Crete: Implications for Hominin Dispersals: Eurasian Prehistory, v. 11, p. 129-152, https://www.peabody.harvard.edu/files/17_Ruunels_et.al_start.pdf.
- *Lyons, N. J., Mitasova, H., and **Wegmann**, K. W., 2014, Improving mass-wasting inventories by incorporating debris flow topographic signatures: Landslides, v. 11, no. 3, p. 385-397; <https://doi.org/10.1007/s10346-013-0398-0>.
- *Gallen, S. F., **Wegmann**, K. W., Bohnenstiehl, D. R., Pazzaglia, F. J., Brandon, M. T., and Fassoulas, C., 2014, Active simultaneous uplift and margin-normal extension in a forearc high, Crete, Greece: Earth and Planetary Science Letters, v. 398, p. 11-24; <https://doi.org/10.1016/j.epsl.2014.04.038>.
- *Xia, F., Zhang, Y., Wang, Q., Yin, Y., **Wegmann**, K., and Liu, J. P., 2013, Evolution of sedimentary environments of the middle Jiangsu coast, South Yellow Sea since late MIS 3: Journal of Geographical Sciences, v. 23, no. 5, p. 883-914, <https://doi.org/10.1007/s11442-013-1015-5>.
- *Voli, M., **Wegmann**, K., Bohnenstiehl, D., Leithold, E., Osburn, C., and Polyakov, V., 2013, Fingerprinting the sources of suspended sediment delivery to a large municipal drinking water reservoir: Falls Lake, Neuse River, North Carolina, USA: Journal of Soils and Sediments, v. 13, no. 10, p. 1692-1707, <https://doi.org/10.1007/s11368-013-0758-3>.
- Jefferson, A. J., **Wegmann**, K. W., and Chin, A., 2013, Geomorphology of the Anthropocene: Understanding the surficial legacy of past and present human activities: Anthropocene, v. 2, p. 1-3., <https://doi.org/10.1016/j.ancene.2013.10.005>.
- Starek, M. J., Mitasova, H., **Wegmann**, K. W., and *Lyons, N., 2013, Space-Time Cube Representation of Stream Bank Evolution Mapped by Terrestrial Laser Scanning: Geoscience and Remote Sensing Letters, IEEE, <https://ieeexplore.ieee.org/document/6469163>.
- *Gallen, S.F., **Wegmann**, K.W., and Bohnenstiehl, D.R., 2013, Miocene rejuvenation of topographic relief in the southern Appalachians: GSA Today, v. 23, no. 2, p. 4-10, <https://doi:10.1130/GSATG163A.1>.
- Wegmann**, K.W., Bohnenstiehl, D.R., *Bowman, J.D., Homburg, J.A., Windingstad, J.D., and Beery, D., 2012, Assessing Coastal Landscape Change for Archaeological Purposes: Integrating Shallow Geophysics,

Historical Archives and Geomorphology at Port Angeles, Washington, USA: Archaeological Prospection, v. 19, no. 4, p. 229-252, <https://doi.org/10.1002/arp.1431>.

Strasser, T.F., Runnels, C., **Wegmann**, K., Panagopoulou, E., McCoy, F., Digregorio, C., Karkanis, P., and Thompson, N., 2011, Dating Palaeolithic sites in southwestern Crete, Greece: *Journal of Quaternary Science*, v. 26, no. 5, p. 553-560, <https://doi.org/10.1002/jqs.1482>.

*Gallen, S.F., **Wegmann**, K.W., Frankel, K.L., *Hughes, S., *Lewis, R.Q., *Lyons, N., *Paris, P., *Ross, K., Bauer, J.B., and Witt, A.C., 2011, Hillslope response to knickpoint migration in the southern Appalachians: Implications for the evolution of post-orogenic landscapes: *Earth Surface Processes and Landforms*, v. 36, p. 1254-1267, <https://doi.org/10.1002/esp.2150>.

Frankel, K.L., **Wegmann**, K.W., Bayasgalan, A., Carson, R.J., Bader, N.E., Adiya, T., Bolor, E., Durfey, C.C., Otgonkhoo, J., Sprajcar, J., Sweeney, K.E., Walker, R.T., Marsteller, T.L., and Gregory, L., 2010, Late Pleistocene slip rate of the Höh Serh–Tsagaan Salaa fault system, Mongolian Altai and intracontinental deformation in central Asia: *Geophysical Journal International*, v. 183, no. 3, p. 1134-1150, <https://doi.org/10.1111/j.1365-246X.2010.04826.x>.

Eppes, M.C., McFadden, L.D., **Wegmann**, K.W., and Scuderi, L.A., 2010, Cracks in desert pavement rocks: Further insights into mechanical weathering by directional insolation: *Geomorphology*, v. 123, no. 1-2, p. 97-108, <https://doi.org/10.1016/j.geomorph.2010.07.003>.

Strasser, T.F., Panagopoulou, E., Runnels, C.N., Murray, P.M., Thompson, N., Karkanis, P., McCoy, F.W., and **Wegmann**, K.W., 2010, Stone age seafaring in the Mediterranean: Evidence from the Plakias Region for Lower Palaeolithic and Mesolithic Habitation of Crete: *Hesperia*, v. 79, no. 2, p. 145-190, <http://www.jstor.org/stable/40835484>.

Wegmann, K.W., and Pazzaglia, F.J., 2009, Late Quaternary fluvial terraces of the Romagna and Marche Apennines, Italy: Climatic, lithologic, and tectonic controls on terrace genesis in an active orogen: *Quaternary Science Reviews*, v. 28, no. 1-2, p. 137-165, <https://doi.org/10.1016/j.quascirev.2008.10.006>.

Wegmann, K.W., Zurek, B.D., Regalla, C.A., Bilardello, D., Wollenberg, J.L., Kopczynski, S.E., Ziemann, J.M., Haight, S.L., Apgar, J.D., Zhao, C., and Pazzaglia, F.J., 2007, Position of the Snake River watershed divide as an indicator of geodynamic processes in the greater Yellowstone region, western North America: *Geosphere*, v. 3, no. 4, p. 272-281, <https://doi.org/10.1130/GES00083.1>.

Wegmann, K.W. and Pazzaglia, F.J., 2002, Holocene strath terraces, climate change, and active tectonics—The Clearwater River basin, Olympic Peninsula, Washington State: *Geological Society of America Bulletin*, v. 114, no. 6, p. 731-744, [https://doi.org/10.1130/0016-7606\(2002\)114%3C0731:HSTCCA%3E2.0.CO;2](https://doi.org/10.1130/0016-7606(2002)114%3C0731:HSTCCA%3E2.0.CO;2).

Wegmann, K.W. and Walsh, T.J., 2001, Landslide hazard mapping in Cowlitz County—A progress report: *Washington Geology*, v. 29, no. 1&2, p. 30-33, https://www.dnr.wa.gov/Publications/ger_washington_geology_2001_v29_no1-2.pdf.

Peer-Reviewed Book Chapters; $n = 7$; most recent first

Wegmann, K.W., 2020, Gravity Never Sleeps, in McConnell, D.A., Steer, D., Knight, C., and Owens, K. eds., *The Good Earth: Introduction to Earth Science*, Fifth Edition, New York, McGraw Hill, p. 270–271.

Walker, R.T., **Wegmann**, K.W., Bayasgalan, A., Carson, R.J., Elliott, J., Fox, M., Nissen, E., Sloan, R.A., Williams, J.M., and Wright, E., 2017, The Egiin Davaa prehistoric rupture, central Mongolia: A large magnitude normal faulting earthquake on a reactivated fault with little cumulative slip located in a slowly deforming intraplate

setting, in Landgraf, A., Kubler, S., Hintersberger, E., and Stein, S. (eds.), *Fault Rupture and Earthquake Hazards in Slowly Deforming Regions*, London, Geological Society, Special Publications, v. 432, p. 187–212, <https://doi.org/10.1144/SP432.4>.

Gallen, S.F., and **Wegmann**, K.W., 2015, Exploring the origins of modern topographic relief in the southern Appalachians: An excursion through the transient landscape of the Cullasaja River basin, North Carolina, in Holmes, A.E. (ed.), *Diverse Excursions in the Southeast: Paleozoic to Present*, Boulder, Geological Society of America, v. 39, p. 145–168, [https://doi.org/10.1130/2015.0039\(05\)](https://doi.org/10.1130/2015.0039(05)).

Wegmann, K.W., *Lewis, R.Q., and *Hunt, M.C., 2012, Historic mill ponds and piedmont stream water quality: Making the connection near Raleigh, North Carolina, in Eppes, M. C., and Bartholomew, M. J., (eds.), *From the Blue Ridge to the Coastal Plain: Field Excursions in the Southeastern United States*: Geological Society of America Field Guide 29: Boulder, Geological Society of America, p. 93-121, [https://doi.org/10.1130/2012.0029\(03\)](https://doi.org/10.1130/2012.0029(03)).

Cheney, J.T., Brady, J.B., Tierney, K.A., DeGraff, K.A., Mohlman, H.K., Frisch, J.D., Hatch, C.E., Steiner, M.L., Carmichael, S.K., Fisher, R.G.M., Tuit, C.B., Steffen, K.J., Cady, P., Lowell, J., Archuleta, L.L., Hirst, J., **Wegmann**, K.W., and Monteleone, B. 2004, Proterozoic metamorphism of the Tobacco Root Mountains, Montana, in Brady, J.B., Burger, H.R., Cheney, J.T., and Harms, T.A. (eds.), *Precambrian geology of the Tobacco Root Mountains, Montana*, Geological Society of America Special Paper 377, Boulder, Colorado, Geological Society of America, p. 105–129, <https://doi.org/10.1130/0-8137-2377-9.105>.

Pazzaglia, F.J., Thackray, G.D., Brandon, M.T., **Wegmann**, K.W., Gosse, J., McDonald, E., Garcia, A.F., and Prothero, D., 2003, Tectonic geomorphology and the record of Quaternary plate boundary deformation in the Olympic Mountains, in Swanson, T.W. (ed.), *Western Cordillera and adjacent areas*: Boulder, Colorado, Geological Society of America Field Guide 4, p. 37-67, <https://doi.org/10.1130/0-8137-0004-3.37>.

Pazzaglia, F.J., Brandon, M.T., **Wegmann**, K.W., 2002, Fluvial record of plate-boundary deformation in the Olympic Mountains, in Moore, G. W., (ed.), *Field guide to geologic processes in Cascadia*: Oregon Department of Geology and Mineral Industries Special Paper 36, p. 223-256, <https://digital.osl.state.or.us/islandora/object/osl:27150>.

Geologic Maps & Reports; n = 10; most recent first

*Scheip, C.M., *Hinchliffe, W., and **Wegmann**, K.W., Map of Surficial Deposits and Slope Movements, Green River Gorge, Polk County, North Carolina, USA: North Carolina State University, Raleigh, Unpublished Map & Report for NCGMP EDMAP Program, 1:24,000-scale, 1 plate, <https://go.ncsu.edu/green-river-gorge-geo-project>.

*Chesnutt, J.M., **Wegmann**, K.W., *Pawl, T.A., White, J.L., Cole, R.D., Bernier, C.M., and Byrne, P.K., 2020, Geologic Map of the Mesa Lakes Quadrangle, Mesa and Delta Counties, Colorado: Colorado Geological Survey, OF-19-08, Golden, CO, <https://coloradogeologicalsurvey.org/publications/geologic-map-mesa-lakes-quadrangle-mesa-delta-colorado/>.

*Chesnutt, J.M., **Wegmann**, K., Szymanski, E., and Kling, C., 2019, 1:24,000 scale Surficial and Bedrock Geologic Map of the Rio Chama Canyon Corridor, Rio Arriba County, New Mexico: North Carolina State University, Raleigh, Unpublished Map for NCGMP EDMAP Program, <https://go.ncsu.edu/rio-chama-corridor-geo-project>.

*Chesnutt, J.M., *Pawl, T., **Wegmann**, K., Cole, R., White, J., and Byrne, P., 2018, Surficial and Bedrock Map of the 1:24,000-scale Mesa Lakes Quadrangle, Grand Mesa, Colorado, North Carolina State University, Raleigh, Unpublished Map for NCGMP EDMAP Program, <https://go.ncsu.edu/grand-mesa-geo-project>.

- *Morriss, M.C., *Vezie, C., and Wegmann, K., 2015, Geologic Map of the Upper Burnt River Canyon, Baker County, Oregon: North Carolina State University, Raleigh, Unpublished Maps and Report for NCGMP EDMAP Program, 3 plates, 1:24,000 scale, <https://go.ncsu.edu/burnt-river-corridor-geo-project>.
- Polenz, M., **Wegmann**, K.W. and Schasse, H.W., 2004, Geologic map of the Elwha and Angeles Point 7.5-minute quadrangles, Clallam County, Washington: Washington Division of Geology and Earth Resources Open-File Report 2004-14, 1 sheet, scale 1:24,000, https://www.dnr.wa.gov/publications/ger_ofr2004-14_geol_map_elwha_angelespoint_24k.pdf.
- Schasse, H.W., **Wegmann**, K.W. and Polenz, M., 2004, Geologic map of the Port Angeles and Ediz Hook 7.5-minute quadrangles, Clallam County, Washington: Washington Division of Geology and Earth Resources Open-File Report 2004-13, 1 sheet, scale 1:24,000, https://www.dnr.wa.gov/publications/ger_ofr2004-13_geol_map_portangeles_edizhook_24k.pdf.
- Schasse, H.W. and **Wegmann**, K.W., 2000, Geologic map of the Carlsborg 7.5-minute Quadrangle, Clallam County, Washington: Washington Division of Geology and Earth Resources Open-File Report 2000-7, 27 p., two plates, scale 1:24,000, https://www.dnr.wa.gov/Publications/ger_ofr2000-7_geol_map_carlsborg_24k.zip.
- Chamberlin, R.M., Pazzaglia, F.J., **Wegmann**, K.W., and Smith, G.A., 1999, Preliminary geologic map of the Loma Creston 7.5-min. Quadrangle, Sandoval County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Geologic Map OF-GM 25, scale 1:24,000, https://geoinfo.nmt.edu/publications/maps/geologic/ofgm/downloads/25/OFGM-25_LomaCrestonReport.pdf.
- Formento-Trigilio, M.L., **Wegmann**, K., Pazzaglia, F.J., 1998, Geology of the Ojito Springs 7.5-minute quadrangle, Sandoval County, New Mexico, New Mexico Bureau of Mines and Mineral Resources, Open-file Geologic Map OF-GM 46, scale 1:24,000, <https://geoinfo.nmt.edu/publications/maps/geologic/ofgm/details.cfm?volume=46>.

Technical Reports; *n = 13; most recent first*

- Wegmann**, K. W., Osburn, C. L., *Lewis, R. Q., Peszlen, I. M., and Mitsova, H., 2013, Legacy Sediments and Stream Water Quality: Estimating Volume, Nutrient Content, and Stream Bank Erosion in 303(d)-Impaired Waterways of the North Carolina Piedmont, Report 435: Raleigh, Water Resources Research Institute of the University of North Carolina, 58 pp., <https://repository.lib.ncsu.edu/bitstream/handle/1840.4/8190/NC-WRRI-435.pdf?sequence=1>.
- Wegmann**, K.W., Homburg, J.A., Bohnenstiehl, D.R., *Bowman, J.D., Windingstad, J.D., and Huber, E.K., 2010, Geomorphology of the City of Port Angeles Waterfront, Technical Report 10-82: Tucson, Statistical Research, Inc., p. 121, https://www.researchgate.net/publication/308718420_Geomorphology_of_the_City_of_Port_Angeles_Waterfront.
- Wegmann**, K.W., 2006, Digital landslide inventory for the Cowlitz County Urban Corridor, Washington: Washington Division of Geology and Earth Resources Report of Investigation 35, version 1.0, 28 p., https://fortress.wa.gov/dnr/geologydata/publications/ger_ri35.zip.
- Wegmann**, K.W., 2004, Landslide Hazard Zonation Project, Level II Assessment for the Clear Creek, Dan Creek, and Lime Creek Watersheds, Snohomish and Skagit Counties, Washington: Washington State Department of

Natural Resources, Olympia, Washington, 25 p., two plates,
http://file.dnr.wa.gov/publications/ger_lhz_comp_clearanlime.zip.

Wegmann, K.W., 2004, Landslide Hazard Zonation Project, Level II Assessment for the Lower Naselle Watershed, Pacific County, Washington: Washington State Department of Natural Resources, Olympia, Washington, 53 p., two plates, http://file.dnr.wa.gov/publications/ger_lhz_comp_lower_naselle.zip.

Wegmann, K.W., 2004, Landslide Hazard Zonation Project, Level II Assessment for the Nookachamps Watershed, Skagit County, Washington: Washington State Department of Natural Resources, Olympia, Washington, 31 p., two plates, http://file.dnr.wa.gov/publications/ger_lhz_comp_nookachamps.zip.

Wegmann, K.W., 2004, Landslide Hazard Zonation Project, Level II Assessment for the Quinault Lake, Quinault River, and Cook–Elk Watersheds, Jefferson and Grays Harbor Counties, Washington: Washington State Department of Natural Resources, Olympia, Washington, 12 p., two plates,
http://file.dnr.wa.gov/publications/ger_lhz_comp_quinault.zip.

Yakima River Floodplain Mining Impact Study Team, 2004, Yakima River Floodplain Mining Impact Study: Washington Division of Geology and Earth Resources Open-File Report 2004-8, 270 p., 14 appendices,
https://www.dnr.wa.gov/Publications/ger_ofr2004-8_yakima_floodplain_mining_impact_text.pdf.

Wegmann, K.W., Johnson, C.N., Norman, D.K., 2003, Yakima River floodplain mining study—Interim report; Pond bathymetry and sediment particle data, *In* Yakima River Floodplain Mining Impact Study Team, 2004, Yakima River floodplain mining impact study—Appendix E: Washington Division of Geology and Earth Resources Open-File Report 2004-8, 270 p., 14 Appendices, 1 CD.

Baker, L.R, **Wegmann**, K.W., McKay, D.T., Jr., Norman, D.K., and Johnson, C.N., 2003, Digital inventory of floodplain mines in Washington State: Washington Division of Geology and Earth Resources, Digital Report 3, 8 p,
https://www.dnr.wa.gov/publications/ger_dr3_inventory_of_flood-plain_mines.zip.

Wegmann, K.W., 2003, Digital landslide inventory for the Cowlitz County urban corridor—Kelso to Woodland (Coweeman River to Lewis River), Cowlitz County, Washington: Washington Division of Geology and Earth Resources, Report of Investigation 34.

Wegmann, K.W., Walsh, T., Norman, D., McElroy, P., 2002, Digital landslide inventory for the Cowlitz County urban corridor—Kelso to Woodland, Washington (Coweeman River to Lewis River)—Field review: Washington Division of Geology and Earth Resources, Unpublished Report, 8 pp.

Wegmann, K.W. and Pederson, J.L., 1998, Geology and geomorphology at archeological sites along New Mexico Highway 44, *in* Schutt, J.A. and Winter, J.C., eds., Report for archeological investigations along Highway 44 near Bernalillo, Sandoval County, New Mexico: University of New Mexico, Office of Contract Archeology.

Source Code & Data; $n = 2$; most recent first

*Scheip, C. and **Wegmann**, K., 2020, HazMapper v1.0 source code (Version 1.0): Zenodo,
<http://doi.org/10.5281/zenodo.4103348> [uploaded October 28].

Dartnell, P., Warrick, J.A., and **Wegmann**, K.W., 2017, Multibeam bathymetry and acoustic backscatter data collected in 2016 for Lake Crescent, Olympic National Park, Washington: U.S. Geological Survey data release,
<https://doi:10.5066/F7B56GW5>.

Geologic Field Trip Guide; $n = 2$; most recent first

Thackray, G., Gavin, D., Ritchie, A., **Wegmann**, K., Ashworth, A., and Ely, L., 2015, Late Pleistocene to Modern Geomorphic and Biotic History of the Olympic Peninsula, Washington: Friends of the Pleistocene, Pacific Northwest Cell Field Trip September 17-20, 2015, p. 121,
http://www.fop.cascadiageo.org/pacific_northwest_cell/2015/FOP_PNW_2015_Olympic_field_guide.pdf.

Wegmann, K.W., 2004, Geologic Field Trip to the Aldercrest–Banyon Landslide and Mount St. Helens, Washington, Part I—Stevenson to Castle Rock: 96th Annual Meeting of the American Association of State Geologists, June 12-16, 2004: Washington Division of Geology and Earth Resources, 24 p.,
https://www.dnr.wa.gov/Publications/ger_misc_field_trip_stevenson_castle_rock.pdf.

Conference Proceedings; $n = 8$; most recent first

Strasser, T.F., Panagopoulou, E., Runnels, C., **Wegmann**, K., 2018. The Palaeolithic and Mesolithic periods on Crete. Chronostratigraphical evidence from the Plakias survey, ΠΕΠΡΑΓΜΕΝΑ ΙΑ΄ ΔΙΕΘΝΟΥΣ ΚΡΗΤΟΛΟΓΙΚΟΥ ΣΥΝΕΔΡΙΟΥ. ΤΟΜΟΣ Α1.1 ΤΜΗΜΑ ΑΡΧΑΙΟΛΟΓΙΚΟ ΙΣΤΟΡΙΚΗ ΚΑΙ ΛΑΟΓΡΑΦΙΚΗ ΕΤΑΙΡΕΙΑ ΡΕΘΥΜΝΗΣ, Ρέθυμνο, pp. 123-133.

Wegmann, K.W., Leithold, E.L., and Bohnenstiehl, D.R., 2014, How important is seismically-induced erosion above the Cascadia subduction zone? Insights from the stratigraphy of large lakes on the Olympic Peninsula, Washington State, in Gillespie, A., and Montgomery, D., eds., Proceedings of the 23rd Biennial Meeting of the American Quaternary Association, Volume 23: University of Washington, Seattle, WA, American Quaternary Union, p. 35-37.

Wegmann, K.W., Amgaa, T., Frankel, K.L., de Wet, A.P., and Bayasgalan, A., 2011, Geologic, geomorphic, and environmental change at the northern termination of the Lake Hövösgol rift, Mongolia, in Varga, R., ed., Proceedings of the Twenty-Fourth Annual Keck Research Symposium in Geology: Pomona, Keck Geology Consortium, p. 220-229, https://keckgeology.org/files/symvol.24th.Wegmann_et_al.pdf.

Bader, N.E., Bayasgalan, A., Carson, R.J., Frankel, K.L., and **Wegmann**, K.W., 2009, Geology of the Höh Serh Range, Mongolian Altai, in de Wet, A., ed., Proceedings of the Twenty-Second Annual Keck Research Symposium in Geology: Lancaster, Keck Geology Consortium, p. 219-225,
https://keckgeology.org/files/pdf/symvol/22nd/mongolia/Bader_et_al219-225.pdf.

Bayasgalan, A., Carson, R., Jordon, B., and **Wegmann**, K., 2007, Geology of the Hangay Nuruu, Central Mongolia, in Bettison-Varga, L., ed., Twentieth Annual Keck Research Symposium in Geology Proceedings: Wooster, OH, p. 2-9, <https://keckgeology.org/files/pdf/symvol/20th/mongolia/jordan.pdf>.

Carson, R.J., Bayanmonh, A., Bayasgalan, A., Johnson, C.L., Pogue, K.R., and **Wegmann**, K.W., 2004, Geology of the Tavan Har area, Gobi, Mongolia, in Ewing, A., ed., Seventeenth Annual Keck Research Symposium in Geology: Northfield, MN, Keck Geology Consortium, p. 170-175,
<https://keckgeology.org/files/pdf/symvol/17th/mongolia/carson.pdf>.

Wegmann, K.W., 1996, Metamorphic evolution of the Archaean Pony Middle Mountain Metamorphic Suite, Tobacco Root Mountains, southwestern Montana, in 9th Keck Geology Consortium Symposium, Williams College, Williamstown, Massachusetts, April 1, 1996, v. 9, p. 122-125,
<https://keckgeology.org/files/pdf/symvol/9th/Montana/wegmann.pdf>.

Wegmann, K.W. and Allen, K., 1995, Contact relationships and petrography of the Williams Lake Granitoid Body, Quetico Provincial Park, Ontario, in 8th Keck Geology Consortium Symposium, Pomona College, Pomona, California, April 1, 1995, v. 8, p. 33-36,
https://keckgeology.org/files/pdf/symvol/8th/Ontario/wegmann_allen.pdf.

Other – Comment & Replies to Journal Articles; n = 2; most recent first

- Gallen, S.F., and Wegmann, K.W., 2017, Interactive comment on "Distinct phases of eustatism and tectonics control the Late Quaternary landscape evolution at the southern coastline of Crete" by Vasiliki Mouslopoulou et al.; Clarifying points on the response of Mouslopoulou et al. to short comment by Gallen and Wegmann [30 January 2017]: Earth Surface Dynamics, <http://www.earth-surf-dynam-discuss.net/esurf-2016-62/esurf-2016-62-SC2-supplement.pdf>.
- Gallen, S.F., and **Wegmann**, K.W., 2017, Interactive comment on "Distinct phases of eustatism and tectonics control the Late Quaternary landscape evolution at the southern coastline of Crete" by Vasiliki Mouslopoulou et al. [8 January 2017]: Earth Surface Dynamics, <http://www.earth-surf-dynam-discuss.net/esurf-2016-62/esurf-2016-62-SC1-supplement.pdf>.

Dissertation & Theses; n = 3 (most recent first)

- Wegmann**, K.W., 2008, Tectonic Geomorphology above Mediterranean Subduction Zones: Northeastern Apennines of Italy and Crete, Greece [Ph.D. Dissertation]: Bethlehem, Pennsylvania, Lehigh University, 169 p.
- Wegmann**, K.W., 1999, Late Quaternary fluvial and tectonic evolution of the Clearwater River basin, western Olympic Mountains, Washington State [M.S. thesis]: Albuquerque, University of New Mexico, 217 p.
- Wegmann**, K.W., 1996, Metamorphic evolution of the Archaean Pony Middle Mountain Metamorphic Suite, Tobacco Root Mountains, southwestern Montana [B.A. thesis]: Walla Walla, Washington, Whitman College, 74 p.

CONFERENCE ABSTRACTS – PAST 5 YEARS; STUDENT CO-AUTHORS DENOTED BY ASTERIX (*)

- *Scheip, C.M., and **Wegmann**, K.W., 2020, HazMapper: A Flexible Geospatial Mapping App for Natural Hazards: Virtual [Geo For Good Summit 2020](http://go.ncsu.edu/amozfhs), <http://go.ncsu.edu/amozfhs>.
- Wegmann**, K.W., and *Scheip, C.M., 2020, Evaluation of the HazMapper Google Earth Engine application for coseismic landslide mapping using the M_w7.8 2016 Kaikōura, New Zealand earthquake as a case study: Geological Society of America Abstracts with Programs, v. 52, n. 6, DOI:10.1130/abs/2020AM-359135.
- Gallen, S.F., Ott, R., **Wegmann**, K.W., Pazzaglia, F.J., Brandon, M.T., Ueda, K., and Fassoulas, C., Revisiting the source mechanism of the AD 365 Earthquake Crete, Greece, and Implications for Eastern Mediterranean Tectonics: Geological Society of America Abstracts with Programs, v. 52, no. 6, DOI:10.1130/abs/2020AM-352299.
- Figueiredo, P.M., Owen, L.A., Hill, J.S., Mersch, A.J., *Scheip, C.M., Steward, K., Carter, M.W., Wooten, R.M., **Wegmann**, K.W., Bohnenstiehl, D.R., Cattana, B.L., Douglas, T.J., Witt, A., and Szymanski, E., 2020, Surface deformation associated with the M_w 5.1 Sparta, NC, Earthquake: Geological Society of America Abstracts with Programs, v. 52, no. 6, DOI: 10.1130/abs/2020AM-361234.
- *Kling, C.L., Byrne, P.K., **Wegmann**, K.W., 2020, The role of subsurface volatiles in the formational history of Noctis Labyrinthus, Mars: Lunar and Planetary Science Conference, v. 51.
- *Ott, R., Gallen, S., **Wegmann**, K.W., Ueda, K., 2019, Synconvergent Extension and the AD 365 earthquake: Implications for seismic and tsunami hazards in the eastern Mediterranean: Eos Trans. AGU, Fall Meet. Suppl., Abstract T41J-0261.

- Wegmann, K.W.** and Leithold, E.L., 2019, Mid-Holocene earthquake-triggered landslides changed drainage patterns and forced genetic drift in a population of rainbow trout at Lake Crescent on the Olympic Peninsula, Washington State, Geological Society of America Abstracts with Programs, v. 51, n. 5, DOI:10.1130/abs/2019AM-341189
- *Atkins, R.M. and **Wegmann, K.W.**, 2019, Characterizing channel head response to anthropogenic landscape modification: Geological Society of America Abstracts with Programs, v. 51, n. 5, DOI:1130/abs/2019AM-337542.
- *Atkins, R.M., **Wegmann, K.W.**, Brewer, C., and McConnell, D., 2019, GeoJourney: Improving undergraduate pathways into the geosciences through an outdoor experiential high school-to-university bridge course: Geological Society of America Abstracts with Programs, v. 51, n. 5, DOI: 10.1130/abs/2019AM-337509.
- *Atkins, R.M., Byrne, P.K., and **Wegmann, K.W.**, 2019, Morphometry and timing of major crustal shortening structures on Mars: 50th Lunar and Planetary Science Conference, held 18-22 March, Woodlands, TX.
- *Kling, C.L., Byrne, P.K., Wyrick, D.Y., and **Wegmann, K.W.**, 2019, Field-based assessment of pit crater chains: 50th Lunar and Planetary Science Conference, Woodlands, TX.
- *Chesnutt, J.M., **Wegmann, K.W.**, *Szymanski, E.D., Byrne, P.K., and *Kling, C.L., 2019, Landscape evolution comparison between Valles Marineris, Mars, and the Rio Chama Canyon, New Mexico, USA: 50th Lunar and Planetary Science Conference, Woodlands, TX.
- *Ott, R., Gallen, S., Ueda, K., **Wegmann, K.**, Willett, S., 2019, Reassessing Mediterranean tectonics and earthquake hazard from the 365 AD earthquake: Geophysical Research Abstracts, v.21, EGU2019-3880.
- Caves Rugenstein, J.K., Sjostrom, D.J., Mix, H., Methner, K., Wacker, U., Bayshashov, B.U., Zhamangara, A., Lüdecke, T., Mulch, A., Fiebig, J., Meltzer, A., **Wegmann, K.**, and Chamberlain, C.P., 2018, Tracking interactions of the westerly jet and topography: uplift of the Tian Shan and Altai: Geophysical Research Abstracts, v. 20, EGU2018-5476.
- *Chesnutt, J.M., **Wegmann, K.W.**, *Szymanski, E.D., Byrne, P.K., and *Kling, C.L., 2019, Landscape evolution comparison between Valles Marineris, Mars and the Rio Chama Canyon, New Mexico, USA: 50th Lunar and Planetary Science Conference, held 18-22 March 2019 at The Woodlands, Texas. LPI Contribution No. 2132, id.2811.
- *Holcomb, J. A., **Wegmann, K. W.**, Karkanis, P., Fletcher, B., and Jenkins, D., 2018, Site formation processes at the Connley Caves: A record of environmental and cultural change during the Late Pleistocene and early Holocene in the Fort Rock Basin, Oregon, USA: Geological Society of America Abstracts with Programs, v. 50, no. 6, DOI: 10.1130/abs/2018AM-323064.
- Runnels, C., Murray, P., *Holcomb, J., **Wegmann, K.**, Eppes, M. C., and Sharp, W. D., 2019, Robert Begole's 'Early Man' Sites in the Anza-Borrego Desert State Park: New Research on Lithics in Desert Pavements in Hyperarid Environments, in Holen, S., and Connors, R., eds., International Conference on Early Humans in the Americas: Borrego Springs, CA, Colorado Desert Archaeology Society.
- *Kling, C. L., Byrne, P. K., Wyrick, D. Y., **Wegmann, K. W.**, and Bohnenstiehl, D. R., 2019, Field-based assessment of pit crater chains: 50th Lunar and Planetary Science Conference, held 18-22 March 2019 at The Woodlands, Texas. LPI Contribution No. 2132, id.1627.
- *Kling, C. L., Byrne, P. K., Wyrick, D. Y., and **Wegmann, K. W.**, 2018, Investigating the formation of Noctis Labyrinthus, Mars: American Geophysical Union, Fall Meeting, Washington, D.C., abstract #P311-3826.
- *Langhorst, T., Pavelsky, T., Frasson, R. P. M., Wei, R., Domeneghetti, A., Altenau, E. H., Durand, M. T., Minear, J. T., **Wegmann, K. W.**, and Fuller, M., 2018, Anticipated improvements to in-river DEMs from the Surface Water and Ocean Topography mission: American Geophysical Union, Fall Meeting, Washington, D.C., abstract #OS53C-1347.
- Leithold, E. L., and **Wegmann, K. W.**, 2018, Episodic sedimentation and the stratigraphic record—A legacy of Bob Dott's Musings, and an example from Holocene lacustrine sediments in western Washington: Geological Society of America Abstracts with Programs, v. 50, No. 6, DOI: 10.1130/abs/2018AM-318135.
- McConnell, D., and **Wegmann, K.**, 2018, Enhancing Communications and Building Partnerships Between University Geoscience Faculty and K-12 Students and Teachers: American Geophysical Union, Fall Meeting, Washington, D.C., abstract #ED11B-05.
- *Ott, R., Gallen, S. F., Willet, S., Biswas, R. H., and **Wegmann, K. W.**, 2018, Mechanisms of forearc uplift of the Hellenic Subduction Zone revealed by dating of paleoshorelines on Crete, Greece: Implications for

- geodynamics and earthquake hazards in the Eastern Mediterranean: Geophysical Research Abstracts, v.20, EGU2018-8852.
- *Vo, A., Leithold, E. L., and **Wegmann**, K. W., 2018, Classification of disturbance events preserved in late Holocene sedimentary record of Lake Crescent, WA: American Geophysical Union, Fall Meeting, Washington, D.C., abstract #PP11E-1293.
- *Kling, C.L., Byrne, P.K., Wyrick, D.Y., and **Wegmann**, K.W., 2018, Spatial and temporal relationships between pit craters and graben within Noctis Labyrinthus, Mars: Lunar and Planetary Science Conference, v. 49.
- *Lee, A., **Wegmann**, K.W., and *Travels, D.T., 2018, Leave it to beavers: evaluating the potential for incised stream restoration using natural and analog beaver dams: Water Resources Research Institute of the University of North Carolina 20th Annual Conference.
- *Ott, R., Gallen, S.F., Willett, S., Biswas, R.H., and **Wegmann**, K.W., 2018, Mechanisms of forearc uplift of the Hellenic Subduction Zone revealed by dating of paleoshorelines on Crete, Greece: Implications for geodynamics and earthquake hazards in the Eastern Mediterranean: EGU General Assembly, Abstract EGU2018-8852.
- *Bayasgalan, G., **Wegmann**, K.W., Fodor, R.V., and Bayasgalan, A., 2017, Contrasting late Miocene to present landscape evolution across Mongolia's Khangay Mountains through the lens of chemical and physical weathering processes: Geological Society of America Abstracts with Programs, v. 49.
- *Chesnutt, J.M., *Pawl, T.A., **Wegmann**, K.W., Cole, R.D., Byrne, P.K., and White, J.L., 2017, Surficial, bedrock and geohazard map of the Mesa Lakes Quadrangle, Grand Mesa, Colorado: Geological Society of America Abstracts with Programs, v. 49.
- *Chesnutt, J.M., **Wegmann**, K.W., Cole, R.D., and Byrne, P.K., 2017, Landscape evolution comparison between Sacra Mensa, Mars and the Grand Mesa, Colorado, USA, Abstract [EP53B-1690] presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.
- *Kling, C.L., Byrne, P.K., Wyrick, D.Y., and **Wegmann**, K.W., 2018, Spatial and temporal relationships between pit craters and graben within Noctis Labyrinthus, Mars: Lunar and Planetary Science Conference, v. 49.
- *Kling, C.L., Byrne, P.K., Wyrick, D.Y., **Wegmann**, K.W., and Mitasova, H., 2017, The formation of pit craters within Noctis Labyrinthus, Mars: Geological Society of America Abstracts with Programs, v. 49.
- *Lee, A., A., **Wegmann**, K.W., and *Travels, D.T., 2017, Leave it to Beavers: Evaluating the potential for downstream water quality improvements of incised stream systems in eastern North Carolina using natural and analog beaver dams: Water Resources Research Institute of the University of North Carolina 19th Annual Conference, March 15-16, Raleigh, N.C.
- Leithold, E.L., **Wegmann**, K.W., and Bohnenstiehl, D.R., 2017, A Holocene earthquake record from Lake Crescent, Olympic Peninsula, Washington: Geological Society of America Abstracts with Programs, v. 49.
- *Stubblefield, R.K., Byrne, P.K., **Wegmann**, K.W., Mitasova, H., and *Kling, C.L., 2017, Extensional tectonics at Alba Mons: A case study of regional and local stress fields: Geological Society of America Abstracts with Programs, v. 49.
- *Stufflefield, R.K., Byrne, P.K., **Wegmann**, K.W., Mitasova, H., and *Kling, C.L., 2017, Topographic signatures of extensional tectonic landforms at Alba Mons, Mars, Abstract [P24C-05] presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.
- Wegmann**, K.W., Leithold, E.L., Bohnenstiehl, D.R., *Joyner, C., and *Pollen, A.F., 2017, Lacustrine paleoseismology from Lake Crescent confirms multiple Holocene ruptures of the Lake Creek - Boundary Creek fault zone in response to northward convergence and clockwise rotation of the northern Olympic Peninsula, Washington: Geological Society of America Abstracts with Programs, v. 49.
- Wegmann**, K.W., Leithold, E.L., Bohnenstiehl, D.R., *Joyner, C.N., and *Pollen, A.F., 2016, Holocene Earthquakes, Rockslides, Tsunamis, and Fish: Cascadia Forearc Convergence and Rotation Accommodated by Seismogenic Faulting Along the Lake Creek – Boundary Creek Fault, Olympic Peninsula, Washington State, U.S.A., Annual Meeting of the Geophysical Union of Mexico, Abstracts with Program: Puerto Vallarta, Mexico, p. SE01-4.
- *Morriss, M.C., and **Wegmann**, K.W., 2016, A new terrace chronology and landscape development model from the Burnt River, eastern Oregon, USA: Geological Society of America Abstracts with Programs, v. 48.
- Leithold, E.L., **Wegmann**, K.W., Bohnenstiehl, D.R., *Pollen, A.F., and *Joyner, C., 2016, Megaturbidites in Lake Crescent, Washington—Sedimentary record of repeated catastrophic events triggered by surface rupture of the Lake Creek–Boundary Creek fault: Geological Society of America Abstracts with Programs, v. 48.

*Smith, S.G., **Wegmann**, K.W., Leithold, E.L., and Bohnenstiehl, D.R., 2016, A ~4000 year record of hydrologic variability from the Olympic Mountains, Washington: Geological Society of America Abstracts with Programs, v. 48.

PROFESSIONAL SERVICE AND ACTIVITIES

APPOINTMENTS

- 2020-2021 First Vice-Chair, Quaternary Geology & Geomorphology Division, Geological Society of America
- 2019-2020 Second Vice-Chair, Quaternary Geology & Geomorphology Division, Geological Society of America
- 2016-2018 Panel Member, Quaternary Geology & Geomorphology Division, Geological Society of America

EDITORIAL ACTIVITIES

- 2015-2021 Associate Editor – *Geological Society of America Bulletin*
- 2014-2019 Review Editor – *Frontiers in Science | Quaternary Science, Geomorphology and Paleoenvironment*
- 2013 Co-Editor for Anthropocene Special issue (vol. 2): *Geomorphology of the Anthropocene: Understanding the Surficial Legacy of Past and Present Human Activities*

PROFESSIONAL OUTREACH

- 2020 Invited Speaker – 10 December 2020: *Seeing the Ground Through the Trees: Using Remote Sensing Technologies for Natural Disaster Research*, Osher Lifelong Learning Institute at NC State University
- ‘Phone a Geologist’ – Science education volunteer at Hilburn Academy Middle School (WCPSS).
- Invited Presentation – 20 May 2020: *HazMapper Google Earth Engine Application for Rapid, Global Natural Disaster Characterization*, American Red Cross - National Office (virtual).
- Media Interview – 6 March 2020: [LiveScience.com](https://www.livescience.com) “How do we tell the difference between Geologic ages?”
- Invited Speaker – 22 January 2020: Soil Science Society of North Carolina Annual Meeting, Raleigh, NC
- 2019 Invited Speaker – 19 November 2019: *Research Perspectives in the Geosciences*, NC State University Honors and Scholars Programs Semester Forum Series, Raleigh, NC.
- Invited Speaker – 31 October 2019: *Adventures in (digital) Vegetation Removal for Geologic Hazards Research and a bit of a Fish Story, too*: [Geospatial Forum](https://www.geospatialforum.com), Center for Geospatial Analytics at NC State University, Raleigh, NC
- Invited Speaker – 29 January 2019: *Anthropogenic Landscapes: The Geomorphic Legacy of Soil Erosion in the Piedmont of North Carolina*: NC State University Environmental Archaeology Course (ANT475/575)
- 2018 Invited Speaker – 8 November 2018: *Geology and Landscapes of Georgia O’Keefe*: Public

Lecture Series as part of The Beyond: Georgia O’Keeffe and Contemporary Art and Candida Höfer in Mexico, North Carolina Museum of Art, Raleigh, NC.

Invited Speaker – 21 May 2018: *Leave it to Beavers: Restoring Valley Bottom Ecosystems with Nature’s Engineer*, Friends of Pokeberry Creek, Chapel Hill, NC.

Invited Speaker – 10 March 2018: University of Puerto Rico Mayagüez, Dept. of Geology

Review panel member – GSA Quaternary Geology & Geomorphology Division’s Kirk Bryan and Distinguished Career Awards

- 2017 Invited Speaker – East Carolina University, Dept. of Geological Sciences
Scientific and Technical Advisory Committee Panel participant for the Chesapeake Research Consortium’s meeting on *Legacy Sediment, Riparian Corridors, and Total Maximum Daily Loads*
Invited Speaker – Dept. of Marine, Earth, and Atmospheric Sciences, N.C. State University
Media Outreach – “[Earthquakes in Virginia and North Carolina](#)” on the Tom Kearney Show, WPTF Radio 680 AM
Invited Speaker – Geology Dept., Utah State University
Review panel member – GSA Quaternary Geology & Geomorphology Division’s Graduate Student Awards
Review panel member – GSA Quaternary Geology & Geomorphology Division’s Kirk Bryan Award
Review panel member – GSA Quaternary Geology & Geomorphology Division’s Lifetime Achievement Award
- 2016 Invited Speaker – Earthquake Engineering Research Institute, Dept. of Civil, Construction, and Environmental Engineering, North Carolina State University.
- 2015 Invited Speaker – December meeting of the North Carolina Chapter of the American Meteorological Society of America
Field Trip Co-Leader – Pacific Northwest Cell – Friends of the Pleistocene 2015 trip to the Olympic Peninsula, Washington
Field Trip Leader – GSA SE Section Meeting Trip 401: *Exploring the origins of modern topographic relief in the southern Appalachians: An excursion through the transient landscape of the Cullasaja River basin, North Carolina*
Invited Speaker – 58th Annual Soil Science Society of North Carolina Meeting, Raleigh, NC
Invited Speaker – Science Connections, NC State University College of Sciences
- 2014 Convener & Chair – AGU Theme Session T21A: Earth System Dynamics of high Elevation Continental Interiors: From the Asthenosphere to the Biosphere
CO-Convener – AGU Theme Session H23J: New Insights into the Storage, Mobilization, and Hydrologic Transport of Legacy Contaminants
Expert Witness – Office of the Attorney General of Washington State
Media Outreach – Richmond (VA) Times-Dispatch
Invited Speaker – Osher Lifelong Learning Institute, North Carolina State University, Raleigh, NC
Invited Speaker – 23rd Biennial Meeting of the American Quaternary Association, Univ. of WA, Seattle
Invited Speaker – North Carolina Museum of Natural Sciences, Science Café, Raleigh, NC
Invited Speaker – University of Oregon, Dept. of Geological Sciences
Invited Speaker – 57th Annual Soil Science Society of North Carolina Meeting, Raleigh, NC

- Media Outreach – Interviews following the Oso Landslide, WA (Seattle Times)
- 2013 Invited Speaker – NC State University – College of Sciences First Year Event Series & Dept. of Marine, Earth, and Atmospheric Sciences
 Invited Speaker – NC Department of Environment & Natural Resources – Div. of Water Quality
 Invited Speaker – University of Delaware – Dept. of Geological Sciences
 Co-Convener – AGU Theme Session T43B – *Origin, Evolution, and Impacts of High Topography in Continental Interiors*
- 2012 Field Trip Leader – GSA Annual Meeting Trip 410. Historic Mill Ponds & Piedmont Stream Water Quality: Making the Connection near Raleigh, North Carolina
 Field Trip co-Leader – GSA Annual Meeting Trip 411. Kirk Bryan Field Trip: Piedmont Potpourris: New Perspectives on An Old Landscape (and Some of its Younger Parts)
 Co-Convener – GSA Session T24. Geomorphology of the Anthropocene: The Surficial Legacy of Past and Present Human Activities
 Invited Speaker – Virginia Tech – Geosciences Dept.
 Invited Speaker – Washington & Lee University – Dept. of Geology
 Invited Speaker – NSF Geoprisms Cascadia Workshop, Portland, OR
 Invited Speaker – Western Washington University – Dept. of Geoscience
 Invited Speaker – Encore Program, NC State University
 Invited Speaker – Sigma Xi’s Monthly Science Seminar Series
- 2011 Co-Convener – AGU Session EP41D. The Long Road to Flat: Toward Understanding the Drivers and Quantifying Change in Orogens
 Media Interviews following 23 August 2011 M_w 5.9 Virginia Earthquake (WRAL 14, WTVD 11)
 Invited Speaker – East Carolina University – Dept. of Geological Sciences
 Invited Speaker – Appalachian State University – Dept. of Geology
- 2010 Invited Speaker – Durham Technical College, Science Dept. Seminar Series
 Invited Speaker – NC State University – Civil, Construction, and Environmental Engineering
- 2009 Invited Speaker – University of North Carolina-Chapel Hill – Dept. of Geological Sciences
 Convener – GSA Annual Meeting Topical Session on Central Asian Tectonics
 Invited Speaker – University of North Carolina-Charlotte – Dept. of Geography & Earth Sciences
- 2008 Invited Speaker – Tulane University – Dept. of Earth & Environmental Sciences
 Invited Speaker – Dickinson College – Geology Department
 Invited Speaker – University of Alaska-Anchorage – Dept. of Geological Sciences
 Invited Speaker – University of North Dakota – Dept. of Geology & Geological Engineering
 Invited Speaker – North Carolina State University – Dept. of Marine, Earth, & Atmospheric Sci
- 2007 Invited Speaker – Chevron – Sugar Land, TX
- 2005 Co-organizer – 7th NSF-CD RETREAT Workshop; Hvar, Croatia
 Field Trip Leader – 6th NSF-CD RETREAT Workshop; Portonovo, Italy
- 2004 Invited Speaker – Washington State Department of Natural Resources
 Field Trip Leader – 96th Meeting of the American Assoc. of State Geologists; Stevenson, WA
 Invited Speaker – City of Mercer Island, WA

- 2003 Invited Speaker – Whitman College – Geology Dept.
 Invited Instructor – Channel Migration Zone Delineation Short Course – WA DNR
 Field Trip Leader – GSA Annual Meeting; Seattle, WA
- 2002 Invited Speaker – City of Mercer Island, WA
 Field Trip Leader – GSA Cordilleran Section Meeting; Corvallis, OR
 Invited Speaker – Washington State University – Vancouver

TEACHING EXPERIENCE

<i>Year</i>	<i>Semester</i>	<i>Course Number</i>	<i>Course Title</i>	<i>Total Enrollment</i>
2020	Fall	MEA592-003	Tectonic Geomorphology	11
	Summer	MEA493-002	Preparation for the ASBOG FG Exam	11
	Spring	MEA466	Field Geology Prep	14
	Spring	MEA481	Geomorphology: Earth's Dynamic Surface	15
2019	Fall	MEA592-003	Advanced Geomorphology / Biogeomorph	15
	Summer	MEA101	Colorado River GeoJourney	08
	Summer	MEA465	Geology Field Camp	16
	Spring	MEA481	Geomorphology: Earth's Dynamic Surface	21
	Spring	MEA466	Field Geology Prep	15
2018	Fall	MEA592-003	Tectonic Geomorphology	10
	Fall	MEA599	Regional Geology of N.A. (Salton Trough)	15
	Summer II	MEA101	Colorado River GeoJourney	12
	Summer I	MEA465	Geology Field Camp	26
2018	Spring	MEA481	Geomorphology: Earth's Dynamic Surface	27
	Spring	MEA466	Field Geology Prep	16
2017	Fall	MEA592-004	Advanced Earth Surface Processes	8
	Fall	MEA599	Regional Geology of N.A. (Grand Canyon)	25
	Summer I	MEA465	Geology Field Camp	30
	Spring	MEA466	Field Geology Prep	22
	Spring	MEA481	Geomorphology: Earth's Dynamic Surface	37
2016	Spring	MEA101	Physical Geology	119
	Spring	MEA481	Geomorphology: Earth's Dynamic Surface	30
	Summer I	MEA465	Geology Field Camp	18
2015	Fall	MEA592-002	Tectonic Geomorphology	20
	Fall	MEA599	Regional Geology of N.A. (Zion N.P.)	28
	Spring	MEA481	Geomorphology: Earth's Dynamic Surface	28
	Spring	MEA466	Field Camp Preparation	17
	Summer I	MEA465	Geology Field Camp	17
2014	Spring	MEA481	Geomorphology: Earth's Dynamic Surface	30
	Fall	MEA592-002	Advanced Earth Surface Processes	15
	Fall	MEA599	Regional Geology of N.A. (Death Valley, CA)	24
2013	Spring	MEA481	Geomorphology: Earth's Dynamic Surface	07
	Spring	MEA492	Field Camp Preparation	11
	Summer I	MEA465	Geology Field Course	20
	Fall	MEA592-004	Tectonic Geomorphology	12
	Fall	MEA599	Regional Geology of N.A. (Grand Canyon, AZ)	19

<i>Year</i>	<i>Semester</i>	<i>Course Number</i>	<i>Course Title</i>	<i>Total Enrollment</i>
2012	Spring	MEA481	Geomorphology: Earth's Dynamic Surface	10
	Fall	MEA592-002	Geomorphology & Geophysics of Carolina Bays	14
	Fall	MEA599	Regional Geology of North America (NM & TX)	11
	Fall	MEA140	Natural Hazards and Global Change	35
2011	Spring	MEA481	Principles of Geomorphology	11
	Spring	MEA493-006	Field Camp Preparatory	09
	Summer I	MEA465	Geology Field Course	16
	Fall	MEA140	Natural Hazards and Global Change	39
	Fall	MEA592-002	Quantitative Earth Surface Processes	07
	Fall	MEA599	Regional Geology of North America (Utah)	13
2010	Spring	MEA140	Natural Hazards and Global Change	98
	Summer II	KECK GC	Geology of Lake Hovsgol, Mongolia	09
	Fall	MEA592-002	Tectonic Geomorphology	12
2009	Spring	MEA493	Field Camp Preparatory	15
	Spring	MEA481/592	Principles of Geomorphology	17
	Summer I	MEA499	Geology Field Camp	17
	Fall	MEA592-003	Advanced Earth Surface Processes	08
	Fall	MEA599	Regional Geology of North America (PNW)	16
2008	Summer II	KECK GC	Geology of Hh Serh Mtns; Mongolian Altai	11
	Fall	MEA 599	Regional Geology of North America (AZ)	15
2007	Fall	EES115	Earth Surface Processes lab (TA)	16
2006	Spring	EES123	Structural Geology Lab (TA)	10
	Spring	EES123	Intro to Planet Earth Lab (TA)	21
	Summer I	EES 22	Exploring Earth Lab (TA)	20
	Summer II	KECK GC	Geology of Hangay Mtns; Mongolia	09
2004	Spring	GEOL124	Introductory Geology	13
2003	Spring	GEOL124	Introductory Geology	15
	Summer II	KECK GC	Geology of Tavan Har – Gobi; Mongolia	09
2002	Spring	GEOL124	Introductory Geology	12
1999	Fall	GEOL124	Introductory Geology	19
1998	Summer II	EPS240L	Advanced Field Geology (TA)	12
1997	Spring	EPS105L	Physical Geology Lab (TA)	25 (x3)
1996	Fall	EPS105L	Physical Geology Lab (TA)	25 (x3)

MEA = NC State Univ.; KECK GC = Keck Geology Consortium; GEOL = Peninsula College, Port Angeles, WA; EPS = Univ. of New Mexico

STUDENT MENTORSHIP @ NC STATE UNIVERSITY

In Progress

- Rachel Atkins, Ph.D. in MEAS
- Julian M. Chesnutt, Ph.D. in MEAS
- Grant Colip, M.S. in MEAS
- Raja Das, Ph.D. in Geospatial Analytics
- Corey Scheip, Ph.D. in MEAS

Doctorate in Marine, Earth, and Atmospheric Sciences @ NC State (4)

Gantulga Bayasgalan (2018) – Late Cenozoic Landscape Evolution in the Khangay Mountains, Mongolia [[Ph.D. Dissertation](#)]

Stephen G. Smith (2016) – *Tectonic and climatic controls on landscape evolution in the Hangay Mountains, Mongolia, and Olympic Mountains, USA* [[Ph.D. Dissertation](#)].

Nathan J. Lyons (2014) – *Hillslope-Stream Coupling in tectonically Active and Inactive Regions* [[Ph.D. Dissertation](#)].

Sean F. Gallen (2013) – *The Development of Topography in Ancient and Active Orogens: Case Studies of Landscape Evolution in the Southern Appalachians, USA and Crete, Greece* [[Ph.D. Dissertation](#)].

Master of Science in Marine, Earth, & Atmospheric Sciences @ NC State (5)

Adam A. Lee (2018) – *Leave it to Beavers: Evaluating the Potential for Incised Stream Restoration using Natural and Analog Beaver Dams* [[M.S. Thesis](#)]

Catelyn N. Joyner (2016) – *Lacustrine Megaturbidites and Displacement Waves: The Holocene Earthquake History of the Lake Creek-Boundary Creek Fault at Lake Crescent, Washington, USA* [[M.S. Thesis](#)]

Matthew C. Morriss (2015) – *Dynamic and Tectonic Landscapes in Eastern Oregon Reveal Neogene to Quaternary Rearrangement of Topography* [[M.S. Thesis](#)]

Mark T. Voli (2012) – *Tracing the Sources of Suspended Sediment Inputs to Falls Lake Reservoir, Neuse River, North Carolina* [[M.S. Thesis](#)].

Robert Q. Lewis (2011) – *The Lasting Impacts of Post-Colonial Agriculture and Water-Powered Milldams on Current Water Quality, Wake County, Raleigh, North Carolina* [[M.S. Thesis](#)].

Undergraduate Research Mentees @ NC State

Christopher Norcross (2020-21): Landslide age-dating in the Pacific Northwest using topographic surface roughness proxies.

Matthew Nixon and Ruben De La Calle (2020-21): Utilization of the [HazMapper](#) Google Earth Engine Application for landslide inventory creation and evaluation.

Erika Simmons and Jackson Mishoe (2019-21): *The Importance of Freeze-Thaw Climate Events to Bank Erosion of Legacy Sediment and Persistent Suspended Sediment Impairments in NC Piedmont Streams* (\$1000).

- Joseph Bolla and Steven Newchurch (2019-2020): *Provenance analysis of the original sand used in the Asticou Azalea Garden, Northeast Harbor, Maine.*
- Melanie McCaskey and Callan Swafford (2018): *Spatial variations in the granulometry and shape distributions of bedload sediment from Piedmont streams, Wake County, North Carolina.*
- Dustin Travels (2017): *Testing for stream water quality improvements behind natural and analog beaver dams, Wake County, North Carolina (\$750).*
- Hallie Nunamaker (2016): *Using Rock Eval-6 Pyrolysis as a Proxy to Identify and Characterize Native versus Anthropogenic Sediments.*
- Julie Sikes (2016): *A study of Richland Creek: How Legacy Sediments Impact the Neuse River.* NCSU Undergraduate Research Award Recipient (\$750).
- Adam Lee (2015): *A study of Richland Creek: How Legacy Sediments Impact the Neuse River.* NCSU Undergraduate Research Award Recipient (\$750).
- Christopher Stanbery (2013): *Impact and Importance of Beaver Dam Complexes on Stream Water Quality, Historic Yates Mill County Park, Wake County, North Carolina.* NCSU Undergraduate Research Award Recipient (\$750).
- John DeDecker (2012): *Hygroscopic Salt Crust Formation and Water Retention of Regolith in Hyper-arid Environments.*
- Julie A. Johnston (2011): *Comparison of Anthropogenic Effects on Bedload Particle Sizes Transported by Piedmont Streams of North Carolina.* NCSU Undergraduate Research Award Recipient (\$1000).
- L. John Michaels (honors; 2011): *Late Holocene Dendroclimatology of the Northern Lake Hövsgöl Rift, Mongolia.*
- Joseph Kasperski (2011): *Using Dendrochronology to Constrain Paleo-Earthquakes near Mount Rainier, Washington: Improving Seismic Hazard Estimation through Analysis and Dating of Landslides.* NCSU Undergraduate Research Award Recipient (\$1,000).
- Kelly Johnson (2010): *Quantifying Stream Water Quality Impacts from the Spatial Distribution of Historic "Legacy Sediments" above Cook's Mill, Richland Creek, Wake County, North Carolina.* NCSU Undergraduate Research Award Recipient (\$750).
- John Maas (2010): *Legacy Sediments and Stream Water Quality: Estimating Available Nutrient Content in Umstead Watersheds.* NCSU Undergraduate Research Award Recipient (\$750).
- Evan Riddle (2010): *Influences of Rock Type, Joint Spacing, and Climate on Talus Production and Weathering Rates, Boulder Creek Watershed, Colorado (2009 Keck Geology Project).*
- Jennifer Cessna (honors; 2009): *Paleoerosion Surfaces or Glacial Buzzsaw? Investigating Mongolia's Summit Plateaus with Digital Elevation Models.*

HONORS AND AWARDS

2020	NC State University – <i>Chancellor's Creating Community Award</i> nominee
2016	NC State University - <i>Graduate Mentorship</i> award nominee
2014	NC State University - <i>Thank a Teacher</i> Award Recipient
2013	NC State University - University Faculty Scholar nominee
2008	Sigma Xi, Full Member
2004-2006	Lehigh University - Academic Fellowship
1996	Graduated <i>Cum Laude</i> with Honors in Geology; Whitman College
1996	NAGT-USGS Geology Internship Award; B.F. Atwater, mentor
1995	Leeds Prize in Geology; Whitman College

PROFESSIONAL SOCIETY MEMBERSHIP

1995-present The Geological Society of America
1997-present American Geophysical Union
2014-present American Quaternary Union
2019-present Association of Environmental and Engineering Geologists