

STEFANIA WILKS

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EDUCATION

2021 M.S., Anthropology; University of Utah

2019 B.S., Anthropology; University of Utah,
Magna cum laude, Departmental Honors

Research Interests: Paleoecology, Archaeobotany, Microbotanical Analysis, Ethnobotany, Behavioral Ecology, North America's Great Basin and Colorado Plateau

AWARDS, GRANTS, AND SCHOLARSHIPS

2023 Ann Kelsey Botanical Scholarship; Natural History Museum of Utah (award total: **\$500**)

2023 Am-Arcs of Nevada; Tacchino Memorial Award (award total: **\$25,000**) "The Role of Geophytes in Human Foraging Behaviors of the Northern Great Basin." P.I. Stefania Wilks, Co-PI: Lisbeth Louderback

2023 Alumni Mentor of the Year; Career & Professional Development; University of Utah

2023 – 2025 Bureau of Land Management Oregon (award total: **\$66,000**) "Determining the Spatial and Temporal Extent of Geophyte Use in the Fort Rock Basin"

PI: Lisbeth Louderback, Co-PI: Stefania Wilks

2022 – 2023 University of Utah Graduate Tuition Benefit Award (award total: **\$31,644**)

2022 – 2023 Sustainable Campus Initiative Grant (award total: **\$1,300**) "3-D scaled models of pollen grains as laboratory teaching tools for student researchers"

PI: Andrea Brunelle, Co-PI: Stefania Wilks

2022 University of Oregon Mel Aikens Tuition Scholarship (award total: **\$350**)

2022 Steve Daron Memorial Student Travel Grant (award total: **\$500**)

2021 – 2022 NAA/Am-Arcs Student Research Grant (award total: **\$1,500**) "Identification of Starch Granules on Ground Stone Exposed to Fire"

PI: Lisbeth Louderback, Co-PI: Stefania Wilks

2019 – 2021 University of Utah Graduate Tuition Benefit Award (award total: **\$61,035**)

2019 Sonoma State University/USGS (award total: **\$300**) PACLIM Student Travel Grant

2018 – 2019 Undergraduate Research Scholar (award total: **\$2,400**) "Macro-Charcoal Analysis in Cherry Meadows, Range Creek Canyon, Utah"

PI: Andrea Brunelle, Co-PI: Stefania Wilks

2018 – 2019 Crimson Transfer Honor Society

2017 – 2019 University of Utah Dean's List

2017 – 2019 University of Utah (award total: **\$4,650**) Osher Re-entry Scholarship

2017 – 2019 Utah Flagship Transfer Scholarship (award total: **\$10,000**)

PUBLICATIONS

Peer-reviewed:

Wilks, S., and L. Louderback (In review b). *Geophyte Exploitation in Northern Great Basin: Starch Granule Analysis of Bedrock Metates in Warner Valley, Oregon*. American Antiquity

Wilks, S., Paredes, S., and L. Louderback. (In review a). *Starch Granule Yields from Open-Air Metates Unaffected by Environmental Contamination*. American Antiquity: Reports

Wilks, S., and L. Louderback. 2023. *Identification of Starch Granules on Ground Stone Tools Exposed to Fire*. Journal of Archaeological Science: Reports 48 103923

<https://doi.org/10.1016/j.jasrep.2023.103923>

Louderback, L., **Wilks, S.**, Herzog, N., Howat-Brown, G., Joyce, K., and B. Pavlik. 2022. *Morphometric Identification of Starch Granules from Archaeological Contexts: Diagnostic Characteristics of Seven Major North American Plant Families*. Front. Earth Sci. Sec. Quaternary Sciences, Geomorphology and Paleoenvironment.

<https://doi.org/10.3389/feart.2022.897183>

Wilks, S., Louderback, L.A., Boomgarden, S.A. 2021. *Starch Granule Size and Morphology as a Proxy for Water Regime Influence on Zea mays*. Ethnobiology Letters.

<https://doi.org/10.14237/eb1.12.1.2021.1725>

Technical Reports:

Louderback, L., **Wilks, S.**, and H. Simper. 2022. *Paleoindian Geophyte Use: Starch Granule Analysis of Bedrock Metates in Warner Valley, Oregon*. Report to Bureau of Land Management Lakeview District Lakeview, Oregon

Pavlik, B., Louderback, L., Coddling, B., Vernon, K., Simper, H., McCool, W., and **S. Wilks**. 2022. *Archaeo-Ecosystems of the Four Corners: Ethnobotanical Surveys of the Puebloan Sites, San Juan County, Utah, Project Year 3*. Report to USDI BLM, Monticello, Utah

Tinsley, D., Louderback, L., Pavlik, B., Townsend, T., Tucker, K., and **Wilks, S.** 2021. *Testing the Pinyon Premise: Archaeobotanical Analysis of Sediments, Bedrock Milling Features, and Ground Stone Artifacts from West-Central Lincoln County, Nevada*. BLM Report 8111 CRR NV 040-FY-2255

Louderback, L.A., **Wilks, S.**, and K. Tucker. 2021. *Starch Grain Analysis on Stone Tools from CALAN905 in Hungry Valley State Vehicle Recreation Area*. CRM/Technical Report for Far Western Anthropological Group.

POSTERS & PRESENTATIONS

2023 Presentation: "Geophyte Exploitation in the Northern Great Basin: Starch Granule Analysis of Bedrock Metates in Warner Valley, Oregon" Nevada Archaeology Association Conference; Fallon, Nevada

2023 Presentation: "Geophyte Exploitation in the Northern Great Basin: Starch Granule Analysis of Bedrock Metates in Warner Valley, Oregon" Society of American Anthropology Conference; Portland, Oregon

2023 Poster: "Communicating in 3D: Modeling for Education and Outreach" PAC12 Deans Conference Dinner; Red Butte Garden

2023 Poster: "Communicating in 3D: Modeling for Education and Outreach" Global Change & Sustainability Symposium

2022 Poster: "Taphonomy of archaeological starch residues in open-air settings" (*student: Samantha Paredes) Undergraduate Research Symposium, University of Utah

2022 Presentation: "Fire in the Kitchen: The Influence of Burning on Ground Stone and Starch Residue", Nevada Archaeological Association Annual Meeting; Tonopah, Nevada

2021 Presentation: "Starch Granule Size and Morphology as a Proxy for Water Regime Influence on *Zea mays*" Society for Ethnobiology, Virtual Conference

2021 Poster: "Starch Granule Size and Morphology as a Proxy for Water Regime Influence on *Zea mays*", Society for American Archaeology, Virtual Conference

2021 Presentation: "Starch granule morphology as a potential proxy for water-stress in *Zea mays*", Utah Professional Archaeology Council Virtual Conference

2019 Poster: "Macro-Charcoal Analysis in Cherry Meadows, Range Creek Canyon, Utah", Pacific Climate (PACLIM) Workshop Conference; Monterrey, California

2019 Poster: "Macro-Charcoal Analysis in Cherry Meadows, Range Creek Canyon, Utah", Undergraduate Research Symposium, University of Utah

RESEARCH EXPERIENCE

2022-ongoing

Modeling Pollen Grains in 3D: SCIF grant. Andrea Brunelle (PI)

2022-2023

Ethnobotanical Seasonal Surveys of Hill Airforce Base: Early Summer, Fall, Spring. Lisbeth Louderback (Co-PI) & Bruce Pavlik (Co-PI)

2021-2022

Ancient Starch Remains and Prehistoric Human Subsistence, a publication on the starch morphometrics of several plant taxa across the west; Natural History Museum of Utah Archaeobotanical Lab, Lisbeth Louderback (PI)

2021- 2022

Archaeo-Ecosystems survey of the Four Corners, San Juan County, Utah. Hypothesis: Larger, more complex archaeological sites in the Bears Ears Region of southeast Utah support a higher richness of culturally significant plant species. Lisbeth Louderback, Brian Coddington, Bruce Pavlik (PI)

2021-2022

Ancient starch granule identification on bedrock mortars at Barry Spring, Long Lake, and Corral Lake, in Warner Valley, Oregon; Lakeview Bureau of Land Management, Lisbeth Louderback (PI)

2021-ongoing

Pollen aggregates as Cultural Indicators; Records of Environmental Disturbance, Department of Geography, University of Utah, Andrea Brunelle (Co-PI) & Lisbeth Louderback (Co-PI)

2021-2022

An examination of the potential for starch residue contamination on environmentally exposed archaeological grinding surfaces; Undergraduate Student Researcher involved

2021-2022

Heat-affected ground stone and starch residue; NAA/Am-Arcs Student Research Grant

2020-2022

Ancient starch granule identification on groundstone technology from Pueblo Bonito, Chaco Canyon, New Mexico – Master's Thesis; Natural History Museum of Utah, University of Utah

2021

Starch residue analysis on ground stone from Cowboy Cave (42WN420).

2021

Starch residue analysis on ground stone from Nephi Mounds (42Jb2).

2021

Starch residue analysis on ground stone from Camel's Back Cave (42To392).

2021

Starch residue analysis on ground stone from Hungry Valley (CA-LAN905).

2019 – 2020

Analysis of water input regimes on starch grain synthesis in *Zea mays* grown in Range Creek experimental plots; Range Creek Archaeological Lab, Natural History Museum of Utah, University of Utah

2018 – 2019

Fire history reconstruction using charcoal in Cherry Meadow sediments in Range Creek Canyon; Records of Environmental Disturbance (RED) Lab, Department of Geography, University of Utah, Andrea Brunelle (PI)

FIELDWORK EXPERIENCE

2023 Survey Crew; Logan Simpson, Cultural Resource Management

2022-2023 Ethnobotanical Survey of Hill Airforce Base

2022 Survey Crew; Logan Simpson, Cultural Resource Management

2022 Connley Caves Field School; University of Oregon, Museum of Natural and Cultural History

2021 Archaeo-ecosystem Survey of Bears Ears National Monument; Monticello Bureau of Land Management

2021 Sampling bedrock metates for starch, Warner Valley, Oregon; Lakeview Bureau of Land Management

2019 Survey Crew; Logan Simpson, Cultural Resource Management

2018 Range Creek Field School; University of Utah, Natural History Museum of Utah

TEACHING EXPERIENCE

2023 Teaching Assistant, Biology 2355: Field Botany

2022 - 2023 Instructor (online), Anthropology 1020: Introduction to Human Origins

2021 – 2023 Guest lecturer, Anthropology 2030: Archaeological Science

2020 - 2021 Instructor (online), Anthropology 1010: Introduction to Cultural Anthropology

OUTREACH EXPERIENCE

2023 National History Day – Judge (Documentaries)

2021 Rematriating the Four Corners Potato: A Collaboration Between Indigenous Farmers and Red Butte Garden

2020 Scientist in the Spotlight; Natural History Museum of Utah

2020 STEMCAP graduate; Science Communication Fellows (NSF) Program

2020 University of Utah Undergraduate Research Mentor Certification

PROFESSIONAL MEMBERSHIPS

Great Basin Anthropological Association

Nevada Archaeological Association

Society for American Archaeology

Society for Ethnobiology

Utah Professional Archaeological Council