

Education

M.S. Biology, University of Alaska Anchorage, Anchorage, AK. 2012. Major Advisor: Matthew Carlson Ph.D.

B.S. Biology, (Biodiversity Emphasis); Minor in Philosophy. Humboldt State University, Arcata, CA, 2006. Major Advisor: Michael Camann Ph.D.

Relevant Skills and Abilities

- Identification of botanical specimens, writing descriptions and keys.
- Vegetation surveys and monitoring of rare and endangered plants.
- Vegetation mapping of community structure with classification systems.
- ArcGIS, topographic maps, and aerial photographs.
- Wetland delineation certificate.

Professional Experience

2/13- *Present* **Botanist**, Alaska Center for Conservation Science, University of Alaska Anchorage, Anchorage, AK.

Collections Manager, University of Alaska Anchorage Herbarium (UAAH): 15,000 specimens

- Integrated database online for public use.
- Supervised volunteers and technicians, community outreach presentations.
- Wrote taxonomic keys and descriptions of the Alaska flora.
- Scientific analysis of rare ecosystems and plants: development of habitat distribution models in ArcGIS.
- Managed Alaska Rare Plant State Database of 11,000 records, integrated with online data portal.
- Managed AKEPIC, non-native plant database of 150,000 records, integrated with online data portal.
- Project Manager of BLM AK Central Yukon Rapid Ecoregional Assessment: coordinated scientists and stakeholders; scientific review, writing, and analysis of report; management of timeframes, deadlines, and budgets (\$1,500,000).
- Management of AK BLM Seeds of Success Program.
- Collection and analysis of terrestrial vegetation with BLM AIM program: quantitative inventory and monitoring program. *AIM Trainer Certified*.
- Plant expertise and review of federal and state conservation plans of vegetation and species management following ESA and NEPA requirements.
- Coordinates rare species program statewide with BLM, USFS, NPS, and Yukon Government.
- Identified and implemented reliable and repeatable survey/monitoring methods for various vegetation projects.
- Apply qualitative and quantitative methods of statistical analysis to produce reports.
- Management of grants, technicians, and interns including training.

5/11-2/13 **Vegetation Ecologist**, Idaho Natural Heritage Program, Idaho Department of Fish and Game, Boise, ID.

- Plant identification and collection.
- Developed pollinators study of endangered species, used statistical analysis for scientifically defensible publication and reports. Identification of bees.
- Identified environmental factors affecting rare and listed plant species.
- Monitored and surveyed rare and endangered plants (see publications).
- Developed new methods and state standards for rapid riparian condition assessment to monitor and study ecological change.
- Vegetation and noxious weed mapping.
- Inventoried and identified wetland vegetation with EPA protocols.
- Assisted NatureServe/USFWS with development of new national standards in vegetation mapping on NWR lands.
- Independently managed and coordinated projects.

1/09- 8/12 **Research Scientist III/Graduate Research Assistant**, University of Alaska Anchorage, Anchorage, AK.

- Plant identification and collection.
- Monitored vegetation in arctic tundra ecosystems.
- Designed and implemented scholarly research in plant ecology.
- Developed new standardized methods of flower color quantification.
- Various statistical analysis to produce scientific publications.
- Planned complex field travel and equipment logistics for remote locations.
- Taught several biology and field ecology courses.
- Field crew leader of four technicians.

6/07-9/08 **Junior Specialist II**, Dept. of Evolution and Ecology, University of California at Davis, Davis, CA.

- Immediate supervisor of two biological technicians.
- Prepared necessary permits for plant collections.
- Documented factors affecting plant species ecology.
- Simultaneously managed 12 field and greenhouse experiments.
- Plant identification and collection.

6/06-6/07 **Junior Specialist**, Dept. of Evolution and Ecology, U. C. Davis, Davis CA.

- Assisted professor with plant ecology research and coordinated projects with international scientists.
- Independent field work of plant surveys and pollination ecology.
- Data entry, management and summary into charts and graphs.

1/05-5/06 **Collections Manager**, Entomology Collection; Humboldt State University, Arcata, CA.

- Accession and identification of over 3,000 terrestrial and 1,100 aquatic insects.

Service

10/16- 11/18 **Board Member**, Committee for Noxious and Invasive Pests Management in Alaska (CNIPM)

- Lead monthly state-wide conference calls regarding invasive species.
- Organized yearly invasive species conference.
- Drafted letters to policy makers regarding invasive species within the mission of CNIPM organization.

5/11-2/13 **Director**, Conservation Board, Idaho Native Plant Society, Boise, ID.

- Provided plant expertise, reviewed, and commented on management plans, reports, and conservation agreements on public lands to represent the mission of INPS.
- Reviewed rare plant ranking systems to adopt a new state standard.
- Ranked rare plants with input from State and Federal government agencies.
- Represented INPS at public hearings.

Refereed Publications

Fulkerson, J.R., J.B. Whittall, and M.L. Carlson. 2012. Reproductive Ecology and Severe Pollen Limitation in the Tundra Plant, *Parrya nudicaulis* (Brassicaceae). *PLoS One* **7**: e32790.

Books and Magazines

Fulkerson, J. and K. Pekas. 2014. Plant and Pollinators: A Partnership Between Packard's Milkvetch and its Native Pollinators. *Watching Idaho's Wildlife*. Spring 2014: 7.

Nawrocki, T., **J.R. Fulkerson**, and M.L. Carlson. 2013. Alaska Rare Plant Field Guide. Alaska Natural Heritage Program, University of Alaska Anchorage, Anchorage. 352 pp.

Clay, D.L. and **J.R. Fulkerson**. 2012. Idaho's Natural Heritage Program Botanists and the Assessment of Our Rarest Plants. *Sage Notes*. 34: 17–20.

Fulkerson, J.R. 2012. Master Naturalists Help Research Endemic Plant. *Idaho Naturalist*. 4 (4): 3.

Media Interview

Subject: Native Plants, Cow parsnip- Alaska Dispatch News (16 June 2016)

Technical Publications

Fulkerson, J.R. 2018. Seeds of Success: 2017 Field Season Report. Prepared for the Alaska State Office, Bureau of Land Management, U.S. Department of the Interior. Alaska Natural Heritage Program, Alaska Center for Conservation Science, University of Alaska Anchorage, Anchorage Alaska. 14pp. plus appendices.

Fulkerson, J.R., K. Dillman, T. Nawrocki, and M.L. Carlson. 2017. *Platanthera orbiculata* (Pursh.) Lindl.: Conservation Assessment on the Tongass National Forest, Alaska Region. U.S. Department of Agriculture, and Alaska Natural Heritage Program, University of Alaska Anchorage. Anchorage, Alaska. 43 pp. plus appendix

Fulkerson, J.R. M.L. Carlson, and N.C. Vance. 2017. *Cypripedium montanum* (mountain lady's slipper): Species Assessment on the Tongass National Forest, Alaska Region. USDA Forest Service, U.S. Department of Agriculture, and Alaska Natural Heritage Program, University of Alaska Anchorage. Anchorage, Alaska. 52 pp.

Dillman, K., M. L. Carlson, B. Bernard, and **J.R. Fulkerson**. 2017. *Ricasolia amplissima* (Scop.) De Not. subspecies *shéiyi* Derr & Dillman: Conservation Assessment on the Tongass National Forest, Alaska Region Alaska Natural Heritage Program, University of Alaska Anchorage. Anchorage, Alaska. 42 pp. plus appendix.

Trammell, E.J., T. Boucher, M.L. Carlson, N. Fresco, **J.R. Fulkerson**, M.L. McTeague, J. Reimer, and J. Schmidt, eds. 2016. Central Yukon Rapid Ecoregional Assessment. Prepared for the Bureau of Land Management, U.S. Department of the Interior. Anchorage, Alaska.

Tina V. Boucher, **J.R. Fulkerson**, B. Bernard , L. Flagstad, T. Nawrocki, M.L. Carlson, N. Fresco. 2016. Terrestrial Coarse-Filter Conservation Elements. In: Trammell, E.J., T. Boucher, M.L. Carlson, N. Fresco, **J.R. Fulkerson**, M.L. McTeague, J. Reimer, and J. Schmidt, eds. 2015. Central Yukon Rapid Ecoregional Assessment. Prepared for the Bureau of Land Management, U.S. Department of the Interior. Anchorage, Alaska. 177 pp.

Fulkerson, J.R. and B. Bernard. 2016. Non-native Plant Survey of Constantine Metal Resources Palmer Project, Haines Alaska. Prepared for Alaska State Office, Bureau of Land Management, U.S. Department of the Interior. Alaska Center for Conservation Science, University of Alaska Anchorage. Anchorage, Alaska. 49 pp.

Fulkerson, J.R., and M.L. Carlson. 2015. Seeds of Success: 2015 Field Season Report. Prepared for Alaska State Office, Bureau of Land Management, U.S. Department of the Interior. Alaska Natural Heritage Program, University of Alaska Anchorage. Anchorage, Alaska. 20 pp.

Greenstein, C., T. Nawrocki, and **J.R. Fulkerson**. 2016. Monitoring and controlling invasive plants at Rohn Cabin: 2015 update. Prepared for Anchorage Field Office, Bureau of Land Management, U.S. Department of the Interior. Alaska Natural Heritage Program, University of Alaska Anchorage. Anchorage, Alaska. 57 pp.

Nawrocki, T., **J.R. Fulkerson**, K.L. Dillman, B. Bernard, and M.L. Carlson. 2015. *Platanthera unalascensis* (Spreng.) Kurtz, (slender-spire orchid): Conservation Assessment on the Tongass National Forest, Alaska Region. Tongass National Forest, Region 10, Forest Service, U.S. Department of Agriculture, and Alaska Natural Heritage Program, University of Alaska Anchorage. Anchorage, Alaska. 56 pp. plus appendix.

Fulkerson, J.R. 2014. Seeds of Success: 2014 Field Season Report. Alaska Natural Heritage Program, University of Alaska Anchorage, Anchorage. 8 pp. plus appendices.

Fulkerson, J.R. 2013. Summary of the 2013 Western Arctic Caribou Herd Project in McCarthy Marsh, Seward Peninsula Alaska. Alaska Natural Heritage Program, University of Alaska Anchorage, Anchorage. 9 pp. plus appendices.

Fulkerson, J.R. 2013. Seeds of Success: 2013 Field Season Report. Alaska Natural Heritage Program, University of Alaska Anchorage, Anchorage. 16 pp. plus appendices.

Fulkerson, J.R. and C.L. Kinter. 2013. Reproductive Ecology and Bee Associates of Packard's Milkvetch (*Astragalus cusickii* var. *packardiae*), A Rare Plant Endemic to Southwestern Idaho. Idaho Natural Heritage Program, Idaho Department of Fish and Game, Boise. 33 pp. plus appendices.

Kinter, C.L, **J.R. Fulkerson**, D.L. Clay, and J.J. Miller. 2013. Habitat Integrity and Population Monitoring of *Lepidium papilliferum* (Slickspot Peppergrass): 2012. Idaho Natural Heritage Program, Idaho Department of Fish and Game, Boise. 52 pp. plus appendices.

Murphy, C. and **J.R. Fulkerson**. 2012. IDFG Riparian Condition and Function Rapid Assessment Method for Wildlife Management Areas. Idaho Department of Fish and Game, Boise. 6 pp. plus appendices.

Kinter, C.L., D.L. Clay, **J.R. Fulkerson**, J.J. Miller, and S.J. Romin. 2012. Habitat Integrity and Population Monitoring of *Lepidium papilliferum* (Slickspot Peppergrass): 2011. Idaho Natural Heritage Program, Idaho Department of Fish and Game, Boise. 49 pp. plus appendices.

Kinter, C.L., D.L. Clay, and **J.R. Fulkerson**. 2012. Survey for Goose Creek Milkvetch (*Astragalus anserinus*) on Idaho State Lands, Cassia County, Idaho. Idaho Natural Heritage Program, Idaho Department of Fish and Game, Boise, Idaho. 31 pp. plus appendices.

Presentations

Fulkerson, J.R. 2017. Updates to the AKEPIC Data Portal and New Non-native Plant Species to Alaska. Annual Alaska Invasive Species Workshop. Anchorage, Alaska.

Fulkerson, J.R. 2017. Rare Plants: Confessions of a Botanist. Alaska Native Plant Society. Anchorage, Alaska.

Fulkerson, J.R., and C.L. Kinter. 2017. Reproductive Ecology and Pollinator Associates of Packard's Milkvetch (*Astragalus cusickii* v. *packardiae*). Idaho Noxious Weed Conference. Idaho Weed Control Association, Boise, Idaho. 18-19 Jan 2017.

Fulkerson, J.R., M.L. Carlson, L. Flagstad, and D. Merrigan. 2016. Waterweed (*Elodea* spp.) Invasion Vulnerability to Interior Alaska and Updates to the AKEPIC Data Portal. Annual Alaska Invasive Species Workshop. Fairbanks, Alaska.

Fulkerson, J.R. 2016. AKEPIC- Non-native plant species in Alaska. Alaska Forum on the Environment. Denaina Center, Anchorage, Alaska.

Fulkerson, J.R. 2014. Discovery of a New *Draba* Species and Updates to the UAA Herbarium, What it Means for Your Saturday Night. Alaska Botany Forum. University of Alaska Anchorage, Anchorage, Alaska.

Fulkerson, J.R. 2014. *Draba* Species of Alaska and Updates to the UAA Herbarium. Alaska Native Plant Society. Anchorage, Alaska.

Fulkerson, J.R. and C.L. Kinter. 2014. Reproductive Ecology and Bee Associates of Packard's Milkvetch (*Astragalus cusickii* var. *packardiae*), a Rare Plant Endemic to Southwestern Idaho. Idaho Rare Plant Conference. BLM State Office, Boise, Idaho.

Fulkerson, J.R. 2013. Pollination Ecology in Rare Plants and Why It Matters. Alaska Botany Forum. University of Alaska Fairbanks, Fairbanks, Alaska.

Thom, A.M., **J.R. Fulkerson**, S.Y. Strauss, and J.B. Whittall. 2013. Flower Colors, Soil Preferences, and Molecular Distinctiveness During Diversification of the Rare Serpentine Endemic Jewelflower Complex (*Streptanthus glandulosus* ssp. *albidus*). Evolution 2013. Snowbird, Utah.

Fulkerson, J.R. 2012. Reproductive Ecology of *Parrya nudicaulis*. Alaska Botany Forum. University of Alaska Anchorage, Anchorage, Alaska.

Fulkerson, J.R. 2012. Why are Arctic Flowers So Colorful?: Reproductive Ecology and Selection on Floral Traits in the Tundra Plant *Parrya nudicaulis* (Brassicaceae). Thesis Presentation. University of Alaska Anchorage, Anchorage, Alaska.

Fulkerson, J.R. 2012. Reproductive Ecology of Arctic Plants. Alaska Native Plant Society, Anchorage, Alaska.

Fulkerson, J.R. and M.L. Carlson. 2010. PS 88-15: Why are arctic flowers so colorful? Pollinator-mediated Selection on Floral Pigmentation in the Arctic Mustard, *Parrya nudicaulis*. The 95th ESA Annual Meeting, 2010.

Carlson, M.L., J.B. Whittall, **J.R. Fulkerson**, and C. Dick. 2010. PS 107-135: Insect Herbivory and Flower Color Variation in the Arctic: Floral Pigmentation is Associated with Foliar Herbivory and Induction of Chemical Defenses in *Parrya nudicaulis* (Brassicaceae). The 95th ESA Annual Meeting, 2010.

Peer Reviewer/Referee:

 publons.com/a/347723/

Regional Reviewer for *Flora of North America*, *Journal of the Torrey Botanical Society*, *Nordic Journal of Botany*, *PLoS ONE*, *South African Journal of Botany*, *NatureServe* publications, IUCN Red List.

Membership

Botanical Society of America

Grants

- \$56,550 Aquatic Vegetation Surveys. National Park Service. 2016
- \$18,000 Western Arctic Caribou Herd Vegetation Monitoring. Bureau of Land Management. 2017.
- \$10,000 Alaska Seeds of Success Program. Bureau of Land Management. 2016.
- \$126,499 Rare Plant Species Distribution Modeling and Vegetation Monitoring. Bureau of Land Management. 2016.
- \$62,000 Cooperative Plant Management and Inventory. Bureau of Land Management. 2016.
- \$6,000 Seeds of Success Alaska Supplement. Bureau of Land Management. 2016.
- \$12,473 National Park Service Exotic Plants Service Agreement. National Park Service. 2016
- \$6,000 Cooperative Plant Management and Inventory Program. Bureau of Land Management. 2015.
- \$54,000 Seeds of Success Phase 5. Bureau of Land Management. 2015.
- \$50,000 Tongass Rare Plant Species Assessment. USFS Region 10. 2014.
- \$4,500 Cooperative Plant Management and Inventory Program. Bureau of Land Management. 2014.
- \$49,000 Seeds of Success Phase 4. Bureau of Land Management. 2014.
- \$10,000 Invasive Plant Assessment. Bureau of Land Management. 2013.
- \$35,000 Seeds of Success Phase 3. Bureau of Land Management. 2013.
- \$1000 Grants in Aid, Arctic Institute of North America. 2010
- \$550 Graduate Student Association Scholarship, University of Alaska Anchorage. 2010.

References

- Dr. Lynn Kinter**, Idaho Department of Fish and Game/Idaho Natural Heritage Program, P.O. Box 25, Boise, ID 83707; (208) 850-1736; lynn.kinter@idfg.idaho.gov
- Dr. Matthew Carlson**, Dept. of Biological Sciences/Alaska Natural Heritage Program, University of Alaska Anchorage, 3211 Providence Dr., Anchorage, AK 99508; (907) 257-2790; mlcarlson@alaska.edu
- Dr. Sharon Strauss**, Dept. of Evolution & Ecology, 2320 Storer Hall, One Shields Ave., University of California at Davis, Davis, CA 95616; (530) 752-8415; systrauss@ucdavis.edu
- Dr. Justen Whittall**, Dept. of Biology, Santa Clara University, 500 El Camino Real, Santa Clara, CA 95053; (408) 554-4808; jwhittall@scu.edu