

David Alan Charlet

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Curriculum Vita

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12 November 2007

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Address

College of Southern Nevada
Department of Biology - H3C
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Education

Ph.D. in Ecology, Evolution, and Conservation Biology. University of Nevada, Reno. 1995.

M.S. in Biology. University of Nevada, Reno. 1991.

B.S. with Distinction in Biology, minor in Theater. University of Nevada, Reno. 1988.

Qualifications

➤ **Teacher**

seventeen years experience teaching undergraduate biology and environmental science courses at the University of Nevada and the College of Southern Nevada. Taught biology in the field, lecture hall, graduate and undergraduate field labs, and to high school students of the Western Shoshone Nation. Guest lecturer at Nevada colleges, high schools, elementary schools, and community groups.

➤ **Researcher**

nineteen years experience in ecological research. Specializing in phytogeography, floristics, vegetation mapping, gradient analysis, and plant ecology of the Great Basin and Mojave Desert. Extensive field experience and skills. Other research interests include ethnobotany, natural product synthesis by plants, and plant-animal interactions, especially grazing, pollinators, and dispersers.

➤ **Scientific Writer**

author of reference book, a textbook, a book chapter, and was the chapter coordinator and a principal author of another book chapter, all concerning the natural history of the Great Basin. Co-author of a paper reporting my discovery of an unknown property of an ordination statistical method. First scientific publication reported a previously unknown behavior of Golden Eagles.

➤ **Speaker**

invited speaker at many events. Keynote speaker at the National Forest Health Monitoring Program Conference and twice for the Phi Theta Kappa Honor Society. Invited speaker to the UC Berkeley Museum of Natural History, UNLV Biology Seminar Series, Great Basin Biological Research Conference, Wild Shrubland Symposium, and the Jepson Scientific Symposium. Invited speaker for the International Society of Mushroom Science International Symposium in Zhumadian, China, March 2002, for the Faculty of Science at University of Tehran, Iran, May 2004, and for Guilan University,

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Rasht, Iran, June 2004.

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Employment History

	<u>Position</u>	<u>Name and Location of Employer</u>	<u>Dates</u>
➤	Professor, Instructor	Department of Biological Sciences College of Southern Nevada Henderson, Nevada	8/2001-present, 8/1997-7/2001
➤	Title II Higher Education Coordinator	Nevada System of Higher Education Reno, Nevada	4/2001-8/2007
➤	Research Assistant Professor	Biological Resources Research Center University of Nevada, Reno	1/1997-8/1997 summer 2001-02
➤	Assistant Professor	Department of Biology University of Nevada, Reno	Fall 1996
➤	Teacher	Corporation of Newe Sogobia Western Shoshone Nation, Nevada	8/1996-1997
➤	Research Assistant	Biological Resources Research Center University of Nevada, Reno	summer 1993 summer 1994 1/1995-9/1995
➤	Stage Manager	Nevada Opera Association. Reno	10/1986-5/1997
➤	Teaching Assistant	Department of Biology University of Nevada, Reno	8/1988-12/1994
➤	Stage Manager	Nevada Festival Ballet. Reno.	1/1987-3/1992
➤	Agricultural Inspector	Nevada Department of Agriculture. Reno.	6/1987-2/1988
➤	Research Assistant	Department of Range, Wildlife, and Forestry University of Nevada, Reno	6/1988-7/1988
➤	Research Assistant	Department of Biology University of Nevada, Reno	9/1986-9/1987

Adjunct and Associate Positions

	<u>Position</u>	<u>Name and Location</u>	<u>Dates</u>
➤	Research Associate	University and Jepson Herbarium University of California Berkeley, California	9/2002 - present
➤	Adjunct Assistant Professor	Department of Biological Sciences University of Nevada Las Vegas	8/2002-present

Honors & Awards

Las Vegas Chamber of Commerce Community Achievement Award in Education (2002)
Presidential Award for Teaching Excellence, Community College Southern Nevada (2001)
Associated Student's Distinguished Faculty Member, Community College Southern Nevada (1999)
Graduate Student Access Scholarship, University of Nevada (December 1993)
Honorable Mention, Graduate Student Paper Competition, University of Nevada (April 1992)
Distinguished Teaching Assistant, University of Nevada (May 1991)
Wilson Graduate Scholarship in Biology, University of Nevada (Fall 1990-Spring 1991)
First Place, Graduate Student Paper Competition, University of Nevada (April 1990)
David Koch Memorial Award in Biology, University of Nevada (Fall 1987)
Max Fleischmann Memorial Scholarships in Biology, University of Nevada (1986, 1987)
Momand Music Scholarships, University of Nevada (1986, 1987)
Phi Kappa Phi Honor Fraternity, University of Nevada (May 1985)
Outstanding Theater Student, University of Nevada (May 1973)
Many intercollegiate awards in Varsity debate, University of Nevada (1972-1973)

Reviewed Publications in Print

Brussard, P.F., D.A. Charlet, and D. Dobkin. 1999. The Great Basin-Mojave Desert Region. *In*: Mac, M.J., P.A. Opler, C.E. Puckett-Haecker, and P.D. Doran (editors). The status and trends of the nation's biological resources. U.S. Department of the Interior, U.S. Geological Survey, Reston, Virginia.

Caveney, S., D.A. Charlet, H. Freitag, A.N. Starratt. 2001. New observations on the secondary chemistry of world *Ephedra*. *American Journal of Botany* 88(7):3-22.

Charlet, D.A. 2007. Great Basin conifer diversity: Implications of extinction and immigration. *Aliso*. 24: 31-61.

Charlet, D.A. (editor) 2002. Nevada environmental issues. Kendall-Hunt Publishing Company, Dubuque, Iowa. 240pp.

Charlet, D.A. 2000. Coupling species-level inventories with vegetation mapping. *Madroño* 47(4):259-264.

Charlet, D.A. 1998. Book Review: *The Alpine Flora of the Rocky Mountains, Vol. 1: The Middle Rocky Mountains* by Richard W. Scott, University of Utah Press. *Journal of California and Great Basin Anthropology*.

Charlet, D.A. 1996. Atlas of Nevada conifers: A phytogeographic reference. University of Nevada Press, Reno. 336pp.

Charlet, D.A. 1995. Great Basin montane and subalpine conifer diversity: Dispersal or extinction pattern? Ph.D. dissertation. University of Nevada, Reno. 179pp.

Reviewed Publications in Print (cont.)

Charlet, D.A. 1991. Relationships of the Great Basin alpine flora: A quantitative analysis. Master's thesis. University of Nevada, Reno. 282pp.

Charlet, D.A., and R.W. Rust. 1991. Visitation of high mountain bogs by Golden Eagles (*Aquila chrysaetos*) in the northern Great Basin. *Journal of Field Ornithology* 62(1):46-52.

Dunham, S.M., L. Butcher, D.A. Charlet, and J.M. Reed. 1996. Breeding range and conservation of Flammulated Owls (*Otus flammeolus*) in Nevada. *Journal of Raptor Research* 30(4):189-193.

Tausch, R.J., D.A. Charlet, D.A. Weixelman, and D.C. Zamudio. 1995. Patterns of ordination and classification instability resulting from changes in input data order. *Journal of Vegetation Science* 6:897-902.

Veech, J.A., D.A. Charlet, S.H. Jenkins. 2000. Interspecific variation in seed mass and the co-existence of conifer species: A null model test. *Evolutionary Ecology Research* 2(3): 353-363.

Vogler, D.R. and D.A. Charlet. 2004. First Report of the white pine blister rust fungus (*Cronartium ribicola*) infecting whitebark pine (*Pinus albicaulis*) and *Ribes* spp. in the Jarbidge Mountains of Northeastern Nevada. *Plant Disease* 88:772.

Reviewed Publications in Press

Charlet, D.A. 2007. Shah-kan-daw: Anthropogenic simplification of semi-arid vegetation structure. USDA Forest Service Rocky Mountain Research Station, General Technical Report (in press).

Charlet, D.A. 2007. Floristics of the Mt. Jefferson alpine florula. In: D.H. Thomas (editor), The archaeology of Monitor Valley, 4: Alta Toquima Village and the Mt. Jefferson complex. American Museum of Natural History Anthropological Papers. New York. (in press)

Papers Presented

Charlet, D.A. 2006. Shah-kan-daw: Anthropogenic simplification of semi-arid vegetation structure. Paper presented at plenary session of the Wildland Shrub Symposium, Cedar City, Utah, 6 June 2006.

Charlet, D.A. 2004. Vegetation mapping in deserts and mountains. Paper presented to the Faculty of Sciences, Tehran University, Tehran, Iran and to the Faculty of Sciences, Guilan University, Rasht, Iran.

Charlet, D.A. 2002. Island biogeography theory and vegetation mapping: Conservation lessons from the American West. Paper presented at the Biyang International Symposium on Technology and Marketing of *Lentinula edodes*, Zhumadian, China.

Charlet, D.A. 2000. Coupling species-level inventories with vegetation mapping. Invited paper presented at the Jepson Herbarium 50th Anniversary Scientific Symposium, University of California, Berkeley, June 2000.

Charlet, D.A. 1999. Great Basin biogeography in the 21st century. Invited paper presented at the Great Basin Biological Research Conference, University of Nevada, Reno, October 1999.

Posters Presented

Charlet, D.A., R.J. Tausch, D.A. Weixelman and D.C. Zamudio. 1992. Effects of stand and species order on ordination and classification results. Poster presented at the Annual Meeting of the Society for Range Management, February 1992.

Vegetation Maps & Data Prepared for State and Federal Agencies

Charlet, D.A. 2006. Effects of interbasin water transport on ecosystems of Spring Valley, White Pine County, Nevada. Expert testimony submitted to Nevada State Engineer, on the applications 54003 through 54021, inclusive, filed by the Las Vegas Valley Water District to appropriate waters of Spring Valley hydrographic basin, Lincoln and White Pine Counties, Nevada. 21 September 2006, Carson City, Nevada.

Charlet, D.A. 2003. Collection of vegetation data for fuels mapping and classification of vegetative communities at Great Basin National Park, Final Report, 31 October. Report submitted to Great Basin National Park, Western Ecological Research Center, Yosemite National Park, and NatureServe.

Charlet, D.A. 2003. Biological considerations and rural roads management: Clark County roads biodiversity project, 2001-2003 Biennium Report, 20 June 2003.

Charlet, D.A. 2000. Vegetation Map of the Carson Range, California and Nevada. Biological Resources Research Center, University of Nevada, Reno. <ftp://biodiversity/pub/charlet>

Charlet, D.A. 1995. Map of the Vegetation Zones of Nevada. Biological Resources Research Center, University of Nevada, Reno.

Charlet, D.A., S.D. Livingston, H. Powell, R. Bamford, T. Wade, M.M. Peacock, C.R. Tracy, and M. Rahn. 1997. Floral and Faunal Survey of the Stillwater National Wildlife Refuge, Stillwater Wildlife Management Area, and Fallon National Wildlife Refuge: Lahontan Valley and Carson Sink, Churchill County, Nevada. Progress Report to the United States Department of the Interior, Fish and Wildlife Service, Stillwater National Wildlife Refuge, Fallon, Nevada.

Committees and Panels

Honors Program Advisory Panel, Community College Southern Nevada (CCSN) (2003-2006).

Environmental Science Program Coordinator, (CCSN) (2000 - 2003).

Environmental Science Discipline Advisor, CCSN (2001-2003).

CCSN Curriculum Committee (1999-2003).

CCSN Environmental Science Representative, UCCSN Academic Standards Committee (2000-2001).

CCSN representative, Great Basin Cooperative Ecosystem Study Unit (2001-present)

Clark County Low Elevation Plant Technical Working Group (2001-2005).

Committees and Panels (continued)

Panelist, Environmental Science Textbook Symposium, San Francisco, California (2006).

Panelist, Environmental Science Textbook Symposium, San Francisco, California (2004).

Panelist, Environmental Science Textbook Symposium, Bellingham, Washington (2001).

Keynote Speaker, National Forest Health Monitoring Program Symposium, Las Vegas, NV (2001).

Committee Chairman, CCSN Associate of Arts Degree Program Review (1999-2000).

CCSN Biology Representative, UCCSN Academic Standards Committee (1998-2000).

CCSN Mathematics Department Search Committee for Mathematics faculty position (2000).

CCSN Science Department Search Committee for Biologist faculty positions (1998).

Nevada representative to the National GAP Analysis Principal Investigator's Conference, Reston, Virginia (August 1997).

Invited Expert Panelist for Nevada Vascular Plant Assessment, Terrestrial Ecology Team, Columbia River Basin Science Integration Team, Interior Columbia Basin Ecosystem Project (1995).

University of Nevada, Reno, Department of Biology Search Committee for Systematic Botanist faculty position (1991-1992).

Other Professional Activities: Botanical & Vegetation Research

Biology Project Leader, Nevada Science Teacher Enhancement Project, Desert Research Institute. "Vegetation Mapping of the Jarbidge Wilderness" (2000).

Pinyon Biologist for the Pinyon Restoration Project, Western Shoshone Nation, Nevada. (1996-present).

Consultant to the Nevada Division of Forestry and Great Basin National Park concerning the distribution and natural history of *Pinus longaeva* in Nevada (1996-present).

Volunteer for U.S.D.A. Forest Service, Intermountain Region Research Station, and Modoc, Tahoe, Humboldt, Toiyabe National Forests. Various surveys (1986-2000).

More than 4000 plant collections donated to the following herbaria: University of California, Riverside (UCR), University of California, Berkeley (UC), Duke University (DUKE), University of Nevada, Las Vegas (UNLV) University of Nevada (RENO), University of Washington (UW), Harvard University (GRAY), Humboldt-Toiyabe National Forests, Field Museum (F), and Brigham Young University (BRY) (1992-2007).

Collections of *Streptanthus polygaloides* seeds provided to Dr. Dan Bowman (North Carolina State University, Raleigh) for ecophysiological and genetic experimentation (1995-1996).

Seed collections of *Plantago major*, *Plantago insularis*, *Nicotiana attenuata*, *Datura wrightii*, and *Anemopsis californica* provided to Dr. Brandon Moore (Department of Biochemistry, University of Nevada) for sugar

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synthesis experimentation (1995-1997).

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Other Professional Activities: Botanical & Vegetation Research (continued)

Seed collections of *Calocedrus decurrens* provided to the National Arboretum, Slovak Republic (1999).

Seed collections of *Cupressus bakeri* and *Pinus washoensis* donated to University of Washington arboretum (1997).

Collections of the fungal genus *Tulostoma* donated to Don C. Prusso (University of Nevada Reno, Dept. of Biology Professor) (1989-1997).

Climate Research

Location data for *Neotoma* spp. middens from throughout the western Great Basin provided to Dr. Robin J. Tausch (U.S. Forest Service) and to Dr. Peter Wigand (Desert Research Institute) (1989-1995).

Increment cores collected from high elevation *Pinus albicaulis* in the Warner and Jarbidge Mountains donated to Martin Rose (Research Professor, Desert Research Institute) (1989-1992).

Ethnobotany

Consultation to the District Attorney, Lyon County, NV, in a criminal case involving *Datura wrightii* (2004).

Expert witness for the District Attorney, Douglas County, NV, in the State vs. Adam Clarke, case number DA 92-131, March 1992. Testimony in the criminal case concerned: identification of *Datura lanosa* Barclay ex Bye, botanical nomenclature, pharmacology, and ethnobotany (1992).

Translation from Chinese characters of 2000 Chinese herb names, providing the following to Alan Lau (General Manager, Mayway Trading Corporation, San Francisco): pinyin romanization, common English name, botanical name, and pharmaceutical name (1984).

Editing and Reviews

Invited reviewer of the following:

National Fish and Wildlife Foundation, grant proposal (2005).

National Science Foundation, Ecology Division grant proposals (2004, 2005).

Book manuscript submitted to *University of Nevada Press* (2003).

Article presented at the USDA Forest Service 2002 Fire Conference: Managing fire and fuels in the remaining wildlands and open spaces of the Southwestern United States (2003).

Ph.D. Dissertation, Punjab University, India (2003).

Poster map, Ecoregions of Nevada for the US Environmental Protection Agency (2002).

Article submitted to the journal, *Western North American Naturalist* (2002).

Articles submitted to the journal, *Biological Journal of the Linnean Society* (2001).

Book manuscript submitted to *University of Nevada Press* (2001).

Editing and Reviews (continued)

Article submitted to the journal, *Annales Botanici Fennici*, Helsinki (2000).

Five articles submitted to the journal, *Great Basin Naturalist* (1995-1999).

Great Basin Natural History Association (1997).

Text accompanying four Wilderness maps for the USDA Forest Service, Ogden, UT (1994).

Zoology

Collections of the Hymenoptera genera *Bombus* (Bombidae) and *Osmia* (Megachilidae) donated to Dr. Richard W. Rust (University of Nevada, Reno, Professor) (1992-2005).

Major acknowledgments in Villard, P. 1999. Guadalupe Woodpecker: And other islands *Melanerpes*, S.E.O.F., Clichy, France. 136pp.

References

- Sue Blizard, Ed.D., Professor (702) 651-3140
 Department of Biology H3C FAX: (702) 651-3161
 College of Southern Nevada Henderson NV 89002
- Peter F. Brussard, Ph.D., Professor (775) 784-6188
 Department of Biology - 314 FAX: (775) 784-1302
 University of Nevada Reno, NV 89557
- Mo-Mei Chen, Ph.D. (510) 642-2465
 UC Berkeley Herbarium
 1001 Valley Life Sciences Bldg #2465 Berkeley, CA 94720-2465
- Barbara Ertter, Ph.D. (510) 292-5566
 Jepson and UC Berkeley Herbarium
 1001 Valley Life Sciences Bldg #2465 Berkeley, CA 94720-2465
- Matthew Lavin, Ph.D., Asst. Professor (406) 994-4424
 Department of Biology
 Montana State University Bozeman, MT 59717-0001
- Pat Leary, Ph.D., Professor (702) 651-44140
 Department of Biology – S2B
 College of Southern Nevada North Las Vegas NV 89030
- Zang Mu, Professor muzang@public.km.yn.cn
 Cryptogamic Herbarium, Kunming Institute of Botany
 Academia Sinica Kunming 650204 Yunnan China
- Richard W. Rust, Ph.D., Professor (775) 784-6770
 Department of Biology - 314 FAX: (775) 784-1302
 University of Nevada Reno, NV 89557
- Monica Schwalbach, Deputy Forest Supervisor (828) 257-4200
 National Forests of North Carolina FAX: (202) 205-2599
 U.S.D.A. Forest Service
 160A Zillicoa Street, P.O. Box 2750 Asheville, NC 28802.

References (continued)

- Stanley D. Smith, Ph.D., Associate Vice President of Research (702) 895-3197
 Dept. of Biological Sciences
 University of Nevada Las Vegas, NV 89154
- Robin Tausch, Ph.D., Project Leader (775) 784-5329
 U.S. Forest Service

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Shahin Zarre, Ph.D., Professor
Faculty of Science, Department of Botany
University of Tehran

zarre@khayam.ut.ac.ir
Tehran, Iran

Grants Awarded

National Geographic Society. 7452-03, Collecting Iranian Botanical Specimens for Comparative Research Collaborations. Named participant in 2004 botanical collecting expedition to Iran (2004).

Southern Nevada Public Lands Management Act. Plant Conservation Management Strategy for Clark County (Clark County Multi-Species Habitat Conservation Plan Proposal 2003-TNC-330-P) (2004).

Collection of Vegetation Data for Fuels Mapping and Classification of Vegetative Communities at Great Basin National Park (Task Agreement no. J8R070300004), through the University of Nevada, Las Vegas Department of Biological Sciences administered by the Cooperative Ecosystem Studies Unit (2003).

National Science Foundation. EPSCoR RING-TRUE II. Subaward PI, BRIDGE (Bridges to Retain and Inspire Diversity leading to Graduation and Employment in Science) program (2002-2003).

National Science Foundation. Nevada Science Teacher Education Project (N-STEP). Subaward PI, Biology Project: Vegetation Mapping in the Jarbidge Wilderness (2001).

National Partnership for Reinventing Government. Information Integration for Watershed Protection and Risk Assessment Subaward PI, Vegetation Mapping of the Truckee, Walker, and Carson River Watersheds, Nevada and California. (1998-2000).

National Science Foundation. Teaching and Research, Education and Collaboration (TREC). Subaward PI, Vegetation and Wildlife Maps of the Carson Range, California and Nevada (1999).