

Submitted Title: Plants along village route of Yosemite genealogical family use districts

Submitted Abstract:

The physical landscape of the Southern Sierra Miwuk Nation was transformed by the ethnobotanical manipulations made in cultivating native plants in various ecosystems of the Sierra Nevada foothills. Based on the geographic regional family use tracts, defined by the first USGS geographers and ethnographers, cultivation occurs at every elevation and in many microclimates as native people gather, prepare, and use thousands of California Native Plants as nutritional and medicinal components of their diets. As the population and Human Footprint (R) increases, so will regulatory policy from all levels of government that may inadvertently affect native plant gathering, cultivation, and use. Current tribal practices continue on the 50% of Mariposa County that are public lands, as well as private and allotment lands. Ancient village sites remain under the care of the current generation, and in Yosemite the reconstruction of the village Wah-h_-gah is beginning.

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Native Plants and Family Use District Routes

Long before visible native land use practices in the Sierra Nevada were replaced by the cultivation methods of the Spanish and other Euro-Americans, native agroecology manicured the landscape. Manipulations by the indigenous population increased native plant yield, and propagated economic species for survival and trade (Baumhoff, 1963; Anderson 1988). Southern Sierra Miwuk native plant data regarding the gathering of plants for manufacturing material, medicinal, and dietary uses were viewed through this study to relate traditional plant use to the ancient and historic villages. Southern Sierra Miwuk village names were given by family members and used in a confidential native plant guide for tribal monitors. The guide is being developed in response to the need to monitor the plant resources during consultations with governmental agencies.

In precontact times agroecological botanical life forms were managed by an indigenous management methodology according to the plant use category and ecosystem. Cultivation and harvesting methods varied according to the resource and harvesting calendar (Baumhoff, 1963; Anderson, 1988). Ceremonial roundhouse placement was related to the native plant life in and around villages. Lists of plants with cultural religious uses are known to exist in ancient village sites, and are gathered at those sites by the current family members. Ceremonial roundhouse sites have been located within the traditional cultural property of the Yosemite families through nomenclature comparisons.

Knowledge of plant distribution is currently being mapped because it is known that some historic villages were named after the resources in those areas (Gaskell, 2002). In addition to establishing associations between the villages and resources, the healing practices of a region may be extrapolated from the plant inventory after all the data are mapped. The permaculture within a village site varied greatly according to the climate and type of cultural contact (Merriam, 1903). Various ethnographers documented domesticated plants such as tomatoes, growing in the Roundhouse villages around the turn of the century interspersed within patches of local plants (Merriam, 1906). Traditional plants that are California native plants are listed in the confidential tribal botanical name guide along with their uses within the territorial and tribal cultivation areas.

Watershed and Traditional Travelways

Within Yosemite Valley, the roundhouse villages existed between watersheds and at the base of particular deer migration trails. This region has been divided into the eight zones present on the Yosemite Valley floor management tracts or districts (Powers, 1877). There is a linguistic relationship to the natural resources in these separate regions or zones and it is related to naming practices in the family use districts and the territorial names within the Ahwahneechee land management system where physical habitation evidence occurs (Barrett, 1893-1977; Merriam, 1898, 1904, 1900-20, 1911; 1917; Powers, 1877). Each watershed between the listed geographic points is connected to a family tract. The present day families have been compiling ethnobotanical information for watershed based on their cultural knowledge of resource use and management that has been passed down through the families. Within the archaeological record, the food

production areas within the family tracts are classified by archaeologists as physical features and by the families according to the trail content of a district village chain.

The Class I villages were the center of activity for four or more smaller Class II villages supporting the Class I village. An example of the naming practices can be found in a listing at the end of a narrative by J. H. Taylor, "Yosemite Indians and Other Sketches," published in San Francisco (Jonck & Seeger), where she writes in 1936 of witnessing the villages on El Capitan Meadows in Yosemite Valley named *Haengah*, *Awokoie*, *Helejah*, *Yuachah*, and *Hephepooma* (Figure 1), (Merriam, 1917). Of these five villages, Chief Lemee implicates the designation of the village named *Awokoie* as the Class I village because it was the village of the Headman Old Lancisco Wilson (Broadbent, 1956). Merriam classified the villages of the Southern Sierra Miwuk into two categories; large important ceremonial centers and lesser villages surrounding it. Whitney's explanation in the U. S. Geological Survey guidebook of California in 1871 titled "A Description of the Yosemite Valley and Adjacent Regions of the Sierra Nevada, and the Big Trees of California," was verified by Merriam, who observed that a Captain's village name dominated the names of the villages of lesser significance (Merriam, 1902, 1955).

Agency Methodology to Identify Family Use Routes

Inside the cultural landscape studies housed in the Tribal Council Office of the Southern Sierra Miwuk Nation, there are many environmental assessment studies, and environmental impact reports written by 7 or more agencies studying regions of historic villages. Boundaries were drawn along linguistic, watershed, county, and reservation delineations. Agency policies regarding the management of cultural resources and biological elements differ between organizations. Since the Tribal concept of gathering includes cultivation and harvesting at all trophic levels in balance, isolation of one element could produce discord. The *spirit of the law* that defines intent when dealing with the federal government is found in 36 CFR 2.1 that designates the Superintendent as the final interpreter of the *intent* of plant use. Boundaries created by governments between 1850 and 1972 having different intents are local, county, state, federal and world council.

Because government agencies manage 50% of Mariposa County, it is an excellent region for the study of the agency treatment of gathering resources (Figure 2). Elevation models and travelways as they relate to the migration patterns defined by resource gathering may reveal village systems. An overview is needed in order to understand the decision making and policy standards for the use of traditional native California plants of these regions. These policy standards include: a) the policies of these agencies; b) the geography of a travelway; c) the genealogy and cultural landscape of the regional land; d) the settlement pattern and village structure example; e) health, botanical, or nutritional legislation affecting the use of resources; f) current issues surrounding the policy at specific locations (such as ESA plants Figure 3); and g) the policy and philosophy of disclosure of information surrounding cultural properties and their archaeological and plant gathering and use practices.

Scientific Methodology to Identify Family Use Routes

Issues surrounding the indigenous knowledge of local communities were tapped by government forestry agencies for national fire management legislation signed in 2003. Recent policies regarding the harvest, preparation and sale of herbal products will have implications affecting Native American traditional family practitioners. Heritage seeds, soil seed banks and the health of plant populations at project sites have raised questions regarding sustainability. Whether it is fire policy or farming, the acuity of culture in determining climatologic evaluation of macroclimates for supporting plant populations needs to include consultation. A tribal center for scientific study of plant biology and propagation is planned in the design of Wahhohogah in Yosemite. This could influence educational directives for ecological restoration. *Wah-h_-gah* is the name of the village area recorded by Merriam in 1917, and *Wa-ha-ka* is the name of the village area recorded by Powers in 1877. *Wah-h_-gah* has been through environmental review and designed as a facility for use by the Tribe as a cultural center of activity. Plant *use* questions where the stressed plant populations need to undergo rehabilitation could be part of the scope of the cultural center.

Lineal descendants of the Class I villages relate that the historic locations of these villages was usually due to the juxtaposition of water and plant resources. Village naming procedures within the culture also suggest this. Historically, agencies interested in *weeds* or native California plants were individuals classifying them as either invasive, exotic, or worthy of listing. Now, with the resurgence of interest in the chemical components and uses of plants thought to be wild, even the gathering of these plants by native peoples on public lands has been highly scrutinized. The Southern Sierra Miwuk Nation has formed a method for reconstructing, through evidences found in oral history, archaeological records, and geographical identifying characteristics, a strategy for identification of California native plant populations along a family use district, emanating from the center of a village settlement region.

This knowledge was a part of the plant and wildlife resource knowledge revealed in the *Petition to the Senators and Representatives of the Congress of the United States In the Behalf of the Remnants of the former Tribes of the Yosemite Indians Praying for Aid and Assistance*, written about in the 1891 Report of the Acting Superintendent and printed by the Government Printing Office in Washington D. C.. The village and potato field became a hayfield. How this process impacted the Inner Valley (high ground) family use districts and the territorial family districts is learned through examination of the ethnographic data identifying village headman. A comparison between the oral interviews of the pioneer settlers and the Native American oral tradition shows how the resource management styles collided and put the entire ecosystem into chaos in El Capitan Meadow. Gathering in another family's resource area was cause for discord, and the Native Americans were more willing to approach the settlers for their land by petitioning the government than to encroach upon the land rights of adjoining families. Cultivation and gathering practices specific to the Yosemite Valley were performed by the families of the Sister Villages inhabited concurrently in the Valley and in the outer territories (Gaskell, 2002).

Today, the outer territorial villages are population density centers for the Native American population, and the family burials and ceremonial areas are not far from them. Family members maintain areas of many varieties of nutritional, medicinal, and basketry plants on land near their homes. Soil seed banks in the ancient and historic villages should provide biological data. Surveys of the current plant and wildlife populations of historic family use tracts can contribute to the knowledge necessary to plan for future resource management.

Sovereign Tribal Cultural Resource Management Office Role

Institutional mission statements are useful in determining the philosophical goals of cultural resource management businesses. The goals of a Cultural Resource Management professional are determined by the policy of the agency that employs them. Family use tract managers continue to frequent old village sites to collect and gather materials for daily use. Due to the holistic nature of the Southern Sierra Miwuk belief system, it is sometimes difficult to separate the Indigenous Knowledge System (IKS) regarding sacred sites and medicinal plants, from village health. In order to identify the plant varieties used, since they are naturally occurring, this study needed to investigate villages where the resources were located. Pharmaceutical business philosophy follows paths similar to Tribal philosophy while trying to identify new treatments. Cross comparison of plant use in the herbal products, alternative medicine, and homeopathic medicine, against the tribal healing methods reveal similar uses for regional species of the family use tracts.

The spiritual aspect of the practice of healing transcends the chemicals found in the native plants. This raises the question of what part of the plant knowledge is culturally sensitive? The whole process is culturally sensitive—the soil growing the plant, the water feeding the plant, and the practice of preparation, the use, and the healing. The use of a plant crosses over issues of cultural sensitivity and religion. The gathering of the plants at IKS locations constitute gathering areas where there is a high probability for being undisclosed villages of past family members. Ethnobotany is defined as the study of indigenous people about the utility, diversity, and chemical characteristics of plants found in their environment, whilst ethnopharmacology is defined as the “observation, identification, description, and experimental investigation of the ingredients and the effects of indigenous drugs” (Yano, 1993). This traditional ethnopharmacological knowledge provides researchers with the first-hand, ages-old experience and experimentation of medicinal plant resource by indigenous peoples.

Ecological Restoration and Herbal Medicine

Mental inventories of village locations and plant resources are covered under the category of Intellectual Property Rights of Culture. A biological inventory is an effective tool for ecosystem management, but there are disclosure rulings regarding cultural knowledge inventory. Demands for native plants has placed pressure on the public land agencies governing areas protected for public use and they are confronted with gathering entities from different cultures (Figure 3). The theme of conservation of the California

Native Plants and the Native American plant gathering activities in the Sierra Nevada foothills relates to four areas of influences on the environment; a) agricultural and conservation easements, b) vegetation management and public roads maintenance, c) wildlife corridor, hedgerows and integrated pest management (IPM), d) Native American gathering for cultural uses.

Each agency has its own cultural resources policies and liaison. Wildcrafting vs. cultural gathering is one of the key issues of intent (Anderson, 1988; McCutcheon, 1996; Hurlburt, 1999). In preparation for various ecological restoration projects in the future, tribal members are recording the habitat and plant populations in the regions where each individual cultivates and manages plants in Mariposa County and other areas where they gather resources. Wildcrafting philosophy and Native American plant management are closely related, but with different intents.

Southern Sierra Miwuk native plant data regarding the gathering of plants for manufacturing material, medicinal, and dietary uses were viewed through this study to relate traditional plant use to the ancient and historic villages along the family use district chains (Figure 4 and 5). The distribution of various plant resources are currently being mapped by Yosemite Valley Miwuk family members. Traditional plants that are native California plants are listed in the botanical name guide along with their uses and the relationships between the tribe and the gathering territory of those species. The Class I villages were the center of activity for four or more smaller Class II villages supporting the Class I village. Village naming procedures within the culture also suggest this. Mental inventories of village locations and plant resources are covered under the category of Intellectual Property Rights of Culture as are the practices of Native American gathering for cultural uses. Southern Sierra Miwuk native plant data relates traditional plant use to the ancient and historic villages. The sensitivity of this discussion condenses intent, philosophy, and high spiritual and monetary cost where two cultures interpret *preservation* with opposing meanings as; preservation through use or preservation through nonuse.



Figure 1. An example of changes to the ecology of traditional family lands can be found in the meadow under El Capitan (photo by John Muir, 1867, University of the Pacific John Muir collection, Stockton, CA and the Sierra Club).

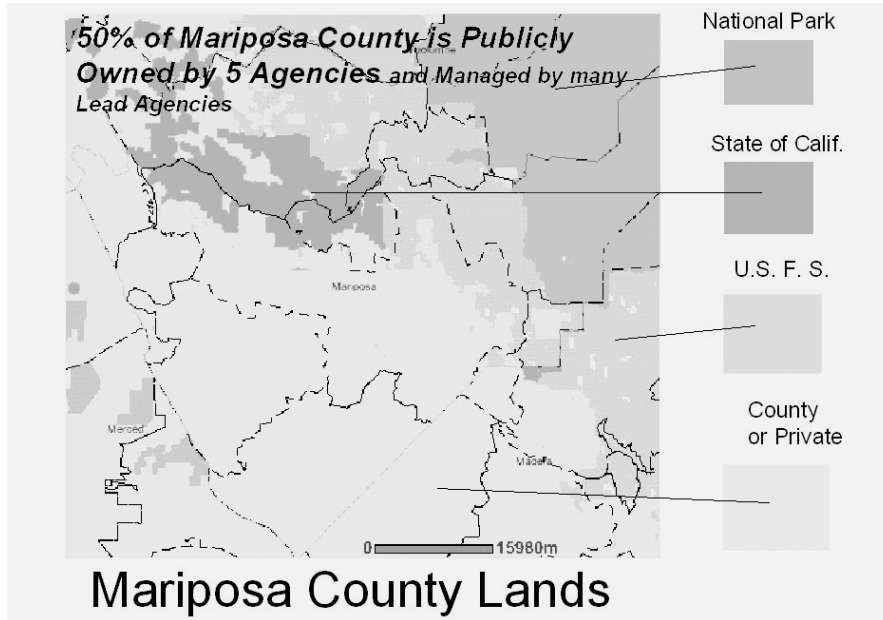


Figure 2. The 50% of the land open to public plant gathering by local descendants of Yosemite.

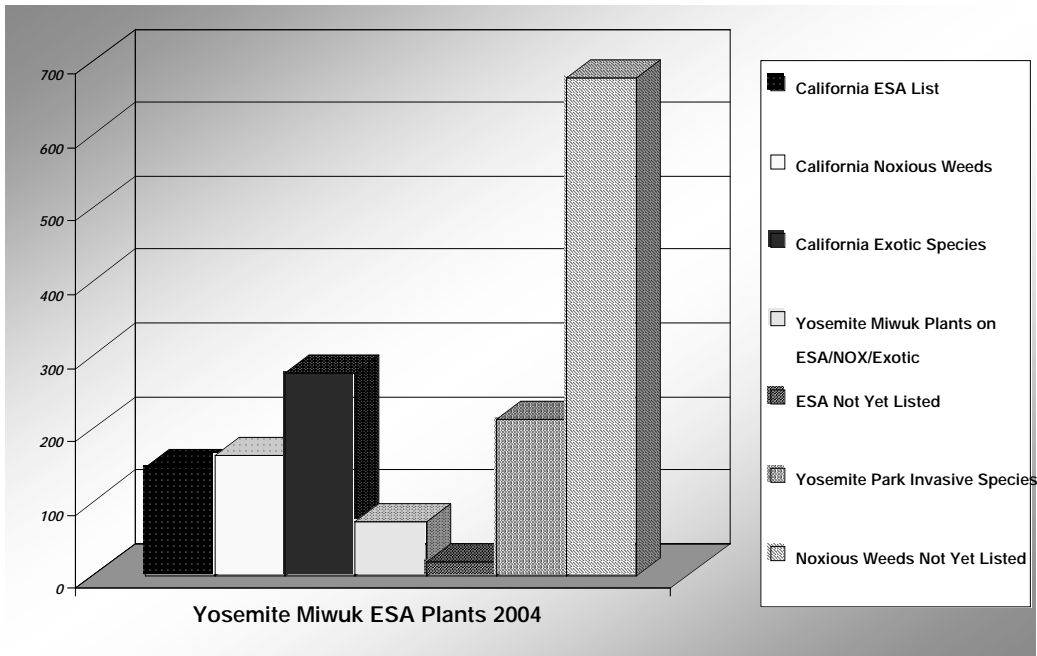


Figure 3. Comparison of Yosemite Miwuk Native Economic Plants to ESA, CalEPPC Exotic, Noxious, & Not Yet Listed Lists, Gaskell, 2004©

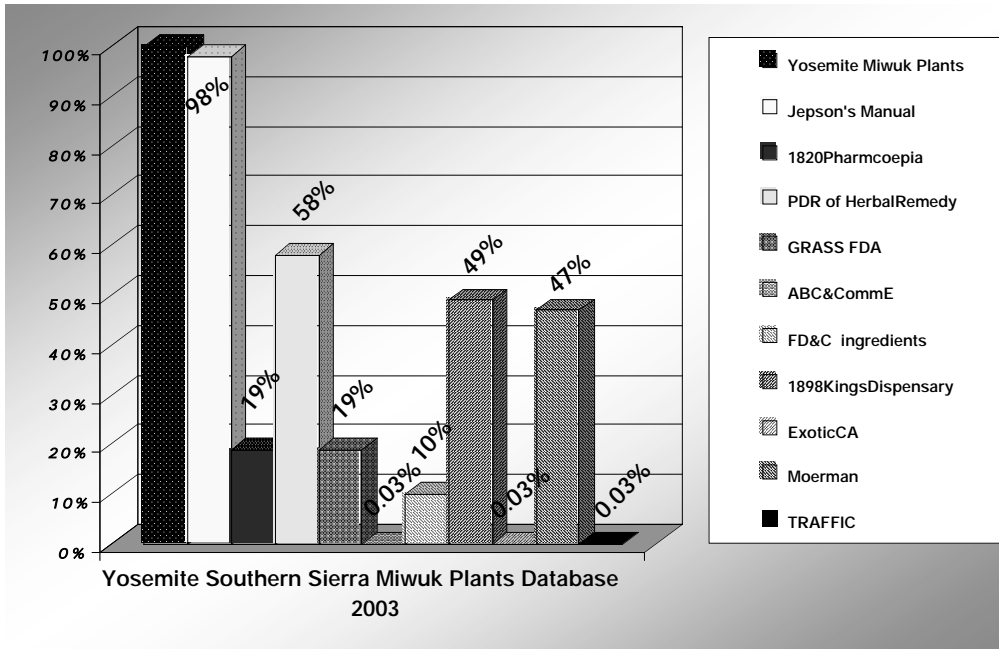


Figure 4. Percentage of references to each plant named in the 1183 species in sample. The sample contains species confirmed through oral interview, ethnographic and geographic documents, and from other biological listings. Plant Phyto-Comparison Chart Totals- S. Gaskell © 2004 Applied Ethnobotany: Law, Health, and Sacred Sites Resources, 2004

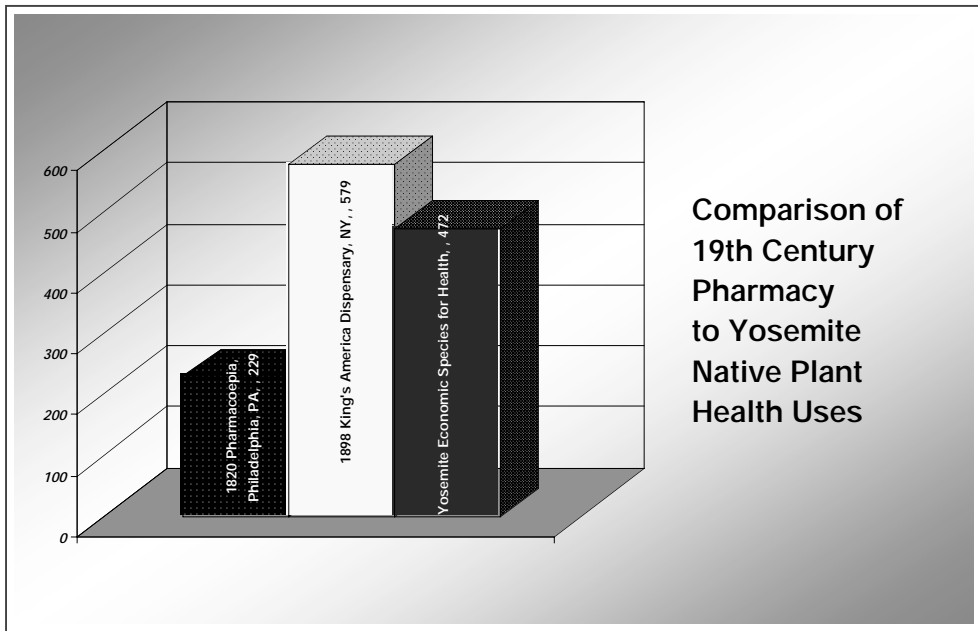


Figure 5. A Comparison between the earliest American pharmacœpias and the Southern Sierra Miwuk biological inventory use list.

References

1. Barrett, Samuel Alfred, "Samuel Alfred Barrett Papers, (1893-1977). "Collection No. BANC MSS 86/172c, Negative No. 2778, University of California, Berkeley (in the archives of the Yosemite Research Library, Yosemite, CA).
2. Broadbent, Sylvia (1956). Interviews with Chief Lemee, Yosemite Research Library.
3. Merriam, C. Hart (1900, 1901, 1902, 1903, 1910, 1911, 1917, 1920, 1955) *Field Journals*. Washington, D.C.: Library of Congress.
4. Powers, Stephen (1877) "The Tribes of California." *Contributions to American Ethnology, Volume III*. United States Geographical and Geological Survey of the Rocky Mountain Region. Washington, DC.
5. Anderson, Kat (1988) *Southern Sierra Miwok plant resource use and management of the Yosemite Region: A study of the biological, and cultural bases for plant gathering, field horticulture, and anthropogenic impacts on Sierra vegetation*. Unpublished master's thesis. University of California: Berkeley.
6. Baumhoff, Martin A., (1963). Ecological Determinants of Aboriginal California Populations, Berkeley, California; University of California Press, Volume 49, Number 2, *Publications in American Archaeology and Ethnology*, pp. 150-235.
7. Gaskell, Sandra (2002). *Landscape of Anthropological Myth: Southern Sierra Miwok Geography of Religion*. Unpublished master's thesis. Turlock, CA; California State University, Stanislaus.
8. Hurlburt, Dana Price, (1999). *Population Ecology and Economic Botany of Echinacea Angustifolia, a Native Prairie Medicinal Plant*. Kansas. A Dissertation for the Doctor of Philosophy at the University of Kansas
9. McCutcheon, Allison R., (1996). *Ethnopharmacology of Western North American Plants with Special Focus on the genus Artemisia L.*. British Columbia, Department of Botany Dissertation for a Doctorate of Philosophy, University of British Columbia..
10. Yano, Lester I., (1993). Protection of the ethnobotanical knowledge of indigenous peoples. *UCLA Law Review*, vol. 41, December 1993, pp. 443-486.

Bibliography

- Anderson, Dr. Lars W. J., et.al., (1999). The CalEPPC List: Exotic Pest Plants of Greatest Ecological Concern in California of October, 1999. Petaluma, CA; CalEPPC Committee Publication.
- Anderson, Kat (1988) *Southern Sierra Miwok plant resource use and management of the Yosemite Region: A study of the biological, and cultural bases for plant gathering, field horticulture, and anthropogenic impacts on Sierra vegetation*. Unpublished master's thesis. University of California: Berkeley.
- Balick, M. and P. Cox, (1996). *Plants, People, and Culture: the science of ethnobotany*. Scientific American Library.
- Barrett, S. A. (1908). *The Geography and Dialects of the Miwok Indians*. Berkeley, CA.: University of California Press.
- Barrett, Samuel Alfred, "Samuel Alfred Barrett Papers, (1893-1977). "Collection No. BANC MSS 86/172c, Negative No. 2778, University of California, Berkeley (in the archives of the Yosemite Research Library, Yosemite, CA).
- Bates, Craig & Lee, Martha (1993). *Traditions and Innovations: A basket history of the Indians of the Yosemite-Mono lake area*. Rev. Yosemite, CA: Yosemite Association.
- Bates, Craig (1974). An Interview with Agnes Castro, In *Yosemite and Vicinity*: Yosemite CA.
- Bates, Craig (1978). "Names and Meanings for Yosemite Valle." *Yosemite Nature Notes*, V. 47, no. 3, pp. 42-44.
- Baumhoff, Martin A., (1963). Ecological Determinants of Aboriginal California Populations, Berkeley, California; University of California Press, Volume 49, Number 2, *Publications in American Archaeology and Ethnology*, pp. 150-235.
- Bibby, Brian (1994). *An Ethnographic Evaluation of Yosemite Valley: the Native American Cultural Landscape*. Yosemite, CA: Yosemite National Park.

- Bingaman, John W. (1966). *The Ahwahnechees: A story of the Yosemite Indians*. Lodi, CA: End-Kain Publishing Co.
- Bingaman, John W., (1961). *Guardians of the Yosemite: A Story of the First Rangers*. Yosemite, California; Bingaman.
- Bingaman, John W., (1968). *Pathways: A Story of Trails and Men*. Yosemite, California; Bingaman, Retired District Ranger.
- Blumenthal, Mark, (2003). *ABC Clinical Guide to Herbs*. New York; Haworth Press; May 2003.
- Blumenthal, Mark, (2003). *The American Botanical Council ABC Clinical Guide to Herbs*. Austin, Texas; American Botanical Council Publishing.
- Bollo, Vittorio Andrea, 1998. *Taking Back Their Green Gold: A Blueprint for Holistic National Legislation Regarding Medicinal Plants in Developing Countries*. Calgary, Alberta, Dissertation, University of Calgary.
- Broadbent, Sylvia (1956). Interviews with Chief Lemee, Yosemite Research Library.
- Broadbent, Sylvia M.(1957), Ethnographic notes S. A. Barrett, Informant Chris Brown(Chief Lemee) Southern Sierra Miwok notes dated May 22, 1957, Yosemite, CA: files of Craig Bates, YRL.
- Broadbent, Sylvia Marguerite (1960). *A Grammar of Southern Sierra Miwok*. Berkeley. Unpublished master's thesis. University of California, Berkeley.
- Broadbent, Sylvia, (2003). Personal communications with the author during the UC Riverside and Ethnohistory conference honor ceremony at the Costo Library. Sandra Chapman and Sis Calhoun made a presentation to Dr. Broadbent in their language.
- Brochini, Anthony (2001–2004). Personal communication.
- Brochini, Nick (1982). Personal communications with Craig Bates.
- Brochini, Nick (1988). Correspondence with the Bureau of Indian Affairs.
- Castillo, Edward (1990) "Petition to Congress on behalf of the Yosemite Indians." *Journal of California Anthropology, vol. 3. pp. 271-277.*
- Cook, Sherburne F (1962) "Expeditions to the Interior of California, Central Valley: 1820-1840." *University of California Anthropological Records 20 (5)*, Berkeley: University of California Press.
- Cook, Sherburne F. (1960). "Colonial expeditions to interior California: Central Valley, 1800-1820." *University of California Anthropological Records 16 (6)* pp 239–292. Berkeley, CA: University of California Press.
- Cook, Sherburne F. (1976) *The Conflict between the California Indian and White Civilization*. Berkeley: University of California Press, Berkeley.
- Cook, Sherburne F.(1976) *The Populations of the California Indians 1769-1970*. Berkeley, CA: University of California Press.
- Davis, James T. (1974) "Trade routes and economic exchange among the Indians of California." *Reports of the University of California Archaeological Survey 54*. Publications in Archaeology, Ethnology and History, No. 3. Rev. Ramona, CA: Ballena Press.
- Dial, Jacqueline B. & Bean, Lowell (1982). Edited transcript of selected journals of C. Hart Merriam, University of California, Berkeley. In the AICMC, Inc. Archives. Mariposa, CA.
- Duke, James A., (2001). *Handbook of Phytochemical Constituents of GRAS Herbs Other Economic Plants*. New York, Herbal Reference Library Edition, CRC Press LLC.
- Ewer, Charles, et.al, (1820). *The Pharmacœpia of the United States of America, 1820; by the Authority of the Medical Societies and Colleges*. Boston, Massachusetts; printed by Wells and Lilly, No. 51, Cornhill, December, 1820.
- Felter, Harvey Wickes, M.D., and John Uri Lloyd, Phr., PhD., (1898). *King's American Dispensatory*. Scanned Version, © 1999-2004 Henriette Kress.
- Fleckner, John A., (1984). *Native American Archives*. Chicago; The Society of American Archives.
- Fry, Bob (2001) Personal communication.
- Gaskell, Sandra & Brochini, Tony (2001). "Discovery Generation Territorial Delineation, Demographics for GIS mapping of Yosemite Valley Villages of the Southern Sierra Miwok Nation, 1850-1930." *American Indian*

- Council of Mariposa County(eds.), Yosemite and Mariposa, CA. Unpublished document for AICMC Recognition Committee.
- Gaskell, Sandra (2002). "GIS Cultural Resource Map Design for Mariposa County Sensitivity Map Buffer Layer", unpublished paper for the AICMC, Inc., Mariposa, California, Tribal offices.
- Gaskell, Sandra, Tony Brochini, and Bill Leonard, (2003). Yosemite Miwuk Native Plant Guide and Database. Mariposa, California; Unpublished environmental document. American Indian Council of Mariposa County, Inc., Environmental Department active list .
- Gifford, E.W. & Barrett, S.A. (1933). *Miwok Material Culture*. Milwaukee: University of Wisconsin Press.
- Gruenwald, Joerg, Fleming, Thomas, et.al., (2000). PDR for Herbal Medicines. Montvale, New Jersey; Medical Economics Company, Inc. publisher.
- Heizer, Robert F. & Nissen, Karen (1973). *The Human Sources of California Ethnography*. Berkeley: Archaeology Research Facility, Department of Anthropology, University of California, Berkeley.
- Heizer, Robert F. (1974). *The Destruction of the California Indians*. Santa Barbara: Peregrine Smith.
- Heizer, Robert F. (1979) *Federal Concern About Conditions of California Indians 1853 to 1913: Eight documents*. Ballena Press Publications in Archaeology, Ethnology and History No. 13. Socorro, NM: Ballena Press.
- Hickman, James, (1993). *The Jepson Manual Higher Plants of California*. Berkeley, California; University of California Press.
- Hull, Kathleen L., (2002). *Culture Contact in Context: A Multiscalar View of Catastrophic Depopulation and Culture Change in Yosemite Valley, California*. Berkeley, California, a Dissertation for the degree of Doctor of Philosophy, University of California, Berkeley.
- Hurlburt, Dana Price, (1999). *Population Ecology and Economic Botany of *Echinacea Angustifolia*, a Native Prairie Medicinal Plant*. Kansas. A Dissertation for the Doctor of Philosophy at the University of Kansas
- James, Les & James, Norman (July 6–7, 1995). Interview by Brian Bibby. Transcript: "A Native American Oral History of the Yosemite National Park Region. Yosemite Research Library and Records Center, Yosemite National Park, CA.
- James, Les (2001–04). Personal communications.
- James, Les (Feb. 1978). "The Indian Perspective On The Future Of Yosemite National Park," American Indian Council of Mariposa County, Yosemite, CA (revised).
- Johnson, Henry (1935). Interviews from the Field notes of Frank Latta. On file in the Frank Latta Collection. Yosemite Research Library, Yosemite National Park.
- Johnson, Jay (1953). Map of Indian Village, 1930s. Yosemite Valley, Map 5 from census report of 1953.
- Johnson, Jay (2001-04). Personal communications.
- Johnson, Jay (July 6–7, 1995). Interview by Brian Bibby. Transcript: "A Native American Oral History of the Yosemite National Park Region." Yosemite Research Library and Records Center, Yosemite National Park, CA.
- Kelsey, C. E. (1971). *Census of Non-Reservation California Indians, 1905-1906*. Archaeological Research Facility, Department of Anthropology. Berkeley, CA: University of California.
- Kroeber, A. L.(1907) *Handbook of the Indians of California*. University of California Publications in American Archeology and Ethnology, Vol. 4, No. 6. Berkeley: University of California Press.
- Kroeber, A.L. (1916). "California Place Names of Indian Origin." *University of California Publications in Archeology and Ethnology*. Vol. 12, No. 2. Berkeley: University of California Press.
- Leonard, Bill (2001-2002) Personal communications.
- Leonard, William (Jan. 2002). Indian Allotment/Trust Land in Mariposa County listing by American Indian Council of Mariposa County. Chairman Leonard's personal
- Leung, Albert Y., and Steven Foster, (2000). *Encyclopedia of Common Natural Ingredients Unsed in Food, Drugs, and Cosmetics*. New York; Second Edition, A Wiley-Interscience Publication of John Wiley & Sons, Inc.

- McCutcheon, Allison R., (1996). *Ethnopharmacology of Western North American Plants with Special Focus on the genus Artemisia L.*. British Columbia, Department of Botany Dissertation for a Doctorate of Philosophy, University of British Columbia..
- Merriam, C. Hart (1898) *Life Zones and Crop Zones in the United States*. Washington DC: U.S. Bureau of Biological Survey.
- Merriam, C. Hart (1900, 1901, 1902, 1903, 1910, 1920) *Field Journals*. Washington, D.C.: Library of Congress.
- Merriam, C. Hart (1904). "Distribution of Indian tribes in the Southern Sierra Adjacent Parts of the San Joaquin Valley, California." *Science*, Vol. XIX, No 404, pp. 912-917. June 17.
- Merriam, C. Hart (1911). "Map of the Indian Villages" copy on file with the American Indian Council of Mariposa County, Inc.; Recognition Committee Files.
- Merriam, C. Hart (1917). "Indian Village and Camp Sites in Yosemite Valley." *Sierra Club Bulletin*, X(2): 202-209.
- Merriam, C. Hart (1955) *Central Miwok Ceremonies*, University of California Anthropological Research, Vol. 14 (4): pp.261-318. Berkeley, CA:University of California Press.
- Merriam, C. Hart (1979) *Indian Names for Plants and Animals Among the California and other Western North American Tribes*. Annotated by Robert F. Heizer. Socorro, New Mexico: Ballena Press, New Mexico.
- Merriam, C. Hart and Talbot, Zenaida Merriam (1974). *Boundary Descriptions of California Indian Stocks and Tribes*. Reports of the University of California Archeological Research Facility, Berkeley, CA: University of California Berkeley, Department of Anthropology
- Moerman, Daniel, (1998). *Native American Ethnobotany*. Portland, Oregon; Timber Press, Inc.
- Perlot, Jean-Nicolas (1857). Papers in portfolio, 1850–1900: Bullcreek, Marble Springs, Indian vocabulary, and other French writings. (translated by author) Microfilm. Bancroft Library, University of California, Berkeley.
- Perlot, Jean-Nicolas (1985). *Gold seekers: Adventures of a Belgian Argonaut During the Gold Rush Years*. Rep. New Haven: Yale University Press.
- Powers, Stephen (1877) "The Tribes of California." *Contributions to American Ethnology, Volume III*. United States Geographical and Geological Survey of the Rocky Mountain Region. Washington, DC.
- Sample, L. L. (1950) "Trade and trails in aboriginal California." *University of California Archaeological Survey, No.8*. Sept. 15. Berkeley: University of California
- Schenck, Egbert W. (1926). "Historic Aboriginal Groups of the California Delta Region." *University of California Publications in American Archaeology and Ethnology*, Vol 23, No. 2, Nov. 13. Berkeley: University of California.
- Sierra Nevada Ecosystem Project (July 1996). Final Report to Congress, Status of the Sierra Nevada, Vol. II. Assessments and Scientific Basis for Management Options, Wildland Resource Center, Report No. 37. Centers for Water and Wildland Resources University of California, Davis.
- Situma, Francis D. P., (1995). "Legal Protection of Biodiversity with Reference to Agricultural and Medicinal Plants", Nairobi, Kenya; Fletcher School of Law, Dissertation for the Degree of Doctor of Philosophy.
- State of California the Resources Agency Department of Fish and Game Habitat Conservation Division, (2004). State and Federally Listed Endangered, Threatened, and Rare Plants of California. Sacramento, CA; Wildlife & Habitat Data Analysis Branch California Natural Diversity Database, Government Printing Office, October, 2004.
- State of California, (2003). Noxious Weed Index Sorted by Scientific Name. Sacramento, CA, Governors Office of Planning and Research, last updated October, 2003.
- State of California, (2003). Noxious Weed Index: List of plants under review, not yet registered. Sacramento, CA, Governors Office of Planning and Research, last updated October, 2004.
- Taylor, Katherine Ames (1948) *Yosemite Trails and Tales*. Palo Alto CA: Stanford University.
- Taylor, Mrs. J.H. (1936). *Yosemite Indians and Other Sketches*. San Francisco. Johnck & Seeger.
- Taylor, Rose Schuster (1932) *The Last Survivor*. San Francisco: Johnck & Seeger.
- Telles, Lucy (1950). Statement of Lucy (Tom) Telles to Carl Russell, May 25. Yosemite Research Library, National Park Service, Yosemite National Park.

- Wheeler, G.M. (1998) "Topographic Map of Yosemite Valley and Vicinity of 1883." A donation by Compass Maps to the author for use by the Recognition Committee. Modesto, CA: Compass Maps Pub.
- Whitney, J.D. (1871). *Geological Survey of California, the Yosemite Guidebook: A Description of the Yosemite Valley and Adjacent Regions of the Sierra Nevada, and of the Big Trees of California*. Cambridge, MA: University Press, Welch, Bigelow & Co.
- Woolfenden, Wallace B. *Human Ecological Implications of Migratory Deer Behavior in Sierran Prehistory*. Unpublished manuscript. Presented at the annual meeting of the Society for California Archaeology at the USDA Forest Service Office, Mono Lake Ranger District, Lee Vining, CA.
- Woolfenden, Wallace B. (1970). *A Study in Historic Sites Archaeology*. Unpublished Masters Thesis, San Francisco State University, San Francisco.
- Yano, Lester I., (1993). Protection of the ethnobotanical knowledge of indigenous peoples. *UCLA Law Review*, vol. 41, December 1993, pp. 443-486.

Native Plant Gathering Along the Village Chain Routes of Yosemite Genealogical Family Use Districts. An excerpt revised from *Applied Ethnobotany: Law, Health, and Sacred Sites Resources*, by Sandra Gaskell, RPA, Unpublished MS in Environmental Planning and the Southern Sierra Miwuk Gathering Plan. (This article has been reviewed for publication by the Southern Sierra Miwuk Nation dba Mariposa Indian Council of Mariposa County, Inc.) (2,469 words, 106 sentences)

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Note: A map presentation that supports this information is in digital format on PowerPoint. The PowerPoint attached to this file has cartographic replications of GIS mapping projects in place of the sensitive material. There are detailed GIS maps of the cartographic replications, but they are held in the confidential database of the Tribe. Due to the confidential nature of the maps, they will be presented during the program, but there will not be any digital copies released. Results of the statistical conclusions will be shared in the public forum in maps that are approved by the AICMC, Inc. council for viewing.