

Arthur M. Phillips, III, Ph.D.
Botanical and Environmental Consulting

P.O. Box 201
Flagstaff, Arizona 86002

928 779-2288

CURRICULUM VITAE

Education

University of Arizona, Tucson, 1969-77, Graduate College

M.S. in Botany, May 1974

Ph.D. in Botany, April 1977

Major: Plant Ecology

Minor: Geosciences

Ph.D. Dissertation: "Packrats, Plants, and the Pleistocene in the Lower Grand Canyon, Arizona."

Cornell University, Ithaca, New York, 1966-69

B.S. in Biological Sciences, June 1969

University of Arizona, Tucson, 1965-66

Professional Experience

1990- Independent environmental consultant, specializing in Sensitive and Endangered plants surveys and clearances, floristic surveys, ecological assessments, and Native American ethnobotany. Clients and projects are listed below.

1981-89 Curator of Biology and Head, Biology Department, Museum of Northern Arizona, Flagstaff. Responsible for departmental administration (including budget, personnel, planning, and committees); curation and management of herbarium and zoological collections; managing externally funded biology research program concentrating on endangered plants research and assessment; scientific publication and report preparation; and participation in public programs in museum education, exhibits, public relations, and authoring MNA Press publications.

1976-80 Graduate Research Assistant and Research Assistant, Dept. of Geosciences, University of Arizona, Tucson. Modern and Late Pleistocene floristic and vegetation studies in the Grand Canyon. Supported by NSF grant to P. S. Martin.

ARTHUR M. PHILLIPS, III

Professional experience (cont'd.)

- 1971-73 Instructor and Summer Session faculty, Dept. of Biological Sciences, University of Arizona. Taught Plant Ecology, Plant Geography, and Plants for the Desert.
- 1969-72 Ph.D. program, botany, University of Arizona, Tucson. Research Assistant (collecting plants in Mexico), herbarium assistant (plant identification and general herbarium curation), graduate teaching assistant (various botany and biology classes and labs).

Appointments

Arizona Plant Recovery Team, Office of Endangered Species, U.S. Fish and Wildlife Service, Albuquerque, N.M., 1981-

Adjunct Professor of Biology, Northern Arizona University, Flagstaff, 1984-

Natural Areas Advisory Council of Arizona State Parks Board, Phoenix, 1980-89
Vice-chair 1983-84, Chair 1985-86

Arizona Plant Diversity Review Team, Arizona Game & Fish Dept., Phoenix, 1998-99

Professional Societies

Arizona-Nevada Academy of Science (Fellow)
California Botanical Society
Sigma Xi
Society for Conservation Biology

Memberships

Rotary Club of Flagstaff (Secretary, 1989-92, Vice President 1992-93, President 1993-94)
Arizona Native Plant Society (founding president, Flagstaff chapter, 1982-1983)
The Arboretum at Flagstaff
Natural Resources Defense Council
California Native Plant Society
Grand Canyon Trust
Lime Hollow Nature Center

Biographical Sketch

Who's Who in America, 54th ed., 2000; 55th ed., 2001; 56th ed., 2002; 57th ed., 2003
Who's Who in the West, 18th ed., 1982-83; 24th ed., 1994-95; 26th ed., 1998-99
Who's Who in Science & Engineering, 1st ed., 1992; 2nd ed., 1994; 3rd ed., 1996; 4th ed., 1998;
6th ed., 2002; 7th ed., 2003
Who's Who in the World, 16th ed., 1999; 18th ed., 2001

ARTHUR M. PHILLIPS, III
Clients and Contracted Projects Since 1990

U.S. Fish & Wildlife Service, Albuquerque, N.M. Population Biology and monitoring studies of Peebles Navajo Cactus (*Pediocactus peeblesianus* var. *peeblesianus*). With B. G. Phillips. 1990.

SWCA Environmental Consultants, for City of Flagstaff, AZ. Sensitive plant clearance, wastewater treatment plant proposed site and pipeline routes. 1990.

SWCA Environmental Consultants, for U. S. West Communications. Sensitive plant clearance, fiber optic cable route, northeastern Arizona. 1990-91.

Armstrong Consultants. Sensitive plant clearance, Colorado City, AZ. Municipal Airport facilities expansion. 1990.

Diggins & Associates, Landscape Architects. Native wildflower revegetation planning, Grand Canyon Airport facility. 1990.

SWCA Environmental Consultants, for Bureau of Land Management, Las Vegas, NV. Characterization of vegetation for desert tortoise ecology study. 1990.

Northern Arizona University, Flagstaff, AZ. Sensitive plant clearance for Forestry Dept. and USDA Forest Service greenhouse and office building. 1990.

SWCA Environmental Consultants, for UAMPS. Sensitive plant clearance for proposed powerline routings, vicinity of St. George, UT. 1990.

SWCA Environmental Consultants, for El Paso Natural Gas Co. sensitive plant clearance for gas pipeline routing, ca. 350 miles, northern Arizona and New Mexico. 1990.

SWCA Environmental Consultants, for ENSR Consulting. Sensitive plant clearance for ENRON natural gas pipeline routing, ca. 200 miles, northern Arizona. 1990.

Kaibab National Forest, USDA Forest Service. Surveys and ecological studies for four Sensitive plant species. Aug. 1990-Sept. 1992.

SWCA Environmental Consultants, for Lakes of Las Vegas. Sensitive plants clearance for land exchange, Clark County, NV. 1990.

National Park Service, Denver, CO. Category 1 and 2 plant clearance for highway construction project, Wupatki National Monument, AZ. Nov. 1990 & May 1991.

SWCA Environmental Consultants, for Southern Union Gas Co. Sensitive plants surveys for proposed gas line routing near Flagstaff, AZ. 1990.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

SWCA Environmental Consultants, for FNF Construction. Sensitive plants clearance for gravel pit site on Navajo Nation lands near Cameron, AZ. 1990.

ENSR Consulting and Engineering, Fort Collins, CO, for Luz Corp. Habitat and Sensitive plants evaluation, vegetation map preparation, and preparation of draft vegetation and Sensitive plants sections of NOI document for six proposed sites for solar energy development, Mojave Desert, CA. 1991.

U.S. Fish & Wildlife Service, Phoenix, AZ. Status reports: *Puccinellia parishii*, *Agave schottii* var. *treleasei*, *Cheilanthes pringlei*, and *Eriogonum ripleyi*. With B. G. Phillips and W. Hodgson. Submitted Feb. 1991.

SWCA Environmental Consultants, for AZ Dept. of Transportation. Sensitive plants habitat evaluation, highway re-alignment project, Navajo Nation lands, Bitter Springs, AZ. 1991

SWCA Environmental Consultants, for Transwestern Gas Pipeline Co. Wrote Biological Evaluation for *Penstemon clutei*, including mitigation measures for gas pipeline construction through species' habitat. 1991.

SWCA Environmental Consultants, for County of Washington, Utah. Field studies & evaluations of Endangered plants for county Habitat Conservation Plan. 1991.

U.S. Public Health Service, Navajo Area Office. Sensitive plants searches and habitat evaluation for lagoon modification project, Bitter Springs, AZ. 1991.

Northern Arizona University, for Stone Container. Habitat evaluation and species list for paper mill waste water project, ca. 2000 acres, near Holbrook, AZ. 1991.

SWCA Environmental Consultants, for Nielsons, Inc. Sensitive plant surveys and clearance for state highway re-alignment near Grand Canyon, AZ. 1991.

U.S. Public Health Service, Navajo Area Indian Health Service. Sensitive plants survey and habitat evaluation for community water line, Teesto, AZ. 1991.

SEC Environmental Consulting, for Arizona Public Service. Sensitive plants survey and habitat evaluation for power line right-of-way, Tuba City, AZ, airport. 1991.

SWCA Environmental Consultants, for Transwestern Gas Co. Sensitive plants surveys and habitat evaluation for proposed gas line routing near Flagstaff, AZ. 1991.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

SWCA Environmental Consultants, for Transwestern Gas Co. Sensitive plants surveys and habitat evaluation for Kingman lateral gas line, Kingman, AZ. 1991.

SWCA Environmental Consultants, for Mining & Environmental Consultants, Inc. Sensitive plant surveys and habitat evaluation for proposed mining operation near Copper Mine, Navajo Nation, AZ. 1991.

SWCA Environmental Consultants, for Grand Canyon Railroad. Sensitive plants surveys and habitat evaluation for proposed spur to Grand Canyon Airport. 1991.

SWCA Environmental Consultants, for City of Williams, AZ. Hopi cultural sensitive plants surveys for proposed expansion of Bill Williams Mountain ski area. 1991.

SWCA Environmental Consultants, for FLEX, Inc. Sensitive plants surveys and habitat evaluation for proposed land exchanges near Spring Valley, Kaibab National Forest, and Starlight Pines, Coconino National Forest, AZ. 1991.

SWCA Environmental Consultants. Sensitive plants surveys and habitat evaluation for proposed NEXRAD radar facility, Anderson Mesa, Flagstaff, AZ. 1991.

SWCA Environmental Consultants, for El Paso Natural Gas Co. Sensitive plants surveys for staging areas and test water ponds for pipeline construction, and mitigation of Sensitive species locations, vicinity of Lower Greasewood, Navajo Nation. 1991.

SWCA Environmental Consultants, for Inscription House Trading Post. Sensitive plants survey and habitat evaluation for wastewater disposal site. 1991.

SWCA Environmental Consultants, for Navajo Housing Authority. Sensitive plants surveys and habitat evaluation for housing projects, Dilkon and Leupp, Navajo Nation, AZ. 1991.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

SWCA Environmental Consultants, for Transwestern Pipeline Co. Sensitive plants surveys and habitat evaluation for natural gas pipeline test water sources, delivery routes, and discharge sites; access roads; and fill gravel source sites in Yavapai and Mohave counties, AZ. 1991-92.

SWCA Environmental Consultants, for Blaze Construction Co. Sensitive plants clearance for borrow pit development, Crown Point, NM. 1992.

SWCA Environmental Consultants, for El Paso Natural Gas Co. Sensitive plants surveys and habitat evaluation for ca. 100 miles of natural gas pipeline r.o.w. and associated facilities, Maricopa, Mohave, La Paz, and Yuma counties, AZ. 1992.

SWCA Environmental Consultants, for Navajo Housing Authority. Sensitive plants clearance for proposed housing project, Leeché-e, Navajo Nation, AZ. 1992.

SWCA Environmental Consultants, for Coconino National Forest. Distribution and ecology of Sunset Crater beardtongue in the Cinder Hills area, Flagstaff, AZ. 1992.

SWCA Environmental Consultants, for AZ Dept. of Transportation. Sensitive plants clearance for Interstate 40 & 17 interchange re-alignment and construction. Flagstaff, AZ. 1992.

SWCA Environmental Consultants, for Hualapai Tribe. Effects of interim flow releases from Glen Canyon Dam on vegetation along the Colorado River, Grand Canyon, from National Canyon to Lake Mead. 1992-94.

U.S. Public Health Service, Navajo Area Indian Health Service. Sensitive plants survey and habitat evaluation for community water line, White Cone, AZ. 1992.

USDA Forest Service, Kaibab National Forest. Endangered, Threatened, and Sensitive plants surveys for 36 projects on the North Kaibab Ranger District. 1992-93.

Douglas Diggins, landscape architect. Species list for East Verde River bridge construction re-vegetation project. Gila County, AZ. 1992.

U.S. Public Health Service, Navajo Area Indian Health Service. Sensitive plants survey and habitat evaluation for community water line, Tuba City, AZ. 1992.

U.S. Public Health Service, Navajo Area Indian Health Service. Sensitive plants survey and habitat evaluation for sewage disposal lagoon, White Cone, AZ. 1992.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

Mesa Mining, Inc. Environmental evaluation and draft EA preparation for 35 exploratory drill sites, Coppermine Chapter, Navajo Nation, AZ. 1992.

SWCA Environmental Consultants, for Arizona Affiliation of Indian Centers. Surveys on Navajo Fee Lands near Winslow, AZ for facilities development. 1992.

Armstrong Consultants, Inc., for Taylor Municipal Airport. Sensitive species survey and habitat evaluation for airport runway expansion. 1993.

U.S. Public Health Service, Navajo Area Indian Health Service. Sensitive plants survey and habitat evaluation for water line project, Tuba City, AZ. 1993.

SWCA Environmental Consultants, for El Paso Natural Gas Co. Sensitive plants surveys and habitat evaluation for ca. 25 miles of natural gas pipeline r.o.w. and associated facilities, Yuma County, AZ. 1993.

SWCA Environmental Consultants, for El Paso Natural Gas Co. State Protected Plants inventories, compressor station sites, Mohave and La Paz counties, AZ. 1993.

SWCA Environmental Consultants, for SRI. Sensitive plants survey for NEXRAD facility, Navajo Army Depot, Flagstaff, AZ. 1993.

University of Arizona, Bureau of Applied Research in Anthropology. Botanical evaluation and habitat description of sites along Colorado River in Grand Canyon which are of ethnobotanical significance to members of Paiute Indian tribes, Glen Canyon Dam to Pierce Ferry. 1993.

SWCA Environmental Consultants, for Arizona Engineering Co. Sensitive plants survey for proposed waterline extension, Doney Park area, Flagstaff, AZ. 1993.

U.S. Public Health Service, Navajo Area Indian Health Service. Sensitive plants survey and habitat evaluation for waterline project, Inscription House Chapter. 1993.

USDA Forest Service, Kaibab National Forest. Continuation of monitoring plots for *Talinum validulum* in Williams and Tusayan Ranger Districts. 1993.

SWCA Environmental Consultants, for Arizona Snow Bowl. Sensitive plants survey and habitat evaluation for widening of existing ski runs and trails. 1993.

SWCA Environmental Consultants, for El Paso Natural Gas Co. Sensitive plants surveys and habitat evaluation for ca. 17 miles of natural gas pipeline r.o.w. and associated facilities, Chino Valley to Clarkdale, AZ. 1993.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

SWCA Environmental Consultants, for Arizona State Parks. Floristic inventory of Verde River greenway, Cottonwood, AZ. 1993.

SWCA Environmental Consultants, for Hualapai Tribe. Collection and processing of plants found along the Colorado River from National Canyon to Lake Mead for Hualapai Natural Resources herbarium collection. 1993-95.

USDA Forest Service, Kaibab National Forest. Endangered, Threatened, and Sensitive plants surveys for 13 projects on the North Kaibab Ranger District. 1993-94.

SWCA Environmental Consultants, for US West. Sensitive plants survey and habitat evaluation for fiber optic cable project, Ash Fork to Williams, AZ. 1993.

SWCA Environmental Consultants, for Carlotta Mine. Monitoring Arizona hedgehog, and endangered species, during brush clearing on archeological sites, Tonto National Forest, AZ. 1993-94

SWCA Environmental Consultants (Archeology Dept.) for Hualapai Forestry Dept. Present rare plant workshop: training on identification of Sensitive plant species on Hualapai lands. Peach Springs, AZ. April 1994.

SWCA Environmental Consultants, for Lockett Trust. Biological overview survey and vegetation map for Lockett Trust land, Flagstaff, AZ. 1994.

SWCA Environmental Consultants, for Ben Brooks & Associates. Complete plant inventories and habitat descriptions of 10 sites at Mountain Vista Ranches, Hualapai Valley, Mohave County, AZ. 1994.

USDA Forest Service, Kaibab National Forest. Continuation of monitoring plots for *Talinum validulum* in Williams and Tusayan Ranger Districts; establishment of monitoring plots for *Astragalus cremnophylax* var. *myriorrhaphis* on the North Kaibab R.D. and *Clematis hirsutissima* var. *arizonica* on the Tusayan R.D. 1994.

Hualapai Tribe. Initial reconnaissance, Hualapai culturally significant native plant species study along the Colorado River, Grand Canyon, AZ. June & Sept., 1994.

SWCA Environmental Consultants. Sensitive plant species survey for power line and communications tower, Cerro Montoso, Apache County, AZ. June 1994.

Armstrong Consultants, Inc., for Kanab Municipal Airport. Sensitive plants survey and habitat evaluation for airport expansion project, Kanab, Utah. July 1994.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

SWCA Environmental Consultants (Salt Lake City office), for City of Hilldale, Utah. Sensitive plants survey and habitat evaluation for wastewater treatment facility. July 1994.

SWCA Environmental Consultants, for Hualapai Tribal Enterprises. Sensitive plants survey and habitat evaluation for facilities expansion, Grand Canyon West airport. July 1994.

SWCA Environmental Consultants, for Transwestern Pipeline Co. Evaluation and monitoring of re-vegetation project along new pipeline right-of-way. Aug. 1994.

SWCA Environmental Consultants, for El Paso Natural Gas Co. Sensitive plants survey and habitat evaluation for proposed natural gas pipeline right-of-way in San Juan County, N.M. Sept 1994.

SWCA Environmental Consultants, for Hualapai Tribe. Monitoring Effects of interim flow releases from Glen Canyon Dam on riparian vegetation along the Colorado River, Grand Canyon, from National Canyon to Lake Mead. 1994 plot assessment. Sept. 1994.

SWCA Environmental Consultants (Tucson office), for Phelps-Dodge Corp. Field surveys for Arizona hedgehog cactus, Gila and Graham counties, AZ. Nov.-Dec. 1994.

Arizona Dept. of Agriculture. Demographics, phenology, and ecology of Peebles Navajo cactus. Interagency service agreement. 1995.

SWCA Environmental Consultants, for Hualapai Tribe. Spring collection and identification of plants, lower Grand Canyon, for Hualapai herbarium. March 1995.

Hualapai Cultural Resources. Hualapai culturally significant native plant species study, third reconnaissance Grand Canyon river trip. April 1995.

SWCA Environmental Consultants, for US Fish & Wildlife Service. Vegetation plot assessment for desert tortoise study, Kern and Riverside counties, CA. April 1995.

Southern Paiute Consortium & Bureau of Applied Research in Anthropology, Univ. of Arizona. Botanical evaluation and habitat description for ethnographic assessment for Zion National Park, UT, and Pipe Spring National Monument, AZ. June 1995.

Southern Paiute Consortium & Bureau of Applied Research in Anthropology, Univ. of Arizona. Southern Paiute cultural resources monitoring along the Colorado River in Grand Canyon. July 1995.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

SWCA Environmental Consultants. Wetlands survey for Hassayampa Country Club, Prescott, AZ. July 1995.

SWCA Environmental Consultants. Sensitive plants survey and habitat evaluation for proposed land exchange, Prescott, AZ. July 1995.

SWCA Environmental Consultants, for Arizona Snow Bowl. Sensitive plants survey and habitat evaluation for proposed hiking trail and ski run. August 1995.

SWCA Environmental Consultants, for Arizona Snow Bowl. Quantitative evaluation of re-vegetation on ski runs and effects of exotic species on natural montane meadows. August 1995.

SWCA Environmental Consultants, for Canyon Forest Village, Tusayan, AZ. Sensitive plants survey and habitat evaluation. September 1995.

SWCA Environmental Consultants, for Hualapai Tribe, Natural Resources Division. Riparian vegetation monitoring, 1995 field surveys, lower Grand Canyon. Oct. 1995

USDA Forest Service, Kaibab National Forest. Team member and biological consultant, preparation of Conservation Agreement for *Pediocactus paradinei*, North Kaibab Ranger District, AZ. Oct. 1995-Apr. 1996.

Hualapai Tribe Cultural Resources Division. Evaluation and mitigation efforts for Hualapai culturally significant native plant species during 1996 Grand Canyon test flow experiment. March-April & October 1996.

SWCA Environmental Consultants, for Hualapai Tribe, Natural Resources Division. Evaluation of effects of 1996 Grand Canyon test flow experiment on riparian vegetation. March-April & September-October 1996.

Southern Paiute Consortium, Cultural Resources Division. Monitoring the effects of the 1996 Grand Canyon test flow experiment of Paiute culturally significant native plant species. May 1996.

USDA Forest Service, Kaibab National Forest. Population biology and phenology of Tusayan flameflower, *Talinum validulum*, on the Kaibab National Forest. Final Report submitted to Kaibab National Forest, April 1997.

SWCA Environmental Consultants, for DMB Environmental Services. Sensitive plants survey and habitat evaluation for proposed land exchange near Flagstaff, AZ. Aug. 1996.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

SWCA Environmental Consultants, for Hualapai Tribe, Natural Resources Division. Aerial vegetation mapping along Lake Mead, Spencer Canyon to Pearce Ferry, AZ. Sept. 1996.

Southern Paiute Consortium. Ethnobotanical studies on Paiute Traditional Lands, Arizona Strip. Sept. 1996.

Hualapai Tribe, Natural Resources Division. Botanical resources survey and salvage planning, Diamond Bar Ranch Road EIS. Dec. 1996-Jan. 1999 (ongoing)

Hualapai Cultural Resources and Southern Paiute Consortium. Monitoring effects of 1997 moderate water releases from Glen Canyon Dam on ethnobotanical resources. Feb-Sept. 1997.

Hualapai Tribe, Cultural Resources Div. Hualapai elders and youth cultural resources river trip, botanical consultant. March 1997, 1998, 1999.

Hualapai Tribe, Natural Resources Div. Survey and delineation of wetlands on Hualapai Reservation; EPA. March-July 1997.

SWCA Environmental Consultants, Sensitive plants surveys for expansion of Flagstaff Ranch, Flagstaff, AZ. Oct. 1997.

Environet, Phoenix, AZ. Wetlands evaluation and rare plants survey, Kennecott copper mine, Salt Lake County, UT. Oct. 1997.

SWCA Environmental Consultants. Assessments of wetlands features and sensitive plants concerns at Dry Lake, Coconino County, AZ. Oct. 1997.

Southern Paiute Consortium, Cultural Resources Division. Monitoring the effects of the Glen Canyon Dam water releases on Southern Paiute ethnobotanical resources in Grand Canyon. 1997-2002 (ongoing)

Hualapai Cultural Resources Div. Monitoring effects of Glen Canyon Dam water releases on Hualapai cultural and ethnobotanical resources. 1998-99.

Environet, Phoenix, AZ. Sensitive plants surveys and site vegetation characterization at Equatorial Tonopah Mine, Tonopah, NV. May 1998.

Kaibab Band of Paiute Indians. Threatened, Endangered, and Sensitive plants surveys at selected sites on the Kaibab-Paiute Reservation, AZ. May 1998.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

City of Flagstaff, AZ. Sensitive plants surveys for expansion of Flagstaff Urban Trail System. June 1998.

Hualapai Natural Resources Div. Monitoring recovery of wetland vegetation after feral burro removal at Meriwhitica Spring, Hualapai Reservation. May 1998 & Aug. 1999.

SWCA Environmental Consultants. Rare plant survey for Mirada Rancho Mirage project, Palm Springs, CA. Sept. 1998.

Northern Arizona University, for US Bureau of Reclamation. Monitoring vegetation change along the Colorado River in response to Glen Canyon Dam water releases. Sept. 1998 & Sept. 1999.

Arizona Game & Fish Department. Participant in Plant Diversity Review meetings. Nov. 1998-May 1999.

SWCA Environmental Consultants. Evaluation of effects of proposed Flagstaff Ranch development on Dry Lake wetland, Flagstaff, AZ. Nov. 1998-Jan. 1999.

Kaibab Band of Paiute Indians, Environmental Dept. Noxious weeds surveys and public workshop on the Kaibab-Paiute Reservation, AZ. May 1999-Aug. 2000.

USDA Forest Service, Kaibab National Forest. Studies on microsite distribution of *Pediocactus paradinei*. Sept. 1999-July 2000.

Hualapai Tribe Cultural Resources Dept. Prepare presentation for Grand Canyon Monitoring & Research Center symposium (PowerPoint format). March 2000 & March 2001.

Shapins Associates, Boulder, CO. Environmental and landscape design evaluation for Tusayan Transit Center, Grand Canyon, AZ. May 2000.

Kaibab Band of Paiute Indians. Threatened, Endangered, and Sensitive plants surveys at proposed administration building site, Kaibab-Paiute Reservation, AZ. June 2000.

Arizona Wildlife Federation. Analyze and synthesize USDA Forest Service grazing allotment records on Anderson Mesa, AZ to assess effects of grazing on pronghorn. Sept. 2000-Oct. 2001.

Hualapai Tribe, Natural Resources Dept. Natural re-vegetation of sand bars along Lake Mead exposed by falling lake levels. Plots set and re-read. Sept. 2000 & Sept. 2001.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

Rodeo Video, Snowflake, AZ. Sensitive plants survey for water tank improvement project. Holbrook, AZ. November 2000

Thomas Olson Associates, Hemet, CA. Distribution and status assessment of Pierson's milkvetch (listed Threatened) on Algodones Dunes (Imperial County, CA) for American Sand Association. March-July 2001.

Thomas Olsen Associates, Hemet, CA. Survey for Pima pineapple cactus near Tucson, AZ. July 2001.

Armstrong Consultants, Grand Junction, CO. Biological survey for airport expansion project, Colorado City, AZ. August 2001.

USDA Forest Service. Kaibab National Forest. Studies on Distribution and abundance of *Pediocactus paradinei*. Aug.-Sept. 2001.

Hualapai Tribe, Natural Resources Dept. and Cultural Resources Dept. Vegetation studies in the lower Grand Canyon, monitoring effects of Glen Canyon Dam releases and Lake Mead water levels on cultural and riparian plants. Sept. 2001.

American Sand Association. Seed bank study for *Astragalus magdalenae* var. *peirsonii* At Algodones Sand Dunes, Imperial County, CA. Oct. 2001-Aug. 2002.

Hualapai Tribe, Cultural Resources Dept. Report: Monitoring Hualapai cultural resources in the Grand Canyon 2001. March 2002.

AZTech Research & Consulting, Flagstaff, AZ. Special status plants surveys, Red Lake, Mohave County, AZ. May 2002.

Hualapai Tribe, Cultural Resources Dept. Report: Monitoring Hualapai cultural resources in the Grand Canyon 2002. October 2002.

Southern Paiute Consortium. Monitoring ethnobotanical resources in the Grand Canyon. June and Nov., 2002.

Gault Group, Inc., Phoenix, AZ. Preparation of Special Status plants portion of Biological Assessment for facilities expansion at Asarco Mission Mine, Pima Co., AZ. Aug.-Nov. 2002.

Arizona Wildlife Federation, Mesa, AZ. Assessment of wetlands on Anderson Mesa, Coconino County, AZ. Oct. 2002-Jan. 2003.

ARTHUR M. PHILLIPS, III

Clients and Contracted Projects since 1990 (cont'd.)

Arizona Wildlife Federation, Mesa, AZ. Re-evaluation of grazing allotment analyses on southern portions of Anderson Mesa, 1960-1998. Jan.-Mar. 2003.

American Sand Association. Continuing studies on the biology and ecology of Peirson's milkvetch, Algodones Dunes, CA. March 2003 (ongoing)

American Sand Association. Consultation on status of Peirson's milkvetch, meetings with agency personnel, review of agency documents, etc. (ongoing)

EnviroSystems Management, Inc., Flagstaff, AZ. Rare plant and noxious weeds surveys on the Prescott National Forest, AZ. March 2003 (ongoing)

ARTHUR M. PHILLIPS, III
Publications since 1984

- 1984 Phillips, A. M., III. Spring Wildflowers of the Desert. Plateau 55 (3): 2-7.
- 1984 Phillips, A.M., III, and B.G. Phillips. Spring Wildflowers in the Grand Canyon. Plateau 55 (3): 9-13.
- 1984 Phillips, B.G. and A.M. Phillips, III. Threatened and Endangered Spring Wildflowers. Plateau 55 (3): 14-21.
- 1984 Phillips, A.M., III. Grand Canyon environments and Shasta Ground Sloth extinction. IN: P.S. Martin and R.G. Klein (eds.). Quaternary Extinctions. University of Arizona Press, Tucson. Pp. 148-158.
- 1984 Phillips, B.,C., A.M. Phillips, III, and M. Butterwick. Peebles Navajo Cactus Recovery Plan. US Fish and Wildlife Service, Albuquerque, NM. 58 p.
- 1985 Phillips, B. G., A.M. Phillips, III, and M. Butterwick. Brady Pincushion Cactus (*Pediocactus bradyi*) Recovery Plan. US Fish & Wildlife Service, Albuquerque, NM. 68 p.
- 1986 Phillips, A.M., III. Siler Pincushion Cactus (*Pediocactus sileri*) Recovery Plan. US Fish & Wildlife Service, Albuquerque, NM. 57 p.
- 1986 Phillips, B.G., R.A. Johnson, A.M. Phillips, III, and N.J. Brian. Monitoring the effects of recreational use on Colorado River beaches in Grand Canyon National Park. MNA Bulletin No. 55, Museum of Northern Arizona Press, Flagstaff. 131p
- 1987 Mead, J.I., J.D. Agenbroad, A.M. Phillips, III, and L.T. Middleton. Extinct mountain goat (*Oreamnos harringtoni*) in southeastern Utah. Quaternary Research 27: 323-331.
- 1987 Phillips, A.M., III. And then came the rains: wildflowers in response to climate. IN: High Country Wildflowers. Plateau 58(3): 3-7.
1987. Phillips, B.G. and A.M. Phillips, III. High country habitats. IN: High Country Wildflowers. Plateau 58 (3): 8-23
- 1987 Phillips, B.G. and A.M. Phillips, III. Annotated checklist of vascular plants of Grand Canyon National Park. Grand Canyon Natural History Association, Grand Canyon, AZ. Monograph series, no. 7. 79 p.
- 1987 Phillips, B.G. and A.M. Phillips, III. Recovery Plan for San Francisco Peaks Groundsel, *Senecio franciscanus* Greene. US Fish & Wildlife Service, Albuquerque, NM. 39p

ARTHUR M. PHILLIPS III
Publications since 1984 (con't.)

- 1989 Phillips, A.M., III, D.A. House, and B.G. Phillips. Expeditions to the San Francisco Peaks: C. Mart Meriam and the left zone concept. *Plateau* 60 (2): 1-32.
- 1990 Phillips, A.M., III. Noteworthy collections, Arizona and Utah. *Madrono* 37: 60-62.
- 1990 Phillips, A.M., III, with photography by J. Richardson. Grand Canyon Wildflowers. 2nd revised edition. Grand Canyon Natural History Association, Grand Canyon, AZ. 150p.
1990. Phillips, A.M., III and W.H. Buskirk. Status of Acuna cactus (*Neolloydia erectocentra* var. *acunensis*) and the Ajo rock-daisy (*Perityle ajoensis*) in Organ Pipe Cactus National Monument, AZ. IN: Assessment of scientific information and activities at Organ Pipe Cactus National Monument Biosphere Reserve, P.S. Bennett, R.R. Johnson, and M.M. McCarthy, eds. University of Arizona Cooperative National Park Resources Studies Unit Special Report No. 10, pp. 133-136.
- 1992 Phillips, A.M., III. A new subspecies of *Rosa stellata* (Rosaceae) from northwestern Arizona. *Madrono* 39: 31-35.
- 1992 Lanner, R.M., and A.M. Phillips, III. Natural hybridization and introgression of Pinyon pines in northwestern Arizona. *International Journal of Plant Science* 153: 250-257.
- 1995 Rutman, S., B.G. Phillips, and A.M. Phillips, III. Arizona Cliffsrose (*Purshia Subintegra*) Recovery Plan. U.S. Fish & Wildlife Service, Phoenix, AZ.
- 1995 Ayers, T.J., R.W. Scott, L.E. Stevens, K. Warren, A.M. Phillips, III, and M.D. Yard. Additions to the flora of Grand Canyon National Park – 1. *Journal Of Arizona-Nevada Academy of Science* 28 (1/2): 70-75.
- 1995 Stoffle, R.W., D.E. Austin, B.K. Fulfrost, A.M. Phillips, III, & T.F. Drye. *Itus, auv, te'ek* (Past, Present, Future): Managing Southern Paiute resources in the Colorado River Corridor. Bureau of Applied Research in Anthropology University of Arizona, Tucson, AZ.

ARTHUR M. PHILLIPS III

Publications since 1984 (con't.)

- 1996 Phillips, A.M., III, and D. Weage. Monitoring and population biology of *Talinum validulum* on the Kaibab National Forest, Arizona. Pp. 316-326. IN: Maschinski, J., H.D. Hammond, & L. Holter, tech. Eds. Southwestern Rare and Endangered Plants: Proceedings of the Second Conf., Flagstaff, AZ, Sept. 1995. Rocky Mtn. Forest & Range Expt. Sta., USDA Forest Service, Fort Collins, CO. Gen. Tech. Report RM-GTR-283, Aug. 1996.
- 1996 Phillips, B.G., and A.M. Phillips, III. Results of an eleven-year monitoring Study of the endangered *Pediocactus peeblesianus* var. *peeblesianus*. Pp. 27-38 IN: Machinski, J., H.D. Hammond, & L. Holter, tech. eds. Southwestern Rare and Endangered Plants: Proceedings of the Second Conf., Flagstaff, AZ, Sept. 1995. Rocky Mtn. Forest & Range Expt. Sta., USDA Forest Service, Fort Collins, CO. Gen. Tech. Report RM-GTR-283, Aug. 1996.
- 1996 USDA Forest Service, Kaibab National Forest, and USDI Bureau of Land Management, Arizona Strip Dist. Paradine plains cactus (*Pediocactus paradinei*) conservation assessment and strategy on the N. Kaibab Ranger Dist., Kaibab N.F. and Arizona Strip Dist., BLM. (A. Phillips, team member and preparer)
- 1997 Phillips, A.M., III, and L. Jackson. Evaluation and mitigation efforts for March 1996 Colorado River Test Flow experiment, Hualapai Tribe, Cultural Resources Div. (Bureau of Reclamation and National Park Service, compendium volume of cultural resources research reports, Salt Lake City, UT)
- 2001 Phillips, A.M., III (among numerous authors). Arizona Rare Plant Handbook. Coordinated by the Nature Conservancy, Tucson, AZ, and various agencies.
- 2001 Phillips, A.M. III, D.J. Kennedy, B.G. Phillips, and D. Weage. Distribution of Paradine plains cactus (*Pediocactus paradinei*) in pinyon-juniper woodland on the North Kaibab Ranger District, Kaibab National Forest. IN: Maschinski, J. and Holter, L., eds. Southwestern rare and endangered plants: Proceedings of the Third Conference, Sept. 25-28, 2000, Flagstaff, AZ. Proceedings RMRS-P-23. USDA Forest Service, Rocky Mountain Research Station, Fort Collins, CO.