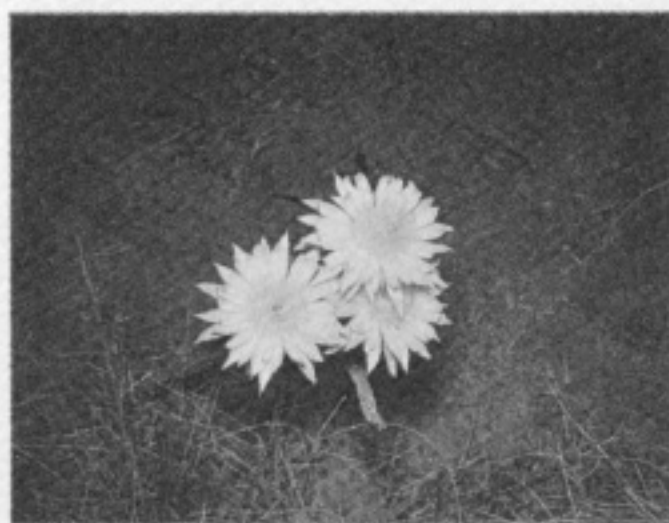


A TRIBUTE TO
William G. McGinnies





A Tribute To

WILLIAM GROVENOR McGINNIES

Director Emeritus
Office of Arid Lands Studies
University of Arizona

Privately Printed

Tucson

1976

Awards / Memberships / Vita

In Appreciation:

A. Richard Kassander, Jr.

An Overview of the Sonoran Desert:

William G. McGinnies

A McGinnies Bibliography

Epilogue:

Patricia Paylore

AWARDS

75th Anniversary Medallion of Merit, University of Arizona, 1960

Certificate of Merit for distinguished contributions in the field of Arid Zone Research: Southwestern and Rocky Mountain Division, American Association for the Advancement of Science, 1970

Citation for outstanding achievement and service, Society for Range Management, 1973

Honored in 1970 by the Tucson Cactus and Botanical Society as its founding president and a charter member

MEMBERSHIPS

Professional:

American Society of Range Management, Charter Member
American Association for the Advancement of Science, Fellow
International Society of Biometeorology
Arizona Academy of Science
Tree-Ring Society
Ecological Society of America

Honorary:

Alpha Zeta
Gamma Alpha
Phi Kappa Phi
Sigma Xi
Xi Sigma Pi
World Academy of Art and Science, Fellow

VITA

b: August 14, 1899, Steamboat Springs, Colorado

education: University of Arizona, B.S.A., 1922
University of Chicago, Ph.D., 1932

professional career:

Range Surveys and Research, U.S. Forest Service,
Missoula, Montana, 1923-1926

Range Ecologist and Professor of Botany, University of
Arizona, 1927-1935; Acting Head, Department of Bot-
any, 1933-1935

Manager-Director, Navajo Indian Reservation Soil Con-
servation Service, USDA, 1935-1938

Chief, Division of Range Research, Southwest Forest
and Range Experiment Station, 1942-1944

Director, Rocky Mountain Forest and Range Experi-
ment Station, 1945-1953

Director, Central States Forest Experiment Station,
1954-1960

Director, Laboratory of Tree-Ring Research and Coordi-
nator, Arid Lands Program, University of Arizona,
1960-1964

Director, Office of Arid Lands Studies, University of
Arizona, 1965-1969; Site Coordinator, Tucson Basin
Desert Biome, IBP, 1968-1969

Director Emeritus, Office of Arid Lands Studies, 1969-

. . . Some of man's earliest recorded habitats were in areas we now know as deserts. His migrations into more temperate environments have served for centuries to keep the world's deserts the places of solitude and silence that give them the special ambience by which they are universally characterized. Even today, with population pressures beyond what Malthus himself may have foreseen, the deserts remain the lonely places of the Earth.*

— William G. McGinnies,
Deserts of the World
(1968), p. ix

**Webster's Third New International Dictionary*:
"solitude: a lonely place (as a desert)."

IN APPRECIATION:

Because he is who he is and because what he has done for the University of Arizona is so visible, it is easy to write about Bill McGinnies and his contributions to the institution. It is more difficult to be brief and to focus on those events not likely to be so obvious. But I should like to try.

I had a minimum of information about Bill between the time of the matter of the disputed winner of the "Ugliest Man on Campus" competition between him and Bill Pistor in their senior year (1921-1922) and Bill's appearance in my office in the spring of 1960. I have done a little checking into the files:

Bill's first appearance in University records was via a March 12, 1926, memorandum from J. J. Thornber, Dean of the College of Agriculture and Director of the Agricultural Experiment Station. The memorandum recommended Bill as Grazing Range Specialist and Assistant Professor at the princely sum of \$3,200 per year. It mentions that he had existing offers from the University of Idaho, Kansas Agricultural College, and a new federal laboratory for grazing range study as its director. Dean Thornber said Bill "is now the outstanding man available for the study of grazing range work," and took it upon himself to make a tentative offer to which, the Dean points out, Bill wired an affirmative answer. President Marvin got the point and confirmed the appointment. In his April 1, 1926, reply, Bill stated that "I sincerely hope that I may be able to do my share in successfully advancing the work in Arizona." If we could only know how each of our young people might define their "share". Bill's has been enormous.

Eight years later, Dr. Homer Shantz, President of the University, and a legend in his own right in the field of ecology, appointed Bill Acting Head of Botany, Associate Professor and Range Ecologist in the Agricultural Experiment Station, at a stipend of \$3,591, a \$391 raise in eight years. Even then, the University of Arizona knew the power of the financial reward system.

Two years later, Bill resigned to work in land management work on the Navajo Reservation. In his letter of resignation he stated that he was "satisfied that the work in Range Ecology and in Botany is being adequately cared for at the present time and I can see a great future for the Institution and the men working in these fields." Following that, Bill had a distinguished career serving our nation but he

had to come back to his Alma Mater to guarantee his prophecy of greatness for the institution.

Bill arrived in my office twenty-four years later, freshly retired with honors from the directorship of the Central States Forest Experiment Station. I was Director of the Institute of Atmospheric Physics and Chairman of the Executive Committee for our new grant from the Rockefeller Foundation for an Arid Lands Program, one of the largest grants ever received by the University, and one which our Coordinator of Research, Dr. David Patrick, intended would be a showcase to demonstrate our abilities. At the time, I was swamped — mainly trying to keep Chuck Lowe and myself out of jail with the GMC van we had acquired in Chuck's name on a University lease-purchase option under which we were sub-leasing to the departments involved at 5¢ a mile. Bill advised that he wanted to be just a scientist and specifically wanted no administrative work. So we promptly made him coordinator of the Arid Lands Project and Director of the Laboratory of Tree-Ring Research. Chuck and I were saved, and all of the good things that subsequently happened are well documented.

I have been privileged to work closely with Bill in many areas, especially in connection with the Office of Arid Lands Studies, of which he was the founding Director, and Tumamoc Hill which has been designated recently as a National Environmental Study Area by the National Park Service, one more slow-to-come but significant tribute to Bill's persistence.

This opportunity to record a few words to this fine gentleman, scholar, and friend is very much welcomed.

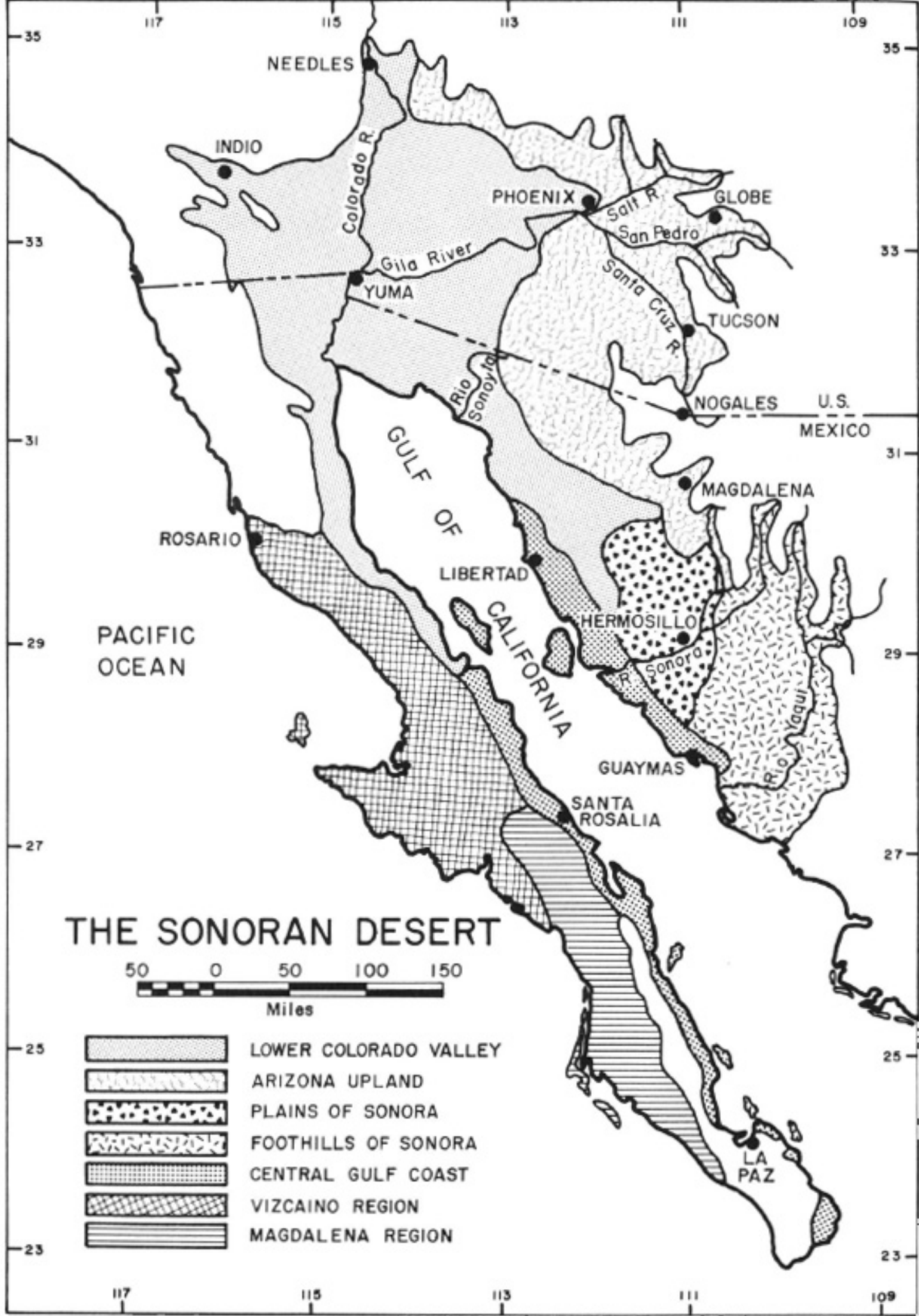
- A. Richard Kassandra

**AN OVERVIEW OF
THE SONORAN DESERT**

An Essay Developed from a Paper given at the
opening session of the Second Annual Conference
of the Consortium of Arid Lands Institutions
(CALI), February 4, 1976, in Tucson


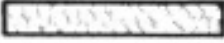

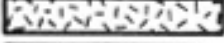



by

William G. McGinnies



THE SONORAN DESERT



-  LOWER COLORADO VALLEY
-  ARIZONA UPLAND
-  PLAINS OF SONORA
-  FOOTHILLS OF SONORA
-  CENTRAL GULF COAST
-  VIZCAINO REGION
-  MAGDALENA REGION

AN OVERVIEW OF THE SONORAN DESERT

William G. McGinnies

The Sonoran Desert is a part of the Great American Desert of western North America, extending from the northern part of the United States deep into Mexico, a nearly continuous continental arid region separated from the Pacific Ocean and the Gulf of Mexico except in the states of Sonora and Baja California in northwestern Mexico. Individual deserts recognized in this area are the Great Basin, Mojave, Sonoran, and Chihuahuan. The term "desert" applied to these areas includes a range of climatic conditions from extremely arid, with a rainfall of less than 75 millimeters, to the boundary between arid and semi-arid, in the vicinity of 375 millimeters.

The Great Basin Desert, sometimes referred to as the Northern Desert Shrub Desert, is classed internationally as a cold desert. Big Sagebush (*Artemisia tridentata*) and salt bushes (*Atriplex* spp.) are characteristic plants. The elevation is mostly above 1200 meters with a precipitation of 100 to 300 mm, 60 percent of which falls in winter.

The Mojave Desert is a transitional desert between the warm Sonoran Desert and the cool Great Basin Desert, with the Joshua tree (*Yucca brevifolia*) the characteristic species. It extends from nearly sea level to 1200 m, with a precipitation of 50 to 125 mm occurring only in winter.

The Chihuahuan Desert, a continental desert separated from the Sonoran Desert by the highlands of the continental divide, lies mostly above 1100 m, with a precipitation of 70 to 500 mm, 70 to 80 percent falling in summer. While the vegetation is similar to that of the Sonoran Desert, many species are not common to both, for example tarbush (*Flourensia incana*) and white thorn acacia (*Acacia vernicosa*) which are strictly Chihuahuan Desert species.

The Sonoran Desert, surrounding the Gulf of California in the southwestern United States and northwestern Mexico, covers some 320,000 square kilometers. It includes a part of the state of Arizona and a small portion of California in the United States, western Sonora, and the southern two-thirds of the peninsula of Baja California in Mexico.

The northern extension of the Sonoran Desert is largely determined by cold temperatures. The eastern boundary is delimited biologically, physically, and geographically by high mountain ranges on the south. The Sonoran Desert merges into the semiarid Thorn Forest



Fig. 1. Extreme arid desert, northwest Baja California. Plants in foreground are brittle bush and hibiscus. - U.S. Geological Survey

of southwestern Mexico. On the west it is bounded by mountains in the north and the Pacific Ocean in the south.

The physiography of most of the Sonoran Desert places it within the Basin and Range Province, consisting of inclined plains on which are superexposed many hills and low mountains, mostly less than 900 m in elevation. The Pinal Mountains in Southern Arizona and the Sierra Babiso in Sonora are its only ranges rising high enough to support a non-desert vegetation.

The Gulf of California is the recipient of all drainage of the Sonoran Desert except a small portion of Baja California which drains into the Pacific Ocean. The largest rivers rise in the mountains outside the desert. The only river with a perennial flow is the Colorado River, although the Gila River, before the construction of several dams, was a nearly constant stream. The eastern edge of the Sonoran Desert is hedged by high mountains which are the source of streams and flood discharge throughout much of the desert area. The larger rivers including the Rio Magdalena and the Rio Sonora rarely discharge flood waters to the Gulf, but the Rio Yaqui has a history of annual discharges. There are also a number of undrained basins of which the Salton Sea is the largest.

The climate of the Sonoran Desert is relatively uniform with some differences due to latitude and elevation. The difference of 11 degrees of latitude between the northern and southern ends and the range in elevation from the coasts to the mountains brings about temperature gradients, especially for cold weather and frosts.

Parts of the Sonoran Desert share with Death Valley the highest and most sustained high temperatures in North America. Temperatures of 30° C may occur from February to December and periods of three months or more with maximum temperatures of 38° C are not uncommon. The frostless season varies from eight to twelve months in different parts of the desert, but the duration of the growing season is dependent upon the time and extent of the rainy seasons.

The amount and seasonal distribution of precipitation, the most critical physical condition limiting the boundaries of the Sonoran Desert, also influences plant and animal distribution within the desert. An important feature of rainfall is the change in seasonal distribution from west to east. In Yuma the winter rains are dominant whereas at Tucson, winter and summer rains are about equal. A short distance farther east, winter rains make up less than a quarter

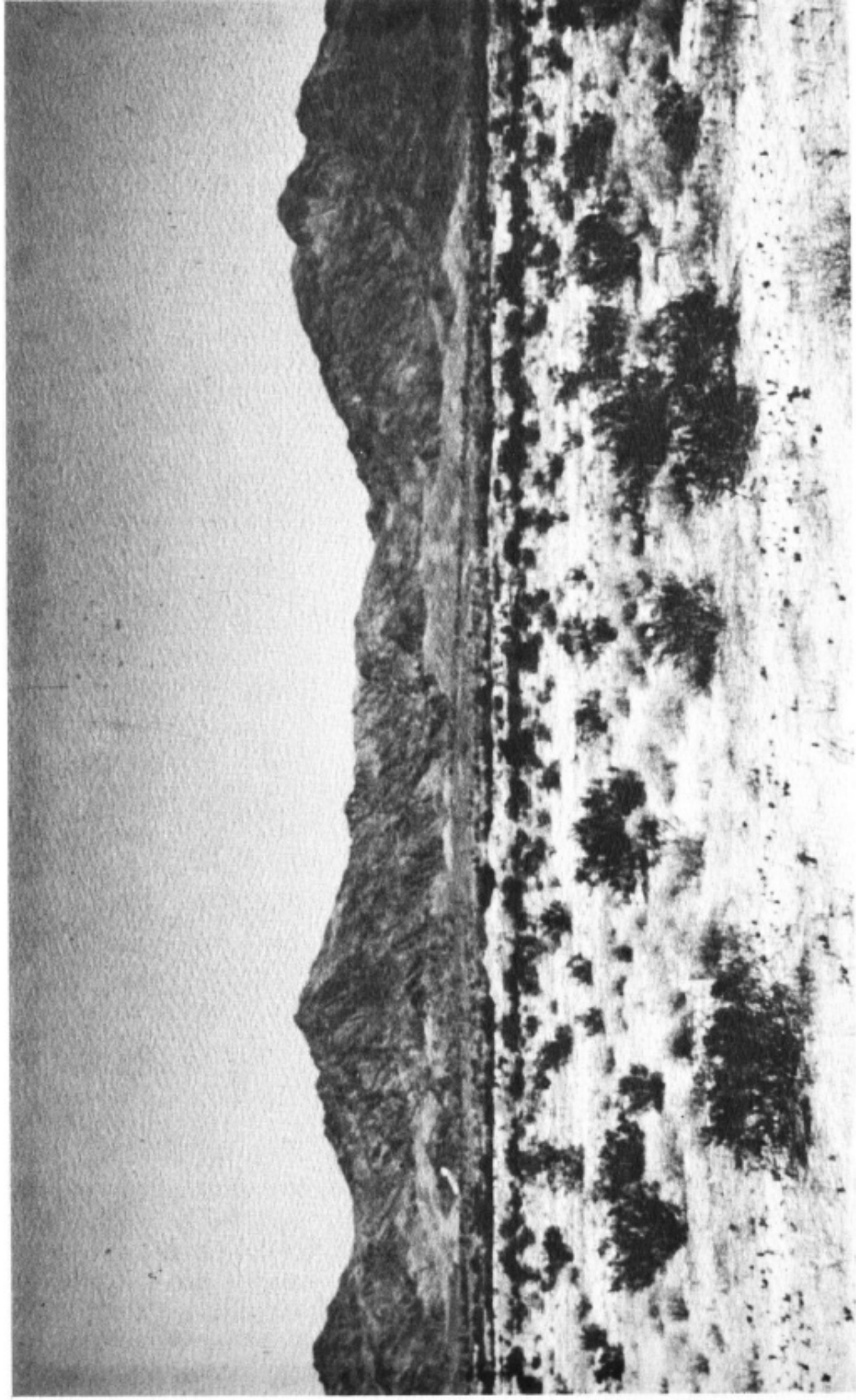


Fig. 2. Vegetation simplicity in Lower Colorado Valley, largely creosote bush and white bursage.
- U.S. Geological Society

of the total. Total precipitation in general increases from west to east with a range of 50 to 375 mm.

The soils of the Sonoran Desert are typical warm desert soils, showing modification of the parent materials associated with aridity. Distinguishing features are the low humus content and high content of readily soluble salts. The latter may lead to lime accumulations in the subsoil or the development of alkali conditions where drainage is impaired. The characteristic bajada slopes exhibit a mixture of soil materials ranging from rocky near the top to fine materials at their lower extremities, these often giving way to fine-textured alluvial bottoms.

Forrest Shreve (1951)* who devoted 15 years to the study of the Sonoran Desert, provided a comprehensive picture of the vegetation and its ecological relationships wherein he recognized seven subdivisions, each of which showed sufficient differences from the others to deserve separate treatment: Lower Colorado Valley, Arizona Upland, Plains of Sonora, Foothills of Sonora, Central Gulf Coast, Vizcaino Region, and Magdalena Region.

1. Lower Colorado Valley

This is the largest subdivision of the Sonoran Desert, occupying the lower drainages of the Colorado and Gila Rivers, the Salton Basin and the eastern coast of Baja California as far south as Bahia Los Angeles, and all of Sonora below 400 m in elevation, as far south as the valley of the Rio Magdalena.

About 85 percent of the area outside the delta of the Colorado River is comprised of bajadas or nearly level plains. This subdivision is one of the most arid parts of the Sonoran Desert with a range in precipitation from 75 to 200 mm.

The vegetation of the Lower Colorado Valley, distinguished by its simplicity, is dominated by creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*), often making up 90 to 95 percent of the vegetation on the upland; and by mesquite (*Prosopis juliflora*), ironwood (*Olneya tesota*), blue paloverde (*Cercidium floridum*), and smoke tree (*Dalea spinosa*) along drainageways. Big galleta (*Hilaria rigida*) occurs on sandy soils which often support a galaxy of annual plants during the winter rainy season.

**Vegetation of the Sonoran Desert*. Carnegie Institution of Washington, Publication 591. 192 p.

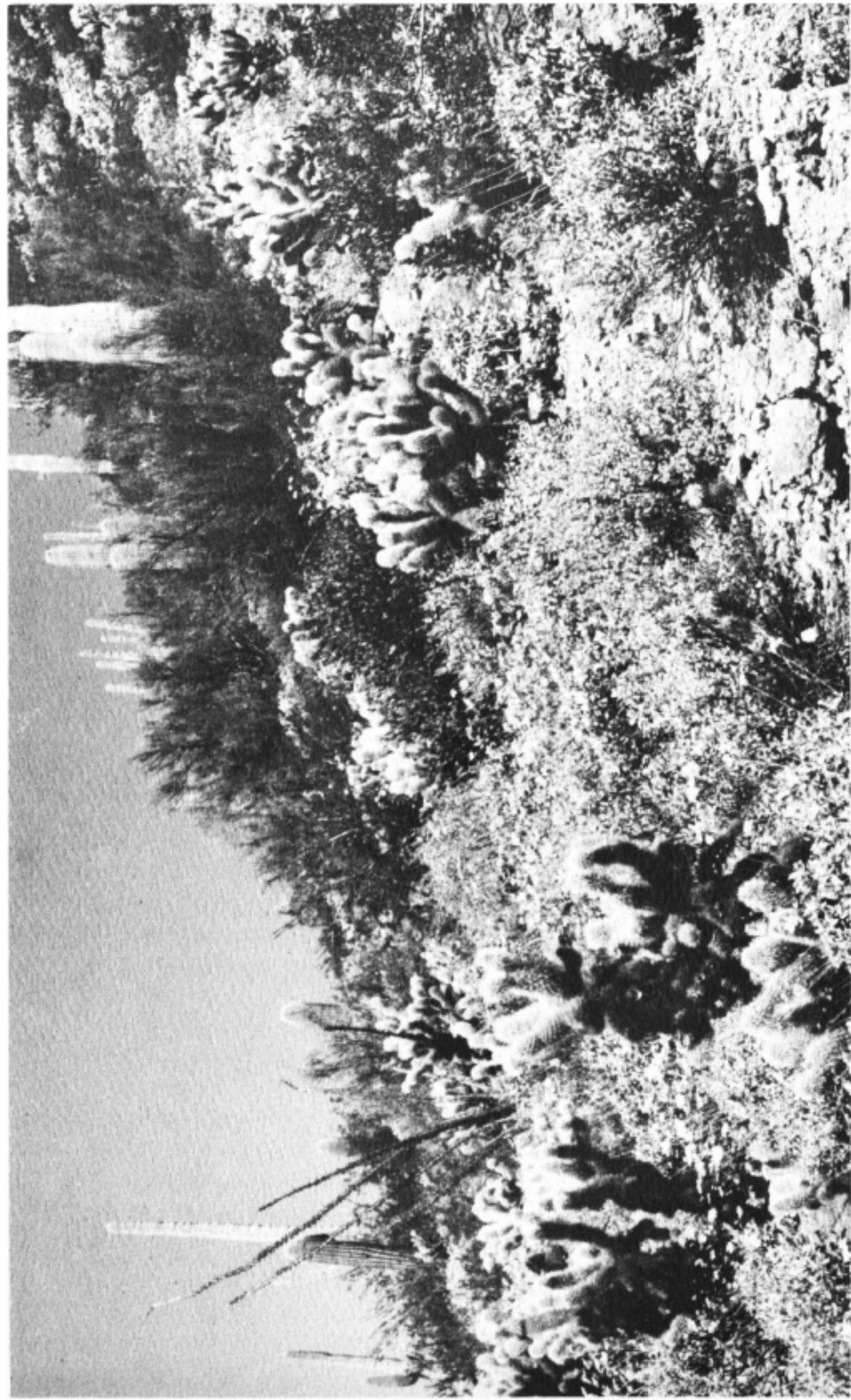


Fig. 3. Slope vegetation in Arizona Upland including foothill paloverde brittle bush, cholla, and saguaro.

- W. G. McGinnies

2. Arizona Upland

This subdivision comprises the northeastern portion of the Sonoran Desert, mainly in Arizona but partly in Sonora. It ranges in elevation from 150 to 900 m, and in rainfall from 75 to 300 m. The Arizona portion drains largely into the Gila River and the southern portion into several drainages discharging into the Gulf of California. The landscape is studded with small mountains and hills, and the subdivision is flanked by a broken series of mountains rising above desert conditions and supporting less arid types of vegetation.

The vegetation of the Arizona Upland exceeds that of the Lower Colorado subdivision in number, stature, and density of species. The most abundant species at the lower elevations include creosote bush (*Larrea tridentata*), triangle leaf bursage (*Ambrosia deltoidea*), foothill paloverde (*Cercidium microphyllum*), prickly pear and cholla (*Opuntia* spp.), various shrubs, and mesquite (*Prosopis juliflora*). On the upper slopes, foothill paloverde (*Cercidium microphyllum*), ocotillo (*Fouquieria splendens*), saguaro (*Carnegiea gigantea*), brittle bush (*Encelia farinosa*), white thorn (*Acacia constricta*), barrel cactus (*Ferocactus wislizeni*), and several additional species of *Opuntia* are added. Blue paloverde (*Cercidium floridum*) is a common tree in drainageways throughout, and mesquite (*Prosopis juliflora*) forms thickets in the broader floodplains.

3. Plains of Sonora

This subdivision, lying between the coastal strip and the foothills in central Sonora, has some physical features in common with the Lower Colorado Valley. The surface is relatively smooth, ranging in elevation from 100 to 750 m. Mountains and hills are low and widely scattered. Precipitation varies from 250 to 375 mm. Frost is less frequent than in the areas to the north and summer temperatures are more moderate than those of the Lower Colorado Valley.

The open type forest vegetation is dominated by trees and shrubs including: foothill paloverde (*Cercidium microphyllum*), ironwood (*Olneya tesota*), and mesquite (*Prosopis juliflora*). Plants of local occurrence include elephant tree (*Bursera microphylla*), organ pipe cactus (*Lemaireocereus thurberi*), and tree morning glory (*Ipomoea arborescens*).

4. Foothills of Sonora

This easternmost subdivision of the Sonoran Desert extends from the vicinity of Arizpe to the delta of the Rio Yaqui, falling gradually from 1,000 m to sea level. On the west it is bounded by the

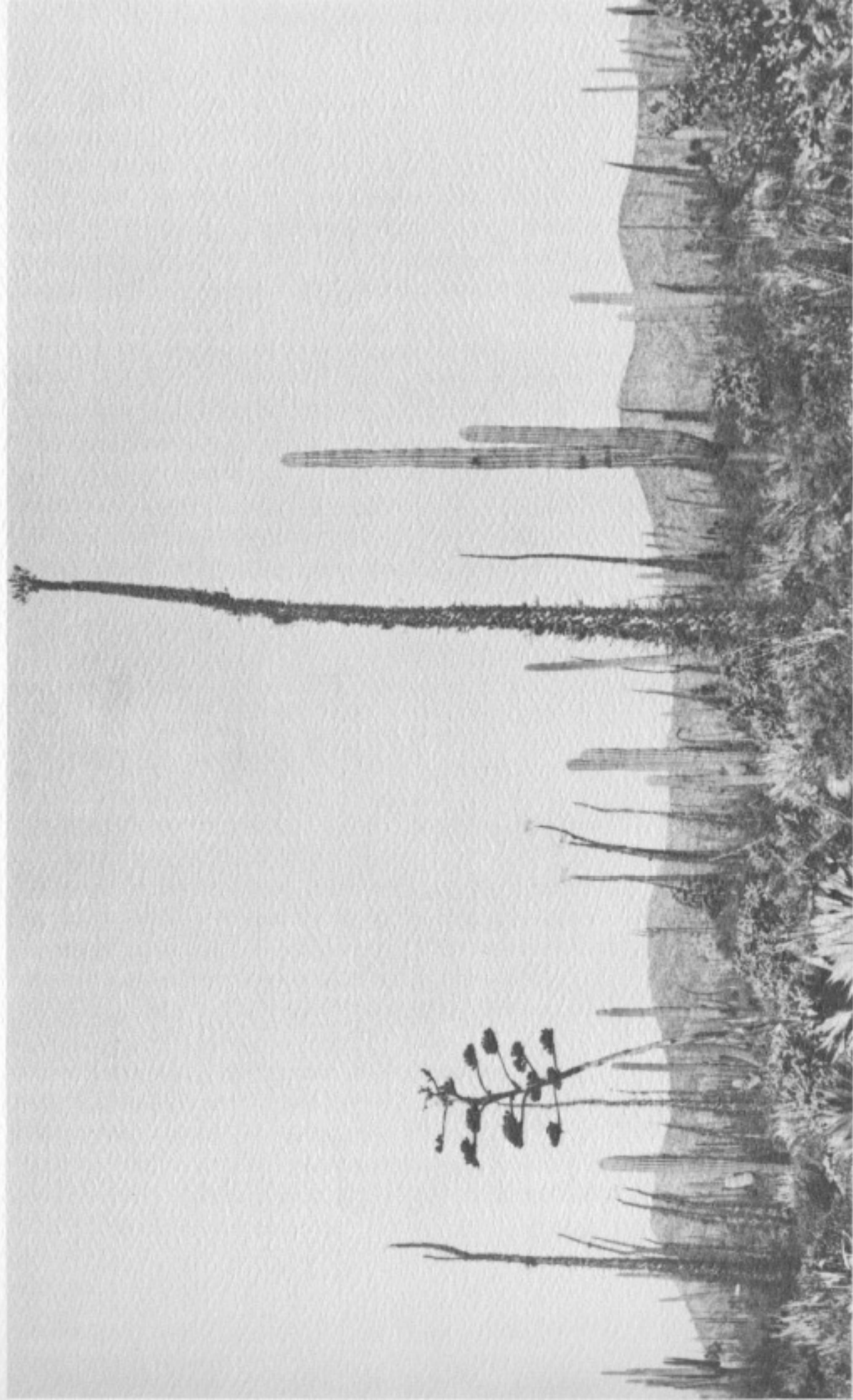


Fig. 4. Vegetation of Vizcaino Region, including desert and Shaw agaves, cardón, boojum tree, and pitahaya agria.

- U. S. Geological Survey

Plains of Sonora, and on the south it gradually merges into thorn-forest. On the east it extends to oak grassland of the lower mountain slopes.

Rainfall is higher than in adjacent subdivisions with a maximum of 500 mm, with summer precipitation greater than winter. The area is subject to lengthy droughts, accentuated by high temperatures.

The vegetation is characterized by abundant small trees, occasional palms and dense shrubbery, with grass becoming common at the higher elevations. Cacti are uncommon. Many of the plant species of the adjacent subdivisions extend into the Foothills of Sonora. Notable additions include MacDougal ocotillo (*Fouquieria macdougalii*), lignum vitae (*Guaiacum coulteri*), pochote (*Ceiba acuminata*), Mexican palm (*Erythea roezlis*), and many shrubs.

5. Central Gulf Coast

This subdivision includes the Sonoran Coast from the mouth of the Rio Magdalena nearly to the mouth of the Rio Yaqui, and in Baja California from Isla Angel de la Guarda to San Jose del Cabo. Throughout the two parts of this area the vegetation is almost identical in physiognomy and a large number of the component species are the same. In both cases the vegetation is distinct from that of the interiors.

The rainfall of the Central Gulf Coast is low and uncertain, and the temperatures are very high except close to the shore. Precipitation may occur in the latter half of winter or in mid-summer, but may be lacking for several seasons in succession. The hills are often bare of soil and the streamways are bordered by bands of sand and boulders. Vegetation includes trees with trunks of exaggerated diameter including elephant tree (*Bursera microphylla*) and boojum (*Idria columnaris*), but these are outnumbered by ironwood (*Olneya tesota*), blue paloverde (*Cercidium floridum*), mesquite (*Prosopis juliflora*), and ocotillo (*Fouquieria* spp.).

6. Vizcaino Region

The Vizcaino Region extends from the vicinity of Rosario to Punta Pequeña. It has a hilly or rolling surface with a few small mountain areas and many rough fields of volcanic rock. Soils include a very fine red volcanic clay and extensive areas of sand. Winter rainfall is light and extremely uncertain. Summer storms occur along the mountains on the eastern edge, and although humidity is high, the constant strong winds are responsible for the open and stunted vegetation of the coastal strip.

TABLE 1

ADAPTIVE CHARACTERISTICS OF DESERT PLANTS AND ANIMALS TO DESERT CONDITIONS

PLANTS	ANIMALS
<p>Ephemerals with growth during moist seasons and living through dry seasons in the seed stage.</p>	<p>Animals that enter arid lands only when moisture is available — largely insects and other invertebrates.</p>
<p>Plants making economical use of limited soil moisture supply, accomplished by wide spacing, reduced leaf and stem surface.</p>	<p>Burrowing animals with night activity and that do not need to provide water for temperature regulation.</p>
<p>Succulents that store water and are able to continue growth when soil moisture is not available. Not characteristic of extreme deserts.</p>	<p>Animals that endure dehydration and still remain active through physiological processes by which they are able to concentrate urine, lose little water in feces, and reduce perspiration.</p>
<p>Drought dormant plants that estivate when dry periods occur, and continue growth when moisture is available. Includes many prominent desert seed plants and also algae, lichens, mosses and ferns.</p>	<p>Animals that estivate. Many are invertebrates that recover after desiccation. Also vertebrates such as ground squirrels and gophers that estivate during hot dry periods.</p>

The distinctive feature of the vegetation is the occurrence of several unusual appearing plants, including the boojum tree (*Idria columnaris*), datililla (*Yucca valida*), elephant tree or copal (*Pachycormus discolor*), the cardón (*Pachycereus pringlei*), and Shaw agave (*Agave shawii*).

7. Magdalena Region

This area includes the desert of the southern third of Baja California and lies entirely in the Pacific drainage. Rainfall is scanty and irregular, for the most part less than the 200 mm recorded at La Paz. The coast is bordered by lagoons and sand dunes, and the eastern boundary of the plain abuts on several mountain chains. The interior of the plain has a fine or moderately coarse alluvial soil with innumerable playas. There is a marked difference in soil conditions of the malpais mesas in the north and the Magdalena Plain in the south with an accompanying difference in vegetation. Many of the representative plant species of the Vizcaino Region are uncommon or lacking. The two most characteristic species are palo blanco (*Lysiloma candida*), and pitahaya agria (*Machaerocereus gummaous*).

The animal life of the Sonoran Desert is surprisingly abundant considering the heat, dryness, and limited vegetation. Larger herbivores include the desert bighorn sheep, javelinas, deer and antelope; larger predators include the coyote, mountain lion, and bobcat.

Smaller mammals include ringtailed cat, skunks, jackrabbits, cottontail rabbits, kangaroo rats, woodrats (packrats), ground squirrels and several species of mice.

Birdlife includes many residents notably the cactus wren, road-runner, cardinal, phainopepla, pyrruloxia, mockingbird, gambel quail, turkey buzzard, and several species of owls and doves.

Cold-blooded animals include a variety of snakes and lizards, probably the best known being the gila monster and sidewinder rattlesnake.

The wide variety of arthropods includes tarantulas, black widow spiders, scorpions, centipedes, and a wealth of insects such as the praying mantis, many beetles, termites, butterflies, and moths.

In common with plants and animals of all desert regions those of the Sonoran Desert exhibit interesting adaptations for living under dry and hot desert conditions as shown in table 1.

TABLE 2
SUMMARY OF HUMAN IMPACTS

CULTURE	PERIOD	TYPE OF IMPACT	ECOLOGICAL MAGNITUDE
Indian	Before 1600 A.D.	Hunting Food Gathering Scattered Farming	Scattered and Slight Scattered and Slight Very Slight
Spanish	1550-1800 A.D.	Limited Farming Mining Scattered Settlements Livestock Grazing	Localized — Moderate Localized — Slight Localized — Slight Localized — Uneven
Mexican	1800-1900 A.D.	Expanded Farming Mining Increasing Settlements Extensive Grazing	River Valleys — Appreciable Widespread — Moderate Appreciable Appreciable — Expanding
Mexican-Anglo American	1850 A.D. -	Extensive Farming Many Settlements Destructive Grazing Mining Varied Non-Agricultural Uses	Great Great Entire Desert Area Moderate Moderate

The greatest and most widespread human impacts within the Sonoran Desert have resulted from grazing use of the fragile desert ecosystem (Table 2). Plant cover has been depleted and the flora changed by elimination of palatable plants and the increase of unpalatable plants. Burning has had some impact on desert vegetation although fires appear to be less common in desert areas than the grasslands adjacent to the desert because of the scarcity of fuel.

Modern man has exerted an even greater impact than in the past. Armed with modern techniques and equipment, he has made many changes. While these have been largely aimed toward making the desert ecosystem a more habitable place for man, the results of his activities have in many instances resulted in the deterioration of the desert environment.

In addition to the impacts of grazing on non-urban and uncultivated lands, there has been a large and widespread use of the desert for homesites and mobile homes and recreation. Starting with war training maneuvers during World War II, mechanical vehicles of many kinds have scarred the terrain. The impact of this offroad travel is difficult to measure, but the fact that the track marks left by vehicles are visible for many years would indicate lasting changes in the micro-environment.

Irrigation agriculture has developed into a major enterprise in both the United States and Mexico (Dunbier, 1968)*, with about two-thirds of a million hectares in the United States and a million hectares in Mexico. Most of the water for irrigation is imported, although underground sources, largely nonrenewable or slowly renewable, have been exploited recently. In the United States portion of the Sonoran Desert there has been strong competition between agricultural and urban uses in recent years with widespread conversions to town and city uses. In the Mexican portion of the Sonoran Desert the land use competition is very slight, but with a growing recreational program it may increase.

In summary, the Sonoran Desert Environment is capable of and no doubt will be used to support a growing population. The full impact of the many uses by man on the native vegetation has not been measured in terms of overall effects, but there can be no question that the desert environment has deteriorated, and unless some control is brought about, the desert ecosystem will suffer severe and permanent damage.

**The Sonoran Desert, Its Geography, Economy, and People.* University of Arizona Press, Tucson. 426 p.

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EPILOGUE:

It should be a joyous occasion whenever we meet to pay deserved tribute to unusual people in their presence, and so it is today when we honor William Grovenor McGinnies on the occasion of his seventy-seventh birthday.

An alumnus of the University of Arizona, he returned later in life to serve the institution in such a unique way that its reputation in certain specialized fields can be traced to his contributions and stature in the world far beyond our campus. After a long and honorable career in the U.S. Forest Service, Dr. McGinnies came home to the University in 1960 to direct the University's Laboratory of Tree-Ring Research, a very logical sequence of events leading from his knowledge of the tree itself to an interpretation of the data it provides in its life history that helps us understand the past in terms of climatic cycles and environmental changes. And from here he was called in 1964 to direct the then newly-established Office of Arid Lands Studies where he remained as its Director until his "retirement" in 1969. Since that time he has been active as Emeritus, as can be seen from his post-1969 publications cited in the accompanying bibliography.

Ecology was not invented yesterday afternoon at four-fifteen. Scholars such as Dr. McGinnies were studying it long ago in their efforts to determine the interrelationships of organisms with their environment. A commitment to "save the environment" does not an ecologist make. It helps, perhaps, but the pride Dr. McGinnies takes in his title of Ecologist derives from far more — from knowledge and scientific understanding based on investigative research, and beyond that, too, on a recognition of old values applied to new problems. To understand the importance of the linkages that bind us to the past which make possible the future that those of us who come after are trying to create, we should pay heed to the psalmist who reminded us centuries ago that there is indeed nothing new under the sun — nothing except man's eternal search to understand and interpret or re-interpret what was there all along.

Those of us who have had the privilege of being associated as professional colleagues of Dr. McGinnies in the sixteen years since he returned to the University of Arizona are agreed on those qualities he has tried to impart to us, not from the lectern or from behind his desk, but by example, and by the value of his presence among us as a teacher. For we are students, also, forever, and if we have any sense at all we continue to learn from those who know more than we do,

people like Dr. McGinnies who teaches in all sorts of subtle ways: when he is critical of us because we deserve his criticism; when he jokes with us about our troubles and so diminishes them for us; when he praises us for work that stands up under peer review; when he is reminding us that others before us knew what we are trying to say we have just discovered.

Perhaps few of us privileged to be numbered among his friends think of him in this setting, our association having been literally in other contexts, but there is none among us who will not gladly admit that in essence we are the better for knowing him — better teachers ourselves, better human beings, and yes, even better jokers!

It is personally pleasurable for me, the library castoff he took out of exile in 1964 and allowed to make a new life, to be able to say these things about this man in this way. I am spokesman for many when I say:

Thank you, Dr. McGinnies, for being the kind of person you are, and for your life-long dedication to those qualities that make a university great.

- Patricia Paylore

Seventy-seven numbered copies privately printed for Friends of William Grovenor McGinnies on the occasion of his seventy-seventh birthday, August fourteenth, Nineteen Hundred Seventy-Six.

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