

Arizona's Own Palm: *Washingtonia filifera*

Victor J. Miller

Arizona State University

California in being self-pruning. Lastly, that their scientific name was given to plants grown from seed collected in California, not Arizona.

The first fallacy was disproven in 1923, but many citizens are not yet aware of this. On December 5, 1923, the Morning Sun paper of Yuma headlined: "Find New Species Palm Yuma County" and "Botanist from Washington Establishes Existence of Genuine Palms at Quartzsite" (Anon., 1923). These were discovered on October 24 of that year after reports of their existence had been current for some time. Mr. O. F. Cook, the botanist along, proposed naming them *Washingtonia Arizonica* because he felt they differed from the trees west of the Colorado River. This has not been accepted by the systematic botanists who decide such things.

These palms are still thriving in what is now called Palm Canyon. This is 18 miles south of Quartzsite on U.S. Route 95, then some eight miles east over a graded but rocky road to the entrance of the canyon into the Kofa Mountains. After a walk upward and inward through the deep canyon, palms may be seen growing on the floor of very steep sided canyons, with very occasional ones perched hundreds of feet up on the sides where precarious footholds exist. Yuccas may easily be mistaken for palms at a distance.

The second fallacy was not disproven until 1976. In that year, Brown, Carmony, Lowe and Turner (1976) published their discovery of native palms in a different locality. This is along Castle Creek in Yavapai County, over one-hundred miles from Palm Canyon. Here, three separate grouping are found. Each of these is supplied water by springs or seeps. These are reseeding and maintaining themselves.

The third fallacy has to do with the reported self-pruning habit of the trees in Palm Canyon. This is described in "Arizona Flora" (Kearney 1973), our most reputable reference, as: "The self pruning habit of these palms as they grow in Arizona may warrant recognition as a variety, but apparently there are no other differences from the California phase of the species."

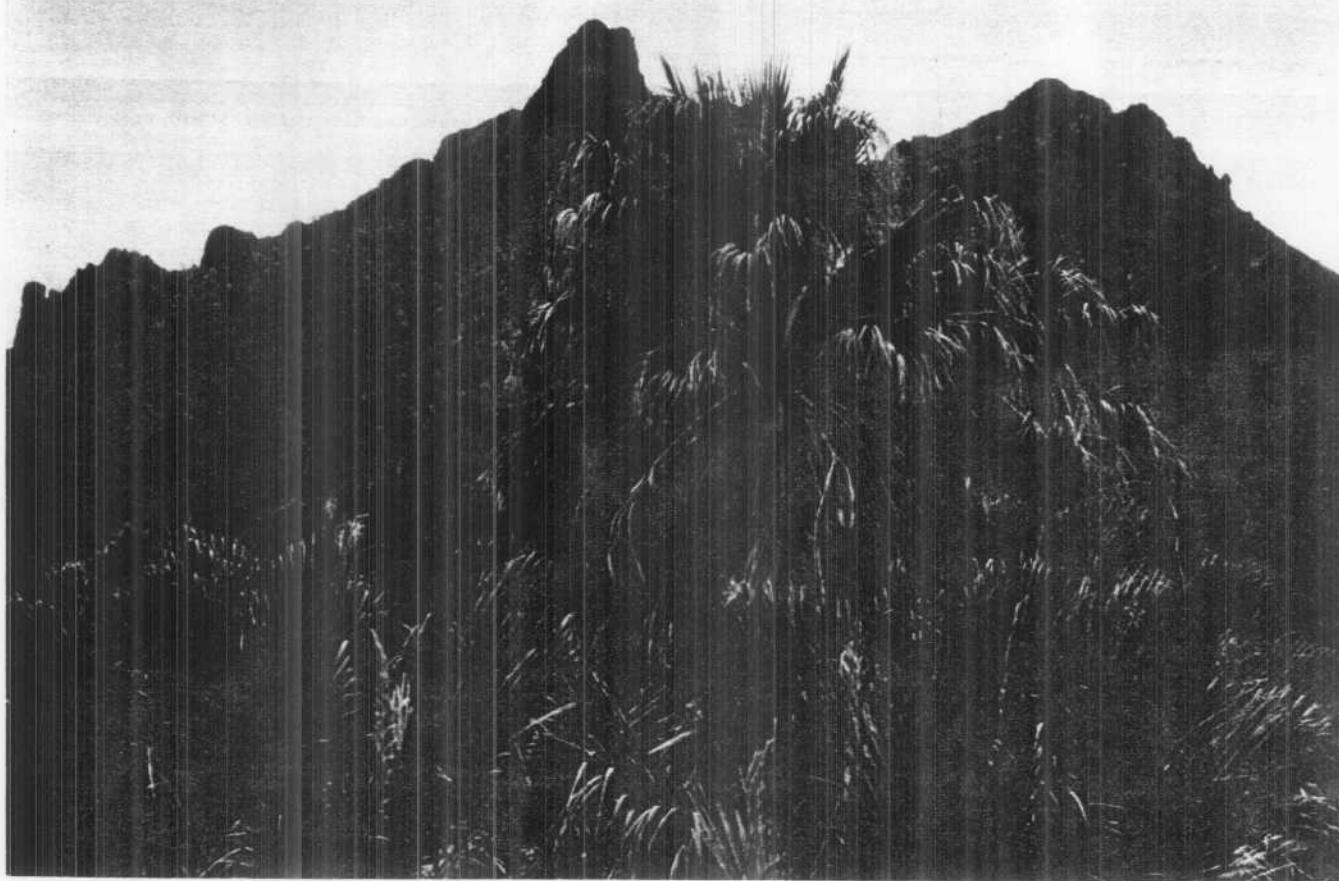
Even the United States Government, which generally errs only in its economic predictions, agrees that these are self-pruning palms. It states this in a leaflet distributed at the Kofa National Wildlife Refuge, in which Palm Canyon lies. Specifically this states: "The west end of the Kofa Mountains is well known as the location of Palm Canyon, where native palms grow in a spectacular canyon setting. These palms differ from the California desert species in that the dead fronds are dropped to leave the trunks naked, whereas those in California retain the dead fronds which entirely conceal the trunk" (Anon., 1982).

It is rather disconcerting to read this, then to hike into the canyon and find trees with their skirts completely to the ground. It is true that many have short skirts. They have been burned in past years. Where they haven't burned, however, the dead fronds hang on as petticoats just as they do on all of our cultivated California fan palms which aren't trimmed or burned.

This burning, incidentally, was practiced on native palms in California. S. B. Parish (1907) describes this as: "The dead leaves are usually kept cut away from cultivated trees, while it is almost impossible to find mature indigenous palms from which the leaves have not been repeatedly burned. So to burn them was the immemorial custom of the desert Indians, and it has been erroneously alleged that in this they were influenced

The "California" fan palm is our most spectacular native landscape plant. The Saguaro cactus is more unique, but palms give an atmosphere to a street unmatched by any other plant. This palm is also known as the Desert palm, California Washington palm, California palm and Petticoat palm.

Fallacies are more abundant than facts in regard to this palm, *Washingtonia filifera* Wendl. There are four principal fallacies held. The first is that there are no native palms in Arizona. The second is that there is only one native locality, that in the Kofa Mountains. A third is that these differ from their brethren in



Palms at Castle Creek grow in rugged Sonoran Desert terrain 38 miles from Prescott, Arizona. The original description of this palm in 1876 stated that the discovery and seed collection had been made in Arizona. Geographic coordinates published by Fenzi placed the discovery near Prescott, Arizona. California botanists, believing that such a palm could not grow near Prescott for climatic reasons claimed that the discovery was made in California, a gross inaccuracy perpetuated in scientific literature up to the publication of this issue of *Desert Plants*.

by a superstitious motive—the making of an offering by fire to the spirits of the dead. In fact, their purpose was purely utilitarian, namely, to facilitate the gathering of the fruit, and, as they believed, to increase the fruitfulness of the trees."

The groves on Castle Creek also hold their dead leaves without dropping them. Brown et al. (1976) described how, on these: "The 'shag' of dead leaves was recently burned on most of the trees by the land owner to dispel yellow jackets." A visit to these in December of 1982 revealed another long skirt of dead fronds hanging on the trees.

The fourth and last fallacy has to do with the origin of the plants which were officially named *Washingtonia filifera*. It is normally assumed that these came from California. A thesis advanced here is that the plants were named by a German botanist [Wendland, 1879] from plants growing in a nursery in Belgium. The seeds from which these were grown were collected in Arizona [Drude, 1876], and the approximate latitude and longitude of the collection site were published by an Italian [Fenzi, 1876]. This must have been the grove of palms on Castle Creek.

Proof of this is a bit fragmentary and speculative. S. B. Parish (1907), previously referred to, wrote the first definitive work on the genus *Washingtonia* in America. He summarized a great deal of literature. Drude (1876) describes how the palm seed was collected by B. Roezl "in Nord-Mexico, bei Arizona, am Rio Colorado." We thus have the seeds coming from Arizona.

The Italian E. O. Fenzi (1876) described the location of the seed source as: "Arizona (Stati Uniti), dove cresca spontanea sulle rive del Colorado, a circa 115° de longitude ouest del meridian de Parigi, e circa de 35° latitudine nord."

One checking that longitude will promptly find a location in California. Since this was before the Washington Meridian Conference of 1884 which established the Greenwich Meridian as the standard, we have measured from the Capital of France, Paris. Subtracting that distance east of Greenwich, we have 112°40' west of Greenwich.

Parish, a California botanist, states that this: "would locate the parent trees in the neighborhood of Prescott, Arizona, a region rather of pines than of palms. Definite as are these statements, it is impossible that Roezl could have seen a *Washingtonia* growing spontaneously or collected its seed. The seeds which he carried to Europe he could have received from another, probably in San Francisco." He adds that Roezl was in Denver, and: "made a trip, of a fortnight's duration, into northern New Mexico."

We find now that, unknown to Parish, there was a grove of palms only 38 miles from Prescott. A Wickenburg stage line went up Castle Creek just where these palms are located. Wickenburg was the transportation hub of central Arizona.

Col. Hodges (1877) described his travels to Arizona during the early 1870's. His veracity was attested to by A. P. K. Safford, Governor of the Territory, and 40 other officials. He wrote:



Many of the wild palms in Palm Canyon have fewer fronds than the more luxuriant palms seen in cultivation.



Castle Creek palms showing persistent skirts.



Some trees at Palm Canyon have a skirt of dead leaves all the way to the ground.

"The California and Arizona Stage Line is the other great stage line of Arizona. The line now connects with the Southern Pacific Railroad at Indian Wells, runs thence to Ehrenburg on the Colorado River, thence to Wickenburg, from whence the main line runs to Prescott and the intermediate stations, and a branch line to Phoenix and Florence." "A weekly stage line runs from Prescott via the Chiquita Colorado and Camp Wingate to Santa Fe in New Mexico."

We find, then, that stages were passing our Castle Creek palms. At least at one time this was the Wickenburg, Vulture and Phoenix Line. Trees would have had ripe fruits in September, the time when Roezl was in New Mexico, very possibly in Santa Fe. A traveller going to Santa Fe might well have taken some attractive purple fruits along.

Transportation, then, existed at that time to move the fruits from an area which now seems extremely isolated. Even if Roezl didn't enter Arizona, he could have obtained the fruits and seeds.

The approximate latitude and longitude are interesting. They were an approximation as indicated by the "circa" description. Yet, the Castle Creek groves are at 112°22'10" longitude, just 17 miles from the estimated 112°40' we calculated from Paris. The latitude is a bit high, being nearer Perkinsville than Prescott.

When a palm grove exists where one was described geographically, and when a stage line passed it by in 1872, and when the seeds reportedly came from Arizona, should not we claim the *Washingtonia filifera* for Arizona? Had Parish known of the native grove then, which we only learned of in 1976, he would have gracefully conceded the honor.

We owe a debt to him for his thoroughness. We also owe one as Americans to Herman Von Wendland (1879). He decided the genera *Brahea* and *Pritchardia* in which various workers put this palm were incorrect. As he wrote himself: "Ich schlage fur diese bisher als *Brahea* oder *Pritchardia filifera* bezeichnete Pflanze den Gattungsnamen *Washingtonia*, als Erinnerung an den grossen Amerikaner. Vor. Herrenhausen, 15. Dec. 1878." Loosely translated, he struck the previous names and designated the name *Washingtonia* in memory of the great American.

Literature Cited

- Anon., 1923. Find New Species Palm Yuma County, *The Morning Sun* [Yuma, Ariz.], 5 Dec.:1.
- Anon., 1982. Kofa National Wildlife Refuge Public Use Regulations. *Dept. of the Inter., U.S. Fish and Wildlife Ser.*, RF-22570-9. Sept.
- Brown, David E., N. B. Carmony, C. H. Lowe and R. M. Turner. 1976. A second locality for native California fan palms (*Washingtonia filifera*) in Arizona. *Jour. Ariz. Acad. Sci.* 11:37-41.
- Drude, G. 1876. *Bot. Zeit.* 34:801-807.
- Fenzl, E. O., 1876. Introduction of *Pritchardia filamentosa* into cultivation, and its supposed origin. *Bull. Soc. Tosc. Ort.* 1:116, April.
- Hodge, H. C., 1877. *Arizona as it is; or, the Coming Country. Notes of Travel during the Years 1874, 1875, and 1876.* Hurd and Houghton, New York.
- Kearney, T. H., and R. H. Peebles, and Collaborators. 1973. *Arizona Flora*. 2nd Ed. with Suppl. by J. T. Howell, E. McClintock, and Collaborators. Univer. Calif. Press, Berkeley, Los Angeles, London [4th Printing].
- Parish, S. B., 1907. A contribution toward a knowledge of the genus *Washingtonia*. *Bot. Gaz.* 44:408-434.
- Wendland, H. 1879. Ueber *Brahea* oder *Pritchardia filifera* Hort. *Bot. Zeit.* 37:65-68, Jan. 31.