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The Rediscovery of Chamaedorea donnell-smithii (C. seifrizii)

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In 1888, Dr. Karl Thieme, a German naturalist and professor of medicine, collected a small species of *Chamaedorea* among rocks along the Río Chamelecon near the border of the departments of Cortés and Santa Bárbara in northern Honduras. Thieme, a resident of San Pedro Sula, Honduras, sent the *Chamaedorea*, along with numerous other important collections of plants he had made from 1887–1893 in the surrounding region, to Capt. John Donnell Smith in Baltimore, Maryland, U.S.A., who was compiling an enumeration of Guatemalan plants. Smith forwarded the *Chamaedorea* to German professor Udo Dammer, one of the leading palm students of the time and associate of the great German palm specialist Hermann Wendland.

Dammer (1903) honored the Baltimore captain by listing the name *Chamaedorea donnell-smithii* for the new palm but he provided no description or other information about the species. Two years later, Dammer (1905) gave a rather scant description of the new species, thus validating the name although the information was hardly diagnostic. Dammer's brief description simply stated that *C. donnell-smithii* was among the smallest species of palms and had 2-4 pinnae on each side of the rachis. One can readily see that Dammer obtained nearly all his information from Thieme's original, meager collection, a specimen consisting of one leaf and a detached, partially disintegrated inflorescence with a few decomposed flowers.

Thieme's original material, the holotype of *C. donnell-smithii* at US, and Dammer's brief description tell us virtually nothing about this species; both are inadequate for proper identification and placement of the species, probably explaining why the name disappeared from use and has remained a mystery for nearly 100 years. Hodel (1992) gave the most recent and complete account of *C. donnell-smithii* although he, too, was unable to make an adaquate diagnosis and listed the species as imperfectly known.

Our interest in resolving the mystery of *Chamaedorea donnell-smithii* arose in 1993 when Hodel examined several fairly recent collections of an unidentified *Chamaedorea* from seasonally dry, rocky areas along rivers or streams in the interior of Honduras. Although somewhat resembling the mysterious and elusive *C. donnell-smithii*, these more complete collections bore a stronger affinity, especially in leaf and inflorescence, to *C. seifrizii*, a well known and commonly cultivated (see Hodel 1992) species of cespitose or clustering habit from the seasonally dry forests of the Yucatán Peninsula in México, Belize, and Guatemala, and the Islas de la Bahía off the north coast of Honduras.

Fortunately for our interest, label data of these more recent and complete collections of the unidentified *Chamaedorea* did not note whether their habit was solitary or cespitose, thus failing to eliminate or confirm their identity as *C. seifrizii*. Indeed, if the label data noted the habit of these palms as cespitose, we would have considered them simply to be *C. seifrizii*, and we may have dropped the matter right then, leaving unresolved the mystery of *C. donnell-smithii*. However, the lack of information about their habit stimulated our inter-

1. *Chamaedorea seifrizii* at or near the type locality of *C. donnell-smithii*, on a steep, rocky slope along the Río Chamelecon, Honduras.

est and left open the possibility that the recent collections represented *C. donnell-smithii*.

Adding to the suspense was the riverside habitat of the recent collections from the interior of Honduras, the same, interestingly, that Thieme had noted for *C. donnell-smithii*. Furthermore, this riverside habitat does not correspond to that of *C. seifrizii*, known from the virtually riverless Yucatán Peninsula. Could the recent, unidentified collections be the mysterious and long-lost *C. donnell-smithii* of which so little was known? Or did they, perhaps, represent a species new to science? Or were they simply *C. seifrizii*? Still another, albeit uncomfortable, possibility lurked in our minds, one that could have tremendous nomenclatural impact: were the virtually unknown *C. donnell-smithii* and the widely known and cultivated *C. seifrizii* one and the same? If so, the name *C. donnell-smithii* would have priority, on purely technical nomenclatural grounds, since it was published 33 years before that of *C. seifrizii*. So intriguing were these thoughts that in February 1994, hoping to solve this puzzle, we visited the sites of the recent collections of the unidentified *Chamaedorea* and the type locality of *C. donnell-smithii* in Honduras.

We began to unravel the mystery of *Chamaedorea donnell-smithii* when we visited two sites in Francisco Morazán in central Honduras where the unidentified *Chamaedorea* had been recently collected. Both sites were in seasonally dry forest on steep rocky slopes above watercourses. At both sites we found a *Chamaedorea* of cespitose habit, short-pinnate leaves, and short-peduncled inflorescences emerging below the leaves by erupting through old, persistent, dry leaf sheaths. We examined flowers at anthesis of both sexes. Without a doubt we had found what we knew as *C. seifrizii*. This discovery increased the uncomfortable possibility that *C. seifrizii* and *C. donnell-smithii* were identical.

Several days later, this possibility was confirmed when we found the same cespitose palm on steep, rocky slopes in seasonally dry forest at or near the type locality of *C. donnell-smithii* along the Río Chamelecon near the border of Cortés and Santa Bárbara departments (Fig. 1). One might contend that we have not eliminated the possibility that a second, distinct *Chamaedorea* could be growing nearby that is, in fact, *C. donnell-smithii*. However, this dry, rocky habitat is so unusual for palms and especially *Chamaedorea* that the existence of a distinct, second species seems highly unlikely. In fact, we observed no other species of palms at any of the sites; the habitat is simply too inhospitable.

Rather than saddling ourselves with the unenviable and onerous task of reducing the name of the widely known and cultivated *Chamaedorea seifrizii* to a synonym of the virtually unknown *C. donnell-smithii*, we have opted to propose conservation of the epithet *seifrizii* over *donnell-smithii*. It is more practical and logical to avoid displacing well established names for purely nomenclatural reasons. To that end, we have submitted a proposal to *Taxon*, the journal of the International Association for Plant Taxonomy, arguing this conservatory position. In the meantime, pending approval of our proposal, we urge botanists, horticulturists, growers, hobbyists, and others to continue to use the epithet *seifrizii* for this species. Overall, our experience with this matter serves to remind us of the intricacies, com-

plexities, and pitfalls awaiting those who venture into the perilous waters of plant taxonomy.

See Hodel (1992) for an extensive, illustrated botanical and horticultural account of *Chamaedorea seifrizzi*.

Chamaedorea seifrizii occurs in open or dense, moist or seasonally dry woodland or forest on flat land in the Yucatán Peninsula of Mexico, Guatemala, and Belize, and on steep, rocky slopes along watercourses in the interior of Honduras. It ranges in elevation from 0–500 meters. It is often found on limestone rocks or soils.

As noted earlier, the habitat of *Chamaedorea seifrizii* in the interior of Honduras is quite different from that where it occurs on the Yucatán Peninsula in Belize, Guatemala, and México. This difference in habitats was partly responsible for the mystery surrounding *C. donnell-smithii* and *C. seifrizii*. In the Yucatán Peninsula, *C. seifrizii* occurs on rocky but relatively flat land with an absence of rivers or other watercourses. The forest is generally a moderately dense woodland with only a poorly developed canopy and few, if any, large trees. A pronounced dry season occurs from January through June. In Petén, Guatemala, toward the southern end of the range of *C. seifrizii* on the Yucatán Peninsula, the forest has a better developed and denser canopy with large trees. There, *C. seifrizii* often grows in low, poorly drained areas which become boggy during the rainy season.

In the interior of Honduras, however, *Chamaedorea seifrizii* has only been found in relatively open, seasonally dry forest on very steep, rocky slopes along rivers or streams. A pronounced dry season occurs there, also, and many of the smaller watercourses by which it is found lack water for an extended period. One has to wonder whether this pattern of distribution in the interior of Honduras is wholly natural or is partly influenced by human activities. The patches of vegetation in which *C. seifrizii* grows are but remnants of a once more extensive forest that also covered the surrounding flatter areas. However, eons of human activity, such as burning, cultivation, and animal grazing, have reduced and restricted this dryland forest to the largely inaccessible, steep, rocky slopes carved by rivers and streams. It is reasonable to conclude *C. seifrizii* was one more widely distributed in the interior of Honduras and probably occurred in dryland forest in flat areas prior to the advent of destructive human activities.

Whether in the Yucatán Peninsula or the interior of Honduras, though, it is clear *C. seifrizii* inhabits one of the driest and most demanding ecosystems for the genus. The dry season is particularly pronounced and lengthy and the substrate porous and well drained; it is common to find companion vegetation actually wilting from the lack of water although the palms do not seem to be suffering. Another indicator of the dry nature of this forest is the thorny, deciduous, and/or succulent aspects of many of the companion species.

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Literature Cited

Dammer, U. 1903. *Chamaedorea*, Vol. 6, page 54. *In*: J. Smith, Enumeratio Plantarum Guatemalensium. H. N. Patterson, Baltimore, Maryland.

———. 1905. Species of *Chamaedorea* with pinnate leaves. Gard. Chron., Ser. 3, 38: 42–44.

Hodel, D. R. 1992. *Chamaedorea* palms: the species and their cultivation. The International Palm Society, Lawrence, Kansas.

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