
Plotting a Palm Forest

by Jon Letman, Associate Editor

After the last pineapple has been picked, and the farm equipment all hauled away, leaving in its place a desolate hardpan in a state of abandonment, what hope is there of redemption? Who would be drawn to such a forlorn place with the vision of transforming it to something vibrant, dynamic, and full of promise?

Such a place exists just outside the town of Ha'ikū on the north shore of Maui. There, renowned poet, writer, and palm aficionado W.S. Merwin, with his wife Paula, has spent decades filling their ravine by the sea with first dozens, then hundreds, and now thousands of palms. What began as three acres has grown to seventeen.

Merwin planted his first palms on Maui in 1977, nurturing seeds and saplings from multiple sources, to produce a pocket of forest similar to what could be found in the wilds of Malaysia or Madagascar.

Over three decades the writer has woven his secluded botanical refuge into a palm forest using planting material carefully collected by the poet. In 2010 the collection was formalized as The Merwin Conservancy, created to preserve this rich diverse collection. And while the palms were thriving, they had long been in need of identification and mapping.

When the Conservancy asked NTBG if it could help identify, label, and map the palms the Garden agreed. Not only would doing so help preserve a unique and richly diverse collection of palms (many of which were rare), but it afforded some NTBG staff the

opportunity to work with one of the world's leading palm experts, become more familiar with palm classification and identification, and collect some palm specimens and plant material to add to its own herbarium and living collections.

With so many palms growing in a wild-like, albeit managed, setting, the collection required the expertise of a handful of staff who brought their experience in taxonomy, field collection, plant records management, and GPS¹-guided mapping.

In consideration of the scope of the project and the complexity of identifying hundreds of subtly differing species, renowned Areaceae² authority Dr. John Dransfield, retired head of palm research at the Royal Botanic Gardens, Kew was asked to assist.

Once the team had been assembled, the visits (over a dozen in all) to Merwin's palms began at the end of 2012, starting with a trip by then GIS³ Coordinator Matt Lucas.

By the end of his first visit Lucas recognized there were significant challenges to overcome. Because the roughly 3,000 palms grew on slopes that were, in places, steep, the access was sometimes difficult. Mapping itself proved tricky, due largely to the dense overhead canopy and valley's northerly location, which at times confounded even the sophisticated Trimble GPS device Lucas used to pinpoint each tree's coordinates within one meter.

¹ Global Positioning System

² The palm family

³ Geographic Information System

Despite this and more mundane obstacles like occasional wind-driven rains, falling tree branches, a voracious mosquito population, and the task of systematically visiting, identifying, and labeling so many trees (the official count was 2,741 individuals representing at least 407 species and 128 genera), the project advanced.

Escaping what he described as “a particularly cold, ghastly English winter,” Dr. Dransfield and his wife Soejatmi (herself a botanist) arrived on Maui in January 2013 for a three-week stay, the first of two visits during which the Dransfields partnered with Garden staff to complete the task.





Dransfield, one of the world's foremost authorities on palms and author of *Genera Palmarum: The Evolution and Classification of Palms*, worked side by side with NTBG's Co-Director of Science and Conservation Dr. David Lorence, spending days visiting and revisiting each tree, consulting with Merwin himself, referring to previously prepared records, and devising a system to determine what was in the collection and where.

“When I got there, I realized the enormity of the job... this was a much bigger job than I'd thought,” Dransfield recalled. “It would not have been possible without the extremely well-organized thinking of [NTBG staff] who worked out a really good *modus operandi* for working on the palms.”

One major challenge was the layout of the collection itself. Lucas explained: “It's a small area but it's easy to get turned around and lost... the trails all meander, bend, and weave within each other. It's like a continuous flow and makes a small area seem very large which makes it hard to find everything.”

But they did. Or almost everything. With additional help by Plant Records Manager Kava Vale and Field Botanist Natalia Tangalin, both of whom visited the collection to assist by reorganizing spreadsheets and sourcing, producing, and affixing tags.



◀ NTBG botanist Dave Lorence tags a large palm during the inventory.
Photo by Matthew Lucas

▲ World renowned palm expert John Dransfield discusses a tree with poet and palm collector William Merwin.
Photo by David Lorence

Page 23: A skyline of palms. *Photo by Kava Vale*

The Value of the Collections

Now that the palms have been identified, labeled, and mapped, it's possible to consider the value of this collection. Everyone who helped in this effort agrees The Merwin Conservancy collection is distinctive and unlike those in methodically arranged botanical gardens.

Dr. Lorence points to the collection's importance as a repository for hundreds of palms from around the world, many of which are rare or endangered. The diversity of species makes the collection a living treasure house of palm DNA.

Tangalin sees the importance of rejuvenating a place that had been reduced to a wasteland: "There's value in taking land that has been exploited or damaged and putting nutrients back into the soil... [using palms] from tropical regions under pressure from development and logging."

In addition to creating a refuge in nature that could be used as a creative, meditative, or educational retreat, The Merwin Conservancy collection demonstrates the benefits and feasibility of private, small-scale tropical restoration.

Today, Merwin continues to plant palms. As he does, older, more established palms climb skyward, shedding old fronds and seeds, creating what Lucas calls "biopiles" of organic material which slowly break down, enriching the earth and its ability to support life.

It comes as no surprise that this collection, poetic in its form and function, is the work of a man who once wrote "On the last day of the world, I would want to plant a tree."