Ficus microcarpa Web Masses

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In November, 2020, co-author Ann Hope was assessing tree health in Windsor Park for the city of Santa Ana when she encountered a condition that she had never seen. Many if not most branch ends of several large *Ficus microcarpa* (Chinese banyan) about 20 meters tall and wide were enveloped in masses of fine spider-like webbing (**Figs. 1–2**). She contacted co-authors Donald R. Hodel and Julio Jacobo-Cazares and the three met at the park, retrieved several branch ends with web masses, and inspected and photographed them.

We found the trees heavily laden with small to large masses of spider-like webbing. Nearly every branch end was enveloped in the webbing, giving the appearance that the entire canopy periphery was web-covered. Some masses were small, less than 30 cm in diameter, while others were larger, sometimes two to three meters long and nearly as wide, and might have been the result of multiple smaller masses coalescing into one large mass (**Fig. 3**).

1. Branch ends of this *Ficus microcarpa* in Santa Ana, California were enveloped in spider-like web masses.

2. Branch ends of this *Ficus microcarpa* were enveloped in spider-like web masses.

3. Nearly the entire canopy of this *Ficus microcarpa* appeared enveloped in the spider-like web masses, perhaps from small masses joining to make large one.

4. Conspicuous clusters of dead brown leaves enveloped or bundled in the web masses on the *Ficus microcarpa* are often noticeable first and look like a rat's nest.

5. Co-author Julio Jacobo-Cazares is retrieving spider-like web masses from the canopy of this *Ficus microcarpa*.

6. Co-author Ann Hope holds a branch end with one of the small spider-like web masses retrieved from the canopy of a *Ficus microcarpa*.

Because they tended to be high up in these large trees and are a dirty white color, the web masses were easy to overlook. We noticed that they could be more easily seen by changing one's viewing position slightly to take advantage of differing light angles that enhanced detection. Also, because the webbing trapped and retained naturally senescing leaves that turn brown and normally would fall away, we noticed these conspicuous clusters of dead brown leaves persisting in the canopy first and invariably they were enveloped or bundled in the web masses, the entire structure looking something like a rat's nest (**Fig. 4**).

With a pole pruner we retrieved several of the web masses (**Figs. 5–6**). Close inspection and dissection showed that they were spider webs and were home to countless spiders of all life stages and sizes (**Fig. 7**). We all agreed that we had seen the occasional, small spider webs in trees and shrubs during our landscape careers but never had we seen such large, extensive webbing as was on these *Ficus microcarpa*. Strangely, adjacent trees like *Jacaranda mimosifolia* (jacaranda) and *Quercus ilex* (holly oak) were mostly free of the webbing or they had only a few, very small patches less than 15 cm long even though branches of the *F. microcarpa* were overtopping or actually touching their branches. We were initially at a loss to explain the presence of these masses of spider webs.

7. A close view of one of the spider-like web masses showed that they were brimming with spiders of all life stages and sizes. Note the adult spider hiding in the center.

We continued to pull apart and dissect several web masses, dragging out live and dead leaves, twigs, old figs, dust and other particles, and clinging web masses heavily laden with a cornucopia of trapped insects and other arthropods (**Figs. 8–9**). We noticed that the *Ficus microcarpa* leaves were heavily infested with mostly the relatively newly introduced Ficus whitefly but a plenitude of other pests as well, including mealybugs, scales, leaf gall wasps, psyllids, and thrips typical of this host species (**Fig. 10**). Indeed, *F. microcarpa* is a magnet for pests (Hodel 2017), several of them sap suckers that excrete honeydew, attracting additional opportunistic insects and the growth of sooty mold. Thus, we developed a theory that the presence of the incredibly prolific spider web masses was largely because of the heavy pest load, mostly Ficus whitefly, and opportunistic insects drawn to the honeydew excretions, which provided ample prey and feeding opportunities for the spiders. We shared photographs of the web masses and pest infestations with entomologist Gevork Arakelian who agreed with our theory.

Management of the spider web masses might be unnecessary because damage is likely tolerable, or perhaps even unwanted. They most likely go unnoticed, especially on large trees where they are sufficiently high to be beyond the range of view. A keen, observant eye might detect them but typically one would have to be "tipped off" that they were present.

8. The spider web masses on the *Ficus microcarpa* trapped and held dead twigs, leaves, old figs, dust and other particles, and numerous insects and other arthropods.

9. The spider web masses on the *Ficus microcarpa* were a cornucopia of trapped insects and other arthropods

10. The Ficus whitefly and long-tailed mealybug were two of the most common sap-sucking pests on the leaves in the spider web masses.

11. The clumps of dead brown leaves bundled up in the spider web masses are often more noticeable than the webbing itself.

The clumps of dead brown leaves bundled up in the webbing are often more noticeable (**Fig. 11**) but even these might not draw much attention. Most importantly, the spiders might actually be helping to suppress pest populations, their extensive webbing serving as a giant pest net, trapping pests and non-pest opportunists drawn to the honeydew excretions. In the same manner, though, the webbing might also be suppressing potential natural enemies of the pests.

A high-pressure water stream might dislodge and wash out much if not all the webbing and associated debris, yet such a technique would likely be difficult on a large tree because of the height and extensive canopy. Management of the pests that might attract the spiders using yellow sticky cards, vigilant scouting, and judicious and immediate removal, bagging, and disposal of infested material might help in early infestations. Encourage and protect known beneficial insects such as parasitic wasps, predatory thrips, lace wings, lady beetles, and pirate bugs. Because most of these pests attack new growth, management techniques that suppress growth, such as reduced irrigation, fertilizer, and pruning, will likely reduce infestations. Chemical control of the pests is probably unwarranted. Other than the honeydew, the damage is mostly tolerable. If honeydew reaches intolerable levels, soil/root zone applications of systemic materials like

imidacloprid and foliar sprays of dinotefuran or bifenthrin, the latter timed especially to protect new growth, might be effective.

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Literature Cited

Hodel. D. R. 2017. New pests of landscape *Ficus* in California. CAPCA Adviser 20(5): 58–62.

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