Pseudoleon superbus Established in California

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Despite its drab colorations the Filigree Skimmer (*Pseudoleon superbus*) is one of the most striking North American dragonflies. The complexity of its patterns that give its common name lend them a particular beauty and an unmistakable appearance. They range from Guatemala to the South West United States in Arizona, New Mexico and Texas. However the first sightings (only twice) in California were in San Diego in 2004 (OC#5613). Apart from these occurrences, they were unknown in California and absent for more than ten years.

Living in dry Southern California, in the summer of 2014 I decided to tear out my lawn and change everything to native landscaping. As part of this I added a small pond, something I had been wanting to do for years. Dragonflies had been a casual interest and previously we had occasionally seen them flying by our yard. We assumed this was due to our neighbors pool and that we were half a mile from Mission Trails Regional Park (the largest city park in the western US), through which the San Diego river flows, and two mile from Lake Murray Reservoir. So we had hoped to attract dragonflies to our pond.

The pond was designed after local vernal pools and online advice for attracting dragonflies. There are variously dark and light border stones, gravel, stones sticking out of the water and plants in and around the water. However it is quite small being a 9 ft by 6 ft oval and only 24 inches at the deepest point and is without artificial filtration or circulation. In all it holds less than 250 gallons of actual water. In spite of its size, it has exceeded our expectations. On August 23rd it was filled with water. On August 30th the plants were put in place. And on August 31st a Wandering Glider was ovipositing. After a busy dragonfly fall, however winter was fairly quiet.

That all changed on February 15, 2015 when I saw a strange black object on the rock in the pond. I was able to get a low quality picture, but that was enough (OC#429680). Due to the unique wing patterns of *Pseudoleon superbus* it was clear that this was a male of the species missing from California for almost eleven years and months earlier in the year than the previous sightings. Almost a month later a female was seen three times over a week including on March 12th she was seen to be laying eggs! This spurned a search for *P. superbus* throughout Southern California and a rash of new sighting as far north as Santa Barbara (OC#430369). In April we had a few visits to our pond of both male and female Filigrees. In May I saw a few females in the nearby park.

I had watched the pond for months for signs of a *P. superbus* nymph. Online resources are limited when it comes to nymphs and I was relying heavily on Kathy Biggs for all of my dragonfly questions. But after several false calls I was coming up empty handed. That was until the morning of June 15. On my morning pond watch I was stunned to see a teneral female *P. superbus* in the pond. In my excitement to get a camera I had scared her into flying. Fortunately she wasn't really ready yet to fly far and stayed in the yard so I could get some good pictures. After that I found the exuvia she came from and further confirmed that she came from my pond. The time from egg laying to emergence was almost exactly three months. On June 19th I finally captured and photographed a live *P. superbus* nymph.

2015 was an unusual winter in California. There were several periods of very hot, dry and windy weather in January through March. Perhaps this contributed to the sudden rash of Filigree Skimmers here. But it seems unlikely that they are only reproducing in my little backyard pond. Now that they have been seen all over Southern California and are reproducing here, this is likely the beginning of a permanent extension of their range.

Thanks to Kathy Biggs for her advice and support. References:

Dragonflies and Damselflies of the West; Dennis Paulson; Princeton University Press, 2009; pages 455 - 6.

Dragonflies of North America, third edition; J. G. Needham, M. J. Westfall Jr., M. L. May; Scientific Publishers, 2014; pages 545-6.