

## **May 2023 Newsletter**



## **A Loquat Mystery**

President's Message
Joe Clarkson
PMKCA

Naturalized loquat trees are all over Hāmākua. When I walk along Paauilo Mauka Road for my daily walk, they often provide an impromptu and delicious snack. Recently, after finding and eating an especially nice cluster of loquat fruit, I wondered where it came from and how it spread all over the neighborhood.

The loquat, *Eriobotrya japonica*, is originally from China. According to a publication about the tree from the College of Tropical Agriculture and Human Resources (CTAHR):

Loquat is among the first fruits cultivated in Asia and is steeped in ancient Chinese mythology. For centuries only the Chinese royalty was allowed to eat the fruit, as it was thought that loquat fruit falling into the rivers gave the koi, or carp, the strength and desire to swim against current and up waterfalls and be turned into mythical dragons.

Loquat was taken to Japan as early as 700 AD and has since spread all over the world, reaching Europe in the early 1700s. CTAHR speculates that "the fruit may

have been introduced to Hawai'i as early as 1787 with Chinese visitors. In 1831, Dr. F.J.F. Meyen wrote of hearing about a Chinese settlement on Maui prior to Captain Cook's arrival". While I could find no confirmation of Chinese settlement of Hawai'i before Cook, loquat was more reliably reported introduced to Hawai'i from Australia in 1851. Given that the tree has been in Hawai'i for at least 172 years, it is not surprising that it has spread widely here.



Karen Clarkson holding a nice cluster of loquat fruit from one of our trees.

Loquat trees in Paauilo Mauka are very numerous; only waiwi, guava, 'ohi'a, and perhaps eucalyptus, are more common. Loquat trees are considered an invasive species, which the Hawai'i-Pacific Weed Risk Assessment system (HPWRA) rates as just barely being in the high-risk category for invasiveness (although far less invasive than common guava or waiwi). Fortunately, loquat leaves are readily eaten by pasture animals, so they have little chance of colonizing pastures like guava does. But the mystery, for me at least, is how the tree has come to be so widespread here.

People can move the tree seeds or starts around, of course, and that is why the loquat is in every district of all the Hawaiian Islands, but how does it spread

locally? Loquat seeds are far too big for small birds to eat and pass through their digestive systems, unlike the much smaller guava or waiwi seeds, and I rarely see fresh loquat fruit on the ground where they can be eaten by pigs or larger birds like turkeys and kalij pheasants. The seeds themselves are slightly toxic from cyanide compounds and are not likely to be gathered by rats or mice.

Chuck Chimera, a Weed Risk Assessment Specialist with the Hawaii Invasive Species Council, assessed the loquat in 2017. The assessment indicates that loquats are "bird-dispersed," but I had never seen a bird eating a loquat fruit, so I inquired with Mr. Chimera about how loquats were spread by birds. He indicated

that the assessment information came from observations on Maui, where the birds responsible were pea fowl and ring-neck pheasants. He also said that they are easily spread by axis deer, which eat the fruit and then pass the seeds. (We can be glad that there are no axis deer on the Big Island because they will eat just about any plant or fruit and can easily jump over 6-foot-high fences).

Chimera noted that there are other ways that seeds can spread, even without animal involvement. Simple gravity can cause the seeds to roll downhill away from the parent tree. Trees that are growing in or near gulches can have their seeds washed down the gulch to colonize a new location. So, even trees that spread very slowly can expand their range a great deal if given enough time, and the loquat has been in Hawai'i for quite a long time. But in the end, he suggested the most likely animals for transporting loquat seeds were turkeys and kalij pheasants.

The only way to be sure is to catch an animal in the act. Chimera suggested that the best way to do that would be to install an infrared motion-detection camera aimed at a fruiting loquat tree and see what happens. My quick check on Amazon found that these cameras can now be purchased for as little as \$30.

I was just about to buy a camera when I got some new information from a friend who lives up my road and has several loquat trees in his yard. He told me that when the fruit on his trees is just ripe enough to eat, he has seen a tom turkey fly up into the loquat tree, land on a limb with a cluster of fruit at its end and then flap his wings furiously to shake the fruit off the tree for the hens waiting below. Loquat mystery solved! I will now be on the lookout for turkeys in loquat trees.

## Random loquat tips:

When pruning loquats, the cut end of the branch should be coated with sealant to prevent insects from getting under the bark and stripping the bark from the branch.

Loquat fruit ripens nicely if picked when yellow and then placed in a closed paper bag to ripen to a dark golden color, the optimum for sweetness.

Besides enjoying a fresh-picked loquat fruit, try out a variety of loquat recipes on the internet, or substitute a loquat fruit for apricots in any recipe.

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