Everyone who visits Haleakalā knows the ‘ahinahina, or silversword, but that is only one of the endangered plants getting special attention at the Haleakalā National Park plant nursery. “We’re focusing on rare and endangered plants to try to augment the population in the wild,” says park horticulturist Michelle Osgood.

Osgood could use a few hands to keep up with this vital work and plans to host monthly volunteer days beginning in 2019. The Friends of Haleakalā National Park will help organize volunteers for jobs like transplanting, weeding, cleaning and preparing seeds for storage or planting—and, oh yes, a little pot washing.

The park recycles its plant pots, which means each must be carefully cleaned to prevent spreading plant diseases. Osgood promises volunteers a minimum of time spent at this least-favorite job, with the potential reward of an occasional out-planting expedition around park facilities.

Osgood has been the park’s horticulturist for four years, overseeing a nursery built in the service area near park headquarters about 2003, as well as a second one in Kīpahulu with more common, low-elevation plants. Volunteers are also needed in Kipahulu, she says. The service-area nursery houses hundreds of plants in organized, labeled collections of some of the world’s rarest plants. Some, identified as critically endangered, are known to have fewer than 20 left in the world.

Sometimes these plants, endemic to Haleakalā crater, grow in the nursery but have limited success when outplanted, perhaps because their natural pollinators no longer exist. Osgood cross-pollinates and bags their flowers, collecting seeds as a backup so the plants don’t go extinct. The park now has more than 10,000 seeds in storage. Some plants are grown from cuttings, with the hope that the cuttings will take root and produce blooms, so that seeds can be collected.

One of the plants thriving in the nursery is Clermontia samuelii samuelii, with its characteristic curved flowers, shaped to accommodate the curving beaks of native birds. “We actually have more in the nursery than the wild,” Osborne says. Cuttings taken a few years ago produced fruit, so there are now a couple of hundred keiki. The prob-
To reduce helicopter noise and impacts to wildlife and visitors and to conserve resources, Haleakalā National Park implemented a new wood-locker system for backcountry cabin users starting November 1, 2018. It’s a move that has stirred controversy among cabin users who find comfort in a wood fire after a wet, cold hike, but also one that could lead to hikers being better prepared for a wilderness adventure.

The park’s cabins are now equipped with 18 lockers, each stocked with three logs. Based on the amount of time each log takes to burn down, the park figured three would provide adequate heat for a one-night stay, and it’s a number the mule delivery system can manage. And while some longtime cabin users are dismayed that three logs won’t produce the cozy fires that once warmed the cabin and dried damp clothing and shoes, the park points out that few, if any, other national parks provide wood-burning stoves and logs to backcountry visitors.

Helicopter delivery involves an additional issue, that of safety for the operator. Mules are used in the backcountry area anyway, to supply toilet paper and remove garbage, so it made sense to switch to this alternative method. Still, neither method could satisfy the appetite some cabin users have for a roaring fire. Ranger Matt Padgett stocks the lockers installed to hold logs. With four mules carrying tools and supplies, Padgett rides the fifth mule twice a month with loads that include bundles of logs. This replaces the system whereby large numbers of logs were flown in by helicopter, and log use by visitors was unregulated.

“At the rate at which the wood was being burned” says Padgett, “there’s no possible way I can keep up, with five pack animals.” In the past, a cabin’s supply sometimes was depleted in one day, leaving no logs for subsequent cabin users. FNHP service trips and others have arrived to find no logs left at all.

A 17-year park veteran and an experienced backcountry hiker himself, Padgett says he has rarely seen even a cabin on his long treks through other national or state parks, never mind one where the Park Service supplies everything from dishes to propane to toilet paper. At $75 a night for up to 12 hikers, “it’s...
With the new policy of limiting free logs to three per night, Haleakalä National Park cabin users will have to learn to stay warm without a big fire in the woodstove. Here's some practical advice from an experienced hiker, FHNP Board President Matt Wordeman.

The key to staying warm and comfortable in the wilderness is being prepared with the proper clothing.

Do your best to stay dry by wearing proper rain gear. This means a rain jacket with a hood and rain pants. An emergency poncho from the drug store is not sufficient protection when it is cold, windy or rainy. When it is not raining, your rain jacket and pants can serve as an outer shell to break the wind and keep you warm.

Above all, keep your core warm by wearing multiple layers, including long-johns or tights as a base layer, then as many layers as you need depending on the weather. Keep your extremities comfortable by wearing gloves or mittens, a stocking cap and thick socks.

It is always difficult to keep your feet dry when it rains, so bring extra socks and slippers to change into when you get to the cabin. All clothing, from your socks to your stocking hat, must be quick-dry material that retains its insulating properties when it is wet. THIS MEANS NO COTTON! Outfitters will advertise their camping clothing as “quick-dry.” Otherwise, look for synthetics such as polyester and nylon, or wool for all of your layers. Proper camping clothing will dry quickly from body heat alone once you reach the cabin.

Protect your spare clothing during the hike in by packing it in waterproof bags. Always carry in a good sleeping bag. For the winter in Haleakalä, choose a bag rated to 30 degrees or lower. A sleeping bag liner will also help keep you warm. Keep your sleeping bag dry by packing it in a waterproof bag. This is especially true for a down bag. Conserve your firewood by partially closing the damper on the stove. For more tips, check out the park's backcountry preparedness video, “Preparing for the Backcountry of Haleakalä” (https://www.nps.gov/hale/planyourvisit/hiking.htm).

Continue to wear your warm clothing even inside, and count your blessings for being in a snug, dry space nestled in the wilderness of Haleakalä National Park.

Plan ahead for a safe, warm crater trip

the best deal on the island,” he says of the cabins built in the 1930s and carefully maintained to this day. Tent campers in the crater manage without a fire, Padgett says, and he rarely lights a fire in the ranger cabin, relying on warm clothes and an efficient sleeping bag. “It’s possible to enjoy your wilderness experience” without a fire, he says.

In 2018, the National Park Service (NPS) spent an estimated $139,700 and flew helicopters for 26 hours in the crater to deliver logs to cabins. The new locker system should reduce costs significantly, with savings reallocated to maintaining and improving backcountry visitor services. NPS helicopter operations will still be required in the crater for emergency searches and rescues as well as resource protection operations but will likely be reduced by at least 50 percent.

Another concern voiced by some cabin users is the placement of the lockers to hold the wood, which blocks one of five windows in each cabin. Padgett says limited configurations were available for lockers, and the spot in front of the windows was the only possible place they would fit. Some users also lament the lock on the wood-room door, which in addition to holding logs provided a private place for changing clothes and a storage place for cold food items. Now that room is used only to store wood, and rangers move it, three logs at a time, as the lockers empty.

Park staff assign locker combinations to cabin users (one locker combination per night) at the time of check-in for cabin permits at Headquarters Visitor Center (at 7,000 ft. elevation) in the summit district. Any visitors wanting to pack in more wood can purchase logs ($2.95 each) and fire starters at the gift store during check in. Wise hikers will be conservative about this purchase, since each log weighs 5 pounds. Cabin users should not bring in wood from outside the park, to avoid importing pests into this sensitive environment.

“People frequently ask what they can do to help us protect this special place,” said park Superintendent Natalie Gates. “By using our new log system and burning responsibly, they are helping us reduce helicopters over the crater,” she added. “That’s mālama ‘āina.”
If you love Haleakalā, consider joining one of our 2019 service trips, whose upcoming dates are shown in the following schedule.

Service trip participants backpack into the crater to a cabin or campsite and back, or drive to Kīpahulu for “car camping.” Depending upon the trip, the group performs tasks ranging from cabin maintenance to native planting to invasive species removal. Staff permitting, an interpretive park ranger will be along on the first day of Service/Learning trips.

For all overnight trips in the crater, participants need to bring first day’s water, sun and rain protection, work gloves, comfortable boots or walking shoes, sleeping bag, extra socks, breakfasts, lunches, dinner food contributions as coordinated by the leader, personal supplies, flashlight and warm clothing. There is no charge for volunteers for these trips, which include a two-night stay in a backcountry cabin equipped with bunks, firewood, dishes and cooking utensils.

This year’s schedule includes several “car camping” trips to Kīpahulu. Volunteers will be able to drive to within about 100 feet of the campsite. The group will have access to a shower, an outhouse and a kitchen. There is some room for sleeping in the bunkhouse, but some participants will need to bring their own tents. All will need to bring sleeping bags and sleeping pads. Contact the trip leader for details.

Before signing up for a service trip, please go to the FHNP website at www.fhnp.org, create an account, then log into the account to learn more and certify your readiness for a service trip. Check the website for updates or email matt@fhnp.org for information or to sign up.

The schedule below is subject to change. The last date listed for each trip is the return date.

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Difficulty</th>
<th>Leader</th>
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<tbody>
<tr>
<td>Jan. 19-20</td>
<td>Kīpahulu, car camping</td>
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<td>Sorin</td>
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<tr>
<td>Feb. 18-20</td>
<td>Hōlua</td>
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<tr>
<td>Mar. 24-26</td>
<td>Hōlua</td>
<td>M</td>
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<tr>
<td>Apr. 28-30</td>
<td>Kapalaoa</td>
<td>D</td>
<td>Joani</td>
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<tr>
<td>May 25-27</td>
<td>Palikū, out Kaupō</td>
<td>X</td>
<td>Andy</td>
</tr>
<tr>
<td>June 16-18</td>
<td>Hōlua</td>
<td>M</td>
<td>Christy</td>
</tr>
<tr>
<td>July 4-6</td>
<td>Palikū, out Halemau’u</td>
<td>X</td>
<td>Joani</td>
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<tr>
<td>Aug. 16-17</td>
<td>Kīpahulu, car camping</td>
<td>E</td>
<td>Joani</td>
</tr>
<tr>
<td>Aug. 31-Sep. 2</td>
<td>Palikū, out Kaupō</td>
<td>X</td>
<td>Cassie</td>
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<tr>
<td>Oct. 12-13</td>
<td>Kīpahulu, car camping</td>
<td>E</td>
<td></td>
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<tr>
<td>Nov. 11-13</td>
<td>Hōlua</td>
<td>M</td>
<td>Christy</td>
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<tr>
<td>Dec. 8-10</td>
<td>Hōlua</td>
<td>M</td>
<td>Cassie</td>
</tr>
</tbody>
</table>

E=Easy, M=Moderate, D=Difficult, X=Extreme

Andy: andy@fhnp.org
Bobbie: bobbie@fhnp.org
Cassie: cassie@fhnp.org
Christy: christy@fhnp.org
Delphine: delphine@fhnp.org
Joani: joani@fhnp.org (808)669-8385
Matt: matt@fhnp.org (808)876-1673
Mike: mike@fhnp.org
Sorin: sorin@fhnp.org

Please note: Due to the decision of the landowner, the Friends will not hold its Christmas tree cutting at Pu‘u Nianiau this year.
lem is, with the loss of birds, pollination in the wild is difficult. No one knows for sure, but it’s possible that hawk moths with a long proboscis will be able to pollinate these plants. Meanwhile, they flower in the shelter of the nursery.

*Geranium arborescence* is another plant having a hard time surviving in the wild, because individual plants are too scattered to allow them to breed. The park’s vegetation crew has taken cuttings from pretty much every “founder” plant discovered in the wild and will outplant them close enough to each other that birds can cross-pollinate. As a backup, the nursery will always keep some individual plants.

Many other species wait for some tender loving care from volunteers. There’s a rare violet endemic to East Maui, scentless mints, a collection of peperomias (“my pet project,” says Osgood) and rare, though not endangered sandalwood and ‘ōhi’a, a key plant in the Hawaiian forest that now is threatened with Rapid ‘Ōhi’a Death.

And of course, there are many ‘ahinahina babies. Osgood saves most of these for school groups who come up for educational outings. Each student plants a silversword, helping to establish a total of about a thousand plantings each year.

Interested in volunteering for plant-nursery work at the park? It’s a great way to help preserve the flora of the Haleakalā wilderness even if you’re not up for a challenging hike. Sessions will be on the first Tuesday of the month (except for January, when it will on the second Tuesday due to the New Year’s holiday). For information, contact Friends board member Mary Santa Maria at mary@fhnp.org.

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**FRIENDS LOOKING FOR VIPs TO HELP LAUNCH RANGE OF NEW PARK PROJECTS**

The National Park Service has asked the Friends to consider broadening our service program to include additional types of volunteer engagement. This newsletter mentions two such new efforts that are already in the works for 2019, projects in the greenhouses and at Kipahulu. We may undertake some additional projects if there is sufficient interest. Materials, tools and training will be provided for all projects. Please write or call Matt (matt@fhnp.org, 876-1673) if you are interested in participating in or helping organize any of the following projects as a Volunteer In Park (VIP).

**Endangered Species Management:** Support the Resources Management Division by hiking along trap lines in the wilderness to monitor, re-bait and re-set live traps that capture predators harmful to native wildlife. May also involve the management of trail cameras and recording devices. May involve overnight stays in the cabins.

**Hosmer Grove Trails and Campground:** Improve Hosmer Grove trails and campground, repairing fences, removing small weedy trees, removing debris, improving signage. Volunteers may also function as campground stewards. This will involve multiple single-day events.

**Front-country Building Improvement:** Maintenance, repair and/or re-modeling of park buildings in the summit district, ranging from simple reconfiguration of the interior of the yurts, to re-building steps off decks attached to seasonal housing buildings, to converting the Resource Management Outbuilding into an after-hours gathering place. A program that enlists local students to provide hands-on experience and training may be beneficial.

**Backcountry Trail and Perimeter Fencing Support:** Hike along the NPS perimeter fences, inspect, perform minor repairs and document repairs to be done by NPS staff. Trail support includes assisting in construction of a new trail section that connects the Kaupō Gap fence gate to the makai trailhead (known as the Denman parcel). Further work involves fence repair and installation near Palikea Flats, at Kukuila and at Cable Ridge.

**Archeology and Museum Support:** Work with the Haleakalā staff to document, map and inventory archeological sites in the park. This may involve multi-day trips into the back-country. Efforts will involve cataloguing specimen data into the museum database.
The trail beyond Palikū down to Kaupō is not to be forgotten. One navigates intact lush native forest with one of the last remnants of habitat for several of the endangered forest birds, including ‘i‘iwi and ‘apapane. If rains have been abundant (and they often are), there are numerous cascades along the fluted cliffs as the views across to the Big Island fill your eyes.

The maintained trail continues through the park boundary and then switches to a steep rocky Jeep road through the upper reaches of Kaupō Ranch. After a long, knee-tweaking descent, at the second water tank the trail veers off to the left and disappears into a thicket, reappearing only a couple miles later at the trailhead. Lack of maintenance has led to a formidable overgrowth of the surrounding brush, and hikers are prone to taking an ATV track instead of the trail.

Unfortunately, the track is through private property and not intended for hiking. Several large guard dogs patrol this area to protect the livestock, and backpackers are generally perceived as threats. Local residents and ranchers wind up assisting lost hikers every month, both day and night, and the reception is not always cordial.

FHNHP has been trying to coordinate a trail-clearing project with help from the park and Kaupō Ranch, and it is a big effort to be sure. Due to the nature of the terrain, multiple power and hand tools are needed, along with plenty of manpower to mark and then clear the way. New signage is also critical, as is ongoing maintenance. Workdays are planned for Saturdays (dates to be determined), and help would be much appreciated. Please contact andy@fhnp.org for further information.

CASH PRIZE FOR BEST IDEA ON HOW TO SAVE ICONIC HAWAIIAN TREE

Are you ready to detect and address Rapid ‘Ōhī’a Death in Hawai‘i? Think you have a promising idea to tackle this challenge? You could win up to $70,000 for your solution in the #OhiaChallenge! The Department of the Interior and the National Park Service are partnering to source low-cost and scalable solutions to detect Rapid ‘Ōhī’a Death (ROD).

The problem: Two microscopic fungi threaten to push the ‘ōhī’a, one of Hawai‘i’s most important native trees, to the precipice of extinction. The fungal infection has infected thousands of acres of forest on Hawai‘i and Kaua‘i. Once infected, trees immediately die.

The partnership invites applications describing low-cost solutions to detect (and predict) the invasion pathways and the spread of the ROD fungus in the environment, as well as solutions that would help contain or reduce the spread without harming other beneficial species.

Who we are …
We are a nonprofit organization dedicated to assisting Haleakalā National Park achieve the purposes and goals for which it was established: To preserve Haleakalā’s unique eco-systems, scenic character and associated native Hawaiian cultural and spiritual resources so as to leave them unimpaired for the enjoyment of future generations.

What we do …
- Facilitate volunteerism to accomplish projects recommended by park staff.
- Monitor actions and activities that could impact Haleakalā National Park.
- Urge responsible use of the park by the public.
- Provide financial assistance for the benefit of the park by soliciting funds from the general public.
- Promote programs such as Adopt-a-Nēnē to generate funds that will enhance the protection and preservation of the endangered natural resources of the park.
- Implement programs and activities that increase public awareness and appreciation of the park and its highly diverse geological and biological resources.

What you can do …
- Become a Friend of Haleakalā National Park.
- Adopt-a-Nēnē – an unusual gift idea.
- Volunteer in the park.
- Sign up for Service Projects.
- Serve on the Board of Directors or Advisory Board of the Friends.

The Adopt-a-Nēnē Program …
was developed as a fun and educational way for you to become a part of the projects that are being conducted in Haleakalā National Park. The nēnē is an endemic bird on the Federal List of Endangered Species. By adopting a nēnē, you will be helping us protect not only the nēnē, but all endangered species and their important habitat in the park.

- REGULAR supporters receive “adoption papers” that include information about your nēnē, an adoption certificate and a nēnē postcard.
- MĀLAMA supporters receive a postcard pack and all gifts given to Regular supporters.
- ALI`I supporters receive an exclusive matted nēnē photo and all gifts given to Regular supporters. They will have their names displayed at the park.
- ALI`I NUI supporters receive an exclusive matted nēnē photo, a special certificate for display and all gifts given to Regular supporters. They will also have their names displayed in the park.

Support the Friends of Haleakalā National Park
Berries of the Pilo, *Coprosma montana*  

*Matt Wordeman photo*