

Pritchardia

December 2023 Newsletter

Issue #40



HAWAII ISLAND PALM SOCIETY

WWW.HAWAIIISLANDPALMSOCIETY.COM

President's Message



Aloha,

Winter solstice has passed, the days are starting to get longer, and the year is nearly behind us. I thoroughly enjoyed all the events and am especially grateful to our 2023 hosts, Jan Anderson, Bob Carrere and Andy Pesce,

Irene Francis and Lars Woodruffe, Jerry and Cindy Andersen, and Michelle and Ryan Ruttan.

Looking ahead into the coming year has me very excited.

In 2024 we'll have the opportunity to visit gardens on the leeward side; long overdue and always eagerly awaited by those of us on the wetter windward side. HIPS will also be hosting some excellent lectures including a travel log of the 2023 IPS Midterm tour to Reunion.

This coming year marks the 50th anniversary of HIPS. In addition to our regular t-shirt offering some additional memorabilia will be available to commemorate this milestone year. We will be returning to Aunt Sally's for the annual BBQ and Auction. Come celebrate our society's golden anniversary, spend time with old friends and make new ones.

Let's celebrate 50 years of education, conservation, and beautification; with your help, HIPS can continue its work another 50 years.

Hau'oli makahiki hou. May 2024 bless us all with happiness and prosperity.

-Miles

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Save the Date: February 23rd, 2024 50th Anniversary Dinner and Palm Auction

The HIPS Annual Dinner and Palm Auction is our biggest event of the year, and as we celebrate our society's 50th Anniversary, we return to Auntie Sally's Luau Hale in Hilo. Please save the date: Friday, February 23rd, 2024. This year will be something special. Invitations will be sent out via email by the third week in January.

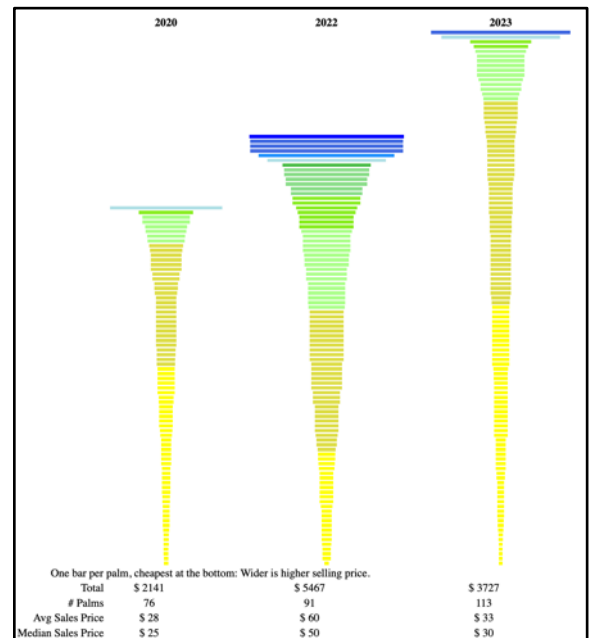
At the meeting, the membership will be asked to vote on the slate of board officers.

SLATE OF OFFICERS:

Special Thanks to Outgoing Treasurer Chris Friesen!



Chris has done an awesome job as treasurer! Whether it was behind the table at the palm auction these last four years or under the tent at the many HIPS events, Chris turned chaos into order and let the rest of us have fun. And can that guy make a graph! Who can forget the graph that summarized an entire night of auctioning hundreds of palms across three years. Brings tears to your eyes... Thank you Chris!



The HIPS board of directors is happy to present the following slate of officers who will be up for confirmation at the meeting.

New Candidate for Treasurer:



Larry Kuekes [Key-cuss] decided to join the palm society in a moment of euphoria brought on by eating ice cream in the beautiful Moani/Lundkvist garden during the last ice cream social. He does not grow palms... yet, but thanks to his many friends that are members in both orchid and palm societies, he can't possibly resist palms for long. Larry was president of the orchid society for two years (term limited) and served as treasurer for four years. He has been the orchid society's newsletter editor for the past dozen years. Thank you Larry for volunteering your time and expertise to HIPS!

Returning Officers:



Jesse Miles
President



Sara Wagner
Vice President



Gunnar Hillert
Secretary

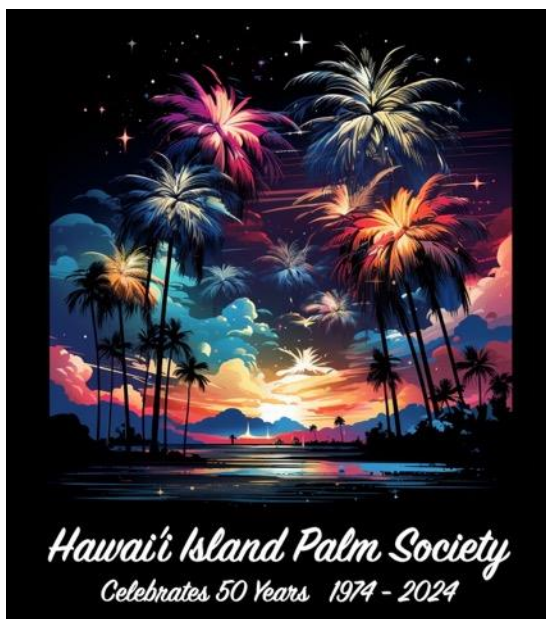
CHANGES IN BYLAWS TO BE RATIFIED AT THE MEETING

The membership will be asked to accept [FULL changes](#) to the bylaws at the meeting. Aside from minor wording changes, here is a summary of changes:

- Members may be dropped from the membership rolls if we are unable to deliver mail or email to them.
- The board may vote electronically if a decision must be approved by the Board of Directors before the next scheduled meeting.
- Since the bank does not enforce a requirement of a cosigned check, that requirement was removed and the requirement of a written authorization of expenditure prior to the treasurer signing a check was added.
- The process of amending bylaws was modified to include electronic distribution.

See you at the annual dinner and palm auction!

50th Anniversary T-Shirt Design Winner



CONGRATULATIONS TO JON MONTO!

Many of the 82 poll responses mentioned how difficult it was to choose their favorite design. A big mahalo to Steve D'Assis, Mary Lock, David Hanby, and Jon Monto for submitting their design entries!

We are working with the printer to determine what options are possible for shirt styles, including shirts with pockets, shirt colors, and breathability of printed design. We will send out order information in January.

2024 Garden Tours and Lectures

It's still too early to tip our hand about the fabulous line up of garden tours this year. We are contacting garden owners and working out schedules to bring you a great line up of garden tours on both sides of the island, including one west side garden that HIPS will be touring for the first time..



Photo: Mary Lock

In addition to gardens, we will be scheduling a variety of lectures that should cover a wide range of interests.

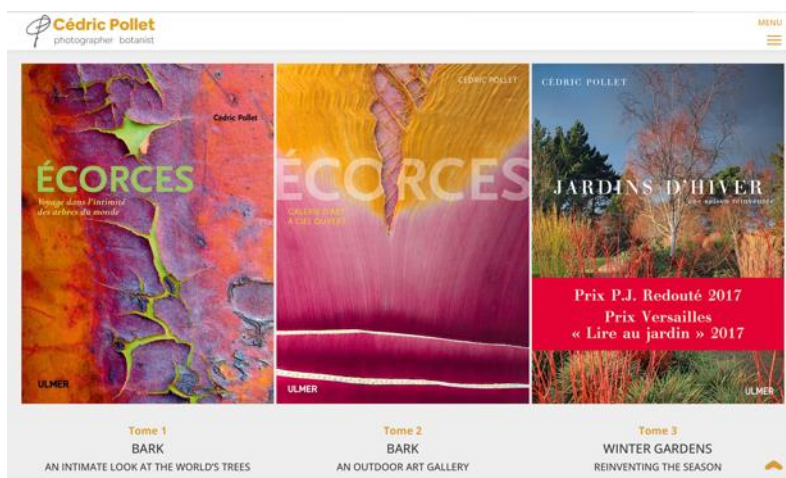
We are arranging an **evening of armchair travel** to the palm filled islands off the coast of Africa - Seychelles, Reunion, and Mauritius. IPS members from Hawaii attended the 2023 Midterm Conference in Reunion and island hopped along the way. These islands contain some of the most beautiful palms in cultivation and some palms that are rarely seen in gardens.



*Surreal Seychelles - Where the double coconut, *Lodoicea maldivica* is a back drop to white granite sand beaches and crystal clear water.*

Photo: Michael Lock

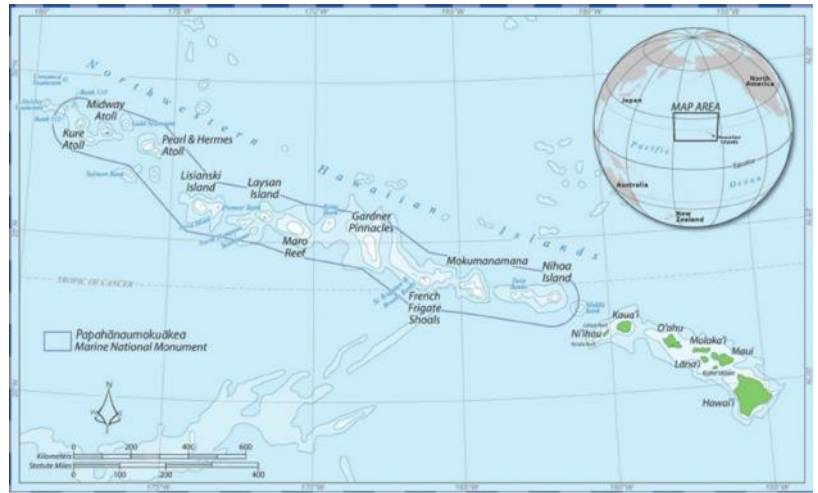
French Artist and Botanist [Cedric Pollet](#) who has written three books, mainly focusing on tree bark, has recently turned his eye to palms and will be stopping in Hawaii to capture images for an upcoming book. HIPS hopes to arrange garden visits and hosts for his stay on Hawaii Island in April, in exchange for a slideshow presentation of his work and palm images.



Finally, late in the year we hope to gain more appreciation for how our native *Pritchardia* arrived here and why there are so many species yet it's often hard to tell them apart. We hope to bring [Isaac H. Lichter-Marck](#), a phylogenetics researcher who's recent [collaborative work](#) suggests a new phylogenetic tree for *Pritchardia* and uses paleo geography of the Hawaiian island chain to help date the evolutionary branches.



Laysan fan palm - extinct, Laysan island 1893 (photo from Bishop Museum). Now just barely sticking out of the water, Laysan island was once a high island in the Hawaiian chain 15 million years ago. 30-40% of Pollen from a core sample dating 7,000 years ago was from Pritchardia.



Hawaiian island chain today. Kauai is the oldest of the high islands.

The Merwin Conservancy Deploys Gill Nets to Monitor and Trap Coconut Rhinoceros Beetles

A CRB grub was found between leaf sheaths on a nearly mature *Lemurophoenix* at the UHHilo garden, and [Seventeen live CRB larvae were found](#) in Kihei on Maui.

Let's not wait for the county to fix the problem, we can start fighting back now in our own gardens.



Photo: University of Guam - Tekken Trap

A big part of the philosophy behind the Merwin Garden on Maui is embracing the cycle of life and death in the garden. Dying *Caryota* palms and giant *Raffia* palms are allowed to slowly breakdown in place. Everything grown on the property stays on the property to return to the soil. But now The Merwin Conservancy is having to adjust its practices as more and more infestations of invasive pests are being introduced.



To combat the threat of CRB and other pests, The Merwin Conservancy is prioritizing the reduction of “bio-piles” by harvesting mulch and compost and spreading thin layers of material around the nearly 19 acre garden using volunteers. Grants are being sought to help cut down and remove decaying palm trunks.

I’ve put in place an experiment using mono filament gill netting ($\frac{1}{2}$ inch and $\frac{3}{4}$ inch mesh) as a way to capture adult CRB to help monitor and possibly control infestations. Netting

will be placed over rotting logs and bio-piles throughout the garden.

I found the netting difficult to find – bird netting, readily available at Home Depot was not as useful in studies. I ordered from [Memphis Net & Twine Co.](#) that sells the netting by the pound, the more you buy the cheaper it gets.

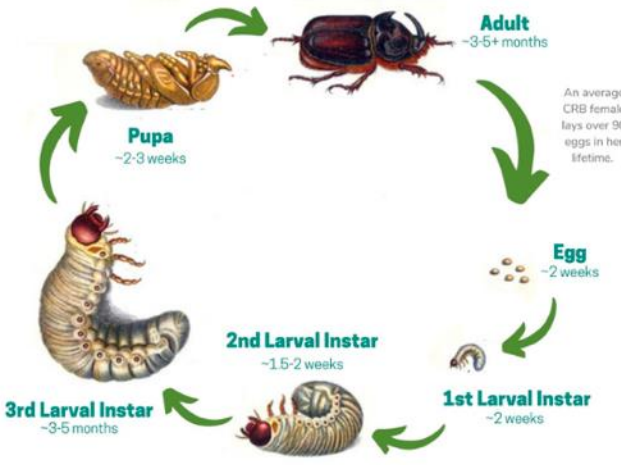
My initial purchase was only 2lbs about 100 ft X 9-10 ft stretched in $\frac{1}{2}$ ” and $\frac{3}{8}$ ” mesh size. The delivery was quick. If it turns out easy to work with, the conservancy will buy more.



In case you might want to purchase for your own garden, here is what I bought:

Ship	USPS Priority Mail	Payment:	Visa	Last 4 digits: 3175				
SKU	Description	UOM	Ord'd	Ship'd	Back Ord'd	Unit Price	Total	
355	#3 MONOFILAMENT NETTING, 3/8" SQ., 3/4" STR., 160 MD - Mesh Size = 3/8 in. sq., 3/4 in. str. - Depth = 160 MD, 9 ft., 15 str. yds./lb.	LB	1	1	0	\$33.70	\$33.70	
361B	#3 MONOFILAMENT NETTING, 1/2" SQ., 1" STR., 144 MD - Mesh Size = 1/2 in. sq., 1 in. str. - Depth = 144 MD, 10 ft., 16 str. yds./lb.	LB	1	1	0	\$32.75	\$32.75	

Here is more info on CRB from various pamphlets:



3rd instar CRB larva
up to 4 inches

Adult
~3-5+ months

Pupa
~2-3 weeks

Egg
~2 weeks

1st Larval Instar
~2 weeks

2nd Larval Instar
~1.5-2 weeks





3rd Larval Instar
~3-5 months


An average CRB female lays over 90 eggs in her lifetime.

CRB start their lives as larvae (grubs). **They breed in any decomposing plant material (not just palms) like compost, garden soil, mulch, rotting stumps, or green waste.** Larvae can be anywhere from a few millimeters to 3.5-4 inches in length and spend nearly 4-6 months in this breeding material.


Tree damage:

Look for boreholes in the crowns of trees or fronds with 45 degree, v-shaped cuts. Leaflets will have scalloped edges.









Tree Death








V-shaped Cuts on fronds



Bore Holes

Coconut Rhinoceros Beetle (CRB) Identification

CRB eggs are laid in decomposing plant material, where they hatch and grow as larvae. Next, they pupate and emerge from the breeding site as adults. Adult CRB are about two inches long, have a horn, are solid black, and are active at night. The expected lifespan of CRB is about 8 - 12 months.

Damage to Palms

CRB feed on and can kill coconut, royal, date, and native and endangered species of fan palms. When palms are not available, they can feed on hala trees and sugarcane, taro, and pineapple, and other tropical crops.

Adult CRB feed on the inner spear and heart of the palm creating 2-inch holes. When the leaves emerge they exhibit distinct v-shaped cuts. CRB do not typically stay in trees very long, but persistent CRB feeding causes slower growth, lower fruit yields, aesthetic decline, and eventual tree death.

Palm Treatments

Chemical palm treatments kill CRB as they feed and are most effective when applied at a landscape scale. Options include:

- Systemic injection or soil drench using imidacloprid or acephate
- Foliar spray with cypermethrin (currently only approved for experimental use)

A physical palm treatment is to wrap the crown with 1/2" mesh netting to capture feeding beetles.

CRB Breeding Sites

CRB breed in decomposing green waste, including compost, rotting wood, and mulch. Green waste management and breeding site treatments are needed to prevent the spread and stop the growth of CRB populations. In general, minimize stockpiles of green waste material and do not transport infested or high-risk material. After CRB breeding is confirmed, follow up with a treatment plan.

Breeding Site Treatments

Treatment methods vary in effectiveness. Consult the CRB Response for more information.

Best options include:

- Burning: leaves no material for reinfestation, but may require a permit
- Heating to above 131° F (55° C): heating options include hot composting or in-vessel composting
- Fumigation: certified applicators apply sulfuryl fluoride in a process similar to treating a house for termites
- Chipping: whole material like branches, palm fronds or logs can be chipped to kill CRB

Less effective treatments include grinding, submerging in water, or manually sorting through the material and removing any CRB found. For limited effect, spread material thin (2") and keep it dry or till it into soil.

Rare *Ravenea moorei* Found in the Cosmoros



Ravenea moorei in the palm house at Royal Botanical Gardens, Kew. Unfortunately it is a male and perhaps the only palm of its species in cultivation.



Dr. William Baker writes to the IPS after returning from the Comoro islands:

"I'm just back from a two-week reconnaissance mission to the Comoro Islands with a team of colleagues from Kew and Comorian institutions. We've been hunting down populations of the Critically Endangered *Ravenea moorei*, a massive and spectacular canopy palm cultivated only in the Palm House at Kew and scarcely known in the wild. I am extremely excited to announce that we found it!

Ravenea moorei is clinging on in the wild in Grande Comore but faces great dangers as its habitat is transformed by farming, wood cutting and invasive weeds such as strawberry guava. We found just 12 adults in total. Further work is desperately needed to gain a clear picture of the situation and to put conservation actions in place.

We are deeply grateful that the International Palm Society has chosen *Ravenea moorei* as the focus of its 2023 Save The Species campaign."

The International Palm Society has created a Save the Species Campaign and has raised about 85% of its \$25,000.00 goal. The campaign ends December 31st, please consider a donation.

Click [Here](#) to donate.

WHERE THE MONEY GOES

Given the urgency of the situation, an international team from Kew and the Comoro Islands, headed by Dr. Bill Baker, is planning emergency scientific fieldwork in the Comoro Islands.

By supporting Save the Species, you will help the conservation team:

- Survey all Comoro Islands to assess the wild status of all endemic palms.
- Devise a conservation action plan for Comorean palms.
- Provide the necessary horticultural and scientific training so that the plan can be enacted.

And More Good News: Corypha Palm at HTBG Survives!

Last December we reported a disaster had literally fallen a maturing Corypha at HTBG. Rumors of its death have been greatly exaggerated. What a difference a year makes!



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Note from the editor:

This newsletter goes out quarterly (more or less), the next newsletter will go out March 31st. If you have any questions, comments, or would like to contribute to the production of the newsletter, contact Mary Lock at marylock@sbcglobal.net.