



Open Gardens Day Sunday, June 24, 2012

By Louise Hallberg

Come visit the Gardens when we have our annual plant sale with many host and nectar plants for butterflies. We will have Dutchman's Pipevine, host plant for the Pipevine Swallowtail butterfly. This butterfly is the black and teal beauty common at the Gardens. Interesting posters about the Gardens created by the children and others are displayed along the driveway. After registering you can see the dragonfly pond, the weather station with 100 years of rain records. A popular attraction is the beneficial insect exhibit. Information about host plant relationships with butterflies are displayed. Just behind the barn we have a stream to attract birds and butterflies. A table at the top of the hill gives information about birds seen here. The Vaux's Swift that migrates to Sonoma County from South America nests in the little fireplace chimney of my house. Docents will be in the meadow to help you identify wildflowers and butterflies. When you walk around the house, please observe the Dutchman's Pipevine plant climbing in the trees and bushes and hosting large Pipevine Swallowtail caterpillars. The north gardens are special places to observe butterflies nectaring on flowers or basking in the sun. The Cedar Lebanon along the north path came from a cutting in 1989 from a tree Luther Burbank planted and was later buried under. The tree was eventually cut down because of disease. Crafts, book sales and refreshments alongside childrens' activities are always

Continued at right.

Hallberg Butterfly Gardens at 2011 Insecta-Palooza

By Kathi Jacobs

In October 2011, the Hallberg Butterfly Gardens was well represented at the 3rd annual Insecta-Palooza at Sonoma State University. The Insecta-Palooza is an event that features insects, with activities and exhibits that appeal to a broad range of ages and interests— gardeners, birders, teachers, budding entomologists and children of all ages. The university was also honoring the college's 50th anniversary.

This year's theme was metamorphosis, featuring the Hallberg Butterfly Gardens, with Louise as the special guest. She and three volunteers (Gay and Leah Brorstrom, and Kathi Jacobs) provided displays of host plants for butterflies, other special plants for habitat gardening, beautiful photographs taken by Louise and other people, and other information about the gardens. Many people visited the "Butterfly Queen" Louise; many for the first time, but also many adults and children had

visited the gardens through school visits or Open Gardens. Visitors also signed a giant "Thank You" card for Louise, thanking her for all the work she has done in teaching people about butterflies and their habitat, and for creating her own special sanctuary for butterflies (and other wildlife).

There were many talks and exhibits throughout the day; about butterflies, bees, habitat gardening, there were fun childrens' activities, and the biology lab rooms were open to the public, so that people could look at real specimens under microscopes and on display. Frederique Lavoipierre is the manager of the Entomology Outreach program at SSU and coordinates the Insecta-palooza. She and her student volunteers have had a great exhibit at the Open Gardens event for the last three years and will be here again on Sunday, June 24th, 2012. Be sure to come!

popular. A list of the 63 trees species on the property (excluding apple trees) include the Jeffery Pine that came up in a can of sand collected along Hwy 395 over 50 years ago that is still growing on the southwest hillside. Other informative posters detail the 54 species of butterflies seen at the Gardens to date, as well as 77 species of birds.



Louise Hallberg was the featured, special guest at this year's 3rd annual Insecta-Palooza at Sonoma State University.

Garden News

By Louise Hallberg

We advise our volunteers in the garden to be very careful when weeding. We sometimes have surprise plants that we did not plant intentionally. In the north garden there is a very nice strawberry tree east of the one we planted in 1990. How could a tree come up from a little red berry? The hummingbirds and butterflies like the nectar of the blossoms and birds like the red berries.

A little further east are two Cedar of Lebanon trees volunteering along the path. Their parent, planted in 1989, is not far away. We will have to make a decision about leaving them where they have started. These trees can grow very large.

This spring we were photographing the beautiful red blossoms of a surprise Arnold's Red Honeysuckle tree. It came up in a flower bed west of the tractor shed and is now about 3 ft tall with many pretty flowers spreading out in a circle from the main stem. The original tree was from an Iowa Nursery in 1982. I reported on the progress of this tree to

Professor Joseph Capiro, State Climatologist at Montana State University until 1994. Tree height, blossom stages, and berry development were graphed by the University and related to temperatures. In 1999 Dan Cayan, Director of Climate Research Division of Scripps Institute of Oceanography and Mike Dettinger, researcher for U.S. Geological Survey, reported our observations to be part of a valuable climate index. They found that in the two decades since the 1970s the observed timing of spring budding and bloom advanced by about 1-2 weeks over much of the west. The study included trees in a number of



Arnold's Red Honeysuckle Tree.
Photo by Pat Costello.

states until finances ran out. Our original Arnold's Red Honeysuckle tree has only one remaining living branch, is about 10 feet tall and around 50 yards away from the new tree. A bird must have carried the berry. Now we have three examples of trees growing up from seeds. I am so glad they were not accidentally weeded away.

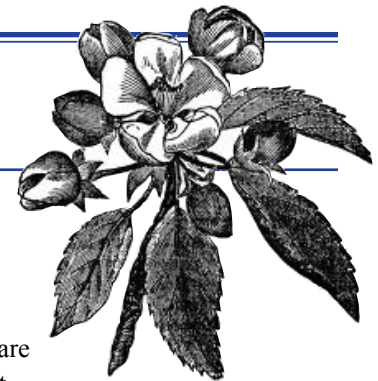
Activity Statistics 2011				
(Number of guests shown in parentheses)				
Month	Total Tours	Groups	Children's Tours	Open Gardens
JAN				
FEB				
MAR				
APR	10 (162)	6 (22)	4 (140)	
MAY	20 (336)	11 (49)	9 (287)	
JUN	25 (147)	23 (85)	2 (62)	(1400)
JUL	23 (149)	23 (149)		
AUG	13 (41)	13 (41)		
SEP	10 (31)	10 (31)		
OCT	6 (52)	6 (52)		
NOV	5 (30)	5 (30)		
DEC	1 (10)	1 (10)		
Total Tours	113	98	15	
Total Guests	(2358)	(469)	(489)	(1400)

Apple Orchard

By Louise Hallberg

The north apple orchard was planted in 1948 with Red Gravensteins and pollinator trees. Jonadels (Jonathan x Delicious) are beginning to be replaced by standard Gravensteins as old trees fall. The blossoms are beautiful in early spring and bees are brought in for pollination. Butterflies have been photographed getting apple blossom nectar. The Western Tiger Swallowtail butterfly can use orchards with apple trees as a larval food plant. The orchard has been organic since 2005 and is leased to a fruit management company. The orchard in front of the house is a new planting of Golden Supreme Delicious which ripen earlier than standard smaller Golden Delicious apples.

In long past years my grandfather, father and brother-in law harvested apples for the packing houses. Culled and dropped apples were processed in the little apple dryer (now fallen apart) for sale as dried apples. I am very disappointed to buy dried apples locally and read the label to find they are from China. At least Gravenstein apple sauce is still from Sonoma County.



Spiders in the Garden: Orb-weavers

By Leah Brorstrom

Over 400 million years ago (m.y.o.), spiders' ancestors inhabited earth. 300 m.y.o. the first 'true' spider evolved, 250 m.y.o. saw the advent of the spinnerets (enabling silk production) and at 110 m.y.o. the world saw its first perfect 'orb' web. For comparison, primates and butterflies are theorized to have branched off about 55 m.y.o., with the anatomically modern human being existing for no more than 400,000 years. In other words, spiders have been on earth 1000 times longer than we have!

Both spider webs and flowering plants (Angiosperms) have had a tremendous effect on the evolution of insects and vice versa. While long represented in the fossil record, insects were not a particularly successful group until they evolved wings, and spiders took advantage of their success, as did the Angiosperms. Over two-thirds of plants need insects to reproduce. And spiders, being solely predacious, rely mainly upon insects for their energy needs.

Orb-weavers are the third largest family of spiders, with 180 species found in N. America and 3,500 worldwide. There are over 40,000 total named species of spiders in the world, about twice the number of butterfly species. As is true with most Orders of arthropods, we still have much to learn, starting with discovering the diversity and applying a name to yet undescribed species.

Orb-weaver spiders spin a new web each day, often in the evening. First they consume the old web, rest for an hour, then spin a new web in the same general location. Even if they don't catch any prey, the pollen that sticks to the web over the course of the day may represent an important food source for them.

Like all spiders, Orb-weavers have eight eyes, yet this family has poor

eyesight. They rely on vibrations and chemo-reception (smell/taste organs) to learn about their surrounding world, much like many animals in the ocean do. Small hairs on their bodies help them make sense of vibrations through the air and on their web. Orb-weavers conserve energy by merely sitting and waiting for their food to come to them. They spend most of the day at rest, sitting on or attached by a line to their web, much like a fisherman waiting for a bite. Once something hits the web, the spider becomes active, assessing the prey. Most prey is immediately injected with venom, then wrapped in silk. The venom does the job of digestion for the spider, internally liquifying its prey. After an appropriate amount of time, the spider will suck up all the internal juices and discard the exoskeleton. Dangerous prey, a wasp or bee for example, will either be wrapped first and then bitten, or sometimes just cut free from the web. Many orb-weavers, being large and visible, have mimicked the color patterns of these dangerous stinging insects to deceive predators, and to prevent larger animals from walking through their web, ruining hours of their work.

The spiders stomach is unconfined and can swell greatly. They gorge when they can, and can fast for up to one and a half years and survive.

Spiders prey on many species, and



Orb-weaver web at Hallberg Butterfly Gardens.
Photo by Catarino Contreras.

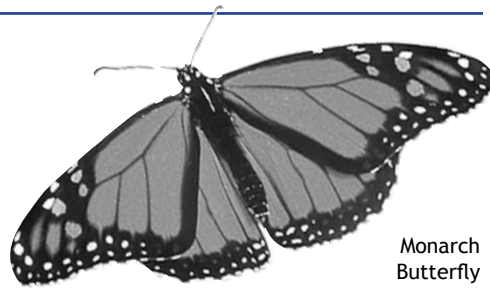
many species consume upon spiders. A family of flies, Acroceridae, infect 1% of all spiders worldwide. The fly larvae burrows into the book-lung of the immature spider. When the spider reaches sexual maturity, the fly larvae starts to devour the spider from the inside out, even controlling the spider to spin a web from which it can hang while it morphs into its adult phase. They often emerge as a furry, small-headed fly, many of whom mimic bees, sometime species that are long extinct.

Wasps are another major parasite of spiders. They 'stun' spiders with their venom through their ovipositor, keeping them alive yet paralyzed as food for their larvae. The wasp uses both adult spiders and the spiders' egg sacs as nourishment for their young. Ants also eat spider eggs, as well as any wasp-paralysed spiders they may find, helping keep both populations in check. Frogs, toads and birds all enjoy eating spiders, yet the biggest predator of spiders may be spiders themselves!

Where Are the Monarchs?

By Louise Hallberg

It was another year with very few monarchs seen. There were four areas of milkweed waiting for them in the Gardens. Few were seen in August when they should be here laying eggs. On September 26 five were seen flying. Monarchs winter over as adults so they need a period of 6 to 8 weeks of warm weather in late summer or early fall to complete their life cycle of egg, caterpillar, chrysalis and adult. During the winter months adults are known to gather in sheltered areas where they hang together and wait for warmer days. Bodega Dunes Campground within Sonoma Coast State Park is one area where they have been observed. In 1997 Monarchs were very active in the



Monarch Butterfly

Gardens. We took eggs into the house to raise and protect them from predators. 108 adults were released that October. For the first time since then, in 2011 we found no eggs and no adults to release. An encouraging note is Monarchs were observed in Bodega Dunes Campground and more at other roosting areas along the California coast but not like peak times.

MONARCH RELEASES		
Year	Releases	Tachinid Fly Losses
1997	108	n/a
1998	53	80
1999	18	11
2000	82	5
2001	12	n/a
2002	22	4
2003	28	2
2004	51	20
2005	7	7
2006	57	3
2007	3	n/a
2008	24	3
2009	0	18*
2010	2	2*
2011	0	0

*Due to late hatch, too cold (not tachinid flies.)

Pipevine Swallowtail Butterflies

By Louise Hallberg

Butterfly populations are on the decline but probably the weather interfered with the Pipevine butterfly in 2011. For a long period the weather was cold or wet so Pipevine butterfly eggs did not hatch in the usual number of 10 days or so. The first eggs were found 04-21-11 but no caterpillars were seen until 05-03-11. Leah, a docent, and an Oak

Grove Elementary School class had the rare experience of watching a chrysalis that had wintered over from 2010, break open to have a butterfly emerge and fly away 04-29-11.

As the weather warmed, many Pipevine butterfly eggs and caterpillars were observed. Typically Pipevine butterflies are seen from late February to late June. The host plant, Dutchman's Pipevine, is fresh and readily available during this period. Sonoma County can have multiple broods of Pipevine butterflies (eggs, caterpillars and



Pipevine Swallowtail Butterfly

chrysalis) that emerge during the warm months rather than remaining in the chrysalis for the 9 months, as is the case for caterpillars entering chrysalis later in the summer season.

During 2011 summer we observed the first chrysalis on a barn wall in the middle of June. This is the only chrysalis we found during the whole season! One year in the past we counted 180 chrysalises attached to the house, barn, fence and trees. We found butterfly eggs on a branch of Dutchman's Pipevine in early July. The branch was brought into the house so I could care for them. The eggs hatched 5 days later. Two more groups of caterpillars were brought into the house for care and feeding in late July and late September. As the season gets hotter and drier it is hard to find fresh leaves to feed the hungry caterpillars. We have 14 chrysalises in cages in the house and only one known chrysalis outside. As butterflies emerge during the warm months of 2012 I will share their first flights with school groups that might be visiting the Gardens.

STATISTICS: Butterfly Species Sightings in 2011

Family Name	Common Name	Latin Name	First Date Seen	Last Date Seen
PAPILIONIDAE	Pipevine Swallowtail	<i>Battus philenor</i>	April 2	November 10
	Anise Swallowtail	<i>Papilio zelicaon</i>	March 28	October 6
	Western Tiger Swallowtail	<i>Papilio rutulus</i>	April 2	October 5
	Pale Swallowtail	<i>Papilio eurymedon</i>	June 26	June 26
PIERIDAE	Cabbage White	<i>Pieris rapae</i>	February 7	December 2
	Gray Veined White	<i>Pieris napi complex</i>	April 27	April 27
	Sara Orangetip	<i>Anthocharis sara</i>	April 3	April 3
	Orange Sulfur (Alfalfa)	<i>Colias eurytheme</i>	March 30	October 21
	California Dogface	<i>Colias eurydice</i>	March 31	June 13
LYCAENIDAE	Gray (Common) Hairstreak	<i>Strymon melinus</i>	June 26	June 26
	Spring Azure (Echo Blue)	<i>Celastrina ladon</i>	April 4	September 21
	Acmon Blue	<i>Plebejus acmon</i>	June 15	October 14
NYMPHALIDAE	Field Crescent	<i>Phyciodes campestris</i>	August 26	September 21
	Mylitta Crescent	<i>Phyciodes mylitta</i>	August 26	November 3
	Satyr Comma (Anglewing)	<i>Polygonia satyrus</i>	October 24	October 24
	Mourning Cloak	<i>Nymphalis antiopa</i>	February 4	June 30
	Painted Lady	<i>Vanessa cardui</i>	October 31	October 31
	American Lady	<i>Vanessa virginiensis</i>	March 29	November 17
	West Coast Lady	<i>Vanessa annabella</i>	March 29	November 17
	Red Admiral	<i>Vanessa atalanta</i>	February 9	December 2
	Common Buckeye	<i>Junonia coenia</i>	May 20	October 21
	Lorquin's Admiral	<i>Limenitis lorquini</i>	April 26	September 18
	California Sister	<i>Adelpha bredowii</i>	May 6	October 11
	California Common Ringlet	<i>Coenonympha tullia, Calif.</i>	August 31	November 1
	Great Basin Wood-Nymph	<i>Cercyonis pegala</i>	June 26	June 27
	Monarch	<i>Danaus plexippus</i>	February 11	November 2
HESPERIIDAE	Northern Cloudywing	<i>Thorybes pylades</i>	May 12	May 12
	Mournful Duskywing	<i>Erynnis tristis</i>	April 13	October 21
	Common Checkered-Skipper	<i>Pyrgus communis</i>	August 26	October 26
	Sandhill Skipper	<i>Polites sabuleti</i>	October 31	October 31
	Sachem Skipper	<i>Atalopedes campestris</i>	October 21	October 21
	Woodland Skipper	<i>Ochlodes sylvanoides</i>	June 26	October 21
	Umber Skipper	<i>Poanes melane</i>	May 5	November 4
	Unidentified Skipper	<i>unknown</i>	May 4	November 10

year	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11
# of species sighted	27	26	31	33	21	35	28	33	32	30	32	32	36	38	27	32	32	38	36	33

Fifty-nine of California's 236 native butterfly species are commonly seen in the San Francisco Bay Area. A total of 54 different species have been catalogued visiting at Hallberg Butterfly Gardens over the last 19 years...some just once, or only rarely, and some establishing populations in our enhanced habitat.

Anise Swallowtails

By Louise Hallberg

A few years ago we were awarded a grant to study Anise Swallowtail Butterflies and host plants they use. And what happened? The common butterfly almost disappeared. From 1992 through 2006 the butterfly was seen frequently March through October. In 2007 it was seen seldom except July and August. In 2008 and 2009, a few sightings and in 2010 and 2011 a few more.

Cow Parsnip and other possible host plants were established in the north gardens where they are usually seen but eggs have been found only on the fennel. This year the first one was seen March 5th which is a little earlier than usual.

On July 17th, 2011, I was by the stream and an Anise butterfly kept flying low near the path and then it flew and landed on several fennel branches. Catarino looked later and counted 14 eggs laid singly. The next day there were only

Anise Swallowtail Butterfly

Photo by Gene Pearson at Open Gardens Day.



6 eggs. Hummingbirds, spiders, praying mantis and wasps are known to eat eggs.

Between April 26th and September 24th, various sized caterpillars were collected at three separate times, which now total to around thirty chrysalises in cages. Time of emergence depends on the weather. There have been an unusual number of morning temperatures below freezing. Butterflies are cold blooded and they need the warmth.

Butterfly "No Release" Policy

We discourage the release of commercial and individually collected chrysalises to prevent the spread of diseases to our local populations of insects. We no longer allow butterfly releases in The Gardens and will not honor future requests. We are pleased children learn about wildlife in school and hope they benefit seeing The Gardens in the natural setting.

	Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	1st Sighting	Last Sighting
Anise Swallowtail	1992			8	F	7	F	F	F	F	5	1		3/11	11/1
	1993			5	10	7	F	F	F	F	5			3/9	10/19
Subfamily: Papilioninae	1994			F	F	F	F	F	F	F	4			3/12	10/6
Genus: <i>Papilio</i>	1995			8	12	F	F	F	F	F	F			3/16	10/21
Species: <i>zelicaon</i>	1996			F	F	F	F	F	F	F	F			3/7	10/15
	1997			F	F	F	F	F	F	F	8	1		3/7	11/1
NABA First Edition	1998			3	5	4	9	F	16	F	F	1		3/15	11/5
Page: 5	1999		1		12	F	F	F	F	F	6	1		2/28	11/21
	2000			11	11	F	F	F	F	10	6	1		3/16	11/10
F = Frequently, almost every day.	2001			12	F	F	F	F	F	F	F	2		3/8	11/4
	2002			14	8	20	18	17	20	25	4			3/11	10/8
	2003			7		4	10	14	31	28	30	6		3/21	11/17
	2004			14	10	9	26	15	27	7	10	1		3/14	11/17
	2005			4	1	4	15	30	31	22	5	16		3/9	11/23
	2006		1	3	9	14	14	30	29	24	2	1		2/24	11/9
	2007			9	22	8	7	20	27	3				3/11	9/6
	2008			6	24	18	10	7	14		1			3/21	10/25
	2009			1	6	12	18	1	9	16	2			3/30	10/27
	2010			3	2	4	12	18	27	14	1			3/24	10/5
	2011			2	3	16	10	26	20	13	1			3/28	10/6

Oak Titmouse

By Louise Hallberg

In the spring of 2011 an Oak Titmouse nested in the box out front and children saw the babies being fed and much later Catarino saw five Titmice south of the house near the bird feeders. The Titmouse has a little head crest as a distinguishing characteristic of a plain gray bird. The plain bird with the bright black eye is interesting to watch. It is full of energy and always moving and fluttering among branches of our spice bushes near the oak tree. It can hang upside down to catch an insect or eat sunflower seeds scattered on the deck, nearby table and ground. We often hear their call TSIK A DEE. We are told they often build a nest in a hole in a tree or fence post selected by the female. At the bottom of the nest the adults weave a soft cup of hair, plant fibers and down to hold six to eight eggs. Titmice are a faithful couple as they mate together year after year. When the female



Oak Titmouse. Photo by Bill Hubrick.

is incubating the eggs, the male feeds her. After the young leave the nest they are driven from the parents' territory and are on their own. Were we fortunate to see

Vaux's Swifts

By Louise Hallberg

April 13th, 2011 it was a surprise to see a little Vaux's Swift clinging to the kitchen shade and after several attempts it flew out the skylight. One to three swifts flew in the chimney every night at sundown until late May. Four eggs were found in the fireplace having fallen out of the nest.

Upon recommendation of advisors a chimney sweep removed two quarter-cup nests of dry twigs glued together with saliva and adhered to the brick wall. They were near the bottom of the chimney and used for many years. It is believed a new nest will be made.

Birds incubate 18 to 20 days by both sexes. Babies hatch naked. Adults bring insects in a throat pouch and disgorge directly into the mouths their babies. Young may leave the nest after 20 to 21



An old Swift's nest with eggs. Photo by Kris White.

days but not fly freely for another seven days, spending their time clinging to the chimney walls with their Velcro-like feet.

With the return of the birds from South America on April 27th 2012, it is hoped there will be successful nesting this year!

Thank You!

Thank you Rotary Club of Sebastopol. The Hallberg Butterfly Gardens is grateful for a generous grant for various projects to enhance the Gardens. Many children and adults who come from local areas, other states and countries tour the Gardens. Some visit to enjoy the beauty and garden creatures, others visit to learn how they can help in their own gardens. Many thanks to the members of Rotary Club of Sebastopol.



Reach Within to Embrace Humanity

Good Habitat Attracts More Than Just Pretty Butterflies

By Barbara Eisenstein

There is a rustling in the shrubs. Bending down I see a lizard doing battle with a large beetle. It is vigorously shaking its head, the beetle splayed out in its mouth. This is material for a wildlife documentary, and it is happening in my own yard. There is drama in my garden. There is probably drama in your garden too, unless your yard is covered with lawn, nearly devoid of life, diversity, and habitat.

Often the move towards habitat gardening begins with the desire to attract butterflies, hummingbirds, and songbirds. Initially, we may add colorful flowers to invite pollinators, yet avoid less showy plants that provide food for caterpillars. In fact, the sight of a partially consumed leaf may be considered a garden flaw.

Although birds and butterflies may provide good incentive to remove lawn and increase diversity, good habitat requires more. Good habitat will have the following elements, necessary to support a complex web of life:

- Food for adults and their young (larvae). Keep in mind that timing matters since the life cycle of animals varies according to their specific adaptations to their environment. Plants not only feed butterflies and hummingbirds, but also a myriad of insects that in turn nourish many other animals.

- Water is critical for good habitat. Animals get water from cupped flowers, succulent stems, and dew caught in the hairs of a leaf, as well as from fountains and other water features.

- Shelter from predators and the weather is another important function of plants. Do not be too quick to tidy up the garden since “messy” spots often provide the best protection.

- Nesting places and materials are needed for animals to succeed. Branches, leaves, and even spider webs furnish the materials and places for animals to raise their young.

- Roosting sites offer a safe vantage point for birds to observe their surroundings, so make sure you have some height in the garden, and think twice before removing dead branches.

Although some animals and insects are generalists who can live in a wide range of conditions, most have adapted over a long period to a specific ecosystem. These specialists require the native plants with which they evolved. According to Douglas Tallamy in his pivotal book, *Bringing Nature Home*, two studies (Flanders, et al, 2006, and Lloyd and Martin, 2005) suggest that the substitution of non-native plants for natives can lead to declining bird populations. Surely the alarming rate

of extinction argues for serious efforts to restore habitat both in wild lands and in our home gardens, and

Lizard does battle with large beetle in garden.



Robberfly rests on a toyon leaf (*Heteromeles arbutifolia*) in the author's garden.

it seems obvious that native plants make the best habitat.

In attempting to create habitat in our gardens, one may despair over the complexity of nature. Lists of plants that are required for specific species of butterflies can be overwhelming. Rather than over studying the subject, let nature guide you. Try to determine what grew and lived in your locality before the land was developed and go from there. Much of coastal California was coastal sage scrub. At higher elevations, chaparral dominated. Some areas supported magnificent coast live oak woodlands. In selecting plants, choose from the wide variety of natives local to your area to support the rich diversity of life that once existed there.

As your garden settles in, be sure to take time to observe and enjoy the living things that share the land with you. The life and death struggles we watch on television pale in comparison with the marvels that can be seen in our own gardens.

Barbara Eisenstein is a native plant garden writer, consultant, and enthusiast. When not working in her own garden or in the South Pasadena Nature Park, she may be found updating her website: www.weedingwildsuburbia.com.

Permission to reprint from *California Native Plant Society Bulletin*, Jan.-March, 2012

Hallberg Tank House

By Tom Borowicz

This structure is a three story version of the typical Sonoma County water tank house. Its foundation consists of 8-inch by 10-inch redwood beams lying on the ground, and yes, termites will eat redwood if the wood is wet enough for a long enough period of time. The tannins have leached out of parts of these beams and the termites have left their trademark tunnels in these old beams—but enough remains of them to serve their intended purpose. The framing material is redwood, and the main uprights, which are as long as the building is high, are about 6 inches by 4 inches and are braced diagonally by smaller dimensioned redwood lumber. There are a combination of square nails and round spikes about five to seven inches long holding this building together.

The unusual middle story is about seven feet high and contains plumbing controls and a secondary roof to protect the ground floor from leaks, I suppose. There is a concrete pad floor in the lower section which Louise has covered with enough stuff over the years to make

The Hallberg tank house is still used to supply water for the gardens. Photo by Pat Costello.

access problematic for those of us without her amazing abilities to both move within and locate stuff placed in there many years ago. This includes antique water!

Yes, her father also saved things, and there is rain water from 1956 in an old Clorox bottle which he collected and labeled. The current window shade replaces one from 1897. The remains of the old one are there alongside the water.

The third story contains a water tank about six feet tall and ten feet wide containing approximately 3500 gallons. This would weigh about 15 tons when full.

The supply of water is controlled by a



valve which looks like it was taken out of an old toilet tank and adapted for this use. Currently the water is about 2 feet deep and is still used to supply water for the gardens.

Birds Around the Gardens in 2011

By Louise Hallberg

Visitors appreciate observing and hearing many birds. In the past, Acorn Woodpeckers were always seen on the dead poplar trees in the meadow. The trees fell in a storm and stumps were erected. They filled all the holes with acorns the first year but now the birds are seldom seen. Sadly, Starlings have taken over the nesting holes.

Coveys of Quail are seen and heard. We have added a number of Quail bushes obtained from the many native plant sales and hope they will grow and provide seeds and shelter for them.

Last year Catarino found a tiny Great

Horned Owl in the meadow grass and got a picture but the mother was hovering over it, so he ran away. The nest was probably high up in the eucalyptus tress. The little bird could not be found the next day—could the mother save it?

All fall, many White-crowned and Golden-crowned Sparrows and Juncos have come daily for the chick scratch, along with Quail. At the feeders outside the kitchen window we see many Chickadees, Titmice, House Finches and White-breasted Nuthatches that like the sunflower seeds that the squirrels also enjoy.

HBG Garden Tours 1999 to 2011		
Year	Visitors	School/ Children's Tours
2011	2,358	489
2010	2,503	494
2009	1,884	679
2008	2,020	538
2007	1,620	493
2006	1,539	596
2005	1,573	818
2004	1,743	927
2003	1,872	912
2002	2,264	902
2001	3,239	1,290
2000	2,464	822
1999	2,505	845
Total	27,584	9,805

A Successful Celebration

By Louise Hallberg

Butterfly Sightings
 Acmon Blue, Anise Swallowtail,
 Buckeye, Cabbage White,
 Spring Azure, Common Hairstreak,
 Great Basin Wood Nymph,
 Mourning Cloak, Painted Lady,
 Pale Swallowtail, Pipevine
 Swallowtail, Tiger Swallowtail,
 Umber Skipper, Woodland Skipper,
 Mystery Brown

Bird Sightings
 Acorn Woodpecker, American Crow,
 American Goldfinch,
 American Robin,
 (Allen's?) Hummingbird,
 Black Phoebe, California Towhee,
 California Quail,
 Chestnut-backed Chickadee,
 Mourning Dove,
 Northern Mockingbird,
 Nuttall Woodpecker,
 Turkey Vulture, Spotted Towhee,
 Starling, Western Scrub Jay

June 26, 2011—Open Gardens Day was a successful celebration of 100 years of Hallberg family history in Graton. It was a wonderful, perfect day of 83 degrees for the 1400 visitors. Visitors, mainly local and first time, came all day. The plant sale sold out. New posters were displayed detailing the 54 species of butterflies, 63 species of trees, and 77 species of birds that have been seen at the Gardens. By the new weather station a graph showed yearly rainfall totals since 1900. A picture showed my father by his weather station in 1930 and a picture of me in 1968 by the National Climate Data Center Weather Station. In this photo, the ground surrounding the Station was bare—a big contrast to today's vegetation. Sonoma State University had an interesting insect exhibit and we had a host plant display. There was a special



Louise Hallberg with Kathy Trafton and Pat Costello at Open Gardens Day 2011. Photo by Gene Pearson.

historic area devoted to the 100 years since my mother and father moved to the house.

The bird table, meadow, wildflower area, butterfly area, books and crafts, children's table were all appreciated. Volunteers were busy all day. The nice weather really helped. I wonder what my mother and father would think about the more than 27,000 visitors including 9,200 children enjoying their legacy.

Photos by Gene Pearson.

At left: Body and face painting, Open Gardens 2011.

Below: Visitors love the variety of host and nectar plants available for sale at Open Gardens.



2011 Friends of the Gardens...

Donors (*Major Donors)

Julie Becker
In memory of Ben & Alica Becker

Tom Borowicz*

Mark & Gay Brorstrom

Patricia & John Dervin

Margery Edgren

Barry & Barbara Deutsch

June England
In memory of Myacent Mary Arkey Charpiga

Mary Ely

Angela Ford
In memory of Suzy

Martha Gillespie
In memory of Uncle Alfred

Carol B. Glaser

Helen Goforth
In memory of Doris Helen Neep/Brock

Beth Graves

Joan Grosser

Louise Hallberg*

Stanley Jones & Family

Gina Kuta

Charles Lahm*

Sara Lang
In memory of Muriel Lang

Christy Lubin

Marge Lucerio
In memory of Carroll Reilly

Don Mahoney*

Gloria McClain

Mary Alice Merritt

Jean Moore
In memory of Eunice Riekona (my mother)

North American Butterfly Association

Kathy Perkins

Redwood Empire California Association of Nurseries & Gardens Centers

Judith Sherwood

Caren Signorelli

Art & Judy Slater*

Kathy Spalding

Gail Dubinsky Spielman

Linda Stewart

Cheri Tirrell

Kathy Trafton

Julie & David West

Paul Wycoff

Organizations

California Flora Nursery

Chapter TH, P.E.O.

IR Courses, Inc. (Leslie De Hasette)

Lauren's Affordable Glass & Screen

Press Democrat

Rotary Club of Sebastopol

Shooting Star Propagation

Sonoma West Times & News

West County Gazette

Volunteers

Mary Ann Beiter

Haven Best

Loretta Bentancourt

Jo Benz

Lisa Bernsten

Sandra Bodley

Tricia Boreta

Nassu Born

Leah Brorstrom

Mark & Gay Brorstrom

Pam Brown & the Redwood Origami Club

Margaret & Carl Brown

Bill Brungart

Catarino Contreras

Pat Costello

Bob & Julie Cugini

Marilyn Deis

Faith & Molly Deis

Patricia Dervin

Mary Ely

Rich Fashbinder

Jean Feretti

Peggy Fuchs

Marda Gallagher

Norma Halbersma

Jeff Herr

Billie Herring

Garth Hokanson

Nick Irizary

Kathi Jacobs

Hallberg Butterfly Gardens

Thank You!

Private donations are our only significant source of funds to purchase the plants, materials, and labor that create the Hallberg Butterfly Gardens.

These individuals and organizations helped sustain our nonprofit during 2011, although all of our contributors (past, present, and future) are deeply appreciated!

Linda & Jerry Johnston	Denise Rutherford
Nancy Kissam	Joan Schwan
Judy Krist	Aidan Sheehan
Frederique Lavoipierre & SSU students	Ryan Snap
Wintress Lovering	Kathy Spalding
Don Mahoney	Ingrid Stearns
Alexandra McDonald	Charlene Stone
Pat Muscat	Judy Tanner
Kathy Oettinger	Joanne Taylor
Kathy & Gene Pearson	Kathy Trafton
Lisa Pierce	Phil Van Solen
Jean Powers	Ross Weishaar
Joy Price	Kris White
Joan Ringler	Paul Wycoff
Glenda & Hal Ross	
Margot Rued	

I'm a Friend of the Gardens Too!



- | | |
|---|--|
| <input type="checkbox"/> I wish to become a Friend of the Gardens | <input type="checkbox"/> I wish to renew my Friendship |
| <input type="checkbox"/> \$250 Pipevine Swallowtail | <input type="checkbox"/> \$150 West Coast Lady |
| <input type="checkbox"/> \$50 Buckeye | <input type="checkbox"/> \$25 Woodland Skipper |
| | <input type="checkbox"/> \$ _____ |

I wish to make a gift in honor of _____

I wish to make a gift in memory of _____

Your Name _____

Address _____

E-mail Address _____ Phone _____

Please make check payable to **Hallberg Butterfly Gardens**
Mail to **8687 Oak Grove Road, Sebastopol, CA 95472** (707) 823-3420

Your gift is tax deductible to the extent allowed by law.
HBG is a 501(c)(3) nonprofit corporation. #91-1767178



Hallberg Butterfly Gardens

8687 Oak Grove Road
Sebastopol CA 95472

HALLBERG BUTTERFLY GARDENS

is a 501(c)3 nonprofit organization.

BOARD OF DIRECTORS

Gay Bishop Brorstrom • Kathy Trafton
Kathi Jacobs • Wintress Lovering

OFFICERS

PRESIDENT: Don Mahoney
VICE PRESIDENT: Louise Hallberg
SECRETARY: Patricia Dervin
TREASURER: Joanne Taylor

THE PIPEVINE NEWSLETTER

EDITORS: Leah Brorstrom, Louise Hallberg
DESIGN: Oetinger Design

Our newsletter is now online at
www.hallbergbutterflygardens.org

Receive your newsletter by email! Drop us a line at
Leah@hallbergbutterflygardens.org

The Gardens are open April thru October,
Wednesday thru Sunday, by Appointment.
Call 707•823•3420

You are Invited!



15th Annual
Open Gardens Celebration
Hallberg Butterfly Gardens
Sunday, June 24th, 2012
10am-4pm



Plants, Books, and Handcrafted Items for Sale
Walking Tours • Bird and Butterfly Sightings
Children's Activities • Wildflower Display

Free!
No reservations
needed!

limited wheelchair access ~ no pets or smoking
please park on the street
shuttle available

8687 Oak Grove Road, Graton/Sebastopol
(Off of Hwy 116, Across from Oak Grove School)

www.hallbergbutterflygardens.org ~ 501(c)3 non-profit (491-1767178).



Pipevine caterpillar. Female butterfly lays clusters of eggs on Dutchman's Pipevine (*Aristolochia californica*), a plant which contains toxins. Young caterpillars hatch out and are small, black and gregarious. After a few weeks of feeding solely on the Dutchman's Pipevine, a poisonous quality is conferred to the caterpillars and resulting butterflies making them unpalatable to predators. Older larvae are solitary and gain two rows of orange spikes, warning would-be predators of their toxic nature. (Pictured above) The Monarch butterfly also uses orange as a warning and a toxic plant, milkweed, as its sole larval food source. Many other caterpillars use plants to protect themselves through the more 'visible' stages of their life cycle, while others mimic these toxic 'warning' patterns.

Come and join us this year on the last Sunday in June to learn more about these fascinating creatures.