



George Landis Arboretum NEWSLETTER

Volume 10 • Number 4

Fall 1991

Birds, Trees and History for Our Visitors

Three new publications will soon be available to assist Arboretum visitors in their enjoyment of our garden. Designed to answer frequently asked questions, these brochures should help de-mystify some aspects of the Landis Arboretum.

Zealous volunteer and bird enthusiast Beverly Waite has written a Habitat Guide to Birds. Beginning with an explanation of our various bird habitats, the brochure also has the current master list of birds sighted at the Arboretum and space for visitors to mark their own finds. A map of the Arboretum with its various locations shows birders in which area one is most likely to find specific birds. Given the tremendous amount of "birding" that has taken place here this year, this new pamphlet should find a receptive audience in both experienced and new birders.

To help people appreciate not only our woodland, but also their own property, Arboretum naturalist Laura J. Lehtonen has produced a Woodland Trail Guide. The Guide gives background on our specific woodland and describes our goal for it (to increase the diversity of plant and animal life that live there) and the land management practices that will help us reach that goal. Many of the projects can be duplicated in your own backyard or woodlot.

Starting at the Meeting House end of the trail, the Guide has numbered sections to read at corresponding stops on the trail. Also on the path the trees will have new identification labels, finally replacing the long gone wooden ones. The 12th and final stop is actually after you've left the woodland and are heading for the greenhouse. This ambitious project still has many hours of work to go - the trail surface needs to be improved and all the signs need to be hung. (Anyone interested in helping Laura should call her at the office.) When complete, this trail and booklet will be a truly useful teaching tool for woodlot management and trail enjoyment.

The third brochure is a brief history of the GLA compiled by Amy Lent. No longer will visitors have to ask "Who was George Landis?" How the George Landis Arboretum Came to Be answers that question as well as sharing some of Fred Lape's life and the early years of the Arboretum.

All three of these brochures should be on hand by October for fall foliage visitors, at least in photocopied form. Underwriters are being sought to finance 'proper' publishing.



Above and beyond fall foliage, or 1,001 reasons to visit the Arboretum on a nice fall day ...

Gorgeous yellow quinces; purple and white autumn crocuses; crabapples in shades from creamy blush to deep red; Sapphireberries; pink sedum; fungi in all shapes and colors; yellow, red and orange mountain ash berries; golden-rod and purple asters; misty mornings; soft sunsets; and, of course, fall foliage in every hue.

Plant Science Programs to Visit Schools

The Arboretum's teaching volunteers will be doing some driving this year, as they they take Laura Lehtonen's plant science programs directly to school classrooms. While the programs will still be offered as field trips to the Arboretum, it is expected that more teachers will opt for the outreach version due to lack of transportation money in school budgets.

Designed to supplement classroom activities, the programs "Inside a Tree", "What Tree Am I?" and "Adapt-a-Plant" are participatory, multi-curricular activities for elementary students. These lessons are a natural "outgrowth" of the previous "Wonderful World of Trees" which in the short time between Ms. Lehtonen's hiring last spring and the end of the school year, the newly trained volunteers and Ms. Lehtonen taught to over 500 school children. It is hoped this year to reach even larger numbers of children, although funding is still being sought to continue Ms. Lehtonen's position at the Arboretum.

Rare Plant Sale

Member's pre-sale order form
to be sent to you soon

You can be sure to get the plants you want
at the May 2, 1992, Rare Plant Sale
by ordering in advance.

At the Garden

Director's Report

by Pamela H. Rowling

As summer comes to a close we are busy with all of our fall planting. Due to this summer's scanty rainfall and the lack of irrigation in outlying garden areas we have relied on the coming of fall rains to enable us to plant.

This year, due to the new Raymond Greenhouse and several generous donations, we are adding a large number of trees, shrubs and herbaceous perennials throughout the garden. The major focus of work on new projects (as time permits) has been the improvement of the first area visitors see when they arrive at the Arboretum. The trees and perennial garden improvements given in memory of Barbara Rusch and Elizabeth Corning's Clematis collection (utilizing plants donated by Steffen's Nursery) have greatly aided the restoration of the Van Loveland Garden area. Over 300 special plants, including many grafted conifers, have been donated by Trustee Richard Southwick and many are being planted. A collection of ivies from the American Ivy Society, given by Herbert and Ann Spearburg, will be planted for hardiness trials.

In other garden news, we are now the proud owners (and users) of a brush chipper donated by Dave Vermilyea and Elizabeth Corning. This will not only spell the end of unsightly brush piles that crop up everywhere, but will provide excellent mulch.

Our off-site educational and promotional programs would be impossible without the aid of photographic slides. Chuck Huppert and Jack Middleton have donated their time and materials to build an excellent slide archive of our plants and birds.

As I write this the Arboretum is alive with workers; Gillen O'Brien and Chuck working on siding the barn, Carol Loucks weeding the perennial beds, Florence Grimm organizing the next work day, and a crew of 21 youths from the Bridge Center clearing and hauling brush! All this activity highlights once again how much we need our volunteer workers. I know we thanked you at the Volunteer Recognition Barbecue, but, thanks again!

Involved people who volunteer frequently fall victim to having just too much to do. Due to just such a circumstance, Elaine Suss has announced that she is no longer able to serve as Editor of the newsletter. I thank Elaine for a job well done, we're sorry to see you go. Assistant Director Amy Lent has added editing to her responsibilities.

Welcome back to William Huntley! Mr. Huntley, one of the original charter Trustees, has rejoined the Board.

The Arboretum experienced some growing pains this summer with the cancellation of two events. We are still fairly new at these types of activities. Unfortunately not enough dinner tickets were sold for the Moonlight Madness party, which resulted in the cancellation of the Brooks barbecue and the country dance, although the plant sale went on as planned. Most regrettably, our Country Day Fall Festival was cancelled this year. Festival Chairperson Don Otterness worked very hard on preparing this event but it was felt that adequate support was not available. I hope that in 1992 we will be able to hold both events. Many thanks to Don and Moonlight Madness organizers for both their efforts this year.

The glory of fall is yet to come. Plan a trip to the Arboretum to enjoy the fall foliage.

Our thanks to the writers and artists who have helped make this newsletter. that we don't "wear out" our talent, we would like to hear from others who write or draw, especially children! Please call the editor if you'd like to contribute or if you have comments.

The George Landis Arboretum Newsletter

is published quarterly for members of the Arboretum. The GLA's mission is to provide natural history and horticultural education through programs and through its plant collections.

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Elaine Suss

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This Native Plant

Viburnum

by Andrea Modney

The viburnums are a large group of shrubs found throughout the northern hemisphere. The traits they have in common are opposite leaves and white flowers followed by clusters of colorful fruit. The qualities that make them attractive to the horticulturist are attractive foliage, showy bloom, vibrant fall color, decorative fruit, vigor and adaptability.

What more could one ask of a shrub? Well, many of the species are North American natives, and are hardy as far north as Zone 2.

Viburnum dentatum (common name Arrow-wood, hardy to Zone 2) grows to 15' and like many viburnums adapts to a variety of growing conditions. Its crowning glories are beautiful blue fruit and glossy red fall foliage. Its vigorous growth makes it suitable as a filler or in mass plantings.

V. lentago (Nannyberry, Z. 2) grows 30' and may be trained as a small tree single trunk. It flowers profusely each year. The blue-black fruit is not noticeable from a distance but it is interesting to watch the change in colors from



Viburnum trilobum

green through yellow and red to black (sometimes with all colors present in each cluster.) It boasts splendid fall color.

V. trilobum (American cranberry, Z. 2) has been widely grown in gardens for a long time. It is very similar to the European *V. opulus*, and grows to 12' with full, light green foliage, red fruit, and a heavy bloom of flat white flower clusters

V. trilobum and another North American native *V. prunifolium* bear edible fruit which gives them added allure for those interested in traditional American cooking. *V. prunifolium* can be grown as a small specimen tree with wide spreading branches. Its fruit goes through the color changes of green, yellow, pink, blue, then black.



Viburnum cassinoides

Two viburnums which grow well in shade are *V. alnifolium* (Hobblebush, Z. 2) and *V. cassinoides* (Withe-rod) which grows to 6' with the same multi-colored fruit as *V. lentago*.

V. acerfolium is a stoloniferous shrub which should be used only in the woods because of its spreading habit. Its black fruit and small yellowish flowers are insignificant, but it tolerates dry shade well and its foliage turns a pink to rosy purple in autumn.

There is a sense of pride and satisfaction to be found in working with an indigenous plant. No hybrids, no imports. Rediscovering the beautiful basics of our little corner of the globe.

Drawings by Arne Jaster

Book Review

Second Nature : A Gardener's Education, by Michael Pollan

by Anna Martha Jones

"Accomplished gardeners are surprisingly comfortable with failure", says the author; "harvesting root crops is one of the finer pleasures of gardening". Who can not applaud such sentiments?

Pollan, executive editor at Harper's Magazine, grew up with mixed signals about gardening: his grandfather had a huge, meticulously kept vegetable garden, while his father ("an indoor man") declined to mow his suburban lawn. When he moved from city to country, Pollan had an urbanite's ideas about the landscape and its denizens, ideas that quickly changed as he confronted the local wildlife. His romantic feelings

about leaving nature alone did not survive the second summer.

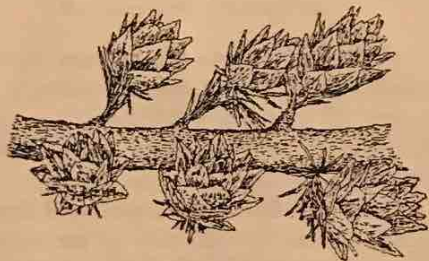
Pollan takes us through the year in his garden; he muses on the "green thumb", composting, the American obsession with lawns, the difference between gardens in literature and gardens in speech. Catalogs are the focal point of his garden in winter; here, Pollan gives a diverting assessment of the major plant- and seed-suppliers. Beneath its placid surface, he says, the garden is a-buzz with social and political controversy. For instance, Harris, Burpee, Park and Gurney are middle-class; (new, "improved" hybrids are a

mark of middle-class taste; Gurney's prose style is derived from Ripley's Believe It Or Not), Vermont Bean, Johnny's Selected Seeds and Pinetree Seeds are counterculture, reflecting environmental consciousness. Cook's and Shepherds are more cosmopolitan. Seeds Blum and J.L. Hudson are the fiery radicals of the garden world. Comparing White Flower Farm and Wayside Gardens elicits a discussion of plant snobbery (its spectrum is white-blue-pink-yellow-red-orange-magenta). This is a charming book, worthy of a place next to Henry Mitchell's The Essential Earthman.

Garden Exotica

The Golden Larch

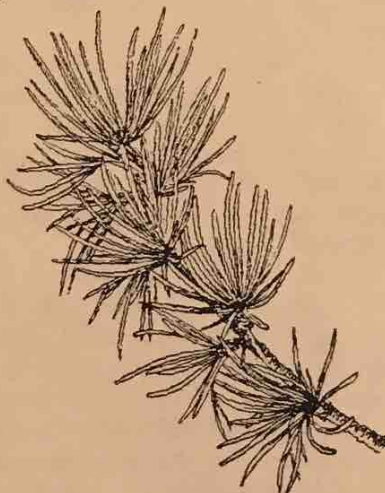
The most enchanting of the deciduous conifers is *Pseudolarix kaempferi* (formerly *P. amabilis*) the Golden Larch. A native of Eastern China, this member of the Pine family bears many resemblances to our native larches. A potentially large (100') tree, but a slow grower,



the Golden Larch assumes a horizontal, wide-spreading habit. Leaves are needle-like and arranged in spiral fashion on short side spurs. Individual leaves are longer (to 2.5") and broader (to 1/6") than those of the native larch. Spiraled leaves form an elliptical pattern when viewed from above or below. Summer foliage color is a cool blue-green turning in autumn to a fabulous (but often short-

by Pamela H. Rowling

lived) clean yellow-gold. Cones appear in May-June with separate sexes occurring on different branches of the same



tree. Male cones are small and borne in pendulous clusters. Female or seed bearing cones occur singly. Starting a blue-green color these cones change to a purplish hue and then to golden brown when ripe. Female cones' scales are shed with seed upon maturity, unlike the persistent woody cones of *Larix*.

Pseudolarix prefers a deep well-drained acidic sand or loam. Despite to this our two specimens at the Arboretum are doing quite well on our heavy soils by being planted on our more drained slopes.

Pseudolarix is difficult to locate in the nursery trade, but well worth the effort for a lovely, unique specimen plant with year-round beauty.

Calendar

Star Parties at 7:00 p.m. on
November 8 & 9 (No Cloud Date)
December 6 & 7 (No Cloud Date)

Sneak Previews

Bus Trip
March 11-12 Longwood Gardens
and Philadelphia Flower Show

Garden Show
March 13-15 Capital District
Flower and Garden Show at
Knickerbocker Arena, Albany,
N.Y.

Spring Benefit
March 21 Marco Polo Stufano,
Director of Wave Hill, will be guest
speaker, at Desmond Americana.

Garden Forum

Midsummer Pleasure

So many trees and shrubs bring beauty and fragrance to our gardens in the spring, such as magnolias, lilacs, cherries, and dogwood, that August can create a crashing let-down. But there can be lots of exciting surprises in the dog days, too, and there is lots of interesting material to brighten the hottest weather.

Sophora japonica, the scholar tree, leads the list for me with its tall mounds of cream-colored pea-like flowers right in the middle of summer. It makes a dramatic accent where there is room for its spreading crown, and well worth the space.

One of my favorite shrubs for summer beauty is *Viburnum sieboldii*, actually more a tree than a shrub as it grows to at least 30 feet. By August it is totally covered with bright red clusters mingled with its handsome glossy foliage. True, it also gives a wonderful show in May when it is covered with white flower heads, but it is the mid-summer display that puts it in a class by itself. Every flower produces a blue-black seed, each held upright on a brilliant red stem. The seeds quickly disappear but the bright red stems remain, putting on an extraordinary show right up to frost, making it a really spectacular sight.

I remember the Rose of Sharon of years ago as a rather muddy magenta color, but now this summer blooming shrub, *Hybiscus syriacus*, or althea, has been greatly improved and there is a wide show of color. *Althea* 'Diana', an introduction from the National Arboretum, is a pristine white, and the variety 'Blue Bird', though of course not a true blue but a nice clear lavender, invariably brightens the shrub borders for many weeks in July and August.

In July, *Magnolia virginiana* produces creamy ivory cups with with a superb fragrance, reason enough to plant this shrub which is native to our own southern states, but my reason is because of the sheer beauty of its long elegant leaves, which show a silver lining with every breeze all season long.

by Elizabeth Corning

Hydrangea quercifolia forms a mound-ed shrub with strong foliage, hidden in July by conspicuous panicles of dazzling white which eventually fade to pink. It makes a stunning accent even in the hottest weather when it seems that "everything is finished".

Another large shrub which can spread as wide as it is tall is the Bottlebrush Buckeye, *Aesculus parviflora*. It is aptly named for its long spikes of bloom that take over for a long period in midsummer. Each individual flower is exquisite, and the entire spike very effective on this attractive shrub.

All of these are easy-going pest-free plants adaptable to most conditions. They will give much pleasure during that interval between the bounty of spring and our brilliant fall foliage display.

Volunteer Notes

by Florence Grimm

The volunteers at the GLA are taken very seriously. Without their hard work and devotion there would be no arboretum. The volunteer log started this January shows 1,810 hours of work performed, over 35 kinds of work, by 65 people. This remarkable contribution made to the maintenance and running of the Arboretum is the equivalent of one full-time staff position.

Our second annual Volunteer Recognition Barbecue on July 17 was attended by many of our workforce and their spouses (we may not be able to pay them, but we can feed them!) Several of the Trustees were on hand to express their appreciation to the volunteers for their dedicated efforts. This event provides a needed chance for folks to meet others who have been helping since many of the volunteers come to work independently and rarely see the rest of the "invisible" workers.

Arboretum Wish List

Educational supplies: old socks (men's sizes, white or light colors), magazines with nature photos, toilet tissue tubes.

Office: laser printer to facilitate production of publications, a computer (due to increased competition for time on our current computer!)

Thank you...

to all the people who have brought flower pots. These should suffice 'til next spring.

R.B. Wing, for culvert pipe used in new bridge to Rhododendron garden.

Dave Vermilyea and Elizabeth Corning for the chipper.

James and Anne Rosse, for the pump they installed in one of the dug wells, which saved the perennial garden this hot summer.

Anonymous, for the furnace for the greenhouse workspace.

I would like to remind you that volunteering at the GLA can happen year-round. Fall is a great time for outdoor jobs like brush clearing and chipping (also sunny winter days). Firewood needs to be cut and split, buildings need maintenance before winter, and trees need pruning. Indoor jobs that last through the winter include planning and staffing events like the Spring Benefit, our booth at the Garden Show and bus trips. The greenhouse will be active with growing projects and needing constant attention, the cataloguing of library books and the herbarium collection of plants will continue, and the slide archive needs to be organized. Indoors or out, the Arboretum can provide endless hours of activities for those with some time to spare. Please feel free to call me (842-7436) if you need to know more about volunteering, I'll be glad to help you decide where your skills will be most appreciated!

How Does Our Garden Grow?

New Members (*) and Renewals
June - August 1991

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Yunck's Nursery

Gardener's Work. cont. from page 7
mulching open soil, or composting.

- Mark perennials that emerge late in the spring so that they aren't dug up by accident.

- Edge beds now. You'll be much busier in the spring.

- Keep plants watered until the ground freezes.

- Continue dividing late blooming perennials until late October.

- When the ground freezes, mulch marginally hardy perennials, fall transplants. The boughs of discarded X-mas trees are excellent for this and appear at the curb at just about the right time. Don't be shy, recycle them.

Autumn

Autumn may well be my favorite season in the perennial garden. There is something achingly sweet about it. Evening comes swift and cold upon the last flowers and the gardener who thinks to gather them before dark and a possible frost. The blossoms are heavy and cold, yet somehow more beautiful than ever, the last vibrant bits of summer in a fading landscape.

This is a moment from any where, any time. I am an Elizabethan dame in a cottage garden. In the twilight I fancy that I wear her full skirt and long white apron here amidst the fragrant foliage. Yet just up the lane these same cold hands gather cold blooms within the white picket fence of a Colonial yard.

We are at the edge of time, at edge of winter. We gardeners, we gardeners. But why 'achingly sweet'? The ache is for the ending. The sweetness, joy in the promise that it is no ending at all.

Gardener's Workshop

Perennial Pleasure

by Andrea Modney

Composting

Fall is upon us again. The major clean-up of the garden beds that looms ahead is going to generate a mighty heap of plant matter. Whether they enjoy or detest the chore, almost everyone would agree that fall clean-up is a big job. Opinions might diverge however regarding the value of the accumulated plant debris. Is it trash or treasure?

"Treasure!" comes the emphatic response of savvy gardeners. For it is with such raw material that these brilliant alchemists produce black gold. Among the initiated, black gold is known as incomparable tonic for every kind of soil.

Because we live in an age of enlightenment, this ancient technique can be made public to the as yet uninitiated. Herewith, the formula:

BLACK GOLD

her ye any and all plant debris from the garden into one heap. Consign thy heap to the unseen powers of Mother Nature.

A tad wordy, but that's the basic formula. By the way, if the recipe for black gold sounds suspiciously like making a compost heap...it is just that. Black gold, or humus, is the end product of composting.

Why then present composting as

some mysterious practice? To make the point to the contrary that composting is absurdly simple and obvious - pile it up, let it rot.

There are more elaborate approaches to composting for those who wish to be more involved with the process. Books have been written, magazines devoted to it. It is for this reason that someone who has never tried composting may believe it to be quite complicated and mysterious. But do not be afraid, for every composting method builds on the basic recipe - pile it up, let it rot.

Check the public library or your county cooperative extension for ideas if you want to make compost faster or possibly better, more high-tech, and/or more expensive. For me, the old "black gold" recipe works just fine. I'm in no hurry. But gardeners are as individual as their gardens, so find a method that suits you, or invent your own. There's no way you could go wrong with composting - just pile it up. It will rot.

Finer points of the basic heap:

- 4'x4'x4' is a workable size for a basic pile. Much higher and it would suffocate under its own weight.
- Turning the pile is not necessary, but keep it loose. Don't pack it down or let the kids play King of the Mountain on it.
- Alternate layers of coarse stuff with

layers of dense material like grass clippings.

- Keep the top flat with a slight depression in the center so that rainfall will penetrate the heap to keep it moist inside.

Why bother composting?

- You'll save a fortune on disposal bags.
- There'll be no mess at the curb.
- When a community composts, it saves lots of space at the landfill (tax \$) and no plastic bags are added to the wastestream.
- It's easier than hauling bags.
- There is a reward: Black gold for your garden.

Perennial Duties

- Fall is the best time to prepare new beds, as this gives them time to settle before planting time. Work in plenty of organic matter and cover with a light mulch to protect the soil from wind and rain erosion.
- Clean up beds and compost the debris.
- Tree leaves can be added to compost pile or used as a winter mulch. If they're not too thick on the lawn, mow them along with the grass with a bagger on the mower. This produces great stuff for digging into new beds, mulching open soil, or composting.
- Mark perennials that emerge late

Continued on page 6

Yes, I would like to become a member of the George Landis Arboretum in the following category;

- \$15 Member \$25 Sponsor or Garden Club \$50 Supporter \$100+ Patron

Enclosed is my check for \$ _____ Made payable to The George Landis Arboretum.

Name _____ Daytime Phone _____

Address _____ Home Phone _____

City _____ State _____ Zip _____

would like to volunteer. (Please circle the type of work you are interested in, or write in your suggestion.)

Field Work: mowing, weeding, pruning, etc.

Office Work/Projects: word processing, writing (newsletter, other publications), fund-raising, herbarium/library, mailings

Events/Programs: adult education, youth education (e.g. field trip guide), slide show presenter, Saturday Lecture Series

(Host or Lecturer), plant sales, special events

Please mail to: Director, George Landis Arboretum, P.O. Box 186, Esperance, New York 12066

In the Shade of the Oak

Phony Fruits, Fuzzy Warts and Hidden Homes

by *Laura Lehtonen*

Imagine you are curled up in a dark, secure space. Your food supply surrounds you on all sides. To eat, you open your mouth and bite off a piece of your cushioned compartment. If the weather grows cold or rainy you are protected by spongy walls or wood paneling. As you eat your way through your temporary home, your body begins to change. Wings develop on your back, six legs sprout and your senses are refined. Eventually you make a hole in the surface of your cellulose home and fly into the air and away.

You have just experienced one stage in the life of a gall producing insect.

Galls are defined as an abnormal growth of plant or animal caused by another organism. On plants, galls may form when two branches rub against another, or when infested with a fungus, nematodes, mites or insects. Galls are everywhere! They are found on leaves, twigs, stems, buds, flowers and even roots. Some galls look like fruits hanging from the branches of oak trees leading to the paradoxical name "oak apples". Other galls are fuzzy knobs on the undersurface of leaves, while some are a mere thickening of an otherwise normal looking plant stem. Whatever their shape or size, galls represent a unique and often complex relationship of plants and animals.

At the Arboretum, it is easy to find a common gall on goldenrod stems, the "ball gall" caused by a fly. The fly lays its eggs on a goldenrod stem in early summer. When the egg hatches, the maggot eats its way into the center of the plant stem to the cambium, a part of the plant still capable of cell growth. An enzyme produced by the insect changes the host plant's starch cells to sugar. This production of excess food (sugar) causes the plant cells to reproduce and to form the gall around the insect larva. The larva pupates in the gall and will emerge as an adult fly in the fall or overwinter until the following spring. The fly has no mouthparts with which to eat its way out of the somewhat woody gall, so before the larva begins to pupate, it chews an opening to the outside and seals it with a web. The fly is able to push this web aside when fully mature.

Another of the many galls on goldenrod is caused by a moth. This gall is not as spherical as the ball gall but instead forms a slight outward tapering of the goldenrod stem. Other gall producing insects form galls on the buds and flowers of goldenrod plants.

If you cut open a goldenrod ball gall in the early fall, you will find a fat white larva curled in the center portion of the gall. Only one fly larva is present but there may be other organisms enjoying

the protection afforded by the gall. Other insects, spiders, and mites may share the gall, and these "guests" along with birds and rodents often prey on the overwintering larva.

The insect induced plant growth neither helps nor harms the goldenrod plant. While there are no galls that actually kill the host plant, some galls prevent the development of seeds or cause deformities in flowers and buds curtailing normal plant reproduction.

The study of galls continues today with new insect/plant relationships discovered every year. It has often taken entomologists years to associate the free living, adult insect with a particular host plant, gall and larva. Many gall enthusiasts "raise" galls or keep them in a closed but slightly moist container to determine the identity of the gall-inducing insect. Even then, it is hard to know if the newly hatched insect is the inducer or a "visiting" insect.

This short article does not do justice to the complex relationships of the more than 2000 kinds of galls found in the United States alone. The challenge of identifying plants seems to pale in comparison to the puzzles of life cycles and plant/insect relationships exhibited by phony fruits, fuzzy warts and hidden homes.

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