



Mississippi Native Plants

Newsletter of The Mississippi Native Plant Society

Volume 37 No. 1 *Our Family Tree Branches but We Share Common Roots* - JWG Spring Summer 2020

The MNPS is a non-profit organization established in 1980 to promote the preservation of native plants and their habitats through conservation, education, and utilization.

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Happy Anniversary!!

2020 is the Mississippi Native Plant Society's 40th anniversary and we would love to hear from folks from all over the state (and elsewhere) who have committed themselves to the cause of native plants!

In particular, we would love to hear from members who have been involved since the organization's inception, who have been tracking the seasons from bud burst to harvest, putting their hands in the dirt (okay, soil), trekking our prairies, bottomlands, and bluffs, and disseminating botanical wisdom, names, tips, and tricks to the newer generations.

In addition, we would love to hear from newcomers who have found themselves called to be part of this wonderful community.

As we approach our annual meeting in September, it would be valuable to have a compilation of member reflections that can be shared with all attendees. Therefore, if you have any interesting plant recollections, significant sightings, photographs, cool projects, or ideas that you would like to share, please consider sending them along, addressed to our Newsletter Editor (John Guyton, j.guyton@msstate.edu). We hope to see you in September!!!



In light of recent events, we would like to affirm that the Mississippi Native Plant Society is an organization open to all people interested in native plants, native ecosystems, and botanical conservation in Mississippi, regardless of race, ethnicity, religion, gender, or sexual orientation.

We believe that Mississippi's great human diversity is central to our collective efforts in celebrating and protecting our state and our nation's natural diversity. As such, we believe that the work required to safeguard our natural systems must be shared in a space of inclusion and mutual aid.

As an education and conservation organization that values the life and dignity of all persons, MNPS is committed to denouncing systemic racial inequities and guarantees a safe space for black, indigenous, and persons of color at any and all MNPS functions.

MNPS President's Letter by Eli Polzer

Hi MNPS-ers, I hope this spring (and now, summer) finds you well.

These days, with disquiet reverberating in my psyche, I spend a good deal of time listening to birdsongs and gazing out my back door when I should be working. The red mulberry (*Morus rubra*) is in full fruit and thus a stopover for cedar waxwings, summer tanagers, and rose-breasted grosbeaks, each inhabiting the space around them in different ways. Observing their movements, their sometimes subtle communications, miraculous flight, vanishing and reappearing—their *umwelt* (how they interact with their environment)—circumvents my brain's fervent analysis and posturing, my unease, and reminds me that despite all, I am wonderfully alive. It is in these moments when it can feel like (per poet Adrienne Rich) "a piece of the universe is revealed as if for the first time."

Our personal *umwelts* define our range of interactions, as they do any human or non-human animal, and how we perceive and touch the world. While this current quarantine interval has required us as humans to heavily rein in our habits and senses, it also asks us to redefine how we're accustomed to interacting with our surroundings. When we are faced with such an awkward and palpable experience, what form (of coexistence with the environment) does this take? Where do we find our sense of wonder and feel most alive?

For me, because I'm not travelling and botanizing much outside of my home range, I get to see the same plants over and over during my urban strolls, watch the sequence of emerging and senescing, and note the subtle alterations of light as the tree canopies swell. I have never before been afforded the time to observe the adnate anthers of tulip poplar so closely, watch the dramatic swelling and expansion of shagbark hickory buds up close, or coax and congratulate the appearance of a single rose-pink along a barren roadside. The smallest *Lamium* flower so ardently vibrant and the architecture of the green dragon (Jack in the pulpit's kin) so mythical and medieval, how could I not feel fortunate?

This is a time of wonder, even if now and then unnerving. And because we live in a sensory world that reflects the things that help us live and flourish, right now, in this time of seeming fragility and possible loss, I invite you to remember the awe and wonder of the living world. Take solace in these words by Pattiann Rogers, somehow reminding us of our natures to be fervidly and miraculously alive—

Opus from Space

By Pattiann Rogers

Almost everything I know is glad
to be born – not only the desert orangetip,
on the twist flower or tansy, shaking
birth moisture from its wings, but also the naked
warbler nesting, head wavering toward sky,
and the honey possum, the pygmy possum,
blind, hairless thimbles of forward,
press and part.

Almost everything I've seen pushes
toward the place of that state as if there were
no knowing any other – the violent crack
and seed-propelling shot of the witch hazel pod,
the philosophy implicit in the inside out
seed-thrust of the wood-sorrel. All hairy
saltcedar seeds are single-minded
in their grasping of wind and spinning
for luck toward birth by water.

And I'm fairly shocked to consider
all the bludgeonings and batterings going on
continually, the head-rammings, wing-furors,
and beak-crackings fighting for release
inside gelatinous shells, leather shells,
calcium shells or rough, horny shells. Legs
and shoulders, knees and elbows flail likewise
against their womb walls everywhere, in pine
forest niches, seepage banks and boggy
prairies, among savannah grasses, on woven
mats and perfumed linen sheets.

Mad zealots, every one, even before
beginning they are dark dust-congealings
of pure frenzy to come to light.
Almost everything I know rages to be born,
the obsession founding itself explicitly
in the coming bone harps and ladders,
the heart-thrusts, vessels and voices
of all those speeding with clear and total
fury toward this singular honor.

Native Plant Spotlight: Atamasco lily (*Zephyranthes atamasca*) by Heather Sullivan

Each spring, before most trees begin leafing out, bottomland forests in East Central and Southeast Mississippi have a flower display that can only be described as epic.

Starting in late February, and continuing through April, Atamasco lilies crowd the forest floor by the thousands. Also called Easter lilies by the locals, these glorious large, white flowers dance in the spring breezes. Other common names include rain lily, fairy lily, prairie lily, and stagger lily. The scientific name *Zephyranthes atamasca* alludes to a zephyr, which is a gentle western wind that brings the spring season. Atamasco is a Native American word that has two origin stories: one being described to mean under grass, in reference to the location of the bulb under grass-like leaves, and the other meaning stained with red.



Each plant has a solitary, funnel-shaped flower measuring approximately 3½ inches in length on a foot-long flower stalk and a rosette of bright green, narrow leaves. The outer tips of the flower acquire a rosy tint as the flower ages. The fruit is a three-angled capsule with many flat, papery, black seeds. The plants disappear completely by the time the summer heat comes, but, like Narcissus, will emerge the following spring, having stored energy during their brief season in the sun.

Atamasco lilies occur in rich, moist hardwood forests, along streams and creeks, on ravine slopes, and in low bottomland forests associated with prairies. Other rare species that share this habitat include Turk's- cap lily, purple fringeless orchid, Oglethorpe's oak, southern meadow-rue, nutmeg hickory, and lesser ladies'-tresses orchid.

Atamasco lilies range along the Gulf Atlantic Seaboard from Mississippi to Maryland. Mississippi populations are the western-most populations in the United States and extend from Greene County north through Lauderdale County and west to Smith and Scott counties. Because of its limited range in Mississippi, Atamasco lily was added to the Mississippi Natural Heritage Program Tracked Species list in 2013. Thirty-one populations are found in the state.

The first Europeans to encounter this species were the settlers of Jamestown in the 1600s. Soon, it was in cultivation in European gardens like many American plants. Parkinson, in his 1629 book, "A Garden of Pleasant Flowers," noted "The Indians in Virginia do call it Attamusco....We for brevity do call it Narcissus Virgineus, that is, the Daffodil of Virginia."

To this day, many homeowners grow Atamasco lilies in their gardens. It is best to grow this plant from seed rather than trying to transplant the plant. Sow the seeds on the soil surface of a container and lightly cover them. By the second year, they will be mature enough to plant outdoors. The lilies are naturally found in shaded areas; be sure to plant in an area that gets at least afternoon shade. Atamasco lily is not hardy where the ground freezes in winter, although this is hardly an issue in the deep South. Late, heavy frosts can damage the leaves, which in turn can kill the plant through starvation.

The common name, "stagger lily," is derived from the effect this plant has on horses. Horses will develop "staggers" (a cerebrospinal disease) from eating the leaves or bulbs. All parts of the plant are known to contain several toxic alkaloids. The bitterness of the alkaloids prevents most animals from eating the lilies, even accidentally.

To personally experience a beautiful display of Atamasco lily, you can join the Mississippi Native Plant Society on its first field trip of each year and visit a population in Bienville National Forest. All are welcome to come on this trip, which is usually scheduled for the middle of March. For more information, visit: mississippinativeplantsociety.org or our Facebook page.

Shortleaf Ridge by Teresa Shapley

My husband and I live on a 160-acre farm in Pike County, MS located three miles west of Summit, MS. The area is increasingly becoming suburban. Our land has been in my family since the 1930's, when my maternal grandparents acquired it and established a beef cattle farm with about 90 acres left in woodland.

In the 1960's my grandfather died and left the farm to my grandmother and my mother, an only child. I am also an only child. I began managing the now primarily timber farm about 20 years ago.

Sixty acres of the original tract of woodland was clear-cut before I began management in the late 1990's. A ten-acre tract adjoining the clear cut was only thinned of mature loblolly pines over a ten-year period. We now refer to that tract as Shortleaf Ridge.

Shortleaf ridge is of particular interest from an ecological standpoint. It is approximately 486 feet in elevation. The soil is an acidic sandy clay loam with a sandstone gravel base.

The main reason the ridge is dominated by shortleaf is that the loggers prefer the loblolly pine because of better tonnage, so they leave the shortleaf pines. There are scattered longleaf pines in the area as well, some of great age.

About ten years ago we started a controlled burn program. Burning has resulted in the resurgence of several native grasses and forbs. Little bluestem is one of the more common grasses. Two clumps of grass along a fire lane got my attention several years ago and turned out to be big bluestem.

The original clumps were divided and now are providing propagation material both vegetatively and through seeding. There is also a small stand of piney woods milkweed that is being preserved. Hopefully, our controlled burn program will continue to yield up more horticultural treasures as we try to return the ridge to something close to its original state.



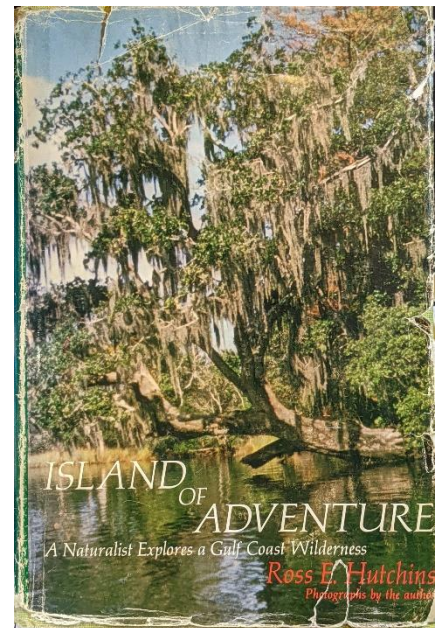
Pascagoula River Educational Trail Signage Possibilities, from R. Hutchins by John & Peggy Guyton

The motivation for compiling this list was to enrich the tours now being given on the Pascagoula River with the wonderful writings of a naturalist and nature photographer, Ross Hutchins, who loved and explored the river. He had a favorite "Island" in the Pascagoula river he named the "Island of Adventure."

As a life-long paddler and nature enthusiast I wanted to share my excitement of Hutchins' writings with friends and colleagues. His book *Island of Adventure* would be useful for tour guides, visitors, naturalists, writers, teachers who understand the importance of using the outdoors and those who speak on behalf of the river and need a ready source of useful quotes. A friend jokingly called this list the Cliff Notes for *Island of Adventure*, however, it is so much more than just a listing of plants and a few quotes. For the full flavor of The Island, and the Pascagoula River, a careful reading of the book is required. Libraries all over Mississippi are discontinuing keeping this book and we have seen it in library book sales.

Other books by Hutchins are equally useful and unfortunately also being discarded. Try Googling *Hutchins Island of Adventure*, and you will find one that fits your budget...

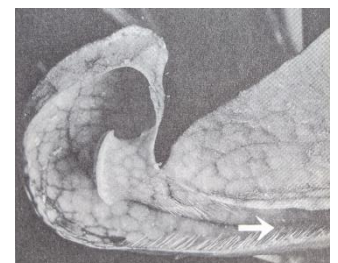
As you come up with catchy "Burma shave" like signs for the following plants please send them to me, and maybe we can create an educational river trail.



Pascagoula River Plants, R. Hutchins

HERBS, SHRUBS AND VINES

- Air potato (*Dioscorea*) page 89
- Arrowhead or *Sagittaria* page 104, also known as duck potato (page 212 picture on 209), all species have edible tubers. This was an important vegetable for the American Indians.
- Azolla* ferns - water fern, picture on page 105. Water repellent hairs on leaves prevent them sinking.
- Bladderwort (*Utricularia*) carnivorous plant that grows submerged in water with no attachment to the bottom page 115.
- Button bushes (*Cephalanthus*) 23, 64, picture on 126. "Closer to the water's edge grows an impenetrable tangle of button bushes which, in spring, are covered by white globular flower-heads that are usually surrounded by bumblebees and butterflies."
- Butterworts (*Pinguicula*) page 115 an insectivorous plant.
- Cardinal flowers picture page 46.
- Coral-root orchids page 115 pollinated by night flying moths (pollen is stuck to moth's eyes); absorb nutrition from mycorrhizal fungi; "In a little experiment, I push the head of a match into the bloom against the adhesive pollen sacs and am pleased to find, when the match is removed, that two pollinia are firmly attached to it." seeds are almost microscopic.
- Daisy fleabane (*Erigeron*) page 106, 13:21. Fibonacci spiral sequence to small florets picture page 108.
- Duckweed page 104 sink to bottom of lakes in autumn and rise during the spring: smallest flowering plant.
- Epiphytic ferns, page 23 grow in fissures in the bark of trees.
- Foxtails (*Setaria* grass) or "jungle mullet" page 41 introduced from Asia in the 1930s.
- Goldenrod picture page 107, discussion of Fibonacci pattern phyllotaxy (an area of botany that deals with leaf arrangement).
- Liverworts picture page 79 might have been the first plants to make the transition from sea to land.
- Indian pipes (*Monotropa*) picture page 116. A true flowering plant that are completely devoid of green chlorophyll and are required to get nourishment from mycorrhizal fungi
- Jack-in-the-pulpit (*Arisaema*) page 119-120 with picture captures small flies to aid in pollination.
- Mallows (pink blooms) picture page 46 Wonder where marsh mallows came from?
- Marine algae page 44 found in island bayous.
- Marsh grass cross section page 44 pictures on 43. "I found by cutting the stems of the various tall marsh grasses that all had one thing in common; instead of being solid like a tree trunk, they were made up of numerous hollow, cylindrical or rectangular tubes closely attached together." "...a hollow cylinder or square tube resist bending much better than a solid rod...thus the reeds and grasses...can bend without breaking under the force of the hurricane's winds"
- Morning glories (arrowleaf, *Ipomoea sagittata*) page 33, picture on 52
- Moss pages 23, 78, 79, 157 picture on 79. "Millions of years ago their ancestors grew as large as trees but now, reduced in size, they exist on rotting wood and the limbs of trees."
- Orchids page 117-118.
- Palmettos (*Sabal minor*) pages 22, 195-198. "I have listened entranced to the characteristic rattle of the palmetto fronds rasping harshly against another. No other forest, that I know, has such sounds." Hutchins describing the Everglades in Hidden Valley of the Smokies page 82.
- Parrot beak pitcher plant page 112 picture on 113. A pitcher plant whose leaves rest horizontally on the ground arranged around a central crown. Picture features a cut away view showing the hairs that trap and direct insects to their doom.
- Parrot feather page 109. A common water plant grows with some leaves above the water and some below. Those above have broader ray than those below obviously an adaptation to the two different environments.
- Phragmites* (tall reeds- rosso cane) page 41. There are both native and exotic varieties; Hutchins mentioned occasionally passing patches. Source of cellulose used as thatch in England.
- Pinecones page 107-109 – Fibonacci.



(Cont. Pascagoula River Plants, R. Hutchins)

- Pitcher plants page 110-112 picture on 111. Pitcher plant moth caterpillar story; "...probably one of the plant world's most remarkable leaves, so modified and adapted that it forms an amazingly effective insect trap, one that not only lures insects to their dooms but also digests them and absorbs the products of the digestion for the benefit of the plant."
- Resurrection fern page 156 "...curl up their leaves to conserve water [during times of drought]" Guyton often places a dry curled sample in a saucer with water for students to watch resurrect during the day
- Smilax* or greenbrier page 87. "...vicious recurved spines that can tear the clothing and flesh."
- Sow thistle (*Sonchus*) picture page 106, leaves arranged in a 3:5 Fibonacci spiral.
- Spanish moss (*Tillandsia usneoides*) - pages 56-57 and 160-161. "From every limb and twig hang long streamers of Spanish moss, grey in color and adding a strange, exotic touch to the great tree. Spanish moss is not really a moss at all but an air plant related to the pineapple and flowering bromeliads that festoon so many trees in the Everglades of Florida. Known to botanists as *Tillandsia usneoides*, it is not a parasite and obtains no food directly from the tree upon which it grows. Yet it can live only upon a tree, since it absorbs its needed minerals from dust washed off the tree's leaves by rainwater. Seemingly Spanish moss exist on nothing, but actually this is not so. If a strand of this strange air plant is examined under a lens it appears scaly or scurfy, an adaptation for catching and holding the particles of dust and moisture it needs to live. Requiring high humidity, it thrives only in warm, damp places such as the coastal zones of southeastern United States. When removed from these moisture-laden areas it quickly dies."
- Splatterdock (*Nuphar*) water lilies picture on 26. "The oval leaves... float upon the quiet waters of the bayou. Sometimes the yellow, cup-like blooms unfold upon the surface."
- Sundew (*Drosera*) page 113 picture on 114. "...small reddish plants that capture insects by means of the glue-tipped tentacles."
- Trumpet vines (*Tecoma radicans aka Campsis radicans*) page 125 with scarlet blooms hanging from some of the trees.
- White spider lilies page 71.
- Wild rice (*Zizania*) page 33 picture on 41. "...green stems reaching far above my head where each one was topped by a feathery panicle of blooms. From the tip of each slender branch was suspended a cluster of yellow, pollen-filled anthers which trembled in the passing breezes."
- Wild plums.
- Wood sorrel (*Oxalis*) page 213, leaves open in sun light and fold up at night.

TREES

- Bald cypress pages 125-128, picture on 75. "The bald cypress sheds its leaves in Autumn hence its name." "...in order to remain standing against winds, their bases are greatly expanded..." "...the roots spread out a great distance in every direction, intertwined with the roots of the surrounding trees forming a network that effectively resist the wind." "If a cypress root is sawed lengthwise, it can be seen that the grain has been expanded upward. It seems obvious that the function of these unique structures is that of obtaining air ... yet not all botanists agree." Hutchins reported that at one end of the island [which end not specified] were knees five feet high and across at the base resembling small tepees.
- Gum trees page 68, star shaped leaves (sweet gum).
- Hickories page 102.
- Hop hornbeam or ironwood (*Ostrya*) page 76. Hutchins mentioned these were the most common trees on the island.
- Live oak pages 24,25,54,55,74,102. Deep within the trunk is the xylem or woody zone through which water and dissolved minerals are flowing upward from the roots deeply buried in the island's loam. Nearer the surface, just below the bark, lie ducts filled with sugars and other foods, all flowing slowly down from manufacturing centers in the sun-washed leaves.
- Longleaf pine (*Pinus palustris*) page 74 with picture. Longest needles of any pine, often measuring 18 inches in length; tree grows to over 100 feet; 10-inch cones

(Cont. Pascagoula River Plants, R. Hutchins)

- ❑ Magnolias pages 25, 75, 90. Several superb specimens of great size on the island; definitely a tree of the deep south: the large oval leaves glisten in the sun like polished metal and in early summer, their great snow white blooms unfold, wafting away their heavy scent through the night to attract the beetles upon which they depend for pollination.
- ❑ Mimosa page 213. After sunset leaves fold up at night; only one noted on the island.
- ❑ Paw paw trees page 87. Hutchins muses over this trees ability to escape the tropics to live in our area
- ❑ Red bay page 24 picture on 101. Grows along The Island's margins and produces blue-black fruit.
- ❑ Sassafras tree (*Sassafras variifolium aka Sassafras albidum*) page 108. "Its leaves are of three kinds even though they all grow on the same twig. One type is oval in shape, another has a tooth like lobe on one side, while yet another has tooth like lobes on both sides."
- ❑ Slash pine (*Pinus caribaea aka Pinus elliottii*) page 74. "stately trees growing straight as rods and bearing at their tops a few spreading limbs held disdainly, it would seem, above the lesser trees."
- ❑ Sweet bay or swamp bay, page 76. "Scattered here and there along the trail grow slender trees with dark, shiny leaves, that when crushed between the fingers, are very fragrant. Known as sweet bay or swamp bay, these trees are closely related to the large magnolias; in fact, they are true magnolias but of a different species. While walking along I often pick off bay leaves and crush them for their pleasing, pungent smell. In autumn the wet black muck of the swampy area is strewn with their scarlet seeds, adding touches of bright color to the forest floor."
- ❑ Titi also known as ironwood picture on page 77. "This is the titi, sometimes also known as ironwood." "Today, as I walk along the trail, I see only the small specimens with their crooked trunks and bright green leaves. In March, however, the titis deck themselves out in racemes of small, white, nodding blooms which are most fragrant and which bees find attractive for the sweet nectar they contain. When the blooms are gone their places are taken by small seed pods resembling those of buckwheat."
- ❑ Tupelo gum (*Nyssa aquatica*) pages 125-128 picture on 76. The scientific name means post in the water. "I have mistakenly called a tupelo a cypress. It is only by looking up at the foliage that one can be sure of the identification, since the tupelo bears leaves, not the needle-like foliage as do the cypress."
- ❑ Wax myrtle (*Myrica*) page 168 with picture. The berry-like fruit is covered with wax and early settlers would melt the wax by soaking the berries in hot water. The wax was scooped off the surface of the water for candles and other uses.

Magnificent Magnolia – A Natural for Mississippi's State Flag Emblem!**By Felder Rushing and John Guyton**

The changing of the flag provides a great opportunity to welcome visitors to Mississippi. The evergreen magnolia (*Magnolia grandiflora* L.) was an inspired and insightful selection as the official state flower and state tree! The Avenue of Magnolias, a project of the Garden Clubs of Mississippi, already graces 14 miles of eight major highway entrances to the state.



Magnolias are found naturally in every county in the state and survived whatever killed the dinosaurs. They evolved during the Cretaceous Period before bees and are pollinated by beetles. The *M. macrophylla* produces the largest flower in North America, and the national champion *M. grandiflora* is a towering 135-foot tall monster near Sharkey, Mississippi. And there are dozens of garden-friendly cultivars available for landscape use, including the compact, long-blooming 'Little Gem' which is appropriate for accents and screens in small gardens. Magnolias are an instantly recognizable favorite and grown in botanic gardens worldwide. And, the leaves can provide a yard or fireplace appropriate fireworks effect when laid on glowing coals to celebrate the 4th of July, the New Year or when entertaining the grandchildren!

A magnolia flower on the new flag, as a symbol of the hospitality and natural beauty of Mississippi, would signify that all are welcome here.

**Mississippi Native Plant Society Membership
Application**

Renew or Join Today!

Name _____

New ____ Renewing ____

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PO or Street Address

City _____ State _____

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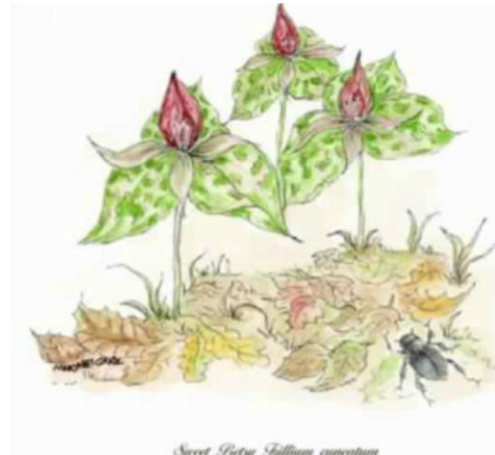
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Mississippi Native Plants is the quarterly newsletter of
the Mississippi Native Plant Society

The MNPS is dedicated to the study,
appreciation and preservation of native
wildflowers, grasses, shrubs and trees.



Sweet Betsy Trillium cuneatum

Sweet Betsy (*Trillium cuneatum*)

Artwork by Margaret Gratz

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