On the Fringe

NATIVE PLANT SOCIETY OF NORTHEASTERN OHIO

Founding Chapter of
THE OHIO NATIVE PLANT SOCIETY

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VOLUME 15 **2nd Quarter 1997** NUMBER 2

ON THE FRINGE
Quarterly Newsletter of the
NATIVE PLANT SOCIETY
OF NORTHEASTERN OHIO
2651 Kerwick Road
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FIRST CLASS

USA 32

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YELLOW=renew now
RED=last issue

YELLOW LABEL = renewal is due
RED LABEL = final issue

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IN THIS ISSUE

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1997 PROGRAM SCHEDULE

by Dr. George J. Wilder
Program Committee Chairman

It is advised that all participants bring a brown-bag lunch on all field trips and to all workshops. All please call the trip leader to let him or her know you will be coming. This is very important in case of any last minute changes which participants may need to know about. A trip leader and their phone number

will be listed for each event. Please feel free to invite guests.

SUNDAY, **JUNE 29**, 10:00 AM TO ABOUT 1:00 PM - THE WHITE PRAIRIE FRINGED ORCHID (*Plantanthera leucophaea*) AT PICKERAL CREEK STATE WILDLIFE AREA (SANDUSKY CO.) **Tom Sampliner** will lead this trip. *Plantanthera leucophaea* is both federally listed and state listed as a threatened species. In addition to a substantial population of white prairie fringed orchids, significant birdlife occurs at Pickeral Creek State Wildlife Area, including eagles and ospreys. After visiting Pickeral Creek State Wildlife Area, participants in this trip will visit Resthaven State Wildlife Refuge, an area of alkaline soils and numerous wet-prairie species. Possibly, visible at this time of year will be bellflower (*Campanula americana*), marsh fern (*Dryopteris thelypteris*), and star-grass (*Hypoxis hirsuta*). Please call Tom at (216) 371-4454 to make arrangements for this trip.

SATURDAY, **JULY 19**, 2:00 PM TO ABOUT 4:00 PM - LAKE KELSO BY CANOE (GEAUGA CO.). **Judy Barnhart**, a Society Board member and naturalist with the Geauga Park District will lead this trip. Lake Kelso is a beautiful glacial lake in Geauga County which is part of the Geauga Park District. Some of the species to be observed are tamarack or American larch (*Larix laricina*), leather leaf (*Cahmaedaphne calyculata*), highbush blueberry (*Vaccinium corymbosum*), mountain-holly (*Nemopanthes mucronata*), poison-sumac (*Toxicodendron vernix*), water shield (*Brasenia schreberi*), bladderworts (*Utricularia sp.*), pond weed,

various ferns and sphagnum growing on hummocks. Pre-registration for this trip is essential so the number of available canoes is not over booked. Please call Judy at (216) 286-9504 (work) or (216) 564-9151 (home) to make your reservations. DIRECTIONS: Take Ohio Route 87 east from Cuyahoga County past Punderson State Park to Ohio Route 44 (Newbury). Turn south (right) onto Route 44 and travel about 2 miles to Pond Road. Turn east onto Pond Road (left) and go almost a half mile to where the road splits. Keep to the right on Pond Road and travel about a mile and 3/4 to Rider Road. Turn north (left) on Rider Road and proceed about 1/10 a mile to the Burton Wetlands sign. Park on the west side of the road. A drive on the east side of the road will lead you down to Lake Kelso. There is a picnic shelter if you would like to arrive early for a relaxing lunch. There is also a Port-a-John available.

SUNDAY, **AUGUST 10**, 9:45 AM TO MID AFTERNOON - AQUATIC AND SEMIAQUATIC PLANTS OF PUNDERSON LAKE (GEAUGA CO.) **George Wilder** will lead this trip. Participants will rent row boats to facilitate observation of plants. Observed, among other species, will be hornwort (*Ceratophyllum demersum*), swamp loosestrife (*Decodon verticillatus*), spike-rush (*Eleocharis quadrangulata*), duckweed (*Lemna trisulca*), Cardinal lobelia (*Lobelia cardinalis*), smartweed (*Polygonum coccinium*), pickerel-weed (*Pontederia cordata*), two pondweeds (*Potamogeton amplifolius* and *P. crispis*), tape-grass (*Vallisneria americana*), water meal (*Wolffia columbiana*), and, possibly, water stargrass (*Heteranthera dubia*). DIRECTIONS: Take State Route 87 (Kinsman Road) east of the

Cleveland past Route 306 in Russell Township toward Newbury Township. Drive a little over 1 mile past Auburn Road in Newbury to the entrance of Punderson State Park on the right (south) side of the road. Follow the signs to the boat rental area. Please call George at (216) 687-2395 (work) or (216) 932-3351 (home) before the trip to let him know you plan to attend.

SATURDAY, **SEPTEMBER 27**, 10:00 AM TO ABOUT NOON - MOSES CLEAVELAND TREES AND THE ASSOCIATED FLORA AT NORTH CHAGRIN RESERVATION (CUYAHOGA CO.). **Nate Finck** will lead this trip. "Moses Cleaveland trees" are trees which the late naturalist Arthur B. Williams determined to have been living before the arrival of Moses Cleaveland in our area. In this trip, focus will be on the beech-maple climax forest and the hemlock-hardwood climax forest. DIRECTIONS: From I-90 and Route 90 (SOM Center Road) travel south on Rt. 90 past Route 6 (Chardon Road). Continue on Rt. 90 a little over a mile to Sunset Lane entrance to North Chagrin Reservation. Turn left (east) onto Sunset Lane and travel less than 1/2 mile to Buttermilk Falls Parkway. Turn right (south) onto Buttermilk Falls Parkway and travel about 3/4 of a mile to the Forest Picnic Area parking lot. Please call Nate at (216) 247-6949 to let him know you plan to attend.

SUNDAY, **OCTOBER 19**, 10:00 AM TO MID AFTERNOON - FALL WILDFLOWERS OF CLEVELAND (CUYAHOGA CO.). **George Wilder** will lead this trip. Observed, among plants of other families, will be various species of the families Chenopodiaceae (Goosefoot Family), Compositae (Sunflower

Family), Cyperaceae (Sedge Family) and Gramineae (Grass Family). The specifics of meeting place will be announced a a future issue.

9/28 [illegible] RSVP [illegible]

SATURDAY, **NOVEMBER 8**, 5:30 PM TO ABOUT 9:00 PM - ANNUAL MEETING AND BANQUET. We are very pleased to announce that **Dr. Edward Voss** of the University of Michigan and author of numerous books on the flora of Michigan will be our guest speaker for the evening. As usual the dinner will be hosted by the Cleveland Botanical Gardens at University Circle. More details will follow in the third issue of "On the Fringe".

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NATE'S WET DAY AT SOUTH CHAGRIN RESERVATION

by Tom Sampliner

The weather forecast for Saturday, May 3rd had not been very promising. No doubt this explained the group for our scheduled field trip consisted of Nate Finck, designated leader, and myself as willing follower. Sulphur Springs is a lush bottomland offering a dense carpet of spring wildflowers.

From the moment one parks the car, a sea of pastel pink and white catches the eye. Literally a ground cover, Spring beauty (*Claytonia virginica*) with lesser quantities of cut-leafed toothwort (*Dentaria laciniata*) - recently moved into *Cardamine*, dominate. Along the creeklets and bases of trees, the yellow flowers of Trout lily (*Erythronium americanum*) waved wildly in the breeze. Speaking of waving wildly, the trees, flowers and at times in high

gusts even the participants waved their share. It was one of those famous days of wait 5 minutes and a drastic change will occur. Brief interludes of sun alternated with heavy to light showers.

Nate pointed out to my why the area attained the name of "sulpher springs". Along the creek we could see telltale yellowish soil exposed. As we wandered some of the pathways around the named area, we found several different violets: the common blue (*Viola papilionaceae*), the long spurred blue (*Viola rostrata*), the arrow or halbred shaped yellow violet (*Viola hastata*) and on some wet slopes the round serrate leaved yellow violet usually referred to as round-leafed violet (*Viola rotundifolia*). This last species has the interesting pattern whereby leaves small at flowering time grow rapidly thereafter to dwarf the flower scapes. The commonest white violet was the dainty, fragrant, (*Viola blanda*) usually called sweet white violet.

The creeks were lined with water leaf (*Hydrophyllum virginianum*) not yet in bloom and plenty of odoriferous leek (*Allium tricoccum*). Still waiting nature's call to bloom, generous quantities of woodland geranium (*Geranium maculatum*) promised lots more pink.

If one can take the eyes off the carpet of dense blooms long enough, there are other things to be seen. Amidst all the blooms one find the frilly compound greenery of the false mermaid (*Floerkea proserpinacoides*). It's tiny white flowers are almost invisible amidst the competition. For example, the tight buds of two leafed toothwort (*Dentaria diphylla*) tower over this little guy; this species now also moved into *Cardamine* among the mustards. The opposite ovate leaves of the woodland phlox

(*Phlox divaricata*) also dwarf the mermaid. There were surprisingly few trilliums, red (*Trillium erectum*) or white (*Trillium grandiflorum*). I believe enough circumstantial evidence was present to convict deer as the grazing perpetrators. However, as we joined Dr. George Wilder's local flora group, we heard that patches of wild ginger (*Asarum canadense*) were no longer where George recalls they had been; this gives pause for speculation on some not so pleasant explanations for plant disappearances.

We enjoyed locating the uncommon canada fly honeysuckle (*Lonicera canadensis*) in full flower on some we embankments. Nearby one group was the handsome shining clubmoss (*Lycopodium lucidulum*). The evergreen upright growth habit make this always and impressive sight.

As we wandered - or more accurately sloshed - along, we observed a cute little ground hugger called dwarf ginseng (*Panax trifolium*). A single whorl of three leaves is just below an umbel of tiny white flowers. While not so famous as it's well known cousin, the small stature and intriguing flower head make it an enjoyable encounter. Frankly, until reacquainted myself with some of the literature which is an all too frequent necessity for me, I learned it is a member of the Araliaceae, which is the correct name for the ginseng family.

Still in tight bud and with different character than when wide open, foam flower (*Tiarella cordifolia*) was lending charm to the wet forest floor. You may be interested to know that this is a member of the Saxifragaceae as is the near relative Bishop's cap (*Mitella diphylla*) which I only saw a little bit of

adjacent to one of the creeklets.

I should not omit mention of the understory. Still a long way from bloom, the first leave of maple-leafed viburnum (*Viburnum acerifolium*) where exhibiting very red new leaves only. A touch smaller in height even when they reach maturity, the Solomon's seal group was merely a few inches above ground. Present were both Solomon's plume (*Smilacina racemosa*) and Solomon's seal (*Polygonatum pubescens*); I saw no evidence of the giant *Polygonatum canaliculatum* - guess I had to look in my wildflower garden to see those. Remaining in the lily family, the glossy green leaves of false Lily-of-the-valley (*Maianthemum canadense*) was all the evidence we would get this day of fully white racemes to come.

As we did adieu to this magical pastel carpet, we added a brief stop over at the Squaw Rock area. Noteworthy displays of fragile fern (*Cystopteris fragilis*) cling onto the steep river embankments in any available crevice from man made stone stairs to rocky overhangs of sedimentary rocks. A brief walk along the river gave us additional encounters with a few scattered Canada fly honeysuckles mostly nestled in little rivulets. It wa good to see some healthy specimens of the not so locally common Canada yew (*Taxus canadensis*). These sprawling evergreens have a unique character for our area. The wet banks also had some impressive displays of the sweet white violet (*Viola blanda*). As you might expect, twisting and turning every whichway, roots visible all over the uneven ground, yellow birch (*Betula lutea*) showed off it's exfoliating bark.

Well, here comes another downpour. Think

we'll call it quits for today. After all, how many soakings can you take?

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TRUE STORIES ABOUT ANTS -- SO DON'T HOLLER UNCLE

by Tom Sampliner

Other topics often interrelate with botanical subjects. One which I have found particularly fascinating is the extensive body of literature on Ants. One can not read these works without gleaning interesting tidbits relating to plants. I especially enjoy those efforts by multiple Pulitzer Prize winning author, Ph. D. Edward O. Wilson and colleagues.

I particularly recommend as very readable and enjoyable, a popularized text much in anecdotal format, by the team of Bert Holldobler and Edward O Wilson titled "Journey to the Ants" 1994 Belknap Press of Harvard University. This book was specifically intended as a popularization of more extensive and scholarly works by this famous duo. Incidentally, the photographs and line drawings are outstanding. Without providing a complete book review, I just want to pass along some of the revelations that have drawn me into learning of the world of ants.

In arid portions of the Americas, various member of the Acacia tree genus are often prominent. Some, such as the Bull's Horn Acacia, have evolved a special and symbotic relation with ants. In this tree's case, *Pseudomyrmex* species of slender, stinging ants set up colonies inside the tree. A newly mated queen searches for and locates a vacant tree and proceeds to drill a hole into the base of a

thorn or directly into a young branch. The Acacia produces small nuitritious small globular bodies upon the leaf margins, called Beltian bodies. These are plucked off as harvest by worker ants. Liquid nectar is also provided by the host tree. In return, the ants provide a formidible defense against all visitors to the tree, including herbivors and insects that have defoliation on the mind. Perhaps we humans can learn from this cooperative relationship. Acacia trees are not alone in providing nectar and food bodies to ant benefactors. Operating under similar menus are some of the members in the following plant groups: Euphorbs, madders, melastomas and the orchids.

To further pique your curiosity, know that some ants tend smaller insects like aphids as if they were cattle. Some ants even build structures to function like corrals and barns for their wards in addition to being the same formidible defense against predators as they are for many plants. In return, ants get milking rights as their wards exude sugar fluids nuitritious for the ants.

One need go no farther away than our own southwest to finds ants that use tools. Some warrior species gather pebbles in their mandibles to drop then down enemy nest holes.

Ants mastered temperature and humidity control long before man did. One mechanism used is the transport of water a drop at a time for use inside the colony to achieve desired temperature and/or humidity.

Leafcutter species defoliate for a not so obvious reason. The vegetation is not eaten but mulched fine enough to act as garden bed for fungi gardening, the parts of which are

eaten.

If you start reading about the ants, you may never stop.

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CONNEAUT CREEK
The Day with as Much Water Outside as Inside the Creek

by Tom Sampliner

On Saturday, May 10th, Jim Bissell's Northeast Ohio Naturalists group visited rich bottomland alongside Conneaut Creek in Ashtabula County. The parcel is newly acquired by the Cleveland Museum of Natural History.

Normally, a May 10th would be a warm delightful day for this part of the country. This, however, is far from a normal year. This fact was duly impressed upon me during the ride out. Rainfall came so hard at times along with driving winds that even high speed window wipers were insufficient for the task at hand. Since I-90 has a fair share of 18 wheelers, their passage creating huge sprays left me literally blind for 10 to 15 seconds at a time. Other than the safety factor, this was not bothersome as there wasn't much to see anyway.

Four hardy souls joined Jim for the occasion. As we milled around awaiting our start, we compared who had the most layers of clothes and how effective our footwear was predicted to be. Based upon wind, wetness and temperature, one would have guessed we were prepared for a winter botany hike.

To say these bottomlands are richly endowed is almost an understatement. Even from the road at the property entrance where we parked our cars there were memorable sights to

behold. One embankment, for example, showed of a tightly packed grouping of ill-scented trillium (*Trillium erectum*) in picture perfect condition. The same embankment and almost all over this property were those miniature green umbrella's commonly called Mayapple (*Podophyllum peltatum*). If they were bigger, we could have used the umbrella aspect.

One enters the property through a grassland of the domestic varieties. Now left unattended, large patches of violets have developed. The common blue violet (*Viola papilionaceae)* put on an impressive show. Perhaps slightly less profuse but equally attractive was a white violet I believe is *Viola striata*. Also in the grass was a large assemblage of cuckoo flower (*Cardamine pratensis*). This mustard stands some 8-10 inches or more high sporting racemes of white to slightly pink four part flowers with a compound leaf appearing very fern-like with each leaflet tiny and rather strap-like. As we approached the creek, Jim pointed out smooth shadbush (*Amelanchier laevis*), an uncommon species in our area. This small tree is very distinctive. The leaves are are a beautiful copper or bronze color and not fully developed at flowering time. Later that morning as we descended to the lowest floodplain we would catch a glimpse of a solitary specimen of a different looking species that was growing on the steep eastern creek embankment. Jim hopes this will turn out to be the state listed rock shadbush (*Amelanchier sanguinea*) which only closeup inspection of the tree will resolve. Certainly we could see the leaves of this shrub like specimen had fully developed green leaves, few flower clusters, a horizontal growth habit and other traits that show promise.

On the lowest floodplain on that same side of the creek, we could enjoy from afar a painter's palette of 18 inch high stalks of green with alternate wide ovate leaves atopped with the tell-tale blue trumpets called virginia bluebells (*Mertensia virginica*). In bud they are pink on the outside. Occasionally populations develop some all pink and/or all white specimens, which I have seen along the Rocky River, for example. We found bluebells on our side of the creek, but not the masses visible across the water. We did encounter densely packed populations of false hellebore (*Viratrum viride*). Their knee high deeply veined wide leaves can initially be a trickster. The leaves give the impression of certain orchid leaves. Amidst such lush greenery, the whorls of petioled leaves promise Turk's cap lily (*Lillium superbum*) to come. You might ask how one knows which lily at this prebloom state. Jim came to the rescue with this tip. An observation of minute teeth along the leaf margin identifies Canada lily (*Lilium canadense*) while a smooth margin signifies the Turk's cap.

Only in the open areas of the wet lands without the taller competition, could we observe the yellow-green culms in little hummocks of a sedge call *Carex bromoides*. This species tolerates either extreme of the acid/base scale.

Playing hide and seek among the hellebore and lilies were such ephemerals as: cut-leafed toothwort (*Dentaria laciniata*), the yellow violet (*Viola pubescens*), Jack in the pulpit (*Arisaema atrorubens*), as well as knee high but not yet in bloom Solomon's plume (*Smilacina racemosa*). Jim informed us that the swamp jack

(*Arisaema stewartsonii*) is also present on the property. While we did not see this species this walk, we did encounter some just out of the ground cousins of the Jacks, called green dragon (*Arisaema dracontium*). It's easy to miss things in the tall packs of hellebore. Part of the problem for having less attentive vision on the tiny flowers is the abundance of rose vines that constantly poke, gouge and trip you. I wonder if Larry, Curly and Moe learned some of their antics from encounters with wild roses.

Some of the scattered patches of blue iris (*Iris versicolor*) not yet in bloom seemed at home in the floodplain. Slowing down to see them, we had a chance to notice and debate which of the bellworts we were finding. The sessile leaved bellwort (*Uvularia sessilifolia*) was not a problem, but the perfoliate species were. Without flowers visible, you are obliged to contrast leaves glabrous underneath and 1-4 of them below the fork in the flower scape for *Uvularia perfoliata* as against leaves pubescent underneath with only 1-2 leaves below the stem fork in *Uvularai grandiflora*.

On the lowest floodplain, the early meadow rue (*Thalictrum dioicum*) was dangling it's tiny tassled flowers in the brisk breeze. I wonder if anyone gets a good picture of these tiny florets that always seem to be moving. A promise of color and pollinators to come was foretold by opposite egg-shaped serrated leaves, petioled and blotched with reds in the central portion; this is the beautiful mint, bergamot or Monarda. However, when it comes to telling which monarda one has with only leaves to examine, forget about using Weishaupt or Cooperrider. Only Fernald comes through by

contrasting petioled leaves for *Monarda didyma* the red flowered versus sessile under which *Monarda fistulosa* the pink flowered species falls. It certainly is irritating when the keys don't work with the condition you are looking at.

In sunny exposed portions of the lowest floodplain, the golden ragwort (*Senecio aurea*) was already out waving in the breeze like everything else.

As we worked our way back up out of the floodplain, we encountered much evidence of the touch of man. Planted bulbs were exhibiting their spring clothing of pastel flowers. The weedy, aggressive orange-flowered day lily (*Hemerocallis fulva*) closed ranks in knee high almost impenetrable formations. Along the former roadway to the creek, ruins of old small buildings and other structures lay weathering for the next venture to change their existence. Looks like quite a bit of stewardship awaits this property in order to allow a return to a more natural state.

There is nothing like the hot lunch on a cold day our small troup enjoyed together to top off over half day of botanizing. As I returned homeward along I-90, I had one more visual treat awaiting me alongside the freeway of all places. Three turkeys decided that the westbound berm offered pretty fair cuisine from their perspective. There they were grazing away, hopefully unnoticed by passing motorists and safe from hunters alike. This certainly was a fine ending to an enjoyable day outing along Conneaut Creek.

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BEWARE OF DEER

by Tom Sampliner

So the sign said along I-90. I was traveling eastbound toward Pennsylvania at 6:40 AM on Monday, May 26th. It was Memorial Day and I was looking intently ahead driving in the curb lane, cruise control set at the speed limit. Front window visor was down as a shield against the rising sun. That sun was straight ahead, already strong enough to blind any viewer from a straight on perspective, yet it was only 30 degrees at the most above the horizon. I also employed the additional aid of polarized clip-on sun glasses. I was feeling relaxed and looking ahead to joining my orchid hunting acquaintances from the Keystone State. The radio was on to help the mind click into working gear. That combined with my earlier morning coffee were pulling me out of that lethargy many of us feel as we start each new day. Little did I suspect how prophetic the highway signs would be that day.

I had already crossed into Lake County. The eastbound I-90 lanes taper quickly down into woods. The highway is a raised surface with a quick drop off into curbside ditch then woods. Highway planners probably do not spend much time contemplating the distance from curb lane to woods nor the fact one's vision is reduced both by certain times of day lighting conditions nor the quick drop off in terrain from highway to woods. These factors announced themselves to me that day when two deer decided that was the perfect time to bound from the woods up over the highway crossing toward the center strip. The first made it so swiftly just in front of my hurtling vehicle that I had

time only to remove cruise control, stamp on the brakes, and try swerving to the right (curb) that I had no time to even contemplate how fast and marvelous such a creature was. The follower was not so lucky. I caught the hind quarters which threw the deer upward and onto the hood, the momentum carrying the animal entirely across the hood and out into the speed lane where she skidded and then sat on all fours for a second or two. Fortunately no other traffic was near. Nonetheless, in a state of panic for having struck a fellow creature, seeing it still in peril, I pulled to the berm and jumped out to see if I could assist the stunned animal in any possible way. The deer struggled to it's feet, quite wobbly and wandered into the center strip. My recall is that it plooped down on all fours once or twice and rested at several spots then walked with noticeable limp across the center strip, westbound lanes of traffic, and onto the slope lining the north side of the interstate. As it finally disappeared from view, I was haunted by the image of that innocent face staring at me and looking at the horrible metal machine that without provocation had caused pain and injury. The vehicle was capable of fast motion and had great strength and power yet it was not dexterous enough to avoid by last minute finesse a collision. I could not detect visible wound or injury and there was no trace of blood. However, I can not conceive how at that speed and impact some injury was not created. I replayed in my mind all that had occurred. However, I could find no choice other than what course I had taken. The animal could not react to this moving object other than instinctively. Apparently, nothing wild

would be incapable of avoiding a collision like the auto.

I felt guilt for having caused pain to another creature. If only I could communicate across whatever lines separate the species to tell this innocent victim how sorry I was.

Lately, deer have been prominently featured in local news media. Their population is out of control. No natural predators keep them in check culling sick, old and slow to learn. Yet this problem is not alleviated by the ever increasing collisions on our highways. The starving in winter, illness and other unhealthy manifestations of overpopulation is becoming an urgent issue for all to find an resolution to. Hopefully, none of you will ever have to look into those large dark eyes staring innocently at you under such circumstances. Rare plants and deer alike must be anxious for us to come up with something as a solution to the ever increasing cross species contacts. Perhaps the lesson is for the greedy developers gobbling up more land all the times pushing the deer into smaller territory. What are the deer to do, start shopping for groceries at the store?

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