*LONG ISLAND MYCOLOGICAL CLUB*

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# L.I. SPOREPRINT

VOLUME 17, NUMBER 3, AUTUMN, 2010

## MUSHROOM DAY 2010

## *PLANTING FIELDS ARBORETUM*

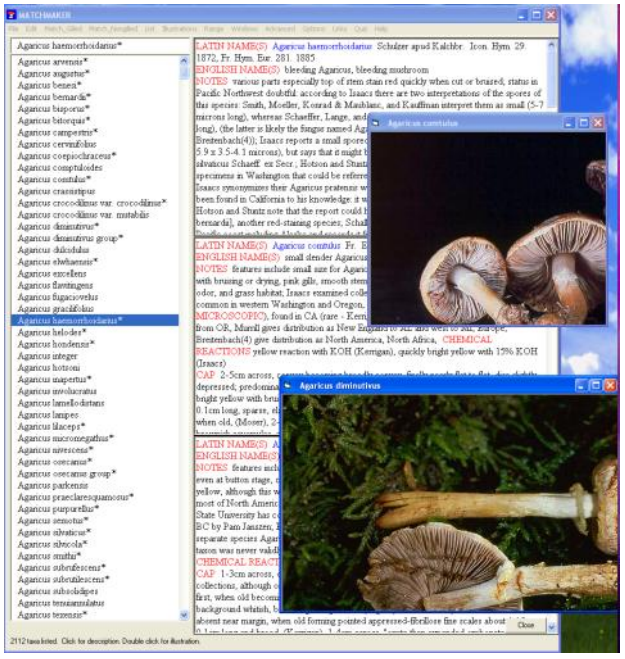
## OCT. 24 1 PM—4 PM


As one of the driest seasons in memory enters Autumn we can only hope that rain arrives to encourage sufficient fruiting for our annual public display. We will need everyone's help to collect enough samples and to assist in setting up the display tables. **Volunteers should arrive at 12 noon** in order to have everything in place by the opening time of 1 PM. Comb your favorite woods and fields to find interesting and showy samples for the public, and for own enjoyment as well.

This display has been a tradition with LIMC for more than 20 years, and continues to educate the public and attract new members. If you have not as yet participated, now is a good time to start.

## MATCHMAKER -MUSHROOMS OF THE PACIFIC NW- UPDATED

This identification program for mushrooms of the Pacific Northwest was originally published in 1999 and made available at a nominal cost to the public as a non-profit educational project with the support of the Pacific Northwest Key Council. It was authored primarily by one man, Ian Gibson of British Columbia, aided by his brother Eli, although over 150 photographers donated their work to it. Originally, it dealt only with gilled species (about 1000), and was later expanded to non-gilled, although the search function was limited to gilled mushrooms. The search function was syncretic, not dichotomous, and was referred to as a "random access computer program" by *Mushroom, the Journal* in 2001. In practical terms, this means that a species can be searched for by few or many characteristics, such as size, cap color, habitat, spore print color, and other macro and micro characters. Moreover, if one is certain of the genus, it is possible to confine the search to that genus alone, and to narrow the search by entering a word of one's choosing, reflecting a prominent or unique characteristic, e.g., bitter taste. No other program permits such a fine grained approach. Identification can often be a challenge, but Matchmaker provides a useful and comprehensive tool.



***SAMPLE PAGE– GILLED SPECIES***

***(Continued on page 6)***

# PRESIDENT'S MESSAGE

The summer season was so bad that autumn is especially welcome this year. The recent rains have encouraged mushrooms to pop up all over and pot hunters to head for the woods. What joy!

Our foray on October 2nd was quite productive with 64 species found and many edibles collected. Not many showed up possibly because of the tick warning that went out. By being careful, I don't think anyone was sorry they went.

The NEMF foray at Kerhonkson proved to be dry but many mushrooms were found. When we left, the count was around 278 and more being added. The beautiful scenery and trails everywhere more than made up for the lack of abundance of fungi that one would expect at this time of year. Seeing old friends was another plus. The mycophagy was the best ever. There so many different ways of cooking and serving mushrooms and they were all good. Candy cap cookies were a treat as they tasted like maple syrup. I enjoyed my time there.

Our annual picnic was a lot of fun this year. A lot of delicious mushroom dishes and other homemade dishes were served. Next year will even be better as these picnics evolve to become tastier each time.

Our annual luncheon invitations will be sent in a week or two. Remember, this is an event where we all get together at the near end of the season. We have fun too!

Mushroom Day is coming up quickly (October 24th) and I urge all that can to bring specimens that they find. The more 'shrooms the better. For those that have never attended, it is a good way to meet other members and maybe learn along with the public.

Get out there and start collecting. The woods are now moist and the leaves just have a tinge of color.

# EDITOR'S NOTE

If the rate at which new mushroom guides, mostly introductory volumes for novices, are being published, one has to conclude that mushrooming as a hobby is, well...mushrooming. The latest, and perhaps the best, of these publications, authored by Gary Lincoff, is reviewed herein, and comes highly recommended.

Can this be too much of a good thing? Is the burgeoning population of pot-hunters something to be feared? Perhaps in countries where mushrooming is an established custom, as in the mountains of Catalonia or the outskirts of Moscow, where one must arise early to be the first on the hunting grounds. But despite recent growth, mushrooming in the US remains a fringe interest, with numbers that are still small and forests large enough for all.

In fact, the growing public consciousness of the availability of wild foods, with the resulting elimination of phobic sentiment, has probably led to an easing of restrictions on collecting, e.g., on NYS DEC lands. There is still a long way to go, so it is incumbent upon us to educate the public on the ecological value of mushrooms, and our annual Mushroom Day is one small step in this direction, which offers us all a chance to participate.

**MATERIAL FOR THE WINTER, 2010 EDITION SHOULD REACH THE EDITOR BY NOVEMBER 30TH**

(Submissions may be forwarded by email in any format or typed.)



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## FINDINGS AFIELD

The observation has been made that while dry, adverse conditions may prove unproductive in species numbers, they do provide the possibility of rare or unusual species. This proved to be the case in August during continuing hot weather when Peggy found an Amanita in the sandy pine-oak environs of Indian Island County Park in Riverhead, which she immediately recognized as a species not previously encountered.


It was a yellowish Amanita with no annulus and a large volval sac, therefore of section Vaginatae. But yellow is an unusual color for this section, which contains only one yellow US species matching this description, which is still officially undescribed.

A stately, graceful entity, it was growing in sandy soil in pine/oak habitat, standing about 6 inches high. The younger caps were a pastel yellow color and the more mature one cream with a prominent tannish umbo, and striate. The gills were also cream, close and about 4 mm wide. There was no odor and only an indistinct taste. No staining could be observed, although the flesh of the pileus was tinged yellow close to the pellis (skin). The volva was tall, almost half the stipe length, and with an inner limb. Spores were subglobose, inamyloid, about 12-15 X 10-12.

Discovered by Mrs. E.M. Williams in the early 20th Century near Washington, DC, it was collected there by Dr. K.H. McKnight, and a watercolor of it was made. It is rare enough that Rod Tulloss, the eminent amanitologist, has found it only once, in 1984, in the NJ pine barrens. We immediately telephoned him with the news, completed the descriptive form, then dried the specimen and mailed it to him. It is hoped that this additional material will permit an official description to be validly published. Rod has given it the provisional epithet of *Amanita williamsiae,* in honor of its discoverer, and the English name of "Williams' Great Ringless Amanita".

We will gladly add the provisional name of this rare mushroom to our growing Long Island checklist.

## FORAY RESULTS SUMMARY

Alas, this is a sadly abbreviated report, as the bulk of our scheduled forays were cancelled due to continuing hot and dry weather. With the rain now finally coming our way, the next issue's summary should be much improved.

**JULY 24, BETHPAGE SP:** A total of only 15 species, compared to a normal of over 40, showed how poor conditions were. One Chicken (*L. cincinnatus*) and some *Agaricus campestris* were the only edibles.

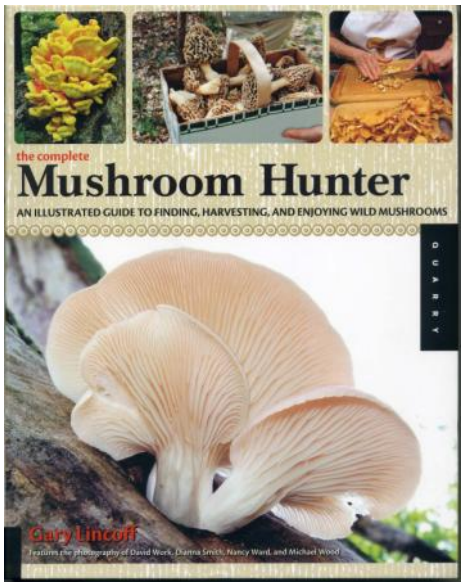
**JULY 31, MUTTONTOWN N:** A measly 8 species, but including the infrequently seen *Leucocoprinus fragilissimus,* and all 3 species of our areas *Crepidotus: applanatus, crocophyllum & cinnabarinus*.

**SEPT 11, CATHEDRAL & PROSSER PINES:** A real improvement after some East End rain, resulting in 38 species, with edibles including *Agaricus, Boletus rubropunctus, Fistulina, Suillus*, and loads of *Laccaria*, the largest caps I have ever seen. Also, two new species for our LI list, *Chalciporus piperatoides* and *Lepiota atrodisca,* the latter usually thought of as a west coast species.

**SEPT 18, BETHPAGE SP:** Although our picnic here was a great success, collecting was as poor as expected, with only half a dozen species, but that included enough meadow mushrooms for everyone, ample *Laetiporus sulfureus,* and a few fresh *Boletus chrysenteron.*


***Lepiota atrodisca***

**The Complete Mushroom Hunter-An Illustrated Guide to Finding, Harvesting and Enjoying Wild Mushrooms,** by Gary Lincoff. Quarry Books. 192 pages. $24.99.




At first glance Gary Lincoff's new book appears to be a beautiful coffee table volume. Once you open the book , you will find that that is much more.

The guide consists of 5 chapters, studded with Gary's stories and wit, in a conversational style that evokes his speaking voice. Nearly all the photos are clean, crisp and show features useful in identifying edible, useful and poisonous fungi. (The picture of *Agaricus xanthodermus* however, should have shown the yellow foot that differentiates it from the edible agarics.)

A short introductory chapter depicts the history of mushroom usage worldwide, emphasizing the difference between mycophilic and mycophobic areas. The market practices of different countries are described, as well as the use of medicinal and hallucinogenic species.

Places to find mushrooms seasonally in yards, parks and forests is the subject of the next chapter, which lists the various substrates and leads one through urban and suburban habitats. There we hunt for tree dwellers such as the chicken (*Laetiporus sulphreus)* and hen-of-the-woods (*Grifola frondosa)* and learn to avoid poisonous ones like Jack-o'-lantern (*Omphalotus illudens).* An excellent list of what clothing and gear is needed in the field and what precautions to take is provided. Dealing with overabundance is presented as an amusing and also a cautionary tale. How to clean, cook and preserve any excess is competently addressed.

Chapter 3, comprising the bulk of the book, is all about mushroom identification including seasonal and geographic charts of their occurrence worldwide. There are suggestions on how to prepare and preserve each species. The poisonous mushrooms are discussed next, also with a chart of when and where they grow. (This up to the minute section includes *Boletus huronensis*, only lately discovered to be a toxic North American species, and deceptively similar to some edible boletes.) Gary's descriptions are most valuable. The psychedelic and magic mushrooms are also included in this chapter, along with their effects..

Medicinal uses of mushrooms are the topic of the 4th chapter, which tells us what the fungi is supposedly known to cure and how it is administrated. For example, ground Reishi *(Ganoderma lucidum*) is used as an antitumor tea and for other ills. Those who are interested in natural medicine should find this of particular interest.

The last chapter is about mushroom preparation, complete with a sensible set of rules including setting one mushroom aside-just in case. Recipes provided are varied and imaginative.

An appendix on artful ways to use mushrooms -from spore prints and jewelry to art and paper making– adds another dimension to this quest. Mushroom dyes are also included. Each endeavor is beautifully illustrated and described.

As everyone knows, Gary is a *raconteur extraordinaire* and his recounting of his many varied global adventures (and misadventures) is a constant source of amusement and fascination.

This work is tailored for novices, and is unreservedly recommended to all new members; but it will appeal to everyone who loves a good read. Old hands will be brought up to date, and little known tidbits will strike everyone's fancy. Like a good meal, the main entrée is bracketed by succulent appetizers and sparkling desserts.

It is available on amazon.com for $16.49 plus shipping.

*Peggy Horman*

## WELCOME NEW MEMBERS

**Tom Bobrick** **Carolyn & Harry Brindley** **Risa & Ken Gold**

**Mike Galloway** **Jon Rosenkrantz** **Tom Stock**


■**FEAR NO SPORE ?** Mushroom gatherers have long been cautioned not to mix edibles and toxic mushrooms in one basket, for fear that spores of toxic species may contaminate the others. However, a recent study revealed that the spores of *Amanita bisporigera* contain only 17% of the amount of amanitin found in the fruiting bodies, and only trace amounts of phalloidin and phallacidin. Although the authors do not comment on the advisability of putting one's 'shrooms in one basket, the trace amounts shed in a short period of time likely cause little hazard if consumed. Nevertheless, zero risk is preferable to small risk. *(Amatoxin and phallotoxin concentration in A. bisporigera spores, T. McKnight et al, Mycologia, 102(4):p763, 2010.)*

■***CRYPTOPORUS* MOTEL:** A Japanese study of two closely related fungivorous beetle species showed that both used the volval chamber of *Cryptoporus volvatus* as a mating site, although the two species were temporally segregated, one occupying the chamber in May and the other in June. Evening field observation showed adults walking from one fruiting body to another, and suggested that males often waited for females at the entrance, and sometimes fought other males. This is the first report of such usage by fungivorous beetles, and several closely related species occur in North America, offering the opportunity for comparative ecological studies. *(Behavioral observation of two fungivorous beetles...on Cryptoporus volvatus, K. Kadowaki, Entomological Science (2010) 13, P.159-61)*

■ **EARLIEST PENICILLIUM:** A fossil turtle egg clutch found by construction workers in southeastern China has been dated to the Lower Cretaceous, about 105 million years ago, and contains a fossil fungus infecting one of the eggs. The discovery was serendipitous, occurring during a demonstration of a new Ziess field-emission microscope utilizing the broken eggshell, at great than 24,000 power. Fungsl hyphae and conidia were found and further analysis concluded that the morphology was similar to extant *Penicillium,* making this the first reported "intact Early Cretaceous asexual ascomycete and the earliest record of a presumed intact *Penicillium." (Fungi in a lower Cretaceous turtle egg from China..FDJackson et al, Palaios, 2009, v.24, p.840-5)*

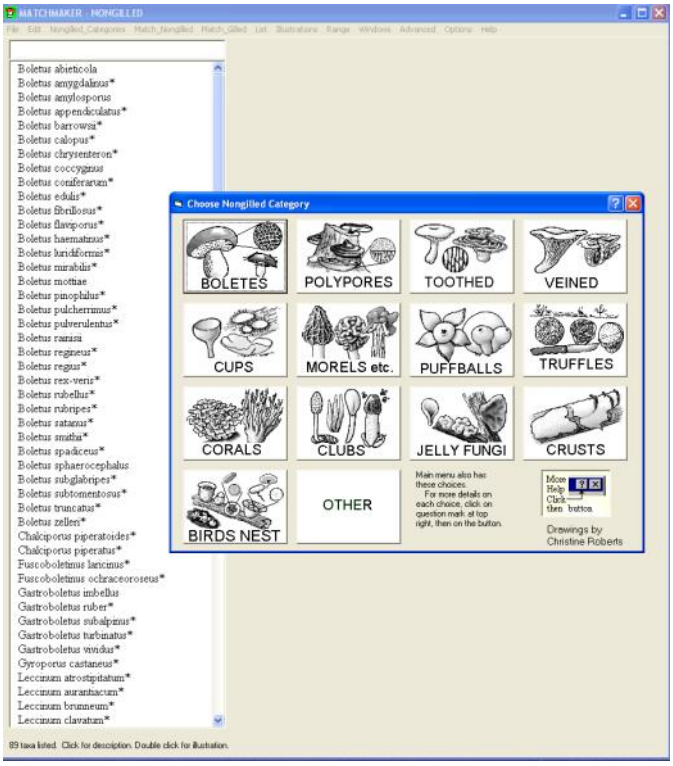
■ **TERMITE BALLS:** No, not an anatomical termite feature, but a fungus that mimics the eggs of termites, enticing them to care for them as their own. This phenomenon has been clearly documented in *Reticulitermes* species in both Japan and the US and described in a recent study. The brown colored balls were identified as the sclerotia of a corticioid fungus, a new species of *Fibularhizoctonia, (*an *Athelia* anamorph) which seems to differ little from colonies of disparate termite species. The fungus has evolved both morphological and chemical camouflage to mimic termite eggs, developing a smooth outer surface which non-termite associated sclerotia lack. No benefit is conferred to termite eggs, and *Fibularhizoctonia* sometimes kills termite eggs; at times the number of termite balls exceeds that of the eggs, so the fungus is considered a parasite. Because termite workers are sightless, no selection for color has been evolved, so that the sclerotia are quite varied and different in color from the eggs. *(Termite-egg mimicry by a sclerotium-forming fungus, K. Matsuura, Proc. R. Soc. B, 22 May 2006,v. 273, no.1591, p.1203-9)*

■ **NAMELESS "LITTLE WHITE MUSHROOM" PROVES FATAL:** For over 3 decades, residents in the highlands of Yunnan province. China have been dying suddenly of cardiac arrest, an estimated 400 cases in all. After a 5 year investigation hampered by many false leads, the culprit was identified as a small, innocuous mushroom, so little regarded that it bore no name. But it was consumed by villagers, who harvest a variety of wild edible mushrooms for the commercial market, amounting to about a third of their annual income, but refrain from eating marketable species. They consumed this one since it had no marketable value. When several members of 3 different families died suddenly, and all were known to have eaten the "little white" the pattern became clear; the mushroom was also found in the homes of other villagers who had been stricken. Mice fed the mushroom (an unknown species of Trogia– resembling a Clitocybe) by investigators perished. Other contributing factors were the presence of heart defects, and barium (a known cause of cardiac irregularities) in the water. Now that villagers have been warned, these mysterious deaths have mostly come to an end. It is the only toxic mushroom known that caused death by cardiac arrest. (*Will a Midummer's Nightmare Return, R. Stone, Science,9 July 2010, V.329. no. 5988, pp. 132-4)*

(Compiled by editor from above cited sources)

***Matchmaker-PNW Mushrooms*** ***(Cont'd from page 1)***

Why should this be of interest to East Coast mushroomers? Simply because despite two mountain ranges and more than two thousand miles between coasts, we share many hundreds of species. The percentage however is not constant between genera. As a random example, of the 17 full species of Agaricus listed on the NEMF 30 year cumulative list, 12 are found in Matchmaker, which contains a total of 47 Agaricus species. So even if you happen to search for one of the Agaricus not in the Matchmaker database, e.g., *A. pocillator,* you will probably arrive at a close




***Opening page-Non-gilled Mushrooms***

relative in the same section or subgenus, say *A. xanthoderma.* Jumping to Amanita, 70 named species of that taxon appear on the NEMF roster (100+ if we include Rod Tulloss' provisional species), but only about 20 of these are found in the PNW. In all, a grand total of 2,112 taxa of gilled mushrooms are described, of which more than 1050 are illustrated, many with multiple images. The closest approximation to this program is the iPod app "Wild Mushrooms of NA & Europe by Roger Phillips", which has 2,440 photographs of 1,550 species along with a short description, identical with those provided in Phillips' books. However, the search function is primitive, enabling one to perform a simple search with half a dozen characters, including spore color, but with nothing near the level of detail Matchmaker permits, and with haphazard results; the photo quality is low, but not poor.

The latest and long-awaited update, version 2.0, now includes searchable non-gilled species: a total of 1,979 taxa, ranging from *Abortiporus* to *Youngiomyces*- no, I never heard of the latter either. Of these, more than 800 are illustrated with more than 2000 images. It is expected that species lacking photos will be addressed by continuing updates. An extensive search function is now available which differs appropriately for each group: Boletes, Polypores, Truffles, Corals, Crusts, etc. For example, searching for a polypore requires entering the shape (effused-reflexed, resupinate, etc.), the presence and shape of cystidea or setae, types of hyphae and septa, etc., the latter two requiring microscopic perusal. If frustrated, one can browse illustrations of the appropriate genus-if known. Searching for a jelly fungus is simpler, requiring only 4 tabs: color and shape of fruitbody, habitat, stem (if present), and spore shape and size. The latter can be ignored, and only the remaining characters utilized, and the resulting illustrations browsed for the target species.

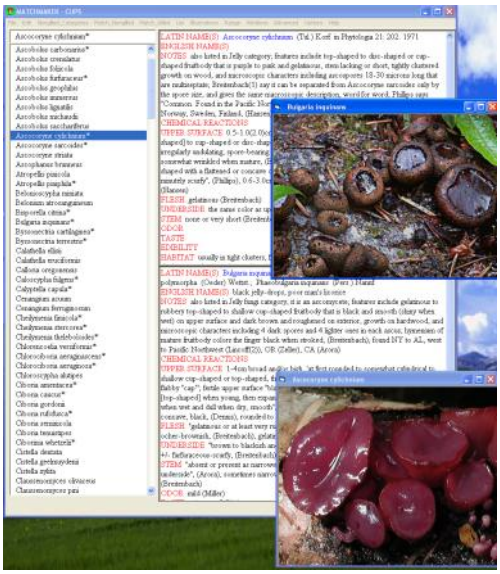
One of the amazing aspects of Matchmaker is the detailed description provided each species, greater than any popular guide book provides, and which commonly synthesizes and summarizes many authors' descriptions, which are surprisingly varied and sometimes disparate. Especially revealing is the difference is spore measurement size from one researcher to another, perhaps in part indicative of regional differences. Each written description includes references to the original publication as well as to modern guides and monographs, of which a detailed bibliography is provided. A section (usually a paragraph) is devoted to every aspect: cap, stipe, gills, veil, flesh, odor, taste, chemical reactions, habitat, spore deposit, microscopic findings, similar species, as well as "notes" summarizing the key aspects and geographic range. Illustrations are accessed by clicking on the species name, and an option is available to permit multiple illustrations for comparison purposes. A new browse function enables browsing of all illustrations in a particular genus. The other categories of non-gilled can similarly be searched and browsed, each in its appropriate manner.

Advanced options include the ability to modify or add to existing descriptions, and even to add new species. In this way, the program can be adapted to accommodate regional differences. Other useful

***(Continued on page 7)***

## *MATCHMAKER* *(Continued from page 6)*

features include (under the help tab) an extensive glossary, color definitions, and links to useful sites such as Mushroom Expert, North American Fungi journal, etc. Instructions for beginners are also available here.



***Sample page– Non-gilled (Cup fungi)***

I cannot praise this effort too highly: well thought out, impeccably researched, generously illustrated, comprehensive and adaptable, it has no peers in North America. Ian Gibson fully deserves the gratitude and respect of the mycological community for his dedicated effort.

As with any sophisticated tool, especially a complex computer program, it takes time to learn all the facets and how best to utilize them and to interpret the results. This is time well spent, and patience and persistence will be rewarded. While not every search brings instant satisfaction (We all know the vagaries of search engines) the success rate is good. Ian is interested in knowing of specific situations where the search function fails, and if you email him with particulars, this feedback will help to further improve the program.

To sample an online version of the gilled program, access: http://www.pfc.cfs.nrcan.gc.ca/biodiversity/matchmaker/index_e.html which was created by the Canadian Forest Service with the advise of Ian and Eli Gibson. The Matchmaker program can be downloaded free of charge at http://www.matchmakermushrooms.com if you have a broad band connection- these are large files. The other option (available on the website) is to order the CD from Ian Gibson for a fee of $10 to cover materials and mailing; there is no charge if one already has a previous version of Matchmaker. As they become available, updates will be posted on the website http://www.islandnet.com/~ig/update.htm and major updates will be announced to those users who provide email addresses.

## RECIPE CORNER

## LOCAVORE'S AUTUMN HARVEST MEDLEY

*by Peggy Horman*

**Ingredients:**

.1 Cauliflower (small) cut in florets
3 cloves garlic sauted until soft in oil
1/2 & 1/2, cream or broth
Butter, Salt & Pepper
1 1/2 to 2 cups assorted mushrooms
Olive oil/butter or mixture
Garlic cloves to taste, chopped.
Parsley, chives, thyme or whatever
Salt & Pepper

Boil cauliflower in salted water until soft (about 10 minutes) , drain and puree in food processor with sauted garlic adding some 1/2 & 1/2 or cream and butter until it has the consistency of mashed potatoes. If too dry, add more liquid. Salt and pepper to taste. Keep warm.

Meanwhile cut autumn mushrooms into fork size pieces (I used hen of the woods, Honeys, Agaricus and some Russulas), and sauté in oil/ butter with garlic. Do not let burn. Add broth and cook down until soft and plump. Add parsley, chives, thyme or combination of fresh herbs you like. ( Dried herbs work well but parsley should be fresh.) Salt and pepper to taste. Put mushrooms over the cauliflower on medium plates and garnish with a little parsley.

Serves two as a main dish. Hardly any carbs!


**IN THIS ISSUE**



***"Mushroom hunting is not about what you are looking for….it's about what you find."***

***Gary Lincoff, "The Complete Mushroom Hunter", 2010***

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