

MushRumors

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Mushroom of the Month *Xylaria* &#!x!x% (De Hourie) Krauser pro parte *By Buck McAdoo*

Dr. Anchises Schecter had always wanted to visit the Muir Woods. The legendary lure of the giant coast redwoods interspersed with bay laurel, big leaf maple, and tanoak all bathed daily by the relentless Pacific fogs was almost too much to bear. It would be a mycorrhizal paradise for conifer and deciduous aficionados alike. He wanted to get there as badly as any Arab ever wanted to reach Mecca.

Administrative duties at The University of the Skagit had held him back. For almost 50 years. If a crisis arrived while he was not there, he wouldn't be able to forgive himself. But now he was retired. His wife Myrtle had told him it was time to cut loose.

Dr. Schecter was unprepossessing in appearance. He had the stooped shoulders and downcast head of some of the local homeless. Mothers passing by on the sidewalk would tell their kids not to end up like this.

This assessment couldn't be further from the truth. This humble looking personage had put the University of the Skagit on the map. Once he had acquainted himself with DNA sequencing, he had single handedly thrown the slime molds out of the kingdom of fungi. For this unprecedented act, he had at first been besieged by reporters. They wanted to know if the slime molds would get their own kingdom, and if so, what would it be called.

"I've done enough, fellows," Dr. Anchises had replied, "We should leave the labeling to the next generation."

"My Anchises is modest to a fault," chimed in Myrtle, "Of course he knows what the new name will be. He just wants to see what young scholar will get there first."

Finally the great day arrived. They climbed into their RV and headed for the Muir Woods, just twelve miles north of the Golden Gate Bridge.

'Muir Woods National Monument' read the sign at the entrance. Dr. Anchises Schecter maneuvered the RV into a special parking lot for such beasts, and took a deep breath. A pileated woodpecker landed on a trunk nearby. It was a special moment. These towering redwoods were 800 years old. Even the silence seemed Pleistocene.

He and Myrtle stuffed their sandwiches into brown paper bags. These were then loaded into backpacks. Anchises strapped a camera to his waist. Myrtle indicated a loop trail straight ahead, and off they went. A few Psathyrellas hid behind a stump, then a spectacular break of the Sulphur Tuft. It was on!

They continued in silent awe for another 400 yards.

"Whoa! What have we here!" exclaimed Achimenes. He had stopped so abruptly he had nearly been crashed

Photo By Buck McAdoo



into by Myrtle.

For there, just to the left of the trail was about the strangest fungus he had ever seen. Multi-branched and pocked with tiny holes, it looked like something in the Xylariaceae. It was fruiting in moss from the base of a deciduous stump.

“Better hurry,” urged Myrtle, “Looks like that slug is into it.”

Dr. Anchises pulled out his camera and took the shot. Always a pleasure to capture other life forms along with the fungi. He was so happy he was almost purring. He edged right up to the fungus and took a closer look. Interesting. The entire fruiting body was pocked with holes the size of pin heads. Anchises knew that ostioles expelled the spores in the genus Xylaria. But never like this. Not right through the peridium and then the stroma like cannonballs going through a fort. He squinted in concentration. Somewhere way back in the periphery of memory he had heard of this group. They were definitely not native to the Pacific Northwest. There had been something disturbing, something not quite right about them. Eastern European entities with a murky history.

Myrtle plucked the specimen off the stump and stuck it in his lunch bag just before the slug would have reached it. They continued on the loop trail and found only half devoured Russulas often with the banana slugs still on them.

At about 3 p.m. they re-emerged onto the parking lot.

“Excuse me, sir, may we have a look into your lunch bags?”

Two park rangers had sidled up to them. One had short cropped red hair and the other was a woman with steel rimmed glasses.

“Picnicking is not allowed in the park,” she explained.

The red haired ranger relieved Dr. Anchises of his lunch bag. His lips were pursed in disapproval even before he had a look inside.

“Oldest trick in the book,” sighed the lady. She hauled out her camera to take the incriminating shot.

The red headed ranger now held the Xylaria by two fingers. The lady took the shot and put away her camera.

“Evidence,” she stated, “No fungi are allowed to leave the park. This is a \$3,000 fine. Your license, sir?”

“You can’t be serious!” shrieked Myrtle, “You have no idea who he is. This is Dr. Schecter himself. The man who kicked the slime molds out of the kingdom of fungi. Without the knowledge of people like my husband, you wouldn’t know the names of the fungi you have.”

“I don’t care who he is, ma’am,” replied the redhead, “It’s a blanket law. No nature products can leave the park.”

“Can you imagine,” added the lady, “If everyone took a mushroom out of the park, it would deprive others from seeing them.”

Myrtle was so nonplussed she couldn’t speak.

“You can come to our office and pay the fine now by credit card or fill out a card for a court appearance. But I must forewarn you, we haven’t lost a case in 23 years.”

The lady ranger grabbed the specimen from her cohort. As she did so, one of the branches broke off. It fell back into the lunch bag held by her fellow ranger. He passed it back to Anchises, pointing to a garbage can where he could dispose of it.

No one could have suspected it at the time, but that broken branch would carry Dr. Anchises Schecter all the way to the California State Supreme Court.

The court date was set for three months away. Plenty of time, thought Anchises, to come up with a name for the fungus. He had talked it over with Myrtle and came up with a line of defense.

He would prove to them that this was a non-native species. As such it was a danger to the native fungi in the park. If it proliferated, it could overwhelm some native mushrooms. His other point would involve the slug. It was clear that in a matter of hours the fungus would be toast. He wasn’t sure what sort of strength this argument would have.

Dr. Anchises knew his way around the sources of mycological research. Before they drove back to Washington, he and Myrtle downloaded all the info they could find on Xylaria at Berkeley and at San Francisco State.

Once back on the home front, research began in earnest. An original find of a fungus resembling his was from

the Sudetenland, dating back to 1807. Maximilian De Houry had found a collection at the base of a stump. He had published it as *Xylaria fuscoatra* and deposited them at a herbarium in Budapest. Noting the prodigious pockmarks created by the exploding ostioles, he had created the Subgenus *Ostiolatus*, Section *Ostiolatus*, Subsection *Enigmaticus*, the latter term referring to his feelings when he first encountered it.

Not much different than mine, mused Anchises. So far so good. A rather straightforward publication. But the species was evidently extremely rare. The next find wasn't until 1891. It was found by the brilliant Austrian Xylariacist Hammelbein in the subalpine area of Austria. It was a single carpophore. Hammelbein had taken it to Budapest for a comparison.

"Oh, no! Anything but this," groaned Anchises.

Myrtle hurried in from the sitting room. She found Anchises slumped over his desk, his head lying on the keyboard.

"That idiot, De Houry! Hammelbein discovered a mixed type. Two different spore sizes, two different kinds of paraphyses."

"You can't blame De Houry, dear. Something this strange, you would never suspect there were two of them."

Anchises forced a thin smile. Myrtle always had a way of framing a problem.

But it was time to move on. He could envision Hammelbein hunched over the various branches and shards. If De Houry had selected one specimen to be the holotype, which one was it?

"Dammit," muttered Anchises, speaking for Hammelbein as well.

According to his careful notes, Hammelbein had proceeded to separate the one entire specimen from the ones in pieces. This made good sense. The micro characters would have derived from the shards.

"Noooooooooo!" boomed Anchises. The sound could be heard clear across College Way.

"It can't be. It just can't be."

Myrtle scurried back in. After all, \$3,000 was at stake here.

"That idiot, De Houry," repeated Anchises, "He designated all three specimens as types. We now have a number of paratypes. No wonder Hammelbein stopped writing."

Indeed he had. He must have been beside himself. At the bottom of a page, he had scribbled in some desperate notes. Some of the microscopic features in his Austrian specimen did indeed match up with some of the features found in the shards. He then took the pieces he had examined back with him to his herbarium in Vienna, thereby creating a syntype.

And it wasn't until 1954 that another member of Subgenus *Ostiolatus*, Section *Ostiolatus*, Subsection *Enigmaticus* was found again. The location was now Latvia. A young German by the name of Krauser had found it. He had just received his doctorate in mycology and was eager to publish it as a new species.

Little did he know of the path ahead.

Exhausting research eventually brought up the presence of the pieces brought to Vienna by Hammelbein. He had no inkling that they might represent a mixed type. Nothing daunted, he proceeded to jot down micro characters that fit well with his own specimen. If they didn't fit, they were just passed over. He had committed a further obfuscation, the dreaded 'pro parte'. So instead of creating *Xylaria atrofusca* spec. nov., Krauser had launched *Xylaria fuscoatra* in the sense of Krauser.

Anchises slumped in his chair. It seemed the end of the road. Krauser had examined an isotype, the term for a piece of an original holotype that had found its way to a different herbarium. But what about that entire specimen left behind in Budapest? Krauser said nothing about it.

Myrtle bustled in with coffee and croissants from the Mt. Vernon Co-op. They were the best in the Northwest. Anchises should start to pick up.

"So, how about a neotype?" she brightened, "All you have to do is find another one from the original location."

"That won't work," whispered Anchises, "The original forest is now corn fields as far as the eye can see. The ethanol craze. It even affects mycology."

"Oh, Anchises, you are so smart," she smiled.

"Google Earth, dear. A child can do it."

"Isn't there another kind of type, one you can resort to when the original type is ambiguous?"

“Yes, the epitype. The Muir Woods specimen could be used as an alternative interpretive type, but who would buy it? We’re an ocean away from all other finds.”

After another week of pondering, Dr. Anchises realized his branch from the Muir Woods *Xylaria* could not be named. All the relatives were mired in chaos. There seemed no way out. It was at about this time that Myrtle came waltzing back in.

“But Anchises,” she laughed, “If it can’t be named, it just doesn’t exist.”

“Doesn’t exist?”

“And if it doesn’t exist taxonomically, how can you be fined for taking it out of a park?”

The trial opened in Sacramento with quite a bit of press. Picking in the parks had been an issue for quite some time, but now the great Dr. Schecter himself was playing a part. Representatives from county, state, and national parks all over California were in attendance. The Sierra Club sent over Greta Harrison, their legal adviser, a septuagenarian with dozens of victories under her garters.

“Let the trial begin!” thundered the judge.

The Muir Woods rangers were the first to take the stand. They came fully prepared with their *Xylaria* specimen and the photo that came with it.

“The specimen is exhibit A, sir,” explained the lady ranger with the steel rimmed glasses.

“And the photo is exhibit B, your honor,” chimed in her cohort, “Consider it the lectotype.”

“You are using ‘lectotype’ in the wrong sense,” interjected Anchises.

“I meant paratype,” shrugged the ranger.

“Even worse!” shouted Anchises.

Greta Harrison winced as if she were in pain.

“Order in the court!” bellowed the judge.

“Lectoparatype,” suggested a member of the audience.

“Paralectotype,” offered another.

“Will someone explain to me the difference between the two?” asked the judge.

“It’s complicated, your honor. If you are from a university lab in a first world country like France, you can use ‘lectoparatype’. But if you are from a lab in an emerging second world country such as South Africa, ‘paralectotype’ is more appropriate.”

There was a serious pause. Only a few in the room could recognize this was no definition at all.

Dr. Anchises was then invited to take the stand. The opposition was grinning in their seats. They already figured what Dr. Schecter’s defense would be. The issue of native versus non-native species, and they were fully prepared.

“Your honor, I would like to propose that the specimen I took from the park does not technically exist. It cannot be named via the rules from the International Code of Botanical Nomenclature. Therefore it cannot exist taxonomically and perhaps legally becomes a non-entity.

He then proceeded to detail his research into the origins of the ‘*Xylaria*’. His last hope had been the presence of that entire specimen left behind in the herbarium at Budapest. That had ended with a kleptotype.

“Kleptotype?” inquired the judge.

“That is when a specimen is sent from one herbarium to another, but never arrives at its destination.”

The jurors began to wake up. They had no idea that crimes were committed in herbariums.

“And so,” proceeded Anchises, “The herbarium of origin no longer harbors the specimen. No longer can any comparison be made. The fungus we removed thence becomes no more important than the grass from the park that is stuck to our boot treads.”

“But this is absurd,” interrupted the red headed ranger, “The doc took a specimen of nature from the park. That’s all you have to know. Kazam!”

Arguments flared back and forth across the isle. Then the judge requested that the jury retire to a chamber to conclude with a verdict. It seemed like they deliberated forever.

The jury foreman led his fellow jurors back in.

“Our jury is hung, your honor. Nine of us favor the arguments put forth by Dr. Schecter. Two of us could not discern the difference between ‘duplicate’ and ‘isotype’. And a third got too bothered by the kleptotype to render

any opinion at all.”

“The result,” he continued , “is that we don’t recommend a fine for Dr. Schecter at this time.”

Myrtle wiped a tear from her eye.

Greta Harrison, legal counsel for the Sierra Club, had heard enough. She stomped out of the back of the courtroom, wattles shaking in indignation. A reporter soon caught up with her out on the sidewalk.

“I will tell you just one true thing,” she snapped, “You will never have to sit through a farce like this again.”

In succeeding weeks she persuaded the Sierra Club to offer scholarships to college graduates interested in taxonomy. There would initially be five of them strategically placed around the country. Never again would rangers and lawyers have to stand helplessly by while being bombarded by types and kinds of types. They would be ‘plants’ ready at any time to march forth from their labs to prosecute the larceny decimating the parks.

Meanwhile, Dr. Anchises had departed Sacramento with a feeling of vindication.

“You know, dear, that Xylaria still has no name,” teased Myrtle.

“And so, it ceases to exist,” he grinned. And then he maneuvered their RV out of the parking lot.