Apis-UK The Electronic Beekeeping Newsletter

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It is always sad when we hear of the death of a member of the community to which we belong, and I was particularly sad to hear of the deaths of two staunch members of the beekeeping community. I knew Professor John Free from the many lectures he gave us in the Bee Research Unit at Cardiff University where he was a visiting professor and from the total encouragement he gave us all in our research projects. Even in our vivas where examination and inspection of our efforts was the order of the day, he presented an encouraging and friendly (if strict) aspect which helped us all in our attempts to portray ourselves as scientists extraordinaire. I didn't know Les Thorne personally but of course I had heard much about him and he was indirectly the cause of me taking up beekeeping. His beekeeping supplies company was situated directly in my way when I was down the road thinking about taking a look at beekeeping, and a collision was not far off. I entered, I saw and I was conquered – mainly by Paul Smith who flogged me a copy of Alan Campion's excellent book 'Bees at the Bottom of the Garden.' The next thing I knew, I was on a course which included a talk by Les about his company and a walk round the factory. I'm sure that the company that Les did so much to build up was a direct 'accelerator' of modern beekeeping interest in the UK, including my own and warrants my sincere thanks. So these two stalwarts have passed on now leaving a huge legacy of beekeeping advancement behind them, both in their own different ways, and for this we can all thank them. It is difficult to imagine that their names would be easily forgotten by the beekeeping fraternity.

This month's edition of Apis follows its usual line of presenting bee science and news to our readers and we welcome back Chad who has been absent from our pages for quite a while, so welcome back Chad. With the publication of a new book on the reverend W.C. Cotton, the 19 century bee master and author, we take a look at this remarkable man in the historical note and the poem as well as taking a glimpse of his life in the book section.

Our look at science in beekeeping takes us into the realms of pollination control, bumblebees and nest thermoregulation, dogs, wasps, sex and size, sex and drunkenness and also a look at how anecdotal evidence can (and often does) turn out to be based on science fact. The recipe for a change avoids the intake of mass calories and is based on fish. Try it. It's delicious – and healthy.

As usual we always try to reflect the interest of our readers, but we do need input from you. If you have any news or items of beekeeping interest (and with Apis this can include a wide variety of subjects), then let us know. Send them in. Share your interest with a good and intelligent bunch of readers. Poems, articles, news items, events (modern and historical) and miscellaneous beekeeping trivia are all wanted, and if you have any unusual recipes that involve honey, we need them.

The events list is growing rapidly as more organisations are beginning to send in their lists and I include one in French which demonstrates our global reach (well over the channel anyway) on behalf of Hubert Guerriat of Belgium who also sent in his Revue Mellifica, a subscription on line magazine for French speaking beekeepers. I also read with pleasure the excellent Notts BKA beekeepers' web newsletter edited by Stuart Ching and that of The Federation of Berkshire Beekeepers which includes an events listing for a talk on pollen in forensic science. That sounds extremely interesting (See events in this issue). To the editors of these newsletters I send my thanks.

Nest month we are going to take a look at honey and the brewing industry and investigate venom and its uses (outside of politics), so if any readers have items of interest to impart on these (or any other subject), get in touch.

The strange photo in last month's editorial was of young preying mantis insects leaving their egg nest after hatching. The nest was situated just under the hand hold of a beehive. Praying mantises do occasionally sit at the entrance to a hive and take bees, but this is not common and is of little consequence to the colony, although very interesting to watch.

What is the following photo all about?

I hope that you enjoy this edition of Apis UK and that you keep in touch.

All the best

David Cramp.
Editor

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Technology saving beehives
A beekeeper in the South Island of New Zealand is using microdots in a bid to stop thieves he suspects are taking hundreds of stolen hives to the North Island. He said that the beehives were being stolen to order to fill a gap in North Island supplies. He has lost some 200 hives already containing honey valued at $NZ50,000 and is now working with an Auckland company called Recordit to install the microdots in his hives. Each dot is less than a millimetre in size but can be accessed by police in efforts to find stolen hives.
The market for hives in the North Island because of losses to varroa and the high bee death rates during kiwi fruit pollination. (Often due to spraying by the very orchardists who rely on the bees).


NZ Beekeepers loading hives for kiwi fruit pollination.

Varroa has reached the South island now and after an initial expensive and futile effort at containing it, the NZ MAF has now decided not to proceed with its containment plans.

New Zealand Estimate of agricultural due to Varroa
Varroa's Impact in New Zealand has been assessed by the MAF organisation there and the estimated costs of the varroa mite up to 2035 are as follows:

Arable	$13.2 million
Beekeeping	$34.6 million
Horticulture	$64 million
Pastoral	$402 million
Total :	$513.8 million

(MAF estimate - middle case scenario)

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Queen Bees Shown To Pass Viruses to Their Offspring
In many beekeeping books and manuals of instruction, there is usually a section on bee diseases and in this section may often be read 'changing the queen may be beneficial'. With our increasing knowledge of bees and their problems, this phrase is

less often seen, but still for sac brood and paralysis disease (both viral diseases), it is thought that re-queening may help the situation due to possible hereditary factors.

Now, the first evidence that viruses can be transmitted vertically from mother queens to their offspring in honey bee colonies has been discovered by US Agricultural Research Service (ARS) scientists. They made the discovery by testing individual queen bees and their offspring for deformed wing virus, sacbrood virus and black queen cell virus.

The finding, reported earlier in 2006 in the journal Applied and Environmental Microbiology, were discussed recently at the annual meeting of the Entomological Society of America in Indianapolis. The researchers examined queen faeces and various tissues including haemolymph, heads, guts spermatheca and ovaries. Tissues of gut, ovaries and spermatheca, as well as the faeces, were found to carry viral infections. In a separate study, the virus status of queens and their offspring was examined simultaneously. Once viruses in the queen bees were identified, the same viruses were found in their offspring, including eggs, larvae and adult workers.

According to the researchers, this information is invaluable for improving understanding of the epidemiology of virus infections in honey bees. It could be used to predict bee colonies at risk of virus infection, which, in turn, would contribute to the development of effective disease-control strategies.

Can the queen bee pass viruses to their offspring? Research shows us the way.

Bumble Bees and Nest Thermoregulation

Bumblebee nest thermoregulation has always been poorly understood. This research shows us how they do it and that some bumblebees are specialists in the task.

Researchers have known that a key to the insects' success in adapting to cooler climates is their ability to maintain fairly stable body temperatures when flying to flowers. Apart from the well researched honey bees, how, and indeed whether they maintained nest temperature was poorly understood. But now scientists from the University of Washington and the University of Puget Sound have carried out research on bumblebee colonies and have discovered some answers. By exposing bumblebee nests to a range of temperatures, the researchers found that the workers are effective at buffering the nest from temperature extremes. Some workers specialized in raising the temperature in a nest when they incubated the colony's young developing bees or brood. Other workers fanned their wings to cool the nest when the temperature became too hot.

They found that performance of various in-nest tasks is not interchangeable among these social insects. Instead, the researchers found strong evidence for job specialization, even when a colony was artificially forced to step up its rate of incubation. The researchers challenged colonies by removing their most active incubating workers and lowering the nest temperature. One group of bees was consistently involved incubating across a range of temperatures. In a second experiment, the researchers removed the most active incubating workers. When this happened a colony's remaining incubators responded within 24 hours by increasing their rate of incubation, rather than having workers involved in other jobs switch tasks. Bumblebee workers vary considerably in size, and body size affects which tasks individuals perform.

The researchers expected that larger workers would be incubators, but found to their surprise the opposite was true. They don't know whether the smaller bees are really better at warming the nest, or whether the larger bees avoid incubating for other reasons. In general, larger bumblebee workers are foragers for food and they

could be committed to that task. This kind of size-based division of labour might make the colony more efficient."

The researchers studied Bombus huntii, a species of bumblebee common in the Pacific Northwest. Bumblebees, unlike most insects, are warm-blooded. They can heat their bodies, and can remain active at cooler temperatures than many other insects. To achieve optimum conditions for their young, bumblebees rely on nest thermoregulation, actively raising or lowering temperature. Because they are well adapted to cooler and temperate climates, bumblebees are important pollinators of a number of food crops including blueberries, cranberries, huckleberries and greenhouse-grown tomatoes, peppers and eggplants.

Note: This story has been adapted from a news release issued by University of Washington.

Dogs and Bumblebees

Further to the research article on bumblebee nests, remember that in July 2006, Quinn the Springer Spaniel, a specially trained sniffer dog was enlisted in conservationists abuzz with dog's role finding bees the Bumblebee Conservation Trust sniff out bumblebee nests in the Hebrides, one of the bee's last strongholds, and halt its slide towards UK extinction.

Quinn was taken from a rescue centre and trained by the Defence Animal Centre in Melton Mowbray for the project, thought to be the first of its kind. Springer spaniels are more normally used for hunting out drugs or explosives.
Quinn started his work on the RSPB reserve in Tiree alongside his owner Joe Waters, who is studying for a doctorate in bumblebee conservation ecology.
It's is the first time using a sniffer dog to aid bumblebee research has ever been done and

Ben Darvill, co-founder of the trust, said Quinn had been trained to "point" at nests he discovers, but stay at least 1ft away to avoid being stung.
He said: "Nests are incredibly difficult to find - you can't find them by sight but you can by smell, and that's when we came up with the idea of a sniffer dog."

He added: "What constitutes the population size in terms of bumblebees is not the number of individual bees, but the number of nests, as the nest holds the queen bee that reproduces, giving rise to the next generation of bumblebees.
"We have absolutely no idea of how many bumblebee colonies there are. We do not even know if, in some remaining strongholds like the Hebrides, there are two colonies or a thousand colonies. It is crucial that we ascertain this."

This piece of information was adapted from an article in the Scotsman in July 21 2006 by John Ross

The Floral Network: What Determines Who Pollinates Whom? It doesn't just happen!

What will pollinate these wildflowers and when. What organises this immense task.

A field of spring wildflowers, abuzz with busy insects seeking nectar and spreading pollen, may look like a perfect model of random interaction. Who or what will pollinate what and when. But it isn't just a matter of luck born out of random interactions. Now, ecologists have discovered order within this anarchy. For instance, as the number of species grows, the number of interactions does too, while the connectivity (the fraction of possible interactions that actually occur) and the nestedness (the relative importance of generalist species as mutualistic partners of specialist species) shrinks. Study of such networks of species is still in its youth, and the rules that generate these patterns of interaction are still being worked out. In a new study, two researchers, Luis Santamaría and Miguel Rodríguez-Gironés propose that two key mechanisms, **trait complementarity** and **barriers to exploitation**, go a long way in explaining the structure of actual networks of plants and their many pollinators. Researchers are just beginning to understand the mechanisms governing the complex network interactions between plants and pollinators.

The two mechanisms each arise from fundamental aspects of the interaction between species. For example, an insect will be unable to reach nectar in floral tubes longer than its proboscis; the tube length sets up a barrier to some species, but not to others. Each plant species also has a given flowering period. The specific activity period of each insect species will complement the flowering of some plant species more than others. Other barriers and other complementary traits have been described for a variety of plant—pollinator pairs. To explore the significance of these mechanisms, the authors modelled plant—pollinator interaction networks using a few simple rules, and compared their results to data from real networks in real plant communities. The models incorporated from one to four barrier or complementary traits, or a combination of two of each. They also tested two variations of a "neutral" interaction model, in which species interact randomly, based simply on their relative abundance. Different models did better at mimicking different aspects of real networks, but the two that performed best overall were the combination model and one of the neutral models. The authors argue that the neutral model, despite its appealing simplicity, can be discounted because it requires key assumptions regarding species abundances and random interaction that conflict with empirical observations of real communities. In contrast, the model combining barriers and complementary traits matches well with observed plant—pollinator interactions. Barriers alone would mean that pollinators with the longest proboscis would be supreme generalists, able to feed on any flower, causing perfect network

nestedness; while complementarity alone would mean that specialist pollinators do not interact primarily with generalist plants, causing unrealistically low network nestedness. Instead, the authors suggest, a combination of barriers and complementary traits accounts for the pattern of specialists and generalists seen in real pollination networks. The superiority of the combination model also has implications for understanding floral evolution. A common principle has been that plants co-evolve with their most-efficient pollinator to strengthen the complementarity of their matching adaptations. Barriers, however, while reducing exploitation by inefficient pollinators, may also interfere with pollination by efficient ones. Nonetheless, the results of the present study indicate that barriers are likely to play an important role in pollinator networks, suggesting that co-evolution with the most-efficient pollinator is not the sole factor governing floral evolution.

Sex and size difference

How Does One Sex Grow Larger Than The Other? Why are males larger than females in some animal species (such as most mammals), females larger than males in others (such as most insects), and why are the sexes alike in yet other species (such as several birds)? Further, how is such sexual size dimorphism achieved when it exists? If males and females grow at the same rate, then the larger sex has to extend its growth period. Alternatively, the larger sex can grow faster.

In an interesting International research effort, a group of 13 researchers from 10 countries investigated the latter questions using comparative data on 155 species of insects and spiders (arthropods) from 7 major groups. The results, published in the February issue of The American Naturalist, suggest that, generally, growth rate differences between the sexes are more important than growth period differences in mediating size dimorphism in arthropods. Nevertheless, depending on the species group, males and females tend to have equal growth periods (beetles and water striders), males have longer growth periods than females (two groups of flies), or males have shorter growth periods than females (so-called protandry), albeit not quite in proportion to the size difference between the sexes (spiders, butterflies, and Hymenoptera, i.e. bees, ants, wasps, and alike). As in most arthropod groups females are larger, they must therefore generally grow faster, an interesting pattern markedly different from primates and birds, which were also analyzed and in which differences in growth period between the sexes were generally more dominant. Three potential explanations for why female arthropods can grow faster than males are discussed. The most intriguing of these explanations is that, although it is generally cheaper to produce (small) sperm than (large) eggs, it may be costlier to produce male gonads and genitalia than it is to produce female gonads and genitalia. As a result, males might need more time to mature at larger body sizes.
This world-wide collaboration developed because most people work and thus have data on only particular animal groups. Wolf Blanckenhorn of the Zoological Museum at the University of Zurich in Switzerland called together all these researchers to investigate this specific idea about the evolution of sexual size dimorphism that had occupied him for quite some time.

Arthropods Result from Sex Differences in Development Time?" The American Naturalist, volume 169 (2007), pages 245--257.

Note: This story has been adapted from a recent news release issued by University of Chicago Press Journals.

Radio tags track wasp behaviour
Most beekeepers will be aware of the differences between 'social' bees and solitary bees, but a study of the paper wasp P. Canadensis has shown that they take their social responsibilities a stretch further.

The verv social Polistes Canadensis.

Wasps fitted with minuscule radio tags have helped scientists shed light on the insects' behaviour. Rather than just tending their home colonies, the worker wasps also buzzed into nearby relative-holding nests, helping raise the young, the team said.

The researchers believed the insects were boosting their chances of propagating their genes by nurturing relatives in multiple nests. The Zoological Society of London (ZSL) study is published in Current Biology.
Nest drifting, which is where individual insects move between different nests, has been described in a few different species of social insects, but it has always been a puzzle as to why they have done this. It has also been very difficult to quantify - the standard way is to mark the wasps with paint and then carry out nest censuses - so the researchers developed a new method."
To track the wasps, the team fitted the insects with Radio Frequency Identification (RFID) tags and placed sensors at the entrance of each nest to record their movements, in real time, in and out of the nests.
Passing genes

The researchers, working in the tropics of Panama, looked at an extended colony of 33 nests belonging to a species of paper wasp called Polistes canadensis.
In each nest, they tagged every female worker (those in the colony responsible for nest maintenance, food gathering and care of the brood), fitting a total of 422 with the RFID tags.

They found that 56% of the population, drifted from nest to nest, many more than previous studies had estimated. After further observations, the ZSL team ruled out that the wasps were lost, confused by their tags or trying to lay eggs in their neighbours' nests in a bout of social parasitism. Instead, it found the wasps were helping to raise their relatives' young.

Worker wasps do not reproduce themselves, but by raising relatives - who share their genes - they can pass on genes indirectly, explained Dr Sumner.
And these workers are gaining indirect fitness benefit by helping to raise relatives on lots of different nests rather just than their home nests.
This would be particularly crucial with wasps that face a high likelihood of getting their nests destroyed, such as the P. canadensis.

Can the Subcutaneous Injection Of Pollen-extract Ward Off Symptoms Of Hayfever ?

Injecting small amounts of pollen-extract just below the skin in people who have hayfever can desensitize them to the pollen and reduce their symptoms. It also reduces the amount of medication they use.

Has anecdotal evidence on the use of pollen to cure hayfever become scientific fact? It seems that this may now be the case.

These are the conclusions from a Cochrane Review of this therapy. The review pooled data from 51 trials involving a total of 2871 patients, 1645 of whom received an active treatment, while 1226 received an inactive placebo. Treatment consisted of an average of 18 injections spread over a range of times from three days to three years. The review found that the treatment was safe, with serious adverse reactions to the therapy occurring in only four patients; one of whom had been given a placebo. Three had an anaphylactic reaction and one had an attack of asthma. All of them recovered fully and none dropped out of the trial as a result of these side-effects.

"Because of the very low, but real, risk of an adverse reaction, this treatment should only given in facilities that have full resuscitation back up. Unfortunately, in the UK, this means that it can only be given in specialized centres, which greatly limits its use," says Review Authors Moises Calderon, a Senior Clinical Fellow in the Department of Allergy and Respiratory Medicine at the Royal Brompton Hospital, London, and Professor Aziz Sheikh, Primary Care Research and Development at the University of Edinburgh.

Adverse reactions to injections include itching of the nose and eyes, redness of the face, itching of the throat with cough, moderate wheezing and hives. The review reported two cases of anaphylaxis, a serious allergic reaction, among patients receiving injections. For the most part, adverse reactions that occurred were generally mild, and those that were not responded to injections of adrenaline, the review noted.

The risk of an adverse reaction also means that it should not be given to people who also have asthma.

The Cochrane Review concluded that injection immunotherapy is a safe and valid treatment for patients with hayfever, and particularly those who have not responded to other treatments.

The review appears in the current issue of The Cochrane Library, a publication of The Cochrane Collaboration, an international organization that evaluates medical

research. Systematic reviews draw evidence-based conclusions about medical practice after considering both the content and quality of existing medical trials on a topic.

Sex and the drunken bee

Last year we reported on the study of inebriation in bees which helped scientists to further understand alcoholism and drunkenness in humans. (We are evidently alike in this respect). But let's take the subject further and look at inebriation and sex! Do the two go together? They can do.

Following some 2002/3 research on odour compound detection by male euglossine bees, a paper researched and published by F. P. SCHIESTL* and D. W. ROUBIK^ demonstrates that male euglossine bees are attracted by the scent of certain orchid flowers where they collect odor substances and thereby pollinate flowers. Although this behavior has attracted considerable research interest, the purpose of the odor collection behavior remains elusive. New research could show us why.

Some plants reportedly rely on using intoxicating chemicals to produce inebriated bees, and use this inebriation as part of their reproductive strategy.

The South American Bucket Orchid (Coryanthes sp.), an epiphyte, is a plant that some claim uses this mechanism. The bucket orchid attracts male euglossine bees with its scent from a variety of aromatic compounds. The bees store these compounds in specialized spongy pouches inside their swollen hind legs, as they appear to use the scent as part of their courtship dances in order to attract females. However, the flower is constructed in such a way as to make the surface almost impossible to cling to, with smooth, downward-pointing hairs; the bees commonly slip and fall into the fluid in the bucket, and the only navigable route out is a narrow, constricting passage that either glues a "pollinium" (a pollen sack) on their body (if the flower has not yet been visited) or removes any pollinium that is there (if the flower has already been visited). The passageway constricts after a bee has entered, and holds it there for a few minutes, allowing the glue to dry and securing the pollinium. It has been suggested that this process involves "inebriation" of the bees but this has never been confirmed.

The South American bucket Orchid stands accused of inebriating bees to further its own ends!

In this way, the bucket orchid passes its pollen from flower to flower. This mechanism is almost but not quite species specific, as it is possible for a few closely-related bees to pollinate any given species of orchid, as long as the bees are similar in size and are attracted by the same compounds. The Gongora horichiana orchid was suspected by of producing pheromones like a female euglossine bee and even somewhat resembles a female euglossine bee shape, using these characteristics to spread its pollen. However, this seems unlikely, given that no one has ever documented that female euglossines produce pheromones; male euglossines produce pheromones using the chemicals they collect from orchids, and these pheromones attract females, rather than the converse, as one researcher suggests. Others observed that bees of the species eulaema and xylocopa exhibit symptoms of inebriation after consuming nectar from the orchids Sobralia violacea and Sobralia rosea.

*Geobotanical Institute ETH
Zollikerstrasse 107, CH-8008 Z¨urich

^Smithsonian Tropical Research Institute
Apartado 2072, Balboa, Republic of Panama Journal of Chemical Ecology, Vol. 29, No. 1, January 2003 (°C 2003)
Originally published online November 22, 2002,

For those interested, the web site below shows exactly how the bees transfer and spread these odours on their bodies.
http://www.uni-duesseldorf.de/MathNat/Zoologie/eltz/euglossine.htm

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The Honey Bee Family

Recently, in conversation with a beekeeper, I realised that I really hadn't much of a clue as to the place of honey bees in the order of things and had to rush to a text to remind myself. So for all those other readers who want a quick reference, here it is.

A quick reminder of the honey bee family and what it all means in English.

Group	Name	English Equivalent
Kingdom	Animalia	Animal (with)
Phyllum	Arthropoda	jointed legs,
Class	Insecta (Hexapoda)	six in number,
Order	Hymenoptera	4 membrane-like wings,
Sub-order	Apocrita	possessing a sting.
Section	Aculeata	Bees (20,000 species)
Super Family	Apidae	Social bees
Family	Apinae	
Sub-Family	Apis	Honeybees.
Genera	cerana	Eastern honeybee
	dorsata	Giant honeybee
	florea	Little honeybee
Species	mellifera	Western honeybee

A Day at the Office

By Chad

How was your Day at the Office?

I write this article several hours after spending all day selling honey at a cold and windy stall outside the Outlet Village in Swindon.

I suppose dealing with customers is an intrinsically necessary, though tiresome occupation when working on farmers' markets. Whereas the vast majority of the public are well-meaning, polite and engaging, there are those who continually try to thwart my efforts to be pleasant. Anyone who has ever worked on a stall, maybe anyone who has worked in retail, or maybe just anyone who has ever worked will know that it is the rudeness of others that can really grate on ones nerves and make a potentially nice day, less so.

Being a teacher, I cannot stand to see children that have failed to receive their healthy and correct dose of discipline by the age of two. Though I suppose the blame ultimately lies with the parents, I reckon most two year olds are self aware enough to know right from wrong; their sticky little grabbing hands aren't displaying playfulness, I'm sure it's malicious intent.

These children fall into two categories, (as defined by the behaviour of their parents.) I will summarise both. There are those children who have beaten their parent(s) into submission, their parents are at their wit's end, they have probably played-up all day, so, when the child decides my honey stall is the next play-area the parents are too numb to their surroundings to react to their frantic behaviour so that it is down to me to fend them off.

Then there is the other variety of child, this one has been brought up by parents who believe that fair discipline and good manners will rub off on their child passively, the best word to describe these children is feral.

As my honey may ultimately be bought for the feral child in question, whose sticky fingers are everywhere and ruining my efforts to display good hygiene, I cannot stop the child from tasting the honey, in fact I must actively encourage this. I have learned that children will rarely take a prepared tasting stick from me, this may be because some idiot taught them not to accept things from strangers, but instead they are taught that, Chad's Honey stall is a holistically tactile experience where the privilege of getting to dip the stick is as rewarding as the sweet, sweet taste of summer that Chad's Honey brings.

The novelty of certain situations has worn off, like when the child dips their stick into the sample pot, tastes the honey, smiles or makes appropriate noises of joy and then sticks the same licked stick back into the pot. There then follows a thousand apologies from mum: Dad, of course, never apologies, he just tells sed child off which, when the child then cries, is as good as an apology.

There is also the dexterity test; many members of the public seem quite slow to understand that liquids run. I now always instinctively say, 'make sure you twiddle the stick.' I loose count of the number of scowls I receive from angry mums who have Sunday-best tops to wash when they get home because their son or daughter was too kack-handed to roll the tasting stick. I love it when adults (and sadly it's usually men) get it all down their fronts. This is usually a result of them trying to get far too much honey on to the stick, greed, greed, greed.

Mind you, I like greedy customers. Greed, though sinful, is good for business. My best customers are not thin. What I cannot stand, is the greedy customer who

doesn’t want to buy anything. If there is one thing worse than that, it is the customer who tries the honey, tells you that it isn’t to their taste, or that it’s too sweet, too runny or too stiff and then helps themselves to some more, reasserts his or her opinion before walking off. Like I wanted your opinion, ****! Or the customer who eats half of the sample pot before looking and checking that you don’t have cut comb, before asking if you have cut comb and then telling you that that it is cut comb they were really after.

I am very nervous of the large family group that can sometimes descend on my stall; they are like industrial Hoovers that treat my stall like a bird table. Mum, Dad, three children, the neighbour’s children and two other extraneous adults, take two sample sticks each and pass the sample pot around several times, often remarking on how delicious the honey is, before saying a (usually very honest) thank you before walking away without purchase.

I don’t mind the excuse, ‘I might come back later.’ Nor do I mind the very up-front ‘I am not going to buy anything today,’ I like people to try my honey. It is nice when people say nice things about it. It’s just the ignorance of some which gets under my skin sometimes, that’s all.

Happy New Year.

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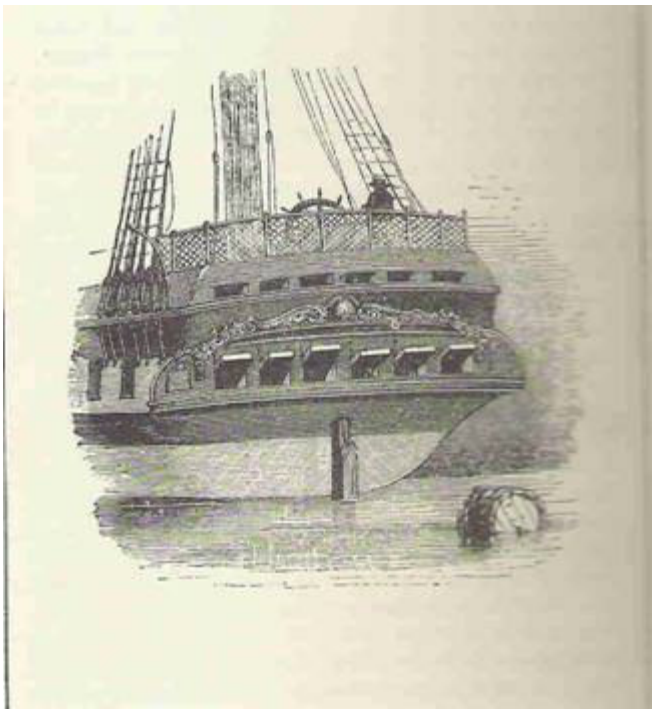
A New Book

There's a new Northern bee Books Book- William Charles Cotton MA 1813 - 1879 Priest, Missionary and Bee Master, by Arthur R Smith, In 1841 Cotton decided, against his father's wishes, to go with George Selwyn, who had just been appointed as the first Bishop of New Zealand. he gained first class honours in Classics at Oxford, he wrote a number of books on beekeeping Available at £9.00 post paid from Northern Bee Books.

The Rev W.C. Cotton is of especial interest to New Zealand beekeepers because he arrived in the very early days of colonisation as an assistant to the first bishop of New Zealand (Bishop George Selwyn) in 1842. He tried to carry his bees all the way across the world to this new land but the record shows that due to a problem with the ship he may not have completed this mission. He did however engage in beekeeping, and also beekeeping instruction to colonists and Maori, and his book ‘Manual for New Zealand Beekeepers published in 1848 is a classic of its kind. Earlier, whilst still in England he had published his ‘My Bee Book’ from which all beekeepers can learn even now. Cotton was a progressive beekeeper who wanted little to do with the (at the time) accepted beekeeping methods where bees were killed for the harvest and swarming encouraged.

In my opinion, he more than anyone else provides a written link between the beekeepers of the old style and the new breed of beekeepers who wanted to use discovery and science to help them in their endeavours.



A wood cut from Cotton's 'My Bee Book' showing his ship departing England for New Zealand 1842.

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Monkfish with honey
This dish combines two very healthy foods, fish and honey and is truly delicious. It comes from an old Andalucian/Moorish recipe which I saw repeated in a national newspaper a few years ago. It is easy to make and prepare and well worth trying.

4 small monkfish tails
1 large onion, finely sliced
1/2 tsp ground cinnamon
1 medium red chilli, de-seeded and finely chopped
175ml (6fl oz) fish or light chicken stock
4 tbsp sherry vinegar
1/2 tsp saffron threads, steeped in 2 tbsp hot water
4 tbsp runny honey
75g (23/4oz) raisins, plumped up in hot water
55g (2oz) toasted pine nuts

The leaves of a medium bunch of coriander, roughly chopped
Heat the olive oil in a frying-pan with a lid, season the fish and quickly sauté it on each side until it is just golden, not cooked through. Remove the fish.

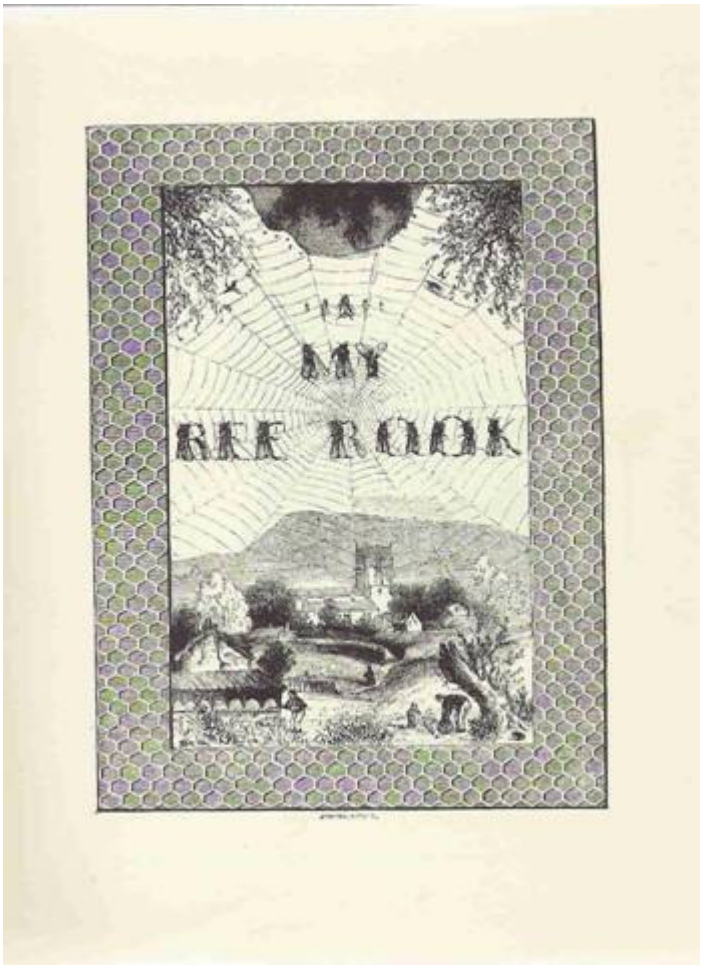
Now cook the onion in the same pan, with a little more oil if needed, until it just begins to turn golden. Add the cinnamon and chilli and cook for a couple more minutes. Pour on the stock and add the saffron, vinegar and honey. Drain the raisins and add those too, along with the pine nuts. Season, and throw in half the coriander. Bring to the boil, then simmer for ten minutes.

Put the fish on top of the onion mixture, spooning some of the juices over it. Cover the pan and cook on a very low heat for about eight minutes, or until the fish is cooked through. Scatter with the rest of the coriander and serve immediately.

HISTORICAL NOTE Back to top

Most beekeepers know that one hive of 60,000 bees can produce more honey than two hives of 30,000 and research tells us why this is, but this fact was known about as far back as the early 1800s by progressive beekeepers such as W.C. Cotton. Cotton also believed that the bees' ability to thermoregulate the brood nest and keep it up to temperature ensured that a hive joined to another hive thus doubling the bees would eat no more honey than a single hive. In this piece, he tells why he thinks this, and as usual he adds a short homily on good behaviour as well:

'*The reason of it seems to be, that where there are many bees in a hive, they can keep warm by hanging close together, instead of eating; so that in a full hive, the same quantity of honey goes further than in a weak one, as each bee eats less. They keep themselves warm from the outside, and so do not require to be heated inside; as a man who can when keeping bees, or any other honest way, have a good coat on his back, is warm enough without a brandy bottle'.*



A Title Page from W.C. Cotton's book which was published in 1842 prior to his departure from England for New Zealand. Cotton returned to the England in 1849 and became the vicar of Frodsham.

POEM OF THE MONTH Back to top

Continuing with the theme of The Reverend WC Cotton, this poem comes directly from WC Cotton's 'My Bee Book'.

'On entering Grantham from Stamford we pass through Well Lane. Forty years ago (from 1838) a swarm of bees settled on the sign post of a little inn at this place; they were hived and placed as the inn's sign, with this inscription:

> "Stop, traveller, this wondrous sign explore,
> And say, when you have viewed it o'er and o'er,
> Now, Grantham, two rarities are thine,
> A lofty steeple, and a living sign."

Told to me by old Carrick, clothes cleaner to Christ Church, Oxon, Free Mason, and Odd Fellow, as a recollection of forty years ago.

W.C.C.

LETTERS Back to top

Hi Jeremy, I have read with most interest your Beekeepers web site. I am presently an undergraduate at Cardiff University and I am studing Art and Aesthetics, final yeay 3. The medium I use to paint with is Encaustic Wax, which I am sure you know is refined beeswax. I am now researching, honey bees, beeswax, hives, history, use and futher potentials, industrial, hobbies, medication, and other issues.

I am now preparing for my final degree show which will be held in May 2007 at Cardiff University. In this show I am demonstrating the importance of honey bees and the futher of mankind, the preservation of man kind,and other exciting issues. I intend to create a installation in a studio which will repricate the inside of a 'beehive' complete with noise, activity, music, lights,movement, and colour, along with the creation of the honey procees in development.

I am looking for any information you may have that could help me in this module, pictures, photographs, of the inside of beehives, actual pieces of equipment used in bee hives. I will also be painting pictures in Abstract, using coloured beeswax of varoius issues, colours, patterns, shapes, and images. Any information you may have will be greatly appreciated. If you are interested I could see if I could organise permission for you and a colleage to see this exhibition which will obviously be a private one. If the exhibition is a success I intend to take it to London for a public show.

I do hope you can help me as it is rather a specialist area, and limited in resource available to me. Hope to hear from you. Best regards.

My address is 31 Heol Tyddyn, Castle View, Caerphilly, CF831TH. Wales. tele. no. 02920 888035. As above my e'mail is edward_hntr@yahoo.co.uk

DATES FOR YOUR DIARY Back to top

Pollen in forensic science - Michael Keith-Lucas
Friday 16th March 2007 at 7.30 pm
The Sutton Hall, Stockcross, near Newbury, Berkshire
Newbury Beekeepers' Association warmly invites you to the 25th annual Leaver Memorial Lecture, to be given by Dr Michael Keith-Lucas who is a micro-biologist lecturing in the Plant Sciences Department of Reading University. His research interests include allergy, plant taxonomy, and the ecology and history of woodlands. He is an expert on forensic biology and pollen and is currently working with research projects on pollen analysis of archaeological sites
in the Thames Valley.

The lecture is free and all beekeepers in the region are most welcome. We should therefore be very grateful if you would publicise the lecture amongst local beekeepers.

Directions:-
- Stockcross is on the A4000 just off the A4 on the western edge of Newbury.
- If you are coming from the north or south, use the A34 and take the A4 exit towards Hungerford.

However do not enter the A4 but, on the western roundabout, take the exit for the A4000 signposted to Wickham, Stockcross and RAF Welford.

- If you are coming from the east of Newbury, drive through Newbury on the A4 until you cross the A34 and then turn onto the A4000 signposted to Wickham, Stockcross and RAF Welford.

When in the middle of Stockcross village, turn south onto Church Road. The Hall is on the right after about 100 yards. The Hall has some parking space but cars may be parked (considerately, please) along Church Road and Glebe Lane.

Wisborough Green Division - West Sussex BKA

Beekeeping Course

Suitable for Beginners, Improvers, and Non - Beekeepers

At:- Village Hall, Lower Street, Pulborough, West Sussex. RH20 2BF.

Sat 14th April 2007 assemble from 9.00 for 9.30-5.00 p.m.

The course will be suitable for those who would like to discover what is involved in keeping bees, but will also be suitable for those who have kept bees for some time. It will largely follow the syllabus of the BBKA Basic Exam, but with variations.

Subjects covered will include:-

How to learn about bees

Different kinds of bees

How bees live naturally and how we can manage them	What bees collect - nectar, pollen, propolis, water
How bees store the crop	The 3 castes, queen, drones, and workers.
What happens in a beehive and where	How to start
The Wisborough Green Beginners Package	Choosing the type of hive and why
Siting hives	Essential equipment
Protective clothing	Handling bees
Colony Management	Swarming
Making increase	Dealing with the crop
Feeding	The colony in winter

Course fee £25 (£15 under16's) per head to include lunch, refreshments, and a booklet "Basic Beekeeping". One free place for the organiser of a party of 10 or more as one booking.

Enquiries:- Roger Patterson r.patterson@pattersonpressings.co.uk 01403 790 637

Booking:- Andrew Shelley, Oakfield, Cox Green, Rudgwick, Horsham. RH12 3DD. 01403 822 314

Cheques payable to WSBKA .

Web Site Visit us on www.wsbka.org.uk ["Divisions"] ["Wisborough Green"]

Prepare yourself for the coming season – now

Pulborough Village Hall is off Lower Street. Turn down next to the Oddfellows Arms, right to the bottom and turn right into the car park. If this is full then use the main car park immediately before it.

YORKSHIRE BEEKEEPERS' FIELD DAY.

Sunday 10th June 2007.

Location – 5 mins walk from York station
Themes – Bee Health and Bee Products

Speakers – Dr David Aston, Richard Ball - National Bee Inspector, Norman Carreck, Paul Metcalf, Heather Robson

Subjects – Integrated Bee Health Management,
Bee Disease Research, Microscopy,
Resistance Testing,
Bee products.

Tickets - £12.
Book early to select options.

Contact:
Colin & Debbie Hattee
Email: hatteehouse@talktalk.net
Tel: 01430 860972

Mellifica

INVITATION

Assemblée générale
samedi 3 mars 2007

Adresse du jour: "La Maison du Village"
Place des Trieux à Daussois

L'assemblée générale débutera à 14h30 précise et se terminera à 17h00

A l'ordre du jour :

1. Liste des membres effectifs présents ou représentés
2. Approbation du P.V. de l'A.G. du 18 février 2006
3. Présentation du rapport d'activités 2006
4. Présentation des comptes 2006
5. Rapport du commissaire aux comptes
6. Nomination de nouveaux commissaires aux comptes
7. Décharge aux administrateurs
8. Elections de nouveaux administrateurs
9. Programme d'activités 2007
10. Budget 2007
11. Groupes de travail 2007

ASBL MELLIFICA • Proposition de collaboration

Merci de renvoyer ce formulaire chez

H. Guerriat • Rue du tilleul 19 • 5630 Daussois

Nom & prénom :.....

Adresse : .....

Tel & email :.....

N°	Titre	Faire partie de l'équipe	Responsabie de l'équipe
1	**Fête des abeilles** Organisation, aide, animations, ateliers, etc.		H. Guerriat
2	**Carnet publicitaire** (récolte de publicités)		P. Blanquaert
3	**Sélection de l'abeille noire** (y compris VSH/SMR)		H. Guerriat
4	**Animations au rucher**		Fabienne Hus
5	**Aide aux apiculteurs de la zone de protection** changer reines, introduire cellule royale, répondre aux questions, etc.		
6	**Revue Mellifica** Rédaction articles, photos, cartoon, etc		H. Guerriat
7	**Entretien du rucher et de la station de fécondation**		D. Beucken
8	**Barbecue des anciens**		
9	**Journée porte ouverte à la station de fécondation**		H. Guerriat
10	**Groupe de travail « Anciens école d'apiculture »** :page réservée dans la revue, réunion de printemps, préparer rallye des ruchers, etc.		
11	**Occuper un emplacement de rucher autour de la station**		S. Dumoulin
12	**Participation au rallye des ruchers (jeu)**		
13	**Produire des colonies pour la vente au sein d'un groupe de travail**		D. Beucken
14	**Votre proposition :**		

QUOTE OF THE MONTH Back to top

This month's quote or piece of advice comes from a noted beemaster and author of the 1700s and tells of the bees' need for cleanliness and pure surroundings and where not to place hives. So who was it that said this:

'Let them not near the baleful yew tree dwell,
Nor broil crabs near, which give a nauseous smell,
Nor near the teaming, stench of muddy ground
Place their abodes.'

So if any of you were thinking of broiling crabs in the apiary, think again!