

## GARDEN MYRMICA RUBRA COLONY JOURNAL

### 23 APRIL 2005

Following the disappearance of my previous *Myrmica rubra* colony, in which the whole colony moved out of the tank they were living in and have set up home, or so I believe, somewhere in my Ant Room, though I have found no evidence of them yet.

These new *rubra*'s were sent to me by my friend Allan who found them living under a stone not far from his home. There are about 70 workers and 3 queens in this colony (they came from a colony that had about 700 workers and 13 queens in it!) They have settled in very quickly and have dug a nest in the peat. They have also started to forage for food already. Hopefully the 3 queens will start laying eggs very soon.

### 28 April 2005

My new *rubra*'s have settled in comfortably and have been feasting on wax worm and Satsuma over the past few days. They seem to have nest right up against the glass, though I have not taken a peek yet as I want them to really make themselves at home before I do this. My best friend came over yesterday to see me and he had a look at how my ants were doing. I showed him my new *rubra*'s and one of them climbed onto his hand, though neither of us saw it at the time. It wasn't until a few moments later when he felt something on his hand, that he looked and saw the *Myrmica rubra* ant exploring his hand. He gently replaced the ant into the correct tank and was not stung once (they must know he is my best friend!)

### 8 May 2005

There was a bit of a dilemma in this tank a few days ago when one of the queens decided to emerge from the nest to go for a wander, a worker was never far away. Somehow the queen got herself stuck under some soil and her movements caused it to cave in on top of her. I could see that she was clearly stuck and that the nearby worker seemed to be carefully looking for her. When it became apparent that the worker was not going to find the queen I stepped in and gently freed her before placing her with a group of workers that were feasting on a piece of fruit. After having been made a fuss of she immediately returned herself back to the safety of the nest.

A worker from this colony also met an untimely demise when she wandered into the *Lasius niger* tank (see the *Lasius niger* journal for details).

They have truly settled in now and seem happy enough.

### 14 May 2005

I have noticed with this particular colony of *Myrmica rubra* that they seem to be shyer than the previous colony that I owned. My first thought is that it may have to do with the fact that these ants have come directly from the wild, whereas my previous *Myrmica* colonies were raised in captivity from the start. This became apparent when I disturbed a group of half a dozen workers that were eating a piece of Satsuma; instead of attacking as the previous colony did, these ones ran away and hide under a piece of soil.

Today I was pleasantly surprised when I peered into the nest and saw a large batch of freshly laid eggs in one of the chambers. Yet another indication that they are feeling right at home.

### **31 May 2005**

These ants have become more bold now and do not run away so much. I fed them with a freshly killed fly, and a fresh garden pea, which oddly enough they seem to enjoy. The eggs continue to develop into larvae, with more eggs being laid.

### **4 July 2005**

3 workers from this colony lost their lives this week when they foolishly entered the *Lasius niger* tank, and were immediately engulfed in angry *niger*'s. This sparked off a slight reaction from within the *rubra* tank when several workers seemed to patrol the rim of their tank; however, no *niger* workers travelled that far.

### **16 July 2005**

Last night as I was walking up the stairs of my house to get into my pit, I found a huge moth on the wall; it was almost the size of a cat! Well, okay that's an exaggeration, but it was the biggest moth I have seen. I killed it and placed it into the *Myrmica rubra* tank, and within minutes it was engulfed in ants. The moth was covered in extremely soft fur and this came off and coated the ants that climbed into it. The fur did not appear to harm the ants, though they did have to groom the fur off from their bodies; they looked like grey furry ants! When I went into the Ant Room this morning I discovered that the fur had been completely removed and was in a pile next to the moth. The moth itself had been opened up and completely gutted, and is now nothing but an empty shell.

Yesterday I found a *Myrmica rubra* ant scurrying around in the *Lasius flavus* tank, and a dead *rubra* worker in the *Formica fusca* tank.

### **23 July 2005**

Some water went into the entrance to the ant nest yesterday, and the ants did not like it at all. A large number of them emerged from the nest looking for a fight, but soon settled down afterward. The last time this happened with my previous (still missing) *rubra* colony, they moved out of their nest into another they had built. These ants show no sign of doing that, thankfully. As with the *niger*'s they have been eating for Great Britain, and one of the three queens pops out of the nest for a wander. Whenever they do this they follow the ant line to the newly discovered food source, and despite the fact that they climb all over the food, the queens never eat directly from it. It seems that they are just having a look, as they always return to the nest after she examines what her workers are doing.

### **7 August 2005**

I was very surprised this week when I noticed several winged males in this colony. At first I thought I saw some winged queens too, but this may have been a mistake as I have seen nothing of them since. However, I am very pleased that there have been some winged ants produced in this colony, as this means the colony has become firmly established. If there were new queens too then they may have already mated with the males and descended into the Royal Chamber (which is out of sight for me,) to boost the number of current egg laying queens. Yesterday one of the males got a little bit too frisky and tried to mate with every worker he saw. Several workers got so fed up with this that in the end they grabbed hold of him, and gave him a right good kicking. He soon calmed down after that.

Today I placed a piece of marshmallow in the *flavus* tank, which is next door to the *rubra* tank. Despite the

fact that the rubra's also had their own piece of mallow, they went and raided the flavus tank of their piece of mallow. They found the piece of mallow on which the flavus were dining. One of the rubra workers grabbed a flavus worker and ran off with it to the other side of the tank, presumably where she could not call for help from her nest mates. The rubra worker, which was three times the size of the tiny flavus ant, promptly despatched the flavus worker with a well aimed sting. Another lone flavus worker attacked a group of three rubra workers, and needless to say another flavus ant bit the dust. Over the next half hour two more flavus workers were grabbed by rubra workers and carried off. One flavus worker was bitten clean in half, and another managed to escape its rubra attacker, but not without paying a price; she lost half of one antenna. As I type this update the flavus workers seem to have fled underground and there are now 6 rubra workers helping themselves to the flavus' mallow.

### **19 August 2005**

The winged male ants mentioned in the last update are still present in the nest, but in a much calmer state. I have seen no sign of any new queens and assume that I may have been mistaken when I thought I had seen some, as I am sure the males would have mated with them by now and, as with all male ants after mating, died. I have seen no male ant corpses in the midden pile.

The rubra's have not been able to find the Lasius flavus tank, which I moved away from them after their raid of 2 weeks ago, but have been confining themselves to their own tank. There has been a lot of nest expansion this week with huge tunnels beings created, as is typical of the Myrmica species. Typically though, the chamber that houses the queens is well hidden from view.

### **27 August 2005**

The day before yesterday I found one of the winged males wandering about my Ant Room. I did not know whether perhaps it had mated and had been kicked out of the nest, now that it had served its purpose, or whether it had simply gone for a walk and got lost. I replaced it back in the tank and watched it closely. So far as I can see it has not been attacked by any of the workers, and so I assume it has been accepted back into the colony.

I am currently clearing out my garden shed (which will take some time as I do not have a 50 megaton nuclear tipped missile to hand, the only thing that will help clear it out I think.) Once this is done I will transfer all my ant tanks into the shed so that I can reclaim my spare room. I hope to do this before the winter sets in.

### **10 September 2005**

Found 2 dead males last week, but on looking in the nest today I can see that there is still at least one winged male still alive within. This surprises me a little as I would have thought that they would have all been killed off by now. Still no sign of any winged females, however, I can only see into a small fraction of the nest, so if there are any present they may well be hidden away from view.

### **9 December 2005**

I have just got back after 2 months away from the UK, in much warmer climes. Due to the fact that the heating and electricity was isolated in the ant room when I went away, primarily to encourage hibernation.

There are a few workers sluggishly walking about, but they are totally ignoring the food I have put into their tank, I guess that due to the cold the queens have stopped laying, and so there is not much requirement for

food now. The ants' metabolism will be slower than usual, and so they also do not require much food for themselves either.

#### **22 January 2006**

I placed some ant jelly and a dead cockroach into the tank, and about 12 or so workers have ventured out of the nest to have a bite to eat. Whilst tidying up the ant room I found several dead *Myrmica rubra* males that had obviously left the nest and died after becoming trapped. None of the queens have emerged, and it would appear that no new workers have been born yet; or at least they have not come out of the nest if there are any.

#### **1 April 2006**

There are a few ants wandering about within the tank, but due to it still being quite cold they are not very active. I gave them some ant jelly but they pretty much ignored it. I have been away for 5 weeks but it seems that they have been feeding off an old cockroach body that I placed in their tank just before I went.

#### **5 April 2006**

I have seen 12 workers today walking around the tank. They have eaten the dead cockroach that I have just placed in there, but decided that they liked the honey better, which I had given them to provide a bit of a sugar boost. I think these ants are probably still very sluggish due to their long sleep and the cold at the moment, but they are still quite active. It will take several weeks for the ants to resume their normal activities.

#### **12 April 2006**

These ants continue to show that their species are more tolerant of the cold. They have been foraging in numbers of up to 12, particularly when a food source has been found. Many of the workers I see are quite old, distinguished by their very dark colouration. I have not seen any of the 3 (or more!) queens since these ants emerged from their semi-hibernation; they are still deep in the nest.

#### **15 April 2006**

There have been quite large groups of ants bringing up soil from deep within the tank, they are obviously expanding the nest, or perhaps repairing tunnels that may have collapsed during the winter. On looking in the nest I can see that they have built a very wide tunnel along the side of the glass, but this then turns away toward the middle of the tank, and out of sight. Typical!

#### **1 May 2006**

Whoa! These ants have been very busy over the past 2 weeks with loads of workers out foraging, taking food, and nest building. Yesterday I counted 60+ workers eating from 3 different flies that I had put into their tank. There are many dark coloured workers, signifying that they are older ants, but a few lighter coloured ones are seen occasionally. I have also seen one worker that is much larger than her sisters, an indication that the colony is doing well.

### **7 May 2006**

These rubra's continue to be extremely busy and have eaten a huge amount of food, and they still forage and stuff their faces, obviously the queens must be churning out eggs for England. They have stripped the carcass of a large cockroach until only the shell picked clean has been left. There has been some nest expansion taking place.

### **14 May 2006**

Now I know why they have been eating like horses; I lifted up the piece of slate that lies over the entrance to the nest and found a large pile of fat, well fed larvae underneath; the ants were obviously taking advantage of the heat that builds up under the slate due to its being in direct sunlight for a few hours each day. Immediately the alarm went out and ants poured out from within the nest and many of them snatched up the larvae and took them into the safety of the nest, while other workers ran about with their jaws open in an aggressive stance, looking to give something a good kicking. I replaced the slate straight away and the ant settled won, though they continued to move the remaining larvae into the nest. Nest expansion still continues.

### **31 May 2006**

The rubra's continue to be, by far, the most active of all my ant colonies (with possibly the exception of the *Lasius niger* colony now out in the garden). They are still consuming a large amount of food and continue to send out workers foraging far and wide. A small group of workers happened upon a stray *Myrmica scabrinodis* worker that had wandered too far from its own territory, and paid the ultimate price with its life. There has been a lot of brood movement as the ants keep the larvae at the optimum condition range.

### **24 June 2006**

I have been away for the past few weeks so have not been able to study these ants during that time. Due to the fact that these ants have not been fed for the past 2 weeks, at least by me that is, the rubra's have extended their foraging patrols and now regularly send a large number of workers out into the garden. At first I thought that I had been victim of yet another colony move but I was reassured when I saw workers bringing back prey from the garden into the tank. It is interesting watching them react with the new environment outside and capturing small, live prey. The colony continues to grow in size and I think they will soon start to become too big for the tank, so I now have plans in action to get them to move into a bigger tank. I shall do this by simply filling a new, larger tank with fresh, damp soil, with a few things thrown in to make it more realistic. I will then place the new tank right next to the current one and see if they prefer that. If they do then they will move into the new tank of their own accord, and I can then use the smaller tank for another colony, or perhaps as an 'emergency standby tank.'

### **23 July 2006**

Due to the fact that I have been away (again) for the past few weeks, I have not been able to see much of these ants. They do continue to be active in their foraging, but nothing more exciting than that I'm afraid. However, I do have an interesting update on this colony:

I was only saying in the last update that I was considering moving the colony to a bigger tank, but the ants have taken their own plan into action; they "budded." This is a method of colony founding in which a large colony with several queens will split into two, with one group moving out of the nest and taking with them a percentage of the workers, queens, and brood. The new group moved out of the tank and into the garden, even closer to my house than the *Lasius niger*'s who completely moved out some weeks ago. They seem to be thriving in the garden and bring back a lot of food into their new nest. Seeing as I now had this second colony of *Myrmica rubra* I decided to give the remaining colony in the tank to a bin lid I know who has an interest in ants. This leaves me with an empty tank for some more, different ants. The only problem with the new nest location is that it is actually under concrete, with the hole at the lowest part of the concreted area. This means that in heavy downpours, puddles can collect around the entrance to the nest, and when the water level rises too much it can flood into the hole. There was a sudden downpour yesterday which proved this to be the case, but fortunately I noticed it just in time and plugged the hole to the nest up. Once the rain stopped and the water subsided I removed the plug and allowed the ants to come and go as they pleased. I need to think of something to build around the entrance to the nest to act as a water barrier. If you have any ideas please let me know.

### **6 August 2006**

I have created a flood proof barrier for this ant nest as spoken about in the last update. I created a mound out of a large blob of blue-tac which I moulded into the shape of a mound and placed over the nest entrance. I then cut off the end of one of my test tubes and placed it in the centre of the blue-tac mound so as to provide a way in and out for the ants, which was really an extension of their original hole. With the hot weather we have been having lately the sun made the blue-tac mound stick to the concrete. I then covered the mound with tiny stones which soon became firmly embedded into the blue-tac, and then I covered the rest of the visible blue-tac with a fine layer of soil.

It soon became apparent that the ants at times found it difficult to cling to the smooth sides of the test tube tunnel, causing them to fall back into the nest, or back out of it, depending on where they were. So I cut up a few rough twigs and placed them as you can see in the picture below. This gave the ants the much needed rough edged walkway, and now they can walk up and down with ease.

I have noticed over the past week that the *rubra*'s have been restricting their foraging areas. They used to go halfway up the garden but now rarely travel more than 60cm from the nest entrance. I believe this may be due to my large *Lasius niger* colony currently having expanded their own foraging territory into the of the *rubra*'s.

### **9 September 2006**

I had noticed how the *Myrmica rubra*'s had suddenly started to forage in a much small area than before, which I think is due to the large *Lasius niger* colony further up the garden expanding their own territory. Now the *rubra*'s were only foraging in an area where there didn't seem to be much food for them. I sat there watching them and wondering why they did not forage further "west" where there was a small stone wall behind which was lots of soil and plants (well, weeds). As far as I knew there were not many *Lasius niger* patrols there if any, and I am sure that the *rubra*'s would find better food success up there. So I decided to try to encourage them to do so by making a nest entrance mk 2. You can see a picture of this new set up on the *Myrmica rubra* page if you have not seen it already.

The plastic box you may recognise as a "Tic-Tac" box (orange & lime flavour tic tacs in case anybody was interested.). It has what I call a clear end and a white end. The white end is on the left and is the lid of the tic-

tac box. The clear end has a hole in it which allows the ants to come and go as they please, and to forage in their normal territory. This can easily be closed with a blob of blue-tac. The white end has a length of PVC tubing which is inserted into the lid and pokes into the tac-tac box to about the middle of the box. The tubing snakes out over to the dirt and plant (weed) area that I mentioned. At about midday each day whilst this hot weather continues (the hottest part of the day) all of the rubra's return to the nest where it is cooler. During this time I closed the 'door' at the clear end. Now the only way out for the ants is to traverse the length of the tubing and emerge in the dirt/plant area. To date I have only seen one ant walk along the tubing and got about 2/3 of the way along before double backing on itself and returning to the nest. But I am sure if I keep the door in the clear end closed they will eventually find their way along the whole length of the tube and out into the dirt/plant area. But, I hear you say, if the tic-tac box is over the entrance to the ant nest, how do they, 1) get out of the nest and, 2) how do they get into the tic-tac box? The answer is simple; the tic-tac box has been sealed over the entrance of the nest, but there is a hole in the bottom of the box which lies directly over the hole in the ground where the rubra nest is. The ants emerge from the nest and find themselves in the tic-tac box. The box itself also has plenty of air holes in the top of it to allow air to circulate through the box and into the rubra nest. The holes are large enough to allow this to happen, but small enough to prevent the ants escaping through them.

The set up may look crude but it works.

#### **21 November 2006**

#### **HIBERNATING.**

#### **14 March 2007**

Hurrah! These ants have also awoken from their hibernation; I saw a worker foraging around near the nest entrance – just the one though! She was walking about seeming to move around rather cautiously and even ignored a piece of freshly killed cockroach that I had placed out earlier. Then I realised that she had probably detected the scent of the nearby *Lasius niger* workers who were investigating the food for themselves. It has been rather warm and sunny for this time of year over the past few days here, and this seems to have encouraged the ants to become more active.

#### **7 April 2007**

I have not seen much of these ants since they emerged from hibernation last month, though I did see one wandering around yesterday taking particular interest in a piece of chocolate cake I gave her. She also came into contact with a wandering *Lasius niger* worker, but the two more or less ignored each other.

#### **28 April 2007**

The rubra have been quite active since the last update, and as I look out of the garden door from where I am currently typing this update, I can see several wandering about, some coming back to the nest with little bits of food. I have been giving them some mealworm, but they have not taken much notice of it for some reason. I have removed the piping that went from the nest entrance into the soil area of the garden, and it has seemed to made them more active. I still need to sort out some form of water barrier for them as the area that the nest entrance is located is prone to collecting water when it rains. There have been a few incidents involving the local *niger* colony, with a few 'tussles' breaking out. Today I noticed a few dead *niger* workers near the rubra nest.

**17 May 2007**

I became a little concerned for the welfare of this colony the other day after a heavy rainfall caused a large puddle to build up near the nest. The puddle, caused by a blocked gutter overflowing, grew until it reached the entrance to the rubra nest, and then it began to pour into the nest itself. However, once the rain stopped and the puddle drained away into the drain I noticed a few rubra workers emerge and carry on foraging as if nothing had happened. This has occurred twice now and so I assume that the water, although it pours into the nest entrance, is not actually causing any problems within.