



HUNTING WITH THE SPARROWHAWK


Beaters and Beating, Fieldwork, Throwing

Now that all things have been taken care of to the best of your ability, the time has come to hunt with your hawk. If you have ensured that your hawk is well used to coming out of trees with a group around, including dogs, all will be well and you will not have any major problems at a field meet. You will be surprised how quickly the hawk will respond to the dogs plunging in and out of cover. As the hawk sees things, when the dogs dash in, something to chase gets out and the blood gets up. You will see how quickly the keen hawk will watch your every move or rather that of the beaters. If you choose to cast her up into a tree and join in the fray, she will readily follow and have a good advantage. I love to see how the sparrowhawk responds on the fist to the excited shouts and yells of beaters when quarry is sighted. Maybe she has seen it long before the rest of us. Hunting with sparrowhawks should always involve a crowd of friends as beaters and the noisy banter is much of the fun. Now and then you may misjudge her humour so the lure gets you out of a jam. On the other hand, she may be sticky-footed and attempt to chase the flushed quarry only to forget to let go of the glove. Give her a quarter crop and fly her again about two hours later when the other hawks have had a go and she will be less sticky on the glove. When you do slip your hawk at quarry and there are other hawks about always shout "Hawk away". In this way everyone else with a hawk knows not to slip theirs. Two sparrowhawks in pursuit of the same quarry is a recipe for disaster and it should be avoided at all costs.

Once I lost a lovely little first year eyass to an intermewed sparrowhawk. It was my mistake and a fatal one. The eyass was being flown by a guest and we both marked down quarry in a gorse bush on some open hillside.

I took my position on one side and my guest took the other. In the excitement we had not agreed as to whose slip it would be. Out came the quarry and the eyass was slipped and gave a hard chase. In my

opposite: (Photo Vaughn Sargent) Sparrowhawk and quarry, Co. Meath 1991

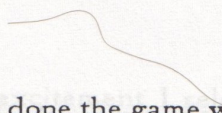


excitement I released pressure on my hawk's jesses and she also flew hard. All three disappeared into cover some fifty metres away. Only one hawk, however came out alive. The eyass was so badly injured by the older female she had to be put down. An eyass will do the same to another eyass, so do be careful.

Actually organising a field of beaters can be noisy and troublesome, particularly when two or even all the field suddenly become Field Masters. It is best to appoint a Field Master at the beginning, preferably someone who has experience. Let everyone agree to abide by him. Beating bushes with sticks is sometimes understood by a group as an exercise in felling trees! This achieves little and expends unnecessary energy. Firstly, you must read the landscape and then organise a plan of action. In so doing you will discover a hard core of enthusiasts who will do anything asked to achieve sport. Also there will be a small minority who feel themselves above all this and are, or so they believe, present purely to be entertained. For my part I totally ignore this lot and always hope to freeze them out with stony stares and silence. But if you can muster six or eight who will do or die they will create the sport. It is funny to watch the change which comes over people when they attempt to vie with each other as to the best way to beat a row of bushes. It is possible to notice a complete personality change even in one's self. Certain friends reading this will chuckle with amusement at a certain gentleman who carved a niche in hawking lore for himself in this regard. Much shouting and argument will ensue, but it should always remain lighthearted. Also you should watch out for the 'deaf' beater who decides he can do a smashing job all on his own or the two on the sideline who, talking incessantly, only want to impress each other with how high their longwings wait on. They will add, when any attempt is made to hand them a stick with the obvious intention of getting them to take part in the proceeding, "Oh, but we just came along to give the new chaps moral

support". Still, the enthusiasm of the hard core will make up for them. Beware though, because if quarry slips away unflown, our two friends will be in first to tell you where you went wrong.

If, for instance, a long thick hedgerow, well over head height, has to be worked then a careful approach to the task of getting a good flight for the hawk is needed. It would be pointless to arrange a group of beaters to walk along with the hawk as everything will quickly disappear out the far side. Bear this in mind always when beating cover. The quarry concealed in the thicket can see out very clearly and easily and it will especially see a hawk. On the other hand, it is difficult for anyone, or even a hawk, to see something inside the hedge if it is motionless. Suppose, for the purpose of this exercise, we have only one hawk and six beaters plus a couple of spaniels and the hedgerow is a hundred metres long. Watch for a large gap such as where the bushes end or where there is a gate. This would be the best spot to place the falconer and not too close to the cover so that the hawk will have time to react at whatever comes out. Get the falconer to walk to the gate well away from the hedgerow itself, quietly and without fuss. This leaves the game in the hedges unperturbed. The 'stops', who are standing quietly opposite each other on either side of the hedgerow, prevent or at least discourage anything coming out. Place two stops, one on each side of the hedgerow about three quarters of the way along from you. They must stand facing the hedge about five metres out in the field and remain quiet. Two more stops do the same at fifty metres. That leaves two beaters, one on each side. The spaniels are not hunted yet. A certain amount of noise will have been created in these preparations so probably all the stuff in the first twenty five metres of hedge will have moved on towards the halfway point. The two rear beaters should simply tap their beating sticks, almost gently, and walk along on both sides of the bushes parallel to each other. The object being to drive the quarry without undue alarm further up the hedgerow. If this



is done the game will continue on along the hedge. As the last two beaters arrive at the midway point all the beaters on each side should have by now spaced themselves evenly on each side between the end of the cover nearest the falconer and the last two men. By the time the three quarter point is reached game will become visible as it emerges but will quickly dash back in again because of a row of three people on each side only eight metres or so apart. Now, in the last ten metres the spaniels can be put in and the waiting hawk, by now crouched on the falconer's fist in anticipation, will get that chase we have all been waiting for. Her jesses are, of course, unheld and the falconer is holding her as high as possible. If she flies and misses, various game can be 'marked' by the beaters, each insisting, no doubt that his is the one she will get.

There will be just this situation where you have got quarry marked down in a particular spot and you will want to be very sure she catches. One way of at least doubling the hawk's chances is to take her in the palm of your hand and throw her, dart-like, when the quarry is reflushed. Throwing is a deadly method. The hawk, for her part, learns very quickly what the whole manoeuvre is all about. She will surprisingly lie quite readily in your hand anticipating the added impetus the throw will give her. Cupping your right hand, position it with your thumb on the outside, turning it so your hand goes in under her keel. Now close your fingers and thumb over her back, firmly locking her wings. When the hawk is secured in your hand she should be held about level with and close to your shoulder. Arrange the spaniels and beaters to be ready for your command and getting as high as you can, shout for the reflush, (if your heart is not in your mouth, that is) and go for it. As the quarry flushes you will feel the hawk react. Do not hold on. The hawk will have seen the reflush and will instantly lunge; that is why you must release your grip on her once you have given her that 'shove' forward. Great flights can be had using this method. To actually get your fingers and thumb

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over her back is more difficult than it might seem as your fingers, if possible, must not touch her until you can be sure you can secure her completely. So just as you place your free hand under the hawk, thumb at her left shoulder, rotate your gloved hand slightly anti-clockwise as described in hooding. This will make her crouch slightly and so, because she is now lower, you can get your fingers around her properly. It does require practice but the hawk will accept it more readily than you might imagine and particularly if she is successful and gets a kill on the first throw. So, on the first occasion do it when all the odds are in the hawk's favour for success. If she objects to being handled and the operation turns into a row, do persevere. She will settle down after a minute or two. When she is calm offer her a tit-bit or two out of your hand, this will settle her more. Also you can get a friend to cast your hawk straight off the glove and invite them to throw or even hand the hawk to you. Use this method until you can do it on your own quickly and without any fuss. Throwing the hawk in such a manner is a much favoured technique used by falconers in India and Pakistan.

Throwing a sparrowhawk increases her chances of success tenfold but it does have a drawback. The handling necessitated by having to use one's bare hand plays havoc with her plumage, especially along the wings. So far I know of no way to avoid this and I think the use of even a thin cotton glove will spoil her plumage. Handling with the bare hand takes the condition out of her feathers so keep a watchful eye on this and stop throwing for a few days if she gets too ruffled up. She will preen and oil herself and after a day or two will be back to pristine condition.

If this is the hawk's first hunt, even though she had been previously entered and she is successful, I would strongly recommend feeding her up there and then on her kill. This is very important as it reinforces the motivation for all her efforts. All too often I have seen an over enthusiastic falconer take away the hawk's kill all too quickly, hoping for

a second and even third take, only to find his bemused hawk taking stand. A justifiable reward for a greedy falconer.

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As in all aspects of health, prevention is better than cure but things can and will go wrong despite all the falconer's care and attention. Because of a hawk's rapid metabolism things can go wrong very quickly. It is this rapid deterioration in condition which can take place which baffles the beginner. Having the experience to spot the warning signs and take the necessary action is half the battle to achieving a hawk's recovery. However, in my view, to appoint oneself as both falconer and vet is foolhardy and, all too often, falconers tend to have the notion that they know better than the vet. It is this kind of attitude which results in the problem either being wrongly diagnosed or left alone until a very late stage. Then the veterinary surgeon is consulted at the eleventh hour and may even be blamed if the hawk dies.

At the slightest hint of a problem at least seek the advice of your vet. If you feel he considers you a nuisance then change to someone else. It is true that many vets know little about hawks specifically but they do know the pathology of birds and can get access to more specific information, if required, by a quick phone call to a colleague or the veterinary college. This is something the falconer and especially the beginner cannot do. The more experienced I have become the more I rely on my vet and, in fact, I tend to go sooner rather than later. A ten minute consultation with a veterinary surgeon costs considerably less than the value to you of your hawk. You are paying a small amount for highly skilled advice and you will probably have prevented what seemed a minor ailment developing into something a lot more serious, possibly overnight.

The ideal veterinary surgeon for a falconer is one who does a small animal clinic either exclusively or in conjunction with a farm animal practice. If the vet is interested then that is half the battle as that interest alone will mean curiosity and better attention. If you can get that interest then both of you can learn; in the case of the vet the various treatments

and recovery rate and, in your case, nursing and how to spot trouble in time.

Veterinary surgeons are skilled and experienced specialists and would not be allowed to practice otherwise, but they cannot be expected to be medical experts and nurse all rolled into one. In any course of treatment stick exactly to the amount and frequency of any medication prescribed and go back to the surgery on the agreed day. It is important to the vet that he sees the progress and the rate of recovery so that that knowledge can be applied again. One can be tempted not to bother with a subsequent visit when the hawk is obviously recovering. This does little to encourage your vet and does leave a vital aspect of the treatment unresolved, the recovery process. If your vet is inexperienced with hawks give him the chance to learn. Equally, if the bird dies bring it back as much can be learned from an autopsy.

Treating a sick or injured hawk yourself without advice can be dangerous and it is possible to actually do more harm than good. For example, very recently my hawk crashed into barbed wire and was cut across both thighs. I applied antiseptic ointment and assumed all was going to be well. It was not. The area treated was in the fleshy part above the joint and was covered by her pendant feathers. I inspected the wounds daily and applied more ointment, only to discover a week later one very seriously infected wound, and so the vet was consulted. The prognosis was that the ointment had, in fact, added to the problem! In some cases when bacteria infects a wound, the application of a cream or ointment or bandaging will cause certain bacteria to thrive in an oxygen free environment and thus to invert and attack inwards. The fact that this particular wound was near the main tendon was all the more serious as the infection, if not treated properly and in time, would have attacked the tendon itself and the results would have been catastrophic. The correct treatment, in fact, was to bathe the wound with a liquid disinfectant like

"Aserbine" but otherwise leave it open to the air with a course of antibiotics given orally. When this course was adopted the results were excellent. After as short a period as three days progress could be seen. However, I visited the surgery every three days afterwards. In this way progress was properly monitored and the vet could see, at first hand, the results of his dosage and degree of treatment.

Low Condition in the Wild Hawk

A wild hawk will rarely, if ever, be suffering from lowness of condition or starvation and not from something else as well. Unlike a trained hawk which could become low through inadequate diet provided by an inexperienced falconer, lowness of condition in a wild hawk will be secondary to something else which may not be obvious. The treatment and handling for lowness in both cases is, however, exactly the same. If a wild hawk is brought to you in a very low condition, do not assume that because it is apparently not injured that it simply was not catching and killing - there must be a reason. So again, I must stress, have a vet check out the bird. In the vast majority of such cases the hawk is found on the ground too weak to stand, much less fly. Immediate action is necessary and, depending on the degree of starvation, the treatment will vary slightly. Feel the breastbone, or rather both sides of it, and if there is little muscle flesh then the hawk is probably near death. If, on the other hand, the breast is fuller then the hawk does have some reserve left. In either case warmth is vital and particularly so in Winter. Place the bird in a box with a soft towel under her beside a radiator or put a hot water bottle under the towel. The ideal temperature for the immediate environment is 85 degrees F. Using an eye dropper, or plastic syringe, give 1ml of water and glucose orally. Place the syringe well back behind the windpipe otherwise you may inject the solution into her lungs. When you open the hawk's mouth the windpipe is clearly visible. Place the syringe at right

angles to her mouth, from the side in fact, and, making sure the nozzle is past her windpipe, eject the liquid. To prepare the solution take the chill out of the water and dissolve one teaspoon of glucose powder in 1/2 a cup of water. Put the bird back in the warmth of the box and prepare a meal of fresh meat. Use small slices of pigeon breast, if available, as pigeon is very rich and nutritious. Failing pigeon, beef with no fat at all is best. Cut the beef with the grain into thin strips about 1cm long and 3mm in width. If the hawk is too weak to stand then hold the bird upright in one hand. This is easily done and using tweezers or the tips of your fingers, give the strips of meat. It is also a good idea to dip the meat into the prepared glucose solution as this makes it much easier for the very weak hawk to swallow. When feeding by hand you will find that if the meat is not moist it will tend to get caught in the upper mandible and the whole operation becomes messy. If you can successfully get the hawk to take and swallow a third of a crop with as little fuss as possible, you will be reducing stress to the absolute minimum - but fed she must be. I would never give more than about a third of a crop of meat to a low hawk. Because of its weak condition it will probably not have the strength to stand and it could have difficulty in "putting over its crop", that is, passing the meat from the crop into the digestive system. Little and often is safer until the hawk can stand and will feed itself. Three times a day is ideal for practical purposes. Make sure to give fresh meat, devoid of fat and castings. Never feed shot game to a hawk unless you can be absolutely certain there is no lead shot present in the meat and particularly so when meat is given without castings. After this first meal take the bird in its box for a veterinary examination and, if nothing else needs to be done, the vet will probably give the bird multi-vitamins by injection which will increase its strength and resistance. As I said previously, it is highly unlikely, in the case of a wild hawk, that something else will not be wrong and the lowness is likely to be secondary, so do have a careful check made.

It is quite surprising how quickly a wild hawk will accept the meat offered on the tip of the tweezers while being held in the hand. Within a day the bird will eat freely and as it makes progress encourage it to take pieces from the meat board itself. It will do this even though unable to stand. Sometimes a hawk will simply gaze in fright and not appear to notice the meat. It will react to a movement of your hand by opening its beak in terror. Pop in a strip of moist meat and after several such mouthfuls the hawk will usually eat freely. Never point the tweezers straight at the hawk's beak - hold it at right angles so that if you miss the beak-opening, because of a sudden change in direction on the hawk's part, you will not stab her in the eye. Once this procedure is established regular feeding and warmth will bring a hawk back to strength within a week or two.

The hawk which is too weak to take strips of meat must be force-fed which is not as forceful as it sounds. In this case it is important to feed small quantities about every two hours. You will need assistance for this as both hands are required. Get someone to cast the hawk in a towel by simply wrapping the bird and then cradling it in their hands. Use your free hand to open the beak which is easier than may be imagined. If you grasp the upper and lower mandible between thumb and forefinger and gently squeeze, the bird will open its beak. Slip your thumb and forefinger back to the soft part of both mandibles and holding them open, place the piece of moist meat well back in the gullet and release your grip. As the hawk closes its mouth it will automatically swallow the meat. Continue in this way until the hawk has a quarter of a crop and feed again in two hours. You may have to use the tweezers to prise open the bird's beak. Use the plastic type employed by stamp collectors. Do this carefully and gently and make sure each piece of meat is swallowed before inserting the next. One drop of Abidec multi-vitamin with each feed will be of enormous benefit to a weak hawk already drained of its reserves.

Once the hawk can stand allow it to take as much food as it wishes. Not cutting up the meat, unless it is necessary to do so, is best as the hawk will feel more natural. Having to pluck at the meat encourages the hawk to use its leg and neck muscles. As soon as she regains her strength and will stand and feed herself she should be jessed, hooded and set outdoors in a quiet sheltered spot to enjoy fresh air and sunshine. I do not feel that leaving a hawk in a windowless shed is at all a good idea unless there is a reason why it cannot be jessed and hooded, as fresh air and warm sunshine will contribute to her recovery. In the case of injury hooding the hawk can be of great benefit. It is an easy and stressless way of keeping the bird quiet and calm and allows for visual examination and dressing of wounds, without handling and the resultant stress. A hawk will do perfectly well without castings during a period of low condition so concern about castings is unnecessary until after the first week to ten days when the hawk should be well on the way to recovery. A hawk when traumatised and suffering from hunger and hyperthermia will be easy to handle and will appear deceptively tame. As the bird progresses and becomes well in itself it can and probably will become less tame and not submit as easily to handling for inspection of wounds and dressing. Should this be so use the hood or, failing that, a light towel placed over the hawk until it can be manoeuvred into a comfortable position.

Disease

The most common form of disease in hawks and one which, thankfully, is easy to treat is Trichomoniasis or, in lay man's terms, Frounce.

The symptoms of frounce are a loss of appetite with food being flicked away uneaten, also butter-like lesions form on the tongue and mouth. These lesions can, in some cases, be less noticeable in the mouth, but be far more serious further down the oesophagus and can even infect

the liver. Eventually the hawk's mouth and tongue will become so infected as to make eating extremely painful with a resultant loss of appetite. Also the oesophagus itself becomes clogged with lesions and swallowing becomes impossible. Trichomoniasis is carried by all hawks and held in check by a healthy, balanced metabolism. When something goes wrong the balance is tripped, the hawk's resistance is reduced and the trichomoniasis take over. Undue stress is a factor as also is injury. Infected meat, particularly that of feral pigeons, is also a common cause of this condition. By far the best way to reduce the likelihood of infection is to always remove the head, neck and crop of pigeons and dispose of them. Never feed these to a hawk even if deep frozen. There is a school of thought which holds that freezing pigeons for three weeks kills trichomoniasis, it does not, so simply disposing of the head, neck and crop is safest.

Treatment is administered orally according to body weight. It is usually given in a piece of meat but if a section of tablet is used, for safety, round off any sharp edges as these may hurt the hawk. Consider how painful an infected throat must be. Normal quantities of food can and should be given but castings avoided for the first week. Should treatment continue for a long enough period for you to become concerned about lack of castings use something very soft, like day old chicks. It is very probable that the hawk will have to be force-fed for three or four days at first. In this instance, give a full crop once a day to keep the hawk's weight up. Feeding like this once a day keeps the stress factor to a minimum. Frounce can be and very often is a secondary ailment to something else, therefore it is well worth your while consulting your vet for a thorough check-up of the bird. However, if frounce is present start treating immediately by giving 25mg of Metronizadole twice daily. This is sold in veterinary form as Flagyl, or Spartrix, and is used a lot by pigeon fanciers. Emtryl is the same thing in powder form.

However, a course of Metronidazole is not enough. Usually the blood supply to the lesions themselves is suppressed. As a result the very drug you are treating the hawk with cannot get to the source of infection. Therefore it is very important to visit your vet during the course of treatment. A vet will treat the lesions, actually causing them to bleed slightly. It is in this way that treatment can be wholly effective. For the same reason it is a very good idea to massage the oesophagus in order to break up any build-up of deposits there as well. A little bleeding may become obvious but there would be no cause for alarm.

Aspergillosis

Prevention is the key factor in making sure this deadly bacteria does not infect your hawks. In fact, if you take the right precautions you need never worry. Aspergillus are a bacteria which thrive in organic materials like hessian sacking or sawdust, particularly if these became even slightly damp. But the golden rule for all hawks and falcons is never ever use any organic materials as floor covering in a mews. Sawdust, shavings, hay, straw should never be used. Sand, as previously suggested, is by far the safest - provided it is very well washed, silica sand or sea sand being the best as it is free from dust. Aspergillosis infect the hawk's lungs and treatment is rarely successful. The appearance of the symptoms is very sudden; rapid loss of weight, loss of appetite and obvious difficulty in breathing. Often by the time these symptoms are observed the condition is too far advanced for treatment.

Bumblefoot

Very obvious as swelling in the feet and pads. The hawk will tend to stand on one leg and the infected leg will be higher in temperature.

Beginners should note that it is perfectly normal and, indeed, necessary for all hawks to stand on one leg, the other tucked up inside the underside feathers which will result in that leg being warmer. So unless you notice swellings or other signs, all will be well. By far the best visual test, if you are at all concerned, is to compare one leg with the other. In any instance where injury or a problem is suspected always use a comparison between two like limbs. If a wing is suspect cast the hawk and feel the good one then compare the same area by feeling the other side. Do not assume because you cannot discern a difference all is well. If you suspect anything, have it checked. A hawk standing on the same leg continuously could be worth a veterinary check as the pads underneath could be in the process of developing infection through a tiny puncture or lesion. Provided bumblefoot is diagnosed quickly, treatment, usually surgical, is quite successful. There are various arguments as to causes by various schools of thought. In my view, the thing to avoid principally is unhygienic perches and mews. Give regular baths and adequate exercise. Also sparrowhawks sometimes get a lump on the feet which might give cause for concern, if normal in body temperature, unlike bumblefoot which because it is an infection will be hot to the touch; the 'lump' rarely gets any worse than merely being unsightly, but do have a vet treat it. I am of the opinion that a hawk or falcon which is inactive and overweight is more likely to become infected with bumblefoot. This does not apply to sparrowhawks so much as they tend to be a lot more active, even when on the bowperch. In any case of a suspected foot infection I would take the hawk down to near its flying weight. A weight reduction will offer some relief to a painful pad.

Breaks/Fractures

There are more hawks and falcons condemned to a life of misery through inattention and ignorance in the case of broken bones, particularly in the wings, than is necessary. I have come across cases where ignorance of the process has resulted in the birds never being able to fly again where, if action had been taken in time, a hawk or falcon could have been on the way to being perfectly normal after three or four weeks. When a break or fracture occurs a process called calcification is triggered. Calcium forms on both ends of a broken bone and this actually inhibits the setting of the break. The important point to remember is that it is in the short term that the damage is done. The calcification process is irreversible and takes only about four days. If a hawk breaks a wing bone or a leg it should receive veterinary attention immediately. Naturally the vet will x-ray the problem area and then will act accordingly. A break can usually be pinned and afterwards, provided the bird is kept calm and well fed, the break will mend perfectly in about three weeks. There will be muscle wastage because of inactivity and lack of exercise but the rehabilitation process will be relatively easy as the hawk can be manned and flown free by degrees. So the most important thing to do, if a break or fracture is at all a possibility, is to get veterinary advice and action within days. I have come across a tiercel peregrine with a clean break in the radius; the bird was not x-rayed and received no veterinary check. As a result the stress put on the ulna by the muscle and tendons in the wing because of the break in the radius snapped the ulna also, so the falcon suffered a further trauma as a result. To complicate the situation yet more, the falcon came to me months later and both breaks were calcified, the net result being that the bird will never fly again.

As regards post operative care in the case of breaks and fractures, a clean well ventilated mews is vital if the bird can stand and feed itself. If you decide to make use of the hood then the process of manning a

haggard would be the best regime to adopt. What of the prospect of leaving a hood on a hawk for three weeks? This would never be necessary as the hawk will feed through the hood for the first few days and gradually, as tameness progresses, the hood can be left off altogether, so within a week progress should be such that it can be dispensed with. On the other hand, if the hawk was also very low in condition wildness will not be the same problem and the hood need not be used. Either way an essential factor of post operative care is a minimum of stress and disturbance. Cleanliness, fresh air and, if lowness is a factor, warmth is also vital. If the hawk must be confined to a box then it should be cleaned daily. A layer of sand will help to absorb messy mutes, but when a hawk is confined mutes become a problem anyway. The bird will itself become soiled and it, therefore, should be examined and cleaned as often as possible. Pay particular attention to the anus as this area could become blocked from clogged mutes. Wash the area gently and thoroughly with water and Aserbine. Change the layer of sand completely each day also. A cardboard box is best as this can also be discarded and replaced by a fresh, dry, clean one, even on a daily basis, whereas a permanent wooden box becomes fouled very quickly and needs to be soaked and cleaned, a process which can take an hour or more, and perhaps several hours to dry the timber out.

Lowness in the Trained Hawk

At this stage it is as well to discuss the possibility of the falconer being the cause of his hawk's lowness as opposed to disease or to trauma. A sparrowhawk can develop lowness of condition very easily and all too quickly. Perhaps she may not be coming to the fist as quickly as one wishes; she may have taken stand in a tree and not come for an hour or more, or does not seem to want to hunt. The beginner may be forgiven for thinking she is too high in any of these situations but in that

assumption he could be totally wrong and on the verge of disaster.

The old books emphasize the necessity of flying a sparrowhawk high. In short, feed her well. Otherwise she will live up to her reputation of being a sparehawk ... or rather, die of it! If she refuses to hunt or come to the fist it could be that she is too high but it could also be that she is too low or, as is most likely the case for the beginner, bored. A sparrowhawk taken out and continuously called to the fist for small rewards without getting kills will become bored and will "switch off", meaning she will simply ignore the falconer and want peace and quiet. It is when a hawk is in this state that the next decision can be either wise or disastrous, you must do either one of two things. If it is probable that she is bored. Get her a kill or call her down and, instead of assuming she is too high, feed her up. Whenever you are in doubt, feed up. Do feed twice a day at least during the period in which you are increasing her weight. Once may not be sufficient and twice ensures she will take in much more in twenty four hours. If you do not she could be even lower or worse the following day. If there is an overnight frost with temperatures at one or two and you do not feed her up, her condition will become dangerously low. The worst that can happen if you feed her up is that you will miss a day's hunting next day - but you will have a healthy and fit sparrowhawk. In September the nights can become very cold and a sharp frost can take a sharp-set hawk down to danger level. Be very careful about a hawk's weight. Increase it to as high a level as is possible. An interesting point regarding flying weight arises here, and one well worth consideration. It would be possible, for example, to take a sparrowhawk out hunting at 10 or more ounces and, provided she was due her meal, you could be very successful and catch a partridge or even a magpie or rook. You would have no problems making in to her and allowing her to take her pleasure on her kill. In fact, you would have no problems at all provided that it was her first slip that day and she was successful.

However, the problems would start if she chased and failing to kill took stand in a tree out of reach. Unless you could flush something for her then it could take a considerable time to get her back to the fist. The point I am making is that one must reduce this hawk's weight to such that she will come to the fist instantly after a miss at quarry so that you can move on and continue hunting. So the weight required to hunt a hawk where you could be absolutely guaranteed flush after flush is totally different than if you were to hunt sparse ground, taking pot luck, hoping for the odd flush. A sparrowhawk worth its salt will become very bored through lack of kills despite coming to the fist indoors ad infinitum. She is a bird of prey, physically and psychologically evolved by nature to chase and catch her food. Deny her this and you deny her everything. It is no wonder that the early books on hawking tell us to "fly her high and she will be good in her coming and have mettle and strength in the field."

It has been said more succinctly: Feed high, fly hard.

The whole area of calling to the fist is confusing to the beginner. The inexperienced can again be forgiven for thinking all is well when the hawk will drop out of a high beech tree instantly to the raised glove and the falconer's voice or whistle. Then chaos ensues - quarry flushes, providing a perfect slip, but the hawk winds up hanging upside down off the glove. She has seen the quarry and later rather than sooner decided to chase but it seemed like a good idea to take the glove along as well in case she missed. This is a common occurrence with the inexperienced eyass, the imprint especially, and is a sure sign that she should be increased in weight. You can fly her high and that is the best way to keep a sparehawk. High is safe, low is dangerous. Low condition spoils her mettle and saps her strength. It is no way to keep a superb athlete. So, whenever in doubt, always feed up the hawk with rich meat, not just day-olds, and she will live to hunt again. Your golden rule should be, 'Take a hawk down slowly and bring her up fast'.

Eye Infections and Injuries

Eye injuries, usually minor, are common enough in hawks particularly as spars will always crash into cover after quarry. Falcons, on the other hand, rarely indulge in this suicidal type of hunting and will usually pitch up and wait for a reflush. It is amazing that sparrowhawks who continually plunge at full speed into the thickest briars and hawthorn hedges do not suffer more damage than the little they do. Most of the eye injuries I have encountered are caused by the larger quarry fighting back. A tube of Chloromycetin, which contains 1% antibiotic, is a valuable ointment to have in your field first-aid kit. Again, I would stress that veterinary attention is by far the safest course. However, if you are away on a week-end hawking trip, the Chloromycetin can be applied to the eye and bring some relief to the hawk. Another cream which has an anti-inflammatory additive which may help to ease swelling, is Betnesol-N. A good thing to do before applying either ointment is to warm the tube in your pocket for fifteen minutes, as it tends to be rather stiff and difficult to apply otherwise. A note of warning here: never point the nozzle of a tube of ointment directly at the eye. If the hawk makes a sudden move you could end up with more damage than when you started. Make sure you always approach the eye with the nozzle in such a way that it is not pointed directly at the hawk's eye. Also with the ointment at your body temperature application is quick, easy and safe.

An eye infection (which really is the only one I have come across) is a milky appearance to the eye. Usually it infects one eye and the difference is very obvious, the infected eye looking milky instead of the deep, moist black typical of the healthy hawk. This is caused by bacteria and is easily and quickly treated with, in some cases, only one or two applications of chloromycetin as described. Result can be as quick as 24 hours, even 12.

A word here about eyes in general. By far the best and most accurate way of discerning a hawk's condition is to look at the eyes. Colour and intensity may vary slightly from hawk to hawk. For instance, an older haggard will have a beautiful cadmium yellow around the deep black iris, whereas a sore hawk will show a paler yellow. Having said that, the common denominator in all healthy hawks will be perfectly round, glassy eyes with a good circle forming taut eyelids which indicate a healthy condition. A hawk in poor condition will have an oval eye and the eyelids will look limp. A hawk with these symptoms, regardless of any other apparent signs of health, needs immediate attention - a large intake of high, rich meat like pigeon, plus warmth and rest. Never fly a hawk if you are at all suspicious that something is amiss as the burn-up of her energy will kill her.

Lead Poisoning

Lead poisoning is caused by feeding meat from shot game. The ingested pellet becomes lodged in the folds of the stomach. Once this happens the lead shot will remain trapped, and the lead, attacked by the acidic gastric juices will poison the hawk. The only way the problem can be resolved is by surgery. The hawk, in the meantime, can be stabilized by an injection of calcium EDTA every two to three days. However, unless the lead is removed the hawk will certainly die. By far the safest route to take is not to feed anything shot with lead pellets. I believe that nickel coated shot is now becoming popular and this may be safer. I have heard of several cases of lead poisoning particularly when the meat, usually shot pigeon, was given without castings. It does seem that when no castings are present the shot are ingested. Having lost a hawk through lead poisoning once I do not ever feed anything shot with cartridges. The symptoms of lead poisoning are distressing and unmistakable. Usually the tame hawk becomes very nervous and, at the same time, loses the use

of its legs. Not being able to stand creates a further problem as the bird cannot feed itself and must be hand fed. Loss of appetite will develop and force feeding must be resorted to. The injection has the advantage of stabilizing the hawk very quickly. A positive improvement within 12-16 hours will be seen, with the hawk regaining its appetite and co-ordination. As more lead is absorbed into the blood stream however, the hawk will again collapse within a couple or three days. Make good use of the stabilized period and feed as much pigeon as the hawk will eat to increase its weight and condition. During this the bird can then be x-rayed and a veterinary prognosis made. A veterinary surgeon in the U.K. had done up to fifty successful operations for the removal of shot. It is possible to buy a sort of metal detector which when passed over a shot carcass will register lead. I have no address or source for this instrument, but I still take the view that if something is shot with lead pellets, it is better not used.

Leg Ulcers

Leg ulcers are usually caused by anklets either being too tight or the leather getting hard, particularly if untreated. Untreated jesses can become very hard and abrasive when dried out after a soaking. Remove the anklets completely and allow the hawk the freedom of the mews. Apply Aserbine with a soft sable or squirrel hair brush (this way you do not have to cast the hawk) every three to four hours until no infection is present. Aserbine is very good as it assists the process of new cell growth as well as destroying infection. It is a must for every first-aid kit. When you make a set of anklets treat them in the following way. Dissolve about an ounce of pure beeswax over heat and add about the same quantity of vegetable cooking oil. Drop in the jesses and anklets, leave for about four or five minutes to soak, remove and wipe away the excess. Never use untreated leather, for anklets especially.

THE MOULT

*In the Mews, On the Bow Perch**Wing Blister*

Caused by inactivity and easily treated by bursting with a sterile scalpel point then dressing with Aserbine. Normally the blister, or blain as it used to be known, forms on the pinion of the wing and appears as a lump underneath the feathers. On close examination it will be seen to be a clear blister containing air rather than liquid.

Sprain

If a leg or wing is sprained the freedom of the mews for at least two to three weeks is a must until the hawk is fit again.

Internal Parasites

There are falconers who, as a matter of course, worm their hawks. I prefer not to do so unless it becomes necessary. In that instance I would again consult a vet and have a worm count. Panacur is usually used, given orally in amounts according to body weight. Interestingly I did use it once on a tiercel falcon (peregrine) and his feet puffed up (much to my alarm). I was panicked into thinking it was bumblefoot. However, the swelling disappeared after twenty four hours, and I really do not know if there was a connection.

Coping

I am surprised at the number of books that give the impression that coping beaks and talons is the norm rather than the unusual. As regards talons, the soft carpet covering that I use for falcons and leather, suede outside, for sparrowhawks does not create a problem in this regard. Some falconers insist that a hard material, concrete for example is best for falcons, to keep their talons coped naturally. In my view every bird fares much better with a warm comfortable perch on which to spend the night. As regards beaks, a proper diet, whole birds is

what the wild hawk gets and so it should be with the falconer's hawk. Overgrown beaks are caused by a lack of tiring and coping eliminates the symptoms not the cause of the problem. If you do have to cope a beak use a nail clippers and a file to reshape the area. However prevention is by far the best so always give plenty of whole birds like quail which have to be plucked and worked at by the hawk. She will not only keep her beak in shape but will also exercise her neck and leg muscles.

External Parasites

Mites and ticks infect birds of prey although it depends to a large degree on circumstances. For example a hawk injured and suffering from low condition may also be infected with red mites. Typically the infestation is a result of injury as the bird cannot bathe and preen. Stress could also be a factor. If mites are present treat the hawk with Johnson's Anti-Mite. This spray contains Pyrethrum. Do not spray directly around the hawk's head and eyes. Use a shield made of card to protect the area around the bird's head and eyes. Ticks can be picked up by a perfectly healthy hawk. Usually one will be picked up in grass and will then dig into the hawk's skin and suck its blood. Dogs can become infected in the same way. The problem with ticks is that if you simply pull it away the body detaches itself from the head which remains embedded in the skin. Before touching the tick at all dab it with methylated spirits and remove it with tweezers. In general a healthy hawk which spends as much time as possible outdoors and regularly bathes will not be effected by parasites. Equally the inside of the mews must be bright, airy and dry and above all clean. As regards ticks, check the hawk regularly and thoroughly as once I found a tick had lodged itself under the orbital ridge of one of my hawks.

GLOS THE MOULT MS

In the Mews, On the Bow Perch

How ever well manned a hawk may be up to the first day of flying free she will improve as time goes on as she is constantly exposed to even more new situations. Equally, a sparrowhawk unattended and loose in her mews and allowed to feed on her own will quickly become wild and nervous. So, if you do leave her for any reason do not expect to have a well mannered hawk flying instantly to the fist. A day or two of carriage and perhaps weight reduction could be necessary to make her obedient. This will depend on the duration of her isolation or lack of handling. Also never leave an unmanned sparrowhawk loose in a mews - she will almost certainly bash herself with possibly fatal results.

After the moult (which can take as long as four months and more) it will be necessary to reduce your hawk and carry her while feeding for a few days. The old books refer to this as reclaiming and go into great detail as to how this was to be done. Enseaming was one such ritual in which washed meat and casting and then rangle, small round stones about the size of a pea, were given to clear the fat in her crop. This is extreme and far from necessary. If your hawk is put loose in her mews and is fed on a good diet with plenty of casting all that is required from the day she finishes the moult is to miss a meal. Next day she can be taken up, the mews jesses inserted in the anklets and then for two or three days fed on the fist. With carriage and weight reduction this will do it nicely. Try her on the creance once and, if she comes, she is ready to hunt by day four. Usually hawks will start to moult about May and finish by the end of August. The best way to get her through a good moult is loose in the mews or, if you prefer, stick to the bow perch and feed her as much as she will eat every day. The advantage of moulting out the hawk on the bow perch is that, despite her being high and a bit jumpy, she will be all the quicker to fly free when she has finished the moult. As long as there is a clean bath for her all the time and she can get fresh air, sunlight and shelter from wind, she will be perfectly healthy and ready in about

hawks are carried to the field.

THE MOULT

In the Mews, On the Bow Perch

four days after taking up. Do not overlook the fact that your hawk is now a year older. Her new flying weight will only become apparent over the next few days. Assuming it is the same as last season would be folly if she was then a first year eyass. By now she will have developed and she will be heavier.

A word of warning; if you have two sparrowhawks, especially females, separate them if they are ever to be loose in a mews. Better safe than sorry as it will more likely than not end in disaster if loose hawks are housed together. You can moult out a sparrowhawk very successfully on the bow perch and this is even to be recommended. Once you set your hawk loose in the mews, to moult for example, be absolutely sure she will not be subjected to visits by strangers as she will take fright easily. A hawk loose in the mews should only see the person with whom she is most familiar and it is best to keep even that to meal times. In that way she is anticipating your arrival. On the other hand, a hawk moulting out on the bow perch is handled daily. She will be very quick to reclaim when the time comes.

Probably the best system is to leave her loose in the mews only on days when she cannot be weathered, which should be as often as is possible.

GLOSSARY OF TERMS

Hawking, like all field sports, has its own vocabulary. Many terms are hundreds of years old though few have become obsolete. The terms given below, with their explanations, are in the main still used by falconers.

- AYLMERI** Anklelets which remain on the hawk the jesses, being separate, are removable.
- BATE** An attempt by the hawk to fly off the perch or glove.
- BECHIN** Tit-bit of meat as reward
- BEWITS** Leather strips by which the bells are attached to the hawk's legs.
- BIND** To bind is when a hawk seizes and holds her quarry.
- BOWSE** When a hawk drinks. Hawks and falcons can actually do without water for long periods as they obtain their liquid requirements from meat.
- BRAIL** A strip of leather used to secure an injured or broken wing.
- BREAK INTO** When a hawk has plumed her quarry and starts to eat.
- BRANCHER** A young hawk almost fully fledged and which is ready for its first flight.
- HAGGARD** An adult hawk at least two years of age and
- CADGE** (Usually rectangular) A frame on which several hawks are carried to the field.

GLOSSARY OF TERMS

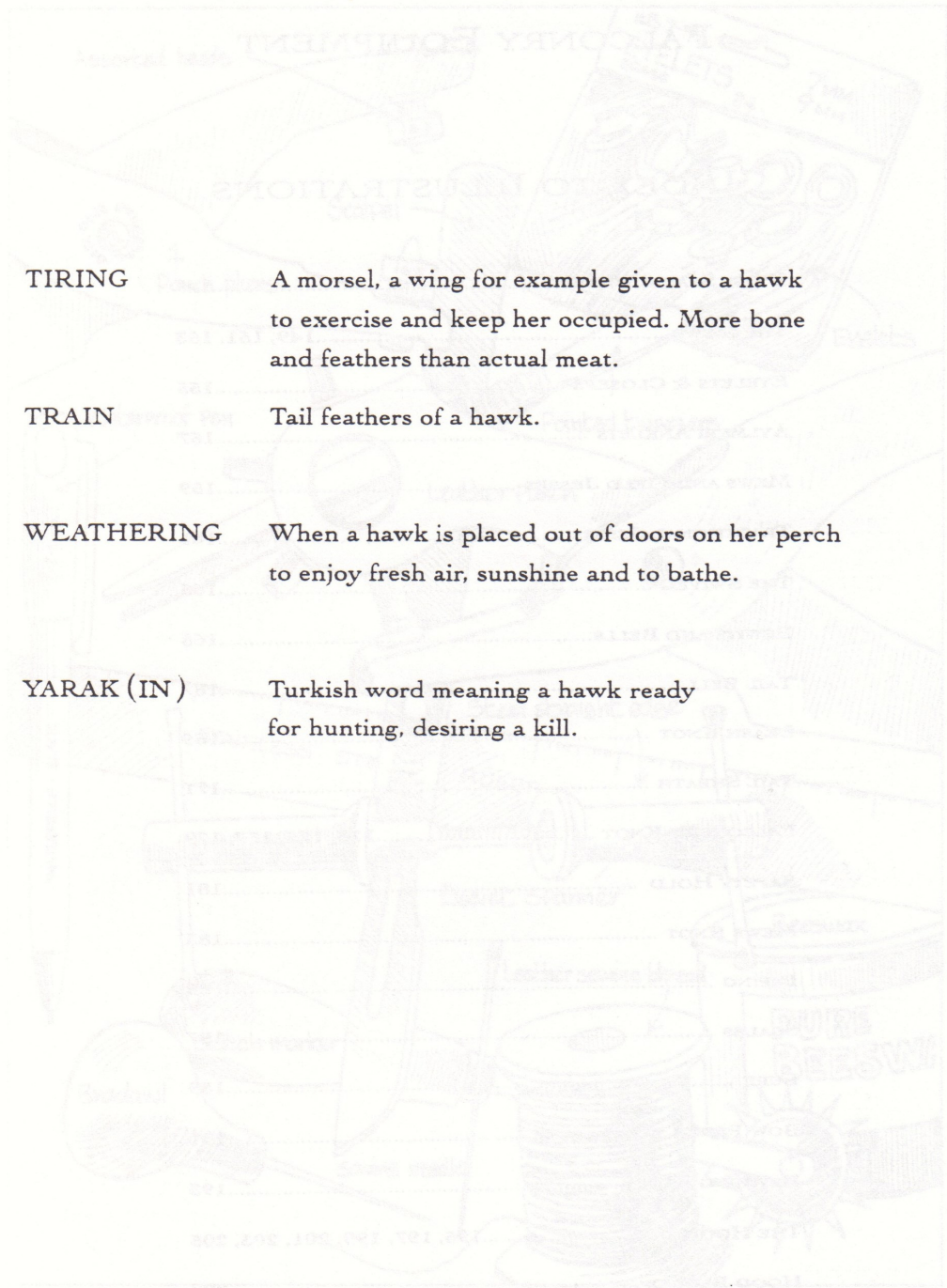
- CARRY** When a hawk attempts to make off with quarry or the lure.
- CAST, 1. Casting** An oval shaped pellet containing the fibrous material such as feathers, regurgitated by the hawk after digesting a meal.
- 2. To Cast** A hawk is cast when, having had a towel or scarf laid over her from behind, she is held on a cushion for examination, medical treatment or imping broken flight or tail feathers.
- 3. Cast** Also refers to two hawks flown at quarry together. Never to be attempted with sparrowhawks but sometimes done with falcons.
- 4. Cast** To release a falcon from the fist.
- CRABBING** Two hawks attacking each other
- CERE** The soft yellow area above (and each side of) a hawk's beak.
- COPE** To clip a hawk's overgrown beak or talons.
- CREANCE** Light line attached to a hawk's jesses when she is called off to the fist during the early part of her training out of doors.
- DECKS.** Two centre feathers of the tail.
- ENTER** A hawk is entered to quarry when she kills for the first time.

ENSEAMED	The newly moulted hawk is cleaned of fat in her crop.
EYASS	A hawk taken from the nest is an eyass and is termed so by falconers throughout her life.
EYRIE	The nest site of falcon.
FEAKING	A hawk is said to feak when she wipes her beak after feeding.
FLUSH	Put quarry to flight out of cover
FOOTING	The hawk catches her quarry by footing it.
GORGE	A hawk is gorged when her crop is full to capacity.
HACK 1.	To hack back a hawk into the wild is to release her under the supervision of the falconer, who must visit the place or area of her release every day to be sure she can hunt successfully for herself.
Hack 2.	Traditionally young falcons were hacked i.e. given total freedom but fed each day from a hack hut. Often some were lost and the remainder recaptured when they had flown and killed independently in the wild.
HAGGARD	An adult hawk at least two years of age and therefore having completed at least one moult in the wild.

- HARD PENNED** When a hawk's first or new feathers are fully grown and the flight and tail shafts are hardened.
- HOOD** Used to train and keep hawks calm, or to prevent unnecessary bating when other hawks are being flown at quarry, or fed.
- HUP** The command for a dog to sit or drop.
- IMP** To repair broken tail or flight feathers.
- INTERMEWED** A hawk which has been moulted in captivity. For example, an eyass hawk in her fourth season is three times intermewed.
- IN THE BLOOD** Refers to newly grown feathers the shafts of which are not hard penned as they still contain a blood supply for growth.
- LEASH** Braided nylon or leather thong which secures the swivel to the ring on the perch.
- LURE** The lure, garnished with the hawk's favourite meat, is used to call down a hawk if she refuses the fist.
- MAKE INTO** The falconer makes into his hawk when he approaches her on the kill or the lure.
- MANNING** The process of taming a hawk.

MANTLE	When the hawk spreads open her wings over her meal. Also when a hawk at rest during her weathering stretches out a leg and wing in contentment.
MARK	A hawk will mark quarry which has put into cover by taking stand in a tree overlooking the spot.
MEWS	Place where the hawk is kept
MUTES	Her slicings, body waste.
MUSKET	Male sparrowhawk
NARES	Nostrils, holes in the ceres.
PASSAGE HAWK	
PASSAGER	A hawk or falcon on migration. Also usually refers to a wild hawk in the Winter of its first year.
PUT OVER	When a hawk passes her meat from her crop into her stomach.
RAKE AWAY	The hawk which through wildness or disobedience flies off and refuses quarry.
RANGLE	Small round stones said to clean a hawk's crop of gleam. Not necessary if a good balanced diet is used with regular castings.
RECLAIM	To take up a hawk after the moult.

ROUSE	When a hawk, being at ease, fluffs out her feathers and then shakes herself.
SELF-HUNTING	A hawk which, being high in condition, decides to ignore the falconer and hunt alone is self-hunting.
SHARP-SET	Hawk at minimum weight
SLICE	Refers to a hawk's mutes, 'she slices a distance' a good sign of health.
SOAR	'To go on the soar', a hawk will sometimes soar high up in warm weather to cool off.
SORE HAWK	A young hawk having left the nest and hunting for herself.
STILL-HUNTING	A shortwing which sits in a commanding position waiting for quarry to come within range is still-hunting.
STOOP	When a hawk drops with closed wings on quarry
STRIKE	
THE HOOD	Open the hood braces but leaving the hood on.
SUMMED	Another term for hard panned is 'full summed'.
SWIVEL	Vital piece of a hawk's furniture, used to prevent jesses becoming twisted.
TIERCEL	A male falcon.



- TIRING** A morsel, a wing for example given to a hawk to exercise and keep her occupied. More bone and feathers than actual meat.
- TRAIN** Tail feathers of a hawk.
- WEATHERING** When a hawk is placed out of doors on her perch to enjoy fresh air, sunshine and to bathe.
- YARAK (IN)** Turkish word meaning a hawk ready for hunting, desiring a kill.