

Rehabilitation of Swifts, Swallows and Martins

compiled by Gillian Westray

This CD has been specifically compiled for UK rehabilitators.

When I first started to investigate the care of Swifts, Swallows and House Martins many years ago very little information was available and that appeared to be largely based on myth, tradition and guesswork. After approaching several of the leading Wildlife Rescue Centres with mixed reception I came to the conclusion that much could be done to improve the care and understanding of this group of birds.

To cut a very long story short, ten years on much has changed and thanks to the internet we have a small group of specialist swift rehabilitators from across Europe achieving amazing results in cutting edge research and care. We work very closely together with a free exchange of information.

Sadly the growth of the internet has also brought us a proliferation of extremely poor protocols and advice, hence the production of this CD to group together the sound information and sources for further knowledge.

This group of birds **are** challenging and time consuming but handled **correctly** are really much easier than most wild birds....just different! The average release rate amongst our group of specialist carers being 85% makes the effort well worthwhile.

The information contained on this CD caters for all levels of rehabilitators:

Hilde Matthes & Gillian Westray are small private home units catering for 70-150 patients a season. **The Frankfurt Clinic** admits in excess of 800 swifts a season and offers exceptional surgical facilities. **Enric Fusté and Torreferusa** wildlife rehabilitation centre near Barcelona also admit around 800 casualties with a restricted financial budget.

Swallows & Martins.

Most of this information is swift specific but the basic requirements of diet and time constraints are similar, the accommodation differs and of course the swallows and martins can easily be "test flown" before release.

The major danger with the hirundines is becoming too tame and great care needs to be taken to avoid imprinting. House Martins in particular are friendly little birds and should not be reared alone; hand feeding time should be kept to the minimum.

You will find a great deal of information in both PDF and video format, much more can be accessed through the linked websites. This gives the basis for successful rehabilitation but sadly not the experience, with time you will come to recognise the wide variation of individual personalities and learn to adapt accordingly.

I hope this information will help both rehabilitators and swifts, please feel free to contact me if you have any comments.

Gillian

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With the permission of Gillian Westray, I have transferred many of the pdf files to html format so that they can be accessed online. If anyone wished to have a copy of the CD, they should contact her at the above email address. A small donation towards the cost would be very much appreciated!

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IMPORTANT WEBSITES

<http://www.swift-conservation.org> *

This is a specialist website offering advice for all aspects of swift conservation, especially useful for architects, planners, developers and anyone wishing to both attract and save colonies during re-roofing work. Entertaining and informative lectures can be arranged

<http://www.commonswift.org> *

This highly informative German website is devoted to The Common Swift worldwide with many scientific studies available.

<http://apusapus.net> *

The Frankfurt Swift Clinic is the world leader and probably the only hospital devoted to swifts. The procedures are truly groundbreaking and offer a level of care that is truly inspirational. The website's information is extremely comprehensive demonstrating a deep understanding of the species and should be studied in depth by any serious rehabilitator. (A little care needs to be taken with some of the translations)

The Clinic is well funded by the German Swift Society and even though they admit very high numbers of casualties funds support the very best protocols.

<http://www.falciotnegre.com> *

This is Enric Fusté's website; you will find details of his extensive research proving the poor results from historically incorrect diets but also giving invaluable new dietary advice for large scale rehabilitation units with financial constraints.

*These websites are run by a well informed group of people from across Europe who care passionately about swifts.

Useful Websites

<http://www.livefoodsdirect.co.uk>

Supplier of live foods, offering a reliable quality service and informative website.

also: <http://livefoodsdirect.co.uk>

Supplier of live foods, bulk vacuum packed crickets; supplements, heatpads etc. next day delivery possible

Avian supplements and advice: <http://thebirdcareco.co.uk> _

<http://www.skullsite.com/skeletons/index.htm>

This website shows a 3D movie of a swift skeleton, very interesting.

TRIAGE FOR COMMON SWIFTS



Fully grown juvenile Swift.



Nestling Swift.

85% of Casualties can be saved with the correct care!

1. Place the patient in a warm, safe & calm environment.

Not a wire cage, this can cause feather damage. Ideally a towel lined box or plastic rodent cage with a heated pad protected by a towel or fleece to sit on, 30 degrees centigrade is ideal. Partially cover with a dark towel for privacy.

2. Assess its weight, age & condition.

This is critical information to establish the correct treatment; otherwise the future survival of the patient can be compromised. All this information can be found at www.swift-conservation.org and elsewhere in this CD

3. Hydrate.

Ideally a re-hydration fluid such as Lectade, start by offering this from a cotton bud wiped along the side of the mouth. Serious cases of dehydration present with closed and sunken eyes and will require more intensive fluid therapy. **EXTREME** care must be taken when attempting to open the mouth. This is soft and fragile not like a normal beak and should be done from the side by **VERY** gently inserting a clean thumb nail to open and then holding open with the index finger on the roof of the mouth. The inside should be a healthy deep pink, grey is an indication of starvation, white is close to death and unlikely to recover. (Though not impossible)

4. DO NOT - under any circumstance throw into the air!

There exists a terrible myth that a swift cannot take off from the ground, a healthy swift **can** and this is used as one of the tests to check the recovery before release. Any swift found on the ground has a problem and this needs to be determined.

5. DO NOT FEED.

Swifts are quite unlike any other bird in many respects. Attempting to feed an emaciated or dehydrated swift of any age will most likely be fatal.

6. Antibiotics.

Cat attack victims must be given an appropriate antibiotic as soon as possible, deep puncture wounds to the body are often fatal.

ONCE THIS BASIC PROCEDURE HAS BEEN IMPLEMENTED ALL THE INFORMATION NEEDED SUCH AS VETERINARY HELP FOR INJURED SWIFTS, CONTACT DETAILS OF EXPERIENCED CARERS ETC. ARE ALL AT: - www.swift-conservation.org

The Swifts return to the UK from the end of April to the second week of May, during this

period they can be forced down by bad weather and lack of food. A good rest and the correct food for them to regain weight is often all they need

ARTICLE PUBLISHED IN THE VETERINARY NURSING JOURNAL- APRIL 2010

The Common Swift Population in the UK is Suffering a Serious Decline but Veterinary Nurses can help!

Gillian Westray – Swift rehabilitation specialist & Tim Partridge BVSc MRCVS

The objective of this article is to give Triage information for Swift casualties and details of where to obtain further assistance with all aspects of rehabilitation

We have been rehabilitating these birds for a number of years and now work closely with **www.swift-conservation.org**. This work is important, as Swifts have lost half their UK population in the last 15 years, due largely we believe to changes in the way we now build and insulate our houses. Swifts' survival in the UK now hangs in the balance; extinction within the next twenty years being now the reality.

Please do spare a moment to look at this website and you will appreciate some of the problems these wonderful birds are facing and our commitment to help them in practical ways.

Many of our patients have been handed in to veterinary surgeries, but sadly some receive incorrect treatment which can compromise recovery. This is because they are quite unlike other birds in the care they need, but are not difficult when you know their very specific requirements. They have the added satisfaction of a potentially high success rate, 85% being quite achievable.

Once the young leave their nest they require no parental care, so providing they are the correct weight and have immaculate feathers the rehabilitated Swift has a good chance of survival. There are many dubious protocols around, but the method we use replicates nature as far as is reasonably possible. Hilde Matthes, a respected German Swift Carer, recaptured one of her fosterlings a year later, after it had migrated to Africa and returned to her town in Germany, thus proving her treatment regime.

The Swift is such an elusive bird, usually only seen on the wing and often confused with Barn Swallows and House Martins. They have many similarities but the care needs to be adjusted for each species. To avoid a case of mistaken identity study the following photographs. They illustrate the three birds as both nestlings and fledglings at approximately the same ages.



Common Swift Nestling

All brownish black with some white round beak and chin. Very large pink gape, very short feathered legs with forward pointing toes.



House Martin Nestling

White rump & underparts Short white feathery legs, yellow gape. The smallest of the three birds.



Barn Swallow Nestlings

Pinkish chin & underparts, yellow gape, unfeathered legs. Slightly larger than a House Martin.



Common Swift Fledgling
Fine white edge to primary feathers, can cling vertically, but unable to perch.



House Martin Fledgling
Black (juveniles brownish) & white.



Barn Swallow Fledglings
Bluish black with pink chin, paler pink underparts & tail spots.

Common Factors of all three species

Summer visitors migrating to Africa for the winter months.

Insectivorous, only feeding on the wing.

Moult on their wintering grounds.

Time and condition for release far more critical than for indigenous species.

They should not leave the nest before being able to fly, any young falling or fledging too soon are not generally fed by the parents, so unlike many other birds if they cannot safely be returned to the correct nest they need to be rescued.

Differences

Swallows and House Martins are fed by their parents for a short time after fledging.

Once fledged, Swifts require no parental care.

Swifts do not perch; their forward facing toes only allow them to cling to a vertical surface. Unless forced down by bad weather, they are continually on the wing until entering their nesting cavity for breeding or establishing a nest site.

Nestling Swifts can survive longer periods of time without food due to their sophisticated metabolism. Swifts exercise in the nest space to build their muscle tone, this in combination with attaining the ideal weight and primary feather length gives them the ability to fly competently upon fledging. Weight and feather length is critical; should either be imperfect the maiden flight may fail.

Grounded Adult Swifts

Swifts arrive back in the UK from the end of April to the second week of May; therefore any casualty before June is sure to be an adult. Not as easy to handle as a juvenile, they will be injured, starved, exhausted or any combination, therefore most likely weakened and sometimes alarmingly floppy! (Unlike other wild creatures they can be calmed by gently stroking their throat.) Bad weather will reduce the food supply and weaken the bird at the end of its migration. 35grams being generally considered the minimum weight for any adult and over 42grams more acceptable. Even if a patient seems recovered after resting and fluids, if underweight it will not have the strength to sustain flight and catch insects. Injuries found in adults are usually as a result of impact, once grounded; predators can inflict further damages.

Concussion cases often have a good prognosis if handled correctly; they can take up to three weeks for recovery. The same time scale may apply for bruising to soft tissue of the wings and body but encouraging careful exercise after a prolonged rest period will be necessary to relieve stiffness and regain muscle tone.

Weather

A heat wave during June & July will usually bring in many dehydrated hyperthermic youngsters; they fall out of the nest trying to escape the heat of the roof space. Conversely a spell of cold wet weather reduces the insect supply and the starving young fall looking for food.

Note

This is a very small insight into the life and care of the Common Swift. Considering they normally enjoy the ultimate in freedom, as a casualty, Swifts are remarkably tolerant if handled correctly. Possibly they are the only wild creature whose recovery is helped by bonding with humans without compromise to their rehabilitation.

[Triage – Key Points.](#)

The 8 points listed below should help increase the chances of either saving the patient or reducing the risk of inflicting further suffering.

1. DO NOT under any circumstances throw the Swift into the air before full assessment!

There exists a terrible myth that a Swift cannot take off from the ground, but must be thrown into the air to fly. A healthy Swift **can** and this is used as one of the tests to check the recovery before release. Any Swift found on the ground has a problem and this needs to be determined. Throwing it into the air will only cause more damage and inflict suffering.

2. Place the patient in a warm, safe & calm environment

Not in a wire cage, this can cause feather damage. Ideally a towel lined box or plastic rodent cage with a heated pad protected by a towel or fleece to sit on, 30 degrees centigrade is ideal. Partially cover with a dark towel for privacy.

3. Assess its weight, age & condition

This is critical information to establish the correct treatment; otherwise the future survival of the patient can be compromised. A young Swift over 10 days old or an adult below 24 grams must be considered extremely critical needing immediate warmth and fluid treatment.

HOW OLD IS YOUR SWIFT?

This is a rough guide. NB if food is plentiful they grow much more quickly, so a 10% variation in both weight and growth rate is possible.

WARNING! If your Swift is significantly below the indicated weight for its age, great care must be taken. Please refer to the Triage instructions.



23g approx 6 days old



35g approx 10 days old



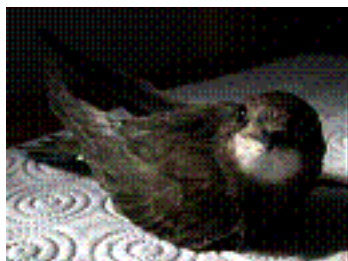
40g approx 14 days old



42g approx 16 days old



50g approx 22 days old



52g approx 25 days old



48g approx 32 days old



46g approx 35 days old



45g approx 38 days old



43g approx 42 days old

4. Rehydrate

Most debilitated birds will be dehydrated when presented; the degree of dehydration commonly being between 5–10%. (Furthermore the daily maintenance requirement can be assumed to be 50ml/kg/day) The inside of the mouth should be a healthy pink colour; a greyish pallor is an indicator of dehydration or physiological shock, whilst a white pallor comes with a poorer prognosis for recovery. Serious cases of dehydration can also present with closed and sunken eyes. The more severe the degree of dehydration, the more intensive the fluid therapy should be. However extreme care must be taken whenever opening the mouth, it is soft and fragile and should be done from the side by very gently inserting a clean finger nail to open and then holding it open with the index finger on the roof of the mouth.

Rehydration can be achieved via subcutaneous administration (in the inguinal region) of warm sterile isotonic fluid (up to 15ml/kg per side per treatment), or via an oral rehydration fluid such as Lectade – start by offering this from a cotton bud wiped along the side of the mouth.

Swifts feed their young by regurgitating compressed balls of insects down their throat so the young swift has a natural reflex to swallow, this can with great care be used to advantage for administering fluid via a syringe (without needle!)

5. DO NOT FEED!

Swifts are quite unlike any other bird in many respects. Attempting to feed a dehydrated Swift of any age will most likely be fatal, so adequate rehydration should be achieved prior to feeding. Swifts are obligate insectivores; any other diet is inappropriate, may well cause deformation and can prove fatal.

6. Feeding

Once the patient has been fully assessed and given an initial fluid intake, if it is not considered to be underweight or dehydrated, feeding needs to be addressed. Remember that the wrong food can be fatal!

Please study the following article before attempting to feed any Swift:

“Hand Rearing of Common Swifts” by Hilde Matthes (included on this CD). It is also available free as a download from

www.swift-conservation.org/Hand%20Rearing%20the%20Common%20Swift.pdf

It gives all the information needed to rear a young Swift, and has a photographic case study showing the stages of growth of the young and juvenile Swift.

Food supplies: Crickets & wax worms are available by Internet and mail order from:

www.livefoodsdirect.co.uk

7. Antibiotics

Cat attack victims must be given an appropriate antibiotic as soon as possible, deep puncture wounds to the body are often fatal.

8. Further Information

If you need person to person advice or cannot care for the swift yourself, a Swift Carer’s list can be found on the First Aid page of www.swift-conservation.org

see: www.swift-conservation.org/SwiftFirstAid.html

There is no room for compromise regarding the rehabilitation of a swift, so if a competent carer cannot be found euthanasia may have to be considered.

Dr. Christiane Haupt, Veterinary Surgeon:

[Veterinary Help for Common Swifts](#)

How can I tell that the Swift I have found is in bad shape?



A bird that has had an accident in shock: ruffled feathers, closed eyes. Photo: C. Haupt

Possible symptoms:

- Ruffled feathers, closed eyes, curved back
- Bird is shaking, feels cold
- In panic bird digs its claws painfully tight into your hand
- Complete weight loss.
- Injuries (wounds, blood, hanging wing, twisted limbs or similar)
- Bleeding from its beak, nose or ear
- Throat white or grey instead of pink
- Twitching, cramps
- Difficulty in breathing, breathing noises, open beak
- Screaming, sounds of distress

No Common Swift will be found on the ground without a reason! Never just throw the bird up into the air! A thorough examination of the foundling is necessary

to find out exactly why the animal was grounded and in order to give sensible and purposeful help.

Broken bones and torn ligaments

a) Wings

If your foundling has a broken or dislocated wing, the prognosis is poor. Swifts are high-performance flyers and healthy flying equipment is vital. During the course of their life, which can last more than 20 years, they fly approx. 200,000 km per year.

Always remember, that a Swift cannot make any compromises: it must either be able to fly in perfect condition – or will die in a pitiful state.

However, don't despair too soon if a wing is hanging down: there are favourable cases, which can be treated. A vet who is knowledgeable about birds will take an x-ray and assess the situation.



Conservative fixation with figure-eight-bandage. Photo: C. Haupt



Scalped wound inflicted by a cat: hopeless. Photo: C. Haupt



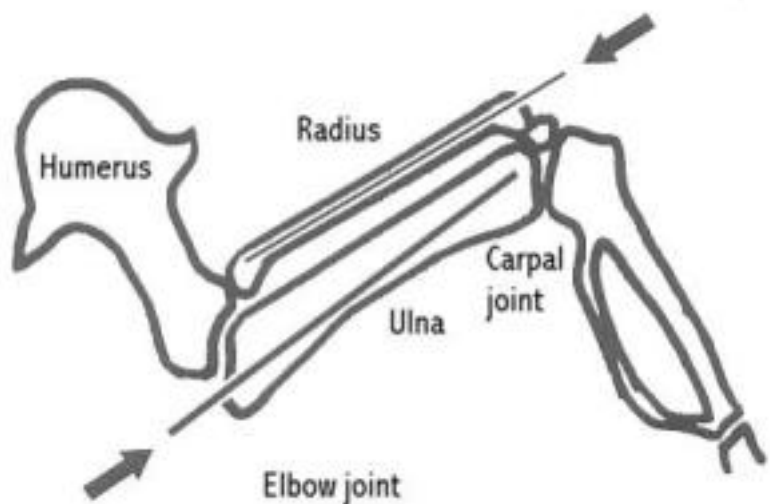
Patient after the operation: Internal fixation of a broken radius with an intramedullary pin (IM pin, arrow: nail exit). Photo: C. Haupt

b) Shoulder girdle



Asymmetric position of wings with a dislocated shoulder: This Swift will never fly again and must be put down. Photo: I. Polaschek

The most important bones in the bird's shoulder girdle are the filigree silver-fork bone and the strong coracoid bone. If a Swift hits an obstacle at high speed, these sort of fractures and torn ligaments occur quite often – and they are always hopeless. Externally you can not see more than that the Swift is unable to fly or only a short distance. Because these fatal injuries are not so obvious as e.g. a broken wing, one can hardly believe that the bird cannot be saved.



Internal fixation with IM pins of ulna and radius. Drawing C. Haupt

c) Leg

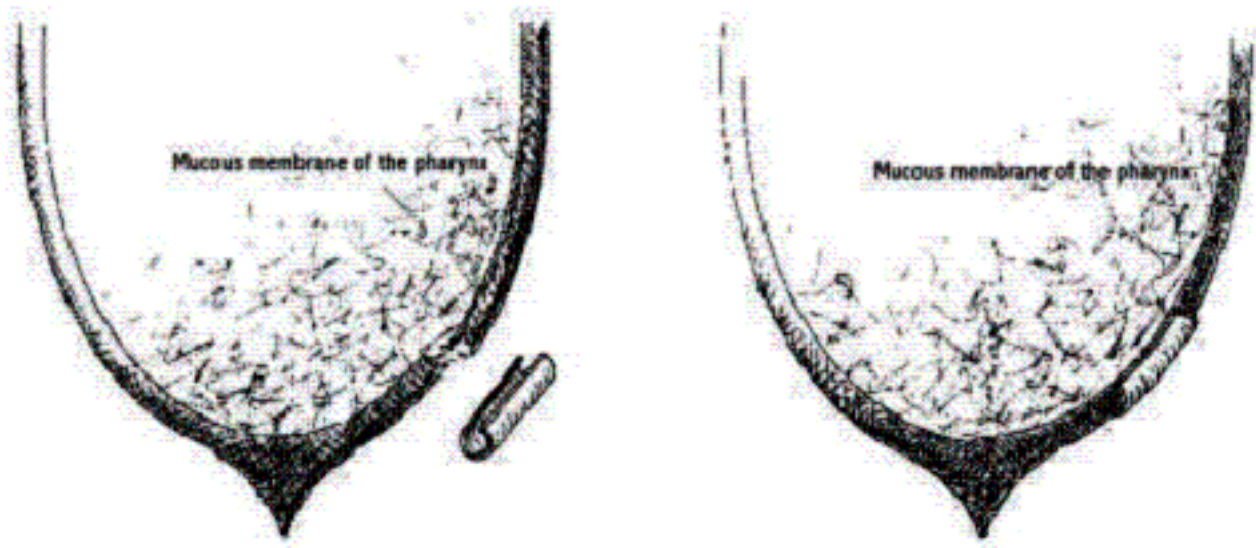
Young Common Swifts often break their legs when they fall from their nests or when the Swift gets caught in a thread at its nesting site and tries in vain to break free. Unfortunately, it happens now and again that such a bird hangs helplessly on the roof under its nesting site, and without attentive neighbours and a willing fire service is sentenced to an agonizing death that can last for days. But if its lucky enough to be saved, you'll often be dealing with an extremely swollen, twisted or even numb foot.

As a rule, a broken leg heals without any complications if it is immobilised with a small bandage around its body, and a slightly crooked positioning does not impair the bird. If you are dealing with a complicated leg fracture, a foot, which is only hanging on by tendons and skin or with a dead limb, the vet should amputate. It has been proven that Swifts can live without any problems with one leg only and can even breed.

d) Beak

Fractures of the lower beak almost always occur through feeding, which is not careful enough or too rough: frequently the fingernail is only placed at the tip of the beak and the beak is bent downwards, which almost always breaks the fine bone. This fracture is unnecessary and avoidable and may lead to severe deformations! Often the upper and lower beak do not fit properly over each other; uncontrolled horn growth may be the result. In the worst case it leads to a loss of parts of the beak's horn sheath or even to the tip of the beak breaking off – a death sentence!

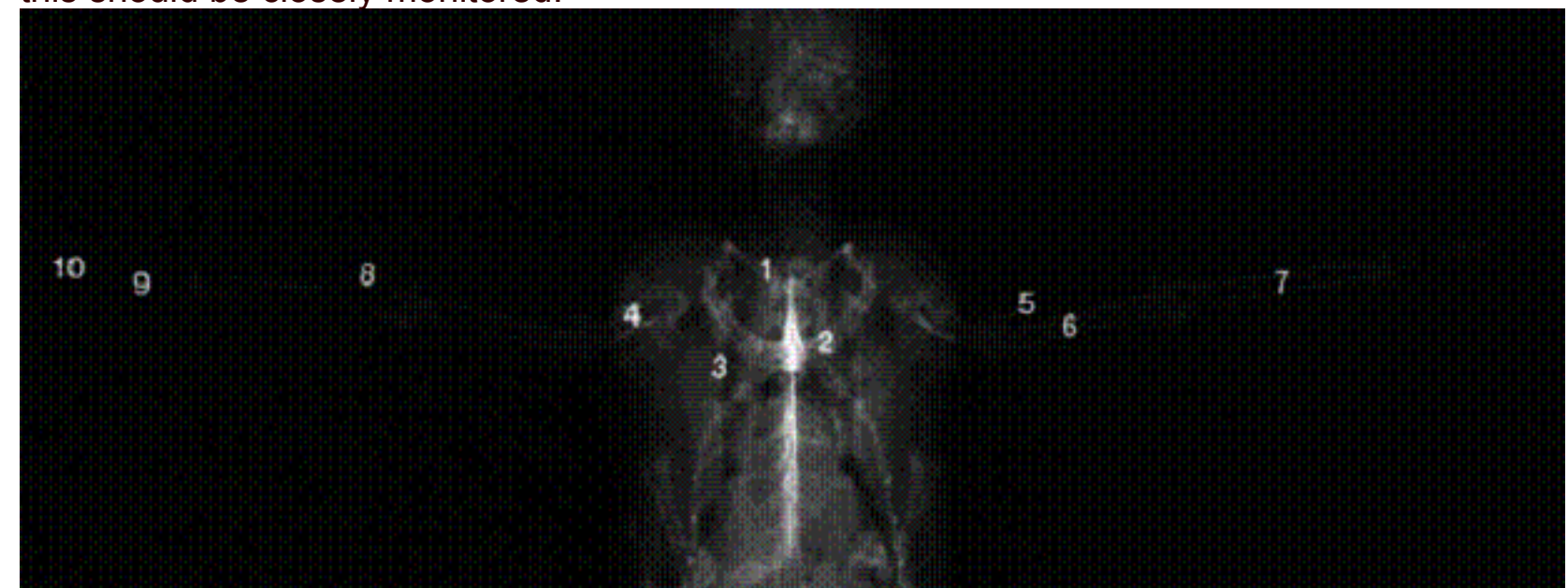
A broken beak requires the utmost gentleness and care during feeding. A fixation by the vet as soon as possible is advisable.



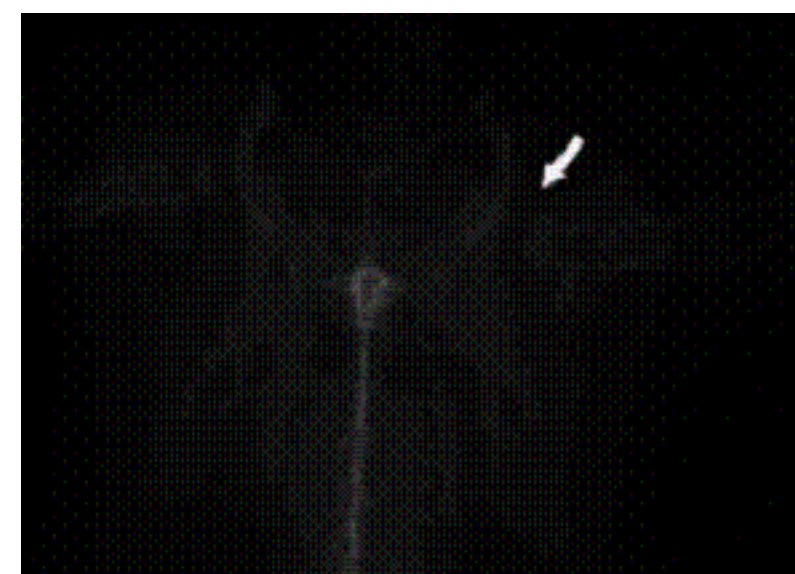
Fixation of a lower jaw fracture with a bit of quill: C. Haupt

Advice for the vet

To fixate an uncomplicated mandibular fracture, a small piece of quill can be used as a splint, e.g. from a pigeon feather, which is cut open lengthways, pushed over the broken part like a slide, if required and then left for a few days. The stability achieved in this way is satisfactory. There were no irritations of the mucous membrane of the pharynx in the area of the splint for the cases under observation, but this should be closely monitored.



Normal anatomy of the skeleton of a fully-grown Common Swift (shoulder girdle and wing): 1) Clavicula, 2) Coracoid, 3) Scapula, 4) Humerus, 5) Radius, 6) Ulna, 7) Carpometacarpus, 8) Phalanx digiti alulae, 9) Phalanx proximalis and 10) Phalanx distalis digiti maioris



Torn ligament between humerus and shoulder joint.
Observe the dislocation of the left humerus head of the shoulder joint



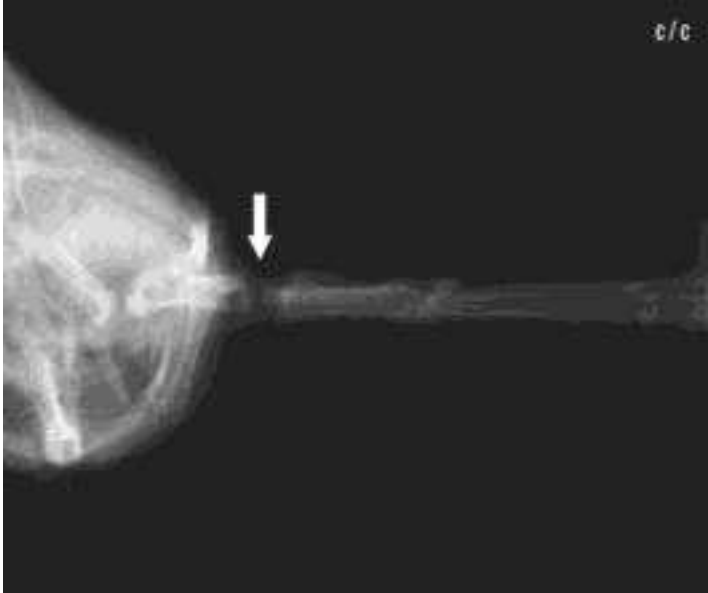
fractures happen frequently during flying onto something

Fracture of the clavicle and the coracoid: multiple



Elbow luxation in the mediolateral radiation duct:

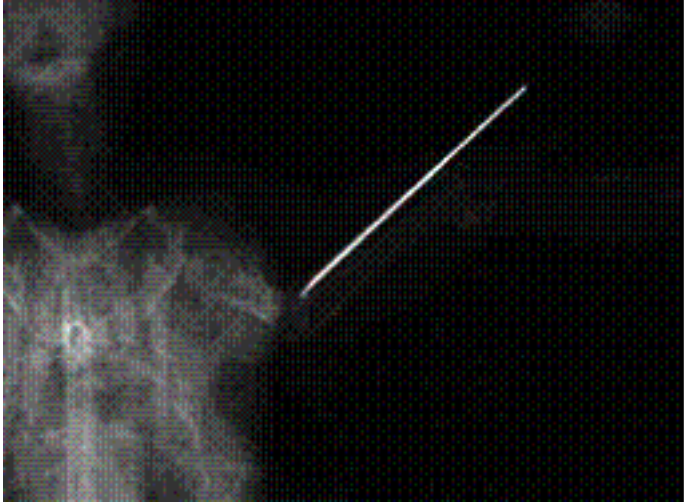
completely torn off ligament



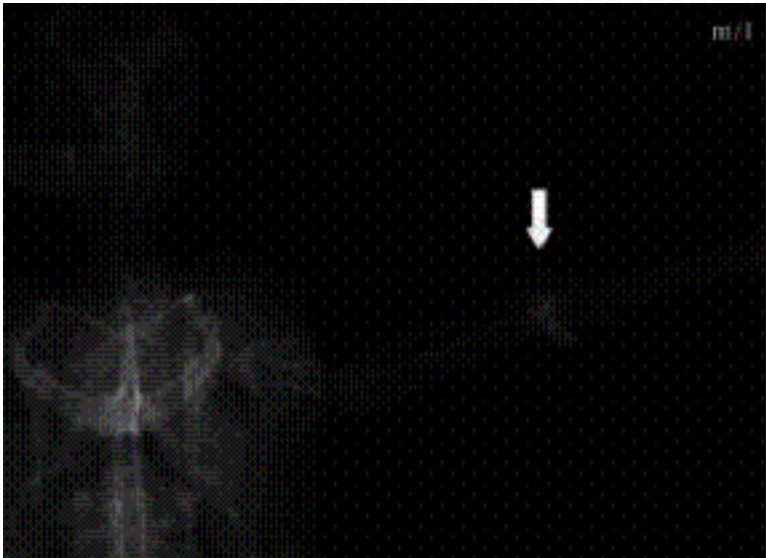
Elbow luxation in the caudocranial radiation duct



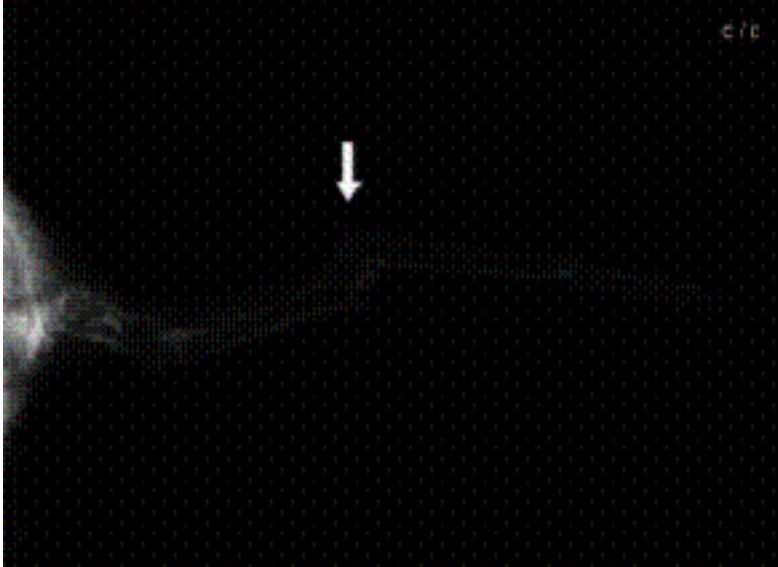
RRadius fracture, dislocated



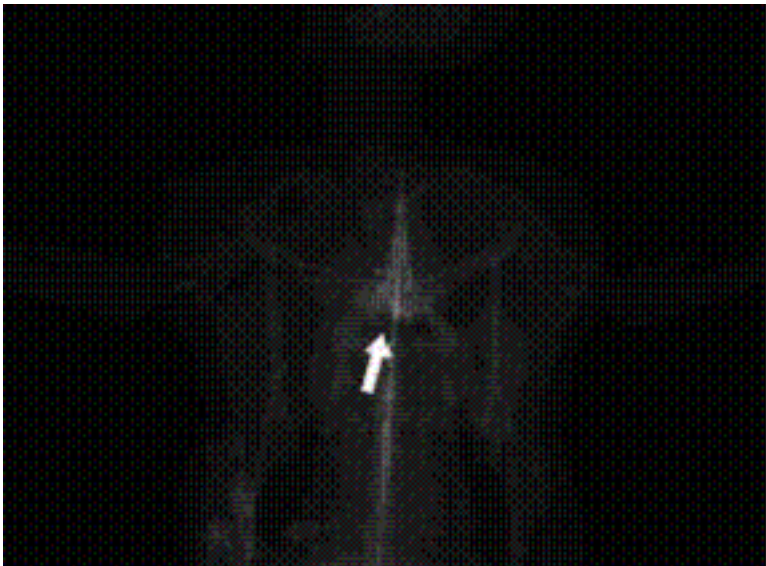
Radius fracture after intramedullary pinning with a 0.4 mm cannula



Wrist luxation: in the mediolateral radiation duct there seems to be only slight damage, which could be overlooked



Wrist luxation: the extent of the damage can only be seen with the caudocranial radiation duct



The fatal luxatio art. sternocoracoidea is not easily recognisable in the normal ventrodorsal x-ray. When the wing is stretched, the connected separation coracoidsternum is hardly noticeable



Luxatio art. sternocoracoidea: not until the provocation x-ray (pushing the coracoid across the middle line) visible

Advice for the vet

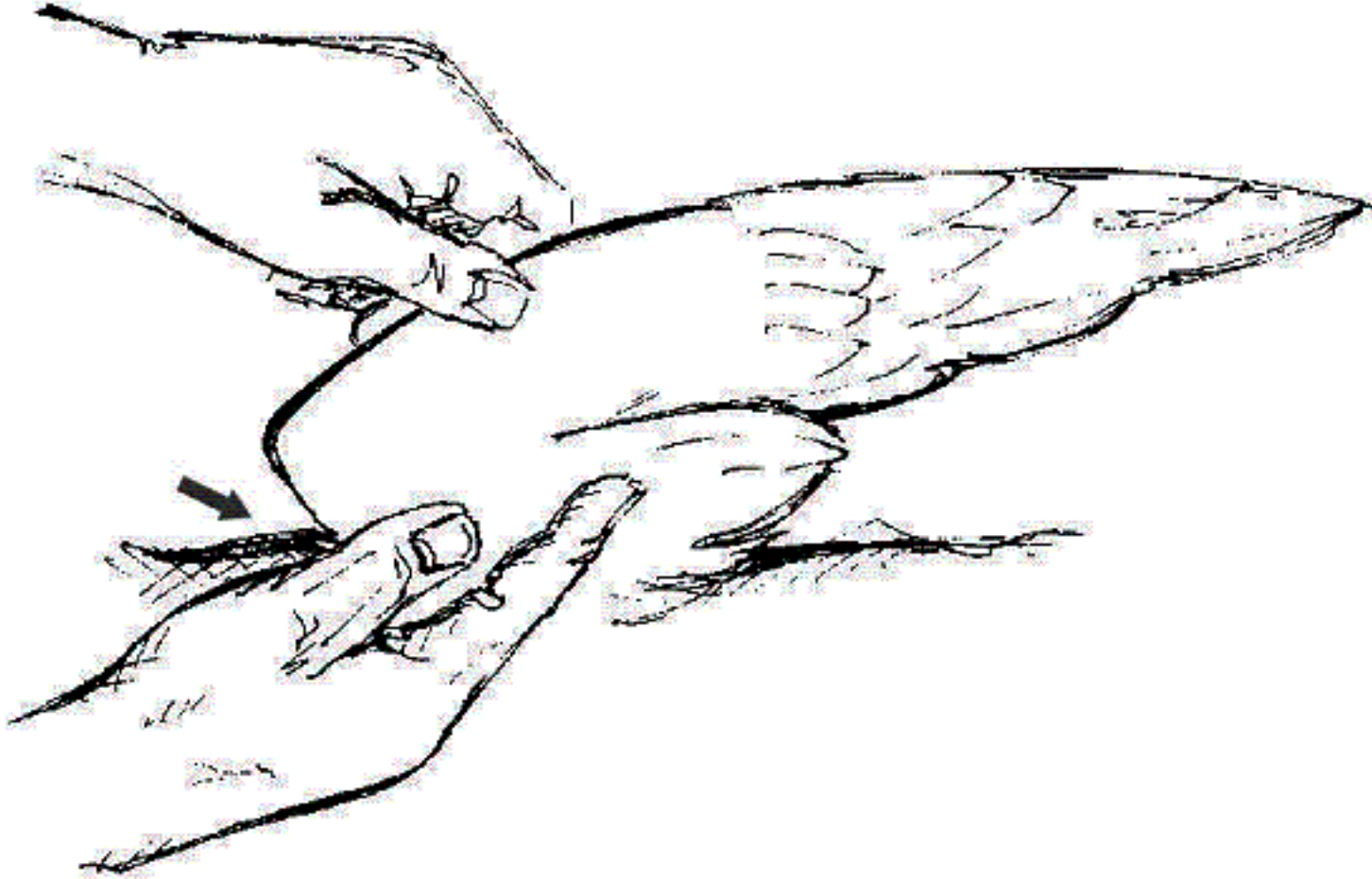
Due to the way of life and high specialisation of this kind of bird, it should be clarified in advance, whether and - if yes, how – the damage to its flying system can be repaired and at the same time its ability to be reintroduced into the wild can be ensured.

The following experiences have so far been listed:

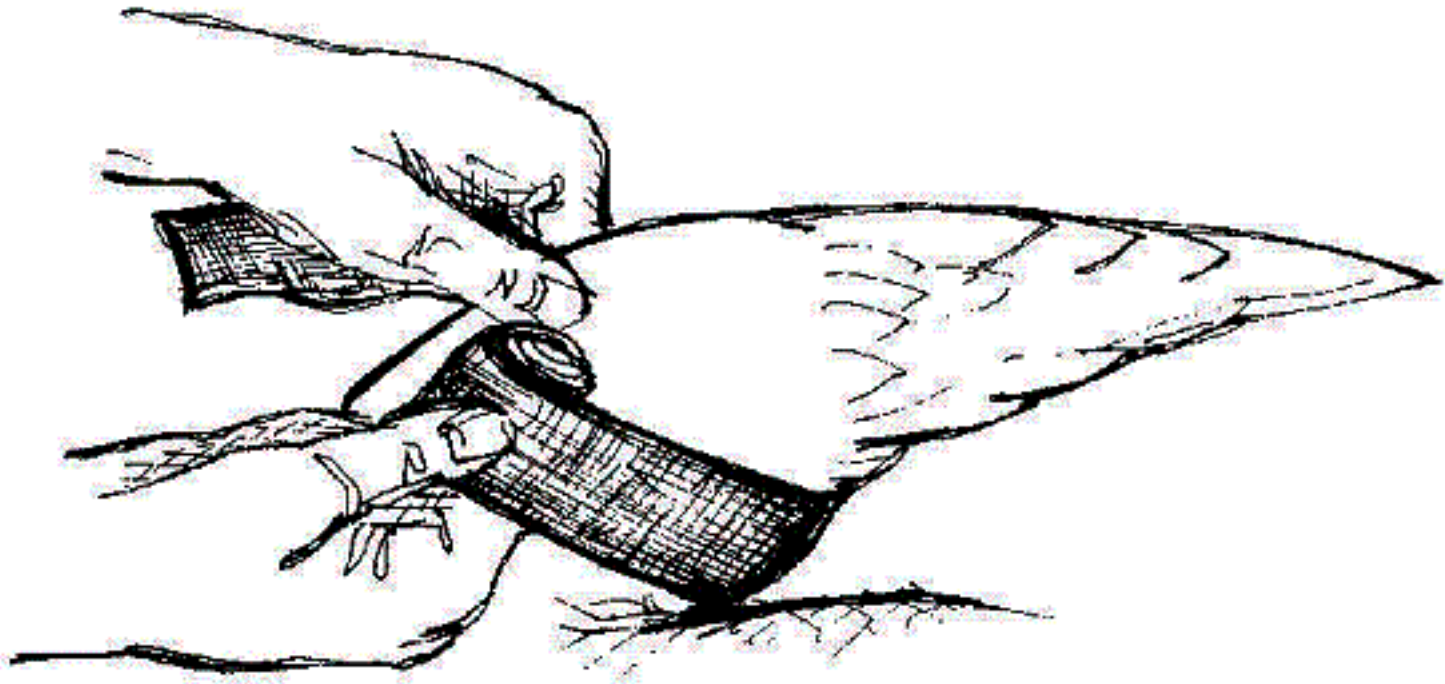
	Conservative care of fracture	Surgical care of fracture	
Shoulder luxation	not possible	not possible	euthanasia
Humerus fracture	not possible	not possible	hopeless: euthanasia
Elbow luxation:	Not possible	Not possible	Hopeless: euthanasia
Radius fracture	Box rest, possibly figure eight bandage – only if not dislocated.	internal fixation, leave, leave IM pin for 10 days	Afterwards physiotherapy
Ulna fracture	Figure of eight bandage but only if not dislocated	internal fixation, leave, leave IM pin for 10 days	Afterwards physiotherapy
Radioulna fracture	Not possible	Possibility of internal fixation, leave IM pins for 10-12 days, combined with figure of eight bandage. Not usually advisable	Physiotherapy
Wrist luxation	Not possible	Not possible	Hopeless: euthanasia
Hand fracture	Figure-eight bandage-only if not dislocated	Possibly intramedullar fixation without inclusion of proximal and distal koint; not enough experience yet	Physiotherapy
Luxation of the digiti	Not possible	Not possible	Hopeless: euthanasia
Fracture of the digiti	Fixation with little bandage	Not possible	Afterwards physiotherapy
Clavicula fracture	Not possible	Not possible	Hopeless: euthanasia
Coracoid fracture	Not possible	Not possible without a massive muscular trauma	Hopeless: euthanasia
Scapula fracture	-immobilisation – massive callus formation can lead to the bird being unable to fly	Not possible	If necessary euthanasia
Luxatio art. Sternocoracoidea	Not possible	Not possible	Hopeless: euthanasia

A conservative fixation should only be carried out on one side and material be used which does definitely not damage the feathers; self-adherent bandages seem the most suitable. An intact plumage is as vital for an aerial flyer as an undamaged skeleton! The figure-eight-bandage has proven its worth (see drawing). After removing the bandage, the bird should be trained for a few days, in order to

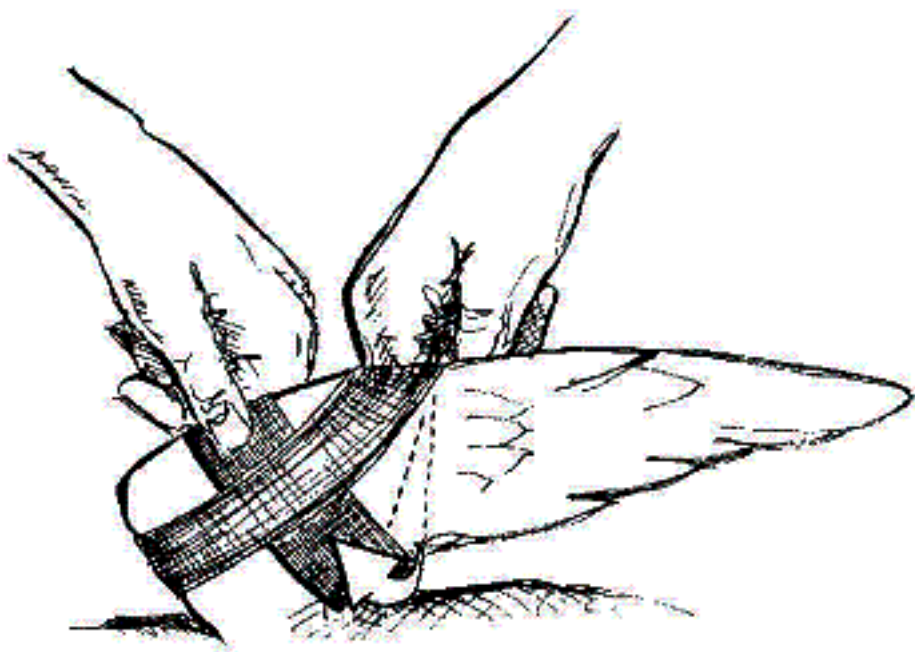
strengthen its muscles. For this purpose it can be left to climb every day, fluttering his wings, or encouraged to do some exercises on the ground. Letting it fly across the room is not advisable, as a Swift reaches high speeds at even short distances, and could too easily injure itself.



The wing is placed in a physiological position. The pressure-sensitive stretched skin of the wing (arrow) must be carefully padded. Drawing: C. Haupt



An elastic bandage is applied from ventral to dorsal around the humerus, then across the shoulder joint and around the carpus. Drawing: C. Haupt



The bandage is placed dorsally across the wing, pulled as a figure-eight-bandage ventrally again and along under the humerus. Drawing: C. Haupt

As far as possible, the surgical care of the fracture is definitely given the priority where the Swift is concerned. Internal fixation has proven itself to be successful in many cases, can be carried out fast and easily and is least awkward to the patient during convalescence. The plumage must on no account be damaged during the operation. After the IM pin has been removed, it will be necessary to have a few days of physiotherapy.

The relatively frequent radius fracture, which, if not treated, can lead to limited flight ability, is pinned by using a 0.4 mm cannula, which is inserted into the distal end of the fracture, exits through the radius head which is palpable at the shoulder joint and is retrogradely pushed into the proximal end of the fracture as far as just in front of the elbow joint. The pin coming out at the shoulder joint is released 1 - 2 mm over the skin, and is protected with a small adhesive strip, so that the patient is unable to pull it out.

The ulna is pinned in the opposite direction; here the pin exits, being bent at a maximum, at the proximal end of the ulna just underneath the elbow joint. A 0.5 mm cannula or drill wire can be used. Caution: the elbow joint may stiffen! For the radius the medial, for the ulna the dorsal access has proven successful.

A defect in the shoulder girdle can be diagnosed by the bird's inability to fly or only in a restricted way, an incongruent movement of wings, or the shoulder concerned hanging down, as well as the inability of the Swift to turn round on its own accord when you try and put it on its back. An x-ray is essential in order to exclude the possibility of bruising. An exact positioning is indispensable for an impeccable picture of the shoulder girdle area. If necessary, sedating the patient may be advisable.

The shoulder girdle defects occurring most frequently are fractures of the clavicle and the coracoid as well as the luxatio articulatio humeri (shoulder luxation), which clinically shows itself in the same way and can be clearly diagnosed in the x-ray: the very often significant dislocation of the upper arm as well as the clearly enlarged distance between the humerus head and shoulder joint of the side concerned are visible. It is harder to diagnose luxatio art. sternocoracoidea, which is not so infrequent: the sinewy attachment of the coracoid to the breastbone is torn off with a dislocation beyond the median. This defect can easily be overlooked on the x-ray and requires a trained eye.

Bruising

Bruising, especially of the shoulder occurs frequently among Swifts, and manifests itself clinically in a similar way to a fracture or torn ligament in the shoulder girdle, although the shoulder looks symmetrical. If the Common Swift does not stretch a wing, but protects it or presses it tightly to its body, it is essential to take an x-ray. Because bruising, although extremely painful, can be healed! Usually the swift already starts to carefully move the wing after a few days. Afterwards, a continuous improvement can be observed, and at the end of approx. 10 to 14 days you can carefully begin physiotherapy. Experience shows that at the end of three to four weeks the bird has completely regained its ability to fly.

Antibiotics

a) Cephalosporine (Cefotaxim p.e., "Claforan 0,5") 100 mg/kg body weight i.m. or s.c. SID-BID 5- 7 d. Good when the bird has been bitten by cat.

b) Enrofloxacin („Baytril“ 0.5 % oral solution) 10 mg/kg body weight p.o. BID 5-10 days; for Staph. And

E. coli partially resistant, therefore, if required, combination with

c) Amoxicillin/Clavulanacid („Augmentan-drops“) 150 mg/kg bodyweight p.o. SID over 5-10 days
Never give any antibiotics without giving simultaneously prophylactic antimycotics (Itrakonazol)!

Injuries

If the wounds have been inflicted by a cat, it must be given an antibiotic as soon as possible, and every hour counts: in general, untreated cat bites result in death within a very short time. Through the cat's saliva pasteurella, can be transmitted into the bird's bloodstream, causing its death from sepsis. Eye injuries usually have a bad prognosis. Please give analgesic drugs immediately, Meloxicam p.e. Under extreme swelling, bloody crusts etc. there is unfortunately usually an eye that has been destroyed. A Common Swift cannot live with one eye only, as it then lacks its spatial sight and is unable to catch food. Bleeding from the nose or beak often occur after the bird has flown against something; in this case emergency treatment by the vet is required. Bleeding from the ear is typical for a basal skull fracture; there is nothing left but euthanasia.

Medication:

Amynin / Ringer-Lactat 1:1, 1 ml body warm s.c. (in the bend of the knee)

Naphthionacid ("Hemoscon") 100 mg/kg i.m.

Traumeel injection solution drop by drop p.o. (also after an operation, after hitting an obstacle, against bruising; 1 drop BID - TID)

Meloxicam ("Metacam-Suspension") 1 drop BID a couple of days

Sedation:

Diazepam (4-6 mg/kg KGW i.m.)

Anaesthetic:

Inhalation narcosis Isofluran (introduction 3-4 min. 2.5-5% Isofluran + 1-2 l/min. O₂, maintenance 0.5-2 % Isofluran + 0.5-1 l/Min. O₂)

or

Injection narcosis with Diazepam (4-6 mg/kg body weight) and Ketaminhydrochloride (60 mg/kg body weight) i.m. in two different injections (but not at the same time because of possible muscle necrosis); if required, administer further with Ketamin (40-50 mg/kg bodyweight). With excitation administer further with Diazepam (5 mg/kg KGW).

In painful treatment, always give analgesics!

Euthanasia

Always give an anaesthetic before euthanasia.

Ketaminhydrochloride („Hostaket“, „Ketanest“)

250 mg/kg KGW s.c., then 0.05 – 0.1 ml "T 61" i.v. or i.c.

Damage to large feathers

Repeatedly Common Swifts are found by humans as a result of damage to their feathers, probably caused by accidents: with snapped, broken off wings or wings missing for unknown reasons. Such damage is usually only limited to one wing (in contrast to feather defects which are the result of a genetic fault or a wrong diet, which usually occur symmetrically).



Tragically, this also happens: a young Common Swift, whose primary feathers were maliciously cut off from both wings. He was saved through shifting! Photo: C. Haupt

The decision, what to do with such a poor bird, is not easy. It is possible to carefully pull the damaged primary feathers under general anaesthesia. However, the quills of the large hand primary feathers are anchored extremely tight – up to the forearm bone! -, and there is a great risk, even if removed by an expert, of causing severe injury. Often new feathers do not re-grow or are deformed. Even in the most favourable case, it will be seven to eight weeks before the new primary feathers have completely

grown back.

The method used in falconry of shifting, i.e. placing undamaged feathers onto the quills of the damaged ones, can come to the rescue of such cases of birds, but it is not a routine operation for Common Swifts.

Dehydration and bad state of nutrition

Examine the animal's breast: if the bone (breastbone) projects sharply, almost like the keel of a ship, the bird has become extremely thin. In that case, drip a few drops of a glucose solution (10 g glucose in 100 ml lukewarm water) with a pipette or plastic syringe (of course, without the needle) every 15-20 minutes into the beak, without smearing the bird with the sticky solution. The bird must not be lying on its back, it could choke and suffocate.

It is essential that the bird is kept warm (approx. 32°-35° C). The most suitable is warmth from below. If the Swift has become extremely thin, there is a risk that it will not even take liquids, let alone solid food. The circulation of such a bird is usually seriously malfunctioning, as is its digestion. As a rule, this applies to young Swifts, which only weigh just above 20 g or even less. They are acute emergencies. According to the latest experience, many of these starving birds can be saved through a vet's infusion, which should be repeated after 12 hours; Amino/Ringer-Lactat 1:1; 1 ml body warmth subcutaneous. These strengthening remedies will get the circulation going again, and give you time to carefully start feeding the bird. The preparation "Pancreon" (Pancrex) which supports the digestive system, can be obtained from chemist stores and has proven itself in such cases: 3-4 times per day you mash 1-2 small balls, dab the powder with a bit of food and administer it to the patient until the bird's condition is stable and it gains sufficient weight.

When the Common Swift starts improving, you feed it a few small crickets approx. every half hour – preferably at first only the soft back parts – (or if you have them, the somewhat firmer yellowish drones), and watch, whether the bird produces excrement. This is extremely important! Although severely undernourished, young Swifts often devour the food ravenously, and would like to swallow their carer's whole finger, but they are much too weak to digest the food. When a Swift is desperately begging you for food, temptation is great to give it as much as it wants. However, after a first improvement, this rapidly leads to a critical overloading of the bird's stomach, often resulting in death. Weight increases of several grammes in only a few hours are warning signs!

Regularly check by carefully feeling with your fingers, whether the bird's body is well filled, yet is soft and yielding! A hard stomach, which bulges as round as a ball means maximum alert (in this case, immediately stop feeding, and preferably have the vet give the bird another infusion with strengthening remedies).

It can take several days to stabilise a young Common Swift who has lost so much weight. During this time, the stomach may feel hard from time to time, even if you feed very carefully, but if you strictly keep to giving the bird small and easy to digest food quantities at short intervals, the above-described emergency situation should not happen. Until the patient is really on the mend, the breaks between feeding during the night should not be longer than 4-5 hours. After that you can start to feed normally, and get some well-deserved regular hours of sleep.

Flying against obstacles

Many birds that hit power lines, cars, windows or similar are dead on the spot, so that they cannot be helped. However, if the bird survives the impact, it is necessary to act quickly: the vet has to treat the bird against shock as soon as possible.

"Convulsions"

Cramps and disfunctions of the central nervous system can have very different causes. Frequently they occur as a result of an accident, and sometimes the Swift gets away with a concussion, is simply weak and dazed, but recovers after a few days of rest and warmth. But if more serious symptoms occur, such as convulsive seizures, spinning movements, rolling over, stereotypical head movements, the prognosis is doubtful. Such patients should be taken to a vet with a good knowledge of birds, as quickly as possible!



Convulsive seizures as a result of a lack of vitamin B. Photo: C. Haupt

Frequently observed convulsive fits, which can happen very sudden, rapidly progress and if left untreated can lead to death, develop as a result of a lack of B-complex vitamins. This, in particular, affects Swifts, who are fed with meal-worms or crickets of inferior quality, as well as those who have to stay with humans beyond the time of their normal rearing.

The symptoms start imperceptibly with a reluctance to eat, a fixed stare and compulsive head movements and intensify to throwing-its-head-right back, and to uncontrolled convulsions and spinning movements. The vet can immediately treat such a fit with an injection of Vitamin B-complex.

Administering vitamin B into the beak has been mostly ineffective when treating Common Swifts. Preventive feeding does not always avert these deficiency symptoms, either.

Parasites

Often Common Swifts are stricken by feather mites and especially the bloodsucking Swift louse fly (*Crataerina pallida*). These so-called ectoparasites sometimes appear in such large numbers that they can become life-threatening to a weakened young Swift. The Swift louse fly is not dissimilar to a housefly, but it has atrophied wings and has suction feet, with which it also attaches itself to human skin. It likes to jump onto humans and owing to its hard shell can hardly be squashed with our fingers. A Common Swift's ectoparasites are not dangerous to humans, unpleasant at the most. You can sprinkle a tiny amount of insect powder, which is suitable for birds and which you will get in any specialist pet shop, on the bird's neck feathers and distribute it.

Common Swifts quite often have endoparasites. There have been several proven cases of tapeworm, which live as a parasite in the Swift's intestines, and, under specific circumstances, can lead to the death of the bird. You can even recognise such worms in the excrements with the naked eye; they are tiny and move. Hairworms are rarer; its eggs, too, can be detected when the excrements are examined.

Cestodes and nematodes have been detected in Common Swifts. Especially old birds are often affected. Experience shows that extremely thin Swifts are suspected of having tapeworms, which after one or two days of continuous initial improvement in their condition, no longer gain weight, suddenly reject their food and show a rapid deterioration in their general state of health. Immediately administering Praziquantel („Droncit“ 10 mg/kg bodyweight p.o. or 5–10 mg/kg bodyweight i.m., repeat after ten days) has helped in many cases. During flotation tapeworms are not detected, and sedimentation does not always say much either! Due to the extremely progressive clinical picture of the cestodes infestation a prophylactic therapy might be advisable, if necessary. Occasionally, Swifts that were wrongly fed with earthworms for a short while, were subsequently affected by windpipe worms.

Dyspnoea and breathing noises are clinical symptoms for such an infestation. Fenbendazol („Panacursuspension 2.5 %“, 25 mg/kg bodyweight p.o. SID 3 days, repeat after 10 days) has proven itself effective against *Syngamus*, *Ascarides* and capillaries.

Diseases

Only little is known about infectious diseases among Common Swifts. Non-specific evidence would be e.g. apathy, difficulty in breathing, paralysis, ruffled feathers, bent up back, conspicuously pale, yellowish or bluish mucous membranes, stratifications in the throat, smeared plumage under the tail, foul-smelling excrements.....

The diseases of Common Swifts, which have so far been observed by the writer could almost exclusively be traced back to mistakes made by people whilst keeping and feeding the bird, and manifested themselves as severe dyspepsia, and damage to liver, kidneys, skeleton and plumage. A lack of hygiene during feeding can also lead to a number of very persistent bacterial infections and mycoses. They can be made more difficult through the wrong diet, deficiencies and a weakened immune system, and usually manifest themselves in the area of the throat and in the respiratory tract. Clinically dominant are changes in the throat (whitish or brownish spots, coating or crusts, mucous threads, sweet smell etc.), breathing noises or difficulty in breathing.

The throat area of Common Swifts, that have never been cared for by humans, is usually sterile. „Pretreated“ Swifts, however, often show a wide spectrum of germs which are facultatively pathogenic, among others pseudomonas spp., proteus, E coli, Klebsiella, β -haemolysing streptococcus, staphylococcus aureus. Frequently these germs appear together with candida albicans. The Swift's candidiose responds well to Flukonazol, although this has a hepatotoxic effect, so that treatment with Nystatin (works locally, must have contact with the yeast) is preferable.

There is a strong proneness to an aspergillosis of the respiratory tract when treated with antibiotics, as well as with a weakened immune system. If the infection has not progressed too far, therapy with Ketokonazol is possible.

The bacterial and mycological examination of a throat swab as well as an antibiotic spectrum are essential for successful treatment, as a resistance against common antibiotics can be increasingly observed among wild birds.

Antimycotics:

- Nystatin (e.g. „Candio Hermal“) 3 ml/kg bodyweight p.o. BID-TID over 10 days, which is best against candida
- Itrakonazol (e.g. „Itrafungol“, „Sempera“) 10 mg/kg bodyweight p.o. SID over 10-14 days, which is best against aspergillus.

First Aid

The same basic rules apply to a bird that has an accident as to a mammal: secure vital functions – stop bleeding – treat for shock!

For Common Swifts with commotio cerebri after hitting an obstacle, the following, already described earlier has proven itself effective: immediately administer a lactated Ringer's solution subcutaneously to a volume substitution, as well as corticosteroids i.m., antibiotics and a vitamin-B-complex s.c. medicine to stimulate circulation and breathing can be helpful. The patient needs strict rest and warmth. The prognosis when birds have flown into an obstacle should always be cautiously made. Internal injuries such as cerebral haemorrhage, skull fractures, spinal injuries and similar injuries mostly lead to death or result in paralysis (e.g. limp legs, completely paralysed claws, lack of excrements) and severe central nervous malfunctions, which in the end require euthanasia.

Circulation and breathing stimulation:

- g-Strophantin p.o. a drop at a time after effect. Cave cardiac hypertrophy when given overdose, esp. in small birds.
- Etilefrin „Effortil“ 0.2-1 mg/kg body weight i.m. or a drop at a time p.o.
- Dimethylbutyramid „Respirot“ p.o. a drop at a time after effect.

Peripheral breathing stimulant.

- Doxapram „Dopram V“ 10 mg/kg body weight i.m. or a drop at a time p.o. central breathing stimulant

Damage caused by the wrong diet

The experience gained by looking after Swifts have lead to alarming new findings. Especially dietary mistakes and their fatal consequences take first place here. Whilst insect-eating songbirds (e.g. swallows, redstarts, robins, warblers, wrens...) die very soon when given the wrong food, a Swift will react, as a rule, with damages that are delayed yet have the same bad consequences. Liver damage and then plumage defects, which are frequently observed, seem to be the prime consequences for Swifts on the wrong diet. Defective primary feathers, however, are a death sentence for an aerial bird. Usually young Common Swifts very soon start losing their primary feathers or show damage to the

quills, even if they have only been given the wrong food for a short time. They also frequently get diarrhoea, very poor digestion, as well as deformations of the skeleton.

Disastrously, a lot of animal food, which has meanwhile proven to be extremely harmful, has been commonly used in feeding young wild birds, and is still being recommended by many experts. We can only hope that many "traditional errors" are soon replaced by a feeding method which is orientated towards nature and therefore suitable for the species. That is the only way we can begin to do justice to the various demands on food that feathered foundlings of different kinds of species have and for which there is no "universal recipe".

So which kind of animal food should we steer clear of and what kind of damage does it do?

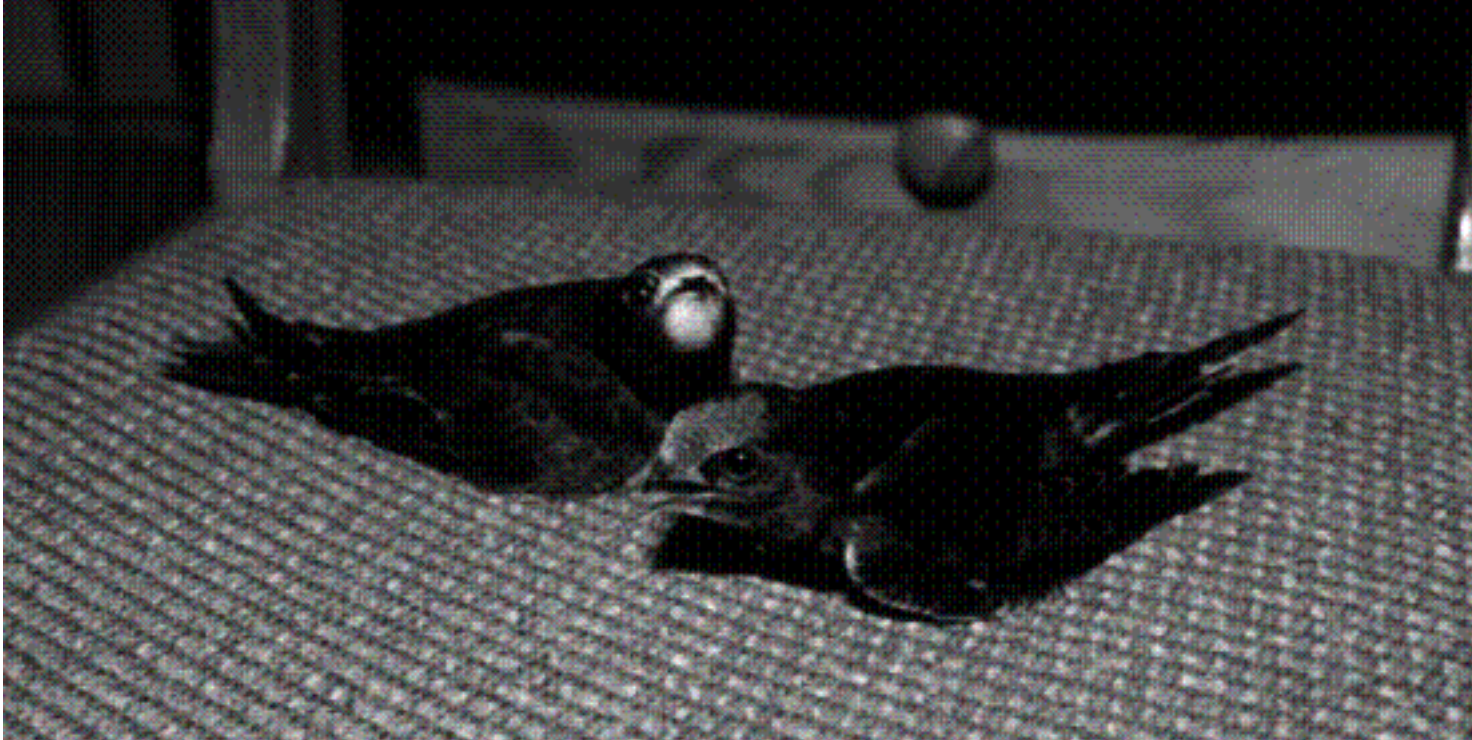
Minced meat

The probably oldest and most widely spread incorrect information is to feed Common Swifts with minced meat. Anybody who really thinks about it, who knows something about the way of life and feeding habits of a Swift or watches these birds in the wild, should come to the conclusion that they most certainly do not catch pigs or cows in order to eat them. Their organism is not equipped for eating meat, and certainly not pure or even seasoned meat. *It is incomprehensible why this feeding advice, which is not logical at all, has managed to persist all this time. Perhaps, because it is so easy for the carer.* A further reason may be that the fatal consequences usually show themselves somewhat delayed. The loss of primary feathers, which occurred in almost all Swifts that had only been fed with minced meat, does not happen before 8-10 days after switching over to insects. That would be the time, when the young Swift, having gained its strength to fly, would already be up in the air. In many cases it never gets that far, because further consequences of feeding minced meat are a lack of calcium in the skeleton and deformed bones, extremely poor digestion, diarrhoea, enlargement of the liver and other deficiencies.

The feather malfunctions range from loss of single feathers, various defects of the vanes (vexillum), calamus and dull, frayed feathers to decreased growth and total loss of the large primary feathers. The tail feathers usually show structural damage and are inadequately developed.



Extreme damage to plumage after feeding a mixture of minced meat and „rearing food“ for a fortnight. Photo: C. Haupt
As already mentioned above, there seems to be no detectable damage when meat is used as a very small part, merely serving the purpose of improving the bonding capacity, of a food mixture otherwise consisting of high quality insect food.



Two young Common Swifts, who have lost almost all their primary feathers after being fed meat. Photo: C.Haupt

Mealworms

Still a preferred kind of food for birds feeding on insects are “mealworms“, a term for the larvae of the meal beetle (*tenebrio molitor*), which you can buy in any pet shop. But I must warn you not to feed these worms in large numbers and over an extended period (longer than 2-3 days). They seem to contain substances in their chitin shell, which in the long run causes severe liver and kidney intoxications. Feeding mealworms is also much too unbalanced and leads to deficiencies and skeleton damage. Especially frequent is an undersupply with the vitamin B-complex.

This has an effect on the central nervous system, which imperceptibly starts with food rejection and compulsive movements, intensify within the shortest time to serious catalepsies (tumbling over, twisting head, spinning movements), and, if untreated, lead to nerve damage, which cannot be reversed, and ultimately to death. There is also almost always plumage damage, probably also secondary through liver damage. Mostly the calamus sticks to the quills, and when removed the vane underneath is not properly developed.



Damage to the vane and calamus after feeding with only mealworms.

Photo: C. Haupt

When fed exclusively on mealworms songbirds were also found to develop persistent eye infections which could lead to loss of sight as well as ulcers in the head area, inflammatory swellings of their feet, especially the joints, and abscesses.

Mealworms – but only the delicate white ones, which have just shed their skin – may be given as an addition in very small numbers (i.e. not more than 4-5 per day) to insect-eating birds, or as emergency food for a short time, for two or three days, if you cannot get hold of crickets straight away.

Maggots

Fly maggots, available as “pinkies” in angling shops, are completely unsuitable as the only food for insect eaters.

Owing to their solid rubber-like covering, the bird’s stomach is unable to break them down, so that they are mostly excreted undigested. Even if you prick them before feeding them to the bird, they are not acceptable, as their proportion of fat is very high and they constitute a highly unbalanced diet.

Swifts that were fed with just maggots, are mostly extremely thin and develop deficiencies as well as fateful defects in their plumage. These are frequently small, hardly visible brittle parts in the quills, where the primary feather then breaks under the slightest strain.



Snapped off feathers after the bird was fed with just maggots for two weeks. Photo: C. Haupt

Bird food



Result of rearing the bird with bird food. Photo: C. Haupt

Food mixtures that contain insects, are offered under various names, but if you study the ingredients of such mixtures, you will inevitably find bakery products, which are unsuitable for the digestive system of sensitive insect-eaters. When „grease food“ was mixed with water and fed, we repeatedly noticed breaks in all large primary feathers. Such Swifts were not able to fly. Only pure insect pellets (preferably from “aleckwa“, or perhaps also “Claus“ – type IV blue) should be used.

Earthworms

Young Common Swifts are quite often fed on earthworms. But earthworms are not among the range of prey the Swift hunts for in the air and will soon cause extremely poor digestion. It is even worse, however, that they are host to certain parasites. Even through one earthworm a Swift can be infected with the eggs of windpipe worms and become ill a few days later.

Tinned cat or dog food

Common Swifts that are fed on cat or dog food, are usually totally smeared, sticky and encrusted, smell miserably and suffer from extremely poor digestion. Afterwards their plumage remains tangled and dull and therefore does not have enough insulating property. The unidentifiable ingredients of

tinned cat and dog food are definitely not suitable for the digestive system of insect-eaters and can damage it to such an extent that the birds die or must be put down. I must therefore definitely advise against feeding this sort of food, which is often used in animal shelters.



Young Common Swift

having suffered a painful death after having been fed with canary seed for five weeks. Photo: C. Haupt

Other food

There is nothing that hasn't been fed to hungry young Swifts in good faith, but always with the worst consequences: whether budgie or canary seeds, rusk, oats or bread, fruit or sausages, spaghetti, porridge, salami or fried steak – it has all happened and hardly any of the poor things have survived. I could go on talking about unsuitable food for Swifts, but to make it short: only insect food should go down their beaks!

Damage caused by the wrong surroundings

The best and most suitable food is in vain if the Swift ruins his plumage for other reasons. This is regularly the case when this special bird is kept in a birdcage. Of course it seems plausible to think of a birdcage when you suddenly have to accommodate a little bird. Unfortunately, that has fatal consequences for a Swift. It will always hurt its primary feathers and its tail on the bars, so that it is no longer able to fly later on. Therefore never keep a Swift "behind bars" or in any other container with rough walls, which may damage its feathers!

Other mistakes made when keeping Common Swifts

The feathers can also be badly damaged, sometimes irreparably, if the container for the Swift is too small or tight or is not kept impeccably clean. Bent and snapped primary and tail feathers, crusted feathers smeared with excrements, bald patches and bruises should and must not occur!



Photos: C. Haupt Left:

young Common Swift with severe plumage damage that has received the wrong food and is smeared with excrements and porridge. Right: bird of the same age reared on crickets.

Lack of hygiene

Caring for a Common Swift requires the greatest possible hygiene. Always wash your hands thoroughly before feeding, especially if you are feeding with your finger only and not with tweezers. Feeding utensils (plate, tweezers, syringe...) must be cleaned after each meal with hot water. Always provide fresh drinking water for the bird. Defrosted crickets should be rinsed with lukewarm water before feeding; if you are preparing a food mixture, always make sure everything is hygienic and fresh. Food which has gone off can kill a Swift. Test by smelling it first!

A lack of hygiene will inevitably lead to infections with bacteria and fungi, which Swifts are very prone to - perhaps they don't have to deal with germs in their own natural habitat - and which can be transmitted by human contact. Once such an infection has taken hold, it is hard to fight in many cases, and may mean the Common Swift has to stay with humans for a much longer time, as well as many injections (every injection is an injury – even if small – of the main flying muscles!) and medicine. Stress, pain and strains which can easily be avoided by ensuring cleanliness and mindfulness!

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The translation into English of "Veterinary Help for Swifts" was sponsored by Tiggywinkles Wildlife Hospital, and I would like to thank them here for this support. Thanks are also due to Gillian Westray for all her support and help with this project.

When you have found a young Common Swift and have to rear it, please click here for advice on handrearing: http://www.commonswift.org/Hand_rearing_Swifts.html

When you have to find out how old the chick is, please click here:

http://www.commonswift.org/nestlings_english.html

DIET – ONLY INSECTS

New Patients – Before feeding are always given rehydration fluid

DIET & SUPPLEMENTS AVAILABLE IN THE UK

Silent or brown Crickets Remove legs can be frozen

Wax Moth Larva (*Galleria Mellonella*) Good shelf life if kept cool, remove head before feeding to chicks

Bluebottle (*Calliphora Vicini*) Freeze - See instructions for easy breeding.

SUPPLEMENTS

Vitamin & mineral supplement, Calcium gluconate, Vitamin B complex,
Rehydration fluid

[Fly production made easy](#)



You will need 3-4 maggot boxes with ventilated lids or 3-4 large (4 litre capacity) plastic tubs with fine mesh to cover the tops. Put a layer of bran in the base of all the tubs to absorb moisture.



Buy 1 pint of best white maggots from any angling supplier. Remove from the plastic bag and divide them between the containers. Put on the lids or fine mesh covers secured with elastic bands.



Keep the boxes in a fairly warm area and within a few days the maggots will start to pupate, becoming dark red and inert.



Hatching will depend on temperature and usually takes 2-3 weeks. A few will emerge and rest on the net or lid; wait until you have a reasonable amount.



Place the whole container in the deep freeze for about 10 minutes, this is the only tricky part. Too long and too cold will kill the whole lot, you will need to judge your timings depending on your freezer temperature, ideally -10° . Err on the mean side, they can always go back in for a little longer.



The flies will lie inert on the bottom, you then scoop them up quickly before they wake up and put them into small containers to kill them and store in the freezer. Defrost only enough for each meal.



Return the large containers to normal room temperature and replace the net lid. They will continue to hatch out for about 10 days and you need to repeat the harvesting process until all the pupae have hatched. You can expect to harvest flies most days and will soon be able to judge the timings for the freezer, but as it can be easy to forget, an alarm clock is advisable.



You will be amazed at how many flies 1 pint of maggots can yield!



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[Rehabilitation of Hirundines.](#)

Barn Swallow - *Hirundo rustica* & House martin- *Delichon urbica*

The following notes, hints and observations have been compiled from a specialised single handed rehabilitation unit. This is not a scientific study as such but based on a sound knowledge of the individual species natural lifestyle and trying wherever possible to either replicate nature or offer an educated compromise. This experience has been gained over a period of 10 years and several hundreds of birds, every season something new is learned and improvements implemented. The success rate has been consistently in the region of 85%.

Without the benefit of post release monitoring “success” is deemed to be releasing a fit well feathered bird of a good weight into a natural community and watching it integrate and become indistinguishable from the wild birds.

The Barn Swallow by Angela Turner ISBN 0-7136-6558-0

This is essential reading to gain invaluable knowledge of the lifestyle.

Swifts, Swallows & House martins are often confused...some similarities but very different care is needed during rehabilitation.



	Only feeding on the wing	Insectivorous	Migratory	Perching	Parental feeding after fledging	Nestling period <small>Weather can effect food supply & growth rate</small>
Swifts	✓	✓	✓	X	X	37-56 days
Swallows	✓	✓	✓	✓	✓	18-23 days
House martins	✓	✓	✓	✓	✓	22-32 days

HIRUNDINES

DIET

This should be insectivorous, a mixture of wax worm larva, crickets with legs removed, flies, white mini mealworms and small locusts are ideal. Use with vitamin & mineral supplement daily. Diets recommended for Swifts work perfectly well but use the smaller sizes or cut into pieces.

FEEDING

The younger nestlings should gape readily, or within 24 hours when placed in an established group. Some are more reluctant and never gape, they need to be "assisted", this is quite simple as their beaks are hard ...unlike a swift. Gently open the beak from the side - an insect will be readily swallowed if placed on the tongue towards the back of the throat.

See case study of 3 swallows giving weight and food details.

HOUSING (This must not be a wire cage but a smooth plastic container to protect feathers)

Nestlings placed in a correctly shaped nest will defecate over the edge; they will also stay in the nest until close to fledging when they will venture onto a perch. See case study & photos 1 & 2. **1. Smooth plastic cage, corner nest & perch.**

2. Nest shape to resemble a natural one.



House martins stay in the nest longer than swallows and are therefore more developed than swallows when ready to fledge; their weight will have reduced, the body shape becomes more streamlined and they will probably have stopped gaping. A perch needs to be in the cage close to the nest for them to move onto when ready. *Once the tips of the longest primary wing feathers cross over the back they are ready to fly and can be moved into the flexarium for flight practise during the day returning them to the nest at dusk replicates nature and keeps them contained for feeding.



100 gallon ExoTerra Flexarium

Feather safe rope & string perches

Because of size variation, weighing to monitor progress should be accompanied by checking the fat reserves. In nature the chicks would fledge and be fed by the parents for a few days. Martins feed high in the sky and need full flight ability to reach these feeding areas where the parents will feed them on the wing. To compensate for being unable to offer in flight feeding; the fledglings are thoroughly put through flight checks of being able to take off, land, perch and control flight in a space 4m x 7m. This has proven to be sufficient, any larger space would make catching for feeding etc. very difficult. Prior to the larger space a flexarium provides adequate space and control to gain initial flight control and will contain live insects to practise catching prey.

Weather permitting, normal House martins are usually ready to be released into a community about 3-4 days after initial fledging. Some strong birds are rather wild and best released early.

Once a local group has been located they are often feeding above the clouds and can only be heard by their clear bell like call, the released youngsters usually announce their first flight and this brings down the wild birds

that greet them and take the newcomers up to the feeding areas.

These hints are for Young House martins without problems and as such should be released without delay once flight ability is proven.

(weather permitting)

OTHER APPROACHES

Some other rehabilitators release House martins the minute they can fly and others keep them until they are feeding themselves from bowls.

Personally I prefer to make sure they have excellent flight ability and good fat reserves to go some way to compensate for no parental aftercare.

Feeding from bowls seems a VERY bad idea as they need to feed on the wing and could be landing looking for bowls if trained in this way.

Common Causes of Problems

Nests falling or being destroyed brings by far the greatest number of casualties, providing they have not suffered injury from the fall, once they have recovered from the shock they are usually healthy birds. **BROKEN LEGS** are very common and usually present no problem in a nestling, by the time they are ready to fledge the fracture is healed. Even with a deformed leg the patient if given a little extra time will learn to adapt its landing and perching accordingly.

Incorrect Care are the hardest cases to handle, these are birds hand reared on the wrong diet under poor conditions that are handed in when the finders get bored or encounter problems. Some can be saved given time, often when they are put onto the correct diet they will moult and can grow perfectly good feathers. This will take up to six weeks and viability will depend on the time of year. Much depends upon the personality of the bird concerned, usually when reared by the general public they are too tame but they can be very useful as a “companion” to other patients whilst they re-grow their feathers.

Behavioural Problems with House martins often takes the form of aggression, much noisy good natured squabbling goes on and jostling for favourite positions on perches and in the nest pan...this is normal. Real aggression is often caused by lack of calcium and a few doses of calcium gluconate cures this very quickly. All nestlings are given an infusion of vitamin B complex and calcium gluconate 3 times a week as part of their supplement regime.

SWALLOWS

Swallows are more challenging to the rehabilitator, firstly they fledge at a much earlier stage than the house martins and secondly they seem to suffer from deficiencies to a far greater degree.

FLEDGING

Swallows will venture onto the perch a few days before they are able to fly, when they are ready ...if the top of the cage is left open they will perform a perfectly controlled vertical take off. This is the stage to transfer them into the flexarium during the day time. Normally they will readily take insects from the tweezers whilst sitting on the perches and are very happy to return to the nest at night.

Food and water is provided, mini locusts and a few wax worms are excellent for practising as they do not hide like crickets and are slower movers.

This regime usually lasts for about 7 days, once the youngsters decide they do not want to return to the nest, this will be made very clear indeed ... this is the time for release. By this time there should be a good length of primary feathers with no casings.

When released into a community with plenty of nests they should hopefully integrate with the other juveniles.

DEFICIENCIES

Spells of cold weather affecting the food supply during egg laying and early development seem to have a more detrimental effect on swallows than house martins. A healthy swallow should have a really deep yellow gape; a pale yellow gape can be an indication of a weaker bird. A course of multi vitamins may help allay future problems.

Unusual head movements often indicate calcium deficiency; treat with calcium gluconate & vitamin B complex infusion.

“Rejected or fallen nestlings” are often gathered up by the general public and present as weak birds with poor

feathers. Good food and care often bring on a comprehensive moult within days, many turn into perfectly fine swallows.



These techniques are time consuming but result in a worthwhile success rate, the unit with one person cares for approx 150 swifts, swallows and house martins each summer.