Young hedgehogs in need of help in the Autumn

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IGEL WISSEN kompakt 4

All leaflets from line IGELWISSEN kompakt 4:

PRO IGEL e.V.

1 One litter per year

Hedgehogs in Germany have their litter once a year, mainly in the months of August (approx. 50 %) and September (approx. 30 %). Only in the Rhine plain and near the mouths of the Rhine tributaries, is the main litter season as early as June. A second litter is however possible as a replacement litter if the mother hedgehog has lost the first litter, e.g. due to an accident (see also the publication „Litter sizes and Breeding Seasons of Hedgehogs in Germany").

2 Normal development in young animals

Baby hedgehogs huddle around the nest. Their eyes and ears are closed until the 14th day of life; on about the 20th day of life the first milk teeth break through. Until day 25, young hedgehogs are suckled exclusively by their mother. This takes place during the day, because at night the mother goes in search of food herself. At three weeks, the young hedgehogs begin to explore the nest surroundings and go in search of food themselves. The mother doesn't help them with this; at most she stays nearby in the beginning, in order to bring lost children back to the nest. The little ones have to learn on their own how to pull an earthworm out of the ground or how to overpower a beetle. The limited prey options available initially do not satiate them; and this food deficit is compensated by the mother's milk. As they get older, the young hedgehogs become more skilful in hunting insects and worms, and the amount of mother's milk decreases accordingly. At the age of six weeks the babies are completely weaned off their mother's milk. They then weigh 250–350 g and begin to disperse out. Each animal looks for its own habitat to live in.

3 Determining a hedgehog's age in Germany

	Baby hedgehog	Young hedgehog (juvenile)	One-year-old hedgehog (sub-adult)	Adult hedgehog (adult)
Observation time in the activity period*	Summer, early autumn, late spring	From August / September, autumn, spring	From June / July	All year round
Age	1–24 days	From 25 days to 1 year	1–2 years	2 years and older
Appearance	Until 14th day eyes and ears are closed	Large head in relation to the body	Light spines - white to light ivory	Light spines - slightly darker to yellowish
Body weight	12–120 g	120–500 g, before the first hibernation up to about 600 g	at one year about 700–800 g	800–1200 g, sometimes more
Body length	5–10 cm	10–20 cm	20 ± 4 cm	25 ± 4 cm
Teeth	from day 21 on tooth eruption	24 milk teeth - tooth replacement partly before, partly after hibernation	36 remaining teeth – mostly white, hardly worn chewing surfaces on molars	Often yellowish, heavily worn chewing surfaces on molars

** Main breeding season: August and September. In the Rhine valley hedgehogs are born as early as at the end of May.*

4 Has a hedgehog been sighted during the daytime?

Daytime activity is always an alarm signal for hedgehogs. They sleep during the day and start looking for food at dusk. As the hedgehog's food animals are also active at night, it makes no sense to look for food during the day, even in autumn.

4.1 Baby hedgehogs

For hedgehogs, a "baby" is a young animal not older than 25 days, which is fed exclusively on mother's milk. Hoglets outside the nest during the day with eyes and ears still closed or weighing under 100 g are orphaned and should be taken into care immediately. The idea to watch them for several hours in the hope that the mother will appear will not bear fruit: firstly, hoglets must have been hungry for a long time before they would ever crawl out of the nest, and secondly, a mother hedgehog will not approach her young if there is a person in the immediate vicinity.

A sure sign that babies have been outside the nest for several hours is the presence of buzzing blowflies. As the babies cool down, the blowflies sit on them and lay their eggs there.

If you find only one or two babies, you should search the site and its immediate[3] surroundings several times, perhaps you will discover littermates. Help for such animals is described in leaflet 4.6 Rearing orphaned Hoglets.

If you have discovered and possibly destroyed a hedgehog nest while gardening or tidying up, the situation can perhaps be saved if you behave appropriately. Hedgehog mothers react extremely sensitively to disturbances. If panicked, the mother will often eat newly born babies. She relocates older babies by grabbing them by the neck and taking them to a new shelter. Sometimes a baby is lost in the process. But often however, the frightened mother leaves the nest and her offspring and does not come back.

The reason is most often human curiosity. No mother hedgehog worried about her young will return to them when "enemies" are lurking for hours in the immediate vicinity of the nest. So, if you do find a nest with young by chance, you should cover it up again and leave immediately! Only then is there a chance that the mother will calm down again and the disturbance will be without serious consequences.

Hedgehogs active in the daytime, no matter what age, are always a cause for alarm!

4.2 Young hedgehog litter

A "young hedgehog" is a hedgehog where the milk teeth have already emerged and which can eat by itself. A young hedgehog is older than 25 days, still partially dependent on its mother's milk, and weighs over 100 g.

If you discover a whole litter of hedgehogs in autumn in the day time (!), you must assume that there is no mother hedgehog looking after them. The little ones are missing their meal of milk. The idea, especially for young hedgehogs that they look for food during the day, is absurd. They are only active during the day when the amount of food caught at night was not enough to satiate them and there is no mother's milk to compensate for the deficit.

4.2.1 Additional feeding

You can help a more or less complete litter of healthy – but day active – hoglets by feeding them immediately, i.e. during the day; and also in the evening. In subsequent days, the day-time feeding time is moved one or two hours later towards evening. This accustoms them to normal night-time activity. In the evening they are still given the "main meal".

This method has already worked for litters where the young weighed little more than 150 g. Here we take over by providing "easily accessible food" the function of the hedgehog mother. The prerequisites are reliable feeding and close observation. For example, you can mark some young animals with a spot of colour on the spines and weigh them from time to time. The advantage over taking them into the house is that the hedgehogs continue to learn to catch their food themselves. In captivity they are denied this learning process.

It is not the difference between dead and living food that is important, but rather the difference between "easy to access" and "difficult to access" food. A flour worm, eaten from a small bowl is just as "easily accessible" as scrambled eggs on a plate (and like the mother's milk); a beetle, on the other hand, is "difficult to access" because it flees if the hedgehog does not grab it quickly.

Supplementary feeding can make the difference between life and death for young hedgehogs that are not yet independent. For this purpose, wet calorie rich food is offered on several small plates (see also leaflet 4.5 Feeding Hedgehogs in our care) in a hedgehog food house (see also leaflet 4.3 Shelters and Feeding Houses). It goes without saying that the food for very small hedgehogs must be more chopped up (but not mushy!) than for larger hedgehogs. The feeding dishes and feeding area must be kept scrupulously clean to avoid the transmission of diseases.

4.2.2 Sick animals

Of course, you have to keep an eye on the young "customers" at the feeding dishes – if there is a hedgehog among them that does not gain weight despite feeding, it is probably sick. This means that it needs specialist medical help and to be cared for in a warm place, i.e. brought into the house. It is relatively rare for whole litters to be ill, and if they are, then one can assume that they have a similar parasite or bacterial infestation. Fungal skin diseases are highly contagious and usually infest the whole litter.

Sick hedgehogs up to a weight of about 350 g can be kept together in a large en-

closure. Make sure that all hedgehogs can eat unhindered, i.e. that there are enough plates of food. When hedgehogs are kept in groups, no medicines of any kind can be put into the food, but rather must be administered individually.

Large litters should be separated into two groups and one group should be made up of the heavier ones and the other of the lighter ones. Very weak, very sick, injured or much smaller hedgehogs are to be kept separate.

4.3 Hedgehogs found alone

Why does a hedgehog that is not yet independent wander around alone, i.e. without littermates? Sometimes it loses touch with the group on night-time excursions; wanders too far away from the nest and does not find its way back; or has an accident by e.g. falling into a light well.

If the litter nest is destroyed – be it during gardening work or by a dog – the hedgehogs suddenly made homeless run off in all directions before the mother has found a replacement nest and is able to evacuate her children.

Weakness and illness are also reasons why a single juvenile hedgehog may be encountered during the day. The young hedgehogs that always get a raw deal when suckling, because they cannot compete with their siblings are also at a disadvantage when they first try to find food on their own.[5]

Finally, it should be remembered that some spiny lightweights are not necessarily young, but rather old enough to be independent, and which, if fed normally, would weigh much more. Disease and lack of food are not only seen in a body weight that is far too low for the season, such animals are often also lagging behind in body length.

■ 4.3.1 Supplementary feeding

Even individual juveniles do not necessarily have to be taken into our care. The better option is always to help them but to leave them in their habitat.

So, if a small hedgehog is walking around in your own garden during the day and it looks healthy; is not thin or long-legged; does not fall down from weakness; there are no blowflies buzzing around it; and it is not hypothermic, then the first thing you can do is try to help it with regular, high calorie food. If you are unsure whether this is enough, mark the hedgehog and weigh it every few days. If this is done gently and quickly, the hedgehog will soon forget the "incident".

■ 4.3.2 Sick animals

If the weight gain leaves something to be desired, i.e. less than 5 or 10 g per day, and there is always a relatively large amount of food left over on the plate, then the hedgehog has no appetite. This is a clear symptom of illness. Young hedgehogs often suffer from a mass infestation of lung and intestinal parasites, or sometimes bacterial infections. Their still undeveloped immune system ma-

kes them more susceptible than adult hedgehogs. So[6], you should take care of and treat them at home.

The administration of antiparasitic drugs should actually be preceded by a faecal analysis. There is no preparation that kills all internal parasites. To choose the right one, you have to know which "enemy" you want to fight. With relatively young hedgehogs, however, this is problematic: the time from the ingestion of the infectious parasite (at different development stages) to the detection of oocysts, eggs and larvae in the faeces is one to five weeks. A juvenile can therefore also be infected even if the faecal analysis is negative.

In acute cases, there is no other option than to focus on the symptoms. Every therapeutic intervention, however, is a task for competent vets or experienced hedgehog carers.

5 The 500 g rule of thumb

30 years ago, experts agreed that juveniles should have a weight of 500 g at the beginning of November in order to give them a good chance of surviving hibernation. This estimate has been confirmed.

But the 500 g young hedgehog is not the problem as, for example, statistics from the "Arbeitskreis Igelschutz Berlin e.V." show: Of over 6000 "autumn hedgehogs" which were brought into Berlin hedgehog rescue centres between 1997 and 2004, less than 7 % weighed between 450 and 550 g!

Conspicuous, mostly due to daytime activity, were above all much lighter juveniles.

Only 10 % of all hedgehogs are born after mid-September. Their chances of survival are poor, because in late autumn they cannot gain weight as quickly as their conspecifics who were born in a warm and food-rich season..

6 The influence of outdoor temperature

The energy balance of all hedgehogs gets worse and worse with the colder season. Hedgehogs have a body temperature of about 35.4° C. In order to maintain this temperature, energy is needed which is supplied to the body through food. The lower the outside temperature the higher the energy used. This increases even further, as more extensive foraging in needed because of the ever-decreasing amount of food. At some stage, a "tipping point" in the energy balance is reached, where the body uses more energy to maintain its temperature, cir-

culation and metabolism etc. in "normal functioning" than is supplied by food.

At very low temperatures, even supplementary feeding can no longer contribute to an increase in body weight. It is therefore pointless to feed hedgehogs at temperatures around zero degrees – all this might do is keep them from hibernating

The idea of a heated feeding bowl is also a thing of the past - a hedgehog that does not have sufficient weight by the onset of winter is a "nursing case".

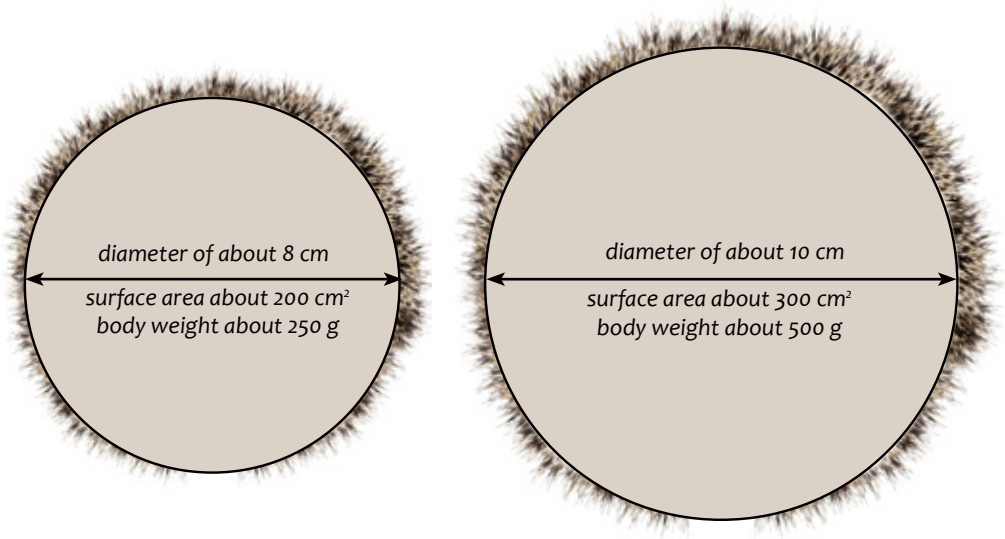
Why small hedgehogs, i.e. young hedgehogs, are more affected by this problem than larger ones can be explained with the help of physics: a small body has a larger surface area in relation to its volume than a larger body. The surface area of a rolled up 250 g hedgehog with a diameter of about 8 cm is about 200 cm^2, but that of a hedgehog twice as heavy with a diameter of about 10 cm is only about 300 cm^2, i.e. not double, but rather only a third more. The small hedgehog therefore loses much more body heat than the larger one, and therefore needs more energy to maintain its body temperature.

It is also important to be aware that if you feed a lone juvenile in the garden: It has no littermates in the nest to warm itself up with during its daytime sleep. So, with the temperatures falling in late autumn, it needs to consume more energy than a hedgehog that lives in a shared nest.

7 Body fat – the hibernation energy store

IHedgehogs build up fat reserves in the autumn so that their bodies can provide the energy required to supply their metabolism and circulation - both of which are working on "low flame" during hibernation. Baby hedgehogs are born with almost no body fat. It is only put on gradually, with nutrition naturally playing the greatest role. A 250-gram hedge-

Body surface area and body weight of a 250 g and 500 g hedgehog



hog fed normally has an average of 14 % body fat; a 500-gram hedgehog already 19 %. Adult hedgehogs often have over 25 % body fat.

Young hedgehogs found late in the autumn are almost never "normally nourished", but are usually already emaciated and therefore have much lower body fat values. Only in rare cases are such hedgehogs really born late in the year. These poor creatures, weighing between 200 g and 300 g, and still wandering around at the end of October, in November and even sometimes in December, are very emaciated, often seriously ill animals whose condition would indicate that they – if not helped – are close to death.

Of course, we are all free to decide if we wish to take care of a hedgehog in need or not. It is surprising, however,

that despite all the scientific evidence, many people still believe that a thin juvenile, weighing well under 500g in November has any reserves left to draw on for it to be able to survive the winter.
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Help young hedgehogs in autumn – but the right way!

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