

*Incredible Science (7):*

*From the secret archives of the IgNobel committee*

## Spitting Hedgehogs

Hedgehogs are cute little critters. However, they do have a somewhat unappetising spleen. More than 50 years ago Martin Eisentraut explained, "If a hedgehog comes into contact with a new or unfamiliar substance of characteristic taste or smell, he begins to lick it up with great interest. As the case may be, he puts it in his mouth and starts chewing it. In doing so he works himself up into a state of excitement and produces plenty of saliva, finally chewing the whole lot into a foamy lump. After a while the animal, with bizarre movements, bends back his head and spews, or rather hurls the saliva with his far darting tongue all over his quill coat. Usually, the hedgehog repeats the spewing, sometimes even up

to 40-50 times, usually insalivating different parts on both sides of the quill coat."

This behaviour raised the researcher's curiosity. Without any notion as to why hedgehogs behave this way, he at least wanted



The author, Mark Benecke, is Co-Editor of the *Annals of Improbable Research* that annually presents the IgNobel Awards in Cambridge, USA

to know exactly which substances caused their foaming furioso. Thus they presented, for example, glue, hyacinths, perfume, soap, printing ink, valerian tincture, rotting animal tissue, toad skin and other hedgehogs to them. Furthermore, they blew paint vapour and cigar smoke at the animals. In all these cases the hedgehogs were recorded extensively spitting at themselves.

Eisentraut subsequently acquired some hedgehogs from completely different parts of the world, from Ethiopia and Iran. One day, he took a still blind Ethiopian hedgehog pup from its warm nest, as he related, "Crawling over the table with slightly straightened forefeet the hedgehog pup incidentally came across my tobacco pipe. It licked the mouth-piece with increasing interest and thereupon performed the typical self-spitting behaviour. The little animal sharply bent its head back to the right, then to the left and with its protruded tongue deposited foamy saliva on its lateral back quills. Shortly afterwards it calmed down and continued to crawl around."

No other animal displays any similar behaviour. Perhaps it resembles the behaviour of dogs wallowing in strongly smelling substances, or the anting behaviour of birds, where they grab ants with their beaks and rub them on their feathers. This can lead to the extreme of lying down on an ant-hill with their wings half-spread. Again, an increase in the animals' excitement can be observed. They can also be fooled with other substances, such as lemon juice, oranges, vinegar, apple slices and other similarly acidic matter.

"The emotionally positive excitement can even drive the animals into ecstasy," Eisentraut remarks. "Hedgehogs and birds show rather bizarre body movements, sometimes to the point that the creature loses balance and topples over to the side."

IgNobel's final assessment: Excellent, no doubt. However, since written in German, this piece is likely to remain an insider tip!