Decomposition

What happens when an animal decomposes?

Watch our hide beetles in action.

Watch the time-lapse video showing hide beetles eating off of an animal carcass in the terrarium over the past few days. Turn time forwards and backwards.

The beetles and larvae (Fig. 1) obtain their food and energy from the meat, skin and internal organs of the carcasses they feast on. They work until the bones are completely exposed. The beetles are an important part of the ecosystem, because without them and other scavengers the forests would be full of carcasses. Natural history museums also use hide beetles to prepare skeletons. In households, however, they are fought off by pest control.

Fig. 1: Larva and beetle of the hide beetle (dermestes maculatus).

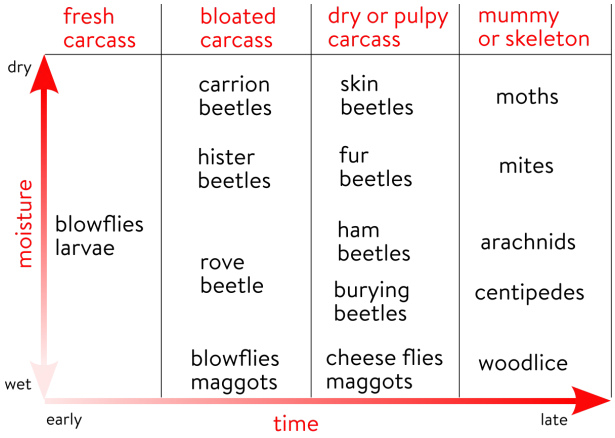
For ethical reasons, we only use animals in our terrarium that have been found dead in nature. They are provided by various institutions, such as the NABU (Nature And Biodiversity Conservation Union) species conservation centre in Leiferde or the Natural History Museum in Braunschweig.

Additionally, the animal welfare act imposes strict limits: it is permitted to kill and feed animals (e.g. rats and mice) to dogs, cats or snakes, but not to beetles.

By the way: decomposing meat smells… unpleasant. The air in the terrarium is therefore sucked out and filtered, so that neither the odour nor the beetles can escape into the exhibition.

The hide beetles (dermestes maculatus) in the terrarium have the animal carcass all to themselves. In nature, they would have to compete with other scavenger insects. Flies are mainly found on very fresh animal carcasses. Other insects appear at various decomposition stages. The hide beetles join the process at a later stage. They are attracted by odours that are emitted during decomposition.

By determining the type of insects on a corpse, forensic experts can estimate how long it has been dead.



Tab. 1: Temporal sequence of the colonisation of a corpse by different insects.