

Circle of Life internships

Scavengers, such as wild boar (*Sus scrofa*), red fox (*Vulpes vulpes*), and common raven (*Corvus corax*), have far-reaching effects on ecosystem functioning. They can prevent carcass-stored nutrients from leaking into the soil, reducing the chance of leaching to deeper soil layers where nutrients become unavailable to plants. However, in Dutch protected areas, the course of the carcass decomposition process and scavenger activity are highly variable and unpredictable.



There is growing anecdotal evidence that wolves scavenge at the Veluwe yet the ubiquity of wolves' scavenging behaviour, and consequences for other scavengers and ecosystem processes, has not been quantified.

Habitat characteristics such as tree cover, that have been demonstrated to determine scavenger activity and carcass consumption rates in areas where obligate scavengers (i.e. vultures) and large carnivores (e.g. wolves) are functionally dominant, are not equally determining in areas dominated by facultative scavengers. It remains largely unknown what drives carcass decomposition in such areas, despite the potentially far-reaching consequences for ecosystem restoration. This might be even more important in areas that are heavily imbalanced due to anthropogenic nitrogen deposition and environmental pollution, like the Veluwe.

Moreover, the return of the wolf might alter facultative scavenger dynamics. Although wolves have been reported as functionally dominant scavengers elsewhere in Europe and anecdotal evidence is growing in the Netherlands, the importance of carrion in wolves' diet in Dutch protected areas has not been quantified.

We have opportunities for BSc and MSc internships (minimum duration 18 weeks) to work on various topics, including:

1. The long-term effects of carcass decomposition on local biochemistry and vegetation biomass.
2. Scavenging behaviour of wolves in Dutch protected areas.
3. Shifting facultative scavenger communities after wolf re-establishment.

All internships consist of fieldwork, laboratory analyses, and computational analyses.

Please contact Elke Wenting (elke.wenting@ru.nl) or Andrea Kölzsch (andrea.koelzsch@ru.nl) if you are interested to work on these topics!



Carcasses are often referred to as “decomposition islands” or “islands of fertility” because they can significantly alter local soil dynamics and vegetation. However, the long-term effects on nutrient leakage and plant biomass have not been quantified yet.