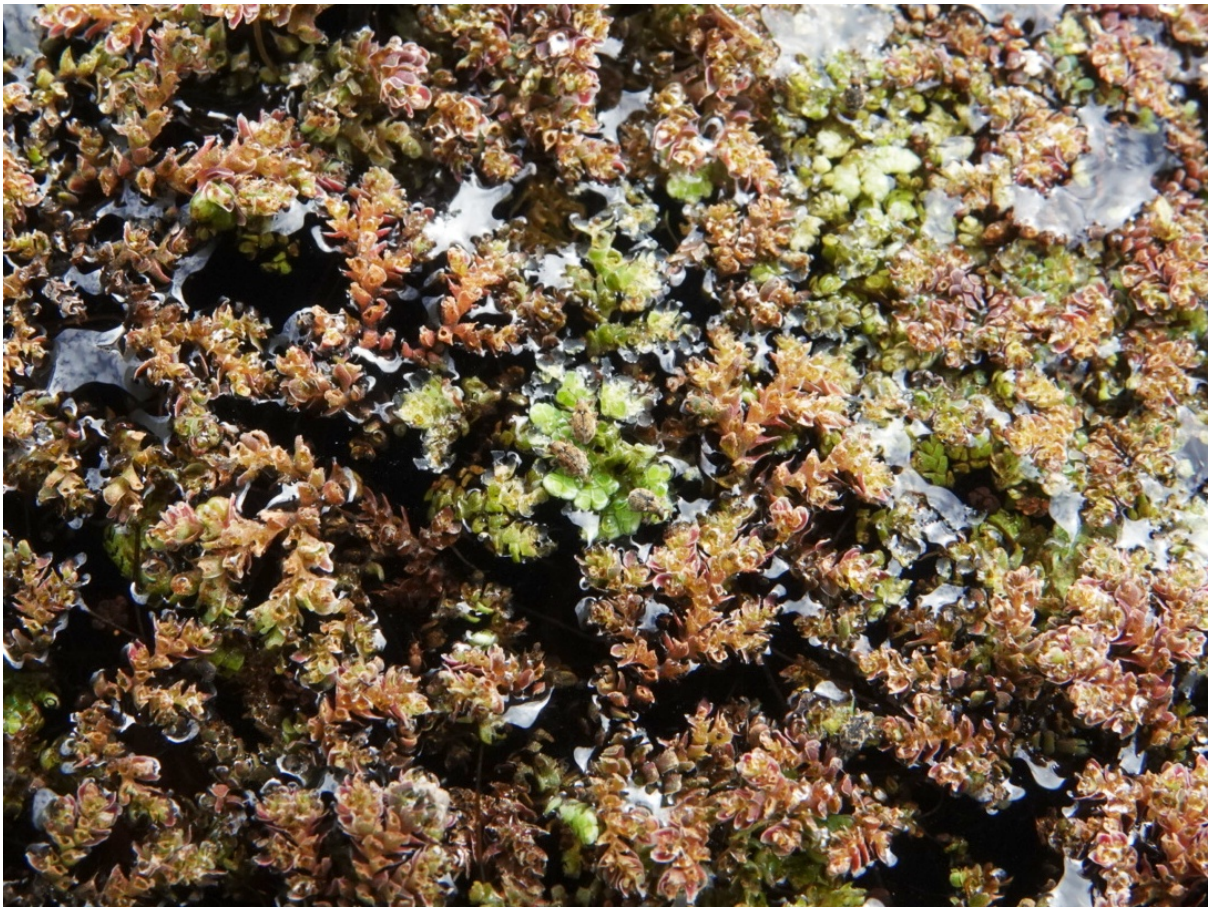
All-you-can-eat: the biology and control of *Azolla*-devouring weevils in the Netherlands

The water fern (*Azolla*) is a floating aquatic plant which is commonly found in eutrophic water bodies throughout Europe. *Azolla* has a very high potential growth rate and can form dense floating mats on top of water bodies. Through symbiosis with N_2-fixating cyanobacteria, it can thrive even in nitrogen limited conditions, where it can take up large quantities of other nutrients, such as phosphate. Because of these factors, *Azolla* is a very attractive plant for paludiculture – the cultivation of crops on rewetted peatlands. *Azolla* biomass is rich in protein and its uses include food production, protein extraction and application as green manure.

Its high protein content also makes *Azolla* a very tasty meal for a legion of pests. A common pest is the water fern weevil (*Stenopelmus rufinasus*), which ironically was introduced specifically to eliminate *Azolla* in the Netherlands. Before large-scale cultivation in the field will be possible, it is essential to investigate how we can prevent and control weevil infestation in *Azolla* paludiculture. However, insight into *S. rufinasus* invasion strategies as well as the most efficient ways of biological control are still lacking.

In your internship, you will investigate strategies for biological control of the water fern weevil. Through diving into their biology, you will provide insights in timing and mechanisms of invasions. By designing and performing different trial-and-error based experiments, you will test different means of biological control. This can include different pest control species, different weevil life stages, and the effect of *Azolla* health on pest susceptibility. Are you an inventive thinker, with a pro-active, flexible work ethic and enthusiasm for the topic? Introduce yourself by sending an email to r.vroom@science.ru.nl.



Finding the tasty leftovers: spot the customers in the restaurant