SELF FUNDED PHD OPPORTUNITIES

This document contains two abstracts:

1. Ultra-high resolution image data analysis for grassland species mapping
2. Mapping plant stress in submerged aquatic vegetatiei1.ΩTd2.)Tf8)1.9g)-84)r.1 1l)- (g)TJ0c 68.90d()Tj-0c 0

Itra-high resolution image data analysis for grassland species mapping

Director of Studies: Dr Fleur Visser

Other supervisors: Prof Carsten Skjoth

Due to the small size of grass plants, it has so far not been possible to map the presence of grass species in detail from remote sensing image data

(RSPSoc), The British Hydrological Society (BHS), The British Society for Geomorphology (BSG) and the Earth and Space Foundation.

2) Mapping plant stress in submerged aquatic vegetation using very-high and ultra-high resolution multi-spectral imagery and structure from motion photogrammetry

DoS: Dr Fleur Visser

Other supervisors: Dr Jonas Schoelynck, Prof Ian Maddock

Submerged Aquatic Vegetation (SAV) is an important component of ecologically healthy river systems. The plants are however under increasing pressure from different kinds of environmental changes. Such changes range from introduction of invasive, non-native species grazing the plants to changes in river flow conditions, which can cause structural damage. Plants will respond to this in various ways. It may affa.s8s(n)-0.8 (v)h -1.3()nnv.43e.7(n)5eta(t)-6)5.28anm62.6 (e s)-4.8 (.)-2 (v)-2.6t1 (t)-4u(e s)1.3g

(www.uantwerpen.be/mesodrome). Assessments of specific stress factors can also be undertaken on selected field sites depending on available conditions.

Expected project costs:

- Fieldwork costs – transport to / from field sites and field equipment (e.g. site markers) = £1100*
- Plant hormone sampling costs (10 replicates x 6 locations x 2 different stress levels x £15 cost per sample) = £1800
- Visit University of Antwerp = £1500**