DSC-162 Natural Capital- measuring condition and services for mountains, moorland and heathland

2019-04-05

The project is to support the measurement of natural capital from mountains, moorland, and heath in terms of condition and the provision of services. There are two main interests: \* generating statistics on access \* generating condition statistics on levels of peatland burning

## Team members

* TBD

## The need

The Natural Capital team will publish statistics on mountains, moorlands and heathlands in July 2019. As part of this they want to be able to better measure the condition of those and the services they provide. They are seeking support on two areas; accessibility and peatland burning.

The project will be a collaboration with ONS Geospatial, who will focus on the data and GIS aspects of the work; the Campus will work on the accessibility modelling and earth observation aspects. Since the deadlines for this project are short it will focus on relatively simple data driven approaches that can be built on later.

## Impact

The main aim of the project is to help ONS to deliver better statistics around natural capital. The project will also demonstrate joint working around applying geospatial expertise between the Campus and ONS Geospatial teams.

## Data science

The project will use novel techniques for spatial interaction modelling to measure accessibility and new satellite imagery to assess peatland burning over time. For the latter it will seek to use the Google Earth Engine platform and so build capability in that powerful tool for ONS.

## Stakeholders

* Natural Capital
* ONS Geospatial

## Code and outputs

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## Related and existing work

* [UK natural capital: developing UK mountain, moorland and heathland ecosystem accounts](https://www.ons.gov.uk/economy/environmentalaccounts/articles/uknaturalcapitaldevelopingukmountainmoorlandandheathlandecosystemaccounts/2017-07-21)
* [Revealing spatial and temporal patterns of outdoor recreation in the European Alps and their surroundings](https://www.sciencedirect.com/science/article/pii/S221204161730270X#s0115)
* [Step by Step: Burn Severity mapping in Google Earth Engine](http://www.un-spider.org/advisory-support/recommended-practices/recommended-practice-burn-severity/burn-severity-earth-engine)
* [BURNED AREA MAPPING WITH SENTINEL-2 using SNAP](https://rus-copernicus.eu/portal/wp-content/uploads/library/education/training/HAZA02_BurnedArea_Portugal_Tutorial.pdf)

## Delivery

* [x] **May 2019** Project started
* [x] **June 2019** A milestone
* [ ] **August 2019** Another milestone
* [ ] **Future** Estimated delivery

## Further information

Please contact datasciencecampus@ons.gov.uk for more information.

## Updates

* No updates yet.