

Hampton Estate and Space4Nature team up to assess the state of nature on Puttenham Common

- Satellite imagery, Artificial Intelligence and citizen science will complement 100-year plan to restore nationally important heathland site

Space4Nature, the groundbreaking habitat mapping project led by Surrey Wildlife Trust and University of Surrey is to team up with the Hampton Estate to help develop a new method for assessing some of Surrey's most important habitats, including heathland on Puttenham Common near Guildford.

Puttenham Common is a 180-hectare mosaic of habitats including lowland heathland, dry acid grassland, boggy mires, lowland mixed deciduous woodland and wood pasture. Hampton Estate, which owns Puttenham Common and has kept it open for public enjoyment since 1968, has launched a 100-year vision for the restoration of its precious habitats, with an emphasis on creating additional lowland heathland and wood pasture.

This restoration involves clearing scrub and bracken to create space for heather to colonise. It also involves the reintroduction of cattle grazing on the common, using NoFence collar technology. Scrub clearance to rewet the boggy mires will promote greater biodiversity and create wildfire barriers to increase climate resilience in the area. Hampton Estate is also a partner of the Heathland Connections project, which aims to connect heathland restoration across the Surrey Hills.

Space4Nature will use teams of volunteers using a special app to assess and record which plants, animals and specific types

of habitat exist on specific areas of the common. These results will then help design special Artificial Intelligence software that matches habitats with other, similar habitats identified on satellite Earth Observation images. In this way, large-scale plans to create, protect or connect Surrey's habitats in a way that works best for wildlife can be developed.

Over time, Space4Nature's new habitat-mapping technology will help the team at Hampton Estate monitor the progress and impact of their plans.

Wildlife that depends on a healthy, connected mosaic of lowland heathland includes Nightjars, Woodlarks, Nightingales, Silver Studded Blue and Small Heath butterflies, Sand lizards, Serotine Bats, Smooth Cat's-ear, Shepherd's Cress, Bog Pimpernel and Bottle Sedge.

Hampton Estate's Nature-Based Solutions Manager Molly Biddell says: *"Puttenham Common is a nationally significant nature hot-spot and we have an opportunity to make it even more valuable for nature and of course for people too."*

"The more we can understand the precious habitat and species of Puttenham Common, the better – and to that end it makes perfect sense to team up with Space4Nature and become part of a county-wide effort to map, categorise and join up habitats. Working in partnership, and at scale, is the best way to reverse the loss of biodiversity. We are delighted to be involved in this exciting project!"

Space4Nature Project Manager Andrew Jamieson says: *"Puttenham Common's mosaic of rare heathland makes it vitally important nature hot spot, not just in Surrey but nationally. And with lowland heathland now globally rarer than rainforest, the Hampton Estate team is right to put the restoration of this habitat at the top of its to-do list."*

"We'll be using this terrain to both test our evolving

Artificial Intelligence capabilities and inform a cast-iron conservation plan that maximises biodiversity and ensures that rare wildlife has access to the habitats it needs to feed, travel and reproduce safely.”