



## Keeping historical records of protected areas

**A new internet-based tool** for tracking the changing boundaries of nature protected areas has been developed for Catalonia, which the researchers say could be used to help evaluate conservation in the Natura 2000 network.

**The total coverage** of protected areas in a region is found by adding together the areas of individual protected zones as defined by their boundaries. Changes in the coverage of protected areas are frequently used as a proxy or surrogate indicator to assess trends in the conservation of biodiversity. For this purpose, historical records covering all boundary changes over time are needed.

In Europe, vulnerable species and habitats are protected under the Birds and Habitats directives<sup>1</sup>, through Natura 2000<sup>2</sup> - a continental-wide network of nature protection areas, which consists of Special Areas of Conservation (SACs) and Special Protection Areas.

There are predefined steps that must be followed when proposing any new areas to become SACs or when any changes, such as extending or reclassifying existing protected areas, are to be made. Keeping track of complex and interconnected regulations that govern protected areas together with associated boundary changes is a challenge.

Designed to be used by public environmental organisations for managing information on regulatory and boundary changes in protected areas, the new system is a user-friendly tool which can be accessed even with low-bandwidth internet connections typically found in rural locations where, for example, park headquarters might be located.

In addition to providing legal texts and images for protected areas, the tool allows users to see maps of protected area boundaries as they are created or changed with each step of the administrative process. This starts with the initial proposal by the promoting body and ends with publication of the legal text in the official government bulletin.

Users can trace historical changes to the coverage of protected areas, for example, where the boundaries have been redefined. This allows changes in protected area coverage for the whole network to be assessed over time, which can be used to evaluate the effectiveness of biodiversity protection. In addition, these changes can be compared with other data, such as data for populations, agriculture and local planning, to determine how social, economic and political factors have affected the evolution of protected area coverage.

Information from this system can also be sent by regional and national governments to update other databases such as the World Database on Protected Areas<sup>3</sup> and the European Common Database on Designated Areas<sup>4</sup>. Originally designed for handling information on protected areas in the legal framework of Catalonia, Spain, the researchers suggest the system, with minor adjustments, would be suitable for dealing with protected areas in other EU countries, particularly as there is provision for multiple-language support. It has been tested on over 450 protected areas (representing different types of protection categories) and over 130 administrative processes associated with declaring, modifying or terminating protected areas in Catalonia. The tool is not yet publically available but for more information on the project, please see: [www.creaf.uab.es/eng/projects/20\\_113.htm](http://www.creaf.uab.es/eng/projects/20_113.htm)

1. See: [http://ec.europa.eu/environment/nature/legislation/index\\_en.htm](http://ec.europa.eu/environment/nature/legislation/index_en.htm)

2. See: [http://ec.europa.eu/environment/nature/index\\_en.htm](http://ec.europa.eu/environment/nature/index_en.htm)

3. See: <http://www.wdpa.org/>

4. See: <http://biodiversity-chm.eea.europa.eu/stories/story615203>

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**Contact:** [arnald.marcer@uab.cat](mailto:arnald.marcer@uab.cat)

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