

Response Essay 2

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Laur Kiik, Wilding the Ethnography of Conservation: Writing Nature's Value and Agency In

Generally, the authors propose a novel Boolean overlay and weighted linear combination approach to identify wilderness patches with well-defined boundaries and quantify the quality of wilderness in patches. This method is more accurate and comprehensive than previous mapping methods, and is more suitable for wilderness quality detection. In addition, the present situation of wilderness protection in China was evaluated, and suggestions were made for wilderness protection policy in China.

The main argument.

The main argument of the paper is that we should adapt the brand-new Boolean overlay and weighted linear combination approach for mapping and supervise the quality of wilderness, so as to better protect the wilderness.

To demonstrate this point of view, the author uses the following train of thought.

The first is to demonstrate the need for research -- not just for academic breakthroughs, but also to contribute to the broader policy context of protecting nature and wilderness in China. In the past, wilderness areas have rapidly shrunk, with potentially catastrophic effects on the conservation of biodiversity and the maintenance of ecosystem services. China can be defined as one of the "mega-wild" countries in the world, but the past development has also brought various threats to the wilderness. Currently covering 18% of China's total land area, nature reserves are the primary protection mechanism for wilderness areas. The Master Plan for the National Park System published in 2017 makes national parks and nature reserves the primary protection mechanism for wilderness areas in China in the future. In this context, it has been proposed to establish the China Wilderness Protection System (CWPS). However, current studies mapping wilderness patches with well-defined boundaries across the country are limited in number and quality, and are difficult to adapt to conservation needs, hence needs for a high-quality mapping approach.

Secondly, demonstrate the advantages of the new method.

In order to meet the needs of conservation -- to protect higher quality wilderness -- the objectives of mapping are actually twofold. One is to distinguish wilderness from non-wilderness, and the other is to assess the relative quality of wilderness. Boolean coverage is a good dichotomous classification method, but it will lead to the loss of details. It is suitable for the identification of wilderness and non-wilderness, but not for the multi-classification problem of quality assessment. However, weighted linear combination is used to evaluate quality in multiple classification problems, but not in binary classification problems. Therefore, the combination of the two methods is more suitable for mapping.

It is further demonstrated that the research using the new mapping method is more advanced than before.

Firstly, the selected data sets were optimized, and more data sets were used to better adapt to the research needs, and the basis of the results was more reliable. Second, the definition of wilderness is clarified to make the results more reliable. After that, the parameters used are constantly optimized, such as using parameters evaluated by experts.

In addition, the quantity and quality of wilderness in China are assessed based on the mapping results.

More than 86,000 wilderness patches were found in the Boer Superposition, covering just over 4 million square kilometers, or about 42 percent of China's land area. Great wilderness patches are found mainly in western China, and smaller patches can still be found in the densely populated and developed eastern parts of China. This is an important finding for maintaining samples from wildlife reserves in eastern China. Of all wilderness patches, about 23% of wilderness areas are covered by nature reserves, with the remaining 77% outside existing reserves. There is a significant gap in the protection of wilderness areas in China, and the protected land system has the potential to expand in the future.

My view

As a student of computer science, I quite agree with his line of argument. In my innovation practice project, we should first analyze the necessity and practical needs of the research, otherwise the research results will just be a document stored in the archives, important but not practical at present. Second, I really approve of his research process. In machine learning, the selective status of data is crucial to building a good model, though it is often overlooked. With good data, sometimes you don't have to be clever to get good results. In addition, learning from each other and combining various methods are also the means we often use.

The best way to do a good job is to sharpen your tools, and I believe that good mapping methods will contribute to the conservation of wilderness.