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Mapping and Analysis of Anthrax Cases in Humans and Animals

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Anthrax is a rare but serious disease caused by gram-positive, stem-shaped bacteria *Bacillus anthracis*, which are toxin-producing, encapsulated, facultative anaerobic organisms. Anthrax is found naturally in the soil and mainly harms livestock and wildlife. It can cause serious illness in both humans and animals. Anthrax, an often fatal disease of animals, is spread to humans through contact with infected animals or their products. People get infected with anthrax when spores get into the body.

The study aims to monitor the anthrax localization map of anthrax on geographical maps and identify geographical variables that are significantly associated with environmental risk factors for anthrax recurrence in Georgia (Caucasus), as specific diseases affect the geographical environment, soil, climate. etc.

We carefully analyzed a set of 1664 cases of anthrax in humans and 621 cases of anthrax in animals, up to 1430 locations in anthrax foci (animal burial sites, slaughterhouses, BP roads, construction, etc.) observed in Georgia. Literature and the National Center for Disease Control for over 70 years. We analyzed more than 30 geographical variables such as climate, topography, soil (soil type, chemical composition, acidity), landscape, etc., and created several digital thematic maps, and foci of ant distribution and detection. The identified variable will help you to monitor anthrax development foci.