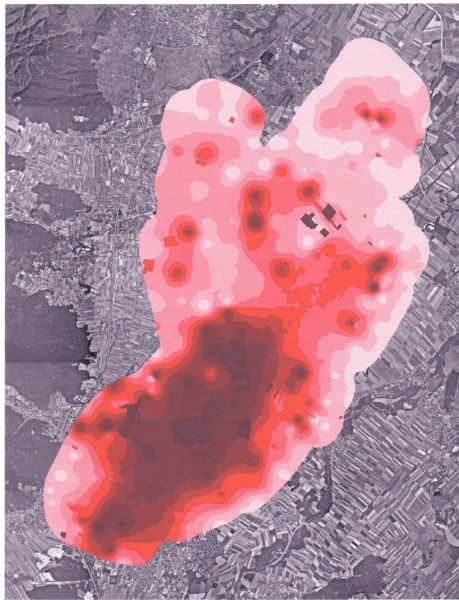


Habitat Modelling of the Stone Curlew

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 Client: Technical Bureau Hans Peter Kollar

In this study, we analyzed the impact of a planned road construction (B17 by-pass, Lower Austria) on a population of the Stone Curlew (*Burhinus oediconemus*). The Stone Curlew is a red list species considered also in the Annex I of the Council Directive 79/409/EEC.

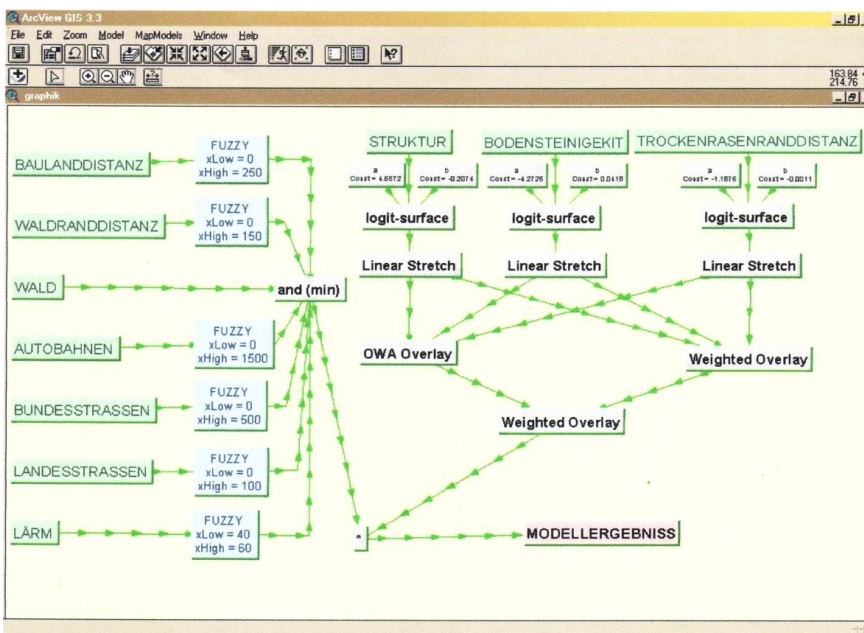
In the planning phase of this road construction, several possible routes were considered. Our goal was to estimate the impact of these different routes on the existing Stone Curlew population and to give conservation-related suggestions. In a first step, we calculated a habitat suitability map using relevant data (distance to building land, distance to forests, distance to streets, distance to dry grasslands, landscape structure richness and percentage of stones in the soil). Stone Curlew presence/absence data were taken from previous studies. In a second step, we added the routes to the landscape and recalculated the habitat suitability regarding the influence of the new streets (noise, changes in landscape structure richness). The amount of the suitable habitat loss was a quantitative measure for the impact of a given route.



Model of the percentage of stones in the soil



Loss of suitable habitat for one of the routes



GIS flowchart-model