

Historical and actual habitat mapping

Historical landscape changes near Fülöpháza in the Kiskunság

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Landscape changes in the Kiskunság Sand Ridge Region were studied in a representative 5 × 5 km area near Fülöpháza. For the vegetation reconstructions, historical maps and an actual vegetation map were used together with aerial photos, written sources, interviews with local people, and soil maps.

The spread of arable fields and farms, the development of abandoned fields and the spread of invasive species is highly dependent upon the landscape type (Figure 1). land use intensity increased until the 1950s; after that period, as a consequence of forced social-economic changes and a drop in the soil water table, land use intensity started to decrease. Due to afforestation and the creation of vineyards, orchards and farms the movement of formerly shifting sand stopped by the 1980s, while 87% of the natural sand grasslands were destroyed.

The main processes acting in the present-day landscape are biomass accumulation and forest encroachment on former moving dunes, abandonment of arable lands, regeneration of grasslands on abandoned areas, spread of invasive species and drying of the lakes, marshes and meadows. 60% of the present-day dry sand grasslands have developed on older abandoned fields, however one-quarter of them are affected by the spread of invasive species, which stops regeneration.

References

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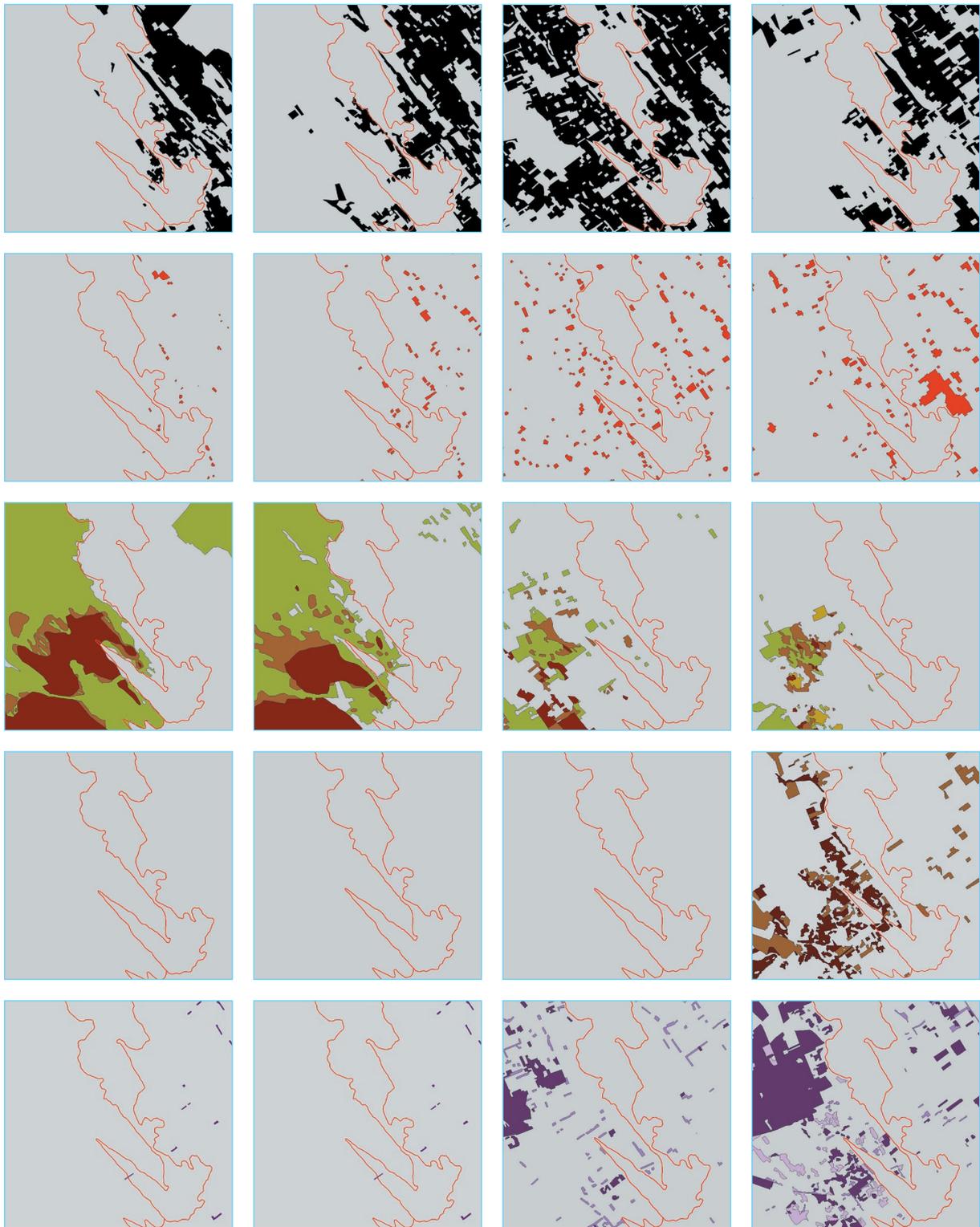


Figure 1. Landscape changes at Fülöpháza. A: arable fields, vineyards and orchards, B: farms and the village, C: open sand vegetation (green: grasslands, brown: grasslands with thickets), D: abandoned arable areas (dark: older than 10 years), E: invasive species. Red line indicates the boundaries between landscape types: (from the left) sand dunes, marshes and lakes, steppes.