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Aspects of succession of epigeic spiders at managed forest borders in southern Germany.

Ground layer spiders at managed and unchanged forest borders in central southern Germany have been investigated. In Germany the landscape is strongly influenced by men. Usually there is a sharp border between meadows or arable land and the forests. Borders with a zone of transition between forest and open land are rare. Vegetation management procedures were used to increase the structural complexity on the borders of forests which were initially of low complexity (project supported by the German Ministry of the Environment): planting shrubs and small trees outside the former border, a new stripe of fallow land (herbaceous stripe), partly cutting of "economic" forest trees (pines and spruce) and planting of broadleaf trees. The spiders have been caught by pitfall-trapping in different rows (each 6 traps) at several forest borders, mainly 12 month every year from 1989 until now. The succession of the spider fauna at managed borders and the herbaceous stripes is compared with unchanged borders. After 7 years the development of the fauna is clearly directed to natural forest borders, but they will reach a natural stage earliest after 15 to 20 years. Different typical patterns of single spider species can be stated: going down in the first years, peaks of different species in every year until now, still increasing species and species which could not settle in the managed area. There is no typical species for forest borders, but few species thought to be very rare before. The speed of development can be increased slightly by managing.