



Earthworm species richness under no-tillage systems in Santa Catarina, Brazil*

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The no-tillage is the most widely practiced soil management system in Brazil and has been referred a maintainer of biological richness, especially regarding of earthworms. The aim of this study was to assess the earthworm richness in the No-tillage sites in 12 counties of the central, northwest and west regions of Santa Catarina State, Brazil. The samplings were carried in No-tillage sites (NT), crop-livestock integration (ILP) and fragment of native forest (NF) as reference. A qualitative sampling (the digging of at least 10 points randomly in each site) was carried during summer (all regions) and winter (Central region) seasons of 2012.

The following 22 species, belonging to the six earthworm families, were recognized in all sites: Rhinodrilidae (*Pontoscolex corethrurus* and *Urobenus brasiliensis*); Glossoscolecidae (*Glossoscolex* sp.1, *Glossoscolex* sp.2, *Glossoscolex* sp.3, *Glossoscolex* sp.4, *Glossoscolex* sp.5, *Fimoscolex* sp.1, *Fimoscolex* sp.2, *Fimoscolex* sp.3, *Fimoscolex* sp.4, *Fimoscolex* sp.5, *Fimoscolex* sp.6); Megascolecidae (*Amyntas gracilis*); Ocnerodrilidae (Ocnerodrilidae sp.1, Ocnerodrilidae sp.2, Ocnerodrilidae sp.3, Ocnerodrilidae sp.4, Ocnerodrilidae sp.5); Acanthodrilidae (*Dichogaster bolau*) and Lumbricidae (Lumbricidae sp.1 and Lumbricidae sp.2). The fragments of native forest, with recorded eight species, presented the lowest richness among studied biotops. In the NT and ILP sites were collected 16 and 10 earthworm species, respectively. In order to better understand the earthworm species distribution presented will be more detailed results of the qualitative (TSBF) sampling, as well the correlations between earthworm species richness and chemical and physical attributes of soil.