

About Tellus

Tellus is a national programme to gather geochemical and geophysical data across the island of Ireland, examining the chemical and physical properties of our soils, rocks and waters. The data will help to inform the management of Ireland's environment and natural resources. Tellus is undertaken by Geological Survey Ireland and is funded by the Department of the Environment, Climate and Communications.

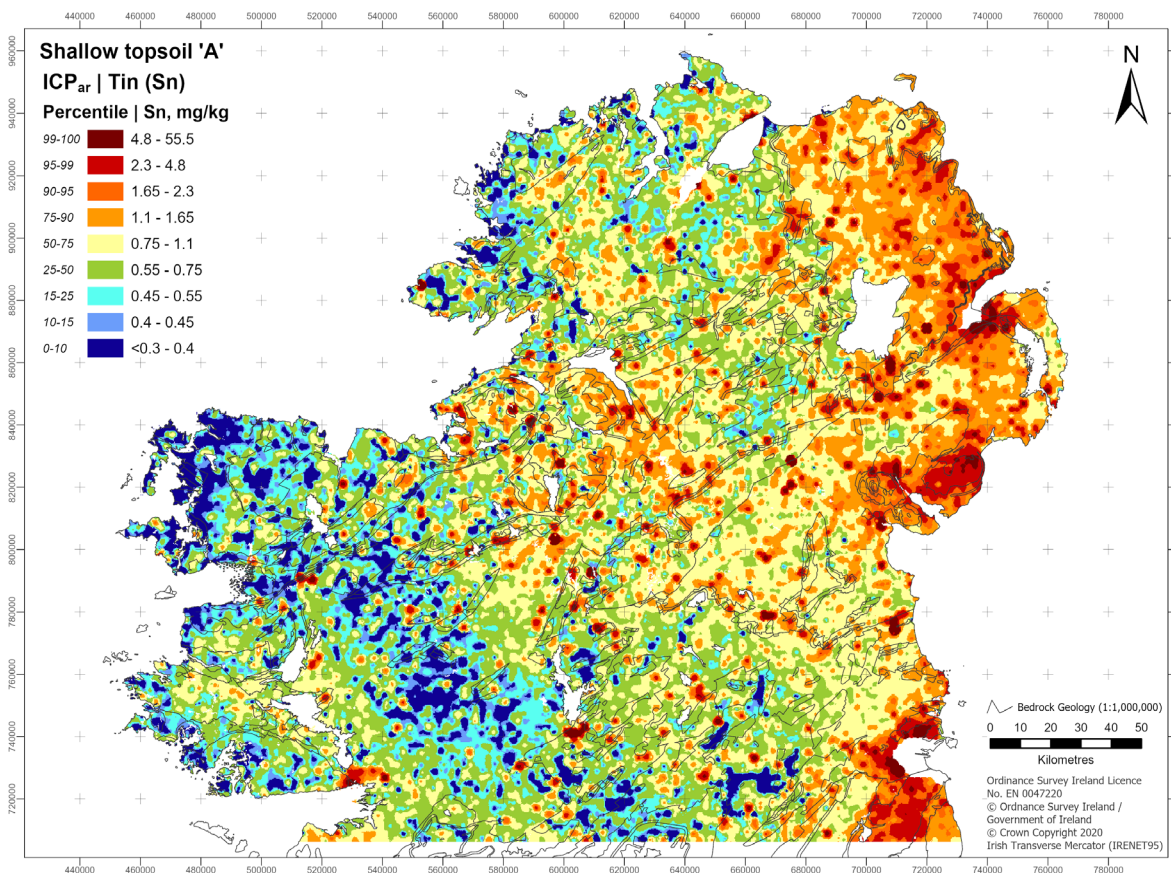
Tin | Sn

Shallow topsoil samples were collected from the northern half of Ireland between 2004 and 2019, as part of the Tellus geochemical survey projects of Geological Survey Ireland and the Geological Survey of Northern Ireland. The map represents almost 17,000 sites covering an area of just over 50,000 km² and incorporates a wide variety of geological domains in Ireland. Samples were collected at a typical density of one sample per 4 km² in Ireland and one sample per 2 km² in Northern Ireland.

Laboratory analyses comprised soil pH (CaCl₂), loss-on-ignition at 450°C and multi-element partial-extract analyses of major, minor and trace elements by ICP following aqua regia digestion.

The map displays the distribution of measured Tin (Sn) concentrations in shallow topsoil and demonstrates a mixture of bedrock and anthropogenic control on topsoil composition. Topsoil overlying the Leinster Granite in counties Dublin and Wicklow and the Mourne Granite in County Down has particularly high Sn concentrations, reflecting fractionation in both granites as well as the known Sn-bearing mineralization in the latter. Elsewhere, the distribution of high Sn concentrations is "spotty", comprising small positive anomalies dispersed across the map, typical of an anthropogenic influence. Strong positive Sn anomalies around Dublin, Belfast, Galway and numerous towns and villages reflect contamination from industry and domestic fuel burning. Areas with low Sn concentration in topsoil coincide with mapped peat and peaty soil, e.g. north County Mayo.

Geochemical Data in Shallow Topsoil Tin | (Sn)



Free data & maps at www.gsi.ie/tellus

Geological Survey Ireland is a division of
the Department of the Environment, Climate and Communications



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