

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.

Zinc | Zn

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.

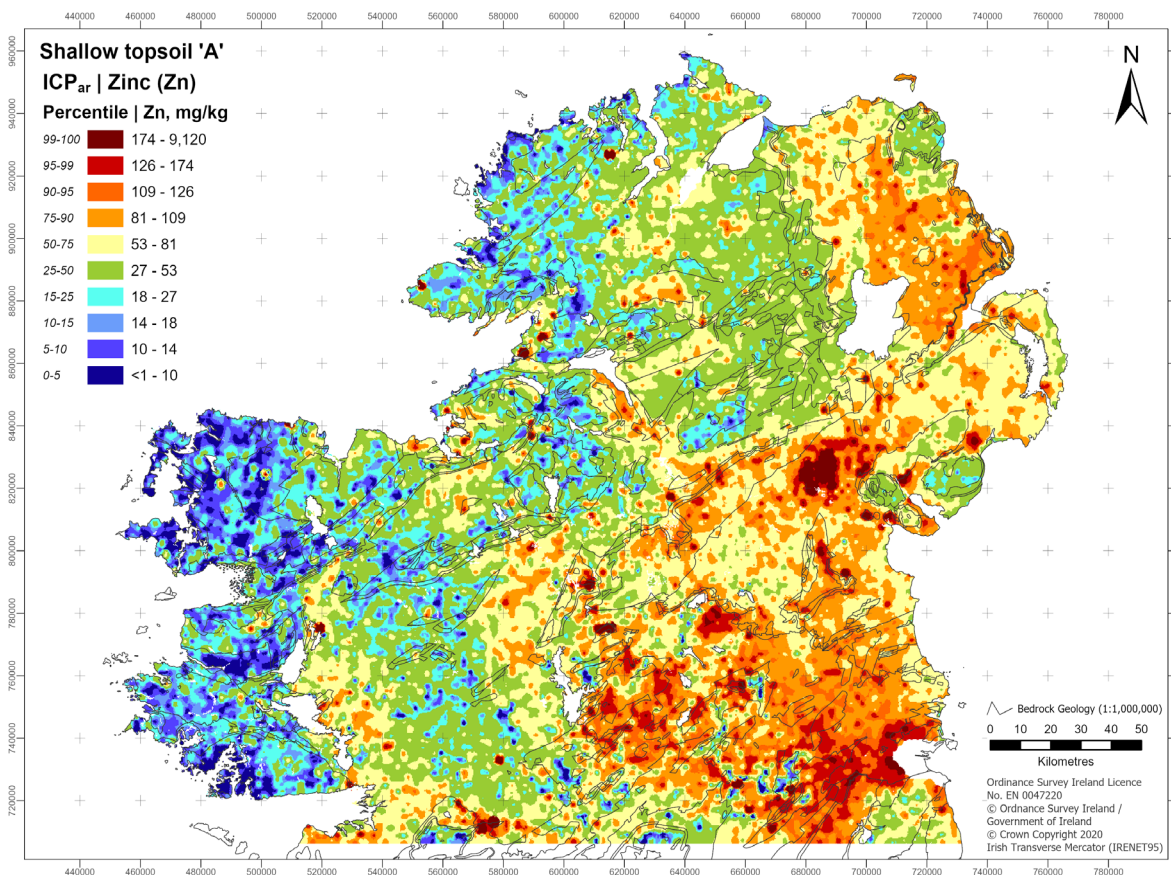
The map displays the distribution of measured Zinc (Zn) concentrations in shallow topsoil and demonstrates strong bedrock control on topsoil composition. Relatively high concentrations of Zn are observed in topsoil overlying the Antrim basalts and the greywackes of the Longford-Down inlier. Topsoil overlying the Lower Carboniferous succession has relatively low Zn concentrations where shelf limestone is the dominant bedrock, as in the west midlands, and relatively high Zn concentrations where shales and dark limestone are significant, as in the "calp" succession of the east midlands. The highest Zn concentrations are recorded in topsoil around the former zinc-lead mine at Tynagh, County Galway, and the small 19th-century zinc-lead deposits in counties Monaghan and Armagh. Upland areas with peaty soil in counties Galway, Mayo and Donegal have relatively low Zn concentrations.

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

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

Geochemical Data in Shallow Topsoil

Zinc | (Zn)



Rialtas na hÉireann
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