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Rare Plants and Nickel Accumulators from Turkish Serpentine Soils, with Special Reference to Centaurea Species

of

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**Abstract:** Recent exploration and collecting from areas of serpentine soils in western and central regions of Turkey have shown that there is still much to be discovered. This work has led to the identification of new species, the re-collection of very rare species, the recording of extensions to the known ranges of several species, and the discovery of new instances of Ni hyperaccumulation, in which plant species can accumulate this element to concentrations exceeding 0.1% of the dry weight of the plant. In Turkey, there has already been special interest in Ni accumulation by species of *Aethionema* R.Br., *Alyssum* L., *Borrmuelleria* Hausskn., *Cochlearia* L. and *Thlaspi* L. (*Brassicaceae*). We now report instances of hyperaccumulation of Ni in some of the Turkish serpentine occurrences of *Centaurea* L. (*Asteraceae*). There is worldwide interest in exploiting the property of hyperaccumulation, both for remediation of metal-contaminated soils ('phytoremediation') and for economic selective extraction of metal compounds by cropping hyperaccumulators ('phytomining'). The potential for these processes to be carried out in Turkey, the need for further exploration of the natural resource and the conservation issues involved are discussed.

**Key Words:** Hyperaccumulation, nickel, serpentine plants, Turkey

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