

Potential risk from the use of mine-contaminated sediments for road and rail embankments: preliminary data from Central Italy

**Pierfranco Lattanzi (1), Pilario Costagliola (2), Mario Paolieri (2),
Valentina Rimondi (2)**

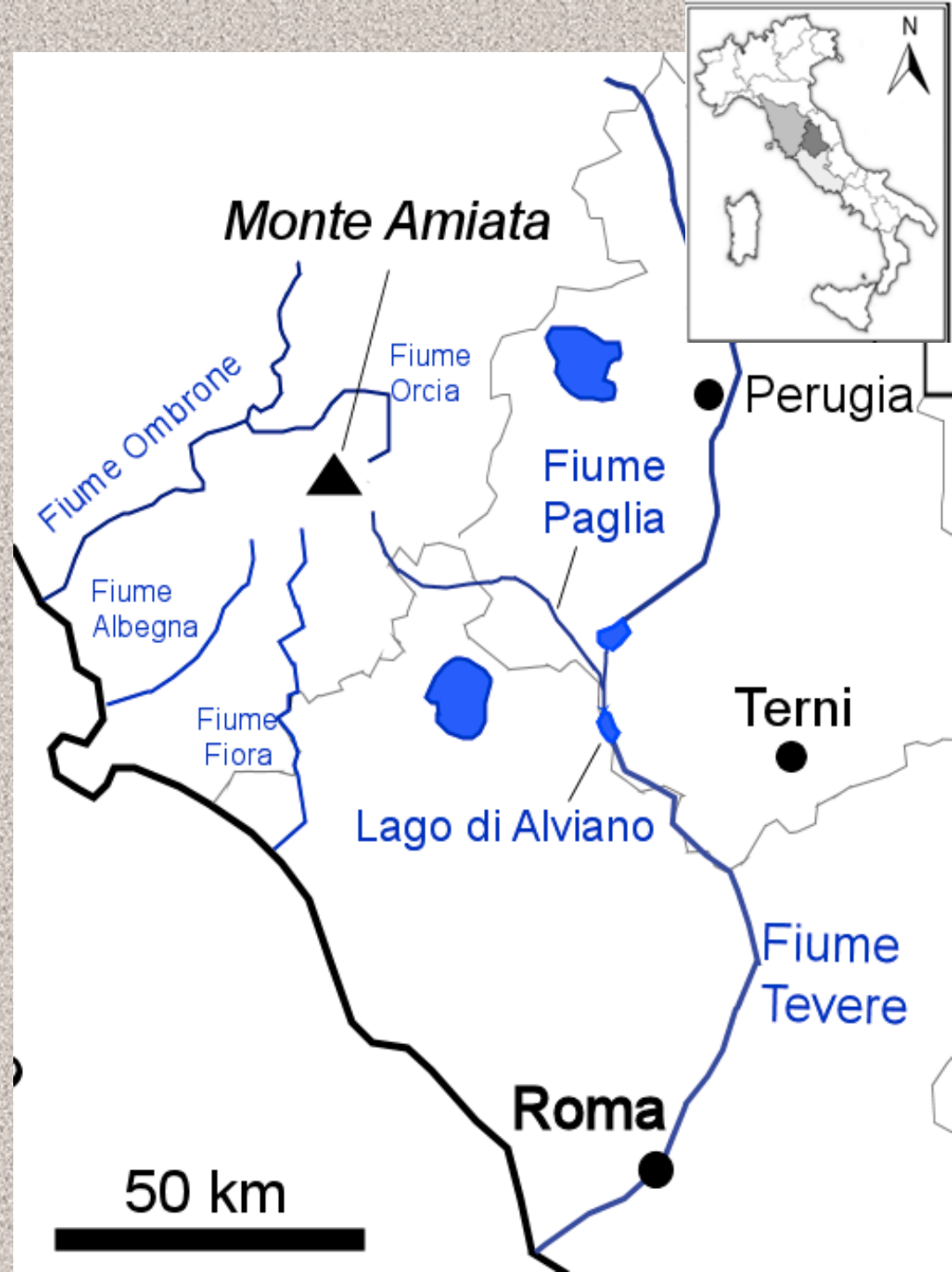
(1) CNR Istituto di Geoscienze e georisorse, UOS Firenze, Italy

(2) Dipartimento di Scienze della Terra, Università di Firenze, Italy

EGU 2020 HS2.3.4 – Online presentation



Contamination of stream sediments in the Paglia and Tiber river catchments (Central Italy) by runoff from the abandoned Hg mine district of M. Amiata



- Fluvial sediments quarried for decades along river courses to obtain sand and gravel for several industrial uses, including construction of road and rail embankments
- Was some of this potentially contaminated material used for two major Italian transport routes, the A1 Expressway, and the AV railroad?

Preliminary survey near Orvieto

Hg contents (mg/kg) in soils



- A1 and AV embankments constructed when mines were in operation
- Nearby soil samples: Hg contents >1 mg/kg (Italian limit for Hg in soils)
- Samples close to the old railroad embankment: contents below the regulatory limit
- Opportunity of a more systematic study