

Mesocosm Shared Facility

- **Location / space distribution** – Located in the middle of Duke Forest with: one facility building (~1500 sq ft), one research trailer with lab space, computer (linked to the live Database), analytical instruments, one trailer for onsite residence of researchers and students. ~0.6 Acre of open space dedicated to mesocosms and future developments
- **Designs / conception** – 30 mesocosms were built based on the best prototype chosen among 5 designs.
- **Slant-board concept** - Water compartment and soil compartment with different soil redox conditions along the slantboard (from anoxic to oxic)
- **Monitoring** – Dataloggers integrated in a wireless network accessible remotely around the world collecting data from various probes (Redox, Temperature, pH...)
- **Data Acquisition / distribution** – Data constantly saved in the CEINT/Duke Databases, distributed via an online web platform.
- **Research** – central platform to study Ecology, Toxicology, Transport and Transformations of the NP in a natural complex environment.

