

'RUSSIAN' D-SECTION PEAT CORER

The 'Russian' D-section peat coring device is specially designed for sampling unconsolidated peat, lake sediments and soft clays.

Although not suitable for sampling hard soils or coarse-grained mineral sediments, the Russian peat corer is widely utilised for taking samples of soft peats, lake sediments and other organic material which can be difficult to sample effectively using other equipment. The Russian peat corer is lightweight and highly portable making it suitable for use in a range of wetland environments.

The Russian peat corer consists of a 500mm long semi cylindrical steel sample chamber (volume 0.5 litres) with a rotating fin attached to the face of the sample chamber and a 100mm long solid conical nose section at one end.

The nose of the corer is manually pushed into the surface of the peat with 1000mm long extension rods added as required until the desired depth is reached. To take a sample, the handle of the corer is then rotated 180° - the fin

remains in place as the sample chamber rotates trapping an undisturbed sample of peat in the chamber. The corer is then pulled to the surface to recover the sample.

Due to disturbance caused by the conical nose section of the device, standard procedure when sampling a full peat sequence is two form two parallel boreholes within 0.3m of each other and to take samples at overlapping depths.

Samples may either be photographed and described on-site, or they can be transferred to pre-cut lengths of PVC pipe and sealed for further analysis. Upon return to ARCA's laboratory, cores are typically photographed and described to standard geological criteria and may then be subsampled for a range of geochemical and/or bioarchaeological analyses e.g. peat humification, organic carbon determination, pollen, plant macrofossils, testate amoebae.

For further details see: <http://www.vanwalt.com/pdf/fact-sheets/Peat-or-Russian-Corer-Fact-Sheet.pdf>

Advantages

- Takes minimally disturbed samples of soft peats and organic sediments with no sample loss
- Can sample both saturated and unsaturated material
- Lightweight, portable and easy to operate
- Can take point samples at any desired depth
- Cores can be recovered for further analysis
- Maximum depth 10m

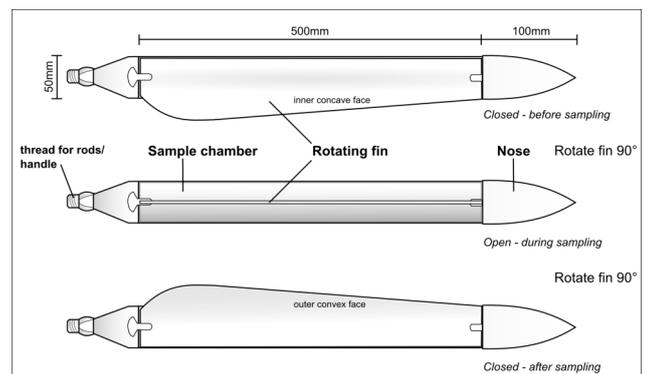
Disadvantages

- Cannot penetrate hard soils or coarse mineral sediments (e.g. hard silt/clay, sand etc.)



Key Facts:

- Operated by crew of two
- Suitable for sampling saturated and unsaturated peat and organic lake sediments max depth: 10m
- Takes minimally disturbed cores with no compression/loss
- Hand operated
- Vehicle access to within 500m of coring site required



To discuss the requirements of your project and to request a quotation contact ARCA:

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