CLAIMS

1. Device for determining the mechanical properties of an underwater bottom, comprising:
- a support frame which provides a fixed support relative to an underwater bottom;
- means for carrying the support frame onto the underwater bottom;
- a pressure plate accommodated in the support frame;
- pressing means for pressing the pressure plate against the underwater bottom with a force without urging it into the bottom;
- means for measuring the displacement of the pressure plate during pressing; and
- computing means for determining mechanical properties of the underwater bottom from the measured displacement and the force.

2. Device according to claim 1, further comprising means for measuring the force on the pressure plate during pressing.

3. Device according to claim 1 or 2, wherein the pressing means engage on a surface of the pressure plate.

4. Device according to any one of the foregoing claims, wherein the pressure plate comprises a drive rod and the pressing means engage on the drive rod.

5. Device according to claim 4, wherein the pressure plate is connected pivotally to the drive rod.

6. Device according to any one of the foregoing claims, wherein the pressing means comprise a hydraulic cylinder.

7. Device according to any one of the foregoing claims, wherein the means for measuring the displacement of the pressure plate during pressing comprise means for determining the depth position of the pressure plate.

8. Device according to claim 7, characterized in that the means for determining the depth position of the pressure plate comprise a depth wheel or depth encoder.

9. Device according to any one of the foregoing claims, further comprising ballast attached to the support frame.

10. Device according to any one of the foregoing claims, further comprising a programmable logic unit (PLC) which is situated under water during use.

11. Method for determining the mechanical properties of an underwater bottom, comprising of:

- providing a device according to any one of the foregoing claims;
- carrying the support frame in which the pressure plate is accommodated onto the underwater bottom;
- pressing the pressure plate against the underwater bottom with a force without urging it into the bottom;
- measuring the displacement of the pressure plate during pressing; and
- determining the mechanical properties of the underwater bottom from the measured displacement and the force.