**S1 File: Description of the high-speed flume.**

Drawing of the high-speed pipe-flow flume used in the flow resistance experiments. All dimensions are given in millimetres. The seawater in the pipe-flow flume is rapidly accelerated from a head-tank through a 100 mm (inner diameter) pipe. The water velocity in the pipe can be controlled with a valve at the downstream end of the pipe. The 115-L overhead tank is filled by pumping water from the reservoir (and outflow) tank. An overflow pipe mounted in the overhead tank drains water back into the reservoir tank and ensures a constant pressure head (height difference) of 1.0 m before the controlling valve is opened. Illustration: Thore Hilmersson

