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CONSTRUCTION OF GILL NET

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ABSTRACT

A gillnet consists of netting attached between a head rope and a foot rope. The net is kept open vertically by the differences in buoyancy between the two ropes. The head rope is given positive buoyancy by using various floating devices. In shallow waters, floating is typically applied by attachable cork or styrene floats or by using head ropes where styrene is embedded in the rope. For deep-water fisheries, hollow metal or hard plastic rings are used to provide buoyancy. Weight is most simply applied to the foot rope by embedding lead into the rope but may also be applied by using various sinkers, e.g. metal rings. By regulating the net's overall buoyancy gillnets may be designed to float (used for pelagic fish, tuna, salmon or small pelagic fish) or to stand at the bottom used for demersal species. In ordinary gillnets, the netting consists of a single net sheet. In trammel nets, the net is constructed by joining three parallel sheets of netting where the two outer sheets are made of netting with large mesh and the inner sheet with small mesh. Gillnets are passive fishing gears that are set on the way of fish such that when fish try to go through them, they are caught by the gills, hence the name gill net. Setting up a gill net involves attaching (hanging) the netting to the headline and fishing line according to pre-determined hanging ratio and by using the formula: $L = 2aun$ (L: length interval, a: bar length, u: hanging ratio, n: number of meshes that go to one interval). The hanging ratio determines the extent to which the meshes are opened. The higher the ratio the open the mesh size and vice versa. The hanging process is followed by attaching floats and sinkers to the headline and fishing line respectively, in a way that the buoyancy of the floats is able to support the weight of the sinkers in order to maintain the gear in a perpendicular position when set in water. All the above process involves use of tools like knives, needles gauges and knots like over hand knots, fisherman's knots etc.