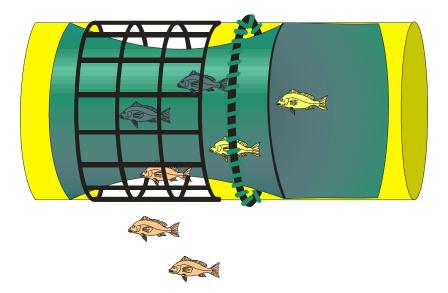
# Recommended Construction and Installation Instructions for the Extended Funnel Bycatch Reduction Device

NOAA Fisheries Service, Mississippi Laboratories P.0. Drawer 1207, Pascagoula, Ms 39568-1207 March, 2008



The Extended Funnel Bycatch Reduction Device (BRD) has been certified for use in the Atlantic and provisionally certified for use in the Gulf of Mexico shrimp fishery. A **provisional certification** applies to an experimental BRD not quite meeting the criteria for certification, but deemed likely to meet the criteria with further testing. A provisional certification of a BRD is effective for 2 years from the date of publication in the Federal Register. This time period allows additional wide scale industry evaluation of the BRD candidate. The intent is to further refine the design or application of the experimental BRD so it could eventually meet the certification criterion.

#### Extended Funnel Description

The extended funnel BRD consists of an extension with large mesh webbing in the center and small mesh webbing on each end held open by a semi-rigid hoop. A funnel of small mesh webbing is placed inside the large mesh section to form a passage for shrimp to the codend. It also creates an area of reduced water flow to allow for fish escapement through the large mesh. One side of the funnel is extended vertically to form a lead panel and area of reduced water flow.

### Minimum Construction and Installation Requirements

## Figure 1. Extension Material

The small mesh used on both sides of the large mesh escape section is constructed from #30, 1-5/8 inch (41 mm) stretch mesh nylon webbing. The front section is 120 meshes around by 6-1/2 meshes deep. The back section is 120 meshes around by 23 meshes deep.

# Figure 2. Large Mesh Section

The large mesh escape section is constructed of 8 to 10 inch (20-25 cm) stretch mesh webbing. This section is cut on the bar to form a section that is 15 inches (38 cm) long, 95 inches (241 cm) in circumference. The leading edge is attached to the 6-1/2 mesh extension section and the rear edge is attached to the 23 mesh extension section.

# Figure 3. Semi-Rigid Hoop

A 30 inch (76 cm) diameter hoop constructed of plastic coated trawl cable installed evenly 5 meshes behind the trailing edge of the large mesh section. The hoop is constructed using a 94-1/2 inch x 1/2 inch (240cm x 12.7mm) plastic coated cable. The ends are joined using a 3/8 inch micropress sleeve.

#### **Figure 4. Funnel**

The funnel is constructed of 1-1/2 inch (38 mm) stretch mesh #30 depth stretched and heat set polyethylene webbing. The circumference of the leading edge is 120 meshes and the back edge is 104 meshes. The short side of the funnel is 34 to 36 inches (86-91 cm) long and half of the opposite side of the funnel extends an additional 22 to 24 inches (56-61 cm).

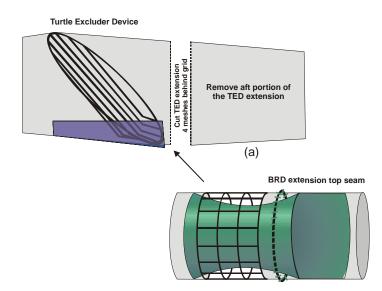
#### **Figure 5. Funnel Attachment**

The leading edge of the funnel is attached 3 meshes forward of the large mesh leading edge. Seven meshes of the short side of the fume1 is attached to the back section of extension webbing on the top and bottom, 8 meshes back from the trailing edge of the large mesh section. The extended side of the funnel is attached on a slight angle to the top and bottom of the back extension webbing.

# **Installation of the Extended Funnel BRD**

The Extended Funnel BRD is attached behind a hard TED 8 inches (20 cm) behind the posterior edge with the codend attached to the trailing edge of the BRD. If a soft TED is used a second hoop must be installed in the front section of the BRD extension webbing at the leading edge of the funnel.

The Extended Funnel BRD is designed to be installed immediately behind the Turtle Excluder Device (TED). To install the BRD, first remove the rear portion of the TED extension by cutting the TED extension on an even row of meshes 4 meshes behind the posterior edge of the TED grid (a). Next, join the leading edge of the BRD extension evenly to the TED extension directly behind the TED (b). When attached, the BRD extension should be oriented so that the BRD extension seam is located on top of the trawl when towing. Complete the installation by attaching the codend (bag) to the trailing edge of the BRD extension.



This document was prepared for general informational purposes in March 2008 and has no legal force or effect. Please refer to the federal BRD regulations, 50 CFR part 622 and 622 Appendix D and the Federal Register for specific and controlling BRD requirements.

For more information contact: NOAA Fisheries Harvesting Systems and Engineering Branch P.O. Drawer 1207 Pascagoula, MS 39568 (228) 762-4591 <u>Robert.D.Stevens@noaa.gov</u> or <u>Daniel.G.Foster@noaa.gov</u>

Figure 1.

