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*Condition Indexes of Fish as Bioindicators One Year After the Deepwater Horizon Oil Spill*

It is unknown how long the Deepwater Horizon Oil Spill in the Gulf of Mexico in 2010 will affect the ecosystem. It is difficult to measure forage species, though these are important for the health of the fish and for human consumption. By using fish that eat oysters and shrimp as bioindicators, one can estimate how the ecosystem was affected.

Creel surveys were performed over three weeks in late spring, 2011, in the Lafourche and Calcasieu areas of the Louisiana Gulf Coast. Weights and lengths were measured for 41 black drum (*Pogonias cromis*), 141 red drum (*Sciaenops ocellatus*), and 332 spotted sea trout (*Cynoscion nebulosus*), and condition indexes were calculated. A normal condition index is 100%; below 80% indicates little energy reserves and a risk of mortality.

The mean condition indexes for black drum were 95.5% and 93.4%, for red drum 95.5% and 96.5%, and for spotted sea trout 99.4% and 97.1% for Lafourche and Calcasieu, respectively. Results suggest that primary food sources for black drum and red drum in Lafourche, including oysters and crab, were likely reduced by the oil spill and were still reduced one year later. Increased oyster harvest in Calcasieu (to make up for the ban in most of Louisiana) resulted in less food for the black drum and red drum there, also. Spotted sea trout eat mainly shrimp and small fish, and showed no significant reduction in condition index in Lafourche and a slight reduction in Calcasieu one year after the oil spill.