Fish Movement in a Large Navigation River System

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Abstract: Fish movement is an important ecological component to the any lotic ecosystem. The Ohio River was once a large free-flowing system, but since the early 1880s this large river system has been altered to its current state of navigation pools and tailwater reaches. To determine movement of highly migratory fish species, a study was conducted on sauger, hybrid striped bass, and paddlefish to ascertain movement patterns and the influence of riverine conditions. Fish were inserted with either *t*-bar anchor tags (sauger and hybrid striped bass) or coded wire tags with elastomer marks (paddlefish). Movement of sauger was primarily in the upstream direction with greater than 50% displaying movement through at least one lock and dam complex. Interestingly, less than 1% of all sauger tags returns were from fish moving in a downstream direction. Hybrid striped bass displayed an equal tendency to move in both directions. For both species, the majority of recaptured where from the originally-tagged navigational pool. Paddlefish displayed little inter-pool movement, but of those fish which displayed movement, the majority was in a downstream trend.

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