

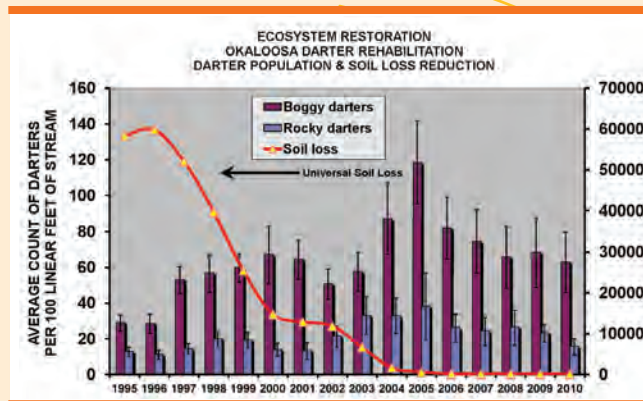


## THE DOWNLISTING

### An Endangered Species in Recovery

As stream restoration and Okaloosa darter conservation efforts continue to improve stream habitat, reduce threats, and minimize impacts, recent population estimates have calculated the number of Okaloosa darters to be over 300,000. Overall, the health of the Okaloosa darter through Eglin's conservation programs and partnership efforts have resulted in the Department of Interior signing the rule to reclassify the darter from endangered to threatened status on Mar. 24, 2011, with the ultimate

goal of removing the darter from list entirely sometime in the future. One other species east of the Mississippi River, the snail darter, has been reclassified from endangered to threatened and the Okaloosa darter will be the 8th fish to receive this designation under the Endangered Species Act since 1975. To date, no fish have been removed from the Endangered Species List but Eglin, the US Fish and Wildlife Service, and our partners are working diligently to change that.



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## THE OKALOOSA DARTER



a recovering population

# THE OKALOOSA DARTER



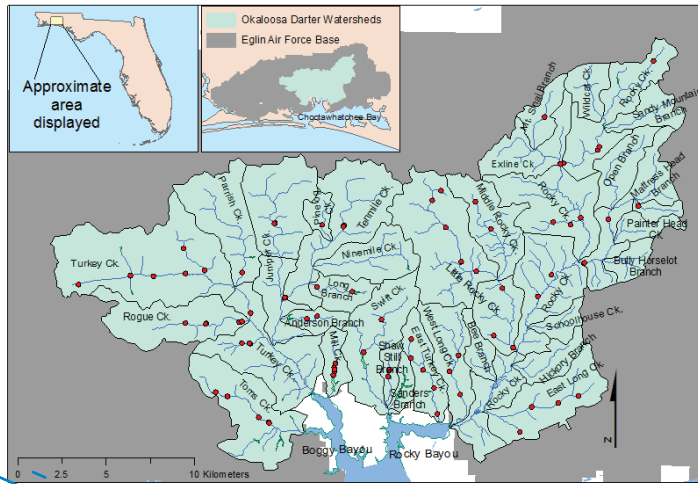
The streams on Eglin Air Force Base are home to the Okaloosa darter, a small fish about 1 to 2 inches in length. The darter lives in a limited range of less than 250 miles of streams, almost all of which are on Eglin's reservation. Because of its small range, limited numbers and population pressures, the U.S. Fish and Wildlife Service listed the Okaloosa darter as an endangered species in 1973. In 1994, as few as 1,500 Okaloosa darters were thought to exist. Since that time, Eglin natural resource managers have worked with federal and state agencies to recover the species.

## Competition for Habitat

The Okaloosa darter is confined to six streams that flow in to the Boggy and Rocky bayous of the Choctawhatchee Bay in Okaloosa and Walton counties. The fish is found most often around plants, roots or woody debris along the margins of shallow, sandy streams up to 40 feet wide. The brown darter, an ecologically similar fish, was discovered in some stream sections that were formerly considered to have only Okaloosa darters. Because the two species would compete for food or habitat, the brown darter was viewed as a potential threat to the Okaloosa darter. Several years of monitoring has revealed that in streams with mixtures of both species brown darters are not proving to be a substantial threat to the Okaloosa darter.

## Improving their Habitat

Erosion occurring at road crossings, railroad beds and sand/clay pits on Eglin's reservation is a serious problem for Okaloosa darters and other stream dwellers. Studies showed over the last 15 years have estimated that up to 70,000 tons of sediment were entering Okaloosa darter streams each year. Since 1994, Eglin has worked with partners to control erosion on the base and have now managed to limit sediment loss to just 1,000 tons per year. Over the last 18 years, Eglin's Natural Resources Management section has restored 356 sites that rehabilitated 534 acres of Okaloosa darter habitat and used hundreds of volunteers to plant more than 105,000 containerized plants in the disturbed lands to control erosion.



98% of the stream length of the Okaloosa darter's current range is on Eglin reservation.



## darter recovery

In addition to erosion control efforts, several stream restoration projects have been conducted to re-construct habitat for the Okaloosa darter. In total, more than 15 projects have eliminated fish passage barriers by reconnecting streams through the removal obstructions in the stream channel.

The team has also removed several ponds to restore stream connectivity, including construction of new stream channel at Anderson Pond recreation area, the Falcon Golf Course on Eglin and other locations. In total, Eglin and partners have constructed more than 2 miles of stream channel to restore darter habitat stream connectivity assuring stable flow and sediment dynamics throughout the range of the Okaloosa darter.

and US Army Corps of Engineers. Eglin has also worked with scientists from universities such as Loyola University New Orleans, University of Florida, and the University of West Florida, and non-profit organizations like the Nature Conservancy as well as volunteer help from base personnel and local citizen groups. Recently established partnerships with local business groups like the Mid-Bay Bridge Transportation Authority are helping to enhance conservation of the Okaloosa darter in streams outside Eglin's boundaries.

## Partnering Success Story

Over 18 years of proactive conservation effort, Jackson Guard developed essential working partnerships with multiple federal and state agencies including the US Fish and Wildlife Service, US Geological Survey, Florida Fish and Wildlife Conservation Commission, US Department of Agriculture, Florida Department of Environmental Protection,

