grounds for Florida panther—would be diminished and with it, the effective habitat area and the overall ability of the larger ecosystem to support a viable population.

2. Threatened Species

a. Eastern Indigo Snake

Reaching lengths of over eight feet, the eastern indigo is North America's longest snake, with males weighing up to ten pounds. The species is generally colored an iridescent bluish-black and enjoyed a historical range that once encompassed parts of Mississippi, Alabama, Georgia, and Florida. Though the eastern indigo utilizes a variety of habitats, including longleaf pine sandhills, flatwoods, and coastal dunes, the species requires hundreds to thousands of acres for home range territories, moves over longer distances than any other North American snake, and is particularly vulnerable to habitat fragmentation and loss.

Since its listing in 1978 (ESA Threatened), extant populations have grown increasingly disjunct, particularly those in the Florida panhandle, where gopher tortoise losses have accelerated.[234] The overall resiliency of the eastern indigo population is predicted to be low to very low in the future without targeted conservation efforts.[235]

Though much of Trail Ridge along the Okefenokee is subject to timber operations, the land offers indigo snakes a matrix of habitat types, including upland and lowland features, and is considered part of the species' recovery unit and a Conservation Focus Area. In recent years, mining for limestone, phosphate and titanium has increased in Georgia and Florida. Because these mines disproportionately occur in wildlife-rich areas, their effects on indigo snakes have been documented. The Service has already noted that habitat modification, mining debris and equipment, and the discharge of hazardous materials "adversely impact" indigo snakes.[236]

In this case, mining operations will likely result in both direct mortality and the fragmentation of existing populations: the proposed mine would operate all day and night for upwards of thirty years; require increased vehicular access, which, even in the absence of habitat alterations, can cause indigo populations to crash by 95 percent;[237] result in the loss of the vegetation and cover that indigo snakes depend upon; and ultimately impair north-south movement between Trail Ridge populations separated by the mine's 12,000-acre footprint.

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[234] Enge, K.M., D. J. Stevenson, M.J. Elliott, and J.M. Bauder. 2013. The historical and current distribution of the eastern indigo snake (Drymarchon couperi). Herpetological Conservation and Biology 8:288−307.

[235] U.S. Fish & Wildlife Serv.. 2018. Species status assessment report for the eastern indigo snake (Drymarchon couperi). Version 1.0. Atlanta, GA, 6.

[236] *Id.* at 41.

[237] Godley, J.S. and P.E. Moler. 2013. Population declines of eastern indigo snakes (Drymarchon couperi) over three decades in the Gulf Hammock Wildlife Management Area, Florida, USA. Herpetological Conservation and Biology 8:359-365.