COLORADO PARKS & WILDLIFE

Invertebrate Species & Native Rare Plants

Sponsors: Rep. McCormick, Rep. Soper, Sen. Marchman

Background & Problem

Invertebrate species are facing dramatic declines in Colorado. Studies have found insect declines in the state over 60% since the 1980s, a loss correlated with less winter snowfall, less summer rain and warmer temperatures among other factors. Invertebrate species play a key role in ecosystem health and are increasingly recognized for the vital services they provide in nature: pollination, pest control, nutrient cycling, and sustenance for birds and other animals higher on the food chain. Studies have found that native insects alone contribute more than $57 billion ($80 billion 2023 valuation) a year to the U.S. economy. The continued decline of insect populations impacts our ability to protect and enhance biodiversity in the state and could have profound consequences for the environment, humans, and other animals.

Fritillary butterfly at Castlewood Canyon State Park

The Colorado State Wildlife Action Plan (SWAP) identifies 75 species of invertebrates, primarily pollinators and aquatic invertebrates, as Species of Greatest Conservation Need. The SWAP also recognizes that information on habitats, threats, and conservation actions is needed, yet monitoring efforts are sorely lacking for invertebrate species. Except for mollusks and crustaceans, Colorado Parks and Wildlife (CPW) does not have statutory authority over invertebrate species and currently must rely upon our partners to fill important population data gaps.

In addition to invertebrates, no state agency currently has authority over native rare plants. Plants are essential to both wildlife and humans, providing benefits like clean air & water, carbon sequestration, food, and habitat. Over the last several decades, hundreds of plant species have disappeared worldwide because of habitat loss, and this is especially true for Colorado, where the population is growing at an unprecedented rate and placing increasing pressure on native plant species and their habitats. Colorado ranks eighth in the nation for the number of plant species most at risk of extinction, yet the state does not have any specific plant protection statutes like several other states do. The SWAP identifies 117 plant species as Plants of Greatest Conservation Need, over half of which are endemic to Colorado, meaning that they only occur here in the state and nowhere else in the world.

Proposed Solution

Fewer insects and plants means less food for other animals, fewer flowers and plants pollinated, and fewer nutrients recycled through the environment. To address the biodiversity crisis, we must focus on all wildlife and the flora that supports them.

The bill would seek to allow CPW to conduct investigations and surveys of native invertebrates and rare plants in order to develop information about population, distribution, habitat needs, limiting factors, and other biological and ecological data to help identify conservation and management measures that protect these critical species. An invertebrate and a native rare plant management program housed within CPW will help to ensure long-term conservation of these critical species while providing the Division the needed tools to protect biodiversity and be a leader in comprehensive wildlife management.

Please contact Daphne Gervais, DNR Director of Legislative Affairs, with any questions.
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