

# Regal Fritillary (*Speyeria idalia*)

**Appearance** The regal fritillary is one of temperate North America's most striking butterflies. Almost as large as the familiar monarch butterfly, it is instantly recognizable from above by its black-flecked reddish-orange forewings and blue-black hind wings. The wing undersides have a bold pattern of large, triangular silvery-white spots on a dark brown background. Females are slightly larger than males and have two rows of white spots atop the hind wings, whereas one of these rows is orange in males.

**Habitat and Range** The species ranges across the northern half of the United States, from the Dakotas and Colorado east to Maine and Virginia. Its Minnesota range coincides with the historical extent of prairie and savanna, as far north as Polk County in the west and the Anoka Sand Plain in the east. It is widespread in the western part, where it can be common in some larger prairies. It breeds only in native prairie habitats—now scattered in remnants that amount to less than 1 percent of the historical extent. Upland prairies appear to be favored, but adults are frequently seen visiting flowers in wetland prairies as well.

**Biology** Females lay eggs in late summer. The hatchling larvae hibernate in the duff without feeding until the following spring. Larvae complete their growth and pupate by June. Larvae feed only on violets, particularly prairie bird's-foot violet in Minnesota. Male adults begin to appear later in June; females appear a week or two later. Females delay egg laying until August and September, after most males have died. Adults feed on floral nectar of purple coneflower, milkweeds, thistles, and especially blazing stars.

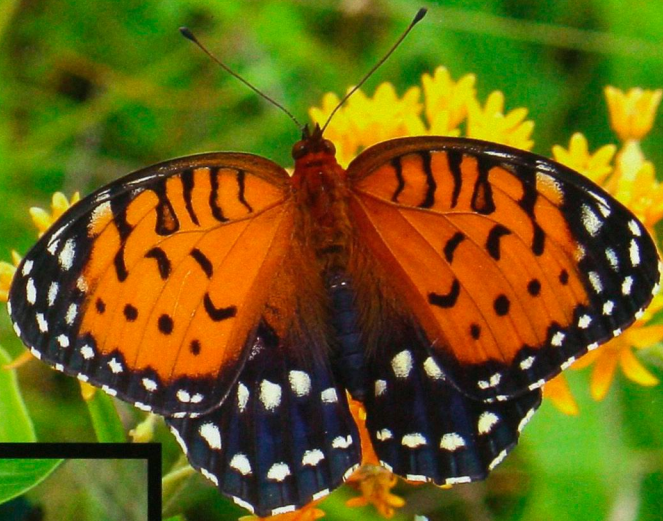
**Status** The regal fritillary has suffered a recent catastrophic decline in the eastern half of its historical range: It has vanished from most states from Michigan, Ohio, and Kentucky east to the Atlantic seaboard. The reasons for this decline are not clear, though possible causes could include habitat fragmentation, as well as widespread use of insecticides to control mosquitoes and gypsy moths. The butterfly fares better in the western half of its range but is considered relatively secure only in Kansas. The regal fritillary is widespread in western Minnesota but is found in only a few localities in the eastern portion of the state. It is listed as a state species of special concern. In Minnesota's comprehensive wildlife conservation strategy, *Tomorrow's Habitat for the Wild and Rare*, the DNR identifies it as a wildlife species in greatest conservation need. Protection and proper management of remaining native prairies, especially the careful use of prescribed burning, are critical conservation needs for this beautiful butterfly.

Robert Dana

DNR plant ecologist for Minnesota County Biological Survey



female



male



MINNESOTA  
RIVER PRAIRIE

## a closer look at **CRITICAL HABITAT**

The regal fritillary occurs in 11 of the 25 ecological subsections highlighted in *Tomorrow's Habitat for the Wild and Rare: An Action Plan for Minnesota Wildlife*. It has been most frequently surveyed in prairies of the Minnesota River valley. In the 1890s, prairies covered almost 80 percent of this region. Today, more than 80 percent of the land cover has been converted into row crops. To read more about the region and its conservation priorities, visit [www.dnr.state.mn.us/cwcs/subsection\\_profiles.html](http://www.dnr.state.mn.us/cwcs/subsection_profiles.html).



larva