

**FIRST REPORT OF *CALLEIDA (CALLEIDA)*
PURPUREA (COLEOPTERA: CARABIDAE)
IN MINNESOTA AND A NOTE ON ITS OCCURRENCE
ON PASQUE FLOWER^{1,2}**

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ABSTRACT: The carabid beetle species, *Calleida purpurea* is reported here for the first time from Minnesota. At present, no published records exist for the adjacent states of North Dakota and Iowa. This species has been reported (cited as rare) from South Dakota (Kirk and Balsbaugh 1975), Wisconsin, and Manitoba (Bousquet and Laroche 1993).

A total of 38 specimens of the carabid beetle, *Calleida purpurea* (Say) was collected from pitfall traps on the Felton Prairie Complex, Clay County, northwestern Minnesota, at 47°03'20"N, 96°25'45"W. Specimens were collected from May-September, during 1995 through 1999. On 14 May 1998, a single specimen was collected from Pasque flower, *Anemone patens* Linnaeus, during routine early season set-up of field transects. Before its collection, this specimen was observed moving about on the flower.

All specimens were collected from 3 adjacent transects within the Felton Prairie Complex. The transect sites are located on dry tall-grass prairie. Pitfall traps were placed on gravelly ridges which grade from east to west, onto slightly mesic prairie. Vegetation on these sites consists of dry ground, tall-grass prairie indicator species such as Pasque flower, *A. patens*, Purple Coneflower, *Echinacea angustifolia* DC., Pussytoes, *Antennaria* spp., and at least two species of Blazing Star, *Liatris* spp.

Taxonomic notes on *Calleida* Latreille & Dejean- Adults of the genus *Calleida* are slender, metallic, medium sized beetles (6.0- 10.0 mm). The genus, in habitus, appears similar to the platynine genus *Agonum* Bonelli, but is distinguished immediately by the presence of one pair of supraorbital punctures (2 pairs of supraorbital punctures are present in the Platynini), and the deeply bilobed or emarginate fourth tarsal segment. *Calleida purpurea* is an uncommon carabid species; adults are readily recognized by the metallic blue-green color of the integument, bilobed fourth tarsal segment, the yellowish-red third and fourth antennomeres, and the rounded hind angles of the pronotum. The species is keyed in Lindroth (1969:1060).

Natural History of *Calleida* Latreille & Dejean- The genus *Calleida* belongs to the large, polygeneric tribe Lebiini. The tribe is most speciose in the tropics, where its members exhibit an arboreal habit. In temperate regions,

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most members of the tribe are ground dwelling or "planticolous"- dwelling on bushes and herbs (Lindroth 1969, Larson 1969). Members of the subgenus *Calleida* Dejean are cited by Lindroth (1969) as arboreal – usually dwelling on bushes and herbs, however, specific ecological details were not recorded for *C. purpurea*. Larson (1969) discussed the arboreal nature of the subtribe Calleidina, noting that many species of the subgenus *Philophuga* Motschulsky [treated by Larson as a genus, see Lindroth, 1969], had been collected from vegetation. In his review, Larson included label data confirming the presence of *Calleida* (*Philophuga*) spp. on specific plant species. The larvae of *C. decora* (F.) and *C. purpurea* were examined by van Emden (1942); however, no ecological information was recorded. Adults of the genus are thought to be predaceous (Lindroth 1969), with *C. (Calleida) punctata* LeConte and *C. (Calleida) decora* being specialized feeders on noctuid and pyralid caterpillars (Watson 1916; Dozier 1917).

The presence of specific plant species on the Felton Prairie Complex, in association with soil type and soil moisture, may be indicative of suitable habitat for *C. purpurea*. All specimens of *C. purpurea* reported from the Felton Prairie Complex occur on sites with similar vegetation, soil type, and similar moisture gradients. On adjacent transects, where soil moisture and floral composition differ, no *C. purpurea* have been collected. The highly fragmented state of such habitat, both locally and regionally, coupled with a previous lack of collecting on such habitats, may perhaps explain the lack of records of this species in Minnesota. All specimens of *C. purpurea* reported here were deposited in the North Dakota State Insect Reference Collection.

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