WALLENGRENIA EGEREMET (HESPERIIDAE): A NEW POPULATION FOR WESTERN CANADA.

**Additional key words:** tall grass prairie, range extension

The Northern Broken-Dash, *Wallengrenia egeremet* (Scudder, 1864) is a species of skipper (Hesperiidae) found in open grassy meadows throughout most of the eastern United States (Layberry et al. 1998). The current range of *W. egeremet* extends from the Gulf Coast through Florida and south-eastern Texas, continuing north to central North Dakota and southern Maine (Burns 1985, Opler et al. 2012). The northern periphery of the range extends into eastern Canada, including southern Quebec, south-central Ontario (MacNeill 1975, Layberry et al. 1998), and southern New Brunswick (Macy and Shepard 1941, Duffy and Garland 1978 as cited in Burns 1985). Recently the northern range of *W. egeremet* has extended into western Canada.

Two male *W. egeremet* were first recorded within the Tall Grass Prairie Preserve, located in the Rural Municipality of Stuartburn, Manitoba, Canada (49° 05’ N, 96° 40’ W) in late June 2006 by Bates (2007). The two males were collected by sweep net at 49° 05’ 17.34 N, 96° 45’ 31.75 W. Between 17 July and 6 August, 2009, eleven male and six female *W. egeremet* adults were collected within the Tall Grass Prairie Preserve by S. Semmler using pollinator pan traps. Four males were observed between 10 July and 14 July, 2010 and three males and two females were observed between 11 July and 18 July, 2011 by R. Westwood.

Previous reports of *W. egeremet* in Manitoba were based on misidentified specimens, with four female Dunn Skipper (*Euphyes vestris* Boisduval) identified as *W. egeremet* in 1955, and an inaccurate record from 1974 (Burns 1985, Klassen et al. 1989). *Wallengrenia egeremet* was absent in comprehensive annual butterfly surveys in southern Manitoba between 1976 and 1988 (P. Klassen and R. Westwood unpublished) in preparation for the publication of the Butterflies of Manitoba (Klassen et al. 1989). *Wallengrenia egeremet* was also absent in extensive surveys for the Poweshiek Skipperling (*Oursimia poweshiek* Parker) and Dakota Skipper (*Hesperia dacotae* Skinner) in the Tall Grass Prairie Preserve between 1996 and 2006 (R. Westwood unpublished, Webster 2003). A record from the Royal Ontario Museum lists at least one specimen of *W. egeremet* being collected from Echo Valley Provincial Park, Saskatchewan, in 1969, although there have been no subsequent reports of the skipper from Saskatchewan.

The Tall Grass Prairie Preserve is the largest remaining tall grass prairie remnant in Canada, with approximately 5000 ha of native prairie owned and managed by several organizations including Nature Manitoba, The Nature Conservancy of Canada and Manitoba Conservation. The Tall Grass Prairie Preserve is separated into northern and southern blocks of similar size, with blocks being approximately 5 km apart. The southern block is characterized by upland tall grass prairie habitat composed of big bluestem (*Andropogon gerardii* Vitman) and little bluestem (*Schizachyrium scoparium* (Michx.) Nash), while the northern block consists of wetter, low lying areas of sedges (*Carex* spp.) and rushes (*Juncus* spp.) (Henne and Diehl 2002 as cited in Westwood and Borkowski, 2004, Hamel et al. 2006). Prairie meadows within both blocks are often separated by marshes or stands of oak (*Quercus* spp.), aspen (*Populus* spp.), and willow (*Salix* spp.) (Henne and Diehl 2002 as cited in Westwood and Borkowski 2004, Hamel et al. 2006). The climate in the Tall Grass Prairie Preserve is continental, with an average of 579.1 mm of precipitation annually, a mean summer temperature of 19.8 °C and a mean winter temperature of −17.1 °C (Environment Canada 2004). The soil is a grey-wooded podzol, having a sandy-loam to clay-loam texture with frequent rock outcrops (Canada Soil Inventory 1989). The shallow slope of the landscape (1–3%), poor drainage and high water table (within 3 m of the surface) generally inhibit agricultural productivity and potential within the Tall Grass Prairie Preserve (Westwood et al. 2011).

The 2009 specimens were collected during pan trapping for the Canadian Pollination Initiative (NSERC-CANPOLIN), a Canadian National Science and Engineering Research Council Strategic Network organizing nationwide surveys of insect pollinators (NSERC-CANPOLIN 2009). Pan traps were set at 10 day intervals along 90 m transects in open tall grass prairie meadows to collect pollinating insects. An alternating colour pattern of yellow, blue, and white pans mimicked the reflectance of various floral species. The majority of *W. egeremet* specimens were collected from blue pans (13 of 17 individuals), with three collected from yellow pans and one individual collected from a white pan. Collection records will be incorporated into the NSERC-CANPOLIN pollinator database, and the...