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Ragged Robin, *Lychnis flos-cuculi* L. (*Caryophyllaceae*), in Canada[1]

Ragged-robin is very distinctive and may readily be distinguished from other *Lychnis* and the closely related *Silene* by its deep rose-red (rarely white) petals which are deeply and irregularly 4-cleft into linear segments. It is a perennial which stands 1 to 2 ft tall, has spatulate rather crowded basal leaves and remote opposite, lanceolate cauline leaves; the stems are rough with retrorse hairs and are somewhat glandular above. This European plant has previously been reported from Newfoundland, Nova Scotia, New Brunswick and Quebec and its occurrence in Ontario is verified in this note.

Camille Rousseau (1968) in his studies of introduced plants in Quebec has noted the increase of *Lychnis flos-cuculi* in the Eastern Townships where it has now become quite common in some low-lying fields, since its first collection there in 1914. A map of the Quebec distribution is given by him.

Hubbert (1867) first recorded this plant as occurring outside cultivation in Canada, but gave no indication as to where it might be found. Indeed, it was listed separately under the heading "Occasionally escaped from cultivation about dwellings, etc." and in his introduction he expanded this statement by ". . . and maintaining a precarious existence; usually disappearing after two or three years."

[1]Plant Research Institute Contribution No. 784.

The only collection cited by John Macoun (1883) in his Catalogue of Canadian Plants, is one which was collected by a Mr. Chalmers at Campbelton, New Brunswick on June 23, 1876 (duplicate specimen ex Herb. James White in DAO). Macoun made no reference to a Hubbert collection so presumably there was no specimen in his hands to substantiate the earlier record.

For Nova Scotia, Roland and Smith (1969) state that it is local in Kings, Yarmouth and Colchester counties but say also that some fields and meadows may be red when it is in flower in late May. They further state "When once it is introduced into a meadow it is persistent but spreads rather slowly".

The only record for Newfoundland is that found in Boivin (1966). This is based on a collection made by David Erskine (No. 3049) which is preserved in the Plant Research Institute Herbarium (DAO), from Holyrood in the Avalon Peninsula.

Boivin (*l.c.*) also doubtfully recorded this plant as occurring in Ontario. The following is a substantiation of the occurrence of *Lychnis flos-cuculi* in that province: ONTARIO: Stormont Co., St. Lawrence Seaway Provincial Park, Morrison Island, in sod in camp area, *W. J. Cody 18498* (DAO). There were about 50 plants at this site. Whether this is a recent introduction or one of long-standing is not known, but it was not collected by Dore and Gillett (1955) during their three year survey of the lands to be flooded or adjacent to the St. Lawrence Seaway. Ragged-robin is quite beautiful when it is in flower and because of this may be transported to new sites from whence it might escape. It is however not likely to become a nuisance in the same manner as more aggressive introductions from Europe.

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Death of Purple Martin Nestlings Apparently Due to Ingested Mollusc Shells

Abstract. In a new Purple Martin colony at Ottawa, most of the young died in the nest. Death of the only two nestlings examined is attributed to gizzard impaction by shell fragments of a locally extinct clam, *Hiatella arctica* (L.).

In August 1970, the carcasses of two nestling Purple Martins, *Progne subis* (L.), about two weeks of age, were submitted to us by an Ottawa resident for examination. They were from a new martin colony of yearling adults in which only one bird had fledged from eight clutches laid in 1970; all the other nestlings had died between ten days and two weeks of age in the fourth week of July.

The condition of the carcasses did not permit a detailed examination; however, we noted that the feathers around the vent of each bird were matted by urates, the intestine was almost empty, and the gizzard was distended and apparently impacted by a mass of clam shell fragments.

The nine fragments from the two birds ranged from 7.5 to 10.5 mm long and from 4.5 to 9.0 mm wide. They were identified by Dr. A. H. Clarke, National Museum of Natural Sciences, as *Hiatella arctica* (L.). Shells of this saxicavid clam are abundant in the vicinity of Ottawa in exposed sediments of the Champlain Sea, which covered this region between 4,500 and 7,000 years ago (Flint 1957). Although Allen and Nice (1952) did not record ingestion of non-living material by martins, Sprunt (1942) referred to observations of martins pulling at oyster shells in a cement wall, ingesting bits of chicken eggshells and feeding pieces of the latter and small snails to the young. We have observed a female Brown-headed Cowbird, *Molothrus ater,* audibly removing and eating minute chips from *Hiatella* remains, but martins are probably incapable of reducing these hard shells to pieces small enough to be digested by nestlings.

Allen and Nice (1952) concluded that the most significant factor in mortality of nestling Purple Martins was weather, unusually high temperatures causing premature fledging and low temperatures resulting in starvation due to decreased food supply. Between July 12 and July 22, 1970, air temperatures at Ottawa averaged about 5°F below normal (data supplied by Department of Transport). This cool weather did not seem to depress insect abundance sufficiently to cause noticeable mortality in other martin colonies in the Ottawa Valley (W. E. Godfrey, Nat. Mus. Nat. Sci., pers. comm.). However, on July 19, air temperatures were 13°F below normal, showers occurred, and there were strong winds throughout the day; consequently, insect availability was probably greatly reduced. Possibly, the inexperienced yearling martins responded by utilizing *Hiatella* fragments to feed the nestlings.

We thank W. Earl Godfrey for information on martin biology and for suggesting several references.

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