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Certain Mollusks of the Environs of St. John, New Brunswick, Canada

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Certain Mollusks of the Environs of St. John, New Brunswick, Canada

RICHARD W. COLEMAN

Abstract. This discussion is based upon a paper entitled "A REPORT TO THE PROVINCIAL DEPARTMENT OF PUBLIC HEALTH, PROVINCE OF NEW BRUNSWICK, CANADA, ON A SURVEY FOR CERTAIN MOLLUSKS OF THE ENVIRONS OF ST. JOHN, NEW BRUNSWICK, CANADA" sent to the New Brunswick Provincial Health Department in January, 1966. From this survey 17 different groups of mollusks were collected: *Acmaea testudinalis* Muller, *Amnicola limosa* Say, *Gyraulus parvus* Say, *Helisoma campanulatum* Say, *Littorina littorea* L., *Littorina saxatilis* Olivi, *Lymnaea emarginata* Say, *Lymnaea palustris* Muller, *Lymnaea* sp., *Mya arenaria* L., *Mytilus edulis* L., *Paludetrina minuta* Totten, *Physa sayi* Toppan, *Physa* sp., *Polinices heros* Say, *Sphaerium securis* Prime, and *Succinea awara* Say. From fresh water collections *Lymnaea palustris* Muller was the predominant species followed by *Physa sayi* Toppan and *Sphaerium securis* Prime. From marine collections *Littorina littorea* L. was the predominant species followed by *Mytilus edulis* L. Other biological notes from this survey were given. Specific acknowledgement for identification of these specimens by the staff, Natural History Branch, National Museum of Canada, Ottawa, Ontario, Canada, is cited.

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PROVINCE OF NEW BRUNSWICK, CANADA, ON A SURVEY FOR CERTAIN MOLLUSKS OF THE ENVIRONS OF ST. JOHN, NEW BRUNSWICK, CANADA" that was sent to the New Brunswick Provincial Health Department January, 1966. This study was based upon an arthropod-mollusk survey conducted in the summer of 1962 in the environs of St. John, Province of New Brunswick, Canada. Similar surveys were made before 1962 in the Yukon Territory and in the provinces of Alberta, British Columbia, Manitoba, Ontario, Quebec and Saskatchewan; and after 1962 in the provinces of Nova Scotia and Prince Edward Island.

This report on the study of certain mollusks of the environs of St. John, New Brunswick, Canada, was divided into two parts. Part I, the preliminary report, cites the localities where organisms were collected in this survey so an idea can be derived as to the breadth and scope of the survey. In addition it is important to indicate in what areas these organisms have not been found so that ecological interpretations of data may be made for other workers.

The definitive report, Part II, elaborates information pertaining to the specific mollusks collected from certain areas in the region of St. John and environs in New Brunswick, Canada.

DETAILS OF THE SURVEY

From this survey representatives of the following 17 different groups of mollusks were collected: *Acmaea testudinalis* Müller, *Ammicola limosa* Say, *Gyraulus parvus* Say, *Helisoma campanulatum* Say, *Littorina littorea* L., *Littorina saxatilis* Olivi, *Lymnaea emarginata* Say, *Lymnaea palustris* Müller, *Lymnaea sp.*, *Mya arenaria* L., *Mytilus edulis* L., *Paludetrina minuta* Totten, *Physa sayi* Toppan, *Physa sp.*, *Polinices heros* Say, *Sphaerium securis* Prime, and *Succinea avara* Say.

Ammicola limosa Say, *Gyraulus parvus* Say, *Helisoma campanulatum* Say, *Lymnaea emarginata* Say, *Lymnaea palustris* Müller, *Lymnaea sp.*, *Physa sayi* Toppan, *Physa sp.*, *Sphaerium securis* Prime, and *Succinea avara* Say were collected from fresh water habitats. *Lymnaea palustris* Müller was the predominant species found in these fresh water collections, followed by *Physa sayi* Toppan and *Sphaerium securis* Prime.

Acmaea testudinalis Müller, *Littorina littorea* L., *Littorina saxatilis* Olivi, *Mya arenaria* L., *Mytilus edulis* L., *Paludetrina minuta* Totten, and *Polinices heros* Say were collected from marine habitats. *Littorina littorea* L. was the predominant species found from these marine collections, followed by *Mytilus edulis* L.

Littorina has been found on rocks as well as on sandy beach,

especially near the high tide line but also in the intertidal area. Members of this genus are associated with shallow water; however, they have often been seen out of the water and crawling on rocks in the intertidal zone. *Mytilus edulis* L., the second most common mollusk found in marine areas, occurred in large clumps in the intertidal zone. They are seen many times on piling, especially on pier piling; however, they often occur in other intertidal areas. In general the field work showed results comparable to those of Stephenson and Stephenson (1952). Their studies of the tidal zones of a beach showed that periwinkles of the genus *Littorina* dominated the area around the average high tide level, while more common in the intertidal zone were mollusks of the genus *Mytilus* in association with barnacles of the genus *Balanus* and a variety of seaweed of the division Phaeophyta.

In fresh water areas, *Lymnaea palustris* Muller was found mostly at the edges of roadside pools and in pools along the St. John River; however, it was also found at the edge of Lily Lake. *Physa sayi* Toppan, the second most common species, was found mostly at the edge of Lily Lake and in pools along the edge of the St. John River. *Gyraulus parvus* Say was also found at the edge of Lily Lake. It occurs commonly in lakes and quiet pools and in association with green algae, duckweed, submerged dead leaves, blades of grass, or on floating pieces of timber. *Sphaerium securis* Prime was taken from pools in a swamp near Hampstead Ferry Slip of the St. John River as well as from the Magaguadevic River. *Helisoma campanulatum* Say occurred at the edge of Lily Lake. *Succinea avara* Say was found at the edge of a roadside pool.

Specific acknowledgement for identifying these specimens is extended to the staff, Natural History Branch, National Museum of Canada, Department of Northern Affairs and National Resources, Ottawa, Ontario, Canada.

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