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# INSECTS

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## A SUMMARY OF SASKATCHEWAN BEETLES

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*Common Red Lady Beetle, Coccinella transversoguttata* R. Hooper

When it comes to biodiversity, there are more species of beetles in the world than any other living creatures. Someone has aptly remarked that the Creator must have had a great fondness for beetles for He made such a variety of species. Over one third of a million species have been named worldwide, with many new ones being named every year. (As far as numbers of individuals go, however, ants would have them beat).

Beetles can be found in nearly every habitat imaginable. The more diverse habitats a beetle collector looks in, the more species he is going to find. They are on the ground, under the ground, on roots, on (or in) plant stems (or trunks), under bark, on twigs and leaves, and in tree-tops. Different kinds are in muddy water, calm water, running water, and swiftly flowing water. Special species

feed on special kinds of flowering plants and on fungi. They are in nests, dung, and carrion. They are on hill-tops, in sand, and in mud. They are in barns, granaries, houses, and cellars. Our largest species of beetle is the Giant Water-scavenger Beetle (*Hydrophilus triangularis*). It is 39 mm from the front of the head to the tip of the elytra. Our smallest beetles are some of the feather-winged beetles, which are barely over one half a millimetre long.

The nucleus of the provincial beetle collection in the Royal Saskatchewan Museum (RSM) in Regina, Saskatchewan is the Cliff Shaw collection that was donated to the museum after he passed away in 1959. It contains 472 Saskatchewan species collected mainly at Yorkton, Madge Lake, and Waskesiu between 1937 and 1951. Over the years a collection of Saskatchewan beetles was built up at the Department of Agriculture Research Station in Saskatoon. By the mid-1960s this collection contained 835 species.

I started collecting beetles near Somme, SK in 1953. By 1969 I had 857 Saskatchewan species in the collection, and by 1980, 1,161 Saskatchewan species. These were mostly from Somme, Punnichy, and Fort Qu'Appelle. I donated my private collection to the RSM and it was incorporated into the museum's collection. The museum collection is housed in 100 glass-topped drawers in 5 cabinets. The majority of the collection has been identified by specialists in Ottawa, Edmonton, St. John's, and New York.



*Long-horned Beetles on rose* R. Hooper  
*upper - Cortodera longicornis,*  
*lower - Cyrtophorus verrucosus*

Beetles continued to be collected for the museum on many field trips throughout the province from 1964 on and other additional specimens are added annually. As of June of 2001, the RSM beetle collection contained 28,316 specimens of 1,784 species. The total for the province (counting known records in other collections and unidentified species) is 2210.

The museum has approximately 140 unidentified species in its collection. Some of these are species that have not yet been named. These wait for a specialist to revise their families or genera, and give them names. In 1995, Dr. A. Smetana published a book on the Philonthini group of rove beetles in North America. In this book, he named five new species that occur in Saskatchewan. In 1999, Dr. Y. Bousquet and S. Laplante wrote a book on the Histerid Beetles of Quebec. In it, they named two Quebec species that range west to Saskatchewan, giving us names for two more of our species.

The total number of beetle species recorded for Canada in 1991 was 7,447 species, with 7,279 in the 81 families that occur in Saskatchewan.<sup>1</sup> The current list of 2,210 species for Saskatchewan is far from

being complete; it is expected that the total for Saskatchewan could be over 5,000 species, so we have a long way to go yet!

Following is a chart of the 81 known Saskatchewan beetle families. In most cases, the numbers referred to are up to June 2001. The first column shows the total number of Saskatchewan species in each family and includes species in the RSM collection and known records in other collections. The second column gives the number of Saskatchewan species in the RSM and the third, the number of specimens in the RSM. The fourth column tells the number of species listed for Canada from each family, based on Bousquet (1991).

BOUSQUET, Y. 1991. Checklist of Beetles of Canada and Alaska. Research Branch, Agriculture Canada, Ottawa.

BOUSQUET, Y. and S. LAPLANTE. 1999. Les Coleopteres Histerides du Quebec. Association des entomologistes amateur du Quebec. Varennes, Quebec.

SHAW, C. 1953. Saskatchewan Beetles. *Blue Jay* 11 (1): 27.

SMETANA, A. 1995. Rove Beetles of Subtribe Philonthina of America North of Mexico. Associated Publishers, Gainesville, FL.



*May Beetle, Phyllophaga anxia*

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Common name	Scientific name	SK sp.	RSM sp.	RSM Nos.	CA sp.
1. Trachypachid Beetles	Trachypachidae	1	1	2	2
2. Ground and Tiger Beetles	Carabidae	322	307	7,438	937
3. Crawling Water Beetles	Haliplidae	11	9	313	37
4. Predaceous Diving Beetles	Dytiscidae	132	114	2,842	262
5. Whirligig Beetles	Gyrinidae	26	20	769	36
6. Minute Moss Beetles	Hydraenidae	5	4	44	27
7. Feather-winged Beetles	Ptiliidae	6	6	29	29
8. Small Scavenger Beetles	Leiodidae	38	15	129	123
9. Antlike Stone Beetles	Scydmaenidae	1	0	0	46
10. Micropeplid Beetles	Micropeplidae	3	2	3	10
11. Carrion Beetles	Silphidae	18	18	415	25
12. Rove beetles	Staphylinidae	243	187	1,550	1,084
13. Shining Fungus Beetles	Scaphidiidae	4	4	23	17
14. Short-winged Mold Beetles	Pselaphidae	9	1	1	84
15. Water Scavenger Beetles	Hydrophilidae	60	51	2,289	149
16. Hister Beetles	Histeridae	38	28	229	118
17. Plate-thigh Beetles	Eucinetidae	3	2	7	7
18. Minute Beetles	Clambidae	2	2	4	7
19. Marsh Beetles	Scirtidae	3	1	119	26
20. Stag Beetles	Lucanidae	2	1	14	14
21. Scarab Beetles	Scarabaeidae	75	59	1,421	248
22. Pill Beetles	Byrrhidae	12	12	223	26
23. Metallic Wood-boring Beetles	Buprestidae	48	34	324	152
24. Variegated Mud-loving Beetles	Heteroceridae	14	3	656	25
25. Longtoed Water Beetles	Dryopidae	1	1	3	6
26. Riffle Beetles	Elmidae	4	0	0	32
27. Click Beetles	Elateridae	102	76	809	367
28. Throscid Beetles	Throscidae	1	1	1	9
29. False Click Beetles	Eucnemidae	4	3	3	32
30. Net-winged Beetles	Lycidae	5	3	20	29
31. Fireflies	Lampyridae	9	9	189	29
32. Soldier Beetles	Cantharidae	15	14	300	123
33. Carpet and Skin Beetles	Dermestidae	20	18	208	46
34. Bostrichid Powder-post Beetles	Bostrichidae	4	2	2	18
35. Deathwatch Beetles	Anobiidae	18	18	48	79
36. Spider Beetles	Ptinidae	8	3	28	16
37. Bark-gnawing Beetles	Trogossitidae	6	6	37	22
38. Checkered Beetles	Cleridae	13	10	124	50
39. Soft-winged Flower Beetles	Melyridae	14	14	180	49
40. Dry-fungus Beetles	Sphindidae	1	1	1	5
41. Sap Beetles	Nitidulidae	37	34	264	101
42. Root-eating Beetles	Rhizophagidae	5	2	5	24
43. Flat Bark Beetles	Cucujidae	12	9	50	31
44. Silken Fungus Beetles	Cryptophagidae	24	27	157	66
45. Lizard Beetles	Languriidae	1	0	0	7
46. Pleasing Fungus Beetles	Erotylidae	4	4	83	20
47. Shining Flower Beetles	Phalacridae	14	14	123	5

48.Cerylonid Beetles	Cerylonidae	2	2	6	7
49.Minute Fungus Beetles	Corylophidae	3	2	9	11
50.Lady Beetles	Coccinellidae	75	51	1,343	162
51.Handsome Fungus Beetles	Endomychidae	2	2	21	15
52.Minute Brown Scavenger Beetle	Lathridiidae	15	15	156	55
53.Fruitworm Beetles	Byturidae	1	1	1	1
54.Hairy Fungus Beetles	Mycetophagidae	9	8	33	15
55.Tetratomid Beetles	Tetratomidae	1	0	0	9
56.Minute Treefungus Beetles	Ciidae	6	3	48	29
57.False Darkling Beetles	Melandryidae	12	12	22	55
58.Tumbling Flower Beetles	Mordellidae	31	27	137	70
59.Wedge-shaped Beetles	Rhipiphoridae	2	0	0	10
60.Cylindrical Bark Beetles	Colydiidae	1	0	0	21
61.Darkling Beetles	Tenebrionidae	30	27	490	135
62.Lagriid Beetles	Lagriidae	2	2	5	6
63.False Long-horned Beetles	Cephaloidea	3	3	4	9
64.Blister Beetles	Meloidae	25	22	486	49
65.False Blister Beetles	Oedemeridae	3	3	11	13
66.Borid Beetles	Boridae	2	2	4	2
67.Pythid Beetles	Pythidae	4	4	9	6
68.Fire-colored Beetles	Pyrochroidae	2	2	4	12
69.Narrow-waisted Bark Beetles	Salpingidae	1	1	2	10
70.Antlike Flower Beetles	Anthicidae	25	21	254	55
71.Pedilid Beetles	Pedilidae	3	3	30	19
72.Scraptiid Beetles	Scraptiidae	5	5	30	21
73.Longhorned Beetles	Cerambycidae	77	71	776	354
74.Seed Beetles	Bruchidae	11	5	16	19
75.Leaf Beetles	Chrysomelidae	209	150	1,948	569
76.Fungus Weevils	Anthribidae	6	4	6	18
77.Leaf-rolling Weevils	Attelabidae	1	1	8	4
78.Leaf and Bud Weevils	Rhynchitidae	6	5	54	13
79.Pear-shaped Weevils	Apionidae	18	11	27	35
80.Snout Beetles(Weevils)	Curculionidae	176	145	776	609
81.Bark Beetles	Scolytidae	43	24	121	204
<b>TOTALS</b>		<b>2,210</b>	<b>1,784</b>	<b>28,316</b>	<b>7,279</b>



“From the sap beetle pollinators of western spicebush to the specialized scarab beetles that enter and pollinate the flowers of the giant Amazonian waterlilies, beetles are the customers and pollen vectors of choice for thousands of flowering plants on most continents....Approximately 30 families of beetles are today engaged in the pollination trade, often acting as what has been termed ‘mess-and-soil pollinators.’ While the label is not terribly flattering to this ancient lineage of inordinately successful insects, it does indicate their mode of entry and gustatory pursuits.

- Buchmann and Nabhan, *The Forgotten Pollinators*, p.95