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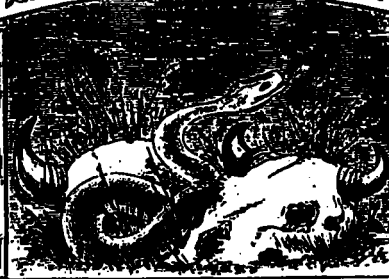
THE

CHYAGKHA SPORING MEN



NATURALIST

A MONTHLY JOURNAL



VOL. III
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1883.

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THE CANADIAN SPORTSMAN AND NATURALIST.

No. 3.

MONTREAL, MARCH, 1883.

VOL. III.

WILLIAM COUPER, Editor.

We cannot supply complete sets of vol. I of this journal—some of the numbers are exhausted.

CAUSES OF RARITY IN SOME SPECIES OF INSECTS.

Entomologists know that some species of insects are generally few in individuals, while others are numerous. Those which are useful to man, and have been, so to speak, domesticated by him, are, of course, kept up in as large numbers as possible, by the care and protection bestowed upon them. But the rest are left to the care of nature, and in the balancing of the great system of life, are subject to various influences, which affect them injuriously or otherwise. An enquiry into the causes which act in reducing their numbers would be both interesting and instructive, particularly in the case of those species which are *always* rare. Of course, some of these causes are easily discovered, but others, which may still be important, are obscure and difficult to trace out. For instance, a species may be rare, owing to the scarcity of its food plant. We cannot expect to find an insect, which may be confined to a single food plant, abundant where that plant is scarce. And an abundant species may be rendered rare in a given locality by the diminution of its food plant, say by the increase of cultivated ground, or by fire, &c. The following illustrates the point: The Gomin swamp, a well known collecting ground, close to the city of Quebec, is, or was, a breeding place of *Chionobas julia*, a Labrador butterfly, which is not found in any other place within twenty miles of that locality. During the past fifteen years the swamp has been largely trenched and drained, and the butterflies have become scarce, no doubt owing to the loss of the food plant, which is probably some lichen or moss growing there. Another cause of the scarcity of some insects is their liability to parasitic attacks. The beautiful moth, *Samia Columbia*, might be given as an instance of this. Mr. S. I. Smith, the describer of the species, says in his paper, "This spe-

cies seems to be infested by an unusually large number of parasites, since, out of more than twenty cocoons, I have succeeded in raising but three, nearly all the rest having been destroyed by ichneumonids and other parasites. Its remarkable rarity is, perhaps, due to this fact." I may add that collectors in Canada have had a similar experience with this moth. Another case is that of *Pieris rape*, which threatened to be a real scourge to the country, but has been reduced within reasonable bounds by the assistance of the insect parasites preying upon it. A third cause, particularly in the case of noxious insects, is the efforts made by man to extirpate those which destroy his crops or injure him in other ways. These efforts sometimes make an injurious insect rare, but no insect has become extinct from this cause, as far as we know, nor is it probable that such will ever be the case. Among causes more remote than the above mentioned, and more difficult to trace, are variations in climate, and in the seasons, as compared with one another. The way in which insects are affected by different conditions of the atmosphere, and by hot and cold seasons, has not been thoroughly studied as yet. In some years, for example, the Lepidoptera are much more numerous than in other years. Their abundance, or the opposite, is no doubt dependent in a great measure on the weather of the preceding summer and winter, as well as on that of the passing season. And what may be favorable weather for the Lepidoptera may be unfavorable for insects of other Orders. The knowledge of what constitutes favorable conditions for the increase of noxious insects would be of practical value to the agriculturist, and is a subject worthy of the study of our entomologists. Another cause of the intermittent abundance and scarcity of some species is to be found in their migratory habits. In the case of the locust, this is evident to all. Some of the butterflies, belonging to the families PIERIDÆ, NYMPHALIDÆ and DANADÆ also have this habit. Some years *Pyrausta cardui* or *Vanessa Talbum* will be plentiful about Montreal, and then for a series of years will be exceedingly rare. The explanation of the mystery probably is that a large number of the insects have migrated to the locality during

the season when they were abundant. The chief interest of the subject, however, centres in the fact that some species are *always* rare. Sometimes this may be partly accounted for by the scarcity of the food plant, or by their being subject to attacks of parasites to an unusual degree, but still there may be other reasons. Are such species dying out? And will they in a comparatively short time become extinct from purely natural causes? It is generally admitted that all animals receive at birth a vital impetus, sufficient to ensure their living for a certain period of time, which varies in length according to the species. That is, when not tainted by hereditary disease. This impetus carries each individual through a certain progress of growth, maturity and old age, provided accident or fatal illness does not intervene. In the case of man, this period is about seventy years. Yet we know that many a man, blessed with a vigorous constitution, is as strong and healthy at eighty as others are at sixty, a result due in a great measure to a difference in inherent vitality. This is the case with animals, including insects. The latter live out their allotted time and die of old age, just as men do. Sir John Lubbock describes the death of his pet wasp as being evidently from this cause. And here, I may say that the Hymenoptera have among them insects which live longer than any other in the perfect state. Sir John Lubbock has had ants seven years old in his formicaries. Now, as there is an individual vitality in animals, giving to each a certain life period, which varies according to the species, may there not also be a specific vitality? May not species, as well as individuals, have an allotted time, and grow old and die? If such is the case, insects would give the best opportunities of studying the subject. The rapidity of the changes they pass through, and the quick succession of generations, would lead us to expect that, in a comparatively short time, many species might run their course, and become extinct from mere loss of specific vitality. The speculation is an interesting one, but its value will not be proved for a long time to come. I lately met, however, with an item in an old number of the "Zoologist," (page 7995) which seems to have some bearing on the subject. It is a communication from Dr. Wallace to the Entomological Society of London, and reads as follows:

Remarks on the occurrence of Rarer British Sphingidae.

"The fact that in many female Sphingidae

captured in Great Britain and Ireland, in the autumn months, no *ora* have been found, induces the question as to whether some species may or may not be continuously indigenous. Many think that the absence of *ora* in the female is merely a question of time, as in the case of *A. atropos*, the females of which, notoriously devoid of eggs in the forced autumn specimens, are found in June depositing *ora*, whence the brood is perpetuated. Others maintain that it is a question not of time only, but also of place; for taking *S. concolor*, females of which are constantly taken in the autumn months, almost invariably without eggs (in 1846 and 1859 the species occurred most freely; one individual took nearly fifty specimens in 1859, all the females of which were destitute of *ora*). In this case either a female is hatched in the autumn with eggs, hibernates and deposits *ora* in the spring, or emerges in the spring from the *pupa*, or else specimens fly over from abroad and deposit *ora* in this country. I would ask has *S. concolor* ever been taken or observed in the spring or early summer in this country, and if so in what condition or of what sex? Are we to look for a development of females of *D. lineata* without eggs, in the autumn months, if a hot summer intervenes? A series of observations carefully made as to time, place, condition, sex, and also as to the complete development of sexual organs of any or all of the rare Sphingidae, would help to resolve the question. I commend it to the attention of entomologists." The interesting fact here stated is, that numbers of females among the rarer Sphingidae in England, taken in autumn, are destitute of *ora*, and consequently incapable of continuing the species. Dr. Wallace seems to imply that hot weather is a cause of the phenomenon, the absence of *ora* being a result of the forcing process. May there not be other and more important causes working with this to bring about such a remarkable result? From what we know of the development of insects, the effect of an abnormal degree of heat, (within certain limits) on the *pupa*, is merely to hasten the appearance of the *imago*, and not to interfere with the perfection of its organs. It seems probable, therefore, that this failure in the due development of these most important organs is owing to a weakness in the specific vitality of these moths, tending to their complete extinction. A strong instance is that of *S. concolor*. Dr. Wallace asks if it has ever been taken in the

earlier part of the year. Newman gives September as its regular time of appearance. Yet many females of this species, at their regular time of appearance, are found destitute of *ora*, and the inevitable consequence is its rarity, and possibly its dying out, at least in England, unless (as intimated by Dr. Wallace) it is kept up by fresh specimens flying over from abroad. There is another cause of the rarity of some species, but its mode of operation is difficult to discover. Sometimes the introduction of an insect from another country, if it become abundant in its new *habitat*, will affect injuriously a native species, generally one allied to the species introduced. It is the general opinion of entomologists in the Province of Quebec, that since the acclimatization of *Pieris rapae*, the native *Pieris oleracea* has become scarce. The newcomer seems in some mysterious way to have usurped the place of the other species, and driven it away from places where formerly it was abundant. How this has been accomplished, however, we cannot tell.

G. J. BOWLES.

THE HUDSONIAN CHICKADEE.

(*Parus Hudsoniensis*.)

The true home of the Hudson Bay Tit, as this species is generally called, is in the more northern parts of the continent, in Labrador and the Hudson Bay region, with a range in those latitudes from the Atlantic to the Pacific; though at the east it is met with much further south than in the middle or western sections. It is a resident of Nova Scotia and New Brunswick, breeding in both Provinces, where, though not abundant, it is far too common to be called rare, though it is more frequently met in winter than at other seasons. According to Mr. Everett Smith it is a common resident of the interior eastern and northern portion of Maine. Mr. Harry Merrill writes me that he has not known it to occur near Bangor, nor is it given in Mr. Nathan C. Brown's catalogue of Portland species, but there are records of a few being taken in New Hampshire, Massachusetts, and Connecticut. Mr. LeMoine in *Les Oiseaux du Canada* mentions it as a rare species (*plus rare en Canada*), and it certainly is along the entire southern section of the western Provinces, for Mr. Wintle does not appear to have found it near Montreal, nor is the name in the Saunders-Morden list, nor in Mr. Melbwaith's old list of Hamilton

species. Professor Maccom has not placed it in his partial list of Belleville birds, nor did he find the bird in the Grand Valley of the Assiniboine. It is not given in the catalogue of the Ottawa Field Naturalists' Club, though in the copy before me the name has been penned in by one of the members in place of *rufescens*, the latter being an obvious error as that species was discovered by Townsend on the Columbia River, and it has never been taken north or east of that region. But this is an error easily made unless the *habitat* of the two species is considered, their plumage being similar.

Of the eighteen species of the *Parus* found in North America the most widely distributed and the best known is the Black-capped (*P. atricapillus*), the type species of the family. This bird is found in all suitable localities along the southern borders of the Dominion (as well as much further south) from the Atlantic to Manitoba. In the latter Province and across the Plains to the Rockies it is replaced by *septentrionalis*, which Mr. Ridgway says "may be looked upon as simply a long-tailed western variety of the common species." Beyond the Rockies this is again replaced by still another variety, named by Baird *occidentalis*. Of the Hudson Bay Tit no variation in the western specimens has as yet been recorded. But it is in form and coloration, only that the species of the family exhibit any marked differences, for no matter what way they bear, nor where they make their homes, you will find them the same restless, merry, sociable pygmies with all the familiar habits of the Black-cap. Their songs also bear a strong general resemblance—if the jingling chant in which they carol their joy can be called a song—for whether the singer be he of the black tuft whose voice is heard on the banks of the Rio Grande; or *Carolinensis*, who helps to swell the chorus which comes up from "the Land o' Dixie;" or our own brown-capped hero, whose tiny throistle flings a welcome to the sun as its light breaks upon the hills of the far north, or be he whatever member of this family he may, the theme of his song is much the same jaunty *chee-dee-dee-dee* as rings through our Canadian woods the whole year long. The song of the Black-capped and the Hudsonian are especially similar, and their general appearance and their manners in the field, particularly the latter, are so alike as to make their exact identification rather difficult; yet even in

their actions and their numerous notes there is a difference, though I confess it is not easily defined, but after some study their identification becomes unquestionable. In the northern bird the crown of black edged with white, so conspicuous in the congener, is replaced by a crown of rich brown edged with ashy; the throat also is brown, and the entire upper parts are more brown than ashy. Then the head does not appear so round, so much like a ball of down as the Black-cap's does, and the whole plumage partakes less of the stuffy character. The feathers appear firmer and set close to the body giving the bird, in a slight degree, a trimmer and more warbler-like look. And just as this additional stiffness in the contour feathers increases the dignity of the bird's appearance so does a slight stiffness in his movements add to the dignity of the bird's manners—if dignity is at all applicable to a bird who will persist in hanging to a limb with his head downwards and acting otherwise like a romp-loving school boy just after a circus has passed his way. For like all the race the Hudsonian lives principally on the eggs and larvae of insects, which it finds in the crevices of the bark of trees, and in hunting after these it performs a variety of amusing and wonderful gymnastic feats, though I have never seen one attempt to climb the trunk of a tree as do their next of kin, the creeper. But in all these movements this species exhibits just a little less of that rollicking style—that free abandon which is so pronounced in the antics of the Black-cap. And in the songs of the two you can trace a difference of a somewhat similar character; that of the Hudsonian lacks the extreme sweetness and smoothness of its cousins. The voice is harsher and the syllables are delivered more distinctly and more deliberately. But with all their efforts to affect boarding-school airs they must be rather genial fellows, for in the autumn and winter troops of six or eight are met together and generally in company with as many Black-caps and a small contingent of Kinglets. Tree Sparrows sometimes join the party, and but a few days ago I met such a troop “doing” the rounds of the trees in one of the public squares of this city with a pair of Downy Woodpeckers following close in their rear.

The Hudsonians chatter away as they hunt for their food from branch to branch and tree to tree, but they do not always sing their full song; more frequently the first note heard

from an advancing flock is something like *tsay-day-day*, the last syllables rather lengthened or a sharper, quicker *te-lect-chee-chee*, and occasionally a guttural *tsé-pu-pu-pu*. They have numerous other minor notes with which they fill in the intervals, and one, which they use chiefly when resting under the cover of heavy evergreen foliage, and in such places as they select for sleep, is like the thin *tsip* of a Kinglet. While on their foraging expeditions, and indeed at all times, they exhibit no symptoms of shyness and appear quite indifferent to the presence of mankind, occasionally pausing to gaze at an inquisitive intruder with a comical “who-are-you-looking-at?” air, and probably following this by some performance around a limb, as if to show off their athletic capabilities.

In the spring these gay companions separate, each taking a mate, and starting boldly into housekeeping affairs. It has been stated that the Hudsonian Chickadee selects a deep forest for the site of its nest, and this may be the general rule, but of the four nests that I have seen neither were placed in any such seclusion. The one most carefully hid away was in a rather thick swamp, but was quite close to the out-kirt of a village and within a hundred yards of a much used highway; two of the others were in open pastures through which children played daily; while the fourth was in a telegraph post within a hundred yards or so of a railway station. During last season I was enabled to examine two nests of this species before they were removed from their original positions, one of these was found near Edmundston, not far from the Quebec border, by Mr. H. A. Purdie, of the Nuttall Club, Cambridge, and the other was discovered by Mr. James W. Banks within an hour's walk of this city. These two nests were so nearly alike both in position and construction that a description of one will apply equally well to either. They were placed in decayed and weather-beaten stumps (apparently spruce or fir), some three feet high and five inches in diameter, but unlike the Black-cap, who makes an entrance from the *side*, these builders had entered the stump from the top, beginning with a hole of about two inches diameter, which size was maintained for some six or eight inches, when it was increased gradually to about three inches, and this width was continued to the base of the excavation some twelve to fourteen inches from the top. At the bottom of this cavity, under the nest proper,

were two mats or platforms. The first or lowest of these, which was about one inch and a half thick, was composed of dry moss firmly packed, and upon this was placed another such mat made of the inner fur of the common hare, firmly felted into a compact mass. Upon this latter rested the cup-shaped nest made of the same felted fur and of such precise and graceful form as to have been no discredit to a more cultured artist. The walls of the nest were two and one-half inches high and half an inch thick. There was no other material used as a lining, but the interior had a soft woolly surface not observable on the outside of the walls. There were five young in one nest and six in the other, and both broods were in much the same stage of development, although the Edmundston nest was seen on June 14th, and the St. John nest on July 1. It has not been my good fortune to see the eggs of this species, but Mr. H. B. Bailey, of the Linnæan Society of New York, who took several nests at Steviacke, in Nova Scotia, during June, 1881, told me that the eggs differed but very slightly from those of the Black-capped. They are much the same size and shape, perhaps a shade smaller, but with the same white ground and irregular brownish-red and pinkish markings. I have seen it stated that they lay as many as eight and ten eggs, but I have never seen more than seven nor less than five young in the nests that I have examined. With all their reckless rollicking ways the Hudson Bay Tits make most devoted husbands and fathers, and though generally in a merry mood can be fierce when occasional demands and are always bold and courageous, as many an intrusive rodent and feathered egg thief has discovered; yet I have seen nothing in their actions to indicate the probability of the family fights noted by Wilson, nor of the display of fierce temper when despoiling their nests that has been mentioned by Audubon, Dr. Brewer and others, and I have had some opportunity to observe the latter. For example, my friend Purdie is kind and tender-hearted to a fault, and when he saw that his Hudsonian nest was filled with young he shrunk from any unnecessary sacrifice of bird-life; but he is an enthusiastic collector, and he wanted that nest. After consulting, we determined to open the stump, take out the nest and replace it with one made of cotton-wool. This was successfully accomplished, but between our desire not to injure the nest, and the stubbornness of the stump, there was considerable time absorbed in the

operation; and all this time the parent birds hovered about us with a patient submission to the inevitable that was almost sublime. Their movements had lost the merry reckless dash so characteristic of their race, and while they passed fearlessly from bough to bough close around us, watching us with intense interest, they uttered only a few anxious notes and maintained a calm and dignified bearing that was unimpeachable.

MONTAGUE CHAMBERLAIN.

St. John, N. B.

BIRDS OF WESTERN ONTARIO.

SIR,—I have been very much interested in the January number of your paper and really delighted with the ornithological contributions it contains, but more particularly with the correspondence of Mr. Mellwrith of Hamilton, containing some careful criticisms on the list of birds of Western Ontario, given by Mr. W. E. Saunders and myself. Concerning the wintering of *Regulus calendula* in Ontario. I can say but very little, as I did not positively observe it myself; I never hunt much among the evergreens along the Thames, where it is said to winter. The Great Northern Shrike (*Lanius borealis*) is scarce here in winter, but sometimes it is common in October, remaining until after the first storms of snow, when they generally disappear. I have seen only one specimen of the species this winter, that was early in November, before all the black snowbirds and tree sparrows had departed. One of the last named, the shrike was pursuing when I observed it. I have never met with the adult of this species in summer, but in the month of August, 1880, a young man brought me a Marsh Hawk (*Circus hudsonius*.) which I bought and asked him to procure others for me. In a few days, the same party brought me five young of *L. borealis* which were reared near where he lived. Their plumage contained many pin feathers, consequently I did not preserve them, but their large size and breast markings were, in my opinion, unmistakable proof of the species. I was told the parent shrikes were very shy and a few weeks previous had killed some very young chickens belonging to a farmer near by.

JOHN H. MORDEN.

Hyde Park, Ont.

NOTES ON THE BREEDING OF THE
RED-HEADED DUCK AT LAKE
ST. CLAIR.

Some of your readers are perhaps aware that during the spring of 1882, Mr. Herbert Keays and the writer were collecting specimens of natural history at Mitchell's Bay, Ontario. Perhaps some of the readers of this article may have enjoyed themselves at the little village of this name, as it is the resort of numerous sportsmen during the shooting season. For the benefit of those who may not have visited the spot, I will give a brief description of the localities in which we collected the specimens I intend to describe. The village is situated about half a mile from the shore, and at about the same distance inland, is a dense forest composed chiefly of elm and other soft wood trees. Here the surface of the ground is not more than three or four feet above the level of the bay, but sloping gradually to the water's edge. On the north and south of the village the marsh extends much further from the forest's verge and partly encloses the body of water known as "Mitchell's Bay," which is about four miles in extent each way and very shallow, being not more than ten feet deep anywhere. The southern projection of marsh is called "Big Point Preserve," the northern boundary of the bay, "Mud Creek Preserve," and extends to the "Sny" as the outlet of Sydenham River is called. The marsh beyond the river called "St. Ann's Island," is an Indian Reserve, but is now leased and held as a game preserve by a club of sportsmen. Scarcely any part of this island or the adjoining marsh are much above the level of the water, and wherever the water does not form ponds, bays or channels, wild rice, coarse grasses and rushes cover the flats in freshest green. Amid the wiry grass, wild pea vines twine and bloom and the surfaces of the shallower pools are covered with the leaves of lilies and other aquatic plants. During our stay in this place we lived in a scow belonging to Dr. Garnier of Lucknow, to whom I am greatly indebted for many favours. My stay in this delightful spot will ever be dear to memory; sitting at my work—at early lamp-light—listening to the water-fowl and the splashing of the waves against our scow. No lover of nature could visit this spot during the month of May or June without being impressed by its beauties, and to us it was a collectors' paradise. There was not a moment of the day

when the lively notes of some bird could not be heard, and sometimes the noise was astonishing; in the evening, when the sun was sinking out of sight, perhaps a loon would start its wailing cry and apparently, at once, every feathered inhabitant of the marsh would join with their own peculiar notes, but the Florida Gallinule, *Gallinula galeata*, was by far the most vociferous. Those who have never heard such an uproar can scarcely understand a written description. Imagine the music that would be made by hundreds of gallinules yelling on every side; the quacking of ducks, piping of rails, crying of loons and the indescribable notes of hundreds of marsh wrens, coots and grebes; the croaking of thousands of bull-frogs to say nothing of the hum of myriads of mosquitoes, and we find a din unparalleled. The first nests and eggs I shall describe are those of the Red-headed Duck (*Aethya Americana*). Early on the morning of May 27th, we started in a canoe to the southern extremity of St. Ann's Island in search of nests. Mr. Keays was wading in water too shallow to pole the canoe in; I paddled about until we took nest after nest of coots, gallinules, grebes, black terns, red-wings, rails &c. A female red-head was then observed by my friend, swimming quietly away among the reeds; he immediately started to search for the nest, which he knew must be near; a few minutes later, my ears were saluted by a shout that clearly indicated success. I lost no time in reaching the place and found him stooping over the nest and handling the eggs in a perfect ecstasy of delight. The nest was placed in six or eight inches of water, among coarse grass and flags, and was composed of those weeds of the previous year, very bulky, being about sixteen inches in depth and diameter; it was built abruptly out of the water, except on one side which had a regular slant of about a yard in length and which led to a passage among the weeds going to the open water. The internal diameter of nest at top was nine inches and the depth five inches. The eggs, ten in number, were of a bluish drab colour; they were uncovered when found, and in an advanced state of incubation; they varied in size, measuring thus, $1\frac{3}{4} \times 2\frac{3}{8}$, $1\frac{3}{4} \times 2\frac{1}{2}$, $1\frac{11}{16} \times 2\frac{1}{2}$, $1\frac{3}{4} \times 2\frac{7}{16}$. While we were taking the eggs, the female duck came twice and flew around us, and when we were a little distance from the place she alighted in the pond and swam rapidly to the nest; we again approached, when she took wing and in a few

minutes returned with her mate, both circling several times around us, quacking and showing much solicitude. Soon after, having taken as many eggs as we could blow during the remainder of the day, we returned to our lodgings. The second nest of the same species was discovered June 22nd; the nest was placed on a log among drifted weeds, &c.; the eggs as in the first instance, were uncovered and smaller than the first set discovered; they were six in number, and incubation had commenced. It is my opinion that the few specimens of *Arthya Americana* breeding at Mitchell's Bay, were wounded birds, unable to leave in spring, when the bulk of the species had left for northern regions, and I think this will account for their late breeding. It is my intention to send you my experience among other birds of the St. Clair marshes, and hope to hear from others who like myself, take a pleasure in this pursuit.

JOHN H. MORDEN.

Hyde Park, Ont.

COLEOPTERA FOUND IN THE PROVINCE OF QUEBEC.

BY WILLIAM COUPER.

- SYNETA ferruginea*, Germ.
LEMA 1 *melanocephala*, Say.
 2 *trilineata*, Oliv.
 3 *solani*, Fabr.
CRIOFERIS asparagi, Linn.
ANOMAEA latichlym, Forst.
BABIA 4-guttata, Oliv.
MONACHUS saponatus, Fabr.
CRYPTOCERHALUS 1 *Schreibersii*, Nerm.
 2 *manifer*, Newm.
 3 *sellatus*, Say.
 4 *lituratus*, Fabr.
 5 *4-maculatus*, Say.
 6 *venustus*, Fabr.
 7 *dispersus*, Halld.
 8 *congestus*, Fabr.
 9 *guttulatus*, Oliv.
 10 *auratus*, Fabr.
PACHYBRACHIUS 1 *luridus*, Fabr.
 2 *othonus*, Say.
 3 *atomarius*, Mels.
ADOXUS vitis, Fabr.
XANTHONIA 1 *decemnotata*, Say.
 2 *pilosula*, Mels.
 3 *Stevensii*, Balg.
HETERASPIS pubescens, Mels.

- CHRYSOCHUS* 1 *auratus*, Fabr.
 2 *colubinus*, Lec.
TYPOPHORUS tricolor, Fabr.
PARIA 1 *4-notata*, Say.
 2 *aterrima*, Oliv.
 3 *hevicollis*, Crotch.
METACHROMA quercetum, Fabr.
CUTASPIS 1 *brunnea*, Fabr.
 2 *prætexta*, Say.
 3 *tristis*, Oliv.
 4 *convexa*, Say.
CHRYSOMELA 1 *elivicolis*, Kirby.
 2 *10-lineata*, Say.
 3 *elegans*, Oliv.
 4 *multiguttis*, Stal.
 5 *Philadelphica*, Linn.
 6 *multipunctata*, Say.
GASTROPHYSA 1 *polygoni*, Linn.
 2 *formosa*, Say.
 3 *cyanea*, Mels.
PRASOCURIS Phellandrii, Linn.
PHYLLODETTA vulgatissima, Linn.
PLAGIODERA 1 *lapponica*, Linn.
 2 *tremula*, Fabr.
 3 *viridis*, Mels.
 4 *chochlearia*, Syll.
CERATOMA cæminea, Fabr.
PHYLLOBROTTICA discoidea, Fabr.
LEPERUS meraca, Say.
DIABROTTICA 1 *vittata*, Fabr.
 2 *13-punctata*, Oliv.
GALERUCA rufosanguinea, Say.
GALERUCELLA sagittaria, Gyll.
MONOXIA obtusa, Lec.
TRIRHABDA 1 *Canadensis*, Kirby.
 2 *virgata*, Lec.
CEIDONYCHUS 1 *thoracica*, Fabr.
 2 *petaurista*, Fabr.
 3 *quercuta*, Fabr.
DISONYCHIA 1 *alternata*, Lec.
 2 *punctigera*, Lec.
 3 *glabrata*, Fabr.
 4 *collaris*, Fabr.
 5 *triangularis*, Say.
GRAPTODERA 1 *bimarginata*, Say.
 2 *chalybea*, Ill.
BAPTOPHILA spuria, Lec.
BELAMIRA scalaris, Say.
ORCHESTRIS 1 *lepidula*, Lec.
 2 *vittata*, Fabr.
 6 *bipustulata*, Fabr.
DIHOLIA arenæ, Mels.
SYSTENA 1 *Hudsonias*, Forst.
 2 *frontalis*, Fabr.
 3 *collaris*, Crotch.
 4 *marginalis*, Ill.

- ORTHALICA capallina, *Fabr.*
 CREPIDODERA 1 helveticus, *Linn.*
 2 auriventris, *Mels.*
 CHELOCNEMA denticulata, *M.*
 PSYLLIODES punctulata, *Mels.*
 BLEPHARIDA rhois, *Forst.*
 ODONTOTA 1 scapularis, *Oliv.*
 2 bicolor, *Oliv.*
 3 scutellaris, *Oliv.*
 4 rosea, *Web.*
 MICRORHOPALA 1 interrupta, *Couper.*
 This species is in the collection of the Laval University of Quebec. It was found near Chateau Bigot, north of that city.
 2 excavata, *Oliv.*
 CHELMORPHA cassidea, *Fabr.*
 CUPTOCYCLA 1 aurichalcea, *Fabr.*
 2 guttata, *Oliv.*
 3 plicata, *Boh.*
 MEGILLA maculata, *DeGeer.*
 HIPPODAMIA 1 LeContei, *Muls.*
 2 convergens, *Guer.*
 3 13-punctata, *Linn.*
 4 glaucilis, *Fabr.*
 5 parenthesis, *Say.*
 ANISOSTRICTA strigata, *Thunb.*
 COCCINELLA 1 tritasciata, *Linn.*
 2 9-notata, *Herbst.*
 3 5-notata, *Kirby.*
 4 trienspis, *Kirby.*
 CYCLOPEDA sanguinea, *Linn.*
 ADALIA 1 frigida, *Schn.*
 2 2-punctata, *Linn.*
 ANISOCLAVIA 11-punctata, *Linn.*
 ANATIS 1 15-punctata, *Oliv.*
 2 Canadensis, *Prov.*
 MYRIA pullata, *Say.*
 PSYLLIODES 20-maculata, *Say.*
 CHLOCORUS bivulnerus, *Muls.*
 BRACHYACANTHA 1 dentipes, *Fabr.*
 2 ursina, *Fabr.*
 3 10-pustulata, *Mels.*
 HYPERASPIS signata, *Oliv.*
 SCYMNUS 1 caudalis, *Lec.*
 2 tenebrosus, *Muls.*
 MYCETINA 1 testacea, *Lec.*
 2 perpulchra, *Newm.*
 ENDOMYCHUS biguttatus, *Say.*

- PHYMOPHORA pulchella, *Newm.*
 MYCOTRETTUS sanguinipennis, *Say.*
 CYRTOTRIPLAX 1 humeralis, *Fabr.*
 2 unicolor, *Say.*
 TRIPLAX thoracica, *Say.*

This list numbers about 1012 species found to date in the Province of Quebec. In "The Canadian Entomologist," between the years 1868-72, Mr. J. Petit published a list of 1297 species of Coleoptera, collected by himself in the neighborhood of Grimsby, Ontario. Many additional species could be added to the Quebec list, as very little has been done in collecting the small forms of CURCULIONIDÆ or weevils. I have made no attempt at classification, my object being to make it useful as a future reference to young beginners in the study of this branch of Entomology.

ENTOMOLOGICAL REPORT FOR 1882.

The Report of the Entomological Society of Ontario for 1882, is fraught with interesting and instructive information for the Agriculturist and Entomologist. The subjects are treated in an easy, pleasant way, that those interested may read and learn. When I was a youth, studying insects, books containing descriptions and life histories of species inhabiting Canada could not be obtained for love or money. In 1843, there were a few systematists and students in the United States, but the papers then published were obscure to a beginner. Now these reports are of inestimable value to young Canadian students in Entomology. The papers are largely illustrated by excellent electrotypes of injurious and beneficial insects belonging to the various Orders. The report contains the President's address delivered at the Montreal meeting. Six of the papers have been written by our entomological neighbours, and ten by Canadian writers. This is proper, as it should be; entomological reciprocity benefits both countries, and these mutual communications are doing good.—C.

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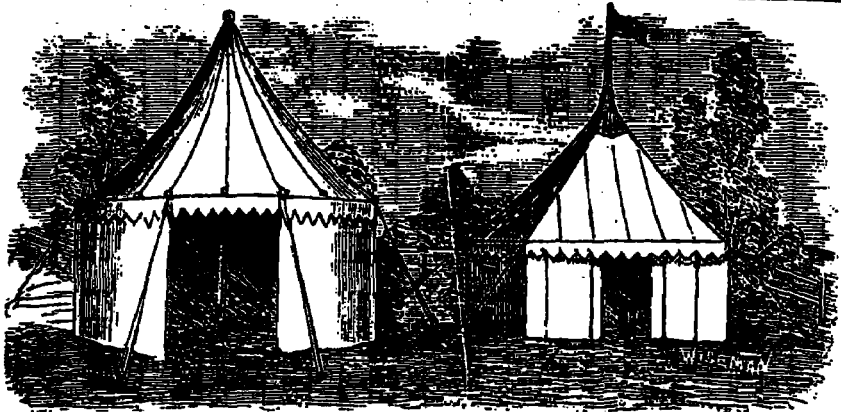
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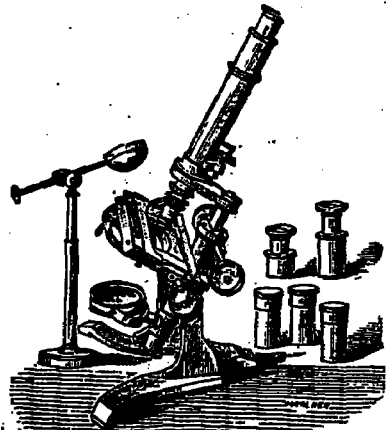
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