

Contopus borealis; A. O. U. 450. Pines and fruit trees. Food, insects. Nest in fork of pine tree. Eggs creamy with brown spots.

Corvus corax; A. O. U. 486. Inaccessible cliffs. Food, birds, mammals and grains. Nest in very tall tree. Eggs light green, clouded with brown.

Plectrophanes nivalis; A. O. U. 534. Mountains. Nest in crevice of rock. Food insects in summer, seeds in winter. Eggs so varied in marking as to be indescribable.

Ammodromus condacutus; A. O. U. 549. Salt marshes. Food, shell fish and small crabs. Nest in grass. Eggs bluish white with brown spots.

Ammodromus maritimus; A. O. U. 550. Coast. Nest on ground. Eggs grayish-white with brown spots. Food, shell fish.

Petrochelidon lunifrons; A. O. U. 612. Jutting eaves. Food, insects. Eggs white with reddish-brown spots.

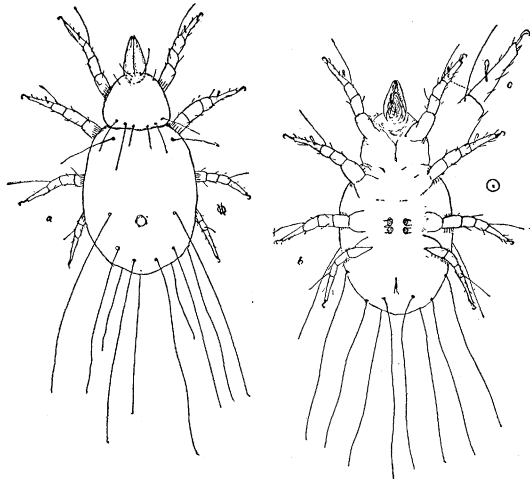
Vireo philadelphicus; A. O. U. 626. Food, insects. Did not see nest or eggs.

Sitta canadensis; A. O. U. 728. Pine forests. Food, seed of pine tree and larvæ of insects. Nest in stump. Eggs bluish-white, with light red spots.

A NEW MITE INFECTING MUSHROOMS.

BY HERBERT OSBORN, AMES, IA.

SOME time since I received from Professor J. A. Lintner specimens of a mite which had been found infesting mushrooms quite seriously, and from its habits and the statements concerning its numbers it is likely to prove a very important pest of this crop. From the literature which is available it does not appear to be described and is certainly different from the species described as infesting mushrooms in Europe. It approaches more nearly to the *Tyroglyphus phylloxerae* of Riley but is quite different in many structural details. Since it is likely to prove of importance it seems desirable to describe it, even though it may possibly prove identical with some of the described European forms.



Tyroglyphus lintneri, n. sp.

a, dorsal view. b, ventral view. c, tarsus, much enlarged; length shown in circle to right.

From nature, by H. Osborn.

Tyroglyphus lintneri, n. sp.—The mandibles are large, chelate, strongly toothed, the palpi terminating with a strong hook, the tarsi hooked with no sucker visible, the last segment long, slender, spiny at tip and on the two anterior pairs bearing a clavate appendage. The hairs are very long, those on the posterior part of the body equal to or greater than the length of the body and their origin marked by chitinous rings, six located on the posterior

portion of the anterior division of the body and standing quite erect, ten on the posterior portion, two at anterior angles, two behind the middle and others near the margin on the posterior third of the body, abdominal suckers four, located between the abdominal legs.

This species differs from *T. phylloxerae* Riley, particularly in the greater length of tarsal joints, greater curvature of tarsal claw and the much greater length of the hairs, those at the end of the abdomen being as long or longer than the body, while the *phylloxerae* Riley describes as about one-third the diameter of the body. It is also larger than specimens I have determined as *phylloxerae*, and the second pair of legs is further back on the body than shown in Riley's figure.

I have named it in honor of Dr. Lintner, who has taken a most lively interest in the various forms of acaridea, besides having made many valuable observations on these and other important insects.

THE ARCTIC CURRENT IN THE ESTUARY OF THE ST. LAWRENCE.

BY ANDREW T. DRUMMOND, MONTREAL, CANADA.

THE great Arctic Current of northeastern America takes its rise in Baffin's Bay and, after skirting with its broad surface the coasts of Labrador and Newfoundland, appears to largely lose itself as a cold surface current, as it impinges on, and, in part, parallels, the Gulf Stream. Every traveller to America by the St. Lawrence route has his attention drawn forcibly to it by the coldness of both the atmosphere and the water, and by the presence of the picturesque icebergs, which, though floating slowly southward with the current, suggest to the imagination a broad submerged mountain chain with the glaciated top-most peaks and snow-clad pinnacles alone left to view.

As the great steamship passes inward to the Gulf of St. Lawrence by the Straits of Belle Isle, the traveller is equally struck with the fact that although the current appears to have been crossed, huge bergs are still met with, floating in a new direction toward Anticosti. The explanation is that a branch of this Arctic or Labrador Current finds its way through the Straits of Belle Isle and past Anticosti to the River St. Lawrence, up the estuary of which it ascends on the northerly side toward Quebec. On the way it meets with and is tempered by the warmer waters coming from the Great Lakes above, as they pass outward to the sea, and returns on the south side of the estuary as a modified current, which, after skirting the Gaspé Peninsula, is finally lost in the Gulf of St. Lawrence. This is the substance of our present knowledge.

The temperature of the water in the estuary of the river becomes interesting as bearing on the existence of this current. During the early part of August, last, the opportunity presented itself at Murray Bay, on the north shore, of obtaining some surface and bottom temperatures. The instruments used were Negretti and Zambra's reference and deep-sea thermometers. The conditions on the 5th of August, when the following readings at different points were taken, were those of calm air, clear sky, and fairly strong sun; the time, 8 A. M. to 8:30 A. M., and the position about a mile and a half off Cap à l'Aigle, a jutting headland four miles below Murray Bay village:

	1	2	3
Air.....	59° F.		59½° F.
Water on surface.....	46½°	46½° F.	46½°
Water at 17 fathoms....	—	—	38½°
Water at 18½ fathoms....	38½°	—	—
Water at 31 fathoms....	—	38½°	—

Whilst the surface water at this distance from land was comparatively cold, at the shore at Cap a l'Aigle, where it flows and reflows over the rocky shallows, its temperature on warm days was generally from 53° to 60° F., thus admitting of bathing on the part of the summer residents.

LETTERS TO THE EDITOR.

* * Correspondents are requested to be as brief as possible. The writer's name is in all cases required as a proof of good faith.

On request in advance, one hundred copies of the number containing his communication will be furnished free to any correspondent.

The editor will be glad to publish any queries consonant with the character of the journal.

A ROPE OF MAGGOTS.

THE following bit of experience is given in the hope that some well-informed person will shed light upon the subject.

I was hurriedly passing through a wood one damp summer morning when my attention was drawn to what appeared to be a piece of rope lying among the leaves. It was not at all unusual to find short pieces of rope in the pastured woods, but something unusual in the appearance of this one attracted my attention at once. It was moving! not in a forward or backward, nor in a side-wise, direction; nor rolling over, nor in the least changing its position or shape. In the dim light of the woods I could make it out only by stooping down with my face close to it. Then I discovered that it was composed of maggots!

The rope tapered like a whip-lash, which it very closely resembled, being about five feet long, nearly two inches in diameter at the large end, fully two inches at the largest part, and tapering from there to a thin line at the "lash" end. It was in the form of a section of a circle about twenty feet in diameter.

Each maggot seemed to be in motion toward the large end, wriggling over or between or below his fellows. During the five minutes that I watched them there was an advance of four inches, the van of the mass wriggling on the leaves ahead of the rest.

My first thought was that they were feasting on the cadaver of a snake. But there was not the least evidence of a snake. Since all seemed to be migrating, I concluded that they had finished one mess and were seeking another. But I was unable to find anything which they could have hatched in or come from, in any direction, nor any hole whence they might have issued. For nearly two feet in the rear of the moving mass there were traces of them, indicating that they had travelled over that space. Further than that no traces could be found.

Some questions naturally suggest themselves. If the maggots were really migrating, how came they to be in that shape rather than spread out over a larger surface? If they simply occupied carrion which assumed this shape, why were they all moving in one direction? It is not at all unusual to see a great mass of maggots move simultaneously when there is some exciting cause. But these did not have that appearance. They were trying to get somewhere! If they had been feeding upon carrion, why should there be not the slightest remains of it? I hope that some one may be able to throw some light upon this. As near as I could determine, the maggots belonged to the genus *Musca*, and very closely resembled, if they were not identical with, the common house fly (*M. domestica*).

LYNDS JONES.

Oberlin College, Oberlin, Ohio.

SINGULAR BEHAVIOR OF AN OWL.

WHEN collecting plants in the summer I came across an owl standing at the base of a small shrubby oak in a thinly wooded pasture. It was discovered when about

twenty feet away, and was cautiously approached in order to get a better view, and to see how it would act. When I had come within eight or ten feet it fluttered away about as far in the opposite direction, turned partly on its side and spread its wings a little, much as a wounded or fallen bird does. I went up to it, took it from the ground and carefully examined it, expecting to find some wound or mark of disability for flying, but could find none. While doing this it was held in the hands either by the wings, feet or body, the bird quietly submitting or only slightly flapping the wings. After satisfying my curiosity I set it down, not wishing to carry it about all day in order to take it home, for it was not yet noon. To my surprise it immediately flew off several rods with as much apparent ease as any bird possessed. I watched to see where it lighted, and found it in an open place amid the rushes of a dry slough. Being curious to see whether it would repeat the former tactics, I again approached it cautiously, but got scarcely as near as before, when it took wing again and flew still farther off. It was sought once more, and found in a similar place, but had become more wary, so that I could not get very near before it flew so far away that I did not care to follow it up, having become well satisfied that the owl was physically sound, and knew quite well how to care for itself.

It at once became a question why the bird had acted so strangely at first. Was it surprised and bewildered, or dazed by the sunlight, or did it make a deliberate effort to deceive? To decide by the behavior, since one cannot tell what may be passing in the bird-mind, the last offers the best explanation. Though walking quite briskly when the owl was first seen, I at once checked my step, and paused for a little before going nearer. The bird evidently saw me about as soon as I saw it, for its face was towards me, and it watched my movements. How well an owl can see in the day-time I am not prepared to say, though it readily perceived me by some sense on the two subsequent occasions of approach when I was quite a piece away. Hence the attitude it took, its non-resistance when taken in hand, and its submissiveness when undergoing inspection, led me to infer that the owl wished to pass for a worthless fellow, if not dead, and cause me to go by and let it alone. But it evidently came to a different conclusion after the first trial and did not care to run further risk, or trust me longer. From its size and markings it was judged to have been the short-eared owl, *Brachyotus palustris* of authors.

E. J. HILL.

Englewood, Chicago, Dec. 22, 1893.

ON CARIB MIGRATIONS.

IN *Science*, Dec. 15, p. 334, it is said, referring to the Caribs, "It would seem strange if a people who could navigate the Caribbean Sea in large open boats were incapable of crossing from Cuba to Florida."

The assumption appears to be that some Caribs lived on the island of Cuba. What authority is there for this? Is it any more strange that the Caribs did not reach Florida than that the Mayas and the Island Arawacks did not? Both of whom were equally skillful navigators. Or, because they were capable of doing so, are we to assume that they did? Not an element of the Carib language has been found anywhere north of the Isthmus of Panama.

D. G. BRINTON.

Philadelphia, Dec. 27.

POCKET KEY OF THE BIRDS OF THE NORTHERN UNITED STATES.

IN the notice of my "Pocket Key of the Birds of the Northern United States" in *Science* for Dec. 15 it is said that it "will enable a student of nature to determine