





[From the Proceedings of the Portland Society of Natural History.]

PUBLISHED FEBRUARY, 1868.

ON THE ORTHOPTERA

OF THE

STATE OF MAINE.

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On the following pages I have enumerated every species of Orthoptera of which I have myself taken specimens in the State, or which has been mentioned in any publication with which I am acquainted as coming from the State. The list has been prepared with special reference to facilitating the study of the geographical distribution of this most interesting group of insects, and to that end particular attention has been paid to the exact localities in the State where each species has been found. From the little attention that most entomologists and collectors have given to the Orthoptera, the exact localities recorded are very few. When I have not myself taken the species in the locality mentioned, I have always given the authority upon which it is inserted. Mr. Scudder's *Materials for a Monograph of the North American Orthoptera*, published in the Journal of the Boston Society of Natural History, is the best and almost the only authority on the New England species, and I have adopted the arrangement and the names there used, except where more recent investigation has rendered changes necessary. The synonymy of the

species is given only as far as I have been able to verify it by an inspection of the works quoted. In the references to Harris' Report, I have quoted the third edition (1862) unless otherwise stated.

The materials employed have been principally my own collections in Oxford County, which are now in the Museum of Yale College, and it was my first intention to give only a list of these; but to make this list more complete, I have included the few additional species mentioned from other parts of the State.

My thanks are due to Mr. Scudder, of the Boston Society of Natural History, for many acts of kindness, and for an opportunity of examining his extensive collection containing the types of the species described by him.

FAMILY, FORFICULIDÆ (EARWIGS).

Labia minuta Scudd., Jour. Bost. Soc. Nat. Hist., vol. VII, p. 415. The Little Earwig.

Norway: A number of specimens were taken, a little before sunset, Sept. 14 and 15, 1863, flying about the garden, at quite a height above the ground.

FAMILY, BLATTIDÆ (COCKROACHES).

Stylopyga orientalis Fisch.; Scudd., l. c., p. 416. The Common Cockroach.

Blatta orientalis Harr., Report, p. 145, fig. 66.

Norway: and doubtless all along the seaboard of the State.

Periplaneta Americana Burm. is probably found with this, but I have not noticed it.

Ectobia Germanica Stephens; Scudd., l. c., p. 418. The Little Cockroach.

Norway: and probably common throughout the State.

FAMILY, GRYLLIDÆ (CRICKETS).

Gryllus luctuosus Serv., Hist. Nat. de Orthop., p. 335; Scudd., l. c., p. 427. The Long Winged Cricket.

Norway, Greenwood, Buckfield: not uncommon in company with the next species, from the middle of August to the end of September.

Gryllus neglectus Scudd., l. c., p. 428. The Common Black Cricket.

Norway, Calais: very abundant. This is the common species, and undoubtedly the one to which Harris, Report, p. 152, intended to allude under the name of *Acheta nigra*, and which Uhler, in the same place, referred to *A. Pennsylvanica* Burm. Mr. Scudder, however, considers the type of *nigra* in Harris' collection distinct from the common species, and *Pennsylvanica* a third species distinct from *nigra* and from *neglectus*.

Nemobius vittatus Harr., Report, p. 153, fig. 70; Scudd., l. c., p. 430. The Striped Cricket.

Norway; "Maine, (Packard)," Scudd.; "Chamberlain Farm," on the Penobscot, Packard. An abundant species everywhere over the State.

Nemobius fasciatus Scudd., l. c., p. 430. The Little Long Winged Cricket.

This species is very much like the last, except in the length of the wings, which extend much beyond the tip of the abdomen, or even to the end of the ovipositor of the female.

First noticed at Norway, Aug. 27, 1863, flying in at the windows in the evening. It has been noticed, sometimes in considerable numbers, every year since, in company with *N. vittatus*, from the middle of August to the last of September. Prof. Verrill has taken it at Treat's Island, near Eastport.

FAMILY, LOCUSTIDÆ (GRASSHOPPERS).

Ceuthophilus maculatus Scudd., l. c., p. 434. The Spotted Wingless Cricket.
Raphidophora maculata Harr., Report, 1st edition, p. 126. *Phalangopsis lapidicola* Burm., teste Erichson, Uhler in Harr., Report, p. 155, fig. 73. *Raphidophora lapidicola* Scudd., Proceed. Bost. Soc. Nat. Hist., vol. VIII, p. 7.
 Common at Norway under old logs, stones, etc.; also at Calais and Treat's Island, and at Grand Menan, N. B., which is the original locality of *C. brivipes* Scudd.; "Cape Elizabeth, (Morse,)" Scudd.

Phaneroptera curvicauda Serv., Annales des Sciences Naturelles, Tome XXII, p. 159; Scudd., l. c., p. 448. The Narrow-winged Green Grasshopper.
Locusta curvicauda De Geer, Mémoires pour servir à l'Histoire des Insectes, Tome III, p. 446, Pl. 38, fig. 3. *Phaneroptera angustifolia* Harr., Report, p. 160, fig. 76.
 Norway: Common; "Maine, (Packard,)" Scudd.

Conocephalus ensiger Harr., Report, p. 163, fig. 79; Scudd., l. c., p. 449. The Cone-headed Grasshopper.
 Norway: quite common upon a species of *Andropogon*, late July to September. One female was taken with the ovipositor forced down between the root-leaves and the stalk of the *Andropogon*, where the eggs are probably deposited.

Xiphidium fasciatum Serv., Ann. de Sci. Nat., Tome XXII, p. 159; Scudd., l. c., p. 451. The Slender Meadow Grasshopper.
Locusta faseiata De Geer, Mem. Insect., Tome III, Pl. 40, fig. 4. *Orchelimum gracile* Harr., Report, p. 163, fig. 78.
 Norway: common, July, August; "Maine, (Packard,)" Scudd.; "Chamberlain Farm," on the Penobscot, Packard.

Xiphidium brevipennis Scudd., l. c., p. 451. The Short-winged Meadow-grasshopper.
 Norway, Eastport; abundant; "Maine, (Packard,)" Scudd.

Orchelimum vulgare Harr., Report, p. 162, fig. 77; Scudd., l. c., p. 452. The Common Meadow-grasshopper.
 Norway: common, late July, August, September.

FAMILY, ACRYDIDÆ (LOCUSTS AND GRASSHOPPERS.)

Chloealtis conspersa Harr., Report, p. 184. The Sprinkled Locust.
Chloealtis abortiva Harr., Report, p. 184. *Chloealtis conspersa* Scudd., l. c., p. 455. *Stenobothrus melanopleurus* Scudd., l. c., p. 456. e/

Vertex of the head broad, expanded to a blunt point on either side in front of the eyes, from which the sides slope so as to form a little less than a right angle at the apex, which is blunt and rounded, with a very slight median ridge, and the edges a little upturned; frontal ridge with a shallow sulcation for two-thirds its length; eyes not large or prominent, slightly elongated; antennæ slender, slightly flattened, reaching to the middle of the wing-covers in the male, a little shorter in the female; pronotum with the sides nearly straight, or approaching one another slightly in the middle; median carina sharp, rather more distinct than the lateral, margin straight both in front and behind; wing-covers in the male reaching nearly to the extremity of the abdomen, obovate, suddenly swollen on the costal border about two-thirds of the way from the

apex to the base, internal border full and curved evenly from the base to the tip; in the female, wing-covers reaching to about the middle of the abdomen, narrow, pointed at the tip, with a sudden expansion about the middle of the costal border, internal border as in the male; wings alike in both sexes, small and nearly abortive; abdomen compressed laterally, with a distinct median carina.

Male: head above, dorsum of the pronotum, sides of the meso- and metathorax, face and sides of the head below the eyes, and wing-covers, light lilac-brown, varying in intensity somewhat in different specimens; sides of the head between the eyes and the pronotum shaded with black; antennæ brown, darkest at tip; sides of the pronotum, and of the first two or three abdominal segments shining black; abdomen above light brown banded with black, below light yellow, sides, except on the first two or three segments, dark reddish brown; fore and middle legs brown; hind femora above light yellowish brown with one or two broad dark brown bands, below light yellow, apex black; hind tibiæ yellowish red, black at tip and base.

The female differs from the male in being darker and in wanting most of the black upon the sides of the pronotum; head, dorsum of pronotum, and wing-covers frequently mottled or even blotched with dark brown; sides of the pronotum like the dorsum excepting a small patch of black upon the upper posterior angle. From dry specimens.

Length, male, .65—.70 in., female, .80—.90 in.; length of wing-covers, male, .35—.40 in., female, .30—.37 in.; breadth of wing-covers, male, .13—.15 in., female, .10—.12 in.; length of hind femora, male, .40—.45 in., female, .49—.55 in. 10 male, 25 female.

The anal appendages of the female of this species are very unlike those of any other known New England Orthoptera, and lead me to suspect it to be generically distinct from the two Connecticut species referred to this genus. The appendages are quite short, extending but slightly beyond the last segment of the abdomen. Each of the superior appendages has the upper posterior surface quite broad, and furnished at the tip with a stout sharp tooth strongly curved upward; three saw-like teeth along the outer edge, decreasing in size toward the base, and in some specimens the last tooth wanting; near the middle a stout transverse tooth extending two-thirds of the way across the surface, and between this and the base one or two more small teeth. The inferior appendages have each a strong hooked tooth at the tip, and one or two small ones on the outer edge near the base.

This structure of the female appendages is beautifully adapted to a remarkable habit in the manner of depositing the eggs, which seems not to have been noticed before among Orthoptera. The eggs are deposited in old logs, in the undersides of boards, or in any soft wood lying among the grass which these insects inhabit. By means of the anal appendages the female excavates in the wood a smooth round hole about an eighth of an inch in diameter. This hole is almost perpendicular at first but is turned rapidly off in the direction of the grain of the wood, and runs nearly parallel with and about three-eighths of an inch from the surface; the whole length of the hole being an inch or an inch and a fourth. A single hole noticed in the end of a log was straight. The eggs, which are about a fourth of an inch in length, quite slender and light brownish yellow, are placed in two rows, one on each side, and inclined so that, beginning at the end of the hole, each egg overlies the next in the same row by about half its length. The aperture is closed by a little disk of a hard gummy substance. I have seen many of the females engaged in excavating the holes, and they always stood with the body in the direction of the grain of the wood, and apparently did not change their position during the operation. When one was just beginning a hole it was very easy to see the upper appendages rise and open, and each time scrape away a little of the wood. During this operation a frothy fluid is emitted from some part of the abdomen, but whether it serves to soften the wood or to lubricate the appendages and the sides of the hole, I did not determine. There were always great num-

bers of half finished holes or those just begun, and comparatively very few that were completed, and I have often found upon the underside of boards great numbers of the holes just begun, none of them being more than an eighth of an inch in depth. Perhaps the reason for so few holes being finished, is that the wood proves too hard and the insect tries for a softer place, or many of them may be disturbed during the operation. When they had opened the hole only to a slight depth, they leaped away if disturbed, but when the abdomen was quite a distance into the nearly completed hole, they seldom attempted to withdraw it even after the hand was upon them.

I first noticed the female at Norway in 1864 and '65, depositing her eggs, but did not find the male. While arranging the New England Orthoptera, I found in a bottle of *Stenobothrus* received from Mr. Sanborn of Boston, several specimens of *S. melanopleurus* Scudd., and from its strong resemblance to the species of *Chloaltis*, and its wanting the foveolæ of the vertex, I labeled it *Chloaltis melanopleurus*. Afterward, in September, 1866, while collecting *C. conspersa*, I was very much surprised to find it several times paired with *S. melanopleurus*, thus proving its identity with that species. It does not seem to be a very common species, although I took it quite abundantly about old logs in a meadow, August 25 and September 7, 1866. I have frequently noticed in dry sandy fields, wood bored apparently by this insect.

Stenobothrus curtipennis Scudd., l. c., p. 456. The Short-winged Locust.

Stenobothrus longipennis Scudd., l. c., p. 457.

Chloaltis curtipennis Harr., Report, p. 184, Pl. 3, fig. 1.

After examining a great number of specimens, I see no constant characters by which *S. longipennis* can be distinguished from *S. curtipennis*. In the length of the wing-covers and wings, there is a complete series from one to the other, as the accompanying measurements show; and they certainly pair without any reference to the length of the wing-covers. In coloration, scarcely two specimens can be found alike; in fact, this and the following species show as great variation in this respect as the species of *Tettix*. There is some variation also in the character of the vertex and in the direction of the lateral carinæ of the pronotum. All the varieties are very distinct from the next species, in the immaculate wing-covers, the size, the length of the hind femora and the antennæ, and in the form of the foveolæ of the vertex, which are long, rectangular and deep, instead of shallow and more or less triangular.

MEASUREMENTS (IN INCHES).

| No. | Sex. | Length of Body. | Antennæ. | Hind Femora. | Wing-covers. | Locality. |
|-----|---------|-----------------|----------|--------------|--------------|-------------------|
| 497 | Male. | .64 | .35 | .44 | .62 | Norway, Me. |
| 498 | " | .65 | .35 | .44 | .59 | " " |
| 499 | " | .60 | .34 | .44 | .53 | " " |
| 501 | " | .61 | .36 | .44 | .48 | " " |
| 500 | " | .58 | .36 | .42 | .45 | " " |
| 502 | " | .60 | .35 | .43 | .43 | " " |
| 503 | " | .56 | .37 | .42 | .39 | Grand Menan, N.B. |
| 504 | Female. | .75 | .28 | .50 | .66 | Norway, Me. |
| 505 | " | .76 | .29 | .50 | .65 | " " |
| 506 | " | .75 | .27 | .47 | .60 | " " |
| 507 | " | .80 | .28 | .49 | .59 | " " |
| 508 | " | .84 | .27 | .50 | .52 | " " |
| 509 | " | .74 | .29 | .49 | .42 | " " |
| 511 | " | .75 | .29 | .49 | .42 | " " |
| 512 | " | .75 | .28 | .49 | .40 | Eastport, Me. |
| 513 | " | .75 | | .48 | .36 | " " |

Norway, Eastport and Calais; very abundant among grass in meadows and low ground, from the first of August to late November. "Chamberlain Farm" on the Penobscot, Packard.

Stenobothrus maculipennis Scudd., l. c., p. 458. The Spotted-winged Locust.

Stenobothrus æqualis Scudd., l. c., p. 459.

S. bilineatus Scudd., l. c., p. 460.

The three species described by Mr. Scudder seem to pass imperceptibly into each other. They vary almost as much in the length of the wing-covers as *S. curtipennis*, and in coloration, even more, there being a complete gradation from the brown varieties of *S. æqualis* to *S. bilineatus*. I have several times taken individuals with the coloration of *S. bilineatus* paired with undoubted individuals of *S. æqualis*. Individuals of both the green and the brown varieties frequently have the inner half of the wing-covers dull, or even bright rose-red, and the wings are sometimes tinged with red. The form and sculpturing of the head and thorax give no characters by which we can separate the varieties.

MEASUREMENTS.

| No. | Sex. | Length of Body. | Antennæ. | Hind Femora. | Wing-covers. | Locality. |
|-----|---------|-----------------|----------|--------------|--------------|-------------|
| 516 | Male. | .60 | .26 | .36 | .47 | Norway, Me. |
| 517 | " | .57 | .25 | .36 | .43 | " " |
| 519 | " | .56 | .26 | .37 | .43 | " " |
| 520 | " | .54 | .25 | .35 | .41 | " " |
| 521 | " | .53 | .23 | .35 | .39 | " " |
| 522 | " | .55 | .24 | .35 | .37 | " " |
| 523 | Female. | .72 | .25 | .45 | .62 | " " |
| 524 | " | .70 | .24 | .44 | .60 | " " |
| 525 | " | .73 | .24 | .44 | .54 | " " |
| 526 | " | .74 | .22 | .42 | .50 | " " |
| 527 | " | .75 | .21 | .43 | .48 | " " |
| 528 | " | .72 | .22 | .40 | .47 | " " |
| 529 | " | .73 | .21 | .41 | .46 | " " |
| 530 | " | .70 | .21 | .41 | .45 | " " |
| 531 | " | .63 | .24 | .40 | .44 | " " |
| 532 | " | .73 | .21 | .43 | .52 | " " |
| 534 | " | .74 | .22 | .41 | .45 | " " |

Norway: very abundant, especially in hilly pasture land, late July to the last of September. "Maine, (Packard)," Scudd.

Tragocephala viridifasciata Harr., Report, p. 182, Pl. 3, fig. 2; Scudd., l. c., p. 461. The Goat-headed Locust.

Tragocephala infuscata and *T. radiata* Harr., Report, pp. 181, 183. *Gomphoceris infuscatus*, *G. viridifasciatus* and *G. radiatus* Uhler in Harr., Report, p. 181. *Tragocephala infuscata* Scudd., l. c., p. 461.

T. infuscata does not seem to be distinct from *T. viridifasciata*. The coloration offers no constant differences, the brown varieties sometimes having the green stripe on the wing-covers, or part of the brown of the head and thorax replaced by green.

Norway: common in dry pastures from the last of May to the first of July; "Maine, (Packard)," Scudd.

Acyptera gracilis Scudd., l. c., p. 463.

Norway: "Maine, (Packard)," Scudd.

Pezotettix glacialis Scudd., Jour. Bost. Soc. Nat. Hist., vol. VII, p. 630, Pl. 14, fig. 9 and 10. The Wingless Mountain Grasshopper.

Speckled Mountain in Stoneham, August 15, 1865. Ten specimens were taken at different points about the summit of the mountain.

This species was discovered in the subalpine district of the White Mountains of New Hampshire by Mr. Scudder, and described by him in 1863, in a paper on the Insect-Fauna of the White Mountains. Mr. Scudder has since taken it upon Gray Lock, in Berkshire County, Mass., and Mr. Sanborn of Boston informs me that he has taken it about the Umbagog Lakes in northwestern Maine. It is the only described species of the genus hitherto known in New England.

The mountain, upon which this and the two following species were taken, one of the many Speckled Mountains in the state, is in the southwestern part of Oxford County, and properly belongs to the White Mountain group. I am not aware that its height has ever been determined, but it is probably much above two thousand feet. Upon the upper and treeless part of the mountain, where all the species of *Pezotettix* occurred, the following plants were abundant: *Alsine Grœnlandica* Fenzl., *Potentilla tridentata* Ait., *Vaccinium Vitis-Idæa* L., *V. uliginosum* L., *Empetrum nigrum* L.

Pezotettix manca sp. nov.

Vertex of the head with a sulcation, narrow between the middle of the eyes, but broader anteriorly, and in the female but little depressed; frontal ridge with a shallow sulcation, and a sudden depression at the central ocellus; eyes very little elongated, slightly prominent in the male, not so much so in the female; antennæ, in the female, slender, not quite equaling the length of the head and thorax; sides of the pronotum slightly divergent posteriorly, margin in front straight, behind a little arcuate; lateral carinæ indistinct, median slight but distinct; posterior margin of the sides of the pronotum very oblique, and the lower posterior angle rounded; sternal spine prominent, blunt; wing-covers very small, oval, extending to the middle of the first abdominal segment, not meeting upon the back; no wings upon the metanotum; hind femora with square lateral carina above, and a sharp median carina below, the double internal lateral carinæ sharp and prominent; abdomen with a well marked median carinæ extending distinctly on to the meso- and metathorax. a/

Head above, dorsum of the thorax, and wing-covers, brown; sides of the pronotum smooth and shining in front of the posterior transverse impressions, behind it thickly punctate; a broad black band extending from the eye over the upper half of the pronotum on to the remaining thoracic segments and along the side of the abdomen, inclosing upon the thorax, an oblique whitish stripe which extends from near the base of the wing-cover to the base of the hind femur; antennæ reddish brown, darker at the tips; fore and middle legs dark brown, greenish yellow on the under side of the femora; hind femora brown, yellow below, banded with black above, apex black; tibiæ bright red, spines tipped with black.

From dry specimens. The male and the female do not seem to differ in coloration.

Length, male, .65 in., female, .81 in.; length of wing-covers, male, .16 in., female, .17 in.; breadth of wing-covers, male, .09 in., female, .11 in.; length of hind femora, male, .35 in., female, .42 in., 1 male, 1 female.

Speckled Mountain, Stoneham, August 15, 1865.

Pezotettix borealis Scudd., l. c., p. 464.

I have a single specimen of another species, which agrees well with the description of *P. borealis* Scudd., and, although a hasty comparison with the original specimens in Mr. Scudder's collection, shew some very slight differences, I do not think it will prove to be distinct from that species. Mr. Scudder's specimens were from Minnesota, Saskatchewan River, Lake Winni-

peg, and the Island of Anticosti. The species looks very much like *Caloptenus femur-rubrum*, except in the length of the wings and wing-covers.

Vertex of the head with a broad and shallow sulcation in front of the middle of the eyes, broadest between the lateral ocelli; frontal ridge with a lengthened oval depression about the central ocellus; eyes elongated, rather large; antennæ slender, about equal to the length of the head and thorax; sides of the pronotum slightly divergent posteriorly, margin in front straight, behind arcuate; lateral carinæ indistinct, medium very slight for its anterior half, but quite prominent posteriorly; posterior margin of the side of the pronotum not oblique, very similar in form to that of *Caloptenus femur-rubrum* Burm.; sternal spine prominent, rounded at the point; wing-covers longer than the wings, reaching about three-fourths of the length of the abdomen, overlapping slightly upon the back, costal border much swollen toward the base, internal border full; wings short, costal border nearly straight, outer border full and rounded; hind femora above with square lateral carinæ, and a high sharp median carina; abdomen with a distinct median carina.

Head above, dorsum of the thorax, and wing-covers dark brown, mottled with lighter; sides of the pronotum smooth and shining in front of the posterior transverse impression, behind it thickly punctate; a broad black band extending from the eye over the upper half of the pronotum, indistinct posteriorly; front of the head and sides of the pronotum below the black band, dirty yellow; an oblique yellowish stripe upon the sides of the thorax as in the last species; antennæ reddish brown; fore and middle legs dark brown, greenish yellow upon the under side of the femora; hind femora reddish below, banded and streaked above with black, apex black; hind tibiæ reddish, with a black annulation near the base, the spines tipped with black; wings almost colorless, very faintly tinged with yellow at the base, a little dusky along the costal border.

Length .82 in.; length of wing-covers .38 in.; breadth of wing-covers .12 in.; length of wing .30 in.; length of hind femora .45 in.; 1 female.

Speckled Mountain, Stoneham, August 15, 1865.

The species mentioned by Dr. Packard, in his Report on the Insects collected on the Penobscot and Allegush Rivers, published in the Report of the Scientific Survey of Maine for 1861, is probably a *Pezotettix*, perhaps a *P. borealis*.

Caloptenus femur-rubrum Burm.; Uhler in Harr., Report, p. 174; Scudd., l. c., p. 464. The Red-legged Locust.

Acrydium femur-rubrum Harr., Report, p. 174, fig. 80.

Norway, Eastport, Calais: very abundant; "Maine, (Packard)," Scudd.; "Mt. Katahdin," Packard.

Caloptenus punctulatus Uhler Mss., Scudd., l. c., p. 465. "Maine, (Packard)," Scudd.

This will probably prove to be a variety of *C. femur-rubrum*.

Caloptenus bivittatus Uhler in Say, Entom. of N. A. (LeConte's Ed.), vol. II, p. 238; Uhler in Harr., Report, p. 174; Scudd., l. c., p. 465. The Yellow-striped Locust.

Acrydium flavovittatum Harr., Report, p. 173. *Locusta leucostoma* Kirby, Faun. Bor. Am., Insects, p. 250.

Norway: abundant; "Maine, (Packard)," Scudd.

Edipoda Carolina Burm.; Serv., Hist. Nat. de Orthop., p. 722; Uhler in Harr., Report, p. 176; Scudd., l. c., p. 468. The Carolina Locust.

Locusta Carolina Harr., Report, p. 176, Pl. 3, fig. 3.

Norway; "Maine, (Packard)," Scudd.; "Mattamiscontis," Packard. A common species throughout the State.

Edipoda phœnicoptera Germ.; Scudd., l. c., p. 468. The Red-winged Locust.
Locustra corallina Harr., Report, p. 176.
 Norway: April, May, early June, not common; "Maine, (Packard)," Scudd.

Edipoda rugosa Scudd., l. c., p. 469.
 Norway: not common; "Maine, (Packard)," Scudd.

Edipoda sulphurea Burm.; Uhler in Harr., Report, p. 177; Scudd., l. c., p. 470. The Yellow-winged Locust.
Locusta sulphurea Harr., Report, p. 177, Pl. 1, fig. 6.
 Norway; "Maine, (Packard)," Scudd.

Edipoda verruculata Scudd., l. c., p. 471. The Broad-winged Locust.
Locusta verruculata Kirby, Faun. Bor. Am., Insects, p. 250. *Locusta latipennis* Harr., Report, p. 179. *Edipoda æqualis* Uhler in Harr., Report, p. 178.
 Norway: common upon barren hills and in rocky pastures; "Maine, (Packard)," Scudd.; "Mount Katahdin," Packard.

Edipoda pellucida Scudd., l. c., p. 472. The clear-winged Locust.
 Norway: very common; "Maine, (Packard)," Scudd.

Edipoda sordida Burm.; Scudd., l. c., p. 473. The Clouded Locust.
Locusta nebulosa Harr., Report, p. 181. *Edipoda nebulosa* Uhler in Harr., Report, p. 181.
 Norway: very common; "Maine, (Packard)," Scudd.

Tettix granulata Scudd., l. c., p. 474. Grouse Locust.
Acrydium granulatum Kirby, Faun. Bor. Am., Insects, p. 251. *Tettix ornata* Harr., Report, p. 186.
 Norway: very common, last of April, May, early June, and again the last of August and through September; "Maine, (Packard)," Scudd.

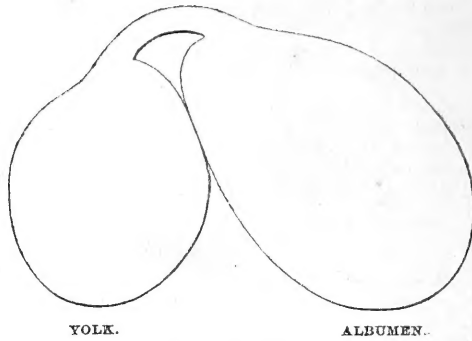
Tettix ornata Scudd., l. c., p. 474. Grouse Locust.
Acrydium ornatum Say, Amer. Entom., vol I, Pl. 5. *Tettix dorsalis*, *T. quadrimaculata*, *T. bilineata*, and *T. sordida* Harr., Report, pp. 186, 187.
 Norway: at the same times as the last species but not quite as abundant; "Maine, (Harris' Collection, Packard)," Scudd.

Tettix triangularis Scudd., l. c., p. 475. "Maine, (Packard)," Scudd.

Tettigidea lateralis Scudd., l. c., p. 477.
Acrydium laterale Say, Amer. Entom., vol. 1, Pl. 5. *Tettix lateralis* Harr., Report, p. 187.
 Norway: common, April, May, late August, September; "Maine, (Packard)," Scudd.

Tettigidea polymorpha Scudd., l. c., p. 477.
Tettix parvipennis Harr., Report, p. 187, fig. 82. Norway: common with the last species; "Maine, (Harris' Collection, Packard)," Scudd.

Batrachidea cristata Scudd., l. c., p. 478.
 Norway: Rocky Hills, May, not very common; "Maine, (Harris' Collection, Packard)," Scudd.; "Grand Falls," on the Penobscot, Packard. r/h



CURIOUS FORMATION OF THE EGG OF THE COMMON FOWL.

Communicated to the Society, February 1, 1866, by N. T. TRUE, M. D.

This egg, an outline of which is given above, was taken from a nest in Bethel, Maine, in August, 1865. It consists of two shells of the ordinary consistence of calcareous deposit, joined at nearly a right angle by a siphon of the same substance connecting their smaller ends. Where the shells are in juxtaposition, the walls are reduced to a mere film, (the calcareous deposit apparently wanting,) so that the parts are chiefly held together by the siphon. The most singular fact about them is that the smaller bulb was entirely filled with yolk, while the larger contained nothing but the albumen occupying the entire cavity. The larger shell measures $4\frac{1}{2}$ inches, the smaller $4\frac{1}{4}$ inches in circumference, taken at their shortest diameters. The siphon is $\frac{1}{3}$ inch in diameter and $\frac{3}{4}$ inch in length. Length of contact 1 inch. The specimen is preserved in Dr. True's cabinet at Bethel.



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