about 528 microns. Thorax long and narrow, about 480 microns wide in middle; anterior legs about 704 microns behind head; anterior femora curved, convex above, concave below; their tibiae rather short (about 288 microns), with a single long spur; their tarsi long, the first joint longer than next three together, and strongly curved; hind femora extremely broad and flattened, the summit of the curve about half-way between base and middle; abdomen with a rather long petiole.

Burmese amber, from R. C. J. Swinhoe. In the same slab as the type of *Cryphalites rugosissimus*, and 24.5 mm. from it. Related to *Scleroderma* (?) *quadridentatum*, which may possibly belong to *Apenesia*, but on account of the black abdomen and various structural characters surely not its male.

DISTRIBUTIONAL NOTES ON NEW ENGLAND ODONATA.

PART I.

By R. HEBER HOWE, JR.,

Thoreau Museum, Concord, Massachusetts.

Since Dr. P. P. Calvert's List was published in October, 1905, the following published corrections and additions have been made:

- Argia apicalis* (Say) Selys recorded from Maine by Dr. Calvert on the authority of Prof. Harvey was expunged by Dr. Calvert following an examination of the Harvey specimens by Mr. Williamson (Ent. News 17: 31. 1906).
Argia mæsta putrida (Hagen) was shown by Mr. E. B. Williamson to be synonymous with *Argia mæsta* Hagen (Ent. News 23: 200. 1912.)

In Dr. E. M. Walker's "The North American Dragon-flies of the Genus *Æshna* (Univ. Toronto Studies, Biol. Series, 1912) the following New England records for the genus were made:

- Æshna cærulea septentrionalis* Burm.
N. H. White Mts. (*Scudder*)
Æshna juncea Linn.
N. H. White Mts. (*Scudder*)

- . 140. *Æshna interrupta* Walker. New species for New England
 Me. Portland (*Jones*)
 Vt. ——— (*Frost*)
 Mass. ——— (*Uhler*)
141. *Æshna eremita* Scudd. New species for New England
 Me. Six Ponds, Piscataquis Co. (*Harvey*)
 N. H. Franconia (*Slosson*)
 Hermit Lake, Mt. Washington (*Scudder*)
- Æshna clepsydra* Say
 Me. Manchester (*Wadsworth*)
 Mass. Brookline (*Shurtleff*)
 Provincetown (*Benedict*)
 Wilbrahim (*Hagen*)
 Boston (*Uhler*)
 Salem (*True*)
 Natick (*Sanborn*)
142. *Æshna canadensis* Walker. New species for New England
 Me. Bradley (*Harvey*)
 Manchester (*Wadsworth*)
 Norway (*Smith*)
 Orono (*Harvey*)
 N. H. White Mts. (*Shurtleff*)
 White Mts. House (*Calvert*)
 Franconia (*Calvert*)
 Fabyans
 Vt. Newport (*Slosson*)
 Mass. ——— (*Needham*)
- Æshna verticalis* Hagen = *A. juncea verticalis* (*Hagen*) of
 Dr. Calvert's List
 Me. Manchester (*Wadsworth*)
 West Beach (*Hagen*)
- Mass. Beverly
 Cambridge
 Nahant (*Moring*)
 Salem (*Lane*)
 Saugus
 Sherbourne
 Walpole (*Sprague*)
 Westborn (*Needham*)
 Wollaston (*Sprague*)

143. *Æshna tuberculifera* Walker
 Me. Islesboro (*Dixon*)
 Manchester (*Wadsworth*)
 Mass. Walpole (*Sprague*)
 Essex Co., (*Hagen*)
 Provincetown (*Benedict*)
 Hampden (*Needham*)
 Westborn (*Needham*)
144. *Æshna umbrosa* Walker
 Me. Manchester (*Wadsworth*)
 Augusta (*Wadsworth*)
 Norway (*Smith*)
 Gorham
 Millinocket (*Harvey*)
 Russell Stream (*Corry*)
 Bradley (*Harvey*)
 Greenfield (*Harvey*)
 Six Ponds (*Harvey*)
 N. H. Franconia (*Slosson*)
 White Mts. (*Sprague*)
 Hermit Lake (*Scudder*)
 Centre Harbor
 Mass. Boston
 Cambridge
 Amherst (*Needham*)
 Wilbrahim (*Martin*)
 Auburndale
 Gor Head = Gay Head
Æshna constricta Say
 Me. Manchester (*Wadsworth*)
 Mass. Hampden (*Needham*)
145. *Æshna mutata* Hagen
 Mass. Wilbrahim (*Needham*)

In the Proceedings of the Thoreau Museum of Natural History, I: 41, 1915, Mr. E. L. Peirson recorded the capture of the following species in Concord, Mass., and Dr. Calvert in the Ent. News, 26: 238-239, 1915 again noted Mr. Peirson's capture and added a record of a female taken by Mr. C. W. Johnson at Dedham, Mass.

Mr. E. J. Smith of Sherborn, Mass., kindly permits me to here record the capture of a male, on April 30, 1913, at Sherborn.

146. *Williamsonia lintneri* (Hagen) Davis
 Mass. Concord (*Peirson*)
 Dedham (*Calvert*)

In PSYCHE, 23: 12-15, 1916, the author recorded *Æshna umbrosa* and *Æshna canadensis* as new to New England having overlooked Dr. Walker's records. *Libellula luctuosa* Burm., though not uncommon, was added to Dr. Calvert's List.

147. *Libellula luctuosa* Burm.
 Mass. Concord (*Howe*)

I now wish to record records of a few species sent me from Brandon, Vt., by Mr. D. Lewis Dutton; a small lot from North Guilford, Conn., sent by Mr. Geo. L. Howe; two species from Cataumet, Mass., sent by Miss Theresa Winsor; a summer's catch in New Hampshire made with the continual aid and co-operation of Mr. David M. Little, and a spring and autumn catch at Concord, Mass., made with the help of my daughter, Miss Susan A. Howe, and the Misses Shaw.

- Anax junius* (Drury) Selys. May 27, 1912. New to Vermont
Æshna eremita Scudd. Aug. 31, 1915. New to Vermont
Æshna umbrosa Walker. May 6, 1915. New to Vermont
Basiæshna janata (Say) Selys. May 22, 1912. New to Vermont
Plathemis lydia (Drury) Hagen. July, 1912. New to Vermont
Sympetrum rubicundulum (or var. *obtrusum*), teneral female. July, 1912, in either case new to Vermont

On September 18, 1915, I collected at Bristol and Middletown, R. I., and again at Middletown on June 3, 1916, and at Bristol on October 2, 1916. The following species were taken:

- Lestes rectangularis* Say. Bristol, Sept.
Enallagma civile (Hagen) Selys. Both stations, Sept.
Ischnura ramburii Selys. Both stations, Sept., Oct. 2
Anax junius (Drury) Selys. Middletown, Sept.

- Æshna tuberculifera* Walker. Bristol, Sept. New to Rhode Island
Libellula pulchella Drury, Middletown, Sept.
Plathemis lydia (Drury) Hagen. Bristol, Sept.
Pantala flavescens (Fab.) Hagen, teneral. Bristol, Sept.
New to Rhode Island
Sympetrum rubicundulum (Say) Kirby. Both stations, Sept.
Ischnura posita (Hagen) Needham. Middletown, Sept. and June

The collection from North Guilford, Conn., contained the following:

148. *Celithemis monomelana* Will. July, 1916. New to New England
Plathemis lydia (Drury) Hagen. July, 1916

The two species from Cataumet, Mass., were:

- Erythrodiplax berenice* (Drury) Ris. July, 1916
Epicordulia princeps (Hagen) Selys. July, 1916

I began collecting on Meredith Neck, N. H., on June 29 and visited various collecting grounds on the shores of Lake Winnepesaukee until August 23. These included Centre Harbor, Meredith, Moultonboro (Sanborn's Meadows), and made two trips to Lake Asquam, with one excursion to Newfound and one to Profile Lake. The list of species follows:

- Agrion maculata* Beauv. Meredith Neck, July 27. New to New Hampshire
Lestes disjunctus Selys. Meredith Neck and Moultonboro, Aug. 1-22
Lestes rectangularis Say. Meredith Neck, July 18-Aug. 15
Lestes vigilax Hagen. Meredith Neck and Moultonboro, July 6-Aug. 15. New to New Hampshire
Lestes inequalis Walsh. Meredith Neck and Moultonboro, July 6-Aug. 15
Argia mæsta Hagen. Meredith Neck and Moultonboro, July 7-Aug. 23. New to New Hampshire
Argia violacea (Hagen) Selys. Meredith Neck, July 17-Aug. 23. New to New Hampshire

- Nehalennia irene* (Hagen) Selys. Meredith, July 5–24 and Moultonboro
- Enallagma calverti* Morse. Profile Lake, Aug. 12. New to New Hampshire
- Enallagma hageni* (Walsh) Selys. Meredith and Moultonboro, July 2–11. New to New Hampshire
- Enallagma ebrium* (Hagen) Selys. Meredith Neck and Moultonboro, July 5–18
- Enallagma civile* (Hagen) Selys. Lake Asquam, Moultonboro and Meredith Neck, July 23 to Aug. 14. New to New Hampshire
- Enallagma minusculum* Morse. Meredith Neck, Aug. 6–23. New to New Hampshire
- Enallagma traviatum* Selys. Moultonboro, July 18. One female. New to New Hampshire
- Enallagma exsulans* (Hagen) Selys. Meredith Neck, July 17–Aug. 7. New to New Hampshire
- Enallagma signatum* (Hagen) Selys. Meredith Neck and Moultonboro, July 2–Aug. 22. New to New Hampshire
- Enallagma pollutum* (Hagen) Selys. Moultonboro, July 2. New to New Hampshire
- Ischnura verticalis* (Say) Selys. Meredith Neck, Centre Harbor, Moultonboro, July 5–Aug. 22
- Hagenius brevistylus* Selys. Meredith Neck and Moultonboro, July 12–Aug. 22
- Gomphus exilis* Selys. Meredith Neck and Moultonboro, June 30–Aug. 2
- Dromogomphus spinosus* Selys. Meredith Neck, Newfound Lake, Moultonboro, July 20–Aug. 14
- Anax junius* (Drury) Selys. Meredith, July 5–27
- Eshna verticalis* (Hagen). Meredith Neck, Aug. 7–18
- Eshna clepsydra* Say. Moultonboro, Aug. 14–27
- Eshna canadensis* Walker. Moultonboro, Meredith Neck, Jackson, Aug. 2–22
- Eshna eremita* Scudd. Profile Lake and Moultonboro, Aug. 12–14
- Eshna umbrosa* Walker. Meredith Neck, Aug. 7–18

149. *Nasiæshna pentacantha* Ramb. Moultonboro, July 9.
New to New England
Basiæshna janata (Say) Selys. Meredith Neck, July 5-7
Boyeria vinosa (Say) McLachlan. Meredith Neck, July
25-Aug. 18. New to New Hampshire
Didymops transversa (Say) Hagen. Meredith Neck, July 11
Macromia illionoiensis Walsh. Meredith Neck and Moul-
tonboro, Aug. 2-7
Neurocordulia obsoleta (Say) Selys. Meredith Neck, July
27-29. Crepuscular in habit
Epicordulia princeps (Hagen) Selys. Concord and Mere-
dith Neck, June 29-Aug. 2. New to New Hampshire
Tetragoneuria cynosura simulans Mutt. = *T. c. semiaquea*
(Burm) of Dr. Calvert's List. Meredith Neck and
Moultonboro, July 2-20
Tetragoneuria spinigera (Selys) Selys. Meredith Neck,
June 29-July 11
150. *Tetragoneuria morio* Mutt. Meredith Neck, June 29. New
to New England
Somatochlora elongata (Scudd.) Selys. Centre Harbor and
Jackson, July 14-Aug. 12
151. *Somatochlora williamsoni* Walker. Meredith Neck, July
17. New to New England
Cordulia shurtleffi Scudd. Moultonboro, July 8-18
Dorocordulia libera (Selys) Need. Moultonboro, July 8
Libellula exusta Say. Moultonboro and Meredith Neck,
July 6-25
Libellula pulchella Drury. Centre Harbor, Meredith Neck,
Moultonboro, July 5-Aug. 20
Libellula quadrimaculata Linn. Meredith Neck, Moulton-
boro, Centre Harbor, June 30-July 18
Plathemis lydia (Drury) Hagen. Centre Harbor, July 7
Sympetrum rubicundulum (Say) Kirby. Meredith Neck,
Centre Harbor, Moultonboro, Profile Lake, July 11-
Aug. 23
Sympetrum rubicundulum obtusum (Hagen). Meredith
Neck and Centre Harbor, July 5-7
Sympetrum vicinum (Hagen) Kirby. Meredith Neck and
Jackson, Aug. 12-14

- Leucorhinia frigida* Hagen. Moultonboro, July 6–Aug. 14
Leucorhinia glacialis Hagen. Moultonboro, July 6–9
Leucorhinia intacta (Hagen) Hagen. Meredith Neck, and
 Moultonboro, Centre Harbor, June 30–July 27
Celithemis elisa (Hagen) Walsh. Moultonboro, July 18–
 Aug. 14. This species was also captured at Tyngs-
 boro, Mass., on June 29.

I began collecting in Concord, Mass., with the first appearance of dragon-fly life and collected until June 28. On August 24 I returned from New Hampshire and collected until the end of the season. During these periods I added the following species to my Preliminary List published in PSYCHE (*ibid.*), bringing the number from 52 to 67.

- Lestes uncatus* Kirby. Common, June 27
 152. (?) *Argia sedula* Hagen. Two specimens taken on June 2
 were of doubtful determination by Mr. Williamson.
 The species would be new to New England.
Ischnura posita (Hagen) Need. Male, Sept. 3
Cordulegaster diastalops Selys. One female, June 1
Cordulegaster maculatus Selys. One male, June 28
Aeshna tuberculifera Walker. One male, Sept. 3–6
Aeshna verticalis Hagen. Not uncommon, Aug. 15–Oct. 1
Epicordulia princeps (Hagen) Selys. Two males, June 23,
 July 28
Boyeria vinosa (Say) MacLachlan. One seen Sept. 13
Tetragoneuria cynosura var. *simulans* Mutt. Several, June 23
Helocordulia uhleri (Selys) Need. One male, May 29
Cordulia shurtleffi Scudd. One female, June 27. New to
 Massachusetts
Libellula semifasciata Burm., teneral. June 23
Sympetrum rubicundulum var. *obtrusum* (Hagen). Male,
 Oct. 5
Leucorhinia intacta (Hagen) Hagen. Not uncommon, May
 30–June 28

Through the kindness of Mr. C. W. Johnson, Curator, I have examined the collection of Odonata in the Boston Society of Natural History, and can add the following new records:

- Agrion maculata* Beauv. New to Connecticut, Rowayton, and Rhode Island, Apponaug
Lestes uncatus Kirby. New to Connecticut, Darien
Lestes inequalis Walsh. New to Massachusetts, Cohasset, Blue Hills, No. Reading, Manomet
Gomphus parvulus (Selys) Need. New to Massachusetts, No. Reading and East Walpole
Cordulegaster maculatus Selys. New to Vermont, Bennington
Libellula semifasciata Burm. New to Connecticut, Darien
Erythrodiplex berenice (Drury) Ris. New to Connecticut, Rowayton
Tramea carolina (L.) Hagen. New to Connecticut, Darien
153. *Tramea lacerata* Hagen. New to New England, Chelsea, Mass., Sept. 6, 1868, female
Pachydiplex longipennis (Burm.) Brauer. New to Connecticut, Darien

All my determinations for the above species have been verified by either Messrs. Ed. B. Williamson, R. A. Muttkowski or E. M. Walker, and to these gentlemen I extend my most hearty thanks.

CYCLOLEPPTERON THEOBALD (DIPTERA: CULICIDAE).

Some new, *i. e.* hitherto unreported localities for the group of Anophelines which Mr. Theobald placed together under the genus *Cycloleppteron* are: San Juan, Jajuga, Carolina, and Coamo Springs, Porto Rico, from which places specimens were sent by Dr. B. H. Dutcher, Lieut.-Colonel, Medical Corps, U. S. Army, during the period Sept. 11, 1914–July 15, 1915, since which time no collections from Porto Rico have been received.

C. S. LUDLOW.

Army Medical Museum,
Washington, D. C.,
January 30, 1917.