

*Davenport Academy of Natural Sciences.
Davenport, Iowa. 1876.*

PROCEEDINGS

OF THE

(Iowa)

DAVENPORT ACADEMY

OF

NATURAL SCIENCES.

VOLUME I.

1867-1876.

DAVENPORT, IOWA:

PUBLISHED FOR THE ACADEMY

BY THE

WOMEN'S CENTENNIAL ASSOCIATION,

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PRICE, \$2.50.

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JULY, 1876.

LIST OF HYMENOPTERA,

Collected by J. Duncan Putnam, of Davenport, Iowa, with
Descriptions of two New Species.

BY E. T. CRESSON, PHILADELPHIA.

URO CERIDÆ.

<i>Urocerus flavicornis</i> , <i>Fab.</i> ♀	Boulder Canon, Empire City, Col.
<i>Urocerus abdominalis</i> , <i>Fab.</i> ♂♀	Wind R., Stinkingwater R., Wyo.
<i>Urocerus cyaneus</i> , <i>Fab.</i> ♀	Spring Lake, Utah.
<i>Tremex columba</i> , <i>Fab.</i> ♀	Davenport, Iowa.

TENTHREDINIDÆ.

<i>Acordulecera dorsalis</i> , <i>Say.</i>	Davenport, Iowa.
<i>Dolerus bicolor</i> , <i>Beauv.</i>	Clear Creek, Col.
“ <i>colaris</i> , <i>Say.</i>	Davenport, Iowa.
“ <i>aprilis</i> , <i>Norton</i> ,	Empire City, Col.; Green River, Wy.
<i>Selandria nubilipennis</i> , <i>Norton.</i>	Fort Bridger, Wy.
<i>Tenthredo xanthus</i> , <i>Norton.</i>	Empire City, Col.
“ <i>pectoralis</i> , <i>Norton.</i>	Empire City, Col.
“ <i>variata</i> , <i>Norton,</i>	Empire City, Col.
<i>Phyllaacus clavatus</i> , <i>Norton.</i>	Clear Creek, Col.

ICHNEUMONIDÆ.

<i>Ichneumon pedalis</i> , <i>Cress.</i>	Spring Lake, Utah.
“ <i>lætus</i> , <i>Cress.</i>	Davenport, Iowa.
“ <i>inconstans</i> , <i>Cress.</i>	Spring Lake, Utah.
“ <i>variegatus</i> , <i>Cress.</i>	Davenport, Iowa; Plains, Denver, Empire, Col.
“ <i>vinulentus</i> , <i>Cress.</i>	Empire City, Col.
“ <i>allapsus</i> , <i>Cress.</i>	Clear Creek, Empire City.
“ <i>Lewisii</i> , <i>Cress.</i>	Davenport, Iowa.
“ <i>propinquus</i> , <i>Cress.</i>	Empire, Col.; Green River, Wy.
“ <i>saturalis</i> , <i>Say.</i>	Empire, Col.
<i>Cryptus luctuosus</i> , <i>Cress.</i>	Empire, Col.
“ <i>tejonensis</i> , <i>Cress.</i>	Fort Bridger, Wy.
<i>Pimpla pedalis</i> , <i>Cress.</i>	Davenport, Iowa.
“ <i>inquisitor</i> , <i>Say.</i>	Monticello, Iowa.
<i>Arenetra nigrita</i> , <i>Cress.</i>	Davenport, Iowa.
<i>Exochus lævis</i> , <i>Cress.</i>	Monticello, Iowa.
“ <i>carinatus</i> , <i>Cress.</i>	Monticello, Iowa.
<i>Tryphon communis</i> , <i>Cress.</i>	Empire City, Col.
<i>Bassus sycophanta</i> , <i>Walsh.</i>	Davenport, Iowa.
“ <i>orbitalis</i> , <i>Cress.</i>	Clear Creek, Col.
“ <i>maculifrons</i> , <i>Cress.</i>	Clear Creek, Col.
<i>Exochilum mundum</i> , <i>Say.</i>	Davenport, Iowa.

<i>Ophion bilineatus</i> , Say.	Empire and Denver, Col.; Ft. Bridger and Green River, Wy.; Davenport, Iowa.
“ <i>purgatus</i> , Say.	Denver, Col.
<i>Paniscus geminatus</i> , Say.	Davenport, Iowa.
<i>Mesochorus agrilus</i> , Cress.	Green River, Wy.
<i>Pelecinius polylyratur</i> , Dej.	Davenport, Iowa.

BRACONIDÆ

<i>Chelonus sericeus</i> , Say.	Empire, Col.; Wind River, Wy.
<i>Rogas terminatus</i> , Cress.	Davenport, Iowa.
<i>Toxoneuron seminigrum</i> , Cress.	Denver, Col.
“ <i>explorator</i> , Say.	Denver, Col.
<i>Microdus fulvescens</i> , Cress.	Denver, Col.
<i>Agathis vulgaris</i> , Cress.	Canon City, Col.

CHALCIDIDÆ.

<i>Chalcis ovata</i> , Say.	Denver and Clear Creek, Col.
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MUTILLIDÆ

<i>Mutilla gibbosa</i> , Say. ♂	Denver, Col.
“ <i>Camanche</i> , Blake. ♀	Boulder, Col.
“ <i>californica</i> , Rad. ♀	Boulder and Canon City, Col.; Wind River, Wy.; Spring Lake, Utah.
“ <i>creusa</i> , Cress.	Boulder, Col.
“ <i>coccineohirta</i> , Blake.	Yel. Nat. Pk., Wy; Spring Lake, Utah.
“ <i>monticola</i> , Cress.	Denver, Col.
“ <i>scaevola</i> , Blake.	Saratoga, N. Y.
“ <i>ferrugata</i> , Fabr.	Canon City, Col.
“ <i>simillima</i> , Smith.	Boulder, Col.
<i>Agama concolor</i> , Cress.	Denver, Col.

SCOLIDÆ.

<i>Tiphia albilabris</i> , St. Farg.	Spring Lake, Utah.
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NYSSONIDÆ.

<i>Stizus nevadensis</i> , Cress.	Spring Lake, Utah.
<i>Larra uncinata</i> , Say.	Spring Lake, Utah.
<i>Nysson aurinotatus</i> , Say.	Boulder, Col.

PHILANTHIDÆ.

<i>Philanthus frontalis</i> , Cress.	Spring Lake, Utah.
<i>Cerceris pedalis</i> , Cress.	Spring Lake, Utah.
“ <i>deserta</i> , Cress.	Denver, Col.

CRABONIDÆ.

<i>Trypoxylon frigidum</i> , Smith.	Spring Lake, Utah.
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BEMBECIDÆ.

<i>Bembex fasciata</i> , Say.	Spring Lake, Utah.
" <i>nubilipennis</i> , Cress.	Frederic, Monroe Co., Iowa.
<i>Monedula ventralis</i> , Say.	Spring Lake, Utah.

LARRIDÆ.

<i>Larrada argentata</i> , Beauv.	Davenport, Iowa.
" <i>terminata</i> , Smith.	Spring Lake, Utah.
" <i>montana</i> , Cress.	Plains, Col.
" <i>tarsata</i> , Say.	Denver, Col.
<i>Tachytes abdominalis</i> , Say.	Spring Lake, Utah.
<i>Astata unicolor</i> , Say.	Plains, Col.

SPHEGIDÆ.

<i>Ammophila vulgaris</i> , Cress.	Davenport, Iowa; Middle Park, Col.; Spring Lake, Utah.
" <i>communis</i> , Cress.	Plains, Empire, Clear Creek, Col.; Spring Lake, Utah.
" <i>varipes</i> , Cress.	Spring Lake, Utah.
" <i>pictipennis</i> , Walsh.	Davenport, Iowa.
" <i>ferruginea</i> , Cress.	Plains, Col.
" <i>robusta</i> , Cress.	Empire, Col.
" <i>luctuosa</i> , Smith.	Clear Creek and Canon City, Col.; Spring Lake, Utah.
<i>Pelopoeus caeruleus</i> , Linn.	Davenport, Iowa; Boulder, Col.; and Spring Lake, Utah.
" <i>cementarius</i> , Drury.	Boulder, Col.; and Spring Lake, Utah.
<i>Sphex ichneumoneus</i> , Fabr.	Spring Lake, Utah.
" <i>læviventris</i> , Cress.	Spring Lake, Utah.
<i>Priononyx atrata</i> , St. Farg.	Canon City, Col.

POMPILIDÆ.

<i>Pompilus luctuosus</i> , Cress.	Canon City, Col.
<i>Priocnemis terminatus</i> , Say.	Spring Lake, Utah.
<i>Pepsis marginata</i> , Fabr.	Spring Lake, Utah.

EUMENIDÆ.

<i>Odynerus campestris</i> , Sauss.	Davenport, Iowa.
" <i>albophaleratus</i> , Sauss.	Canon City, Col.; Davenport, Iowa.
" <i>tigris</i> , Lauss.	Spring Lake, Utah.
" <i>annulatus</i> , Say.	Spring Lake, Utah.

MASARIDÆ.

<i>Masaris vespoides</i> , Cress. ♀	Canon City, Col.
" <i>zonalis</i> , Cress. ♀	Canon City, Col.

VESPIDÆ.

- Vespa germanica*, Linn. ♂♂ Davenport, Iowa.
 " *diabolica*, Sauss. ♀ Denver, Boulder and Empire, Col.; and Spring Lake, Utah.
 " *occidentalis*, Cress. Denver, Col.; and Spring Lake, Utah.
 " *maculata*, Linn. Davenport, Iowa; Spring Lake, Utah; and Snake River, Wy.
 " *arenaria*, Fabr. Spring Lake, Utah.
Polistes variatus, Cress. ♂♀ Davenport, Iowa; Spring Lake, Utah; and Boulder, Col.
 " *pallipes*, St. Farg. Davenport, Iowa
 " *metricus*, Say. Davenport, Iowa.

ANDRENIDÆ.

- Colletes americana*, Cress. Denver, Col.; Spring Lake, Utah.
 " *albescens*, Cress. Denver, Col.
 " *consors*, Cress. Clear Creek, Col.
Augochlora pura, Say. Davenport, Iowa.
Agapostemon nigricornis, Fab. ♀ Spring Lake, Utah.
 " *radiatus*, Say. Monticello, Iowa; Spring Lake, Utah.
 " *texanus*, Cress. Boulder, Col.; Spring Lake, Utah.

APIDÆ.

- Prosopis basalis*, Smith. Canon City, Col.
 " *affinis*, Smith. Davenport, Iowa.
Osmia megacaphala, Cress. Spring Lake, Utah.
Monumetha borealis, Cress. Clear Creek, Col.
Megachile prunia, Smith. ♂♀ Boulder, Col.; Spring Lake, Utah.
 " *exilis*, Cress. ♂ Boulder, Col.; Spring Lake, Utah.
 " *gentilis*, Cress. Boulder, Col.; and Empire, Col.
Lithurgus apicalis, Cress. Boulder, Col.
Anthidium maculifrons, Smith. Boulder, Col.
 " *interruptum*, Say. Spring Lake, Utah.
Heriades variolosa, Cress. Boulder, Col.
Nomada grandis, Cress. Canon City, Col.
 " *Putnami*, Cress. (N. Sp.) Spring Lake, Utah.
 " *maculata*, Cress. Leavenworth, Kansas.
 " *incerta*, Cress. Denver, Col.
Epeolus lunatus, Say. Spring Lake, Utah.
 " *mercatus*, Fab. Empire and Denver, Col.
Ceratina dupla, Say. Spring Lake, Utah; and Leavenworth, Kansas.
Melissodes speciosa, Cress. ♂ Denver, Col.
 " *honesta*, Cress. ♀ Green River, Wy.
 " *pruinosa*, Say. Spring Lake, Utah.
 " *menuachus*, Cress. Boulder, Col.

- " *densa*, *Cress.* Spring Lake, Utah; Boulder, Col.
Anthophora occidentalis, *Cress.* ♀ Boulder, Col.; ♂ Spring Lake, Utah.
 " *terminalis*, *Cress.* ♂♀ Empire, Col.; Spring Lake, Utah.
 " *albata*, *Cress.* (N. Sp.) ♀ Denver, Col.
Apathus insularis, *Smith.* Empire and Clear Creek, Col.
 " *elatus*, *Fab.* Davenport, Iowa.
Bombus fervidus, *Fab.* Ft. Bridger, Wy.; Davenport, Iowa; and Spring
 Lake, Utah.
 " *borealis*, *Kirby.* Empire, Col.
 " *flavifrons*, *Cress.* Empire, Col.; Spring Lake, Utah.
 " *ternarius*, *Say.* Ft. Bridger, Wy.; Empire, Col.
 " *separatus*, *Cress.* Davenport, Iowa; Spring Lake, Utah.
 " *pennsylvanicus*, *DeGeer.* Davenport, Iowa.
 " *virginicus*, *Linn.* Davenport, Iowa.
Apis mellifica, *Linn.* Spring Lake, Utah; Monticello and Davenport,
 Iowa.

Nomada Putnami, Cresson, n. sp.

♀.—Black, shining; head evenly, not closely or strongly punctured; clypeus sparsely punctured; a large subtriangular mark on each side of face and a spot on base of mandibles, lemon-yellow; mandibles except tips, narrow posterior orbital line and three basal joints of antennæ ferruginous; thorax strongly, evenly and rather closely punctured, clothed with a yellowish pubescence, more dense on the sides and on metathorax; scutellum depressed medially; a line on prothorax, two large nearly confluent spots on scutellum, line on postscutellum, tubercles and small spot on pleura, lemon-yellow; tegulæ honey-yellow; wings clouded with fuscous, apical margin darker; stigma ferruginous, nervures fuscous; legs ferruginous, with yellowish pubescence, four posterior coxæ, each with a small yellow spot; abdomen shining, closely and finely punctured, apical margin of segments smooth and polished; the dorsal segments each with a continuous lemon-yellow subapical band, that on second segment broadly dilated laterally, the others slightly so; venter brown-ferruginous, with yellowish pubescence. Length, $4\frac{1}{2}$ lines.

♀.—Entire face except short black sutural line on each side of clypeus, labrum, base of mandibles, spot behind eyes, scape beneath, small spot beneath tubercles, knees and anterior tibiæ before, yellow; flagellum ferruginous beneath; sixth abdominal segment with a yellow band; apical segment emarginate at tip; venter blackish-brown; otherwise like the ♀.

Utah Six specimens. It give me pleasure to dedicate this handsome species to my friend J. Duncan Putnam, Esq., of Davenport, Iowa.

***Anthaphora Albata*, Cresson, n. sp.**

?.—Black, head, thorax and first abdominal segment, clothed with a rather long, dense white pubescence, shorter on mesothorax; spot beneath base of antennæ, clypeus except narrow apical margin and two large spots at base, which are black, labrum and mandibles except tips, white; antennæ short, brown; disk of mesothorax nearly destitute of pubescence, shining, finely punctured; wings short, clear hyaline, nervures black; legs brown, clothed above with short dense white pubescence, beneath it is black, especially on large basal joint of tarsi; abdomen ovate, except base of first segment, the surface above is covered with a very dense short appressed pubescence, at apical middle of fifth segment a raised patch of blackish pubescence; venter brown-black, with a few pale hairs at apex. Length $4\frac{1}{4}$ lines.

Denver, Colorado; several specimens collected by Mr. Putnam during the month of June.



