twelve species occur abundantly in New England, three more extend nearly or quite as far south as the Great Lakes and the St. Lawrence, and two or three are found in California; three occur in, or are intimately allied to others inhabiting the Rocky Mountain region near our own parallel, and one of them has been previously described only from central Siberia. On the whole the fauna does not seem to be a distinctive one, but to unite in itself the characters of the elevated portions of the whole of boreal America, from ocean to ocean, and, in part, those of the neighboring portions of the Asiatic continent; the foundation, however, is formed of types characteristic of the great interior of the continent north of the United States. Judging by the specimens brought home, the three most abundant species are *Papilio Turnus*, *Pieris venosa* and *Papilio Aliaska*; and it is a little remarkable that each of these species is characteristic of one of the three great divisions,—eastern, western and central boreal America.

Mr. S. H. Scudder presented the following notice of a new cave insect from New Zealand.

The long limbed Locustarian of the Mammoth Cave in Kentucky was described at about the same time by de Saussure and by myself as a species of Rhaphidophora; subsequently I showed that this insect was the type of a distinct genus, which I called Hadenœcus, and suggested that one of the cave-Locustarians of Europe, which I had never seen in nature, might belong to the same genus. Specimens of each species received since then have shown both that Rhaphidophora palpata (Sulz.) Charp., belongs to Hadenœcus, and that R. cavicola (Koll.) Fisch., belongs to the genus Ceuthophilus; therefore no true species of Rhaphidophora occurs either in Europe or America.

It gives me pleasure to announce an additional species of Hadenœcus from quite another quarter of the globe.

Hadenœcus Edwardsii nov. sp.

Body uniform brownish fuscous; front pale fuscous; palpi, tarsi and apical third of tibiæ pale; antennæ brownish fuscous. Length of pronotum 6 $^{mm.}$; of thoracic nota together 11.5 $^{mm.}$; of antennæ 120 $^{mm.}$; of maxillary palpi 18.5 $^{mm.}$; of fore tibiæ 23 $^{mm.}$; of hind tibiæ 40 $^{mm.}$.

One imperfect specimen of this species, much the largest of the genus, was presented to me by my friend, Mr. Henry Edwards, who captured it himself in a limestone cave at Collingwood, Massacre

Bay, Middle Island, New Zealand. The cave is close to the sea shore, and near a very large coal deposit, which occasionally crops out in the interior. The Hadenœci were rather numerous, but very difficult to catch, disappearing in the crevices of the rocks on the approach of lights. They appeared to be most abundant near the streams of water which percolated through the rocks. The sex of my specimen cannot be determined.

The genus Hadenœcus is of peculiar interest, for its members are confined to the deepest caves, and no other Orthopteran genus is known to be limited in this way. Up to this time three species have been discovered, from very distinct localities; they are the following: —

1. Hadenœcus palpatus Scudder.

Locusta palpata Sulz., Abgek. Gesch. Ins., 83, tab. IX, fig. 2.
Gryllus pupus europæus de Villers, Entomol., I, 451.
Phalangopsis araneiformis Germ., Burm., Handb. d. Entom., II, 722.
Rhaphidophora araneiformis Burm., Handb. d. Entom., II, 1014.
Phalangopsis araneiformis Herr.-Sch., Nomenel., II, 15, 26.
Rhaphidophora palpata Charp., Orth. descr. et dep., tab. XLIV; Germ., Zeitschr., III, 319.
Rhaphidophora palpata Fisch., Orthopt. Eur., 200, tab. XI, fig. 1, 1.
European caves.

2. Hadenœcus cavernarum Scudder.

Rhaphidophora cavernarum Sauss., Ann. Soc. Ent. de Fr., [4] I, 492.
Rhaphidophora subterranea Scudd., Proc. Bost. Soc. Nat. Hist., VIII, 8; Gen. Rhaph., 3.
Hadenœcus subterraneus Scudd., Bost. Journ. Nat. Hist., VII, 441.
North American caves.

3. Hadenœcus Edwardsii Scudder, supra.
New Zealand caves.

Mr. F. G. Sanborn exhibited a pair of the rare and curious little Neuropterous insect, *Boreus brumalis* of Fitch.

They were captured at Medford early in the month, and presented to the Society by Dr. Edward P. Colby. One specimen only, a male, was in the Society's museum, and no others, save those in the cabinet of Dr. Asa Fitch, were known to exist in public or private collections. Its structural peculiarities are very great, belonging to the group of which the *Panorpidæ* afford our most common examples; it is totally