

ACTA ZOOLOGICA FENNICA 96
EDIT
SOCIETAS PRO FAUNA ET FLORA FENNICA

HEMIPTERA HETEROPTERA FROM NEWFOUNDLAND,
COLLECTED BY THE SWEDISH-FINNISH
EXPEDITION OF 1949 AND 1951

BY

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HELSINKI—HELSINGFORS

1958



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PRINTED BY TILGMANN

Introduction

In this paper will be listed the *Hemiptera Heteroptera* collected by the Swedish-Finnish biological expedition to Newfoundland in the summer of 1949. The material was collected by the three zoologists of the expedition, Professor CARL H. LINDROTH of Lund, Sweden, and Professor ERNST PALMÉN and Dr. HARRY KROGERUS of Helsingfors, Finland. A large amount of additional material was collected by Professor Lindroth in the summer of 1951. Besides the finds from Newfoundland, some finds by Professor Lindroth from the summer of 1951 in southern and southwestern Labrador and in Nova Scotia will be listed here.

Collections of Hemiptera Heteroptera were made in 76 localities in different parts of Newfoundland. These localities are indicated on the map (p. 6), based on the map published by Lindroth (1955). Like Lindroth, I have divided Newfoundland into S.E., S.W., N.W., N.E. and central parts (C.).

On the basis of the notes of the collectors, I have given brief reports about the ecology of the species found. Notes about the general distribution of the species found in Newfoundland I have compiled from the literature available to me. The majority of the species — I have found — have not been mentioned before from Newfoundland. The most important sources are VAN DUZEE'S (1917) and BLATSCHLEY'S (1926) great works. Additional information on the distribution of the species in Canada I have mainly found in the lists published by MOORE (1950) and STRICKLAND (1953).

In the determination of the present material, I have been aided by the following well-known hemipterists: Professor C. J. DRAKE, of Washington, has determined the species of the family *Saldidae* and the species of the genus *Corythucha* (Tingitidae); Dr. L. A. KELTON, of Ottawa, has determined some species of the genus *Lygus* and allied genera; together with Mr. EDUARD WAGNER, of Hamburg, I have studied the mirid *Teratocoris herbaticus* Uhl. Mr. Wagner has also determined the species *T. paludum* J. Sahlb. The present collection includes considerable numbers of specimens of *Nabis* of the critical species group *ferus-rugosus*. The results of the study of this material will be published later. Likewise some Corixids have not yet been determined.

One species, *Trapezonotus distinguendus* (Flor) seems to be new to North America; furthermore the material includes one certainly hitherto unknown species of the genus *Cyrtorrhinus* Fieb.

The present list comprises 71 species from Newfoundland and in addition 4 from Labrador and from Nova Scotia. The listed species are distributed in the following way among the different families of the Heteroptera:

Cydnidae	2	Nabidae	3
Pentatomidae	6	Anthocoridae	1
Coreidae	1	Miridae	28
Lygaeidae	12	Saldidae	13
Aradidae	3	Gerridae	2
Tingitidae	4	Notonectidae	1

It seems to me that the family *Miridae*, especially the smaller species, which are more difficult to collect, were relatively weakly represented in the material. The ground-living Saldids, on the other hand, are well represented.

The majority of the Heteropteran species occurring in this material are typically nearctic. Among them one can distinguish species with a more northern and others with a more general or more southern distribution in North America. There is, of course, no sharp boundary between these two groups. I have tried, however, to divide the nearctic species in question into two such groups. Naturally, the northern group is well represented in the region visited.

A relatively large proportion of the Heteroptera from Newfoundland occur both in the nearctic and the palearctic region. Among these one can distinguish between species with an originally holarctic — and in certain cases circumpolar — distribution, and species which have been introduced by man from Europe to America. In many cases it is difficult to make this distinction. In regard to many species Blatschley has adopted a definite attitude in this respect. However, I do not want in this connection to analyse the provenience of the different species; in the preliminary classification of the species in question I have taken into consideration their present distribution areas as well as the possibility of their spread with cultivated plants during the colonization of America from Europe.

Generally distributed nearctic species

<i>Galgupha atra</i>	<i>G. uliginosus</i>
<i>Sehirus cinctus</i>	<i>Ligyrocoris diffusus</i>
<i>Cosmopepla bimaculata</i>	<i>Aradus persimilis</i>
<i>Elasmostethus cruciatus</i>	<i>A. abbas</i>
<i>Perillus exaptus</i>	<i>Acalypta lillianus</i>
<i>Cymus luridus</i>	<i>Stenodema vicinum</i>
<i>Blissus leucopterus</i>	<i>Neolygus communis</i>
<i>Geocoris bullatus</i>	<i>Salignus distinguendus</i>

Monalocoris americanus	P. politus
Dicyphus agilis	Pentacora sphacelata
Mecomma gilvipes	Gerris remigis
Plagiognathus obscurus	

Nearctic species with a northern distribution

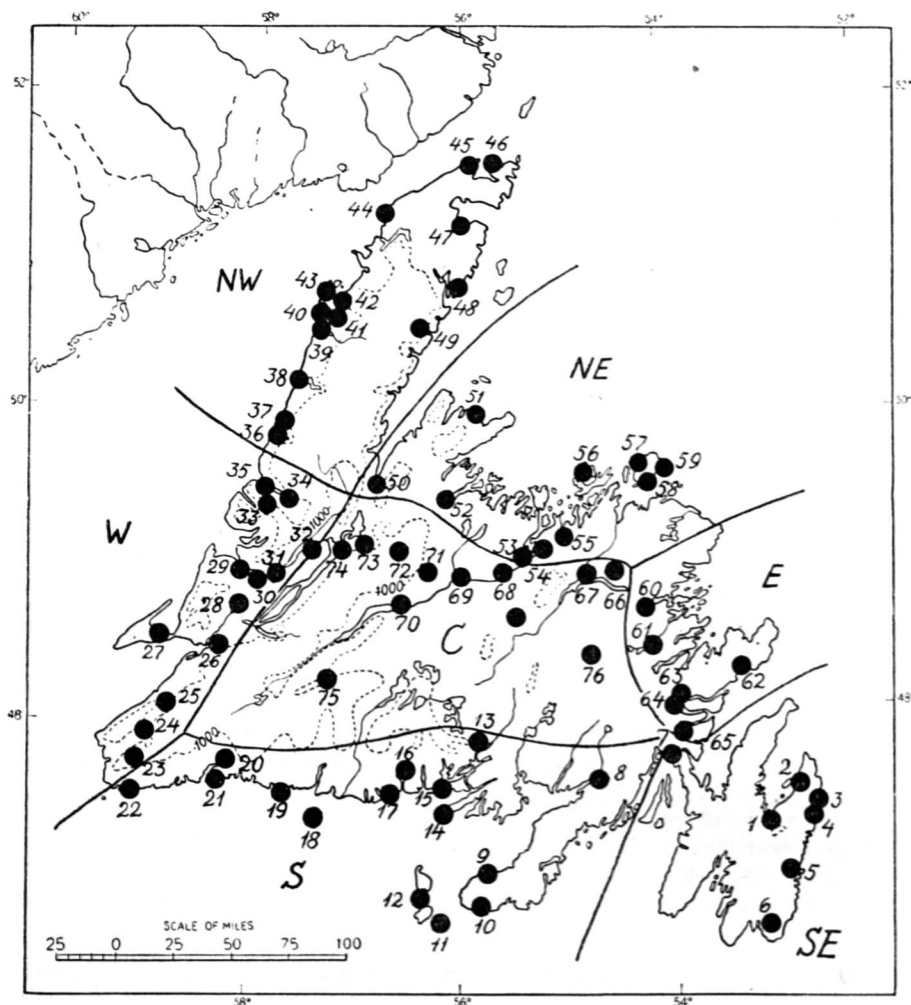
Neottiglossa undata	Camptobrochis nebulosus
Podisus serieventris	Cyrtorrhinus n. sp.
Sphaerobius insignis	Lampracanthia crassicornis
Anthocoris musculus	Pentacora ligata
Pagasa fusca	Salda bouchervillei
Orthops scutellatus	S. obscura
Neolygus canadensis	S. buenoi
Pinalitus approximatus	Saldula orbiculata
Liocoris rubrosignatus	S. illinoiensis
L. lineolaris	S. nigrita
L. varius	S. fernaldi
L. rubroclarus	Gerris dissortis
L. columbiensis	Notonecta insulata

Holarctic species

Elasmucha lateralis	Stenodema trispinosum
Stictopleurus crassicornis	Teratocoris herbaticus
Nysius ericae	Lygus pabulinus
Kleidocerus resedae	Cyrtorrhinus caricis
Ligyrocoris silvestris	Saldula pallipes
Scolopostethus thomsoni	S. opacula
Aradus lugubris	Teloleuca pellucens
Nabis flavomarginatus	

Introduced European species

Stygnocoris pedestris	Teratocoris paludum
Trapezonotus distinguendus	Capsus ater
Nabis limbatus	Plagiognathus chrysanthemi
Pithanus maerkeli	Chlamydatus pulicarius
Miris dolabratus	

*S.E.*

- 1 Holyrood
- 2 Portugal Cove
- 3 St. Johns
- 4 Waterford Bridge
- 5 Cape Broyle
- 6 Biscay Bay
- 7 Come-by-Chance

S.

- 8 Terrenceville
- 9 Grand Bank
- 10 Lamaline
- 11 St. Pierre
- 12 Michelon
- 13 St. Albans
- 14 Pass Island
- 15 Pushthrough
- 16 Hare Bay
- 17 Rencontre
- 18 Ramea Island
- 19 Burgeo
- 20 Cinq Cerf River
- 21 Grand Bruit
- 22 Port aux Basques
- 23 Red Rocks
- 24 South Branch
- 25 St. Fintans
- 26 Stephenville Crossing
- 27 Piccadilly
- 28 Spruce Brook
- 29 Cooks Brook, Curling
- 30 Corner Brook
- 31 Steady Brook
- 32 Deer Lake

W.

- 23 Red Rocks
- 24 South Branch
- 25 St. Fintans
- 26 Stephenville Crossing
- 27 Piccadilly
- 28 Spruce Brook
- 29 Cooks Brook, Curling
- 30 Corner Brook
- 31 Steady Brook
- 32 Deer Lake

- 33 Glenbournie
- 34 Lomond
- 35 Woody Point

N.W.

- 36 St. Pauls
- 37 Cow Head
- 38 Daniels Harbour
- 39 Port Saunders
- 40 Port au Choix
- 41 Eddies Cove
- 42 Doctors Hill
- 43 St. Johns Island
- 44 Flowers Cove
- 45 Cooks Harbour
- 46 Raleigh
- 47 Pistolet Bay
- 48 Englee
- 49 Williamsport

N.E.	E.	68 Grand Falls
50 Hamden	60 Gambo	69 Badger
51 Paquet	61 Terra Nova	70 Millertown
52 Springdale	62 Port Rexton	71 Millertown Junction
53 Bishop Falls	63 Shoal Harbour	72 Gaff Topsail
54 Morris Arm	64 Clarendville	73 Kittys Brook
55 Lewisport	65 Goobies	74 Howley
56 Twillingate		75 Victoria Lake
57 Fogo, Fogo	C.	76 Lake St. John
58 Fogo, Seldom	66 Gander	
59 Fogo, Tilting	67 Glenwood	

Check-list of the species found¹

CYDNIDAE

Galgupha Am. & Serv.

G. atra Am. & Serv.

Galgupha atra Am. & Serv. Hist. Nat. d. Ins. 1853, 68. — *Thyreocoris a.* v. D. 14. — *Galgupha a.* Bl. 62. — Mo. 10. — Strickl. 195.

Nova Scotia: Halifax, Sackville, 20. V. 51, 1 ind. (L).

Distribution: Widespread nearctic species. Nova Scotia, Quebec, Ontario, Alberta, Manitoba. From New England west to Colorado and south and southwest to Florida, Texas and Mexico.

Sehirus Am. & Serv.

S. cinctus (P. de B.)

Pentatoma cincta P. d. B., Ins. Rec. Afr. Am. 1805, 114. — *Sehirus c.* v. D. 24. — Bl. 90. — Torre-Bueno, Can. Ent. LXII, 6. — Mo. 10. Strickl. 195.

S.E. Portugal Cove, 6. VI. 49, 1 ind. (L). — N.W. Cow Head, 9. VIII. 49, 1 ind. (P). — N.E. Springdale, 20—21. VI. 51, 6 ind. (L). — E. Port Rexton, 30—31. VII. 51, 12 ind. (L), Goobies, 15. VIII. 51, 9 ind. (L).

Ecology: In different parts of the island, but only on lowlands and on the seashore. On open dry sandy localities, beneath grass and low herbaceous vegetation; at Cow Head on the seashore in drifting material.

Distribution: Nearctic species with a wide distribution. Newfoundland, Nova Scotia, Quebec, Ontario, Alberta, British Columbia. From New England west to Nebraska and south to Florida, Mississippi, Texas and Mexico.

PENTATOMIDAE

Neottiglossa Kirby

N. undata (Say)

Pentatoma undata Say, Heter. N. Harm. 1831, 8. — *Neottiglossa undata* v. D. 48. — Bl. 148. — Mo. 11. — Strickl. 195.

¹ Abbreviations: Bl. = Blatschley, v. D. = van Duzee, K = Harry Krogerus, L = Carl H. Lindroth, Mo. = Moore, P = Ernst Palmén.

W. Red Rocks, Table Mountains, 29. VI. 49, 1 ind. (L). — *C.* Millertown, 10—14. VI. 51, 1 ind. (L.).

E c o l o g y: Only 2 specimens; on grasses and herbaceous vegetation. In Millertown in a locality influenced by man.

D i s t r i b u t i o n: Across southern Canada from Newfoundland to Vancouver Island. In the northern States from New England to the Pacific.

Cosmopepla Stål

C. bimaculata (Thoms.)

Pentatoma bimaculata Thomas, Trans. Ill. St. Ag. Soc. 1865, 455. — *Cosmopepla b.* v. D. 49. — Bl. 152. — Torre-Bueno, Can. Ent. LXII, 6. — Mo. 11. — Strickl. 195.

W. South Branch, 3. VII. 49, 7 ind. (P); Lomond, 14. VII. 49, 1 ind. (K). — *N.E.* Springdale, 20—21. VI. 51, 1 ind. (L). — *E.* Gambo, 25. VIII. 49, 1 ind. (L).

E c o l o g y: In open sandy localities on low grasses and herbaceous vegetation. On meadow ground; also in localities influenced by man.

D i s t r i b u t i o n: Nearctic species with wide distribution. Newfoundland, Nova Scotia, Quebec, Ontario, Alberta, British Columbia. From New England west to Washington and south to Georgia, Texas and Mexico.

Elasmucha Stål

E. lateralis (Say)

Edessa lateralis Say, Heter. N. Harm. 1831, 3. — *Acanthosoma picicolor* Westw. Hope Catal. 1837, 30. — *Meadorus lateralis* v. D. 67. — Bl. 205. — Torre-Bueno, Can. Ent. LXII, 6. — Mo. 11. — Strickl. 196.

S.E. Holyrood, 10. VI. 49, 1 ind. (K), 1 ind. (L), 1 ind. (P). — *N.E.* Fogo, Tilting, 30. VI. 51, 3 ind. (L).

E c o l o g y: On the seashore in the eastern parts of the island. In Tilting on the small island of Fogo beneath seaweed and other drifting material.

D i s t r i b u t i o n: Holarctic species, both in the nearctic and in the palearctic region, with a relatively northern distribution. Newfoundland, Nova Scotia, Quebec, Ontario, Alberta, Vancouver Island. From New England to the Pacific.

Elasmotethus Fieb.

E. cruciatus (Say)

Edessa cruciata Say, Heter. N. Harm. 1831, 2. — *Elasmotethus c.* v. D. 68. — Bl. 206. — Mo. 11. — Strickl. 196.

S.E. Cape Broyle, 8. VI. 49, 1 ind. (L). — *W.* Stephenville Crossing, Harrys River, 6. VII. 49, 1 ind. (P); Spruce Brook, 8—9. VII. 49, 2 ind. (P); Steady Brook, Humber, 10. VII. 49, 2 ind. (P); Woody Point, Bonny Bay, 13. VII. 49, 1 ind. (P). — *N.E.* Fogo, Tilting, 30. VI. 51, 5 ind. (L).

E c o l o g y: In different parts of the island, mostly on the seashore. On the small island of Tilting in drifting material after a strong S.W. wind. — One of the commonest insects in drifting material on the seashore in Northern Europe is *Elasmotethus interstinctus* L.

D i s t r i b u t i o n: Widespread nearctic species. Newfoundland, Quebec, Ontario, Alberta, British Columbia, Vancouver Island. From New England west to the Pacific and south to North Carolina and New Mexico.

Perillus Stål*P. exaptus* (Say)*Pentatoma exapta* Say, JI. Acad. Nat. Sc. Philad. IV, 1825, 313. — *Perillus e.* v. D. 74. — Bl. 188. — Mo. 11. — Strickl. 196.*E.* Terra Nova, 28. VII. 51, 7 ind. (L).*E c o l o g y*: On a *Sphagnum* bog. — Of the 7 specimens, 3 are wholly black.*D i s t r i b u t i o n*: Widespread nearctic species. Newfoundland, Quebec, Ontario, Alberta. From New England west to the Pacific, south to New Jersey in the east and New Mexico in the west.*Podisus* H. S.*P. serieventris* Uhl.*Podisus serieventris* Uhl. Proc. Bost. Soc. Nat. Hist. XIV, 1871, 1871, 94. — v. D. 79. — Bl. 199. — Torre-Bueno, Cand. Ent. LVII, 6. — Mo. 11.

Nova Scotia: Halifax, Sackville, 20. V. 51, 1 ind. (L).

N.W. Cow Head, 9. VIII. 49, 20 ind. (P). — *N.E.* Fogo, Tilting, 30. VI. 51, 9 ind. (L). — *E.* Port Rexton, 30. VII. 51, 2 ind. (L).*E c o l o g y*: In 3 localities on the seashore in drifting material.*D i s t r i b u t i o n*: Nearctic species with a northern distribution. Newfoundland, Nova Scotia, Quebec, Ontario, Vancouver Isl. From New England through the northern States to the Pacific.

COREIDAE

Stictopleurus Stål*S. crassicornis* (L.)*Cimex crassicornis* L. Syst. Nat. 10, 4, 1758, 448. — *Corizus c.* v. D. 121. — Bl. 277. — Torre Bueno, Can. Ent. LVII, 6. — *Stictopleurus c.* Mo. 12. — Strickl. 196.

Nova Scotia; Halifax, Sackville, 20. V. 51, 1 ind. (L).

D i s t r i b u t i o n: Holarctic species, common in northern and central Europe, in Siberia and Japan. The species seems to be widespread in northern North America. Nova Scotia, Quebec, Alberta. From New England west to the Pacific, south only to New Jersey. Furthermore in Texas, Arizona and New Mexico.

LYGAEIDAE

Nysius Dall.*N. ericae* (Schill.)*Heterogaster ericae* Schill. Beitr. z. Ent. I, 1829, 86. — *Nysius e.* v. D. S. 159. — Bl. 353. — Mo. 13. — Strickl. 197.*N.W.* Port Saunders, 5—6. VIII. 49, 1 ind. (P); Port au Choix, 4—5. VIII. 49, 1 ind. (L); Eddies Cove W, 28—29. VII. 49, 2 ind. (L); Doctors Hill, 29. VII. 49, 1 ind. (L). — *N.E.* Twillingate, 4—8. VII. 51, 1 ind. (L).*E c o l o g y*: On dry sandy meadow ground, in woods and on open peat ground beneath carpets of grasses, *Empetrum* and *Dryas*. I.a. collected at an altitude of 300—400 m at Doctors Hill.

Distribution: This species seems to have a fairly wide distribution in the nearctic and palearctic regions and must be placed in the holarctic group. It is, however, lacking in northern Eurasia, in contrast to the typical holarctic species. It is accordingly difficult to explain the distribution of the species. In Canada recorded from Newfoundland, Quebec, Ontario, Alberta and British Columbia. From New England west to Dakota and Colorado, Texas and California and south to Florida.

Kleidocerus Westw.

K. resedae (Panz.)

Lygaeus resedae Panz. Fauna Germ. XI, 1797. — *Ischnorrhynchus* r. v. D. 162. — Bl. 357. — *Kleidocerus* r. Mo. 13. — *Ischnorrhynchus* r. Strickl. 197.

S.E. Holyrood, 10. VI. 49, 3 ind. (K); Cape Broyle, 8. VI. 49, 2 ind. (P). — S. Rencontre West, 16. VI. 49, 1 ind. (L); Grand Bruit, 13. VI. 49, 1 ind. (P). — W. Spruce Brook, 8—9. VII. 49, 2 ind. (P); Steady Brook, Humber, 10. VII. 49, 5 ind. (P); Woody Point, Bonne Bay, 7. VII. 49, 1 ind. (P). — N.E. Norris Arm, 23. VIII. 49, 2 ind. (P); Fogo, Tilting, 30. VI. 51, 1 ind. (L). — C. Gander, 2. VI. 49, 6 ind. (K), 6 ind. (P); Millertown, 21. VIII. 49, 1 ind. (K).

Ecology: This species seems to be common in Newfoundland. On margins of *Kalmia*-swamps with *Ledum groenlandicum*, *Empetrum*, *Sarracenia*, *Myrica* and *Chamaedaphne*. It is also found by sweeping on hardwood, *Alnus*, *Populus* and *Salix*, on the boundary to the woodless tundra; in drifting material on the seashore. In Europe, this species mostly lives on *Ledum* and *Betula*.

Distribution: Holarctic species widespread in the nearctic region and in the northern part of the palearctic region. In Canada from Newfoundland, Quebec, Ontario and Alberta. From New England west to the Pacific and south and southwest to Florida, Texas and California.

Cymus Hhn

C. luridus Stål

Cymus luridus Stål, Enum. Hemipt. IV, 1874, 126. — v. D. 164. — Bl. 361. — Mo. 13. — Strickl. 197.

Nova Scotia: Halifax, Sackville, 27. V. 51, 1 ind. (L).

Ecology: On a marsh of oligotrophic type with *Juncus* and *Carex*.

Distribution: Nearctic species with fairly wide distribution. Nova Scotia, Quebec, Ontario, Alberta, British Columbia. Only in the northern States, from New England west to Colorado and California.

Blissus Burm.

B. leucopterus hirtus Mont.

Blissus hirtus Mont. Ann. Soc. Ent. Belg. 37, 1893, 405. — v. D. 168. — *B. leucopterus* h. Bl. 371. — Mo. 13.

Nova Scotia: North Sydney, 27. V. 51, 3 ind. (L); Bridge Water, Crescent Beach 179, 19. V. 51, 4 ind. (L).

S.E. Cape Broyle, 7. VI. 49, 8 ind. (P). — S. Grand Bank, 2—3. VIII. 51, 9 ind. (L); St. Albans 26. VI. 49, 3 ind. — W. South Branch, 2. VII. 49, 1 ind. (L). — N.E. Bishop Falls, 22. VII. 49, 1 ind. (L); Twillingate, 4—8. VII. 51, 2 ind. (L); Fogo, Fogo, 29. VI. 51, 4 ind. (L); Fogo, Seldom, 3. VII. 51, 5 ind. (L).

E c o l o g y: On dry and somewhat humid sandy, gravelly or muddy ground under low vegetation, beneath dead grasses and leaves. Also beneath dry seaweed on barren humid sandy seashore.

D i s t r i b u t i o n: Widespread nearctic species. The typical *B. leucopterus* occurring from Quebec and Ontario west to Vancouver and south and southwest to Florida, Texas and Mexico. The form *hirtus* now recorded from Newfoundland occurs at high altitudes in Canada and the eastern States.

Geocoris Fall.

G. bullatus (Say)

Salda bullata Say, Heter. N. Harm. 1832, 18. — *Geocoris* b. v. D. 170. — Bl. S. 374. — Mo. 13. — Strickl. 197.

S.E. Labrador: Forteau, 13—15. VII. 51, 6 ind. (L); West St. Modest, 18—20. VII. 51.

S. Grand Bank, 2—3. VIII. 51, 1 ind. (L); Woody Point, Bonne Bay, 21. VII. 49, 2 ind. (L); Deer Lake, 24. VII. 51, 1 ind. (L); Woody Point, Bonne Bay, 21. VII. 49, 2 ind. (P). — N.W. Cow Head, 7—13. VIII. 49, 4 ind. (L); Port au Choix, 4—5. VIII. 49, 1 ind. (L); Raleigh, 17. VII. 49, 1 ind. (L). — N.E. Paquet, 18. VI. 51, 5 ind. (L); Norris Arm, 24. VIII. 49, 1 ind. (P); Twillingate, 4—8. VII. 51, 4 ind. (L); Fogo, Seldom, 3. VII. 51, 1 ind. (L). — E. Gambo, 26. VIII. 49, 1 ind. (P). — C. Millertown Junction, 21. VIII. 49, 1 ind. (L); Gaff Topsail, 19—20. VIII. 49, 2 ind. (L).

E c o l o g y: On dry, mostly sandy localities with open low grass vegetation; on sand dunes. This species seems to be common in different parts of the island.

D i s t r i b u t i o n: Nearctic species with wide distribution. Newfoundland, Labrador, Quebec, Ontario, Alberta, Vancouver. From New England west to Dakota, Utah, south and southwest to Florida and California. From Labrador (Ungava Bay) and from high altitudes in Guatemala the form *bullatus borealis* Dall is recorded.

G. uliginosus (Say)

Salda uliginosa Say, Heter. N. Harm. 1932, 19. — *Geocoris* u. v. D. 171. — Bl. 376. — Mo. 13.

E. Port Rexton, 30—31. VII. 51, 1 ind. (L). — C. Gaff Topsail, 19. VIII. 49, 1 ind. (P).

E c o l o g y: On dry grassland and peatmoss on the tundra. Both specimens from Newfoundland belong to the typical form.

D i s t r i b u t i o n: Newfoundland, Quebec, Ontario, British Columbia. From nearly all States.

Sphaerobius Uhl.

S. insignis (Uhl.)

Heraeus insignis Uhl. Hayden's Surv. Terr. Rept. 1871, 407. — *Sphaerobius* i. v. D. 179 — Bl. 391. — Mo. 13. — Strickl. 197.

E. Gambo, 25. VIII. 49, 1 ind. (P). — G. Gaff Topsail, 19—20. VIII. 49, 2 ind. (L).

E c o l o g y: On open swampy ground with *Carex* and *Sphagnum*, at Gambo on the seashore.

D i s t r i b u t i o n: Nearctic species with relatively northern distribution. Newfoundland, Quebec, Alberta. In some of the northern and central States, in the east only from Maine and New Hampshire.

Ligyrocoris Stål

L. diffusus (Uhl.)

Picromerus diffusus Uhl. Proc. Bost. Soc. Nat. Hist. XIV, 1871, 101. — *Ligyrocoris* d. v. D. 180. — Bl. 397. — Mo. 13. — Strickl. 197.

N.W. Eddies Cove W, John Bay, 2. VIII. 49, 2 ind. (P). — N.E. Kittys Brook, 18. VIII. 49, 1 ind. (P). — E. Gambo, 25. VIII. 49, 2 ind. (L). — C. Millertown Junction, 21. VIII. 49, 3 ind. (K), 1 ind. (P).

Ecology: In humid localities, along margins of lakes and pools, on wet meadows and *Sphagnum* bogs.

Distribution: Widespread nearctic species. Newfoundland, Quebec, Alberta. From New England west to North Dakota and Colorado, south and southwest to North Carolina, Arizona and California.

L. silvestris (L.)

Cimex silvestris L. Syst. Nat. ed. 10, 1758, 449. — *Ligyrocoris* s. 180. — Bl. 396. — Mo. 13. — Strickl. 197.

S.E. St. Johns, 28. VIII. 49, 1 ind. (L). — S. St. Pierre, 11. VIII. 51, 1 ind. (L). — W. Corner Brook, 14. VIII. 49, 1 ind. (L). N.W. Cow Head, 13. VIII. 49, 1 ind. (P); Eddies Cove, 2. VIII. 49, 1 ind. (P). — E. Port Rexton, 30—31. VII. 51, 2 ind. (L). — C. Gaff Topsail, 19—20. VIII. 49, 3 ind. (L).

Ecology: From all parts of the island. On sandy and gravelly soil among twigs, grasses and herbaceous vegetation, also on somewhat humid peatland.

Distribution: Holarctic species. Common in the northern part of the palearctic region north to the upper limit of the coniferous forest. Recorded from Newfoundland, Quebec, Alberta and British Columbia. From New England west to North Dakota, also from New Mexico.

Stygnocoris Dgl. & Sc.

S. pedestris (Fall.)

Lygaeus pedestris Fall. Hem. Suec. Cim. 1, 64. — *Stygnocoris pedestris* Bl. 422. — Mo. 14. W. Curling, 15. VIII. 49, 1 ind. (L). — N.W. Cow Head, 10. VIII. 49, 1 ind. (L). — N.E. Norris Arm, 23. VIII. 49, 1 ind. (P).

Ecology: Under stones on grass verges, on shingle overgrown with grass, on the seashore.

Distribution: Palearctic species, introduced from Europe. To date recorded from only a few localities in North America. Newfoundland, Nova Scotia, Quebec, New York.

Trapezonotus Fieb.

T. distinguendus (Flor)

Pachymerus distinguendus Flor, Rhyng. Livl. 1, 18, 266.

S. Grand Bank, 3. VIII. 51, 1 ind. (L). — N.W. St Pauls, 10. VIII. 49, 3 ind. (L); Cow Head, 9. VIII. 49, 2 ind. (L), 1 ind. (P).

Ecology: The 7 specimens from Newfoundland were found on the seashore, on open sandy ground, on dry meadow and flooded marshland.

Distribution: Palearctic species, occurring in northern Europe, in the northern parts of central Europe, in a compact little area in south-east Britain, in northern and central Russia and in Siberia. It occurs on sandy localities, especially on seashores under wrack. It has not been found before in North America. It seems possible that it has been introduced from Europe with sand ballast.

Scolopostethus Fieb.

S. thomsoni Reut.

Scolopostethus Thomsoni Reut. Ann. Soc. Ent. Fr. 1874, 562. — v. D. 200. — Bl. 433. — Mo. 14.

Nova Scotia: Cheticamp, 25. V. 51, 2 ind. (L); Halifax, 18. V. 51, 2 ind. (L).

S. Labrador: Pinware River, 19. VII. 51, 1 ind. (L).

S. Rencontre West, 16. VI. 49, 3 ind. (L). — *W.* Deer Lake, 4. VI. 51, 1 ind. (L); Lomond, 4. VI. 51, 1 ind. (L). — *N.W.* Cow Head, 12. VIII. 49, 1 ind. (L); St. John Island, 3. VIII. 49, 1 ind. (L); Englee, 13. VII. 49, 1 ind. (P); Twillingate, 8. VII. 51, 1 ind. (L). — *N.E.* Pistolet Bay, 20. VII. 49, 4 ind. (L). — *E.* Goobies, 15. VIII. 51, 1 ind. (L). — *C.* Gander, 2. VI. 49, 2 ind. (L); Kittys Brook, 18. VIII. 49, 1 ind. (P).

E c o l o g y: With sifting among leaves and dry grass, on vegetation of herbs and ferns in humid and shady localities in woods and on shores.

D i s t r i b u t i o n: Holarctic species. Recorded from Newfoundland and Quebec; Alaska. In the States west to Colorado and California, in the east not south of New Jersey.

ARADIDAE

Aradus Fabr.

A. persimilis v. Duz.

Aradus persimilis v. Duz. Univ. Calif. Publ. Div. Ent. Techn. Bul. 1, 1916, 232. — v. D. 131. — Strickl. 197. — (The determination is preliminary.)

C. Gander, 2. VI. 49, 1 ind. (L).

D i s t r i b u t i o n: *A. persimilis* appears to be rare. It has previously been recorded from Alberta, California.

A. lugubris Fall.

Aradus lugubris Fall. Hem. Suec. Cim. 1829, 139. — v. D. 133. — Bl. 310. — Walley, Can. Ent. LXII, 75. — Mo. 12. — Strickl. 197.

S. Port aux Basques, 30. VI. 49, 1 ind. (L). — *W.* St. Fintans, 3—4. VII. 49, 5 ind. Deer Lake, 31. V. 51, 1 ind. (L). — (L); *C.* Millertown Junction, 22. VIII. 49, 1 ind. (P); Kittys Brook, 19. VIII. 1 ind. (P).

E c o l o g y: Collected by sweeping from bushes.

D i s t r i b u t i o n: Holarctic species. From Labrador and Newfoundland west to the Pacific. In the greater part of the States. In the palearctic region with wide distribution, commoner in the northern parts.

A. abbas Bergr.

Aradus abbas Bergr. Soc. Ent. Belg. 1889, CLXXX. — v. D. 134. — Bl. 312. — Walley, Can. Ent. LXII, 75. — Mo. 12. — Strickl. 197.

W. St. Fintans, 3—4. VII. 49, 1 ind. (L). — *N.W.* Port au Choix, 5. VIII. 49, 1 ind. (P).

D i s t r i b u t i o n: Nearctic species with wide distribution. Newfoundland, Quebec, Ontario, Alberta, British Columbia. From New England west to Washington and Alaska, south-west to Florida and California.

TINGITIDAE

Acalypta Westw.

A. nyctalis Drake

Acalypta nyctalis Drake, Brook. Ent. Soc. Bull. 23, 1928, 5.

N.W. Flowers Cove, 23—25. VII. 49, 1 ind. (L).

E c o l o g y: On marshes above the low limestone steep E of the community.

Distribution: (comm. Prof. Drake) New England States (New Hampshire), Canada (Alberta), Alaska (Fairbanks, 28. V. 48; Ft. Richardson, 20. V. 46, nymphs and adults, taken from moss and sphagnum, by means of a Berlese funnel, by R. I. Sailer.) Macropterous form unknown.

A. lillianus Bueno

Acalypta lillianus Bueno, Bull. Brookl. Ent. Soc. XI, 1916, 39. — v. D. 212. — Bl. 481. — Mo. 14.

N.W. Port au Choix, 5. VIII. 49, 1 ind. (P).

Ecology: Under *Oxytropis* and *Dryas* on the coastal tundra. The specimen found is brachypterous.

Distribution: (comm. Prof. Drake) Eastern, Central and New England States. Across Southern Canada into British Columbia. Alaska is the most northern records. Long- and short-winged forms of both sexes known.

Corythucha Stål

C. pallipes Parshl.

Corythucha pallipes Parshl. in Gibson, Trans. Amer. Ent. Soc. 44, 1918, 83. — Mo. 15. W. Deer Lake, 12—19. VIII. 49, 16 ind. (L). — C. Glenwood, 23. VIII. 49, 3 ind. (L).

Distribution: (comm. Prof. Drake) This species is common in New England States, New York.

C. heidemannii Drake

Corythucha heidemannii Drake, in Gibson, Trans. Amer. Ent. Soc. 44, 1918, 87. — Mo. 15.

Nova Scotia: North Sydney, 27. V. 51, 1 ind. (L). — Orangedale, 28. V. 51, 2 ind. (L).

W. Steady Brook, Humber, 10. VII. 49, 10 ind. (P); Glenbournie, Bonne Bay, 19. VII. 49, 7 ind. (P). — NE. Springdale, 20—21. V. 51, 2 ind. (L). — E. Gambo, 25. VIII. 49, 4 ind. (L). — Shoal Harbour, 29. VII. 51, 1 ind. (L).

Ecology: On *Alnus crispa*.

Distribution: (comm. Prof. Drake) Northeastern U. S. and Eastern Canada.

ANTHOCORIDAE

Anthocoris Fall.

A. musculus (Say)

Reduvius musculus Say, Heter. N. Harm. 1832, 32. — *Anthocoris m.* v. D. 293. — Bl. 634. — *A. borealis* Torre Bueno, Can. Ent. LXII, 6. — *A. musculus* Walley Can. Ent. LXII, 76. — *A. borealis* Mo. 17. — *A. musculus* Strickl. 199.

Nova Scotia: Baddeck, 24. V. 51, 1 ind. (L).

W. Stephenville Crossing, Harrys River, 6. VII. 49, 1 ind. (P); Deer Lake, 1. VI. 51, 1 ind. (L), 30. V. 51, 1 ind. (L). — C. Badger, 22—25. VI. 51, 1 ind. (L).

Ecology: On *Alnus crispa* and on *Salix*.

Distribution: Nearctic species with northern distribution. From Hudson Bay to New England, Indiana, Alberta.

NABIDAE

Pagasa Stål

P. fusca (Stein)

Prostemma fusca Stein, Berl. Ent. Zeit. I, 1857, 90. — *Pagasa f.* v. D. 276. — Torre Bueno, Can. Ent. LXII, 7. — Bl. 589. — Mo. 16. — Strickl. 16.

W. Deer Lake, 17—19. VIII. 49, 2 ind., 24. VII. 51, 3 ind. (L).

E c o l o g y: On the bottom on open sandy localities.

D i s t r i b u t i o n: Nearctic species with northern distribution. From Newfoundland, Nova Scotia and Quebec to British Columbia. Only in the northern States.

Nabis Latr.

N. flavomarginatus Schltz

Nabis flavomarginatus Schltz, Arb. Schles. Ges. Vat. Kult. 1846, 114. — v. D. 280. — Bl. 600. — Torre Bueno, Cand. Ent. LXII, 6. — Walley, Can. Ent. LXII, 76. — Mo. 16. — Strickl. 199.

S.E. Labrador: Forteau, 12—15. VII. 51, 3 ind. (L).

S.E. St. Johns, 30. VIII. 49, 1 ind. (L); Come-by-Chance, 27. VIII. 49, 1 ind. (L). — *S.* Terrenceville, 13—14. VIII. 51, 2 ind. (L); Grand Bank, 1. VIII. 51, 2 ind. (L); St. Pierre, 7—12. VIII. 51, 1 ind. (f. macr.) 11. VIII. 51, 1 ind. (L); Michelon, 8. VIII. 51, 2 ind. (L); Ramea Island, 15—26. VI. 49, 1 ind. (L). — *W.* Corner Brook, 14. VIII. 49, 2 ind. (L); Deer Lake, 17—19. VIII. 49, 1 ind. (L). — *N.W.* Port au Choix, 4—5. VIII. 49, 3 ind. (L); Eddies Cove West, 28—29. VII. 49, 1 ind. (L). — *N.E.* Hamden, 24. VII. 51, 1 ind. (L); Twillingate, 4—8. VII. 51, 3 ind. (L); Fogo Tilting, 29—30. VI. 51, 1 ind. (L). — *E.* Gambo, 25. VIII. 49, 1 ind. (L); Port Rexton, 30—31. VII. 51, 1 ind. (L); Shoal Harbour, 29. VII. 49, 1 ind. (L); Clarendville, 31. VII. 51, 1 ind. (L). — *C.* Millertown Junction, 22. VIII. 49, 2 ind. (L).

E c o l o g y: On grasses and herbaceous vegetation. From many localities in Newfoundland.

D i s t r i b u t i o n: Circumpolar holarctic species. With wide distribution in the Euro-siberian subregion. Only in the northern parts of the nearctic region. Recorded from Alaska, Canada, Greenland, Maine, Colorado.

N. limbatus Dahlb.

Nabis limbatus Dahlb. K. V. A. Handl. 1850, 227. — v. D. 279. — Bl. 598. — Mo. 16. — Strickl. 199.

C. Millertown Junction, 21. VIII. 49, 1 ind. (K).

D i s t r i b u t i o n: Newfoundland, Quebec, Ontario, Alberta. In the States from New England to Colorado. Probably an introduced palearctic species. In the palearctic region with nearly as wide a range as *N. flavomarginatus*.

MIRIDAE

Pithanus Fieb.

P. maerkeli (H. S.)

Capsus märkelii H. S. Wanzenart. Ins. I, 4, 1839, 78. — *Pithanus maerkelii* v. D. 313. — Bl. 680.

S. Grand Bank, 2—3. VIII. 51, 1 ind. (L); Michelon, 9. VIII. 51, 1 ind.; Deer Lake, 25. VII. 51, 1 ind. (L); *E.* Clarendville, 31. VII. 51, 1 ind. (L).

E c o l o g y: Only f. brach. On sandy localities, on low dense vegetation, but also on humid meadowland with *Carex*, *Juncus*, etc.; on cultivated land.

D i s t r i b u t i o n: Palearctic species, introduced from Europe. Recorded from Newfoundland, Nova Scotia and some eastern States: Maine, New York.

Miris Fabr.*M. dolabratus* (L.)*Cimex dolabratus* L. Syst. Nat. ed. 10, 1767, 449. — *Miris d.* v. D. 300. — Bl. 672. — Mo. 20.*W.* Glenbournie, Bonne Bay, 19. VIII. 49, 20 ind. (P); Lomond, 14. VII. 49, 3 ind. (K).**E c o l o g y:** On meadows; in Glenbournie found on *Dactylis glomerata*. In Lomond on a humid meadow with grasses, *Heracleum*, *Achillea*, *Thalictrum* and *Juncus*.**D i s t r i b u t i o n:** Palearctic species, introduced from Europe. From Newfoundland and Quebec to British Columbia, from New England to Minnesota.*Stenodema* Lap.*S. trispinosum* Reut.*Stenodema trispinosum* Reut. Öfv. Fi. Vet. Soc. Förh. 46, 15, 1904, 4, 8. — v. D. 303. — Bl. 669. — Mo. 20. — Strickl. 201.

Nova Scotia, Baddeck, 24. V. 51, 1 ind. (L); North Sydney, 27. V. 51, 1 ind. (L).

S.E. Holyrood, 11. VI. 49, 4 ind. (K); St. Johns, 5. VI. 49, 3 ind. (K); Waterford Bridge, 5. VI. 49, 5 ind. (P). — *S.* Rencontre West, 17—19. VI. 49, 1 ind. (L); Cinq Cerf River, 16. VI. 49, 1 ind. (K). — *W.* St. Fintans, 3. VII. 49, 1 ind. (L); Steady Brook, Humber, 10. VII. 49, 1 ind. (P)? Deer Lake, 1—2. VI. 51, 6 ind. (L); Lomond, 4—5. VI. 51, 1 ind. (L). — *N.E.* Paquet, 18. VI. 51, 1 ind. (L). — *E.* Goobies, 15. VIII. 51, 1 ind. (L). — *C.* Millertown, 10—14. VI. 51, 1 ind. (L).**E c o l o g y:** Humid meadows, marshes with *Carex*, *Juncus*, *Typha*, *Iris*, etc. Both on waste places and in woodland.**D i s t r i b u t i o n:** Holarctic species. In the northern parts of the palearctic region: Northern Europe (not common), Turkestan, Siberia, Japan. Newfoundland, Quebec to British Columbia, in the northern States from New England to California.*S. vicinum* (Prov.)*Miris vicina* Prov. Nat. Can. IV, 1872, 77. — *Stenodema v.* v. D. 304. — Bl. 669. — Walley, Can. Ent. LXII, 76. — Mo. 20. — Strickl. 201.*S.E.* Holyrood, 11. VI. 49, 4 ind. (K); Portugal Cove, 6. VI. 49, 3 ind. (L); St. Johns, 5. VI. 49, 3 ind. (K); Waterford Bridge, 5. VI. 49, 3 ind. (P). — *S.* Rencontre West, 16. VI. 49, 7 ind. (L); Terrenceville, 14. VIII. 51, 2 ind. (L). — *W.* South Branch, 3. VII. 49, 1 ind. (L). — *N.E.* Paquet, 18. VI. 51, 2 ind. (L); Lewisporte, 26—27. VI. 51, 1 ind. — *E.* Gambo, 26. VIII. 49, 1 ind. (L); Goobies, 15. VIII. 51, 1 ind. (L). — *C.* Gander, 2. VI. 49, 2 ind. (P); Millertown, 10—14. VI. 51, 1 ind. (L); Victoria Lake, 11—13. VI. 51, 1 ind. (L).**E c o l o g y:** Both on moist meadows with *Carex*, etc., and on dry grassland; on cultivated land in built-up areas.**D i s t r i b u t i o n:** Nearctic species with a wide range. From Newfoundland and Quebec to British Columbia, from New England to California. Not recorded from the southernmost States.*Teratocoris* Fieb.*T. herbaticus* Uhl.*Teratocoris herbaticus* Uhl. Entom. Amer. III, 1887, 67. — v. D. 308. — Bl. 678. — Walley, Can. Ent. LXII, 76. — Mo. 20.*S.E.* Labrador: Red Bay, 14—17. VII. 51, 1 ind. (L); Pinware River, 19. VII. 51, 1 ind. (L); L'Asne au Loup, 16. VII. 51, 3 ind. (L).*N.E.* Twillingate, 7. VII. 51, 1 ind. (L). — *C.* Grand Falls, 26. VII. 51, 1 ind. (L).

E c o l o g y: On swamps, marshes, and bogs. — In L'Asne au Loup by a pool with *Carex* and *Sphagnum*.

D i s t r i b u t i o n: This species has a remarkable geographical distribution. It was described from Labrador and later found in Quebec, Bradore Bay. It is also known from the fjelds of Scandinavia.

T. paludum J. Sahlb.

Teratocoris paludum J. Sahlb. Not. Soc. F. Fl. Fenn. 11, 1871, 291. — Bl. 678.

S.E. St. Johns, 13. VIII. 49, 2 ind. (L).

E c o l o g y: On a quagmire.

D i s t r i b u t i o n: Palearctic species from northern Europe and Siberia. Introduced to North America (Blatschley); known from New York, Illinois and Minnesota.

Capsus Fabr.

C. ater (L.)

Cimex ater L. Syst. Nat. ed. 10, 1758, 447. — *Capsus a.* v. D. 338, — Bl. 753. — Mo. 20.

W. South Branch, 3. VII. 49, 5 ind. (P).

E c o l o g y: On a moist meadow. Two specimens belong to var. *semiflavus* (L.).

D i s t r i b u t i o n: Palearctic species, eastward to western Siberia. Introduced from Europe. From Newfoundland and Quebec to Alberta; from New England west to South Dakota and south to Florida.

Orthops Fieb.

O. scutellatus Uhl.

Orthops scutellatus Uhl. Bull. U. S. Geol. Geogr. Surv. III, 1877, 420. — *Lygus campestris* v. D. 348. — Bl. 767. — Mo. 18. — *L. scutellatus* Strickl. 202. — Kelton, Can. Ent. LXXXVII, 540.

S. Burgeo, Grandy Brook, 23. VI. 49, 2 ind. (K). — W. South Branch, VII. 49, 3 ind. (K); Piccadilly, 7. VII. 49, 3 ind. (L); Piccadilly, Port au Peninsula, 7. VII. 49, 4 ind. (P); Spruce Brook, 8—9. VII. 49, 17 ind. (P); Lomond, Bonne Bay, 13. VII. 49, 5 ind. (P). — N.W. Williamsport, 13. VII. 49, 3 ind. (L).

E c o l o g y: On *Umbelliferae*, in Piccadilly found on *Heracleum*.

D i s t r i b u t i o n: Nearctic species with northern distribution. From Newfoundland and New England to Alaska and the Pacific.

Lygus Hahn

L. (Lygus) pabulinus L.

Cimex pabulinus L. Fauna Sv. 1761, 253. — *Lygus p.* v. D. 340. — Walley, Can. Ent. LVII, 76. — Mo. 18. — Strickl. 201.

N.W. Cow Head, 11. VIII. 49, 2 ind. (P); Doctors Brook, 31. VII. 49, 1 ind. (L). — E. Port Rexton, 30. VII. 51, 1 ind. (L). — C. Lake St. John, 27. VII. 51, 1 ind. (L).

E c o l o g y: In meadows along river banks, in shady places, in woods.

D i s t r i b u t i o n: Holarctic species. Northern and middle palearctic region. In the northern part of the nearctic region, from the Atlantic to the Pacific. In the States from New England west to Michigan and southwest to North Carolina.

L. (Neolygus) communis Kngt

Lygus communis Kngt, Can. Ent. XLVIII, 1916, 346. — v. D. 343. — *L. (Neolygus) c.* Bl. 780. — Walley, Can. Ent. LXII, 75. — Mo. 19. — Strickl. 202.

W. Deer Lake, 18. VIII. 49, 1 ind. (L).

D i s t r i b u t i o n: Nearctic species. Newfoundland, Nova Scotia, Quebec, Manitoba, Saskatchewan, Alberta, British Columbia. In the northern and central States.

L. (Neolygus) canadensis Kngt

Lygus (Neolygus) canadensis Kngt, Corn. Univ. Agri. Expt. St. Bull. 391, 1917, 634.

— Bl. 770. — Mo. 19. — Kelton, Can. Ent. LXXXVII, 547.

C. Gander, 2. VI. 49, 1 ind. (L).

E c o l o g y: On cultivated locality.

D i s t r i b u t i o n: Newfoundland, Quebec, Ontario, Manitoba. In the northern States. Nearctic species with northern distribution.

Pinalitus Kelton

P. approximatus (Stål.)

Deraeocoris approximatus Stål, Stett. Ent. Zeit. XIX, 1858, 185. — *Lygus a.* v. D. 344.

— Bl. 760. — Mo. 18. — Strickl. 201. — *Pinalites a.* Kelton, Can. Ent. LXXXVII, 1955, 540.

N.W. Cow Head, 7. VIII. 49, 1 ind. (L).

E c o l o g y: On wet locality on high herbaceous plants.

D i s t r i b u t i o n: Nearctic species with northern distribution. Newfoundland, Nova Scotia, Quebec, Ontario, Alberta, British Columbia, Northwest Territories, Alaska.

Liocoris Fieb.

L. rubrosignatus Kngt

Lygus pratensis var. *rubrosignatus* Kngt, Connect. Geol. Nat. Hist. Surv. Bull. XXXIV, 1923, 576. — *Lygus rubrosignatus* Strickl. 201. — *Liocoris r.* Kelt. Can. Ent. LXXXVII, 1955, 550.

W. Woody Point, Bonne Bay, 17. VII. 49, 1 ind. (P).

D i s t r i b u t i o n: Newfoundland, Western Canada; Massachusetts.

L. lineolaris (Beauv.)

Coreus (?) *lineolaris* de Beauvais, Ins. rec. Afr. Amer. 1805, 187. — *Lygus lineolaris* Strickl. 201. — *Liocoris l.* Kelt. Can. Ent. LXXXVII, 552.

Nova Scotia: Truro, 22. V. 51, 1 ind. (L).

S. Rencontre West, 17—18. VI. 49, 1 ind. (L). — *W.* South Branch, 3. VII. 49, 1 ind. (L); Deer Lake, 24. VII. 51, 1 ind. (L). — *N.W.* Cow Head, 11. VIII. 49, 1 ind. (P). — *N.E.* Paquet, 18. VI. 51, 1 ind. (L). — *E.* Gambo, 26. VIII. 49, 2 ind. (L); Shoal Harbour, 29. VII. 51, 2 ind. (L); Goobies, 15. VIII. 51, 1 ind. (L). — *C.* Gander, 1. IX. 49, 2 ind. (L); Millertown Junction, 21. VIII. 49, 1 ind. (K).

E c o l o g y: On swamps with *Myrica*, *Carices*, *Sanguisorba*, *Picea*, *Larix*. Also on cultivated land.

D i s t r i b u t i o n: From Newfoundland across Canada to British Columbia; northern States.

L. varius Kngt

Lygus varius Kngt, Iowa State Coll. J. Sci. XVIII, 1944, 473. — *Lygus varius* Strickl. 202. — *Liocoris v.* Kelt. Can. Ent. LXXXVII, 1955, 553.

Nova Scotia: Truro, Riversdale, 22. V. 51, 1 ind. (L).

S.E. Waterford Bridge, 5. VI. 49, 2 ind. (P); Holyrood, 11. VI. 49, 2 ind. (K). — *S.* Rencontre West, 17—20. VI. 49, 5 ind. (L). — *W.* Spruce Brook, 8—9. VII. 49, 1 ind.

(P); Steady Brook, Humber, 10. VII. 49, 7 ind. (P); Lomond, 13. VII. 49, 1 ind. (P). — N.W. Williamsport, 13. VII. 49, 1 ind. (L); — N.E. Springdale, 20—21. VI. 51, 1 ind. (L). — E. Gambo, 26. VIII. 49, 1 ind. (P). — C. Gander, 1. IX. 49, 1 ind. (L).

E c o l o g y: On a *Kalmia*-bog with open vegetation of grass and *Carices*, on swamps with *Carex-Juncus*, on shaded meadows in woodland.

D i s t r i b u t i o n: From Newfoundland across Canada to British Columbia. From some northern States.

L. rubroclarus Kngt

Lygus vanduzeei var. *rubroclarus* Kngt, Corn. Univ. Agri. Expt. Sta. Bull. XXXIV, 1917, 567. — Mo. 18. — *L. rubroclarus* Strickl. 202. — *Liocoris rubroclarus* Kelt. Can. Ent. LXXXVII, 1955, 552.

S.E. Portugal Cove, 6. VI. 49, 2 ind. (K). — S. Rencontre West, 17—18. VI. 49, 1 ind. (L); Hare Bay, 21. VI. 49, 1 ind. (L). — W. Steady Brook, 10. VII. 49, 1 ind. (L).

D i s t r i b u t i o n: From Newfoundland across Canada to Alberta. Northwestern States.

L. columbiensis Kngt

Lygus columbiensis Kngt, Corn. Univ. Agri. Expt. Sta. Bull. XXXIV, 1917, 567. — *Liocoris c.* Kelt. Can. Ent. LXXXVII, 1955, 554.

S. Rencontre West, 17—19. VI. 49, 1 ind. (L).

D i s t r i b u t i o n: Newfoundland; Manitoba, Saskatchewan, Alberta, British Columbia, Northwest Territories; Alaska.

Salignus Kelton

S. distinguendus (Reut.)

Lygus distinguendus Reut. Pet. Nouv. Ent. I, 1875, 541. — v. D. 349. — Strickl. 201. — *Salignus d.* Kelton, Can. Ent. LXXXVII, 536.

W. Deer Lake, 18. VIII. 49, 1 ind. (L).

E c o l o g y: On cultivated land.

D i s t r i b u t i o n: Nearctic species with wide range. Newfoundland; Alaska, Yukon, western states of Canada; California, Utah, Colorado, New Mexico. — Siberia.

Camptobrochis Fieb.

C. nebulosus Uhl.

Camptobrochis nebulosus Uhl. Haydens Surv. Terr. for 1871, 1872, 417. — v. D. 354. — Bl. 889. — Mo. 22.

S. Hare Bay, 21. VI. 49, 2 ind. (L).

D i s t r i b u t i o n: Nearctic species with wide range. South part of Newfoundland, Quebec, Ontario, New England west to the Pacific and south to Florida and Texas.

Monalocoris Dahlb.

M. americanus Wagn. & Slat.

Monalocoris filicis v. D. 361. — Bl. 874. — Walley, Can. Ent. LXII, N.B. 76. — Mo. 22. — *M. americanus* Wagn. and Slat. Proc. Ent. Soc. Wash. 54, 1952, 279. — Strickl. 200. S. Rencontre West, 17—19. VI. 49, 1 ind. (L); Grand Bruit, 13. VI. 49, 1 ind. (L).

E c o l o g y: On *Dryopteris* and *Osmunda*.

D i s t r i b u t i o n: Nearctic species with wide range. From Newfoundland and Quebec to British Columbia. Generally distributed in the States.

Dicyphus Fieb.*D. agilis* (Uhl.)*Itolecoris agilis* Uhl. Bull. U.S. Geol. Geogr. Surv. III, 1877, 425. — *Dicyphus a.* Bl. 909. — Mo. 22. — Strickl. 200.

S.E. Labrador: Pinware River, 19. VII. 51, 1 ind. (L).

N.W. Doctors Brook, 31. VIII. 49, 1 ind. (K)

E c o l o g y: In forest. The species lives on *Rubus*.

D i s t r i b u t i o n: Nearctic species, fairly widespread. From Newfoundland, Quebec and New England to the Pacific, southwest to North Carolina.

Mecomma Fieb.*M. gilvipes* (Stål)*Leptomerocoris gilvipes* Stål, Stett. Ent. Zeit. IX, 1858, 187. — *Mecomma g.* v. D. 398. — Bl. 852. — Walley, Can. Ent. LXII, 76. — Mo. 21.

S.E. Labrador, Grand Falls, 15. VII. 51, 1 ind. (L).

N.W. Doctors Hill, 31. VII. 49, 1 ind. (L).

E c o l o g y: On marshes and meadows on shores.

D i s t r i b u t i o n: Nearctic species with northern distribution. From Newfoundland, Quebec and New England west to the Pacific.

Cyrtorrhinus Fieb.*C. caricis vagus* Kngt*Capsus caricis* Fall. Cimic. Suec, 1807, 102. — *Cyrtorrhinus c.* v. D. 824. — Bl. 853. — *C. c. vagus* Kngt, Hem. Connecticut, Miridae, 1923, 511.

S.E. St. Johns, 13. VIII. 49, 3 ind. (L); Come-by-Chance, 24. VIII. 49, 1 ind. (L). — W. Deer Lake, 18. VIII. 49, 2 ind. (L). — E. Goobies, 15. VIII. 51, 1 ind. (L). — C. Grand Falls, 26. VII. 51, 1 ind. (L).

E c o l o g y: On bogs and marshes, on shores of lakes; on thick vegetation of *Carex* and *Equisetum*.D i s t r i b u t i o n: Probably a holarctic species. The subspecies is recorded from Massachusetts, New York, New Jersey and Virginia, the typical *caricis* from Colorado.*C. n. sp.*

E. Port Rexton, 31. VII. 51, 2 Exx. (L). — C. Grand Falls, 26. VII. 51, 1 ind.

E c o l o g y: On high thick vegetation of *Carex*, and *Equisetum* in *Sphagnum* pools.*Plagiognathus* Fieb.*P. obscurus* Uhler var. *fraternus* Uhl.*Plagiognathus obscurus* Uhler, Haydens Surv. Terr. for 1871, 1872, 418. — *P. fraternus* Uhler, Hemipt. Colorado, 1895, 51. — *P. fraternus* v. D. 411. — Bl. 931. — Walley, Can. Ent. LXII, 76. — Mo. 23. — Strickl. 200.

C. Millertown Junction, 21. VIII. 49, 1 ind. (K).

D i s t r i b u t i o n: Nearctic species with wide range. Newfoundland, Nova Scotia, Quebec, Ontario, Alberta, British Columbia. From New England west to Kansas, Colorado.

P. politus Uhl.*Plagiognathus politus* Uhl. Hemipt. Colorado, 1895, 52. — v. D. 411. — Bl. 932. — Walley, Can. Ent. LXII, 76. — Mo. 24.

W. Corner Brook, 16. VIII. 49, 3 ind. (L). — C. Millertown Junction, 21. VIII. 49, 14 ind. (K).

E c o l o g y: In Corner Brook on *Corylus* and *Sambucus*.

D i s t r i b u t i o n: Fairly widespread nearctic species. From Newfoundland, Quebec and New England west to Manitoba, Colorado and Kansas.

P. chrysanthemii (Wolff)

Lygaeus chrysanthemii Wolff, Abb. der Wanz. 1804, fig. 151. — *Plagiognathus* c. Bl. 943. — Mo. 23.

S.E. St. Johns, 28. VIII. 49, 1 ind. (L). — S. St. Pierre, 11. VIII. 51, 1 ind. — E. Terra Nova, 26—28. VII. 51, 1 ind. (L).

E c o l o g y: On dry ground influenced by cultivation.

D i s t r i b u t i o n: Palearctic species, distributed in Europa, Caucasia, Turkestan and West Siberia. Introduced from Europe to Newfoundland, Quebec, Ontario and New England.

Chlamydatus Curt.

C. pulicarius (Fall.)

Lygaeus pulicarius Fall. Monogr. Cimic. Suec. 1807, 97. — *Chlamydatus* p. v. D. 416. — Bl. 947. — Mo. 24. — Strickl. 199.

S.E. St. Johns, 28. VIII. 49, 1 ind. (L). — N.E. Norris Arm, 24. VIII. 49, 1 ind. (P); Twillingate, 2—8. VII. 51, 5 ind. (L); Fogo, Fogo, 29. VI. 51, 2 ind. (L).

E c o l o g y: On meadows and on margins of cultivated land. Both on dry and humid localities.

D i s t r i b u t i o n: Evidently generally distributed in Newfoundland. Quebec, Alberta, New York. Probably introduced palearctic species.

SALDIDAE

Lampracanthia Reut.

L. crassicornis (Uhl.)

Salda crassicornis Uhl. Bull. U. S. Geol. Geogr. Surv. III, 1877, 441. — v. D. 447. — Bl. 1016. — Mo. 26.

S.E. Come-by-Chance, 27. VIII. 49, 2 ind. (P). — N.W. Port au Choix, 5. VIII. 49, 2 ind. (P); Flowers Cove, 23—25. VII. 49, 2 ind. (L). — N.E. Twillingate, 7. VII. 51, 1 ind. (L); Fogo, Fogo, 2. VII. 51, 2 ind. (L); Fogo, Seldom, 3. VII. 51, 1 ind. (L).

E c o l o g y: On humid marshes, on swamps with *Carex*, *Myrica*, etc.; on shores of *Sphagnum* pools.

D i s t r i b u t i o n: Nearctic species with northern distribution. Newfoundland, Quebec, Saskatchewan; New York, New Hampshire, Nebraska, Indiana.

Pentacora Reut.

P. ligata (Say)

Acanthia ligata Say, Heter. N. Harm. 1832, 34. — *Pentacora* v. D. 439. — Bl. 1005. — Clark, Can. Ent. LVIII, 204. — Walley, Can. Ent. LXII, 77. — Mo. 25.

E. Terra Nova, 26—28. VI. 51, 1 ind. (L).

E c o l o g y: On sandy ground.

D i s t r i b u t i o n: Nearctic species with relatively northern range. From Newfoundland, Quebec and New England west to Manitoba and Minnesota.

P. sphacelata (Uhl.)

Salda sphacelata Uhl. Bull. U. S. Geol. Geogr. Surv. III, 1877, 434. — *Saldula* s. v. D. 444. — *Pentacora* s. Bl. 1006.

N.W. St. Pauls, 10. VIII. 49, 2 ind. (L).

E c o l o g y: Shore of a shallow bay, on marshland, flooded at high tide and in storms.

D i s t r i b u t i o n: Nearctic species, halobiont. Occurring along the beaches of the Atlantic and Gulf coast from Newfoundland and Massachusetts to Texas. The species also has been taken along the shore in California and is known from Peru.

Salda Fabr.

S. bouchervillei (Prov.)

Sciadopterus Bouchervillei Prov. Nat. Can. IV, 1872, 106. — *Salda coriacea* v. D. 441. — *Lampracanthia* c. Bl. 1015. — Mo. 25. — *Salda bouchervillei* Strickl. 20.

S.E. St. Johns, 28. VIII. 49, 3 ind. (L). — S. Terrenceville, 13—14. VIII. 51, 1 ind.; Grand Bank, 3. VIII. 51, 5 ind. (L); Michelon 8—10. VIII. 51, 1 ind. (L); St. Albans, 26. VI. 49, 1 ind. (L). — W. South Branch, 4. VII. 49, 2 ind.; St. Fintans, 3. VII. 49, 2 ind. (L); Stephenville Crossing, 6. VII. 49, 1 ind. (L); Spruce Brook, 8. VII. 49, 1 ind. (L); Corner Brook, 16. VIII. 49, 3 ind. (L); Deer Lake, 25. VII. 51, 3 ind. (L); Glenbournie, Bonne Bay, 19. VII. 49, 3 ind. (P); Lomond, Bonney Bay, 14. VII. 49, 5 ind. (P). — N.W. St. Pauls, 10. VIII. 49, 4 ind. (L); Cow Head, 11. VIII. 49, 9 ind. (L); Flowers Cove, 23—25. VII. 49, 5 ind. (L); Cooks Harbour, 15. VII. 49, 1 ind. (L); Raleigh, 17. VII. 49, 1 ind. (L). — N.E. Springdale, 20—21. VII. 49, 5 ind. (L); Lewisporte, 26—27. VI. 51, 4 ind. (L); Twillingate, 5—8. VII. 51, 28 ind. (L); Fogo, Fogo, 29. VI. 51, 2 ind., 2. VII. 51, 2 ind. (L). — E. Port Rexton, 31. VII. 51, 4 ind. (L); Goobies, 15. VIII. 51, 1 ind. (L). — C. Badger, 22—25. VI. 51, 9 ind. (L); Millertown Junction, 21. VIII. 49, 1 ind. (P), 22. VIII. 49, 2 ind. (L).

E c o l o g y: Rather eurytopic species. On marshes with *Sphagnum*, *Ledum*, *Empetrum*, on bogs and shores, both sandy, rocky and muddy.

D i s t r i b u t i o n: Nearctic species with relatively northern range. From Newfoundland, Quebec and New England to British Columbia, Alaska. Northern United States south to Tennessee and Arizona.

S. obscura Prov.

Salda obscura Prov. Nat. Can. IV, 1872, 190. — *S. littoralis* v. D. 440. — *S. obscura* Mo. 25. — Strickl. 203.

S. St. Albans, 26. VI. 49, 1 ind. (L); Port aux Basques, 28. VI. 49, 4 ind. (L). — W. South Branch, 2. VII. 49, 1 ind. (P); Piccadilly, 7. VII. 49, 1 ind. (L). — N.W. Port au Choix, 4—5. VIII. 49, 1 ind. (P), 5. VIII. 49, 1 ind. (L). — N.E. Springdale, 20—21. VI. 51, 3 ind. (L); Lewisporte, 26—27. V. 51, 1 ind. (L); Twillingate, 4—8. VII. 51, 2 ind. (L); Fogo, Fogo, 29. VI. 51, 3 ind., 2. VII. 51, 1 ind. (L); Fogo, Tilting, 29—30. VI. 51, 8 ind.

E c o l o g y: On marshes with *Sphagnum-Carex-Myrica* and *Carex-Juncus*, on riverbanks and on the seashore.

D i s t r i b u t i o n: Nearctic species with northern distribution. Newfoundland, Quebec, Alberta; Alaska.

S. buenoi (Mc D.)

Acanthia buenoi Mc D. Can. Ent. LVII, 1925, 257.

S.E. Labrador: West St. Modest, 18. VII. 51, 6 ind. (L); Red Bay, 14—17. VII. 51, 4 ind. (L); Forteau, 12—15. VII. 51, 7 ind. (L).

N.W. St. Pauls, 10. VIII. 49, 1 ind. (L); Daniels Harbour, 23. VII. 49, 23. VII. 49, 2 ind. (P); Eddies Cove, 23. VII. 49, 2 ind. (L); Flowers Cove, 23—25. VII. 49, 2 ind. (L); Cooks Harbour, 17. VII. 49, 4 ind. (L). — *N.E.* Twillingate, 5. VII. 51, 1 ind. (L); Fogo, Tilting, 30. VI. 51, 1 ind. (L). — *C.* Badger, 22. VI. 51, 1 ind. (L); Howley, 11. VII. 49, 2 ind. (L).

E c o l o g y: On marshes, on banks (muddy and sandy) of ponds, on the seashore under wrack.

D i s t r i b u t i o n: Nearctic species with northern distribution. Newfoundland, from Ontario to British Columbia. Northern States south to California, Colorado, Illinois, New Hampshire.

Saldula v. D.

S. orbiculata (Uhl.)

Salda orbiculata Uhl. Bul. U. S. Geol. Geogr. Surv. III. 1877, 450. — v. D. 442. — Bl. 1010. — Torre Bueno, Can. Ent. LXII, 7. — Mo. 25.

N.W. Port au Choix, 5. VIII. 49, 1 ind. (L).

E c o l o g y: On the seashore, on grassy ground, on shingle overgrown with grass.

D i s t r i b u t i o n: Nearctic species with northern distribution. Newfoundland, Nova Scotia, Quebec. From New England to the Pacific.

S. illinoiensis Drake

Saldula illinoiensis Drake, Ark. Cor. Zool. 42 B (3), 1949, 2.

S.E. Come-by-Chance, 27. VIII. 49, 1 ind. (L). — *S.* Terrenceville, 13—14. VIII. 51, 4 ind. (L); Lamaline, 4. VIII. 51, 1 ind. — *N.W.* St. Pauls, 10. VIII. 49, 6 ind. (L); Port au Choix, 5. VIII. 49, 4 ind. (L). — *N.E.* Lewisporte, 26—27. VI. 51, 4 ind. (L); Twillingate, 4. VII. 51, 1 Ex. (L).

E c o l o g y: On marshes with *Juncus*, *Agrostis*, *Iris*, and on muddy shores.

D i s t r i b u t i o n: Newfoundland; Northern United States south to Colorado, Nebraska and Illinois.

S. pallipes (Fabr.)

Acanthia pallipes Fabr. Ent. Syst. IV, 1794, 71. — *Saldula p.* v. D. 443. — *S. interstitialis* Bl. 1011. — Walley, Can. Ent. LXII, 77. — Mo. 25. — Strickl. 203.

Nova Scotia, Cape North, 2 ind. (L).

S.E. Come-by-Chance, 27. VIII. 49, 1 ind. (L); Biscay Bay, 7. VI. 49, 2 ind. (L). — *S.* Grand Bank, 1. VIII. 51, 2 ind. (L); Pushthrough, 24. VI. 49, 4 ind. (L); Rencontre West, 17—18. VI. 49, 2 ind. (L); Port aux Basques, 30. VI. 49, 18 ind. (P), VI. 49, 23 ind. (K). — *W.* Stephenville Crossing, 6. VII. 49, 5 ind. (L), 2 ind. (P); Piccadilly, 7. VII. 49, 3 ind. (L); Cooks Brook, Curling, 15. VIII. 49, 1 ind. (P); Glenburnie, 18—19. VII. 26 26 ind. (K). — *N.W.* St. Pauls, 10. VIII. 49, 19 ind. (L); Port au Choix, 5. VIII. 49, 19 ind. (L); St. Johns Island, St. John Bay, 3. VIII. 49, 1 ind.; Cooks Harbour, 22. VII. 49, 1 ind. (L). — *N.E.* Lewisporte, 26—27. VI. 51, 1 ind. (L); Twillingate, 4—8. VII. 51, 2 ind. (L); Fogo, Seldom, 3. VII. 51, 2 ind. (L); Fogo, Tilting, 30. VI. 51, 2 ind. (L). — *C.* Gander, 2. VI. 49, 2 ind. (L); Glenwood, 23. VIII. 49, 1 ind. (L); Badger, 22—25. VI. 51, 1 ind. (L).

E c o l o g y: Very eurytopic species. On marshes, and bogs, on the banks (muddy and sandy) of streams and ponds and on the seashore.

D i s t r i b u t i o n: Holarctic species. Whole palearctic region. From Newfoundland, Quebec and New England west to the Pacific. Rare in the southern States.

S. opacula (Zett.)

Salda opacula Zett. Ins. Lapp. 1840, 268. — *Saldula o.* v. D. 444. — Walley, Can. Ent. LXII, 77. — Bl. 1012. — Mo. 25.

S.E. St. Johns, 31. VIII. 49, 2 ind. (L). — W. Deer Lake, 30. V. 51, 1 ind. (L). — N.W. St. Pauls, 10. VIII. 49, 29 ind. (L); Cow Head, 7. VIII. 49, 1 ind., 8. VIII. 49, 1 ind. (L). — N.E. Springdale, 20. VI. 51, 1 ind. (L); Norris Arm, 24. VIII. 49, 1 ind. — E. Gambo, 25. VIII. 49, 1 ind.; Goobies, 15. VIII. 51, 1 ind. — C. Glenwood, 24. VIII. 49, 1 ind. (L); Badger, 23. VI. 51, 1 ind. (L).

E c o l o g y: Mostly in very wet localities, on bogs, on *Sphagnum* marshes; also on shores of lakes.

D i s t r i b u t i o n: Probably a holarctic species widespread in the palearctic region. Distribution in the nearctic region incompletely known, but at least from Newfoundland, Quebec and New England.

S. nigrita Parschl.

Saldula nigrita Parschl. Proc. Br. Cal. Ent. Soc. 18 (Syst. Ser.), 1921, 11.

Nova Scotia, Cape Borth, 26. V. 51, 1 ind. (L).

S.E. Come-by-Chance, 27. VIII. 49, 1 ind. (P). — S. Cinq Cerf River, 14—16. VI. 49, 1 ind. (P). — W. South Branch, 2. VII. 49, 1 ind.; Deer Lake, 2. VI. 51, 2 ind., 3. VI. 51, 2 ind. (L); Lomond, 4—5. VI. 51, 1 ind. (L). — C. Victoria Lake, 13. VI. 51, 1 ind. (L).

E c o l o g y: This species seems to be stenotopic on sandy and stony banks of streams and ponds, and lake shores.

D i s t r i b u t i o n: Newfoundland; Western Canada, California, Oregon, Washington.

S. fernaldi Drake

Salda fernaldi Drake, Psyche LVI (4) 1949, 191.

N.W. Twillingate, 5. VII. 51, 1 ind. (L). — C. Badger, 25. VI. 51, 1 ind. (L).

E c o l o g y: On a *Sphagnum* bog and on the bank of a pond on a quagmire.

D i s t r i b u t i o n: Newfoundland; Vancouver I., British Columbia, Washington, Oregon, California.

Teloleuca Reut.*T. pellucens* (Fabr.)

Acanthia pellucens Fabr. Reise Norwegen, 1779, 234.

S.E. Labrador: L'Asne au Loup, 7. VII. 51, 1 ind. (L); West St. Modest, 18—20. VII. 51, 1 Ex. (L).

E c o l o g y: On sandy ground.

D i s t r i b u t i o n: Holarctic species, probably with a circumpolar distribution. Newfoundland, Ontario, Alberta; New York, Montana, Colorado.

GERRIDAE

Gerris Latr.*G. dissortis* (Drake and Harris)

Limnopus rufoscutellatus v. D. 429. — *Gerris r.* Bl. 977. — *Limnopus r.* Clark, Can. Ent. LVIII, 204. — *Gerris r.* Walley, 76. — Torre Bueno, Can. Ent. LVII, 7. — *G. dissortis* Drake and Harris, Bueno, 11. Brookl. Ent. Soc. XXV, 1930, 145. — Mo. 25. — Strickl. 202.

C. Grand Falls, 26. VII. 51, 1 ind. (L).

E c o l o g y: In water with rich vegetation.

D i s t r i b u t i o n: Eastern Canada (Newfoundland included); Eastern States south to Kansas, Kentucky, West Virginia.

G. remigis Say

Gerris remigis Say, Heter. N. Harm. 1832, 35. — v. D. 427. — Bl. 972. — Clark, Can. Ent. LVIII, 204. — Walley, Can. Ent. LXII, 76. — Mo. 25.

S.E. Waterford Bridge, 5. VI. 49, 2 ind. (P). — S. Port aux Basques, 1. VII. 49, 4 ind. (P). — W. South Branch, 2. VII. 49, 1 ind. (P); St. Fintans, 3—4. VII. 49, 2 ind. (L). — N.E. Fogo, Tilting, 30. VI. 51, 1 ind. (L). — C. Gaff Topsail, 19. II. 49, 3 ind. (P); Victoria Lake, Lake, 11—12. VI. 51, 2 ind. (L).

E c o l o g y: In pools and streams.

D i s t r i b u t i o n: From Newfoundland and Labrador across the continent to the Pacific and the Gulf; Mexico, Central America.

NOTONECTIDAE

Notonecta L.

N. insulata Kirby

Notonecta insulata Kirby, in Richardson's Fauna Bor. Amer. IV, 1837, 285. — v. D. 53. — Bl. 1052. — Clark, Can. Ent. LVIII, 204. — Mo. 26. — Strickl. 203.

W. Deer Lake, South Brook, 3. VI. 51, 1 ind. (L). — N.E. Fogo, Tilting, 30. VI. 51, 1 ind. (L).

D i s t r i b u t i o n: Nearctic species with northern distribution. Newfoundland, Quebec, Ontario, Manitoba, Winnipeg, Alberta, British Columbia. From New England west to the Pacific.

CORIXIDAE

The material includes about 5 species of *Corixidae*, which to date are undetermined.

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