Bergeron, J.A.C., Pinzon, J., Spence, J.R. 2017. Carabid and spider population dynamics from urban green roofs. Zoosymposia

**Appendix 1.**

**Content**

- Supplementary Table S1

- Supplementary Table S2

- Supplementary Table S3

**Table S1.** Coordinates of the six green roofs and four ground sites investigated in this study.

|  |  |
| --- | --- |
| **Site ID (abbreviation)** | **Coordinates** |
| ATB east (ATB) | 53°32’55’’N; 113°29’32’’W |
| Immigration Hall (Immig.) | 53°32’34’’N; 113°30’52’’W |
| Stantec Atrium (Stantec) | 53°32’34’’N; 113°30’52’’W |
| Edventure (Edv.) | 53°30’41’’N; 113°33’12’’W |
| Arctic Shore (Arctic) | 53°30’37’’N; 113°33’21’’W |
| John Janzen Nature Centre (JJNC) | 53°30’08’’N; 113°34’20’’W |
| ATB ground (ATB\_G) | 53°32’21’’N; 113°29’28’’W |
| Stantec ground (Stantec\_G) | 53°32’13’’N; 113°31’03’’W |
| Zoo ground (Zoo\_G) | 53°30’35’’N; 113°33’19’’W |
| JJNC ground (JJNC\_G) | 53°30’11’’N; 113°34’12’’W |

**Table S2.** Number of carabids caught by pitfall trap between the last week of April and the third week of October on each of six green roofs in Edmonton, Canada.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Arctic** | **ATB** | **Edv.** | **Immig.** | **JJNC** | **Stantec** | **Total** |
| *Agonum cupreum* | 13 | 9 | 0 | 0 | 11 | 136 | 169 |
| *Amara ellipsis* | 34 | 7 | 0 | 5 | 3 | 29 | 78 |
| *Amara* larvae | 25 | 24 | 0 | 7 | 8 | 6 | 70 |
| *Amara cupreolata* | 24 | 2 | 0 | 1 | 14 | 8 | 49 |
| *Pterostichus adstrictus* | 6 | 18 | 0 | 0 | 18 | 1 | 43 |
| *Amara lunicollis* | 4 | 1 | 0 | 1 | 2 | 33 | 41 |
| *Amara littoralis* | 1 | 1 | 1 | 0 | 34 | 0 | 37 |
| *Amara torrida* | 18 | 12 | 0 | 0 | 0 | 4 | 34 |
| *Stenolophus conjunctus* | 3 | 1 | 0 | 12 | 0 | 0 | 16 |
| *Bembidion quadrimaculatum* | 4 | 0 | 10 | 1 | 0 | 0 | 15 |
| *Agonum* larvae | 0 | 1 | 1 | 2 | 0 | 8 | 12 |
| *Dicheirotrechus cognatus* | 2 | 1 | 0 | 2 | 3 | 0 | 8 |
| *Pterostichus* larvae | 4 | 2 | 0 | 0 | 2 | 0 | 8 |
| *Amara convexa* | 0 | 0 | 0 | 6 | 0 | 0 | 6 |
| *Agonum gratiosum* | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| *Poecilus lucublandus* | 2 | 0 | 0 | 0 | 1 | 2 | 5 |
| *Pterostichus melanarius* | 2 | 2 | 0 | 0 | 0 | 1 | 5 |
| *Harpalus somnulentus* | 1 | 0 | 0 | 0 | 3 | 0 | 4 |
| *Agonum placidum* | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| *Amara familiaris* | 1 | 2 | 0 | 0 | 0 | 0 | 3 |
| *Harpalus ventralis* | 0 | 1 | 0 | 0 | 0 | 2 | 3 |
| *Bembidion nitidum* | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| *Bembidion versicolor* | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| *Clivina fossor* | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| *Loricera pillicornis* | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| *Agonum sordens* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *Amara idahoana* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *Amara obesa* | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| *Bembidion concretum* | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| *Calathus ingratus* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| *Carabus granulatus* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *Carabus nemoralis* | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| *Cymindis borealis* | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| *Harpalus opacipennis* | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| *Notiophilus aquaticus* | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| *Syntomus americanus* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *Synuchus impunctatus* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| **Total carabid adults** | **121** | **58** | **17** | **33** | **98** | **217** | **544** |
| **Total carabid larvae** | **29** | **27** | **1** | **9** | **10** | **14** | **90** |
| **Total carabids** | **150** | **85** | **18** | **42** | **108** | **231** | **634** |

**Table S3.** Number of spiders caught by pitfall trap between the last week of April and the third week of October on each of six green roofs in Edmonton, Canada.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Family** | **Species** | **Arctic** | **ATB** | **Edv.** | **Immig.** | **JJNC** | **Stantec** | **Total** |
| Linyphiidae | **juvenile** | 19 | 16 | 19 | 6 | 67 | 16 | 143 |
| Lycosidae | **juvenile** | 7 | 87 | 1 | 2 | 22 | 15 | 134 |
| Lycosidae | *Pardosa distincta* | 9 | 90 | 0 | 1 | 1 | 27 | 128 |
| Linyphiidae | *Erigone blaesa* | 4 | 3 | 105 | 1 | 0 | 0 | 113 |
| Thomisidae | **juvenile** | 7 | 23 | 0 | 3 | 4 | 74 | 111 |
| Linyphiidae | *Grammonota gentilis* | 67 | 5 | 1 | 0 | 14 | 21 | 108 |
| Linyphiidae | *Mermessus trilobatus* | 7 | 25 | 3 | 2 | 32 | 3 | 72 |
| Lycosidae | *Pardosa moesta* | 0 | 16 | 0 | 1 | 38 | 2 | 57 |
| Thomisidae | *Xysticus ferox* | 4 | 11 | 0 | 1 | 4 | 31 | 51 |
| Linyphiidae | *Islandiana princeps* | 7 | 0 | 4 | 1 | 13 | 0 | 25 |
| Linyphiidae | *Meioneta simplex* | 2 | 18 | 4 | 0 | 0 | 0 | 24 |
| Lycosidae | *Pardosa fuscula* | 0 | 0 | 0 | 0 | 23 | 0 | 23 |
| Lycosidae | *Pardosa modica* | 3 | 5 | 0 | 0 | 6 | 9 | 23 |
| Linyphiidae | *Centromerus sylvaticus* | 0 | 1 | 0 | 0 | 16 | 1 | 18 |
| Thomisidae | *Ozyptila gertschi* | 0 | 1 | 0 | 0 | 1 | 15 | 17 |
| Linyphiidae | *Meioneta fabra* | 3 | 4 | 3 | 1 | 2 | 0 | 13 |
| Thomisidae | *Xysticus canadensis* | 1 | 0 | 0 | 0 | 0 | 11 | 12 |
| Linyphiidae | *Collinsia plumosa* | 0 | 0 | 0 | 0 | 10 | 0 | 10 |
| Theridiidae | *Enoplognatha caricis* | 2 | 0 | 0 | 8 | 0 | 0 | 10 |
| Linyphiidae | *Soucron arenarium* | 1 | 0 | 0 | 0 | 7 | 0 | 8 |
| Philodromidae | *Thanatus formicinus* | 0 | 0 | 0 | 0 | 0 | 7 | 7 |
| Lycosidae | *Pirata piraticus* | 0 | 0 | 0 | 0 | 6 | 0 | 6 |
| Philodromidae | *Thanatus striatus* | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| Linyphiidae | *Erigone aletris* | 0 | 0 | 4 | 1 | 0 | 0 | 5 |
| Linyphiidae | *Erigone atra* | 0 | 0 | 4 | 0 | 0 | 1 | 5 |
| Linyphiidae | *Islandiana flaveola* | 1 | 0 | 0 | 0 | 4 | 0 | 5 |
| Linyphiidae | *Mermessus undulatus* | 0 | 1 | 0 | 0 | 3 | 1 | 5 |
| Thomisidae | *Xysticus emertoni* | 1 | 3 | 0 | 0 | 1 | 0 | 5 |
| Linyphiidae | *Erigone zographica* | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| Lycosidae | *Pardosa ontariensis* | 0 | 1 | 0 | 0 | 0 | 3 | 4 |
| Theridiidae | *Enoplognatha* cf.*intrepida* | 0 | 0 | 0 | 4 | 0 | 0 | 4 |
| Linyphiidae | *Allomengea dentisetis* | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Theridiidae | **juvenile** | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Thomisidae | *Xysticus discursans* | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Linyphiidae | *Bathyphantes canadensis* | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Linyphiidae | Linyphiidae sp1 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Linyphiidae | Linyphiidae sp2 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Theridiidae | *Asagena americana* | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Clubionidae | *Clubiona abbotti* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Clubionidae | **juvenile** | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Dictynidae | **juvenile** | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Linyphiidae | *Aphileta misera* | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Linyphiidae | *Bathyphantes concolor* | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Linyphiidae | *Microlinyphia mandibulata* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Linyphiidae | *Praestigia kulckzynskii* | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Linyphiidae | *Sciastes* cf.*dubius* | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Linyphiidae | *Tapinocyba prima* | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Linyphiidae | *Walckenaeria castanea* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Lycosidae | *Alopecosa aculeata* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Lycosidae | *Pardosa groenlandica* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lycosidae | *Pardosa mulaiki* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Lycosidae | *Pardosa tesquorum* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lycosidae | *Trochosa terricola* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Philodromidae | **juvenile** | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Philodromidae | *Thanatus coloradensis* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Salticidae | *Habronattus captiosus* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Salticidae | *Habronattus* cf.*americanus* | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Salticidae | **juvenile** | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Theridiidae | *Neottiura bimaculata* | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Theridiidae | *Theridion* cf.*frondeum* | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Theridiidae | *Theridion petraeum* | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Thomisidae | *Xysticus cunctator* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
|  | **Total adult spiders** | **118** | **188** | **133** | **25** | **190** | **148** | **802** |
|  | **Total juvenile spiders** | **34** | **126** | **21** | **14** | **94** | **106** | **395** |
|  | **Total spiders** | **152** | **314** | **154** | **39** | **284** | **254** | **1197** |