

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

ARBOREAL ARTHROPOD COMMUNITIES OF REMNANT
PODOCARP-HARDWOOD RAINFOREST,
NORTH ISLAND, NEW ZEALAND



A thesis submitted in partial fulfilment
of the requirements for the degree of

Master of Science in Ecology
at Massey University,
Palmerston North.

By
HAMISH ANDREW McWILLIAM

1996

Abstract

Arthropod communities in the canopies of three species of native tree (*Metrosideros robusta*, *Podocarpus totara*, and *Beilschmiedia tawa*) were studied in three small lowland reserves of podocarp-hardwood forest in the Manawatu-Wanganui Region, New Zealand. The communities were sampled continuously from June 1994 to May 1995 using 18 flight-interception traps which were cleared monthly. Overall, 13 929 individuals from 863 morpho-species and 21 arthropod orders were captured. The number of species and individuals was highest in mid-summer with both variables strongly correlated with maximum air temperature. Arboreal arthropod communities of the smallest, most isolated forest reserve had the lowest overall diversity and species equitability. *B. tawa* had the lowest abundance and diversity of arthropods of all three tree species examined possibly because the narrow, flexible leaves of this tree make it an unsuitable habitat for arthropods to live or alight upon. Diptera made up 34% of the total number of arthropods captured, while Coleoptera contributed 12% and Araneae 11% to the total catch. The relative abundance and species richness of Diptera peaked in spring, Coleoptera in summer and Araneae in autumn. Multivariate analysis of overall community structure suggests that season is the dominant determinant of community structure in the arthropod communities of these forest patches whereas site and tree species have minor effects. Given the large number of morpho-species collected, the conservation value of small forest patches for forest dwelling arthropods in New Zealand should not be underestimated.

Contents

Abstract	ii
Introduction	1
Chapter 1 Diversity patterns of arboreal arthropod communities in remnants of podocarp-hardwood rainforest in New Zealand	3
Chapter 2 Taxonomic composition of arboreal arthropod communities in lowland remnants of podocarp-hardwood rainforest, North Island, New Zealand	28
Synthesis	45
Acknowledgements	46
References	47
Appendix 1 Raw data for arthropod samples	55
Appendix 2 Identity of morpho-species	118
Appendix 3 Species list arranged by family	135
Appendix 4 Sampling dates and climatic variables	152

Introduction

Forest canopies have become the focus of increasing research attention over the last two decades, and 1994 saw the establishment of the International Canopy Network for communication among conservationists, educators, and scientists interested in research and management of this unique habitat. Amongst the rapidly growing literature on physical, chemical and biological aspects of forest canopies, one of the largest fields of study is that of arboreal arthropod communities. Insects are vital to the functioning of forest ecosystems, playing important roles in pollination and seed dispersal, herbivory and predation, nutrient turnover and the promotion of soil structure, and in providing food for other organisms (Majer & Recher, 1988). They are also the most species rich class of organisms on earth, making up approximately 63% of all described species (Samways, 1994). Estimates of the total number of species inhabiting the earth range from 10 to 80 million and generally center on the potential contribution to be made by as yet undescribed insect species in tropical rainforests (Erwin, 1982; Stork, 1988; Samways, 1994). The greatest losses of biodiversity today are through the destruction of these forests (Wilson, 1988).

While research into arboreal arthropod communities has begun to flourish around the world, I am aware of only two other studies that have considered the arboreal arthropod communities of forests in New Zealand (Moeed & Meads, 1984; Didham, 1992). New Zealand does not have the same species richness of terrestrial arthropods boasted by the tropical regions, however 90% of the estimated 20 000 species present are endemic to these islands (Watt, 1980) and are therefore of considerable international conservation value. In recent years the destruction of New Zealand's native forests has declined, but most lowland areas suitable for farming have already been cleared of their forests, and all native forests which remain continue to be threatened and impoverished by introduced animals and plants. The introduced possum (*Trichosurus vulpecula*) probably presents the greatest threat to New Zealand's forests today through selective browsing by an unsustainable population.

In this study I explore the diversity and composition of arboreal arthropod communities in lowland remnants of podocarp-hardwood rainforest in the intensively farmed Manawatu-Wanganui Region of the North Island, New Zealand. Three canopy tree species were selected for the study: *Beilschmiedia tawa* as one of the most common trees in North Island forests, *Podocarpus totara* as a representative of the native conifers, and *Metrosideros rata* as a species under particular threat because of its palatability to possums (Meads, 1976). The selection of tree species together with sampling through an entire year is intended to give a broad understanding of the arthropod communities in the canopies of these three forest remnants.

Chapter 1: Diversity patterns of arboreal arthropod communities in remnants of podocarp-hardwood rainforest in New Zealand

Abstract. 1. Arthropod communities in the canopies of three small forest reserves were sampled monthly between June 1994 and May 1995 using flight interception traps.

2. Communities in three species of native tree (*Metrosideros robusta*, *Podocarpus totara*, and *Beilschmiedia tawa*) were assessed in terms of abundance, species richness and evenness.

3. Arboreal arthropod communities of the smallest, most isolated forest reserve had the lowest overall diversity and species equitability.

4. Examining patterns in community structure in the three tree species across all sites revealed that the narrow-leafed *B. tawa* trees had fewer individuals and species of arthropods than other tree species in the study.

5. Overall, the number of individuals and species was highest in mid-summer with both variables strongly correlated with maximum air temperature.

Keywords. arboreal arthropods, diversity, flight interception trap, New Zealand, podocarp-hardwood rainforest

Introduction

The conservation of biodiversity has become a major scientific, political and economic theme in the last decade with particular emphasis placed upon the fate of tropical rainforests (Wilson, 1988) and the tremendous variety of insect life (Samways, 1994). Over the same period there has been a great increase in scientific exploration into patterns of diversity in arboreal arthropod communities world-wide, and this has been strongly influential in stimulating and directing discussion on the magnitude and management of global biodiversity (Southwood *et al.*, 1982b; Stork, 1988; Erwin, 1991; Moran *et al.*, 1994; Pettersson *et al.*, 1995). In the rainforests of New Zealand however, studies of diversity patterns

have been focused on vegetation rather than the invertebrate inhabitants (but see Didham, 1992).

Both the size of forest patch and the distribution of plant host species have been implicated as major determinants of species richness in forest arthropods. Larger, less isolated stands of vegetation have a greater number of species associated with them (Simberloff, 1978; Kruess & Tschardtke, 1994) while plant species which are more common and widespread support a greater variety of insects than do similar but less widespread species (Strong *et al.*, 1984). However, it should be noted that widespread plant species do not necessarily support more insect species at a particular locality, even if they support more species overall (Futuyama & Gould, 1979; Karban & Ricklefs, 1983). Although, trees with a high local relative abundance may have a greater richness of arthropod species than those which are less locally abundant (Moran *et al.*, 1994).

The species richness of a plant's insect community is also strongly influenced by the size, growth form and variety of above-ground parts of that plant (Lawton & Schroder, 1977; Strong & Levin, 1979; Moran, 1980). Plants with larger and more complex architecture are both more apparent to potential colonising species and provide a greater variety of microhabitats and niches to occupy. The leaf form of a plant can be significant in determining species richness. Plants with finely divided or spiny leaves (Lawton & Price, 1979), or narrow leaves (Moran & Southwood, 1982) may consistently have fewer insects associated with them than plants with broad, soft leaves. The biochemistry of a plant may also limit the number of insects which exploit it (Wratten & Edwards, 1980).

Studies considering the distribution of individuals amongst species (equitability) in arthropod communities are however less common. Sutton (1983) used both number of species and a measure of overall diversity which incorporates both richness and evenness to assess distinctions in homopteran communities at different levels within tropical rainforests, and found that only species richness varied significantly between levels. Murdoch *et al.* (1972) found that evenness and overall diversity of insects in old field communities correlated strongly with evenness and overall diversity of plants, respectively. Russell-

Smith & Stork (1994) observed an increase in the abundance and species richness but a decline in the evenness and overall diversity of canopy spider communities with increasing altitude in a Sulawesi forest. In a North American study, community evenness, but not overall diversity varied significantly between day and night in canopy arthropods (Costa & Crossley, 1991).

In this study I examined the diversity of arboreal arthropod communities in a range of tree species in podocarp-hardwood rainforest in the North Island of New Zealand. As richness and evenness measures of diversity can differ in their response to environmental variables (Costa & Crossley, 1991; Russell-Smith & Stork, 1994; Death & Winterbourn, 1995) both the species richness and the evenness components of diversity are considered in relation to geography, forest patch size, tree species and seasonal changes in the forests.

Study Sites

Pakohu Scenic Reserve is administered by the Department of Conservation and is located at latitude 40° 03' south and longitude 175° 58' east. The 80 ha reserve is approximately 3 km long and lies between the Pohangina Valley East Road and the Pohangina River which flows out of the 93 000 ha Ruahine State Forest Park (Fig. 1a). Situated in intensively farmed pasture, the reserve is connected to the park by a narrow strip of native riparian vegetation, approximately 500 m long (Plate 1).

Average rainfall at the site is 1 600 mm per year (Burgess, 1988). The well drained soil is 20 cm of dark brown silt loam with a strongly developed nut structure on 20 cm of yellowish brown fine sandy loam with greywake gravel (Rijkse, 1977). Terraces, steep banks, and a floodplain make up the topography of the reserve. The tree species selected for study at this reserve were rata (*Metrosideros robusta*) and totara (*Podocarpus totara*). Nomenclature follows Allan (1961); Moore & Edgar (1970); Connor & Edgar (1987). Three of the study trees are situated on the edge of a high terrace at an altitude of 360 m above sea level. Beyond the edge of the terrace a bank drops away steeply to the floodplain below. One totara stands 10 m down the bank while two emergent

rata are located on the terrace, each approximately 10 m back from the edge (Fig. 1a). A description of the characteristics of each tree in the study can be found in Table 2. Other trees within a 10 m radius of one or more of the study trees are, in descending order of abundance: mapau (*Myrsine australis*), rewarewa (*Knightia excelsa*), titoki (*Alectryon excelsus*), tree fern species, hinau (*Elaeocarpus dentatus*), totara, kamahi (*Weinmannia racemosa*), mahoe (*Melicytus ramiflorus*), maire (*Nestegis cunninghamii*), miro (*Prumnopitys ferruginea*), five-finger (*Pseudopanax arboreus*), tawa (*Beilschmiedia tawa*), rimu (*Dacrydium cupressinum*), rata and matai (*Prumnopitys taxifolia*). Tawa within the reserve were however unsuitable for climbing and hence were not sampled at this site.

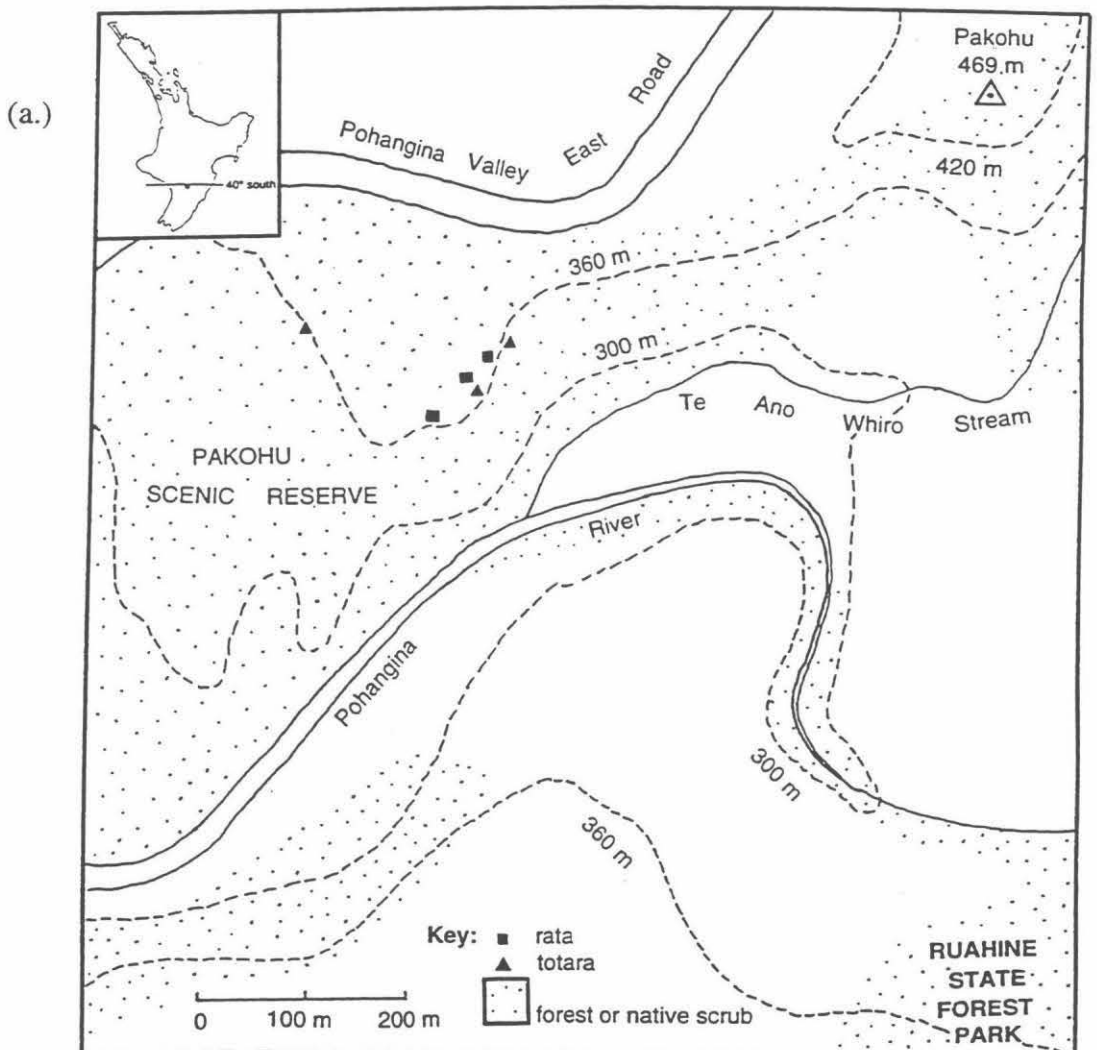


Fig. 1. Location of study trees at (a.) Pakohu Scenic Reserve, (b.) Keebles Bush, (c.) Bushy Park Forest Reserve. Continued on following page.

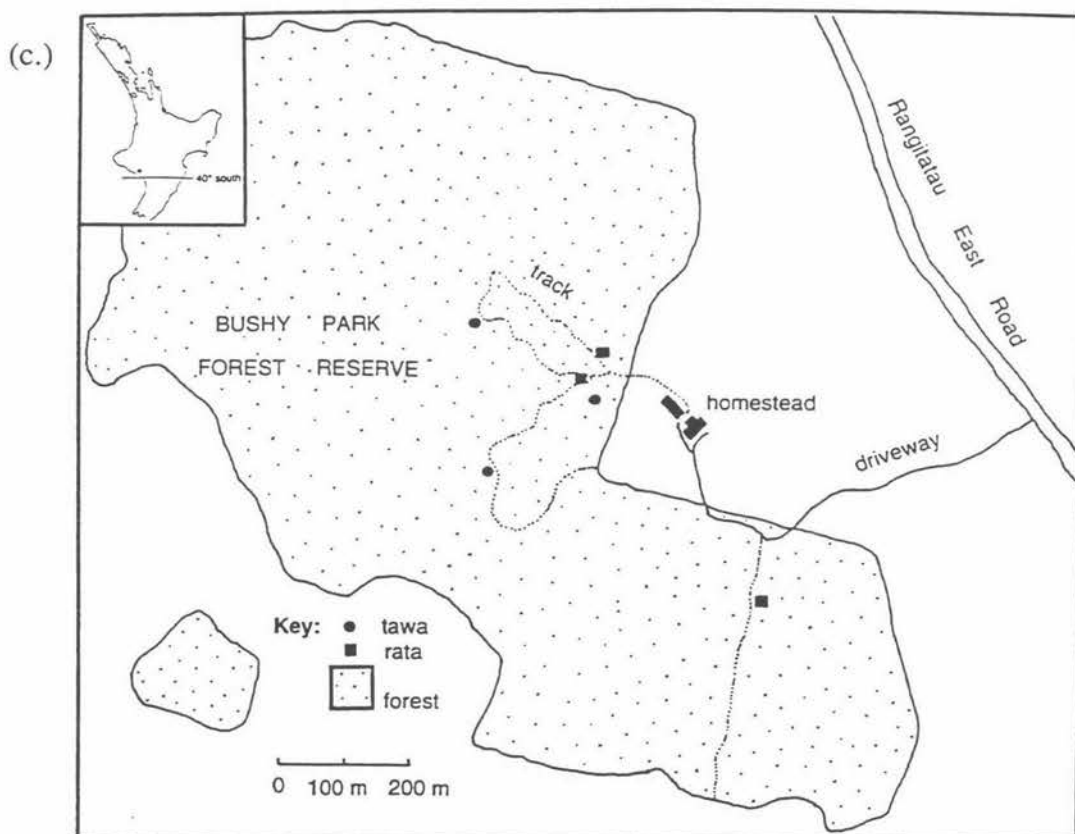
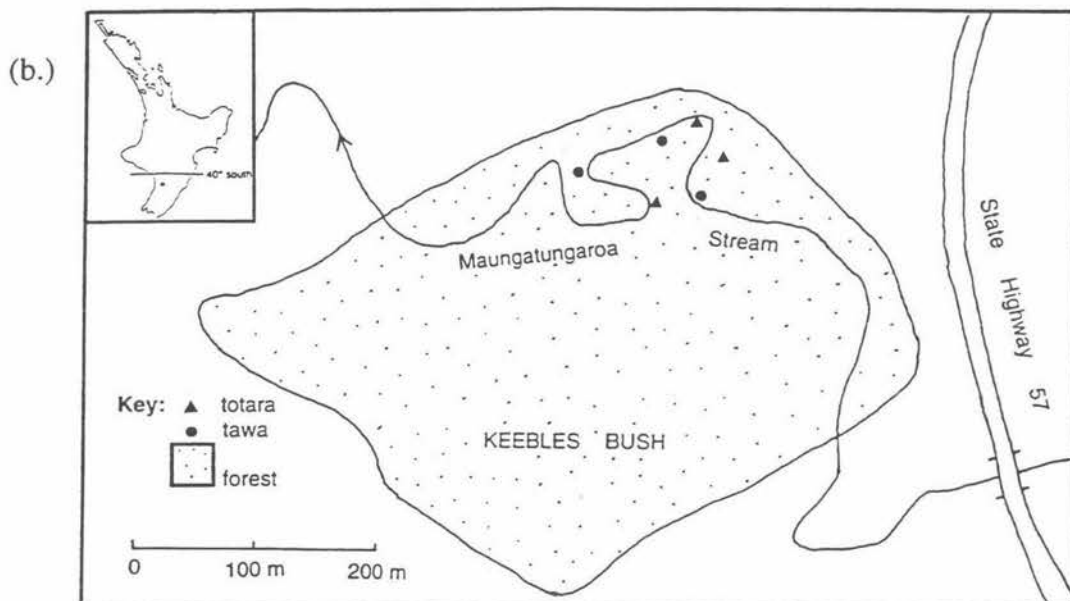




Plate 1. Looking south-east from Pakohu Scenic Reserve to Ruahine State Forest Park along the riparian corridor of native vegetation which connects the two areas of forest.

Keebles Bush is a 13 ha forest reserve administered by the Keebles Trust. It is located at latitude $40^{\circ} 24'$ south and longitude $175^{\circ} 36'$ east, approximately 2 km south-west of Massey University, next to State Highway 57 (Fig 1b). The reserve is set in intensively farmed pasture (Plate 2) and is 6 km from the nearest forest which is continuous with the 117 000 ha Tararua State Forest Park. It lies at an altitude of around 40 m above sea level on rolling terrace land of the Manawatu River. A small stream, the Maungatungaroa, makes its way through the reserve. The soil is a poorly drained dark greyish brown silt loam (Cowie, 1974). The average annual rainfall is 990 mm (Burgess, 1988).

The three totara and three tawa trees selected for study stand near the banks of the Maungatungaroa Stream (fig. 1b). The totara are emergent trees, while the tawa are taller components of the reserve's main canopy which generally lies between 9 and 15 m (Esler, 1978). Tree species within a 10 m radius of one or more of the study trees are, in descending order of abundance: tree fern species, titoki, mahoe, tawa, rimu, rewarewa, hinau, kaikomako (*Pennantia corymbosa*), pate (*Schefflera digitata*), tarata (*Pittosporum*



Plate 2. Looking south over Keebles Bush.



Plate 3. Looking south-west over the Bushy Park canopy to the Tasman Sea.

eugenioides), maire, houhere (*Hoheria populnea*), five-finger, and matai. Only one rata has been found within the reserve and this was immature and therefore not used in this study.

Bushy Park Forest Reserve is owned and managed by the Royal Forest and Bird Protection Society, to whom it was gifted in 1960 (Slaven, 1986). It is located at latitude 39° 48' south and longitude 174° 56' east, about 8 km north of Kai Iwi, Wanganui on the Rangitau East road (Fig. 1c). The reserve has an area of 98 ha and is surrounded by intensively farmed pasture (Plate 3). It is approximately 1 km from a similarly sized patch of native forest. This second patch is in turn approximately 1.5 km from an extensive forested area which includes the 74 000 ha Whanganui National Park.

The reserve lies between 270 m and 305 m above sea level. Its topography is dominated by ridge and gully systems of varying size. There are no permanently flowing waterways within the reserve. Rainfall averages 1 020 mm per year (Slaven, 1986). The soil is a yellow brown loam which is generally fertile and free draining (Slaven, 1986).

The forest canopy is dominated by tawa and pukatea, while rimu, tawa and rata typically appear as emergent trees. The association of these latter three trees is a relict of the podocarp-broadleaf forests which are thought to have covered the Wanganui area before the arrival of European settlers (Slaven, 1986). The positions of the six study trees are illustrated in Fig. 1c. The three tawa are all canopy trees while the three rata emerge above the crowns which surround them. Tree species within a 10 m radius of one or more of the study trees are, in descending order of abundance: mahoe, tree fern species, tawa, pukatea (*Laurelia novae-zelandiae*), hangehange (*Geniostoma ligustrifolium*), kawakawa (*Macropiper excelsum*), karaka (*Corynocarpus laevigatus*), nikau palm (*Rhopalostylis sapida*), matai and rewarewa. There are no mature totara within the reserve.

Materials and Methods

Daylight hours were obtained from the Carter Observatory in Wellington. Minimum and maximum temperatures were recorded monthly from June 1994 to May 1995 using a maximum\minimum thermometer tied to a branch out of direct sunlight in the canopy of one study tree at each site. Rainfall was also measured monthly at each site from October 1994 to May 1995. Annual ranges for daylight hours, maximum and minimum temperatures, and rainfall are recorded in Table 1 and all monthly climatic data are recorded in Appendix 2.

Table 1. Ranges of mean daylight hours, maximum and minimum temperatures, and rainfall at each site, recorded monthly between June 1994 and May 1995.

	Pakohu Scenic Reserve	Keebles Bush	Bushy Park Forest Reserve
Mean daylight hours	9.38 — 14.95	9.38 — 14.95	9.38 — 14.95
Maximum temperature (°C)	15 — 29	13 — 29	13 — 25
Minimum temperature (°C)	-2 — 9	-2 — 10	0 — 10
Rainfall (mm)	34 — 124	19 — 162	33 — 165

Tree species. The three tree species chosen for this study are evergreen, as are most native New Zealand trees. They belong to three different families and differ markedly in their morphology. *Metrosideros robusta* A. Cunn ("Rata", Myrtaceae) is a canopy or emergent tree, which can grow to a height of 43 m (Burstall & Sale, 1984). Rata begins life as an epiphyte perched high on another tree having germinated from wind-borne seed. From here it sends down aerial and side roots, eventually enclosing the trunk of its host and becoming a massive tree in its own right. Mature rata themselves are often festooned with epiphytes. The bark is thin and falls off in small rectangular flakes. Rata leaves are thick and leathery, up to 50 mm long and 20 mm wide. The flowers are approximately 30 mm in diameter and are conspicuous for their long red stamens. They attract both avian and insect nectar gatherers during December and January (Salmon, 1980). Three rata were sampled at both Pakohu Scenic Reserve and Bushy Park.

Podocarpus totara G. Benn. ex D. Don ("Totara", Podocarpaceae) can grow to a height of 39 m (Burstall & Sale, 1984). Totara bark is thick, stringy and usually deeply furrowed. The stiff, tightly packed leaves of this tree are 13-

30 mm long and 1-2 mm wide. As a member of the Gymnospermae, totara does not bear flowers. Being dioecious, male strobili and female ovules are produced on different trees. The male cones ripen to release pollen in November, while the seeds and their red, fleshy receptacles on female trees ripen around April (Salmon, 1980). Arthropods were sampled from three totara at both Pakohu Scenic Reserve and Keebles Bush.

Beilschmiedia tawa (A. Cunn.) T. Kirk ("Tawa", Lauraceae) grows to 25 m in height and is the most common tree in many North Island forests. The bark of this tree is smooth and even-textured. Tawa leaves are long, narrow and willow-like, being up to 100 mm in length and 20 mm wide. Inconspicuous green flowers, only 3 mm in diameter, open in December. In February and March large numbers of black oval drupes, up to 30 mm in length, ripen and fall to the ground (Salmon, 1980). Three tawa were sampled for arthropods at both Keebles Bush and Bushy Park.

Access to the canopies of these trees was gained using single rope techniques throughout the study (Perry, 1978). The architecture of each study tree was described using tree height, number of large vertical stems at trap height, and basal area at chest height. Basal area was used as a relative measure of the vegetational biomass of trees, following Didham (1992). The nature of epiphyte growth was recorded using a count of epiphyte taxa in each study tree and a subjective assessment of epiphyte loading on a scale ranging from 0 to 3 (3 being most dense). Trap height as a proportion of tree height; the distance of the trap to the nearest large vertical stem; and the angular distance from south of the trap relative to the centre of the tree were also measured. The southerly sides of trees are less sunny and would presumably see less insect activity. To assess the number of tree species and the vegetational biomass of the canopy in the immediate vicinity of the traps, the identity and basal area of all trees (stem diameter > 10 cm), including the study trees, within a 10 m radius of each study tree were recorded. Where tree sites were on uneven topography, surrounding trees on lower ground were recorded only where their stem diameter was greater than 10 cm at the level of chest height on the study tree. Characteristics for each tree are listed in Table 2.

Table 2. Architectural variables measured for each study tree. There are three replicates for each site-tree species combination. PM=Pakohu Reserve, *M. robusta*; PP=Pakohu Reserve, *P. totara*; KP=Keebles Bush, *P. totara*; KB=Keebles Bush, *B. tawa*; BB=Bushy Park, *B. tawa*; BM=Bushy Park, *M. robusta*.

	PM1	PM2	PM3	PP1	PP2	PP3	KP1	KP2	KP3	KB1	KB2	KB3	BB1	BB2	BB3	BM1	BM2	BM3
Tree height (m)	16	22	28	15	12	16	23	18	20	15	16	15	18	21	22	23	24	25
Crown depth (m)	11	12	17	9	6	12	10	10	9	8	12	9	8	11	10	6	13	10
Tree basal area (m ²)	0.39	3.36	2.42	0.80	0.31	0.42	1.08	0.65	0.54	0.44	0.37	0.17	0.24	0.32	0.50	3.57	4.48	3.79
Epiphyte taxa	7	5	9	6	6	4	5	6	8	8	7	4	6	6	6	7	6	9
Epiphyte load	2.0	2.0	2.5	2.5	2.5	1.0	1.5	1.5	1.5	2.0	1.5	1.0	1.0	1.0	1.5	2.5	3.0	3.0
Trap ht / tree ht	0.75	0.73	0.54	0.53	0.83	0.75	0.70	0.83	0.75	0.60	0.88	0.73	0.78	0.81	0.64	0.74	0.75	0.60
Trap bearing from S	5	170	155	50	60	130	60	30	140	160	180	140	130	160	60	110	60	80
Distance to trunk (m)	1.5	0.8	0.5	1.1	0.9	0.5	1.5	0.8	0.8	1.6	0.8	0.5	0.7	0.6	0.3	0.8	0.6	2.0
Stems at trap height	2	2	4	1	2	1	2	2	3	3	5	4	3	3	6	7	13	5
Basal area in plot (m ²)	2.34	5.36	3.82	2.29	1.69	0.76	2.55	1.54	1.42	1.32	1.95	0.86	1.43	2.51	0.96	4.55	5.21	5.12
Tree species in plot	11	9	9	8	7	5	7	8	7	5	6	4	6	8	4	8	7	7

Arthropod sampling. Flight interception traps provide a measure of the activity and abundance or "availability" of arthropods in the canopy (Southwood, 1978). The window trap design used here is modified from that of Wilkening *et al.* (1981). It is intended to be non-attractive; to capture arthropods flying from any direction; and to collect both the animals which fall and those which climb following impact with either of two clear PVC panes. The panes interlock perpendicular to one another at their vertical midlines and are bolted to plastic funnels above and below, which direct insects towards collecting containers. In order to further guide climbing animals into the upper chamber, the upper edges of the PVC panes were extended into the inverted upper funnel, so as to be flush with the funnel's inside surface.

The total area of the intercept surfaces in each trap is 0.42 m². As the traps were maintained only once per month it was necessary to incorporate a drainage device between the lower funnel and the lower collecting container to direct rainwater away from this chamber. The rubber bands used in the original design to hold containers onto the trap were replaced with more durable 4 mm shock cord in this study. Lengths of nylon braid and shock cord tied to eye bolts on the funnels were used to suspend the traps from several nearby branches in the crowns of study trees. Gault's solution (Barber, 1931) with a drop of detergent to break surface tension was used in all collecting containers as a preserving fluid. The traps were set in June 1994 and sampled arthropod communities continuously to May 1995, being emptied and cleaned monthly over this period. Occasionally part or whole samples were lost when traps were buffeted by storms. In these situations the data was not included in any analysis.

All arthropod groups were sorted to morpho-species (following (Beaty & Oliver, 1994)) under 10-40 times magnification, except Tricoptera, and Lepidoptera which generally had badly damaged wings.

Diversity indices. Species diversity consists of two components (Magurran, 1988). The first of these is the richness or variety of species and the second is the relative abundance or evenness of species in the community. Each diversity index is weighted towards one or other of these two variables (Magurran, 1988). In this study, monthly samples from each host tree have been

described using total number of individual animals captured (N) and five indices of diversity. Number of species (S) is the most fundamental of the species richness indices. Margalef's diversity index (Clifford & Stephenson, 1975) is very closely related to number of species but accounts to some degree for the total number of individuals sampled. It is given by:

$$D_{Mg}=(S-1)/\ln N.$$

The logarithmic series model (Fisher *et al.*, 1943) was the first attempt to describe mathematically the relationship between the number of species and the number of individuals in those species. The log series index, α is based upon this model and therefore combines the two aspects of diversity, although it is more strongly weighted towards the species richness component. Taylor (1978) believed that α is a satisfactory measure of diversity, even when the underlying species abundances do not follow a log series distribution. The index is given by the equation:

$$D_{\alpha}=N(1-x)/x$$

where x is estimated, to six decimal places, from the iterative solution of:

$$S/N=(1-x)/x[-\ln(1-x)].$$

Simpson's index (Simpson, 1949) is an evenness measure. The equation used to calculate the form of the index appropriate to a finite community is:

$$D_s=\sum[n_i(n_i-1)]/[N(N-1)]$$

where n_i is the number of individuals in the i th species. Although weighted more towards the relative abundance component of diversity, Simpson's index, like the log series index combines both aspects of diversity. Because D_s increases as diversity decreases, the reciprocal of D_s was used as a diversity measure. The final diversity measure was the Berger-Parker index (Berger & Parker, 1970) which is also an evenness measure. However, unlike Simpson's index it includes no aspect of species richness. The Berger-Parker index, D_{BP} simply expresses the proportional importance of the most abundant animal. It is given by:

$$D_{BP}=N_{max}/N$$

where N_{max} is the number of individuals in the most abundant species. As with Simpson's index the reciprocal of D_{BP} is used as a diversity measure in this study.

Statistical methods. Three way Analysis of Variance (ANOVA) using the SAS General Linear Models (GLM) procedure (SAS, 1989) was used to assess whether descriptors of arthropod communities differed between sites, tree species and months. Number of individual animals, number of species, Margalef's diversity index and Simpson's index were all log transformed to remove heterogeneity of variances. All treatment levels were treated as fixed, using type IV sums of squares because of the unbalanced design with missing cells (Sokal & Rohlf, 1981). The model structure was thus site, tree species, month, site*month, tree species*month. The three samples from each tree species at each site in each month were considered as replicates for this analysis.

Two way ANOVA was used to determine whether or not the architectural variables were independent of site and tree effects. The 11 architectural variables and the seasonal measures of light, temperature and rainfall were then correlated using Spearman's correlation coefficient against number of individuals and each of the diversity indices using the SAS CORR procedure.

Results

Sites. Overall, 13 929 animals from 863 morpho-species were collected at the three sites between June 1994 and May 1995. The mean number of individuals captured was greatest at Keebles Bush (all analysis of variance for community descriptors are recorded in Table 3) (Fig. 2). In contrast, all diversity measures of the arthropod communities were lowest at Keebles Bush and highest in the Pakohu Reserve. No significant difference was found in the mean number of arthropod species or Margalef's index between sites (Fig. 3). However, the log series index was lower at Keebles Bush than at the other two forest reserves (Fig. 3). The two evenness measures, Simpson's index and the Berger-Parker dominance index displayed a similar pattern to the log series index (Fig. 4), with significantly lower evenness at Keebles Bush.

Tree species. The total number of species captured in each of the tree, site, and tree-site combinations across all seasons are listed in Table 4. The arthropods captured in *Beilschmiedia tawa* trees were fewer in number and lower

Table 3. Analysis of variance for abundance and diversity measures of arboreal arthropod communities. Each column presents F-values, degrees of freedom, and P-values for each level of the model.

	Site	Tree	Month	Site*month	Tree*month
Abundance	$F_{2,132}=10.12, P<0.001$	$F_{2,132}=4.56, P=0.01$	$F_{11,132}=21.02, P<0.001$	$F_{22,132}=1.21, P=0.25$	$F_{22,132}=1.56, P=0.06$
Species richness	$F_{2,132}=1.54, P=0.22$	$F_{2,132}=15.46, P<0.001$	$F_{11,132}=23.94, P<0.001$	$F_{22,132}=0.75, P=0.78$	$F_{22,132}=1.09, P=0.37$
Margalef's index	$F_{2,132}=1.71, P=0.19$	$F_{2,132}=17.58, P<0.001$	$F_{11,132}=18.11, P<0.001$	$F_{22,132}=0.63, P=0.89$	$F_{22,132}=0.90, P=0.59$
Log series index	$F_{2,132}=5.98, P=0.003$	$F_{2,132}=6.13, P=0.003$	$F_{11,132}=2.95, P=0.002$	$F_{22,132}=0.77, P=0.76$	$F_{22,132}=0.95, P=0.54$
Simpson's index	$F_{2,132}=8.05, P<0.001$	$F_{2,132}=4.92, P=0.009$	$F_{11,132}=3.41, P<0.001$	$F_{22,132}=1.42, P=0.11$	$F_{22,132}=0.62, P=0.91$
Berger-Parker index	$F_{2,132}=3.92, P=0.02$	$F_{2,132}=2.38, P=0.10$	$F_{11,132}=2.32, P=0.01$	$F_{22,132}=1.32, P=0.17$	$F_{22,132}=0.57, P=0.93$

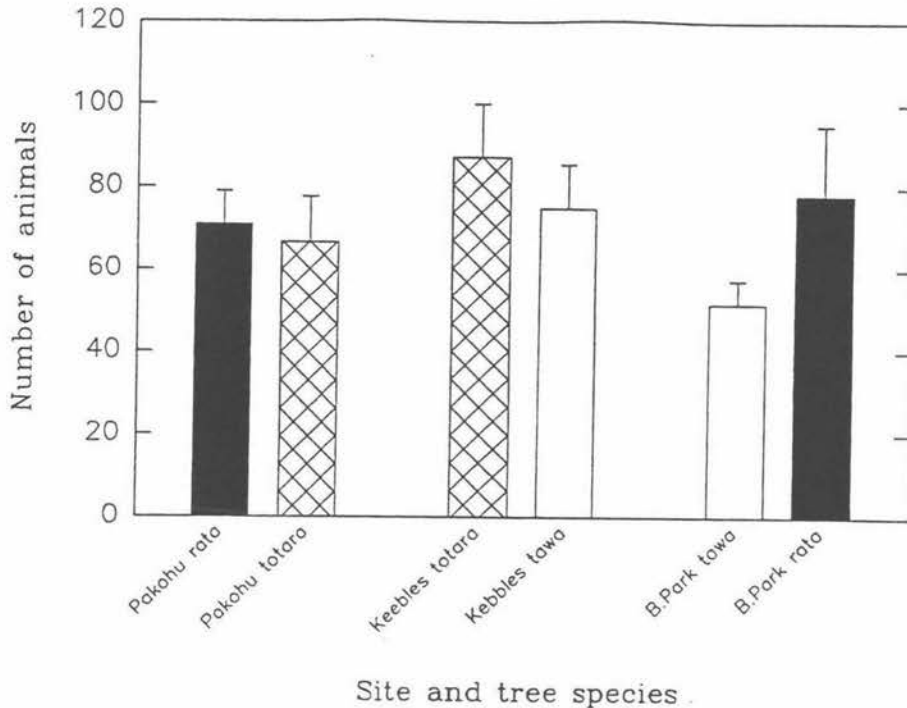


Fig. 2. Mean number of individuals (± 1 SE) captured in each tree species at each site over the period June 1994 to May 1995.

in diversity than those captured in either *Podocarpus totara* or *Metrosideros robusta* trees (Fig. 2-4). *B. tawa* communities also had a significantly lower mean number of species and Margalef's diversity index per sample. Diversity, as measured by the log series index and Simpson's index were likewise lower in *B. tawa*. The Berger-Parker index for these communities was in contrast not significantly different between tree species.

Of all the architectural measures, only the number of tree species surrounding each trap correlated significantly with number of individuals captured (Table 5). Study tree basal area, epiphyte load, trap distance from trunk, total basal area of surrounding trees, and number of surrounding tree species all correlated significantly with at least four out of the five diversity measures. Surprisingly, both the angular distance of a trap from a southerly placement within a tree, and the number of large vertical stems at trap height displayed weak negative correlations with diversity measures of these arthropod communities. However as tree species differ markedly in growth form, height of study tree ($F_{2,12}=7.20$, $P=0.009$), basal area of study tree ($F_{2,12}=4.25$, $P=0.04$), total basal area of surrounding trees ($F_{2,12}=5.56$, $P=0.02$) and number of species of

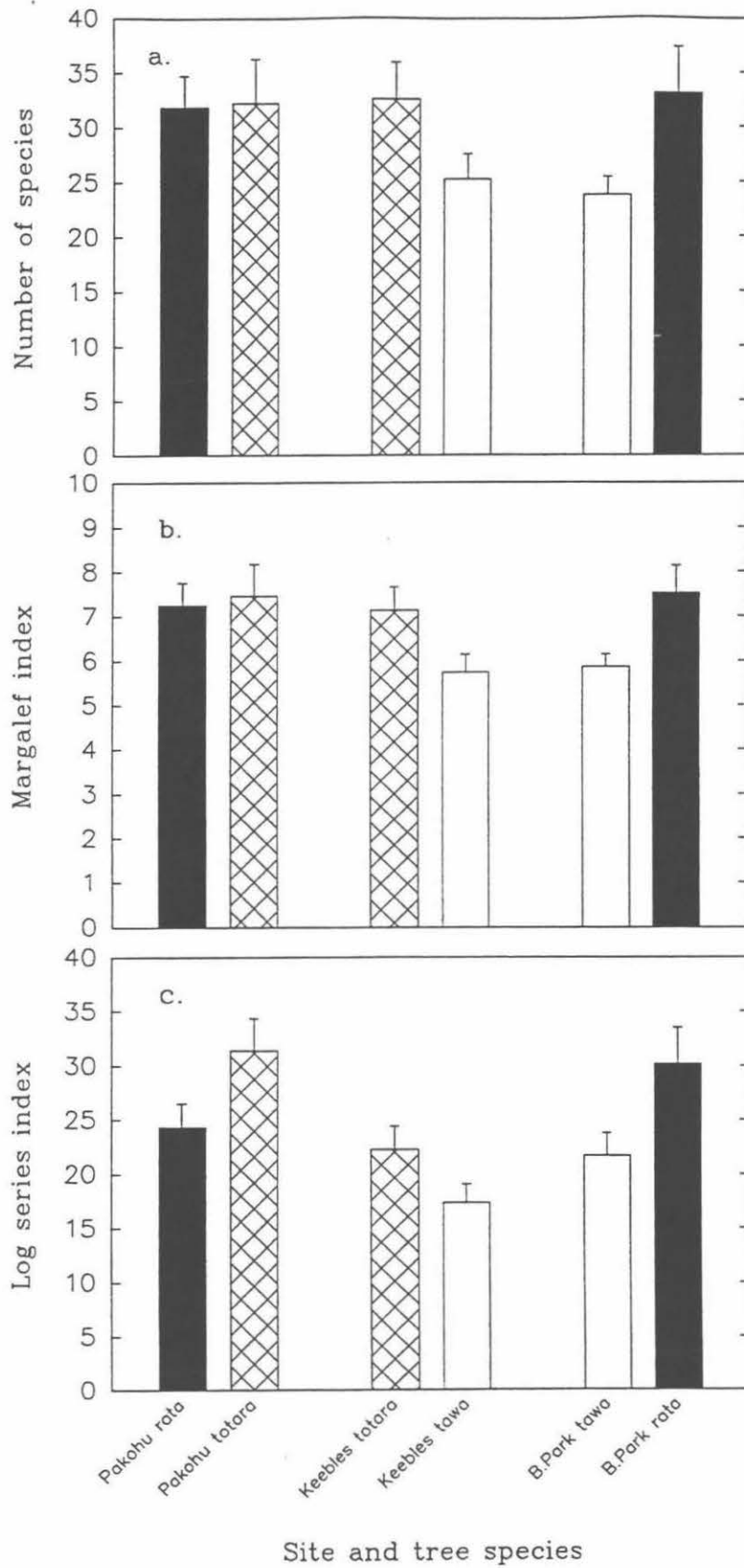


Fig. 3. Means (\pm 1SE) of (a.) species richness, (b.) Margalef index, and (c.) the log series alpha index in each tree species at each site over the period June 1994 to May 1995.

surrounding trees ($F_{2,12}=6.96, P=0.01$) were not independent of tree species. In addition, basal area of the study tree ($F_{2,12}=5.98, P=0.02$) and number of large vertical stems at trap height ($F_{2,12}=6.39, P=0.01$) varied significantly between sites.

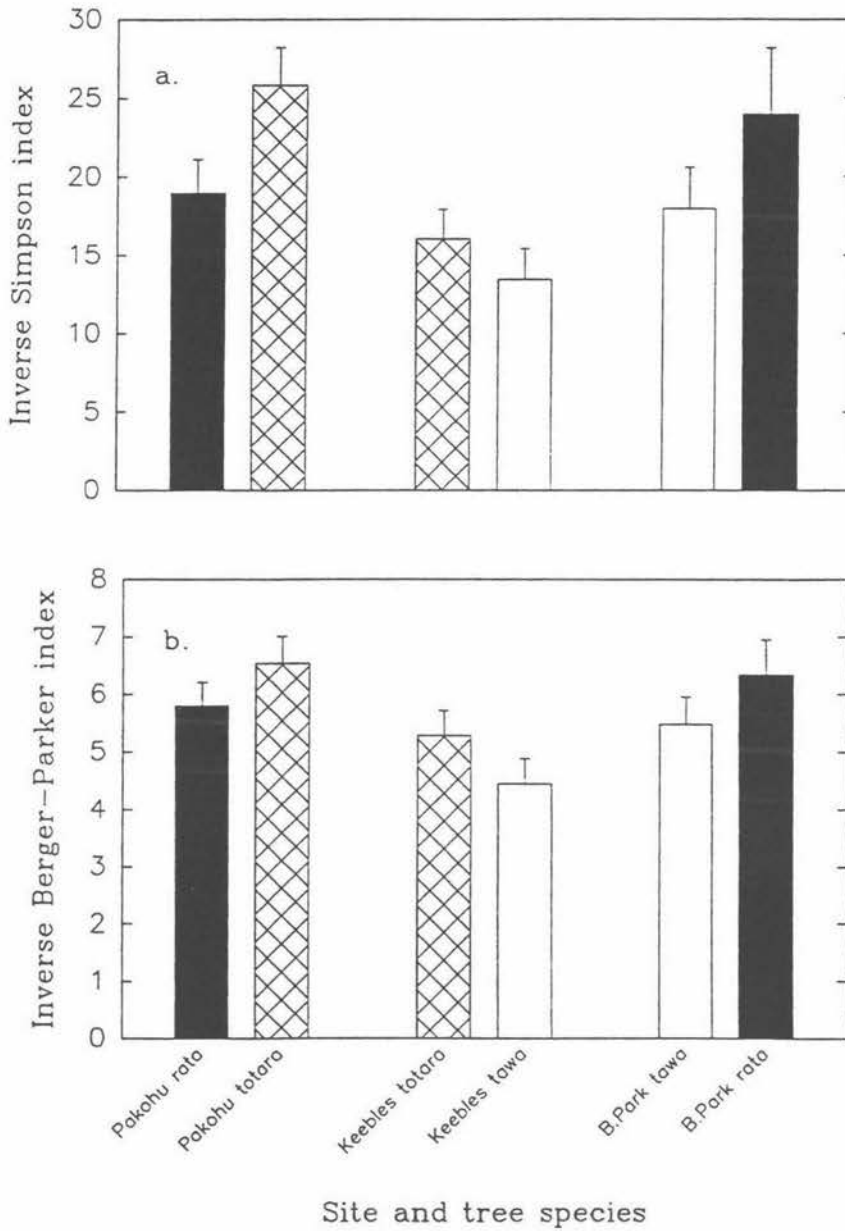


Fig. 4. Means (± 1 SE) of (a.) Simpson's Index, and (b.) the Berger-Parker index in each tree species at each site over the period June 1994 to May 1995.

Table 4. Number of arboreal arthropod species captured in window traps in each of the tree, site, and tree-site combination between June 1994 and May 1995.

	<i>Metrosideros robusta</i>	<i>Podocarpus totara</i>	<i>Beilschmiedia tawa</i>	All trees
Pakohu Reserve	344	370	—	526
Keebles Bush	—	332	242	431
Bushy Park Reserve	337	—	252	445
All sites	502	547	390	863

Table 5. Spearman's correlation coefficients between climatic and tree architectural variables, and total number of animals and five diversity measures for arthropods collected in all tree canopies between June 1994 and May 1995. Significance to the 0.05 level is designated by *.

	Number of individuals	Number of species	Margalef index	Log series index	Simpson index	Berger-Parker index
Daylight hours	0.53 *	0.63 *	0.61 *	0.39 *	0.15 *	0.15 *
Rainfall	-0.36 *	-0.36 *	-0.33 *	-0.13	0.02	0.05
Min temperature	0.53 *	0.58 *	0.55 *	0.32 *	0.05	0.06
Max temperature	0.71 *	0.72 *	0.66 *	0.30 *	0.01	0.04
Tree height	0.02	0.07	0.08	0.07	0.07	0.09
Crown depth	0.12	0.06	0.03	-0.06	-0.07	-0.06
Tree basal area	0.12	0.27 *	0.31 *	0.28 *	0.21 *	0.20 *
Epiphyte taxa	0.10	0.11	0.11	0.11	0.09	0.11
Epiphyte load	0.01	0.20 *	0.26 *	0.35 *	0.27 *	0.23 *
Trap ht / tree ht	0.01	-0.06	-0.11	-0.15 *	-0.21 *	-0.21 *
Trap bearing from S	-0.02	-0.18 *	-0.22 *	-0.25 *	-0.15 *	-0.13
Distance to trunk	0.06	0.19 *	0.23 *	0.25 *	0.15 *	0.14
Stems at trap height	-0.08	-0.18 *	-0.19 *	-0.17 *	-0.15 *	-0.14 *
Basal area in plot	0.05	0.15 *	0.18 *	0.24 *	0.17 *	0.13
Tree species in plot	0.15 *	0.26 *	0.28 *	0.26 *	0.18 *	0.15 *

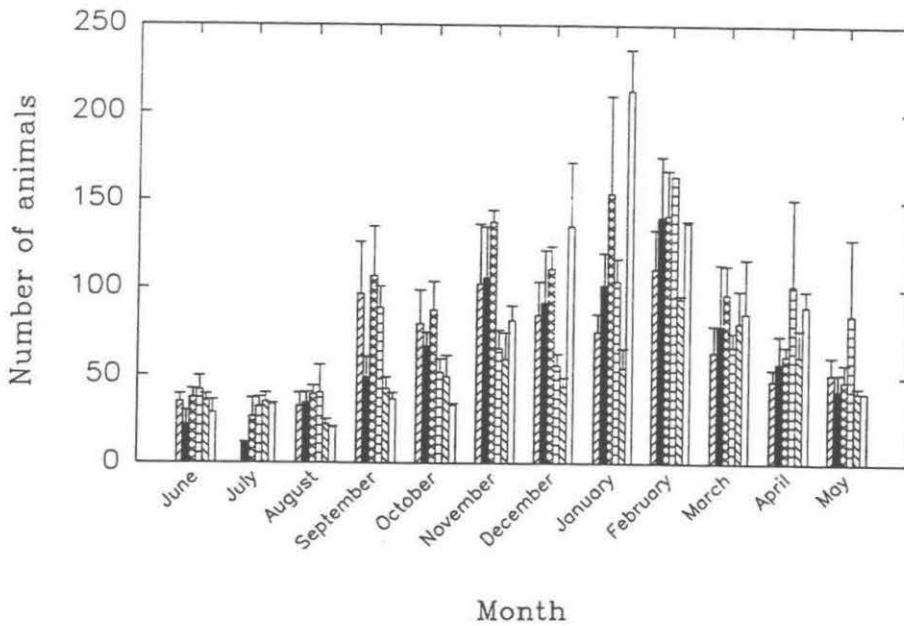


Fig. 5. Mean number of individuals (\pm 1 SE) captured in each tree species at each site from June 1994 to May 1995. Pakohu Reserve rata, Pakohu Reserve totara, Keebles Bush totara, Keebles Bush tawa, Bushy Park tawa, Bushy Park rata.

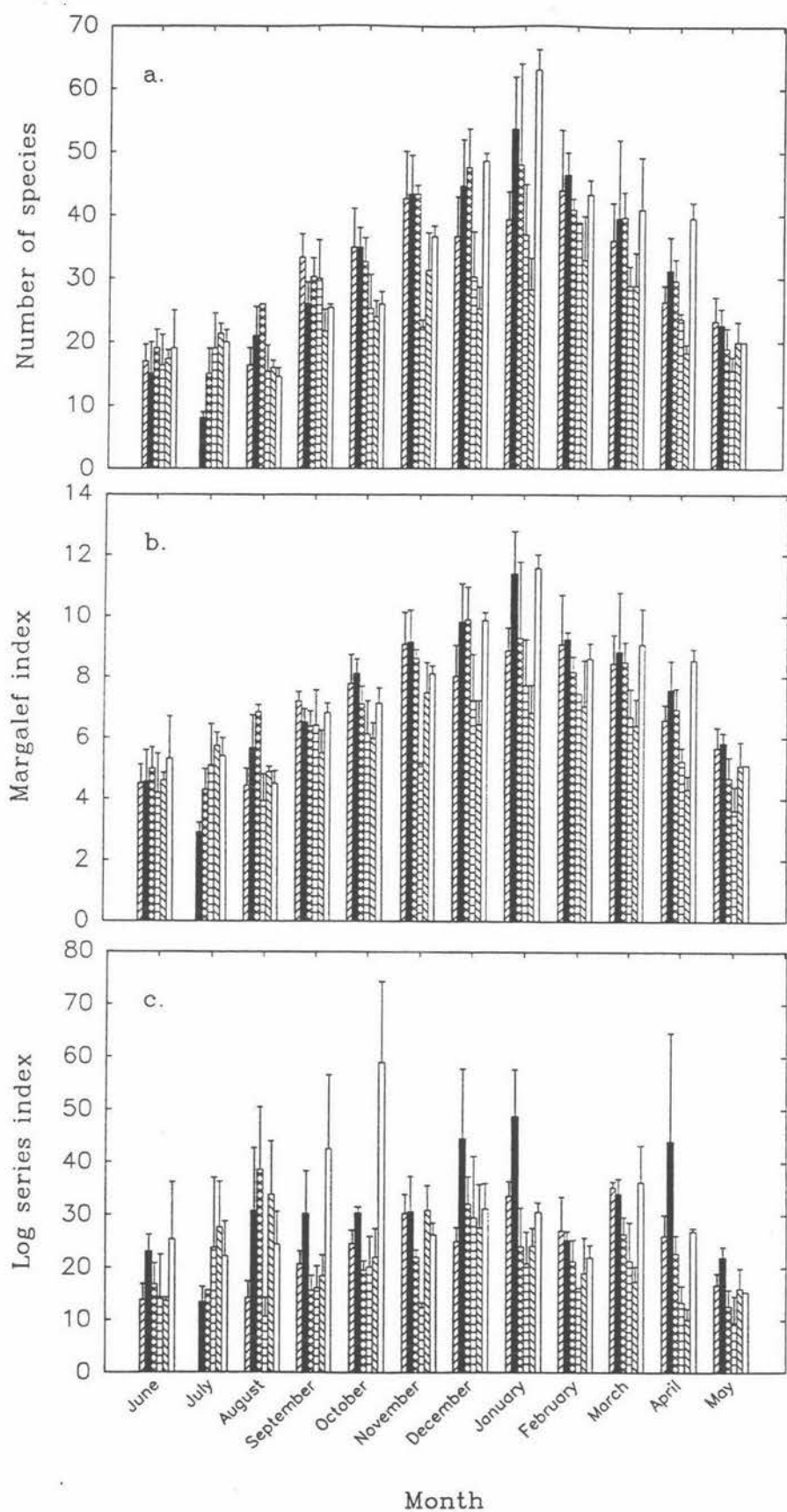


Fig. 6. Means (± 1 SE) of (a.) species richness, (b.) Margalef index, and (c.) log series index from June 1994 to May 1995. Pakohu Reserve rata, Pakohu Reserve totara, Keebles Bush totara, Keebles Bush tawa, Bushy Park tawa, Bushy Park rata.

Seasonal effects. Both the diversity and number of animals collected changed markedly over the 12 month sampling period with a clear peak in abundance in the summer months of January and February (Fig. 5). Mean number of species captured and Margalef's diversity index also peaked in January, with much lower values in the winter months (Fig. 6). Seasonal patterns are however not as clear cut for the log series, Simpson's, or Berger-Parker diversity measures (Fig. 6 and 7), although all three measures had significant seasonal changes.

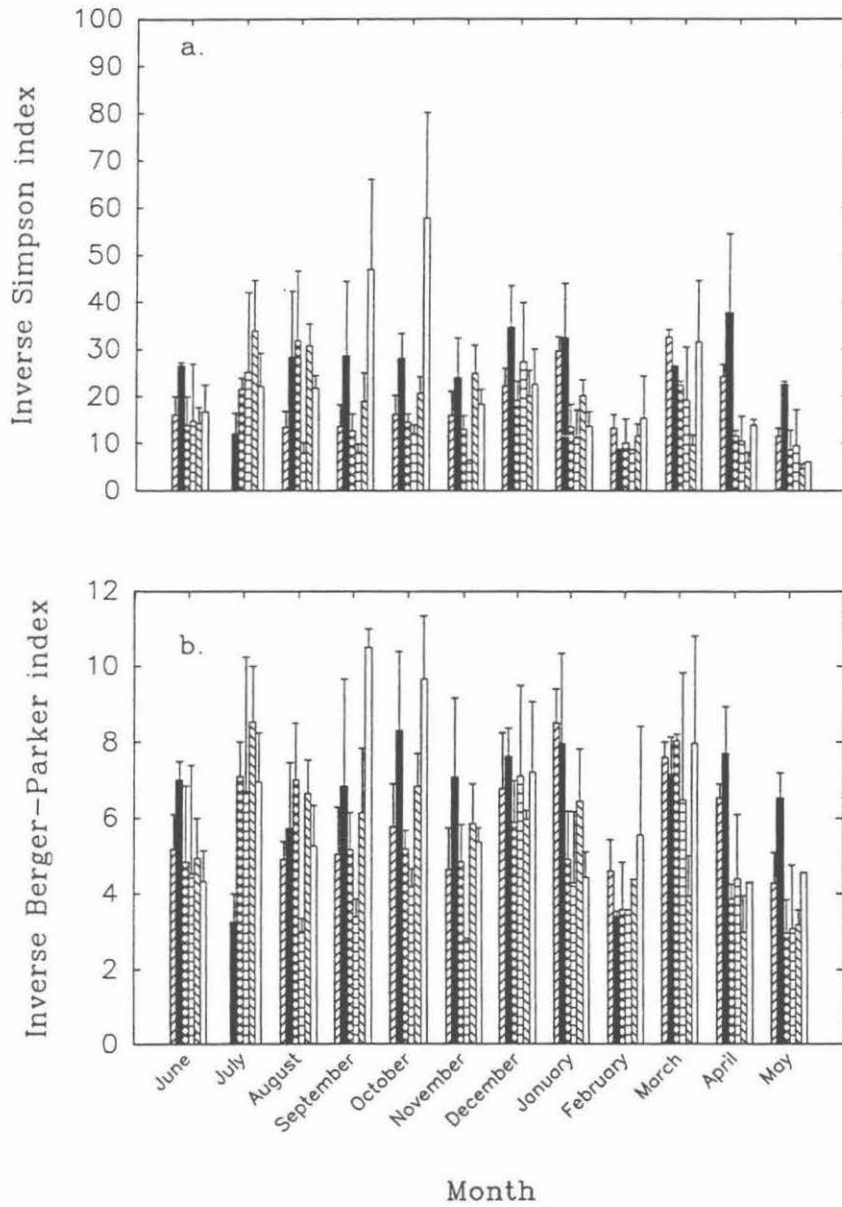


Fig. 7. Means (± 1 SE) of (a.) Simpson's index, and (b.) the Berger-Parker index from June 1994 to May 1995. Pakohu Reserve rata, Pakohu Reserve totara, Keebles Bush totara, Keebles Bush tawa, Bushy Park tawa, Bushy Park rata.

There were no significant site*month or tree-species*month interactions observed for abundance or any diversity measure. Monthly measures of daylight hours, rainfall, minimum and maximum temperature were all strongly correlated with number of individuals, species richness and Margalef's index (Table 5). There were also some correlations between these variables and the other diversity measures, however, these were considerably weaker or in some cases non-significant.

Discussion

Arthropod communities at Keebles Bush (the smallest and most isolated forest remnant) had the highest 'density activity' of all three reserves. Normally the number of species captured increases with the number of individuals collected (Magurran, 1988), but the number of species captured at Keebles Bush was slightly lower than those at the other two sites. Low values for the Berger-Parker index at Keebles Bush highlight the fact that this pattern was the result of a single, numerically highly dominant species. A small psychodid fly was regularly by far the most numerically dominant species at this reserve, and was primarily responsible for the high numbers of individuals observed at this site. Psychodid adults frequent moist, shady places and generally do not feed, and are therefore merely tourists in the canopy. The larvae feed on decomposing organic matter, usually at the edges of freshwater habitats or in rotting vegetation or dung (CSIRO, 1991). All study trees at Keebles Bush were sited close to the small and heavily shaded Maungatungaroa Stream which receives considerable organic matter from overhanging trees. This, and the dung of sheep in nearby pasture probably provide ample resources for the development of psychodid larvae.

Munro (1995) explored the effects of the successional age of habitats upon communities of ground dwelling terrestrial invertebrates and found that communities of early successional habitats, pasture and gorse, were dominated numerically by a single taxon whereas the communities of more complex habitats, such as manuka and podocarp-hardwood forest, had more equitable

communities. Poor adaptation of native fauna to exotic vegetation, and simple plant architecture may reduce the number of species which occur in communities of early succession, and pasture habitats. Diptera also dominated the pasture communities in her study. The effect of surrounding pasture may be stronger at Keebles Bush than at the other two forest reserves in this study because of the reserve's smaller size and greater isolation from surrounding stands of forest. Analysis of community structure (Chapter 2) indicated that the species composition of Keebles Bush is also considerably different from that of both Pakohu Scenic Reserve and Bushy Park Reserve.

The smaller number of species captured at Keebles Bush may be partly explained by the theory of island biogeography (MacArthur & Wilson, 1967; Connor & McCoy, 1979). In contrast to Keebles Bush, Pakohu Reserve is relatively large and is also connected to a nearby and extensive forested area by a narrow strip of riparian vegetation. It is therefore more likely to be invaded by species of new colonists from other forest. In addition, the larger and less genetically isolated populations which are already supported at Pakohu Reserve are less prone to extinction than those at Keebles Bush.

Tawa is widely distributed, and is the most common species in many North Island, New Zealand forests including the two reserves where it was sampled. Other studies have suggested that common and widely distributed tree species have greater numbers of insects associated with them (Strong *et al.*, 1984; Moran *et al.*, 1994). However, despite this, tawa trees were relatively depauperate in the number of individuals and species flying in their canopies. The low diversity of arthropod communities in tawa, especially in terms of species richness, may be the result of the long, narrow leaves of this tree. Moran & Southwood (1982) have suggested that having narrow, flexible leaves is an effective means for plants to avoid insect colonisation. They found that the narrow-leaved willows *Salix alba* and *S. capensis* supported arthropod faunas with fewer families, species, and individuals than the faunas of broad-leaved trees including *S. cinerea*. Narrow, flexible leaves move freely in the wind, rubbing against each other and against their stems, thereby displacing insects which may

be trying to take refuge there. In contrast to tawa, the leaves of rata and totara are quite rigid and discrete, offering places of attachment to insects.

The smooth texture of tawa bark may also contribute to the lower species richness of tawa trees. Refuge sites appear to be far more abundant in the flaking bark of rata and even more so in the thick, furrowed bark of totara. Didham (1992) found the diversity of tawa dipteran and coleopteran communities to be depauperate in both number of individuals and number of species captured, when compared to communities in *Nothofagus* and Podocarp tree species, but attributed this to a lack of clear flight space in the tawa canopy. However, as a number of other measured architectural characteristics of my study trees (basal area and height, total basal area and species richness of surrounding trees) differed between tree species, it is difficult to pinpoint which characteristic or combination of characteristics are responsible for the lower diversity in tawa trees. Little is also known of the natural antifeedants present in plant species native to New Zealand and the chemistry of tawa leaves may also contribute to the lower diversity (G. B. Russell pers. comm.).

The strong increase in abundance and species richness of arthropods over the summer period appears to be best explained by increased air temperature. Basset (1991b) similarly found that temperature explained most of the seasonal variance he observed in the arboreal arthropod communities of *Argyrodendron actinophyllum* in Australia. However, it is difficult to resolve between the effects of the four different climatic variables measured as they are strongly correlated with each other and all community descriptors. New Zealand summers are typically warm and dry while winter tends to be cold and wet. It is likely that some combination of temperature, rainfall and daylight hours contributes to the observed patterns.

Moeed & Meads (1984) used aerial traps to continuously sample arthropod communities for two years in the air column of podocarp-hardwood forest in the Orongorongo Valley, North Island, New Zealand. They found that arthropod abundance was considerably lower in winter than in the other three seasons and the abundance of beetles, flies, and wasps in aerial traps in summer coincided with their seasonal emergence in the same area. Life history patterns

of arthropods probably also contribute significantly to seasonal patterns observed in the present study. Seasonality was more important than site and tree species in determining the species composition of arthropod communities and the separation of summer and winter samples is strongly evident in the cluster analysis of Chapter 2. The seasonal appearance of new leaves, flowers and seeds on the three tree species over the period from September 1994 to May 1995 do not seem to synchronise tightly with changes in community descriptors. Although there were no clear seasonal patterns in community evenness, the low values observed in February can be attributed to a large influx of cicadas into the communities at this time.

In summary, this study of the richness and evenness components of diversity in arboreal arthropod communities in the North Island, New Zealand found that diversity was greatest in Pakohu Reserve, both the largest reserve, and the one most closely connected to other forest. Diversity was also greatest in the trees which provided the most complex and stable attachment points, and during the warmer summer months. It would seem that in terms of the conservation of arthropod biodiversity most effort should be focused upon large, interconnected reserves. However, it is also vital to consider the composition of communities at potential conservation sites because some reserves with low diversity may harbour unique or localised species.

Chapter 2: Taxonomic composition of arboreal arthropod communities in lowland remnants of podocarp-hardwood rainforest, North Island, New Zealand

Abstract. 1. Arboreal arthropod communities from three reserves of podocarp-hardwood rainforest in the North Island, New Zealand were sampled continuously between June 1995 and May 1996 using omnidirectional window traps.

2. Diptera made up 34% of the total number of arthropods captured, while Coleoptera contributed 12% and Araneae 11% to the total catch.

3. The relative abundance and species richness of Diptera peaked in spring, Coleoptera in summer and Araneae in autumn.

4. Multivariate analysis of overall community structure suggests that season is the dominant determinant of community structure in the arboreal arthropod communities of these forest patches, whereas site and tree species have minor effects.

5. Given that 863 morpho-species were collected, the conservation value of small forest patches for forest dwelling arthropods in New Zealand should not be underestimated.

Keywords. arboreal arthropods, community composition, flight interception trap, New Zealand, podocarp-hardwood rainforest

Introduction

Studies of the arthropod communities in tree canopies have proliferated world-wide over the last two decades largely because of improved canopy access.

Gaining access to the canopy for personnel and sampling equipment has taken on a wide variety of forms including rope techniques (Perry, 1978; Perry & Williams, 1981), aerial walkways (Mitchell, 1986), inflatable canopy rafts (Halle, 1990; Basset *et al.*, 1992), helium balloons (Fukuyama *et al.*, 1994), and most recently, construction cranes (Parker *et al.*, 1992; Morell, 1994). Collecting data about arboreal arthropod communities has involved studying faunal lists (Southwood *et al.*, 1982a; Kennedy & Southwood, 1984), the use of insecticide

fogs and sprays (Erwin, 1983; Adis *et al.*, 1984; Morse *et al.*, 1988; Basset, 1991a; Southwood *et al.*, 1982a; Stork, 1987a), branch clipping (Majer & Recher, 1988), light trapping (Sutton, 1983) and flight interception trapping (Wilkening *et al.*, 1981; Basset, 1988; Didham, 1992).

Consideration of arboreal arthropod communities collected with these techniques has focused on composition (e.g. Adis *et al.*, 1984; Basset, 1990; Didham, 1992; Moeed & Meads, 1984; Russell-Smith & Stork, 1994); guild structure (e.g. Basset & Arthington, 1992; Erwin & Scott, 1980; Moran & Southwood, 1982; Stork, 1987b); determinants of species richness (e.g. Moran *et al.*, 1994; Southwood, 1961); and the question of how many species inhabit the earth (e.g. Erwin, 1982; May, 1988; Stork, 1988). Studies in Britain have considered a well known arthropod fauna on trees of known taxonomic affinities, biogeographical history and contemporary distribution (e.g. Kennedy & Southwood, 1984). Conversely, the faunas of New Zealand, Australia, and most tropical areas have been scrutinized by fewer taxonomists over a much shorter period of time (Watt, 1975) and tropical studies may be carried out in trees which have not yet been identified (e.g. Stork 1987a). The canopy invertebrate fauna of New Zealand has received little scientific attention to this point (but see Moeed & Meads, 1984; Didham, 1992) and represents a considerable gap in the knowledge of New Zealand's biota.

In this study, arboreal arthropod communities in three remnants of podocarp-hardwood forest in North Island, New Zealand were sampled using flight interception traps over a year. The broad taxonomic composition of the communities was assessed and examined with respect to tree species, forest site, and season.

Methods

Study sites, tree species, and arthropod sampling are all discussed in chapter one.

Statistical methods. Three way Analysis of Variance (ANOVA) using the SAS General Linear Models procedure (SAS, 1989) was used to determine

whether the relative abundance and number of species in the dominant taxonomic groups differed between sites, tree species and months. All treatment levels were treated as fixed, using type IV sums of squares because of the unbalanced design and missing cells (Sokal & Rohlf, 1981). The model structure was thus site, tree species, month, site*month, tree species*month.

Multivariate analysis was performed on means of each set of three site-tree species-month replicates. All multivariate analysis was performed using PATN (Belbin, 1993). Cluster analysis was performed using both relative abundance and absolute abundance data with a Bray-Curtis distance measure and average linkage clustering algorithm. Ordination was performed using Principle Components Analysis on means of absolute abundance data.

Results

Overall composition. A total of 13 929 animals from 863 morpho-species were captured in 192 trap-months during the study. All but one, a slug, belonged to the phylum Arthropoda which was represented by the classes Insecta, Arachnida, Collembola, Chilopoda, and Crustacea (Table 1). Numerically, Diptera was represented more strongly than any other arthropod order, making up 34% of all animals captured in the study (Fig. 1). Coleoptera contributed 12%, Araneae 11%, Psocoptera, Lepidoptera and Hemiptera 7% each, Acarina 6%, Hymenoptera 5%, Collembola and Thysanoptera 4% each, and all remaining groups totalled 3%. Morpho-species richness was greatest in the groups Coleoptera, Diptera, Hymenoptera, Araneae, Acarina, and Hemiptera, which contributed 259, 203, 177, 70, 62, and 59 morpho-species, respectively.

Sites. Overall, Bushy Park had the lowest relative abundance of Diptera ($F_{2,132}=5.78$, $P=0.003$) (Fig. 2a), but differences between sites were not consistent throughout the year ($F_{22,132}=1.79$, $P=0.02$). The mean number of Diptera species was greatest at Pakohu Reserve, and marginally lower at Keebles Bush than at Bushy Park Reserve ($F_{2,11}=6.21$, $P=0.02$) (Fig. 3a). Coleoptera had a lower relative abundance at Keebles Bush than at the other two sites ($F_{2,132}=5.41$, $P=0.006$),

Table 1. Broad taxonomic breakdown of the abundance of arboreal arthropod fauna collected using window traps in three podocarp-hardwood forest remnants in the Manawatu-Wanganui Region.

TAXA	ABUNDANCE
Phylum Arthropoda	
Class Insecta	(11048)
Order Diptera	4685
Coleoptera	1666
Psocoptera	1020
Lepidoptera	973
Hemiptera	938
Hymenoptera	733
Thysanoptera	558
Tricoptera	189
Blattodea	57
Neuroptera	20
Ephemeroptera	15
Isoptera	8
Phasmida	5
Orthoptera	4
Odonata	3
Insect larvae	177
Class Arachnida	(2284)
Order Araneae	1489
Acarina	792
Pseudoscorpiones	3
Class Collembola	584
Class Chilopoda/Diplopoda	6
Class Crustacea	
Order Isopoda	3
Phylum Mollusca	1
TOTAL	13929

however this was partly a result of a greater number of individuals from groups other than Coleoptera at Keebles Bush rather than purely a decline in actual abundance (Fig. 2b). The number of Coleoptera species was similar at all sites ($F_{2,11}=2.82$, $P=0.10$), although Pakohu Reserve and Keebles Bush again had the highest and lowest richness, respectively (Fig. 3b). Araneae were more abundant in Keebles Bush than at the other two sites ($F_{2,132}=12.24$, $P<0.001$) (Fig. 2.) although as with Diptera, site differences varied between months ($F_{22,132}=2.00$,

$P=0.009$). Spiders were also represented by a greater number of species at Keebles Bush than at the other two reserves ($F_{2,11}=23.34$, $P<0.001$) (Fig. 3c).

The relative abundance of Acarina, Lepidoptera and Hemiptera did not differ between sites ($F_{2,132}=0.05$, $P=0.95$, $F_{2,132}=2.59$, $P=0.08$ and $F_{2,132}=0.52$, $P=0.59$ for Acarina, Lepidoptera and Hemiptera respectively). Psocoptera, in contrast, made up a greater proportion of the communities at Bushy Park than at Keebles Bush ($F_{2,132}=23.62$, $P<0.001$) (Fig. 2a).

It was interesting to note the effect of permanent waterways upon the relatively minor contribution made to the communities by insects with aquatic larval stages. While Odonata and Ephemeroptera were caught in small numbers at Keebles Bush and Pakohu Scenic Reserve, which have permanent waterways, they were absent from samples collected at Bushy Park Reserve which lacks such water. Tricoptera were found at all three sites but were lower in abundance at Bushy Park ($F_{2,132}=10.64$, $P<0.001$).

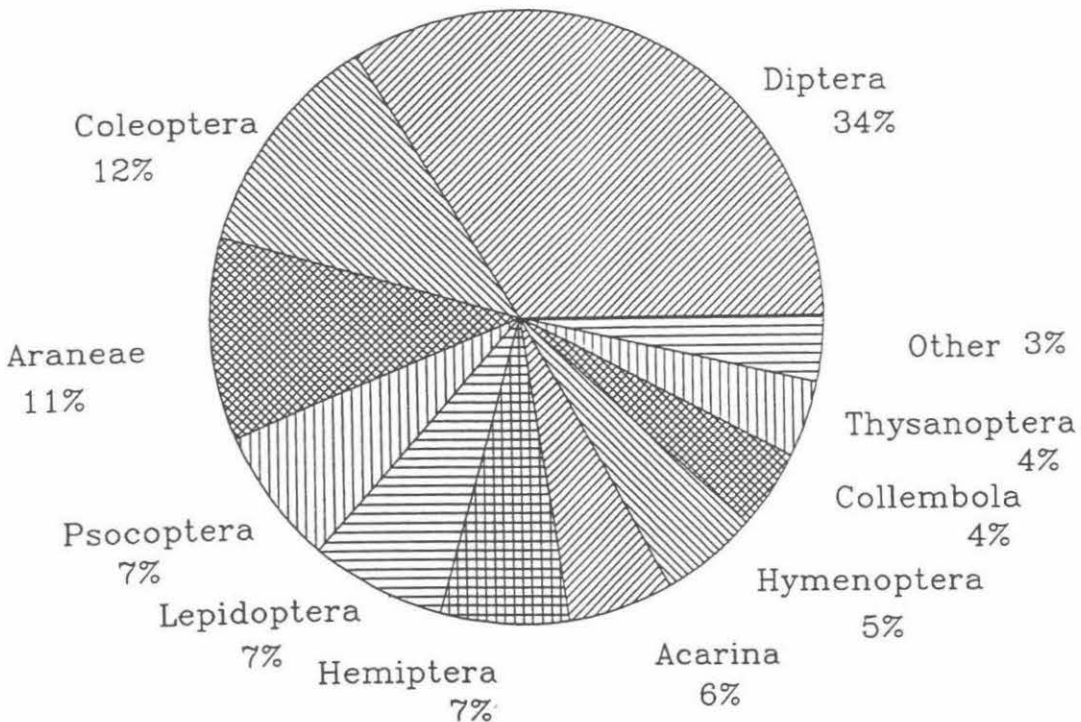


Fig. 1. Relative abundance of the major taxonomic groups in the total collection of animals captured in 18 window traps between June 1994 and May 1995.

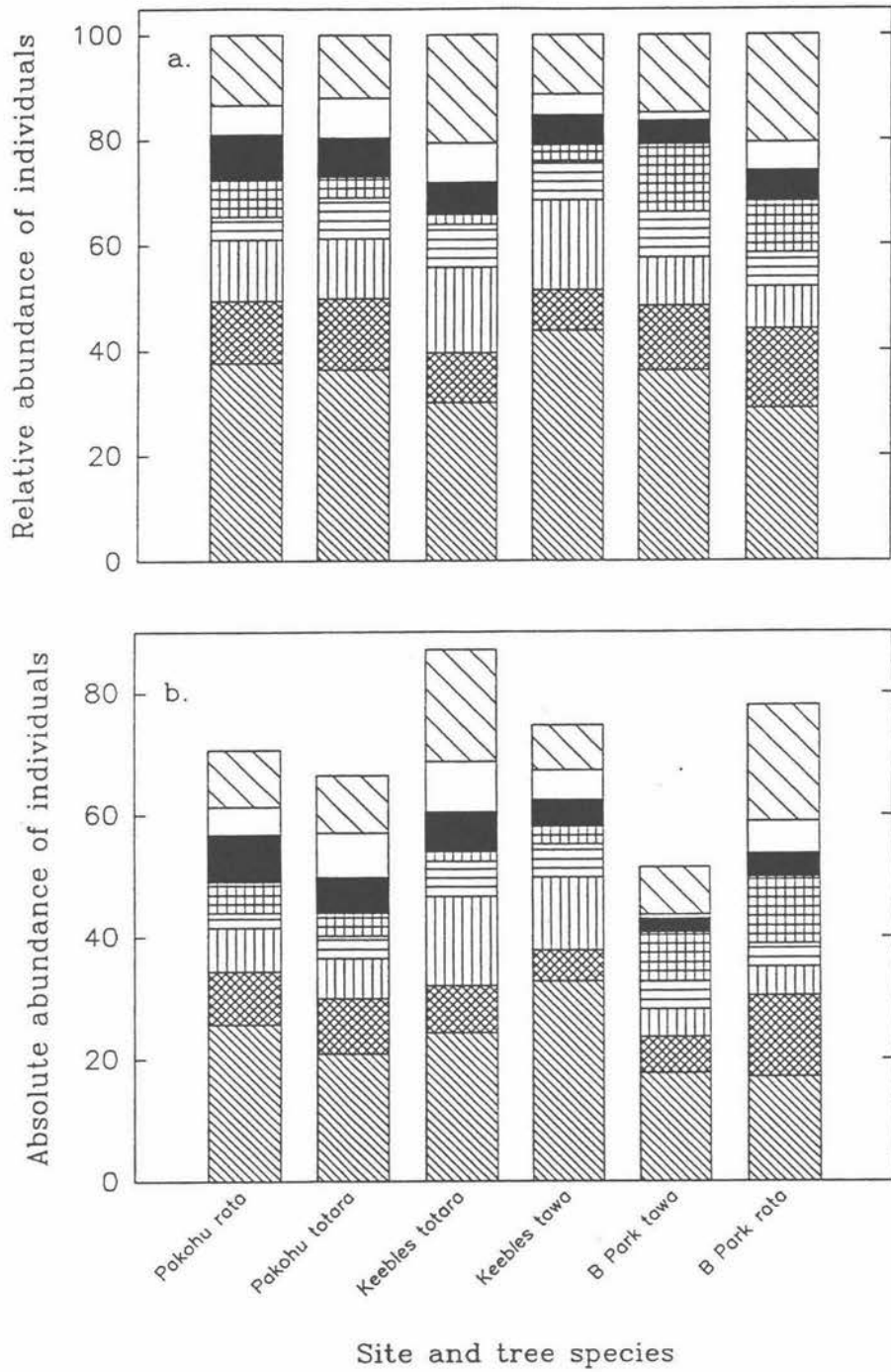


Fig. 2. Overall mean (a.) relative abundance and (b.) absolute abundance of the major taxonomic groups collected in flight interception traps in each site-tree species combination between June 1994 and May 1995. Diptera, Coleoptera, Araneae, Acarina, Psocoptera, Lepidoptera, Hemiptera, other.

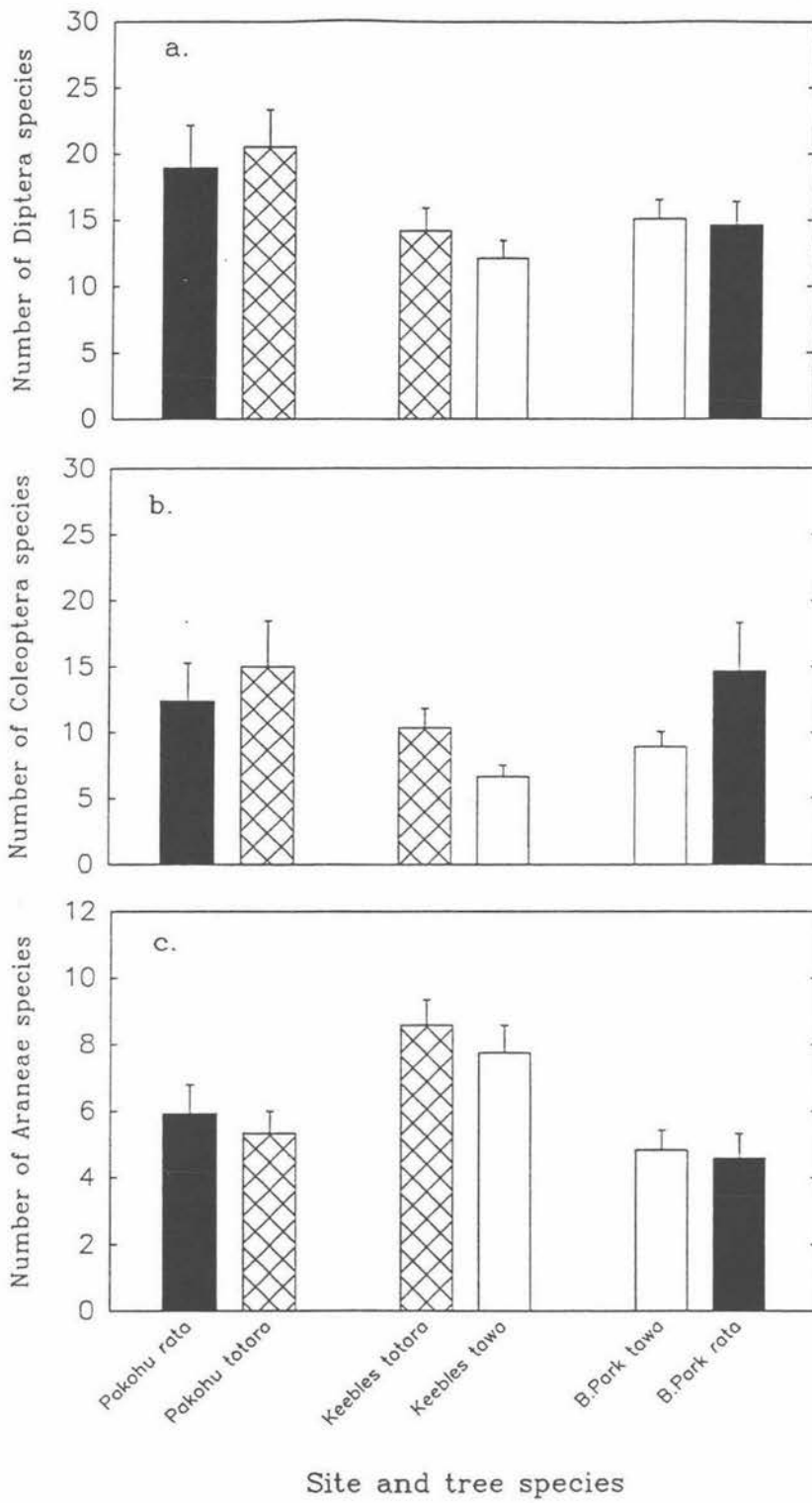


Fig. 3. Overall mean number of species of (a.) Diptera, (b.) Coleoptera, and (c.) Araneae collected in flight interception traps in each site-tree species combination between June 1994 and May 1995.

Tree species. The relative abundance of Diptera was higher in *Beilschmiedia tawa* communities than in the communities of the other two tree species ($F_{2,132}=8.99$, $P<0.001$) (Fig. 2a). However, tree species did not differ significantly in the number of Diptera species they supported ($F_{2,11}=0.44$, $P=0.66$) (Fig. 3a). Coleoptera contributed similar proportions of individuals to communities in all three tree species ($F_{2,132}=1.13$, $P=0.33$) while the species richness of Coleoptera was lower in *B. tawa* than in the other trees ($F_{2,11}=5.27$, $P=0.02$). Neither the relative abundance, nor the species richness of Araneae differed between tree species ($F_{2,132}=0.30$, $P=0.74$, $F_{2,11}=0.20$, $P=0.82$ for relative abundance and species richness, respectively).

The relative abundance of Psocoptera, Lepidoptera and Acarina did not differ between tree species ($(F_{2,132}=2.93$, $P=0.06$, $F_{2,132}=0.92$, $P=0.40$, $F_{2,132}=0.67$, $P=0.51$ for Psocoptera, Lepidoptera and Acarina respectively). Hemiptera, however, made up a smaller component of the arthropod communities in *B. tawa* than in either *Podocarpus totara* or *Metrosideros robusta* ($F_{2,132}=8.49$, $P<0.001$) (Fig. 2a).

Seasons. The number of Diptera species peaked in spring (September to November) ($F_{11,11}=5.60$, $P=0.004$), Coleoptera in summer (December to February) ($F_{11,11}=11.57$, $P<0.001$), while spiders were represented by the greatest number of species in autumn (March to May) ($F_{11,11}=6.40$, $P=0.002$) (Fig. 4). The numerical dominance of Diptera in these communities was highest during winter (June to August) and spring ($F_{11,132}=12.48$, $P<0.001$), peaking in September when just over half of all the individuals captured were Diptera (Fig. 5a). Surprisingly the relative abundance of Diptera was lowest in the summer months, however, the proportionally lower contribution at this time was due in part to an increase in the activity and abundance of other groups. Actual densities of Diptera were in fact lower in winter than in summer (Fig. 5b).

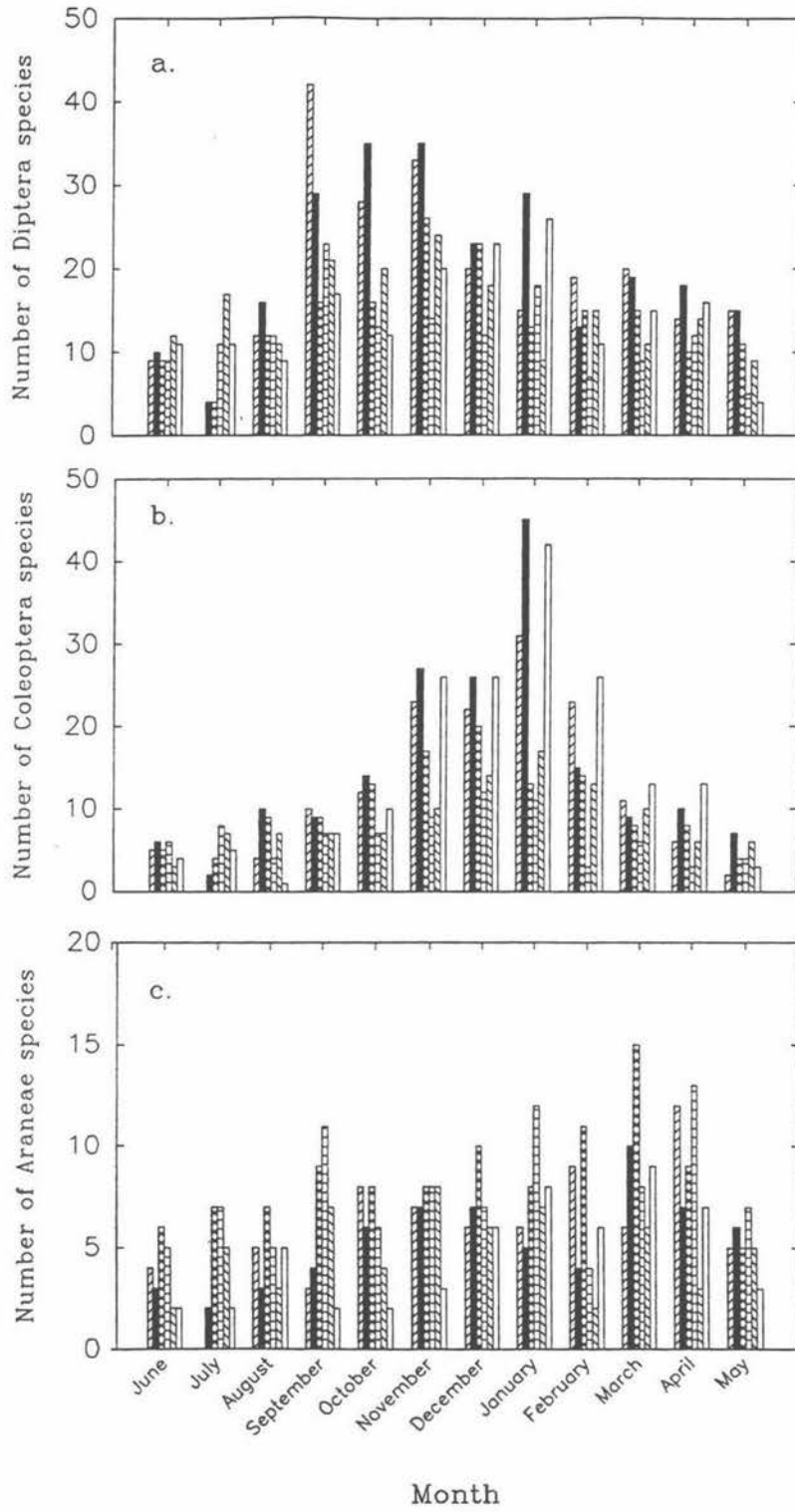


Fig. 4. Means (n=3) number of species of (a.) Diptera, (b.) Coleoptera, and (c.) Araneae collected in flight interception traps in each month from June 1994 to May 1995. Pakohu Reserve rata, Pakohu Reserve totara, Keebles Bush totara, Keebles Bush tawa, Bushy Park tawa, Bushy Park rata.

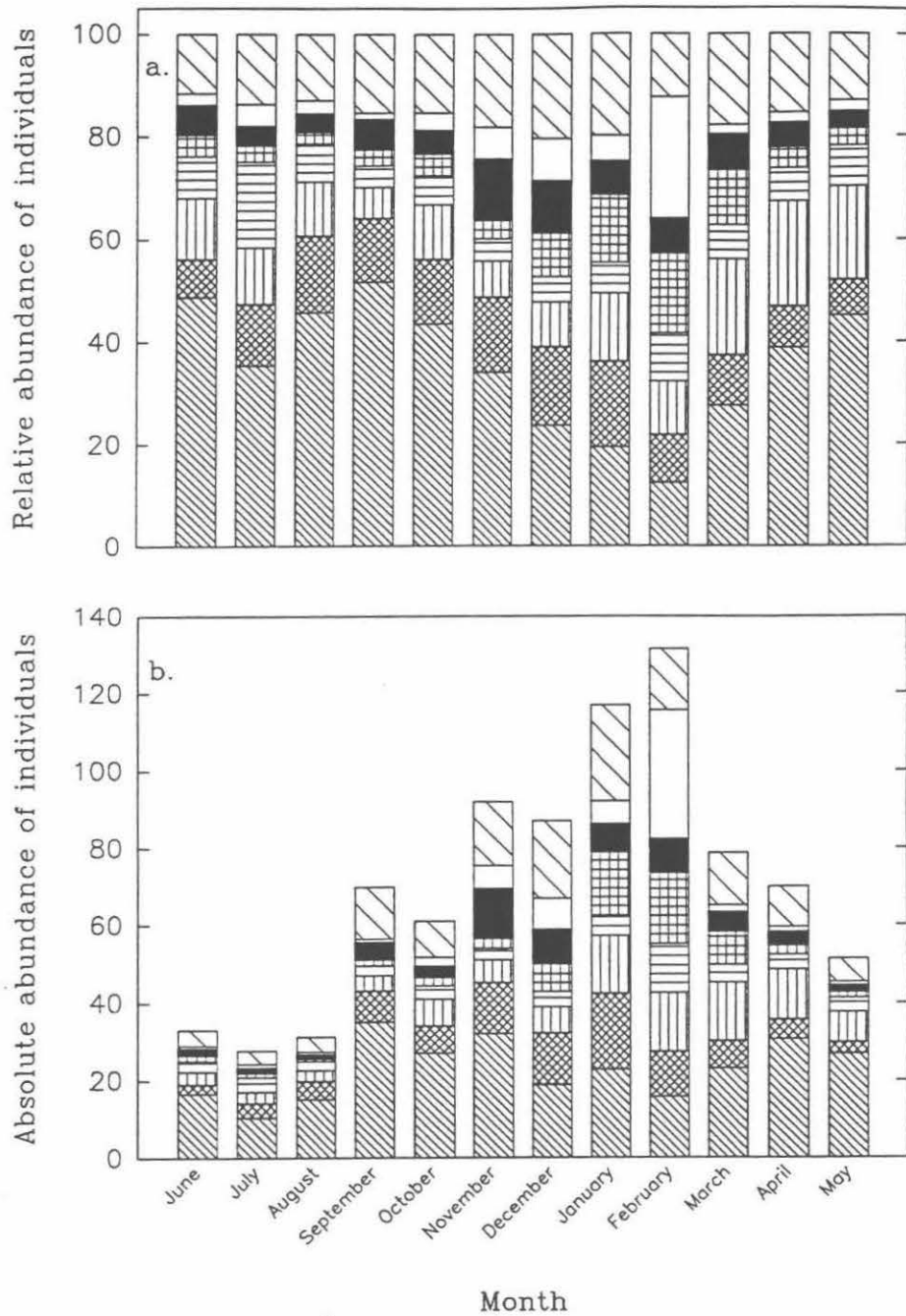


Fig. 5. Mean of mean (n=18) (a.) relative abundance and (b.) absolute abundance of major taxonomic groups collected in flight interception traps in all six site-tree species combinations in each month from June 1994 to May 1995. Diptera, Coleoptera, Araneae, Acarina, Psocoptera, Lepidoptera, Hemiptera, other.

Coleoptera abundance peaked in January, comprising 17% of the communities, but was also higher in November, December and January in relative ($F_{11,132}=2.57$, $P=0.005$) and absolute terms (Fig. 5). Spiders made up a greater proportion of the community in autumn than at other times of the year ($F_{11,132}=5.21$, $P<0.001$) (Fig. 5a), peaking in April at 21% of all individuals captured. Absolute abundance of Araneae was greatest from January to April (Fig. 5b).

Acarina were proportionally most abundant in July ($F_{11,132}=3.23$, $P<0.001$), although densities were greatest in February (Fig. 5). Their relative increase in July was largely attributable to a decrease in Diptera. Psocoptera peaked between November and February ($F_{11,132}=10.17$, $P<0.001$), Lepidoptera in November and December ($F_{11,132}=4.42$, $P<0.001$) and Hemiptera between November and February ($F_{11,132}=15.47$, $P<0.001$) (Fig. 5). In fact, in February this latter group contributed 24% of all the individuals captured (Fig. 5); the influx a result of the short flight period of adult cicadas.

Several rarely captured groups were not represented in the colder months of the year. Pseudoscorpions were captured only from December to February. Odonata appeared only in December and January, whereas Isoptera were found only from January to March. Ephemeroptera had a somewhat greater seasonal range of six months, from October to March.

Community composition. Cluster analysis using relative abundance data indicated that communities were most strongly influenced by season (Fig. 6). The analysis split the communities into two broad groups, one dominated by samples from summer, and the other characterized by samples from winter. Finer divisions of these two groups seemed to broadly differentiate between Keebles Bush samples and those from the other two sites. The summer group split into one containing predominantly Keebles Bush samples and another containing Pakohu Reserve and Bushy Park samples only. The winter group split into a group of mostly Keebles Bush and *B. tawa* samples and another containing more Pakohu Reserve, Bushy Park, *P. totara* and *M. robusta* samples. Still finer resolution separated four more Keebles Bush samples away from this last group,

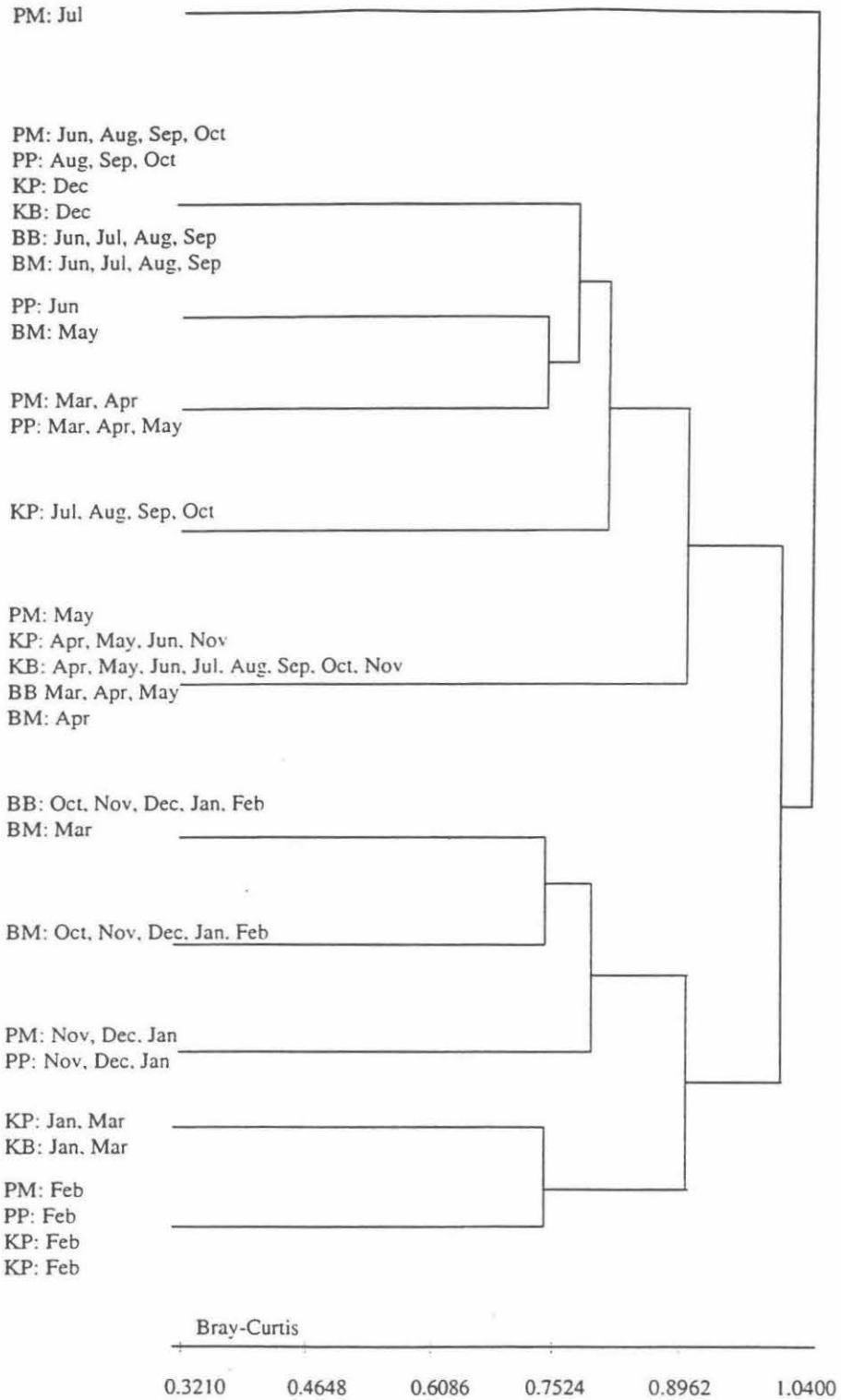


Fig. 6. Cluster analysis of mean (n=3) relative abundance data for each tree species, site and month combination, using a Bray-Curtis distance measure. Codes refer to site-tree species combinations. The first letter in each code refers to site (P=Pakohu Reserve, K=Keebles Bush, B=Bushy Park). The second letter refers to tree species (M=*Metrosideros robusta*, P=*Podocarpus totara*, B=*Beilschmiedia tawa*).

and separated Bushy Park and Pakohu Reserve samples from each other in their summer group. Cluster analysis using raw abundance data (not shown) produced similar patterns, except that seasonal differences were more distinct and site and tree species differences less distinct.

Ordination also exhibited similar seasonal and site groupings (Fig. 7). Axes one and two both appear to relate to season, with summer samples dominating the top right hand corner of the ordination and the other three seasons lying predominantly on the left hand side. Axis two is also important in separating sites. Keebles Bush samples dominate the lower half of the ordination while Pakohu Reserve and Bushy Park samples are more prominent in the upper half of the ordination.

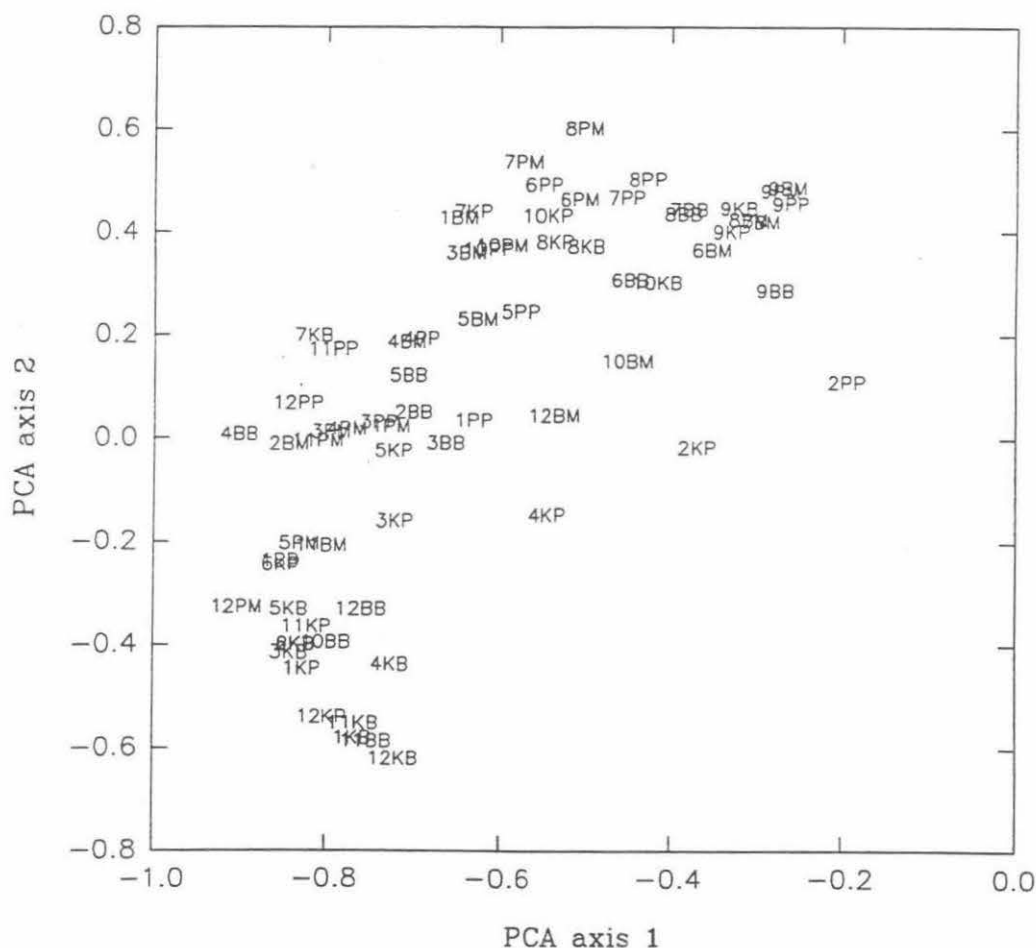


Fig. 7. PCA ordination of mean ($n=3$) abundance data for each tree species, site and month combination. Data points within the ordination are codes for replicate means. Numbers 1-12 refer to the months June 1994 to May 1995, respectively. The first letter in each code refers to site (P=Pakohu Reserve, K=Keebles Bush, B=Bushy Park). The second letter refers to tree species (M=*Metrosideros robusta*, P=*Podocarpus totara*, B=*Beilschmiedia tawa*).

Discussion

Eight hundred and 63 morpho-species were collected from 21 arthropod orders in the 12 months of interception trapping in the three forest reserves. The large number of species found in these arboreal arthropod communities of arboreal arthropods is striking given the small size and remnant nature of the reserves in which they were captured. It seems the value of even small forest patches within a pasture landscape to the conservation of forest-dwelling arthropods in New Zealand should not be underestimated.

The composition of arboreal arthropod communities can be highly variable in both time and space, but the observed variation is also strongly dependent upon the sampling method used (Juillet, 1963; Blanton, 1990; Muirhead-Thomson, 1991). For example, canopy fogging tends to catch more rare and sedentary species than flight interception trapping (Basset, 1988). Even among flight interception traps of different design, some taxonomic groups tend to be preferentially captured. Basset (1988) used a composite interception trap which comprised a Malaise trap and the lower section of the omnidirectional window trap (Wilkening *et al.*, 1981) used in this study. The two most strongly represented groups in that study were Diptera and Coleoptera, representing 48% and 10% of the Malaise catch and 14% and 54% of the window catch, respectively. Juillet (1963) in a comparison of sticky, rotary, Malaise, and single-pane window traps also found that the Malaise trap was more effective in the capture of Diptera than was the window trap, while the reverse was true for Coleoptera. Direct comparison of faunal contributions to communities as assessed in different studies is therefore difficult where trapping techniques are not consistent.

Didham (1992) used single-pane window traps in his study of arboreal arthropod communities in a reserve of podocarp-beech forest in the South Island, New Zealand. The three most strongly represented orders in his total catch were Diptera (91%), Lepidoptera (4%), and Coleoptera (1%). This contrasts dramatically with the contribution made by these orders in the present study,

34%, 7%, and 12% for Diptera, Lepidoptera and Coleoptera respectively. Differences are possibly the result of the differing trap designs, although geographic and habitat differences cannot be ruled out. A third exploration of arboreal arthropod communities in New Zealand was carried out by Moeed & Meads (1984) in podocarp-hardwood forest in the North Island using cone-shaped interception traps which faced into the wind. However, given the ineffectiveness of the traps and the resultant small sample sizes, the ability of this study to accurately assess the composition of arboreal arthropod communities is debatable (Didham, 1992).

Temporal variation as indicated by collections in the omnidirectional window trap in this study was certainly far more striking than spatial differences. All multivariate analyses indicated that seasonality had a more dominant effect on community composition than either geographic or plant taxonomic differences. While overall arthropod abundance was greatest in the summer months, it is interesting to note that this is not a consistent pattern for all taxonomic groups and the seasonality of peaks in abundance and species richness vary considerably between orders. This is illustrated by the abundance and species richness of Diptera, Coleoptera and Araneae (the three most abundant orders), with observed peaks in spring, summer and autumn, respectively. It is also worth highlighting that consideration of other community characteristics such as insect biomass may in turn also alter perception of patterns and differences in community composition.

Cicadas were the heaviest animals captured in the study, and during the month of February their biomass, though not their abundance, would have greatly exceeded that of all other species combined. A similar observation was made in a pohutukawa (*Metrosideros excelsa*) tree in Whakatane, North Island, New Zealand in February 1994 (pers. obs.). Tui (*Prosthemadera novaeseelandiae*) were observed to hunt and feed quietly upon cicadas in the canopy of *M. robusta* in February 1995 and the contribution of cicadas to the diet of birds and introduced mammals and to the functioning of the forest ecosystems must have been significant throughout this month.

The greater species richness of Araneae at Keebles Bush is surprising given that this site is the smallest and most isolated reserve, depauperate in species of both Coleoptera and Diptera. Keebles Bush, because of the presence of a small stream which bisects it, was also important in supporting aquatic insect species which were not present in the much larger Bushy Park Reserve. Obviously the unique characteristics of individual forest reserves should not be overlooked when considering whether they are valuable habitats for the conservation of different groups.

Moran & Southwood (1982) in a study of European willow trees have suggested that trees with narrow leaves and flexible stems may be difficult hosts for arthropods to utilize because the stems and leaves move freely in the wind, brush against each other, and thereby dislodge insects. I suggested in Chapter 1 that the lower diversity on *B. tawa* was a result of the narrow leaves and flexible stems on this tree. The great majority of Diptera families (including Psychodidae which regularly dominated samples in my study) are considered to be “tourists” in tree canopies, as they have no intimate or lasting association with the plant (Moran & Southwood, 1982). The high relative abundance of Diptera in *B. tawa* canopies is in part due to a smaller contribution from other groups which are more likely to be dependent upon a favorable canopy environment. This is particularly obvious in the case of Hemiptera which are poorly represented in *B. tawa*. As plant sucking insects, species of Hemiptera are possibly more dependent upon stable places of attachment on plants than any other group.

Didham (1992) proposed that the poor abundance and species richness of arthropods observed in *B. tawa* canopy may be a result of a lack of clear flight space in the dense foliage. However, the absolute abundance of Diptera is reasonably high in *B. tawa* canopies by comparison with the other tree species, suggesting that clear flight space within the canopy is not an important limiting factor for flies at these sites at least.

A high proportion (over 60% in some families) of insect phytophages in New Zealand are host specific (Dugdale, 1975). In contrast to this, the effect of tree species upon community composition as observed in this study is relatively

weak. This indicates that a high proportion of the animals captured in this study may have no close association with the trees in which they were captured, being merely tourists there.

In summary, invertebrate communities collected in the omnidirectional window traps in three remnant patches of podocarp-hardwood forest were highly diverse and dominated by Diptera (34%), Coleoptera (12%) and Araneae (11%). Multivariate analysis indicated that while site and tree species differences are secondarily important in determining the structure of these arboreal arthropod communities, the sites and tree species are sufficiently homogenous that seasonal trends are the dominant determinant of community structure.

Synthesis

Eight hundred and sixty three morpho-species were trapped over the 12 month study period in the canopies of three remnants of podocarp-hardwood rainforest in the Manawatu-Wanganui Region. This extraordinary richness of species highlights the importance of even small, remnant forest patches in providing habitat for forest-dwelling arthropods in the relatively uninhabitable pasture land which dominates the Manawatu-Wanganui Region (Cameron & Butcher, 1979; Samways, 1994). The structure of arthropod communities in the canopies of the three reserves was more strongly affected by season than by either site or tree species differences, and suggests that the majority of animals captured in this study may have relatively general habitat requirements. However, site distinctions were still obvious, and indicate the unique value of each reserve in supporting a distinct canopy community.

The diversity of invertebrates collected is also testimony to the great variety of arthropods which inhabit what is a virtually unexplored habitat both in New Zealand and elsewhere. Many of the species captured in the study are undescribed (Ian Andrew pers. comm.) and type specimens will be lodged in Ian Andrew's Manawatu collection and the New Zealand Arthropod Collection at the Mount Albert Research Centre, Auckland. The discovery of new species adds significantly to the knowledge of New Zealand's biodiversity, and forest canopies remain one of the least studied and possibly most species rich habitats on these islands, with many discoveries yet to be made. A great deal of attention has been given to the study and conservation of the 400 or so native vertebrate species in New Zealand. However, much less work has been done on the estimated 20 000 species of invertebrates (Watt, 1980) which crawl and fly over this land. It would seem that forest canopies may offer a great opportunity for further study of many of these animals.

Acknowledgments

Thanks to my supervisor, Dr. Russell Death, for assuring me that everything would come together in the times when I wasn't so sure, and for his collaboration in the latter stages of my project. I am grateful for the time, skills, and careful guidance he devoted to my statistical analysis and writing. I am also greatly appreciative for the exclusive use of Amanda's laptop computer over the last few months, and for Russell's interest in my future direction.

Thanks to Jens Jorgenson who gave great assistance in the construction of traps and other equipment and built for me a fine recumbent bicycle (in his own time) for commuting to and from Massey University each day. I am grateful to Dr. Murray Potter, my associate supervisor for his helpful comments and to Dr. Clare Veltman whose professional enthusiasm and interest was important in initially attracting me to Massey University. Barbara Just and Liz Grant provided me with the many materials I requested. Secretaries Petra van Kan and Erica Reid were always very friendly and helpful. Thanks to Ian Andrew for his work in identifying my morpho-species. Thanks for help provided by Rosemary Miller, Vanessa Munro, Vaughan Keesing, Peter van Essen, Graeme Franklyn, Dr. Jill Rapson, Jay McCartney, and Andrew Taylor.

Thanks to the Royal Forest and Bird Protection Society of New Zealand and the Bushy Park Trust for permitting my study within Bushy Park, and to Alan Johnston, the manager of Bushy Park lodge until 1994, for his tremendous hospitality. I am grateful to the C. T. Keeble Memorial Forest Trust for allowing me the use of Keebles Bush and to Michael Greenwood for providing valuable information about which trees were present. Thanks to Brian Carter of the Carter Observatory in Wellington for the provision of data on daylight hours. I was greatly assisted in my study by the financial support of the J. S. Watson Trust and the Massey University Postgraduate Research Fund.

Thanks to my family, friends and flatmates for their encouragement and investment into my life over this time. I also thank my Dad for lending me his climbing rope and providing financial backing; my Mum, who on her occasional visits to Palmerston North also visited more of my trees with me than anyone else did; and my sister Sue for lending me her car and for giving pragmatic advice. Thanks to Kathryn Redhead for pasting figures onto pages for me and to Janet Slater-Redhead for the use of her car.

My greatest thanks go to my Creator God for 'His inordinate fondness for beetles' (J. B. S. Haldane), and for His far greater fondness still, for people.

References

- Adis, J., Lubin, Y.D. & Montgomery, G.G. (1984) Arthropods from the canopy of inundated and terra firme forests near Manaus, Brazil, with critical considerations on the pyrethrum-fogging technique. *Studies on Neotropical Fauna and Environment* **19**, 223-236.
- Allan, H.H. (1961) *Flora of New Zealand Volume I: Indigenous Tracheophyta, Psilopsida, Lycopsida, Filicopsida, Gymnospermae, Dicotyledones*. DSIR, Wellington.
- Barber, H.S. (1931) Traps for cave-inhabiting insects. *Journal of the Elisha Mitchell Science Society* **46**, 259-265.
- Basset, Y. (1988) A composite interception trap for sampling arthropods in tree canopies. *Journal of the Australian Entomological Society* **27**, 213-219.
- Basset, Y. (1990) The arboreal fauna of the rainforest tree *Argyrodendron actinophyllum* as sampled with restricted canopy fogging: composition of the fauna. *The Entomologist* **109**, 173-183.
- Basset, Y. (1991a) Influence of leaf traits on the spatial distribution of insect herbivores associated with an overstorey rainforest tree. *Oecologia* **87**, 388-393.
- Basset, Y. (1991b) The seasonality of arboreal arthropods foraging within an Australian rainforest tree. *Ecological Entomology* **16**, 265-278.
- Basset, Y., Aberlenc, H. & Delvare, G. (1992) Abundance and stratification of foliage arthropods in a lowland rain forest of Cameroon. *Ecological Entomology* **17**, 310-318.
- Basset, Y. & Arthington, A.H. (1992) The arthropod community of an Australian rainforest tree: Abundance of component taxa, species richness and guild structure. *Australian Journal of Ecology* **17**, 89-98.
- Beaty, A.J. & Oliver, I. (1994) Taxonomic minimalism. *Trends in Evolution and Ecology* **9**, 488-490.
- Belbin, L. (1993) *PATN: Pattern analysis package*. CSIRO, Australia.

- Berger, W.H. & Parker, F.L. (1970) Diversity of planktonic foraminifera in deep-sea sediments. *Science* **168**, 1345-1347.
- Blanton, C.M. (1990) Canopy arthropod sampling: a comparison of collapsible bag and fogging methods. *Journal of Agricultural Entomology* **7**, 41-50.
- Burgess, S.M. (1988) *The Climate and Weather of Manawatu and Horowhenua*. New Zealand Meteorological Service, Miscellaneous Publication, No. 115 (18), Wellington.
- Burstall, S.W. & Sale, E.V. (1984) *Great Trees of New Zealand*. Reed, Wellington.
- Cameron, P.J. & Butcher, C.F. (1979) Pitfall trapping and soil sampling for Scarabidae (Coleoptera) and possible predators in some Northland and Auckland pastures. pp. 113-117. In: T.K. Crosby, and R.P. Pottinger (eds.). *Proceedings of the 2nd Australasian Conference on Grassland Invertebrate Ecology*. Government Printer, Wellington.
- Clifford, H.T. & Stephenson, W. (1975) *An Introduction to Numerical Classification*. Academic Press, London.
- Connor, E.F. & McCoy, E.D. (1979) The statistics and biology of the species-area relationship. *American Naturalist* **113**, 791-833.
- Connor, H.E. & Edgar, E. (1987) Name changes in the indigenous New Zealand Flora, 1960-1986 and Nomina Nova IV, 1983-1986. *New Zealand Journal of Botany* **25**, 115-170.
- Costa, J.T. & Crossley, D.A. (1991) Diel patterns of canopy arthropods associated with three tree species. *Environmental Entomology* **20**, 1542-1548.
- Cowie, J.D. (1974) *Soils of Palmerston North City and Environs, New Zealand*. DSIR, N.Z. Soil Survey Report, No. 24, Wellington.
- CSIRO (1991) *The Insects of Australia, A Textbook for Students and Research Workers*. 2nd edition. Melbourne University Press, Melbourne.
- Death, R.G. & Winterbourn, M.J. (1995) Diversity patterns in stream benthic invertebrate communities: the influence of habitat stability. *Ecology* **76**, 1446-1460.

- Didham, R.K. (1992) *Faunal Composition, Diversity and Spatial Heterogeneity of the Arboreal Arthropod Community in a Temperate Rainforest Canopy, New Zealand*. Unpublished MSc thesis. University of Canterbury, Christchurch, New Zealand.
- Dugdale, J.S. (1975) The insects in relation to plants. pp. 561-581. In: G. Kuschel (eds.). *Biogeography and Ecology in New Zealand*. Dr. W. Junk, Auckland.
- Erwin, T.L. (1982) Tropical forests: their richness in Coleoptera and other arthropod species. *The Coleopterists Bulletin* **36**, 74-75.
- Erwin, T.L. (1983) Tropical forest canopies: The last biotic frontier. *Bulletin of the Entomological Society of America* **29**, 14-19.
- Erwin, T.L. (1991) How many species are there?: revisited. *Conservation Biology* **5**, 330-333.
- Erwin, T.L. & Scott, J. (1980) Seasonal and size patterns, trophic structure, and richness of Coleoptera in the tropical arboreal ecosystem: the fauna of the tree *Luehea seemannii* Triana and Planch in the Canal Zone of Panama. *The Coleopterists Bulletin* **34**, 305-322.
- Esler, A.E. (1978) *Botany of the Manawatu District New Zealand*. DSIR, Auckland.
- Fisher, R.A., Corbet, A.S. & Williams, C.B. (1943) The relation between the number of species and the number of individuals in a random sample of an animal population. *Journal of Animal Ecology* **12**, 42-58.
- Fukuyama, K., Maeto, K. & Kirton, L.G. (1994) Field tests of a balloon-suspended trap system for studying insects in the canopy of tropical rainforests. *Ecological Research* **9**, 357-360.
- Futuyama, D.J. & Gould, F. (1979) Associations of plants and insects in a deciduous forest. *Ecological Monographs* **49**, 33-50.
- Halle, F. (1990) A raft atop the rainforest roof. *National Geographic* **178**, 129-138.

- Juillet, J.A. (1963) A comparison of four types of traps used for capturing flying insects. *Canadian Journal of Zoology* **41**, 219-223.
- Karban, R. & Ricklefs, R.E. (1983) Host characteristics, sampling intensity, and species richness of Lepidoptera larvae on broad-leaved trees in southern Ontario. *Ecology* **64**, 636-641.
- Kennedy, C.E.J. & Southwood, T.R.E. (1984) The number of species of insects associated with British trees: a re-analysis. *Journal of Animal Ecology* **53**, 455-478.
- Kruess, A. & Tscharntke, T. (1994) Habitat fragmentation, species loss, and biological control. *Science* **264**, 1581-1584.
- Lawton, J.H. & Price, P.W. (1979) Species richness of parasites on hosts: agromyzid flies on the British Umbelliferae. *Journal of Animal Ecology* **48**, 619-637.
- Lawton, J.H. & Schroder, D. (1977) Effects of plant type, size of geographical range and taxonomic isolation on number of insect species associated with British plants. *Nature* **265**, 137-140.
- MacArthur, R.H. & Wilson, E.O. (1967) *The Theory of Island Biogeography*. Princeton University Press, Princeton.
- Magurran, A.E. (1988) *Ecological Diversity and Its Measurement*. Croom Helm Limited, London.
- Majer, J.D. & Recher, H.F. (1988) Invertebrate communities on Western Australian eucalypts: A comparison of branch clipping and chemical knockdown procedures. *Australian Journal of Ecology* **13**, 269-278.
- May, R.M. (1988) How many species are there on Earth? *Science* **241**, 1441-1449.
- Meads, M.J. (1976) Effects of opossum browsing on northern rata trees in the Orongorongo Valley, Wellington, New Zealand. *New Zealand Journal of Zoology* **5**, 127-139.
- Mitchell, A.W. (1986) *The Enchanted Canopy: Secrets from the Rainforest Roof*. William Collins, Glasgow.

- Moeed, A. & Meads, M.J. (1984) Vertical and seasonal distribution of airborne invertebrates in mixed lowland forest of the Orongorongo Valley, Wellington, New Zealand. *New Zealand Journal of Zoology* **11**, 49-58.
- Moore, L.B. & Edgar, E. (1970) *Flora of New Zealand Volume II: Indigenous Tracheophyta Monocotyledones except Graminae*. DSIR, Wellington.
- Moran, V.C. (1980) Interactions between phytophagous insects and their *Opuntia* hosts. *Ecological Entomology* **5**, 153-164.
- Moran, V.C., Hoffmann, J.H., Impson, F.A.C. & Jenkins, J.F.G. (1994) Herbivorous insect species in the tree canopy of a relict South African forest. *Ecological Entomology* **19**, 147-154.
- Moran, V.C. & Southwood, T.R.E. (1982) The guild composition of arthropod communities in trees. *Journal of Animal Ecology* **51**, 289-306.
- Morell, V. (1994) Crane experiment finally perches in Washington State. *Science*. **264**, 1842.
- Morse, D.R., Stork, N.E. & Lawton, J.H. (1988) Species number, species abundance and body length relationships of arboreal beetles in Bornean lowland rain forest trees. *Ecological Entomology* **13**, 25-37.
- Muirhead-Thomson, R.C. (1991) *Trap Responses of Flying Insects*. Academic Press Limited, London.
- Munro, V.M.W. (1995) *Terrestrial Invertebrate Communities: The Effects of Successional Age, Habitat Structure and Seasonality*. Unpublished MSc thesis. Massey University, Palmerston North, New Zealand.
- Murdoch, W.W., Evans, F.C. & Peterson, C.H. (1972) Diversity and pattern in plants and insects. *Ecology* **53**, 819-829.
- Parker, G.G., Smith, A.P. & Hogan, K.P. (1992) Access to the upper forest canopy with a large tower crane. *BioScience* **42**, 664-670.
- Perry, D.R. (1978) A method of access into the crowns of emergent and canopy trees. *Biotropica* **10**, 155-157.
- Perry, D.R. & Williams, J. (1981) The tropical rain forest canopy: a method providing total access. *Biotropica* **13**, 283-285.

- Pettersson, R.B., Ball, J.P., Renhorn, K., Esseen, P. & Sjoberg, K. (1995) Invertebrate communities in boreal forest canopies as influenced by forestry and lichens with implications for passerine birds. *Biological Conservation* **74**, 57-63.
- Rijkse, W.C. (1977) *Soils of Pohangina County, North Island, New Zealand*. DSIR, New Zealand Soil Bureau Bulletin, No. 42, Wellington.
- Russell-Smith, A. & Stork, N.E. (1994) Abundance and diversity of spiders from the canopy of tropical rainforests with particular reference to Sulawesi, Indonesia. *Journal of Tropical Ecology* **10**, 545-558.
- Salmon, J.T. (1980) *The Native Trees of New Zealand*. Reed Books, Auckland.
- Samways, M.J. (1994) *Insect Conservation Biology*. Chapman & Hall, London.
- SAS (1989) *SAS/STAT User's Guide, Version 6*. 4th edition. SAS Institute Inc., Cary, NC.
- Simberloff, D.S. (1978) Colonisation of islands by insects: immigration, extinction, and diversity. pp. 139-153. In: L.A. Mound, and N. Waloff (eds.). *Diversity of Insect Faunas*. Blackwell Scientific Publications, Oxford.
- Simpson, E.H. (1949) Measurement of Diversity. *Nature* **163**, 688.
- Slaven, D. (1986) *Draft Management Plan: Bushy-Park Forest Reserve*. Royal Forest and Bird Protection Society of N.Z. (INC.), New Zealand.
- Sokal, R.R. & Rohlf, F.J. (1981) *Biometry: The Principles and Practice of Statistics in Biological Research*. 2nd edition. W. H. Freeman and Company, San Francisco.
- Southwood, T.R.E. (1961) The number of species associated with various trees. *Journal of Animal Ecology* **30**, 1-8.
- Southwood, T.R.E. (1978) *Ecological Methods with particular reference to the study of insect populations*. 2nd edition. Chapman and Hall, London.
- Southwood, T.R.E., Moran, V.C. & Kennedy, C.E.J. (1982a) The assessment of arboreal insect fauna: comparisons of knockdown sampling and faunal lists. *Ecological Entomology* **7**, 331-340.

- Southwood, T.R.E., Moran, V.C. & Kennedy, C.E.J. (1982b) The richness, abundance and biomass of the arthropod communities on trees. *Journal of Animal Ecology* **51**, 635-649.
- Stork, N.E. (1987a) Arthropod faunal similarity of Bornean rain forest trees. *Ecological Entomology* **12**, 219-226.
- Stork, N.E. (1987b) Guild structure of arthropods from Bornean rain forest trees. *Ecological Entomology* **12**, 69-80.
- Stork, N.E. (1988) Insect diversity: facts, fiction and speculation. *Biological Journal of the Linnean Society* **35**, 321-337.
- Strong, D.R., Lawton, J.H. & Southwood, T.R.E. (1984) *Insects on Plants Community Patterns and Mechanisms*. Blackwell Scientific Publications, Oxford.
- Strong, D.R. & Levin, D.A. (1979) Species richness of plant parasites and growth form of their hosts. *The American Naturalist* **114**, 1-22.
- Sutton, S.L. (1983) The spatial distribution of flying insects in tropical rain forests. pp. 77-91. In: S.L. Sutton, W. T.C., and A.C. Chadwick (eds.). *Tropical Rain Forest: Ecology and Management*. Blackwell Scientific Publications, Oxford.
- Taylor, L.R. (1978) Bates, Williams, Hutchinson - a variety of diversities. pp. 1-18. In: L.A. Mound, and N. Waloff (eds.). *Diversity of Insect Faunas*. Blackwell Scientific Publications, Oxford.
- Watt, J.C. (1975) The terrestrial insects. pp. 507-533. In: G. Kuschel (ed.). *Biogeography and Ecology in New Zealand*. Dr. W. Junk, Auckland.
- Watt, J.C. (1980) Hexapoda, Myriapoda and Arachnida. pp. 62-67. In: P.J. Brownsey, and A.N. Baker (eds.). *The New Zealand Biota- What Do We Know After 200 Years?* National Museum of New Zealand, Wellington.
- Wilkening, A.J., Foltz, J.L., Atkinson, T.H. & Conner, M.D. (1981) An omnidirectional flight trap for ascending and descending insects. *The Canadian Entomologist* **113**, 453-455.
- Wilson, E.O., Ed. (1988) *Biodiversity*. National Academy Press, Washington.

- Wratten, S.D. & Edwards, P.J. (1980) *Ecology of Insect-Plant Interactions*.
Edward Arnold (Publishers) Limited, London.

Appendix 1

Raw data for number of individual animals per morpho-species in each sample. Codes to the right of month designate individual study trees. The first letter in each code refers to site (P=Pakohu Reserve, K=Keebles Bush, B=Bushy Park). The second letter refers to tree species (M=*Metrosideros robusta*, P=*Podocarpus totara*, B=*Beilschmiedia tawa*). Numbers 1, 2, and 3 refer to tree replicates. In some months, some traps were buffeted by storms and lost some collecting fluid or parts of samples. "Status" refers to the condition of the sample upon collection (g=good, m=moderate, p=poor). Only samples marked "g" or "m" were included in analyses.

Raw data (including separation of upper and lower sections of each trap) can be obtained in spreadsheet form on disk from Dr. Russell Death, Ecology Department, Massey University, Private Bag 11-222, Palmerston North, New Zealand.

JUN94	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	g	g	g	g	g	p
Crustacea A	0	0	1	0	0	0
Acarina A	0	1	1	0	0	0
Acarina C	0	0	0	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	1	0	0	0	0
Acarina F	0	1	0	0	0	0
Acarina H	0	2	0	0	0	0
Acarina I	0	1	0	0	0	0
Acarina J	0	1	0	0	0	0
Acarina K	0	1	0	1	0	0
Acarina L	0	0	1	0	0	0
Acarina N	0	0	0	0	0	0
Araneae A	0	0	0	0	0	0
Araneae D	0	0	0	0	2	0
Araneae E	0	0	2	0	0	2
Araneae G	0	0	1	0	0	0
Araneae K	0	1	0	0	0	0
Araneae L	0	0	0	1	2	1
Araneae N	0	0	0	0	0	0
Araneae -	0	1	1	2	2	1
Collembola A	0	0	0	1	0	0
Collembola C	0	1	0	0	0	0
Collembola D	0	0	0	0	0	0
Psocoptera A	1	2	0	0	0	0
Psocoptera B	0	1	2	0	0	1
Psocoptera C	0	0	1	0	0	0
Psocoptera E	0	0	0	0	0	0
Hemiptera D	0	0	0	0	1	0
Thysanoptera A	0	0	0	1	0	0
Coleoptera A	0	0	2	1	0	0
Coleoptera C	0	0	0	0	0	0
Coleoptera E	1	0	2	1	0	0
Coleoptera F	0	0	0	0	0	1
Coleoptera I	0	0	0	1	0	0
Coleoptera N	1	1	0	0	0	0
Coleoptera P	0	1	0	0	0	0
Coleoptera Q	0	1	0	1	0	0
Coleoptera R	0	0	0	1	0	0

Coleoptera S	0	0	0	1	0	0
Diptera A	5	3	2	2	1	3
Diptera B	3	5	4	4	0	0
Diptera C	3	0	0	0	0	0
Diptera D	8	1	2	2	1	0
Diptera E	0	0	0	0	0	0
Diptera F	0	0	0	0	0	0
Diptera K	2	3	0	4	1	1
Diptera M	0	0	0	1	0	0
Diptera Q	2	0	2	0	0	0
Diptera T	3	3	1	1	0	0
Diptera Y	1	0	0	0	1	0
Diptera Z	0	1	0	2	0	0
Diptera AA	0	0	0	1	0	0
Diptera AB	0	0	0	0	1	0
Diptera AC	0	0	0	0	0	1
Diptera AD	0	0	0	0	0	2
Tricoptera A	2	10	0	0	0	0
Lepidoptera -	2	0	3	0	1	0
Hymenoptera A	0	0	0	1	0	0
Hymenoptera J	0	0	0	0	0	1
	PM1	PM2	PM3	PP1	PP2	PP3
TOTAL	34	43	28	30	13	14
SPP	13	22	16	20	10	10
MARG	3.4	5.58	4.5	5.59	3.51	3.41
INBERG	4.25	4.3	7	7.5	6.5	4.67
INSIMP	11	13.7	23.6	27.2	26	18

JUN94	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	m	m	g	g	g	m
Acarina A	1	0	0	2	0	0
Acarina B	0	1	0	0	0	0
Acarina C	0	0	1	0	1	0
Acarina D	0	0	1	0	1	0
Acarina E	0	0	0	0	0	0
Acarina H	1	0	0	0	0	0
Acarina I	0	0	0	0	0	0
Acarina L	2	2	2	1	0	0
Acarina N	0	0	0	0	0	1
Araneae A	0	0	0	0	0	0
Araneae D	0	1	1	0	0	2
Araneae E	2	1	2	0	0	0
Araneae F	1	0	0	0	0	1
Araneae M	0	0	0	0	1	0
Araneae N	0	0	0	1	1	0
Araneae O	1	0	0	0	0	0
Araneae P	1	0	0	0	0	0
Araneae -	1	0	5	2	1	2
Collembola A	0	0	2	2	0	0
Collembola C	1	0	0	2	0	1
Collembola D	0	0	0	0	0	0
Blattodea A	0	0	1	1	0	0
Psocoptera A	0	0	0	0	0	0
Psocoptera B	0	1	0	0	2	0
Hemiptera A	0	0	0	1	0	0
Hemiptera C	0	0	0	1	0	0
Hemiptera E	2	1	0	0	0	0
Hemiptera F	0	0	1	0	0	0
Hemiptera G	0	0	1	0	0	0
Hemiptera I	0	0	1	1	0	0
Thysanoptera A	1	0	0	1	0	0
Coleoptera A	0	0	5	1	0	0
Coleoptera C	0	0	1	2	0	0
Coleoptera D	0	0	1	0	0	0
Coleoptera E	0	0	2	0	0	1
Coleoptera F	0	0	0	0	0	0

Coleoptera K	0	1	0	2	0	0
Coleoptera V	0	0	0	1	0	0
Coleoptera W	0	0	0	1	0	0
Diptera A	1	2	1	1	0	0
Diptera B	1	2	2	3	1	2
Diptera C	0	0	0	0	0	0
Diptera D	8	17	5	4	44	13
Diptera E	0	0	0	0	0	0
Diptera F	0	0	0	0	0	0
Diptera G	0	0	0	1	0	0
Diptera H	1	0	0	1	0	0
Diptera K	0	1	0	1	0	1
Diptera M	0	1	0	0	0	0
Diptera N	0	0	1	0	0	0
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera X	0	0	0	0	0	0
Diptera AD	0	1	0	0	0	0
Diptera AE	0	0	0	0	0	1
Diptera AF	0	0	0	0	1	0
Diptera AZ	0	0	2	1	0	0
Tricoptera B	2	4	0	0	1	0
Lepidoptera -	0	3	0	1	2	0
Hymenoptera A	0	0	1	3	0	1
Hymenoptera K	0	0	0	0	0	1
Hymenoptera L	0	0	1	3	0	0
Hymenoptera M	0	0	1	0	0	0
Hymenoptera N	0	0	1	0	0	0
larvae	0	1	2	0	0	0
	KP1	KP2	KP3	KB1	KB2	KB3
TOTAL	27	40	44	41	56	27
SPP	16	16	25	26	11	12
MARG	4.55	4.07	6.34	6.73	2.48	3.34
INBERG	3.38	2.35	8.8	10.3	1.27	2.08
INSIMP	11	5.27	25.6	39	1.51	3.7

JUN94	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	g	g	g	p	m	m
Acarina A	0	0	0	0	0	0
Acarina C	0	0	0	0	0	0
Acarina D	1	0	0	0	0	1
Acarina E	0	0	0	0	0	0
Acarina G	0	1	0	0	0	0
Acarina I	2	0	3	0	0	1
Acarina K	0	0	1	0	0	1
Acarina L	1	1	2	1	1	1
Acarina M	0	0	0	0	1	0
Acarina N	0	0	0	0	0	0
Acarina O	0	0	0	0	1	0
Araneae A	0	0	0	0	0	0
Araneae D	0	0	0	0	0	1
Araneae E	3	1	1	2	0	0
Araneae F	0	0	0	0	1	1
Araneae N	0	0	0	0	0	0
Araneae -	0	0	1	0	0	0
Collembola A	0	1	1	0	1	1
Collembola C	1	0	2	0	0	0
Collembola D	0	0	0	0	0	1
Blattodea A	1	0	0	0	0	0
Psocoptera A	4	0	4	0	0	3
Psocoptera B	0	0	0	0	1	0
Psocoptera D	0	0	0	0	1	0
Psocoptera E	0	0	0	0	0	0
Thysanoptera A	1	0	1	0	0	0
Hemiptera I	0	1	0	0	0	0
Coleoptera A	0	1	1	0	0	1

Coleoptera C	0	0	0	0	0	0
Coleoptera E	0	0	0	0	0	1
Coleoptera F	0	0	0	0	0	0
Coleoptera X	0	1	0	0	0	1
Coleoptera Y	0	0	1	0	0	0
Coleoptera Z	0	0	0	0	1	0
Diptera A	2	3	3	0	2	0
Diptera B	3	1	4	1	6	1
Diptera C	1	0	0	0	0	1
Diptera D	6	10	7	0	1	1
Diptera E	0	0	0	0	0	0
Diptera F	0	0	0	0	0	0
Diptera K	0	0	3	0	0	1
Diptera L	0	0	1	0	0	0
Diptera Q	4	2	2	0	0	3
Diptera T	0	0	0	0	0	1
Diptera Z	0	0	1	0	0	0
Diptera AC	0	1	0	0	0	0
Diptera AD	0	0	0	0	0	1
Diptera AG	0	0	2	0	0	1
Diptera AH	1	0	0	0	0	0
Diptera AI	1	0	0	0	0	0
Diptera AJ	0	0	0	0	0	1
Diptera AK	0	0	0	0	0	1
Lepidoptera -	3	2	0	2	3	7
Hymenoptera A	0	1	0	0	1	0
Hymenoptera I	0	0	0	0	0	2
Hymenoptera O	0	0	1	0	0	0
Hymenoptera P	1	0	0	0	0	0
larvae	0	1	0	0	0	1
	BB1	BB2	BB3	BM1	BM2	BM3
TOTAL	36	28	42	6	21	36
SPP	17	15	20	4	13	24
MARG	4.46	4.2	5.08	1.67	3.94	6.7 -
INBERG	6	2.8	6	3	3.5	5.14
INSIMP	16.6	7.56	18.7	7.5	11.1	22.5

JUL94	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	p	p	p	p	m	m
Crustacea A	0	0	1	0	0	0
Acarina A	0	0	0	0	0	0
Acarina C	0	0	0	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	0	1	0	0	1
Acarina I	0	0	1	0	0	0
Acarina N	0	0	0	0	0	0
Acarina S	0	0	0	0	1	0
Acarina U	0	0	0	0	4	0
Acarina V	0	0	0	0	1	0
Araneae A	0	0	0	0	0	0
Araneae D	0	0	0	0	0	0
Araneae E	0	0	0	0	1	1
Araneae L	0	0	0	0	0	1
Araneae N	0	0	0	0	0	0
Araneae -	0	0	0	0	0	0
Collembola A	0	0	0	0	0	0
Collembola C	0	0	1	0	0	0
Collembola D	0	0	0	0	0	0
Orthoptera B	0	0	0	0	0	1
Psocoptera A	0	0	0	0	0	0
Psocoptera E	0	0	0	0	0	0
Hemiptera H	0	0	0	0	0	3
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	0	0	0	0
Coleoptera E	0	0	0	0	1	0

Coleoptera F	0	0	0	0	0	0
Coleoptera AH	0	0	0	0	1	0
Diptera A	0	0	0	0	0	2
Diptera B	0	0	1	0	0	1
Diptera C	0	0	1	0	0	1
Diptera D	0	0	0	0	0	0
Diptera E	0	0	0	0	0	0
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera AC	0	0	0	0	0	0
Diptera AO	0	0	1	0	0	0
Diptera AT	0	0	0	0	0	1
Lepidoptera -	0	0	0	0	0	0
Hymenoptera A	0	0	0	0	0	0
larvae	0	0	0	0	1	0
	PM1	PM2	PM3	PP1	PP2	PP3
TOTAL	0	0	7	0	10	12
SPP	0	0	7	0	7	9
MARG	0	0	3.08	0	2.61	3.22
INBERG	ERR	ERR	7	ERR	2.5	4
INSIMP	ERR	ERR	ERR	ERR	7.5	16.5

JUL94	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	m	p	m	m	m	m
Acarina A	0	0	3	1	1	2
Acarina B	0	0	0	1	1	0
Acarina C	0	0	0	3	1	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina F	0	0	0	0	1	0
Acarina H	2	1	3	0	0	0
Acarina I	0	0	0	2	0	0
Acarina K	0	0	0	3	0	0
Acarina L	1	0	1	0	0	0
Acarina N	0	0	0	0	0	0
Acarina P	0	0	0	1	0	0
Acarina Q	0	0	0	1	0	0
Acarina R	0	0	0	2	0	0
Acarina S	0	0	1	0	0	0
Araneae A	0	0	0	0	0	1
Araneae B	0	0	0	1	0	0
Araneae D	0	0	0	0	0	3
Araneae E	0	2	3	0	0	0
Araneae F	0	1	0	0	0	0
Araneae G	0	0	1	0	0	0
Araneae L	0	0	1	0	0	0
Araneae N	0	0	1	1	0	0
Araneae Q	0	0	0	1	0	0
Araneae R	0	0	1	1	0	0
Araneae S	1	0	0	0	0	0
Araneae -	0	0	3	0	0	3
Collembola A	2	0	4	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	0	0	0	1	0	1
Blattodea A	0	0	0	1	0	0
Psocoptera A	0	0	0	1	0	0
Psocoptera E	0	0	0	0	0	0
Hemiptera B	0	2	0	0	0	0
Hemiptera H	0	0	0	1	0	0
Hemiptera I	0	0	6	0	0	0
NeuropteraA	0	0	1	0	0	0
Coleoptera A	0	1	2	0	0	0
Coleoptera C	0	0	2	1	0	0
Coleoptera D	0	1	0	1	0	0

Coleoptera E	1	1	1	2	1	0
Coleoptera F	0	1	1	0	1	2
Coleoptera K	0	1	0	0	0	0
Coleoptera N	0	0	0	0	1	0
Coleoptera U	0	0	0	0	1	0
Coleoptera AA	0	0	0	1	0	0
Coleoptera AB	0	0	0	1	0	0
Diptera A	0	0	0	0	3	0
Diptera B	1	0	1	2	1	0
Diptera C	0	0	0	0	0	0
Diptera D	2	4	0	1	17	5
Diptera E	0	0	0	0	0	0
Diptera F	0	0	0	1	0	0
Diptera G	0	0	0	2	0	0
Diptera K	0	0	1	1	2	0
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera AD	0	0	0	0	1	0
Diptera AI	0	0	0	0	0	1
Diptera AL	0	0	0	0	0	1
Diptera AM	1	0	0	0	0	0
Diptera AO	0	0	0	0	0	1
Diptera AZ	0	0	0	1	0	0
Tricoptera B	2	0	0	0	0	0
Lepidoptera -	0	1	0	3	1	1
Hymenoptera A	2	0	0	0	0	0
Hymenoptera L	0	0	0	1	0	0
Hymenoptera Q	0	0	0	0	0	1
Hymenoptera R	0	0	0	0	1	0
Hymenoptera S	1	0	0	0	0	0
larvae	0	0	0	1	0	0
	KP1	KP2	KP3	KB1	KB2	KB3
TOTAL	16	16	37	41	34	22
SPP	11	11	19	30	15	12
MARG	3.61	3.61	4.98	7.81	3.97	3.56
INBERG	8	4	6.17	13.7	2	4.4
INSIMP	24	15	19	58.6	4.01	12.8

JUL94	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	g	g	g	p	g	g
Acarina A	0	0	1	0	2	1
Acarina B	0	0	0	0	1	0
Acarina C	0	0	1	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina I	0	0	0	0	0	0
Acarina N	0	0	0	0	0	0
Acarina S	0	0	0	0	1	0
Acarina U	0	0	0	0	0	1
Araneae D	1	0	0	1	0	0
Araneae E	0	0	1	0	1	2
Araneae F	0	1	0	0	0	0
Araneae N	0	0	0	0	1	0
Araneae T	1	0	0	0	0	0
Araneae -	1	0	0	0	0	0
Collembola A	0	0	0	0	0	0
Collembola C	0	2	0	0	0	0
Collembola D	0	1	3	0	0	1
Phasmatodea A	0	0	1	0	0	0
Blattodea A	2	0	1	0	0	0
Psocoptera A	3	2	2	0	0	1
Psocoptera B	0	0	0	0	1	1
Psocoptera C	1	1	0	0	0	0
Psocoptera D	0	0	0	0	1	0
Thysanoptera A	0	0	0	1	1	0
Coleoptera A	1	1	8	0	0	4

Coleoptera C	0	0	0	0	0	1
Coleoptera E	1	0	0	0	0	1
Coleoptera F	0	0	0	0	0	0
Coleoptera N	0	0	0	0	0	2
Coleoptera O	0	0	1	0	0	0
Coleoptera W	0	0	0	0	0	1
Coleoptera AD	0	0	1	0	0	0
Coleoptera AE	0	0	1	0	0	0
Coleoptera AF	0	0	1	0	0	0
Coleoptera AG	0	0	2	0	0	0
Diptera A	1	2	2	1	1	2
Diptera B	2	1	5	0	3	4
Diptera C	1	1	1	0	0	1
Diptera D	2	3	4	1	6	3
Diptera E	1	0	0	0	0	0
Diptera F	0	0	0	0	0	0
Diptera I	1	2	0	0	0	0
Diptera K	1	2	2	0	1	0
Diptera L	1	0	0	0	0	0
Diptera O	0	1	0	0	0	0
Diptera Q	2	3	3	0	0	1
Diptera T	0	0	0	0	0	0
Diptera Z	1	0	0	0	0	0
Diptera AB	0	0	0	0	0	1
Diptera AN	0	1	1	0	0	0
Diptera AP	0	2	1	0	0	0
Diptera AQ	0	0	1	0	2	0
Diptera AR	1	0	0	0	0	0
Diptera AS	2	0	0	0	2	0
Diptera AT	1	0	0	0	0	0
Diptera AU	0	0	0	0	1	0
Diptera AV	0	0	0	1	2	0
Lepidoptera -	1	3	1	0	6	0
Hymenoptera A	0	1	0	0	0	0
Hymenoptera H	1	0	0	0	0	0
Hymenoptera N	0	0	0	0	0	1
Hymenoptera T	0	0	0	0	0	1
Hymenoptera U	0	0	0	0	0	1
Hymenoptera V	0	0	0	0	0	1
Hymenoptera -	0	0	0	0	0	0
larvae	0	0	0	0	1	1
	BB1	BB2	BB3	BM1	BM2	BM3
TOTAL	30	30	45	5	34	33
SPP	23	18	23	5	18	22
MARG	6.47	5	5.78	2.49	4.82	6.01
INBERG	10	10	5.63	5	5.67	8.25
INSIMP	54.4	29	18.3	ERR	15.2	29.3
AUG94	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	g	g	g	g	g	g
Acarina A	0	0	0	1	0	0
Acarina B	1	0	1	0	2	0
Acarina C	0	0	0	0	0	0
Acarina D	0	0	1	1	0	0
Acarina E	0	0	1	0	0	0
Acarina H	0	0	0	1	0	0
Acarina I	1	0	0	0	0	0
Acarina S	0	0	0	0	1	0
Acarina U	0	0	0	0	2	1
Acarina X	0	0	0	1	0	0
Acarina AA	0	0	0	1	0	0
Acarina AC	0	1	0	0	0	0
Acarina N	0	0	0	0	0	0
Araneae A	0	1	0	0	0	0
Araneae D	1	2	0	1	1	3
Araneae E	0	1	0	0	0	0

Araneae F	0	1	0	0	0	0
Araneae N	0	0	0	0	0	0
Araneae V	0	0	0	0	0	1
Araneae -	0	1	1	0	1	0
Collembola A	2	0	0	0	1	0
Collembola C	1	0	0	4	0	0
Collembola D	0	0	5	2	0	0
Psocoptera A	0	0	0	1	0	0
Psocoptera D	0	1	0	0	0	0
Psocoptera E	0	0	0	1	0	0
Psocoptera G	0	0	0	0	0	1
Psocoptera H	0	0	0	1	0	0
Hemiptera B	1	0	0	0	0	0
Hemiptera E	0	1	0	0	0	0
Hemiptera H	0	0	0	0	1	0
Hemiptera O	0	0	1	0	0	0
Thysanoptera A	0	0	0	0	1	3
Coleoptera A	0	0	0	1	0	0
Coleoptera C	1	2	0	2	0	0
Coleoptera E	0	2	1	1	1	0
Coleoptera F	0	2	0	0	0	1
Coleoptera K	0	0	0	0	1	1
Coleoptera T	0	0	0	0	0	1
Coleoptera AJ	0	0	0	2	0	1
Coleoptera AK	0	0	0	0	1	0
Coleoptera AL	0	0	0	1	0	0
Coleoptera AM	1	0	0	1	0	0
Diptera A	6	5	4	2	1	11
Diptera B	9	4	4	3	3	3
Diptera C	0	0	0	0	0	0
Diptera D	10	1	1	8	1	0
Diptera E	0	0	0	0	0	0
Diptera F	0	0	0	0	0	1
Diptera K	3	0	0	0	1	0
Diptera N	0	0	0	0	1	0
Diptera Q	0	0	0	1	0	0
Diptera T	1	1	0	1	0	0
Diptera X	1	0	0	0	0	0
Diptera Y	0	0	0	1	0	0
Diptera Z	0	0	0	1	0	0
Diptera AD	0	0	0	0	1	0
Diptera AO	0	0	0	0	2	0
Diptera AT	0	1	0	3	0	0
Diptera AU	0	0	1	0	0	0
Diptera BD	0	0	0	0	0	1
Diptera BE	2	0	0	0	1	0
Diptera BF	0	0	0	1	0	0
Diptera BH	1	0	0	0	0	0
Diptera BI	1	0	0	0	0	0
Diptera BJ	1	0	0	0	0	0
Tricoptera B	1	1	0	0	0	0
Lepidoptera -	2	1	0	1	1	0
Hymenoptera A	0	0	0	1	0	0
Hymenoptera -	0	0	0	0	1	0
larvae	0	0	0	1	0	0
TOTAL	PM1 47	PM2 29	PM3 21	PP1 47	PP2 26	PP3 29
SPP	20	18	11	29	21	13
MARG	4.93	5.05	3.28	7.27	6.14	3.56
INBERG	4.7	5.8	4.2	5.88	8.67	2.64
INSIMP	10.6	20.3	9.55	24.6	54.2	6.34
AUG94	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	p	m	g	g	g	m
Acarina A	0	0	0	0	0	0
Acarina C	0	0	0	2	1	0

Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	0	1	0	0	0
Acarina I	0	0	0	0	2	1
Acarina N	0	0	0	0	0	0
Acarina Q	0	0	1	0	0	0
Acarina S	0	0	0	0	1	0
Acarina W	0	1	0	0	0	1
Acarina Y	0	1	0	0	0	0
Acarina Z	0	1	0	0	0	0
Araneae A	0	0	0	0	1	0
Araneae B	0	1	0	0	0	0
Araneae D	0	1	2	0	1	0
Araneae E	0	2	0	1	0	0
Araneae F	0	0	1	1	0	0
Araneae G	0	1	0	0	0	0
Araneae N	0	0	0	0	0	0
Araneae O	0	1	0	0	0	0
Araneae U	0	1	0	0	0	0
Araneae -	0	0	0	1	0	2
Collembola A	2	2	7	0	0	0
Collembola C	0	0	0	1	0	0
Blattodea A	0	1	0	0	1	0
Psocoptera A	0	0	0	0	0	0
Psocoptera E	0	0	0	0	1	0
Psocoptera F	0	0	1	0	0	0
Hemiptera I	2	0	0	0	0	0
Hemiptera M	0	0	1	0	0	0
Hemiptera N	0	1	0	0	0	0
Thysanoptera A	0	0	1	0	0	0
Coleoptera A	0	0	1	0	0	0
Coleoptera C	0	0	1	10	1	0
Coleoptera D	0	0	1	0	0	0
Coleoptera E	0	0	1	3	0	0
Coleoptera F	0	1	1	0	1	0
Coleoptera H	0	1	0	0	0	0
Coleoptera K	0	4	0	0	0	0
Coleoptera P	0	1	1	0	0	0
Coleoptera AB	0	1	0	0	0	0
Coleoptera AG	0	0	0	1	0	0
Diptera A	0	2	3	0	7	0
Diptera B	0	1	3	0	10	2
Diptera C	0	0	0	0	5	0
Diptera D	0	1	8	1	28	5
Diptera E	0	0	0	0	2	0
Diptera F	0	1	0	0	2	0
Diptera G	0	0	0	1	0	0
Diptera K	0	0	1	3	0	0
Diptera Q	0	0	1	1	0	0
Diptera T	0	0	0	0	0	0
Diptera X	0	0	1	0	0	0
Diptera AO	0	0	1	0	0	0
Diptera AU	0	1	0	0	0	0
Diptera AZ	0	1	1	2	1	0
Diptera BA	0	0	0	2	0	0
Diptera BB	0	0	1	2	0	0
Diptera BC	0	0	1	0	0	0
Tricoptera B	0	1	1	0	1	2
Lepidoptera -	0	3	0	1	2	1
Hymenoptera A	1	0	1	1	1	0
Hymenoptera H	0	1	0	0	0	0
Hymenoptera N	1	0	0	0	0	0
Hymenoptera R	0	0	0	1	0	0
Hymenoptera U	0	0	0	1	0	0
Hymenoptera W	0	0	0	1	0	0
Hymenoptera -	0	0	0	0	0	0
	KP1	KP2	KP3	KB1	KB2	KB3

TOTAL	6	34	44	37	69	14
SPP	4	26	26	20	19	7
MARG	1.67	7.09	6.61	5.26	4.25	2.27
INBERG	3	8.5	5.5	3.7	2.46	2.8
INSIMP	7.5	46.8	16.9	12.1	5.12	7
AUG94	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	g	g	g	p	g	g
Acarina A	0	0	0	0	0	0
Acarina C	0	1	0	0	0	0
Acarina D	0	0	0	0	0	1
Acarina E	0	0	0	0	0	0
Acarina H	0	0	0	0	1	0
Acarina I	1	0	0	0	0	0
Acarina N	0	0	0	0	0	0
Acarina X	0	0	1	0	0	0
Acarina W	0	1	0	0	0	0
Araneae A	0	0	0	0	0	1
Araneae B	0	0	0	0	1	0
Araneae D	0	0	0	0	1	0
Araneae E	1	0	1	0	0	0
Araneae H	1	0	0	0	0	0
Araneae N	0	0	0	0	0	0
Araneae P	0	0	0	0	1	0
Araneae -	1	1	0	0	1	1
Collembola A	1	0	0	0	1	0
Collembola C	0	0	0	0	0	0
Collembola D	1	0	0	0	0	2
Blattodea A	0	0	0	1	0	0
Psocoptera A	1	1	3	0	0	0
Psocoptera D	0	0	0	1	0	0
Psocoptera E	0	0	0	0	0	0
Thysanoptera A	0	0	1	0	0	1
Hemiptera B	0	0	0	0	1	0
Hemiptera J	1	0	0	0	0	0
Hemiptera K	0	0	1	0	0	0
Hemiptera L	0	0	0	0	1	0
Coleoptera A	1	4	3	0	0	0
Coleoptera C	0	0	2	0	0	0
Coleoptera E	0	3	2	0	0	2
Coleoptera F	1	1	0	0	0	0
Coleoptera N	0	1	0	0	0	0
Coleoptera O	0	1	0	0	0	0
Coleoptera AG	0	0	1	0	0	0
Coleoptera AI	0	0	0	1	0	0
Diptera A	1	1	1	0	1	3
Diptera B	3	1	2	0	5	2
Diptera C	0	0	0	0	2	0
Diptera D	1	2	3	0	0	1
Diptera E	0	0	0	0	0	0
Diptera F	0	0	0	0	1	0
Diptera K	0	0	0	0	0	0
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera AP	0	2	0	0	0	0
Diptera AQ	0	0	1	0	1	0
Diptera AR	0	1	0	0	0	1
Diptera AS	0	1	0	0	0	0
Diptera AT	0	0	1	0	1	1
Diptera AU	0	0	1	0	0	0
Diptera AW	1	0	0	0	0	0
Diptera AX	0	0	1	0	0	0
Diptera AY	0	0	0	1	0	0
Lepidoptera -	0	1	0	0	1	2
Hymenoptera A	0	1	0	0	0	1
Hymenoptera N	0	0	0	0	1	0

Hymenoptera W	0	1	0	0	0	0
Hymenoptera -	0	0	0	0	0	0
	BB1	BB2	BB3	BM1	BM2	BM3
TOTAL	16	25	25	4	21	19
SPP	14	18	16	4	16	13
MARG	4.69	5.28	4.66	2.16	4.93	4.08
INBERG	5.33	6.25	8.33	4	4.2	6.33
INSIMP	40	27.3	25	ERR	19.1	24.4
SEP94	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	g	m	g	g	m	g
Mollusca A	0	0	0	1	0	0
Acarina A	0	0	0	0	1	1
Acarina B	0	0	0	0	0	1
Acarina C	0	0	0	0	0	0
Acarina D	2	0	1	0	0	0
Acarina E	0	0	0	0	0	0
Acarina I	0	0	0	0	1	0
Acarina N	0	0	0	0	0	0
Acarina T	0	0	0	0	0	1
Acarina AD	1	0	0	0	0	0
Acarina AE	0	1	0	0	0	0
Araneae A	0	0	0	0	0	0
Araneae D	2	1	0	0	0	0
Araneae E	0	5	3	2	0	0
Araneae G	0	0	0	0	1	0
Araneae N	0	0	1	0	0	2
Araneae -	0	0	0	0	1	0
Collembola A	2	0	0	1	0	0
Collembola C	0	34	0	0	0	0
Collembola D	0	0	1	0	1	0
Blattodea A	0	0	1	0	1	0
Psocoptera A	0	0	0	0	0	0
Psocoptera D	0	0	1	0	0	0
Psocoptera E	1	0	0	0	0	0
Psocoptera I	0	0	2	0	0	0
Psocoptera J	0	0	0	0	0	1
Hemiptera I	0	1	0	0	0	0
Hemiptera P	1	0	0	0	0	0
Thysanoptera A	1	0	0	0	0	1
Thysanoptera B	0	1	0	0	0	0
Coleoptera A	0	0	1	0	0	0
Coleoptera C	1	0	1	0	0	0
Coleoptera E	0	0	3	0	0	0
Coleoptera F	1	0	0	1	0	1
Coleoptera K	0	0	0	0	0	3
Coleoptera T	0	1	0	0	1	0
Coleoptera AG	0	0	0	1	0	0
Coleoptera AI	0	0	0	1	0	0
Coleoptera AN	1	0	0	0	0	0
Coleoptera AO	1	0	0	0	0	0
Coleoptera AP	0	1	0	0	0	0
Coleoptera AQ	0	1	0	0	0	0
Coleoptera AR	0	0	1	0	0	0
Coleoptera AS	0	0	0	0	0	1
Coleoptera AT	0	0	0	0	1	0
Coleoptera AU	0	0	0	1	0	0
Coleoptera AV	0	0	0	1	0	0
Diptera A	8	4	6	2	2	14
Diptera B	17	4	7	16	1	7
Diptera C	0	0	0	1	0	0
Diptera D	26	4	4	5	2	1
Diptera E	0	1	0	3	0	0
Diptera F	2	1	1	0	0	0
Diptera H	5	0	0	0	0	0
Diptera I	2	0	0	0	0	0

Diptera J	1	0	0	0	0	0
Diptera K	10	3	0	2	2	1
Diptera O	3	5	0	0	0	1
Diptera P	0	1	0	0	0	0
Diptera Q	1	1	0	3	2	0
Diptera T	0	1	1	2	0	0
Diptera U	1	0	0	0	0	0
Diptera X	3	0	0	0	0	0
Diptera Z	0	0	0	1	0	0
Diptera AB	1	0	0	0	0	0
Diptera AD	0	1	1	0	0	0
Diptera AN	2	0	0	3	0	0
Diptera AP	0	3	0	0	0	0
Diptera AQ	1	0	0	0	0	3
Diptera AS	1	0	1	0	1	0
Diptera AT	0	0	1	2	0	0
Diptera AU	1	0	0	2	0	1
Diptera AV	0	0	1	0	0	1
Diptera AZ	2	0	0	0	0	0
Diptera BA	0	0	1	0	0	0
Diptera BE	3	1	1	1	0	1
Diptera BF	1	0	0	0	0	0
Diptera BJ	5	0	1	2	0	1
Diptera BK	1	0	0	1	0	0
Diptera BL	0	0	2	0	0	0
Diptera BM	0	1	0	1	0	0
Diptera BO	1	0	0	0	0	0
Diptera BP	3	0	0	1	0	2
Diptera BQ	1	1	0	0	0	0
Diptera BS	4	1	0	1	0	1
Diptera BT	1	0	0	1	2	0
Diptera BU	0	1	0	0	0	0
Diptera BV	0	1	0	0	0	0
Diptera BW	0	1	0	0	0	0
Diptera BX	0	1	0	0	0	0
Diptera BY	0	0	1	0	0	0
Diptera BZ	0	0	0	0	0	1
Diptera CA	0	0	0	0	0	1
Diptera CB	0	0	0	0	1	0
Diptera CC	0	0	0	0	1	0
Diptera CD	0	0	0	1	0	0
Diptera CE	0	0	0	1	0	0
Tricoptera A	0	0	0	0	1	0
Tricoptera B	3	2	2	2	0	1
Lepidoptera -	27	3	0	3	1	3
Hymenoptera A	0	0	0	0	0	0
Hymenoptera K	0	0	0	1	0	0
Hymenoptera Y	0	1	0	0	0	0
Hymenoptera Z	0	1	0	0	0	0
Hymenoptera AA	0	0	0	0	0	1
Hymenoptera -	0	0	0	0	0	0
larvae	0	0	1	0	1	0
TOTAL	PM1	PM2	PM3	PP1	PP2	PP3
	151	90	48	67	25	53
SPP	40	33	27	32	20	26
MARG	7.77	7.11	6.72	7.37	5.9	6.3
INBERG	5.59	2.65	6.86	4.19	12.5	3.79
INSIMP	12.1	6.58	22.1	14.7	60	11.2
SEP94	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	g	m	g	g	g	g
Chilopoda A	1	0	0	0	0	0
Acarina A	2	0	2	3	0	1
Acarina C	0	0	0	1	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0

Acarina I	1	0	1	1	0	0
Acarina K	0	0	0	1	0	0
Acarina N	1	0	0	0	0	0
Acarina AG	0	0	1	0	0	0
Acarina AH	1	0	0	1	0	0
Acarina AI	0	0	0	0	1	0
Acarina AJ	0	0	0	5	0	0
Acarina AK	0	0	0	1	0	0
Araneae A	0	0	1	0	1	0
Araneae D	0	1	0	0	2	0
Araneae E	2	5	1	0	1	0
Araneae K	0	0	0	1	0	0
Araneae F	0	0	0	0	0	1
Araneae G	1	0	0	0	0	1
Araneae H	0	0	0	0	0	1
Araneae N	0	2	1	2	0	0
Araneae W	0	0	1	0	0	0
Araneae X	0	1	0	0	0	0
Araneae Y	0	1	0	0	0	0
Araneae Z	0	0	0	1	0	0
Araneae AA	0	0	0	1	0	0
Araneae -	0	0	1	0	3	3
Collembola A	8	0	41	1	0	0
Collembola B	2	0	0	1	0	0
Collembola C	8	0	0	0	0	0
Collembola D	0	0	0	0	0	0
Blattodea A	1	0	1	1	0	0
Psocoptera A	0	0	0	1	1	0
Psocoptera C	0	1	0	0	1	0
Psocoptera E	0	0	0	0	1	0
Psocoptera J	1	0	0	0	0	0
Psocoptera K	0	0	1	1	0	0
Hemiptera I	4	0	0	0	0	0
Hemiptera L	1	0	0	0	0	0
Hemiptera Q	0	0	1	0	0	0
Hemiptera R	0	0	1	0	0	0
Hemiptera S	0	0	1	0	0	0
Thysanoptera A	2	0	0	0	0	1
Thysanoptera B	0	9	45	0	0	0
Coleoptera A	0	0	0	1	0	0
Coleoptera C	1	0	6	31	1	3
Coleoptera D	0	0	0	0	0	1
Coleoptera E	1	1	0	3	1	1
Coleoptera F	1	0	2	1	0	0
Coleoptera H	1	1	0	0	0	0
Coleoptera K	1	18	0	0	0	0
Coleoptera P	1	1	1	0	0	1
Coleoptera AW	0	0	1	0	0	0
Coleoptera AX	0	1	0	0	0	0
Coleoptera AY	1	0	0	0	0	0
Coleoptera AZ	0	0	0	0	2	0
Diptera A	2	2	1	0	3	0
Diptera B	4	4	1	0	5	1
Diptera C	0	0	0	1	0	1
Diptera D	10	7	24	20	19	31
Diptera E	0	2	2	0	1	0
Diptera F	0	5	1	1	1	0
Diptera H	0	0	0	1	0	0
Diptera K	0	2	7	10	10	16
Diptera P	0	0	1	1	0	0
Diptera Q	0	1	0	1	0	0
Diptera T	0	0	0	0	0	0
Diptera X	0	0	0	1	2	0
Diptera AD	0	0	0	1	0	0
Diptera AI	0	0	1	0	0	2
Diptera AS	0	1	0	0	0	0
Diptera AT	0	0	0	0	1	0

Diptera AZ	0	0	2	0	0	0
Diptera BA	0	0	1	2	0	0
Diptera BB	0	0	3	1	0	1
Diptera BC	1	0	0	0	2	0
Diptera BS	1	4	3	0	0	3
Diptera BU	0	0	0	1	0	0
Diptera CF	0	1	0	0	0	0
Diptera CG	0	0	0	0	1	1
Diptera CH	0	0	0	0	0	1
Diptera CK	0	0	0	1	0	0
Diptera CL	0	0	0	1	0	0
Tricoptera B	4	0	0	2	3	0
Lepidoptera -	3	8	2	2	7	3
Hymenoptera A	0	8	1	1	4	1
Hymenoptera C	0	0	0	1	0	0
Hymenoptera L	0	0	0	0	1	0
Hymenoptera P	1	0	1	0	0	0
Hymenoptera U	0	1	0	0	0	0
Hymenoptera W	1	0	0	0	0	0
Hymenoptera AB	0	0	1	0	0	0
Hymenoptera AC	0	0	0	0	2	0
Hymenoptera AD	0	0	0	0	0	1
Hymenoptera AE	0	0	0	1	0	0
Hymenoptera AF	0	0	0	1	0	0
Hymenoptera AG	0	0	0	2	0	0
Hymenoptera AH	0	0	0	1	0	0
Hymenoptera -	0	0	0	0	0	0
	KP1	KP2	KP3	KB1	KB2	KB3
TOTAL	70	88	162	113	77	76
SPP	31	25	35	42	26	22
MARG	7.06	5.36	6.68	8.67	5.76	4.85
INBERG	7	4.89	3.6	3.65	4.05	2.45
INSIMP	19	12.7	6.11	8.78	11	4.77

SEP94	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	g	g	g	p	g	g
Acarina A	0	0	0	0	0	1
Acarina B	0	0	1	0	1	0
Acarina C	0	0	0	0	0	0
Acarina D	0	0	0	0	2	0
Acarina E	0	0	0	0	0	0
Acarina I	0	0	0	0	0	2
Acarina N	0	0	0	0	0	0
Acarina AI	0	0	0	0	0	0
Acarina AL	0	0	0	0	1	0
Araneae A	0	0	1	0	0	0
Araneae C	0	1	0	0	0	0
Araneae D	0	0	0	0	0	0
Araneae E	0	1	0	0	0	1
Araneae H	1	0	0	0	0	0
Araneae N	1	0	0	0	1	1
Araneae AB	0	0	0	1	0	0
Araneae AC	0	2	0	0	0	0
Araneae -	3	1	0	0	0	0
Collembola A	0	0	1	0	0	0
Collembola B	0	0	0	0	0	1
Collembola C	0	0	0	0	0	0
Collembola D	1	0	1	0	0	2
Psocoptera A	0	4	5	0	0	1
Psocoptera B	0	0	0	0	1	0
Psocoptera C	0	0	0	0	0	0
Psocoptera E	0	0	0	0	0	0
Psocoptera F	0	1	0	0	0	0
Psocoptera G	0	0	0	0	1	0
Psocoptera K	0	0	0	0	0	1
Hemiptera J	1	0	0	0	1	0

Hemiptera T	0	0	0	0	0	1
Thysanoptera A	0	1	0	0	0	0
Coleoptera A	0	2	0	0	0	2
Coleoptera C	0	1	0	0	0	2
Coleoptera D	0	0	0	0	0	1
Coleoptera E	4	3	0	0	4	1
Coleoptera F	2	0	0	0	0	0
Coleoptera N	1	1	0	0	0	0
Coleoptera T	0	0	0	1	0	0
Coleoptera X	1	0	0	0	0	0
Coleoptera AG	0	0	0	0	0	1
Coleoptera AI	0	0	0	0	0	1
Coleoptera AZ	0	0	0	0	0	0
Coleoptera BB	0	0	0	0	0	1
Coleoptera BC	0	1	0	0	0	0
Diptera A	3	5	2	0	4	1
Diptera B	3	3	2	2	4	3
Diptera C	0	0	0	0	0	0
Diptera D	2	5	12	0	4	0
Diptera E	0	4	0	0	1	1
Diptera F	0	0	0	0	0	0
Diptera K	1	0	1	0	0	0
Diptera Q	0	2	0	0	1	1
Diptera T	0	0	0	0	0	0
Diptera X	0	0	0	0	0	0
Diptera AF	1	0	0	0	0	0
Diptera AQ	0	1	0	0	0	0
Diptera AS	1	1	0	0	0	0
Diptera AU	1	0	1	0	0	1
Diptera AX	0	1	0	0	0	0
Diptera AZ	0	0	1	0	0	0
Diptera BC	0	0	0	0	0	0
Diptera BG	0	0	0	0	0	0
Diptera BJ	1	1	0	0	1	2
Diptera BL	0	0	0	0	1	0
Diptera BN	0	2	0	0	0	0
Diptera BP	0	0	0	0	1	0
Diptera BQ	0	0	0	0	1	0
Diptera BW	0	0	0	0	1	0
Diptera BX	1	0	0	0	0	0
Diptera BZ	0	0	0	0	1	0
Diptera CA	1	0	0	0	1	0
Diptera CB	0	0	0	0	0	1
Diptera CD	0	0	1	0	0	0
Diptera CG	0	0	0	0	1	0
Diptera CI	0	1	0	0	0	0
Diptera CM	0	0	0	0	1	0
Diptera CN	2	0	0	0	0	1
Diptera CO	1	0	0	0	0	0
Diptera CP	0	0	2	0	0	0
Tricoptera B	0	0	0	0	0	0
Lepidoptera -	5	7	1	0	3	1
Hymenoptera A	0	1	0	0	0	0
Hymenoptera H	1	0	0	0	0	0
Hymenoptera L	0	0	0	0	0	0
Hymenoptera T	0	1	0	0	0	0
Hymenoptera AB	0	1	0	0	0	0
Hymenoptera AC	0	0	0	0	0	0
Hymenoptera AI	0	0	0	1	1	0
Hymenoptera AJ	0	0	0	0	0	1
Hymenoptera - larvae	0	0	1	0	1	0
	BB1	BB2	BB3	BM1	BM2	BM3
TOTAL	39	55	33	5	40	33
SPP	23	27	15	4	25	26
MARG	6.01	6.49	4	1.86	6.51	7.15
INBERG	7.8	7.86	2.75	2.5	10	11

INSIMP	26.5	23.6	6.68	10	27.9	66
	PM1	PM2	PM3	PP1	PP2	PP3
OCT94	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	g	g	g	g	m	m
Acarina A	1	0	0	0	1	0
Acarina B	1	0	0	0	0	0
Acarina C	0	0	0	0	0	0
Acarina D	0	1	1	0	0	1
Acarina E	0	0	0	0	0	0
Acarina H	0	0	1	0	0	0
Acarina I	1	0	0	0	0	1
Acarina N	0	0	0	0	0	0
Acarina S	0	0	0	1	0	0
Acarina W	0	0	0	0	0	1
Araneae A	0	0	0	0	0	0
Araneae D	2	1	0	0	2	1
Araneae E	0	6	10	2	4	3
Araneae F	0	1	0	0	0	0
Araneae N	1	0	1	0	0	1
Araneae O	0	1	0	0	0	0
Araneae Y	0	0	1	1	0	0
Araneae AD	0	1	0	0	0	0
Araneae AE	0	0	0	0	1	0
Araneae -	0	1	1	0	1	3
Collembola A	1	0	0	0	2	0
Collembola B	0	0	0	2	0	0
Collembola C	0	0	0	0	0	0
Collembola D	0	0	4	2	0	0
Blattodea A	1	1	1	1	0	0
Psocoptera A	2	0	1	1	0	0
Psocoptera C	0	0	1	0	0	0
Psocoptera D	0	0	0	0	0	1
Psocoptera E	0	0	0	0	0	0
Psocoptera G	2	2	0	0	0	1
Psocoptera I	0	1	0	0	0	0
Psocoptera J	0	0	1	0	0	0
Hemiptera B	2	0	0	0	0	2
Hemiptera R	1	0	0	0	0	0
Hemiptera U	0	0	0	1	0	0
Hemiptera V	0	0	0	0	1	0
Hemiptera W	0	0	0	0	0	2
Hemiptera X	0	0	0	0	0	1
Hemiptera Y	0	0	0	0	0	1
Thysanoptera B	0	0	0	0	0	1
Coleoptera A	0	0	0	0	0	0
Coleoptera C	2	0	0	1	1	0
Coleoptera E	1	0	0	0	0	1
Coleoptera F	1	0	0	0	0	0
Coleoptera K	0	0	0	0	0	5
Coleoptera N	0	0	0	1	2	0
Coleoptera T	1	2	4	3	1	0
Coleoptera U	0	0	0	1	0	0
Coleoptera AE	0	0	0	2	0	0
Coleoptera AQ	0	0	0	0	1	0
Coleoptera AR	0	0	0	0	1	0
Coleoptera AZ	0	0	0	0	0	1
Coleoptera BC	0	0	1	0	0	0
Coleoptera BD	1	0	0	0	0	0
Coleoptera BE	1	0	0	0	0	0
Coleoptera BF	1	0	0	0	0	0
Coleoptera BG	0	1	0	0	0	0
Coleoptera BH	0	0	1	0	0	0
Coleoptera BI	0	0	1	0	1	0
Coleoptera BJ	0	0	1	0	0	0
Coleoptera BK	0	0	0	1	0	0
Coleoptera BL	0	0	0	0	5	0

Coleoptera BM	0	0	0	0	0	1
Diptera A	14	7	0	6	8	12
Diptera B	8	2	10	5	0	4
Diptera C	0	0	0	0	0	0
Diptera D	33	2	2	4	1	0
Diptera E	1	0	1	2	0	0
Diptera F	0	0	0	0	0	2
Diptera I	0	0	0	1	0	0
Diptera K	4	0	1	0	1	0
Diptera N	1	0	0	0	0	0
Diptera O	0	0	2	5	0	1
Diptera Q	1	0	0	2	1	0
Diptera T	0	0	0	1	0	0
Diptera V	1	0	0	0	0	0
Diptera X	1	0	1	0	1	0
Diptera Z	0	0	1	0	0	0
Diptera AA	0	0	0	0	0	1
Diptera AJ	0	0	0	0	1	7
Diptera AN	0	0	0	1	0	0
Diptera AR	3	0	0	1	0	0
Diptera AS	0	0	0	1	1	0
Diptera AT	0	0	0	2	0	0
Diptera BE	1	3	3	3	3	0
Diptera BJ	1	0	1	2	0	0
Diptera BL	1	1	2	0	0	0
Diptera BP	1	1	2	0	0	2
Diptera BR	0	1	0	5	0	0
Diptera BS	1	3	0	0	0	0
Diptera BT	3	1	0	0	0	0
Diptera BW	0	0	11	0	0	0
Diptera CC	0	0	0	0	1	0
Diptera CE	1	0	0	1	0	0
Diptera CQ	1	0	0	0	0	0
Diptera CR	1	0	0	0	0	0
Diptera CS	2	0	1	1	0	0
Diptera CT	1	0	0	0	0	0
Diptera CU	1	0	0	0	0	0
Diptera CV	5	1	0	2	3	0
Diptera CW	1	2	0	0	0	2
Diptera CX	0	0	0	1	1	0
Diptera CY	0	0	0	1	0	0
Diptera CZ	0	0	0	1	0	0
Diptera DA	0	0	0	1	0	0
Diptera DB	0	0	0	0	1	0
Diptera DC	0	0	0	0	0	1
Diptera DD	0	0	0	0	0	1
Diptera DE	0	0	0	0	0	1
Diptera DF0	0	0	0	0	1	0
Tricoptera A	1	0	0	0	0	0
Tricoptera B	1	2	1	1	0	1
Lepidoptera -	1	4	1	4	1	3
Hymenoptera A	0	0	0	0	0	0
Hymenoptera T	0	0	0	1	0	1
Hymenoptera U	0	1	0	0	1	3
Hymenoptera W	0	1	0	0	0	0
Hymenoptera X	0	0	0	0	0	1
Hymenoptera AJ	0	0	0	0	1	0
Hymenoptera AK	1	0	0	0	0	0
Hymenoptera AL	1	0	0	0	0	0
Hymenoptera AM	0	0	0	0	0	1
Hymenoptera AN	0	0	0	0	0	1
Hymenoptera -	0	0	0	0	0	0
	PM1	PM2	PM3	PP1	PP2	PP3
TOTAL	116	51	71	75	50	74
SPP	47	27	31	39	29	37
MARG	9.68	6.61	7.04	8.8	7.16	8.36
INBERG	3.52	7.29	6.45	12.5	6.25	6.17

INSIMP	9.88	23.6	15.2	38.5	23.1	22.5
OCT94	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	m	m	m	m	m	m
Acarina A	5	3	1	1	0	1
Acarina B	0	0	1	0	0	0
Acarina C	0	0	0	0	1	0
Acarina D	1	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	2	0	0	1	0	0
Acarina I	0	0	2	0	0	0
Acarina K	0	1	0	0	0	0
Acarina N	0	0	0	0	0	0
Acarina P	1	0	0	0	0	0
Acarina R	0	0	0	0	0	1
Acarina AB	0	0	0	1	0	0
Acarina AK	0	0	1	0	0	1
Acarina AL	1	0	0	0	0	0
Acarina AM	0	0	0	1	0	0
Araneae A	0	0	0	0	0	0
Araneae D	10	3	1	1	1	0
Araneae E	1	16	2	0	2	1
Araneae F	0	0	0	0	1	0
Araneae L	0	0	1	0	0	0
Araneae N	1	0	3	3	1	0
Araneae AA	0	0	0	0	1	0
Araneae AD	0	1	0	0	0	0
Araneae AG	0	1	0	0	0	0
Araneae AH	0	0	1	0	0	0
Araneae -	0	2	8	2	1	3
Collembola A	2	1	27	0	0	2
Collembola B	0	0	2	1	1	0
Collembola C	0	0	0	0	0	0
Collembola D	0	0	0	0	0	0
Ephemeroptera A	1	0	0	1	0	0
Blattodea A	1	0	0	0	0	1
Psocoptera A	0	0	0	1	0	0
Psocoptera E	0	0	0	0	0	0
Psocoptera G	0	1	0	0	0	0
Psocoptera L	0	1	0	0	0	0
Hemiptera B	3	6	0	0	0	1
Hemiptera I	0	0	2	1	0	0
Hemiptera J	0	0	1	0	0	0
Hemiptera Q	3	1	0	0	0	0
Hemiptera Z	0	0	1	0	0	0
Hemiptera AA	0	0	0	1	0	1
Hemiptera AB	0	0	0	1	0	0
Thysanoptera A	0	1	1	0	0	0
Thysanoptera B	0	0	16	1	0	0
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	1	1	13	1	0
Coleoptera D	0	0	1	0	0	0
Coleoptera E	1	1	1	1	0	1
Coleoptera F	0	0	0	0	0	0
Coleoptera H	0	1	0	1	0	0
Coleoptera I	0	0	1	0	0	0
Coleoptera K	0	5	0	0	0	0
Coleoptera P	0	1	0	0	0	0
Coleoptera AG	0	0	0	1	0	0
Coleoptera AJ	0	0	1	0	0	0
Coleoptera AL	0	0	0	1	0	0
Coleoptera BI	2	1	0	0	0	0
Coleoptera BL	0	0	0	0	1	0
Coleoptera BN	1	0	2	0	0	0
Coleoptera BO	0	1	0	0	0	0
Coleoptera BP	0	1	0	0	0	0

Coleoptera BQ	0	1	0	0	0	0
Coleoptera BR	0	0	0	0	1	0
Diptera A	0	2	1	1	2	1
Diptera B	4	8	3	3	2	4
Diptera C	0	0	1	1	0	1
Diptera D	8	10	9	10	13	11
Diptera E	0	0	2	1	0	0
Diptera F	0	2	1	0	0	0
Diptera K	0	0	1	1	0	1
Diptera O	1	0	0	0	0	0
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera X	0	0	0	1	0	0
Diptera AO	1	1	0	0	0	0
Diptera AT	0	0	2	0	0	0
Diptera AU	0	0	0	1	0	0
Diptera AZ	0	0	0	0	0	0
Diptera BA	0	0	0	1	0	0
Diptera BB	0	0	3	3	0	1
Diptera BJ	0	1	0	0	2	0
Diptera BR	1	2	0	0	0	0
Diptera BS	0	0	0	0	8	0
Diptera DG	1	0	0	0	0	0
Diptera DH	0	1	1	0	0	0
Diptera DI	0	1	0	0	0	0
Diptera DJ	0	0	0	0	0	1
Tricoptera B	2	0	0	0	4	4
Lepidoptera -	1	6	7	4	2	3
Hymenoptera A	0	3	3	1	1	0
Hymenoptera B	0	0	1	0	0	0
Hymenoptera I	0	0	0	1	0	0
Hymenoptera L	0	0	0	0	0	1
Hymenoptera W	0	0	0	1	1	0
Hymenoptera AC	0	1	0	0	0	0
Hymenoptera AO	1	0	0	0	0	0
Hymenoptera AP	0	1	0	0	0	0
Hymenoptera AQ	0	1	0	0	0	0
Hymenoptera AR	0	0	0	1	0	0
Hymenoptera AS	0	0	0	1	0	0
Hymenoptera - larvae	0	0	0	0	0	0
	KP1	KP2	KP3	KB1	KB2	KB3
TOTAL	56	92	113	67	47	41
SPP	25	37	36	36	20	20
MARG	5.96	7.96	7.4	8.32	4.93	5.12
INBERG	5.6	5.75	4.19	5.15	3.62	3.73
INSIMP	15.6	17	11	15.9	9.24	11.1
OCT94	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	m	g	m	p	m	g
Acarina A	1	0	0	4	1	0
Acarina B	0	0	0	0	1	0
Acarina C	0	0	0	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	0	0	1	0	0
Acarina I	0	0	0	0	1	0
Acarina N	0	0	0	0	0	0
Acarina W	0	1	0	0	0	0
Acarina AN	0	0	0	1	0	0
Acarina AO	0	0	0	0	1	0
Acarina AP	0	0	0	0	0	1
Acarina AQ	0	14	0	0	0	0
Araneae A	0	0	0	0	0	0
Araneae D	0	0	0	0	0	0
Araneae E	0	0	0	1	1	0

Araneae N	0	0	0	0	0	0
Araneae AC	2	0	0	0	0	0
Araneae AJ	1	0	0	0	0	0
Araneae AK	0	1	0	0	0	0
Araneae -	0	3	0	1	0	1
Collembola A	1	1	1	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	0	0	0	1	0	4
Phasmatodea A	0	0	0	0	1	0
Blattodea A	0	0	1	0	0	0
Psocoptera A	4	3	3	1	1	1
Psocoptera B	0	0	0	2	2	0
Psocoptera C	1	0	0	0	0	0
Psocoptera D	0	0	0	0	2	0
Psocoptera E	0	0	0	0	1	0
Psocoptera I	0	0	0	1	0	0
Psocoptera K	0	1	0	0	0	0
Hemiptera B	0	0	0	2	1	1
Hemiptera I	0	0	0	1	0	0
Hemiptera J	1	0	0	0	0	0
Hemiptera AA	0	1	0	0	0	0
Hemiptera AC	0	0	0	0	1	0
Thysanoptera A	2	1	0	1	2	2
Thysanoptera B	1	4	0	0	1	0
Coleoptera A	0	0	0	0	0	1
Coleoptera C	1	2	2	0	1	1
Coleoptera E	2	1	4	0	0	0
Coleoptera F	0	0	1	0	0	0
Coleoptera N	0	0	0	0	1	0
Coleoptera P	0	0	0	0	0	1
Coleoptera T	0	0	0	0	0	1
Coleoptera Z	0	0	0	0	0	1
Coleoptera AG	0	1	1	0	0	0
Coleoptera AI	0	0	0	0	0	1
Coleoptera AM	1	0	0	0	0	0
Coleoptera AZ	1	0	0	0	0	0
Coleoptera BS	0	0	0	1	0	1
Coleoptera BT	0	0	0	0	1	0
Coleoptera BU	0	0	0	0	0	1
Coleoptera BW	0	1	0	0	0	0
Diptera A	1	5	3	0	3	1
Diptera B	1	1	2	0	0	4
Diptera C	0	0	0	0	0	0
Diptera D	1	9	4	0	1	2
Diptera E	0	0	1	0	1	1
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera N	0	0	0	0	1	0
Diptera O	1	0	0	1	0	0
Diptera Q	5	5	3	0	0	0
Diptera R	1	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera X	1	1	0	0	0	0
Diptera Z	0	0	1	0	0	0
Diptera AI	0	0	1	0	0	0
Diptera AN	0	1	1	0	0	0
Diptera AT	1	0	0	0	0	0
Diptera AV	1	0	0	0	0	0
Diptera AZ	0	0	0	0	1	0
Diptera BA	1	0	0	0	0	0
Diptera BE	0	0	0	0	0	1
Diptera BN	1	0	0	0	0	0
Diptera BR	0	0	1	0	0	0
Diptera BS	0	0	0	2	2	0
Diptera CE	0	1	0	1	0	0
Diptera CK	0	0	0	0	1	0
Diptera CV	0	1	0	1	0	1

Diptera CW	0	0	0	0	1	0
Diptera DE	0	0	0	0	1	0
Diptera DK	0	1	0	0	0	0
Diptera DL	0	0	1	0	0	0
Tricoptera B	0	0	0	0	1	0
Lepidoptera -	6	8	0	2	1	0
Hymenoptera A	0	3	0	0	0	1
Hymenoptera N	0	0	0	0	0	1
Hymenoptera Q	0	0	1	0	0	0
Hymenoptera AC	0	0	0	0	0	1
Hymenoptera AG	0	0	1	0	0	0
Hymenoptera AT	0	0	0	0	0	1
Hymenoptera AU	1	0	0	0	0	0
Hymenoptera -	0	0	0	0	0	0
larvae	1	2	0	0	0	0
	BB1	BB2	BB3	BM1	BM2	BM3
TOTAL	42	73	33	25	34	32
SPP	27	26	19	18	28	24
MARG	6.96	5.83	5.15	5.28	7.66	6.64
INBERG	7	5.21	8.25	6.25	11.3	8
INSIMP	25.3	13.7	23	30	80.1	35.4

NOV94	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	m	m	g	g	m	m
Crustacea A	0	0	1	0	0	0
Acarina A	0	1	0	0	0	0
Acarina B	0	1	0	0	0	0
Acarina C	0	0	0	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	0	0	0	1	0
Acarina I	2	0	0	1	0	0
Acarina K	0	0	1	1	0	0
Acarina N	0	0	0	0	0	0
Acarina R	0	0	0	0	1	0
Acarina U	0	0	0	0	0	1
Acarina AR	0	0	1	0	0	0
Araneae A	0	0	0	0	0	0
Araneae D	2	0	0	0	1	0
Araneae E	0	7	4	1	1	0
Araneae N	2	2	0	0	1	1
Araneae P	0	1	0	0	0	0
Araneae S	0	0	0	0	0	1
Araneae U	0	0	0	0	0	1
Araneae AF	0	1	0	0	0	0
Araneae AJ	0	0	0	0	0	1
Araneae AL	0	1	0	0	0	0
Araneae -	1	0	0	1	0	1
Collembola A	0	0	0	1	0	0
Collembola B	0	0	3	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	1	0	5	5	0	2
Ephemeroptera A	0	1	0	0	0	0
Phasmatodea A	0	0	0	1	0	0
Psocoptera A	0	0	0	0	1	0
Psocoptera B	0	0	0	1	0	0
Psocoptera C	0	0	1	0	0	0
Psocoptera D	1	1	0	0	1	0
Psocoptera E	0	0	0	0	0	1
Psocoptera I	3	0	0	0	0	2
Hemiptera B	0	5	1	1	0	17
Hemiptera F	1	0	0	0	0	0
Hemiptera I	0	2	0	0	0	0
Hemiptera R	0	0	1	0	0	0
Hemiptera AA	0	0	1	0	0	0
Hemiptera AE	0	1	0	0	0	0

Hemiptera AG	0	0	0	3	2	0
Thysanoptera A	0	0	0	0	0	2
Thysanoptera B	0	0	0	1	0	7
Coleoptera A	0	0	0	0	0	0
Coleoptera B	0	1	0	0	0	0
Coleoptera C	0	0	0	3	3	3
Coleoptera E	0	0	0	2	2	0
Coleoptera F	0	0	0	2	0	0
Coleoptera G	0	1	0	0	0	0
Coleoptera N	0	0	0	1	0	0
Coleoptera P	0	0	0	1	2	0
Coleoptera T	1	0	1	2	1	0
Coleoptera Z	1	0	0	1	0	0
Coleoptera AE	0	0	0	0	0	2
Coleoptera AI	0	1	0	0	0	0
Coleoptera AJ	0	0	0	0	0	1
Coleoptera AQ	1	1	0	0	0	0
Coleoptera AR	0	0	4	1	1	0
Coleoptera AV	1	1	0	0	0	0
Coleoptera AZ	0	0	0	0	0	1
Coleoptera BA	0	0	0	1	0	0
Coleoptera BI	1	5	3	2	4	7
Coleoptera BK	0	0	0	2	0	0
Coleoptera BS	0	1	2	0	1	0
Coleoptera BU	1	0	0	0	0	0
Coleoptera BV	2	0	0	0	1	0
Coleoptera BX	1	0	0	0	0	0
Coleoptera BY	1	0	1	0	0	0
Coleoptera BZ	1	0	2	0	0	0
Coleoptera CA	1	0	0	0	0	1
Coleoptera CB	1	0	0	0	0	0
Coleoptera CC	1	0	0	0	0	0
Coleoptera CD	0	1	0	0	0	0
Coleoptera CE	0	1	0	2	0	0
Coleoptera CF	0	1	0	0	0	0
Coleoptera CG	0	0	1	0	0	0
Coleoptera CI	0	0	0	1	0	0
Coleoptera CJ	0	0	0	1	0	0
Coleoptera CK	0	0	0	1	0	0
Coleoptera CL	0	0	0	0	1	2
Coleoptera CM	0	0	0	0	1	0
Coleoptera CN	0	0	0	0	1	0
Coleoptera CO	0	0	0	0	0	1
Coleoptera CP	0	0	0	0	0	1
Coleoptera CW	0	0	0	0	0	0
Coleoptera DU	2	0	0	0	0	0
Diptera A	5	1	1	4	1	14
Diptera B	4	1	2	5	0	5
Diptera C	0	0	0	0	0	0
Diptera D	9	0	1	4	0	1
Diptera E	1	0	1	2	3	2
Diptera F	0	0	1	1	0	0
Diptera H	0	0	0	1	0	0
Diptera I	0	0	0	1	3	0
Diptera K	0	0	0	0	0	0
Diptera Q	2	0	0	1	0	0
Diptera T	2	0	0	0	1	0
Diptera V	1	2	0	0	0	1
Diptera X	1	0	0	0	0	1
Diptera AC	1	0	0	0	1	2
Diptera AD	0	0	0	0	0	1
Diptera AN	0	1	0	1	0	0
Diptera AU	1	0	0	0	0	0
Diptera BE	3	2	1	0	2	3
Diptera BG	0	0	0	1	0	0
Diptera BH	1	0	0	0	0	0
Diptera BI	9	0	0	0	0	0

Diptera BJ	1	1	0	0	0	1
Diptera BS	2	1	0	0	0	0
Diptera BT	1	0	0	1	0	2
Diptera BZ	0	0	0	0	0	2
Diptera CA	1	0	0	0	0	0
Diptera CE	0	0	0	1	0	0
Diptera CF	0	0	0	0	0	1
Diptera CJ	1	0	0	0	0	0
Diptera CV	5	0	3	7	5	2
Diptera CW	1	0	0	1	0	1
Diptera CZ	4	1	0	3	2	2
Diptera DA	0	0	0	1	0	0
Diptera DC	1	0	0	0	0	0
Diptera DE	1	1	0	0	0	4
Diptera DH	0	1	0	0	0	2
Diptera DI	2	4	0	0	0	0
Diptera DM	1	0	0	0	0	1
Diptera DN	1	0	0	0	0	0
Diptera DO	0	1	0	0	0	0
Diptera DP	0	1	0	0	0	0
Diptera DQ	0	1	0	0	0	1
Diptera DR	0	0	2	0	0	0
Diptera DS	0	0	0	1	0	0
Diptera DT	0	0	0	2	0	0
Diptera DU	0	0	0	1	0	0
Diptera DV	0	0	0	0	1	0
Diptera DW	0	0	0	0	0	1
Diptera DX	0	0	0	0	0	1
Tricoptera A	1	0	0	0	0	0
Tricoptera B	1	2	1	0	2	0
Lepidoptera -	70	14	10	8	14	31
Hymenoptera A	0	0	1	1	0	0
Hymenoptera I	1	0	0	0	0	0
Hymenoptera J	1	0	0	0	0	0
Hymenoptera N	0	1	0	0	0	0
Hymenoptera AC	0	2	0	0	0	3
Hymenoptera AM	0	0	0	0	0	1
Hymenoptera AV	1	0	0	0	0	0
Hymenoptera AW	1	0	0	0	0	0
Hymenoptera AX	0	1	0	0	0	0
Hymenoptera AY	0	0	1	0	0	0
Hymenoptera AZ	0	0	1	0	0	0
Hymenoptera BA	0	0	0	1	0	0
Hymenoptera BB	0	0	0	0	0	1
Hymenoptera BC	0	0	0	0	0	1
Hymenoptera BD	0	0	0	0	0	1
Hymenoptera - larvae	0	0	0	0	0	0
	3	1	0	1	4	17
	PM1	PM2	PM3	PP1	PP2	PP3
TOTAL	170	78	59	90	66	162
SPP	56	42	30	49	31	50
MARG	10.7	9.41	7.11	10.7	7.16	9.63
INBERG	2.43	5.57	5.9	11.3	4.71	5.23
INSIMP	5.66	20.9	21.4	40.9	16.8	14.4
NOV94	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	m	m	m	m	m	m
Acarina A	0	0	0	0	1	0
Acarina C	3	0	0	1	1	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina I	0	0	0	0	0	0
Acarina J	0	0	0	0	0	1
Acarina N	0	0	0	0	0	0
Acarina T	0	1	0	1	1	0
Acarina W	0	0	0	0	0	2

Acarina AQ	0	2	0	0	0	0
Acarina AR	5	0	2	0	0	0
Araneae A	0	0	0	0	0	0
Araneae B	0	0	0	0	0	1
Araneae D	4	0	6	0	5	2
Araneae E	2	3	0	0	0	0
Araneae H	0	1	0	0	0	0
Araneae N	1	0	1	2	3	2
Araneae P	0	1	0	0	0	1
Araneae Y	0	0	0	1	0	0
Araneae AC	0	2	1	0	0	2
Araneae AI	1	0	0	0	0	0
Araneae AK	0	0	0	0	1	0
Araneae -	1	2	5	4	2	0
Collembola A	0	0	11	0	1	0
Collembola B	0	0	0	1	0	0
Collembola C	0	0	0	0	0	0
Collembola D	1	0	2	0	0	0
Blattodea A	0	0	1	0	0	0
Psocoptera A	1	0	0	0	1	1
Psocoptera C	0	0	0	0	3	0
Psocoptera E	0	0	0	0	0	0
Psocoptera I	1	2	0	0	0	0
Hemiptera B	7	10	5	0	0	1
Hemiptera I	1	0	0	0	0	0
Hemiptera Q	0	0	5	0	0	0
Hemiptera U	0	1	0	0	0	0
Hemiptera X	0	1	0	0	0	0
Hemiptera AD	3	0	0	0	0	0
Hemiptera AF	0	0	1	0	0	0
Hemiptera AH	0	0	0	0	0	1
Thysanoptera A	0	1	0	0	0	0
Thysanoptera B	5	0	1	0	0	0
NeuropteraB	0	0	3	0	0	0
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	2	2	0	0
Coleoptera D	0	1	0	0	0	0
Coleoptera E	2	0	1	0	0	0
Coleoptera F	0	2	1	0	0	0
Coleoptera H	2	0	0	0	1	0
Coleoptera K	4	0	0	0	0	0
Coleoptera P	2	0	1	0	0	0
Coleoptera AI	1	0	0	0	0	0
Coleoptera AR	2	0	0	0	0	0
Coleoptera BB	1	0	0	0	0	0
Coleoptera BI	3	12	0	1	0	0
Coleoptera BL	1	0	0	0	0	0
Coleoptera CB	0	0	1	0	0	0
Coleoptera CG	0	0	0	1	0	0
Coleoptera CL	1	0	0	0	0	0
Coleoptera CQ	0	1	0	0	0	0
Coleoptera CR	0	1	0	1	0	0
Coleoptera CS	0	0	1	1	1	0
Coleoptera CU	0	0	0	0	0	1
Coleoptera CV	0	0	0	0	0	1
Coleoptera CW	0	0	0	0	0	1
Diptera A	0	1	1	1	0	0
Diptera B	8	14	3	1	5	3
Diptera C	1	4	0	0	0	0
Diptera D	23	14	53	28	26	17
Diptera E	2	1	1	1	0	0
Diptera F	0	2	1	0	0	0
Diptera K	0	0	0	0	1	0
Diptera P	0	0	1	0	0	0
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera BA	0	0	1	0	0	0

Diptera BB	0	0	0	10	0	0
Diptera BH	2	0	0	0	0	0
Diptera BJ	2	3	1	3	1	1
Diptera BR	0	1	0	0	0	0
Diptera BS	0	0	1	0	0	1
Diptera CB	0	1	0	0	0	0
Diptera CH	1	1	1	1	0	0
Diptera CK	0	1	0	0	0	0
Diptera CV	0	0	1	0	0	0
Diptera DE	2	2	0	1	0	0
Diptera DH	1	2	0	0	0	0
Diptera DI	1	0	0	0	0	0
Diptera DJ	0	0	0	0	1	0
Diptera DL	0	0	0	1	0	0
Diptera DP	1	1	0	0	0	0
Diptera DR	0	0	2	0	0	0
Diptera DX	1	0	0	0	0	0
Diptera DY	2	0	0	0	0	0
Diptera DZ	1	0	0	0	0	0
Diptera EA	1	1	0	0	0	0
Diptera EB	0	0	2	0	0	0
Diptera EC	0	0	0	1	0	0
Diptera ED	0	0	0	0	1	0
Tricoptera B	0	0	0	0	3	2
Lepidoptera -	6	22	11	14	9	0
Hymenoptera A	0	1	5	1	2	0
Hymenoptera B	0	0	1	0	0	0
Hymenoptera C	0	0	1	0	0	0
Hymenoptera N	0	0	2	1	0	0
Hymenoptera W	1	1	1	0	0	0
Hymenoptera Z	0	1	0	0	0	0
Hymenoptera AC	0	0	0	0	1	1
Hymenoptera AM	2	0	0	0	0	0
Hymenoptera AQ	1	0	0	0	0	0
Hymenoptera BA	0	0	1	0	0	0
Hymenoptera BC	1	0	0	0	0	0
Hymenoptera BE	1	0	0	0	0	0
Hymenoptera BF	0	1	0	0	0	0
Hymenoptera BG	0	4	0	0	0	0
Hymenoptera BH	0	1	0	0	0	0
Hymenoptera BI	0	1	1	0	0	0
Hymenoptera BJ	0	0	1	0	0	0
Hymenoptera CK	0	0	1	0	0	0
Hymenoptera - larvae	18	3	6	0	1	2
	KP1	KP2	KP3	KB1	KB2	KB3
TOTAL	134	128	151	80	72	44
SPP	46	41	43	24	23	20
MARG	9.19	8.24	8.37	5.25	5.14	5.02
INBERG	5.83	5.82	2.85	2.86	2.77	2.59
INSIMP	17.1	14.7	7.21	6.02	6.52	6.52
NOV94	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	m	m	m	m	m	g
Acarina A	0	1	0	3	3	1
Acarina B	1	1	1	0	0	0
Acarina C	0	0	0	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina I	1	0	2	0	1	1
Acarina K	0	1	0	0	0	0
Acarina N	0	0	0	0	0	0
Acarina X	1	0	0	0	0	0
Acarina AS	0	0	1	0	0	0
Acarina AT	0	0	1	0	0	0
Acarina AV	0	0	0	0	1	0

Acarina AW	0	0	0	0	0	1
Araneae A	0	0	0	0	0	0
Araneae D	2	0	0	0	0	0
Araneae E	1	0	0	1	0	0
Araneae N	0	0	0	0	1	0
Araneae W	0	1	0	0	0	0
Araneae AC	2	0	0	0	0	0
Araneae AF	0	1	0	0	0	0
Araneae AH	0	0	1	0	0	0
Araneae AI	0	1	1	0	0	0
Araneae -	1	3	0	1	0	0
Collembola A	0	0	0	0	0	0
Collembola C	1	0	0	0	0	1
Collembola D	0	1	2	0	0	6
Blattodea A	0	0	0	1	0	0
Psocoptera A	5	4	5	0	0	2
Psocoptera B	2	0	0	0	1	0
Psocoptera C	0	0	0	2	0	0
Psocoptera D	0	0	0	3	1	0
Psocoptera E	0	0	0	0	0	1
Psocoptera F	0	0	0	0	0	1
Hemiptera B	1	2	1	12	14	4
Hemiptera X	0	0	0	1	0	0
Hemiptera AA	0	0	0	1	0	0
Thysanoptera A	4	5	0	5	18	16
Thysanoptera B	9	19	2	1	0	2
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	0	0	0	2
Coleoptera E	1	5	0	2	2	3
Coleoptera F	0	0	0	0	0	0
Coleoptera N	0	0	0	0	1	0
Coleoptera P	0	1	1	1	0	4
Coleoptera T	0	0	0	1	1	2
Coleoptera U	0	0	0	1	0	0
Coleoptera Y	2	0	0	0	0	0
Coleoptera Z	0	0	0	0	1	0
Coleoptera AR	0	0	0	0	0	2
Coleoptera BH	0	0	0	3	0	1
Coleoptera BI	0	0	0	3	2	1
Coleoptera BJ	0	0	0	1	0	0
Coleoptera BN	0	0	0	2	0	1
Coleoptera BR	1	0	0	0	1	0
Coleoptera BS	0	0	0	0	0	1
Coleoptera BU	0	0	0	0	0	8
Coleoptera CE	0	1	0	0	1	1
Coleoptera CM	1	0	0	0	0	0
Coleoptera CX	1	0	0	1	1	0
Coleoptera CY	1	0	0	0	0	0
Coleoptera CZ	1	0	0	0	0	0
Coleoptera DB	0	1	0	0	0	0
Coleoptera DC	0	0	0	1	0	0
Coleoptera DD	0	0	0	1	0	0
Coleoptera DE	0	0	0	0	1	0
Coleoptera DF	0	0	0	0	1	0
Coleoptera DG	0	0	0	0	0	1
Coleoptera DI	0	0	0	0	0	1
Coleoptera DJ	0	0	0	0	0	1
Coleoptera DK	0	0	0	0	0	1
Coleoptera GY	0	0	0	0	3	0
Diptera A	2	2	0	1	1	2
Diptera B	2	2	0	2	0	1
Diptera C	0	0	0	0	0	1
Diptera D	2	3	1	0	2	3
Diptera E	0	1	1	2	2	0
Diptera F	1	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera O	1	0	0	0	0	0

Diptera Q	4	5	0	1	4	6
Diptera T	1	0	1	0	0	0
Diptera V	1	0	0	0	0	0
Diptera AD	0	0	0	1	0	0
Diptera AN	0	0	1	0	3	0
Diptera AT	0	0	0	0	0	1
Diptera AZ	1	0	0	0	0	0
Diptera BH	0	0	0	1	0	0
Diptera BJ	2	1	0	1	0	2
Diptera BN	0	0	0	0	0	1
Diptera BP	0	0	0	2	0	0
Diptera BS	0	1	0	0	2	0
Diptera CE	0	2	0	0	0	0
Diptera CK	1	0	0	0	0	0
Diptera CO	0	0	0	1	0	0
Diptera CV	2	0	0	2	1	0
Diptera CY	0	1	0	0	0	0
Diptera CZ	0	1	0	0	0	0
Diptera DR	0	0	0	0	1	0
Diptera DW	2	0	0	0	1	1
Diptera EE	1	0	0	0	0	0
Diptera EF	1	0	0	0	0	0
Diptera EG	0	1	0	0	0	0
Diptera EH	0	1	0	0	0	0
Diptera EI	0	0	1	0	0	0
Diptera EJ	0	0	0	2	1	0
Diptera EK	0	0	0	0	1	0
Tricoptera B	0	1	2	0	0	0
Lepidoptera -	3	5	1	1	6	6
Hymenoptera A	1	1	0	0	0	1
Hymenoptera I	0	0	0	0	0	2
Hymenoptera N	1	0	0	0	0	0
Hymenoptera AB	0	0	1	0	0	0
Hymenoptera AC	0	0	0	1	0	0
Hymenoptera AM	1	0	0	0	0	0
Hymenoptera AX	0	0	0	0	1	0
Hymenoptera BK	1	0	0	0	0	0
Hymenoptera BL	0	1	0	0	0	0
Hymenoptera BM	0	1	0	0	0	0
Hymenoptera BN	0	0	0	0	1	0
Hymenoptera BO	0	0	0	0	1	0
Hymenoptera BP	0	0	0	0	0	1
Hymenoptera BQ	0	0	0	0	0	1
Hymenoptera CK	0	0	0	0	1	0
Hymenoptera -	0	0	0	0	0	0
larvae	0	1	1	0	0	0
	BB1	BB2	BB3	BM1	BM2	BM3
TOTAL	70	79	28	66	84	95
SPP	40	34	20	35	35	40
MARG	9.18	7.55	5.7	8.12	7.67	8.56
INBERG	7.78	4.16	5.6	5.5	4.67	5.94
INSIMP	34	13.6	27	22.3	12.5	20.4
DEC94	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	g	m	g	m	m	m
Acarina A	1	0	0	0	1	2
Acarina C	0	0	0	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina I	1	0	0	1	1	0
Acarina K	0	0	0	1	0	0
Acarina N	0	0	0	0	0	0
Acarina S	0	1	0	0	0	0
Acarina T	0	0	5	0	0	0
Acarina U	0	0	0	0	0	2
Acarina AX	0	0	0	0	1	0

Araneae A	0	0	0	0	0	0
Araneae D	4	1	0	0	0	1
Araneae E	3	2	4	0	2	4
Araneae G	0	0	0	0	0	1
Araneae K	0	0	0	1	0	0
Araneae N	0	1	0	1	0	1
Araneae AI	0	0	0	0	0	1
Araneae AM	1	0	0	0	0	0
Araneae AN	0	0	2	0	0	0
Araneae -	0	0	1	0	3	2
Collembola A	0	0	0	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	0	0	11	2	0	3
Ephemeroptera B	2	0	2	0	0	0
odonA	1	0	0	0	0	0
Blattodea A	0	1	0	0	1	0
Psocoptera A	1	0	4	1	1	0
Psocoptera B	0	0	2	0	1	1
Psocoptera C	0	0	1	0	0	0
Psocoptera D	0	0	1	0	0	3
Psocoptera E	0	0	1	0	1	0
Psocoptera F	0	0	0	0	0	2
Psocoptera G	4	0	0	3	0	0
Psocoptera I	0	0	1	1	0	0
Hemiptera B	3	5	2	4	0	24
Hemiptera F	0	0	0	0	1	0
Hemiptera I	0	0	1	0	0	2
Hemiptera U	0	0	0	1	0	2
Hemiptera AE	1	1	0	0	0	0
Hemiptera AG	0	0	0	3	2	0
Hemiptera AI	0	2	2	0	2	0
Hemiptera AJ	0	1	0	0	0	0
Hemiptera AK	0	0	0	1	0	0
Hemiptera AL	0	0	0	0	0	1
Hemiptera AM	0	0	0	0	0	1
Hemiptera AN	0	0	0	0	0	1
Hemiptera AQ	0	0	0	1	0	0
Thysanoptera A	1	0	1	2	0	11
Thysanoptera B	0	0	0	1	0	4
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	0	1	0	0
Coleoptera D	0	0	1	0	0	2
Coleoptera E	0	0	0	1	0	0
Coleoptera F	0	0	0	0	0	0
Coleoptera H	0	0	0	1	0	1
Coleoptera P	0	0	3	4	0	0
Coleoptera Q	0	0	1	0	0	0
Coleoptera T	0	0	0	2	1	0
Coleoptera AG	0	0	0	0	1	0
Coleoptera AJ	0	0	0	1	0	1
Coleoptera AR	0	0	2	0	0	0
Coleoptera BI	0	0	0	2	0	0
Coleoptera BK	1	0	0	0	0	0
Coleoptera BL	2	2	1	1	0	5
Coleoptera BN	0	0	1	0	0	0
Coleoptera BO	0	0	0	0	0	1
Coleoptera BQ	0	0	0	0	0	1
Coleoptera BR	2	0	0	0	0	0
Coleoptera BS	0	0	1	0	0	0
Coleoptera BY	0	1	0	1	3	0
Coleoptera BZ	0	0	0	0	1	0
Coleoptera CA	0	0	0	1	0	0
Coleoptera CD	7	1	11	0	0	0
Coleoptera CE	0	0	1	0	0	0
Coleoptera CH	1	0	0	0	0	0
Coleoptera CL	0	0	0	1	2	0
Coleoptera CM	2	0	2	0	0	0

Coleoptera CX	5	1	0	0	0	0
Coleoptera DH	0	1	0	0	0	0
Coleoptera DI	0	0	1	0	0	0
Coleoptera DL	1	0	0	0	0	0
Coleoptera DM	1	0	0	0	0	0
Coleoptera DN	1	3	3	2	0	1
Coleoptera DO	0	0	1	0	0	0
Coleoptera DP	0	0	4	1	0	0
Coleoptera DR	0	0	0	1	0	0
Coleoptera DS	0	0	0	1	0	0
Coleoptera DT	0	0	0	0	1	0
Coleoptera DV	0	0	0	1	0	0
Coleoptera DW	0	0	0	0	1	0
Coleoptera DX	0	0	0	0	0	1
Coleoptera DY	0	0	0	0	0	1
Coleoptera DZ	0	0	0	0	0	1
Diptera A	5	1	4	2	3	5
Diptera B	6	4	6	1	0	1
Diptera C	0	0	0	0	0	0
Diptera D	2	0	2	2	1	0
Diptera E	1	0	2	0	0	0
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera X	0	1	0	0	0	0
Diptera AC	1	0	0	1	0	0
Diptera AD	0	0	0	1	0	0
Diptera BH	1	0	0	0	0	0
Diptera BJ	2	1	0	0	0	0
Diptera BW	1	0	0	0	0	2
Diptera CK	0	0	1	1	0	4
Diptera CM	1	0	1	0	0	4
Diptera CV	3	0	2	0	1	3
Diptera CW	0	0	0	0	0	1
Diptera CZ	1	0	0	0	0	0
Diptera DE	0	2	0	0	0	0
Diptera DH	1	0	0	0	0	1
Diptera DJ	0	0	0	1	0	0
Diptera DP	0	0	0	2	0	0
Diptera DQ	0	0	0	1	0	3
Diptera DR	1	0	0	0	0	0
Diptera DS	0	0	0	1	0	0
Diptera DW	2	0	3	1	3	0
Diptera EA	0	0	0	1	0	0
Diptera EL	2	0	0	0	0	0
Diptera EM	1	0	0	0	0	0
Diptera EN	0	1	0	1	0	0
Diptera EO	0	0	1	0	0	0
Diptera EP	0	0	0	1	0	0
Diptera EQ	0	0	0	0	1	0
Diptera ER	0	0	0	0	0	1
Diptera ES	0	0	0	0	0	2
Diptera ET	0	0	0	0	0	2
Tricoptera A	1	0	0	1	0	0
Tricoptera B	5	0	0	1	0	0
Lepidoptera -	17	10	6	9	6	9
Hymenoptera A	0	0	0	0	1	0
Hymenoptera C	0	0	1	0	0	0
Hymenoptera G	0	0	0	1	0	0
Hymenoptera U	0	0	0	1	0	0
Hymenoptera AA	0	0	1	0	0	0
Hymenoptera AB	0	0	0	0	1	0
Hymenoptera AC	0	0	0	0	0	1
Hymenoptera AK	0	1	0	0	0	0
Hymenoptera AV	0	0	0	0	1	0
Hymenoptera AY	0	0	0	1	0	0

Hymenoptera BI	0	2	0	0	0	0
Hymenoptera BN	1	0	0	0	0	0
Hymenoptera BO	0	0	0	0	0	3
Hymenoptera BR	0	0	1	0	1	1
Hymenoptera BS	0	0	1	0	0	0
Hymenoptera BT	0	0	0	1	0	0
Hymenoptera BU	0	0	0	1	0	0
Hymenoptera BV	0	0	0	0	0	2
Hymenoptera BW	0	0	0	0	0	1
Hymenoptera BX	0	0	0	0	0	1
Hymenoptera BY	0	0	0	0	0	1
Hymenoptera - larvae	0	0	0	0	0	0
	PM1	PM2	PM3	PP1	PP2	PP3
TOTAL	101	47	106	79	47	149
SPP	42	24	44	53	30	51
MARG	8.88	5.97	9.22	11.9	7.53	9.99
INBERG	5.94	4.7	9.64	8.78	7.83	6.21
INSIMP	21.9	15.7	28.8	49.7	34.9	19.2

DEC94	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	m	m	m	m	m	m
Chilopoda A	1	0	0	0	0	0
Chilopoda B	1	0	0	0	0	0
Pseudoscorpiones A	0	1	0	0	0	0
Acarina A	0	1	1	2	0	1
Acarina C	2	0	1	0	0	1
Acarina D	0	0	0	0	1	0
Acarina E	0	0	0	0	0	0
Acarina H	0	1	0	0	0	0
Acarina I	2	0	2	2	0	0
Acarina N	0	0	0	0	1	0
Acarina S	0	0	0	0	1	0
Acarina U	0	1	0	0	0	0
Acarina W	0	0	1	0	0	0
Acarina AD	0	1	0	0	0	0
Acarina AF	0	0	0	0	1	0
Acarina AT	0	0	1	1	0	0
Acarina AV	0	1	0	1	0	0
Acarina AY	3	0	0	0	0	0
Acarina AZ	0	1	0	0	0	0
Araneae A	0	0	0	0	0	1
Araneae D	1	3	5	3	4	4
Araneae E	2	3	0	2	0	0
Araneae G	1	0	0	0	0	0
Araneae N	0	2	0	2	0	2
Araneae W	1	0	0	0	0	0
Araneae AC	0	0	1	1	1	0
Araneae AF	0	2	0	0	0	0
Araneae AL	0	1	0	0	0	0
Araneae AM	0	0	0	1	0	0
Araneae AO	0	0	1	0	0	0
Araneae -	1	2	2	1	3	0
Collembola A	0	0	7	2	0	0
Collembola B	0	0	5	1	0	0
Collembola C	2	0	0	0	0	0
Collembola D	0	0	0	1	0	0
odonA	0	0	0	0	0	1
Blattodea A	1	1	4	1	0	0
Psocoptera A	0	0	0	1	2	1
Psocoptera E	0	0	0	0	3	0
Psocoptera M	2	0	0	0	0	0
Psocoptera N	1	0	0	0	0	0
Hemiptera B	18	13	4	0	1	1
Hemiptera F	0	0	0	1	0	0
Hemiptera G	0	0	0	0	1	0

Hemiptera I	5	0	1	1	2	1
Hemiptera Q	3	0	1	0	0	0
Hemiptera U	1	0	0	0	0	0
Hemiptera AE	1	0	0	0	0	0
Hemiptera AF	1	0	2	0	0	0
Hemiptera AN	0	0	0	2	0	0
Hemiptera AO	1	0	0	0	0	0
Hemiptera AP	0	0	0	1	0	0
Thysanoptera A	1	3	1	0	0	0
Thysanoptera B	2	0	1	0	0	1
NeuropteraB	3	2	1	0	0	0
NeuropteraC	1	1	0	0	0	0
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	1	0	0	0
Coleoptera D	0	0	1	1	0	0
Coleoptera E	2	2	1	0	1	0
Coleoptera F	0	0	0	0	0	0
Coleoptera G	0	0	0	1	0	0
Coleoptera H	0	1	0	0	0	0
Coleoptera N	1	0	0	0	0	0
Coleoptera P	0	1	0	0	0	0
Coleoptera Q	0	0	0	1	0	0
Coleoptera BI	0	1	0	0	0	0
Coleoptera BL	1	2	0	0	0	0
Coleoptera CB	0	1	0	0	0	0
Coleoptera CH	0	0	0	1	0	0
Coleoptera CL	1	0	0	0	0	0
Coleoptera CQ	1	0	0	0	0	0
Coleoptera CW	1	0	0	0	0	0
Coleoptera CY	1	0	0	0	0	0
Coleoptera DN	1	1	0	0	0	0
Coleoptera DS	2	2	0	1	0	0
Coleoptera EB	1	0	0	0	0	0
Coleoptera ED	1	0	0	0	0	0
Coleoptera EE	1	0	0	0	0	0
Coleoptera EF	0	1	0	0	0	0
Coleoptera EG	0	1	0	0	0	0
Coleoptera EH	0	0	0	1	0	0
Coleoptera EI	0	0	0	1	0	0
Coleoptera EJ	0	0	0	1	0	0
Coleoptera EK	0	0	0	0	1	0
Coleoptera EL	0	0	0	0	1	0
Coleoptera EM	0	0	0	0	0	1
Diptera A	3	5	0	3	2	1
Diptera B	10	6	7	6	3	14
Diptera C	0	0	1	0	1	0
Diptera D	1	4	8	2	5	7
Diptera E	2	0	0	2	0	1
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera M	0	1	0	0	0	0
Diptera O	1	0	0	0	0	0
Diptera Q	0	0	0	1	0	0
Diptera T	0	0	0	0	0	0
Diptera Y	0	1	0	0	0	0
Diptera AB	2	0	0	0	0	0
Diptera AD	1	1	1	0	0	0
Diptera AO	1	0	0	0	0	0
Diptera AT	0	0	1	0	0	0
Diptera BJ	5	4	0	5	0	2
Diptera CF	0	0	1	0	0	0
Diptera CH	4	0	1	0	0	0
Diptera CK	0	0	0	1	0	1
Diptera DE	0	2	0	0	0	0
Diptera DP	0	1	0	0	0	0
Diptera DW	0	0	0	1	0	0
Diptera EL	1	1	0	0	0	0

Diptera EO	1	0	0	0	0	0
Diptera ES	0	1	0	0	0	0
Diptera EU	1	0	0	0	0	0
Diptera EV	1	0	0	0	0	0
Diptera EW	0	1	0	0	0	0
Diptera EX	0	0	0	1	0	0
Diptera EY	0	0	0	0	1	0
Diptera EZ	0	0	0	0	1	0
Tricoptera B	2	0	0	0	2	0
Lepidoptera -	11	34	12	4	8	3
Hymenoptera A	1	1	0	1	2	0
Hymenoptera C	0	0	1	0	0	1
Hymenoptera H	0	0	0	2	0	0
Hymenoptera N	0	1	1	0	0	0
Hymenoptera Q	0	0	0	1	0	0
Hymenoptera R	0	0	0	0	1	0
Hymenoptera S	0	0	0	1	0	1
Hymenoptera AG	0	0	0	1	0	0
Hymenoptera BI	0	0	1	0	1	0
Hymenoptera BR	1	1	0	0	0	0
Hymenoptera BU	0	3	0	0	0	0
Hymenoptera BZ	1	0	0	0	0	0
Hymenoptera CA	1	0	0	0	0	0
Hymenoptera CB	1	0	0	0	0	0
Hymenoptera CC	0	1	0	0	0	0
Hymenoptera CD	0	1	0	0	0	0
Hymenoptera CE	0	0	1	0	0	0
Hymenoptera CF	0	0	1	0	0	0
Hymenoptera CG	0	0	1	0	0	0
Hymenoptera CH	0	0	0	1	0	0
Hymenoptera CJ	0	0	0	1	0	0
Hymenoptera CK	0	0	0	0	0	0
Hymenoptera CL	0	0	0	0	1	0
Hymenoptera -	0	0	0	0	0	0
larvae	0	1	2	0	0	0
TOTAL	KP1 124	KP2 124	KP3 85	KB1 69	KB2 52	KB3 46
SPP	58	48	37	44	27	20
MARG	11.8	9.75	8.1	10.2	6.58	4.96
INBERG	6.89	3.65	7.08	11.5	6.5	3.29
INSIMP	25.3	11	20.8	51	22.9	8.41

DEC94	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	m	m	m	m	m	g
Acarina A	0	0	1	4	0	2
Acarina C	1	0	0	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina I	1	0	1	2	0	1
Acarina N	0	0	0	0	0	0
Acarina S	0	0	0	0	1	0
Acarina U	0	0	0	0	1	0
Acarina W	0	1	0	0	0	0
Acarina AE	0	0	0	0	1	0
Acarina AT	0	0	0	2	0	1
Acarina AU	0	0	1	0	0	0
Acarina AV	0	0	0	0	1	0
Acarina BA	0	0	0	1	0	0
Araneae A	0	1	0	0	0	0
Araneae D	4	2	0	0	1	0
Araneae E	0	1	1	0	1	3
Araneae N	1	0	0	0	2	0
Araneae Y	1	0	0	0	0	0
Araneae AC	0	0	0	2	0	1
Araneae AP	0	0	0	0	1	0
Araneae -	2	3	0	1	1	0

Collembola A	0	0	0	0	0	0
Collembola B	0	0	0	0	0	7
Collembola C	0	1	0	1	0	0
Collembola D	0	1	1	0	1	16
Blattodea A	0	1	1	0	0	0
Psocoptera A	9	7	6	1	5	4
Psocoptera B	0	0	0	3	10	1
Psocoptera C	1	1	0	3	4	0
Psocoptera D	0	0	0	1	12	0
Psocoptera E	0	0	0	1	1	2
Psocoptera F	0	0	0	0	0	1
Psocoptera N	0	0	0	9	14	2
Hemiptera B	0	0	0	3	6	1
Hemiptera E	0	0	0	0	0	1
Hemiptera I	0	0	0	3	0	1
Hemiptera AJ	0	1	0	0	0	0
Hemiptera AR	0	0	0	0	1	0
Hemiptera AS	0	0	0	0	1	0
Thysanoptera A	9	1	6	1	42	10
Thysanoptera B	1	3	0	1	46	0
Neuroptera C	0	0	0	0	1	0
Coleoptera A	0	0	0	0	0	0
Coleoptera C	1	0	0	0	0	0
Coleoptera E	0	3	0	0	0	0
Coleoptera F	0	0	0	0	0	0
Coleoptera N	0	1	0	0	1	0
Coleoptera P	0	1	0	5	2	6
Coleoptera T	1	0	0	1	1	1
Coleoptera Z	0	0	0	1	1	0
Coleoptera AE	0	0	1	0	0	0
Coleoptera BE	0	0	0	0	1	0
Coleoptera BI	0	1	0	1	0	0
Coleoptera BL	0	0	0	1	0	2
Coleoptera BS	0	0	0	0	0	1
Coleoptera BY	0	0	0	1	2	0
Coleoptera CD	0	0	0	5	8	2
Coleoptera CT	0	0	0	0	0	1
Coleoptera CX	2	0	0	1	0	0
Coleoptera DA	0	0	1	0	0	0
Coleoptera DN	0	0	0	3	0	1
Coleoptera DP	0	0	0	1	0	1
Coleoptera DZ	0	0	0	0	1	0
Coleoptera EC	0	0	0	3	3	0
Coleoptera EN	1	0	0	0	0	0
Coleoptera EO	1	0	0	0	0	0
Coleoptera EP	2	1	0	0	0	0
Coleoptera EQ	0	1	0	0	0	0
Coleoptera ER	0	1	0	0	0	0
Coleoptera ES	0	0	0	1	0	0
Coleoptera ET	0	0	0	1	0	0
Coleoptera EU	0	0	0	1	0	0
Coleoptera EV	0	0	0	1	0	0
Coleoptera EX	0	0	0	1	0	0
Coleoptera EY	0	0	0	0	2	0
Coleoptera EZ	0	0	0	0	1	0
Coleoptera FA	0	0	0	0	1	0
Coleoptera FB	0	0	0	0	0	1
Coleoptera GY	0	0	0	0	1	0
Diptera A	3	1	0	7	1	1
Diptera B	0	0	0	0	3	2
Diptera C	0	0	0	0	0	2
Diptera D	1	0	0	0	0	2
Diptera E	0	0	2	0	0	0
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera O	0	0	1	0	0	0
Diptera Q	0	0	0	0	2	0

Diptera T	0	0	0	0	0	0
Diptera AD	0	0	0	0	1	0
Diptera AE	1	0	0	0	0	0
Diptera AJ	0	1	0	0	0	0
Diptera BH	0	0	0	1	1	1
Diptera BR	0	0	0	0	0	2
Diptera BS	1	0	0	0	0	0
Diptera CB	0	1	0	0	0	0
Diptera CD	0	1	0	0	0	0
Diptera CE	0	0	0	0	0	1
Diptera CV	0	0	0	1	1	2
Diptera DB	0	0	0	0	0	1
Diptera DC	1	0	0	0	0	0
Diptera DE	0	0	0	1	0	0
Diptera DH	0	0	0	1	0	0
Diptera DK	0	0	1	0	0	0
Diptera DP	0	0	0	0	0	1
Diptera DQ	0	0	0	0	0	1
Diptera DW	2	0	0	4	3	1
Diptera DZ	0	0	0	0	0	2
Diptera EG	0	0	1	0	0	0
Diptera EI	0	0	1	0	0	0
Diptera EJ	0	0	0	0	2	0
Diptera EK	0	0	1	0	0	0
Diptera FA	2	1	0	0	0	1
Diptera FB	0	1	0	0	0	0
Diptera FC	0	1	0	1	0	0
Diptera FD	0	0	0	1	1	0
Diptera FE	0	0	0	0	0	1
Diptera FF	0	0	0	0	0	1
Lepidoptera -	0	2	5	7	5	3
Hymenoptera A	1	1	1	0	0	2
Hymenoptera Q	1	1	0	0	0	0
Hymenoptera S	0	0	0	1	0	0
Hymenoptera T	0	0	0	0	0	1
Hymenoptera Z	1	0	0	0	0	0
Hymenoptera AC	0	0	0	0	2	0
Hymenoptera AJ	0	1	0	0	0	0
Hymenoptera AM	0	0	1	0	0	0
Hymenoptera BB	0	0	0	0	1	0
Hymenoptera BI	0	0	0	1	2	1
Hymenoptera BQ	0	0	0	0	0	1
Hymenoptera BV	0	0	0	0	1	0
Hymenoptera CN	0	0	0	1	0	0
Hymenoptera CO	0	0	0	1	0	0
Hymenoptera CP	0	0	0	1	0	0
Hymenoptera CQ	0	0	0	1	0	0
Hymenoptera CR	0	0	0	0	1	0
Hymenoptera -	0	0	0	0	0	0
larvae	0	0	0	0	2	1
	BB1	BB2	BB3	BM1	BM2	BM3
TOTAL	52	45	34	97	208	101
SPP	26	31	19	48	51	47
MARG	6.33	7.88	5.1	10.3	9.37	9.97
INBERG	5.78	6.43	5.67	10.8	4.52	6.31
INSIMP	15.4	30.9	13.7	35.5	9.85	22.4
JAN95	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	m	m	m	m	m	g
Pseudoscorpiones A	0	1	0	0	0	0
Acarina A	0	0	0	0	0	1
Acarina C	0	1	1	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	0	0	0	1	0
Acarina I	0	0	1	0	0	0

Acarina N	0	0	0	0	0	0
Acarina S	0	1	0	0	0	0
Acarina U	1	0	0	0	1	0
Acarina AE	0	0	1	0	1	1
Acarina AU	0	1	0	0	0	0
Acarina AY	0	0	0	0	0	1
Acarina BB	0	0	0	0	27	0
Araneae A	0	0	0	0	0	0
Araneae D	2	0	1	0	0	1
Araneae E	1	2	2	0	1	1
Araneae J	1	0	0	0	0	0
Araneae N	0	0	0	0	1	1
Araneae Y	1	0	0	0	0	0
Araneae AQ	1	0	0	0	0	0
Araneae AR	0	0	0	0	0	1
Araneae -	3	4	0	1	3	2
Collembola A	0	0	0	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	0	0	4	6	0	1
Ephemeroptera A	0	0	0	0	2	0
Ephemeroptera B	0	1	0	0	1	1
Phasmatodea A	0	0	1	0	0	0
Orthoptera C	1	0	0	0	0	0
Blattodea A	0	1	2	0	0	0
Psocoptera A	2	3	6	0	3	6
Psocoptera B	0	1	0	0	0	1
Psocoptera C	0	0	1	0	0	1
Psocoptera E	0	2	7	0	0	4
Psocoptera F	0	0	0	0	0	2
Psocoptera G	0	1	0	0	0	0
Psocoptera I	0	0	0	1	0	3
Psocoptera L	0	0	0	0	1	0
Psocoptera M	0	0	0	1	0	0
Psocoptera N	0	1	1	0	0	1
Psocoptera P	0	0	2	0	0	0
Hemiptera B	0	2	0	1	0	3
Hemiptera E	0	0	0	1	0	0
Hemiptera F	0	0	0	1	1	0
Hemiptera I	0	0	0	0	2	5
Hemiptera AE	4	2	1	3	0	0
Hemiptera AG	0	0	0	0	1	0
Hemiptera AI	0	3	1	1	0	0
Hemiptera AJ	0	2	0	0	0	0
Hemiptera AQ	0	0	0	0	0	2
Hemiptera AT	5	1	0	0	0	0
Hemiptera AV	0	0	0	0	0	1
Hemiptera AW	0	0	0	0	0	1
Thysanoptera A	1	1	2	1	0	8
Thysanoptera B	0	0	0	0	0	1
Coleoptera A	0	0	0	0	0	0
Coleoptera B	0	0	0	1	0	0
Coleoptera C	1	0	0	1	0	0
Coleoptera D	0	0	1	0	0	2
Coleoptera E	0	0	1	1	0	0
Coleoptera F	0	1	0	0	0	1
Coleoptera H	0	0	0	0	0	1
Coleoptera I	0	1	0	0	0	2
Coleoptera P	0	0	2	1	0	0
Coleoptera Q	0	0	0	0	0	1
Coleoptera T	0	2	2	1	0	0
Coleoptera X	1	0	0	0	0	0
Coleoptera AM	0	0	0	0	1	0
Coleoptera AQ	0	0	0	0	1	0
Coleoptera AR	0	0	1	0	0	0
Coleoptera BC	0	0	0	1	0	0
Coleoptera BL	0	0	5	0	0	1
Coleoptera BO	1	0	0	0	0	7

Coleoptera BY	1	0	0	4	0	0
Coleoptera CD	0	5	5	0	0	0
Coleoptera CX	8	3	0	0	0	1
Coleoptera DI	0	0	0	0	0	1
Coleoptera DM	1	0	0	0	0	0
Coleoptera DN	1	0	1	0	0	4
Coleoptera DT	0	0	0	1	0	0
Coleoptera DZ	0	0	0	0	0	1
Coleoptera EB	0	0	0	0	1	0
Coleoptera EG	0	1	0	1	1	0
Coleoptera EI	0	0	1	0	0	0
Coleoptera EN	0	0	0	1	0	0
Coleoptera EO	0	0	0	1	0	0
Coleoptera ET	0	0	1	0	0	0
Coleoptera EW	1	0	0	0	0	0
Coleoptera FC	1	0	0	0	0	0
Coleoptera FD	1	0	0	0	0	0
Coleoptera FE	1	0	0	0	0	0
Coleoptera FF	0	1	0	0	0	1
Coleoptera FG	0	1	0	1	2	0
Coleoptera FH	0	1	0	0	0	0
Coleoptera FI	0	1	0	0	0	0
Coleoptera FJ	0	1	0	0	0	0
Coleoptera FK	0	1	0	0	0	0
Coleoptera FL	0	0	1	0	0	0
Coleoptera FM	0	0	1	0	0	0
Coleoptera FN	0	0	0	1	1	0
Coleoptera FO	0	0	0	1	0	0
Coleoptera FP	0	0	0	1	0	0
Coleoptera FQ	0	0	0	2	0	0
Coleoptera FR	0	0	0	1	0	0
Coleoptera FS	0	0	0	5	0	0
Coleoptera FT	0	0	0	1	0	0
Coleoptera FU	0	0	0	1	0	0
Coleoptera FV	0	0	0	0	1	1
Coleoptera FW	0	0	0	1	0	0
Coleoptera FX	0	0	0	0	2	0
Coleoptera FY	0	0	0	0	1	0
Coleoptera FZ	0	0	0	0	1	0
Coleoptera GA	0	0	0	0	1	0
Coleoptera GB	0	0	0	0	1	0
Coleoptera GC	0	0	0	0	0	1
Coleoptera GD	0	0	0	0	0	1
Coleoptera GE	0	0	0	0	0	1
Diptera A	0	2	2	0	3	6
Diptera B	2	4	0	1	0	5
Diptera C	0	0	0	0	0	0
Diptera D	0	1	0	0	0	1
Diptera E	0	1	0	0	0	0
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera Q	0	0	0	0	0	0
Diptera T	0	1	0	0	0	0
Diptera X	0	1	0	0	0	0
Diptera AA	1	0	0	0	0	0
Diptera AD	1	0	0	2	1	2
Diptera AO	0	0	0	0	1	0
Diptera BH	0	6	0	0	1	2
Diptera BJ	0	2	0	1	1	0
Diptera BU	0	0	0	1	0	0
Diptera BX	0	0	0	1	0	0
Diptera CH	0	0	0	1	0	0
Diptera CL	0	0	2	0	0	0
Diptera CV	0	0	0	0	0	3
Diptera DB	0	0	0	0	0	1
Diptera DD	0	0	0	0	0	1
Diptera DE	2	0	0	1	0	0

Diptera DH	0	0	0	2	0	0
Diptera DI	0	0	0	0	0	1
Diptera DR	0	0	0	0	0	1
Diptera DW	0	0	2	1	3	1
Diptera EC	0	0	0	0	0	1
Diptera EN	0	1	0	1	1	0
Diptera EQ	0	0	0	0	0	1
Diptera ES	0	0	1	0	0	1
Diptera FG	0	0	0	1	0	0
Diptera FH	0	0	0	1	0	0
Diptera FI	0	0	0	0	1	0
Diptera FJ	0	0	0	0	1	0
Diptera FK	0	0	0	0	0	2
Diptera FL	0	0	0	0	0	1
Diptera FM	0	0	0	0	0	1
Tricoptera A	0	2	0	0	0	3
Tricoptera B	0	4	0	0	0	0
Lepidoptera -	7	12	5	4	6	13
Hymenoptera A	0	0	0	0	0	2
Hymenoptera G	0	0	0	8	0	0
Hymenoptera H	0	0	0	0	1	1
Hymenoptera I	0	0	0	0	0	1
Hymenoptera N	1	0	1	0	0	0
Hymenoptera AC	0	0	0	0	2	0
Hymenoptera AD	0	0	0	0	0	1
Hymenoptera AV	0	0	0	2	1	2
Hymenoptera BR	0	0	0	2	0	0
Hymenoptera BU	0	1	0	0	1	0
Hymenoptera BX	1	0	0	0	0	0
Hymenoptera CJ	1	0	0	0	0	0
Hymenoptera CS	1	0	0	0	0	0
Hymenoptera CT	0	1	0	0	0	0
Hymenoptera CU	0	3	0	1	0	0
Hymenoptera CV	0	1	0	0	0	0
Hymenoptera CW	0	1	0	0	0	0
Hymenoptera CX	0	0	1	0	0	0
Hymenoptera CY	0	0	1	0	0	0
Hymenoptera CZ	0	0	1	0	0	0
Hymenoptera DA	0	0	0	1	0	2
Hymenoptera DB	0	0	0	1	0	1
Hymenoptera DC	0	0	0	0	1	0
Hymenoptera DD	0	0	0	0	0	1
Hymenoptera DE	0	0	0	0	0	1
Hymenoptera - larvae	1	0	0	1	0	3
	PM1	PM2	PM3	PP1	PP2	PP3
TOTAL	59	94	72	80	85	139
SPP	33	48	37	51	41	69
MARG	7.85	10.3	8.42	11.4	9	13.8
INBERG	7.38	7.83	10.3	10	3.15	10.7
INSIMP	23.8	33.6	31.6	43.3	9.32	44.6
JAN95	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	p	g	m	p	m	m
Acarina A	0	1	1	1	1	0
Acarina C	1	3	0	1	1	1
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	1	0	0	1	0
Acarina I	0	0	1	2	0	1
Acarina N	0	0	0	0	0	0
Acarina T	0	2	0	0	0	0
Acarina AT	0	0	0	0	0	1
Acarina AV	0	2	0	0	1	0
Acarina AY	0	1	0	0	0	0
Acarina BC	0	1	0	0	0	0

Araneae A	0	0	0	0	0	0
Araneae B	0	0	0	1	1	0
Araneae D	0	3	0	0	2	4
Araneae E	0	6	0	0	0	1
Araneae M	0	0	0	0	2	0
Araneae N	0	7	27	2	5	1
Araneae X	0	1	0	0	0	0
Araneae AC	0	1	0	0	0	1
Araneae AF	0	0	0	1	0	0
Araneae AM	0	1	0	0	0	0
Araneae AS	0	1	0	0	0	0
Araneae AT	0	0	0	1	0	0
Araneae AU	0	0	0	0	1	0
Araneae AV	0	0	0	0	1	0
Araneae AW	0	0	0	0	1	0
Araneae -	1	34	17	1	8	11
Collembola A	0	0	5	0	0	0
Coleoptera B	0	0	1	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	0	1	2	2	0	0
odonC	0	0	0	0	0	1
Blattodea A	0	1	0	1	0	0
Isoptera B	0	3	0	0	0	0
Psocoptera A	0	2	0	5	2	4
Psocoptera B	0	2	1	0	0	0
Psocoptera C	0	0	3	2	2	2
Psocoptera E	0	0	2	2	0	1
Psocoptera L	0	2	0	0	1	0
Psocoptera Q	0	0	2	0	1	0
Hemiptera B	0	2	0	0	0	0
Hemiptera F	1	0	0	0	0	0
Hemiptera I	0	1	3	0	0	1
Hemiptera O	0	0	0	1	0	0
Hemiptera X	0	2	0	0	0	0
Hemiptera AE	0	0	1	0	0	0
Hemiptera AF	0	1	0	0	1	0
Hemiptera AT	0	11	1	0	0	0
Hemiptera AX	0	1	0	0	0	0
Hemiptera AY	0	1	0	0	0	0
Hemiptera AZ	0	0	1	0	0	0
Hemiptera BA	0	0	1	0	0	0
Thysanoptera A	0	5	2	0	1	2
Thysanoptera B	0	0	1	0	0	0
NeuropteraC	0	1	0	0	1	0
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	0	0	0	0
Coleoptera D	0	0	1	0	0	0
Coleoptera E	0	0	0	2	3	2
Coleoptera F	0	0	0	0	0	0
Coleoptera K	0	1	0	0	0	0
Coleoptera N	0	1	0	0	0	0
Coleoptera P	0	0	0	0	1	0
Coleoptera BO	0	3	0	0	0	0
Coleoptera DQ	0	1	0	0	0	0
Coleoptera DS	0	2	0	1	0	0
Coleoptera EA	0	0	0	0	1	0
Coleoptera EG	0	0	0	0	0	1
Coleoptera GA	0	0	0	0	1	0
Coleoptera GC	0	2	2	2	0	0
Coleoptera GF	0	1	0	0	0	0
Coleoptera GG	0	1	0	0	0	0
Coleoptera GH	0	1	0	0	0	0
Coleoptera GI	0	3	0	0	0	0
Coleoptera GJ	0	1	0	0	0	0
Coleoptera GK	0	1	0	0	0	0
Coleoptera GL	0	0	0	0	1	0
Coleoptera GM	0	0	0	0	1	0

Coleoptera GN	0	0	0	0	0	1
Coleoptera GO	0	0	0	0	0	1
Diptera A	0	4	1	0	0	0
Diptera B	7	25	9	31	19	38
Diptera C	0	0	1	1	0	0
Diptera D	0	3	0	1	0	0
Diptera E	0	0	0	3	0	0
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera Q	0	0	0	1	0	0
Diptera T	0	0	0	0	0	0
Diptera AA	0	0	1	0	0	0
Diptera AD	0	0	0	0	1	0
Diptera AJ	0	0	0	0	2	0
Diptera AU	0	1	0	0	0	0
Diptera BH	0	0	0	0	1	0
Diptera BJ	1	6	1	3	4	5
Diptera BR	0	0	0	3	0	0
Diptera CH	0	1	0	2	9	1
Diptera DI	0	2	0	0	2	0
Diptera DW	0	0	2	0	0	1
Diptera EL	0	2	0	0	1	0
Diptera ES	0	0	0	0	1	1
Diptera EY	0	0	0	0	1	0
Diptera FD	0	0	0	0	1	0
Diptera FN	0	2	1	0	0	0
Diptera FO	0	1	0	0	0	0
Diptera FP	0	0	0	0	0	1
Tricoptera A	0	2	0	0	0	0
Tricoptera B	0	5	1	1	13	1
Lepidoptera -	2	15	3	4	11	2
Hymenoptera A	0	3	0	0	0	2
Hymenoptera H	1	0	0	0	0	0
Hymenoptera N	0	0	0	0	1	0
Hymenoptera S	0	1	0	0	0	0
Hymenoptera W	0	0	0	0	0	1
Hymenoptera AE	0	12	0	0	0	0
Hymenoptera BI	0	0	0	0	1	0
Hymenoptera BP	0	0	1	0	3	0
Hymenoptera BT	0	0	1	0	0	0
Hymenoptera CC	0	1	0	0	0	0
Hymenoptera CM	0	1	0	0	0	0
Hymenoptera CU	0	0	0	0	1	0
Hymenoptera DB	0	0	0	0	1	0
Hymenoptera DH	0	1	0	0	0	0
Hymenoptera DI	0	1	0	0	0	0
Hymenoptera DF	1	1	0	0	0	0
Hymenoptera DG	1	0	0	0	0	0
Hymenoptera DJ	0	0	0	0	1	0
Hymenoptera DK	0	0	0	0	0	1
Hymenoptera - larvae	0	1	1	0	1	0
TOTAL	KP1 16	KP2 210	KP3 98	KB1 78	KB2 117	KB3 91
SPP	9	64	32	27	45	29
MARG	2.89	11.8	6.76	5.97	9.24	6.21
INBERG	2.29	6.18	3.63	2.52	6.16	2.39
INSIMP	5.45	18.3	8.67	6.03	17.1	5.22
JAN95	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	m	m	m	g	g	g
Acarina A	1	0	2	1	0	0
Acarina B	0	0	0	2	0	0
Acarina C	0	0	6	0	1	1
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0

Acarina I	2	1	3	0	0	0
Acarina N	0	0	0	0	0	0
Acarina AP	0	0	0	0	1	0
Acarina AQ	0	0	0	0	1	0
Acarina AV	0	0	0	0	2	0
Araneae A	0	0	1	0	0	0
Araneae B	0	0	0	0	0	1
Araneae D	0	1	1	0	2	0
Araneae E	0	2	0	0	0	2
Araneae N	1	2	3	0	0	1
Araneae AI	0	0	0	0	1	0
Araneae AX	1	1	0	0	0	0
Araneae AY	0	1	0	0	1	0
Araneae AZ	0	0	0	1	0	0
Araneae -	1	0	2	2	1	4
Collembola A	0	0	0	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	0	1	1	1	2	74
Phasmatoidea A	0	0	0	0	1	0
Blattodea A	0	1	0	0	0	1
Isoptera B	0	0	0	2	0	1
Psocoptera A	5	15	8	11	16	6
Psocoptera B	1	0	0	12	10	2
Psocoptera C	4	1	0	2	4	1
Psocoptera D	0	0	0	0	1	0
Psocoptera E	1	3	1	7	10	4
Psocoptera G	0	0	0	0	5	0
Psocoptera I	0	0	0	3	0	0
Psocoptera J	0	0	0	1	0	0
Psocoptera L	0	0	0	2	2	0
Psocoptera N	0	0	0	9	52	3
Hemiptera B	0	0	0	0	1	1
Hemiptera F	1	1	0	0	0	3
Hemiptera I	1	0	0	1	0	0
Hemiptera AE	0	1	0	0	0	0
Hemiptera AI	0	0	0	0	2	1
Hemiptera AO	0	0	0	1	0	0
Hemiptera AQ	0	0	0	0	1	2
Hemiptera AT	0	0	0	0	0	1
Thysanoptera A	4	6	1	1	17	35
Thysanoptera B	2	2	2	0	3	2
Neuroptera C	0	0	0	0	2	0
Coleoptera A	0	0	0	0	0	0
Coleoptera B	0	1	0	0	0	0
Coleoptera C	0	1	0	1	0	1
Coleoptera E	0	5	0	0	5	0
Coleoptera F	0	0	0	0	0	0
Coleoptera P	0	0	1	1	0	4
Coleoptera T	0	1	0	0	2	1
Coleoptera Z	0	0	0	3	0	0
Coleoptera BC	0	0	0	2	0	0
Coleoptera BD	0	0	0	0	0	1
Coleoptera BJ	0	0	0	0	2	0
Coleoptera BL	0	0	0	3	1	0
Coleoptera BO	0	0	0	1	2	1
Coleoptera BS	0	1	0	0	0	2
Coleoptera CD	0	0	0	2	18	12
Coleoptera CF	0	0	0	0	2	0
Coleoptera CM	0	0	0	1	0	0
Coleoptera CX	0	0	0	1	0	0
Coleoptera CY	0	0	0	0	1	1
Coleoptera DM	0	0	0	0	1	0
Coleoptera DN	0	1	0	1	1	2
Coleoptera DQ	0	0	0	1	0	0
Coleoptera DY	0	1	0	0	1	0
Coleoptera EG	0	3	0	30	3	3
Coleoptera EK	1	0	0	0	0	0

Coleoptera EN	1	0	0	0	0	1
Coleoptera FB	0	0	0	0	0	1
Coleoptera FH	0	0	0	0	3	0
Coleoptera FI	0	0	0	2	0	1
Coleoptera FT	0	0	0	0	0	1
Coleoptera FV	0	0	0	1	0	0
Coleoptera FY	0	0	0	1	0	1
Coleoptera GC	0	0	0	3	1	1
Coleoptera GP	1	0	0	0	0	0
Coleoptera GQ	1	0	0	0	0	0
Coleoptera GR	0	1	0	0	0	0
Coleoptera GS	0	1	0	0	0	0
Coleoptera GT	0	0	1	0	0	0
Coleoptera GU	0	0	1	0	0	0
Coleoptera GV	0	0	0	1	0	0
Coleoptera GW	0	0	0	2	0	0
Coleoptera GX	0	0	0	1	0	0
Coleoptera HA	0	0	0	0	5	0
Coleoptera HB	0	0	0	0	1	0
Coleoptera HC	0	0	0	0	1	0
Coleoptera HD	0	0	0	0	1	0
Coleoptera HE	0	0	0	0	1	0
Coleoptera HF	0	0	0	0	0	1
Coleoptera HG	0	0	0	0	0	1
Coleoptera HH	0	0	0	0	0	1
Coleoptera HI	0	0	0	0	0	1
Coleoptera HJ	0	0	0	0	0	1
Diptera A	0	0	0	4	3	4
Diptera B	1	0	0	3	3	1
Diptera C	0	0	0	0	0	0
Diptera D	0	1	1	0	0	3
Diptera E	2	0	0	0	1	1
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera Q	0	0	0	0	10	0
Diptera T	0	0	0	2	0	0
Diptera AD	0	0	0	3	3	1
Diptera AV	0	0	0	0	0	1
Diptera BE	0	0	0	0	0	1
Diptera BH	0	0	0	1	1	0
Diptera BJ	1	0	0	1	1	3
Diptera BU	0	0	0	1	0	0
Diptera BW	0	0	0	0	0	1
Diptera CE	0	0	0	0	0	1
Diptera CK	0	0	1	0	0	0
Diptera DD	0	0	0	0	0	1
Diptera DI	0	1	0	0	0	0
Diptera DR	0	0	0	1	0	0
Diptera DW	0	0	0	5	3	1
Diptera DZ	0	0	0	1	0	0
Diptera EF	1	0	0	0	0	0
Diptera EI	0	0	0	1	0	0
Diptera EJ	0	0	0	3	0	0
Diptera ES	0	0	0	1	1	1
Diptera EV	1	0	0	1	0	0
Diptera FL	0	0	0	0	2	0
Diptera FQ	0	2	0	0	0	2
Diptera FR	0	0	0	2	0	0
Diptera FS	0	0	0	0	1	0
Tricoptera B	0	0	0	0	1	0
Lepidoptera -	5	5	1	13	7	9
Hymenoptera A	3	4	0	0	0	0
Hymenoptera F	0	1	0	0	0	0
Hymenoptera G	0	0	0	1	0	1
Hymenoptera H	0	0	0	0	0	1
Hymenoptera J	0	0	0	0	0	4
Hymenoptera T	0	0	0	0	0	2

Hymenoptera AB	1	0	0	0	1	0
Hymenoptera AC	0	0	0	0	0	3
Hymenoptera AJ	0	0	0	0	0	1
Hymenoptera AQ	0	0	0	0	1	0
Hymenoptera AV	0	0	0	0	0	1
Hymenoptera BI	0	0	0	1	0	0
Hymenoptera BK	2	1	1	0	0	1
Hymenoptera BP	0	0	0	0	2	0
Hymenoptera BR	0	0	0	0	0	1
Hymenoptera BT	0	1	1	0	0	0
Hymenoptera BV	0	0	0	0	1	0
Hymenoptera CK	0	1	0	0	0	0
Hymenoptera CP	0	0	0	1	0	0
Hymenoptera CU	0	0	0	1	0	0
Hymenoptera DL	0	2	0	0	0	0
Hymenoptera DM	0	1	0	0	0	0
Hymenoptera DO	0	1	0	0	0	0
Hymenoptera DP	0	0	0	1	0	0
Hymenoptera DQ	0	0	0	1	0	0
Hymenoptera DR	0	0	0	0	1	0
Hymenoptera DS	0	0	0	0	0	1
Hymenoptera DT	0	0	0	0	0	1
Hymenoptera DU	0	0	0	0	0	1
Hymenoptera DV	0	0	0	0	0	1
Hymenoptera - larvae	0	1	1	0	4	0
TOTAL	BB1	BB2	BB3	BM1	BM2	BM3
	46	77	40	166	238	235
SPP	26	38	21	58	62	69
MARG	6.53	8.52	5.42	11.2	11.1	12.5
INBERG	9.2	5.13	5	5.53	4.58	3.18
INSIMP	26.5	18.6	15	18.5	14.3	7.93

FEB95	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	m	m	m	p	m	m
Pseudoscorpiones A	0	1	0	1	0	0
Acarina A	2	0	0	0	0	3
Acarina B	0	1	0	0	0	0
Acarina C	0	0	0	0	0	1
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	0	0	0	1	2
Acarina I	0	0	0	0	0	3
Acarina N	0	0	0	0	0	0
Acarina S	0	0	2	1	0	0
Acarina U	0	0	1	0	1	1
Acarina W	1	0	0	0	0	1
Acarina AE	0	0	0	0	0	4
Acarina AU	0	0	0	0	1	1
Acarina AV	1	0	0	0	0	0
Acarina AX	0	0	0	1	0	0
Araneae A	0	0	0	0	0	0
Araneae B	0	1	0	0	1	0
Araneae D	2	1	1	0	0	0
Araneae E	0	0	2	0	1	0
Araneae N	1	0	1	0	1	0
Araneae Y	1	0	0	0	0	0
Araneae AN	2	1	0	0	0	0
Araneae BA	1	0	0	0	0	0
Araneae BB	0	1	0	0	0	0
Araneae -	8	1	6	4	1	24
Collembola A	0	0	0	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	0	0	4	1	0	2
Ephemeroptera B	1	0	0	0	0	1
Isoptera B	0	0	0	0	0	1

Orthoptera D	0	0	0	1	0	0
Psocoptera A	2	2	2	0	2	5
Psocoptera B	5	0	0	0	1	3
Psocoptera C	3	2	18	0	2	0
Psocoptera E	0	0	2	0	1	0
Psocoptera G	0	1	1	0	0	0
Psocoptera I	0	3	1	0	0	0
Psocoptera J	2	0	0	0	0	0
Psocoptera L	1	0	0	0	0	1
Psocoptera M	0	0	0	0	1	1
Psocoptera N	4	0	1	1	0	3
Psocoptera P	1	0	2	0	0	2
Psocoptera Q	0	0	0	0	0	1
Psocoptera R	0	0	2	0	0	0
Hemiptera I	1	0	0	0	0	1
Hemiptera AE	29	27	18	5	30	54
Hemiptera AG	0	0	0	1	0	0
Hemiptera AI	0	0	2	0	0	1
Hemiptera AQ	2	0	1	0	0	0
Hemiptera AT	5	0	0	0	4	0
Hemiptera BB	1	0	0	0	0	0
Hemiptera BC	0	0	0	0	1	0
Thysanoptera A	8	0	2	0	0	4
Thysanoptera B	0	0	0	0	0	1
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	0	1	1	0
Coleoptera D	0	0	0	0	0	1
Coleoptera E	0	0	1	0	0	0
Coleoptera F	0	0	0	0	0	0
Coleoptera H	0	1	0	0	0	0
Coleoptera P	0	0	0	1	0	0
Coleoptera Q	1	0	0	0	0	1
Coleoptera T	0	1	0	0	0	0
Coleoptera AE	0	0	0	0	0	1
Coleoptera AI	0	0	0	0	0	1
Coleoptera AJ	1	0	0	0	0	0
Coleoptera AQ	0	1	0	0	0	0
Coleoptera AR	0	0	1	0	0	0
Coleoptera BK	0	0	0	1	0	0
Coleoptera BR	0	0	0	0	1	0
Coleoptera CD	3	3	5	0	0	0
Coleoptera DM	0	1	0	0	0	0
Coleoptera DQ	1	0	0	0	0	0
Coleoptera DS	0	0	0	0	0	1
Coleoptera DU	1	0	0	0	0	0
Coleoptera EA	1	0	0	0	0	0
Coleoptera EG	2	0	0	0	0	0
Coleoptera ER	0	0	0	0	0	0
Coleoptera EG	0	0	1	0	0	0
Coleoptera ER	1	0	0	0	0	0
Coleoptera FH	2	1	0	0	3	4
Coleoptera FP	0	0	0	0	1	0
Coleoptera FV	1	0	0	0	0	0
Coleoptera HK	1	0	0	0	0	0
Coleoptera HL	1	0	0	0	1	0
Coleoptera HM	0	1	0	0	2	1
Coleoptera HN	0	0	1	0	0	0
Coleoptera HO	0	0	1	0	0	0
Coleoptera HP	0	0	0	1	0	0
Coleoptera HQ	0	1	0	0	1	0
Coleoptera HR	0	0	0	0	1	0
Coleoptera HS	0	0	0	0	1	0
Coleoptera HT	0	0	0	0	0	1
Diptera A	1	0	2	0	0	6
Diptera B	1	0	3	1	0	0
Diptera C	0	0	0	0	0	0
Diptera D	1	0	0	0	0	0

Diptera E	0	0	0	0	0	0
Diptera F	0	0	0	0	0	0
Diptera H	0	0	0	1	0	0
Diptera K	0	0	0	0	0	0
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	0	0	1	0
Diptera U	1	0	0	0	0	0
Diptera AD	4	4	1	1	1	2
Diptera AK	1	0	0	0	0	0
Diptera AQ	0	0	0	0	0	1
Diptera BH	2	2	0	1	4	0
Diptera BJ	1	0	1	0	0	0
Diptera CA	0	0	0	0	1	0
Diptera CR	0	1	0	0	0	0
Diptera CV	3	1	0	1	0	6
Diptera DI	1	0	0	0	1	0
Diptera DQ	0	0	3	0	0	2
Diptera DR	1	0	0	0	0	0
Diptera DW	1	0	4	1	0	2
Diptera EB	0	0	0	0	0	1
Diptera EY	0	0	0	0	2	0
Diptera FO	1	0	0	0	0	1
Diptera FT	1	0	0	0	0	0
Diptera FU	1	0	0	0	0	0
Diptera FV	0	1	0	0	0	0
Diptera FW	0	0	1	0	0	0
Diptera FX	0	0	0	2	0	0
Diptera FY	0	0	0	1	0	0
Tricoptera A	4	5	1	0	3	0
Tricoptera B	0	0	0	0	1	0
Lepidoptera -	17	8	2	3	19	11
Hymenoptera A	1	0	0	0	1	0
Hymenoptera G	0	0	0	2	0	0
Hymenoptera I	0	0	0	0	1	0
Hymenoptera S	0	0	0	0	1	0
Hymenoptera W	0	0	0	0	0	1
Hymenoptera AA	1	0	0	0	0	0
Hymenoptera AC	1	0	1	0	1	0
Hymenoptera AS	0	0	0	0	0	1
Hymenoptera AV	1	1	0	0	2	0
Hymenoptera AY	0	1	0	0	0	0
Hymenoptera BR	1	0	0	1	0	2
Hymenoptera BU	0	0	0	0	1	0
Hymenoptera BX	1	0	0	0	0	0
Hymenoptera CI	2	0	0	0	0	1
Hymenoptera CS	1	0	0	0	0	0
Hymenoptera CU	0	1	0	2	1	0
Hymenoptera CV	0	0	0	1	0	0
Hymenoptera DA	0	1	0	1	0	0
Hymenoptera DH	1	0	1	0	0	0
Hymenoptera DN	1	0	0	0	0	0
Hymenoptera DW	0	1	0	0	0	0
Hymenoptera DX	0	0	1	0	0	0
Hymenoptera DY	0	0	0	0	1	0
Hymenoptera DZ	0	0	0	0	1	0
Hymenoptera EA	0	0	0	0	0	1
Hymenoptera EB	0	0	0	0	0	1
Hymenoptera EC	0	0	0	0	0	1
Hymenoptera ED	0	0	0	0	0	1
Hymenoptera - larvae	0	0	0	0	0	0
	1	0	0	0	2	2
TOTAL	154	79	100	42	106	175
SPP	63	32	37	27	43	50
MARG	12.3	7.09	7.82	6.96	9.01	9.49
INBERG	5.31	2.93	5.56	8.4	3.53	3.24
INSIMP	18	7.63	13.8	30.8	8.83	8.27

FEB95	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	g	g	m	m	p	p
Acarina A	2	3	5	3	0	2
Acarina B	0	0	1	0	0	0
Acarina C	4	3	11	7	0	0
Acarina D	0	0	0	1	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	0	0	1	1	0
Acarina I	2	0	1	2	0	0
Acarina N	0	0	0	0	0	0
Acarina P	0	0	1	0	0	0
Acarina S	3	1	0	0	0	0
Acarina W	1	0	0	3	0	1
Acarina AT	0	0	0	1	0	0
Acarina AU	0	0	0	1	0	0
Acarina AY	0	0	0	8	0	9
Araneae A	0	0	0	0	0	0
Araneae B	0	0	1	0	0	0
Araneae D	0	0	0	1	1	2
Araneae E	1	3	0	0	0	2
Araneae G	0	1	0	0	0	0
Araneae H	0	1	0	0	0	0
Araneae N	4	1	1	3	0	0
Araneae W	0	0	1	0	0	0
Araneae AC	1	0	0	0	0	0
Araneae AF	0	0	0	0	1	0
Araneae AN	0	0	0	1	0	0
Araneae BC	1	0	0	0	0	0
Araneae BD	0	1	0	0	0	0
Araneae BE	0	1	0	0	0	0
Araneae -	2	5	67	23	6	14
Collembola A	0	0	0	0	0	0
Collembola C	0	0	1	1	0	0
Collembola D	1	0	0	0	0	0
Blattodea A	1	0	0	0	0	0
Psocoptera A	1	0	0	10	2	2
Psocoptera B	1	3	1	1	0	0
Psocoptera C	0	3	0	2	0	0
Psocoptera E	0	0	1	1	1	2
Psocoptera G	0	1	0	0	0	0
Psocoptera I	1	0	0	0	0	0
Psocoptera L	1	0	0	0	0	0
Psocoptera M	0	1	0	0	0	1
Psocoptera N	1	0	0	0	0	0
Psocoptera Q	0	0	0	1	0	0
Hemiptera A	0	0	0	0	0	1
Hemiptera B	0	1	0	0	0	0
Hemiptera C	0	0	0	0	0	1
Hemiptera I	0	0	0	1	0	0
Hemiptera Z	0	0	0	1	0	0
Hemiptera AE	9	78	27	46	0	4
Hemiptera AI	1	0	0	0	0	0
Hemiptera AN	0	0	0	1	0	0
Hemiptera AQ	0	1	0	0	0	0
Hemiptera BD	0	1	0	0	0	0
Thysanoptera A	2	2	1	2	0	2
Thysanoptera B	0	0	1	0	1	0
NeuropteraC	0	0	0	0	1	0
Coleoptera A	0	0	0	0	0	0
Coleoptera C	2	1	0	3	0	3
Coleoptera D	1	1	0	0	0	0
Coleoptera E	0	0	1	0	0	3
Coleoptera F	0	0	0	0	0	0
Coleoptera H	0	2	0	0	0	0
Coleoptera N	1	1	0	0	0	0

Coleoptera W	0	0	0	0	0	1
Coleoptera AE	0	0	1	0	0	0
Coleoptera AF	0	0	0	1	0	1
Coleoptera AR	0	2	0	0	0	0
Coleoptera BO	0	2	0	0	0	0
Coleoptera FH	0	1	0	0	0	0
Coleoptera GC	0	0	0	1	0	0
Coleoptera GG	0	3	0	0	0	0
Coleoptera HO	1	0	0	0	0	0
Coleoptera HU	1	0	0	0	0	0
Coleoptera HV	1	0	0	0	0	0
Coleoptera HX	0	0	1	0	0	0
Diptera A	0	3	0	0	1	0
Diptera B	15	8	7	11	4	6
Diptera C	2	1	0	0	0	0
Diptera D	1	0	1	0	0	2
Diptera E	1	0	5	0	0	0
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	1	0	0
Diptera M	1	1	0	0	0	0
Diptera Q	0	0	0	0	0	1
Diptera T	0	0	0	0	0	0
Diptera X	0	1	0	0	0	0
Diptera AA	0	0	0	1	0	0
Diptera AD	4	0	1	0	0	0
Diptera BH	1	0	0	0	0	3
Diptera BJ	1	2	2	5	0	1
Diptera BR	0	1	5	0	0	0
Diptera BW	0	0	0	0	1	0
Diptera CE	0	0	0	0	0	1
Diptera CR	0	2	0	0	0	0
Diptera DI	0	0	0	1	0	0
Diptera EF	1	0	0	0	0	0
Diptera EL	0	1	0	0	0	0
Diptera ES	1	0	0	0	1	0
Diptera FN	0	0	1	0	0	0
Diptera FZ	0	0	0	1	0	0
Diptera GA	0	0	0	1	0	0
Diptera GB	0	0	0	0	1	0
Tricoptera A	0	0	3	0	2	0
Tricoptera B	2	3	0	0	0	0
Lepidoptera -	8	8	9	12	2	4
Hymenoptera A	0	0	2	0	0	2
Hymenoptera H	0	0	1	1	0	0
Hymenoptera N	3	1	3	0	0	1
Hymenoptera S	0	1	0	0	0	0
Hymenoptera W	0	0	0	0	2	0
Hymenoptera AA	0	0	1	0	0	0
Hymenoptera AV	0	0	0	1	0	0
Hymenoptera BJ	0	0	1	1	0	0
Hymenoptera CI	2	1	0	0	0	0
Hymenoptera DH	0	1	0	0	0	0
Hymenoptera EE	1	1	2	0	0	1
Hymenoptera EF	0	1	1	0	0	0
Hymenoptera EG	0	0	1	0	0	0
Hymenoptera EH	0	0	1	0	0	0
Hymenoptera EI	0	0	1	0	0	0
Hymenoptera EJ	0	0	1	0	0	0
Hymenoptera EK	0	0	0	0	5	1
Hymenoptera EL	0	0	0	0	0	1
Hymenoptera FE	0	0	0	1	0	0
Hymenoptera -	0	0	0	0	0	0
	KP1	KP2	KP3	KB1	KB2	KB3
TOTAL	91	161	173	164	33	75
SPP	41	44	38	39	17	29
MARG	8.87	8.46	7.18	7.45	4.58	6.49
INBERG	6.07	2.06	2.58	3.57	5.5	5.36

INSIMP	20.4	4.16	5.48	8.75	15.1	16.2
FEB95	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	g	p	m	m	m	m
Acarina A	0	1	0	8	1	1
Acarina B	0	0	2	0	2	0
Acarina C	0	2	22	0	0	0
Acarina D	0	0	0	1	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	0	0	0	2	0
Acarina I	0	0	1	2	2	0
Acarina K	0	0	1	0	0	0
Acarina N	0	0	0	0	0	0
Acarina P	0	1	0	0	0	0
Acarina S	0	0	0	2	1	0
Acarina W	0	1	0	0	1	0
Acarina X	0	0	3	0	0	0
Acarina AK	0	0	0	1	0	0
Acarina AP	0	1	1	0	0	0
Acarina AT	0	0	0	1	0	0
Acarina BD	0	0	0	0	0	1
Araneae A	0	0	0	0	0	0
Araneae D	0	0	0	0	0	0
Araneae E	0	2	0	0	2	2
Araneae J	0	0	0	1	0	0
Araneae N	1	0	1	0	0	0
Araneae P	0	0	0	0	1	0
Araneae AI	0	0	0	0	0	1
Araneae AN	0	0	0	1	0	0
Araneae -	3	2	4	0	2	2
Collembola A	0	0	0	0	0	0
Coleoptera B	0	0	0	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	0	2	3	0	4	15
Blattodea A	0	0	0	0	1	0
Psocoptera A	21	19	11	4	12	3
Psocoptera B	0	0	3	2	5	1
Psocoptera C	19	0	1	1	7	0
Psocoptera E	9	1	3	3	4	2
Psocoptera I	0	0	0	2	0	0
Psocoptera L	0	0	0	1	1	0
Psocoptera M	1	0	0	0	0	0
Psocoptera N	0	0	0	1	4	0
Psocoptera P	0	0	0	1	0	0
Psocoptera Q	7	1	3	1	1	1
Psocoptera R	0	0	1	4	0	0
Hemiptera B	0	0	0	1	0	1
Hemiptera F	0	0	0	0	2	0
Hemiptera H	0	0	0	0	1	0
Hemiptera I	0	1	3	1	1	1
Hemiptera Z	0	0	0	0	8	0
Hemiptera AE	0	0	2	66	8	7
Hemiptera AP	0	1	1	0	0	0
Hemiptera AT	0	0	0	0	5	0
Hemiptera BE	0	0	0	1	0	0
Thysanoptera A	1	0	0	0	2	42
Thysanoptera B	1	1	2	1	1	8
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	0	2	2	6
Coleoptera D	0	0	0	1	0	0
Coleoptera E	4	0	0	0	4	1
Coleoptera F	0	0	0	0	0	1
Coleoptera P	0	0	0	1	0	3
Coleoptera AR	0	0	0	0	0	2
Coleoptera BO	0	0	0	0	1	0
Coleoptera BS	0	0	0	0	1	0

Coleoptera CD	0	0	0	0	8	2
Coleoptera CX	0	0	0	1	0	0
Coleoptera DE	0	0	0	0	0	1
Coleoptera DK	0	0	1	0	0	0
Coleoptera EE	0	0	1	1	0	0
Coleoptera EG	0	0	1	2	2	3
Coleoptera EK	0	0	0	0	0	1
Coleoptera FH	1	0	1	4	8	0
Coleoptera FQ	0	0	0	0	0	1
Coleoptera FS	0	0	0	0	0	2
Coleoptera FY	2	0	0	0	0	0
Coleoptera GF	0	0	0	0	1	0
Coleoptera GG	0	0	0	0	0	1
Coleoptera HF	0	0	0	0	0	1
Coleoptera HJ	0	0	0	0	0	2
Coleoptera HM	1	0	0	0	0	0
Coleoptera HW	0	0	1	0	0	0
Coleoptera HY	1	0	0	0	0	0
Coleoptera HZ	1	0	0	1	3	0
Coleoptera IA	1	0	0	0	0	0
Coleoptera IB	0	0	1	0	0	0
Coleoptera IC	0	0	1	0	0	0
Coleoptera ID	0	0	0	1	0	0
Coleoptera IE	0	0	0	1	0	0
Coleoptera IF	0	0	0	0	1	0
Coleoptera IG	0	0	0	0	0	1
Coleoptera IH	0	0	0	0	0	0
Diptera A	2	0	0	0	2	1
Diptera B	0	0	1	2	0	0
Diptera C	0	0	0	0	0	0
Diptera D	0	0	2	2	0	0
Diptera E	0	0	1	0	2	1
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera M	0	0	0	0	0	1
Diptera Q	4	1	3	0	3	0
Diptera T	0	0	0	0	0	0
Diptera AD	0	0	0	0	1	2
Diptera AZ	0	0	1	0	0	0
Diptera BH	0	0	1	0	0	0
Diptera BJ	0	0	1	0	0	3
Diptera BZ	0	0	0	0	2	0
Diptera CK	1	0	0	0	0	0
Diptera CR	1	0	0	0	0	0
Diptera CY	0	0	0	0	2	0
Diptera DW	0	0	0	0	1	0
Diptera EH	1	0	0	0	0	0
Diptera FL	0	0	1	0	0	0
Diptera FV	0	0	1	0	0	0
Diptera GC	1	0	0	0	0	0
Diptera GD	0	0	1	0	0	0
Tricoptera B	0	0	1	0	1	0
Lepidoptera -	5	0	0	8	5	6
Hymenoptera A	0	0	0	0	0	1
Hymenoptera C	0	0	2	0	0	0
Hymenoptera H	1	0	0	1	0	2
Hymenoptera P	1	0	0	0	0	0
Hymenoptera Q	0	0	0	0	0	1
Hymenoptera AB	0	0	0	1	0	0
Hymenoptera AG	0	0	1	0	0	0
Hymenoptera AN	0	1	0	0	0	0
Hymenoptera CA	0	0	0	1	0	0
Hymenoptera CP	0	0	0	0	1	0
Hymenoptera DJ	0	0	0	1	0	0
Hymenoptera EM	0	0	0	1	0	0
Hymenoptera EN	0	0	0	1	0	0
Hymenoptera EO	0	0	0	0	1	0

Hymenoptera -	0	0	0	0	0	0
larvae	1	0	4	0	2	3
	BB1	BB2	BB3	BM1	BM2	BM3
TOTAL	92	38	96	140	135	137
SPP	26	16	40	42	48	40
MARG	5.53	4.12	8.54	8.3	9.58	7.93
INBERG	4.38	2	4.36	2.12	11.3	3.26
INSIMP	9	4.02	14.1	4.36	33.1	8.71
MAR95	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	m	p	m	p	m	g
Acarina A	0	0	1	0	0	0
Acarina C	0	0	0	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	0	3	0	0	0
Acarina I	0	0	0	0	0	0
Acarina N	0	0	0	0	0	0
Acarina BE	0	0	0	0	0	1
Acarina BF	0	0	0	0	0	1
Araneae A	0	0	0	0	1	0
Araneae D	3	0	0	0	3	9
Araneae E	3	0	0	0	0	0
Araneae F	0	0	0	0	0	2
Araneae N	4	0	2	0	2	3
Araneae AI	2	0	0	0	0	0
Araneae AL	0	0	0	0	1	0
Araneae AN	1	0	1	1	0	0
Araneae AX	0	0	0	0	0	1
Araneae BA	0	0	0	0	0	2
Araneae BB	0	0	0	0	0	1
Araneae BD	0	0	0	3	0	0
Araneae BF	0	0	0	0	0	1
Araneae -	4	0	4	0	0	14
Collembola A	0	0	0	1	0	0
Collembola C	0	0	0	0	0	0
Collembola D	1	0	2	2	0	0
Ephemeroptera C	0	0	0	0	0	1
Orthoptera B	0	0	0	0	1	0
Isoptera A	1	0	0	0	0	0
Psocoptera A	1	0	0	1	1	3
Psocoptera B	1	0	1	0	0	2
Psocoptera C	0	0	6	0	0	1
Psocoptera E	0	0	2	0	0	2
Psocoptera G	0	0	0	0	0	1
Psocoptera I	1	0	0	0	0	1
Psocoptera M	0	0	0	1	0	1
Psocoptera N	1	0	3	0	0	8
Psocoptera P	1	0	0	0	0	0
Psocoptera Q	0	0	0	0	0	1
Hemiptera T	1	0	0	0	0	0
Hemiptera AQ	0	0	0	0	1	1
Hemiptera AT	0	0	0	0	0	1
Hemiptera BE	0	0	0	0	0	1
Thysanoptera A	2	0	0	2	2	2
Thysanoptera B	0	0	1	0	0	0
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	0	0	0	0
Coleoptera D	3	0	1	0	1	2
Coleoptera E	0	0	0	0	0	1
Coleoptera F	1	0	0	0	0	0
Coleoptera K	0	0	0	0	3	1
Coleoptera P	1	0	0	0	0	0
Coleoptera T	0	0	1	1	0	0
Coleoptera U	0	0	1	0	0	0
Coleoptera Z	0	0	0	1	0	0

Coleoptera AM	0	0	0	0	1	0
Coleoptera BY	0	0	0	0	1	0
Coleoptera FH	0	0	0	0	1	1
Coleoptera HE	0	0	1	0	0	0
Coleoptera HM	1	0	0	0	1	1
Coleoptera IG	2	0	0	0	0	0
Coleoptera IH	1	0	0	0	0	0
Coleoptera II	1	0	0	0	0	0
Coleoptera IJ	0	0	1	0	0	0
Coleoptera IK	0	0	0	0	1	0
Coleoptera IL	0	0	0	0	0	1
Diptera A	2	0	0	0	1	10
Diptera B	1	0	2	0	2	0
Diptera C	0	0	0	0	0	0
Diptera D	3	0	1	1	3	2
Diptera E	0	0	1	0	0	0
Diptera F	0	0	0	0	0	0
Diptera I	0	0	0	0	0	1
Diptera K	0	0	1	0	0	0
Diptera M	1	0	0	1	0	2
Diptera Q	1	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera AA	0	0	0	0	0	1
Diptera AD	1	0	0	0	1	0
Diptera AO	0	0	0	0	1	0
Diptera BH	5	0	0	2	1	1
Diptera BP	0	0	0	0	0	0
Diptera BR	0	0	1	0	0	0
Diptera BS	0	0	1	0	0	0
Diptera BT	0	0	0	0	0	1
Diptera CD	0	0	0	1	0	0
Diptera CV	0	0	0	0	1	0
Diptera DC	1	0	0	0	0	1
Diptera DE	0	0	0	0	0	3
Diptera DI	0	0	0	0	0	3
Diptera DQ	0	0	1	0	0	0
Diptera DR	0	0	1	0	0	0
Diptera DW	3	0	2	1	1	0
Diptera EK	0	0	1	0	0	0
Diptera EQ	0	0	0	0	2	0
Diptera ES	0	0	0	0	0	1
Diptera FO	0	0	0	0	0	3
Diptera GE	1	0	0	0	0	0
Diptera GF	1	0	0	0	0	0
Diptera GG	1	0	0	0	0	0
Diptera GH	0	0	0	1	0	0
Diptera GI	0	0	0	0	0	1
Diptera IJ	0	0	1	0	0	0
Tricoptera A	2	0	0	1	0	0
Lepidoptera -	11	0	0	0	7	7
Hymenoptera A	0	0	0	0	0	0
Hymenoptera N	0	0	1	0	0	1
Hymenoptera Q	1	0	0	0	0	1
Hymenoptera AA	0	0	0	0	0	1
Hymenoptera AB	0	0	1	0	0	0
Hymenoptera AC	1	0	0	0	0	0
Hymenoptera CK	0	0	0	0	0	1
Hymenoptera DW	1	0	0	1	0	0
Hymenoptera EE	1	0	0	0	0	2
Hymenoptera EN	3	0	0	0	0	1
Hymenoptera EP	1	0	0	0	0	0
Hymenoptera EQ	0	0	2	0	0	0
Hymenoptera ER	0	0	0	0	1	0
Hymenoptera ES	0	0	0	0	1	0
Hymenoptera ET	0	0	0	0	0	1
Hymenoptera EU	0	0	0	0	0	1
Hymenoptera -	0	0	0	0	0	0

	PM1	PM2	PM3	PP1	PP2	PP3
TOTAL	79	0	48	22	43	114
SPP	42	0	30	17	27	52
MARG	9.38	0	7.49	5.18	6.91	10.8
INBERG	7.18	ERR	8	7.33	6.14	8.14
INSIMP	30.8	ERR	34.2	38.5	26.6	26.3

MAR95	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	m	m	m	m	p	m
Crustacea tA	0	0	0	1	0	0
Acarina A	6	2	7	1	0	1
Acarina C	1	0	2	3	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	1	0	2	0	0	0
Acarina I	0	0	0	0	0	1
Acarina L	1	0	0	0	0	0
Acarina N	0	0	0	0	0	0
Acarina S	1	0	0	0	0	0
Acarina AK	0	0	2	0	0	0
Acarina AY	0	1	0	1	0	0
Araneae A	0	0	0	0	0	1
Araneae C	0	1	0	0	0	0
Araneae D	1	0	0	0	1	1
Araneae E	0	7	1	0	0	0
Araneae G	0	0	1	0	0	0
Araneae N	0	0	2	5	0	24
Araneae X	0	1	0	0	0	0
Araneae Y	0	2	0	0	0	0
Araneae AA	0	1	0	0	0	0
Araneae AC	0	1	0	0	0	0
Araneae AD	0	1	0	0	0	0
Araneae AF	0	1	0	0	0	1
Araneae AJ	1	0	0	0	0	0
Araneae AM	0	0	1	0	0	0
Araneae AN	0	0	0	2	0	0
Araneae BD	0	0	0	1	0	0
Araneae BH	0	0	1	0	0	0
Araneae BI	0	0	0	0	1	0
Araneae BJ	0	0	0	0	0	1
Araneae -	6	8	14	6	0	8
Collembola A	1	0	12	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	1	0	0	0	0	0
Blattodea A	0	0	1	0	0	0
Psocoptera A	0	1	2	1	0	2
Psocoptera B	0	1	1	1	0	0
Psocoptera C	0	1	2	0	0	2
Psocoptera E	1	0	1	2	0	1
Psocoptera I	0	1	0	0	0	0
Psocoptera Q	0	0	0	1	0	0
Hemiptera A	0	0	1	0	0	0
Hemiptera B	1	2	0	0	0	0
Hemiptera F	0	0	1	0	0	0
Hemiptera AE	0	0	0	1	0	0
Hemiptera AI	0	2	0	0	0	0
Hemiptera AK	0	1	0	0	0	0
Hemiptera AP	1	0	0	0	0	0
Hemiptera AR	0	1	0	0	0	0
Thysanoptera A	1	1	0	1	0	0
Neuroptera C	1	0	0	0	0	0
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	0	1	0	0
Coleoptera D	2	0	2	0	0	1
Coleoptera E	2	0	0	1	0	1
Coleoptera F	0	0	0	0	0	0

Coleoptera K	0	2	1	0	0	0
Coleoptera BO	0	0	5	0	0	0
Coleoptera EI	0	0	0	1	0	0
Coleoptera FH	0	1	1	1	0	0
Coleoptera GH	0	1	0	0	0	0
Coleoptera HM	0	1	0	0	0	0
Coleoptera IM	1	0	0	0	0	0
Coleoptera IN	0	0	0	0	0	1
Diptera A	2	2	0	0	0	0
Diptera B	5	7	7	3	0	6
Diptera C	0	0	0	0	0	0
Diptera D	0	1	1	1	0	1
Diptera E	0	0	0	1	0	2
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera M	5	11	8	0	0	1
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera AA	0	0	0	1	0	0
Diptera AD	0	1	0	0	0	1
Diptera BH	1	0	0	2	0	2
Diptera BJ	1	1	4	0	0	1
Diptera CD	0	0	1	0	0	0
Diptera CH	0	0	2	2	0	0
Diptera CK	0	1	0	0	0	0
Diptera DE	1	2	1	0	0	0
Diptera FV	1	0	0	0	0	0
Diptera GJ	1	0	0	0	0	0
Diptera GK	0	1	0	0	0	0
Diptera GL	0	1	0	0	0	0
Tricoptera B	4	1	10	1	0	8
Lepidoptera -	8	14	9	6	1	3
Hymenoptera A	0	5	2	0	0	0
Hymenoptera H	0	0	0	2	0	0
Hymenoptera Q	1	0	0	3	0	0
Hymenoptera S	0	0	0	0	0	1
Hymenoptera T	0	1	1	0	0	0
Hymenoptera W	0	0	0	0	2	1
Hymenoptera BK	0	0	0	2	0	0
Hymenoptera BV	0	1	1	0	0	0
Hymenoptera CI	0	4	0	0	0	0
Hymenoptera DW	0	1	0	0	0	0
Hymenoptera EE	1	4	0	0	0	0
Hymenoptera EF	0	1	2	0	0	0
Hymenoptera EK	0	0	0	0	0	2
Hymenoptera EN	0	1	0	0	0	0
Hymenoptera EV	1	0	0	0	0	0
Hymenoptera EW	1	0	0	0	0	0
Hymenoptera EX	0	4	0	0	0	0
Hymenoptera EY	0	1	0	0	0	0
Hymenoptera EZ	0	0	1	0	0	0
Hymenoptera FA	0	0	1	0	0	0
Hymenoptera FB	0	0	1	0	0	0
Hymenoptera FC	0	0	0	1	0	0
Hymenoptera FD	0	0	0	1	0	0
Hymenoptera FE	0	1	0	0	0	0
Hymenoptera -	0	0	0	0	0	0
larvae	1	0	2	2	0	0
	KP1	KP2	KP3	KB1	KB2	KB3
TOTAL	64	109	117	59	5	75
SPP	33	47	39	32	4	26
MARG	7.69	9.81	7.98	7.6	1.86	5.79
INBERG	8	7.79	8.36	9.83	2.5	3.13
INSIMP	23.2	23.5	20.3	30.6	10	7.82
MAR95	BB1	BB2	BB3	BM1	BM2	BM3

STATUS	m	g	m	m	m	m
Chilopoda C	0	0	0	0	1	0
Acarina A	1	2	1	1	1	0
Acarina C	1	3	14	0	0	0
Acarina D	0	1	0	0	1	0
Acarina E	0	0	0	0	0	0
Acarina H	0	0	1	0	0	0
Acarina I	0	0	0	0	1	1
Acarina K	0	0	1	0	0	0
Acarina N	0	0	0	0	0	0
Acarina S	0	0	0	0	1	0
Acarina W	0	1	0	0	0	0
Acarina AC	0	0	0	0	1	0
Acarina AJ	0	1	0	0	0	0
Acarina BE	0	0	0	1	1	0
Acarina BG	0	1	0	0	0	0
Araneae A	0	1	0	0	0	0
Araneae D	0	0	0	1	2	0
Araneae E	0	0	0	1	2	2
Araneae J	0	0	0	0	0	1
Araneae N	0	1	0	0	1	2
Araneae AC	0	0	0	1	0	0
Araneae AI	0	1	0	1	0	0
Araneae AN	0	0	0	0	1	0
Araneae AV	0	0	0	0	1	0
Araneae BJ	0	2	0	0	0	0
Araneae BK	0	1	0	0	0	0
Araneae -	10	6	2	2	5	4
Collembola A	0	1	0	0	0	2
Coleoptera B	0	0	1	0	0	0
Collembola C	0	0	0	0	0	2
Collembola D	0	2	0	1	1	8
Blattodea A	1	0	2	0	0	0
Psocoptera A	0	1	2	3	2	1
Psocoptera B	1	1	0	0	3	1
Psocoptera C	13	0	1	1	1	2
Psocoptera D	0	0	0	0	1	0
Psocoptera E	7	2	1	4	1	1
Psocoptera F	0	1	0	0	2	0
Psocoptera I	0	0	0	0	1	0
Psocoptera K	0	0	0	0	0	2
Psocoptera M	0	1	0	0	1	0
Psocoptera N	0	0	0	2	2	0
Psocoptera Q	3	0	0	0	2	0
Hemiptera F	0	0	0	0	2	0
Hemiptera I	0	1	1	0	1	0
Hemiptera J	1	0	0	0	0	0
Hemiptera AE	0	0	0	2	1	0
Hemiptera AP	0	0	0	0	1	0
Hemiptera BF	0	0	0	0	1	0
Thysanoptera A	1	1	0	0	1	0
Coleoptera A	1	0	0	0	0	0
Coleoptera C	0	2	1	2	0	0
Coleoptera D	0	0	0	2	1	0
Coleoptera E	5	2	1	0	3	1
Coleoptera F	0	0	0	0	0	0
Coleoptera N	0	0	0	0	1	0
Coleoptera P	0	0	0	0	0	1
Coleoptera U	0	1	0	0	0	0
Coleoptera V	0	0	0	1	0	0
Coleoptera W	0	1	0	0	0	0
Coleoptera BR	0	0	2	0	0	0
Coleoptera BS	0	1	0	0	0	0
Coleoptera CD	0	0	0	1	6	2
Coleoptera DS	0	0	0	0	1	0
Coleoptera EG	0	0	0	1	0	0
Coleoptera GZ	1	0	0	0	0	0

Coleoptera HP	0	0	0	1	0	0
Coleoptera IP	1	0	0	2	0	0
Coleoptera IQ	0	0	1	0	0	0
Coleoptera IR	0	0	0	1	0	0
Coleoptera IS	0	0	0	1	0	0
Diptera A	4	4	1	1	3	2
Diptera B	4	3	4	1	3	1
Diptera C	0	0	0	0	0	0
Diptera D	15	41	3	4	6	2
Diptera E	0	0	0	1	1	0
Diptera F	0	0	0	0	0	0
Diptera K	0	0	0	0	0	0
Diptera M	0	1	0	2	2	0
Diptera Q	5	3	1	1	15	0
Diptera T	0	0	0	0	0	0
Diptera AD	0	0	0	0	1	0
Diptera AT	0	0	0	0	1	0
Diptera BH	0	0	0	1	0	0
Diptera BJ	0	2	0	0	2	3
Diptera CV	0	0	1	0	0	0
Diptera CY	0	0	0	0	1	0
Diptera DT	1	0	0	0	0	0
Diptera DW	0	0	0	1	1	0
Diptera EK	0	1	0	0	42	0
Diptera GC	1	0	0	0	0	0
Diptera GM	0	1	0	0	1	0
Diptera GN	0	0	0	0	1	0
Diptera GO	0	0	0	0	0	1
Lepidoptera -	0	2	0	3	4	3
Hymenoptera A	5	4	0	0	0	1
Hymenoptera G	0	0	0	0	1	0
Hymenoptera N	3	3	0	0	0	1
Hymenoptera U	0	0	0	0	0	1
Hymenoptera W	0	0	0	1	0	0
Hymenoptera AC	1	0	0	0	0	0
Hymenoptera BK	0	0	0	0	0	3
Hymenoptera BN	0	0	0	0	0	1
Hymenoptera BP	0	0	0	0	1	1
Hymenoptera BW	0	1	0	0	0	0
Hymenoptera DQ	0	0	0	1	0	0
Hymenoptera EE	0	0	1	1	1	0
Hymenoptera EF	0	0	0	1	0	0
Hymenoptera EQ	0	0	0	0	2	1
Hymenoptera EU	0	0	0	0	1	0
Hymenoptera FE	1	0	0	0	1	0
Hymenoptera FF	1	0	0	0	0	0
Hymenoptera FG	0	0	1	0	0	0
Hymenoptera FH	0	0	0	1	0	0
Hymenoptera - larvae	0	0	0	0	0	0
	3	1	0	0	2	3
TOTAL	BB1	BB2	BB3	BM1	BM2	BM3
	91	106	44	53	148	57
SPP	26	39	22	36	57	30
MARG	5.54	8.15	5.55	8.82	11.2	7.17
INBERG	6.07	2.59	3.14	13.3	3.52	7.13
INSIMP	13.7	6.42	9.1	55.1	10.5	29
APR95	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	g	m	g	m	g	g
Chilopoda A	0	0	0	0	0	1
Acarina A	0	0	1	1	0	1
Acarina C	2	0	0	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	2	0	1	0	0	2
Acarina I	0	1	0	0	1	1

Acarina N	0	0	0	0	0	0
Acarina Q	0	1	0	0	0	0
Acarina S	0	0	0	0	0	1
Acarina AJ	0	1	0	0	0	0
Acarina AT	0	0	0	1	0	0
Acarina BE	0	0	1	0	0	0
Araneae A	0	0	0	0	0	0
Araneae D	6	1	1	1	0	5
Araneae E	0	1	1	0	0	0
Araneae F	0	0	0	0	0	1
Araneae H	0	1	0	0	0	0
Araneae K	0	0	1	1	0	1
Araneae N	5	3	3	1	1	7
Araneae Y	0	0	1	0	0	0
Araneae AB	0	0	0	0	1	0
Araneae AI	0	0	0	1	0	0
Araneae AL	1	0	0	0	0	0
Araneae AN	4	0	1	0	0	0
Araneae BL	1	0	0	0	0	0
Araneae BM	1	0	0	0	0	0
Araneae BN	1	0	0	0	0	0
Araneae -	0	2	1	1	3	4
Collembola A	0	0	2	0	0	0
Collembola C	0	0	0	0	0	0
Collembola D	0	0	9	0	0	0
Psocoptera A	0	0	2	0	1	2
Psocoptera B	0	1	0	0	1	0
Psocoptera C	0	0	2	0	0	0
Psocoptera D	0	0	0	1	0	2
Psocoptera E	1	0	0	1	0	1
Psocoptera G	0	0	1	0	0	0
Psocoptera J	0	0	0	0	0	2
Psocoptera L	0	0	1	0	1	0
Psocoptera Q	1	0	1	0	0	0
Hemiptera B	1	1	0	1	0	0
Hemiptera I	0	0	0	1	0	0
Hemiptera AY	0	0	0	0	1	0
Hemiptera BE	0	0	0	1	0	4
Thysanoptera A	1	0	2	1	1	1
Coleoptera A	0	0	0	0	0	1
Coleoptera C	1	0	0	1	0	0
Coleoptera D	1	0	1	1	0	1
Coleoptera E	0	0	0	0	0	0
Coleoptera F	0	0	0	0	0	2
Coleoptera K	0	1	0	0	1	1
Coleoptera V	1	0	0	0	0	0
Coleoptera AK	1	0	0	0	0	0
Coleoptera CJ	0	1	0	0	0	0
Coleoptera HJ	0	0	0	0	1	0
Coleoptera IP	0	0	0	1	0	0
Coleoptera IT	0	0	0	1	0	0
Coleoptera IU	0	0	0	0	1	0
Coleoptera IV	0	0	0	0	0	2
Diptera A	4	2	2	1	9	10
Diptera B	0	3	2	2	0	3
Diptera C	0	0	0	0	0	0
Diptera D	8	5	3	4	5	5
Diptera E	1	0	0	0	0	0
Diptera F	0	0	0	0	0	0
Diptera K	0	2	0	2	1	0
Diptera M	0	0	0	0	0	1
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	0	0	0	0
Diptera AD	0	0	0	1	0	0
Diptera AN	0	0	0	1	0	0
Diptera BH	1	0	2	0	1	0
Diptera BJ	0	2	1	2	0	0

Diptera BN	0	0	0	0	1	0
Diptera BP	0	1	0	0	0	3
Diptera CE	1	0	0	0	0	1
Diptera CV	0	0	0	0	1	3
Diptera DC	0	0	0	1	0	1
Diptera DI	0	1	0	0	0	1
Diptera EB	0	0	0	0	1	0
Diptera ED	0	0	0	0	1	0
Diptera EK	0	0	1	0	0	0
Diptera FA	1	0	0	0	0	0
Diptera GP	0	0	1	0	0	0
Diptera GQ	0	0	1	0	0	0
Diptera GR	0	0	0	1	0	0
Tricoptera A	0	0	0	1	0	1
Lepidoptera -	5	1	1	1	8	6
Hymenoptera A	0	0	0	0	0	0
Hymenoptera G	3	0	0	1	4	0
Hymenoptera H	0	0	1	0	1	1
Hymenoptera N	0	0	0	0	0	3
Hymenoptera P	0	0	0	0	0	1
Hymenoptera Q	0	0	0	0	0	1
Hymenoptera T	0	0	0	0	0	1
Hymenoptera AB	0	0	1	0	0	0
Hymenoptera FI	1	0	0	0	0	0
Hymenoptera FJ	0	1	0	0	0	0
Hymenoptera FK	0	0	0	0	0	1
Hymenoptera FL	0	0	0	0	0	1
Hymenoptera FM	0	0	0	0	0	1
Hymenoptera -	0	0	0	0	0	0
larvae	0	1	3	1	0	1
	PM1	PM2	PM3	PP1	PP2	PP3
TOTAL	56	34	52	36	47	89
SPP	26	22	31	30	23	41
MARG	6.21	5.96	7.59	8.09	5.71	8.91
INBERG	7	6.8	5.78	9	5.22	8.9
INSIMP	19.3	28.1	25.5	70	13	29.9

APR95	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	g	g	m	g	m	g
Chilopoda C	1	0	0	0	0	0
Acarina A	1	2	1	0	0	1
Acarina C	1	1	0	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	2	0	0	0	1	1
Acarina I	0	2	0	2	1	1
Acarina N	0	0	0	0	0	0
Acarina W	1	0	0	0	0	0
Acarina AJ	0	0	0	2	0	0
Acarina BC	0	0	1	0	0	0
Acarina BE	0	0	2	0	0	0
Araneae A	0	0	0	0	0	0
Araneae D	0	2	2	4	7	7
Araneae E	1	2	0	0	0	0
Araneae F	0	0	0	0	0	1
Araneae G	0	0	1	0	0	0
Araneae J	0	0	0	0	0	1
Araneae M	0	0	0	0	0	3
Araneae N	1	0	4	4	1	4
Araneae P	1	1	0	0	0	0
Araneae X	0	0	0	0	1	0
Araneae Z	1	0	0	0	0	0
Araneae AL	0	1	0	0	0	1
Araneae AN	0	0	0	6	0	0
Araneae AX	0	0	0	1	0	0
Araneae BO	3	0	0	1	0	0

Araneae BP	0	0	0	1	0	1
Araneae BQ	0	0	0	1	0	0
Araneae -	2	7	12	5	12	13
Collembola A	0	0	6	0	0	0
Collembola B	0	0	1	0	1	0
Collembola C	1	1	0	0	0	0
Collembola D	0	0	0	1	0	0
Blattodea A	0	0	0	1	1	0
Psocoptera A	0	0	0	0	0	0
Psocoptera B	0	1	0	0	0	0
Psocoptera E	0	0	0	0	0	0
Psocoptera F	0	1	0	0	0	0
Psocoptera L	0	2	0	0	0	0
Psocoptera Q	1	0	0	0	0	0
Hemiptera B	1	0	0	0	0	0
Hemiptera I	1	0	0	0	1	0
Hemiptera U	0	0	1	0	0	0
Hemiptera AX	0	0	0	0	1	0
Thysanoptera A	1	1	0	0	0	0
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	1	0	0	0
Coleoptera D	3	1	0	0	1	0
Coleoptera E	1	1	1	0	0	0
Coleoptera F	0	1	0	0	0	0
Coleoptera H	0	0	0	0	1	0
Coleoptera K	2	7	0	0	0	0
Coleoptera IW	0	1	0	0	0	0
Coleoptera IX	0	1	0	0	0	0
Coleoptera IY	0	0	1	0	0	0
Coleoptera IZ	0	0	0	0	1	0
Diptera A	2	1	0	0	3	1
Diptera B	1	2	1	0	1	1
Diptera C	0	0	0	0	0	0
Diptera D	20	17	5	4	141	14
Diptera E	1	0	0	0	0	1
Diptera F	1	0	0	0	0	0
Diptera K	1	0	0	0	3	0
Diptera M	0	0	0	0	0	1
Diptera Q	1	0	0	1	0	0
Diptera T	0	0	0	0	3	0
Diptera AD	0	0	0	1	1	0
Diptera AI	0	0	0	0	1	1
Diptera AJ	1	0	0	0	0	0
Diptera AZ	0	1	0	0	0	0
Diptera BH	0	0	0	2	1	0
Diptera FO	0	1	0	0	0	0
Diptera GS	0	0	0	0	0	1
Tricoptera B	0	1	0	1	3	1
Lepidoptera -	2	1	4	2	11	1
Hymenoptera A	0	4	1	1	0	0
Hymenoptera N	0	1	1	1	0	2
Hymenoptera S	0	1	0	1	0	1
Hymenoptera AG	0	0	0	1	0	0
Hymenoptera AJ	0	1	0	0	0	0
Hymenoptera BJ	0	0	1	0	0	0
Hymenoptera BV	0	0	1	0	0	0
Hymenoptera DF	1	1	0	0	0	0
Hymenoptera DJ	0	0	1	0	0	0
Hymenoptera DO	0	0	1	0	0	0
Hymenoptera EF	0	1	0	0	0	0
Hymenoptera EK	0	1	0	0	0	1
Hymenoptera EQ	1	0	0	0	0	1
Hymenoptera FN	1	0	0	0	0	0
Hymenoptera FO	0	0	0	0	0	1
Hymenoptera -	0	0	0	0	0	0
larvae	3	1	2	0	2	0
	KP1	KP2	KP3	KB1	KB2	KB3

TOTAL	62	71	52	44	200	62
SPP	32	34	23	22	24	25
MARG	7.51	7.74	5.57	5.55	4.34	5.82
INBERG	3.1	4.18	4.33	7.33	1.42	4.43
INSIMP	9.27	13.1	12.5	20.1	1.99	9.46

APR95	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	g	m	g	p	g	g
Acarina A	0	1	0	0	3	1
Acarina C	0	2	7	0	0	0
Acarina D	0	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina I	1	0	0	0	0	0
Acarina N	0	0	0	0	0	0
Acarina P	1	1	0	0	0	0
Acarina W	1	0	0	0	0	0
Acarina AJ	0	0	0	0	0	1
Acarina AP	0	0	0	0	0	1
Acarina AS	0	0	1	0	0	0
Acarina BH	0	0	0	0	2	0
Araneae A	0	0	0	0	1	0
Araneae D	0	0	0	0	4	0
Araneae E	0	0	1	1	2	0
Araneae N	1	0	0	0	2	3
Araneae P	0	0	0	0	1	0
Araneae AN	0	0	0	0	0	1
Araneae -	8	5	1	1	4	5
Collembola A	0	1	0	0	0	3
Collembola C	0	0	0	0	0	0
Collembola D	1	0	0	1	0	23
Blattodea A	0	0	2	0	1	1
Psocoptera A	0	0	0	0	3	3
Psocoptera B	0	0	0	0	1	0
Psocoptera C	0	0	0	0	0	1
Psocoptera D	0	0	0	0	1	0
Psocoptera E	0	0	1	0	2	0
Psocoptera J	0	0	0	0	1	0
Psocoptera N	0	0	0	0	2	0
Hemiptera B	0	0	0	0	1	0
Hemiptera F	1	0	0	0	0	1
Hemiptera I	0	0	0	0	1	0
Hemiptera T	0	0	0	1	0	0
Hemiptera BG	0	0	0	0	0	1
Thysanoptera A	0	0	0	0	0	1
Thysanoptera B	0	0	1	0	0	0
NeuropteraD	1	0	0	0	0	0
Coleoptera A	8	0	1	0	2	3
Coleoptera C	1	0	1	0	1	1
Coleoptera D	0	0	0	1	0	1
Coleoptera E	3	1	1	0	0	1
Coleoptera F	0	0	0	0	0	0
Coleoptera H	0	0	0	0	0	1
Coleoptera N	0	0	0	0	2	0
Coleoptera W	0	0	0	0	0	1
Coleoptera Z	0	0	0	0	1	0
Coleoptera AE	0	0	0	0	0	1
Coleoptera AK	0	1	0	0	0	0
Coleoptera BO	1	0	0	0	0	0
Coleoptera CD	0	0	0	0	0	1
Coleoptera EA	0	0	0	0	1	0
Coleoptera HZ	0	0	0	0	1	0
Coleoptera IQ	0	1	0	0	0	0
Coleoptera JA	0	0	0	0	0	1
Diptera A	0	1	1	2	1	4
Diptera B	0	0	3	1	0	3
Diptera C	0	0	0	0	0	0

Diptera D	9	70	17	1	19	14
Diptera E	0	0	0	0	0	2
Diptera F	0	0	0	0	0	0
Diptera H	0	0	0	1	0	0
Diptera I	0	0	0	0	2	0
Diptera K	0	2	0	0	0	0
Diptera Q	0	0	2	1	1	1
Diptera T	0	0	0	0	0	1
Diptera AD	0	0	0	0	2	0
Diptera AJ	0	0	0	2	0	0
Diptera AN	2	0	0	0	0	0
Diptera AQ	0	0	0	0	0	1
Diptera AR	0	0	0	0	1	0
Diptera BH	0	0	0	0	0	1
Diptera BJ	0	0	1	0	1	2
Diptera BP	0	0	0	0	1	0
Diptera BR	0	0	1	0	0	0
Diptera BS	1	0	0	0	0	0
Diptera CV	0	0	1	0	0	1
Diptera DN	0	1	0	0	0	0
Diptera EK	0	0	0	0	1	0
Diptera GE	0	1	0	0	0	1
Diptera GN	0	1	0	0	0	0
Diptera GT	1	0	0	0	0	0
Lepidoptera -	0	1	3	0	6	2
Hymenoptera A	0	0	0	0	0	0
Hymenoptera C	0	0	1	0	0	0
Hymenoptera N	0	0	0	0	0	3
Hymenoptera AB	1	0	1	0	0	1
Hymenoptera BN	0	0	0	0	2	1
Hymenoptera EN	0	0	0	0	0	1
Hymenoptera FP	0	0	0	1	0	0
Hymenoptera FQ	0	0	0	0	0	1
Hymenoptera FR	0	0	0	0	1	0
Hymenoptera FS	0	0	0	0	1	0
Hymenoptera FT	0	0	0	0	0	1
Hymenoptera -	0	0	0	0	0	0
larvae	0	2	2	0	2	1
	BB1	BB2	BB3	BM1	BM2	BM3
TOTAL	42	92	50	14	81	99
SPP	17	16	21	12	37	42
MARG	4.28	3.54	5.11	4.17	8.19	8.92
INBERG	4.67	1.31	2.94	7	4.26	4.3
INSIMP	8.97	1.72	7.38	45.5	15.1	12.7
MAY95	PM1	PM2	PM3	PP1	PP2	PP3
STATUS	g	m	g	g	g	g
Acarina A	0	0	1	2	0	3
Acarina B	0	0	1	0	1	1
Acarina C	0	0	0	0	0	0
Acarina D	0	0	0	1	0	0
Acarina E	0	0	0	0	0	0
Acarina H	1	1	0	0	0	0
Acarina I	1	1	0	0	0	3
Acarina K	0	1	0	0	0	0
Acarina N	0	0	0	0	0	0
Acarina W	0	0	0	0	0	1
Acarina AB	0	0	0	0	0	1
Acarina BI	0	0	0	0	1	0
Araneae A	0	0	0	0	0	0
Araneae D	2	1	1	0	2	5
Araneae E	2	0	1	0	0	0
Araneae J	1	0	0	0	0	1
Araneae N	0	0	0	0	0	3
Araneae V	0	0	0	0	1	0
Araneae AN	1	1	1	0	0	0

Araneae AP	0	0	0	1	0	0
Araneae -	1	8	3	0	0	3
Collembola A	1	0	0	0	0	1
Collembola C	0	0	0	0	0	0
Collembola D	0	0	2	1	0	1
Orthoptera D	0	0	1	0	0	0
Blattodea A	0	0	1	0	0	0
Psocoptera A	0	1	2	0	0	0
Psocoptera B	0	2	0	0	0	0
Psocoptera E	1	1	0	0	0	0
Psocoptera I	1	0	0	1	0	0
Psocoptera J	0	0	0	0	1	0
Psocoptera L	0	0	0	0	0	1
Psocoptera M	0	0	0	0	1	0
Psocoptera Q	0	2	0	0	0	0
Hemiptera B	0	1	0	1	0	1
Hemiptera I	0	0	0	0	1	0
Hemiptera J	0	1	0	0	0	0
Hemiptera O	0	0	0	0	0	1
Hemiptera AS	0	0	1	0	0	0
Thysanoptera A	0	0	0	0	0	1
Coleoptera A	0	0	0	0	0	0
Coleoptera C	0	0	1	1	0	0
Coleoptera D	0	0	0	0	2	0
Coleoptera E	0	0	0	0	0	0
Coleoptera F	0	0	0	0	1	0
Coleoptera K	0	0	0	0	0	1
Coleoptera N	0	0	0	2	0	0
Coleoptera Q	0	0	1	1	0	0
Coleoptera HT	0	0	0	0	0	1
Diptera A	7	4	4	3	5	5
Diptera B	3	4	4	4	1	1
Diptera C	0	0	0	0	0	0
Diptera D	24	8	9	4	3	6
Diptera E	0	0	0	0	0	0
Diptera F	1	0	0	0	0	0
Diptera K	1	2	1	6	1	0
Diptera M	0	0	0	0	0	1
Diptera Q	0	0	0	0	0	0
Diptera T	1	0	0	2	0	0
Diptera Z	1	0	0	1	0	0
Diptera AN	1	0	0	1	0	0
Diptera BE	1	0	0	0	1	0
Diptera BH	0	0	0	1	1	0
Diptera BI	0	0	0	0	1	0
Diptera BJ	2	2	0	1	0	2
Diptera BN	0	0	0	2	0	2
Diptera BS	1	0	0	0	0	0
Diptera BY	1	0	0	0	0	0
Diptera CA	1	0	0	0	0	0
Diptera CC	0	0	0	1	0	0
Diptera CV	0	1	0	2	0	2
Diptera GU	1	0	0	0	0	0
Tricoptera A	3	1	0	0	0	0
Tricoptera B	1	0	0	0	0	0
Lepidoptera -	3	3	1	2	1	8
Hymenoptera A	0	0	0	1	0	1
Hymenoptera N	2	0	0	0	0	2
Hymenoptera AW	1	0	0	0	0	0
Hymenoptera BN	2	0	0	0	0	0
Hymenoptera BW	0	0	1	0	0	0
Hymenoptera - larvae	0	0	0	0	0	0
	1	0	0	0	1	0
TOTAL	PM1	PM2	PM3	PP1	PP2	PP3
	71	46	37	42	26	59
SPP	31	20	19	23	18	27
MARG	7.04	4.96	4.98	5.89	5.22	6.38

INBERG	2.96	5.75	4.11	7	5.2	7.38
INSIMP	7.99	13.8	12.6	23.9	21.7	21.7
MAY95	KP1	KP2	KP3	KB1	KB2	KB3
STATUS	g	m	g	g	g	m
Acarina A	2	0	2	2	0	0
Acarina B	0	0	0	1	1	2
Acarina C	1	0	1	0	0	0
Acarina D	1	0	0	0	0	0
Acarina E	0	0	0	0	0	0
Acarina H	0	1	0	0	0	0
Acarina I	0	0	1	0	0	0
Acarina N	0	0	0	0	0	0
Acarina S	0	0	0	1	0	0
Acarina U	1	0	0	0	0	0
Acarina W	0	0	2	1	0	0
Acarina AJ	0	0	0	0	1	0
Acarina AW	0	0	1	0	0	0
Araneae A	0	0	0	0	1	0
Araneae D	1	3	0	1	1	0
Araneae E	1	1	0	0	0	0
Araneae J	0	1	0	0	0	0
Araneae M	0	0	0	0	0	2
Araneae N	0	0	0	0	0	1
Araneae AN	0	0	0	2	0	0
Araneae BP	0	0	1	0	0	0
Araneae BR	0	0	0	0	0	1
Araneae -	1	2	6	3	0	9
Collembola A	0	2	1	0	0	0
Collembola C	1	0	1	0	1	0
Collembola D	0	0	1	0	0	0
Psocoptera A	0	0	0	0	1	0
Psocoptera E	0	0	0	0	0	0
Psocoptera L	0	2	0	0	0	0
Psocoptera Q	0	0	0	1	0	0
Hemiptera B	1	0	0	0	0	0
Hemiptera C	0	1	0	0	0	0
Hemiptera I	0	0	0	1	0	0
Hemiptera X	0	0	1	0	0	0
Coleoptera A	0	0	4	1	0	1
Coleoptera C	0	1	0	2	1	0
Coleoptera D	0	1	1	1	0	0
Coleoptera E	0	0	0	2	0	0
Coleoptera F	0	0	0	0	0	0
Coleoptera K	0	1	0	0	0	0
Diptera A	2	2	1	0	1	0
Diptera B	1	2	3	2	1	1
Diptera C	0	0	0	0	0	0
Diptera D	24	8	25	5	147	32
Diptera E	1	0	0	0	1	0
Diptera F	0	0	0	0	0	0
Diptera K	0	1	0	0	0	0
Diptera M	0	0	1	0	0	0
Diptera Q	0	0	0	0	0	0
Diptera T	0	0	2	0	5	0
Diptera AR	0	0	1	0	0	0
Diptera BH	0	3	0	0	0	0
Diptera DE	0	1	0	0	0	0
Diptera ES	0	1	0	0	0	0
Tricoptera B	0	0	0	0	0	1
Lepidoptera -	0	2	1	1	4	1
Hymenoptera A	0	0	0	0	2	0
Hymenoptera H	0	1	0	0	0	1
Hymenoptera N	0	0	4	0	0	1
Hymenoptera Q	0	0	0	2	0	0
Hymenoptera S	0	0	1	0	0	0

Hymenoptera U	0	0	1	0	0	0
Hymenoptera W	0	0	0	0	1	0
Hymenoptera AG	0	0	0	2	0	0
Hymenoptera FU	0	0	0	1	0	0
Hymenoptera - larvae	0	0	0	0	2	0
	0	0	4	0	0	0
	KP1	KP2	KP3	KB1	KB2	KB3
TOTAL	38	37	67	32	171	53
SPP	13	20	24	19	16	12
MARG	3.3	5.26	5.47	5.19	2.92	2.77
INBERG	1.58	4.63	2.68	6.4	1.16	1.66
INSIMP	2.53	16.7	6.52	24.8	1.35	2.58

MAY95	BB1	BB2	BB3	BM1	BM2	BM3
STATUS	g	m	m	p	p	g
Acarina A	1	3	1	0	0	2
Acarina C	0	1	1	0	0	0
Acarina D	0	0	1	0	0	0
Acarina E	0	0	0	0	0	0
Acarina I	0	1	1	0	0	0
Acarina N	0	0	0	0	0	0
Acarina R	0	0	1	0	0	0
Acarina BJ	0	1	0	0	0	1
Araneae A	0	0	0	0	0	0
Araneae D	0	3	0	0	0	2
Araneae E	0	0	0	0	0	1
Araneae N	0	4	0	0	0	0
Araneae AC	0	0	1	0	0	0
Araneae BS	0	1	0	0	0	0
Araneae -	14	3	3	0	0	9
Collembola A	0	0	1	0	0	1
Collembola C	0	0	0	0	0	1
Collembola D	0	0	0	0	0	7
Blattodea A	2	0	0	0	0	0
Psocoptera A	0	1	0	0	0	0
Psocoptera E	1	1	2	0	0	0
Psocoptera Q	0	0	0	0	0	1
Hemiptera I	0	1	0	0	0	0
Hemiptera BH	0	0	0	0	0	1
Thysanoptera A	0	0	0	0	0	2
Thysanoptera B	0	1	0	0	0	0
Coleoptera A	0	1	2	0	0	2
Coleoptera C	0	0	1	0	0	0
Coleoptera E	0	2	4	0	0	0
Coleoptera F	0	0	0	0	0	0
Coleoptera N	0	0	0	0	0	1
Coleoptera Y	0	0	1	0	0	0
Coleoptera AB	0	0	1	0	0	0
Coleoptera AI	0	0	1	0	0	0
Coleoptera AR	0	0	0	0	0	1
Diptera A	0	2	0	0	0	1
Diptera B	2	1	0	0	0	0
Diptera C	0	0	0	0	0	0
Diptera D	1	12	13	0	0	4
Diptera E	0	0	0	0	0	1
Diptera F	0	0	0	0	0	0
Diptera K	1	1	1	0	0	1
Diptera P	0	1	0	0	0	0
Diptera Q	0	0	1	0	0	0
Diptera T	0	0	0	0	0	0
Diptera AR	2	0	0	0	0	0
Diptera BE	0	0	1	0	0	0
Diptera BJ	2	0	0	0	0	0
Diptera BY	0	0	1	0	0	0
Diptera CV	0	1	0	0	0	0
Diptera CY	1	0	0	0	0	0

Diptera GV	0	1	0	0	0	0
Lepidoptera -	1	0	0	0	0	1
Hymenoptera A	2	1	0	0	0	0
Hymenoptera N	5	1	0	0	0	0
Hymenoptera U	0	0	0	0	0	1
Hymenoptera AC	0	1	0	0	0	0
Hymenoptera CK	1	0	0	0	0	0
Hymenoptera EQ	0	1	0	0	0	0
Hymenoptera - larvae	0	0	1	0	0	0
	BB1	BB2	BB3	BM1	BM2	BM3
TOTAL	36	47	40	0	0	41
SPP	14	25	21	0	0	20
MARG	3.63	6.23	5.42	0	0	5.12
INBERG	2.57	3.92	3.08	ERR	ERR	4.56
INSIMP	2.97	6.51	4.38	ERR	ERR	6.12

Appendix 2

The identity of morpho-species in the orders Acarina, Hemiptera, Coleoptera, Diptera, and Hymenoptera, arranged alphabetically by morpho-species. All identification was performed by Dr Ian Andrew, Department of Chemistry and Biochemistry, Massey University.

Where a number appears after the family name, it refers to the number of actual species lumped into the single morphospecies. sp. means a single species, spp. is plural. n.sp. means new species, and gp. means group. (f) and (m) designate female and male, respectively. =BQ means that this morpho-species is the same as morpho-species BQ. ? means that the identification is uncertain. (Discobola) after the generic name is the name of a subgenus. [Orthocladinae] indicates that this group is a subfamily, [Hexatomini] is a tribe. cf *Cathartocryptus* means that this animal is similar to *Cathartocryptus*. “*Beris*” indicates that these animals were previously included in the genus *Beris* but they do not belong there, and the true generic position is not yet clarified. Within the Acarina, CR stands for the suborder Cryptostigmata. Within the coleopteran family Curculionidae, suffixes 1 or 2 attached to the family name designate the subfamilies Cryptorhynchinae and Cossoninae, respectively. Within the dipteran family Mycetophilidae, the suffixes D, K, or M attached the family name designate the subfamilies Ditomyiinae, Keroplatinae, and Mycetophilinae, respectively.

Acarina

Morpho-species	Family	Genus	species
Acarina A	CR Scheloribatidae?		
Acarina B	CR Plateremaeidae	<i>Pedrocortesella</i>	
Acarina C	CR Oribatulidae	<i>Sellnickia</i>	
Acarina D	CR		nymph
Acarina E	CR Phthiracaridae	<i>Notophthiracarus</i>	
Acarina F			
Acarina G	CR		nymph
Acarina H	CR Plateremaeidae	<i>Pedrocortesella?</i>	nymph
Acarina I			
Acarina J			
Acarina K	CR Crotoniidae	<i>Crotonia</i>	
Acarina L	CR Otocephidae	<i>Plenotocephus?</i>	
Acarina M			
Acarina N			
Acarina O	CR		nymph
Acarina P	CR Hermaniellidae?		
Acarina Q	CR Cymbaeremaeidae	<i>Scapheremaeus</i>	<i>insularis?</i>
Acarina R	CR Cymbaeremaeidae	<i>Scapheremaeus?</i>	
Acarina S	CR Plateremaeidae?		
Acarina T	CR Plateremaeidae?		nymph
Acarina U	CR Crotoniidae	2 “ <i>Holonothrus</i> ” “ <i>Austronothrus</i> ”	
Acarina V	CR Camisiidae	<i>Camisia</i>	
Acarina W	CR Haplozetidae	<i>Peloribates</i>	

Acarina X			
Acarina Y			
Acarina Z	CR Liodidae?		
Acarina AA			
Acarina AB			nymph
Acarina AC			
Acarina AD			
Acarina AE	CR Neotrichozetidae	<i>Neotrichozetes</i>	<i>hypopus?</i>
Acarina AF	CR		nymph
Acarina AG			nymph
Acarina AH			nymph
Acarina AI			nymph
Acarina AJ	Mesostigmata		nymph
Acarina AK			
Acarina AL	CR		nymph
Acarina AM	CR Cymbaeremaeidae	<i>Scapheremaeus</i>	<i>emarginatus</i>
Acarina AN	CR Phthiracaridae	<i>Notophthiracarus</i>	nymph
Acarina AO	CR: box-Acarina		nymph
Acarina AP			
Acarina AQ	Mesostigmata		
Acarina AR	CR	2 “ <i>Neotrichozetes</i> ” “ <i>Scheloribates?</i> ”	
AcarinaAS	CR		nymph
AcarinaAT	CR	3 “ <i>Eutegaeus</i> ” “ <i>Ramsayellus</i> ” “ <i>Crassoribatula</i> ”	
AcarinaAU	CR Liodidae	<i>Liodes</i>	
AcarinaAV	Prostigmata		
AcarinaAW	CR Liodidae	<i>Liodes</i>	<i>nigricans</i>
AcarinaAX	CR		nymph
AcarinaAY	Prostigmata		
AcarinaAZ			
AcarinaBA			
AcarinaBB	Mesostigmata-Uropodidae		
AcarinaBC			
AcarinaBD			
AcarinaBE			
AcarinaBF	CR Scutoverticidae	<i>Scutovertex</i>	
AcarinaBG	Prostigmata-Eupodidae	<i>Linopodes</i>	
AcarinaBH	CR Austrachipteriidae	<i>Austrachipteria</i>	
AcarinaBI			
AcarinaBJ	CR Neotrichozetidae	<i>Neotrichozetes</i>	
Hemiptera			
Hemiptera A			nymph
Hemiptera B	Aphididae		
Hemiptera C	Lygaeidae	<i>Arocatus</i>	<i>rusticus</i>
Hemiptera D	Aphididae		nymph

Hemiptera E	Anthocoridae	<i>Cardiastethus?</i>	
Hemiptera F	Coccoidea		(m)
Hemiptera G	Eriococcidae?		
Hemiptera H	Eriococcidae?		
Hemiptera I	Coccoidea		nymph
Hemiptera J	Coccoidea		(m)
Hemiptera K			nymph
Hemiptera L	Eriococcidae?		
Hemiptera M	Reduviidae		nymph
Hemiptera N	Diaspididae		
Hemiptera O	Eriococcidae?		
Hemiptera P	Pseudococcidae?		
Hemiptera Q	Aphididae?		nymph
Hemiptera R	Coccoidea		(m)
Hemiptera S			nymph
Hemiptera T	Flatidae	<i>Siphanta</i>	<i>acuta</i>
Hemiptera U	Miridae	<i>Romna</i>	<i>scotti?</i>
Hemiptera V	Lygaeidae		nymph
Hemiptera W	Margarodidae		
Hemiptera X	Aphididae		
Hemiptera Y	Aphididae		
Hemiptera Z	Pseudococcidae?		
Hemiptera AA			nymph
Hemiptera AB	?		
Hemiptera AC	Aphididae	<i>Cinara?</i>	
Hemiptera AD	Aphididae		
Hemiptera AE	Cicadidae	<i>Amphipsalta</i>	
Hemiptera AF	Pseudococcidae?		
Hemiptera AG	Cixiidae	<i>Huttia</i>	<i>nigrifrons</i>
Hemiptera AH	Pentatomidae?		nymph
Hemiptera AI	Miridae		
Hemiptera AJ	Aradidae		
Hemiptera AK	Lygaeidae		
Hemiptera AL	Coccoidea		(m)
Hemiptera AM	Aphididae?		(m)
Hemiptera AN	Aphididae?		(m)
Hemiptera AO	Miridae?		
Hemiptera AP	Miridae		
Hemiptera AQ	Miridae	2 <i>Chinamiris</i> , etc.	
Hemiptera AR	?		
Hemiptera AS	Reduviidae		
Hemiptera AT	Miridae	<i>Romna?</i>	
Hemiptera AU			
Hemiptera AV	Miridae		
Hemiptera AW	Cicadellidae		
Hemiptera AX	Coccoidea		(m)
Hemiptera AY	Cicadellidae	<i>Zygina</i>	
Hemiptera AZ	Cixiidae	<i>Oliarus</i>	<i>oppositus?</i>
Hemiptera BA			
Hemiptera BB			

Hemiptera BC	Cicadellidae		
Hemiptera BD			
Hemiptera BE	Margarodidae?		(m)
Hemiptera BF			
Hemiptera BG	Acanthosomatidae	<i>Oncacontias</i>	<i>vittatus</i>
Hemiptera BH			nymph
Coleoptera			
Coleoptera A	Byrrhidae	2	
Coleoptera B	Ptiliidae	2	<i>Ptenidium</i> <i>Ptinella?</i>
Coleoptera C	Cryptophagidae	2	<i>Micrambina?</i>
Coleoptera D	Coccinellidae	2	<i>Rhyzobius</i> "acceptus" "flavhirtus?"
Coleoptera E	Lathridiidae	3	<i>Bicava?</i>
Coleoptera F	Staphylinidae		
Coleoptera G	Hydrophilidae		
Coleoptera H	Staphylinidae		
Coleoptera I	Staphylinidae		
Coleoptera J	Coccinellidae		
Coleoptera K	Nemonychidae		<i>Rhinorhynchus</i> <i>Didymocantha?</i>
Coleoptera L	Cerambycidae		<i>Homepuraea</i> <i>amoena</i>
Coleoptera M	Nitidulidae		
Coleoptera N	Staphylinidae		
Coleoptera O	Cryptophagidae		<i>Micrambina?</i>
Coleoptera P	Helodidae		
Coleoptera Q	Lathridiidae		<i>Aridius</i> <i>nodifer</i>
Coleoptera R	Scarabaeidae		<i>Odontria</i> <i>magnum?</i> (f)
Coleoptera S	Staphylinidae		[<i>Omalinae</i>]
Coleoptera T	Ptinidae	2	
Coleoptera U	Pselaphidae		
Coleoptera V	Clambidae		<i>Sphaerotherax</i> <i>tierensis?</i>
Coleoptera W	Pselaphidae		<i>Sagola</i> <i>Hylobia</i>
Coleoptera X	Melandryidae		
Coleoptera Y	Staphylinidae		
Coleoptera Z	Curculionidae	2	
Coleoptera AA	Cerambycidae		<i>Tetrorea</i> <i>cilipes</i>
Coleoptera AB	Clambidae		<i>Sphaerotherax</i> <i>suffusus</i>
Coleoptera AC	nil		
Coleoptera AD	Melandryidae		<i>Hylobia</i>
Coleoptera AE	Curculionidae 1	2	
Coleoptera AF	Mycetophagidae	2	<i>Triphyllus</i> <i>fuliginosus?</i> <i>serratus</i>
Coleoptera AG	Corylophidae		
Coleoptera AH	Coccinellidae		
Coleoptera AI	Cleridae		<i>Paupris</i> <i>aptera</i>
Coleoptera AJ	[<i>Scolytinae</i>]	2	
Coleoptera AK	Staphylinidae		

Coleoptera AL	Coccinellidae		<i>Stethorus?</i>	
Coleoptera AM	Staphylinidae			
Coleoptera AN	Cryptophagidae		" <i>Cryptophagus</i> "	
Coleoptera AO	Lathridiidae		<i>Corticaria?</i>	
Coleoptera AP	Staphylinidae			
Coleoptera AQ	Trogossitidae		<i>Lepidopteryx</i>	<i>nigrosarsa?</i>
Coleoptera AR	Leiodidae		<i>Paracantops</i>	
Coleoptera AS	Ptiliidae		<i>Ptinella</i>	<i>propria?</i>
Coleoptera AT	larva			
Coleoptera AU	Colydiidae		<i>Pristoderus</i>	
Coleoptera AV	Salpingidae	2	<i>Salpingus</i>	" <i>hirtus</i> " " <i>angusticollis</i> " <i>usitatus</i>
Coleoptera AW	Scraptiidae		<i>Nothotelus</i>	
Coleoptera AX	Staphylinidae			
Coleoptera AY	Pselaphidae			
Coleoptera AZ	Cerambycidae		<i>Ophryops</i>	<i>pallidus?</i>
Coleoptera BA	Dytiscidae?			
Coleoptera BB	Curculionidae 1			
Coleoptera BC	Ciidae	2	<i>Cis</i>	
Coleoptera BD	Colydiidae			
Coleoptera BE	Staphylinidae			
Coleoptera BF	Staphylinidae			
Coleoptera BG	Cerambycidae		<i>Ophryops</i>	<i>dispar?</i>
Coleoptera BH	Dermestidae		<i>Trogoderma</i>	<i>serriger?</i>
Coleoptera BI	Dermestidae		<i>Trogoderma</i>	<i>maestum?</i> (m+f)
Coleoptera BJ	Lathridiidae		<i>Enicmus</i>	
Coleoptera BK	Staphylinidae			
Coleoptera BL	Elateridae		<i>Lomemus?</i>	
Coleoptera BM	Coccinellidae			
Coleoptera BN	Curculionidae 2		<i>Pachyops</i>	<i>dubius</i>
Coleoptera BO	Staphylinidae			
Coleoptera BP	Carabidae		<i>Bembidion</i>	
Coleoptera BQ	Leiodidae		<i>Paracantops</i>	
Coleoptera BR	Colydiidae		<i>Notoulus</i>	
Coleoptera BS	Lathridiidae		<i>Aridius</i>	<i>costatus</i>
Coleoptera BT	Cerambycidae		<i>Eburida</i>	<i>sublineata</i>
Coleoptera BU	larvae			
Coleoptera BV	Ciidae	2	<i>Cis</i>	
Coleoptera BW	Brentidae		<i>Lasiornichus</i>	<i>barbicornis</i>
Coleoptera BX	Cantharidae		<i>Asilis</i>	<i>cornuta</i> (m) =DL
Coleoptera BY	Elateridae	4	<i>Metablax</i>	<i>cinctiger</i>
			<i>Acritelaterelongatus?</i>	
			<i>Protelater</i>	spp
Coleoptera BZ	Dermestidae		<i>Trogoderma</i>	<i>maestum?</i> (f)
Coleoptera CA	Dermestidae		<i>Trogoderma</i>	<i>serriger</i> (f)
Coleoptera CB	Coccinellidae		<i>Rhyzobius</i>	<i>acceptus</i>
Coleoptera CC	Languriidae?		cf <i>Cathartocryptus</i>	
Coleoptera CD	Curculionidae		<i>Neocyba</i>	<i>metrosideros</i>
Coleoptera CE	Curculionidae 2		<i>Eucossonus</i>	<i>comptus?</i>

Coleoptera CF	Scydmaenidae?		
Coleoptera CG	Curculionidae1	<i>Psepholax</i>	
Coleoptera CH	Mordellidae		
Coleoptera CI	Dermestidae	<i>Trogoderma?</i>	
Coleoptera CJ	Staphylinidae		
Coleoptera CK	Staphylinidae		
Coleoptera CL	Belidae	<i>Pachyura</i>	
Coleoptera CM	Dermestidae	<i>Trogoderma?</i>	
Coleoptera CN	Curculionidae		
Coleoptera CO	Scarabaeidae	<i>Saprosites</i>	
Coleoptera CP	Elmidae	<i>Hydora</i>	
Coleoptera CQ	Cleridae	2 <i>Phymatophaea</i>	"violacea" "pictum" =HW (1)
Coleoptera CR	Colydiidae	2 <i>Pycnomerus</i>	
Coleoptera CS	Helodidae		
Coleoptera CT	Ciidae	<i>Cis</i>	
Coleoptera CU	Cerambycidae	<i>Zorion</i>	<i>minutum</i>
Coleoptera CV	Cerambycidae	<i>Hybolasius?</i>	
Coleoptera CW	Rhipiphoridae	<i>Rhipistena?</i>	
Coleoptera CX	Scarabaeidae	<i>Pyronota</i>	
Coleoptera CY	Lucanidae	<i>Ceratognathus</i>	<i>parrianus</i> (f)
Coleoptera CZ	Helodidae		
Coleoptera DA	Curculionidae2	3 <i>Pentarthrum</i> <i>Torostoma</i>	spp. <i>apicale</i>
Coleoptera DB	Pselaphidae		
Coleoptera DC	Ciidae	<i>Cis</i>	
Coleoptera DD	Coccinellidae	<i>Rhyzobius</i>	<i>acceptus?</i>
Coleoptera DE	[Platypodinae]	<i>Platypus?</i>	
Coleoptera DF	Melandryidae	<i>Hylobia</i>	
Coleoptera DG	Curculionidae2	<i>Mesoxenophasis?</i>	
Coleoptera DH	Elateridae	<i>Sphaenelater</i>	<i>lineicollis</i>
Coleoptera DI	Staphylinidae		
Coleoptera DJ	Peltidae	<i>Australiodes</i>	<i>vestitus</i>
Coleoptera DK	Mycetophagidae	<i>Triphyllus</i>	<i>fuliginosus?</i>
Coleoptera DL	Cantharidae	<i>Asilis</i>	<i>cornuta</i> (m) =BX
Coleoptera DM	Lucanidae	<i>Ceratognathus</i>	<i>gibbosus</i>
Coleoptera DN	Anobiidae	<i>Xenocera</i>	
Coleoptera DO	Cerylidae	<i>Philothermus</i>	
Coleoptera DP	Helodidae?		
Coleoptera DQ	Dermestidae	<i>Anthrenocerus</i>	<i>australis</i>
Coleoptera DR	Aderidae	" <i>Xylophilus</i> "	
Coleoptera DS	Scraptiidae	<i>Nothotelus</i>	<i>nigellus?</i>
Coleoptera DT	Anthribidae	<i>Phymatus</i>	<i>phymatodes</i>
Coleoptera DU	Ciidae	2 <i>Cis</i>	
Coleoptera DV	Ciidae	<i>Cis</i>	
Coleoptera DW	Curculionidae1	<i>Oreda</i>	<i>notata</i>
Coleoptera DX	Erotylidae	<i>Cryptodacne?</i>	
Coleoptera DY	Aderidae	" <i>Xylophilus</i> "	
Coleoptera DZ	Anobiidae		

Coleoptera EA	Staphylinidae		
Coleoptera EB	Elateridae	<i>Conoderus</i>	
Coleoptera EC	Melyridae	<i>Dasytes</i>	
Coleoptera ED	Curculionidae?	larva	
Coleoptera EE	Scraptiidae	<i>Nothotelus</i>	<i>nigellus?</i>
Coleoptera EF	Colydiidae		
Coleoptera EG	Anobiidae		
Coleoptera EH	Corylophidae	<i>Sacina</i>	<i>oblonga?</i>
Coleoptera EI	Pselaphidae		
Coleoptera EJ	Ptiliidae	<i>Ptinella</i>	
Coleoptera EK	Scarabaeidae	<i>Odontria</i>	<i>borealis</i>
Coleoptera EL	Ciidae	<i>Cis</i>	
Coleoptera EM	Melandryidae	<i>Ctenoplectron</i>	<i>fuliginosa?</i>
Coleoptera EN	Cerambycidae	<i>Xylotoles?</i>	
Coleoptera EO	Curculionidae2	2 <i>Phloeophagosoma?</i>	
Coleoptera EP	Chalcodryidae	<i>Chalcodrya</i>	<i>variegata</i>
Coleoptera EQ	Trogidae	<i>Lepidopteryx</i>	<i>nigrosarsa?</i>
Coleoptera ER	Colydiidae	<i>Tarphiomimus?</i>	
Coleoptera ES	Cerambycidae	<i>Navomorpha</i>	<i>sulcata</i>
Coleoptera ET	Tenebrionidae	<i>Tanychilus</i>	<i>metallicus</i>
Coleoptera EU	Cleridae	cf <i>Metaxina</i>	
Coleoptera EV	Aderidae	" <i>Xylophilus</i> "	
Coleoptera EW	Lucanidae	<i>Ceratognathus</i>	<i>dispar(m)</i>
Coleoptera EX	larva		
Coleoptera EY	Elateridae		
Coleoptera EZ	Pythidae	<i>Techmessodes</i>	<i>picticornis?</i>
Coleoptera FA	Staphylinidae		
Coleoptera FB	Elateridae	<i>Protelater</i>	<i>guttatus?</i>
Coleoptera FC	Rhysoididae	<i>Kupeus</i>	<i>arcuatus</i>
Coleoptera FD	Elateridae		
Coleoptera FE	Staphylinidae		
Coleoptera FF	Coccinellidae	<i>Coccinella</i>	
Coleoptera FG	Tenebrionidae	<i>Tanychilus</i>	<i>metallicus</i>
Coleoptera FH	Lucanidae	<i>Ceratognathus</i>	<i>irroratus (f)</i>
Coleoptera FI	larva		
Coleoptera FJ	Colydiidae		
Coleoptera FK	Curculionidae		
Coleoptera FL	Anobiidae		
Coleoptera FM	Aderidae		
Coleoptera FN	Coccinellidae	<i>Coccinella</i>	<i>undecimpunctata</i>
Coleoptera FO	Elateridae		
Coleoptera FP	Chaetosomatidae	<i>Chaetosomodes</i>	<i>halli</i>
Coleoptera FQ	Elateridae	<i>Aglophus?</i>	
Coleoptera FR	Erotylidae	<i>Cryptodacne</i>	
Coleoptera FS	Elateridae	<i>Lomemus?</i>	
Coleoptera FT	Anobiidae	<i>Xenocera</i>	
Coleoptera FU	Staphylinidae		
Coleoptera FV	Elateridae	<i>Ochosternus</i>	
Coleoptera FW	Staphylinidae		

Coleoptera FX	Elateridae	<i>Metablax</i>	<i>cinctiger</i>
Coleoptera FY	Cryptophagidae	" <i>Cryptophagus</i> "	
Coleoptera FZ	Cerambycidae	<i>Astetholea?</i>	<i>lepturoides?</i>
Coleoptera GA	Chrysomelidae	<i>Adoxia</i>	<i>vulgaris</i>
Coleoptera GB	Anobiidae	<i>Leanobium?</i>	
Coleoptera GC	Elateridae	<i>Conoderus</i>	
Coleoptera GD	Staphylinidae		
Coleoptera GE	Anobiidae	<i>Lasioderma?</i>	
Coleoptera GF	Oedemeridae	<i>Thelyphassa</i>	<i>lineata</i>
Coleoptera GG	Anobiidae		
Coleoptera GH	Curculionidae	<i>Listronotus</i>	<i>bonariensis</i>
Coleoptera GI	Lathridiidae	<i>Corticaria?</i>	
Coleoptera GJ	Colydiidae	<i>Bitoma</i>	<i>insularis?</i>
Coleoptera GK	Staphylinidae		
Coleoptera GL	Scarabaeidae	<i>Stethaspis</i>	<i>prasina</i>
Coleoptera GM	Salpingidae	<i>Salpingus</i>	<i>hirtus</i>
Coleoptera GN	?		
Coleoptera GO	Mycetophagidae	<i>Triphyllus</i>	<i>fuliginosus?</i>
Coleoptera GP	Chrysomelidae	<i>Adoxia</i>	
Coleoptera GQ	Elateridae	<i>Ctenicera</i>	
Coleoptera GR	Oedemeridae	<i>Thelyphassa</i>	<i>lineata</i>
Coleoptera GS	Corylophidae		
Coleoptera GT	Anobiidae	<i>Hadrobregmus</i>	<i>crowsoni?</i>
Coleoptera GU	Curculionidae ²	<i>Euophryum</i>	<i>confine?</i>
Coleoptera GV	Cerambycidae	<i>Astetholea?</i>	<i>pauper?</i>
Coleoptera GW	Elateridae		
Coleoptera GX	Elateridae		
Coleoptera GY	Lucanidae	<i>Ceratognathus</i>	<i>dispar</i> (f)
Coleoptera GZ	Salpingidae	<i>Salpingus</i>	<i>angusticollis</i>
Coleoptera HA	Ptilodactylidae	<i>Brounia</i>	<i>thoracica</i>
Coleoptera HB	Staphylinidae		
Coleoptera HC	Elateridae	<i>Mecastrus?</i>	
Coleoptera HD	Curculionidae ²	<i>Rhinanisus</i>	<i>parvicornis</i>
Coleoptera HE	Coccinellidae	<i>Rhyzobius</i>	<i>forestieri?</i>
Coleoptera HF	Melyridae		
Coleoptera HG	Anobiidae	<i>Xenocera</i>	
Coleoptera HH	Aderidae		
Coleoptera HI	Chrysomelidae	<i>Eucolaspis</i>	
Coleoptera HJ	Cryptophagidae	2 " <i>Cryptophagus</i> "	
Coleoptera HK	Elateridae	<i>Thoramus</i>	<i>wakefieldi?</i> (m)
Coleoptera HL	Coccinellidae		
Coleoptera HM	Lucanidae	<i>Ceratognathus</i>	" <i>irroratus</i> (m, form 1)"
Coleoptera HN	Cerambycidae	<i>Oemona</i>	<i>hirta</i>
Coleoptera HO	Helodidae?		=DP?
Coleoptera HP	Staphylinidae		
Coleoptera HQ	Elateridae	<i>Thoramus</i>	<i>wakefieldi?</i> (f)
Coleoptera HR	Cerambycidae	<i>Xylotoles</i>	<i>griseus</i>
Coleoptera HS	Staphylinidae		
Coleoptera HT	Curculionidae ¹		

Coleoptera HU	Carabidae	<i>Notagonum</i>	
Coleoptera HV	Staphylinidae		
Coleoptera HW	Colydiidae	<i>Pycnomerus</i>	
Coleoptera HX	Cryptophagidae	" <i>Cryptophagus</i> "	
Coleoptera HY	Scraptiidae	<i>Nothotelus</i>	
Coleoptera HZ	Lucanidae	<i>Ceratognathus</i>	" <i>irroratus</i> (m, form2)"
Coleoptera IA	Nitidulidae	<i>Homepuraea</i>	<i>amoena</i>
Coleoptera IB	Anthribidae	<i>Androporus</i>	<i>discedens</i>
Coleoptera IC	Staphylinidae		
Coleoptera ID	Coccinellidae		
Coleoptera IE	Ciidae	<i>Cis</i>	
Coleoptera IF	Mycetophagidae	<i>Triphyllus</i>	<i>fuliginosus?</i>
Coleoptera IG	Chrysomelidae		
Coleoptera IH	Zopheridae	<i>Arthropus</i>	<i>brouni</i>
Coleoptera II	Scydmaenidae		
Coleoptera IJ	Corylophidae		=IY
Coleoptera IK	Staphylinidae		
Coleoptera IL	Cerambycidae	<i>Didymocantha?</i>	=L? (f)
Coleoptera IM	Helodidae?		
Coleoptera IN	[Scolytinae]	<i>Phloeosinus</i>	<i>cupressi</i>
Coleoptera IO	nil		
Coleoptera IP	Curculionidae		
Coleoptera IQ	Nitidulidae	<i>Epuraea</i>	<i>signata</i>
Coleoptera IR	Staphylinidae		
Coleoptera IS	Anthribidae	<i>Sharpus</i>	<i>brouni</i>
Coleoptera IT	Staphylinidae	<i>Silphotelus</i>	<i>nitidulidaeus</i>
Coleoptera IU	Coccinellidae	<i>Adalia</i>	<i>bipunctata</i>
Coleoptera IV	Curculionidae l		
Coleoptera IW	Cerambycidae	<i>Xuthodes</i>	<i>punctipennis</i>
Coleoptera IX	Ptiliidae	<i>Ptenidium?</i>	
Coleoptera IY	Corylophidae		
Coleoptera IZ	Staphylinidae		
Coleoptera JA	Curculionidae	<i>Peristoreus</i>	<i>trilobus</i>

Diptera

Morpho-species	Family	Genus	species
Diptera A	Sciaridae	<i>Sciara</i>	
Diptera B	Chironomidae	[Orthoclaadiinae]	
Diptera C	Chironomidae	2 <i>Chironomus</i>	
		[Orthoclaadiinae]	
Diptera D	Psychodidae	<i>Psychoda</i>	
Diptera E	Cecidomyiidae		
Diptera F	Cecidomyiidae	[<i>Micromyiini</i>]	
Diptera G	Trichoceridae	<i>Paracladura</i>	
Diptera H	Ceratopogonidae	<i>Atrichopogon</i>	(f) pale legs
Diptera I	Mycetophilidae-M	<i>Tetragoneura</i>	pale
Diptera J	Tipulidae	<i>Gonomyia</i>	
Diptera K	Mycetophilidae-M	3 <i>Mycetophila</i>	<i>marginepunctata</i>

			<i>fagi</i>
			sp.
			n.sp.
Diptera L	Mycetophilidae-M	<i>Sigmoleia?</i>	
Diptera M	Phoridae		
Diptera N	Ephyridae	<i>Psilopa</i>	<i>huttoni</i>
Diptera O	Chironomidae		
Diptera P	Cecidomyiidae		
Diptera Q	Tipulidae	<i>Molophilus</i>	<i>macrocerus</i> gp
Diptera R	Tipulidae	<i>Atarba</i>	<i>viridicolor</i> (m)
Diptera S	Sciaridae	<i>Sciadocera</i>	<i>rufomaculata</i>
Diptera T	Mycetophilidae-M	<i>Anomalomyia</i>	<i>guttata</i>
Diptera U	Heleomyzidae	<i>Allophylopsis</i>	
Diptera V	Tipulidae	<i>Erioptera</i> (Trimicra)	sp.
Diptera W	Chironomidae		
Diptera X	Muscidae		
Diptera Y	Ceratopogonidae	<i>Dasyhelea?</i>	(f) pale
Diptera Z	Mycetophilidae-M	<i>Exechia</i>	
DipteraA	Chloropidae	2 <i>Gaurax</i>	<i>flavoapicalis</i> <i>neozelandica</i>
DipteraAB	Lonchaeidae	<i>Lonchoptera</i>	<i>furcata</i>
DipteraAC	Calliphoridae	<i>Calliphora</i>	<i>quadrimaculata</i>
DipteraAD	Phoridae	2	
DipteraAE	Mycetophilidae-D	<i>Nervijuncta</i>	<i>ruficeps</i>
DipteraAF	Tipulidae	<i>Austrolimnophila</i>	<i>crassipes</i>
DipteraAG	Tipulidae	<i>Amphineurus</i>	
DipteraAH	Pallopteridae	<i>Maorina</i>	<i>bimacula</i> (m)
DipteraAI	Lauxaniidae	<i>Sapromyza</i>	<i>dichromata</i>
DipteraAJ	Cecidomyiidae	<i>Porricondyla?</i>	
DipteraAK	Culicidae	<i>Aedes?</i>	
DipteraAL	Tipulidae	<i>Molophilus</i>	<i>macrocerus</i> gp
DipteraAM	Empididae	<i>Oreogeton</i>	
DipteraAN	Anisopodidae	2 <i>Sylvicola</i>	<i>notata</i> <i>neozelandica</i>
DipteraAO	Chloropidae	2 <i>Conioscinella?</i>	
DipteraAP	Tipulidae	<i>Molophilus</i>	
DipteraAQ	Tipulidae	<i>Amphineurus</i>	<i>hudsoni</i>
DipteraAR	Mycetophilidae-M	<i>Austrosynapha</i>	
DipteraAS	Tipulidae	<i>Limonia</i>	<i>fasciata?</i>
DipteraAT	Ceratopogonidae	<i>Dasyhelea</i>	(m)
DipteraAU	Ceratopogonidae	<i>Dasyhelea</i>	(f)
DipteraAV	Mycetophilidae-M	2 <i>Tetragoneura</i>	<i>flexa</i> n.sp.
DipteraAW	Tipulidae	<i>Limonia</i> (Discobola)	<i>picta</i>
DipteraAX	Ceratopogonidae	<i>Dasyhelea?</i>	=BL? (f) small,pale
DipteraAY	Chironomidae	[Orthocladinae]	
DipteraAZ	Cecidomyiidae		
DipteraBA	Chironomidae	<i>Polypedilum</i>	<i>opimus</i> (m)
DipteraBB	Chironomidae	<i>Polypedilum</i>	<i>opimus</i> (f)
DipteraBC	Chironomidae	<i>Chironomus</i>	(f)

DipteraBD	Tipulidae	<i>Amphineurus?</i>	
DipteraBE	Chironomidae	[Orthoclaadiinae]	R2+3 absent
DipteraBF	Anisopodidae	<i>Sylvicola</i>	<i>notata</i>
DipteraBG			=EG
DipteraBH	Ephyridae	<i>Polytrichophora</i>	<i>flavitaris</i>
DipteraBI	Ceratopogonidae	<i>Dasyhelea</i>	(m)
DipteraBJ	Chironomidae	[Orthocladinae]	
DipteraBK	Tipulidae	<i>Molophilus</i>	
DipteraBL	Ceratopogonidae	<i>Dasyhelea?</i>	=AX? (f) small, pale
DipteraBM	Bibionidae	<i>Dilophus</i>	<i>segnis?</i> (f)
DipteraBN	Mycetophilidae-M	2 <i>Austrosynapha</i>	spp.
DipteraBO	Mycetophilidae-M	<i>Tetragoneura</i>	
DipteraBP	Sciaridae	<i>Sciara</i>	<i>nubeculosa</i>
DipteraBQ	Stratiomyidae	"Beris"	=BV
DipteraBR	Chironomidae	<i>Tanytarsus</i>	
DipteraBS	Simuliidae	<i>Austrosimulium</i>	
DipteraBT	Tipulidae	<i>Limonia</i>	<i>cubitalis</i>
DipteraBU	Cecidomyidae	<i>Porricondyla?</i>	
DipteraBV	Stratiomyidae	"Beris"	=BQ
DipteraBW	Ceratopogonidae	<i>Monohelea?</i>	
DipteraBX	Ceratopogonidae	<i>Dasyhelea?</i>	(m)
DipteraBY	Mycetophilidae-M	<i>Aphelomera</i>	
DipteraBZ	Phoridae		
DipteraCA	Tipulidae	<i>Limonia</i>	<i>aegrotans</i> =CT
DipteraCB	Tachinidae	<i>Bothrophora</i>	<i>lupina</i>
DipteraCC	Mycetophilidae-M	<i>Cycloneura</i>	
DipteraCD	Tipulidae	<i>Amphineurus</i>	<i>horni?</i>
DipteraCE	Mycetophilidae-M	<i>Tetragoneura</i>	sp.
DipteraCF	Chloropidae	2 <i>Aphanotrigonum</i>	<i>huttoni</i>
		<i>Conioscinella</i>	sp.
DipteraCG	Syrphidae	2	
DipteraCH	Chironomidae	<i>Ablabesmyia</i>	<i>mala</i>
DipteraCI	Tipulidae	<i>Austrolimnophila</i>	<i>argus</i>
DipteraCJ	Tipulidae	<i>Limonia</i> (Discobola)	<i>gibberina</i>
DipteraCK	Cecidomyidae		
DipteraCL	Cecidomyidae		
DipteraCM	Ceratopogonidae	<i>Stilobezzia?</i>	(m)
DipteraCN	Ceratopogonidae	<i>Dasyhelea?</i>	(f) small
DipteraCO	Simuliidae	<i>Austrosimulium</i>	
DipteraCP	Mycetophilidae-M	<i>Cycloneura</i>	<i>aberrans?</i>
DipteraCQ	Tipulidae	<i>Limonia</i> (Discobola)	<i>ampla</i>
DipteraCR	Muscidae	2 "Spilogona"	spp.
DipteraCS	Bibionidae	<i>Dilophus</i>	<i>segnis</i> (m)
DipteraCT	Tipulidae	<i>Limonia</i>	<i>aegrotans</i> =CA
DipteraCU	Empididae	<i>Ceratomerus</i>	
DipteraCV	Ceratopogonidae	<i>Dasyhelea?</i>	dark (f)
DipteraCW	Tipulidae	2 <i>Limonia</i>	<i>multispina</i>
			sp.
DipteraCX	Bibionidae	<i>Dilophus</i>	<i>segnis</i> (f)

DipteraCY	Tipulidae	<i>Metalimnophila?</i>	
DipteraCZ	Empididae	2 <i>Hilara</i>	spp.
DipteraDA	Chironomidae	[Orthoclaadiinae]	picture-wing
DipteraDB	Cecidomyiidae		
DipteraDC	Mycetophilidae-M	<i>Parvicellula</i>	
DipteraDD	Acroceridae	<i>Ogcodes</i>	
DipteraDE	Sphaoceridae	<i>Kimosina</i>	<i>thomasi</i>
DipteraDF	Chironomidae	<i>Podonomus</i>	
DipteraDG	Tipulidae	<i>Molophilus?</i>	
DipteraDH	Ephyridae	<i>Scatella</i>	<i>nitidithorax?</i>
DipteraDI	Phoridae		
DipteraDJ	Mycetophilidae-D	<i>Nervijuncta</i>	<i>wakefieldi</i>
DipteraDK	Tipulidae	<i>Austrolimnophila</i>	<i>marshalli</i>
DipteraDL	Tipulidae	<i>Austrolimnophila</i>	<i>leucomelas</i>
DipteraDM	Tipulidae	<i>Limonia</i> (Zealandoglochina)	<i>huttoni</i>
DipteraDN	Ceratopogonidae	<i>Dasyhelea?</i>	(f) small
DipteraDO	Tipulidae	<i>Limnophila?</i>	(f)
DipteraDP	Tipulidae	<i>Leptotarsus</i> (Macromastix)	
DipteraDQ	Scatopsidae	<i>Colobostema?</i>	(m)
DipteraDR	Chironomidae		
DipteraDS	Scatopsidae	<i>Anapausis</i>	
DipteraDT	Ceratopogonidae	<i>Forcipomyia?</i>	(f)
DipteraDU	Ceratopogonidae	<i>Dasyhelea?</i>	(f) long
DipteraDV	Ceratopogonidae	<i>Palpomyia</i>	
DipteraDW	Dolichopodidae	? <i>Parentia</i>	<i>restricta</i> etc.?
DipteraDX	Stratiomyidae	<i>Neactina?</i>	sp.A
DipteraDY	Tachinidae	2 <i>Pales</i>	spp.
DipteraDZ	Bibionidae	<i>Dilophus</i>	<i>tuthilli?</i> (f)
DipteraEA	Mycetophilidae-M	<i>Cawthronia</i>	<i>nigra</i>
DipteraEB	Tipulidae	<i>Limonia</i>	<i>plurispina?</i>
DipteraEC	Mycetophilidae-K	<i>Macrocera</i>	<i>unipuncta?</i>
DipteraED	Ceratopogonidae	<i>Dasyhelea?</i>	(m) dark
DipteraEE	Tipulidae	<i>Atarba</i>	<i>filicornis</i> (m)
DipteraEF	Chironomidae		
DipteraEG	Tipulidae	<i>Atarba</i>	<i>filicornis</i> (f)
DipteraEH	Empididae	<i>Phyllodromia</i>	=FB
DipteraEI	Tipulidae	<i>Molophilus</i>	<i>pulcherrimus</i>
DipteraEJ	Cecidomyiidae	<i>Lestremia</i>	(f) small
DipteraEK	Tipulidae	<i>Amphineurus</i>	
DipteraEL	Stratiomyidae	2 <i>Benhamyia/Neactina?</i>	(f)
DipteraEM	Mycetophilidae-K	<i>Macrocera</i>	<i>milligani</i>
DipteraEN	Tabanidae	<i>Scaptia</i>	
DipteraEO	Chironomidae	<i>Macropelopia</i>	<i>apicincta</i>
DipteraEP	Chironomidae	<i>Macropelopia</i>	<i>apicincta</i>
DipteraEQ	Mycetophilidae-K	<i>Neoplatyura</i>	
DipteraER	Dolichopodidae		
DipteraES	Agromyzidae	<i>Cerodontha</i>	<i>angustipennis</i>
DipteraET	Ceratopogonidae	<i>Dasyhelea?</i>	picture-wing

DipteraEU	Dolichopodidae	<i>Sympycnus?</i>	
DipteraEV	Agromyzidae	2 <i>Liriomyza</i>	<i>chenopodii</i>
		<i>Phytomyza</i>	<i>plantaginis?</i>
DipteraEW	Phoridae		
DipteraEX	Agromyzidae	<i>Phytomyza</i>	<i>plantaginis?</i>
DipteraEY	Mycetophilidae-K	<i>Paramacrocera?</i>	
DipteraEZ	Cecidomyiidae		
DipteraFA	Dolichopodidae		
DipteraFB	Empididae	<i>Phyllodromia</i>	=EH
DipteraFC	Sciaridae		pale
DipteraFD	Tachinidae	<i>Proscissio</i>	
DipteraFE	Cecidomyiidae	2 ?	tars.5 wide
DipteraFF	Mycetophilidae-M	<i>Tetragoneura</i>	
DipteraFG	Stratiomyidae	<i>Odontomyia</i>	
DipteraFH	Calliphoridae	<i>Pollenia</i>	
DipteraFI	Tipulidae	<i>Leptotarsus</i>	<i>huttoni/variegata</i>
DipteraFJ	Ceratopogonidae	<i>Atrichopogon</i>	(f) dark legs
DipteraFK	Syrphidae	<i>Melangyna</i>	<i>novaezealandiae</i>
DipteraFL	Dolichopodidae	<i>Achalcus</i>	
DipteraFM	Ceratopogonidae	<i>Dasyhelea?</i>	picture-wing
DipteraFN	Scatopsidae	<i>Colobostema?(f)</i>	
DipteraFO	Sphaeroceridae	" <i>Leptocera</i> "	
DipteraFP	Mycetophilidae-M	<i>Zygomyia</i>	
DipteraFQ	Bibionidae	<i>Dilophus</i>	<i>tuthilli?</i> (m)
DipteraFR	?		
DipteraFS	Simuliidae	<i>Austrosimulium</i>	
DipteraFT	Mycetophilidae-M	<i>Epicypta?</i>	n.sp.
DipteraFU	Scatopsidae	<i>Rhegmoclemina</i>	
DipteraFV	Sarcophagidae	<i>Hybopygia</i>	<i>varia</i>
DipteraFW	Stratiomyidae	" <i>Beris</i> "	<i>substituta?</i>
DipteraFX	Heleomyzidae	<i>Allophylopsis</i>	<i>scutellata</i>
DipteraFY	Tipulidae	<i>Austrolimnophila</i>	<i>marshalli</i>
DipteraFZ	Asilidae	<i>Neoitamus</i>	sp.
DipteraGA	Muscidae	<i>Musca</i>	<i>domestica</i>
DipteraGB	Tabanidae	<i>Dasybasis</i>	
DipteraGC	Tipulidae	<i>Amphineurus</i>	<i>bicinctus</i>
DipteraGD	Tipulidae	<i>Leptotarsus</i> (Chlorotipula)	
DipteraGE	Mycetophilidae-K	<i>Cerotelion</i>	
DipteraGF	Agromyzidae	<i>Phytomyza</i>	<i>clematadi?</i>
DipteraGG	Chironomidae	<i>Macropelopia</i>	<i>apicincta</i>
DipteraGH	Tipulidae	[Hexatomini]	
DipteraGI	Sphaeroceridae	<i>Ischiolepta</i>	<i>pusilla</i>
DipteraGJ	Stratiomyidae	<i>Neactina?</i>	sp.B
DipteraGK	Pallopteridae	<i>Maorina</i>	<i>bimacula</i> (f)
DipteraGL	Syrphidae	<i>Helophilus?</i>	
DipteraGM	Tipulidae	<i>Limonia</i>	DC open
DipteraGN	Mycetophilidae-M	2 <i>Tetragoneura</i>	<i>spinipes</i>
			sp.
DipteraGO	Mycetophilidae-K	<i>Macrocera</i>	<i>scoparia</i>

DipteraGP	Empididae	<i>Rhamphomyia</i>	
DipteraGQ	Cecidomyiidae	<i>Lestremia</i>	(f) large
DipteraGR	Phoridae		
DipteraGS	Cecidomyiidae	<i>Lestremia</i>	(m) small
DipteraGT	Cecidomyiidae		
DipteraGU	Tipulidae	<i>Zelandotipula</i>	
DipteraGV	Palloppteridae	<i>Maorina</i>	

Hymenoptera

morpho-species	family	genus	species
Hymenoptera A	Aphelinidae	<i>Pteroptrix</i>	=AG?
Hymenoptera B	Pteromalidae	<i>Aphobetus?</i>	
Hymenoptera C	Scelionidae	<i>Gryon</i>	
Hymenoptera D	Bethylidae		=DK?
Hymenoptera E	Encyrtidae	<i>Adelencyrtoides</i>	(m)
Hymenoptera F	Platygasteridae		
Hymenoptera G	Vespidae	<i>Vespula</i>	<i>vulgaris</i>
Hymenoptera H	Trichogrammatidae	<i>Trichogramma</i>	(f)
Hymenoptera I	Ichneumonidae	<i>Aucklandella?</i>	
Hymenoptera J	Mymaridae	<i>Anaphes</i>	(m)
Hymenoptera K	Mymaridae	<i>Alapatus</i>	
Hymenoptera L	Encyrtidae	2 <i>Adelencyrtoides</i>	<i>blastothrichus</i> <i>novaezealandiae</i> (f)
Hymenoptera M	Ceraphronidae		
Hymenoptera N	Mymaridae	<i>Alaptus</i>	
Hymenoptera O	Braconidae		
Hymenoptera P	Encyrtidae	<i>Adelencyrtoides</i>	<i>blastothrichus</i> (f)
Hymenoptera Q	Aphelinidae	<i>Pteroptrix?</i>	
Hymenoptera R	Mymaridae	<i>Haplochaeta</i>	<i>mandibularis</i>
Hymenoptera S	Pompiliidae	<i>Priocnemis</i>	<i>conformis</i> (m,f)
Hymenoptera T	Aphelinidae	<i>Pteroptrix</i>	(f)
Hymenoptera U	Eulophidae	2	
Hymenoptera V	Ichneumonidae		
Hymenoptera W	Ichneumonidae	3	
Hymenoptera X	Aphelinidae		
Hymenoptera Y	Ceraphronidae		
Hymenoptera Z	Encyrtidae	<i>Adelencyrtoides</i>	<i>novaezealandiae</i> (m)
Hymenoptera AA	Diapriidae		(f)
Hymenoptera AB	Mymaridae	2 <i>Cleruchus?</i> ?	
Hymenoptera AC	Apidae	<i>Apis</i>	<i>mellifera</i>
Hymenoptera AD	Scelionidae		(f)
Hymenoptera AE	Ceraphronidae		
Hymenoptera AF	Mymaridae		(m)
Hymenoptera AG	Aphelinidae	<i>Pteroptrix</i>	(f)
Hymenoptera AH	Aphelinidae	<i>Aphytis?</i>	

Hymenoptera AI	Diapriidae		(m)
Hymenoptera AJ	Aphelinidae	<i>Pteroptrix</i>	(m)
Hymenoptera AK	Platygasteridae		
Hymenoptera AL	Braconidae?		
Hymenoptera AM	Platygasteridae		
Hymenoptera AN	Platygasteridae		
Hymenoptera AO	Tenthredinidae	<i>Pontania</i>	<i>proxima</i>
Hymenoptera AP	Eulophidae		
Hymenoptera AQ	Encyrtidae	<i>Tetracnemoidea</i>	<i>brounii</i> (m)
Hymenoptera AR	Aphelinidae	<i>Aphelinus?</i>	(f)
Hymenoptera AS	Bethylidae		
Hymenoptera AT	Braconidae		(f)
Hymenoptera AU	Mymaridae	<i>Paracmotemnus</i>	
Hymenoptera AV	Apidae	<i>Bombus</i>	
Hymenoptera AW	Aphelinidae	<i>Pteroptrix</i>	=BQ? (f)
Hymenoptera AX	Scelionidae	<i>Gryon</i>	(m)
Hymenoptera AY	Halictidae	<i>Lasioglossum</i>	
Hymenoptera AZ	Encyrtidae	<i>Adelencyrtoides</i>	<i>unicolor</i> (m)
Hymenoptera BA	Encyrtidae	<i>Tetracnemoidea</i>	(f)
Hymenoptera BB	Mymaridae	<i>Anaphes</i>	(f)
Hymenoptera BC	Braconidae	<i>Ascogaster</i>	<i>crenulata</i>
Hymenoptera BD	Braconidae		
Hymenoptera BE	Eulophidae		=CG
Hymenoptera BF	Formicidae	<i>Monomorium</i>	<i>antarcticus</i> gp.
Hymenoptera BG	Eulophidae		=EX?
Hymenoptera BH	Eulophidae		=BM?
Hymenoptera BI	Aphidiinae		
Hymenoptera BJ	Eulophidae		
Hymenoptera BK	Mymaridae	<i>Camptoptera</i>	
Hymenoptera BL	Formicidae	<i>Huberia</i>	<i>striata</i>
Hymenoptera BM	Eulophidae		
Hymenoptera BN	Trichogrammatidae	<i>Trichogramma</i>	(m)
Hymenoptera BO	Aphidiinae		
Hymenoptera BP	Mymaridae		
Hymenoptera BQ	Aphelinidae	<i>Pteroptrix</i>	(f)
Hymenoptera BR	Pompiliidae	<i>Sphictostethus</i>	<i>calvus</i> (m,f)
Hymenoptera BS	Ichneumonidae		(f)
Hymenoptera BT	Diapriidae		(m)
Hymenoptera BU	Colletidae	<i>Hylaeus</i>	
Hymenoptera BV	Aphidiinae	<i>Trioxy</i>	
Hymenoptera BW	Eulophidae		
Hymenoptera BX	Torymidae	<i>Torymoides</i>	
Hymenoptera BY	Mymaridae	<i>Stethymium</i>	
Hymenoptera BZ	Dryinidae		
Hymenoptera CA	Ichneumonidae	<i>Aucklandella?</i>	
Hymenoptera CB	Aphidiinae		
Hymenoptera CC	Encyrtidae	<i>Coelopencyrtus</i>	<i>australis</i> (m)
Hymenoptera CD	Scelionidae	<i>Gryon</i>	=AX
Hymenoptera CE	Mymaridae	<i>Cleruchus?</i>	

Hymenoptera CF	Aphelinidae	<i>Pteroptrix?</i>	
Hymenoptera CG	Eulophidae		
Hymenoptera CH	Ichneumonidae		
Hymenoptera CI	Eulophidae		
Hymenoptera CJ	Orussidae	<i>Guiglia</i>	<i>schauinslandi</i>
Hymenoptera CK	Ichneumonidae		
Hymenoptera CL	Ichneumonidae		
Hymenoptera CM	Ichneumonidae	<i>Aucklandella?</i>	
Hymenoptera CN	Braconidae	<i>Ascogaster</i>	(m)
Hymenoptera CO	Ichneumonidae		
Hymenoptera CP	Eulophidae		
Hymenoptera CQ	Aphidiinae	<i>Aphidius?</i>	
Hymenoptera CR	Megaspilidae	<i>Dendrocerus?</i>	(f)
Hymenoptera CS	Ichneumonidae		
Hymenoptera CT	Ichneumonidae	<i>Lissonota</i>	
Hymenoptera CU	Formicidae	<i>Prolasius</i>	<i>advena</i>
Hymenoptera CV	Figitidae	<i>Anacharis</i>	<i>zealandica</i> (f)
Hymenoptera CW	Ceraphronidae		
Hymenoptera CX	Ichneumonidae	<i>Xanthopimpla</i>	
Hymenoptera CY	Eulophidae		
Hymenoptera CZ	Ceraphronidae		(f)
Hymenoptera DA	Halictidae	<i>Lasioglossum</i>	
Hymenoptera DB	Braconidae	<i>"Apanteles"</i>	(m)
Hymenoptera DC	Scelionidae		
Hymenoptera DD	Ichneumonidae		
Hymenoptera DE	Scelionidae		
Hymenoptera DF	Encyrtidae	<i>Coelopencyrtus</i>	<i>australis?</i>
Hymenoptera DG	Eulophidae		
Hymenoptera DH	Pteromalidae		
Hymenoptera DI	Pteromalidae		
Hymenoptera DJ	Mymaridae	<i>Dicopomorpha</i>	(m) =D?
Hymenoptera DK	Bethylidae		
Hymenoptera DL	Encyrtidae	<i>Adelencyrtoides</i>	<i>inconstans</i> (f) (f)
Hymenoptera DM	Scelionidae		
Hymenoptera DN	Sphecidae	<i>Podagritys</i>	<i>albipes?</i>
Hymenoptera DO	Braconidae	<i>"Apanteles"</i>	
Hymenoptera DP	Braconidae	<i>Ascogaster</i>	<i>iti</i>
Hymenoptera DQ	Braconidae	<i>"Apanteles"</i>	<i>tasmanicus?</i>
Hymenoptera DR	Eucoilidae		
Hymenoptera DS	Megaspilidae	<i>Dendrocerus?</i>	(m)
Hymenoptera DT	Braconidae		
Hymenoptera DU	Colletidae	<i>Leioproctus</i>	
Hymenoptera DV	Sphecidae	<i>Spilomena</i>	
Hymenoptera DW	Formicidae	<i>Prolasius</i>	<i>advena</i> (f)
Hymenoptera DX	Eulophidae		
Hymenoptera DY	Ichneumonidae	<i>Aucklandella?</i>	
Hymenoptera DZ	Mymaridae	<i>Cleruchus?</i>	
Hymenoptera EA	Sphecidae	<i>Tachysphex</i>	<i>nigerrimus</i>
Hymenoptera EB	Platygasteridae		

Hymenoptera EC	Mymaridae	<i>Ischiodasys?</i>	
Hymenoptera ED	Pteromalidae		
Hymenoptera EE	Braconidae		
Hymenoptera EF	Braconidae		
Hymenoptera EG	Mymaridae	<i>Ischiodasys</i>	(m)
Hymenoptera EH	Eulophidae		
Hymenoptera EI	Eulophidae		
Hymenoptera EJ	Encyrtidae	<i>Adelencyrtoides?</i>	
Hymenoptera EK	Scelionidae	<i>Gryon</i>	(f)
Hymenoptera EL	Formicidae	<i>Monomorium</i>	<i>antarcticus</i> gp. (f)
Hymenoptera EM	Braconidae		
Hymenoptera EN	Pteromalidae		=DH?
Hymenoptera EO	Ceraphronidae		(m)
Hymenoptera EP	Ichneumonidae	<i>Ichneumon</i>	<i>promissorius?</i>
Hymenoptera EQ	Trichogrammatidae		(f)
Hymenoptera ER	Formicidae	<i>Amblyopone</i>	<i>saundersi</i> (worker)
Hymenoptera ES	Formicidae	<i>Amblyopone</i>	<i>saundersi</i> (m)
Hymenoptera ET	Ichneumonidae		
Hymenoptera EU	Formicidae	<i>Monomorium</i>	<i>antarcticus</i> gp. (m)
Hymenoptera EV	Diapriidae		(f)
Hymenoptera EW	Diapriidae		(f)
Hymenoptera EX	Eulophidae		(m)
Hymenoptera EY	Formicidae	<i>Mesoponera</i>	<i>castanea</i> (m)
Hymenoptera EZ	Diapriidae		(f)
Hymenoptera FA	Proctotrupidae		
Hymenoptera FB	Mymaridae	<i>Cleruchus?</i>	
Hymenoptera FC	Pompiliidae	<i>Epipompilus</i>	<i>insularis</i> (m)
Hymenoptera FD	Formicidae	<i>Mesoponera</i>	<i>castanea</i>
Hymenoptera FE	Braconidae	2 " <i>Apanteles</i> "	
Hymenoptera FF	Diapriidae		(m)
Hymenoptera FG	Braconidae		
Hymenoptera FH	Diapriidae		(m)
Hymenoptera FI	Ichneumonidae		
Hymenoptera FJ	Ichneumonidae		
Hymenoptera FK	Eulophidae		
Hymenoptera FL	Ichneumonidae		
Hymenoptera FM	Pteromalidae		
Hymenoptera FN	Ichneumonidae	<i>Aucklandella?</i>	
Hymenoptera FO	Scelionidae	<i>Gryon</i>	(f)
Hymenoptera FP	Mymaridae		
Hymenoptera FQ	Pompiliidae	<i>Epipompilus</i>	<i>insularis</i> (m)
Hymenoptera FR	Ichneumonidae		
Hymenoptera FS	Formicidae	<i>Hypoconera?</i>	<i>eduardi?</i>
Hymenoptera FT	Encyrtidae	<i>Tetracnemoidea</i>	<i>brouni?</i> (f)
Hymenoptera FU	Aphelinidae		

Appendix 3

Species list for the orders Chilopoda, Diplopoda, Ephemeroptera, Odonata, Orthoptera, Psocoptera, Hemiptera, Neuroptera, Coleoptera, Diptera, and Hymenoptera, arranged alphabetically by family. See notes on Appendix 2.

Chilopoda

Family	Genus	species	Morpho-species
Chilenophilidae	<i>Zelanion</i>	<i>antipodum</i>	Chilopoda A

Diplopoda

Family	Genus	species	Morpho-species
Diplopoda-Fam?		(juvenile)	Chilopoda B
Diplopoda-Polyxenidae	<i>Propolyxenus</i>		Chilopoda C

Ephemeroptera

Family	Genus	species	Morpho-species
Leptophlebiidae	<i>Deleatidium?</i>		Ephemeroptera A
Leptophlebiidae	<i>Deleatidium?</i>		Ephemeroptera B
Siplonuridae	<i>Nesameletus</i>		Ephemeroptera C

Odonata

Family	Genus	species	Morpho-species
Lestidae	<i>Austrolestes</i>	<i>colenisonis</i>	Odonata A
Lestidae	<i>Austrolestes</i>	<i>colenisonis</i>	Odonata B
Corduliidae	<i>Procordulia</i>	<i>smithii</i>	Odonata C

Orthoptera

Family	Genus	species	Morpho-species
Rhaphidophoridae			Orthoptera A
Rhaphidophoridae			Orthoptera B
Rhaphidophoridae			Orthoptera C
Rhaphidophoridae			Orthoptera D

Psocoptera

Family	Genus	species	Morpho-species
Myopsocidae	<i>Phlotodes</i>	<i>australis</i>	Psocoptera L

Hemiptera

Family	Genus	species	Morpho-species
Acanthosomatidae	<i>Oncacontias</i>	<i>vittatus</i>	Hemiptera BG
Anthocoridae	<i>Cardiastethus?</i>		Hemiptera E

Aphididae	<i>Cinara?</i>		Hemiptera AC
Aphididae			Hemiptera B
Aphididae		nymph	Hemiptera D
Aphididae			Hemiptera X
Aphididae			Hemiptera Y
Aphididae			Hemiptera AD
Aphididae?		nymph	Hemiptera Q
Aphididae?		(m)	Hemiptera AM
Aphididae?		(m)	Hemiptera AN
Aradidae			Hemiptera AJ
Cicadidae	<i>Amphipsalta</i>		Hemiptera AE
Cicadellidae	<i>Zygina</i>		Hemiptera AY
Cicadellidae			Hemiptera AW
Cicadellidae			Hemiptera BC
Cixiidae	<i>Huttia</i>	<i>nigrifrons</i>	Hemiptera AG
Cixiidae	<i>Oliarus</i>	<i>oppositus?</i>	Hemiptera AZ
Coccoidea		(m)	Hemiptera F
Coccoidea		nymph	Hemiptera I
Coccoidea		(m)	Hemiptera J
Coccoidea		(m)	Hemiptera R
Coccoidea		(m)	Hemiptera AL
Coccoidea		(m)	Hemiptera AX
Diaspididae			Hemiptera N
Eriococcidae?			Hemiptera G
Eriococcidae?			Hemiptera H
Eriococcidae?			Hemiptera L
Eriococcidae?			Hemiptera O
Flatidae	<i>Siphanta</i>	<i>acuta</i>	Hemiptera T
Lygaeidae	<i>Arocatus</i>	<i>rusticus</i>	Hemiptera C
Lygaeidae		nymph	Hemiptera V
Lygaeidae			Hemiptera AK
Margarodidae			Hemiptera W
Margarodidae?		(m)	Hemiptera BE
Miridae	2 <i>Chinamiris, etc.</i>		Hemiptera AQ
Miridae	<i>Romna</i>	<i>scotti?</i>	Hemiptera U
Miridae	<i>Romna?</i>		Hemiptera AT
Miridae			Hemiptera AI
Miridae			Hemiptera AP
Miridae			Hemiptera AV
Miridae?			Hemiptera AO
Pentatomidae?		nymph	Hemiptera AH
Pseudococcidae?			Hemiptera P
Pseudococcidae?			Hemiptera Z
Pseudococcidae?			Hemiptera AF
Reduviidae		nymph	Hemiptera M
Reduviidae			Hemiptera As
?		nymph	Hemiptera A
?		nymph	Hemiptera K
?		nymph	Hemiptera S
?		nymph	Hemiptera AA

?		nymph	Hemiptera S
?		nymph	Hemiptera AA
?			Hemiptera AB
?			Hemiptera AR
?			Hemiptera AU
?			Hemiptera BA
?			Hemiptera BB
?			Hemiptera BD
?			Hemiptera BF
?		nymph	Hemiptera BH

Neuroptera

Family	Genus	species	Morpho-species
Hemerobiidae	<i>Micromus</i>	<i>tasmaniae</i>	Neuroptera C
Hemerobiidae	<i>Psectra</i>	<i>nakahari</i>	Neuroptera D
larva			Neuroptera A
larva			Neuroptera B

Coleoptera

Family	Genus	species	Morpho-species
?		larva	Coleoptera EX
?		larva	Coleoptera FI
?		larva	Coleoptera BU
?		larva	Coleoptera AT
?			Coleoptera GN
Aderidae	" <i>Xylophilus</i> "		Coleoptera DR
Aderidae	" <i>Xylophilus</i> "		Coleoptera DY
Aderidae	" <i>Xylophilus</i> "		Coleoptera EV
Aderidae			Coleoptera FM
Aderidae			Coleoptera HH
Anobiidae	<i>Hadrobregmus</i>	<i>crowsoni?</i>	Coleoptera GT
Anobiidae	<i>Leanobium?</i>		Coleoptera GB
Anobiidae	<i>Xenocera</i>		Coleoptera FT
Anobiidae	<i>Xenocera</i>		Coleoptera DN
Anobiidae	<i>Xenocera</i>		Coleoptera HG
Anobiidae			Coleoptera EG
Anobiidae			Coleoptera GE
Anobiidae			Coleoptera FL
Anobiidae			Coleoptera DZ
Anobiidae			Coleoptera GG
Anthribidae	<i>Androporus</i>	<i>discedens</i>	Coleoptera IB
Anthribidae	<i>Phymatus</i>	<i>phymatodes</i>	Coleoptera DT
Anthribidae	<i>Sharpius</i>	<i>brouni</i>	Coleoptera IS
Belidae	<i>Pachyura</i>		Coleoptera CL
Brentidae	<i>Lasiornchus</i>	<i>barbicornis</i>	Coleoptera BW
Brentidae	<i>Neocyba</i>	<i>metrosideros</i>	Coleoptera CD
Byrrhidae?	2		Coleoptera A

Cantharidae	<i>Asilis</i>	<i>cornuta</i> (m)	Coleoptera DL
Cantharidae	<i>Asilis</i>	<i>cornuta</i> (m) =DL	Coleoptera BX
Carabidae	<i>Bembidion</i>		Coleoptera BP
Carabidae	<i>Notagonum</i>		Coleoptera HU
Cerambycidae	<i>Astetholea?</i>	<i>lepturoides?</i>	Coleoptera FZ
Cerambycidae	<i>Astetholea?</i>	<i>pauper?</i>	Coleoptera GV
Cerambycidae	<i>Didymocantha?</i>	(m)	Coleoptera L
Cerambycidae	<i>Didymocantha?</i>	=L? (f)	Coleoptera IL
Cerambycidae	<i>Eburida</i>	<i>sublineata</i>	Coleoptera BT
Cerambycidae	<i>Hybolasius?</i>		Coleoptera CV
Cerambycidae	<i>Navomorpha</i>	<i>sulcata</i>	Coleoptera ES
Cerambycidae	<i>Oemona</i>	<i>hirta</i>	Coleoptera HN
Cerambycidae	<i>Ophryops</i>	<i>dispar?</i>	Coleoptera BG
Cerambycidae	<i>Ophryops</i>	<i>pallidus?</i>	Coleoptera AZ
Cerambycidae	<i>Tetrorea</i>	<i>cilipes</i>	Coleoptera AA
Cerambycidae	<i>Xuthodes</i>	<i>punctipennis</i>	Coleoptera IW
Cerambycidae	<i>Xylotoles</i>	<i>griseus</i>	Coleoptera HR
Cerambycidae	<i>Xylotoles?</i>		Coleoptera EN
Cerambycidae	<i>Zorion</i>	<i>minutum</i>	Coleoptera CU
Cerylidae	<i>Philothermus</i>		Coleoptera DO
Chaetosomatidae	<i>Chaetosomodes</i>	<i>halli</i>	Coleoptera FP
Chalcodryidae	<i>Chalcodrya</i>	<i>variegata</i>	Coleoptera EP
Chrysomelidae	<i>Adoxia</i>	<i>vulgaris?</i>	Coleoptera GA
Chrysomelidae	<i>Adoxia</i>		Coleoptera GP
Chrysomelidae	<i>Eucolaspis</i>		Coleoptera HI
Chrysomelidae			Coleoptera IG
Ciidae	2 <i>Cis</i>		Coleoptera BC
Ciidae	2 <i>Cis</i>		Coleoptera BV
Ciidae	<i>Cis</i>		Coleoptera CT
Ciidae	<i>Cis</i>		Coleoptera DC
Ciidae	2 <i>Cis</i>		Coleoptera DU
Ciidae	<i>Cis</i>		Coleoptera DV
Ciidae	<i>Cis</i>		Coleoptera EL
Ciidae	<i>Cis</i>		Coleoptera IE
Clambidae	<i>Sphaerotherax</i>	<i>suffusus</i>	Coleoptera AB
Clambidae	<i>Sphaerotherax</i>	<i>tierensis?</i>	Coleoptera V
Cleridae	cf <i>Metaxina</i>		Coleoptera EU
Cleridae	<i>Paupris</i>	<i>aptera</i>	Coleoptera AI
Cleridae	2 <i>Phymatophaea</i>	"violacea"	Coleoptera CQ
		"pictum"	
Coccinellidae	<i>Adalia</i>	<i>bipunctata</i>	Coleoptera IU
Coccinellidae	<i>Coccinella</i>	<i>undecimpunctata</i>	Coleoptera FN
Coccinellidae	<i>Coccinella</i>		Coleoptera FF
Coccinellidae	<i>Rhyzobius</i>	<i>acceptus</i>	Coleoptera CB
Coccinellidae	2 <i>Rhyzobius</i>	"acceptus"	Coleoptera D
		"flavihirtus?"	
Coccinellidae	<i>Rhyzobius</i>	<i>acceptus?</i>	Coleoptera DD
Coccinellidae	<i>Rhyzobius</i>	<i>forestieri?</i>	Coleoptera HE
Coccinellidae	<i>Stethorus?</i>		Coleoptera AL

Coccinellidae			Coleoptera J
Coccinellidae			Coleoptera AH
Coccinellidae			Coleoptera BM
Coccinellidae			Coleoptera HL
Coccinellidae			Coleoptera ID
Colydiidae			Coleoptera BD
Colydiidae	<i>Bitoma</i>	<i>insularis?</i>	Coleoptera GJ
Colydiidae	<i>Notoulus</i>		Coleoptera BR
Colydiidae	<i>Pristoderus</i>		Coleoptera AU
Colydiidae	<i>Pycnomerus</i>		Coleoptera HW
Colydiidae	2 <i>Pycnomerus</i>	1=HW	Coleoptera CR
Colydiidae	<i>Tarphiomimus?</i>		Coleoptera ER
Colydiidae			Coleoptera EF
Colydiidae			Coleoptera FJ
Corylophidae			Coleoptera AG
Corylophidae	<i>Sacina</i>	<i>oblonga?</i>	Coleoptera EH
Corylophidae			Coleoptera GS
Corylophidae		=IY	Coleoptera IJ
Corylophidae			Coleoptera IY
Cryptophagidae	" <i>Cryptophagus</i> "		Coleoptera HX
Cryptophagidae	2 " <i>Cryptophagus</i> "		Coleoptera HJ
Cryptophagidae	" <i>Cryptophagus</i> "		Coleoptera AN
Cryptophagidae	" <i>Cryptophagus</i> "		Coleoptera FY
Cryptophagidae	<i>Micrambina?</i>		Coleoptera O
Cryptophagidae	2 <i>Micrambina?</i>		Coleoptera C
Curculionidae1	<i>Oreda</i>	<i>notata</i>	Coleoptera DW
Curculionidae1	<i>Psepholax?</i>		Coleoptera CG
Curculionidae1	2		Coleoptera AE
Curculionidae1			Coleoptera BB
Curculionidae1			Coleoptera HT
Curculionidae1			Coleoptera IV
Curculionidae2	<i>Eucossonus</i>	<i>comptus?</i>	Coleoptera CE
Curculionidae2	<i>Euophryum</i>	<i>confine?</i>	Coleoptera GU
Curculionidae2	<i>Mesoxenophasis?</i>		Coleoptera DG
Curculionidae2	<i>Pachyops</i>	<i>dubius</i>	Coleoptera BN
Curculionidae2	3 <i>Pentarthrum</i>	spp.	Coleoptera DA
	<i>Torostoma</i>	<i>apicale</i>	
Curculionidae2	2 <i>Phloeophagosoma?</i>		Coleoptera EO
Curculionidae2	<i>Rhinanusus</i>	<i>parvicornis</i>	Coleoptera HD
Curculionidae	<i>Listronotus</i>	<i>bonariensis</i>	Coleoptera GH
Curculionidae	<i>Peristoreus</i>	<i>trilobus</i>	Coleoptera JA
Curculionidae	2		Coleoptera Z
Curculionidae			Coleoptera CN
Curculionidae			Coleoptera FK
Curculionidae?		larva	Coleoptera IP
Dermestidae	<i>Anthrenocerus</i>	<i>australis</i>	Coleoptera ED
Dermestidae	<i>Trogoderma</i>	<i>maestum?</i> (f)	Coleoptera DQ
Dermestidae	<i>Trogoderma</i>	<i>serriger</i> (f)	Coleoptera BZ
			Coleoptera CA

Dermestidae	<i>Trogoderma</i>	<i>serriger?</i>	Coleoptera BH
Dermestidae	<i>Trogoderma</i>	<i>maestum?</i> (m+f)	Coleoptera BI
Dermestidae	<i>Trogoderma?</i>		Coleoptera CI
Dermestidae	<i>Trogoderma?</i>		Coleoptera CM
Dytiscidae?			Coleoptera BA
Elateridae	<i>Aglophus</i>	<i>modestus</i>	Coleoptera FQ
Elateridae	<i>Conoderus</i>		Coleoptera GC
Elateridae	<i>Conoderus</i>		Coleoptera EB
Elateridae	<i>Ctenicera</i>		Coleoptera GQ
Elateridae	<i>Lomemus</i>	<i>flavipes?</i>	Coleoptera GW
Elateridae	<i>Lomemus?</i>		Coleoptera BL
Elateridae	<i>Lomemus?</i>		Coleoptera FS
Elateridae	<i>Mecastrus?</i>		Coleoptera HC
Elateridae	<i>Metablax</i>	<i>cinctiger</i>	Coleoptera FX
Elateridae	4 <i>Metablax</i>	<i>cinctiger</i>	Coleoptera BY
	<i>Acritelater</i>	<i>elongatus?</i>	
	<i>Protelater</i>	spp.	
Elateridae	<i>Ochosternus</i>		Coleoptera FV
Elateridae	<i>Protelater</i>	<i>guttatus?</i>	Coleoptera FB
Elateridae	<i>Sphaenelater</i>	<i>lineicollis</i>	Coleoptera DH
Elateridae	<i>Thoramus</i>	<i>wakefieldi?</i> (m)	Coleoptera HK
Elateridae	<i>Thoramus</i>	<i>wakefieldi?</i> (f)	Coleoptera HQ
Elateridae			Coleoptera FD
Elateridae			Coleoptera FO
Elmidae	<i>Hydora</i>		Coleoptera CP
Erotylidae	<i>Cryptodacne</i>		Coleoptera FR
Erotylidae	<i>Cryptodacne?</i>		Coleoptera DX
Eucnemidae	<i>Talerax</i>	<i>distans?</i>	Coleoptera GX
Eucnemidae			Coleoptera EY
Helodidae			Coleoptera P
Helodidae			Coleoptera CZ
Helodidae			Coleoptera CS
Helodidae?		=DP?	Coleoptera HO
Helodidae?			Coleoptera DP
Helodidae?			Coleoptera IM
Hydrophilidae			Coleoptera G
Languriidae?	cf <i>Cathartocryptus</i>		Coleoptera CC
Lathridiidae	<i>Aridius</i>	<i>costatus?</i>	Coleoptera BS
Lathridiidae	2 <i>Aridius</i>	" <i>nodifer</i> "	Coleoptera Q
		" <i>bifasciata</i> "	
Lathridiidae	<i>Corticicara</i>	<i>hirtalis?</i>	Coleoptera GI
Lathridiidae	<i>Corticicara</i>	<i>hirtalis?</i>	Coleoptera AO
Lathridiidae	<i>Enicmus</i>		Coleoptera BJ
Lathridiidae	4 " <i>Melanophthalma</i> "		Coleoptera E
	" <i>Bicava</i> "		
Leiodidae	<i>Paracatops</i>		Coleoptera AR
Leiodidae	<i>Paracatops</i>		Coleoptera BQ
Lucanidae	<i>Ceratognathus</i>	<i>dispar</i> (f)	Coleoptera GY
Lucanidae	<i>Ceratognathus</i>	<i>dispar</i> (m)	Coleoptera EW

Lucanidae	<i>Ceratognathus</i>	<i>gibbosus</i>	Coleoptera DM
Lucanidae	<i>Ceratognathus</i>	<i>irroratus</i> (f)	Coleoptera FH
Lucanidae	<i>Ceratognathus</i>	"irroratus (m, form1)"	Coleoptera HM
Lucanidae	<i>Ceratognathus</i>	"irroratus (m, form2)"	Coleoptera HZ
Lucanidae	<i>Ceratognathus</i>	<i>parrianus</i> (f)	Coleoptera CY
Melandryidae	<i>Ctenoplectron</i>	<i>fuliginosa?</i>	Coleoptera EM
Melandryidae	<i>Hylobia</i>		Coleoptera X
Melandryidae	<i>Hylobia</i>		Coleoptera AD
Melandryidae	<i>Hylobia</i>		Coleoptera DF
Melyridae	<i>Dasytes</i>		Coleoptera EC
Melyridae			Coleoptera HF
Mordellidae			Coleoptera CH
Mycetophagidae	2 <i>Triphyllus</i>	<i>fuliginosus?</i>	Coleoptera AF
		<i>serratus</i>	
Mycetophagidae	<i>Triphyllus</i>	<i>fuliginosus?</i>	Coleoptera DK
Mycetophagidae	<i>Triphyllus</i>	<i>fuliginosus?</i>	Coleoptera GO
Mycetophagidae	<i>Triphyllus</i>	<i>fuliginosus?</i>	Coleoptera IF
Nemonychidae	<i>Rhinorhynchus</i>	<i>rufulus</i>	Coleoptera K
Nitidulidae	<i>Epuraea</i>	<i>signata</i>	Coleoptera IQ
Nitidulidae	<i>Homepuraea</i>	<i>amoena</i>	Coleoptera M
Nitidulidae	<i>Homepuraea</i>	<i>amoena</i>	Coleoptera IA
Oedemeridae	<i>Thelyphassa</i>	<i>lineata</i>	Coleoptera GF
Oedemeridae	<i>Thelyphassa</i>	<i>lineata</i>	Coleoptera GR
Peltidae	<i>Australiodes</i>	<i>vestitus</i>	Coleoptera DJ
[Platypodinae]	<i>Platypus?</i>		Coleoptera DE
Pselaphidae			Coleoptera U
Pselaphidae	<i>Sagola</i>		Coleoptera W
Pselaphidae			Coleoptera AY
Pselaphidae			Coleoptera DB
Pselaphidae			Coleoptera EI
Ptiliidae	2 <i>Ptenidium</i>		Coleoptera B
	<i>Ptinella?</i>		
Ptiliidae	<i>Ptenidium?</i>		Coleoptera IX
Ptiliidae	<i>Ptinella</i>	<i>propria?</i>	Coleoptera AS
Ptiliidae	<i>Ptinella</i>		Coleoptera EJ
Ptilodactylidae	<i>Brounia</i>	<i>thoracica</i>	Coleoptera HA
Ptinidae	2		Coleoptera T
Pythidae	<i>Techmessodes</i>	<i>picticornis?</i>	Coleoptera EZ
Rhipiphoridae	<i>Rhipistena?</i>		Coleoptera CW
Rhysoididae	<i>Kupeus</i>	<i>arcuatus</i>	Coleoptera FC
Salpingidae	2 <i>Salpingus</i>	" <i>hirtus</i> "	Coleoptera AV
		" <i>angusticollis</i> "	
Salpingidae	<i>Salpingus</i>	<i>angusticollis</i>	Coleoptera GZ
Salpingidae	<i>Salpingus</i>	<i>hirtus</i>	Coleoptera GM
Scarabaeidae	<i>Aphodius</i>	<i>frenchi?</i>	Coleoptera CO
Scarabaeidae	<i>Odontria</i>	<i>borealis</i>	Coleoptera EK
Scarabaeidae	<i>Odontria</i>	<i>magnum?</i> (f)	Coleoptera R
Scarabaeidae	<i>Pyronota</i>		Coleoptera CX
Scarabaeidae	<i>Stethaspis</i>	<i>prasina</i>	Coleoptera GL

[Scolytinae]		<i>Phloeosinus</i>	<i>cupressi</i>	Coleoptera IN
[Scolytinae]	2			Coleoptera AJ
Scraptiidae		<i>Nothotelus</i>	<i>nigellus?</i>	Coleoptera DS
Scraptiidae		<i>Nothotelus</i>	<i>nigellus?</i>	Coleoptera EE
Scraptiidae		<i>Nothotelus</i>	<i>usitatus</i>	Coleoptera AW
Scraptiidae		<i>Nothotelus</i>		Coleoptera HY
Scydmaenidae				Coleoptera II
Scydmaenidae?				Coleoptera CF
Staphylinidae		<i>Silphotelus</i>	<i>nitidus</i>	Coleoptera IT
Staphylinidae		[Tachyporinae]		Coleoptera CJ
Staphylinidae		[Tachyporinae]		Coleoptera DI
Staphylinidae				Coleoptera F
Staphylinidae				Coleoptera H
Staphylinidae				Coleoptera I
Staphylinidae				Coleoptera N
Staphylinidae		[Omaliinae]		Coleoptera S
Staphylinidae				Coleoptera W
Staphylinidae				Coleoptera Y
Staphylinidae				Coleoptera AK
Staphylinidae				Coleoptera AM
Staphylinidae				Coleoptera AP
Staphylinidae				Coleoptera AX
Staphylinidae				Coleoptera BE
Staphylinidae				Coleoptera BF
Staphylinidae				Coleoptera BK
Staphylinidae				Coleoptera BO
Staphylinidae				Coleoptera CK
Staphylinidae				Coleoptera EA
Staphylinidae				Coleoptera FA
Staphylinidae				Coleoptera FE
Staphylinidae				Coleoptera FU
Staphylinidae				Coleoptera FW
Staphylinidae				Coleoptera GD
Staphylinidae				Coleoptera GK
Staphylinidae				Coleoptera HB
Staphylinidae				Coleoptera HP
Staphylinidae				Coleoptera HS
Staphylinidae				Coleoptera HV
Staphylinidae				Coleoptera IR
Staphylinidae				Coleoptera IC
Staphylinidae				Coleoptera IK
Staphylinidae				Coleoptera IZ
Tenebrionidae		<i>Tanychilus</i>	<i>metallicus?</i>	Coleoptera ET
Tenebrionidae		<i>Tanychilus</i>	<i>metallicus?</i>	Coleoptera FG
Trogossitidae		<i>Lepidopteryx</i>	<i>nigrosparsa?</i>	Coleoptera AQ
Trogossitidae		<i>Lepidopteryx</i>	<i>nigrosparsa?</i>	Coleoptera EQ
Zopheridae		<i>Arthropus</i>	<i>brouni</i>	Coleoptera IH

Diptera

family	genus	species	morpho-species
Acroceridae	<i>Ogcodes</i>		Diptera DD
Agromyzidae	<i>Cerodontha</i>	<i>angustipennis</i>	Diptera ES
Agromyzidae	2 <i>Liriomyza</i>	<i>chenopodii</i>	Diptera EV
	<i>Phytomyza</i>	<i>plantaginis?</i>	
Agromyzidae	<i>Phytomyza</i>	<i>clematadi?</i>	Diptera GF
Agromyzidae	<i>Phytomyza</i>	<i>plantaginis?</i>	Diptera EX
Anisopodidae	<i>Sylvicola</i>	<i>notata</i>	Diptera BF
Anisopodidae	2 <i>Sylvicola</i>	<i>notata</i>	Diptera AN
		<i>neozelandica</i>	
Asilidae	<i>Neoitamus</i>	sp.	Diptera FZ
Bibionidae	<i>Dilophus</i>	<i>segnis</i> (f)	Diptera CX
Bibionidae	<i>Dilophus</i>	<i>segnis</i> (m)	Diptera CS
Bibionidae	<i>Dilophus</i>	<i>segnis?</i> (f)	Diptera BM
Bibionidae	<i>Dilophus</i>	<i>tuthilli?</i> (f)	Diptera DZ
Bibionidae	<i>Dilophus</i>	<i>tuthilli?</i> (m)	Diptera FQ
Calliphoridae	<i>Calliphora</i>	<i>quadrimaculata</i>	Diptera AC
Calliphoridae	<i>Pollenia</i>		Diptera FH
Cecidomyiidae	2 ?	tars.5 wide	Diptera FE
Cecidomyiidae	<i>Lestremia</i>	(f) large	Diptera GQ
Cecidomyiidae	<i>Lestremia</i>	(f) small	Diptera EJ
Cecidomyiidae	<i>Lestremia</i>	(m) small	Diptera GS
Cecidomyiidae	(<i>Micromyiini</i>)		Diptera F
Cecidomyiidae	<i>Porricondyla?</i>		Diptera BU
Cecidomyiidae	<i>Porricondyla?</i>		Diptera AJ
Cecidomyiidae			Diptera CL
Cecidomyiidae			Diptera DB
Cecidomyiidae			Diptera GT
Cecidomyiidae			Diptera E
Cecidomyiidae			Diptera AZ
Cecidomyiidae			Diptera P
Cecidomyiidae			Diptera EZ
Cecidomyiidae			Diptera CK
Ceratopogonidae	<i>Atrichopogon</i>	(f) dark legs	Diptera FJ
Ceratopogonidae	<i>Atrichopogon</i>	(f) pale legs	Diptera H
Ceratopogonidae	<i>Dasyhelea</i>	(f)	Diptera AU
Ceratopogonidae	<i>Dasyhelea</i>	(m)	Diptera BI
Ceratopogonidae	<i>Dasyhelea</i>	(m)	Diptera AT
Ceratopogonidae	<i>Dasyhelea?</i>	dark (f)	Diptera CV
Ceratopogonidae	<i>Dasyhelea?</i>	dark (m)	Diptera ED
Ceratopogonidae	<i>Dasyhelea?</i>	picture-wing	Diptera ET
Ceratopogonidae	<i>Dasyhelea?</i>	picture-wing	Diptera FM
Ceratopogonidae	<i>Dasyhelea?</i>	(f) long	Diptera DU
Ceratopogonidae	<i>Dasyhelea?</i>	(f) pale	Diptera Y
Ceratopogonidae	<i>Dasyhelea?</i>	(f) small	Diptera CN
Ceratopogonidae	<i>Dasyhelea?</i>	(f) small	Diptera DN
Ceratopogonidae	<i>Dasyhelea?</i>	(f) small, pale	Diptera BL
Ceratopogonidae	<i>Dasyhelea?</i>	(f) small, pale	Diptera AX
Ceratopogonidae	<i>Dasyhelea?</i>	(m)	Diptera BX

Ceratopogonidae	<i>Forcipomyia?</i>	(f)	Diptera DT
Ceratopogonidae	<i>Monohelea?</i>		Diptera BW
Ceratopogonidae	<i>Palpomyia</i>		Diptera DV
Ceratopogonidae	<i>Stilobezzia?</i>	(m)	Diptera CM
Chironomidae	<i>Ablabesmyia</i>	<i>mala</i>	Diptera CH
Chironomidae	<i>Chironomus</i>	(f)	Diptera BC
Chironomidae ²	<i>Chironomus</i>		Diptera C
	[Orthoclaadiinae]		
Chironomidae	<i>Macropelopia</i>	<i>apicincta</i>	Diptera EO
Chironomidae	<i>Macropelopia</i>	<i>apicincta</i>	Diptera EP
Chironomidae	<i>Macropelopia</i>	<i>apicincta</i>	Diptera GG
Chironomidae	[Orthoclaadiinae]	picture-wing	Diptera DA
Chironomidae	[Orthoclaadiinae]	R2+3 absent	Diptera BE
Chironomidae	[Orthoclaadiinae]		Diptera B
Chironomidae	[Orthoclaadiinae]		Diptera BJ
Chironomidae	[Orthoclaadiinae]		Diptera AY
Chironomidae	<i>Podonomus</i>		Diptera DF
Chironomidae	<i>Polypedilum</i>	<i>opimus</i> (f)	Diptera BB
Chironomidae	<i>Polypedilum</i>	<i>opimus</i> (m)	Diptera BA
Chironomidae	<i>Tanytarsus</i>		Diptera BR
Chironomidae			Diptera O
Chironomidae			Diptera EF
Chironomidae			Diptera W
Chironomidae			Diptera DR
Chloropidae	2 <i>Aphanotrigonum</i>	<i>huttoni</i>	Diptera CF
	<i>Conioscinella</i>	sp.	
Chloropidae	2 <i>Conioscinella?</i>		Diptera AO
Chloropidae	2 <i>Gaurax</i>	<i>flavoapicalis</i> <i>neozelandica</i>	Diptera AA
Culicidae	<i>Aedes?</i>		Diptera AK
Dolichopodidae	<i>Achalcus</i>		Diptera FL
Dolichopodidae	? <i>Parentia</i>	<i>restricta</i> etc.?	Diptera DW
Dolichopodidae	<i>Sympycnus?</i>		Diptera EU
Dolichopodidae			Diptera ER
Dolichopodidae			Diptera FA
Empididae	<i>Ceratomerus</i>		Diptera CU
Empididae	2 <i>Hilara</i>	spp.	Diptera CZ
Empididae	<i>Oreogeton</i>		Diptera AM
Empididae	<i>Phyllodromia</i>	=EH	Diptera FB
Empididae	<i>Phyllodromia</i>	=FB	Diptera EH
Empididae	<i>Rhamphomyia</i>		Diptera GP
Ephyridae	<i>Polytrichophora</i>	<i>flavitaris</i>	Diptera BH
Ephyridae	<i>Psilopa</i>	<i>huttoni</i>	Diptera N
Ephyridae	<i>Scatella</i>	<i>nitidithorax?</i>	Diptera DH
?			Diptera FR
Heleomyzidae	<i>Allophylopsis</i>	<i>scutellata</i>	Diptera FX
Heleomyzidae	<i>Allophylopsis</i>		Diptera U
Lauxaniidae	<i>Sapromyza</i>	<i>dichromata</i>	Diptera AI
Lonchaeidae	<i>Lonchoptera</i>	<i>furcata</i>	Diptera AB

Muscidae	2	" <i>Spilogona</i> "	spp.	Diptera CR
Muscidae		<i>Musca</i>	<i>domestica</i>	Diptera GA
Muscidae				Diptera X
Mycetophilidae-D		<i>Nervijuncta</i>	<i>ruficeps</i>	Diptera AE
Mycetophilidae-D		<i>Nervijuncta</i>	<i>wakefieldi</i>	Diptera DJ
Mycetophilidae-K		<i>Cerotelion</i>		Diptera GE
Mycetophilidae-K		<i>Macrocera</i>	<i>milligani</i>	Diptera EM
Mycetophilidae-K		<i>Macrocera</i>	<i>scoparia</i>	Diptera GO
Mycetophilidae-K		<i>Macrocera</i>	<i>unipuncta?</i>	Diptera EC
Mycetophilidae-K		<i>Neoplatyura</i>		Diptera EQ
Mycetophilidae-K		<i>Paramacrocera?</i>		Diptera EY
Mycetophilidae-M		<i>Anomalomyia</i>	<i>guttata</i>	Diptera T
Mycetophilidae-M	2	<i>Austrosynapha</i>	spp.	
Mycetophilidae-M		<i>Austrosynapha</i>		Diptera AR
Mycetophilidae-M		<i>Cawthronia</i>	<i>nigra</i>	Diptera EA
Mycetophilidae-M		<i>Cycloneura</i>	<i>aberrans?</i>	Diptera CP
Mycetophilidae-M		<i>Cycloneura</i>		Diptera CC
Mycetophilidae-M		<i>Epicypia?</i>	n.sp.	Diptera FT
Mycetophilidae-M		<i>Exechia</i>		Diptera Z
Mycetophilidae-M	3	<i>Mycetophila</i>	<i>marginepunctata</i>	Diptera K
			<i>fagi</i>	
			sp.	
Mycetophilidae-M		<i>Neophelomera</i>		Diptera BY
Mycetophilidae-M		<i>Parvicellula</i>		Diptera DC
Mycetophilidae-M		<i>Sigmoleia?</i>	n.sp.	Diptera L
Mycetophilidae-M	2	<i>Tetragoneura</i>	<i>flexa</i>	Diptera AV
			n.sp.	
Mycetophilidae-M		<i>Tetragoneura</i>	<i>pale</i>	Diptera I
Mycetophilidae-M		<i>Tetragoneura</i>	sp.	Diptera CE
Mycetophilidae-M	2	<i>Tetragoneura</i>	<i>spinipes</i>	Diptera GN
			sp.	
Mycetophilidae-M		<i>Tetragoneura</i>		Diptera FF
Mycetophilidae-M		<i>Tetragoneura</i>		Diptera BO
Mycetophilidae-M		<i>Zygomia</i>		Diptera FP
Pallopteridae		<i>Maorina</i>	<i>bimacula</i> (f)	Diptera GK
Pallopteridae		<i>Maorina</i>	<i>bimacula</i> (m)	Diptera AH
Pallopteridae		<i>Maorina</i>		Diptera GV
Phoridae	2			Diptera AD
Phoridae				Diptera BZ
Phoridae				Diptera M
Phoridae				Diptera GR
Phoridae				Diptera EW
Phoridae				Diptera DI
Psychodidae		<i>Psychoda</i>		Diptera D
Sarcophagidae		<i>Hybopygia</i>	<i>varia</i>	Diptera FV
Scatopsidae		<i>Anapausis</i>		Diptera DS
Scatopsidae		<i>Colobostema?</i>	(f)	Diptera FN
Scatopsidae		<i>Colobostema?</i>	(m)	Diptera DQ
Scatopsidae		<i>Rhegmoclemina</i>		Diptera FU

Sciaridae	<i>Sciadocera</i>	<i>rufomaculata</i>	Diptera S
Sciaridae	<i>Sciara</i>	<i>nubeculosa</i>	Diptera BP
Sciaridae	<i>Sciara</i>		Diptera A
Sciaridae		pale	Diptera FC
Simuliidae	<i>Austrosimulium</i>		Diptera FS
Simuliidae	<i>Austrosimulium</i>		Diptera BS
Simuliidae	<i>Austrosimulium</i>		Diptera CO
Sphaeroceridae	" <i>Leptocera</i> "		Diptera FO
Sphaeroceridae	<i>Ischiolepta</i>	<i>pusilla</i>	Diptera GI
Sphaeroceridae	<i>Kimosina</i>	<i>thomasi</i>	Diptera DE
Stratiomyidae	" <i>Beris</i> "	=BQ	Diptera BV
Stratiomyidae	" <i>Beris</i> "	=BV	Diptera BQ
Stratiomyidae	" <i>Beris</i> "	<i>substituta?</i>	Diptera FW
Stratiomyidae	2 <i>Benhamyia</i>		Diptera EL
	<i>Neactina?</i>	(f)	
Stratiomyidae	<i>Neactina?</i>	sp.A	Diptera DX
Stratiomyidae	<i>Neactina?</i>	sp.B	Diptera GJ
Stratiomyidae	<i>Odontomyia</i>		Diptera FG
Syrphidae	2 <i>Allograptia?</i>		Diptera CG
Syrphidae	<i>Helophilus?</i>		Diptera GL
Syrphidae	<i>Melangyna</i>	<i>novaezealandiae</i>	Diptera FK
Tabanidae	<i>Dasybasis</i>		Diptera GB
Tabanidae	<i>Scaptia</i>		Diptera EN
Tachinidae	<i>Bothrophora</i>	<i>lupina</i>	Diptera CB
Tachinidae	2 <i>Pales</i>	spp.	Diptera DY
Tachinidae	<i>Proscissio?</i>		Diptera FD
Tipulidae	<i>Amphineurus</i>	<i>bicinctus</i>	Diptera GC
Tipulidae	<i>Amphineurus</i>	<i>horni?</i>	Diptera CD
Tipulidae	<i>Amphineurus</i>	<i>hudsoni</i>	Diptera AQ
Tipulidae	<i>Amphineurus</i>		Diptera EK
Tipulidae	<i>Amphineurus</i>		Diptera AG
Tipulidae	<i>Amphineurus?</i>		Diptera BD
Tipulidae	<i>Atarba</i>	<i>filicornis</i> (f)	Diptera BG
Tipulidae	<i>Atarba</i>	<i>filicornis</i> (m)	Diptera EE
Tipulidae	<i>Atarba</i>	<i>viridicolor</i> (m)	Diptera R
Tipulidae	<i>Austrolimnophila</i>	<i>argus</i>	Diptera CI
Tipulidae	<i>Austrolimnophila</i>	<i>crassipes</i>	Diptera AF
Tipulidae	<i>Austrolimnophila</i>	<i>leucomelas</i>	Diptera DL
Tipulidae	<i>Austrolimnophila</i>	<i>marshalli</i>	Diptera DK
Tipulidae	<i>Austrolimnophila</i>	<i>marshalli</i>	Diptera FY
Tipulidae	<i>Gonomyia</i>		Diptera J
Tipulidae	<i>Leptota</i>	<i>huttoni/variegata</i>	Diptera FI
Tipulidae	<i>Leptotarsus</i> (Macromastix)		Diptera DP
Tipulidae	<i>Limnophila?</i> (f)		Diptera DO
Tipulidae	[Hexatomini]		Diptera GH
Tipulidae	<i>Limonia</i>	<i>aegrotans</i>	Diptera CA
Tipulidae	<i>Limonia</i>	<i>aegrotans</i>	Diptera CT
Tipulidae	<i>Limonia</i>	<i>cubitalis</i>	Diptera BT
Tipulidae	<i>Limonia</i>	DC open	Diptera GM

Tipulidae	<i>Limonia</i>	<i>fasciata?</i>	Diptera AS
Tipulidae	2 <i>Limonia</i>	<i>multispina</i> sp.	Diptera CW
Tipulidae	<i>Limonia</i>	<i>plurispina?</i>	Diptera EB
Tipulidae	<i>Erioptera</i> (Trimicra)	sp.	Diptera V
Tipulidae	<i>Limonia</i> (Discobola)	<i>ampla</i>	Diptera CQ
Tipulidae	<i>Limonia</i> (Discobola)	<i>gibberina</i>	Diptera CJ
Tipulidae	<i>Limonia</i> (Discobola)	<i>picta</i>	Diptera AW
Tipulidae	<i>Limonia</i> (Zealandoglochina)	<i>huttoni</i>	Diptera DM
Tipulidae	<i>Leptotarsus</i> (Chlorotipula)		Diptera GD
Tipulidae	<i>Metalimnophila?</i>		Diptera CY
Tipulidae	<i>Molophilus</i>	<i>macrocerus</i> gp	Diptera AL
Tipulidae	<i>Molophilus</i>	<i>macrocerus</i> gp	Diptera Q
Tipulidae	<i>Molophilus</i>	<i>pulcherrimus</i>	Diptera EI
Tipulidae	<i>Molophilus</i>		Diptera AP
Tipulidae	<i>Molophilus</i>		Diptera BK
Tipulidae	<i>Molophilus?</i>		Diptera DG
Tipulidae	<i>Zelandotipula</i>		Diptera GU
Trichoceridae	<i>Paracladura</i>		Diptera G

Hymenoptera

Family	Genus	species	Morpho-species
Aphelinidae	<i>Aphelinus?</i>	(f)	Hymenoptera AR
Aphelinidae	<i>Aphytis?</i>		Hymenoptera AH
Aphelinidae	<i>Pteroptrix</i>	(f)	Hymenoptera BQ
Aphelinidae	<i>Pteroptrix</i>	(f)	Hymenoptera T
Aphelinidae	<i>Pteroptrix</i>	(f)	Hymenoptera AG
Aphelinidae	<i>Pteroptrix</i>	=BQ? (f)	HymenopteraAW
Aphelinidae	<i>Pteroptrix</i>	(m)	Hymenoptera AJ
Aphelinidae	<i>Pteroptrix</i>	=AG?	Hymenoptera A
Aphelinidae	<i>Pteroptrix?</i>		Hymenoptera Q
Aphelinidae	<i>Pteroptrix?</i>		Hymenoptera CF
Aphelinidae			Hymenoptera FU
Aphelinidae			Hymenoptera X
Aphidiinae	<i>Aphidius?</i>		Hymenoptera CQ
Aphidiinae	<i>Trioxy</i>		Hymenoptera BV
Aphidiinae			Hymenoptera BO
Aphidiinae			Hymenoptera BI
Aphidiinae			Hymenoptera CB
Apidae	<i>Apis</i>	<i>mellifera</i>	Hymenoptera AC
Apidae	<i>Bombus</i>		Hymenoptera AV
Bethylidae		=D?	Hymenoptera DK
Bethylidae			Hymenoptera D
Bethylidae			Hymenoptera AS
Braconidae	" <i>Apanteles</i> "	<i>tasmanicus?</i>	Hymenoptera DQ
Braconidae	2 " <i>Apanteles</i> "		Hymenoptera FE
Braconidae	" <i>Apanteles</i> "		Hymenoptera DO
Braconidae	" <i>Apanteles</i> "		Hymenoptera DB
Braconidae		(f)	Hymenoptera AT

Braconidae			Hymenoptera EE
Braconidae	<i>Ascogaster</i>	<i>crenulata</i>	Hymenoptera BC
Braconidae	<i>Ascogaster</i>	<i>iti</i>	Hymenoptera DP
Braconidae	<i>Ascogaster</i>		Hymenoptera CN
Braconidae			Hymenoptera BD
Braconidae			Hymenoptera EF
Braconidae			Hymenoptera EM
Braconidae			Hymenoptera DT
Braconidae			Hymenoptera FG
Braconidae			Hymenoptera O
Braconidae?			Hymenoptera AL
Ceraphronidae		(f)	Hymenoptera CZ
Ceraphronidae		(f)	Hymenoptera CW
Ceraphronidae		(m)	Hymenoptera EO
Ceraphronidae			Hymenoptera Y
Ceraphronidae			Hymenoptera M
Ceraphronidae			Hymenoptera AE
Colletidae	<i>Hylaeus</i>		Hymenoptera BU
Colletidae	<i>Leioproctus</i>		Hymenoptera DU
Diapriidae		(f)	Hymenoptera AA
Diapriidae		(f)	Hymenoptera EV
Diapriidae		(f)	Hymenoptera EW
Diapriidae		(f)	Hymenoptera EZ
Diapriidae		(m)	Hymenoptera AI
Diapriidae		(m)	Hymenoptera FF
Diapriidae		(m)	Hymenoptera FH
Diapriidae		(m)	Hymenoptera BT
Dryinidae			Hymenoptera BZ
Encyrtidae	<i>Adelencyrtoides</i>	(m)	Hymenoptera E
Encyrtidae	<i>Adelencyrtoides</i>	<i>blastothrichus</i> (f)	Hymenoptera P
Encyrtidae	2 <i>Adelencyrtoides</i>	<i>blastothrichus</i> <i>novaezealandiae</i> (f)	Hymenoptera L
Encyrtidae	<i>Adelencyrtoides</i>	<i>inconstans</i> (f)	Hymenoptera DL
Encyrtidae	<i>Adelencyrtoides</i>	<i>novaezealandiae</i> (m)	Hymenoptera Z
Encyrtidae	<i>Adelencyrtoides</i>	<i>unicolor</i> (m)	Hymenoptera AZ
Encyrtidae	<i>Adelencyrtoides?</i>		Hymenoptera EJ
Encyrtidae	<i>Coelopencyrtus</i>	<i>australis</i> (m)	Hymenoptera CC
Encyrtidae	<i>Coelopencyrtus</i>	<i>australis?</i>	Hymenoptera DF
Encyrtidae	<i>Tetracnemoidea</i>	(f)	Hymenoptera BA
Encyrtidae	<i>Tetracnemoidea</i>	<i>brouni?</i> (f)	Hymenoptera FT
Encyrtidae	<i>Tetracnemoidea</i>	<i>brounii</i> (m)	Hymenoptera AQ
Eucoilidae			Hymenoptera DR
Eulophidae		(f)	Hymenoptera DX
Eulophidae		(m)	Hymenoptera EX
Eulophidae		=EX?	Hymenoptera BG
Eulophidae		=BM?	Hymenoptera BH
Eulophidae			Hymenoptera BM
Eulophidae	2		Hymenoptera U
Eulophidae			Hymenoptera BW
Eulophidae			Hymenoptera EI

Eulophidae		=CG	Hymenoptera BE
Eulophidae			Hymenoptera FK
Eulophidae			Hymenoptera CG
Eulophidae			Hymenoptera CI
Eulophidae			Hymenoptera AP
Eulophidae			Hymenoptera CY
Eulophidae	?		Hymenoptera EH
Eulophidae			Hymenoptera BJ
Eulophidae			Hymenoptera DG
Eulophidae			Hymenoptera CP
Figitidae	<i>Anacharis</i>	<i>zealandica</i>	Hymenoptera CV
Formicidae	<i>Amblyopone</i>	<i>saundersi</i> (m)	Hymenoptera ES
Formicidae	<i>Amblyopone</i>	<i>saundersi</i> (worker)	Hymenoptera ER
Formicidae	<i>Huberia</i>	<i>striata</i>	Hymenoptera BL
Formicidae	<i>Hypoponera?</i>	<i>eduardi?</i>	Hymenoptera FS
Formicidae	<i>Mesoponera</i>	<i>castanea</i>	Hymenoptera FD
Formicidae	<i>Mesoponera</i>	<i>castanea</i> (m)	Hymenoptera EY
Formicidae	<i>Monomorium</i>	<i>antarcticus</i> gp (f)	Hymenoptera EL
Formicidae	<i>Monomorium</i>	<i>antarcticus</i> gp (m)	Hymenoptera EU
Formicidae	<i>Monomorium</i>		Hymenoptera BF
Formicidae	<i>Prolasius</i>	<i>advena</i>	Hymenoptera DW
Formicidae	<i>Prolasius</i>	<i>advena</i>	Hymenoptera CU
Halictidae	<i>Lasioglossum</i>		Hymenoptera DA
Halictidae	<i>Lasioglossum</i>		Hymenoptera AY
Ichneumonidae	<i>Aucklandella?</i>		Hymenoptera CA
Ichneumonidae	<i>Aucklandella?</i>		Hymenoptera DY
Ichneumonidae	<i>Aucklandella?</i>		Hymenoptera CM
Ichneumonidae	<i>Aucklandella?</i>		Hymenoptera I
Ichneumonidae	<i>Aucklandella?</i>		Hymenoptera FN
Ichneumonidae	<i>Ichneumon</i>	<i>promissorius?</i>	Hymenoptera EP
Ichneumonidae	<i>Lissonota</i>		Hymenoptera CT
Ichneumonidae	<i>Xanthopimpla</i>		Hymenoptera CX
Ichneumonidae		(f)	Hymenoptera BS
Ichneumonidae		(m)	Hymenoptera CO
Ichneumonidae			Hymenoptera CS
Ichneumonidae			Hymenoptera ET
Ichneumonidae			Hymenoptera CH
Ichneumonidae			Hymenoptera DD
Ichneumonidae			Hymenoptera V
Ichneumonidae			Hymenoptera FR
Ichneumonidae			Hymenoptera FL
Ichneumonidae			Hymenoptera FI
Ichneumonidae			Hymenoptera CL
Ichneumonidae			Hymenoptera CK
Ichneumonidae	3		Hymenoptera W
Ichneumonidae			Hymenoptera FJ
Megaspilidae	<i>Dendrocerus?</i>	(f)	Hymenoptera CR
Megaspilidae	<i>Dendrocerus?</i>	(m)	Hymenoptera DS
Mymaridae	<i>Alapatus</i>		Hymenoptera K

Mymaridae	<i>Alaptus</i>		Hymenoptera N
Mymaridae	<i>Anaphes</i>	(f)	Hymenoptera BB
Mymaridae	<i>Anaphes</i>	(m)	Hymenoptera J
Mymaridae	<i>Camptoptera</i>		Hymenoptera BK
Mymaridae	<i>Cleruchus?</i>		Hymenoptera CE
Mymaridae	<i>Cleruchus?</i>		Hymenoptera FB
Mymaridae	<i>Cleruchus?</i>		Hymenoptera DZ
Mymaridae	2 <i>Cleruchus?</i>		Hymenoptera AB
	?		
Mymaridae	<i>Dicopomorpha</i>	(m)	Hymenoptera DJ
Mymaridae	<i>Haplochaeta</i>	<i>mandibularis</i>	Hymenoptera R
Mymaridae	<i>Ischiodasys</i>	(m)	Hymenoptera EG
Mymaridae	<i>Ischiodasys?</i>		Hymenoptera EC
Mymaridae	<i>Paracmotemnus</i>		Hymenoptera AU
Mymaridae	<i>Stethymium</i>		Hymenoptera BY
Mymaridae		(m)	Hymenoptera AF
Mymaridae			Hymenoptera BP
Mymaridae			Hymenoptera FP
Orussidae	<i>Guiglia</i>	<i>schauinslandi</i>	Hymenoptera CJ
Platygasteridae			Hymenoptera AM
Platygasteridae			Hymenoptera AN
Platygasteridae			Hymenoptera EB
Platygasteridae			Hymenoptera F
Platygasteridae			Hymenoptera AK
Pompiliidae	<i>Epipompilus</i>	<i>insularis</i> (m)	Hymenoptera FQ
Pompiliidae	<i>Epipompilus</i>	<i>insularis</i> (m)	Hymenoptera FC
Pompiliidae	<i>Priocnemis</i>	<i>conformis</i> (m,f)	Hymenoptera S
Pompiliidae	<i>Sphictostethus</i>	<i>calvus</i> (m,f)	Hymenoptera BR
Proctotrupidae			Hymenoptera FA
Pteromalidae	<i>Aphobetus?</i>		Hymenoptera B
Pteromalidae		=DH?	Hymenoptera EN
Pteromalidae			Hymenoptera ED
Pteromalidae			Hymenoptera FM
Pteromalidae			Hymenoptera DH
Pteromalidae			Hymenoptera DI
Scelionidae	<i>Gryon</i>	(f)	Hymenoptera EK
Scelionidae	<i>Gryon</i>	(f)	Hymenoptera FO
Scelionidae	<i>Gryon</i>	(m)	Hymenoptera AX
Scelionidae	<i>Gryon</i>	=AX	Hymenoptera CD
Scelionidae	<i>Gryon</i>		Hymenoptera C
Scelionidae		(f)	Hymenoptera AD
Scelionidae		(f)	Hymenoptera DM
Scelionidae		(m)	Hymenoptera DC
Scelionidae			Hymenoptera DE
Sphecidae	<i>Podagritys</i>	<i>albipes?</i>	Hymenoptera DN
Sphecidae	<i>Spilomena</i>		Hymenoptera DV
Sphecidae	<i>Tachysphex</i>	<i>nigerrimus</i>	Hymenoptera EA
Tenthredinidae	<i>Pontania</i>	<i>proxima</i>	Hymenoptera AO
Torymidae	<i>Torymoides</i>		Hymenoptera BX

Trichogrammatidae	<i>Trichogramma</i>	(f)	Hymenoptera H
Trichogrammatidae	<i>Trichogramma</i>	(m)	Hymenoptera BN
Trichogrammatidae		(f)	Hymenoptera EQ
Vespidae	<i>Vespula</i>	<i>vulgaris</i>	Hymenoptera G

Appendix 4

Dates of monthly trap clearance and environmental data recording at each site.

Sample	Pakohu Scenic Reserve	Keebles Bush	Bushy Park Forest Reserve
June 1994	07-09/06/94 to 11/07/94	10-11/06/94 to 12/07/94	13-15/06/94 to 13/07/94
July	10/08/94	11/08/94	16/08/94
August	08/09/94	09/09/94	12/09/94
September	10/10/94	11/10/94	12/10/94
October	09/11/94	10/11/94	11/11/94
November	12/12/94	13/12/94	14/12/94
December	11/01/95	12/01/95	13/01/95
January 1995	08/02/95	09/02/95	10/02/95
February	09/03/95	10/03/95	11/03/95
March	10/04/95	11/04/95	12/04/95
April	11/05/95	12/05/95	13/05/95
May	13/06/95	14/06/95	15/06/95

Monthly rainfall measures at each site in mm.

	Pakohu Scenic Reserve	Keebles Bush	Bushy Park Forest Reserve
October 1994	124	97	148
November	51	106	97
December	44	32	45
January 1995	34	19	33
February	57	26	54
March	110	162	165
April	104	113	82
May	119	78	118

Monthly minimum temperatures at each site °C.

	Pakohu Scenic Reserve	Keebles Bush	Bushy Park Forest Reserve
June 1994	-2	-2	0
July	0	-2	2
August	-1	2	2
September	-1	-1	1
October	2	5	3
November	2	5	5
December	5	5	1
January 1995	9	10	10
February	9	7	9
March	7	6	7
April	1	1	3
May	-1	0	2

Monthly maximum temperatures at each site °C.

	Pakohu Scenic Reserve	Keebles Bush	Bushy Park Forest Reserve
June 1994	16	17	13
July	18	13	14
August	15	14	14
September	19	18	16
October	20	21	18
November	23	24	22
December	25	25	22
January 1995	29	29	24
February	29	26	25
March	24	25	22
April	21	22	21
May	18	17	15

Mean of hours between sunrise and sunset at 40° south for each Keebles Bush sampling month.

	Daylight hours
June 1994	9.38
July	9.96
August	11.03
September	12.29
October	13.59
November	14.65
December	14.95
January 1995	14.36
February	13.23
March	11.87
April	10.57
May	9.61