

Table S1. List of the 67 Pterostichini species modelled and the distribution of specimens among six museum collections.

Species	CMNZ			NZAC			LUNZ			MONZ			OMNZ			AMNZ			Totals, 6 museums			Grand totals		
	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c
<i>Holcaspis abdita</i>	1	2	5				1	0	5										2	2	10	2	2	10
<i>Holcaspis algida</i>	8	6	10																8	6	10	8	6	10
<i>Holcaspis angustula</i>	50	38	142																50	38	142	53	38	146
<i>Holcaspis bathana</i>	14	3	34																14	3	34	15	3	35
<i>Holcaspis bessatica</i>	4	3	6																4	3	6	4	3	6
<i>Holcaspis bidentella</i>	4	4	13																4	4	13	4	4	13
<i>Holcaspis brevicula</i>	1	1	1	1	0	2													2	1	3	3	1	4
<i>Holcaspis brouniana</i>	7	6	17																7	6	17	8	6	19
<i>Holcaspis catenulate</i>	10	16	12									9	0	28					19	16	40	20	16	42
<i>Holcaspis delator</i>	7	5	24																7	5	24	7	5	24
<i>Holcaspis dentifera</i>	7	7	15																7	7	15	7	7	15
<i>Holcaspis egregialis</i>	6	0	10									4	9	16					10	9	26	10	9	26
<i>Holcaspis elongella</i>	31	23	43																31	23	43	32	23	44
<i>Holcaspis falcis</i>	2	2	6	1	0	4													3	2	10	3	2	10
<i>Holcaspis hispida</i>	6	6	8																6	6	8	6	6	8
<i>Holcaspis hudsoni</i>	35	29	59									1	0	2					36	29	61	39	29	66
<i>Holcaspis impigra</i>	22	16	40									5	0	8					27	16	48	27	16	48
<i>Holcaspis implica</i>	7	0	13																7	0	13	8	3	15
<i>Holcaspis intermittens</i>	21	17	39																21	17	39	21	17	39
<i>Holcaspis mordax</i>	11	11	18																11	11	18	11	11	18
<i>Holcaspis mucronata</i>	14	15	34	1	0	1						1	0	1					16	15	36	16	15	36
<i>Holcaspis obvelata</i>	6	2	9																6	2	9	6	2	9
<i>Holcaspis oedinenema</i>	2	2	15																2	2	15	2	2	15
<i>Holcaspis ohauensis</i>	7	8	16	1	0	3													8	8	19	8	8	19
<i>Holcaspis ovatella</i>	10	0	13									6	12	11					16	12	24	17	12	25
<i>Holcaspis placida</i>	8	8	11																8	8	11	8	8	11
<i>Holcaspis sternalis</i>	36	0	60									20	47	32					56	47	92	57	47	93
<i>Holcaspis stewartensis</i>	4	6	6	1	0	2						2	0	3					7	6	11	7	6	11
<i>Holcaspis subaenea</i>	10	7	43																10	7	43	10	7	43
<i>Holcaspis suteri</i>	9	3	34																9	3	34	9	3	34
<i>Holcaspis tripunctata</i>	3	4	4	1	0	1													4	4	5	4	4	5
<i>Megadromus alternus</i>	17	0	72				1	0	2										18	0	74	19	16	75
<i>Megadromus antarcticus</i>	182	149	427	24	0	55	17	0	42										223	149	524	229	149	547
<i>Megadromus bucolicus</i>	8	5	96	3	0	4	1	0	7	6	0	9							18	5	116	18	5	116
<i>Megadromus bullatus</i>	35	52	105	25	0	70	2	0	3	4	0	4	1	0	3				67	52	185	68	52	186
<i>Megadromus capito</i>	30	0	183	77	83	187	6	0	10	6	0	6	1	0	1				120	83	387	121	83	387
<i>Megadromus compressus</i>	5	3	46																5	3	46	5	3	46
<i>Megadromus crassalis</i>	5	0	8	1	0	1				1	5	2							7	5	11	7	5	11
<i>Megadromus curtulus</i>	6	0	26	7	0	17	7	0	22										20	0	65	25	7	72

<i>Megadromus guerinii</i>	46	39	159	12	0	49	1	0	1	1	0	3	1	0	2			61	39	214	62	39	214	
<i>Megadromus haplopus</i>	1	0	15										2	0	2			3	0	17	7	5	25	
<i>Megadromus lobipes</i>	20	0	28	10	0	11	2	0	3	6	33	7						38	33	49	39	33	50	
<i>Megadromus meritus</i>	38	70	134	16	0	49	9	0	16	11	0	17	10	0	24	2	0	3	86	70	243	87	70	244
<i>Megadromus omaramae</i>	8	2	10	1	0	6												9	2	16	9	2	16	
<i>Megadromus rectalis</i>	50	68	275	26	0	91	21	0	65	1	0	2						98	68	433	99	68	438	
<i>Megadromus rectangulus</i>	16	18	81	5	0	13	1	0	2							1	0	4	23	18	100	23	18	100
<i>Megadromus sandageri</i>	46	0	223	49	0	97	19	105	56	8	0	13	12	0	21	2	0	3	136	105	413	151	105	443
<i>Megadromus speciosus</i>	3	3	5	2	0	5												5	3	10	5	3	10	
<i>Megadromus temukensis</i>	17	11	83	2	0	2	1	0	1									20	11	86	21	11	87	
<i>Megadromus turgidiceps</i>	3	10	4	8	0	9	3	0	3									14	10	16	14	10	16	
<i>Megadromus vigil</i>	7	29	19	21	0	38	1	0	1	14	0	22						43	29	80	43	29	80	
<i>Megadromus virens</i>	11	0	17	1	6	1												12	6	18	12	6	18	
<i>Megadromus walkeri</i>	53	43	237	3	0	6	13	0	89									69	43	332	70	43	334	
<i>Megadromus wallacei</i>	14	9	155	2	0	18												16	9	173	16	9	173	
<i>Megadromus</i> n. sp. A	4	0	17	5	11	10							2	0	5			11	11	32	11	11	32	
<i>Megadromus</i> n. sp. B	6	0	25	3	9	4												9	9	29	9	9	29	
<i>Megadromus</i> n. sp. C	7	0	46	2	11	2	2	0	9									11	11	57	11	11	57	
<i>Neoferonia ardua</i>				1	0	2				6	7	11						7	7	13	7	7	13	
<i>Neoferonia integrata</i>	25	33	51	1	0	1	10	0	19	1	0	6						37	33	77	37	33	77	
<i>Neoferonia praignis</i>	2	2	6															2	2	6	2	2	6	
<i>Neoferonia procerula</i>	19	39	82	1	0	1	6	0	21	1	0	1	7	0	11			34	39	116	39	39	131	
<i>Neoferonia prolix</i>	3	0	11							2	0	5	1	5	1			6	5	17	6	5	17	
<i>Plocamostethus planiusculus</i>	65	222	126	106	0	163	19	0	28	4	0	5						194	222	322	230	222	324	
<i>Plocamostethus sribae</i>	2	2	2	1	0	1												3	2	3	3	2	3	
<i>Zeopoecilus calcaratus</i>	15	0	48	12	25	71	3	0	4	4	0	4						34	25	127	35	25	129	
<i>Zeopoecilus caperatus</i>	3	3	7															3	3	7	3	3	7	
<i>Zeopoecilus putus</i>	10	0	21	46	35	99	4	0	8	2	0	4						62	35	132	62	35	132	
Totals	1145		3610	479		1096	150		417	78		121	85		171		0	10	1942		5425	2037	5544	

CMNZ Canterbury Museum
 NZAC National Arthropod Collection
 LUNZ Lincoln University Entomology Museum
 MONZ Museum of New Zealand Te Papa Tongarewa
 OMNZ Otago Museum
 AMNZ Auckland Museum and Institute

The 35 species recorded from fewer than 10 sites could easily be considered 'Data Deficient'. Each triplet of columns under the Museum abbreviation gives the number of collections (column a), number of sites (column b) and number of specimens (column c). The differences between the six museums' totals and the grand totals are data from specimens held in the few other collections (c. 15) that have been examined. Total number of sites is 1144 and differences between collections and sites are due to multiple visits to one site or pit-trap sequences on various dates. Several species may occur at any one site.