

## Expedition 317 Site U1352, Table T17. Invertebrate macrofossils. (See table notes.)

Taxon	Other	Hole, core, section, interval (cm)	Depth (mbsf)	Sediment type	Habitat	Age (Ma)		NZ stage	International timescale
						not > than	not < than		
317-									
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352B-1H-1, 119	1.19	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352B-1H-1, 94	0.94	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Cardita aoteana</i> (Finlay)		U1352A-1H-1, 94	0.94	CF	Shelf; clump fauna; eurybathyal	5.3	0.0	Wo-R	early Pliocene to recent
<i>Cardita aoteana</i> (Finlay)		U1352B-1H-1, 94	0.94	CF	Shelf; clump fauna; eurybathyal	5.3	0.0	Wo-R	early Pliocene to recent
<i>Cardita aoteana</i> (Finlay)		U1352D-1H-1, 80	0.80	CF	Shelf; clump fauna; eurybathyal	5.3	0.0	Wo-R	early Pliocene to recent
<i>Nemocardium (Pratulium) pulchellum</i> (Gray)		U1352B-1H-1, 119	1.19	Z	Shelf, eurybathyal	3.0	0.0	Wwm-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-1, 119	1.19	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-1, 128	1.28	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352D-1H-1, 70	0.70	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Lima zealandica</i> Sowerby		U1352A-1H-1, 58	0.58	S	Inner to middle shelf	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Limatula maoria</i> (Finlay)		U1352B-1H-1, 52	0.52	CF	Shelf; clump fauna; eurybathyal	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Diplodonta (Zemysina) globus</i> (Finlay)	Dble.	U1352D-1H-1, 135	1.35	fs/Z	Shelf, eurybathyal	19.0	0.0	Pl-R	early Miocene to recent
<i>Cardita aoteana</i> (Finlay)		U1352A-1H-1, 94	0.94	CF	Shelf; clump fauna; eurybathyal	5.3	0.0	Wo-R	early Pliocene to recent
<i>Cardita aoteana</i> (Finlay)		U1352A-1H-1, 94	0.94	CF	Shelf; clump fauna; eurybathyal	5.3	0.0	Wo-R	early Pliocene to recent
<i>Cardita aoteana</i> (Finlay)		U1352B-1H-1, 94	0.94	CF	Shelf; clump fauna; eurybathyal	5.3	0.0	Wo-R	early Pliocene to recent
<i>Cardita aoteana</i> (Finlay)		U1352D-1H-1, 70	2.20	CF	Shelf; clump fauna; eurybathyal	5.3	0.0	Wo-R	early Pliocene to recent
<i>Nemocardium (Pratulium) pulchellum</i> (Gray)		U1352A-1H-1, 46	0.52	Z	Shelf, eurybathyal	3.0	0.0	Wwm-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352B-1H-1, 127	1.27	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352D-1H-1, 135	1.35	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
(juv; alternatively, <i>Waltonia inconspicua</i> )	Juv.	U1352B-1H-1, 52	0.52	CF	Shelf, eurybathyal				
<i>Neothyris ovata</i> (Hutton)		U1352D-1H-1, 70	2.20	CF	Shelf, eurybathyal				
Annelida-3 (agglutinated, coil-of-rope tube)		U1352A-1H-1, 27		CF	Shelf; clump fauna; eurybathyal				
Annelida-3 (agglutinated, coil-of-rope tube)		U1352D-1H-1, 70	2.20	CF	Shelf; clump fauna; eurybathyal				
Annelida-4 (spinose, coiled tube)		U1352B-1H-1, 42		CF	Shelf; clump fauna; eurybathyal	CHECK			
<i>Neilo australis</i> (Quoy and Gaimard)	Dble.	U1352B-1H-2, 126	2.76	Z	Middle shelf to upper slope	1.6	0.0	Wc-R	Pleistocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-2, 126	2.76	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-2, 137	2.87	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352D-1H-2, 50	2.00	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352D-1H-2, 90	2.40	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352D-1H-2, 101	2.51	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352B-1H-2, 87	2.37	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352D-1H-2, 70	2.20	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352D-1H-2, 35	1.85	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352D-1H-2, 85	2.35	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Aeneator cf. recens</i> (Dell)		U1352D-1H-2, 2	1.52	Z	Upper slope, >150 m	3.0	0.0	Wwm-R	early late Pliocene to recent
<i>Neothyris ovata</i> (Hutton)		U1352D-1H-2, 70	2.20	CF	Shelf, eurybathyal				
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352B-1H-3, 34	4.54	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Monia zelandicus</i> (Gray)		U1352B-1H-3, 140	4.38	CF	Shelf; clump fauna; eurybathyal	6.5	0.0	Tk-R	late Miocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-3, 34	3.29	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-3, 55	3.54	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Stiracolpus symmetricus</i> (Hutton)		U1352B-1H-3, 140	4.38	Z	Shelf to upper slope	1.6	0.0	Wc-R	Pleistocene to recent
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352B-1H-3, 126	4.26	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-3, 1	3.01	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-3, 136	4.33	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Stiracolpus symmetricus</i> (Hutton)		U1352B-1H-3, 136	4.33	Z	Shelf to upper slope	1.6	0.0	Wc-R	Pleistocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-5, 125	7.22	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352B-1H-5, 63	6.62	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-5, 51	6.50	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-5, 86	6.83	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Neilo australis</i> (Quoy and Gaimard)		U1352B-1H-5, 100	7.00	Z	Middle shelf to upper slope	1.6	0.0	Wc-R	Pleistocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-1H-5, 128	7.24	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Stiracolpus symmetricus</i> (Hutton)		U1352B-1H-5, 23	6.22	Z	Shelf to upper slope	1.6	0.0	Wc-R	Pleistocene to recent
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352B-1H-CC, 15	8.07	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-2H-1, 30	8.49	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352B-2H-1, 142	9.60	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-2H-1, 53	8.72	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352A-2H-1, 40	4.60	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Cardita aoteana</i> (Finlay)		U1352A-2H-1, 96		CF	Shelf; clump fauna; eurybathyal	5.3	0.0	Wo-R	early Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352A-2H-1, 34		S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-2H-1, 23		S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Caryocorbula zelandica</i> (Quoy and Gaimard)		U1352A-2H-1, 40	4.60	Sg/Z	Shelf; clump fauna	5.3	0.0	Wo-R	
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352B-2H-2, 14		Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352A-2H-2, 65	6.35	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-2H-2, 14		S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Cominella (Eucominia) mirabilis</i> (Powell)		U1352A-2H-2, 76	6.46	Z	Outer shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352B-2H-2, 8	9.78	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352A-2H-2, 70	6.40	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-2H-2, 8	9.78	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352D-2H-2, 57	5.57	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352A-2H-3, 67	7.87	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352A-2H-6, 95		S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352A-3H-1, 130	15.00	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)	Dble.	U1352A-4H-5, 43		Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352B-7H-1, 25	55.95	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Chlamys sp.</i>	Juv.	U1352B-7H-2, 22	57.42	CF	Shelf; clump fauna; eurybathyal				
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352B-7H-2, 22	57.42	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352B-7H-2, 22	57.42	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352B-7H-CC, 44	64.89	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Aeneator sp.</i>	Juv.	U1352D-8H-1, 114	61.64	Z	Upper slope, >150 m				
<i>Tawera spissa</i> (Deshayes)		U1352D-8H-1, 78	61.28	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Coluzea mariae</i> (Powell)		U1352D-8H-1, 119	61.69	Z	40-250 m mid-shelf to slope	3.6	0.0	Wwp-R	late Pliocene to recent
Annelida-2 (large irregular tube, sutured one side)		U1352D-8H-1, 103	61.53	Z	Shelf; clump fauna; eurybathyal				
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352D-8H-2, 112	63.12	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Purpurocardia purpurata</i> (Deshayes)		U1352D-8H-2, 61	62.60	S/Z	Shelf, eurybathyal	3.6	0.0	Wwp-R	late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352D-8H-2, 16	62.16	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
Annelida-2 (large irregular tube, sutured one side)		U1352D-8H-2, 16	62.16	Z	Shelf; clump fauna; eurybathyal				
<i>Purpurocardia purpurata</i> (Deshayes)		U1352D-8H-3, 23	63.73	S/Z	Shelf, eurybathyal	3.6	0.0	Wwp-R	late Pliocene to recent
<i>Tawera cf. spissa</i> (Deshayes)		U1352D-8H-3, 23	63.73	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Chlamys (Zygochlamys) patagonica delicatula</i> (Hutton)		U1352D-8H-3, 59	64.09	Sg/Z	CW; outer shelf to upper slope	3.6	0.0	Wwp-R	early late Pliocene to recent
<i>Tawera spissa</i> (Deshayes)		U1352D-8H-3, 59	64.09	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Crepidula profunda</i> (Hutton)		U1352D-8H-3, 37	63.87	CF	Shelf; clump fauna; eurybathyal	1.6	0.0	Wc-R	Pleistocene to recent
<i>Tawera spissa</i> (Deshayes)	Dble.	U1352B-8H-6, 98	73.68	S/Z	Shelf to upper slope	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Neothyris ovata</i> (Hutton)		U1352B-9H-2, 10	76.30	CF	Shelf, eurybathyal				
<i>Neothyris ovata</i> (Hutton)		U1352B-9H-2, 10	76.30	CF	Shelf, eurybathyal				
<i>Tanea zelandica</i> (Quoy and Gaimard)		U1352B-9H-7, 67	83.87	S/Z	Inner shelf, usually <20 m	2.4	0.0	Wn-R	late late Pliocene to recent
<i>Taniella planisuturalis</i> (Marwick)		U1352D-11H-2, 70	91.20	S/Z	Shelf, eurybathyal	5.3	0.3	Wo-Wc	early Pliocene to Pleistocene
<i>Amalda (Gracilspira) novaezealandiae</i> (Sowerby)		U1352B-11H-3, 91	97.61	Z	Middle to outer shelf	5.3	0.0	Wo-R	early Pliocene to recent
<i>Uberella sp.</i>		U1352B-11H-3, 107	97.77	Z	Shelf, eurybathyal				
<i>Goniocidaris umbraculum</i> Hutton (spine)		U1352B-13H-1, 78	113.48	Z	Outer shelf to upper slope				