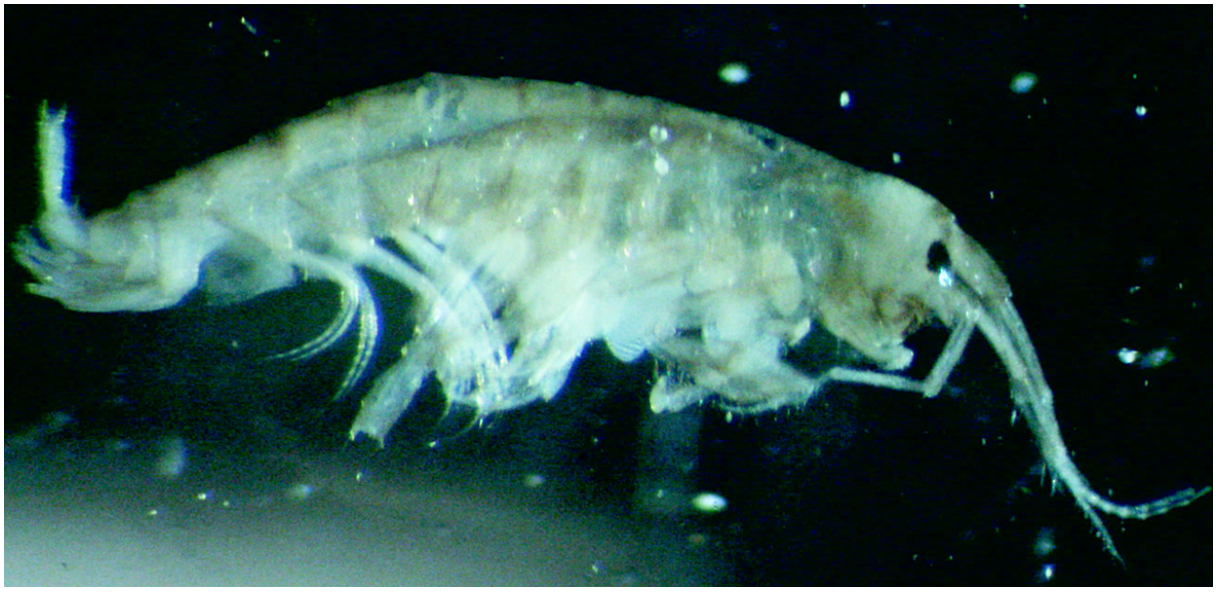
NIWA
Taihoro Nukurangi

Estuarine macroinvertebrate taxonomic resolution assessment and taxon identification tree

Prepared for Envirolink

March 2021



Climate, Freshwater & Ocean Science

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Cover photo: Female *Josephosella awa* specimen (Rachael Peart, NIWA).

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Executive summary

Regional councils monitor estuarine macroinvertebrate communities as an indicator of ecosystem health for State of Environment (SoE) reporting. While the taxonomy has been consistent over several years, the identification resolution for some species is only to higher taxon levels, such as Order or Family. In some cases, the species name and ecological sensitivity (e.g., to organic pollution) are unknown. Taxonomic resolution influences biotic index scores used by councils in environmental reporting, with low taxonomic resolution rendering some nationally developed benthic health indices and models ineffective. Taxonomic lumping (i.e., grouping specimens to a higher rank) may work for some indices and allow for comparative analysis between monitoring sites within a region but is not suitable for national comparisons where taxonomic resolution differs from region to region.

Environment Southland, on behalf of several regional councils, sought an MBIE Envirolink medium advice grant to:

- Improve the taxonomic resolution (and associated ecological sensitivity information) of macroinvertebrate specimens from 17 intertidal estuary locations across New Zealand (Stewart Island, Southland, Otago, Nelson, Marlborough, Wellington and Manawatu-Whanganui);
- Prepare a taxonomic tree for intertidal estuarine macroinvertebrates to assist councils with archiving of estuarine macroinvertebrate data into the biological database KiEco to facilitate inter-regional data exchange and national reporting; and
- Support taxonomic and specialist input to a workshop with regional council staff to scope a concept proposal for the development of a national online taxonomic resource library of estuarine species.

This report briefly documents the first two of these items. Recommendations for further work to improve the archiving of macroinvertebrate data are also provided.

1 Introduction

Regional councils throughout New Zealand regularly monitor estuarine macroinvertebrate communities as an indicator of ecosystem health for State of Environment (SoE) reporting. However, the taxonomic resolution of collected species data does not allow councils to fully utilise all of the available indices for assessing estuary health. In addition, coarse and/or varying levels of taxonomic resolution between different parataxonomic providers hinders inter-regional comparisons and national reporting.

An MBIE Envirolink medium advice grant was sought by Environment Southland, on behalf of several regional councils, for NIWA to:

- Improve the taxonomic resolution (and associated ecological sensitivity information) of macroinvertebrate specimens from 17 intertidal locations throughout six regions of New Zealand (Southland (including Stewart Island), Otago, Nelson, Marlborough, Wellington and Manawatu-Whanganui);
- Prepare a taxonomic tree for intertidal estuarine macroinvertebrates to assist councils with the archiving of estuarine macroinvertebrate data into the biological database KiEco to facilitate inter-regional data exchange and national reporting; and
- Support taxonomic and specialist input to a workshop with regional council staff to scope a concept Envirolink Tool proposal for the development of a national online taxonomic resource library of estuarine species.

This report briefly documents the first two of these items and is accompanied by two associated Microsoft Excel files. It follows an earlier Envirolink small advice grant for Environment Southland (ESRC176, Mills et al. 2020) which provided for a blind quality control assessment by NIWA and the preparation of 204 voucher specimens[1] from a subset of previously identified macroinvertebrate samples from 17 intertidal estuary locations across New Zealand.

[1] A voucher is a physical specimen that represents an example of the taxon name applied by a taxonomist or parataxonomist at a certain time which is able to be re-examined at a later date.

2 Improving taxonomic resolution of known specimens

In the absence of national guidance on minimum requirements for identification of estuarine macroinvertebrates, different parataxonomy providers apply varying levels of taxonomic resolution (e.g., taxa such as Amphipoda, Copepoda, Oligochaeta, Nemertea and Turbellaria are variously described to phyla, class, order, genus or species level). Further, species can often be undetermined, (e.g., Amphipoda sp. #1), or inconsistently named between regions or over time. These differences are problematic as taxonomic resolution has an influence on the determination of biotic index scores (Berthelsen et al. 2019) or metrics (e.g., species richness), commonly used by council in SoE reporting. The degree of influence is dependent on the index chosen but low taxonomic resolution renders some nationally developed benthic health indices and models ineffective. Taxonomic 'lumping' (i.e., grouping specimens to a higher rank) may work for some indices and allow for comparative analysis within a region but is not suitable for national comparisons where taxonomic resolution differs from region to region.

This component of the project used specialist taxonomists to assess the accuracy and resolution of the taxonomic classifications made by one parataxonomy provider for multiple councils over the last 10-15 years (Gary Stephenson, Coastal Marine Ecology Consultants), and provide guidance for ensuring improved consistency and accuracy in future taxonomic work. It made use of a set of 204 vials of macroinvertebrate voucher specimens previously collected from 17 New Zealand intertidal estuarine sites by Wriggle/ Salt Ecology, identified by CMEC and re-reassessed by two NIWA parataxonomists, Barry Greenfield and Sarah Hailes.

2.1 Methods

Expert taxonomists in Arthropoda, Mollusca and Polychaeta (Table 2-1) were asked to re-assess the collated voucher specimens to enable verification of the two sets of previous parataxonomic identifications (i.e., CMEC and NIWA), and where possible, to provide further identification resolution.

Table 2-1: Expert taxonomists consulted for this project.

Taxon Group	Expert
Annelida	Geoff Read, NIWA emeritus
Arthropoda, Crustacea	Rachael Peart, NIWA
Arthropoda, Chironomidae	Brian Smith, NIWA
Holothuroidea	Niki Davey, NIWA
Mollusca	Bruce Marshall, Independent Malacologist

Specimens were identified to the lowest taxon level possible using light microscopy, usually to species level. It is noted that the voucher specimens provided were collected using the National Estuary Monitoring Protocol (NEMP) (Robertson et al. 2002), which, even when followed carefully, can significantly compromise the material available for taxonomic identification. Indeed, the condition of some of the specimens precluded a species level determination from being possible in some cases. Further, the use of 10% formalin as a fixative that would significantly improve the condition of polychaete worm and anemone samples for morphological identification is unable to be used due to council health and safety policies. Consequently, any potential improvements in taxonomic resolution were in part determined by the condition of the voucher specimens.

Photographs were taken of each specimen by NIWA, and more detailed images of unique features were supplied by expert taxonomists where appropriate.

Fifteen vials of Nemertea and Actiniaria (anemones) were not identified to a resolution beyond that already assigned by the parataxonomists due to the lack of taxonomic expertise within New Zealand and time and cost associated with engaging international experts.

All voucher specimens are registered in the NIWA Invertebrate Collection and available on loan by request for future comparative work and other research purposes.

2.2 Results

The identifications made by the two parataxonomy providers (CMEC and NIWA) along with those of the expert taxonomists are provided in Table A-1 (Appendix A) for each of the voucher specimens. Taxonomic descriptions, a brief description of the ecology of the species, and known distribution within New Zealand is provided in Table A-2 (Appendix A). This information has also been provided to Environment Southland as separate Microsoft Excel files, along with folders of specimen images.

There was good congruence between parataxonomy providers and expert taxonomists in most identifications: more than half (58%) of the identifications matched between expert and both parataxonomists, and 20% of the samples saw only minor improvements in identification made by the experts. However, there was a significant change in the resolution of 22% of the specimen identifications across all taxa. The largest improvement in identification resolution was seen in the Arthropoda. Unfortunately, the poor preservation of some of the voucher specimens meant that the identification had to be reverted to family level for several of the polychaetes.

Feedback with the changes in identification has been given to the parataxonomy providers highlighting where there were misidentifications or where invalid taxon names have been used. A consensus taxon name has been recommended for each voucher specimen taking into account feedback from both parataxonomy providers and taxonomic experts. Selected comments on some of the taxon names have been provided as additional notes in Appendix 1 following Table A-1, including a summary of changes to nomenclature.

A request for additional specimens was made for an unusual nereid polychaete worm, *Neanthes* sp. (Figure 2-1), from Freshwater Estuary in Stewart Island for future verification work. An additional eight core samples were able to be collected at Freshwater Estuary by Environment Southland in November 2020 and sent to NIWA Wellington. The additional samples were difficult to process due to large volumes of *Zostera* root material present. Biota densities were low and unfortunately preservation of the biota (isopropyl alcohol was used) was poor; 5-10% formalin fixation is superior and preferred for annelids. Only one of the unknown *Neanthes* was recovered. In future, better specimens could be obtained by targeted spading (shovelling) on site, avoiding living *Zostera* patches, and looking for the nereidids (they are large enough to be seen and recognised by the naked eye).

Figure 2-1: Specimens of *Neanthes* sp. collected from Freshwater Estuary, Stewart Island. (Barry Greenfield, NIWA).

3 Taxonomic tree for intertidal estuarine macroinvertebrates

Environment Southland, and several other councils, are preparing their estuarine macroinvertebrate data for safe archiving into a biological database (KiEco), which requires a taxonomic tree. It is critical that a taxonomic tree is prepared that can be applied consistently across councils, to facilitate inter-regional data exchange and national reporting.

Six regional and unitary councils (Auckland, Waikato, Bay of Plenty, Nelson, Otago and Canterbury) provided taxa lists from previous macroinvertebrate monitoring carried out in estuaries in their region, which were compiled into a single file of 798 taxa. The taxon names encompass the work of multiple parataxonomy providers across much of New Zealand. The name of the contributing council and the parataxonomy provider used to produce these names were not associated with the taxon names listed in the file. Consequently, we do not know if these taxon names have had additional quality assurance/quality control (QA/QC) work done to determine whether they have been consistently applied or are correct.

The provided taxa names from the six councils, and additional taxa names generated through the work described in Section 2 of this report (spanning taxa from the Manawatu-Whanganui, Marlborough, Otago, Southland and Wellington regions), have been incorporated into one table with a taxonomic hierarchy from Phylum to species (Appendix B, Table B-1). There are now 680 taxa in the list following the grooming procedure described below:

- Taxon rows were combined for undefined taxa (e.g., 'Orbiniidae' and 'Orbinids' were reported on one row as they both refer to the family level identification of 'Orbiniidae' and cannot be further resolved).
- Taxa that had operational taxonomic units applied (e.g., '*Scolelepis* sp. a', '*Scolelepis* sp. b') were retained on separate rows (although the taxonomic hierarchy for these taxa is identical down to genus level).
- Taxon names that were validated through the QA/QC process described in Section 2 have been indicated and the regions that they were present in have been noted.
- Taxon names that have not been validated through the work described in Section 2 have also been indicated. Since no voucher specimens may have been retained to facilitate future comparative work between regions/para-taxonomy providers, or to support species description in future, these unvalidated taxon names should be treated with caution.
- Taxa that had invalid names (i.e., they have been synonymised) were combined with the accepted names that were also present in the list and reported on one row. Synonymised names and all names referred to in the original council list (including misspelt names) were retained and listed in additional columns for reference.

The reference database used for the taxonomic hierarchy was the World Register of Marine Species (WoRMS Editorial Board 2020). Molluscan higher taxonomy was also verified with the Checklist of the Recent Mollusca recorded from the New Zealand Exclusive Economic Zone (Spencer et al. 2016).

Expert taxonomists in Annelida, Crustacea and Mollusca checked the complete taxon list and provided additional brief notes on the taxa identified to species level to assist with reconciliation of different regional council data. It is noted that there are several foreign names included in the list for

species that do not occur in New Zealand. These names have been left in the list for completeness so that they can be reconciled with historic ID data. Specimens identified as one of these foreign species by parataxonomists in future should be noted as needing expert taxonomic review.

Along with the taxonomic hierarchy several ecological sensitivity groupings have been provided for each verified taxon identified in Section 2 of this report (Tables B-1 and B-2, Appendix B). Each taxon was assessed for its sensitivity to sedimentation, metals and nutrients according to relevant literature (Bennington 1979, Boffa Miskell Ltd 2020, Hailes and Carter 2018, Oskars and Malaquias 2020 and see Table 3-1) and the results from two studies on stressor effects (Ellis et al. 2017, Hewitt et al. 2009).

The taxon tree and the ecological sensitivity data have been provided to Environment Southland as a separate Microsoft Excel file.

Table 3-1: Macroinvertebrate ecological sensitivity information and references.

Sensitivity	Effect on species and communities	References
Fine sediments (mud - suspended and deposited)	Increase in turbidity, reducing light penetration into the water column and impacting pelagic and benthic primary productivity. Reduction of food to suspension feeders, herbivorous benthic grazers and deposit feeders; reduction of condition. Clogging of gill structures. If the suspended sediment is not lethal, sub-lethally stressed animals on the sediment surface are more vulnerable to predators. Impairment of behavioural responses and larval recruitment. Increase in species with a preference for mud. Sediment mud content is a dominant driver of macroinvertebrate community composition.	Anderson et al. 2007, Clapcott et al. 2017, Ellis et al. 2017, Gibbs and Hewitt 2004, Needham et al. 2014, Norkko et al 2001, Robertson et al. 2015, Thrush et al. 2004
Heavy metals (copper, lead and zinc)	Often see decreases in rare species, contaminant tolerant species and large organisms with increasing contaminant levels: affecting resilience, fragmentation of communities, benthic-pelagic coupling, sediment burial and resuspension. High levels are toxic, and can cause physiological stress, reduced reproductive success and outright mortality.	Ellis et al. 2017, Hewitt et al. 2009, Needham et al. 2014, Reynolds and Ferrington 2002, Stephenson et al. 2008
Nutrients (Total Nitrogen: TN and Total Phosphorous: TP)	Low levels can encourage primary production and productivity (i.e., food production) but beyond a critical point, it can lead to accelerated eutrophication.	Borja et al. 2000, Clapcott et al. 2017, Ellis et al. 2017

4 Recommendations

The taxa and supporting data from SoE monitoring that is used to populate databases such as KiEco should be robustly checked with the ability to indicate the level of confidence in the taxon names used. The taxon names in a file from the six councils were not provided with any provenance, i.e., they were not identified by the region they originated from, nor were the details of the parataxonomy provider or date of their identification provided. This means that there is currently no way to validate or indicate the level of confidence in the taxon names, particularly the operational taxonomic units (O.T.U) used by providers where the species name is not known (e.g., sp. 1, sp.2, sp. A, sp. B). It is unknown whether the O.T.U. are consistently applied to one species or to several over time, and it is not known if these are the same species across the whole country or if the O.T.U. is unique to a single region. For example, is Amphipod sp. 1 in Southland the same as Amphipod sp. 1 in Northland or are these two separate species? From the QA/QC work described in Section 2 of this report we know that O.T.U. for amphipod species were not the same and were inconsistently used between regions.

For these reasons, we recommend that region-specific taxon lists should be prepared for KiEco. Where possible these lists should be prepared using the verified taxon names provided in this report, and ideally by regional councils working with relevant parataxonomy providers to ensure that any unverified names they have reported have gone through QA/QC processes before being relied upon.

Issues in taxonomic inconsistency arising from the use of multiple parataxonomy providers and a lack of voucher specimens available for verification remain. If no voucher specimens are retained, then it may never be possible to reconcile these issues.

Some of the issues identified in this report will be addressed through the proposed Envirolink Tool to develop a national online taxonomic resource library of estuarine species. A proposal for this tool was submitted to MBIE in March 2021. If suitably preserved voucher specimens exist for taxa for which there is uncertainty around their identification, there will be provision as part of the tool development to send these specimens to expert taxonomists for identification.

5 Acknowledgements

We would like to thank:

- Gary Stephenson (Coastal Marine Ecology Consultants) and Leigh Stevens of Salt Ecology for provision of macrofauna samples and associated data and input;
- Keryn Roberts, and latterly Nuwan DeSilva from Environment Southland for project governance, additional samples from Freshwater Estuary and for coordinating the support from six councils that contributed samples for this project; Lesley Bolton-Ritchie from Environment Canterbury who compiled the species lists from six councils;
- Taxonomists Rachael Peart, Geoff Read, Brian Smith, Niki Davey (all NIWA) and Bruce Marshall (independent malacologist) for verification and identification of specimens;
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Appendix A Taxonomic verification

The tables on the following pages are abbreviated versions of the full dataset provided in Microsoft Excel files to Environment Southland.

Table A-1: Comparison of taxonomic Identification (ID) between experts, and parataxonomy providers for macrofauna samples from 17 intertidal estuarine sites and the final recommended identification of the specimen (damaged specimens may be unidentifiable). Green highlighted cells indicate a match in ID between the expert and both parataxonomic providers, orange indicates where there were minor differences between expert and para-taxonomic ID, and red indicates where there were there were large discrepancies in ID between one or more of the taxon names. *see additional notes at the bottom of this table for these identifications, ** see notes on nomenclatural changes.

NIWA Cat. No.	Phylum	Class	Expert taxonomist ID	Parataxonomist 1	Parataxonomist 2	Recommended identification of voucher specimen	Lot No.	Site ID	Collection date	Place name
147826	Annelida	Oligochaeta	Naididae	Oligochaeta sp. 1	Oligochaeta	Naididae	185	B-03	19/12/2019	Waikouaiti, Otago
147777	Annelida	Oligochaeta	Naididae	NA	Oligochaeta	Naididae	137	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147798	Annelida	Oligochaeta	Naididae	Oligochaeta	Oligochaeta	Naididae	158	A-03	28/03/2014	Havelock, Marlborough
147675	Annelida	Polychaeta	*Aglaophamus* sp.	*Aglaophamus* sp. 1	*Aglaophamus macroura*	*Aglaophamus*	035	B-06	14/02/2013	Waikawa Bay, Southland
147733	Annelida	Polychaeta	*Aonides trifida*	*Aonides trifida*	*Aonides trifida*	*Aonides trifida*	093	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147811	Annelida	Polychaeta	*Aonides trifida*	*Aonides trifida*	*Aonides trifida*	*Aonides trifida*	171	A-04	19/12/2019	Waikouaiti, Otago
147641	Annelida	Polychaeta	*Aonides trifida*	*Aonides trifida*	*Aonides trifida*	*Aonides trifida*	104	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147652	Annelida	Polychaeta	*Aonides trifida*	*Aonides trifida*	*Aonides trifida*	*Aonides trifida*	012	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147775	Annelida	Polychaeta	*Aonides trifida*	*Aonides trifida*	*Aonides trifida*	*Aonides trifida*	135	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147678	Annelida	Polychaeta	*Aonides trifida*	*Aonides* sp. 1	*Aonides trifida*	*Aonides trifida*	038	B-06	14/02/2013	Waikawa Bay, Southland
147720	Annelida	Polychaeta	*Aonides trifida*	*Aonides* sp. 1	*Aonides trifida*	*Aonides trifida*	080	A-07	05/02/2015	Moutere, Nelson
147688	Annelida	Polychaeta	*Armandia maculata*	*Armandia maculata*	*Armandia maculata*	*Armandia maculata*	048	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147732	Annelida	Polychaeta	*Axiothella serrata*	*Axiothella serrata*	*Axiothella*	*Axiothella serrata*	092	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147722	Annelida	Polychaeta	*Axiothella serrata*	*Macroclymenella stewartensis*	*Axiothella*	*Axiothella serrata*	082	A-07	05/02/2015	Moutere, Nelson
147794	Annelida	Polychaeta	*Axiothella serrata*	NA	*Axiothella*	*Axiothella serrata*	154	A-03	28/03/2014	Havelock, Marlborough
147837	Annelida	Polychaeta	*Boccardia syrtis*	NA	*Boccardia syrtis*	*Boccardia syrtis*	196	A-03	04/04/2019	Kokorua, Nelson
147818	Annelida	Polychaeta	*Boccardia syrtis*	*Boccardia syrtis*	*Boccardia syrtis*	*Boccardia syrtis*	178	A-04	19/12/2019	Waikouaiti, Otago
147782	Annelida	Polychaeta	*Boccardia syrtis*	NA	*Boccardia syrtis*	*Boccardia syrtis*	142	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147680	Annelida	Polychaeta	*Boccardia syrtis*	*Boccardia syrtis*	*Boccardia syrtis*	*Boccardia syrtis*	040	B-06	14/02/2013	Waikawa Bay, Southland
147802	Annelida	Polychaeta	*Boccardia syrtis*	*Boccardia syrtis*	*Boccardia syrtis*	*Boccardia syrtis*	162	A-03	28/03/2014	Havelock, Marlborough
147729	Annelida	Polychaeta	*Capitella* sp.	NA	*Capitella*	*Capitella*	089	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147816	Annelida	Polychaeta	*Capitella* sp.	NA	*Capitella*	*Capitella*	176	A-04	19/12/2019	Waikouaiti, Otago
147646	Annelida	Polychaeta	*Capitella* sp.	NA	*Capitella*	*Capitella*	006	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147856	Annelida	Polychaeta	Capitellidae	*Heteromastus filiformis*	*Heteromastus filiformis*	Capitellidae*	203	B-10	04/04/2019	Kokorua, Nelson

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147780	Annelida	Polychaeta	Capitellidae	*Heteromastus filiformis*	*Heteromastus filiformis*	Capitellidae*	140	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147677	Annelida	Polychaeta	Capitellidae	NA	*Heteromastus filiformis*	Capitellidae*	037	B-06	14/02/2013	Waikawa Bay, Southland
147713	Annelida	Polychaeta	*Disconatis accolus*	NA	Lepidonotinae	*Disconatis accolus*	073	A-07	05/02/2015	Moutere, Nelson
147692	Annelida	Polychaeta	Unidentifiable gut tube, maybe part of a holothurian	*Taeniogyrus dendyi* (sea cucumber)	*Taeniogyrus dendyi* (sea cucumber)	Unidentifiable macrofauna*	052	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147805	Annelida	Polychaeta	*Hemipodia simplex*	NA	*Glycera ovigera*	*Hemipodia simplex*	165	A-04	19/12/2019	Waikouaiti, Otago
147673	Annelida	Polychaeta	*Hemipodia simplex*	Glyceridae (unidentified juv.)	*Glycera ovigera*	*Hemipodia simplex*	033	B-06	14/02/2013	Waikawa Bay, Southland
147731	Annelida	Polychaeta	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	091	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147695	Annelida	Polychaeta	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	055	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147836	Annelida	Polychaeta	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	195	A-03	04/04/2019	Kokorua, Nelson
147810	Annelida	Polychaeta	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	170	A-04	19/12/2019	Waikouaiti, Otago
147718	Annelida	Polychaeta	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	078	A-07	05/02/2015	Moutere, Nelson
147796	Annelida	Polychaeta	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	*Heteromastus filiformis*	156	A-03	28/03/2014	Havelock, Marlborough
147725	Annelida	Polychaeta	*Leodamas cylindrifer*	*Scoloplos cylindrifer*	*Scoloplos cylindrifer*	*Leodamas cylindrifer***	085	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147690	Annelida	Polychaeta	*Leodamas cylindrifer*	*Scoloplos cylindrifer*	*Scoloplos cylindrifer*	*Leodamas cylindrifer***	050	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147831	Annelida	Polychaeta	*Leodamas cylindrifer*	*Scoloplos cylindrifer*	*Scoloplos cylindrifer*	*Leodamas cylindrifer **	190	A-03	04/04/2019	Kokorua, Nelson
147814	Annelida	Polychaeta	*Leodamas cylindrifer*	*Scoloplos cylindrifer*	*Scoloplos cylindrifer*	*Leodamas cylindrifer **	174	A-04	19/12/2019	Waikouaiti, Otago
147650	Annelida	Polychaeta	*Leodamas cylindrifer*	*Scoloplos cylindrifer*	*Scoloplos cylindrifer*	*Leodamas cylindrifer **	010	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147797	Annelida	Polychaeta	*Leodamas cylindrifer*	*Scoloplos cylindrifer*	*Scoloplos cylindrifer*	*Leodamas cylindrifer **	157	A-03	28/03/2014	Havelock, Marlborough
147666	Annelida	Polychaeta	*Macroclymenella stewartensis*	*Macroclymenella stewartensis*	*Macroclymenella stewartensis*	*Macroclymenella stewartensis*	026	A-10	14/02/2013	Waikawa Bay, Southland
147684	Annelida	Polychaeta	*Macroclymenella stewartensis*	*Macroclymenella stewartensis*	*Macroclymenella stewartensis*	*Macroclymenella stewartensis*	044	B-06	14/02/2013	Waikawa Bay, Southland
147714	Annelida	Polychaeta	*Magelona dakini*	*Magelona* sp. 1	*Magelona dakini*	*Magelona dakini*	074	A-07	05/02/2015	Moutere, Nelson
147783	Annelida	Polychaeta	*Magelona* sp.	*Magelona dakini*	*Magelona dakini*	*Magelona*	143	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147742	Annelida	Polychaeta	*Neanthes* sp.	*Neanthes* sp. 1	*Perinereis vallata*	*Neanthes*	109	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147645	Annelida	Polychaeta	*Neanthes* sp.	*Neanthes* sp. 1	*Perinereis vallata*	*Neanthes*	005	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147663	Annelida	Polychaeta	Nephtyidae	*Aglaophamus* sp. 1	*Aglaophamus macroura*	Nephtyidae*	023	A-10	14/02/2013	Waikawa Bay, Southland
147716	Annelida	Polychaeta	Nephtyidae	NA	*Aglaophamus macroura*	Nephtyidae*	076	A-07	05/02/2015	Moutere, Nelson

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147769	Annelida	Polychaeta	Nereididae	Nereididae (unidentified juv.) (6), *Nicon aestuariensis* (5)	*Nicon aestuariensis*	Nereididae*	129	B-04	19/01/2020	Whanganui, Manawatu
147789	Annelida	Polychaeta	*Nicon aestuariensis*	Nereididae (unidentified juv.) (5), *Nicon aestuariensis* (6)	*Nicon aestuariensis*	*Nicon aestuariensis*	149	A-03	19/01/2020	Whanganui, Manawatu
147727	Annelida	Polychaeta	*Nicon aestuariensis*	Nereididae (unidentified juv.)	*Nicon aestuariensis*	*Nicon aestuariensis*	087	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147835	Annelida	Polychaeta	*Nicon aestuariensis*	*Nicon aestuariensis*	*Nicon aestuariensis*	*Nicon aestuariensis*	194	A-03	04/04/2019	Kokorua, Nelson
147753	Annelida	Polychaeta	*Nicon aestuariensis*	*Nicon aestuariensis*	*Nicon aestuariensis*	*Nicon aestuariensis*	120	E-05	07/03/2019	New River Estuary, Invercargill, Southland
147703	Annelida	Polychaeta	*Nicon aestuariensis*	Nereididae (unidentified juv.)	*Nicon aestuariensis*	*Nicon aestuariensis*	063	D-07	15/03/2019	Jacobs River Estuary, Southland
147715	Annelida	Polychaeta	*Nicon aestuariensis*	Nereididae (unidentified juv.)	*Nicon aestuariensis*	*Nicon aestuariensis*	075	A-07	05/02/2015	Moutere, Nelson
147799	Annelida	Polychaeta	*Nicon aestuariensis*	*Nicon aestuariensis*	*Nicon aestuariensis*	*Nicon aestuariensis*	159	A-03	28/03/2014	Havelock, Marlborough
147726	Annelida	Polychaeta	*Orbinia papillosa*	*Orbinia papillosa*	*Orbinia papillosa*	*Orbinia papillosa*	086	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147691	Annelida	Polychaeta	Orbiniidae?	*Orbinia papillosa*	*Orbinia papillosa*	Orbiniidae*	051	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147717	Annelida	Polychaeta	*Owenia petersenae*	*Owenia petersenae*	*Owenia petersenae*	*Owenia petersenae*	077	A-07	05/02/2015	Moutere, Nelson
147739	Annelida	Polychaeta	*Paradoneis lyra*	*Paradoneis* sp. 1	*Paradoneis lyra*	*Paradoneis lyra*	099	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147801	Annelida	Polychaeta	*Paradoneis lyra*	Paraonidae sp. 1	*Paradoneis lyra*	*Paradoneis lyra*	161	A-03	28/03/2014	Havelock, Marlborough
147813	Annelida	Polychaeta	*Perinereis vallata*	Nereididae (unidentified juv.)	*Perinereis vallata*	*Perinereis vallata*	173	A-04	19/12/2019	Waikouaiti, Otago
147822	Annelida	Polychaeta	*Perinereis vallata*	*Perinereis vallata* (3) and Nereididae (unidentified juv.) (4)	*Perinereis vallata*	*Perinereis vallata*	181	B-03	19/12/2019	Waikouaiti, Otago
147776	Annelida	Polychaeta	*Perinereis vallata*	Nereididae (unidentified juv.)	*Perinereis vallata*	*Perinereis vallata*	136	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147696	Annelida	Polychaeta	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	056	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147833	Annelida	Polychaeta	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	192	A-03	04/04/2019	Kokorua, Nelson
147854	Annelida	Polychaeta	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	201	B-10	04/04/2019	Kokorua, Nelson
147806	Annelida	Polychaeta	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	166	A-04	19/12/2019	Waikouaiti, Otago
147642	Annelida	Polychaeta	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	105	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147651	Annelida	Polychaeta	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	011	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147781	Annelida	Polychaeta	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	141	C-09	12/02/2020	Freshwater Estuary, Stewart Island

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147719	Annelida	Polychaeta	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	079	A-07	05/02/2015	Moutere, Nelson
147800	Annelida	Polychaeta	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	*Prionospio aucklandica*	160	A-03	28/03/2014	Havelock, Marlborough
147786	Annelida	Polychaeta	*Scolecolepides benhami*	*Scolecolepides benhami*	*Scolecolepides benhami*	*Scolecolepides benhami*	146	A-03	19/01/2020	Whanganui, Manawatu
147812	Annelida	Polychaeta	*Scolecolepides benhami*	*Scolecolepides benhami*	*Scolecolepides benhami*	*Scolecolepides benhami*	172	A-04	19/12/2019	Waikouaiti, Otago
147828	Annelida	Polychaeta	*Scolecolepides benhami*	*Scolecolepides benhami*	*Scolecolepides benhami*	*Scolecolepides benhami*	187	B-03	19/12/2019	Waikouaiti, Otago
147751	Annelida	Polychaeta	*Scolecolepides benhami*	*Scolecolepides benhami*	*Scolecolepides benhami*	*Scolecolepides benhami*	118	E-05	07/03/2019	New River Estuary, Invercargill, Southland
147510	Annelida	Polychaeta	Syllidae	Syllidae sp. 1	Syllinae	Syllidae*	004	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147668	Annelida	Polychaeta	Syllidae	Syllidae sp. 2	*Sphaerosyllis semiverrucosa*	Syllidae*	028	B-06	14/02/2013	Waikawa Bay, Southland
147772	Annelida	Polychaeta	*Travisia olens*	*Travisia olens*	*Travisia olens*	*Travisia olens*	132	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147679	Annelida	Polychaeta	*Travisia olens*	*Travisia olens*	*Travisia olens*	*Travisia olens*	039	B-06	14/02/2013	Waikawa Bay, Southland
147509	Arthropoda	Insecta	Orthocladiinae	Diptera sp. 2	Chironomidae	Orthocladiinae	003	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147827	Arthropoda	Insecta	*Semiocladius* sp.	NA	Chironomidae	*Semiocladius*	186	B-03	19/12/2019	Waikouaiti, Otago
147857	Arthropoda	Malacostraca	? Cannot find specimen in vial	*Paracorophium* sp.	*Paracorophium excavatum*	*Paracorophium*	204	B-10	04/04/2019	Kokorua, Nelson
147649	Arthropoda	Malacostraca	*Apocorophium acutum*	Corophium sp. 1	Corophiidae	*Apocorophium acutum*	009	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147638	Arthropoda	Malacostraca	*Austrohelice crassa*	*Austrohelice crassa*	*Austrohelice crassa*	*Austrohelice crassa*	101	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147749	Arthropoda	Malacostraca	*Austrohelice crassa*	*Austrohelice crassa*	*Austrohelice crassa*	*Austrohelice crassa*	116	E-05	07/03/2019	New River Estuary, Invercargill, Southland
147670	Arthropoda	Malacostraca	*Colurostylis* sp.	*Colurostylis lemurum*	*Colurostylis lemurum*	*Colurostylis*	030	B-06	14/02/2013	Waikawa Bay, Southland
147689	Arthropoda	Malacostraca	*Colurostylis whitireia*	*Colurostylis lemurum*	*Colurostylis lemurum*	*Colurostylis whitireia*	049	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147657	Arthropoda	Malacostraca	*Halicarcinus varius*	*Halicarcinus varius*	*Halicarcinus varius*	*Halicarcinus varius*	017	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147747	Arthropoda	Malacostraca	*Halicarcinus varius*	*Halicarcinus whitei*	*Halicarcinus varius*	*Halicarcinus varius*	114	E-05	07/03/2019	New River Estuary, Invercargill, Southland
147768	Arthropoda	Malacostraca	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	128	B-04	19/01/2020	Whanganui, Manawatu
147737	Arthropoda	Malacostraca	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	097	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147853	Arthropoda	Malacostraca	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	200	B-10	04/04/2019	Kokorua, Nelson
147808	Arthropoda	Malacostraca	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	168	A-04	19/12/2019	Waikouaiti, Otago
147820	Arthropoda	Malacostraca	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	180	B-03	19/12/2019	Waikouaiti, Otago
147740	Arthropoda	Malacostraca	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	100	A-10	11/02/2020	Freshwater Estuary, Stewart Island

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147770	Arthropoda	Malacostraca	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	130	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147705	Arthropoda	Malacostraca	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	065	D-07	15/03/2019	Jacobs River Estuary, Southland
147721	Arthropoda	Malacostraca	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	081	A-07	05/02/2015	Moutere, Nelson
147795	Arthropoda	Malacostraca	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	*Halicarcinus whitei*	155	A-03	28/03/2014	Havelock, Marlborough
147710	Arthropoda	Malacostraca	*Hemigrapsus sexdentatus*	NA?	*Hemigrapsus sexdentatus*	*Hemigrapsus sexdentatus*	070	D-07	15/03/2019	Jacobs River Estuary, Southland
147832	Arthropoda	Malacostraca	*Hemiplax hirtipes*	*H. hirtipes* and *Austrohelice crassa*	*Hemiplax hirtipes*	*Hemiplax hirtipes*	191	A-03	04/04/2019	Kokorua, Nelson
147838	Arthropoda	Malacostraca	*Hemiplax hirtipes*	Hemiplax hirtipes	*Hemiplax hirtipes*	*Hemiplax hirtipes*	197	B-10	04/04/2019	Kokorua, Nelson
147809	Arthropoda	Malacostraca	*Hemiplax hirtipes*	Hemiplax hirtipes	*Hemiplax hirtipes*	*Hemiplax hirtipes*	169	A-04	19/12/2019	Waikouaiti, Otago
147819	Arthropoda	Malacostraca	*Hemiplax hirtipes*	Hemiplax hirtipes	*Hemiplax hirtipes*	*Hemiplax hirtipes*	179	B-03	19/12/2019	Waikouaiti, Otago
147746	Arthropoda	Malacostraca	*Hemiplax hirtipes*	Hemiplax hirtipes	*Hemiplax hirtipes*	*Hemiplax hirtipes*	113	E-05	07/03/2019	New River Estuary, Invercargill, Southland
147709	Arthropoda	Malacostraca	*Hemiplax hirtipes*	Hemiplax hirtipes	*Hemiplax hirtipes*	*Hemiplax hirtipes*	069	D-07	15/03/2019	Jacobs River Estuary, Southland
147669	Arthropoda	Malacostraca	*Hemiplax hirtipes*	*Hemiplax hirtipes*	*Hemiplax hirtipes*	*Hemiplax hirtipes*	029	B-06	14/02/2013	Waikawa Bay, Southland
147790	Arthropoda	Malacostraca	*Josephosella awa*	Amphipoda sp. 1	*Melita awa*	*Josephosella awa* **	150	A-03	19/01/2020	Whanganui, Manawatu
147760	Arthropoda	Malacostraca	*Josephosella awa*	Amphipoda sp. 1	*Melita awa*	*Josephosella awa* **	127	B-04	19/01/2020	Whanganui, Manawatu
147755	Arthropoda	Malacostraca	*Josephosella awa*	Amphipoda sp. 7	*Melita awa*	*Josephosella awa* **	122	E-05	07/03/2019	New River Estuary, Invercargill, Southland
147701	Arthropoda	Malacostraca	*Josephosella awa*	Amphipod sp. 7	*Melita awa*	*Josephosella awa* **	061	D-07	15/03/2019	Jacobs River Estuary, Southland
147839	Arthropoda	Malacostraca	*Palaemon affinis*	*Palaemon affinis*	*Palaemon affinis*	*Palaemon affinis*	198	B-10	04/04/2019	Kokorua, Nelson
147730	Arthropoda	Malacostraca	*Paracalliope novizealandiae*	Amphipoda sp. 1	*Paracalliope novizealandiae*	*Paracalliope novizealandiae*	090	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147694	Arthropoda	Malacostraca	*Paracalliope novizealandiae*	Amphipoda sp. 1	*Paracalliope novizealandiae*	*Paracalliope novizealandiae*	054	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147817	Arthropoda	Malacostraca	*Paracalliope novizealandiae*	Amphipoda sp. 1	*Paracalliope novizealandiae*	*Paracalliope novizealandiae*	177	A-04	19/12/2019	Waikouaiti, Otago
147643	Arthropoda	Malacostraca	*Paracalliope novizealandiae*	Amphipoda sp. 1	*Paracalliope novizealandiae*	*Paracalliope novizealandiae*	106	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147778	Arthropoda	Malacostraca	*Paracalliope novizealandiae*	Amphipoda sp. 1	*Paracalliope novizealandiae*	*Paracalliope novizealandiae*	138	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147752	Arthropoda	Malacostraca	*Paracalliope novizealandiae*	Amphipod sp. 1	*Paracalliope novizealandiae*	*Paracalliope novizealandiae*	119	E-05	07/03/2019	New River Estuary, Invercargill, Southland
147702	Arthropoda	Malacostraca	*Paracalliope novizealandiae*	Amphipod sp. 1	*Paracalliope novizealandiae*	*Paracalliope novizealandiae*	062	D-07	15/03/2019	Jacobs River Estuary, Southland
147665	Arthropoda	Malacostraca	*Paracalliope novizealandiae*	Amphipoda sp. 1	*Paracalliope novizealandiae*	*Paracalliope novizealandiae*	025	A-10	14/02/2013	Waikawa Bay, Southland

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147676	Arthropoda	Malacostraca	*Paracalliope novizealandiae*	Amphipoda sp. 1	*Paracalliope novizealandiae*	*Paracalliope novizealandiae*	036	B-06	14/02/2013	Waikawa Bay, Southland
147750	Arthropoda	Malacostraca	*Paracalliope? sp.*	NA?	Corophiidae	Corophiidae	117	E-05	07/03/2019	New River Estuary, Invercargill, Southland
147788	Arthropoda	Malacostraca	*Paracorophium brisbanensis*	*Paracorophium* sp. 1	*Paracorophium excavatum*	*Paracorophium brisbanensis*	148	A-03	19/01/2020	Whanganui, Manawatu
147759	Arthropoda	Malacostraca	*Paracorophium brisbanensis*	*Paracorophium* sp. 1	*Paracorophium excavatum*	*Paracorophium brisbanensis*	126	B-04	19/01/2020	Whanganui, Manawatu
147815	Arthropoda	Malacostraca	*Paracorophium excavatum*	*Paracorophium excavatum*	*Paracorophium excavatum*	*Paracorophium excavatum*	175	A-04	19/12/2019	Waikouaiti, Otago
147824	Arthropoda	Malacostraca	*Paracorophium excavatum*	*Paracorophium excavatum*	*Paracorophium excavatum*	*Paracorophium excavatum*	183	B-03	19/12/2019	Waikouaiti, Otago
147706	Arthropoda	Malacostraca	*Paracorophium excavatum*	*Paracorophium excavatum*	*Paracorophium excavatum*	*Paracorophium excavatum*	066	D-07	15/03/2019	Jacobs River Estuary, Southland
147754	Arthropoda	Malacostraca	*Paramoera* sp.	Amphipoda sp. 2	*Paramoera chevreuxi*	*Paramoera*	121	E-05	07/03/2019	New River Estuary, Invercargill, Southland
147648	Arthropoda	Malacostraca	*Parawaldeckia kidderi*	Amphipoda sp. 4	Lysianassidae	*Parawaldeckia kidderi*	008	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147779	Arthropoda	Malacostraca	*Parawaldeckia kidderi*	Amphipod sp. 4	Lysianassidae	*Parawaldeckia kidderi*	139	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147693	Arthropoda	Malacostraca	*Torridoharpinia hurleyi*	Phoxocephalidae sp. 1	*Torridoharpinia hurleyi*	*Torridoharpinia hurleyi*	053	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147664	Arthropoda	Malacostraca	*Torridoharpinia hurleyi*	Phoxocephalidae sp. 1	*Torridoharpinia hurleyi*	*Torridoharpinia hurleyi*	024	A-10	14/02/2013	Waikawa Bay, Southland
147825	Arthropoda	Malacostraca	*Transorchestia* sp.	Amphipoda sp. 1	*Protohyale*	*Transorchestia*	184	B-03	19/12/2019	Waikouaiti, Otago
147773	Arthropoda	Malacostraca	*Zeuxo* sp.	Tanaidacea sp. 2	Tanaidacea	*Zeuxo*	133	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147660	Arthropoda	Malacostraca	*Zeuxo* sp.	Tanaidacea sp. 1	Tanaidacea	*Zeuxo*	020	A-10	14/02/2013	Waikawa Bay, Southland
147639	Arthropoda	Maxillopoda	*Austrominius modestus*	*Austrominius modestus*	*Austrominius modestus*	*Austrominius modestus*	102	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147654	Arthropoda	Maxillopoda	*Austrominius modestus*	*Austrominius modestus*	*Austrominius modestus*	*Austrominius modestus*	014	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147728	Cnidaria	Anthozoa		*Edwardsia* sp. 1	*Edwardsia*	*Edwardsia*	088	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147698	Cnidaria	Anthozoa		*Edwardsia* sp. 1	*Edwardsia*	*Edwardsia*	058	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147774	Cnidaria	Anthozoa		*Anthopleura aureoradiata*	*Anthopleura aureoradiata*	*Anthopleura hermaphroditica* **	134	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147662	Cnidaria	Anthozoa		*Anthopleura aureoradiata*	*Anthopleura aureoradiata*	*Anthopleura hermaphroditica* **	022	A-10	14/02/2013	Waikawa Bay, Southland
147672	Cnidaria	Anthozoa		*Anthopleura aureoradiata*	*Anthopleura aureoradiata*	*Anthopleura hermaphroditica* **	032	B-06	14/02/2013	Waikawa Bay, Southland
147671	Cnidaria	Anthozoa		*Edwardsia* sp. 1	*Edwardsia*	*Edwardsia*	031	B-06	14/02/2013	Waikawa Bay, Southland

NIWA Cat. No.	Phylum	Class	Expert taxonomist ID	Parataxonomist 1	Parataxonomist 2	Recommended identification of voucher specimen	Lot No.	Site ID	Collection date	Place name
147787	Mollusca	Bivalvia	*Arthritica* sp. 5	*Arthritica* sp. 1	*Arthritica bifurca*	*Arthritica* sp. 5 *	147	A-03	19/01/2020	Whanganui, Manawatu
147758	Mollusca	Bivalvia	*Arthritica* sp. 5	*Arthritica* sp. 1	*Arthritica bifurca*	*Arthritica* sp. 5 *	125	B-04	19/01/2020	Whanganui, Manawatu
147736	Mollusca	Bivalvia	*Arthritica* sp. 5	*Arthritica* sp. 1	*Arthritica bifurca*	*Arthritica* sp. 5 *	096	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147830	Mollusca	Bivalvia	*Arthritica* sp. 5	*Arthritica* sp. 1	*Arthritica bifurca*	*Arthritica* sp. 5 *	189	A-03	04/04/2019	Kokorua, Nelson
147840	Mollusca	Bivalvia	*Arthritica* sp. 5	*Arthritica* sp. 1	*Arthritica bifurca*	*Arthritica* sp. 5 *	199	B-10	04/04/2019	Kokorua, Nelson
147640	Mollusca	Bivalvia	*Arthritica* sp. 5	*Arthritica* sp. 1	*Arthritica bifurca*	*Arthritica* sp. 5 *	103	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147748	Mollusca	Bivalvia	*Arthritica* sp. 5	*Arthritica* sp. 1	*Arthritica bifurca*	*Arthritica* sp. 5 *	115	E-05	07/03/2019	New River Estuary, Invercargill, Southland
147708	Mollusca	Bivalvia	*Arthritica* sp. 5	*Arthritica* sp. 1	*Arthritica bifurca*	*Arthritica* sp. 5 *	068	D-07	15/03/2019	Jacobs River Estuary, Southland
147792	Mollusca	Bivalvia	*Arthritica* sp. 5	*Arthritica* sp. 1	*Arthritica bifurca*	*Arthritica* sp. 5 *	152	A-03	28/03/2014	Havelock, Marlborough
147724	Mollusca	Bivalvia	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	084	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147685	Mollusca	Bivalvia	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	045	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147829	Mollusca	Bivalvia	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	188	A-03	04/04/2019	Kokorua, Nelson
147804	Mollusca	Bivalvia	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	164	A-04	19/12/2019	Waikouaiti, Otago
147743	Mollusca	Bivalvia	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	110	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147507	Mollusca	Bivalvia	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	001	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147659	Mollusca	Bivalvia	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	019	A-10	14/02/2013	Waikawa Bay, Southland
147681	Mollusca	Bivalvia	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	041	B-06	14/02/2013	Waikawa Bay, Southland
147712	Mollusca	Bivalvia	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	072	A-07	05/02/2015	Moutere, Nelson
147791	Mollusca	Bivalvia	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	*Austrovenus stutchburyi*	151	A-03	28/03/2014	Havelock, Marlborough
147756	Mollusca	Bivalvia	*Cyclomactra tristis*	*Cyclomactra tristis*	*Cyclomactra ovata*	*Cyclomactra tristis* *	123	B-04	19/01/2020	Whanganui, Manawatu
147655	Mollusca	Bivalvia	*Legrandina turneri*	*Perrierina turneri*	*Legrandina turneri*	*Legrandina turneri* **	015	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147687	Mollusca	Bivalvia	*Linucula hartvigiana*	*Linucula hartvigiana*	*Linucula hartvigiana*	*Linucula hartvigiana*	047	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147723	Mollusca	Bivalvia	*Macomona liliana*	*Macomona liliana*	*Macomona liliana*	*Macomona liliana*	083	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147686	Mollusca	Bivalvia	*Macomona liliana*	*Macomona liliana*	*Macomona liliana*	*Macomona liliana*	046	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147771	Mollusca	Bivalvia	*Macomona liliana*	*Macomona liliana*	*Macomona liliana*	*Macomona liliana*	131	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147658	Mollusca	Bivalvia	*Macomona liliana*	*Macomona liliana*	*Macomona liliana*	*Macomona liliana*	018	A-10	14/02/2013	Waikawa Bay, Southland
147711	Mollusca	Bivalvia	*Macomona liliana*	*Macomona liliana*	*Macomona liliana*	*Macomona liliana*	071	A-07	05/02/2015	Moutere, Nelson

NIWA Cat. No.	Phylum	Class	Expert taxonomist ID	Parataxonomist 1	Parataxonomist 2	Recommended identification of voucher specimen	Lot No.	Site ID	Collection date	Place name
147653	Mollusca	Bivalvia	*Mytilus planulatus*	*Mytilus galloprovincialis*	*Xenostrobus pulex*	*Mytilus planulatus* *	013	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147661	Mollusca	Bivalvia	*Nucula nitidula*	*Nucula* sp. 1	*Linucula hartvigiana*	*Nucula nitidula* *	021	A-10	14/02/2013	Waikawa Bay, Southland
147508	Mollusca	Bivalvia	*Paphies australis*	*Paphies australis*	*Paphies australis*	*Paphies australis*	002	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147683	Mollusca	Bivalvia	*Paphies australis*	*Soletellina* sp. 1	*Paphies australis*	*Paphies australis* *	043	B-06	14/02/2013	Waikawa Bay, Southland
147855	Mollusca	Gastropoda	*Amphibola crenata*	*Amphibola crenata*	*Amphibola crenata*	*Amphibola crenata*	202	B-10	04/04/2019	Kokorua, Nelson
147744	Mollusca	Gastropoda	*Amphibola crenata*	*Amphibola crenata*	*Amphibola crenata*	*Amphibola crenata*	111	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147735	Mollusca	Gastropoda	*Cominella glandiformis*	*Cominella glandiformis*	*Cominella glandiformis*	*Cominella glandiformis*	095	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147699	Mollusca	Gastropoda	*Cominella glandiformis*	*Cominella glandiformis*	*Cominella glandiformis*	*Cominella glandiformis*	059	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147807	Mollusca	Gastropoda	*Cominella glandiformis*	*Cominella glandiformis*	*Cominella glandiformis*	*Cominella glandiformis*	167	A-04	19/12/2019	Waikouaiti, Otago
147745	Mollusca	Gastropoda	*Cominella glandiformis*	*Cominella glandiformis*	*Cominella glandiformis*	*Cominella glandiformis*	112	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147682	Mollusca	Gastropoda	*Cominella glandiformis*	*Cominella glandiformis*	*Cominella glandiformis*	*Cominella glandiformis*	042	B-06	14/02/2013	Waikawa Bay, Southland
147667	Mollusca	Gastropoda	*Diloma subrostratum*	*Diloma subrostratum*	*Diloma subrostratum*	*Diloma subrostratum*	027	A-10	14/02/2013	Waikawa Bay, Southland
147823	Mollusca	Gastropoda	*Halopyrgus pupoides*	*Halopyrgus pupoides*	Anabathridae	*Halopyrgus pupoides*	182	B-03	19/12/2019	Waikouaiti, Otago
147647	Mollusca	Gastropoda	*Notoacmea scapha*	*Notoacmea* spp.	*Notoacmea scapha*	*Notoacmea spp.* *	007	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147674	Mollusca	Gastropoda	*Notoacmea scapha*	*Notoacmea helmsi*	*Notoacmea scapha*	*Notoacmea scapha*	034	B-06	14/02/2013	Waikawa Bay, Southland
147644	Mollusca	Gastropoda	*Notoacmea* sp. (no shell)	*Notoacmea* spp.	*Notoacmea scapha*	*Notoacmea* spp. *	107	A-10	11/02/2020	Freshwater Estuary, Stewart Island
147793	Mollusca	Gastropoda	*Papawera zelandiae*	*Haminoea zelandiae*	*Haminoea zelandiae*	*Papawera zelandiae* **	153	A-03	28/03/2014	Havelock, Marlborough
147785	Mollusca	Gastropoda	*Potamopyrgus estuarinus*	*Potamopyrgus estuarinus*	*Potamopyrgus estuarinus*	*Potamopyrgus estuarinus*	145	A-03	19/01/2020	Whanganui, Manawatu
147757	Mollusca	Gastropoda	*Potamopyrgus estuarinus*	*Potamopyrgus estuarinus*	*Potamopyrgus estuarinus*	*Potamopyrgus estuarinus*	124	B-04	19/01/2020	Whanganui, Manawatu
147700	Mollusca	Gastropoda	*Potamopyrgus estuarinus*	*Potamopyrgus estuarinus*	*Potamopyrgus estuarinus*	*Potamopyrgus estuarinus*	060	D-07	15/03/2019	Jacobs River Estuary, Southland
147734	Mollusca	Gastropoda	*Zeacumantus lutulentus*	*Zeacumantus lutulentus*	*Zeacumantus lutulentus*	*Zeacumantus lutulentus*	094	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147738	Nemertea			Nemertea sp. 1	Nemertea	Nemertea	098	Onepoto B-10	14/01/2020	Onepoto, Porirua Harbour, Wellington Region
147697	Nemertea			Nemertea sp. 4	Nemertea	Nemertea	057	Pauatahanui A-03	14/02/2020	Pauatahanui Inlet, Porirua Harbour, Wellington Region
147834	Nemertea			Nemertea sp. 3	Nemertea	Nemertea	193	A-03	04/04/2019	Kokorua, Nelson
147741	Nemertea			Nemertea sp. 1	Nemertea	Nemertea	108	A-10	11/02/2020	Freshwater Estuary, Stewart Island

NIWA Cat. No.	Phylum	Class	Expert taxonomist ID	Parataxonomist 1	Parataxonomist 2	Recommended identification of voucher specimen	Lot No.	Site ID	Collection date	Place name
147656	Nemertea			Nemertea sp. 1	Nemertea	Nemertea	016	B-10	11/02/2020	Freshwater Estuary, Stewart Island
147784	Nemertea			Nemertea sp. 1	Nemertea	Nemertea	144	C-09	12/02/2020	Freshwater Estuary, Stewart Island
147704	Nemertea			Nemertea sp. 1	Nemertea	Nemertea	064	D-07	15/03/2019	Jacobs River Estuary, Southland
147707	Nemertea			NA	Nemertea	Nemertea	067	D-07	15/03/2019	Jacobs River Estuary, Southland
147803	Nemertea			Nemertea sp. 1	Nemertea	Nemertea	163	A-03	28/03/2014	Havelock, Marlborough

* Notes on identifications

Taxon	Recommendation or justification
Capitellidae	Not all specimens were identifiable, but *Heteromastus filiformis* is an accepted name for NZ estuary occurrences of this member of family Capitellidae
Nephtyidae	Not all specimens were identifiable, but *Aglaophamus macroura* is an accepted name for NZ estuary occurrences of this member of family Nephtyidae
Nereididae	Not all specimens were identifiable, but *Nicon aestuariensis* is an accepted name for NZ estuary occurrences of this member of family Nereididae
Orbiniidae	Not all specimens were identifiable, but *Orbinia papillosa* is an accepted name for NZ estuary occurrences of this member of family Orbiniidae
Syllidae	None of the specimens were identifiable, and there are likely to be several similar species present in NZ estuaries, which are as yet poorly investigated. *Sphaerosyllis semiverrucosa* does not occur in New Zealand waters
Unidentifiable macrofauna	This object is the incomplete intestine of an unknown animal. It is an intestinal tube wall, with an internal crust of sediment indicating an animal which bulk feeds on sediment. It is otherwise empty, without the organs and structure an individual whole organism would have. It cannot have been a whole living animal. It is not an echiuran and the lack of a tentacle crown and lack of ossicles rule it out as a sea cucumber
Mytilus planulatus	Expert and parataxonomist 1 are referring to the same thing: *Mytilus planulatus* was once a synonym of *M. galloprovincialis*, but this name has now been resurrected and is a currently accepted name within *Mytilus* in WoRMS. Molecular evidence now shows that the native blue mussels *M. planulatus* from Tasmania and from mainland New Zealand (NZ) form a distinct but *M. galloprovincialis*–like Southern hemisphere group with the type locality: King George Sound, south-western Australia (Zbawicka et al. 2019). The 2019 paper also suggests that specimens from Auckland and Campbell islands are possibly specifically distinct; the name chosen for these is *Mytilus aoteanus*. The serious problem with that interpretation is that the type locality of *M. aoteanus* is Rona Bay, Wellington. So, the taxonomy remains confused.

Taxon	Recommendation or justification
Nucula nitidula	When parataxonomist 1 first examined specimens of *Nucula* from Waikawa Bay in 2007 these were sent to Bruce Marshall and he identified them as an undescribed species – hence the use of *Nucula* sp.#1. Bruce has now determined material from the same location as the previously described *Nucula nitidula*. Bruce Marshall has noted that in intertidal mud one would expect two species of Nuculidae to be present: *Linucula hartvigiana* and *Nucula nitidula.* At greater depths in the adjacent sound to Waikawa Bay NMNZ has recorded the following species of Nuculidae: *Linucula* sp. 1, *Nucula nitidula*, *Ennucula strangei* and *Varinucula gallinacea*. Another, as yet unnamed *Linucula* species occurs on intertidal rocky shores in Corallina turf. *Linucula hartvigiana* and *Linucula* sp. 1 are superficially similar and live in mud, but *L. hartvigiana* only lives in estuaries (deepest record to 4 m) and *L.* sp. 1 only occurs subtidally (records from 10–657 m). *Linucula* sp. 1 is often misidentified as *L. hartvigiana*.
Arthritica sp. 5	Bruce Marshall's undescribed *Arthritica* sp. 5 is synonymous with parataxonomist 1's *Arthritica* sp. 1, a species previously included within *A. bifurca* and which is widespread in NZ estuaries. We recommend using sp. 5 as this is the name of a vouchered species held in NIWA and Te Papa collections and will be published in an upcoming monograph on the New Zealand Mollusca.

Taxon	Recommendation or justification
Cyclomactra tristis	At 19.3 mm shell length *Cyclomactra* is still in the size range where it is quite difficult to separate *Cyclomactra tristis* from *Cyclomactra ovata*. The shell length to inflation ratio of the specimen puts in firmly into the *C. tristis* camp however, consistent with all the other *Cyclomactra* specimens parataxonomist 1 has seen from this site in Whanganui. This identification has been re-confirmed by the taxonomic expert based on the length to shell inflation ratio (2.64) and the fact that this specimen was collected from the intertidal zone. In parataxonomist 1's experience *C. tristis* prefers brackish water and is found in intertidal and shallow subtidal muds in river mouths and coastal lagoons. In the southern North Island parataxonomist 1 has records of *C. tristis* from Whanganui River, Manawatu River, Waikanae River, Lake Onoke, Whareama River, Wherowhero Lagoon and Taruheru River (Gisborne). *Cyclomactra ovata* on the other hand prefers higher salinities and occurs in subtidal muds in harbours.
Paphies australis from Waikawa Bay, Southland in 2013	Parataxonomist 1 has one previous record of *Paphies* from the Waikawa Bay Site B 2013 in 2007 while *Hiatula* (= *Soletellina*) has been regularly found, so likely just an error on the part of parataxonomist 1.
Notoacmea spp.	*Notoacmea scapha*, *N. potae*, *N. elongata* and *N. rapida* all occur in New Zealand estuaries. Some of these species were once included in *N. helmsi*. Of the four species, only some *N. scapha* are readily recognisable in preserved material (from their parallel sides and association with *Zostera* leaves). There will be many spreadsheets with records of *Notoacmea* in which the species is not known (or is recorded as *N. helmsi* as in Waikawa Bay 2013), so it may be preferable to just continue using *Notoacmea* spp. as they are all functional equivalents from an energy flow perspective.

**Notes on taxonomic changes

Taxon	Change to nomenclature
Leodamas cylindrifer	*Leodamas cylindrifer* is now the accepted name for *Scoloplos cylindrifer*
Josephosella awa	*Josephosella awa* is now the accepted name for *Melita awa*
Anthopleura hermaphroditica	*Anthopleura hermaphroditica* is now the accepted name for *Anthopleura aureoradiata*
Legrandina turneri	*Legrandina turneri* is now the accepted name for *Perrierina turneri*
Papawera zelandiae	*Papawera zelandiae* is now the accepted name for *Haminoea zelandiae*

Table A-2: Taxonomic and ecological information for species identified from 17 intertidal estuarine sites in New Zealand.

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Annelida	*Aglaophamus macroura*	Genus *Aglaophamus* species are nephtyids with well-developed interramal notopodial cirri that are involute (hanging down, tip curved in, like a ?-shape rotated upside-down). *Aglaophamus macroura* has very large postneurochaetal lamellae and a well-developed leaf-like notopodial superior lobe. A large nephtyid at up to 170 mm long, creamy white in colour, like most nephtyids	The reviewing taxonomist could not confirm the identity of vouchers supposedly of this species, due to the poor state of the specimens. *Aglaophamus macroura* was originally described from an Auckland Harbour specimen and is not reliably reported outside of New Zealand since. Subtidal inshore *Aglaophamus* are likely to be the smaller *A. verrilli*, also a New Zealand native	Free-burrowing predator, of sandy sediments	Throughout New Zealand	none from MAG voucher material, NIWA has specimens	AglaophamusMacroura-IdBay07_3925
Annelida	*Aonides trifida*	Genus *Aonides* are spionids with a particularly sharp-pointed prostomium and 12 or more pairs of cirriform apinnate branchiae with sharp-pointed ends beginning from chaetiger 2. *Aonides trifida* has hooded hooks beginning from about chaetiger 30 in the neuropodium, and a few segments more posterior in the notopodium. Fine capillaries still accompany the hooks. Anterior chaetae are capillaries. Adults are without distinct pigmentation, have 2 pairs of dark red eyes, and are about 15 mm long, with a relatively thick mid-body for a spionid	Note that all spionids have a pair of long palps used for particle collection and suspension feeding, but these are often lost during collection. In particular, *Aonides trifida* almost never has palps when seen in the laboratory. *Aonides trifida* has NO nuchal antenna (although it is stated as present in the original description). A second subtidal unnamed *Aonides* does have a nuchal antenna. The name *Aonides oxycephala* (a European subtidal species) has been used in the past for New Zealand estuarine *Aonides* in ecological reports, but apparently simply the name was adopted because it was a well-known *Aonides* elsewhere, rather than for taxonomic reasons	Tube-building infaunal deposit feeding	Throughout New Zealand	147641, 147652, 147678, 147720, 147733, 147775, 147811	SpionidaeAonidesTrifida_GReadY10427_4652, AonidesTrifidaY10427_4634
Annelida	*Armandia maculata*	Genus *Armandia* are small muscular opheliids with short, slender, awl-shaped bodies, a pointed prostomium, a pygidial funnel with fringing cirri enclosing an internal, ventral anal cirrus, most segments with lateral cirriform branchiae, and lateral eyespots. *Armandia maculata* has 12 orange eyespot pairs from chaetiger 7. Adults are maximally 20 mm long and are pale and iridescently shiny. Alive they are vigorous movers by sinusoidal flexing, and readily leave the bottom to swim	There is one species of *Armandia* in New Zealand and this is currently identified as *A. maculata*. *Armandia maculata* was described from the Caribbean so the taxonomy, including molecular evidence should be reviewed in future	Free-burrowing infaunal deposit feeding, never abundant, but in a wide range of habitats	Throughout New Zealand	147688	Armandia_0002, ArmandiaY10169-1565, Armandia_maculata_0048_BG

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Annelida	*Axiothella serrata*	Genus *Axiothella* species are maldanids with well-defined cephalic and anal plates, a ring of anal cirri, multiple rostrate neurochaetal hooks beginning from chaetiger 1, around 20 chaetigers total, but no very distinctive features. *Axiothella serrata* has 22 chaetigers, lacks preanal achaetigerous segments, and the anal funnel is ringed with cirri of uniform length, but including a long mid-ventral cirrus. It is of modest size (~70 mm) without distinctive colouration (light brown)	There are no taxonomic issues with *Axiothella serrata*, except that, like all maldanids, identification is much easier from complete individuals, and the lack of distinctive features in the genus will hinder the identification of poor specimens	tube-building infaunal deposit feeding in muddy sands	Central New Zealand (i.e. Marlborough, Nelson, Wellington regions	147722, 147732, 147794	Axiothella_serrata_0082_BG, Axiothella_serrata_0092_BG, Axiothella_serrata_0154_BG
Annelida	*Boccardia syrtis*	Genus *Boccardia* is a speciose genus in the *Polydora*-group of spionids which are characterised by the presence of a set of chaetiger-5 spines. Many *Boccardia* specialise as shell borers of their mollusc hosts. However, *Boccardia syrtis* is free-living in sand grain tubes. Chaetiger 5 spines are of 2 types - about 6 bristle-topped below about 5 falcate spines. Neuropodial hooded hooks begin on chaetiger 8, and strap-like branchiae begin on chaetiger 2 (small at first, absent chaetiger 5). Posteriorly weakly falcate notochaetal spines are present. The pygidium is a broadly flaring disc. Adult Boccardia syrtis are about 20 mm long, of modest width, and without any distinctive pigmentation	*Boccardia syrtis* may occur in dense aggregations in sandy mud, and in sandstone. Identification of *Polydora*-group species requires careful observation and use of the literature to check multiple characters. However, the common New Zealand species are well-described	Tube-building surface deposit and suspension feeding	Throughout New Zealand	147680, 147782, 147802, 147818, 147837	Boccardia_syrtis_0040_BG, Boccardia_syrtis_0142_BG, Boccardia_syrtis_0162_BG, Boccardia_syrtis_0178_BG, Boccardia_syrtis_0196_BG

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Annelida	*Capitella*	Genus *Capitella* species are capitellids with 9 anterior region chaetigers, with a noticeable change in body thickness at the 9-10 chaetiger demarcation. In the unnamed New Zealand estuarine species capillary chaetae are usually on the first 4-5 chaetigers only, then hooded hooks. Mature adult males (and possibly hermaphrodites also) have dorsal genital spines, 2 pairs on chaetiger 8, 1 pair on chaetiger 9. The prostomium is oval (not pointed), branchiae are absent. In life the body colour is pink, without pigmentation. The worms are thin and small, ~10 mm length	Species identification within *Capitella* ideally requires molecular data, and investigation of biology. There is variation in the number of capillary-bearing segments, commonly reduced from the 7 in the type species *Capitella capitata* from Greenland as redefined by Blake (2009), but it is unwise to base species on this character alone as there will be meristic variation. There are several species that look like *Capitella capitata*. The New Zealand estuarine *Capitella* species differs morphologically from the larger local open-sea *Capitella*, sometimes associated with polluted environments, but neither has yet been examined molecularly	Free-burrowing infaunal deposit feeding	Throughout New Zealand	147646, 147729, 147816	CapitellaCY10424_4450ed
Annelida	*Disconatis accolus*	Genus *Disconatis* are polynoids adapted for a commensal lifestyle, with reduced size elytra, and long slender flattened bodies, with up to 80 pairs of elytra, on chaetigers 2,4,5,7,9, 11, and thereafter on alternate segments. Notochaetae are absent. On the head the lateral antennae are inserted below the median antenna. Adult *Disconatis accolus* are about 60 mm long and pale grey except for the mottle greenish-brown elytra	There are no taxonomic issues with *Disconatis accolus*. The body form is unique for an estuarine species and recognition of the species is easy	Tube commensal with larger tube-builders, predatory	Throughout New Zealand	147713	DisconatisAcY10432_4976, DisconatisAcY10432_4978ed2
Annelida	Exogoninae	Subfamily Exogoninae are small syllids with reduced appendages and fused palps	Exogoninae in estuaries are likely to include several similar taxa, but as yet poorly investigated. The parataxonomic ID of *Prosphaerosyllis semiverrucosa* [was *Sphaerosyllis*] does not occur in New Zealand	Free-burrowing or epifaunal omnivore	Throughout New Zealand	none from MAG voucher material, NIWA has specimens	

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Annelida	*Glycera ovigera*	Genus *Glycera* species are glycerids with biramous parapodia and ailerons (jaw support pieces) with a flat triangular base. *Glycera ovigera* has retractile branched branchiae in the mid body. As they are retractile, they can be not visible depending on preservation. Proboscis papillae of 2 types, rounded and fingernail like. Individuals may be very large at 400 mm length and finger-thickness	The parataxonomic voucher specimens examined in this study were not *Glycera ovigera*. They were *Hemipodia simplex*, with uniramous parapodia. This uniramous/biramous difference between the parapodia of genera *Hemipodia* versus *Glycera* is very easy to see. *Glycera ovigera* occurs in harbours but is less likely in small estuaries. Other look-alike *Glycera* species such as *G. russa* are possible occurrences, as well as *Glycinde trifida* of the related family Goniadidae	Free-burrowing predator	Throughout New Zealand	none from MAG voucher material, NIWA has specimens	
Annelida	*Hemipodia simplex*	Genus *Hemipodia* species are glycerids with uniramous parapodia and ailerons rod-like. *Hemipodia simplex* has mainly conical unornamented proboscis papillae	In *Hemipodia yenourensis*, which has been recorded from New Zealand intertidal, the conical proboscis papilla have transverse ornamentations	Free-burrowing predator	Throughout New Zealand	147673, 147805	GlyceridaeHemipodiaSimplex_GReadKaraka_005
Annelida	*Heteromastus filiformis*	Genus *Heteromastus* species are capitellids with 11 anterior region chaetigers (first segment lacks chaetae), with a variably detectable change in segment appearance at the 11-12 chaetiger demarcation. *Heteromastus filiformis* has capillary chaetae on the first 5 chaetigers only (small juveniles may have mixed capillaries and hooks on chaetigers 4-5), then hooded hooks. The prostomium is pointed, curving upwards. Rudimentary notopodial branchiae are present on posterior segments. The pygidium has a ventral cirrus. In life the body colour is blood red, without pigmentation	*Heteromastus filiformis* is very abundant intertidally but care is needed to be sure *H. filiformis* is the species, outside of estuarine occurrences. *Barantolla lepte* is similar but subtidal and unlikely to be shallow estuarine. It has 11 thoracic chaetigers, of which the first 6 have capillaries. The first chaetiger has notochaetae only, and the prostomium is distinctive for bulbous base and narrow tip, and a slanting line of eyespots	Free-burrowing infaunal deposit feeding, more likely in muddy, poorly oxygenated sediments	Throughout New Zealand	147695, 147718, 147731, 147796, 147810, 147836	CapitellidaeHeteromastusFiliformis_GRead Y10427_4624, HeteromastusFilifY10427_4608

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Annelida	*Leodamas cylindrifer*	Genus *Leodamas* are orbiniids with numerous anterior region neurochaetal 'uncini' (thickened angled acicula-like chaetae with blunt tips), either in a wide band or inconspicuously mixed with capillaries. *Leodamas cylindrifer* has dorsal branchiae beginning from around chaetiger 18, which is about the end of the anterior region, initially cirriform but distinctively becoming dichotomously divided into 2 or more lamellar lobes in the latter part of the posterior body region. Anterior uncini are inconspicuous, mixed with capillaries. Adults are large slender orbiniids, 100 mm or more long, not pigmented, but appear pale yellow or pink	Orbiniids have an anterior and a posterior body region, and the important species characters are in the anterior region, namely the type and mix of chaetae, where the branchiae begin, the arrangement of postsetal papillae, and the number of anterior segments. The genera have been through some puzzling changes in interpretation with use or non-use of subgenera within *Scoloplos*, and there is confusion with *Leodamas cylindrifer* moving from *Scoloplos* to *Haploscoloplos* to *Leodamas*, and possibly even back to *Scoloplos* according to one taxonomist. It is common in New Zealand and Australia	Free-burrowing infaunal deposit feeding	Throughout New Zealand	147650, 147690, 147725, 147797, 147814, 147831	Leodamas_cylindrifer_0010_BG, Leodamas_cylindrifer_0050_BG, Leodamas_cylindrifer_0085_BG, Leodamas_cylindrifer_0157_BG, Leodamas_cylindrifer_0174_BG,
Annelida	*Macroclymenella stewartensis*	Genus *Macroclymenella* species are maldanids with well-defined cephalic and anal plates, a ring of anal cirri, multiple rostrate neurochaetal hooks beginning from chaetiger 1, around 30 chaetigers total (no distinct preanal achaetigerous segments), and a distinctive deep collar on the anterior of chaetiger 4. The New Zealand native *Macroclymenella stewartensis* is the only species as yet. The anal funnel is ringed with cirri of irregularly alternating long and short length, longest ventrally. A long thin maldanid at ~130 mm, pale brown, with multiple scattered reddish pigment spots on ventral surface of the head	There are no taxonomic issues with *Macroclymenella stewartensis*. As the species is thin and deep burrowing it is difficult to collect unbroken individuals	tube-building infaunal deposit feeding, more likely in sands than muds	Throughout New Zealand	147666, 147684	Macroclymenella_stewartensis_0026_BG, Macroclymenella_stewartensis_0044_BG
Annelida	*Magelona dakini*	Genus *Magelona* is effectively the sole genus of magelonids, the distinctive shovel-head worms. *Magelona dakini* lacks prostomial horns, and chaetiger 9 lacks mucronate chaetae. Hooded hooks are present from chaetiger 10, as is typical for *Magelona*	There are no reviews of New Zealand magelonids, but at least 3 species are likely. The only estuarine species is what is currently placed as *Magelona dakini* (*M. dakini* is based on Australian samples)	Free-burrowing surface and infaunal deposit feeding	Throughout New Zealand	147714	Magelona_dakini_0074_BG

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Annelida	Naididae	Marine oligochaetes have short very thin bodies, tending to meiofaunal size, with no parapodial lobes, no appendages. Chaetae are either minutely bifid-tipped hooks without hoods or needle-like spines, with only 1 or 2 chaetae in the 4 groups of each segment. They resemble capitellids but (as a spot identifier of preserved oligochaetes without looking at chaetae) have a rounded symmetrical head end rather than the asymmetrical conical end of a capitellid. In life they expand, contract and coil rapidly, not moving directionally as a capitellid would	Species identification requires considerable expertise plus reproductively mature specimens, with slide mounting for high-magnification microscopy of internal organs. The New Zealand estuarine naidids as yet known are mostly in subfamily Tubificinae, genera *Tubificoides* and *Limnodriloides*	Free-burrowing infaunal deposit feeding	Throughout New Zealand	147777, 147798, 147826	Naididae_0137_BG, Naididae_0158_BG, NiconPauatahanui_00 Naididae_0158a_BG, Naididae_0185_BG2
Annelida	*Nicon aestuariensis*	Genus *Nicon* species are nereidids lacking all proboscis papillae and paragnaths (chitinous denticles) and lacking falcigerous chaetae in notopodia. *Nicon aestuariensis* has neurochaetal heterogomph spinigers. Adults may be over 100 mm long, pale green in colour	*Nicon aestuariensis* is the only inshore soft sediment nereid in New Zealand lacking all paragnaths and papillae. If the proboscis cannot be seen, then an easily checked feature suggestive of *N. aestuariensis* is that the head antennae are characteristically divergent from a joint medial origin	Free-burrowing omnivore of upper estuarine muds, including the banks of inflow channels	Throughout New Zealand	147703, 147715, 147727, 147753, 147789, 147799, 147835	
Annelida	*Orbinia papillosa*	Genus *Orbinia* are orbiniids with anterior region posterior segments with numerous 'papillae' (postsetal lobes & subpodial lobes. *Orbinia papillosa* has cirriform branchiae from chaetiger 5, with subpodial lobes (papillae) present ventrally on last segments of the anterior body region, chaetiger 18-20 & next ten or so). Anterior region neurochaetae are uncini and capillaries. Adults are large slender orbiniids, 100 mm or more long, not pigmented, but appear pale yellow or pink	There are no taxonomic issues with *Orbinia papillosa*. It is common in New Zealand and present in Australia	Free-burrowing infaunal deposit feeding	Throughout New Zealand	147726	OrbiniidaeOrbiniaPapillosa_GRead 035

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Annelida	*Owenia petersenae*	Genus *Owenia* are oweniids with a terminal mouth surrounded by a short crown of broad feeding lobes that are tentacle-like and dichotomously branched in a way that varies between species. Segments are smooth, without parapodia, without branchiae. Neuropodial chaetae are unique, beginning on chaetiger 4, consisting of minute hooks, with two claw-like, terminal teeth, with the hooks densely packed in enormous numbers on an oval pad. The tube is very tight fitting on the body, and is made of flat pieces of shell, forming a flexible tiled tube. *Owenia petersenae* adults may be up to 60 mm long, and the body colour in life is light green, except for brown areas on the first few chaetigers	The only intertidal oweniid likely to be encountered is the native species *Owenia petersenae*, as yet the sole representative of the genus in New Zealand, although a second offshore species is suspected. *Owenia petersenae* has been reported to occur occasionally in large subtidal aggregations, but usually solitary individuals will be found. All *Owenia* are very similar and once were always reported as *Owenia fusiformis*. The original description of *Owenia petersenae* unfortunately does not articulate what its unique characters are	Tube-building surface deposit and suspension feeding	Throughout New Zealand	147717	Owenia_petersenae_0077_BG
Annelida	*Paradoneis lyra*	Genus *Paradoneis* are paraonids in which the characteristic median head antenna of the Aricidea-like paraonids is absent, and lyrate (2 unequal tines, and inner spines) or acicular notochaetae may be present (both may be inconspicuous). Otherwise only capillary chaetae are present. Simple cirriform branchiae (about 14 pairs) begin on chaetiger 4. Adult *Paradoneis lyra* are about 15 mm long	Paraonidae are small and delicate, and difficult to identify morphologically due to their propensity to fragment on collection, and the lack of usable taxonomic characters. Little molecular work has been done. The median antenna is the only head appendage (absent in *Paradoneis*), and it can be readily broken off. The lyrate chaetae are best observed by SEM. The New Zealand *Paradoneis* species is likely to be distinct, not *P. lyra*, but that name has been applied in the past, and it is a species commonly, but perhaps mistakenly, reported from estuaries around the world	Free-burrowing infaunal deposit feeding	Throughout New Zealand	147739, 147801	ParadoneisLyra-Y10422_4417

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Annelida	*Perinereis vallata*	Genus *Perinereis* are nereidids with transverse bar-like paragnaths on the outer zone (area VI) of the dorsal basal region of the proboscis. Very short 'bars' are still called bars rather than cones, as they lack a conical point. *Perinereis vallata* belongs in a species group characterized by a transverse arc of short bar paragnaths on area VI. In *P. vallata* there are about 15 contiguous bars. The central area V has basically a triangle of 3 conicals, but 1-2 may be missing. Maxillary area I has 2 conical paragnaths in longitudinal line. Adults may be up to 200 mm long, light green in colour	*Perinereis vallata* is native to Chile, Australia, and New Zealand. It is possible the New Zealand populations include 1 or more cryptic species, but at the moment none are recognised, with local *P. ponuiensis* included as a synonym of *P. vallata*. No genetic work has been done	Free-burrowing omnivore, in a wide range of habitats	Throughout New Zealand	147776, 147813, 147822	Perinereis_vallata_0136_BG, Perinereis_vallata_0173_BG, Perinereis_vallata_0181_BG
Annelida	*Prionospio aucklandica*	Genus *Prionospio* is a speciose sand-tube dwelling genus in spionids, all species having only a small number of often-pinnate branchial pairs (3-10 pairs, often only 4) and bluntly rounded heads rather than pointed. *Prionospio aucklandica* has three pairs of greenish pinnate branchiae on chaetigers 2-4, with the first pair the longest. It has a blunt prostomium and neuropodial sabre chaetae begin on chaetiger 10, with hooded hook beginning on about chaetiger 18 in the neuropodium and about 30 in the notopodium. There are no dorsal crests or lateral interparapodial pouches. Adult *P. aucklandica* are about 25 mm long for about 100 chaetigers. There are 3 pairs of red eyes, but no pigmentation patterns	It may be a surprise for ecologists to learn that there are many shallow-water sediment-dwelling New Zealand *Prionospio* species (at least 12), including in harbours. However, intertidally and in the shallow subtidal in estuaries *Prionospio aucklandica* is likely to predominate	Tube-building surface deposit feeding	Throughout New Zealand	147642, 147651, 147696, 147719, 147781, 147800, 147806, 147833, 147854	SpionidaePrionospioAucklandica_GRead023, PrionAucklandica_020

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Annelida	*Scolecolepides benhami*	Genus *Scolecolepides* is a small genus in spionids, characterised by sub-terminal frontal 'horns' (short lateral lobes) on a blunt-ended prostomium. Another character is the variable presence of acicular neurochaetae in some anterior segments. Strap-like branchiae are present from chaetiger 1, and the pygidium has a circle of cirri surrounding the anus. *Scolecolepides benhami* is the type species of the genus. It has neuropodial acicular chaetae (may not be noticeable) on about chaetigers 8-35, neuropodial hooded hooks from about chaetiger 60, notochaetal hooks only in the posterior segments, and branchiae only on the anterior third of the body. Anteriorly postchaetal lobes are well developed. Adult *S. benhami* can grow extremely large for a spionid at 100 mm or more, but when densely occurring *S. benhami* are much smaller at around 30 mm long. *Scolecolepides benhami* are not pigmented, but the eyes are black, and the appearance of colouration comes from the uniform array of strikingly red blood-filled branchiae	Genus *Scolecolepides* is distinct from the similar spionid genera such as *Marenzelleria*, *Malacoceros* and *Rhynchospio* that have a T-shaped prostomium with the horns terminal, rather than sub-terminal. A second somewhat larger *Scolecolepides* species, *S. freemani*, occurs in upper estuarine New Zealand river habitats and has more pronouncedly acicular chaetae on at least chaetiger 16-19 accompanied by white glandular enlargement of the postchaetal lamella	Tube-building surface deposit and suspension feeding	Throughout New Zealand	147751, 147786, 147812, 147828	SpionidaeScolecolepidesBenhami_GRead021
Annelida	Syllidae		insufficient material, likely to be several species	Free-burrowing or epifaunal predator	Throughout New Zealand	none from MAG voucher material, NIWA has specimens	
Annelida	*Travisia olens*	Genus *Travisia* is the only genus in the travisiids (formerly part of Opheliidae). *Travisia* have short pale, grub-like bodies tapering at both ends, contrasting against bright, lateral red gill filaments. The prostomium is sharply pointed and without appendages, and segments are sub-annulated with just pad-like parapodia. Chaetae are simple capillaries. Adult *Travisia olens* are around 50 mm long	Travisiids look like they have a mix of opheliid and scalibregmatid characters, and not surprisingly all look rather similar. *Travisia olens* was described from Chile	Free-burrowing infaunal deposit feeding	Throughout New Zealand	147679, 147772	TravisiaOlensY10432_5020, TravisiaOlensY10432_5021, Travisia_olens_0039_BG, Travisia_olens_0132_BG

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	*Apocorophium acutum*	Small, robust bodied, sometimes laterally compressed or cylindrical with a dorso-ventrally compressed pleon, with non-indented lateral margins. The male antenna 2 are robust and with strong teeth on the distal margin of article 4 of the peduncle. Differing related species by the lateral margins of the pleotelson and the number of teeth on the gnathopod dactylus		They are generalised filter-feeders who often have long slender, sometimes plumose setae. Often these taxa build fragile tubes out of the surrounding soft sediment. These species occur in marine and estuarine/brackish environments	Occurs all around the NZ coast, this genus is not native to NZ	NIWA 147649	apocorophium1.jpg; apocorophium acutum.jpg
Arthropoda	*Austrohelice crassa*	Carapace smooth and flattened, oblong/square in outline; body thick, somewhat barrel shaped. Large eyes on long stalks, at carapace corners. Slightly bilobed front between eyes. Chelipeds large and rounded. Carapace grey, olive-green, blue-green to brown, margins yellow. Chelipeds and walking legs light yellow margins, but predominantly dark green. Antennae brown, antennules light purple, eyestalks pale green. Ventral surface pale cream-brown		Estuarine, mud flats	NZ EEZ	NIWA 147638, 147749	Austrohelice_crassa_0101_BG, Austrohelice_crassa_0116_BG
Arthropoda	*Austrominius modestus*	shell comprising four compartmental plates with wide folds spreading out to a wide base. The four opercular plates are arranged in a kite or diamond shaped orifice and protrude above the outer plates a little. Base membranous. Yellowish (due to a thin chitinous integument); otherwise a bright white colour with pale grey stripes on the opercula		Wide ecology, coastal intertidal	NZEEZ	NIWA 147639, 147654	Austrominius_modestus_0014_BG, Austrominius_modestus_0102_BG

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	*Colurostylis whitireia*	*Female and subadult male*. Pereopods 3 and 4 with rudimentary exopods in female. Telson small, shorter than pleonite 6, without terminal setae. Uropod endopod biarticulate. *Adult male*. Antennule not greatly expanded, may have group of setae. Antenna extending to at least posterior border of pleonite 6. With 2 pairs of pleopods. Telson small, shorter than or equal to pleonite 6 length, without terminal setae, may have pair of slender subterminal setae. Uropod endopod biarticulate. *Female and subadult male*. Carapace with 2 oblique ridges, anterolateral corner not serrate. Pseudorostrum acute. Eyelobe without lenses. Antennule peduncle of 2 articles. Uropod peduncles shorter than pleonites 5–6 together, exopod longer than endopod. *Adult male*. Carapace with single oblique ridge. Pseudorostrum blunt. Eyelobe with lenses. Antennule peduncle of 2 articles, with small brush of setae. Antenna extending past posterior border of telson. Telson with pair of slender plumose subterminal setae		Soft sediment in estuarine/marine environment	Porirua, Wellington region	NIWA 147689, 147670?	Colurostylis_whitireia_0049_BG

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	*Halicarcinus varius*	Carapace subcircular, narrowing a little anteriorly. Short rostrum not projecting past eyes, arising at tl1e same level as carapace, very variable in shape being simple or trilobular, median lobt11e always longest, all three lobules commonly edged with continuous fringe of short hairs. Ventral rostral ridge pronounced. Suture between carapace and rostrum straight. Anterolateral border of carapace straight or usually convex, never concave, Two pairs of lateral angles always present; first, small, obt11se; second, of medium size, acute, projecting upwards but not reaching the level of the carapace rim, a few curved hairs. Postocular lobe large; antennal spine absent. Chela of male greatly inflated, fingers with a wide basal gape, a large tooth on the base of the movable finger; dense felt of long hairs on anterior face of the palm and base of fingers. Segments of walking legs slender, propodus fringed with long, fine hairs, other segments less hairy. Dactylus armed with small recurved pointed teeth in two very closely approximated rows, with many fine curved hairs; separate claw very short. Ischium and merus of third maxilliped subequal in length and breadth. Male abdomen separated by tiny vertical ledge from carapace. First segment of long male abdomen as long as third and fifth; second almost as long as first centrally; third with straight sides; fourth narrowing distally; fifth segment narrowing distally, almost linear; sixth semicircular. Male first pleopod of average length, sternal edge expanded to form a small shelf subterminally, further constricted below the eave, eave a little recurved		Ranging from estuarine to intertidal and occasionally subtidal	NZ EEZ	NIWA 147657, 147747	Halicarcinus_varius_0017_BG, Halicarcinus_varius_0114_BG

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	*Halicarcinus whitei*	Carapace suboval, longer than broad, narrowing in front, without lateral angles. True rim very narrow, second false rim present. Frontal region projecting and truncate. Rostrum arising at upper carapace level, extending past eyes, deflexed downward and narrowing anteriorly, concave dorsally from side to side, trilobate terminally, the concavities between the lobes small, not reaching as far back as the extremity of the eyes, central lobule much larger than laterals. Longitudinal central ridge ventrally present along the length of the rostrt1m. Postocular lobe and antenna! spine both well developed. Chela of male moderately inflated, hairy, a large basal gape and a large tooth on the base of the movable finger. Segments of walking legs slender, hairy; dactylus very slender, curved, tapering, with a single row of sharp, recurved teeth. Merus of third maxilliped as broad as ischium, expanded distally. Long male abdomen separated from carapace by false rim, almost as broad between third and fourth segments as across the first segment. First segment much shorter than any other except second; second about half as long as first; sides of third almost straight; sides of fifth just concave; sixth segment semi-elliptical. First pleopod of male long and very slender, tip simple with slightly recurved eave		Found on harbour flats, sheltered beaches, estuaries	NZ EEZ	NIWA 147705, 147721, 147737, 147740, 147768, 147770, 147795, 147808, 147820, 147853NIWA 147710	Halicarcinus_whitei_0065_BG, Halicarcinus_whitei_0081_BG, Halicarcinus_whitei_0097_BG, Halicarcinus_whitei_0100_BG, Halicarcinus_whitei_0128_BG, Halicarcinus_whitei_0130_BG, Halicarcinus_whitei_0155_BG, Halicarcinus_whitei_0168_BG, Halicarcinus_whitei_0180_BG, Halicarcinus_whitei_0200_BG
Arthropoda	*Hemigrapsus sexdentatus*	Carapace polished, flattened, squarish with two teeth on either side. Front of carapace straight edged between eye stalks. Inner surface of chelipeds in males with pale balloon-like sac between base of fingers. Legs with few or no 'hairs' along margins. Highly variable colour with juvenile purple and cream mottled becoming more solid black-purple in adults. Darker crabs often have banded legs. Typically, the front half of the carapace is darker than the back. Eyestalks white. Ventral surface is white		Occurs on relatively sheltered rocky, stony or muddy shores, usually sheltering under rocks throughout the intertidal. Can tolerate slightly estuarine conditions. Near high-tide level down to mid-tide level	Endemic, widespread around New Zealand including Stewart Island and very common in southern New Zealand		Hemigrapsus_sexdentatus_0070_BG, Hemigrapsus_sexdentatus_0070a_BG

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	*Hemiplax hirtipes*	Carapace dark green with scattered dark brown spots, margin dark brown, eye stalks white with dark brown patches, legs yellow-green, and chelipeds red dorsally and white ventrally		Estuarine, mud flats	NZ EEZ	NIWA 147669, 147709, 147746, 147809, 147819, 147832, 147838	Hemiplax_hirtipes_0029_BG, Hemiplax_hirtipes_0069_BG, Hemiplax_hirtipes

Arthropoda	*Josephosella awa*	Accessory flagellum 3-articulate plus tiny fourth article; lateral cephalic lobes deep, anteroventral corner of head without notch; eyes round, dark cores surrounded by one layer of clear ommatidia; prebuccal complex evenly rounded anteriorly; article 3 of mandibular palp slightly shorter than article 4 and bearing only terminal setae; mandibular molars without accessory J7flakes; inner plates of maxillae 1-2 with five medial setae (medioterminal on maxilla I) ; coxa 1 not attenuate anteriorly ; hand of male gnathopod 1 with large anterior hump, dactyl slender, curved, without hump, fitting convex transverse palm; female gnathopod 1 without hump on hand; male gnathopod 2 with unlobed articles 2-3, hand ovatorectangular, palm oblique and rounding on to posterior margin of hand, undefined, dactyl of medium length, normal, overriding palm on to medial face of hand, that face with weak hollow defined by two ridges, one ridge with one spine, anterodistal part of palm with small thorn-like spines, posterior margin of hand strongly setose; article 4 of gnathopod 2 with sharp but not attenuate posterodistal extension; female gnathopod 2 normal for that sex; coxa 4 poorly expanded and weakly excavate posteriorly; pereopodal dactyls distally smooth (lacking marginal serrations) but with weak marginal striations in middle; article 2 of pereopods 3-4 with subconical posterodistal projection, article 2 of pereopod 5 proximally expanded and distally narrowed; pleonal epimera 1-3 with small posteroventral tooth with two weak serrations on ventral margin anterior to tooth; pleonite 4 dorsally smooth, pleonite 5 with one weak tooth and articulate spine on each side dorsally; telson short, broad, each apex sharp, unbifid, bearing subterminal medial group of two long and one or two short spines, and lateral group of two or three spines	Freshwater to estuarine/brackish, amongst tussocks and plant debris	Both Islands of New Zealand, estuarine to streams	NIWA 147701, 147755, 147760, 147790	Josephosella male.jpg, Josephosella female.jpg

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	Orthocladiinae	These specimens most closely resembled *Cricotopus*, although this could not be confirmed. Antennae long; mentum with a single (non-bifid) central tooth with lateral tooth either side of comparable height and structure; procercus present and obvious. Adult males would be required to confirm genus and species		As for many Orthocladiinae, these larvae are likely to be found within a silken retreat on the surface of cobbles or other stable surfaces where they graze fine detritus and biofilms	The distribution of this indeterminate orthoclad is currently unknown. It is possibly widespread around coastal New Zealand providing suitable estuarine habitats are present	NIWA 147509	Orthocladiinae_0003_BG
Arthropoda	*Palaemon affinis*			Estuarine, marine	NZ EEZ	NIWA 147839	Palaemon affinis_0198_BG
Arthropoda	*Paracalliope novizealandiae*	Accessory flagellum partially articulate; lateral cephalic lobe small and blunt; complex of articles 1-3 of antenna 2 of medium size; falciform article 3 of mandibular palp stout; inner plate of maxilla 1 with sharp apical cusp; hump on male gnathopod 1 palm near defining area weak; female gnathopods 1-2 with weak posterior lobes on fifth articles and slender, subrectangular sixth articles; dactyls of pereopods 1-4 lacking distal slit		Marine version of *P. fluviatilis*. Intertidal, estuarine	Throughout NZ estuaries	NIWA 147643, 147665, 147676, 147694, 147702, 147730, 147752, 147778, 147817	Paracalliope.jpg

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	*Paracorophium brisbanensis*	Subcylindrical, slightly compressed, smooth, urosomites 1-3 free. Rostrum short, Antenna 1 with aesthetascs; antenna 2 stout with prominent distal projection on article 4 of male. Maxilla 1 with short setae on small inner plate. Maxilliped with oblique facial rows of long setae on basal segments; inner plate barely reaching end of palp article 2, oblique distal margin with 6 plumose setae and 3 short spines. Outer plate reaching to about 0.5~ length of palp article 3, narrow distally without obvious distal margin, median margin with 2 plumose distal setae and row of c. 6 spines and submarginal row of finer setae extending proximally. Gnathopod 2 stout, subchelate, palm with prominent projection and defining tooth; dactyl short and stout, barely reaching defining tooth; article 6 broad, not much longer than wide. Mature male peraeopods 5-6 without very dense setal fringes on any article, without posteroproximal lobe on article 2. Uropod 1 with stout inter-ramal lobe reaching to midpoint of anterior margin. Uropod 3 peduncle longer than wide		Tube builders (light mucus tube) dwelling in soft sediment in estuaries	North Island	NIWA 147759, 147788	Paracorophium brisbanensis.jpg

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	*Paracorophium excavatum*	Subcylindrical, slightly compressed, smooth, urosomites 1-3 free. Rostrum short, Antennae subequal in length, with aesthetascs on distal flagellar articles of male antenna 1; antenna 2 stouter without apicodistal projection on article 4. Maxilla 1 with small inner plate having 1 apical seta. Maxilliped with oblique facial rows of long setae on basal segments; inner plate distally subquadrate with 4 plumose setae and 3 shorter spines on distal margin, 2 plumose setae and submarginal spine on median margin, distal setal length about 0.5~ length of median margin of plate, distal spines about 0.5-0.6~ length of distal setae; outer plate rounded distally with strongly convex lateral margin, median margin with 3 distal setae, and row of marginal spines and submarginal setae; palp article 4 with apical setae (1 longer) and slender nail. Male gnathopod 2 subchelate with article 6 about 3x longer than breadth, palm with rounded projection and prominent rounded palmar tooth; dactyl projecting beyond palm by about 0.3~ its length. Mature male peraeopods 5-6 with dense fringes of setae, some very long, on one or both margins of articles 2 and 4-5; second articles with well- developed rounded lobes posteroproximally. Uropod 1 inter-ramal lobe not reaching mid-point of rami. Uropod 3 peduncle wider than long		Tube builders (light mucus tube) dwelling in soft sediment in estuaries	South Island estuaries, and some east coast North Island localities	NIWA 147706, 147815, 147824	Paracorophium excavatum.jpg

Arthropoda	*Paramoera chevreuxi*	Head with short, thin rostrum not exceeding lateral cephalic lobe, indentation for antenna 2 moderately deep; eyes very large, black, reniform; antenna 1 about 45 percent as long as body, antenna 2 about 38 percent as long as body, accessory flagellum formed of subconical articulate lappet, article 2 of peduncle of antenna 1 with mediodistal subconical lobe, alternate articles of flagella on antennae 1-2 slightly inflated in lateral view but narrow articles between appearing tumid from oblique plane, alternate articles of antenna l with one calceolus and two aesthetascs, bases of setae occurring in alternate zig-zag pattern from article to article; labral complex weakly rounded anteriorly from lateral view; mandibular palp article 3 shorter than article 2, weakly falcate, densely spinose along 80 percent of inner margin, article 2 sparsely setose for same length; lower lip with small inner lobes appressed to bases of outer lobes; inner plate of maxilla l with 6-13 setae enveloping medial margin with increase in age, apicalmost seta slightly longer and stouter than remaining setae; maxilla 2 with dense medial setae and inner plate with oblique submarginal setal row; coxa 4 strongly excavate posteriorly; gnathopods similar between the sexes in New Zealand populations, gnathopod 2 slightly longer than 1, fifth and sixth articles equal in length, hands softly subrectangular, palms oblique and short, with three to four spines on lateral side at defining corner and two medial submarginal spines, subadult gnathopods slightly smaller; pereopodal dactyls with small posterior seta attached to weak hump on position 67; posterior margins of article 4 on pereopods 3-5 with three to four sets of spines; uropod 1 extending nearly halfway along rami of uropod 3 (not including distal spines), uropod 2 extending one quarter along rami of uropod 3, rami of uropod l equal in length, outer ramus of uropod 2 about 85 percent as long as inner but often appearing about 67 percent because of oblique projection, all rami moderately spinose, rami of uropod 3 equal in length and heavily spinose; telson cleft about three-		intertidal and estuarine, under stones and plant matter	South of Wellington	NIWA 147754	Paramoera.jpg

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
		fourths its length, with each small apical cleft armed with short seta and bearing one long seta on each side at positions 40-50 and 90-95, each long seta paired with minute setule, pair of additional setules medial to large seta at position 40-50; pleonal epimera 1-2 with weak lateral ridge, 1-3 with weak posteroventral tooth, 2-3 (and 1 in adult) with four to six dispersed tiny serrations, 2-3 with four and five spines on anterior half of ventral margin					

Arthropoda	*Parawaldeckia kidderi*	Antenna 1 short and stocky to long and thin (mature male with a brush of aesthetascs on article 1 of flagellum). Antenna 2 thin, subequal in length to antenna 1 (mature males with greatly elongated flagellum). Upper lip and epistome fused, rounded anteriorly. Mandible, incisor with smooth sharp cutting edge; lacinia mobilis usually present on left mandible, occasionally absent; accessory spines present; molar a soft hairy lobe; palp attached proximal to molar, article 3 with several distal setae (mature male with long spines on palp articles 2 and 3). Maxilla 1, inner plate large with distal translucent lobe bearing 2 short setae; outer plate with 11 spine-teeth; palp 2-articulate, article 2 serrate distally, Maxilliped, inner plate with dense hairs medially and a serrate distal margin; outer plate with smooth medial margin; palp 4-articulate with setae along medial margin. Gnathopod 1 simple, article 4 acuminate distally; articles 5 and 6 subequal; dactyl with subterminal tooth. Gnathopod 2, article 6 with row of serrate spines along posterior margin. Coxae large, coxa 4 with strongly produced posteroventral lobe. Uropod 3 biramous, peduncle expanded dorsally into a rounded flange; inner ramus reduced; outer ramus 2-articulate (mature male with long plumose setae on rami). Telson short, with furled lateral edges. Antenna l article 1 of peduncle slightly produced dorsodistally over article 2. Gnathopod 1, posterior margin of article 6 with a fringe of tiny spines and 4 groups of large spines. Gnathopod 2 minutely chelate, article 6 with 22 sets of serrate spines lining posterior margin. Peraeopod 3, article 4 subequal in length to article 5 and article 6. Peraeopod 7, article 2 subquadrate, with a slightly crenulate posterodistal margin; article 4 not expanded posteriorly, anterior and posterior margins subparallel, posterior margin produced about half length of article 5. Epimeron 3 with rounded posteroventral corner. Telson about as broad as long, slightly emarginate, with 4 pairs of sensory setae; apically notched in reproductive male		Almost exclusively intertidal and to some extent estuarine, often living in association with seaweed holdfasts and sometimes soft sediments	Southern New Zealand	NIWA 147648, 147779	Parawaldeckia.jpg

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	*Semiocladius* sp.	Antennae with 4 segments and very short; 1st antennal segment wider than long; mentum with single, non-bifid tooth and four lateral teeth either side; SI bifid and other S-setae simple; procercus and long anal setae absent. Adult males would be required to confirm species		Larvae are predominantly grazers of fine detritus and large diatoms. Larvae are likely to occupy a silken retreat on the surface of cobbles. Larvae have been found within mesohaline habitats associated with high flow rates and fast tidal changes	The New Zealand distribution is currently unknown however, specimens have been confirmed from the South Island (Riverton) and sub-Antarctic islands. Semiocladius may be widespread around estuaries and coastal regions providing suitable habitats are present. *Semiocladius* is known also from eastern Australia, Lord Howe Island and Japan.	NIWA 147827	Semiocladius sp_NIWA_147827_BrianSmith images 001-0011

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	*Torridoharpinia hurleyi*	Rostrum unconstricted. Eyes present. Article 2 of antenna 1 short, ventral setae ventrally spread or almost confined apically. Article l of antenna 2 not ensiform, article 3 with 4 facial setules, facial spines on article 4 in 1 main row, a11 spines thin, article 5 short. Right mandibular incisor with 3 teeth, right lacinia mobilis bifid, flabellate, molar not triturative, with 2 splayed spines; palpar hump small, apex of palp article 3 oblique. Inner plate of maxilla 1 with 2-4 (type) setae, palp biarticulate. Maxillipeds ordinary, apex of palp article 3 not strongly protuberant, dactyl elongate, apical nail distinct. Gnathopods small, dissimilar, gnathopod 2 weakly to moderately enlarged, article 5 of gnathopods 1-2 short, free on gnathopod 1, cryptic on gnathopod 2, palms oblique, hands ovatorectangular, broadened on gnathopod 2, poorly setose anteriorly .Article 5 of pereopods 3-4 with posteroproximal setae, article 6 with thin armaments. Article 2 of pereopod 5 of narrow form, articles 4-5 of pereopods 5-6 medium to narrow; pereopod 7 ordinary, article 3 enlarged, dactyl ordinary. Epimera 1-2 without long facial brushes or posterior setae, epimeron 3 of ordinary classification, bearing 3 or more long setae. Urosomite 3 without dorsal hook. Peduncle of uropod 1 without interramal spike, without major displaced spine, rami of uropods 1-2 not continuously spinose to apex, inner ramus of uropod 1 only in male with 2 rows of marginal spines. Inner ramus of uropod 2 ordinary. Uropod 3 ordinary, one of rami longer than peduncle, bearing article 2 on outer ramus, with 1 or 2 (type) apical setae. Telson ordinary, but 1 apical element stout (contrast *Proharpinia*)		Marine, estuarine. 0 - 100 m epifaunal, usually soft sediment	NZ EEZ	NIWA 147664, 147693	Torridoharpinia_hurleyi_RP

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Arthropoda	*Transorchestia* sp.	Antenna 1 significantly shorter than antenna 2. Body laterally compressed, smooth, urosomites unfused. Antenna 2 not geniculate, sexually dimorphic. Mandible left lacinia mobilis 4-dentate. Maxillipedal palp dactylus present, reduced. Gnathopod 2 subchelate; basis slightly or strongly expanded; propodus palm posterodistal corner without protuberance. Pereopods 3–7 cuspidactylate. Pereopod 4 carpus significantly shorter than carpus of pereopod 3. Pereopods 6–7 sexually dimorphic. Pereopod 7 basis lateral sulcus present, slightly pronounced. Gills lobate and/or convoluted; gills 3–5 smaller than gills 2 and 6. Oostegites 2–5 setae curl-tipped. Pleopods all well developed. Uropods 1–2 outer rami with marginal robust setae. Telson longer than broad with more than 10 robust setae per lobe		Living on beaches and sand dunes, and sometimes on brackish estuaries, sand flats	South Island	NIWA 147825	Transorchestia
Arthropoda	*Zeuxo*	This species clearly falls into the subgenus *Zeuxo* (*Zeuxo*) based on Sieg's diagnosis: the presence of a prominent coxal apophysis on pereopod-1, two tergal (superodistal) setae on the merus of pereopods 4–6, and two inner (medial) setae on the pleopod endopod. No differences could be observed in individuals from the different island locations. It is also typical in having five-segmented uropods, a condition found in six of the twelve described *Zeuxo* (*Z.*) species. It is one of three species that lack an accessory spine or seta on the right mandible and have a simple spine adjacent to the left lacinia. Similar to *Zeuxo novaezealandiae*		More marine than freshwater		NIWA 147660, 147773	Zeuxo_0020_BG, Zeuxo_0133_BG

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Cnidaria	*Anthopleura hermaphroditica*	Column is smooth and straight, light brown to grey with longitudinal white streaks of warts (verrucae). Column widens towards the tentacles. The tentacles (up to 72) are also brownish grey, banded or spotted with white, and arranged in four cycles. Twenty-four marginal spherules are in a groove below the tentacles.	Was known as *Anthopleura aureoradiata* (Stuckey, 1909) in New Zealand until a recent study rendering it a junior subjective synonym of *Anthopleura hermaphroditica*.	This anemone has been found to contain symbiotic algae, or zooxanthellae, in the cells lining its digestive cavity. It also captures its food from the water column. Most commonly attached to cockles in mudflats, tolerating being covered with sand, but can also be found in rockpools, attached to mudstone or small stones on rocky shores and tidal pools. It has a mutually beneficial association with the cockles, which provide them a hard substrate to attach to, while the anemone preys on the larvae of the trematode parasite that can infect the cockles.	NZ EEZ	NIWA 147774, 147662, 147672	0022. Anthopleura aureoradiata, 0032. Anthopleura aureoradiata, 0134. Anthopleura aureoradiata
Cnidaria	*Edwardsia*	A genus of worm-like sea anemones of the family Edwardsiidae, characterized by having nemathybomes (externally opening pockets in their body wall, containing a battery of nematocysts) and bulb-like physa at their aboral end		Burrowing anemone		NIWA 147728, 147698, 147671	0031. Edwardsia, 0058. Edwardsia, 0088. Edwardsia

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Echinodermata	*Taeniogyrus dendyi*	Specimens elongate, up to 10 mm length, 5 mm diameter. Body wall colour grey to purple with a darker strip radially and lighter papillae visible. Mouth circular with 10 peltato-digitate tentacles each with 4-8 digits (usually 6). Ossicles: Each papillae contains a small cluster of sigmoid hooks at the base. These are approximately 0.12 mm long. The body wall has wheels with an inner serrated rim up to 0.1 mm diameter. Wheels can be either numerous or absent in specimens. References: Mortensen, 1925; Pawson 1963, 1968, 1970; Gordon 2009; Miller et al, 2017		Found partially buried in sediment or under rocks at sandy beaches or in harbours	Described from Auckland Harbour, Plimmerton and Stewart Island. This species is widespread on the New Zealand coast both intertidally and in shallow waters. There have also been occurrences of the species down to 126 m		
Mollusca	*Amphibola crenata*	Shell up to 40 mm wide, similar in size and shape to the common garden snail but with a coarsely wrinkled surface sculpture. Brown, purplish brown within the aperture		A common deposit feeder. Native endemic	North, South, Stewart and Chatham Islands in estuaries	NIWA 147744, 147855	Amphibola crenata_0202_BG, Amphibola_crenata_0111a_BG,
Mollusca	*Arthritica* sp. 5	Shell up to 2.30 mm wide, dirty white, ovate-trigonal, hinge plate with a small cardinal tooth and 2 lateral teeth in each valve. Interior and exterior essentially smooth. It will be named in a forthcoming publication. A related species, *Arthritica bifurca* attains larger size and is characterised by diverging radial thickenings on the interior surface of the valves		Poorly know but probably a deposit feeder. Lives intertidally and broods its young. A common, widely distributed species that has escaped attention due to its small size and misidentification as Arthritica bifurca, juveniles of other estuarine bivalves, or even freshwater clams. Native endemic	Southern North Island and South Island in estuaries where freshwater enters (brackish)	NIWA 147640, 147708, 147736, 147748, 147758, 147787, 147792, 147830, 147840	Arthritica_sp5_0068_BG, Arthritica_sp5_0096_BG, Arthritica_sp5_0103_BG, Arthritica_sp5_0115_BG, Arthritica_sp5_0125_BG,

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Mollusca	*Austrovenus stutchburyi*	Shell up to 80 mm wide, strongly inflated, thick and stout, whitish, violet posteriorly. Eternally sculptured with strong radial ribs and weaker concentric lamellae		The common commercial clam or cockle is a filter feeder. Native endemic	North, South, Stewart, Auckland and Chatham Islands in estuaries and harbours	NIWA 147507, 147659, 147681, 147685, 147712, 147724, 147743, 147791, 147804, 147829	Austrovenus_stutchburyi_0041_BG, Austrovenus_stutchburyi_0045_BG, Austrovenus_stutchburyi_0151_BG
Mollusca	*Cominella glandiformis*	Shell fusiform, up to 44 mm high, spire about as high as aperture, stout, greyish, typically more or less eroded. Sculpture of rounded longitudinal ribs		A common carnivore and scavenger. Native endemic	North, South, Stewart and Chatham Islands in estuaries and harbours	NIWA 147682, 147699, 147735,147745,147807	Cominella_glandiformis_0042_BG; Cominella_glandiformis_0042a_BG
Mollusca	*Cyclomactra ovata*	Shell up to 103 mm wide, white, thin, inflated (length/inflation ratio 1.77–2.03), roundly-ovate, essentially smooth. Hinge plate with strong teeth either side of a spoon-shaped plate		A filter feeder that lives buried in mud in fully marine conditions in estuaries. The closely related species *Cyclomactra tristis* also lives in estuaries but under freshwater influence (i.e., brackish), and differs in shell shape. Native endemic	Northern and south-western North Island, the northern, eastern and southern South Island, and Stewart, Auckland and Chatham Islands, in estuaries and harbours	has specimens none from MAG voucher material, Te Papa	
Mollusca	*Cyclomactra tristis*	Shell up to 74.7 mm wide, white, thin, inflated (length/inflation ratio 2.15–2.49), roundly-ovate, essentially smooth. Hinge plate with strong teeth either side of a spoon-shaped plate		A filter feeder that lives buried in mud in estuaries but under freshwater influence (i.e., brackish). Compared with the similar species *C. ovata*, *C. tristis* is more weakly inflated at equivalent size. Native endemic	North Island as far north as Thames, and northern South Island as far south as Christchurch, in estuaries and harbours	NIWA 147756	Cyclomactra_NIWA147756_A-L

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Mollusca	*Diloma subrostratum*	Shell trochiform, up to 30 mm wide, top-shaped, spire broadly conical, sculptured with spiral cords (often eroded), colour and pattern variable, but aperture typically with a yellow margin		A detritivore common on shells and stones in fully marine conditions. Native endemic	North, South and Stewart islands in estuaries and harbours	NIWA 147667	Diloma_subrostratum_0027_BG, Diloma_subrostratum_0027a_BG
Mollusca	*Halopyrgus pupoides*	Shell rissoiform, up to 2.5 mm high, tall, subcylindrical, smooth, light brown		A detritivore common on shells and stones where it occurs with *Potamopyrgus estuarinus*. Native endemic	North and South islands, in brackish conditions in estuaries and harbours	NIWA 147823	Halopyrgus_pupoides_0182_BG
Mollusca	*Legrandina turneri*	Shell up to 2.75 mm wide, brownish, ovate-trigonal, hinge plate with row of about 5 crenulations on each dorsal slope. Exterior with weak concentric threads, and distinct radial threads within the shell substance that are visible with transmitted light		Diet unknown. Lives in soft sediments intertidally. Native endemic	Stewart Island and southern South Island, as far north as Otago Harbour, in estuaries and harbours	NIWA 147655	Legrandina_turneri_0015_BG
Mollusca	*Linucula hartvigiana*	Shell up to 8 mm long, transversely elongate-ovate, moderately inflated, the anterior end greatly produced, hinge plate with anterior and posterior rows of narrow, sharp, vertical interlocking teeth. Sculpture of strong concentric ridges		A deposit feeder common living in mud intertidally to about 4 m. Native endemic	North Island and the northern South Island estuaries and harbours	NIWA 147687	Linucula_hartvigiana_0047_BG
Mollusca	*Macomona liliana*	Shell up to 81 mm wide, thin, weakly inflated, white, trigonal, posterior end distinctly flexed, essentially smooth		A common deposit feeder. Native endemic	North, South, Stewart and Chatham Island in estuaries and on sheltered beaches	NIWA 147658, 147686, 147711, 147723, 147771	Macomona_liliana_0018_BG, Macomona_liliana_0046_BG, Macomona_liliana_00

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Mollusca	*Mytilus planulatus*	Shell up to 150 mm long, bluish to violet-black, narrowly triangular, moderately inflated, hinge plate with several small teeth		The common, commercial, blue-lipped mussel occurs in South-eastern Australia, and the Kermadec, North, South, Stewart, Chatham, Auckland and Campbell Islands. It is a fully marine filter feeder, most common intertidally and in the immediate sublittoral, but ranges to at least 42 m. Larval development is planktonic	South-eastern Australia, and the Kermadec, North, South, Stewart, Chatham, Auckland and Campbell Islands	NIWA 147653	Mytilus_planulatus_0013_BG
Mollusca	*Notoacmea scapha*	Shell patelliform, up to 6.5 mm long, cap-shaped, thin and fragile, colour pattern variable.		A common detritivore that lives on and under shells and stones. A more narrowly oval form of it lives on *Zostera* leaves. It commonly occurs with *Notoacmea rapida* and *Notoacmea potae*, but the three species are very variable and difficult or to separate without DNA. *Notoacmea scapha*, however, is the only one known to occur on *Zostera* leaves. Fully marine and native endemic	North and South islands in estuaries and harbours	NIWA 147647, 147674	Notoacmea_scapha_0007a_BG, Notoacmea_scapha_0034_BG
Mollusca	*Nucula nitidula*	Shell up to 8 mm long, transversely elongate-ovate, moderately inflated, the anterior end greatly produced, hinge plate with anterior and posterior rows of narrow, sharp, vertical interlocking teeth. Externally smooth and polished		A deposit feeder common living in mud or muddy sand at low tide to 64 m. Unlike *Linucula hartvigiana*, the shell is smooth and polished. Native endemic	North, South and Stewart islands	NIWA 147661	Nucula_nitidula_002Papawera_zelandia 1_BG
Mollusca	*Papawera zelandiae*	Shell up to 28 mm, bubble-shaped, thin and fragile, essentially smooth; white with a thin, yellowish brown periostracum		Shell partly covered by the foot of the slug-like animal. A detritivore that shelters and feeds amongst *Zostera*. Native endemic	North Island and northern South Island on *Zostera* flats in estuaries	NIWA 147793	e_0153_BG

Phylum	Full taxon name	Taxonomic description	Taxonomic value assessment, and identification guidance	Ecological description	Distribution (in NZ)	Relevant NIWA voucher no.	Photo/figure ref. no.
Mollusca	*Paphies australis*	Shell up to 94 mm wide, thick and stout, white, ovate-trigonal, beak almost central, exterior covered by a thin, yellowish periostracum, essentially smooth		The common pipi is a filter feeder. Native endemic	North, South, Stewart, Auckland and Chatham Islands, in estuaries and harbours	NIWA 147508, 147683	Paphies_australis_0002_BG, Paphies_australis_0043_BG
Mollusca	*Potamopyrgus estuarinus*	Shell rissoiform, up to 7 mm high, tall, conical, smooth, khaki-coloured (not black)		A detritivore common on shells and stones. Not to be confused with the closely related species *Potamopyrgus antipodarum*, which lives in freshwater only, and is usually easily separated by its black shell. Native endemic	North and South islands, in estuaries and harbours in brackish conditions	NIWA 147700, 147757, 147785	Potamopyrgus_estuarinus_0060_BG, Potamopyrgus_estuarinus_0124_BG, Potamopyrgus_estuarinus_
Mollusca	*Zeacumantus lutulentus*	Shell cerithiform, up to 30 mm high, tall and slender, often eroded, aperture yellowish to brown within. Sculptured with longitudinal ribs and 2 spiral cords, one at top of aperture and one just below it		A detritivore common on shells and stones. Fully marine and native endemic	North and South islands, in estuaries and harbours	NIWA 147734	Zeacumantus_lut0057. Nemertea, Zeacumantus_lutulentus_0094_BG
Nemertea	Nemertea	Cylindrical or flattened, unsegmented worms					0064. Nemertea posterior, 0067. Nemertea, 0098. 0016. Nemertea,

Appendix B Taxonomic hierarchy

The following two tables are abbreviated versions of the columns of data provided in an Excel file to Environment Southland to populate the taxon tree in their biological record database, KiEco. This hierarchy was correct at January 2021 according to the World Register of Marine Species and the New Zealand Mollusca checklist, but is subject to change as taxonomic revisions are made.

Table B-1: Abbreviated taxon hierarchy of New Zealand macroinvertebrates created from taxon names from nine regional/unitary councils (Auckland, Bay of Plenty, Canterbury, Manawatu-Whanganui, Marlborough, Nelson, Otago, Southland, Waikato and Wellington). Synonymised names and the original names provided from the council lists are included so that sample records can be reconciled with this updated hierarchy. Taxon names highlighted in pink are doubtful as the species are not known from New Zealand. Species that were verified as part of the QA process described in Section 2 of this report are indicated with a "y" in the "Verified in MAG" (Medium Advice Grant) column. The region from which these records were found is noted in the "Verified MAG regions" column.

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Annelida	Clitellata	Haplotaxida	Naididae	Naididae		naidids			The New Zealand estuarine naidids as yet known are mostly in subfamily Tubificinae, genera *Tubificoides* and *Limnodriloides*	y	Marlborough, Otago, Southland
Annelida	Clitellata			Oligochaeta				Oligochaeta; Oligochaetes		n	
Annelida	Clitellata			Oligochaeta sp.#1				Oligochaeta sp.#1		n	
Annelida	Polychaeta	Echiuroidea	Thalassematidae	Thalassematidae		echiuran worm		Echiura	Possibly *Urechis novaezealandiae*. Unlikely to be any other echiuran, but there are rare inshore Bonelliida (the Echiura with the very long tongue-like proboscis), although they don't occur in estuaries	n	
Annelida	Polychaeta	Eunicida	Dorvilleidae	*Schistomeringos loveni*	(Kinberg, 1865)			*Schistomeringos loveni*		n	
Annelida	Polychaeta	Eunicida	Dorvilleidae	Dorvilleidae				Dorvilleidae; Dorvillidae		n	
Annelida	Polychaeta	Eunicida	Eunicidae	*Eunice vittata*	(Delle Chiaje, 1828)			*Eunice vittata*	Likely a misidentification. *E. vittata* is European	n	
Annelida	Polychaeta	Eunicida	Eunicidae	*Leodice australis*	(Quatrefages, 1866)		*Eunice australis*	*Eunice australis*		n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Annelida	Polychaeta	Eunicida	Eunicidae	*Marphysa depressa*	(Schmarda, 1861)		*Eunice depressa*	*Marphysa depressa*	Use in your tree as genus-level, with note that the species are unresolved. *M. depressa* is European	n	
Annelida	Polychaeta	Eunicida	Eunicidae	*Marphysa*					see note for *Marphysa depressa*	n	
Annelida	Polychaeta	Eunicida	Lumbrineridae	*Lumbrineris sphaerocephala*	(Schmarda, 1861)		*Notocirrus sphaerocephalus*	*Lumbrinereis sphaerocephala*		n	
Annelida	Polychaeta	Eunicida	Lumbrineridae	*Lumbrineris*			*Lumbrinereis* [au ctt. misspelling]	*Lumbrinereis* sp.		n	
Annelida	Polychaeta	Eunicida	Lumbrineridae	*Scoletoma brevicirra*	(Schmarda, 1861)		Lumbrineris brevicirra	*Scoletoma brevicirra; Lumbrinereis brevicirra*		n	
Annelida	Polychaeta	Eunicida	Lumbrineridae	Lumbrineridae				Lumbrineridae; Lumbrinereidae		n	
Annelida	Polychaeta	Eunicida	Onuphidae	*Diopatra*				*Diopatra* spp.	This may be *Diopatra akarana* Knox & Hicks, 1973. Distinctive taxon	n	
Annelida	Polychaeta	Eunicida	Onuphidae	Onuphidae				Onuphidae		n	
Annelida	Polychaeta	Phyllodocida	Aphroditidae	Aphroditidae				Aphroditidae		n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	*Disconatis accolus*	(Estcourt, 1967)		*Lepidasthenia accolus*	*Disconatus accolus; Lepidasthenia accolus*		y	Marlborough
Annelida	Polychaeta	Phyllodocida	Polynoidae	*Lepidastheniella comma*	(Thomson, 1902)			*Lepidastheniella comma*		n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	*Lepidonotus jacksoni*	Kinberg, 1855			*Lepidonotus jacksoni*		n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	*Lepidonotus polychromus*	Schmarda, 1861			*Lepidonotus polychromus*		n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	*Lepidonotus*				*Lepidonotus*		n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	Lepidonotinae				Lepidonotinae		n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	*Frennia*				*Frennia* sp.	Likely a misidentification. *Frennia* is an indeterminable genus	n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	*Antinoe*			*Actinoe*	*Actinoe* sp.	Likely a misidentification. The *Antinoe* described for NZ is an offshore species, and '*Actinoe*' doesn't exist	n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Annelida	Polychaeta	Phyllodocida	Polynoidae	*Harmothoe*				Harmothoe		n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	*Paralepidonotus ampulliferus*	(Grube, 1878)			*Paralepidonotus ampulliferus*	Alien arrival, seems to be getting more abundant	n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoinae			Harmothoinae	Harmothoinae		n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoidae				Polynoidae		n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoidae sp. A				Polynoid sp. A		n	
Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoidae sp. B				Polynoid sp. B		n	
Annelida	Polychaeta	Phyllodocida	Sigalionidae	*Pelogenia antipoda*	Schmarda, 1861		*Psammolyce antipoda*	*Psammolyce antipoda*		n	
Annelida	Polychaeta	Phyllodocida	Sigalionidae	*Labiosthenolepis laevis*	(McIntosh, 1885)		*Leanira laevis*	*Labiosthenolepis laevis*		n	
Annelida	Polychaeta	Phyllodocida	Sigalionidae	*Sigalion*				*Sigalion* sp.		n	
Annelida	Polychaeta	Phyllodocida	Sigalionidae	Sigalionidae				Sigalionidae		n	
Annelida	Polychaeta	Phyllodocida	Glyceridae	*Glycera lamelliformis*	McIntosh, 1885		*Glycera lamellipodia*	*Glycera lamelliformis*; *Glycera lamellipodia*		n	
Annelida	Polychaeta	Phyllodocida	Glyceridae	*Glycera ovigera*	Schmarda, 1861			*Glycera ovigera; Glycera americana (ovigera)*	*Glycera ovigera* occurs in harbours but is less likely in small estuaries. Other look-alike *Glycera* species such as *G. russa* are possible occurrences, as well as *Glycinde trifida* of the related family Goniadidae	n	
Annelida	Polychaeta	Phyllodocida	Glyceridae	*Glycera russa*	Grube, 1870			*Glycera russa*		n	
Annelida	Polychaeta	Phyllodocida	Glyceridae	*Glycera*				*Glycera* sp.; *Glycera* spp.; *Glycera* sp. nova		n	
Annelida	Polychaeta	Phyllodocida	Glyceridae	*Hemipodia simplex*	(Grube, 1857)			*Hemipodus simplex*		y	Otago, Southland
Annelida	Polychaeta	Phyllodocida	Glyceridae	Glyceridae				Glyceridae; Glyceridae (unidentified juveniles)		n	
Annelida	Polychaeta	Phyllodocida	Goniadidae	*Glycinde trifida*	(McIntosh, 1885)		*Glycinde dorsalis*	*Glycinde trifida; Glycinde dorsalis*		n	
Annelida	Polychaeta	Phyllodocida	Goniadidae	*Glycinde*				*Glycinde* sp.		n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Annelida	Polychaeta	Phyllodocida	Goniadidae	*Goniada emerita*	Audouin & H Milne Edwards, 1833			*Goniada emerita*	Believed to be a misidentification of *Glycinde trifida*	n	
Annelida	Polychaeta	Phyllodocida	Goniadidae	*Goniada grahami*	Benham, 1932			*Goniada grahami*	Few reliable records known	n	
Annelida	Polychaeta	Phyllodocida	Goniadidae	*Goniada*				*Goniada* sp.		n	
Annelida	Polychaeta	Phyllodocida	Goniadidae	Goniadidae				Goniadidae sp.		n	
Annelida	Polychaeta	Phyllodocida	Goniadidae	Goniadidae sp. 1				Goniadidae sp1		n	
Annelida	Polychaeta	Phyllodocida	Goniadidae	Goniadidae sp. 2				Goniadidae sp2		n	
Annelida	Polychaeta	Phyllodocida	Chrysopetalidae	Chrysopetalidae				Chrysopetalidae		n	
Annelida	Polychaeta	Phyllodocida	Hesionidae	*Gyptis*				*Gyptis* sp.	No reliable New Zealand records of this genus	n	
Annelida	Polychaeta	Phyllodocida	Hesionidae	*Oxydromus angustifrons*	(Grube, 1878)		*Ophiodromus angustifrons*; *Irma angustifrons*	*Oxydromus angustifrons*; *Ophiodromus angustifrons*	Probably not *O. angustifrons*, but the name is deeply entrenched in New Zealand	n	
Annelida	Polychaeta	Phyllodocida	Hesionidae	*Podarkeopsis*				*Podarkeopsis*?	No reliable New Zealand records of this genus	n	
Annelida	Polychaeta	Phyllodocida	Hesionidae	Hesionidae				Hesionidae; Hesionid sp.		n	
Annelida	Polychaeta	Phyllodocida	Nereididae	*Nicon aestuariensis*	Knox, 1951			*Nicon aestuariensis*		y	Manawatu, Marlborough, Southland, Wellington
Annelida	Polychaeta	Phyllodocida	Nereididae	*Ceratonereis*				*Ceratonereis* sp	Not *Ceratonereis* but is an undescribed species in genus *Simplesetia* (q.v)	n	
Annelida	Polychaeta	Phyllodocida	Nereididae	*Leonnates stephensoni*	Rullier, 1965			*Leonnates stephensoni*	Alien arrival. Currently using *Leonnates persicus* Wesenberg-Lund, 1949 as the ID on voucher specimens	n	
Annelida	Polychaeta	Phyllodocida	Nereididae	*Neanthes*				*Neanthes* sp.		n	
Annelida	Polychaeta	Phyllodocida	Nereididae	*Perinereis brevicirris*	(Grube, 1866)		*Nereis (Heteronereis) brevicirris*	*Perinereis brevicirrus* (misspelling)	Status uncertain. New Zealand ids should be assigned to *Perinereis vallata*	n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Annelida	Polychaeta	Phyllodocida	Nereididae	*Perinereis camiguinoides*	(Augener, 1922)			*Perinereis camiguinoides*		n	
Annelida	Polychaeta	Phyllodocida	Nereididae	*Perinereis nuntia*	(Lamarck, 1818)			*Perinereis nuntia*	Red Sea species. New Zealand ids should be assigned to *Perinereis vallata*	n	
Annelida	Polychaeta	Phyllodocida	Nereididae	*Perinereis vallata*	(Grube, 1857)			*Perinereis vallata*	*Perinereis vallata* is native to Chile, Australia, and New Zealand. It is possible the New Zealand populations include 1 or more cryptic species, but at the moment none are recognised, with local *P. ponuiensis* included as a synonym of *P. vallata*. No genetic work has been done.	y	Otago, Southland
Annelida	Polychaeta	Phyllodocida	Nereididae	*Platynereis australis*	(Schmarda, 1861)			*Platynereis australis*		n	
Annelida	Polychaeta	Phyllodocida	Nereididae	*Platynereis*				*Platynereis* sp.		n	
Annelida	Polychaeta	Phyllodocida	Nereididae	*Simplisetia* sp.					Small upper estuarine nereidid. Previously placed as a *Ceratonereis*	n	
Annelida	Polychaeta	Phyllodocida	Nereididae	Nereididae				Nereidae; Nereididae (unidentified juv); Nereididae (unidentified juveniles); Nereididae indet.		n	
Annelida	Polychaeta	Phyllodocida	Syllidae	*Streptosyllis*				Syllidae- *Streptosyllis*	Tentative placement as this genus	n	
Annelida	Polychaeta	Phyllodocida	Syllidae	Autolytinae				Autolytinae		n	
Annelida	Polychaeta	Phyllodocida	Syllidae	*Prosphaerosyllis semiverrucosa*	(Ehlers, 1913)		*Sphaerosyllis semiverrucosa*	*Sphaerosyllis semiverrucosa*	Does not occur in New Zealand	n	
Annelida	Polychaeta	Phyllodocida	Syllidae	*Sphaerosyllis*				*Sphaerosyllis* sp		n	
Annelida	Polychaeta	Phyllodocida	Syllidae	Exogoninae		syllids		Exogoninae	Exogoninae in estuaries are likely to include several similar taxa, but as yet poorly investigated.	n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Annelida	Polychaeta	Phyllodocida	Syllidae	*Syllis*				*Syllis* sp.		n	
Annelida	Polychaeta	Phyllodocida	Syllidae	Syllinae				Syllinae		n	
Annelida	Polychaeta	Phyllodocida	Syllidae	Syllidae		syllids		Syllid spp; Syllidae; Syllidae sp.#1	insufficient material, likely to be several species	y	Southland
Annelida	Polychaeta	Phyllodocida	Nephtyidae	*Aglaophamus macroura*	(Schmarda, 1861)		*Nephthys macroura*	*Aglaophamus macroura*	*Aglaophamus macroura* was originally described from an Auckland Harbour specimen and is not reliably reported outside of New Zealand since. Subtidal inshore *Aglaophamus* are likely to be the smaller *A. verrilli*, also a New Zealand native.	n	
Annelida	Polychaeta	Phyllodocida	Nephtyidae	*Aglaophamus verrilli*	(McIntosh, 1885)		*Nephthys verrilli*		Subtidal inshore *Aglaophamus* are likely to be this smaller species	n	
Annelida	Polychaeta	Phyllodocida	Nephtyidae	*Aglaophamus*				*Aglaophamus* sp	See notes for *A. macroura* and *A. verrilli*	n	
Annelida	Polychaeta	Phyllodocida	Sphaerodoridae	Sphaerodoridae				Sphaerodoridae		n	
Annelida	Polychaeta	Phyllodocida	Phyllodocidae	*Eteone* cf. *aurantiaca*				*Eteone* near *aurantiaca*	*Eteone aurantiaca* is Chilean so caution should be taken in using this name	n	
Annelida	Polychaeta	Phyllodocida	Phyllodocidae	*Eteone*				*Eteone*		n	
Annelida	Polychaeta	Phyllodocida	Phyllodocidae	*Eulalia*				*Eulalia* sp.		n	
Annelida	Polychaeta	Phyllodocida	Phyllodocidae	*Mysta platycephala*	(Augener, 1913)		*Eteone platycephala*	*Eteone platycephala*	Also known as *Eteone platycephala*	n	
Annelida	Polychaeta	Phyllodocida	Phyllodocidae	*Nereiphylla*				*Nereiphylla*	Tentative ID	n	
Annelida	Polychaeta	Phyllodocida	Phyllodocidae	Phyllodocidae				Phyllodocidae sp.#1		n	
Annelida	Polychaeta	Phyllodocida		Phyllodocida				Phyllodocid sp.; Phyllodocid spp.; Phyllodocida		n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Annelida	Polychaeta		Magelonidae	*Magelona dakini*	Jones, 1978			*Magelona dakini*	There are no reviews of New Zealand magelonids, but at least 3 species are likely. The only estuarine species is what is currently placed as *Magelona dakini* (*M. dakini* is based on Australian samples)	y	Marlborough
Annelida	Polychaeta		Oweniidae	*Owenia fusiformis*	Delle Chiaje, 1844			*Owenia fusiformis*	This is a misidentification of *Owenia petersenae*, see notes for this species	n	
Annelida	Polychaeta		Oweniidae	*Owenia petersenae*	Koh & Bhaud, 2003			*Owenia petersenae*	The only intertidal oweniid likely to be encountered is the native species *Owenia petersenae*, as yet the sole representative of the genus in New Zealand, although a second offshore species is suspected. All *Owenia* are very similar and once were always reported as *Owenia fusiformis*. The original description of *Owenia petersenae* unfortunately does not articulate what its unique characters are.	y	Marlborough
Annelida	Polychaeta		Oweniidae	*Owenia*				*Owenia* sp.		n	
Annelida	Polychaeta	Sabellida	Sabellidae	*Euchone pallida*	Ehlers, 1908			*Euchone pallida*		n	
Annelida	Polychaeta	Sabellida	Sabellidae	*Euchone*				*Euchone* sp.		n	
Annelida	Polychaeta	Sabellida	Sabellidae	*Pseudopotamilla*				*Pseudopotamilla* sp.		n	
Annelida	Polychaeta	Sabellida	Sabellidae	Sabellidae				Sabellidae sp.		n	
Annelida	Polychaeta	Sabellida	Sabellidae	Sabellidae sp. 1				Sabellidae sp. 1		n	
Annelida	Polychaeta	Sabellida	Sabellidae	Sabellidae sp. B				Sabellidae sp. B		n	
Annelida	Polychaeta	Sabellida	Serpulidae	*Spirobranchus cariniferus*	(Gray, 1843)		*Vermetus cariniferus; Pomatoceros caeruleus* (taxon inquirendum)	*Pomatoceros caeruleus*		n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Annelida	Polychaeta	Sabellida	Serpulidae	*Spirobranchus*				*Spirobranchus*	This is probably also *Spirobranchus cariniferus*	n	
Annelida	Polychaeta	Sabellida	Serpulidae	Serpulidae				Serpulidae		n	
Annelida	Polychaeta	Spionida	Spionidae	*Aonides oxycephala*	(Sars, 1862)			*Aonides oxycephala*	This is a European species not present in NZ, use *Aonides* instead	n	
Annelida	Polychaeta	Spionida	Spionidae	*Aonides trifida*	Estcourt, 1967			*Aonides trifida*; *Aonides trifidus*		y	Otago, Southland, Wellington
Annelida	Polychaeta	Spionida	Spionidae	*Boccardia acus*	(Rainer, 1973)			*Boccardia (Paraboccardia) acus; Boccardia acus*	Similar to *B. syrtis*, but which occurs in borings plus tubes on live *Austrovenus stutchburyi* (cockle) shells.	n	
Annelida	Polychaeta	Spionida	Spionidae	*Boccardia syrtis*	(Rainer, 1973)			*Boccardia (Paraboccardia) syrtis; Boccardia syrtis*	Identification of Polydora-group species requires careful observation and use of the literature to check multiple characters.	y	Marlboough, Otago, Southland
Annelida	Polychaeta	Spionida	Spionidae	*Boccardia*				*Boccardia* sp.; *Boccardia* spp		n	
Annelida	Polychaeta	Spionida	Spionidae	*Boccardia* sp. 1				*Boccardia* sp. 1		n	
Annelida	Polychaeta	Spionida	Spionidae	*Laonice*				*Laonice* sp.		n	
Annelida	Polychaeta	Spionida	Spionidae	*Microspio maori*	Blake, 1984			*Microspio maori*		n	
Annelida	Polychaeta	Spionida	Spionidae	*Polydora cornuta*	Bosc, 1802			*Polydora cornuta*		n	
Annelida	Polychaeta	Spionida	Spionidae	*Polydora*			*Pseudopolydora*	*Polydora* sp. 1		n	
Annelida	Polychaeta	Spionida	Spionidae	*Prionospio aucklandica*	Augener, 1923			*Aquilaspio aucklandica; Prionospio aucklandica; Prionspio aucklandica*?	There are many shallow-water sediment-dwelling New Zealand *Prionospio* species (at least 12). However, intertidally and in the shallow subtidal in estuaries *Prionospio aucklandica* is likely to predominate.	y	Marlboough, Otago, Southland, Wellington
Annelida	Polychaeta	Spionida	Spionidae	*Prionospio australiensis*	Blake & Kudenov, 1978		*Prionospio australiensis*	*Prionospio australiensis*		n	

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Annelida	Polychaeta	Spionida	Spionidae	*Prionospio cirrifera*	Wirén, 1883		*Prionospio cirrifera*	*Prionospio cirrifera*	Misidentification, perhaps *P. yuriel*	n	
Annelida	Polychaeta	Spionida	Spionidae	*Prionospio ehlersi*	Fauvel, 1928			*Prionospio ehlersi*		n	
Annelida	Polychaeta	Spionida	Spionidae	*Prionospio steenstrupi*	Malmgren, 1867			*Prionospio steenstrupi*	Misidentification, to be assigned to *P. australiensis* and *P. multicristata*	n	
Annelida	Polychaeta	Spionida	Spionidae	*Prionospio yuriel*	Wilson, 1990			*Prionospio yuriel*		n	
Annelida	Polychaeta	Spionida	Spionidae	*Prionospio*			*Prionospio*	*Minuspio* sp.		n	
Annelida	Polychaeta	Spionida	Spionidae	*Pseudopolydora corniculata*	Radashevsky & Hsieh, 2000			*Pseudopolydora* spF (*corniculata*)		n	
Annelida	Polychaeta	Spionida	Spionidae	*Pseudopolydora paucibranchiata*	(Okuda, 1937)			*Pseudopolydora* spT (*paucibranchiata*)		n	
Annelida	Polychaeta	Spionida	Spionidae	*Pseudopolydora*				*Pseudopolydora* complex		n	
Annelida	Polychaeta	Spionida	Spionidae	*Rhynchospio*				*Rhynchospio* sp.		n	
Annelida	Polychaeta	Spionida	Spionidae	*Scolecolepides benhami*	Ehlers, 1907			*Scolecolepides benhami*	A second somewhat larger *Scolecolepides* species, *S. freemani*, occurs in upper estuarine New Zealand river habitats	y	Manawatu, Otago, Southland
Annelida	Polychaeta	Spionida	Spionidae	*Scolecolepides*				*Scolecolepides* sp.		n	
Annelida	Polychaeta	Spionida	Spionidae	*Scolelepis*				*Scolelepis* sp.; *Scolelepis* spp.	An un-named *Scolelepis* species is found in harbours. *Scololepis antipoda*, is a species of open surf beaches	n	
Annelida	Polychaeta	Spionida	Spionidae	*Scolelepis* sp. a				*Scolelepis* sp. a		n	
Annelida	Polychaeta	Spionida	Spionidae	*Scolelepis* sp. b				*Scolelepis* sp. b		n	
Annelida	Polychaeta	Spionida	Spionidae	Spionidae				Spionid; Spionidae (unidentifiable)		n	
Annelida	Polychaeta	Terebellida	Cirratulidae	*Aphelochaeta*				*Aphelochaeta* spp.		n	
Annelida	Polychaeta	Terebellida	Cirratulidae	*Caulleriella*				*Caulleriella* sp		n	
Annelida	Polychaeta	Terebellida	Cirratulidae	*Chaetozone platycera*	Hutchings & Murray, 1984			*Chaetozone platycera*	No New Zealand records. Australian species	n	

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Annelida	Polychaeta	Terebellida	Cirratulidae	*Cirriformia tentaculata*	(Montagu, 1808)		*Terebella tentaculata*	*Cirriformia tentaculata*	No New Zealand records. European species	n	
Annelida	Polychaeta	Terebellida	Cirratulidae	*Cirriformia*				*Cirriforma* sp.		n	
Annelida	Polychaeta	Terebellida	Cirratulidae	Cirratulidae				Cirratulidae; Cirratulid sp.		n	
Annelida	Polychaeta	Terebellida	Flabelligeridae	Flabelligeridae				Flabelligeridae		n	
Annelida	Polychaeta	Terebellida	Ampharetidae	Ampharetidae				Ampharetidae		n	
Annelida	Polychaeta	Terebellida	Pectinariidae	*Lagis australis*	(Ehlers, 1904)	icecream cone worm		*Lagis australis; Pectinaria australis*		n	
Annelida	Polychaeta	Terebellida	Terebellidae	*Neoamphitrite*				*Neoamphitrite* sp.	No New Zealand records. Not a valid genus according to some authors	n	
Annelida	Polychaeta	Terebellida	Terebellidae	*Streblosoma toddae*	Hutchings & Smith, 1997					n	
Annelida	Polychaeta	Terebellida	Terebellidae	*Thelepus setosus*	(Quatrefages, 1866)		*Thelepus spectabilus*	*Thelepus spectabilus*	Probably a misidentification of *Streblosoma toddae*	n	
Annelida	Polychaeta	Terebellida	Terebellidae	*Pista*				*Pista* sp.	Likely species is *Pista pegma*	n	
Annelida	Polychaeta	Terebellida	Terebellidae	*Terebella plagiostoma*	Schmarda, 1861		*Thelepus plagiostoma*	*Thelepus plagiostoma*		n	
Annelida	Polychaeta	Terebellida	Terebellidae	Terebellidae			Amphitritinae	Terebellidae		n	
Annelida	Polychaeta	Terebellida	Trichobranchidae	*Terebellides narribri*	Hutchings & Peart, 2000			*Terebellides narribri*		n	
Annelida	Polychaeta	Terebellida	Trichobranchidae	Trichobranchidae				Trichobranchidae		n	
Annelida	Polychaeta		Sabellariidae	*Paraidanthyrsus quadricornis*	(Schmarda, 1861)		*Idanthyrsus quadricornis*	*Idyanthrysus quadricornis; Paraidanthyrsus quadricornis*		n	
Annelida	Polychaeta		Sabellariidae	Sabellariidae				Sabellariidae		n	
Annelida	Polychaeta		Arenicolidae	*Abarenicola affinis*	(Ashworth, 1903)	lugworm	*Arenicola assimilis affinis*	*Abarenicola affinis*		n	
Annelida	Polychaeta		Arenicolidae	Arenicolidae				Arenicolidae sp.		n	

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Annelida	Polychaeta		Capitellidae	*Barantolla lepte*	Hutchings, 1974			*Barantolla lepte*	Similar size and appearance to *Heteromastus filiformis*	n	
Annelida	Polychaeta		Capitellidae	*Capitella*			*Capitomastus*	Capitella sp.; Capitella sp. 1; Capitella sp.#1; Capitella spp.	There are a number of species that look like *Capitella capitata*. The New Zealand estuarine *Capitella* species differs morphologically from the larger local open-sea *Capitella*, sometimes associated with polluted environments, but neither has yet been examined molecularly.	y	Otago, Southland, Wellington
Annelida	Polychaeta		Capitellidae	*Heteromastus filiformis*	(Claparède, 1864)			*Heteromastus filiformis*	*Heteromastus filiformis* is very abundant intertidally but care is needed to be sure *H. filiformis* is the species, outside of estuarine occurrences. *Barantolla lepte* is similar but subtidal and unlikely to be shallow estuarine.	y	Marlborough, Otago, Wellington
Annelida	Polychaeta		Capitellidae	*Notomastus*				*Notomastus* sp	Identification difficult. What has usually been identified as *Notomastus* might be *Capitellethus dispar*	n	
Annelida	Polychaeta		Capitellidae	*Notomastus* sp. B				*Notomastus* sp. B	Identification difficult. What has usually been identified as *Notomastus* might be *Capitellethus dispar*	n	
Annelida	Polychaeta		Capitellidae	Capitellidae				Capitellid sp.; Capitellid spp.; Capitellidae (unidentified juveniles)		n	
Annelida	Polychaeta		Cossuridae	*Cossura consimilis*	Read, 2000			*Cossura consimilis*		n	
Annelida	Polychaeta		Cossuridae	*Cossura*				*Cossura* sp.	likely to be *Cossura consimilis*	n	
Annelida	Polychaeta		Maldanidae	*Axiothella serrata*	Kudenov & Read, 1977			*Axiothella serrata*		y	Marlborough, Wellington

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Annelida	Polychaeta		Maldanidae	*Euclymene*				*Euclymene* sp.		n	
Annelida	Polychaeta		Maldanidae	*Macroclymenella stewartensis*	Augener, 1926	bamboo worms		*Macroclymenella stewartensis*		y	Southland
Annelida	Polychaeta		Maldanidae	*Asychis amphiglyptus*	(Ehlers, 1897)		*Maldane amphiglypta*	*Asychis amphiglyptus*	Known only from the Auckland area harbours	n	
Annelida	Polychaeta		Maldanidae	*Asychis*				*Asychis* sp		n	
Annelida	Polychaeta		Maldanidae	*Maldane theodori*	(Augener, 1926)		*Asychis theodori*	*Maldane theodori; Asychis theodori*		n	
Annelida	Polychaeta		Maldanidae	*Nicomache*				*Nicomache*?		n	
Annelida	Polychaeta		Maldanidae	*Micromaldane*				*Micromaldane* sp		n	
Annelida	Polychaeta		Maldanidae	Maldanidae				Maldanidae		n	
Annelida	Polychaeta		Maldanidae	Maldanidae sp.#1				Maldanidae sp.#1		n	
Annelida	Polychaeta		Opheliidae	*Armandia maculata*	(Webster, 1885)			*Armandia maculata; Armandia* sp.	This is the sole species of *Armandia* currently identified in NZ	y	Wellington
Annelida	Polychaeta		Opheliidae	*Ophelia*				*Ophelia* sp.		n	
Annelida	Polychaeta		Opheliidae	*Thoracophelia otagoensis*	(Probert, 1976)			*Thoracophelia otagoensis*		n	
Annelida	Polychaeta		Opheliidae	*Thoracophelia*			*Euzonus*	*Euzonus* sp.		n	
Annelida	Polychaeta		Orbiniidae	*Leodamas cylindrifer*	(Ehlers, 1904)		*Scoloplos cylindifer*	*Leodamas cylindrifer; Scoloplos cylindifer; Scoloplos cylindrifer*		y	Marlborough, Otago, Southland, Wellington
Annelida	Polychaeta		Orbiniidae	*Leodamas*			*Leodamas*	*Scoloplos (Leodamas)*		n	
Annelida	Polychaeta		Orbiniidae	*Orbinia papillosa*	(Ehlers, 1907)			*Orbinia papillosa*		y	Wellington
Annelida	Polychaeta		Orbiniidae	*Orbinia*				*Orbinia* sp.		n	
Annelida	Polychaeta		Orbiniidae	*Phylo novazealandiae*	Day, 1977		*Phylo novazealandiae*	*Phylo novaezealandiae* (misspelling)		n	
Annelida	Polychaeta		Orbiniidae	*Phylo*				*Phylo* sp.		n	
Annelida	Polychaeta		Orbiniidae	*Scoloplos*			*Scoloplos*	*Scoloplos (scoloplos)*		n	
Annelida	Polychaeta		Orbiniidae	Orbiniidae			Questidae	Orbiniidae; Orbinids		n	
Annelida	Polychaeta		Orbiniidae	Orbiniidae sp.#1				Orbiniidae sp.#1		n	

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Annelida	Polychaeta		Orbiniidae	*Naineris*				*Naineris* sp.		n	
Annelida	Polychaeta		Paraonidae	*Aricidea*				*Aricidea* sp.	Undescribed species	n	
Annelida	Polychaeta		Paraonidae	*Levinsenia gracilis*	(Tauber, 1879)			*Levinsenia gracilis*		n	
Annelida	Polychaeta		Paraonidae	*Paradoneis lyra*	(Southern, 1914)			*Paradoneis lyra*	The New Zealand *Paradoneis* species is likely to be distinct, not *P. lyra*, but that name has been applied in the past, and it is a species commonly, but perhaps mistakenly, reported from estuaries around the world.	y	Marlborough, Wellington
Annelida	Polychaeta		Paraonidae	*Paradoneis*				*Paradoneis* sp.		n	
Annelida	Polychaeta		Paraonidae	*Paradoneis* sp.#1				*Paradoneis* sp.#1		n	
Annelida	Polychaeta		Paraonidae	*Paraonides*				*Paraonides*		n	
Annelida	Polychaeta		Paraonidae	Paraonidae				Paraonidae		n	
Annelida	Polychaeta		Scalibregmatidae	*Hyboscolex longiseta*	Schmarda, 1861			*Hyboscolex longiseta*		n	
Annelida	Polychaeta		Scalibregmatidae	*Hyboscolex*				*Hyboscolex* sp.		n	
Annelida	Polychaeta		Scalibregmatidae	Scalibregmatidae				Scalibregmatidae		n	
Annelida	Polychaeta		Travisiidae	*Travisia olens*	Ehlers, 1897			*Travisia olens*		y	Southland
Annelida	Polychaeta		Travisiidae	*Travisia olens novaezealandiae*	Benham, 1927			*Travisia olens novaezealandiae*		n	
Annelida	Polychaeta		Chaetopteridae	*Chaetopterus*				*Chaetopterus*	Two species (unnamed), one coastal, one in enclosed waters (Marlborough Sounds)	n	
Annelida	Polychaeta			Polychaeta				Polychaete indet.; Polychaeta Unid. sp.		n	
Arthropoda	Arachnida	Trombidiformes	Halacaridae	Halacaridae		mites		Halacaridae		n	
Arthropoda	Hexanauplia	Sessilia	Austrobalanidae	*Austrominius modestus*	(Darwin, 1854)	common sessile barnacle	*Elminius modestus*	*Austrominius modestus; Elminius modestus*		y	Southland
Arthropoda	Hexanauplia	Sessilia	Austrobalanidae	*Epopella plicata*	(Gray, 1843)		*Elminius plicatus*	*Epopella plicata*		n	

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Arthropoda	Hexanauplia	Sessilia	Balanidae	*Megabalanus tintinnabulum*	(Linnaeus, 1758)		*Balanus tintinnabulum*	*Balanus tintinnabulum*	This may be in fact *Megabalanus linzei* (see reference Henry & McLaughlin, 1986) which noted that NZ specimens maybe *M. linzei.* However, Ahyong & Wilkens call it *M. tintinnabulum* - so needs to be checked	n	
Arthropoda	Hexanauplia	Sessilia	Balanidae	*Notomegabalanus decorus*	(Darwin, 1854)		*Balanus decorus; Megabalanus decorus*	*Balanus decorus*		n	
Arthropoda	Hexanauplia	Sessilia	Chthamalidae	*Chamaesipho brunnea*	Moore, 1944			*Chamaesipho brunnea*		n	
Arthropoda	Hexanauplia	Sessilia	Chthamalidae	*Chamaesipho columna*	(Spengler, 1790)		*Lepas columna*	*Chamaesipho columna*		n	
Arthropoda	Hexanauplia	Sessilia	Tetraclitidae	*Tetraclitella purpurascens*	(Wood, 1815)			*Tetraclitella purpurascens*		n	
Arthropoda	Malacostraca	Decapoda	Diogenidae	*Paguristes*				*Paguristes*		n	
Arthropoda	Malacostraca	Decapoda	Paguridae	*Pagurus*				*Pagurus* sp.		n	
Arthropoda	Malacostraca	Decapoda	Porcellanidae	*Petrolisthes elongatus*	(H. Milne Edwards, 1837)	half crab	*Porcellana elongata*	*Petrolisthes elongatus; Petrolithes elongatus*		n	
Arthropoda	Malacostraca	Decapoda	Porcellanidae	*Petrolisthes novaezelandiae*	Filhol, 1885	half crab		*Petrolisthes novaezelandiae; Petrolithes novaezelandiae*		n	
Arthropoda	Malacostraca	Decapoda		Paguroidea [Superfamily]		hermit crabs		unid. Pagurids		n	
Arthropoda	Malacostraca	Decapoda	Callianassidae	*Filhollianassa filholi*	(A. Milne-Edwards, 1879)	ghost shrimp	*Biffarius filholi; Callianassa filholi*	*Biffarius filholi; Callianassa filholi*		n	
Arthropoda	Malacostraca	Decapoda	Belliidae	*Heterozius rotundifrons*	A. Milne-Edwards, 1867	big-handed crab		*Heterozius rotundifrons*		n	
Arthropoda	Malacostraca	Decapoda	Cancridae	*Metacarcinus novaezelandiae*	(Hombron & Jacquinot, 1846)	pie crust crab	*Cancer novaezealandiae*	*Cancer novaezelandiae*		n	
Arthropoda	Malacostraca	Decapoda	Grapsidae	*Leptograpsus variegatus*	(Fabricius, 1793)	purple rock crab		*Leptograpus variegatus*		n	

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Arthropoda	Malacostraca	Decapoda	Hymenosomatidae	*Halicarcinus cookii*	(Filhol, 1885)	pillbox crab		*Halicarcinus cookii*		n	
Arthropoda	Malacostraca	Decapoda	Hymenosomatidae	*Halicarcinus quoyi*	(H. Milne Edwards, 1853)		*Elamene quoyi; Halicarcinus innominatus*	*Halicarcinus innominatus*		n	
Arthropoda	Malacostraca	Decapoda	Hymenosomatidae	*Halicarcinus varius*	(Dana, 1851)			*Halicarcinus varius*		y	Southland
Arthropoda	Malacostraca	Decapoda	Hymenosomatidae	*Halicarcinus whitei*	(Miers, 1876)			*Halicarcinus whitei*		y	Manawatu, Marlborough, Otago, Southland, Wellington
Arthropoda	Malacostraca	Decapoda	Hymenosomatidae	*Halicarcinus*				*Halicarcinus* sp.; *Halicarcinus* spp.		n	
Arthropoda	Malacostraca	Decapoda	Hymenosomatidae	*Neohymenicus pubescens*	(Dana, 1851)		*Hymenicus pubescens*	*Neohymenicus pubescens*		n	
Arthropoda	Malacostraca	Decapoda	Inachoididae	*Pyromaia tuberculata*	(Lockington, 1877)	tuburculate pear crab	*Inachus tuberculatus*	*Pyromaia tuberculata*		n	
Arthropoda	Malacostraca	Decapoda	Macrophthalmidae	*Hemiplax hirtipes*	Hombron & Jacquinot, 1846 [in Hombron & Jacquinot, 1842-1854]	NZ Sentinel Crab		*Hemiplax hirtipes*		y	Marlborough, Otago, Southland
Arthropoda	Malacostraca	Decapoda	Majidae	*Notomithrax minor*	(Filhol, 1885)	small decorator crab	*Paramithrax minor*	*Notomithrax minor*		n	
Arthropoda	Malacostraca	Decapoda	Majidae	*Notomithrax peronii*	(H. Milne Edwards, 1834)	camouflage crab	*Paramithrax peronii*	*Notomithrax peronii*		n	
Arthropoda	Malacostraca	Decapoda	Majidae	*Eurynolambrus australis*	H. Milne Edwards & Lucas, 1841	triangle crab		*Eurynolambrus australis*		n	
Arthropoda	Malacostraca	Decapoda	Ocypodidae	Ocypodidae				Ocypodidae		n	
Arthropoda	Malacostraca	Decapoda	Ovalipidae	*Nectocarcinus antarcticus*	(Hombron & Jacquinot, 1846)	red swimming crab	*Portunus antarcticus*	*Nectocarcinus antarticus*		n	
Arthropoda	Malacostraca	Decapoda	Ovalipidae	*Ovalipes catharus*	(White in White & Doubleday, 1843)	paddle crab	*Portunus catharus*	*Ovalipes catharus*		n	

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Arthropoda	Malacostraca	Decapoda	Oziidae	*Ozius truncatus*	H. Milne Edwards, 1834	black-fingered crab		*Ozius truncatus*		n	
Arthropoda	Malacostraca	Decapoda	Pilumnidae	*Pilumnopeus serratifrons*	(Kinahan, 1856)	smooth-handed crab	*Ozius serratifrons*	*Pilumnopeus serratifrons*		n	
Arthropoda	Malacostraca	Decapoda	Pilumnidae	*Pilumnus lumpinus*	Bennett, 1964	hairy crab; bristle crab		*Pilumnus lumpinus*		n	
Arthropoda	Malacostraca	Decapoda	Pilumnidae	*Pilumnus novaezealandiae*	Filhol, 1885	bristled black-finger crab		*Pilumnus novaezealandiae*		n	
Arthropoda	Malacostraca	Decapoda	Pinnotheridae	*Nepinnotheres atrinicola*	(Page, 1983)			*Nepinnotheres atrinicola*		n	
Arthropoda	Malacostraca	Decapoda	Pinnotheridae	*Nepinnotheres*				*Nepinnotheres* spp.; *Pinnotheres*		n	
Arthropoda	Malacostraca	Decapoda	Pinnotheridae	*Nepinnotheres novaezelandiae*	(Filhol, 1885)	pea crab	*Pinnotheres novae-zelandiae*	*Nepinnotheres novaezelandiae; Pinnotheres novaezelandiae*		n	
Arthropoda	Malacostraca	Decapoda	Plagusiidae	*Guinusia chabrus*	(Linnaeus, 1758)	red rock crab	*Cancer chabrus; Plagusia chabrus*	*Plagusia chabrus*		n	
Arthropoda	Malacostraca	Decapoda	Plagusiidae	*Plagusia depressa*	(J.C. Fabricius, 1775)	cliff crab	*Cancer depressus*	*Plagusia depressa*	uncertain records in NZ	n	
Arthropoda	Malacostraca	Decapoda	Polybiidae	*Liocarcinus corrugatus*	(Pennant, 1777)	wrinkled swimming crab	*Cancer corrugatus*	*Liocarcinus corrugatus*		n	
Arthropoda	Malacostraca	Decapoda	Varunidae	*Austrohelice crassa*	(Dana, 1851)	NZ mud crab	*Helice crassa* (original combination)	*Austrohelice crassa*		y	Southland
Arthropoda	Malacostraca	Decapoda	Varunidae	*Hemigrapsus crenulatus*	(H. Milne Edwards, 1837)	hairy-handed crab	*Cyclograpsus crenulatus*	*Hemigrapsus crenulatus*		n	
Arthropoda	Malacostraca	Decapoda	Varunidae	*Hemigrapsus sexdentatus*	(H. Milne Edwards, 1837)	purple rock crab	*Brachynotus edwardsii; Hemigrapsus edwardsi*	*Hemigrapsus sexdentatus; Hemigrapsus edwardsi*		y	Southland
Arthropoda	Malacostraca	Decapoda	Varunidae	*Cyclograpsus lavauxi*	H. Milne Edwards, 1853	smooth shore crab		*Cyclograpsus lavauxi*		n	
Arthropoda	Malacostraca	Decapoda		Brachyura		crabs		Brachyura; Crab indet.		n	
Arthropoda	Malacostraca	Decapoda	Alpheidae	*Alpheus novaezealandiae*	Miers, 1876			*Alpheus novaezealandiae*		n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Arthropoda	Malacostraca	Decapoda	Alpheidae	*Alpheus richardsoni*	Yaldwyn, 1971	snapping shrimp		*Alpheus richardsoni*		n	
Arthropoda	Malacostraca	Decapoda	Alpheidae	*Alpheus socialis*	Heller, 1862	snapping shrimp		*Alpheus socialis*		n	
Arthropoda	Malacostraca	Decapoda	Alpheidae	*Alpheus*				*Alpheus* sp; *Alpheus* spp.		n	
Arthropoda	Malacostraca	Decapoda	Alpheidae	Alpheidae				Alpheidae		n	
Arthropoda	Malacostraca	Decapoda	Crangonidae	*Philocheras australis*	(Thomson, 1879)	sand shrimp		*Philocheras (Pontophilus) australis; Philocheras australis; Pontophilus australis*		n	
Arthropoda	Malacostraca	Decapoda	Hippolytidae	*Alope spinifrons*	(H. Milne Edwards, 1837 [in Milne Edwards, 1834-1840])	painted shrimp	*Hippolyte spinifrons*	*Alope spinifrons*		n	
Arthropoda	Malacostraca	Decapoda	Hippolytidae	*Hippolyte bifidirostris*	(Miers, 1876)		*Virbius bifidirostris*	*Hippolyte bifidirostris*		n	
Arthropoda	Malacostraca	Decapoda	Ogyrididae	*Ogyrides delli*	Yaldwyn, 1971			*Ogyrides delli*		n	
Arthropoda	Malacostraca	Decapoda	Palaemonidae	*Palaemon affinis*	H. Milne Edwards, 1837 [in H. Milne Edwards, 1834-1840]	shrimp		*Palaemon affinis*		y	Marlborough
Arthropoda	Malacostraca	Decapoda	Palaemonidae	*Periclimenes yaldwyni*	Holthuis, 1959			*Periclimenes yaldwyni*		n	
Arthropoda	Malacostraca	Decapoda		Caridea		caridean shrimp		Shrimp indet.		n	
Arthropoda	Malacostraca	Decapoda	Upogebiidae	*Acutigebia danai*	(Miers, 1876)	mud shrimp	*Upogebia danai; Gebia danai*	*Upogebia danai*		n	
Arthropoda	Malacostraca	Decapoda	Upogebiidae	*Upogebia hirtifrons*	(White, 1847)	mud shrimp	*Gebia hirtifrons*	*Upogebia hirtifrons*		n	
Arthropoda	Malacostraca	Decapoda	Upogebiidae	*Upogebia*		mud shrimp		*Upogebia*		n	
Arthropoda	Malacostraca	Decapoda		Decapoda				Unidentified decapod megalopa		n	
Arthropoda	Malacostraca	Amphipoda	Cyproideidae	Cyproideidae				Cyproideidae		n	
Arthropoda	Malacostraca	Amphipoda	Exoedicerotidae	*Patuki breviuropodus*	Cooper & Fincham, 1974			*Patuki breviuropodus*		n	

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Arthropoda	Malacostraca	Amphipoda	Exoedicerotidae	*Methalimedon*				*Methalimedon* sp.	This genus has not previously been recorded from NZ waters, the only species in this genus is only found in Antarctica	n	
Arthropoda	Malacostraca	Amphipoda	Liljeborgiidae	*Liljeborgia aequabilis*	Stebbing, 1888			*Liljeborgia aequabilis*		n	
Arthropoda	Malacostraca	Amphipoda	Liljeborgiidae	*Liljeborgia barhami*	Hurley, 1954			*Liljeborgia barhami*		n	
Arthropoda	Malacostraca	Amphipoda	Liljeborgiidae	*Liljeborgiidae*				Liljeborgiidae		n	
Arthropoda	Malacostraca	Amphipoda	Oedicerotidae	Oedicerotidae				Oedicerotidae		n	
Arthropoda	Malacostraca	Amphipoda	Paracalliopiidae	*Paracalliope* aff. *karitane*				*Paracalliope* aff. *karitane*		n	
Arthropoda	Malacostraca	Amphipoda	Paracalliopiidae	*Paracalliope novizealandiae*	(Dana, 1852)	hopper, scud		*Paracalliope novizealandiae*		y	Otago, Southland, Wellington
Arthropoda	Malacostraca	Amphipoda	Paracalliopiidae	*Paracalliope*				*Paracalliope* sp.; *Paracalliope* spp.		n	
Arthropoda	Malacostraca	Amphipoda	Paracalliopiidae	Paracalliopiidae				Paracalliopiidae		n	
Arthropoda	Malacostraca	Amphipoda	Ampeliscidae	*Ampelisca*				*Ampelisca* sp		n	
Arthropoda	Malacostraca	Amphipoda	Dexaminidae	*Paradexamine*				*Paradexamine* sp.		n	
Arthropoda	Malacostraca	Amphipoda	Dexaminidae	*Polycheria obtusa*	Thomson, 1882			*Polycheria obtusa*		n	
Arthropoda	Malacostraca	Amphipoda	Dexaminidae	Dexaminidae				Dexaminidae		n	
Arthropoda	Malacostraca	Amphipoda	Lysianassidae	*Parawaldeckia karaka*	Lowry & Stoddart, 1983			*Parawaldeckia karaka*		n	
Arthropoda	Malacostraca	Amphipoda	Lysianassidae	*Parawaldeckia kidderi*	(S.I. Smith, 1876)	hopper, scud				y	Southland
Arthropoda	Malacostraca	Amphipoda	Lysianassidae	*Parawaldeckia*				*Parawaldeckia* sp		n	
Arthropoda	Malacostraca	Amphipoda	Lysianassidae	Lysianassidae				Lysianassidae		n	
Arthropoda	Malacostraca	Amphipoda	Phoxocephalidae	*Torridoharpinia hurleyi*	(J.L. Barnard, 1958)	hopper, scud		*Torridoharpinia hurleyi*		y	Southland, Wellington
Arthropoda	Malacostraca	Amphipoda	Phoxocephalidae	*Torridoharpinia*				*Torridoharpinia* sp		n	
Arthropoda	Malacostraca	Amphipoda	Phoxocephalidae	*Cephalophoxus regium*	(K.H. Barnard, 1930)			*Cephalophoxus regium*		n	

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Arthropoda	Malacostraca	Amphipoda	Phoxocephalidae	Phoxocephalidae				Phoxocephalidae		n	
Arthropoda	Malacostraca	Amphipoda	Phoxocephalidae	*Ringaringa littoralis*	(Cooper & Fincham, 1974)			*Ringaringa littoralis*		n	
Arthropoda	Malacostraca	Amphipoda	Phoxocephalidae	*Waipirophoxus waipiro*	(J.L. Barnard, 1972)		*Wildus waiparo*	*Wildus waiparo*		n	
Arthropoda	Malacostraca	Amphipoda	Phoxocephalidae	*Waitangi brevirostris*	Fincham, 1977			*Waitangi brevirostris*		n	
Arthropoda	Malacostraca	Amphipoda	Phoxocephalidae	*Waitangi*				*Waitangi* sp.#1		n	
Arthropoda	Malacostraca	Amphipoda	Tryphosidae	*Hippomedon*				*Hippomedon*		n	
Arthropoda	Malacostraca	Amphipoda	Urothoidae	Urothoidae				Urothidae		n	
Arthropoda	Malacostraca	Amphipoda	Corophiidae	*Apocorophium acutum*	(Chevreux, 1908)	hopper, scud				y	Southland
Arthropoda	Malacostraca	Amphipoda	Corophiidae	*Paracorophium brisbanensis*	Chapman, 2002	hopper, scud				y	Manawatu
Arthropoda	Malacostraca	Amphipoda	Corophiidae	*Paracorophium excavatum*	(G.M. Thomson, 1884)	hopper, scud		*Paracorophium excavatum*		y	Otago, Southland
Arthropoda	Malacostraca	Amphipoda	Corophiidae	*Paracorophium lucasi*	Hurley, 1954			*Paracorophium lucasi; Chaetocorophium lucasi*		n	
Arthropoda	Malacostraca	Amphipoda	Corophiidae	*Paracorophium*				*Paracorophium* sp.		n	
Arthropoda	Malacostraca	Amphipoda	Corophiidae	*Paracorophium* sp.#1				*Paracorophium* sp.#1		n	
Arthropoda	Malacostraca	Amphipoda	Paracrangonyctidae	Paracrangonyctidae				Paracrangonyctidae		n	
Arthropoda	Malacostraca	Amphipoda	Melitidae	*Josephosella awa*	(J.L. Barrnard, 1972)	hopper, scud	*Melita awa* (original combination)	*Melita awa*		y	Manawatu, Southland
Arthropoda	Malacostraca	Amphipoda	Melitidae	*Ledoyeromelita festiva*	(Chilton, 1885)		*Melita festiva*	*Melita festiva*		n	
Arthropoda	Malacostraca	Amphipoda	Melitidae	*Melita inaequistylis*	Dana, 1852			*Melita inaequistylis*		n	
Arthropoda	Malacostraca	Amphipoda	Melitidae	Melitidae				Melitidae		n	
Arthropoda	Malacostraca	Amphipoda	Pontogeneiidae	*Paramoera chevreuxi*	(Stephensen, 1927)	hopper, scud		*Paramoera chevreuxi*		y	Southland
Arthropoda	Malacostraca	Amphipoda	Pontogeneiidae	*Paramoera*				*Paramoera* sp.		n	
Arthropoda	Malacostraca	Amphipoda	Pontogeneiidae	*Prostebbingia laevis*	(Haswell, 1879)			*Prostebbingia leavis*		n	

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Arthropoda	Malacostraca	Amphipoda	Pontogeneiidae	Pontogeneiidae				Pontogeneiidae		n	
Arthropoda	Malacostraca	Amphipoda	Talitridae	*Transorchestia* sp.		Beach hopper, sand hopper				y	Otago
Arthropoda	Malacostraca	Amphipoda	Aoridae	*Aora maculata*	(Thomson, 1879)			*Aora maculata*		n	
Arthropoda	Malacostraca	Amphipoda	Aoridae	*Aora*				*Aora* sp		n	
Arthropoda	Malacostraca	Amphipoda	Caprellidae	*Caprellina longicollis*	Nicolet, 1849			*Caprellina longicollis*		n	
Arthropoda	Malacostraca	Amphipoda	Caprellidae	Caprellidae				Caprellidae		n	
Arthropoda	Malacostraca	Amphipoda	Corophiidae	*Corophium*				*Corophium* sp.		n	
Arthropoda	Malacostraca	Amphipoda	Corophiidae	*Hirayamaia mortoni*	(Hirayama, 1986)		*Hirayamaia morton*	*Hiryamaia mortoni*		n	
Arthropoda	Malacostraca	Amphipoda	Corophiidae	*Monocorophium sextonae*	(Crawford, 1937)			*Monocorophium sextonae*		n	
Arthropoda	Malacostraca	Amphipoda	Corophiidae	Corophiidae			Corophiidae	Corophidae (misspelled)		n	
Arthropoda	Malacostraca	Amphipoda	Ischyroceridae	Ischyroceridae				Ischyroceridae		n	
Arthropoda	Malacostraca	Amphipoda	Photidae	*Gammaropsis*				*Gammaropsis* sp.; *Gammaropsis* spp.		n	
Arthropoda	Malacostraca	Amphipoda	Maeridae	*Maera*				*Maera* sp.		n	
Arthropoda	Malacostraca	Amphipoda	Maeridae	Maeridae				Maeridae		n	
Arthropoda	Malacostraca	Amphipoda	Hyalidae	*Protohyale (Boreohyale) maroubrae*	(Stebbing, 1899)		*Hyale maroubrae*	*Hyale maroubrae*		n	
Arthropoda	Malacostraca	Amphipoda	Hyalidae	Hyalidae				Hyalidae		n	
Arthropoda	Malacostraca	Amphipoda	Protorchestiidae	*Protorchestia*				*Protorchestia*		n	
Arthropoda	Malacostraca	Amphipoda	Talitridae	*Bellorchestia quoyana*	(H. Milne Edwards, 1840)		*Talorchestia quoyana*	*Talorchestia quoyana*		n	
Arthropoda	Malacostraca	Amphipoda	Talitridae	*Transorchestia serrulata*	(Dana, 1852)		*Orchestia chiliensis*	*Orchestia chiliensis*		n	
Arthropoda	Malacostraca	Amphipoda	Talitridae	Talitridae				Talitridae		n	
Arthropoda	Malacostraca	Amphipoda	Tulearidae	Tulearidae				Tulearidae		n	
Arthropoda	Malacostraca	Amphipoda		Amphipoda				Amphipod; Amphipod indet.; Amphipod other		n	

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Arthropoda	Malacostraca	Amphipoda		Amphipoda sp.#1				Amphipoda sp.#1		n	
Arthropoda	Malacostraca	Amphipoda		Amphipoda sp. 2				Amphipoda sp. 2		n	
Arthropoda	Malacostraca	Amphipoda		Amphipoda sp.#3				Amphipoda sp.#3		n	
Arthropoda	Malacostraca	Amphipoda		Amphipoda sp. 4				Amphipoda sp. 4		n	
Arthropoda	Malacostraca	Amphipoda		Amphipoda sp. 5				Amphipoda sp. 5		n	
Arthropoda	Malacostraca	Amphipoda		Amphipoda sp. ASA				Amphipoda sp. ASA		n	
Arthropoda	Malacostraca	Amphipoda		Amphipoda sp. BR17				Amphipoda sp. BR17		n	
Arthropoda	Malacostraca	Amphipoda		Amphipoda sp. R				Amphipoda sp. R		n	
Arthropoda	Malacostraca	Amphipoda		Amphipoda sp. Okains				Amphipoda sp. Okains		n	
Arthropoda	Malacostraca	Cumacea	Bodotriidae	*Cyclaspis thomsoni*	Calman, 1907			*Cyclaspsis thomsoni*		n	
Arthropoda	Malacostraca	Cumacea	Diastylidae	*Colurostylis lemurum*	Calman, 1917			*Colurostylis lemurum*		n	
Arthropoda	Malacostraca	Cumacea	Diastylidae	*Colurostylis pseudocuma*	Calman, 1911			*Colurostylis pseudocuma*		n	
Arthropoda	Malacostraca	Cumacea	Diastylidae	*Colurostylis whitireia*	Gerken, 2015	comma shrimp		*Colurostylis whitireia*		y	Wellington
Arthropoda	Malacostraca	Cumacea	Diastylidae	*Colurostylis*				*Colurostylis* sp.		n	
Arthropoda	Malacostraca	Cumacea	Diastylidae	*Diastylis insularum*	(Calman, 1908)			*Diastylis insularum*		n	
Arthropoda	Malacostraca	Cumacea	Diastylidae	*Diastylopsis*				*Diastylopsis* sp. (Cumacea)		n	
Arthropoda	Malacostraca	Cumacea	Gynodiastylidae	*Litogynodiastylis laevis*	(Calman, 1911)			*Litogynodiastylis laevis*		n	
Arthropoda	Malacostraca	Cumacea	Leuconidae	*Hemileucon*				*Hemileucon*		n	
Arthropoda	Malacostraca	Isopoda	Munnidae	*Munna neozelanica*	Chilton, 1891			*Munna neozelanica*		n	
Arthropoda	Malacostraca	Isopoda	Anthuridae	Anthuridae				Anthuridae		n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Cirolana australiense*	(Hale, 1925)			*Cirolana australiense*	This needs to be checked as it is an Australian species and is not known from NZ	n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Cirolana*				*Cirolana* sp.		n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Eurylana arcuata*	(Hale, 1925)		*Cirolana arcuata*	*Cirolana arcuata*		n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Eurylana cookii*	(Filhol, 1885)			*Eurylana cookii*		n	

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Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Eurylana*				*Eurylana* sp.		n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Metacirolana japonica*	(Hansen, 1890)		*Cirolana japonica*	*Metacirolana japonica*		n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Natatolana aotearoa*	Keable, 2006			*Natatolana aotearoa*		n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Natatolana woodjonesi*	(Hale, 1924)		*Cirolana woodjonesi*	*Natatolana woodjonesi*	This species has never been recorded from NZ	n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Natatolana*				*Natatolana* sp.		n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Natatolana rossi*	(Miers, 1876)		*Cirolana rossi*	*Cirolana rossi*		n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	*Pseudaega punctata*	G. Thompson, 1883			*Pseudaega punctata*		n	
Arthropoda	Malacostraca	Isopoda	Cirolanidae	Cirolanidae				Cirolanidae		n	
Arthropoda	Malacostraca	Isopoda	Scyphacidae	*Actaecia euchroa*				*Actaecia euchroa*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Exosphaeroma chilense*	(Dana, 1853)			*Exosphaeroma chilensis*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Exosphaeroma falcatum*	Tattersall, 1921			*Exosphaeroma fulcatum*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Exosphaeroma obtusum*	(Dana, 1853)			*Exosphaeroma obtusum*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Exosphaeroma planulum*	Hurley & Jansen, 1971			*Exospaeroma planulum*; *Exosphaeroma planulum*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Exosphaeroma waitemata*	Bruce, 2005			*Exosphaeroma waitemata*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Exosphaeroma*				*Exosphaeroma* indet.		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Ischyromene hirsuta*	(Hurley & Jansen, 1971)		*Dynamenella hirsuta*	*Dynamenella hirsuta*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Ischyromene insulsa*	(Hurley & Jansen, 1977)		*Dynamenella insula*	*Dynamenella insula*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Isocladus armatus*	(H. Milne Edwards, 1840)		*Cymodoce armata*	*Isocladus armatus*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Isocladus calcareus*	(Dana, 1853)		*Spheroma calcarea*	*Isocladus calcareus*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Isocladus reconditus*	Hurley & Jansen, 1977			*Isocladus reconditus*		n	

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Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Isocladus spiculatus*	Hurley & Jansen, 1977			*Isocladus spiculatus*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Isocladus*				*Isocladus* sp.		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Pseudosphaeroma campbellense*	Chilton, 1909			*Pseudosphaeroma campbellense*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Pseudosphaeroma*			*Paradynamenopsis*	*Pseudosphaeroma* sp.		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	*Sphaeroma quoianum*	H. Milne Edwards, 1840		*Sphaeroma quoyanum* (incorrect subsequent spelling)	*Sphaeroma quoianum*; *Sphaeroma quoyanum*		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatidae	Sphaeromatidae				Sphaeromatidae		n	
Arthropoda	Malacostraca	Isopoda	Sphaeromatoidea incertae sedis	*Paravireia*				*Paravireia* sp		n	
Arthropoda	Malacostraca	Isopoda	Arcturidae	Arcturidae				Arcturidae		n	
Arthropoda	Malacostraca	Isopoda	Idoteidae	*Batedotea*				*Batedotea* sp.		n	
Arthropoda	Malacostraca	Isopoda	Idoteidae					*Idotea marina*	This combination of names (*Idotea marina*) does not exist, use genus level ID	n	
Arthropoda	Malacostraca	Isopoda	Idoteidae	*Takereana festiva*	(Chilton, 1885)		*Idotea festiva*	*Idotea festiva*		n	
Arthropoda	Malacostraca	Isopoda		Valvifera				Valivifera		n	
Arthropoda	Malacostraca	Isopoda		Isopoda				Isopod indet.		n	
Arthropoda	Malacostraca	Mysida	Mysidae	*Gastrosaccus australis*	W. Tattersall, 1923			*Gastrosaccus australis*		n	
Arthropoda	Malacostraca	Mysida	Mysidae	*Tenagomysis macropsis*	*W. Tattersall, 1923*			*Tenagomysis macropsis*		n	
Arthropoda	Malacostraca	Mysida	Mysidae	*Tenagomysis*				*Tenagomysis*		n	
Arthropoda	Malacostraca	Mysida	Mysidae	*Tenagomysis* sp.#1				*Tenagomysis* sp.#1		n	
Arthropoda	Malacostraca	Mysida	Mysidae	Mysidae				Mysidae		n	
Arthropoda	Malacostraca	Mysida		Mysida				Mysida		n	
Arthropoda	Malacostraca	Tanaidacea	Apseudidae	*Apseudes*				*Apseudes* sp		n	
Arthropoda	Malacostraca	Tanaidacea	Metapseudidae	*Cyclopoapseudes*				*Cycloapseudes* sp.		n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Arthropoda	Malacostraca	Tanaidacea	Tanaididae	*Zeuxo*		tanaids				y	Southland
Arthropoda	Malacostraca	Tanaidacea		Tanaidacea		tanaid		Tanidacea; Tanaid		n	
Arthropoda	Malacostraca	Stomatopoda	Squillidae	Squillidae				Squillidae		n	
Arthropoda	Malacostraca	Stomatopoda	Tetrasquillidae	*Heterosquilla tricarinata*	(Claus, 1871)		*Coronis tricarinata; Lysiosquilla spinosa*	*Heterosquilla tricarinata; Lysiosquilla spinosa*		n	
Arthropoda	Malacostraca	Stomatopoda	Tetrasquillidae	*Heterosquilla*				*Heterosquilla; Heterosquilla sp.*		n	
Arthropoda	Malacostraca	Stomatopoda		Stomatopoda		mantis shrimp		Stomatopoda; Stomatopoda sp.#1		n	
Arthropoda	Malacostraca	Leptostraca	Nebaliidae	*Nebalia*				*Nebalia* sp.		n	
Arthropoda	Ostracoda	Myodocopida	Cylindroleberididae	*Leuroleberis zealandica*	(Baird, 1850)		*Cypridina zealandica*	*Leuroleberis zealandica*		n	
Arthropoda	Ostracoda	Myodocopida	Cylindroleberididae	*Diasterope grisea*	(Brady, 1898)		*Asterope grisea*	*Diasterope grisea*		n	
Arthropoda	Ostracoda	Podocopida	Bythocyprididae	*Anchistrocheles*				?*Anchistrocheles* sp.		n	
Arthropoda	Ostracoda			Ostracoda		seed shrimp		Ostracods		n	
Arthropoda	Insecta	Diptera	Muscidae	Muscidae		flies		Muscidae larva		n	
Arthropoda	Insecta	Diptera	Chironomidae	Orthocladiinae						y	Southland
Arthropoda	Insecta	Diptera	Chironomidae	*Semiocladius* sp.		non-biting midges				y	Otago
Arthropoda	Insecta	Diptera	Chironomidae	Chironomidae		non-biting midges		Chironomid larvae		n	
Arthropoda	Insecta	Diptera		Diptera		two-winged flies		Diptera spp.		n	
Arthropoda	Insecta	Diptera		Diptera sp. 1		two-winged flies		Diptera sp. 1		n	
Arthropoda	Insecta	Diptera		Diptera sp. 2		two-winged flies		Diptera sp. 2		n	
Arthropoda	Insecta	Diptera		Diptera sp.#2		two-winged flies		Diptera sp.#2		n	
Arthropoda	Insecta	Diptera		Diptera sp. 3		two-winged flies		Diptera sp. 3		n	

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Arthropoda	Insecta	Diptera		Diptera sp.#3		two-winged flies		Diptera sp.#3		n	
Arthropoda	Insecta	Diptera		Diptera sp. 4		two-winged flies		Diptera sp. 4		n	
Arthropoda	Insecta	Diptera		Diptera sp. 5		two-winged flies		Diptera sp. 5		n	
Arthropoda	Insecta	Hemiptera	Veliidae	*Microvelia*				*Microvelia* sp.		n	
Bryozoa	Gymnolaemata	Cheilostomata	Candidae	*Caberea zelandica*	(Gray, 1843)			*Cabera zelandica*		n	
Cnidaria	Anthozoa	Actiniaria	Edwardsiidae	*Edwardsia neozelanica*	Farquhar, 1898	burrowing anemone	*Edwardsia tricolor; Edwardsia ignota*	*Edwardsia tricolour*		n	
Cnidaria	Anthozoa	Actiniaria	Edwardsiidae	*Edwardsia*		burrowing anemone		*Edwardsia* sp.#1; *Edwardsia* sp.		n	Southland, Wellington
Cnidaria	Anthozoa	Actiniaria	Edwardsiidae	Edwardsiidae		burrowing anemone		Edwardsiidae		n	
Cnidaria	Anthozoa	Actiniaria	Actiniidae	*Actinia tenebrosa*	Farquhar, 1898	red beadlet anemone; waratah anemone		*Isactinia tenebrosa*		n	
Cnidaria	Anthozoa	Actiniaria	Actiniidae	*Anthopleura hermaphroditica*	(Carlgren, 1899)	mudflat anemone	*Anthopleura aureoradiata* (Stuckey, 1909)	*Anthopleura aureoradiata*		n	Southland
Cnidaria	Anthozoa	Actiniaria	Actiniidae	*Isactinia olivacea*	(Hutton, 1879)	olive anemone	*Anthea olivacea*	*Isactinia olivacea*		n	
Cnidaria	Anthozoa	Actiniaria	Actiniidae	*Oulactis magna*	(Stuckey, 1909)	giant shore anemone	*Isocradactis magna*	*Isocradactis magna*		n	
Cnidaria	Anthozoa	Actiniaria	Sagartiidae	*Anthothoe albocincta*	(Hutton, 1879)	white striped anemone		*Anthothoe albocincta*		n	
Cnidaria	Anthozoa	Corallimorpharia	Corallimorphidae	*Corynactis australis*	Haddon & Duerden, 1896	jewel anemone		*Corynactis australis*		n	
Cnidaria				Cnidaria				Cnidaria		n	
Echinodermata	Holothuroidea	Apodida	Chiridotidae	*Taeniogyrus dendyi*	(Mortensen, 1925)					n	
Hemichordata	Enteropneusta	[unassigned] Enteropneusta	Ptychoderidae	*Balanoglossus*		acorn worm		*Balanoglossus* sp.		n	

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Mollusca	Bivalvia		Myochamidae	*Myadora boltoni*	E. A. Smith, 1881			*Myadora boltoni*		n	
Mollusca	Bivalvia		Myochamidae	*Myadora striata*	(Quoy & Gaimard, 1835)		*Pandora striata*	*Myadora striata*		n	
Mollusca	Bivalvia		Myochamidae	*Myadora*				*Myadora* sp.; *Myadora* spp		n	
Mollusca	Bivalvia		Thraciidae	*Thracia*				*Thracia* sp		n	
Mollusca	Bivalvia	Adapedonta	Hiatellidae	*Hiatella arctica*	(Linnaeus, 1767)	wrinkled rock-borer	*Mya arctica*	*Hiatella arctica*		n	
Mollusca	Bivalvia	Adapedonta	Hiatellidae	*Panopea zelandica*	(Quoy & Gaimard, 1835)	deepwater clam; New Zealand geoduck	*Panopaea zelandica*	*Panopea zelandica*		n	
Mollusca	Bivalvia	Arcida	Arcidae	*Barbatia novaezealandiae*	(E. A. Smith, 1915)	ark shell	*Arca novaezealandiae*	*Barbatia novaezelandiae*		n	
Mollusca	Bivalvia	Arcida	Arcidae	*Barbatia*			*Arca (Barbatia)*	*Barbatia*		n	
Mollusca	Bivalvia	Arcida	Glycymeridae	*Glycymeris modesta*	(Angas, 1879)	small dog cockle	*Axinaea modesta*	*Glycymeris modesta*		n	
Mollusca	Bivalvia	Cardiida	Psammobiidae	*Gari lineolata*	(Gray, 1835)	pink sunset clam	*Psammobia lineolata*	*Gari lineolata*		n	
Mollusca	Bivalvia	Cardiida	Psammobiidae	*Gari stangeri*	(Gray, 1843)	purple sunset shell	*Psammobia stangeri; Psammobia zelandica*	*Gari stangeri*		n	
Mollusca	Bivalvia	Cardiida	Psammobiidae	*Hiatula nitida*	(Gray, 1843)		*Psammobia nitida; Soletellina siliqua*	*Hiatula nitida; Soletellina siliqua*		n	
Mollusca	Bivalvia	Cardiida	Psammobiidae	*Hiatula siliquens*	(Willan, 1993)		*Soletellina siliquens*	*Hiatula silequens*		n	
Mollusca	Bivalvia	Cardiida	Psammobiidae	*Hiatula*				*Hiatula*; *Hiatula* spp.		n	
Mollusca	Bivalvia	Cardiida	Psammobiidae	*Hiatula sp. 1*				*Hiatula* sp. 1		n	
Mollusca	Bivalvia	Cardiida	Psammobiidae	*Hiatula sp. #1*				*Hiatula* sp.#1		n	
Mollusca	Bivalvia	Cardiida	Semelidae	*Leptomya retiaria*	(Hutton, 1885)		*Leptomya retiaria retiaria*	*Leptomya retiaria retiaria*		n	

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Mollusca	Bivalvia	Cardiida	Semelidae	*Theora lubrica*	Gould, 1861	Asian semele	*Theora (Endopleura) lubrica*	*Theora lubrica*		n	
Mollusca	Bivalvia	Cardiida	Tellinidae	*Pseudarcopagia disculus*	(Deshayes, 1855)		*Tellina disculus*	*Pseudarcopagia disculus*		n	
Mollusca	Bivalvia	Cardiida	Tellinidae	*Bartschicoma edgari*	(Iredale, 1915)		*Macoma edgari; Tellinota edgari*	*Tellinota edgari*		n	
Mollusca	Bivalvia	Cardiida	Tellinidae	*Bartschicoma gaimardi*	(Iredale, 1915)	angled wedge shell	*Tellina gaimardi*	*Bartschicoma gaimardi*		n	
Mollusca	Bivalvia	Cardiida	Tellinidae	*Moerella huttoni*	(E. A. Smith, 1885)		*Tellina huttoni*	*Moerella huttoni*		n	
Mollusca	Bivalvia	Cardiida		Cardiida				Cardiida		n	
Mollusca	Bivalvia	Carditida	Carditidae	*Pleuromeris zelandica*	(Deshayes, 1854)		*Cardita zelandica*	*Pleuromeris zelandica*		n	
Mollusca	Bivalvia	Carditida	Carditidae	*Purpurocardia purpurata*	(Deshayes, 1854)	purple cockle	*Cardita purpurata*	*Purpurocardia purpurata*		n	
Mollusca	Bivalvia	Carditida	Carditidae	Carditidae				Carditidae		n	
Mollusca	Bivalvia	Galeommatida	Galeommatidae	*Divariscintilla maoria*	Powell, 1932			*Divariscintilla maoria*		n	
Mollusca	Bivalvia	Galeommatida	Galeommatidae	*Scintillona zelandica*	(Odhner, 1924)		*Spaniorinus zelandicus*	*Scintillona zelandica*		n	
Mollusca	Bivalvia	Galeommatida	Lasaeidae	*Mysella hounselli*	(Powell, 1931)		*Virmysella hounselli*	*Mysella hounseli*		n	
Mollusca	Bivalvia	Galeommatida	Lasaeidae	*Tellimya aupouria*	(Ponder, 1968)		*Montacuta (Tellimya) vitrea aupouria*	*Tellimya vitrea aupouia*		n	
Mollusca	Bivalvia	Galeommatida	Lasaeidae	*Borniola reniformis*	(Suter, 1908)		*Rochefortia reniformis*	*Borniola reniformis*		n	
Mollusca	Bivalvia	Galeommatida	Lasaeidae	*Erycina parva*	Deshayes, 1856		*Melliteryx parva*	*Melliteryx parva*		n	
Mollusca	Bivalvia	Galeommatida	Lasaeidae	*Lasaea parengaensis*	Powell, 1935			*Lasaea parengaensis*		n	
Mollusca	Bivalvia	Galeommatida	Lasaeidae	*Myllita stowei*	(Hutton, 1873)		*Pythina stowei*	*Myllita stowei*		n	
Mollusca	Bivalvia	Limida	Limidae	*Limaria orientalis*	(Adams & Reeve, 1850)	file shell	*Lima orientalis*	*Limaria orientalis*		n	

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Mollusca	Bivalvia	Lucinida	Lucinidae	*Divalucina cumingi*	(A. Adams & Angas, 1864)	lace cockle	*Lucina cumingi; Divaricella huttoniana*	*Divalucina cumingi; Divaricella huttoniana*		n	
Mollusca	Bivalvia	Lucinida	Lucinidae	*Gonimyrtea concinna*	(Hutton, 1885)		*Loripes concinna*	*Gonimyrtea concinna*		n	
Mollusca	Bivalvia	Myida	Corbulidae	*Corbula zelandica*	Quoy & Gaimard, 1835			*Caryocorbula zelandica; Corbula zelandica*		n	
Mollusca	Bivalvia	Mytilida	Mytilidae	*Arcuatula senhousia*	(Benson, 1842)	Asian date mussel	*Modiola senhousia; Musculus senhousia; Musculista senhousia*	*Arcuatula senhousia; Musculista senhousia*		n	
Mollusca	Bivalvia	Mytilida	Mytilidae	*Xenostrobus neozelanicus*	(Iredale, 1915)	little black mussel	*Modiolus neozelanicus; Limnoperna pulex*	*Xenostrobus neozelanicus*		n	
Mollusca	Bivalvia	Mytilida	Mytilidae	*Xenostrobus pulex*	(Lamarck, 1819)	little black mussel	*Modiolus pulex*	*Xenostrobus pulex*		n	
Mollusca	Bivalvia	Mytilida	Mytilidae	*Xenostrobus securis*	(Lamarck, 1819)	little brown mussel; axe head mussel	*Modiola securis*	not in list		n	
Mollusca	Bivalvia	Mytilida	Mytilidae	*Modiolus areolatus*	(Gould, 1850)	bearded horse-mussel	*Mytilus areolatus*	*Modiolus areolatus*		n	
Mollusca	Bivalvia	Mytilida	Mytilidae	*Gregariella barbata*	(Reeve, 1858)	hairy mussel	*Lithodomus barbatus; Modiolaria arcuata; Modiolaria barbata*	*Gregariella barbata*		n	
Mollusca	Bivalvia	Mytilida	Mytilidae	*Musculus impactus*	(Hermann, 1782)	nesting mussel	*Mytilus impactus; Modiolarca impacta*	*Musculus impactus; Modiolarca impacta; Musculis impactus*		n	
Mollusca	Bivalvia	Mytilida	Mytilidae	*Mytilus galloprovincialis*	Lamarck, 1819	blue mussel; Mediterranean mussel		*Mytilus galloprovincialis*		n	
Mollusca	Bivalvia	Mytilida	Mytilidae	*Mytilus planulatus*	Lamarck, 1819	New Zealand blue mussel		*Mytilus galloprovincialis planulatus*		y	Southland

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Mollusca	Bivalvia	Mytilida	Mytilidae	*Perna canaliculus*	(Gmelin, 1791)	New Zealand mussel; green-lipped mussel	*Mytilus canaliculus*	*Perna canaliculus*		n	
Mollusca	Bivalvia	Mytilida	Mytilidae	Mytilidae		mussel		Mytilidae		n	
Mollusca	Bivalvia	Ostreida	Ostreidae	*Magallana gigas*	(Thunberg, 1793)	Pacific oyster	*Ostrea gigas; Crassostrea gigas*	*Crassostrea gigas; Magallana gigas*		n	
Mollusca	Bivalvia	Ostreida	Ostreidae	*Ostrea chilensis*	Küster, 1844	New Zealand dredge oyster; Bluff oyster	*Tiostrea lutaria*	*Tiostrea lutaria*		n	
Mollusca	Bivalvia	Ostreida	Ostreidae	*Saccostrea glomerata*	(Gould, 1850)	rock oyster	*Ostrea glomerata; Ostrea commercialis; Saccostrea cuccullata glomerata*	*Saccostrea cucullata glomerata; Saccostrea glomerata*		n	
Mollusca	Bivalvia	Ostreida	Ostreidae	Ostreidae				Ostreidae		n	
Mollusca	Bivalvia	Ostreida	Pinnidae	*Atrina zelandica*	(Gray, 1835)	horse mussel	*Pinna zelandica*	*Atrina zelandica*		n	
Mollusca	Bivalvia	Pectinida	Anomiidae	Anomiidae				Anomiidae		n	
Mollusca	Bivalvia	Pectinida	Pectinidae	*Pecten novaezelandiae*	Reeve, 1852	New Zealand scallop		*Pecten novaezelandiae*		n	
Mollusca	Bivalvia	Pectinida	Pectinidae	*Talochlamys zelandiae*	(Gray, 1843)	New Zealand fan shell	*Chlamys zelandiae; Pecten zelandiae*	*Chlamys zelandiae*		n	
Mollusca	Bivalvia	Venerida	Cyamiidae	*Legrandina turneri*	Powell, 1939		*Perrierina turneri*	*Perrierina turneri*		y	Southland
Mollusca	Bivalvia	Venerida	Galeommatidae	*Arthritica bifurca*	(Webster, 1908)		*Kellia bifurca; Lasaea neozelanica*	*Arithritica bifurca*		n	
Mollusca	Bivalvia	Venerida	Galeommatidae	*Arthritica* sp. 5	Marshall undescribed species			*Arthritica* sp.#1(of G. Stephenson)		y	Manawatu, Marlborough, Southland, Wellington
Mollusca	Bivalvia	Venerida	Galeommatidae	*Arthritica* cf. *bifurca*				*Arthritica* cf *bifurca*		n	
Mollusca	Bivalvia	Venerida	Mactridae	*Zenatia acinaces*	(Quoy & Gaimard, 1835)	scimitar shell	*Lutraria acinaces*	*Zenatia acinaces*		n	

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Mollusca	Bivalvia	Venerida	Mactridae	*Crassula aequilatera*	(Reeve, 1854)	triangle shell	*Spisula aequilateralis*	*Spisula aequilateralis*		n	
Mollusca	Bivalvia	Venerida	Mactridae	*Cyclomactra ovata*	(Gray, 1843)	oval trough clam	*Spisula ovata*	*Cyclomactra ovata*		n	
Mollusca	Bivalvia	Venerida	Mactridae	*Cyclomactra tristis*	(Reeve, 1854)		*Mactra tristis*			y	Manawatu
Mollusca	Bivalvia	Venerida	Mactridae	*Oxyperas elongatum*	(Quoy & Gaimard, 1835)	long trough shell	*Mactra elongata; Oxyperas elongata*	*Oxyperas elongata*		n	
Mollusca	Bivalvia	Venerida	Mactridae	*Scalpomactra scalpellum*	(Reeve, 1854)		*Mactra scalpellum; Darina pusilla*	*Scalpomactra scalpellum*		n	
Mollusca	Bivalvia	Venerida	Mactridae	*Spisula discors*	(Gray, 1837)	large trough clam; Kaikaikaroro	*Mactra discors*	*Spisula discors; Mactra discors*		n	
Mollusca	Bivalvia	Venerida	Mactridae	*Spisula murchisoni*	(Reeve, 1854)	large trough shell	*Mactra murchisoni*	*Mactra murchisoni*		n	
Mollusca	Bivalvia	Venerida	Mactridae	*Resania lanceolata*	Gray, 1853	lance mactra; pipi rahi		*Resania lanceolata*		n	
Mollusca	Bivalvia	Venerida	Mesodesmatidae	*Paphies australis*	(Gmelin, 1791)	pipi	*Mactra ovata*	*Paphies australis; Mactra ovata*		y	Southland
Mollusca	Bivalvia	Venerida	Mesodesmatidae	*Paphies donacina*	(Spengler, 1793)	southern tuatua	*Mya donacina; Taria stokesii; Mesodesma quoyii; Mesodesma lata*	*Paphies donacina*		n	
Mollusca	Bivalvia	Venerida	Mesodesmatidae	*Paphies subtriangulata*	(W. Wood, 1828)	northern tuatua	*Mactra subtriangulata*	*Paphies subtriangulata*		n	
Mollusca	Bivalvia	Venerida	Mesodesmatidae	*Paphies ventricosa*	(Gray, 1843)	Toheroa	*Mesodesma ventricosa*	*Paphies ventricosa*		n	
Mollusca	Bivalvia	Venerida	Tellinidae	*Macomona liliana*	(Iredale, 1915)	large wedge shell	*Tellina liliana*	*Macomona liliana*		y	Marlborough, Southland, Wellington

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Mollusca	Bivalvia	Venerida	Ungulinidae	*Zemysia zelandica*	(Gray, 1835)		*Lucina zelandica; Diplodonta zelandica; Felaniella zelandica*	*Zemysia zelandica; Diplodonta zealandica; Felaniella zelandica*		n	
Mollusca	Bivalvia	Venerida	Veneridae	*Austrovenus stutchburyi*	(W. Wood, 1828)	cockle		*Austrovenus stutchburyi*		y	Marlborough, Otago, Southland, Wellington
Mollusca	Bivalvia	Venerida	Veneridae	*Leukoma crassicosta*	(Deshayes, 1835)	ribbed venus clam	*Venus crassicosta; Protothaca crassicosta*	*Protothaca crassicosta*		n	
Mollusca	Bivalvia	Venerida	Veneridae	*Bassina yatei*	(Gray, 1835)	frilled venus shell	*Venus yatei*	*Bassina yatei*		n	
Mollusca	Bivalvia	Venerida	Veneridae	*Dosina mactracea*	(Broderip, 1835)		*Dosina zelandica*	*Dosina mactracea (zelandica)*		n	
Mollusca	Bivalvia	Venerida	Veneridae	*Dosinia anus*	(Philippi, 1847)	ringed dosinia, coarse dosinia, coarse biscuit shell, tuangi-haruru	*Cytherea anus*	*Dosinia anus*		n	
Mollusca	Bivalvia	Venerida	Veneridae	*Dosinia subrosea*	(Gray, 1835)	fine dosinia	*Arthemis subrosea*	*Dosinia subrosea*		n	
Mollusca	Bivalvia	Venerida	Veneridae	*Irus reflexus*	(Gray, 1843)		*Venerupis reflexa*	*Irus reflexus*		n	
Mollusca	Bivalvia	Venerida	Veneridae	*Tawera spissa*	(Deshayes, 1835)	morning star shell	*Venus spissa*	*Tawera spissa*		n	
Mollusca	Bivalvia	Venerida	Veneridae	*Tawera*				*Tawera* sp		n	
Mollusca	Bivalvia	Venerida	Veneridae	*Venerupis largillierti*	(Philippi, 1847)	oblong venus clam	*Venus largillierti; Ruditapes largillierti; Venerupis (Ruditapes) largillierti*	*Venerupis (Ruditapes) largillierti; Ruditapes largillierti; Venerupis largillerti*		n	
Mollusca	Bivalvia	Venerida	Veneridae	Veneridae		venus shells		Venerid; Venericardiae		n	

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Mollusca	Bivalvia	Nuculida	Nuculidae	*Linucula hartvigiana*	(Dohrn, 1864)	nut clam	*Nucula hartvigiana* (original combination)	*Linucula hartvigiana*		y	Wellington
Mollusca	Bivalvia	Nuculida	Nuculidae	*Nucula nitidula*	A. Adams, 1856	nut clam		*Nucula nitidula*		y	Southland
Mollusca	Bivalvia	Solemyida	Solemyidae	*Solemya parkinsonii*	E. A. Smith, 1874	razor mussel; date shell	*Solemya (Zesolemya) parkinsonii*	*Solemya parkinsoni*		n	
Mollusca	Gastropoda	[unassigned] Caenogastropoda	Batillariidae	*Zeacumantus lutulentus*	(Kiener, 1841)	large horn snail	*Cerithium lutulentum*	*Zeacumantus lutulentus*		y	Wellington
Mollusca	Gastropoda	[unassigned] Caenogastropoda	Batillariidae	*Zeacumantus subcarinatus*	(G. B. Sowerby II, 1855)	horn snail	*Cerithium subcarinatum*	*Zeacumantus subcarinatus*		n	
Mollusca	Gastropoda	[unassigned] Caenogastropoda	Epitoniidae	*Cirsotrema zelebori*	(Dunker, 1866)	slender wentletrap	*Scalaria zelebori*	*Cirsotrema zelebori*		n	
Mollusca	Gastropoda	[unassigned] Caenogastropoda	Epitoniidae	*Epitonium jukesianum*	(Forbes, 1852)		*Scalaria jukesiana*	*Epitonium jukesianum*		n	
Mollusca	Gastropoda	[unassigned] Caenogastropoda	Epitoniidae	*Epitonium tenellum*	(Hutton, 1885)	small wentletrap	*Scalaria tenella*	*Epitonium tenellum*		n	
Mollusca	Gastropoda	[unassigned] Caenogastropoda	Epitoniidae	Epitoniidae		wentletraps		Epitoniidae		n	
Mollusca	Gastropoda	[unassigned] Caenogastropoda	Turritellidae	*Maoricolpus roseus*	(Quoy & Gaimard, 1834)	turret snail	*Turritella rosea*	*Maoricolpus roseus*		n	
Mollusca	Gastropoda	Littorinimorpha	Anabathridae	*Anabathron ovatum*	(Powell, 1927)		*Scrobs ovata*	*Anabathron ovata*		n	
Mollusca	Gastropoda	Littorinimorpha	Anabathridae	*Pisinna zosterophila*	(Webster, 1905)		*Rissoa zosterophila*	*Pisinna zosterophila; Pissinia zosterophylla*		n	
Mollusca	Gastropoda	Littorinimorpha	Anabathridae	*Pisinna*				*Pisinna* sp.		n	
Mollusca	Gastropoda	Littorinimorpha	Assimineidae	*Suterilla neozelanica*	(Murdoch, 1899)		*Cirsonella neozelanica*	*Suterilla neozelanica*		n	
Mollusca	Gastropoda	Littorinimorpha	Barleeiidae	*Fictonoba carnosa*	(Webster, 1905)		*Rissoa carnosa*	*Fictonoba carnosa*		n	

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Mollusca	Gastropoda	Littorinimorpha	Calyptraeidae	*Maoricrypta costata*	(G. B. Sowerby I, 1824)	ribbed slipper shell	*Crepidula costata*	*Crepidula costata*		n	
Mollusca	Gastropoda	Littorinimorpha	Calyptraeidae	*Maoricrypta monoxyla*	(Lesson, 1831)	smooth slipper limpet	*Calyptraea monoxyla; Crepidula monoxyla*	*Crepidula monoxyla*		n	
Mollusca	Gastropoda	Littorinimorpha	Calyptraeidae	*Sigapatella novaezelandiae*	(Lesson, 1831)	circular slipper limpet	*Calyptraea novaezelandiae*	*Sigapatella novaezelandiae*		n	
Mollusca	Gastropoda	Littorinimorpha	Calyptraeidae	*Sigapatella tenuis*	(Gray, 1867)		*Clypeola tenuis; Zegalerus tenuis*	*Sigapatella tenuis; Zegalerus tenuis*		n	
Mollusca	Gastropoda	Littorinimorpha	Cassidae	*Semicassis labiata*	(Perry, 1811)	helmet shells	*Cassidea labiata*	*Semicassis labiatum*		n	
Mollusca	Gastropoda	Littorinimorpha	Charoniidae	*Charonia lampas*	(Linnaeus, 1758)	knobbed triton; pink lady; red triton shell	*Murex lampas*	*Charonia lampas*		n	
Mollusca	Gastropoda	Littorinimorpha	Cymatiidae	*Cabestana spengleri*	(Perry, 1811)	Spengler's trumpet; Spengler's triton; Sydney rock shelk	*Septa spengleri*	*Cabestana spengleri*		n	
Mollusca	Gastropoda	Littorinimorpha	Cymatiidae	*Cabestana tabulata*	(Menke, 1843)	shouldered triton	*Cabestana waterhousei; Triton tabulata*	*Cabestana waterhousei*		n	
Mollusca	Gastropoda	Littorinimorpha	Cymatiidae	*Monoplex parthenopeus*	(Salis Marschlins, 1793)	giant triton	*Murex parthenopeus; Cymatium (Cabestana) parthenopius; Cymatium (Monoplex) parthenopeum*	*Cymatium parthenopeum*		n	
Mollusca	Gastropoda	Littorinimorpha	Eatoniellidae	*Eatoniella flammulata*	(Hutton, 1878)		*Rissoa flammulata; Eatoniella huttoni*	*Eatoniella huttoni*		n	
Mollusca	Gastropoda	Littorinimorpha	Eatoniellidae	*Eatoniella limbata*	(Hutton, 1883)		*Cingula limbata*	*Eatoniella limbata*		n	
Mollusca	Gastropoda	Littorinimorpha	Eatoniellidae	*Eatoniella olivacea*	(Hutton, 1882)		*Dardania olivacea*	*Eatoniella olivacea*		n	

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Mollusca	Gastropoda	Littorinimorpha	Eatoniellidae	*Eatoniella*				*Eatoniella* sp.; *Eatoniella* spp		n	
Mollusca	Gastropoda	Littorinimorpha	Eatoniellidae	Eatoniellidae		eatoniellids		Eatoniellidae		n	
Mollusca	Gastropoda	Littorinimorpha	Iravadiidae	*Nozeba emarginata*	(Hutton, 1885)		*Rissoa emarginata*	*Nozeba emarginata*		n	
Mollusca	Gastropoda	Littorinimorpha	Littorinidae	*Risellopsis varia*	(Hutton, 1873)		*Adeorbis varius*	*Risellopsis varia*		n	
Mollusca	Gastropoda	Littorinimorpha	Littorinidae	*Austrolittorina antipodum*	(Philippi, 1847)	banded periwinkle	*Litorina antipodum; Melarhaphe oliveri; Nodilittorina antipodum*	*Austrolittorina antipodum; Nodilittorina antipodum*		n	
Mollusca	Gastropoda	Littorinimorpha	Naticidae	*Tanea zelandica*	(Quoy & Gaimard, 1832)	necklace shell	*Natica zelandica*	*Tanea zelandica*		n	
Mollusca	Gastropoda	Littorinimorpha	Ranellidae	*Ranella australasia*	(Perry, 1811)	Austalasian triton	*Biplex australasia*	*Ranella australasia*		n	
Mollusca	Gastropoda	Littorinimorpha	Rissoinidae	*Rissoina chathamensis*	(Hutton, 1873)		*Eulima chathamensis*	*Rissoina chathamensis*		n	
Mollusca	Gastropoda	Littorinimorpha	Struthiolariidae	*Pelicaria vermis*	(Martyn, 1784)	small ostrich foot shell	*Buccinum vermis*	*Pelicaria vermis*		n	
Mollusca	Gastropoda	Littorinimorpha	Struthiolariidae	*Struthiolaria papulosa*	(Martyn, 1784)	ostrich foot snail		*Struthiolaria papulosa*		n	
Mollusca	Gastropoda	Littorinimorpha	Tateidae	*Halopyrgus pupoides*	(Hutton, 1882)		*Potamopyrgus pupoides* (original combination)	*Potamopyrgus pupoides*		y	Otago
Mollusca	Gastropoda	Littorinimorpha	Tateidae	*Potamopyrgus estuarinus*	Winterbourne, 1970	mud snail		*Potamopyrgus estuarinus*		y	Manawatu, Southland
Mollusca	Gastropoda	Littorinimorpha	Tateidae	*Potamopyrgus*				*Potamopyrgus* spp.		n	
Mollusca	Gastropoda	Neogastropoda	Ancillariidae	*Amalda australis*	(G. B. Sowerby I, 1830)	southern olive snail	*Ancillaria australis; Baryspira australis*	*Amalda australis; Baryspira australis*		n	

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Mollusca	Gastropoda	Neogastropoda	Ancillariidae	*Amalda depressa*	(G. B. Sowerby II, 1859)	depressed ancilla	*Ancillaria depressa; Amalda (Baryspira) depressa*	*Amalda depressa*		n	
Mollusca	Gastropoda	Neogastropoda	Ancillariidae	*Amalda mucronata*	(G. B. Sowerby I, 1830)	brown ancilla	*Ancillaria mucronata; Baryspira mucronata*	*Baryspira mucronata*		n	
Mollusca	Gastropoda	Neogastropoda	Ancillariidae	*Amalda*				*Amalda* sp.		n	
Mollusca	Gastropoda	Neogastropoda	Borsoniidae	*Phenatoma roseum*	(Quoy & Gaimard, 1833)	pink tower shell	*Pleurotoma rosea*	*Phenatoma rosea*		n	
Mollusca	Gastropoda	Neogastropoda	Borsoniidae	*Phenatoma zealandicum*	(E. A. Smith, 1877)		*Pleurotoma zealandica; Drillia cheesemani*	*Phenatoma zelandica*		n	
Mollusca	Gastropoda	Neogastropoda	Buccinidae	*Buccinulum linea*	(Martyn, 1784)	lined whelk	*Fusus linea*	*Buccinulum linea*		n	
Mollusca	Gastropoda	Neogastropoda	Buccinidae	*Buccinulum vittatum*	(Quoy & Gaimard, 1833)		*Fusus vittatus*	*Buccinulum vittatum*		n	
Mollusca	Gastropoda	Neogastropoda	Buccinidae	*Austrofusus glans*	(Röding, 1798)	knobbed whelk	*Drupa glans*	*Austrofusus glans*		n	
Mollusca	Gastropoda	Neogastropoda	Buccinidae	*Penion sulcatus*	(Lamarck, 1816)	northern siphon whelk	*Fusus sulcatus; Penion dilatatus*	*Penion dilatatus*		n	
Mollusca	Gastropoda	Neogastropoda	Buccinulidae	*Cominella adspersa*	(Bruguière, 1789)	speckled whelk; kawari	*Buccinum adspersum*	*Cominella adspersa*		n	
Mollusca	Gastropoda	Neogastropoda	Buccinulidae	*Cominella glandiformis*	(Reeve, 1847)	mud-flat whelk		*Cominella glandiformis*		y	Otago, Southland, Wellington
Mollusca	Gastropoda	Neogastropoda	Buccinulidae	*Cominella maculosa*	(Martyn, 1784)	spotted whelk	*Buccinum maculosum*	*Cominella maculosa*		n	
Mollusca	Gastropoda	Neogastropoda	Buccinulidae	*Cominella quoyana*	A. Adams, 1855	Quoy's whelk		*Cominella quoyana*		n	
Mollusca	Gastropoda	Neogastropoda	Buccinulidae	*Cominella virgata*	H. Adams & A. Adams, 1853	red-mouthed whelk	*Buccinum lineolatum*	*Cominella virgata*		n	
Mollusca	Gastropoda	Neogastropoda	Buccinulidae	*Cominella*				*Cominella* other		n	
Mollusca	Gastropoda	Neogastropoda	Columbellidae	*Zemitrella*				*Zemitrella* sp.		n	

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Mollusca	Gastropoda	Neogastropoda	Costellariidae	*Austromitra rubiginosa*	(Hutton, 1873)		*Columbella rubiginosa; Austromitra erecta; Austromitra rubiradix; Vexillum antipodum*	*Austromitra rubiginosa*		n	
Mollusca	Gastropoda	Neogastropoda	Fasciolariidae	*Taron dubius*	(Hutton, 1878)		*Trophon dubius*	*Taron dubius*		n	
Mollusca	Gastropoda	Neogastropoda	Mangeliidae	*Neoguraleus manukauensis*	Powell, 1942			*Neoguraleus manukauensis*		n	
Mollusca	Gastropoda	Neogastropoda	Mangeliidae	*Neoguraleus murdochi*	(Finlay, 1924)			*Neoguraleus murdochi*		n	
Mollusca	Gastropoda	Neogastropoda	Mangeliidae	*Neoguraleus sinclairi*	(Gillies, 1882)		*Drillia sinclairi*	*Neoguraleus sinclairi*		n	
Mollusca	Gastropoda	Neogastropoda	Mangeliidae	*Neoguraleus*				*Neoguraleus* sp.		n	
Mollusca	Gastropoda	Neogastropoda	Marginellidae	*Dentimargo cairoma*	(Brookes, 1924)		*Marginella cairoma*	*Marginella chironia* [sic]		n	
Mollusca	Gastropoda	Neogastropoda	Muricidae	*Haustrum haustorium*	(Gmelin, 1791)	brown rock shell	*Buccinum haustorium*	*Haustrum haustorium*		n	
Mollusca	Gastropoda	Neogastropoda	Muricidae	*Haustrum scobina*	(Quoy & Gaimard, 1833)	oyster borer	*Purpura scobina*	*Haustrum scobina*		n	
Mollusca	Gastropoda	Neogastropoda	Muricidae	*Paratrophon quoyi*	(Reeve, 1846)	New Zealand murex snail	*Purpura quoyi*	*Paratrophon quoyi*		n	
Mollusca	Gastropoda	Neogastropoda	Muricidae	*Xymene plebeius*	(Hutton, 1873)		*Fusus plebeius*	*Xymene plebeius*		n	
Mollusca	Gastropoda	Neogastropoda	Muricidae	*Xymene*				*Xymene* sp.		n	
Mollusca	Gastropoda	Neogastropoda	Muricidae	*Zeatrophon ambiguus*	(Philippi, 1844)	large trophon	*Xymene ambiguus*	*Zeatrophon ambiguus; Xymene ambiguus*		n	
Mollusca	Gastropoda	Neogastropoda	Muricidae	*Dicathais orbita*	(Gmelin, 1791)	white whelk	*Buccinum orbita; Thais orbita*	*Thais orbita*		n	
Mollusca	Gastropoda	Neogastropoda	Muricidae	*Fuegotrophon pallidus*	(Broderip, 1833)		*Murex pallidus; Xymene gouldi*	*Xymene gouldi*		n	
Mollusca	Gastropoda	Neogastropoda	Nassariidae	*Tritia burchardi*	(Dunker, 1849)	Burchard's dogwhelk	*Buccinum burchardi; Nassarius burchardi*	*Tritia burchardi; Tritia (Nassarius) burchardi; Nassarius (Tritia) burchardi; Nassarius burchardi*		n	

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Mollusca	Gastropoda	Neogastropoda	Pseudomelatomidae	*Anticomitas*				*Anticomitas*		n	
Mollusca	Gastropoda	Neogastropoda	Terebridae	*Duplicaria tristis*	(Deshayes, 1859)	auger snail	*Terebra tristis; Euterebra tristis*	*Duplicaria tristis; Euterebra tristis*		n	
Mollusca	Gastropoda	Neogastropoda	Volutidae	*Alcithoe arabica*	(Gmelin, 1791)	arabic volute	*Voluta arabica; Alcithoe (Alcithoe) swainsoni*	*Alcithoe arabica*		n	
Mollusca	Gastropoda		Pyramidellidae	*Turbonilla*				*Turbonilla* sp.	Taxonomic issues	n	
Mollusca	Gastropoda		Pyramidellidae	*Odostomia manukauensis*	Laws, 1939			*Odostomia manukauensis*		n	
Mollusca	Gastropoda		Pyramidellidae	*Odostomia*				*Odostomia* sp.		n	
Mollusca	Gastropoda	Aplysiida	Aplysiidae	*Aplysia juliana*	Quoy & Gaimard, 1832	walking sea hare		*Aplysia juliana*		n	
Mollusca	Gastropoda	Aplysiida	Aplysiidae	*Bursatella leachii*	Blainville, 1817	shaggy sea hare; ragged sea hare		*Bursatella leachii*		n	
Mollusca	Gastropoda	Basommatophora	Amphibolidae	*Amphibola crenata*	(Gmelin, 1791)	mud flat snail, tītiko	*Helix crenata; Amphibola avellana; Bulimus avellana*	*Amphibola crenata; Amphibola avellana*		y	Marlborough, Southland
Mollusca	Gastropoda	Cephalaspidea	Aglajidae	*Melanochlamys cylindrica*	Cheeseman, 1881	bubble snail		*Melanochlamys cylindrica*		n	
Mollusca	Gastropoda	Cephalaspidea	Aglajidae	*Philinopsis taronga*	(Allan, 1933)		*Aglaja taronga*	*Philinopsis taronga*		n	
Mollusca	Gastropoda	Cephalaspidea	Bullidae	*Bulla quoyii*	Gray, 1843	brown bubble shell; olive bubble snail		*Bulla quoyii*		n	
Mollusca	Gastropoda	Cephalaspidea	Bullidae	Bullidae		bubble shells		Bullidae		n	
Mollusca	Gastropoda	Cephalaspidea	Haminoeidae	*Papawera zelandiae*	(Gray, 1843)	white bubble shell	*Bulla zelandiae* (original combination); *Haminoea zelandiae*	*Haminoea zelandiae*		y	Marlborough
Mollusca	Gastropoda	Cephalaspidea	Philinidae	*Philine aperta*	(Linnaeus, 1767)	sand slug	*Bulla aperta*	*Philine aperta*	This is not a New Zealand species, known from Indian and Atlantic Oceans	n	

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Mollusca	Gastropoda	Cephalaspidea	Philinidae	*Philine auriformis*	Suter, 1909	New Zealand tortellini snail	*Philine constricta auriformis*	*Philine auriformis*		n	
Mollusca	Gastropoda	Cephalaspidea	Philinidae	*Philine*				*Philine* sp.; *Philine* spp.		n	
Mollusca	Gastropoda	Cephalaspidea		Cephalaspidea				Cephalaspidea		n	
Mollusca	Gastropoda	Ellobiida	Ellobiidae	*Leuconopsis obsoleta*	(F. W. Hutton, 1878)			*Leuconopsis obsoleta*		n	
Mollusca	Gastropoda	Ellobiida	Ellobiidae	*Pleuroloba costellaris*	(H. Adams & A. Adams, 1854)	banded ear snail	*Melampus costellaris*	*Pleuroloba costellaris*		n	
Mollusca	Gastropoda	Nudibranchia	Chromodoridiidae	*Ceratosoma*				*Ceratosoma*		n	
Mollusca	Gastropoda	Nudibranchia	Dendrodoridiidae	*Dendrodoris citrina*	(Cheeseman, 1881)	lemon nudibranch	*Doridopsis citrina*	*Dendrodoris citrina*		n	
Mollusca	Gastropoda	Nudibranchia	Doridiidae	*Doriopsis granulosa*	Pease, 1860		*Doriopsis flabellifera; Doris granulosa*	*Doriopsis flabellifera*		n	
Mollusca	Gastropoda	Nudibranchia	Doridiidae	*Doris wellingtonensis*	Abraham, 1877		*Archidoris wellingtonensis*	*Archidoris wellingtonensis*		n	
Mollusca	Gastropoda	Nudibranchia		Nudibranchia				Nudibranchia		n	
Mollusca	Gastropoda	Nudibranchia		Nudibranchia sp. A				Nudibranch sp A		n	
Mollusca	Gastropoda	Nudibranchia		Nudibranchia sp. B				Nudibranch sp B		n	
Mollusca	Gastropoda	Siphonariida	Siphonariidae	*Siphonaria australis*	Quoy & Gaimard, 1833	false limpet		*Siphonaria australis*		n	
Mollusca	Gastropoda	Systellommatophora	Onchidiidae	*Onchidella nigricans*	(Quoy & Gaimard, 1832)	leathery sea slug	*Onchidium nigricans*	*Onchidella nigricans*		n	
Mollusca	Gastropoda		Planorbidae	*Glyptophysa variabilis*	(Gray, 1843)		*Physa variabilis*	*Glyptophysa variabilis*		n	
Mollusca	Gastropoda	Cycloneritida	Neritidae	*Nerita melanotragus*	E. A. Smith, 1884	black nerite		*Nerita melanotragus*		n	
Mollusca	Gastropoda		Lottiidae	*Notoacmea elongata*	(Quoy & Gaimard, 1834)	green limpet; estuarine limpet	*Patelloida elongata; Notoacmea helmsi*	*Notoacmea elongata; Notoacmea helmsi*		n	
Mollusca	Gastropoda		Lottiidae	*Notoacmea parviconoidea*	(Suter, 1907)		*Acmaea parviconoidea*	*Notoacmea parviconoidea*		n	

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Mollusca	Gastropoda		Lottiidae	*Notoacmea pileopsis*	(Quoy & Gaimard, 1834)		*Patelloida pileopsis*	*Notoacmea pileopsis*		n	
Mollusca	Gastropoda		Lottiidae	*Notoacmea scapha*	(Suter, 1907)	limpet		*Notoacmea scapha*		y	Southland
Mollusca	Gastropoda		Lottiidae	*Notoacmea*		true limpets		*Notoacmea* sp.; *Notoacmea* spp.		n	
Mollusca	Gastropoda		Lottiidae	*Patelloida corticata*	(Hutton, 1880)		*Acmaea corticata*	*Patelloida corticata*		n	
Mollusca	Gastropoda		Nacellidae	*Cellana ornata*	(Dillwyn, 1817)	ornate limpet; ngakihi	*Patella ornata*	*Cellana ornata*		n	
Mollusca	Gastropoda		Nacellidae	*Cellana radians*	(Gmelin, 1791)	radiate limpet; golden limpet	*Patella radians*	*Cellana radians*		n	
Mollusca	Gastropoda		Nacellidae	*Cellana stellifera*	(Gmelin, 1791)	star limpet	*Patella stellifera*	*Cellana stellifera*		n	
Mollusca	Gastropoda	Lepetellida	Fissurellidae	*Scutus breviculus*	(Blainville, 1817)	duck's bill limpet		*Scutus breviculus*		n	
Mollusca	Gastropoda	Seguenziida	Chilodontaidae	*Herpetopoma bellum*	(Hutton, 1873)		*Euchelus bellus; Herpetopoma bella*	*Herpetopoma bella*		n	
Mollusca	Gastropoda	Trochida	Calliostomatidae	*Maurea punctulata*	(Martyn, 1784)	spotted tiger shell; beaded top shell	*Trochus punctulatus; Calliostoma punctulatum*	*Calliostoma punctulatum*		n	
Mollusca	Gastropoda	Trochida	Calliostomatidae	*Maurea tigris*	(Gmelin, 1791)	tiger top shell	*Trochus tigris; Calliostoma tigris*	*Calliostoma tigris*		n	
Mollusca	Gastropoda	Trochida	Skeneidae	*Zalipais lissa*	(Suter, 1908)		*Cyclostrema lissum*	*Zalipais lissa*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Cantharidus dilatatus*	(G. B. Sowerby II, 1870)		*Elenchus dilatatus; Micrelenchus dilatatus*	*Micrelenchus dilatatus*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Micrelenchus huttonii*	(E. A. Smith, 1876)	small black top shell	*Trochus (Cantharidus) huttonii*	*Micrelenchus huttoni*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Micrelenchus purpureus*	(Gmelin, 1791)	red opal top shell	*Helix purpurea; Cantharidus purpureus*	*Cantharidus purpureus*		n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Mollusca	Gastropoda	Trochida	Trochidae	*Micrelenchus sanguineus*	(Gray, 1843)		*Trochus (Gibbium) sanguineus; Cantharidus oliveri*	*Micrelenchus sanguineus*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Micrelenchus tenebrosus*	(A. Adams, 1853)	small black top shell	*Cantharidus tenebrosus*	*Cantharidus tenebrosus; Micrelenchus tenebrosus*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Micrelenchus tesselatus*	(A. Adams, 1853)	small top snail	*Cantharidella tesselata*	*Cantharidella tesselata*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Micrelenchus*				*Micrelenchus* sp		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Roseaplagis rufozona*	(A. Adams, 1853)		*Canthiridus rufozona; Micrelenchus rufozona*	*Micrelenchus rufozona*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Coelotrochus oppressus*	(Hutton, 1878)	shouldered top shell	*Thoristella oppressa*	*Thoristella oppressa*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Coelotrochus tiaratus*	(Quoy & Gaimard, 1834)	tiara top shell	*Trochus tiaratus*	*Trochus tiaratus*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Coelotrochus viridis*	(Gmelin, 1791)	green top shell	*Trochus viridis*	*Trochus viridis*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Zethalia zelandica*	(Hombron & Jacquinot, 1848)	wheel shell		*Zethalia zelandica*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Diloma aethiops*	(Gmelin, 1791)	spotted black topshell; pūpū; pūpū-mai; māihi	*Turbo aethiops; Melagraphia aethiops*	*Diloma aethiops; Melagraphia aethiops*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Diloma aridum*	(Finlay, 1926)	black topshell	*Zediloma arida*	*Diloma arida*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Diloma bicanaliculatum*	(Dunker, 1844)	knobbed topshell	*Trochus bicanaliculatus*	*Diloma bicanaliculata*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Diloma coracinum*	(Philippi, 1851)		*Trochus coracinus*	*Diloma coracina*		n	
Mollusca	Gastropoda	Trochida	Trochidae	*Diloma subrostratum*	(Gray, 1835)	mudflat topshell	*Monodonta subrostrata; Zediloma subrostrata*	*Diloma subrostratum; Diloma subrostrata; Zediloma subrostrata*		y	Southland
Mollusca	Gastropoda	Trochida	Trochidae	*Diloma zelandicum*	(Quoy & Gaimard, 1834)	green-banded black topshell	*Trochus zelandicus*	*Diloma zelandica*		n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Mollusca	Gastropoda	Trochida	Trochidae	*Diloma*		topshell		*Diloma* sp.		n	
Mollusca	Gastropoda	Trochida	Trochidae	Trochidae				Trochidae		n	
Mollusca	Gastropoda	Trochida	Turbinidae	*Astraea heliotropium*	(Martyn, 1784)	circular saw shell; sunburst star turban	*Trochus heliotropium*	*Astraea heliotropium*		n	
Mollusca	Gastropoda	Trochida	Turbinidae	*Cookia sulcata*	(Lightfoot, 1786)	Cook's turban	*Trochus sulcatus; Astraea cookii*	*Cookia sulcata*		n	
Mollusca	Gastropoda	Trochida	Turbinidae	*Lunella smaragda*	(Gmelin, 1791)	cat's eye snail	*Turbo smaragdus*	*Lunella smaragdus; Turbo smaragdus*		n	
Mollusca	Gastropoda		Acteonidae	Acteonidae				Acteonidae		n	
Mollusca	Gastropoda			Gastropoda		snail		Gastropod unid sp.; Gastropod indet.		n	
Mollusca	Polyplacophora	Chitonida	Acanthochitonidae	*Acanthochitona zelandica*	(Quoy & Gaimard, 1835)	hairy chiton; tufted chiton	*Chiton zelandicus*	*Acanthochitona zelandica*		n	
Mollusca	Polyplacophora	Chitonida	Acanthochitonidae	*Cryptoconchus porosus*	(Burrow, 1815)	butterfly chiton	*Chiton porosus;*	*Cryptoconchus porosus*		n	
Mollusca	Polyplacophora	Chitonida	Acanthochitonidae	*Notoplax rubiginosa*	(Hutton, 1872)		*Tonicia rubiginosa*	*Notoplax rubiginosa*		n	
Mollusca	Polyplacophora	Chitonida	Acanthochitonidae	*Notoplax violacea*	(Quoy & Gaimard, 1835)	violet chiton	*Chiton violaceus; Acanthochiton violaceus*	*Notoplax violacea*		n	
Mollusca	Polyplacophora	Chitonida	Acanthochitonidae	*Pseudotonicia cuneata*	(Suter, 1908)		*Tonicia cuneata; Notoplax cuneata*	*Notoplax cuneata*		n	
Mollusca	Polyplacophora	Chitonida	Callochitonidae	*Callochiton crocinus*	(Reeve, 1847)		*Chiton crocinus*	*Callochiton crocinus*		n	
Mollusca	Polyplacophora	Chitonida	Callochitonidae	*Eudoxochiton nobilis*	(Gray, 1843)	noble chiton	*Acanthopleura nobilis*	*Eudoxochiton nobilis*		n	
Mollusca	Polyplacophora	Chitonida	Chitonidae	*Chiton glaucus*	Gray, 1828	blue-green chiton; papatua kakāriki		*Chiton glaucus*		n	
Mollusca	Polyplacophora	Chitonida	Chitonidae	*Chiton*				*Chiton* sp.		n	
Mollusca	Polyplacophora	Chitonida	Chitonidae	*Rhyssoplax*				*Rhyssoplax* sp.		n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Mollusca	Polyplacophora	Chitonida	Chitonidae	*Sypharochiton pelliserpentis*	(Quoy & Gaimard, 1835)	snakeskin chiton; papatua	*Chiton pelliserpentis*	*Chiton pelliserpentis*		n	
Mollusca	Polyplacophora	Chitonida	Chitonidae	*Onithochiton neglectus*	Rochebrune, 1881	tree ring chiton		*Onithochiton neglectus*		n	
Mollusca	Polyplacophora	Chitonida	Ischnochitonidae	*Ischnochiton maorianus*	Iredale, 1914	variable chiton		*Ischnochiton maorianus*		n	
Mollusca	Polyplacophora	Lepidopleurida	Leptochitonidae	*Leptochiton inquinatus*	(Reeve, 1847)		*Chiton inquinatus*	*Leptochiton inquinatus*		n	
Mollusca	Scaphopoda			Scaphopoda				Scaphopoda		n	
Nematoda				Nematoda		nematodes		Nematoda		n	
Nemertea				Nemertea		ribbon worms		Nemertean; Nemerteans; Nemertea (unidentifiable)		n	Marlborough, Southland, Wellington
Nemertea				Nemertea sp. 1		ribbon worms		Nemertea sp. 1		n	
Nemertea				Nemertea sp.#1		ribbon worms		Nemertea sp.#1		n	
Nemertea				Nemertea sp. 2		ribbon worms		Nemertea sp. 2		n	
Nemertea				Nemertea sp. 3		ribbon worms		Nemertea sp. 3		n	
Phoronida			Phoronidae	*Phoronis*		horseshoe worm		*Phoronus* sp.		n	
Phoronida				Phoronida		horseshoe worms		Phoronida; Phoronid sp.		n	
Platyhelminthes				Platyhelminthes		flatworms		Platyhelminth; Flat worm; Flatworms		n	
Platyhelminthes				Platyhelminthes sp. 1		flatworms		Turbellaria sp. 1		n	
Priapulida				Priapulida		penis worms		Priapulid		n	
Sipuncula	Sipunculidea	Golfingiida	Golfingiidae	*Themiste (Lagenopsis) minor huttoni*	(Benham, 1903)		*Dendrostoma huttoni; Dendrostoma aeneum*	*Dendrostoma aeneum*		n	
Sipuncula	Sipunculidea	Golfingiida	Sipunculidae	*Sipunculus mundanus*	Selenka & Bülow in Selenka, de Man & Bülow, 1883			*Sipnculus mandanus*		n	

Phylum	Class	Order	Family	Full Taxon name	Species authority	Common name	Synonymised names	Regional council taxon names	Taxonomic note	Verified in MAG?	Verified MAG regions
Sipuncula				Sipuncula		peanut worms		Sipuncula; Sipunculid sp.		n	

Table B-2: Ecological sensitives of soft sediment macroinvertebrates to sedimentation, metals and nutrients.

Full taxon name	Ecological sensitivity grouping (Sedimentation)	Ecological sensitivity grouping (Metals)	Ecological sensitivity grouping (Nutrients)	Ellis et al. (2017) *	Hewitt et al. (2009) ** EC50's of each taxa for copper, lead and zinc
Naididae	Mud preference but sensitive to chronic terrigenous sediment deposition	Unknown	Opportunistic, proliferate in reduced sediments		
Thalassematidae (formerly Echiura)	Unknown	Unknown	Very sensitive to organic enrichment and present in unpolluted conditions		
Disconatis accolus	Sand preference	Unknown	Unknown		
Pelogenia antipoda	Unknown	Unknown	Unknown		
Glycera ovigera	Indifferent, prefers some mud but not high percentages. Sensitive to chronic terrigenous sediment deposition	Decreased abundance with increased levels of Cu, Pb, Zn. Particularly sensitive to Cu	Indifferent to organic enrichment		Cu: 19.9 mg/kg
Hemipodia simplex	Highly sensitive to chronic terrigenous sediment deposition	Decreased abundance with increased levels of Cu, Pb, Zn	Indifferent to organic enrichment		
Glycinde trifida	Sand preference	Particularly sensitive to Cu	Indifferent to organic enrichment		Cu: 18.2, Zn: 132.1 mg/kg
Nicon aestuariensis	Indifferent, prefers some mud but not high percentages. Sensitive to chronic terrigenous sediment deposition	Increased abundance with increasing levels of Cu, Pb, Zn	Tolerant to excess organic enrichment		
Perinereis vallata	Indifferent, can tolerate mud but sensitive to chronic terrigenous sediment deposition	Increased abundance with increasing levels of Cu, Pb, Zn	Tolerant to excess organic enrichment		
Simplisetia sp.	Sensitive to chronic terrigenous sediment deposition	Unknown	Unknown		
Exogoninae	Indifferent, prefers some mud but not high percentages	Particularly sensitive to Cu	Indifferent to organic enrichment		Cu: 6.5 mg/kg
Syllidae	Indifferent, prefers some mud but not high percentages	Unknown	Indifferent to organic enrichment		

Full taxon name	Ecological sensitivity grouping (Sedimentation)	Ecological sensitivity grouping (Metals)	Ecological sensitivity grouping (Nutrients)	Ellis et al. (2017) *	Hewitt et al. (2009) ** EC50's of each taxa for copper, lead and zinc
Aglaophamus macroura	Generally prefers sandy conditions, sensitive to mud	Unknown	Indifferent to organic enrichment		
Magelona dakini	Sand preference	Decreased abundance with increased levels of Cu, Pb, Zn. Particularly sensitive to Pb	Very sensitive to organic enrichment and present in unpolluted conditions	*Magelona dakini* - Sedimentation: 2.6-3.2%; TN: 305-440 mg/kg; TP: 110-155 mg/kg	Pb: 8.1 mg/kg
Owenia petersenae	Sand preference	Unknown	Very sensitive to organic enrichment	*Owenia petersenae* - Sedimentation: 2.6-3.3%; Cu: 0.5-0.8 mg/kg; Pb: 1.5-2.3; TN: 320-470 mg/kg; TP: 120-165 mg/kg	
Aonides trifida	Sand preference. Highly sensitive to chronic and thin terrigenous sedimentation deposition	Decreased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Cu	Tolerant to excess organic enrichment		Cu: 5.0 mg/kg
Boccardia acus	Sensitive to chronic terrigenous sediment deposition	Particularly sensitive to Pb	Very sensitive to organic enrichment		Pb: 18.8 mg/kg (polydorids)
Boccardia syrtis	Indifferent, prefers some mud but not high percentages. Sensitive to chronic terrigenous sediment deposition	Particularly sensitive to Pb	Tolerant to slight organic enrichment		Pb: 18.8 mg/kg (polydorids)
Microspio maori	Highly sensitive to chronic terrigenous sediment deposition	Particularly sensitive to Cu	Tolerant to excess organic enrichment		Cu: 9.3, Pb: 22.2 mg/kg
Prionospio aucklandica	Indifferent, prefers some mud but not high percentages. Sensitive to chronic terrigenous sediment deposition	Particularly sensitive to Cu	Tolerant to excess organic enrichment		Cu: 13.7 mg/kg
Pseudopolydora paucibranchiata	Sensitive to chronic terrigenous sediment deposition	Particularly sensitive to Pb	Very sensitive to organic enrichment		Pb: 18.8 mg/kg (polydorids)
Scolecolepides benhami	Indifferent, prefers some mud but not high percentages. Sensitive to chronic terrigenous sediment deposition	Unknown	Tolerant to excess organic enrichment		

Full taxon name	Ecological sensitivity grouping (Sedimentation)	Ecological sensitivity grouping (Metals)	Ecological sensitivity grouping (Nutrients)	Ellis et al. (2017) *	Hewitt et al. (2009) ** EC50's of each taxa for copper, lead and zinc
Lagis australis	Indifferent, mud tolerant	Unknown	Sensitive to organic enrichment	Terebellidae - Sedimentation: 5.8-16.5%; Cu: 0.5-1.4 mg/kg; Pb: 1.5-3.5; TN: 250-555 mg/kg; TP: 95-195 mg/kg	
Abarenicola affinis	Sand preference	Unknown	Unknown		
Capitella	Indifferent, prefers some mud but not high percentages	Highly sensitive to Pb	Tolerant to nutrients		
Heteromastus filiformis	Indifferent, prefers some mud but not high percentages	Increased abundance with increasing levels of Cu, Zn. Sensitive to Pb	Tolerant to nutrients		Pb: 36.8 mg/kg
Cossura consimilis	Sand preference	Increased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Cu	Unknown		Cu: 24.5, Zn: 151.4 mg/kg
Axiothella serrata	Indifferent, prefers some mud but not high percentages. Found in soft mud to coarse sand	Unknown	Very sensitive to organic enrichment	Maldanidae - Sedimentation: 2.7-8.9%; Cu: 0.4-0.8 mg/kg; Pb: 1.3-2.3; TN: 170-520 mg/kg; TP: 70-180 mg/kg	
Macroclymenella stewartensis	Indifferent, prefers some mud but not high percentages	Particularly sensitive to Cu	Unknown	Maldanidae - Sedimentation: 2.7-8.9%; Cu: 0.4-0.8 mg/kg; Pb: 1.3-2.3; TN: 170-520 mg/kg; TP: 70-180 mg/kg	Cu: 5.3 mg/kg
Armandia maculata	Indifferent, prefers some mud but not high percentages	Unknown	Very sensitive to organic enrichment		
Leodamas cylindrifer	Sand preference. Highly sensitive to chronic terrigenous sediment deposition	Decreased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Zn	Very sensitive to organic enrichment	*Leodamas cylindrifer* - Sedimentation: 2.6-9.3%; Cu: 0.4-0.5 mg/kg; Pb: 1.3-1.6; TN: 185-470 mg/kg; TP: 75-165 mg/kg	Zn: 112.8 mg/kg (Orbiniidae)
Orbinia papillosa	Sand preference. Highly sensitive to chronic terrigenous sediment deposition	Decreased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Zn	Very sensitive to organic enrichment	*Orbinia papillosa* - Sedimentation: 2.6-5.8%; Cu: 0.3-0.5 mg/kg; Pb: 1.3-1.6; TN: 170-255 mg/kg; TP: 70-100 mg/kg	Zn: 112.8 mg/kg (Orbinidae)

Full taxon name	Ecological sensitivity grouping (Sedimentation)	Ecological sensitivity grouping (Metals)	Ecological sensitivity grouping (Nutrients)	Ellis et al. (2017) *	Hewitt et al. (2009) ** EC50's of each taxa for copper, lead and zinc
Paradoneis lyra	Indifferent, prefers some mud but not high percentages. Assuming similar to *Aricidea* sp.	Increased abundance with increasing levels of Cu, Zn. Sensitive to Pb. Assuming similar to *Aricidea* sp.	Tolerant to excess organic enrichment		Pb: 36.6, Zn: 175.1 mg/kg (*Aricidea* sp.)
Travisia olens	Sand preference	Sensitive to contaminants	Very sensitive to organic enrichment		
Austrominius modestus	Sensitive to chronic terrigenous sediment deposition	Accumulates Zn and other heavy metals. Particularly sensitive to Pb	Unknown		Pb: 8.2 mg/kg
Halicarcinus varius	Indifferent, prefers some mud but not high percentages		Tolerant to excess organic enrichment	*Halicarcinus cookii* - Sedimentation: 2.6-12.3%; Cu: 0.5-1.1 mg/kg; Pb: 1.5-2.8; TN: 265-590 mg/kg; TP: 105-204 mg/kg	
Halicarcinus whitei	Indifferent, prefers some mud but not high percentages		Tolerant to excess organic enrichment	*Halicarcinus cookii* - Sedimentation: 2.6-12.3%; Cu: 0.5-1.1 mg/kg; Pb: 1.5-2.8; TN: 265-590 mg/kg; TP: 105-204 mg/kg	
Hemiplax hirtipes	Mud preference	Unknown	Unknown		
Austrohelice crassa	Mud preference	Unknown	Unknown		
Hemigrapsus sexdentatus	Unknown	Unknown	Unknown		
Palaemon affinis	Mud preference	Unknown	Very sensitive to organic enrichment		
Paracalliope novizealandiae	Indifferent, prefers some mud but not high percentages	Unknown	Unknown		
Parawaldeckia kidderi	Sand preference	Unknown	Unknown		
Torridoharpinia hurleyi	Sand preference	Very sensitive to pollution	Very sensitive to organic enrichment		
Apocorophium acutum	Mud preference	Decreased abundance with increasing levels of Cu, Pb, Zn	Tolerant to excess organic enrichment		

Full taxon name	Ecological sensitivity grouping (Sedimentation)	Ecological sensitivity grouping (Metals)	Ecological sensitivity grouping (Nutrients)	Ellis et al. (2017) *	Hewitt et al. (2009) ** EC50's of each taxa for copper, lead and zinc
Paracorophium brisbanensis	Mud preference. Tolerates sediment mud content >40%	Decreased abundance with increasing levels of Cu, Pb, Zn	Tolerant to excess organic enrichment		
Paracorophium excavatum	Mud preference. Tolerates sediment mud content >40%	Decreased abundance with increasing levels of Cu, Pb, Zn	Tolerant to excess organic enrichment		
Josephosella awa	Unknown	Unknown	Unknown		
Paramoera chevreuxi	Unknown	Unknown	Unknown		
Transorchestia sp.	Unknown	Unknown	Unknown		
Colurostylis whitireia	Sand preference. Assuming similar to *Colurostylis lemurum*	Decreased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Pb. Assuming similar to *Colurostylis lemurum*	Very sensitive to organic enrichment. Assuming similar to *Diastylis* sp		Pb: 10.4 mg/kg (*Colurostylis lemurum*)
Zeuxo	Indifferent, prefers some mud but not high percentages	Particularly sensitive to Cu	Unknown		Cu: 10.6 mg/kg
Orthocladiinae	Sand preference. Decreased abundance with deposited fine sediment	Sensitive to Pb, Zn	Positive response with increasing Chlorophyll a		
Semiocladius sp.	Sand preference. Decreased abundance with deposited fine sediment	Sensitive to Pb, Zn	Positive response with increasing Chlorophyll a		
Edwardsia	Indifferent, prefers some mud but not high percentages	Decreased abundance with increasing levels of Cu, Pb, Zn. Assuming similar to *Anthopleura aureoradiata*	Indifferent to organic enrichment		
Anthopleura hermaphroditica	Sand preference. Sensitive to chronic terrigenous sediment deposition	Decreased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Cu	Indifferent to organic enrichment	*Anthopleura aureoradiata* - Sedimentation: 2.6-7.3%; Cu: 0.3-0.5 mg/kg; Pb: 1.3-1.6; TN: 300-505 mg/kg; TP: 110-175 mg/kg	Cu: 4.9 mg/kg
Taeniogyrus dendyi	Sand preference. Highly sensitive to mud	Particularly sensitive to Cu	Very sensitive to organic enrichment		

Full taxon name	Ecological sensitivity grouping (Sedimentation)	Ecological sensitivity grouping (Metals)	Ecological sensitivity grouping (Nutrients)	Ellis et al. (2017) *	Hewitt et al. (2009) ** EC50's of each taxa for copper, lead and zinc
Mytilus planulatus	Sensitive to chronic terrigenous sediment deposition	Unknown	Indifferent to organic enrichment. Assuming similar to *Mytilus edulis*		
Legrandina turneri	Sensitive to chronic terrigenous sediment deposition	Unknown	Sensitive to elevated levels of nutrients		
Arthritica sp. 5	Indifferent, prefers some mud but not high percentages. Sensitive to chronic terrigenous sediment deposition	Increased abundance with increasing levels of Cu, Pb, Zn	Tolerant to excess organic enrichment		
Cyclomactra tristis	Mud tolerant. Sensitive to chronic terrigenous sediment deposition	Unknown	Sensitive to elevated levels of nutrients. Assuming similar to other *Mactra* species		
Paphies australis	Sand preference. Very sensitive to chronic terrigenous sediment deposition	Decreased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Zn	Indifferent to organic enrichment	*Paphies australis* - Sedimentation: 2.6-3.2%; Cu: 0.3-0.4 mg/kg; Pb: 1.3-1.4; TN: 370-470 mg/kg; TP: 135-165 mg/kg	Zn: 52.9 mg/kg
Macomona liliana	Sand preference and sensitive to chronic terrigenous sediment deposition	Decreased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Cu	Very sensitive to organic enrichment	*Macomona liliana* - Sedimentation: 2.6-17.6%; Cu: 0.3-1.9 mg/kg; Pb: 1.3-4.5; TN: 265-755 mg/kg; TP: 100-255 mg/kg	Cu: 5.3 mg/kg
Austrovenus stutchburyi	Indifferent, lives in both sand and muddy sediments. Sensitive to chronic terrigenous sediment deposition	Decreased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Cu	Very sensitive to organic enrichment	*Austrovenus stutchburyi* - Sedimentation: 2.6-9.2%; Cu: 0.4-0.8 mg/kg; Pb: 1.3-2.2; TN: 110-205 mg/kg; TP: 100-255 mg/kg	Cu: 11.2 mg/kg
Linucula hartvigiana	Indifferent, found in both sand and muddy sediments. Sensitive to chronic and thin terrigenous sedimentation deposition	Increased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Cu	Tolerant to excess organic enrichment	*Linucula hartvigiana* - Sedimentation: 2.6-5.2%; Cu: 0.4-0.9 mg/kg; Pb: 1.3-2.5; TN: 280-545 mg/kg; TP: 105-190 mg/kg	Cu: 17.5 mg/kg
Nucula nitidula	Sand preference. Sensitive to chronic and thin terrigenous sedimentation deposition	Possibly vulnerable to contaminants	Unknown		

Full taxon name	Ecological sensitivity grouping (Sedimentation)	Ecological sensitivity grouping (Metals)	Ecological sensitivity grouping (Nutrients)	Ellis et al. (2017) *	Hewitt et al. (2009) ** EC50's of each taxa for copper, lead and zinc
Zeacumantus lutulentus	Highly sensitive to chronic terrigenous sediment deposition	Particularly sensitive to Pb	Tolerates organic enrichment	*Zeacumantus lutulentus* - Sedimentation: 2.6-3.5%; Cu: 0.4-0.9 mg/kg; Pb: 1.3-2.4; TN: 210-625 mg/kg; TP: 85-215 mg/kg	Pb: 25.6 mg/kg
Halopyrgus pupoides	Mud tolerant	Unknown	Unknown		
Potamopyrgus estuarinus	Indifferent, lives in both sand and muddy sediments. Sensitive to chronic terrigenous sediment deposition	Unknown	Tolerant to organic enrichment		
Cominella glandiformis	Sand preference	Particularly sensitive to Zn	Tolerant to organic enrichment		Zn: 114.7 mg/kg
Amphibola crenata	Indifferent, mud tolerant	Intolerant of severe pollution	Tolerates rich organic sediments		
Papawera zelandiae	Sand preference	Unknown	Unknown		
Notoacmea scapha	Sand preference, sensitive to mud	Decreased abundance with increasing levels of Cu, Pb, Zn. Particularly sensitive to Zn	Unknown	*Notoacmea elongata* - Sedimentation: 2.6-5.8%; Cu: 0.3-0.5 mg/kg; Pb: 1.3-1.6; TN: 170-255 mg/kg; TP: 100-175 mg/kg	Zn: 50.7 mg/kg
Diloma subrostratum	Strong sand preference	Particularly sensitive to Zn	Unknown		Zn: 64.3 mg/kg
Nemertea	Indifferent, prefers some mud but not high percentages, lives in both sand and mud sediment	Particularly sensitive to Cu	Tolerant to excess organic enrichment, populations stimulated by organic enrichment		Cu: 21.2, Pb: 30.7 mg/kg

* Results of generalised linear modelling predicting maximum density of macroinvertebrates in Tauranga Harbour in response to sedimentation, metals and nutrients in: Ellis, J.I., Clark, D., Atalah, J., Jiang, W., Taiapa, C., Patterson, M., Sinner, J., Hewitt, J. (2017). Multiple stressor effects on marine infauna: responses of estuarine taxa and functional traits to sedimentation, nutrient and metal loading. *Scientific Reports*, 7: 12013. https://doi.org/10.1038/s41598-017-12323-5 . A decline occurs after maximum density is reached within the ranges provided.

** EC50's of each taxa for copper (Cu), lead (Pb) and zinc (Zn) from: Hewitt, J.E., Anderson, M.J., Hickey, C.W., Kelly, S., Thrush, S.F. (2009). Enhancing the ecological significance of sediment contamination guidelines through integration with community analysis. *Environmental Science and Technology*, 43 (6): 2118–2123. https://doi.org/10.1021/es802175k