

# C-SIG Species Keys – Coastal Taxonomic Resource Tool

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A new web-based taxonomic resource tool has been developed to support nationally consistent identification of soft sediment estuarine and coastal benthic macroinvertebrates across Aotearoa. A collection of six keys, images and identification resources are now available via the Regional Council Coastal Special Interest Group (C-SIG) Species Keys - Coastal Taxonomic Resource Tool at <https://specieskey.atlasmd.com>

Monitoring of intertidal and shallow subtidal soft sediment coastal habitats such as estuaries is a key regional council activity, and commonplace as part of resource consent assessments and State of Environment monitoring.

The macroinvertebrates living in and on these habitats are significant contributors to coastal biodiversity and underpin ecological functioning. Their presence and abundance are used as indicators of ecosystem health and a suite of macroinvertebrate population and community metrics are used to assess the state of soft sediment habitats, monitor for changes over time, inform decision makers and determine management responses. The importance of providing correct and consistent identification of the macroinvertebrates occurring in these habitats nationwide is critical to determining overall ecosystem health.

## What's in the tool?

The six keys currently available in the tool assist with the identification of over 200 species in the groups:

- Amphipoda – 40 species
- Cumacea – 3 species, 8 families
- Isopoda – 24 species
- Decapoda (crabs and shrimp) – 8 species
- Annelida – 84 species, 20 families/subfamilies
- Mollusca – 74 species.

Information sheets are provided for each species with taxonomic and ecological

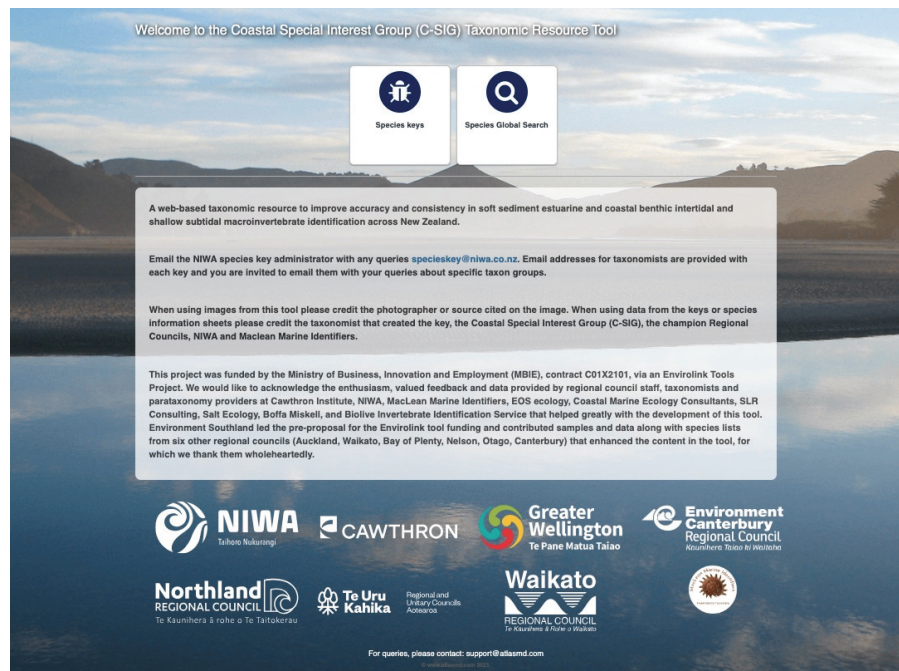


Figure 1: Screenshot of the public user welcome page for the CSIG Species key tool at <https://specieskey.atlasmd.com> (Credit: C-SIG Species Key tool).

information and these will be updated over time as more information becomes available.

New users are invited to self-register for a public access account at the link provided. Regional council service providers can also register using the link provided and will be given access to additional tools upon verification.

Additional tools for verified regional council parataxonomy providers put providers in touch with taxonomic experts to have voucher specimens and images verified. Verified images submitted via the tool can then be used to enhance the information

available in the tool for everyone in the community when updates are made.

Guidelines on the identification of macroinvertebrates are also available through the tool to help users to get themselves set up to provide regional council taxonomic services.

## Collaboration and co-development

The C-SIG Species key tool was developed by NIWA in collaboration with Atlas Meanwhile Ltd. The population of the tool with taxonomic and ecological data, images, and maps, and building of the keys was funded from an MBIE funded Envirolink Tool



Figure 2: Macroinvertebrates collected from soft sediment habitats in Wellington Harbour during state of environment monitoring for Greater Wellington Regional Council (Photos: NIWA).

project. The project team developing the taxonomic keys included taxonomists from NIWA, Te Papa Tongarewa (National Museum of New Zealand), and parataxonomists and marine ecologists from NIWA and MacLean Marine Identifiers Ltd. Greater Wellington, Environment Canterbury, Waikato and Northland Regional Councils championed the tool, Environment Southland led the pre-proposal for the Envirolink tool funding and regional council staff, taxonomists and parataxonomy providers at Cawthron Institute, NIWA, MacLean Marine Identifiers, EOS ecology, Coastal Marine Ecology Consultants, SLR Consulting, Salt Ecology, Boffa Miskell, and Biolive Invertebrate Identification Service provided valued feedback and data during tool development. Ongoing support for the tool is currently funded by the Regional Sector Holdings (RSHL) fund, which all Regional Councils contribute to.

Future projects to provide new keys and increase the number of species in existing keys are essential to keeping this tool relevant and feedback from users can help provide direction on this.

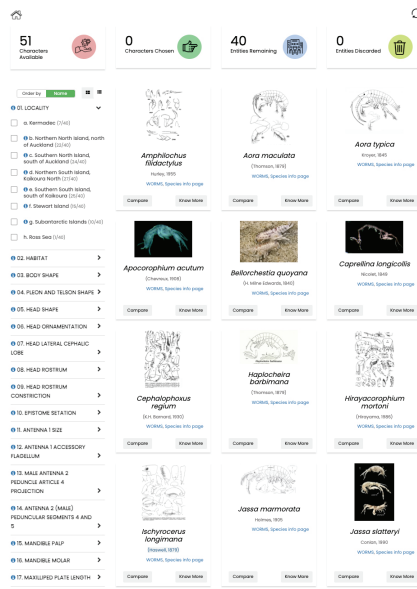


Figure 3: An Amphipod key in the tool, illustrating the characters on the left available to help narrow down selection of the species on the right (Credit: C-SIG Species Key tool).



Figure 4: A species information page available through the tool for polychaete species Terebellides narribri (Credit: C-SIG Species Key tool).

Please direct any enquiries you might have about the tool to [specieskey@niwa.co.nz](mailto:specieskey@niwa.co.nz) or check out the tool for yourself at <https://specieskey.atlasmd.com>