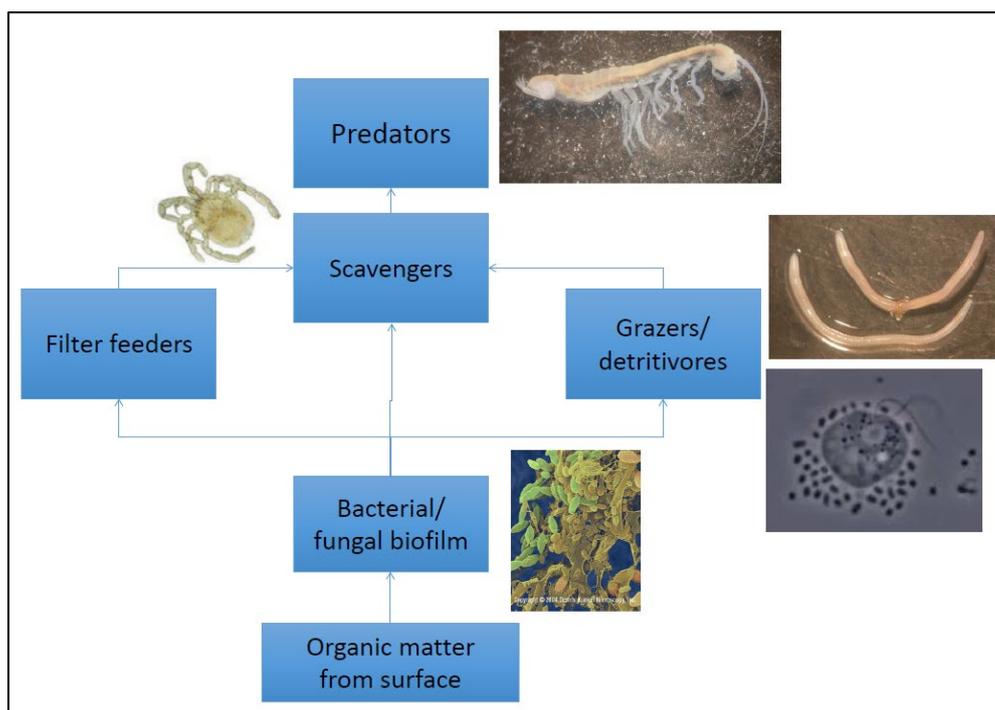


## BOEE Newsletter: Spring/Summer 2022/3

### Past, Present and Future

*Welcome to this BOEE Newsletter. You are receiving this occasional newsletter if you have registered with our website, taken part in a BOEE event, or indicated you wanted to hear more about our work or events.*

**From the Past:** On our community field-courses, (Dunesdays) we take environmental samples. On a recent Dunesday at Travis Wetland we took groundwater samples [Thank you to *Institute of Environmental Science and Research Ltd.*, (ESR), <https://www.esr.cri.nz/> ], from the aquifer that feeds that whole wetland area, (Aquifer 1 for any hydrologists among you). Aquifer 1 is the shallowest of the Aquifers that underlay the whole Christchurch area. We are awaiting analysis of that sample but on the next Dunesday at Southshore we will also be sampling Aquifer 1. At Southshore it is about 8m beneath the surface, whereas at Travis it is deeper. Although not intuitive, there is life and hence a food-chain in aquifers, see diagram below. This life includes strange wee beasties termed Stygofauna, (e.g. the predator in this diagram). ESR have active research on Aquifers: indeed they have discovered Stygofauna species in NZ which are believed to be new to science. We will be looking at the chemistry as well as any inhabitants of the aquifers we come across, including Stygofauna.



Aquifer inhabitants and their position in the ecology of the aquifer. Figure from Weaver, L. Abraham, P. Webber, J. Draper, J. Bolton, A. McGill, E. Robson, B. Lin, S. Humphries, B. Gilpin, B. Close, M. (2017) A novel toolbox for development of a Groundwater Health Index. <https://www.waternz.org.nz>

**From the Present:** in May we moved into a shared office at the Te Waka Aroha St Faith's on Hawke Street in New Brighton. A glass partition between the community space and the office is due to be installed soon. Part of the office including a kitchen, meeting rooms and bathrooms are currently being built in an extension through the North door marked with a

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bollard in the photo. It is planned that this annex will be completed in the next few months. Please note, public access to the office is *via* the South entrance (Hawke Street), see below.

You are welcome to visit, please do pop in to say hello: the office will be wo/manned most mornings. If the door is not open please do email.



We are also busy on the other side of our operations: Research. The Ruakākā Marsden Point Reimagined (RMPRI): Infrastructure for Economic and Materials circularization of NZ Waste System is now before The Minister. We head up an international consortium seeking funding for a Feasibility Study for a new use for the refinery site and evolution of our waste system.

**From the Future:** Our Spring and Summer community events are now available for booking on our website, click the green events button. Amongst other events, we have four Dunesdays running from November to May, these start on 26 November and it is planned to provide food (koha welcome) at some of them. We welcome volunteers who may wish to assist with our activities, please do get in contact. In addition to these events the post-event Dunesday debriefs for those that want them will also be held here. We are hoping to appoint staff to assist us on the administration side of the work, hopefully allowing us to have a better web and social-media presence.

Adaptation includes communities, businesses and the shape of government. Like many others, we watch with interest how both local and national government identify processes and funding which will determine how we adapt to climate change. Legislatively, we are part-way through seismic changes: the largest since the RMA replaced the Town and Country Planning Act in 1991. It may be that larger government will be needed to help the investment and expansion of capacity to facilitate optimal social, environmental and economic adaptation. We will see how it goes, “..we live in interesting times..”.

Ngā mihi nui.  
 Simon Watts, Observatory Director.