

# Appendix B: Hauraki Gulf Forum community shellfish monitoring

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## 1 HAURAKI GULF FORUM COMMUNITY SHELLFISH MONITORING PROGRAMME

The Hauraki Gulf Forum community shellfish monitoring programme is a community-initiated monitoring of intertidal shellfish population that is carried by schools, community groups and Māori groups (iwi) supported by Auckland Council, Waikato Regional Council and the Ministry for Primary Industries (Ross and Tyler, 2012). While these surveys were first carried out in 2004, the programme officially exists since 2006. Participants in the programme currently survey 20 sites within the Auckland and Waikato regions. Although most sites are monitored annually, not all sites have been surveyed each year. The annual monitoring at a select set of sites was used to provide complementary data that could potentially inform of local trends in-between the more extensive AKI surveys.

## 2 DATA PREPARATION AND ANALYSIS

Data for the Hauraki Gulf Forum community surveys are collected along fixed transects, with two quadrats of 0.1 m<sup>2</sup> surface area, dug up at fixed intervals of 20 m along each transect. Dug up sediment is sieved through a 5-mm mesh, and all bivalves retained on the mesh are counted and measured. Survey data are subsequently entered into a spreadsheet for submission to the Auckland Regional Council ecobase database. Data for the present report were obtained in spreadsheet format from MPI.

For comparability with MPI surveys, Hauraki Gulf Forum data were stratified post-hoc into low- and high-density strata. The stratum-area weighted bivalve densities were added to obtain a total estimate and standard error for each site. The analysis of the Hauraki Gulf Forum data was then performed using the same Bayesian time-series model as for the AKI data.

## REFERENCES

- [1] Liz Ross and Shannon Tyler. “Hauraki Gulf Forum Community Monitoring Programme annual report 2011–2012”. 2012. URL: <http://bit.ly/1eZnCRA>.