

# WAIWIRI STREAM WATER QUALITY STUDY AND COASTAL KAIMOANA SURVEY



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- Coastal Maori land block once a mahinga mataitai
- Stream microbial tracking for effluent contamination in water and shellfish





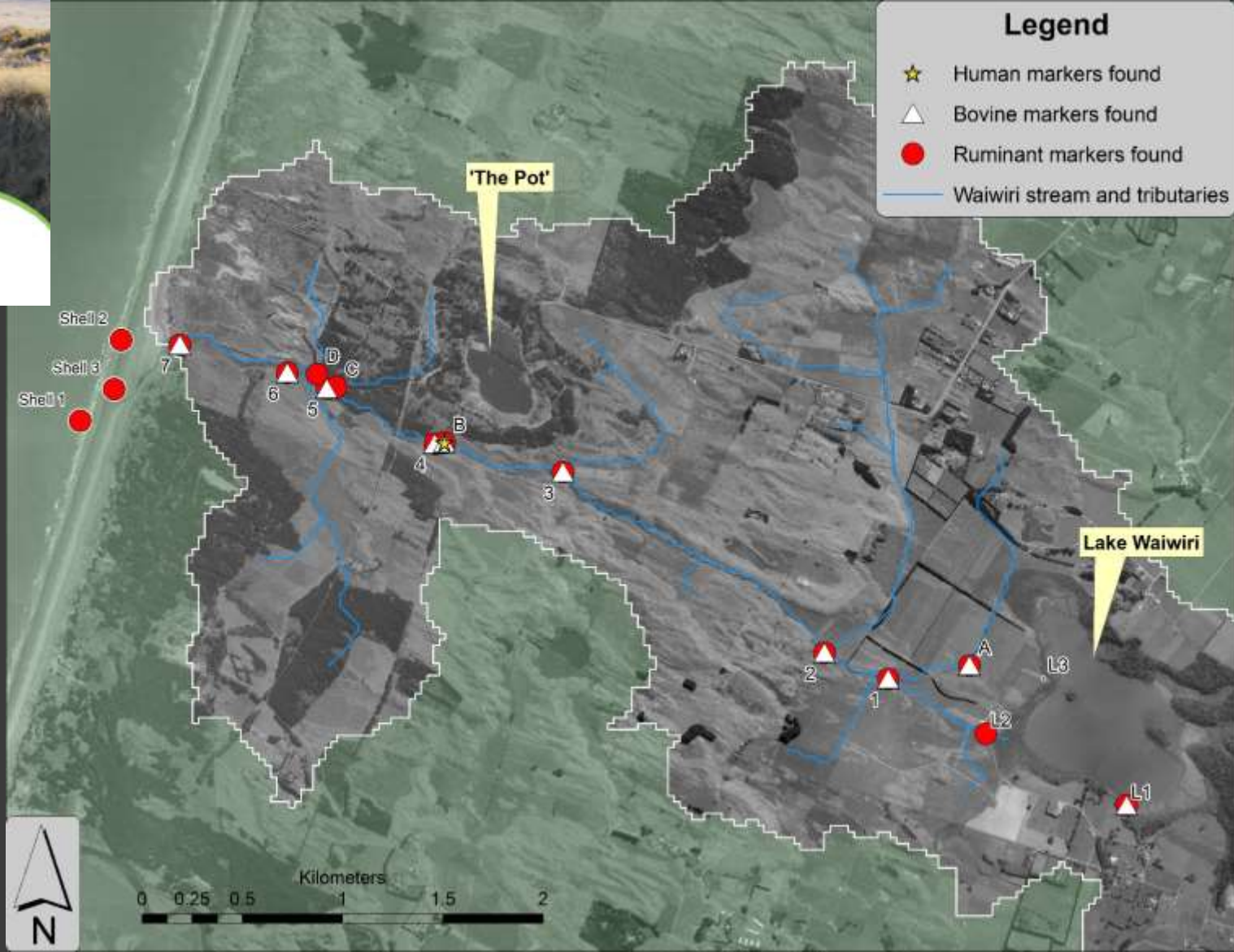
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WITH SPECIAL THANKS TO AND SUPPORT FROM KAITIAKI OF NGĀTI KIKOPIRI,  
NGĀTI HIKITANGA, NGĀTI TŪKOREHE AND MUA ŪPOKO TRIBAL AUTHORITY

WAIWIRI STREAM:  
SOURCES OF POOR WATER QUALITY  
AND IMPACTS ON THE COASTAL ENVIRONMENT



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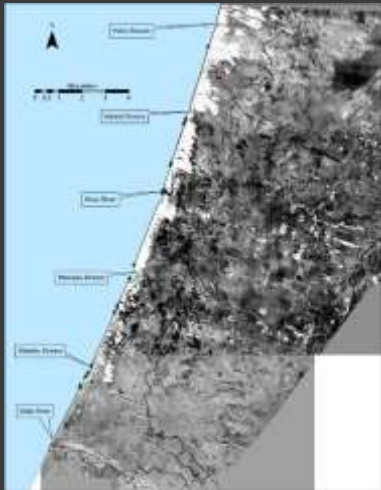


Kaimoana on beaches from Hōkio to Ōtaki, Horowhenua

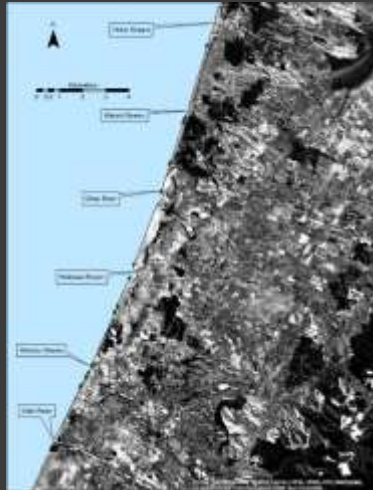


Emma Newcombe, Moira Poutama, Craig Allen, Huhana Smith, Dana Clark, Javier Atalah, Aroha Spinks, Joanne Ellis, Jim Sinner, Pete Sciascia, Rena Sciascia, Maia Whiterod, Richard Anderson, Tash McMeekin, John Gardiner, Tiana Gardiner, Jade Gardiner, Ben Gardiner, Angeles Gardiner, Tristan Heggulun, Lindsay Peihopa, Kyle Taylor, Sean Bennett-Ogden, Kirsty Bennett-Ogden, Iritana Bennett, Reuben Bennett, Oneroa Macdonald, Te Wiata Raika, Ariana Raika, Heni Wirihana Te Rei, Ihapera Gotty, Keremihana Heke, Taya Te Mihinga Heke, Brieahn Heke, Yvonne Wehipeihana Wilson, Kane Aporo, Reina Taplin, Tiaria Ransfield, Hone Taiapa, Jennette Gregory, Tura Ransfield, Te Aowera Ransfield, Hemi Rangiuiua, Puawai Rangiuiua, David Seymour, Moko Morris, Kiana Morris, Mahaki Morris, Aria Dobson Waitere, Landros Lewis, Mana Poutama, Haley Poutama Wood, Ruby Poutama Wood, Cassius Poutama Wood, Apina Poutama Gregory, Villiamu Lauvi

1940s

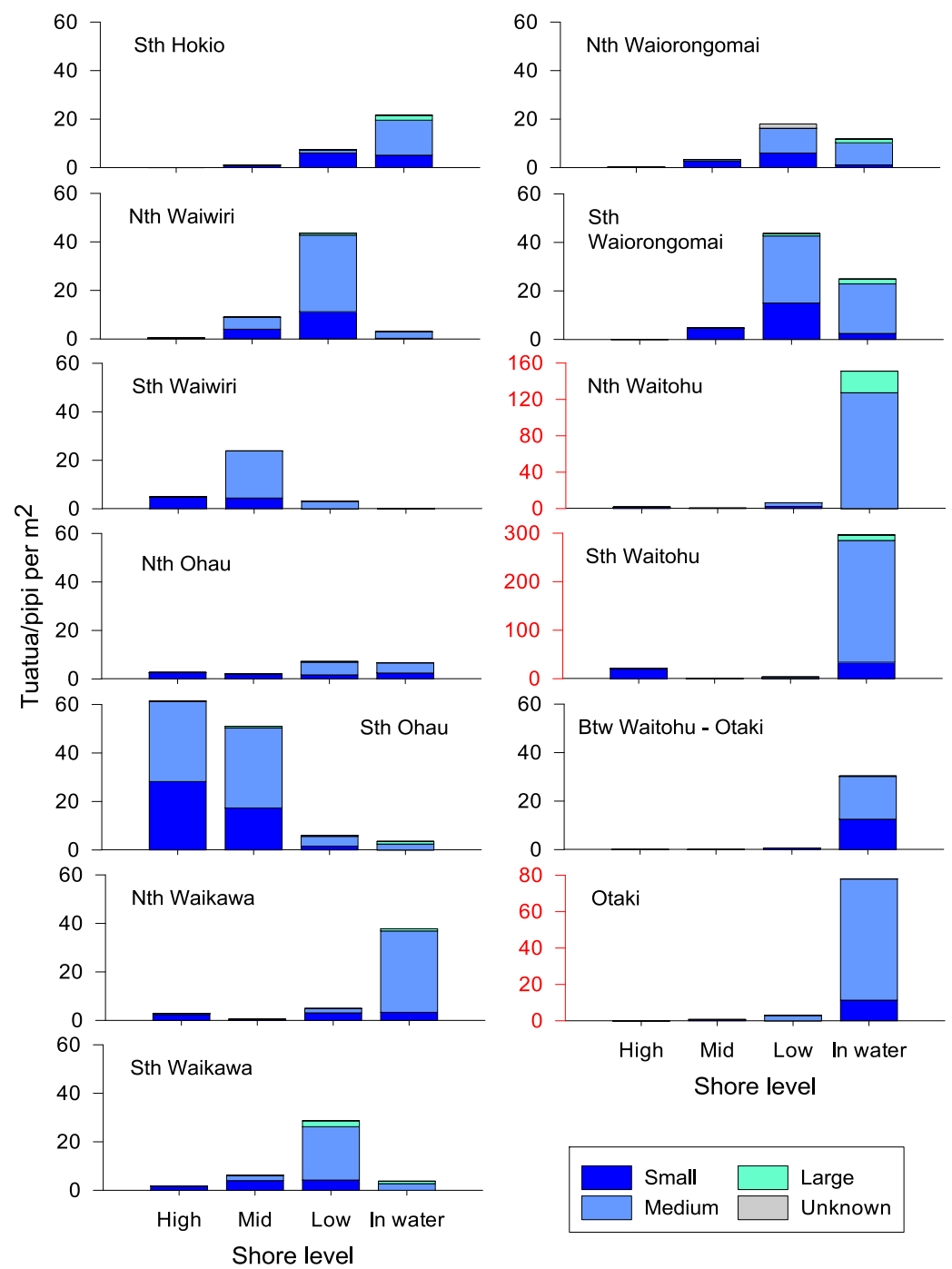


2008/9





Different size structure along beach  
 Few large individuals  
 Positive relationship abundance with  
 distance from access points





Thanks to all kaimahi on the survey.

### Faecal contamination in tuatua/pipi (mpn/100g)

Location	No recent rainfall (early April)	After minor rainfall (late May)	After moderate rainfall (early May)
South of Hōkio	230	700	5400
North of Waiwiri	140	1100	490
South of Waiwiri	330	310	1300
North of Ōhau		1400	
South of Ōhau		1300	
North of Waikawa		330	
South of Waikawa		790	
North of Waiorongomai	<20	50	790
South of Waiorongomai	130	130	490
North of Waitohu		170	
South of Waitohu		490	
Between Ōtaki surf club and Waitohu		490	
Ōtaki surf club		330	





- Hīkoi as a starting point.
- Shared vision between different hapū and other groups
- Council approached evolved over time
- Institutional boundaries can reinforce cultural boundaries
- Government funding vs Māori research priorities

Plenty more to do – how to capitalize on the excellent mahi of all kinds that has happened as part of this project?

“...thrilled to have my children involved in this local hapū initiative, whose vision is to secure better outcomes for all who enjoy the moana. We learnt and laughed alongside all those contributing to the future health of Tangaroa. It was an honour to be engaged in active kaitiakitanga and to strengthen whanaungatanga amongst us.”

*Moko Morris, Ōtaki*

“Having our tamariki involved and exposing them to the stories of their pakeke about the numbers of shellfish gathered in past years, was invaluable. I was reminded of how important it is for my own mokopuna that we continue to work with our environment for the betterment of the resource for future generations. Nā Rangi tāua, nā Tuānuku tāua - We are all descendants of the Sky and the Earth.”

*Keremihana Heke, customary kaitiaki for Ngāti Tukorehe and Deputy Principal for Whakatipuranga Raumano Kura Kuapapa, Ōtaki, a key participant with his whanau in the shellfish survey.*