Ōmokoroa Estuaries Restoration Groups monitoring results

Sediment particle size

Sediment particle size data can provide information about whether the sediments are becoming muddier or sandier. Sediment samples have been analysed in 2014, 2015 and 2016. The sediments are predominantly comprised of sand, but the exact composition is variable between years (Figure 1). The amount of mud and very fine sand in the sediments decreased between 2014 and 2015. But between 2015 and 2016 these increased considerably again. In 2016 the sediment was 26% mud and 74% sand (Table 1).

Table 1: *Percentage composition of sediment collected from Peg 1 monitoring site in Ōmokoroa Estuary.*

	2014	2015	2016
Mud	17.08	13.88	26.28
Sand	82.92	86.12	73.73

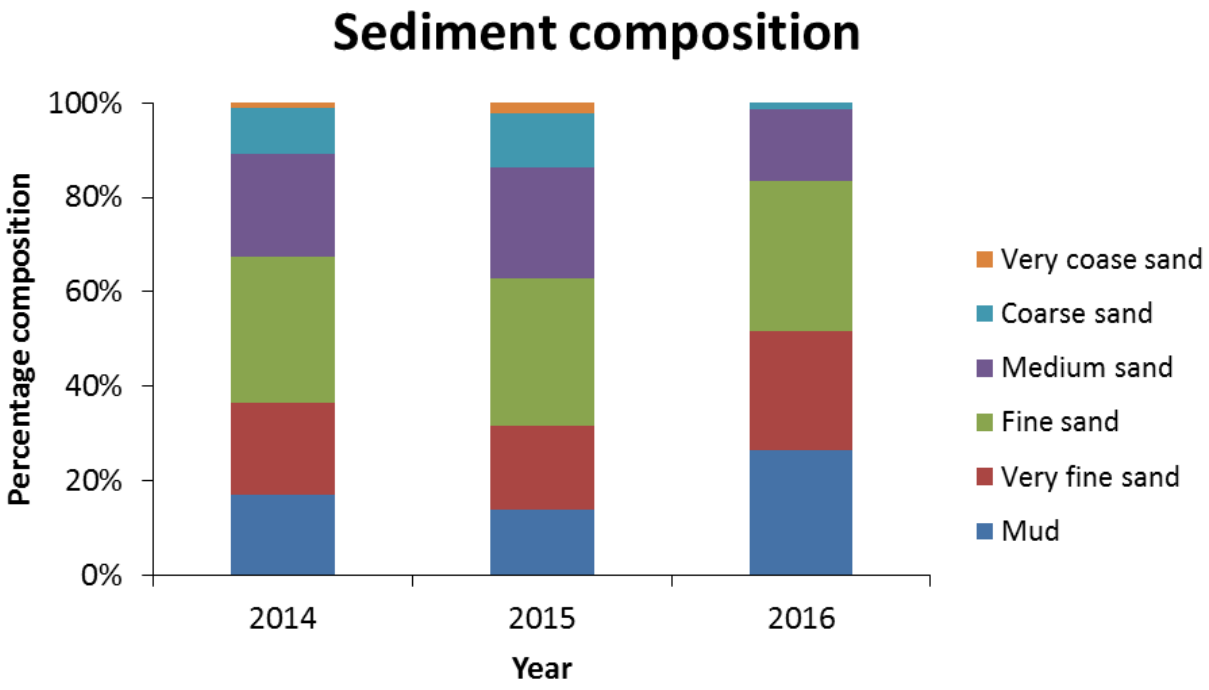

Figure 1: *Percentage composition of sediment collected from Peg 1 monitoring site in Ōmokoroa Estuary.*

Benthic community

Changes in the abundance and composition of the benthic community over time can provide an indication of the health of an estuary. Benthic monitoring data was available for 2015. The abundance of a range of plants and animals was recorded at metre intervals along a 15m transect beginning at the landward peg. Aerial roots were most abundant closest to the peg. Their abundance decreased sharply within the first few meters of the transect and no roots were observed past 9m (Figure 2). The large horn snail Zeacumantus was most abundant along the length of the transect, followed by crabs and cockles (Figure 3).

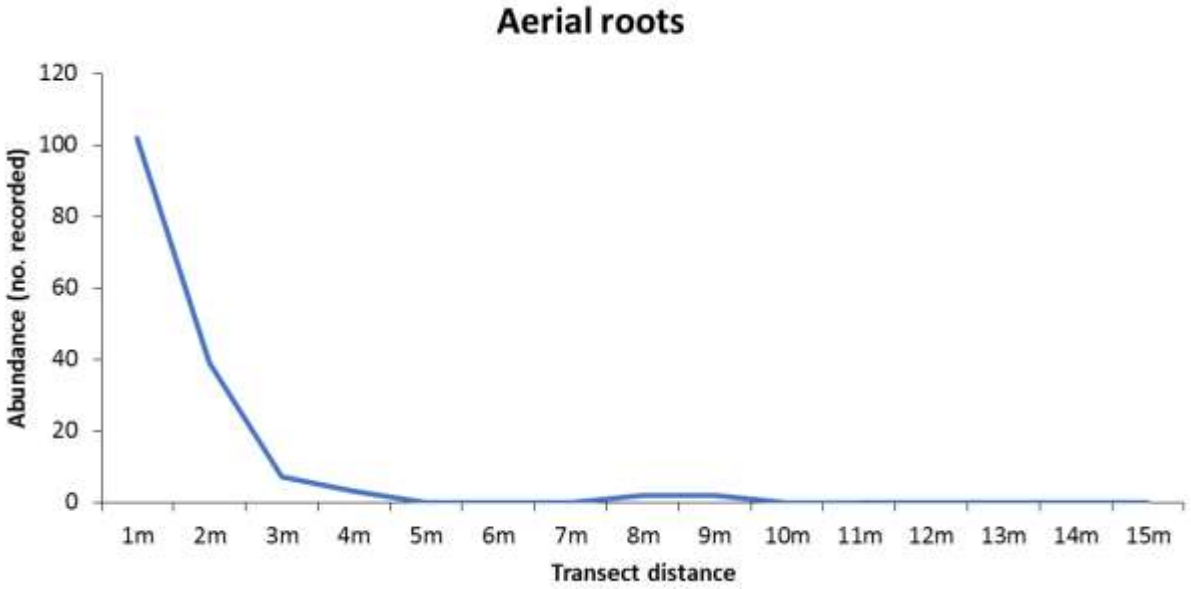

Figure 2: *Abundance of aerial roots at meter intervals along a 15m transect beginning at the landward peg*.

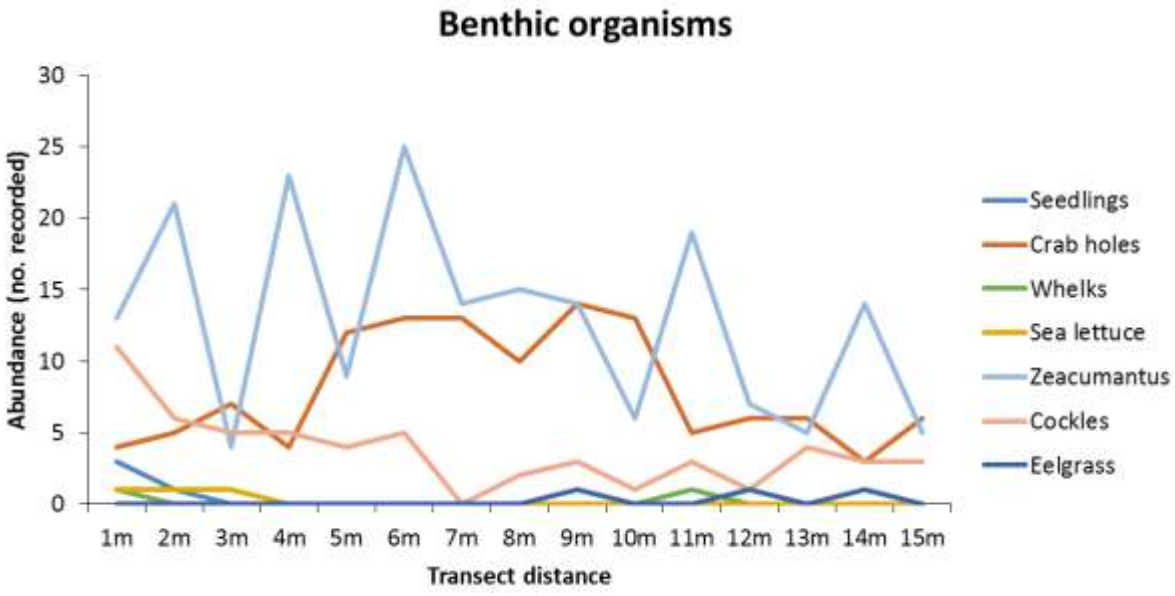

Figure 3: *Abundance of benthic organisms at meter intervals along a 15m transect beginning at the landward peg*.

Bird monitoring counts

Bird abundance has been monitored around Ōmokoroa Peninsula in 2008, 2011 and 2013. Eighteen species have been observed as part of this monitoring. The species observed on the greatest number of occasions were white faced herons, followed by Pūkeko, pied stilts and kingfishers (Table 2).

Table 2: *Bird monitoring counts around Ōmokoroa Peninsula. Data compiled from results sent to council in 2008, 2011, 2013. Zones are as follows: 1 = Tinopai, 2 = Lynley Park, 3 = Golf course, 4 = Upper Mangawhai.*

	2008				**2011**				**2013**	
Zone	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**3**	**1**
Australasian harrier	1	1	1							
Bar-tailed Godwit		200				50				2000
Black swan	35				200	50			28	
Black-backed Gull							10			3
Black-billed Gull										5
Canada goose			6	QTY						
Hudsonian Godwit					50					
Kingfisher	2	2	1	1				1		
Mallard/Grey duck	40	40			5				3	
Pacific Golden Plover									2	
Paradise Shelduck								2		
Pectoral Sandpiper										
Pied Oystercatcher					100		200		3	49
Pied Stilt	QTY	QTY	QTY				50		1	
Pūkeko	QTY	QTY		QTY	6			5		
Spur-winged Plover								3		
Variable Oystercatcher	QTY	QTY	QTY							16
White-faced Heron	4		2	1	3	5			2	6