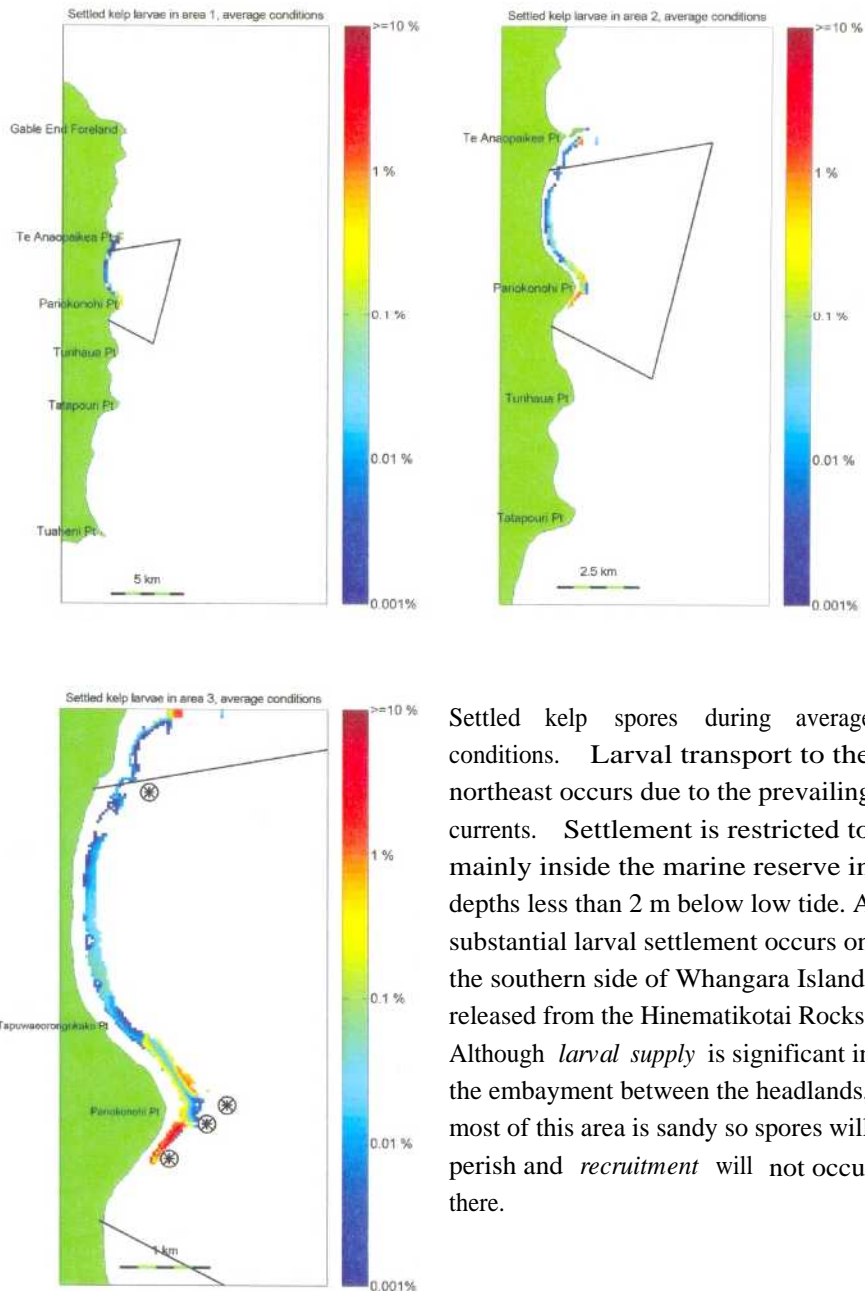
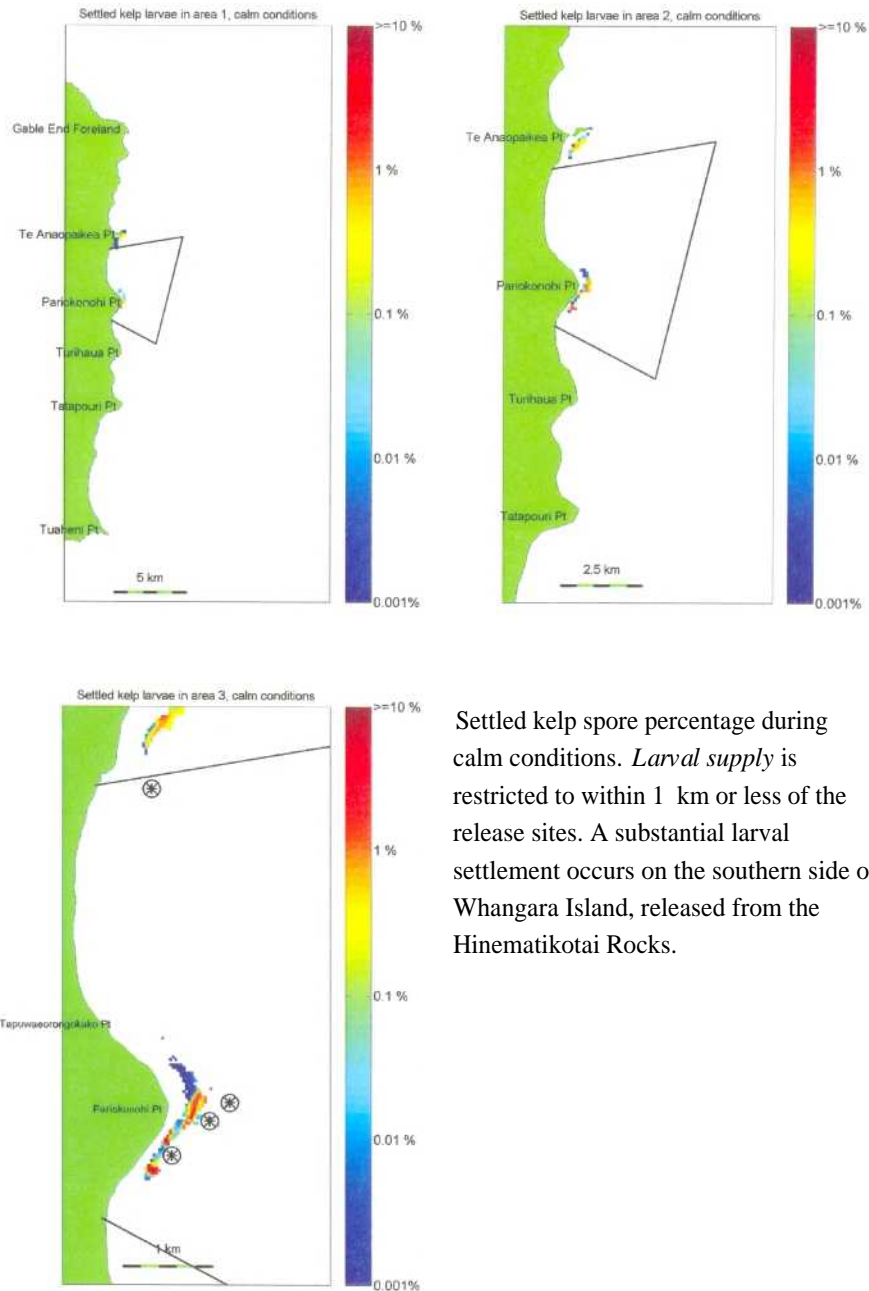


7. Appendix 1 - larval dispersal plots

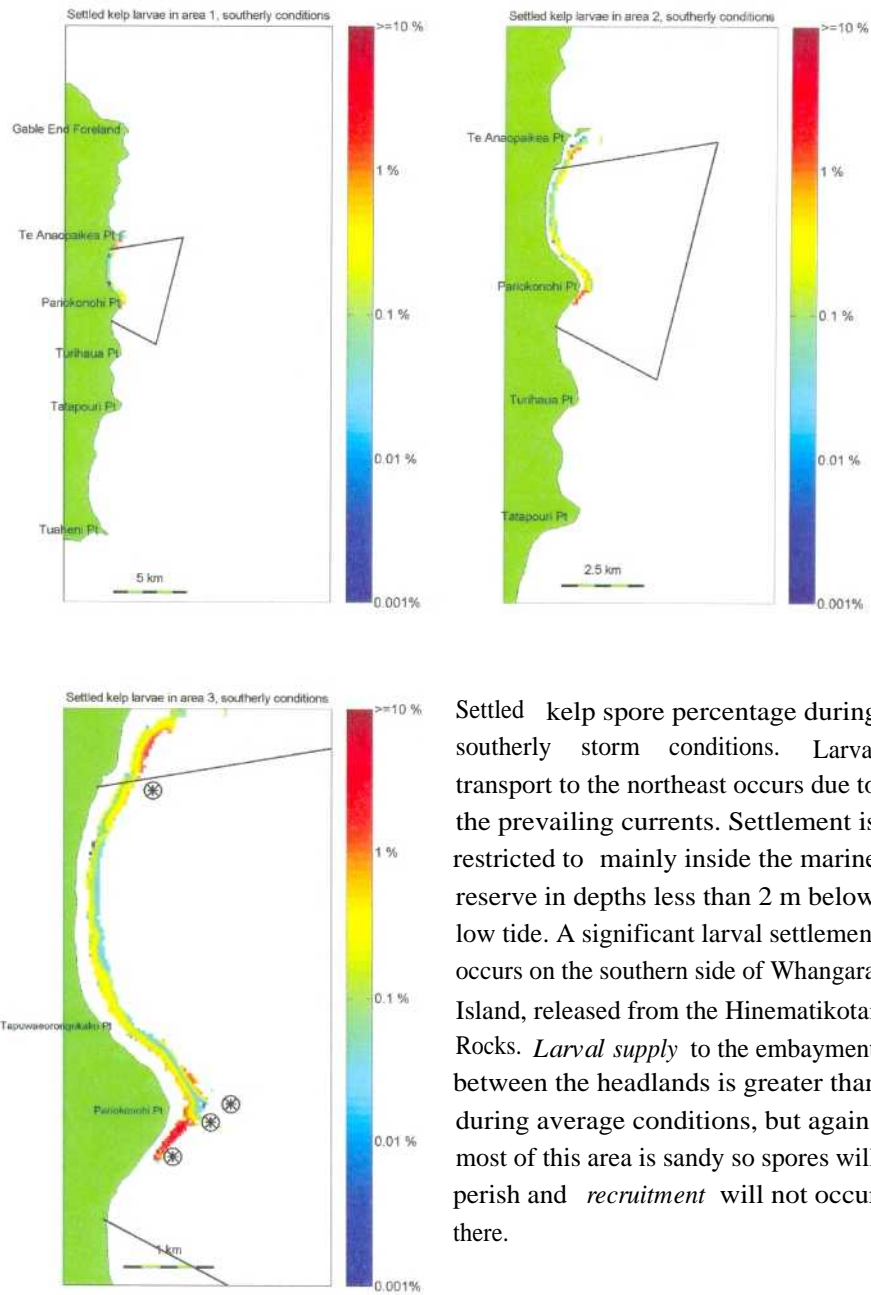
7.1 Bull kelp



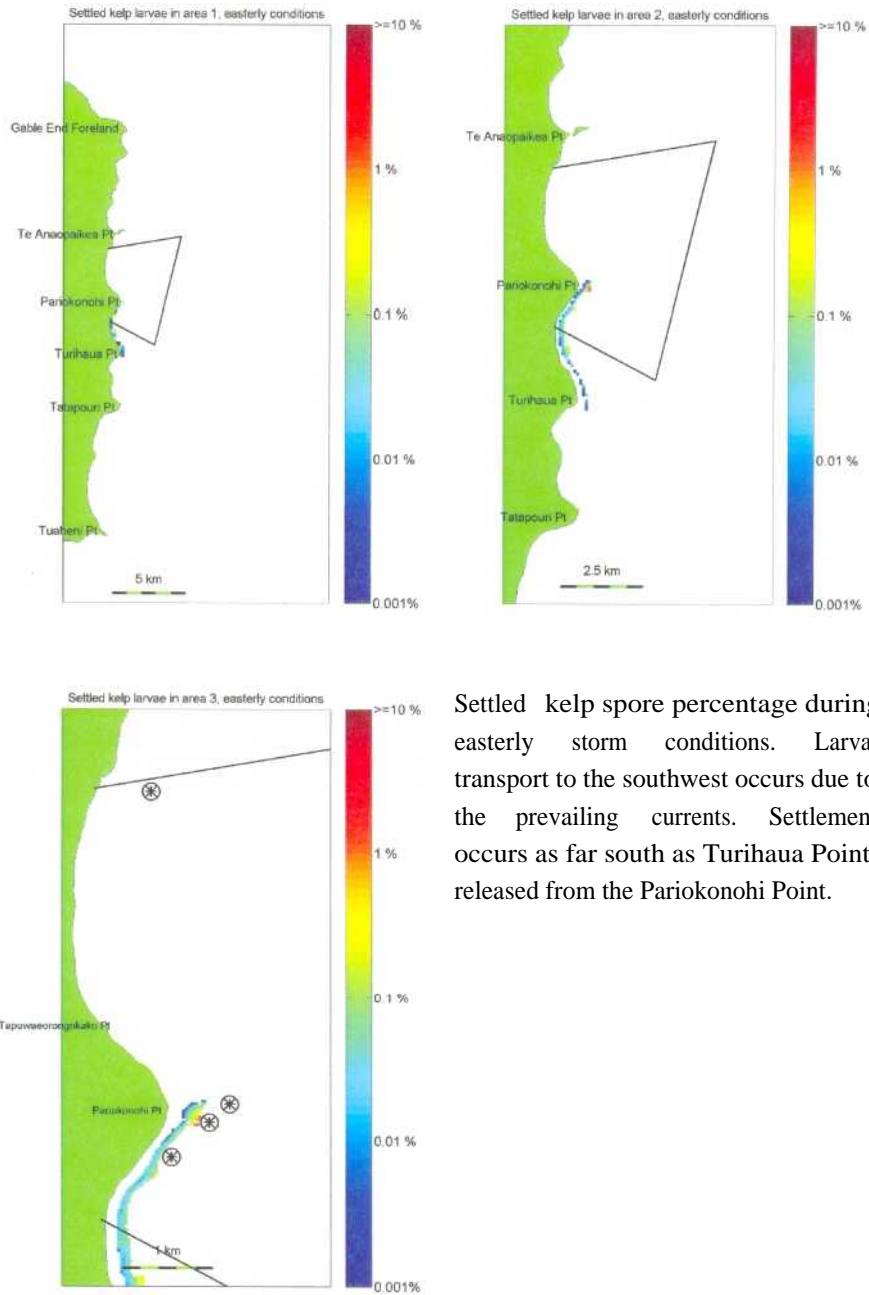
Settled kelp spores during average conditions. Larval transport to the northeast occurs due to the prevailing currents. Settlement is restricted to mainly inside the marine reserve in depths less than 2 m below low tide. A substantial larval settlement occurs on the southern side of Whangara Island, released from the Hinematikotai Rocks. Although *larval supply* is significant in the embayment between the headlands, most of this area is sandy so spores will perish and *recruitment* will not occur there.



Settled kelp spore percentage during calm conditions. *Larval supply* is restricted to within 1 km or less of the release sites. A substantial larval settlement occurs on the southern side of Whangara Island, released from the Hinematikotai Rocks.

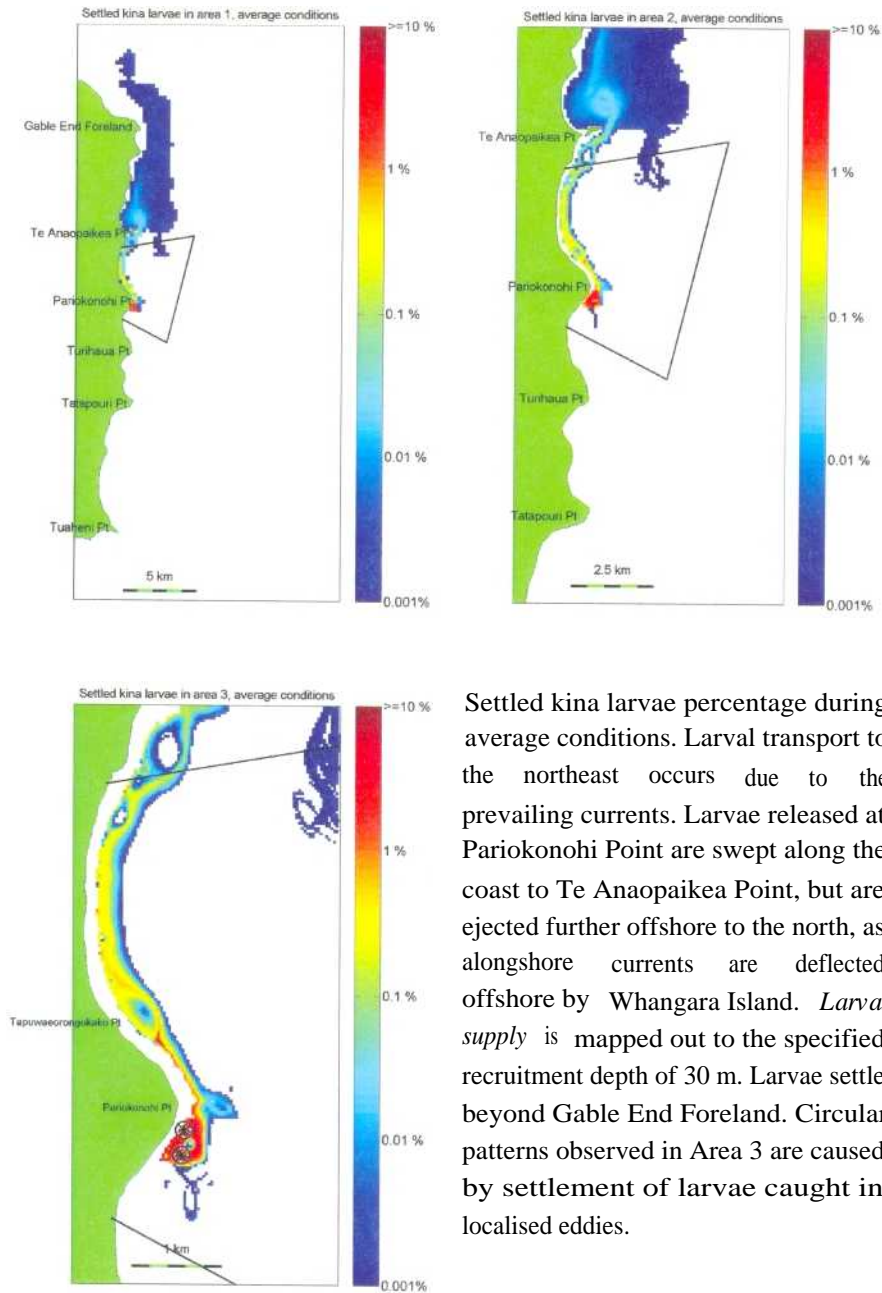


Settled kelp spore percentage during southerly storm conditions. Larval transport to the northeast occurs due to the prevailing currents. Settlement is restricted to mainly inside the marine reserve in depths less than 2 m below low tide. A significant larval settlement occurs on the southern side of Whangara Island, released from the Hinematikotai Rocks. Larval supply to the embayment between the headlands is greater than during average conditions, but again, most of this area is sandy so spores will perish and recruitment will not occur there.

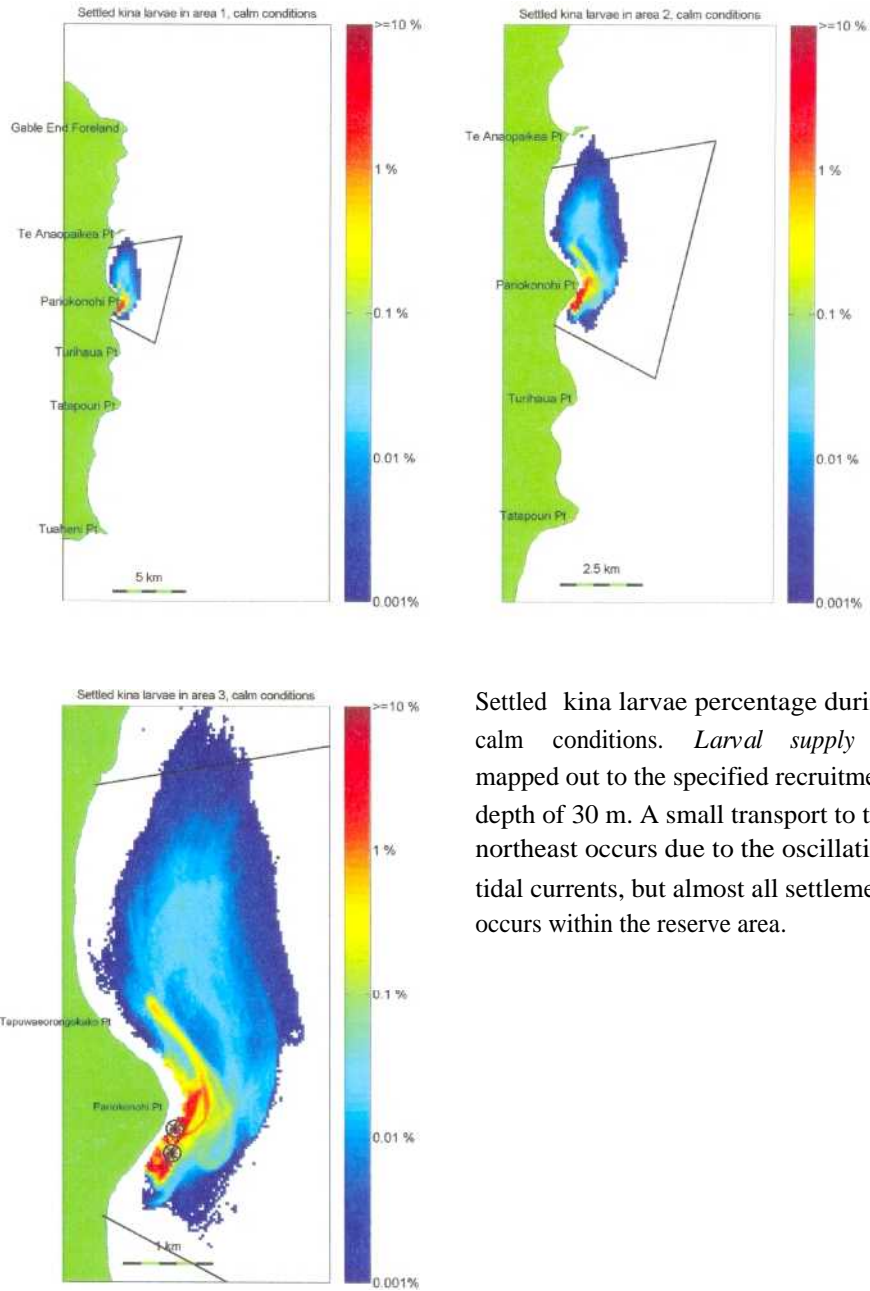


Settled kelp spore percentage during easterly storm conditions. Larval transport to the southwest occurs due to the prevailing currents. Settlement occurs as far south as Turihaua Point, released from the Pariikonohi Point.

7.2 Kina



Settled kina larvae percentage during average conditions. Larval transport to the northeast occurs due to the prevailing currents. Larvae released at Pariokonohi Point are swept along the coast to Te Anaopaikea Point, but are ejected further offshore to the north, as alongshore currents are deflected offshore by Whangara Island. Larval supply is mapped out to the specified recruitment depth of 30 m. Larvae settle beyond Gable End Foreland. Circular patterns observed in Area 3 are caused by settlement of larvae caught in localised eddies.



Settled kina larvae percentage during calm conditions. *Larval supply* is mapped out to the specified recruitment depth of 30 m. A small transport to the northeast occurs due to the oscillating tidal currents, but almost all settlement occurs within the reserve area.