

**Bay of Plenty  
Primary Production Modelling:  
Aquaculture Management Areas**

**Mussel Farm Impacts – Surface Water**

## Mussel Farm Impacts – Surface Water

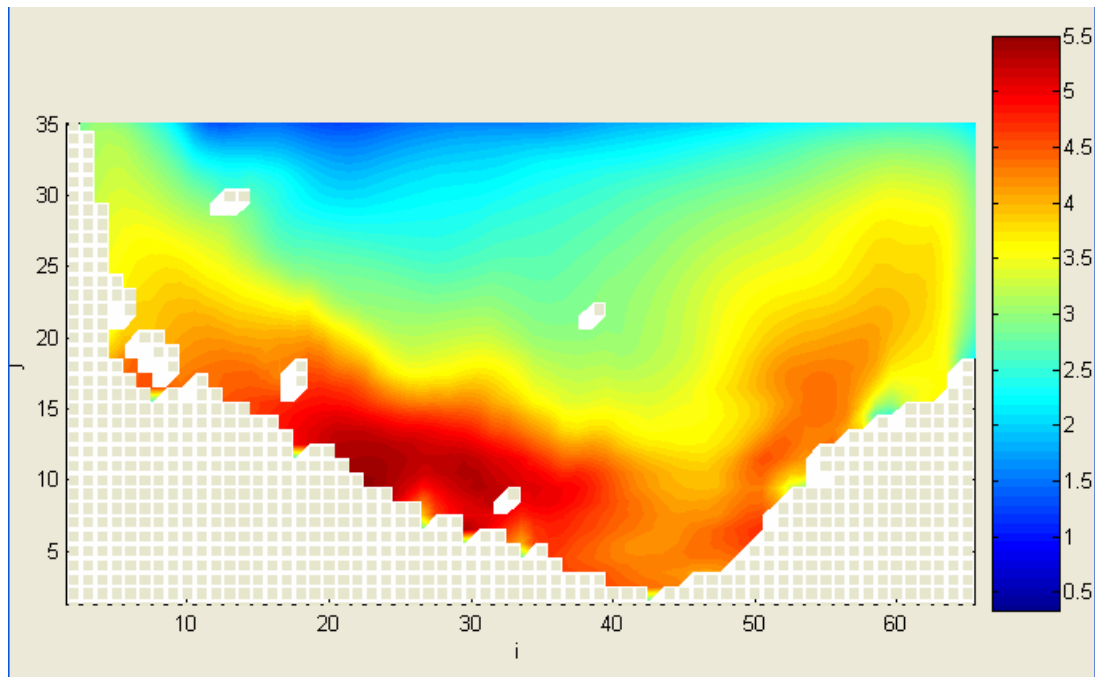


Figure 1. Modelled yearly averaged phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty without Mussel farm.

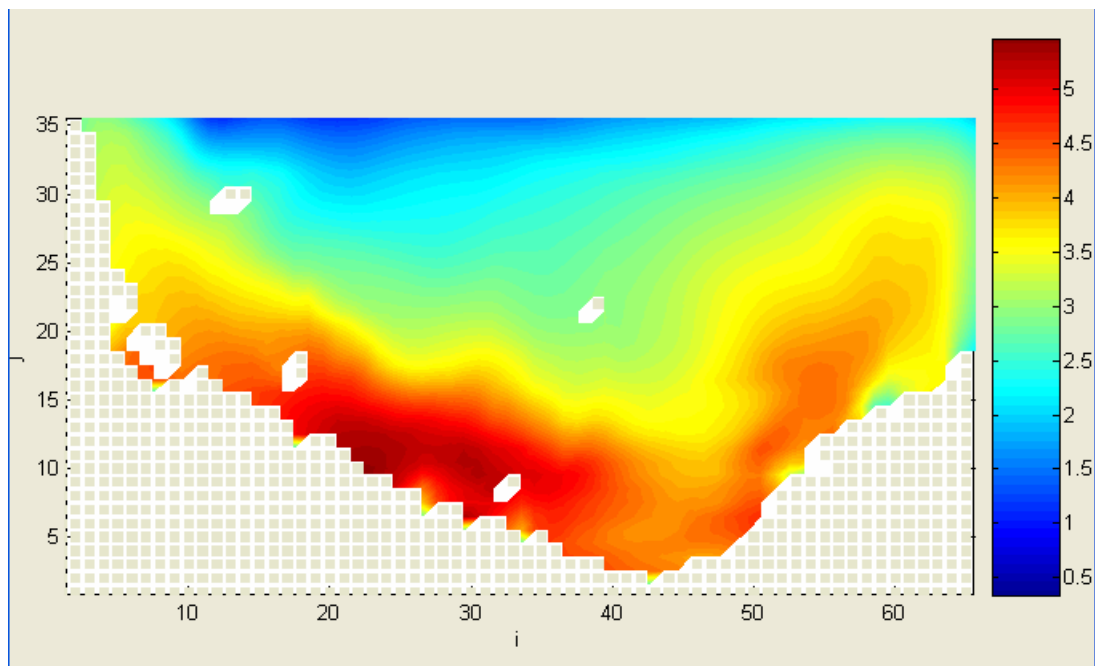


Figure 2. Modelled yearly averaged phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with Mussel farm scenario 1.

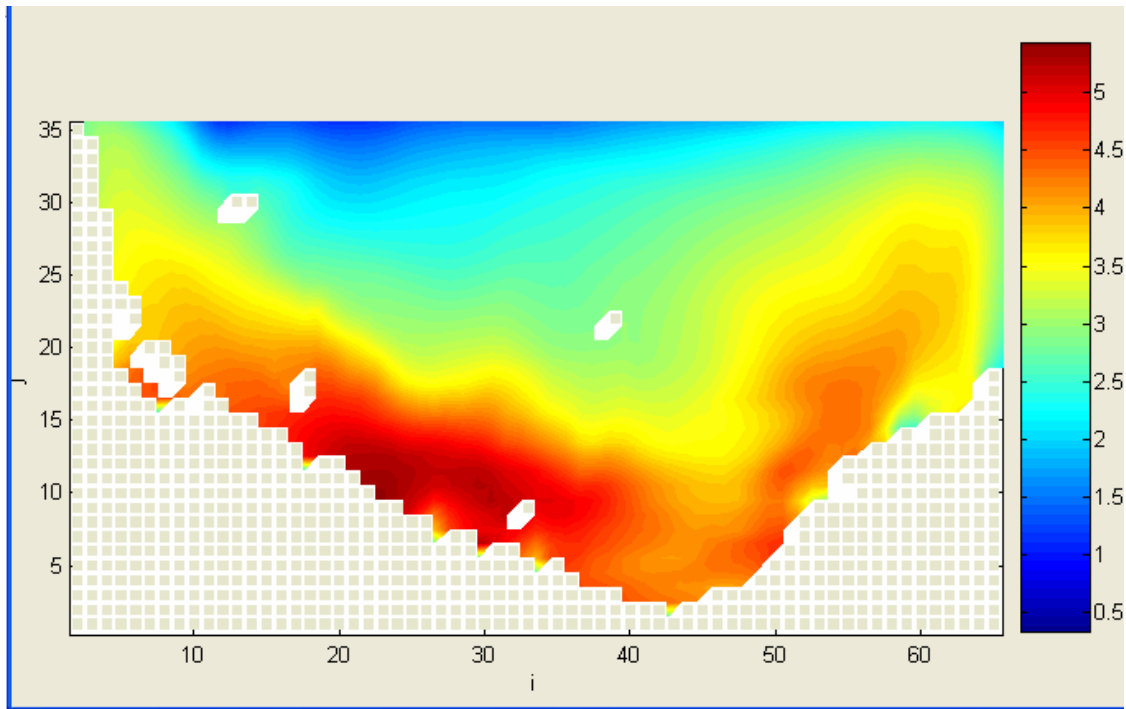


Figure 3. Modelled yearly averaged phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with Mussel farm scenario 2.

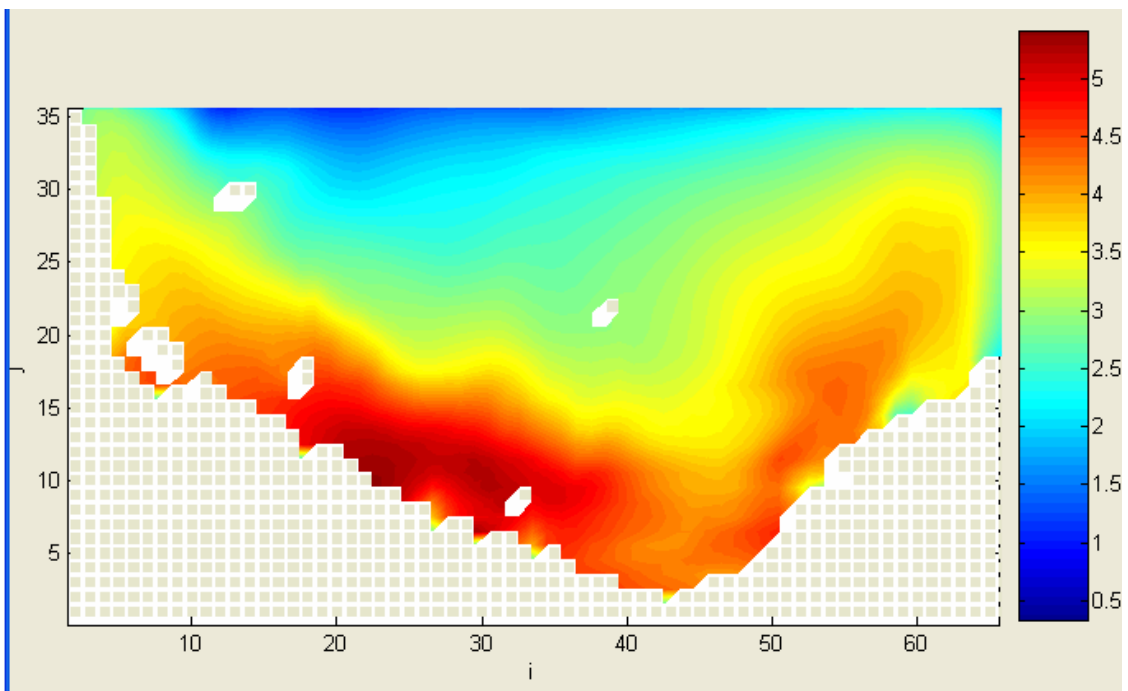


Figure 4. Modelled yearly averaged phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with Mussel farm scenario 3.

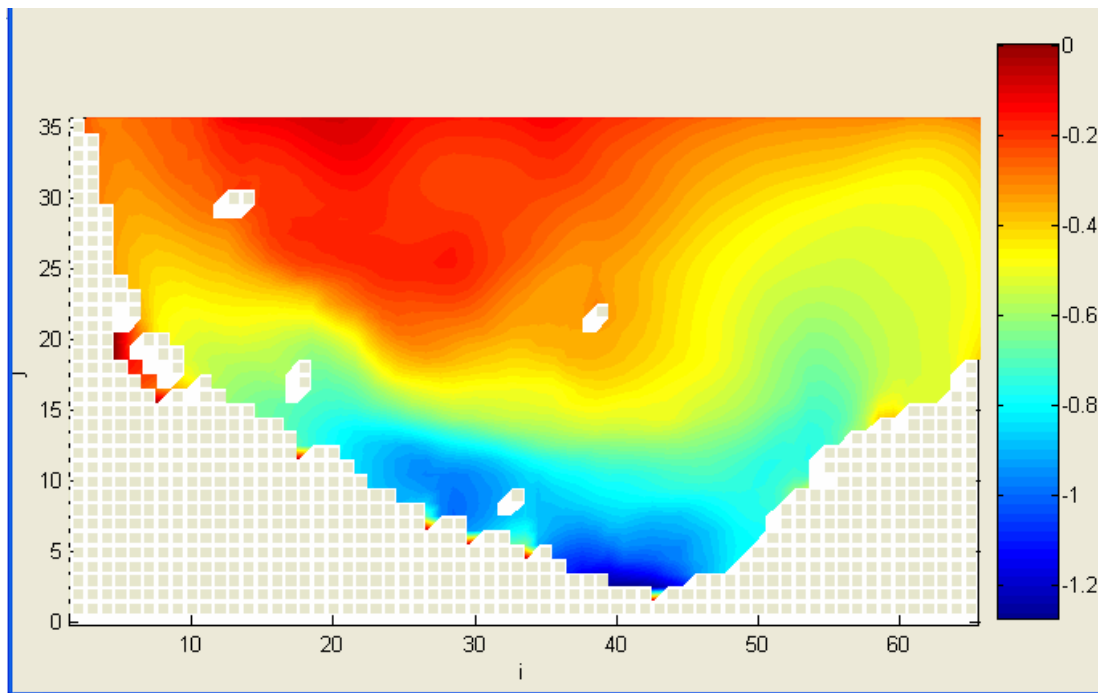


Figure 5. Yearlong % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '1 mussel farm' scenario.

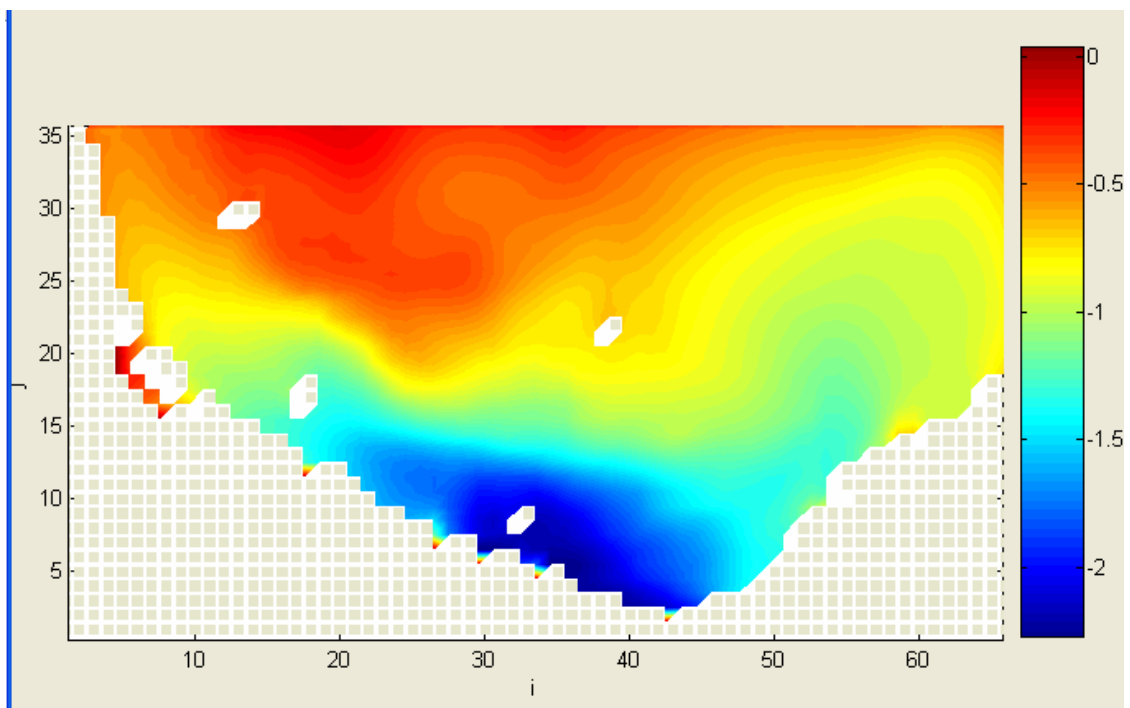


Figure 6. Yearlong % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '2 mussel farm' scenario.

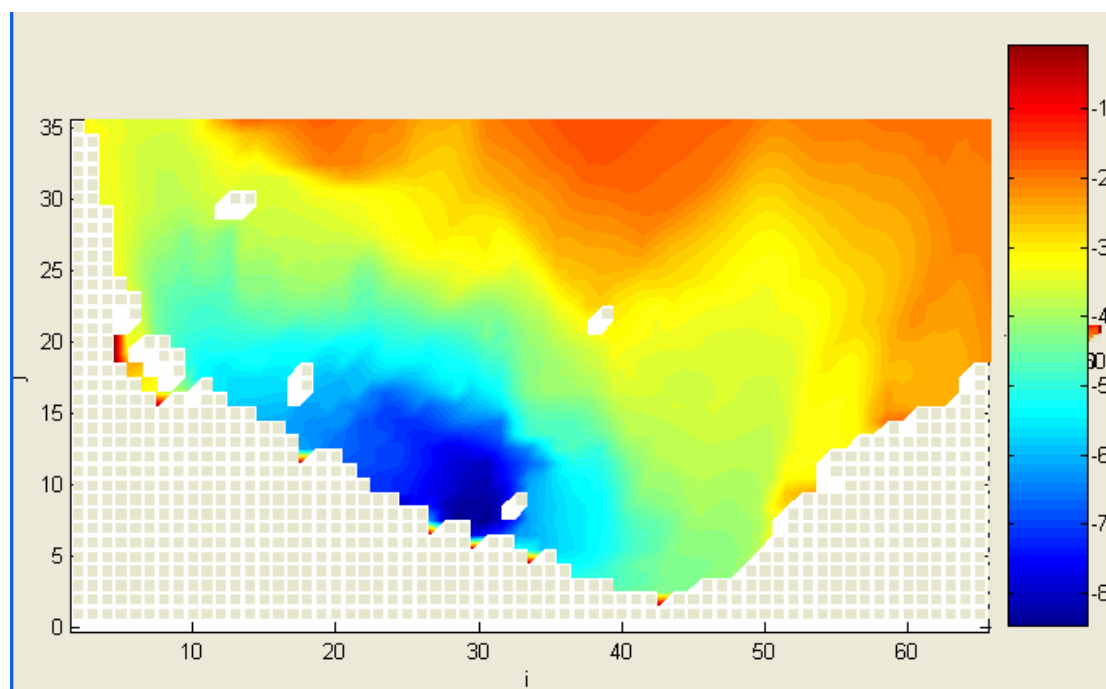


Figure 7. Yearlong % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '3 mussel farm' scenario.

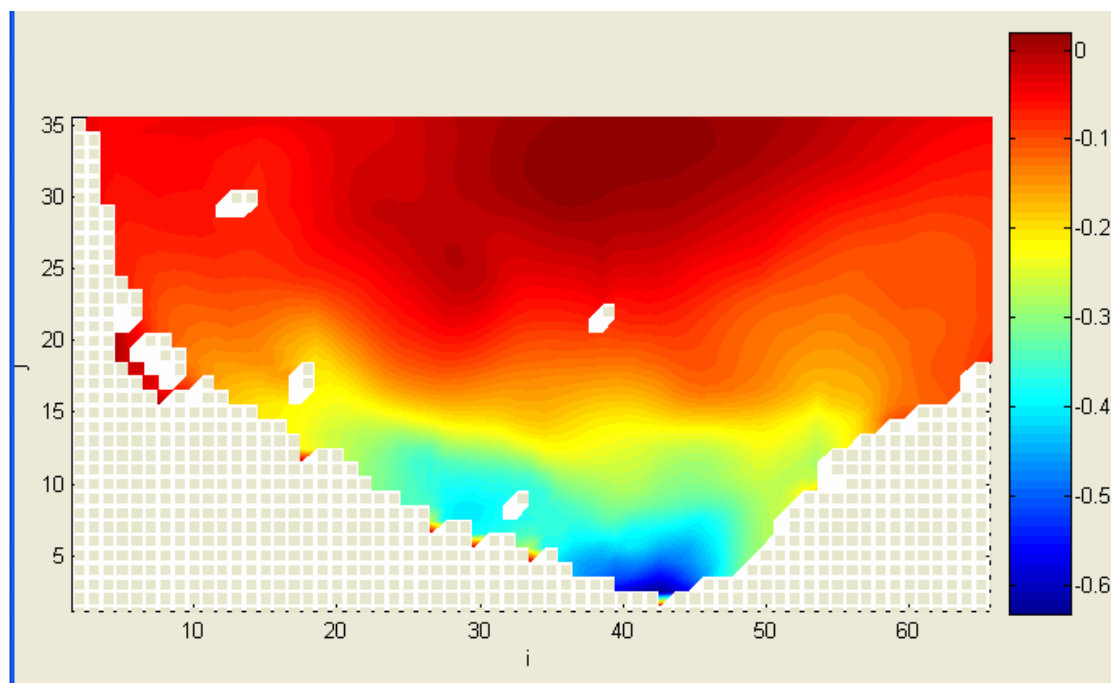


Figure 8. Seasonal (August-September-October) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '1 mussel farm' scenario.

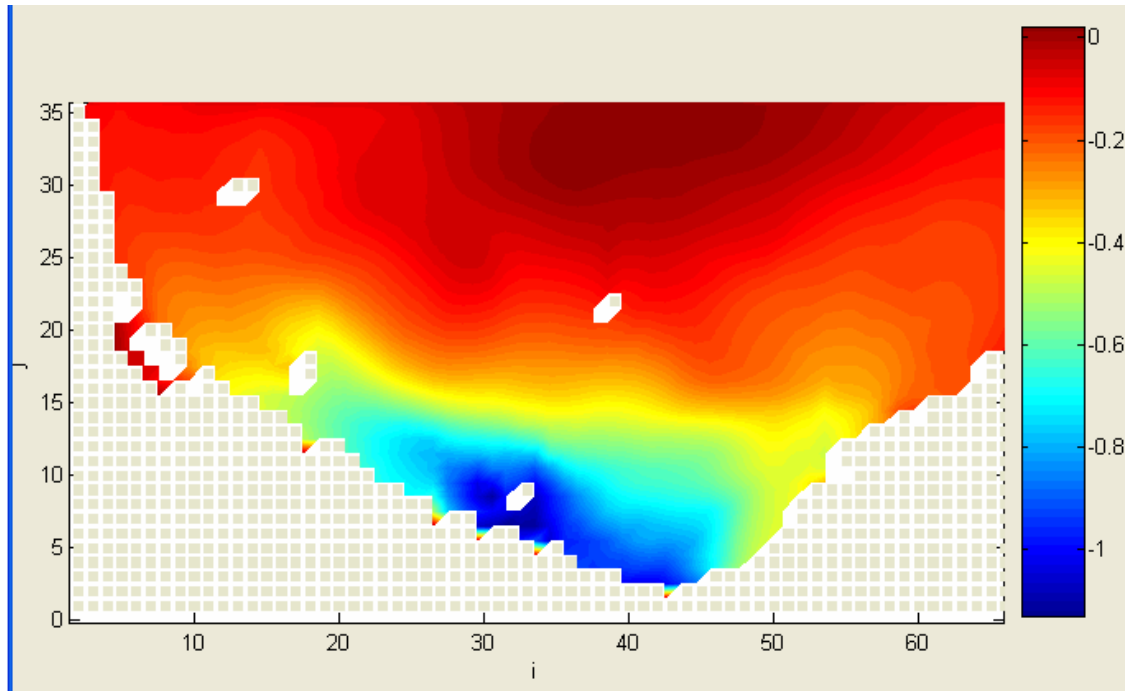


Figure 9. Seasonal (August-September-October) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '2 mussel farm' scenario.

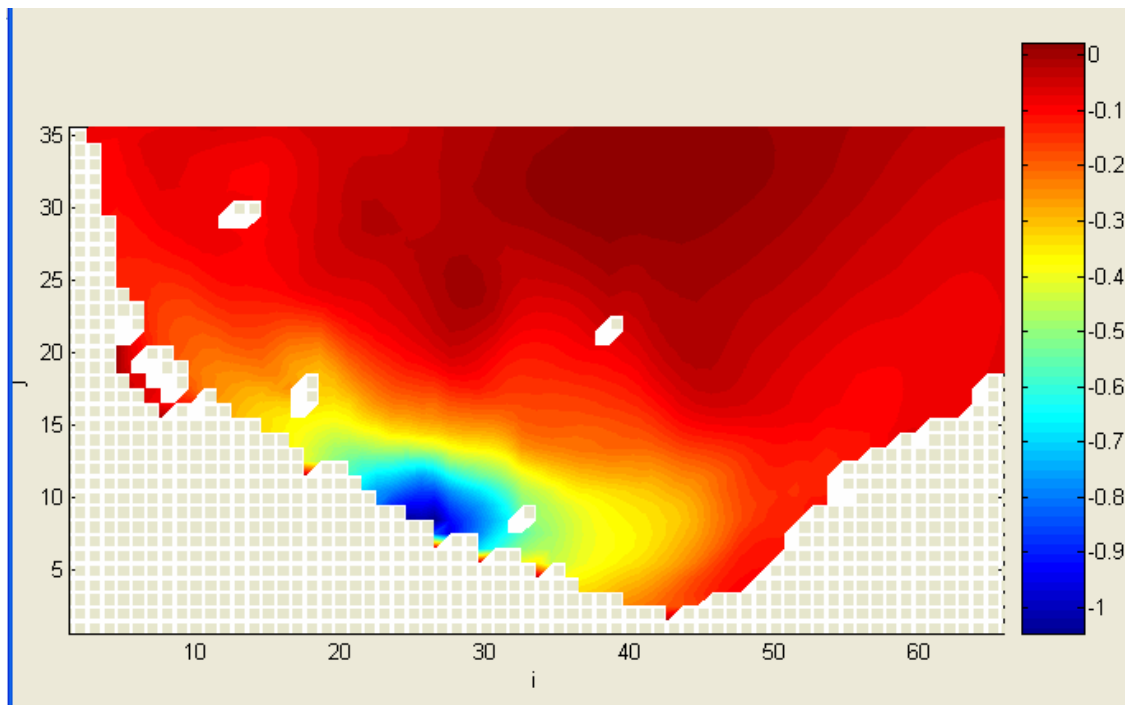


Figure 10. Seasonal (August-September-October) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '3 mussel farm' scenario.

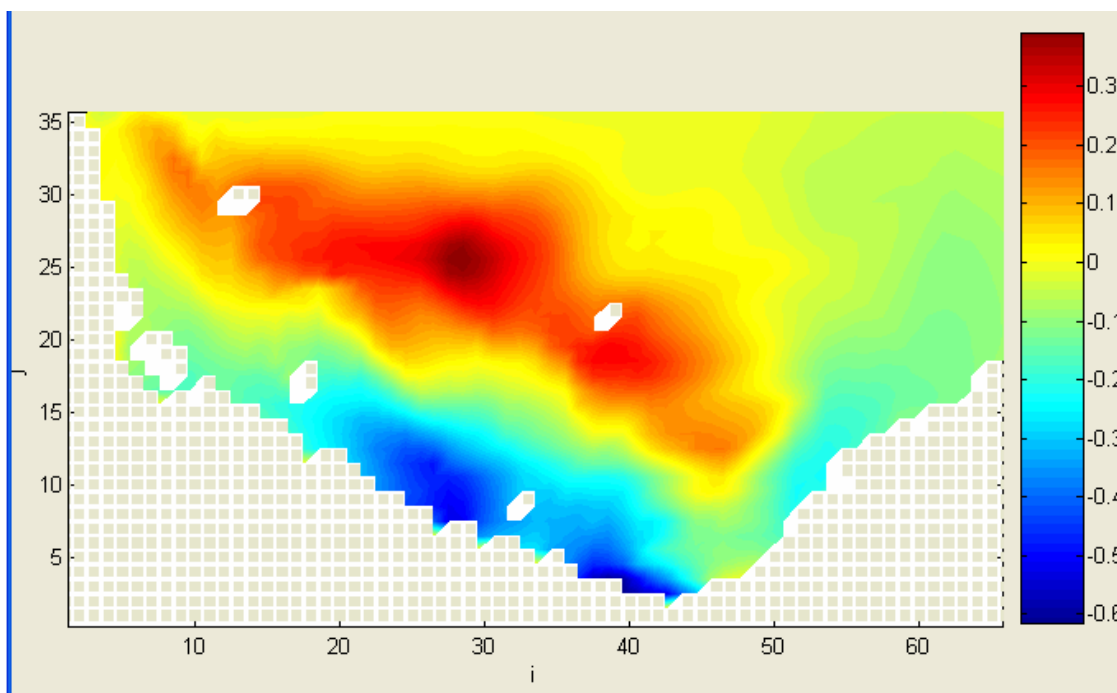


Figure 11. Seasonal (November-December-January) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '1 mussel farm' scenario.

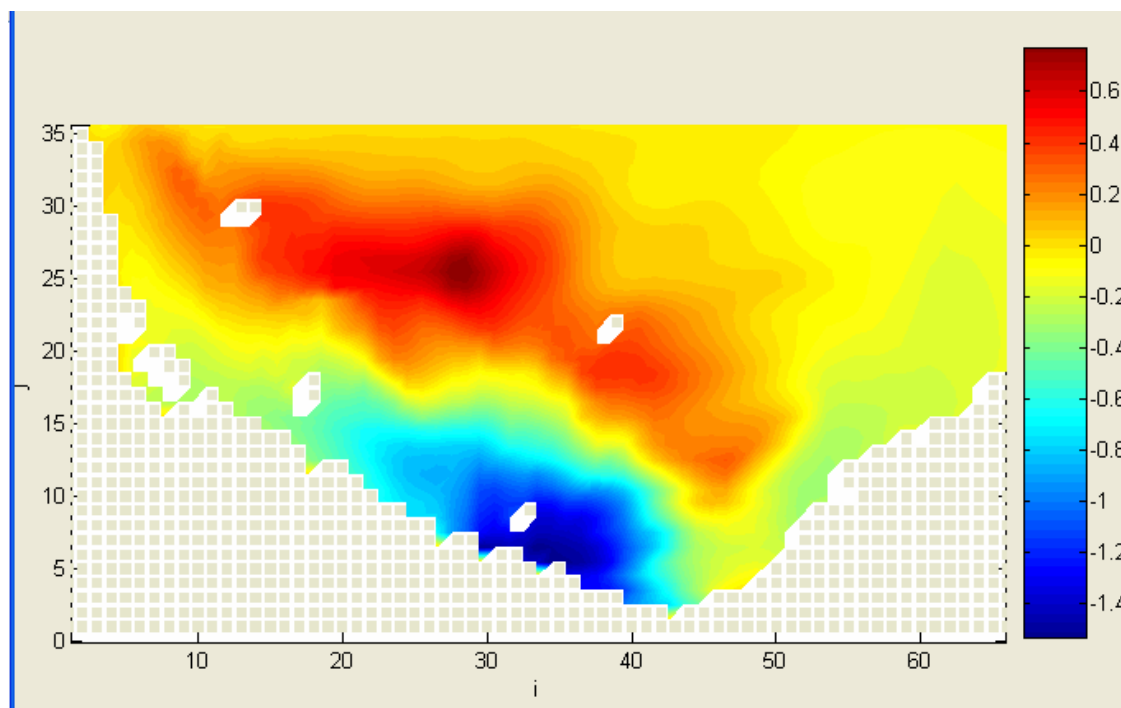


Figure 12. Seasonal (November-December-January) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '2 mussel farm' scenario.

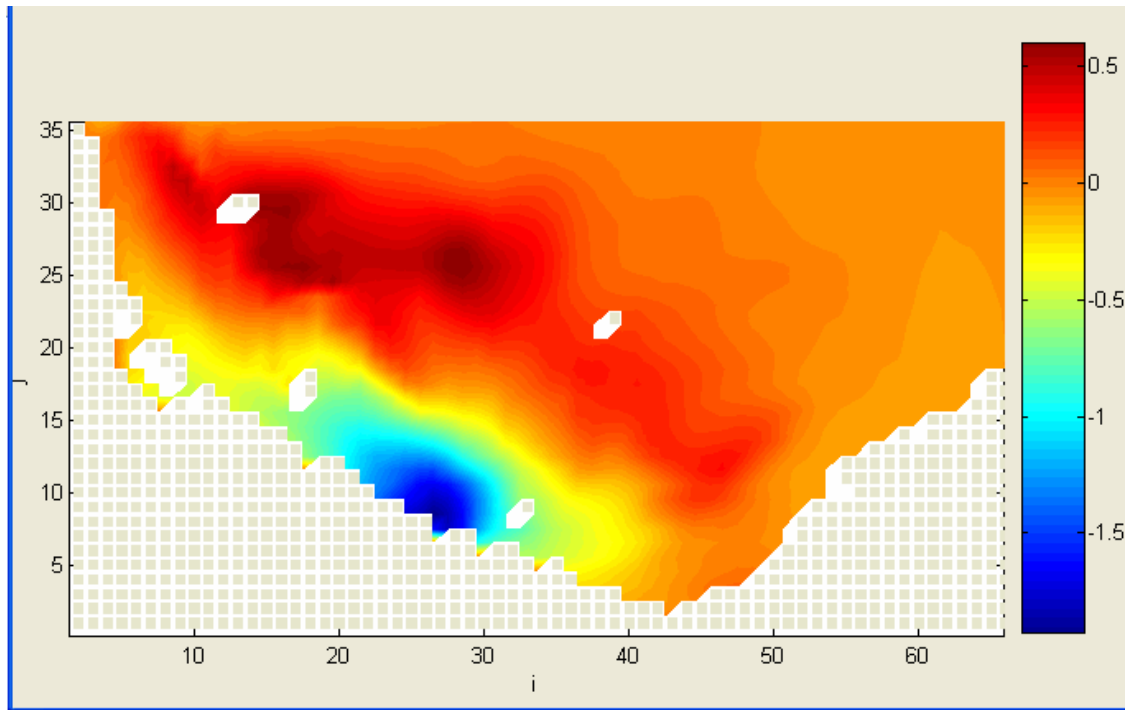


Figure 13. Seasonal (November-December-January) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '3 mussel farm' scenario.

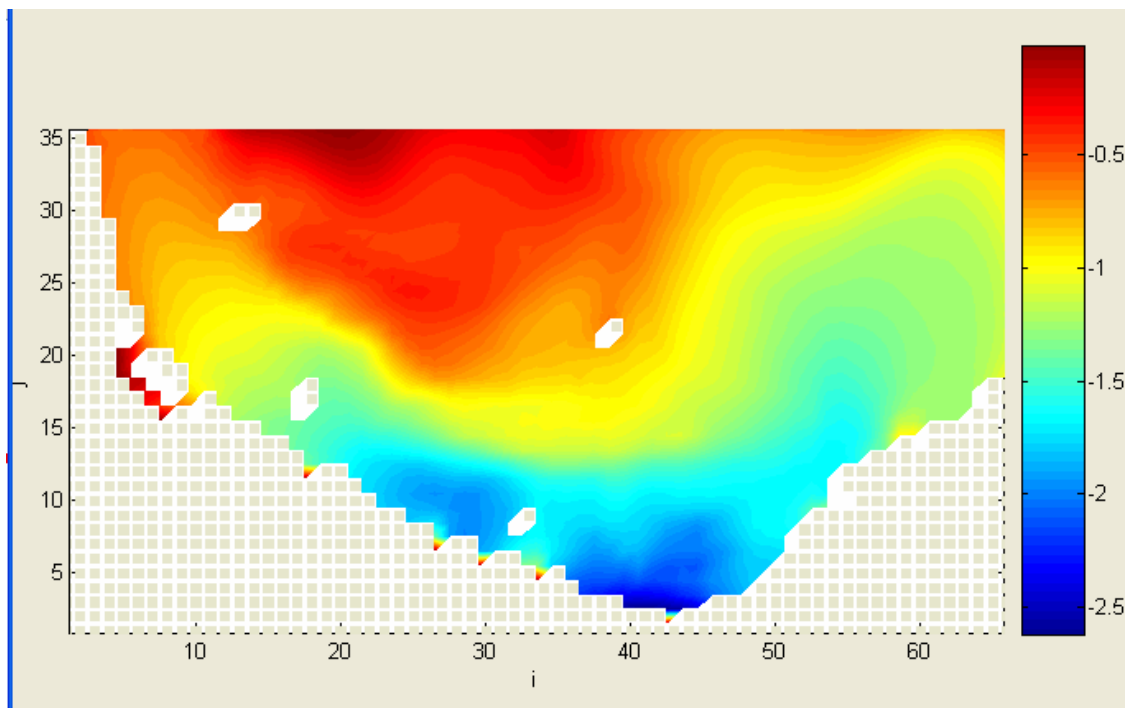


Figure 14. Seasonal (February-March-April) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '1 mussel farm' scenario

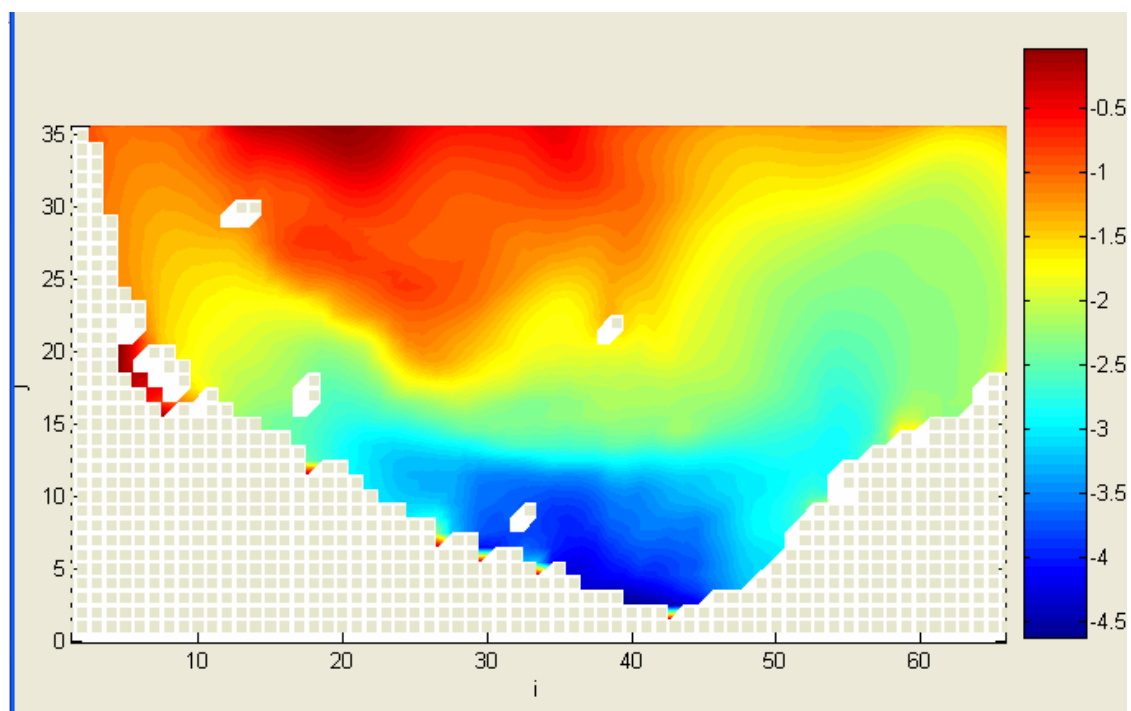


Figure 15. Seasonal (February-March-April) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '2 mussel farm' scenario

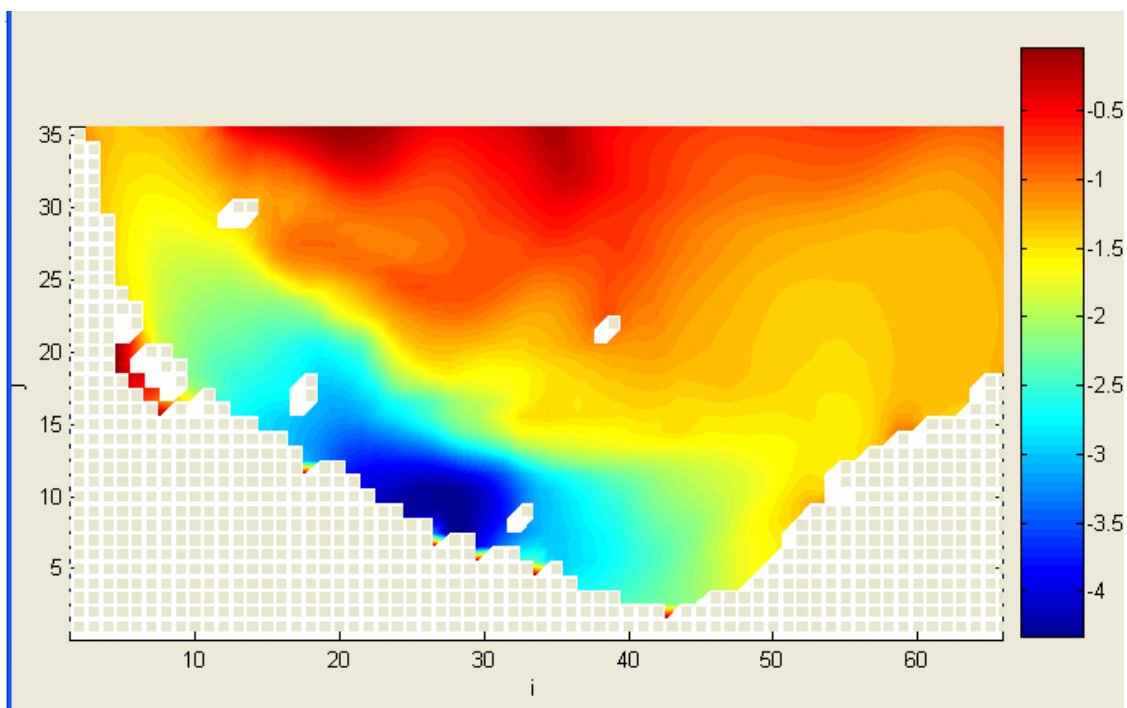


Figure 16. Seasonal (February-March-April) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '3 mussel farm' scenario.

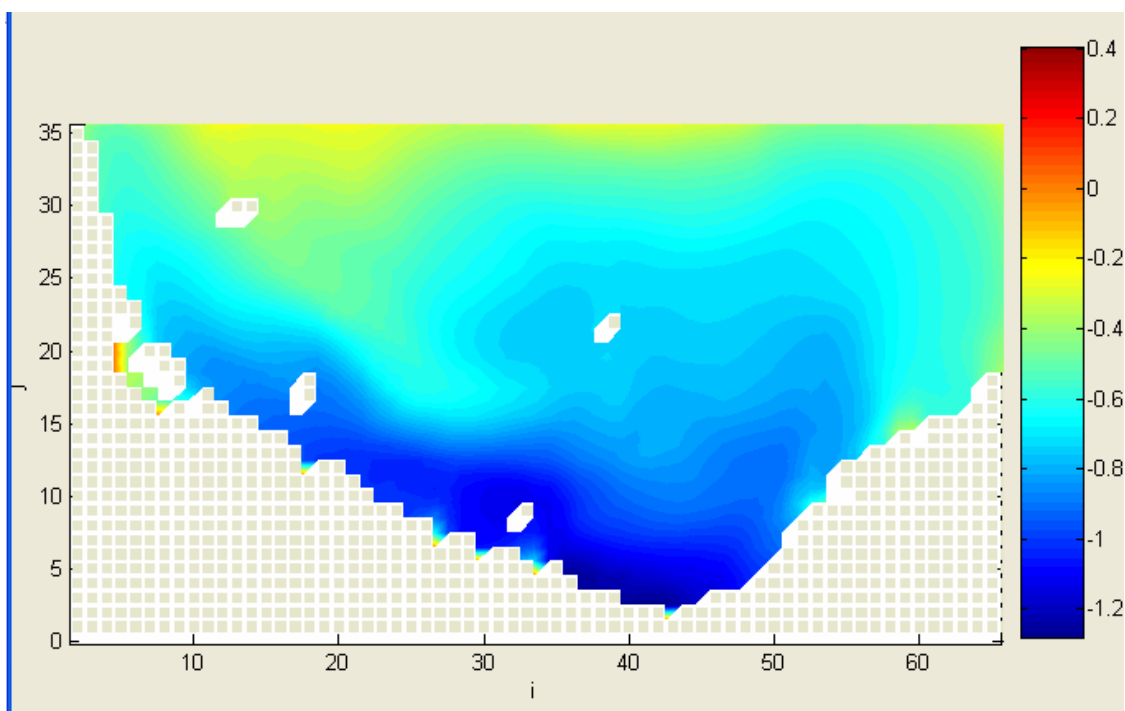


Figure 17. Seasonal (May-June-July) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '1 mussel farm' scenario

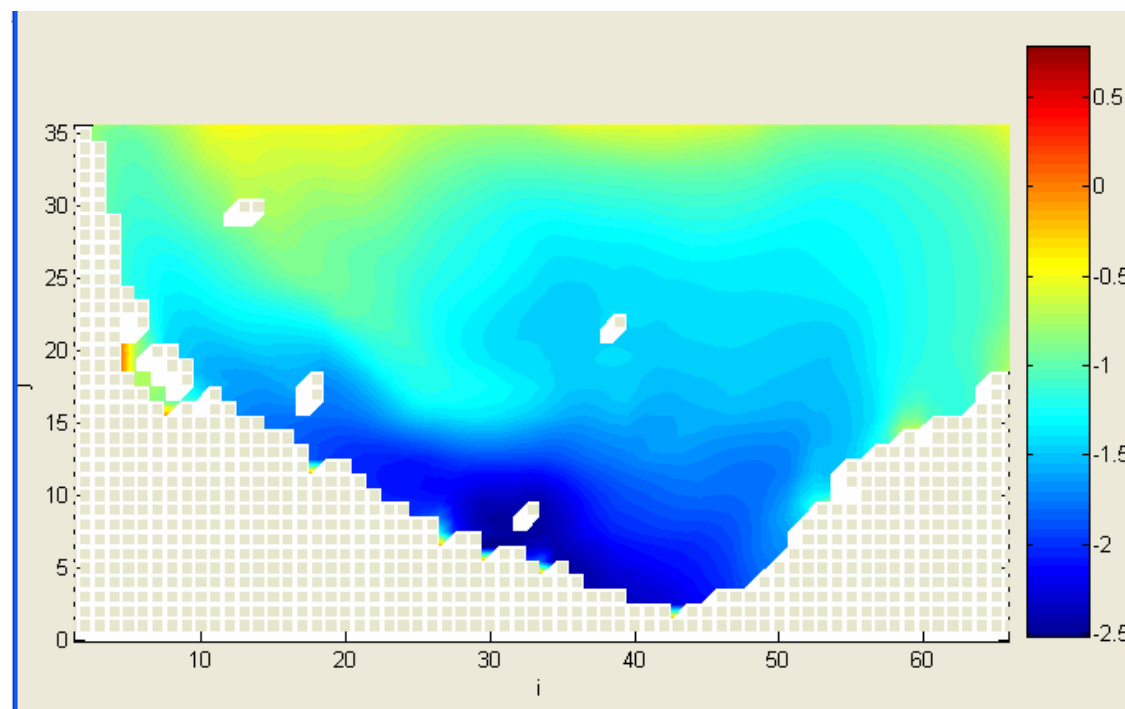


Figure 18. Seasonal (May-June-July) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '2 mussel farm' scenario

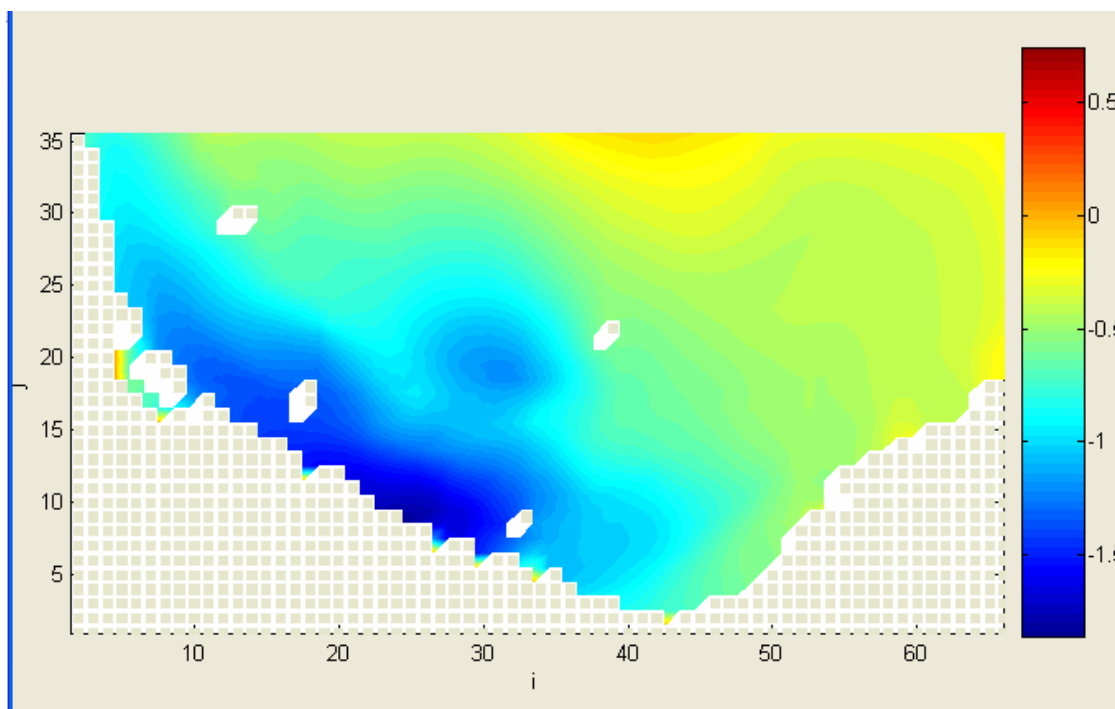


Figure 19. Seasonal (May-June-July) % difference averaged in the surface layer phytoplankton chlorophyll-a concentration between the 'no farm' and the '3 mussel farm' scenario

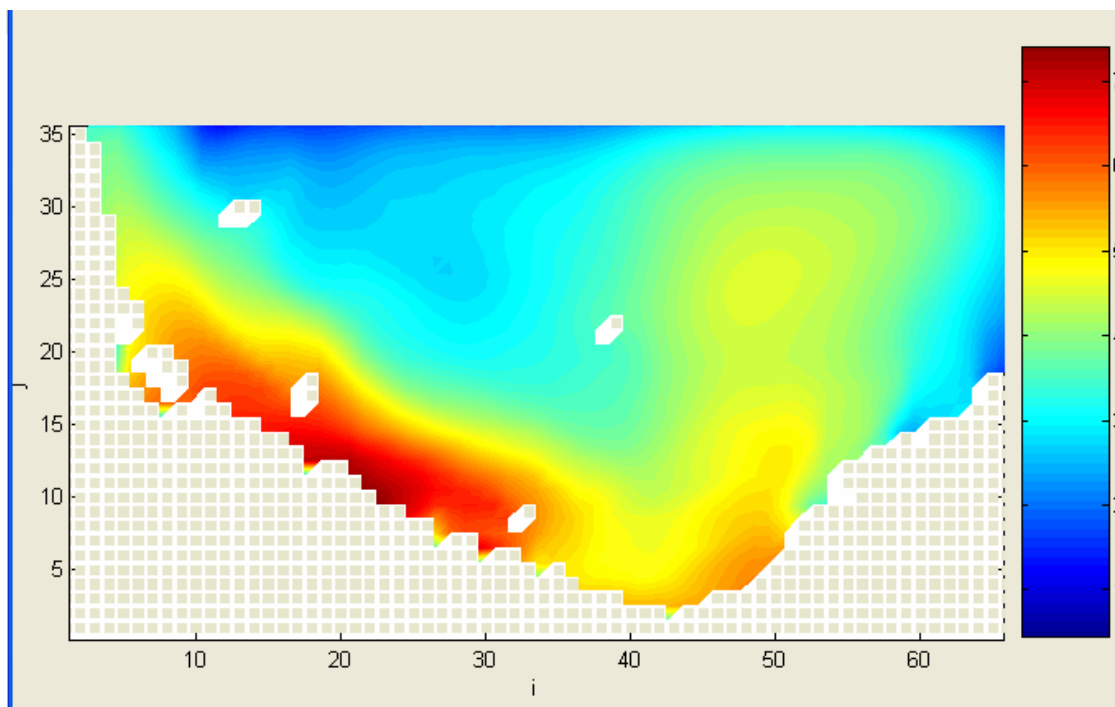


Figure 20. Modelled Seasonal averaged (August-September-October) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty without Mussel farm.

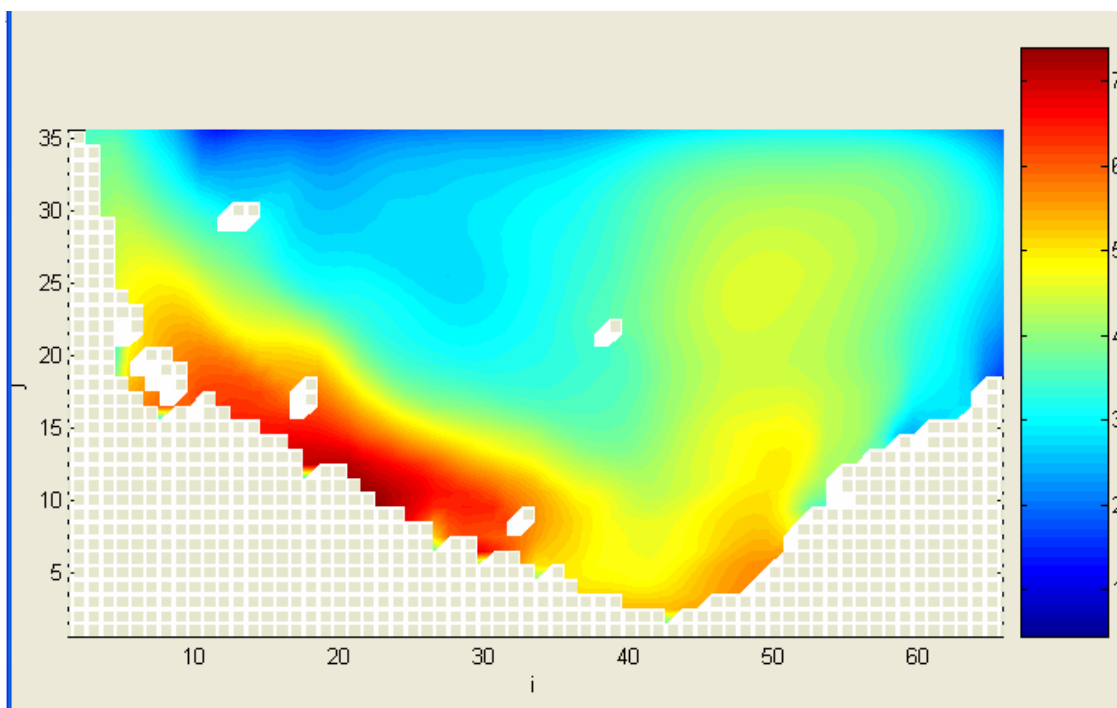


Figure 21. Modelled Seasonal averaged (August-September-October) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with 1 Mussel farm.

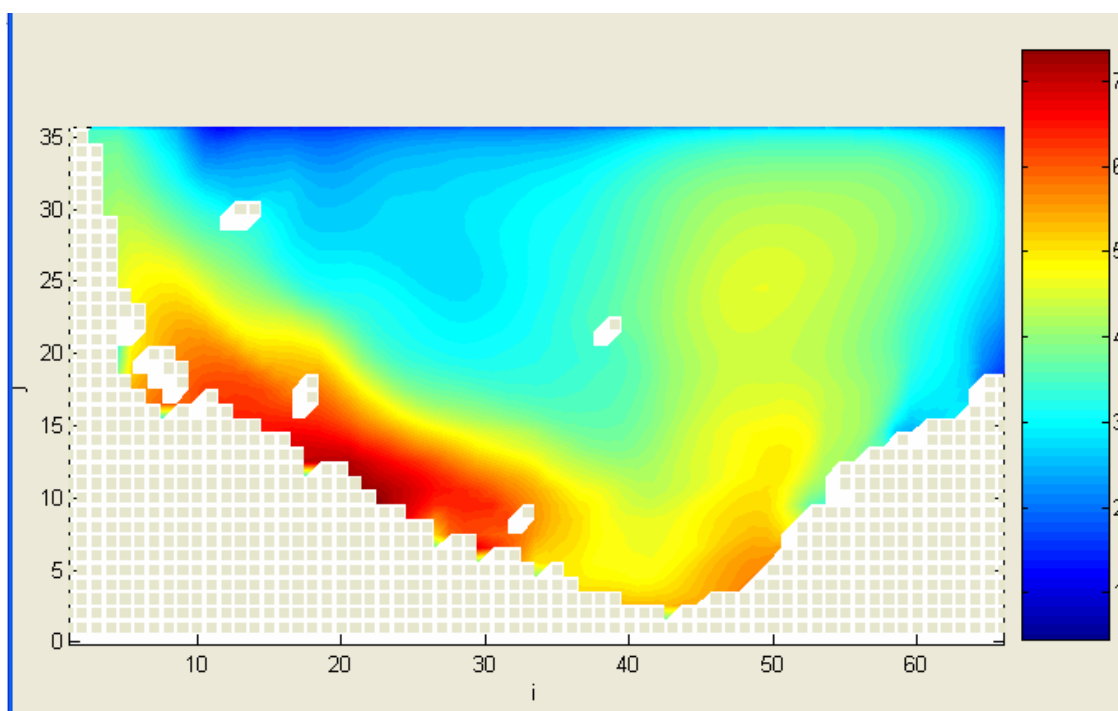


Figure 22. Modelled Seasonal averaged (August-September-October) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with 2 Mussel farms.

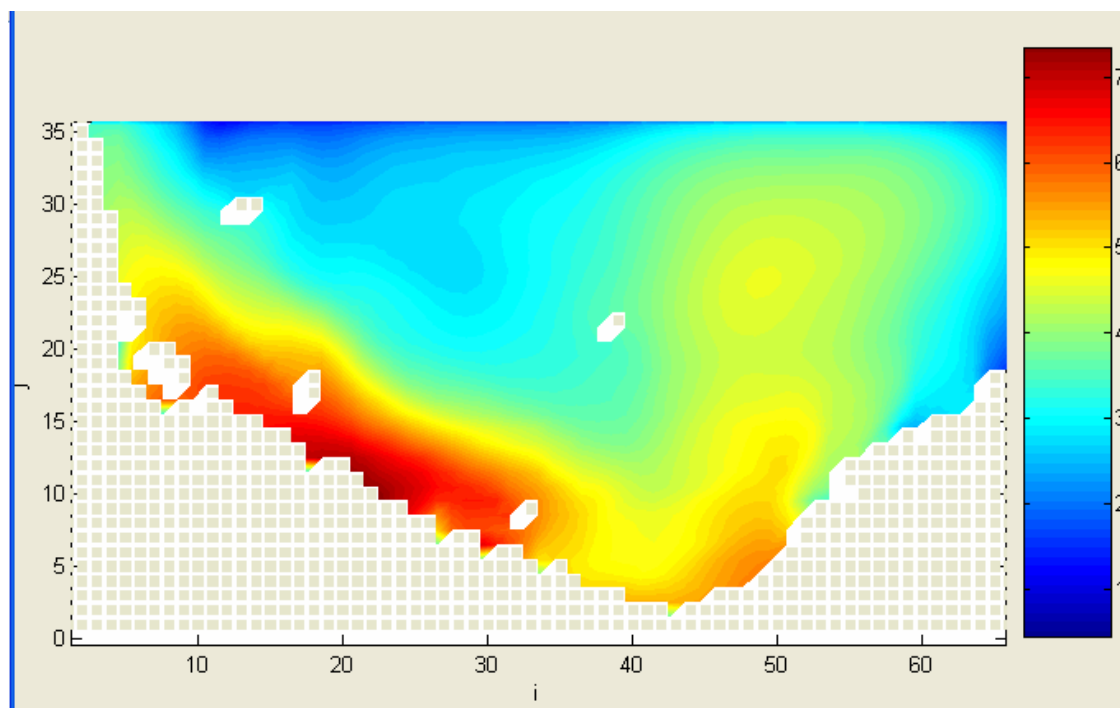


Figure 23. Modelled Seasonal averaged (August-September-October) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with 3 Mussel farm

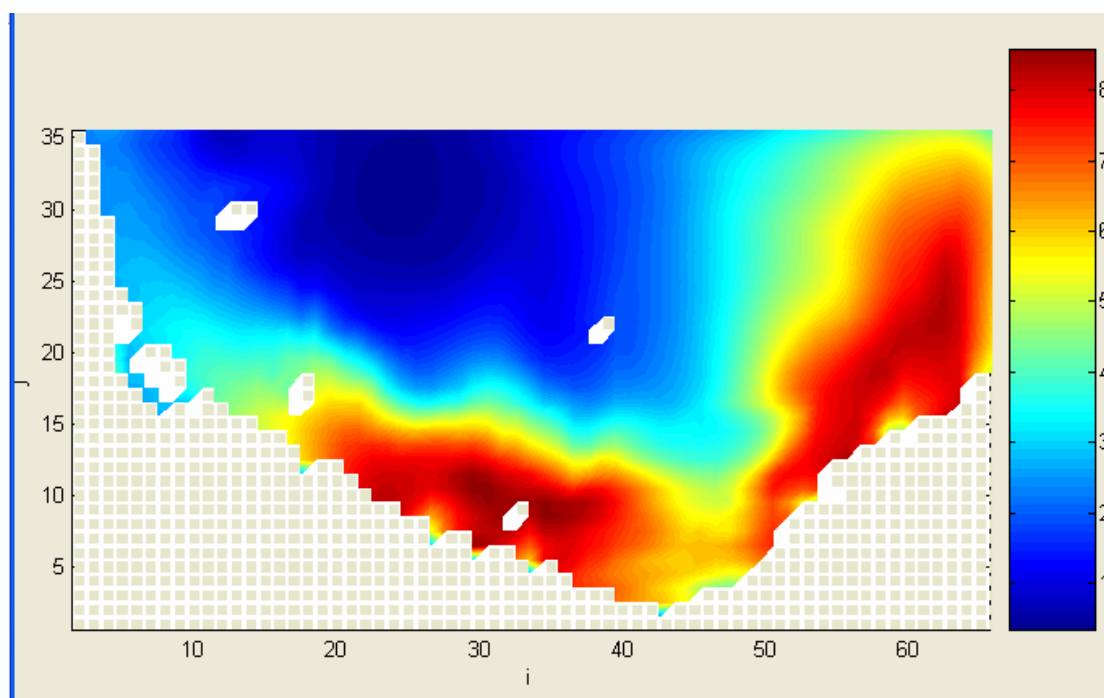


Figure 24. Modelled Seasonal averaged (November-December-January) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with No Mussel farm

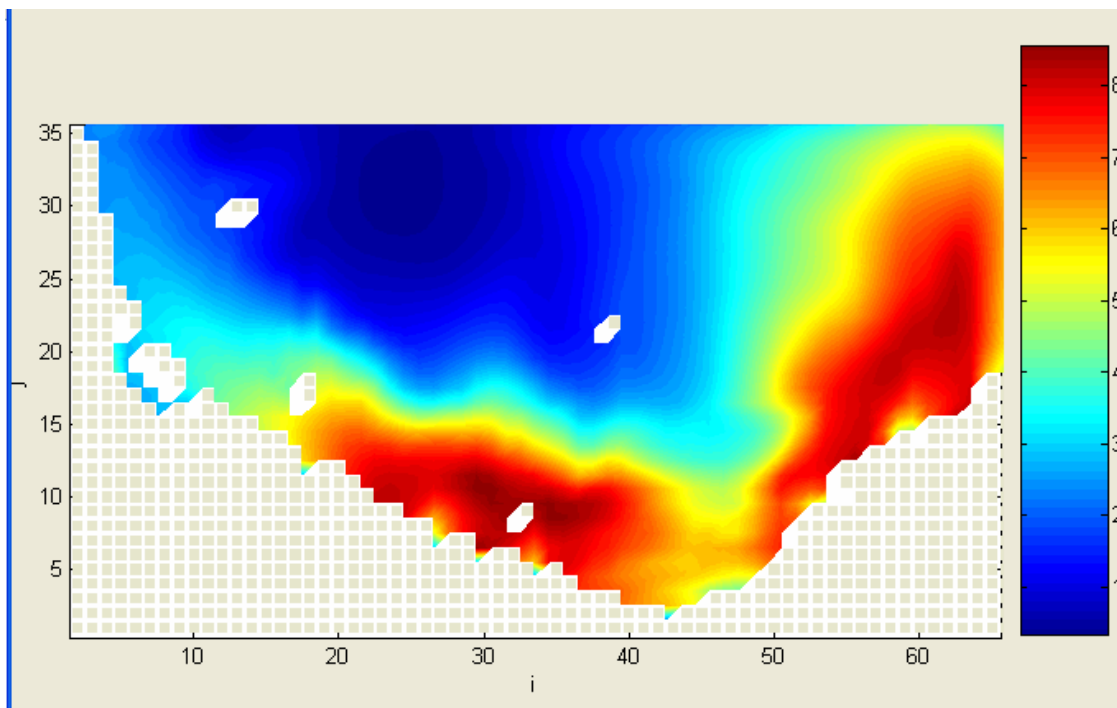


Figure 25. Modelled Seasonal averaged (November-December-January) phytoplankton chlorophyll-a ( $\text{mg}/\text{m}^3$ ) in the surface layer within the Bay of Plenty with 1 Mussel farm

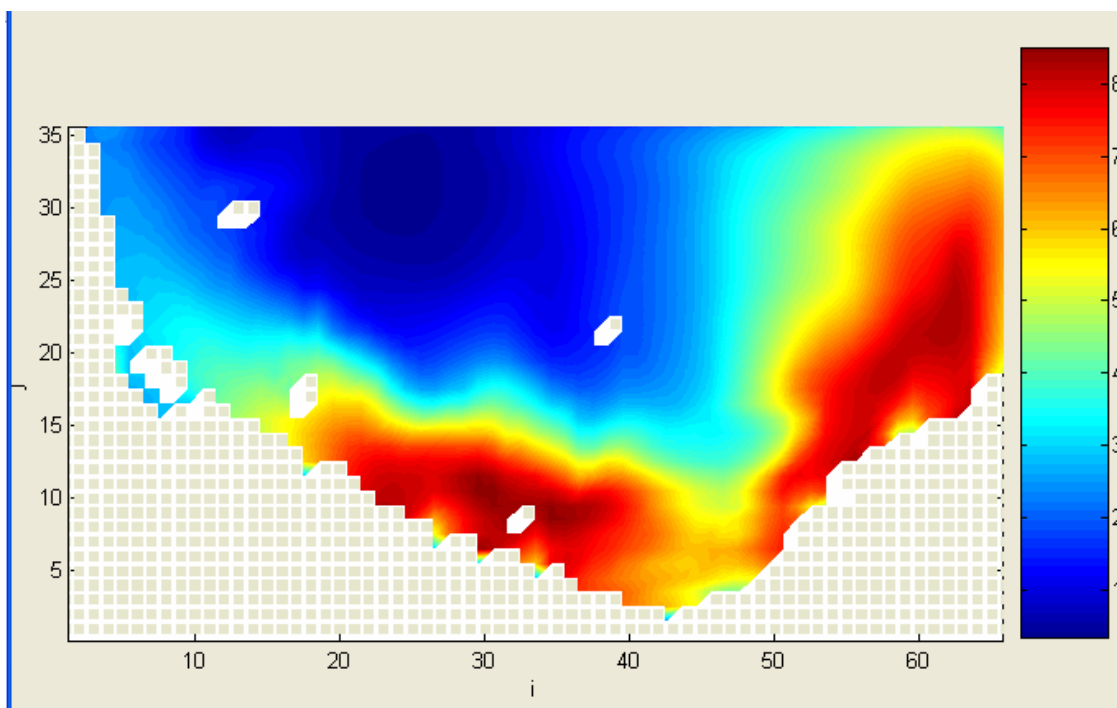


Figure 26. Modelled Seasonal averaged (November-December-January) phytoplankton chlorophyll-a ( $\text{mg}/\text{m}^3$ ) in the surface layer within the Bay of Plenty with 2 Mussel farm

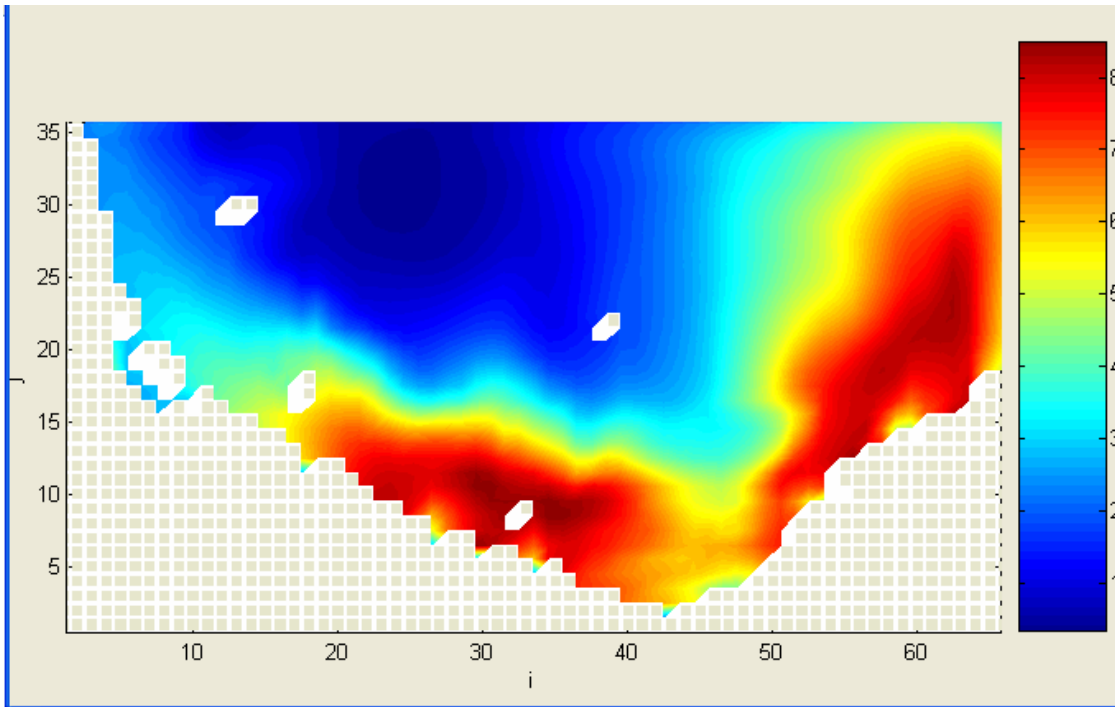


Figure 27. Modelled Seasonal averaged (November-December-January) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with 3 Mussel farm

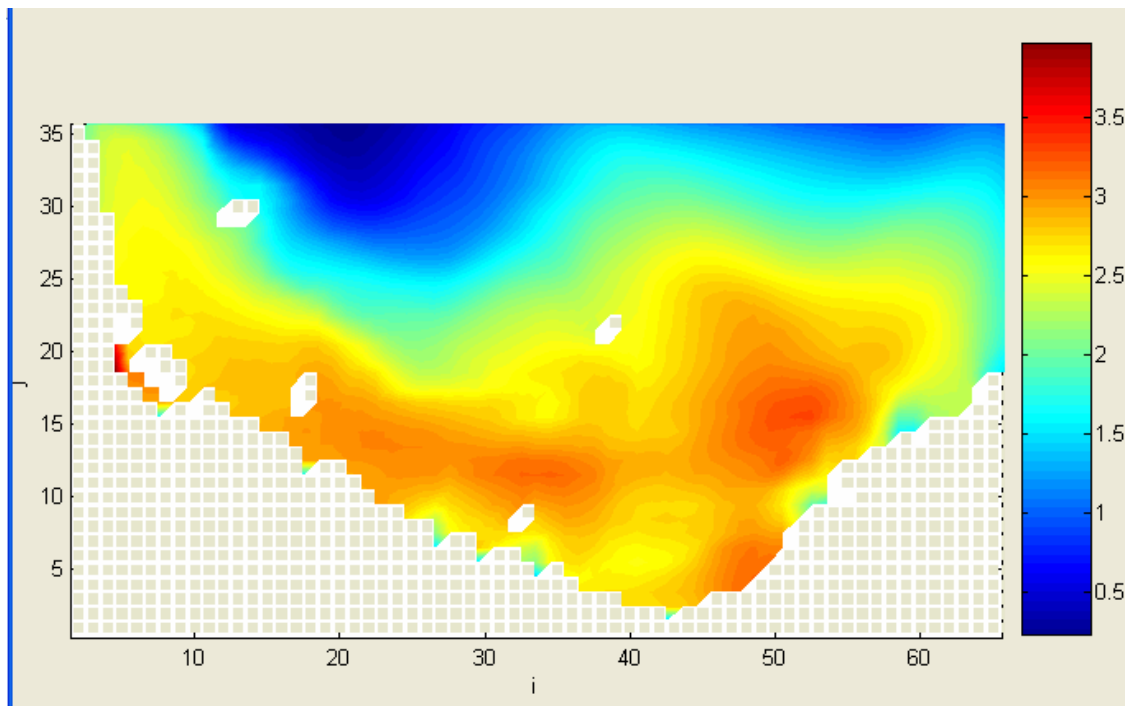


Figure 28. Modelled Seasonal averaged (February-March-April) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with No Mussel farm

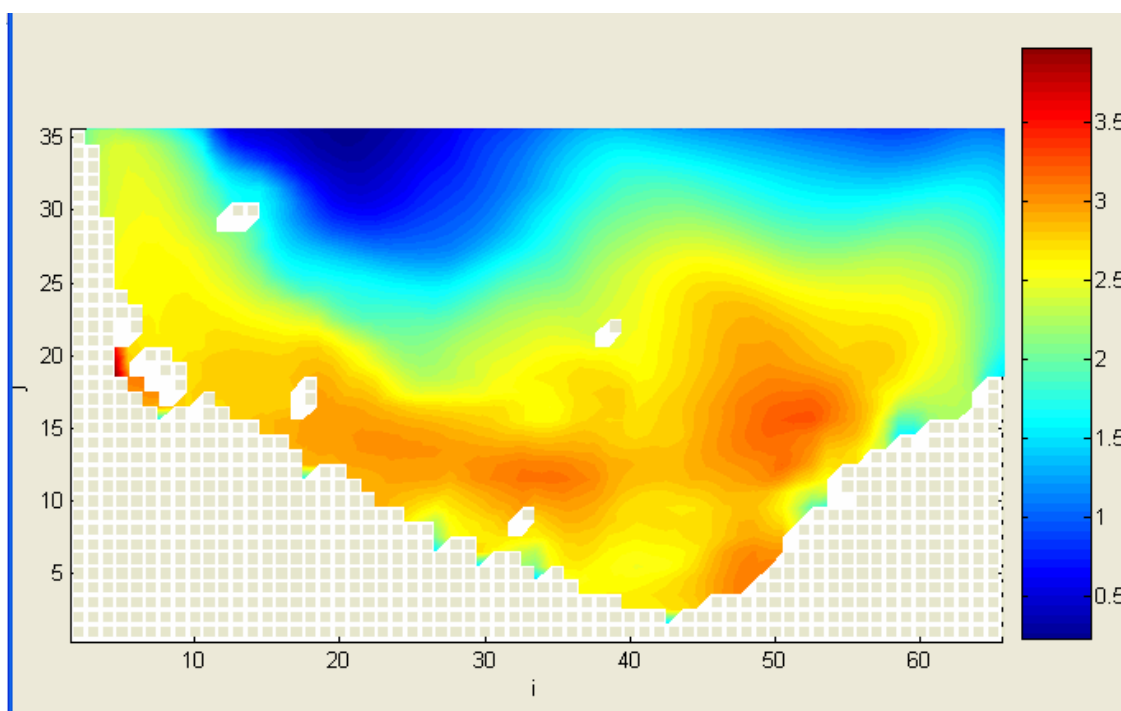


Figure 29. Modelled Seasonal averaged (February-March-April) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with 1 Mussel farm

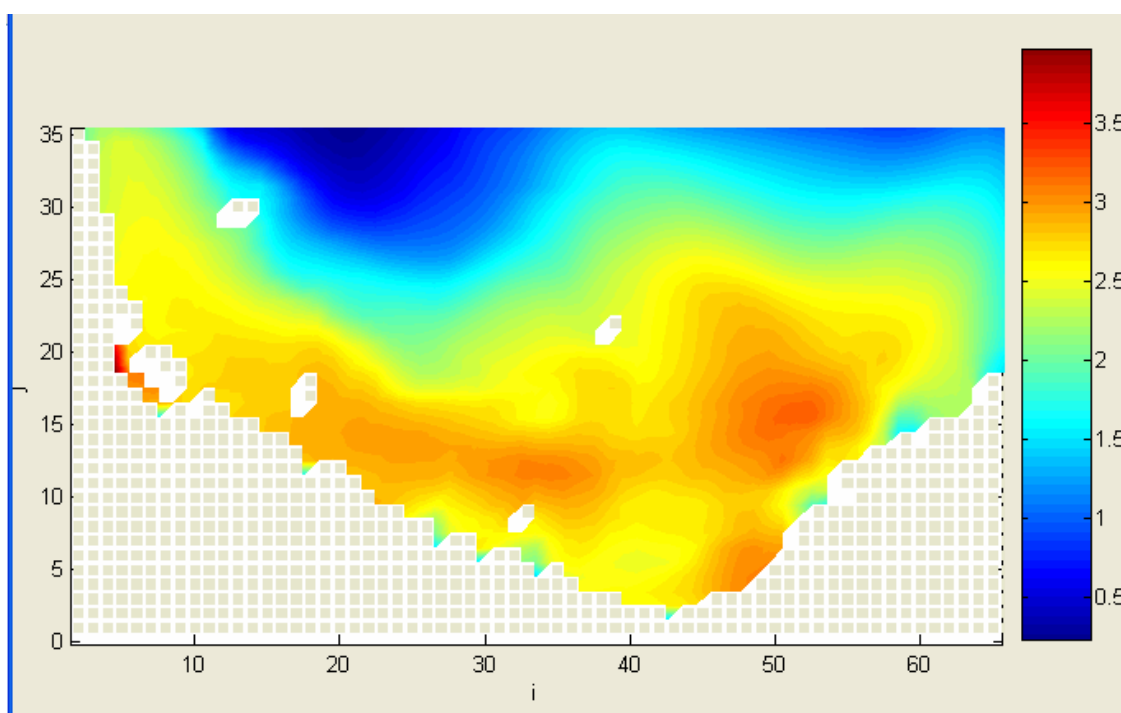


Figure 30. Modelled Seasonal averaged (February-March-April) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with 2 Mussel farms

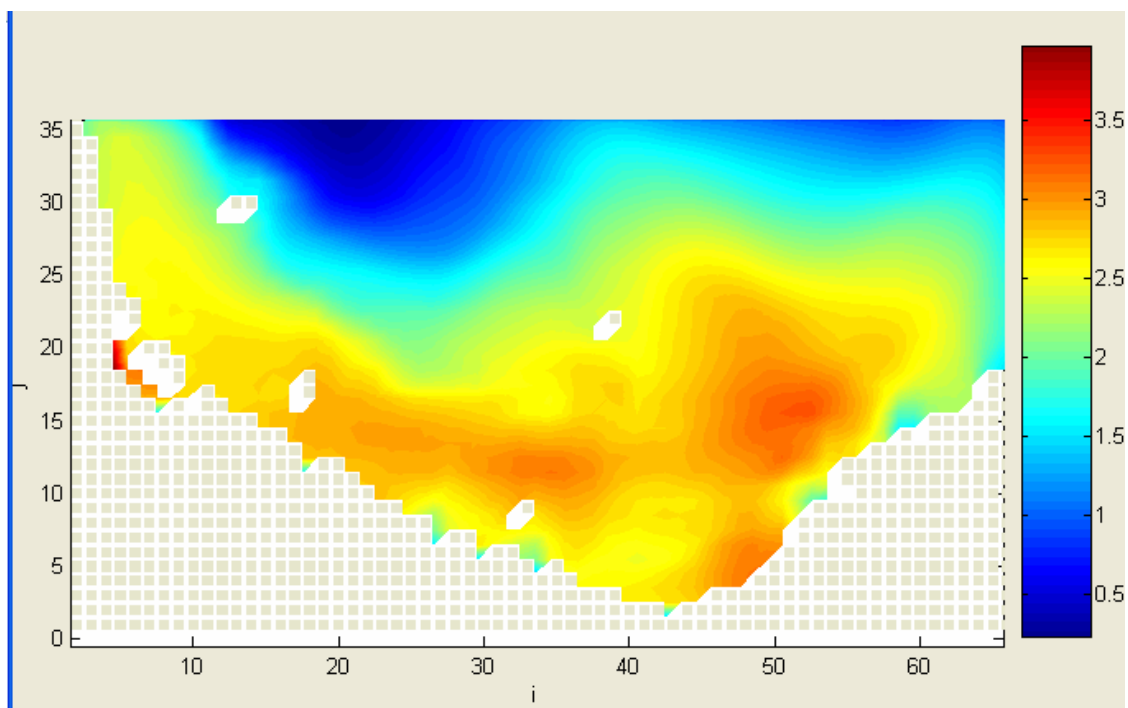


Figure 31. Modelled Seasonal averaged (February-March-April) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with 3 Mussel farm

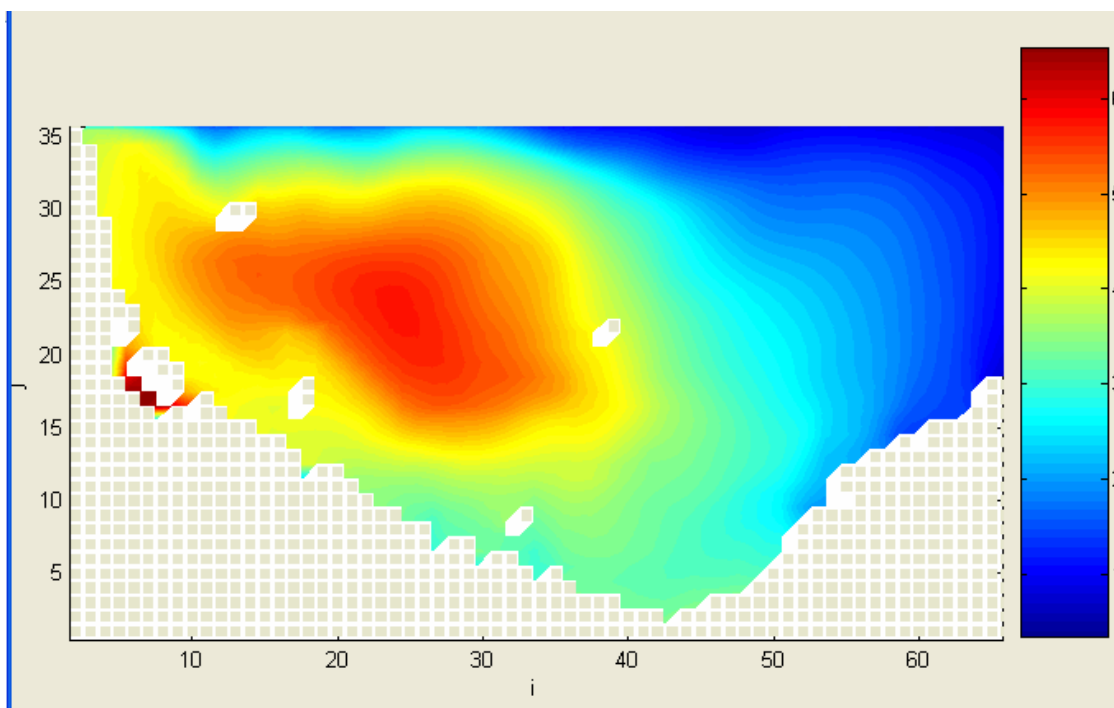


Figure 32. Modelled Seasonal averaged (May-June-July) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with No Mussel farm

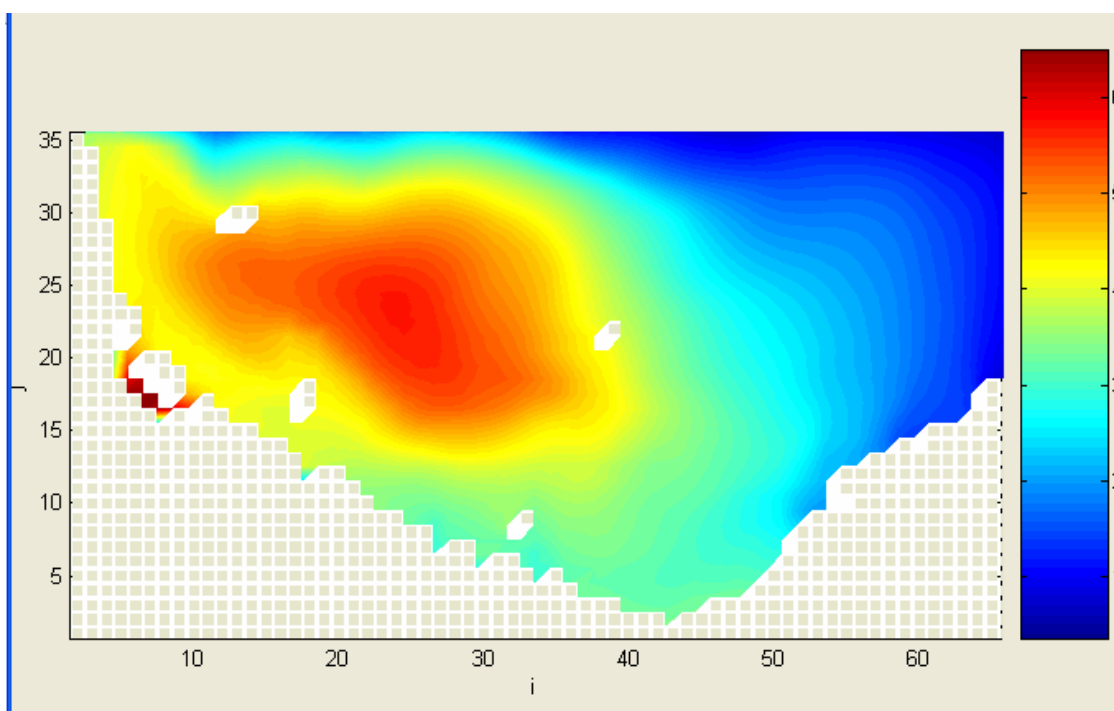


Figure 33. Modelled Seasonal averaged (May-June-July) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with 1 Mussel farm

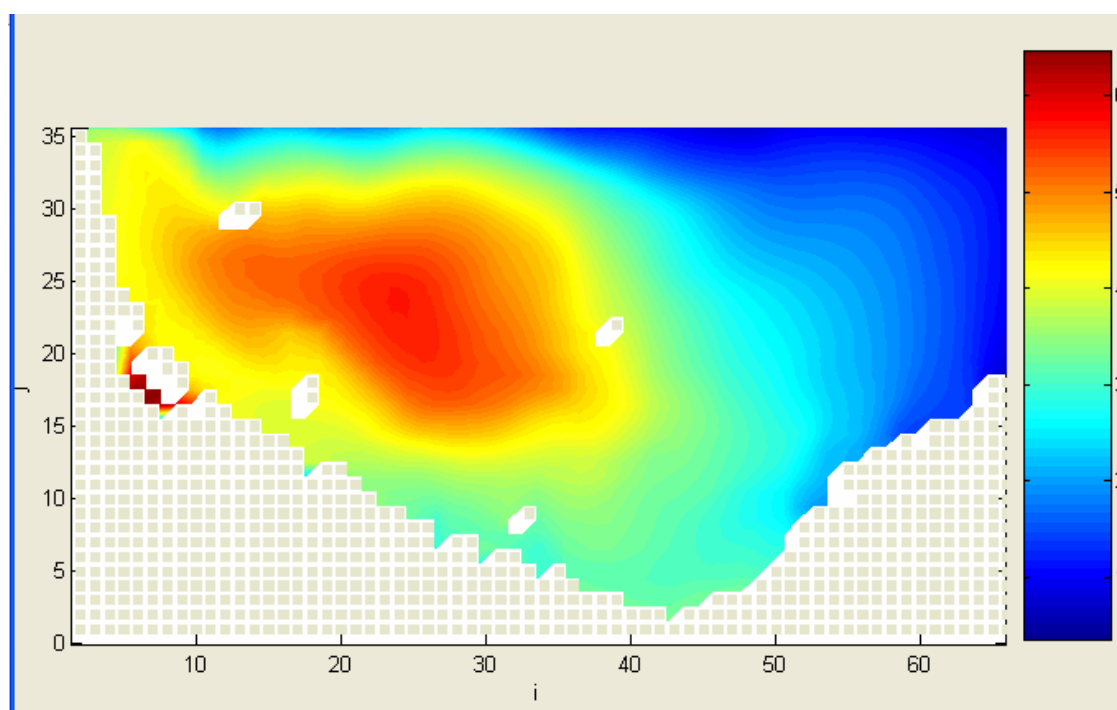


Figure 34. Modelled Seasonal averaged (May-June-July) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with 2 Mussel farm

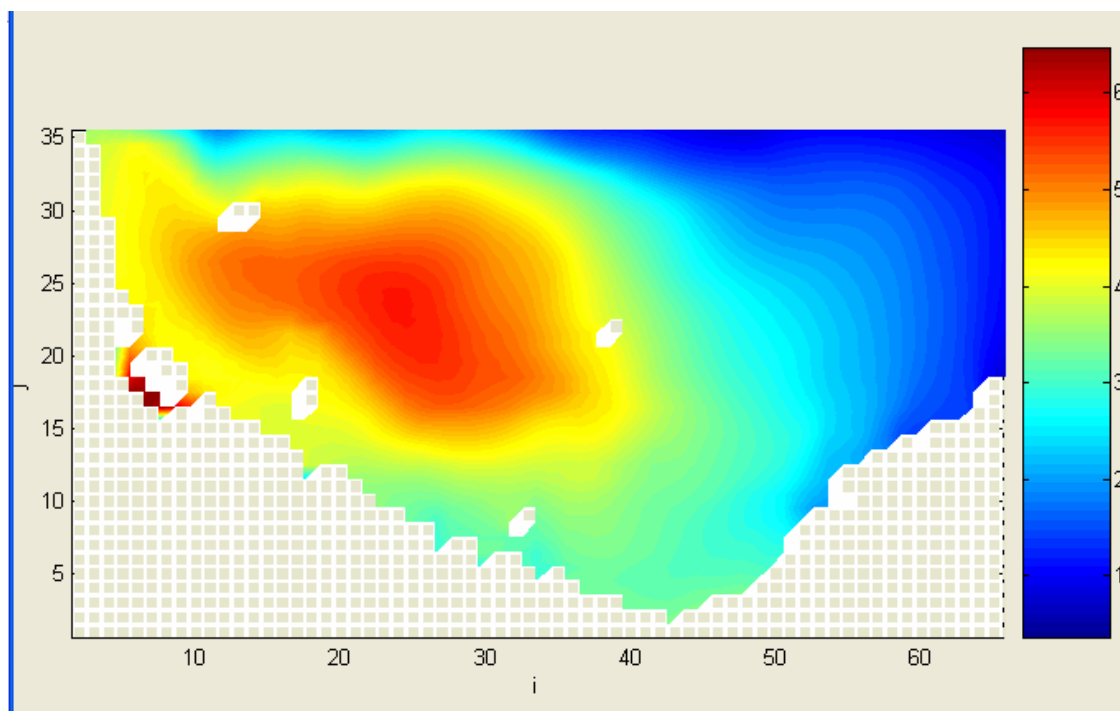


Figure 35. Modelled Seasonal averaged (May-June-July) phytoplankton chlorophyll-a (mg/m<sup>3</sup>) in the surface layer within the Bay of Plenty with 3 Mussel farm