## **BACK RIVER NUTRIENTS TMDLS**

## APPENDIX 1

PART B

Back River Nutrient TMDL Document version: February 14, 2005

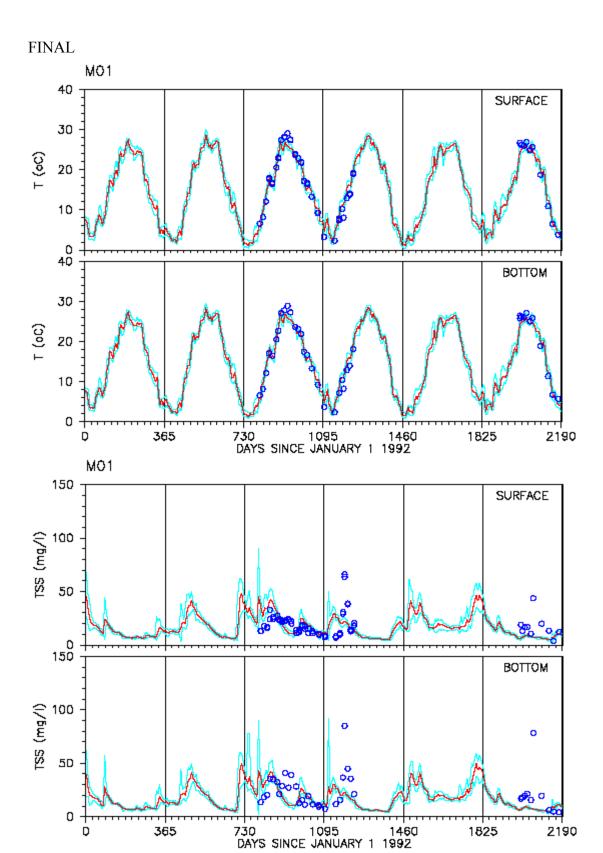
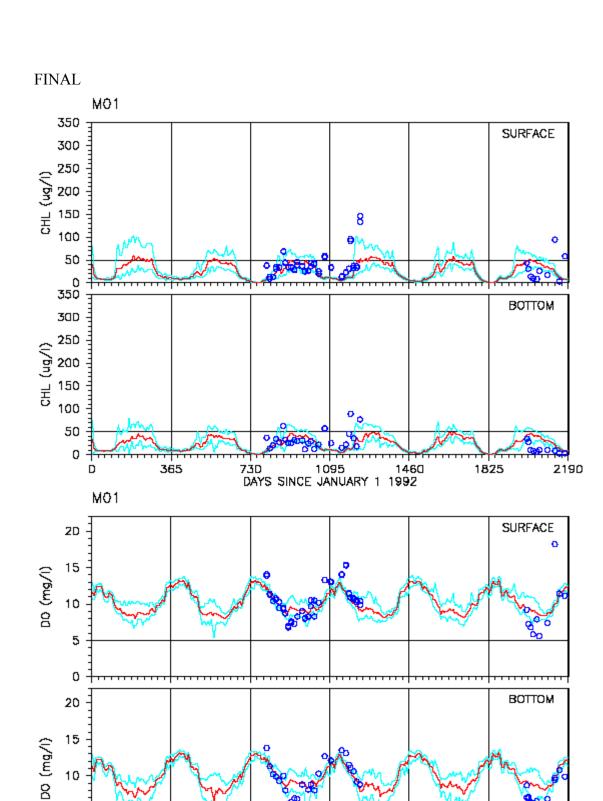


Fig. 1. Time series comparison of model calibration results and data for temperature and total suspended solids in Back River (M01)

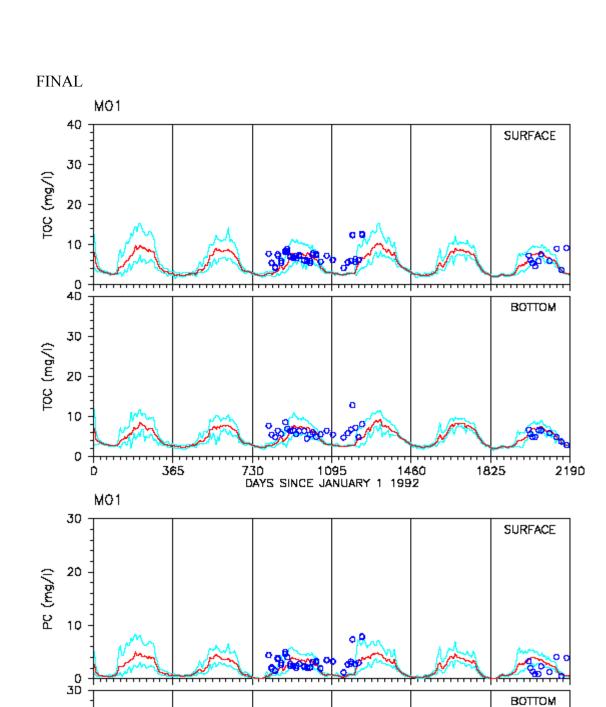


73D 1095 1460 DAYS SINCE JANUARY 1 1992 365 1825 219D Fig. 2. Time series comparison of model calibration results and data for chlorophyll a and dissolved oxygen in Back River (M01)

10

5

0



730 1095 1460 DAYS SINCE JANUARY 1 1992 Fig. 3. Time series comparison of model calibration results and data for total organic carbon and particulate organic carbon in Back River (M01)

1825

2190

365

20

10

0

PC (mg/l)



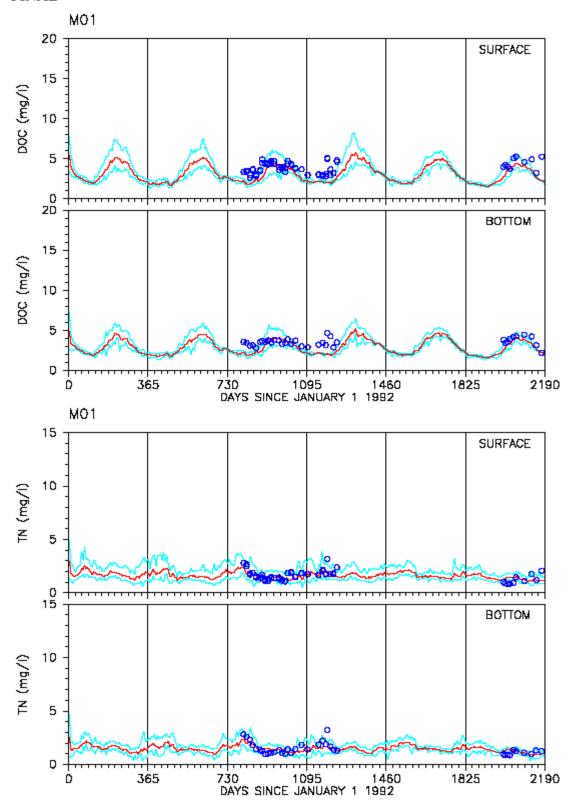


Fig. 4. Time series comparison of model calibration results and data for dissolved organic carbon and total nitrogen in Back River (M01)



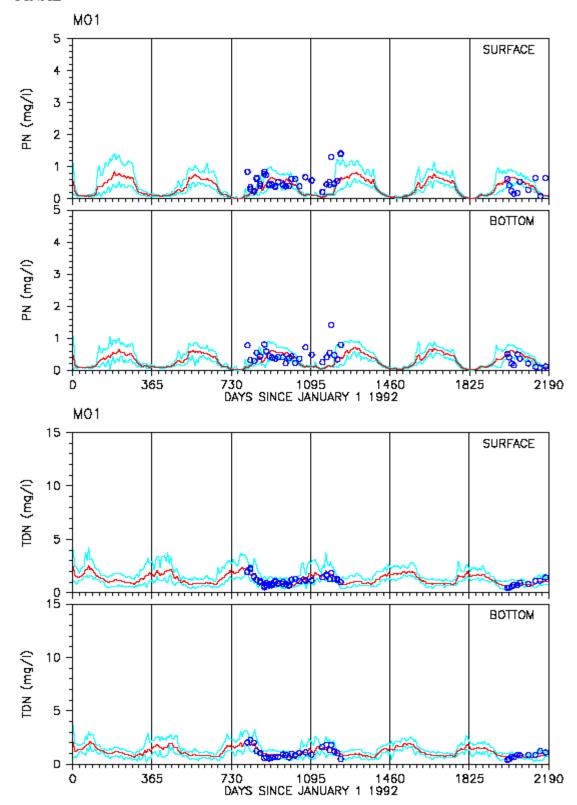


Fig. 5. Time series comparison of model calibration results and data for particulate nitrogen and total dissolved nitrogen in Back River (M01)

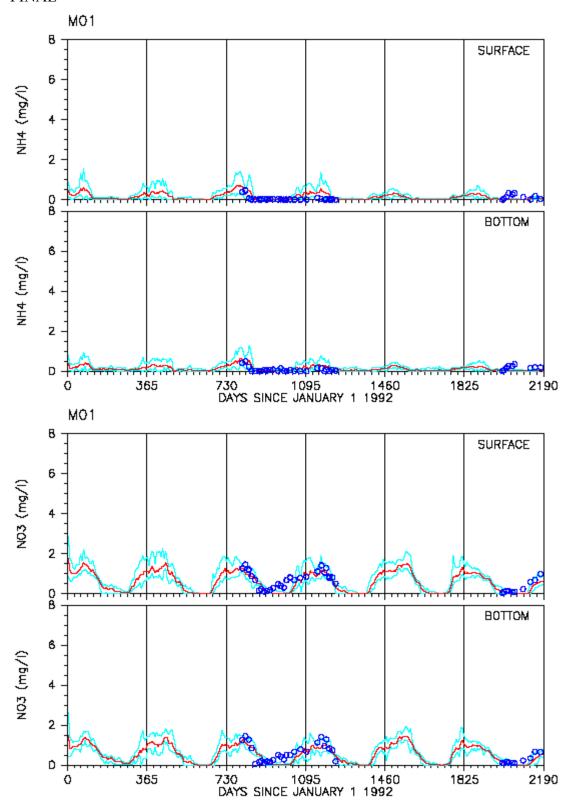


Fig. 6. Time series comparison of model calibration results and data for ammonia and nitrate nitrogen in Back River (M01)

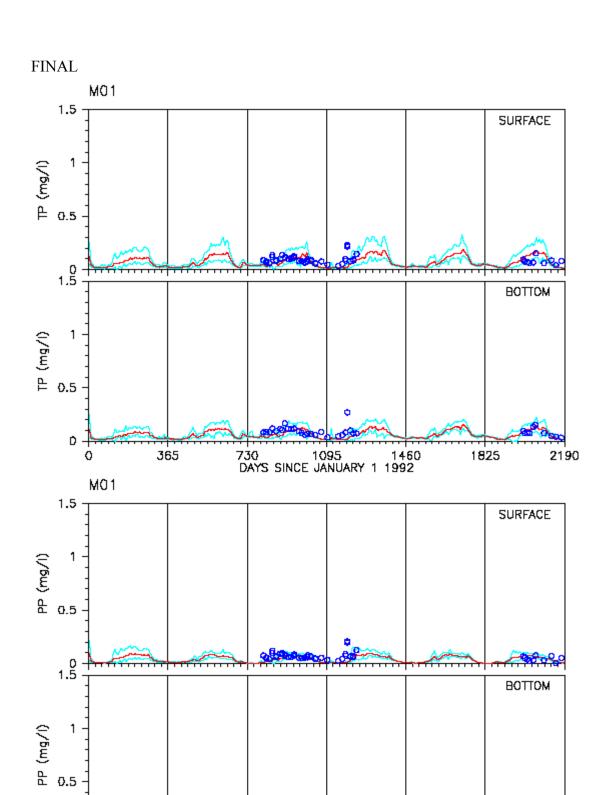


Fig. 7. Time series comparison of model calibration results and data for total phosphorus and particulate phosphorus in Back River (M01)

730 1095 1460 DAYS SINCE JANUARY 1 1992

1825

2190

365

D

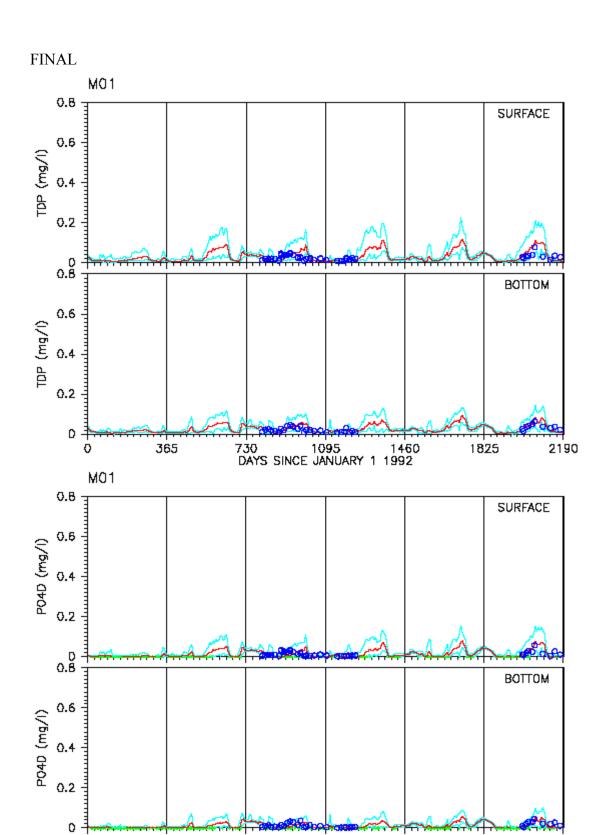


Fig. 8. Time series comparison of model calibration results and data for total dissolved phosphorus and dissolved phosphate in Back River (M01)

730 1095 1460 DAYS SINCE JANUARY 1 1992

1825

2190

365

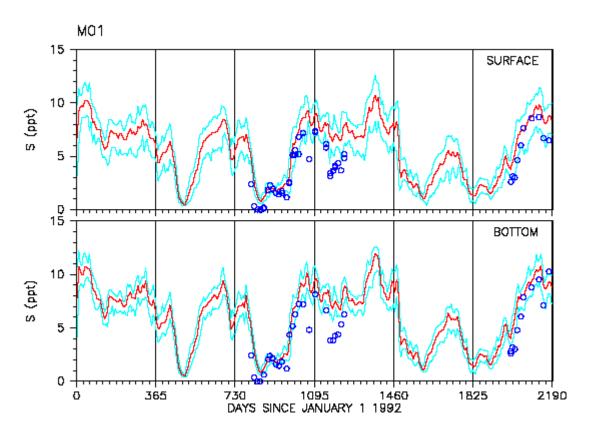


Fig. 9. Time series comparison of model calibration results and data for salinity in Back River (M01)



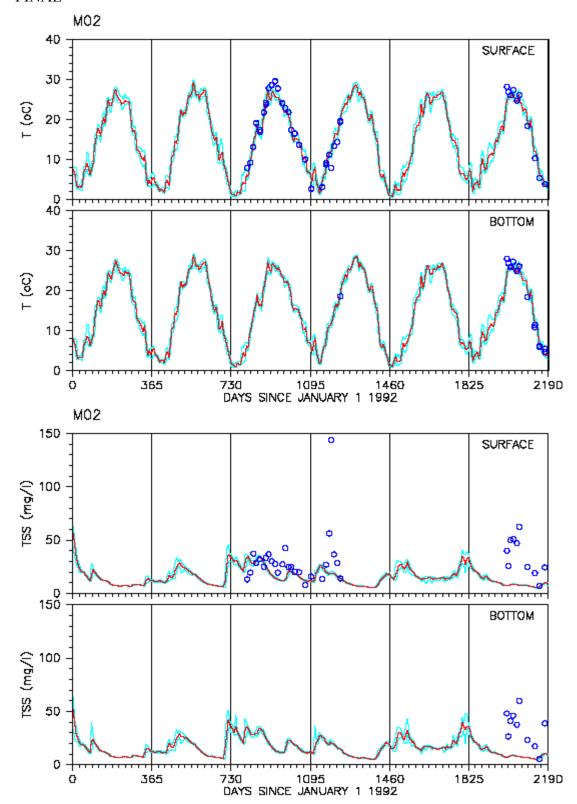


Fig. 10. Time series comparison of model calibration results and data for temperature and total suspended solids in Back River (M02)



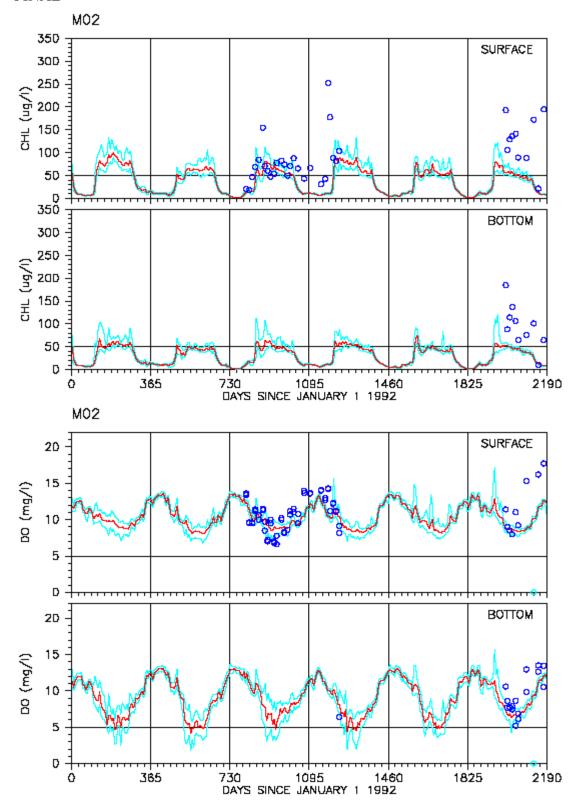


Fig. 11. Time series comparison of model calibration results and data for chlorophyll a and dissolved oxygen in Back River (M02)

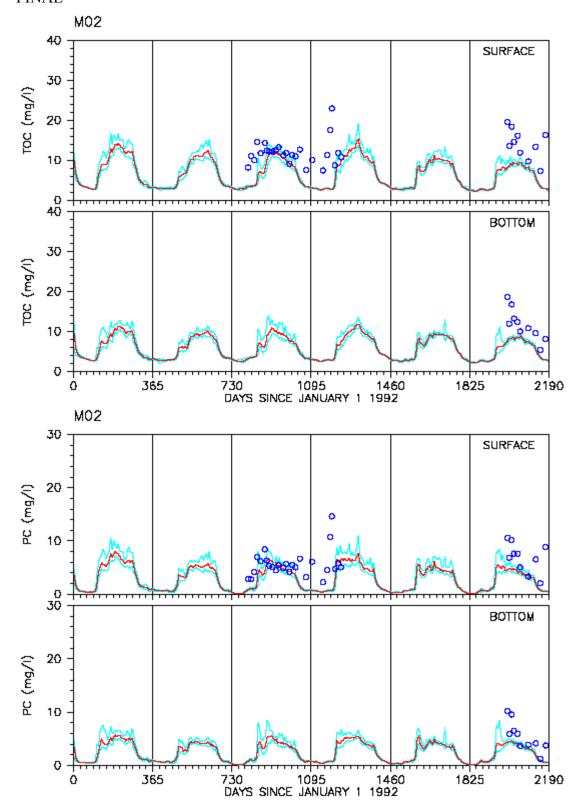


Fig. 12. Time series comparison of model calibration results and data for total organic carbon and particulate organic carbon in Back River (M02)

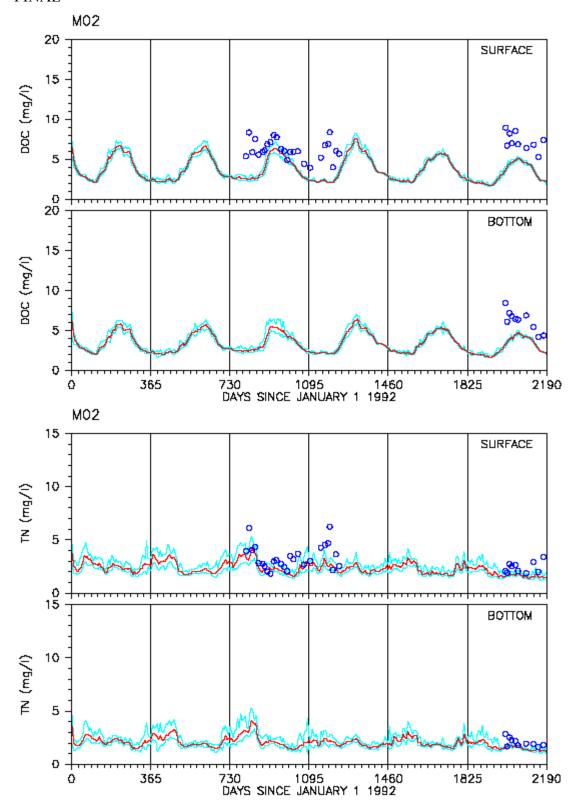


Fig. 13. Time series comparison of model calibration results and data for dissolved organic carbon and total nitrogen in Back River (M02)

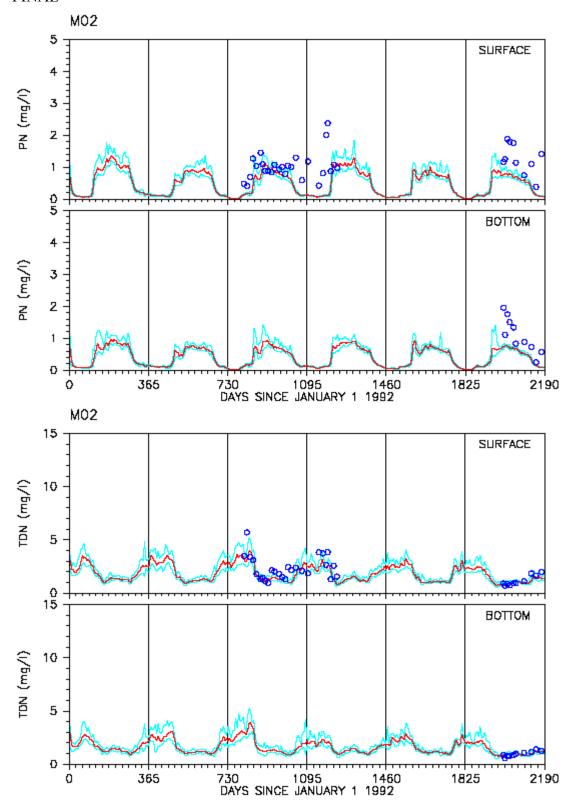


Fig. 14. Time series comparison of model calibration results and data for particulate nitrogen and total dissolved nitrogen in Back River (M02)

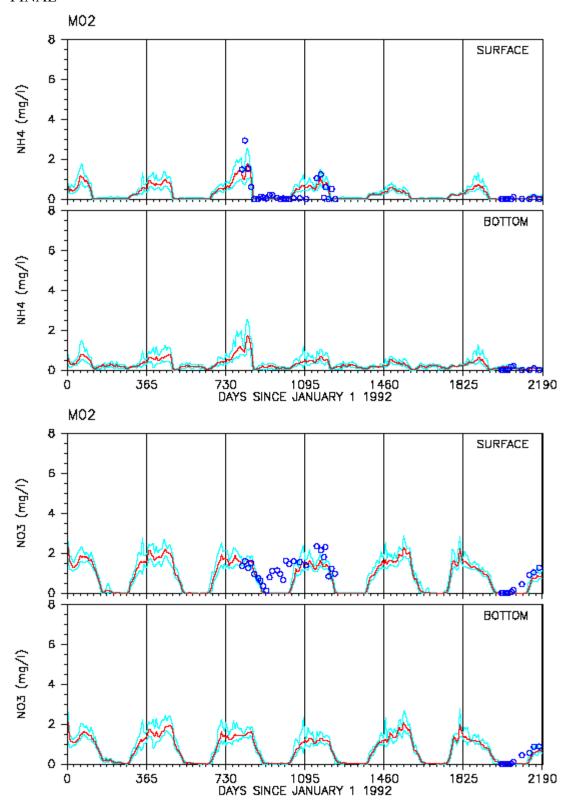


Fig. 15. Time series comparison of model calibration results and data for ammonia and nitrate nitrogen in Back River (M02)



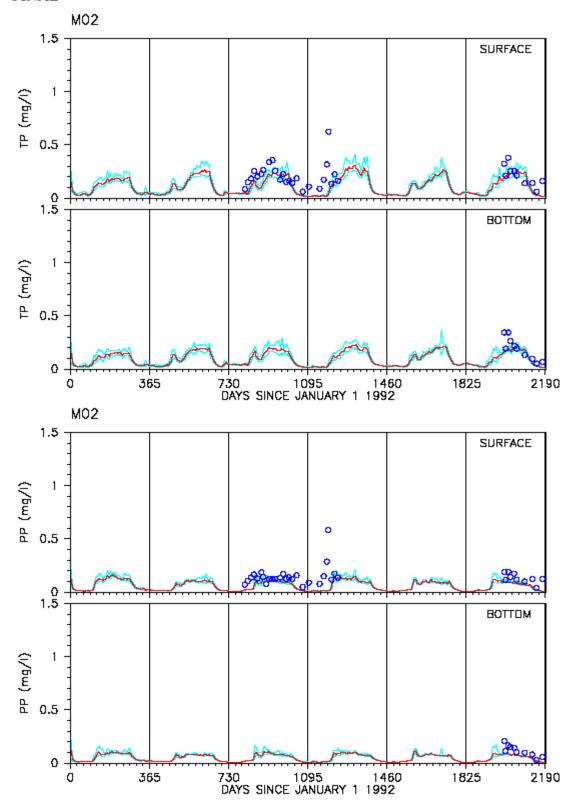


Fig. 16. Time series comparison of model calibration results and data for total phosphorus and particulate phosphorus in Back River (M02)



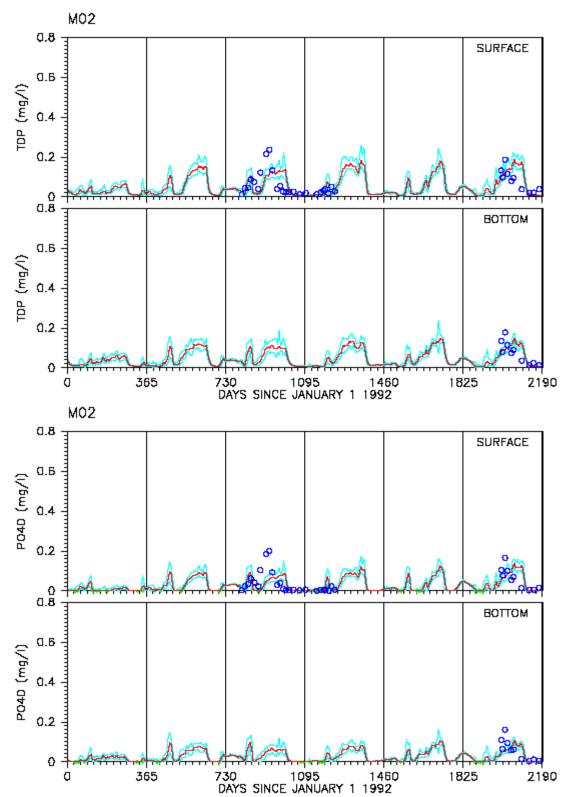


Fig. 17. Time series comparison of model calibration results and data for total dissolved phosphorus and dissolved phosphate in Back River (M02)

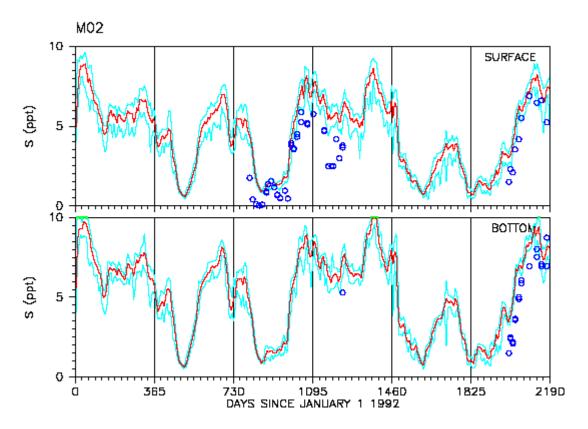


Fig. 18. Time series comparison of model calibration results and data for salinity in Back River (M02)

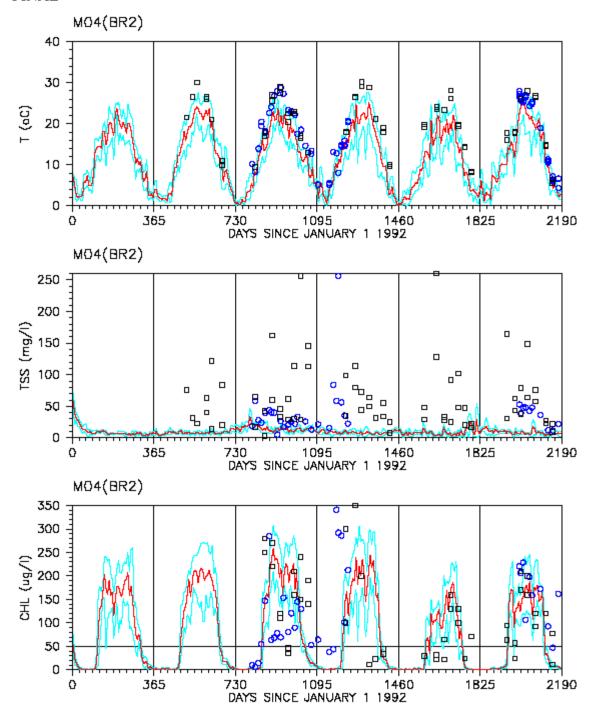


Fig. 19. Time series comparison of model calibration results and data for temperature, total suspended solids, and chlorophyll a in Back River (M04)

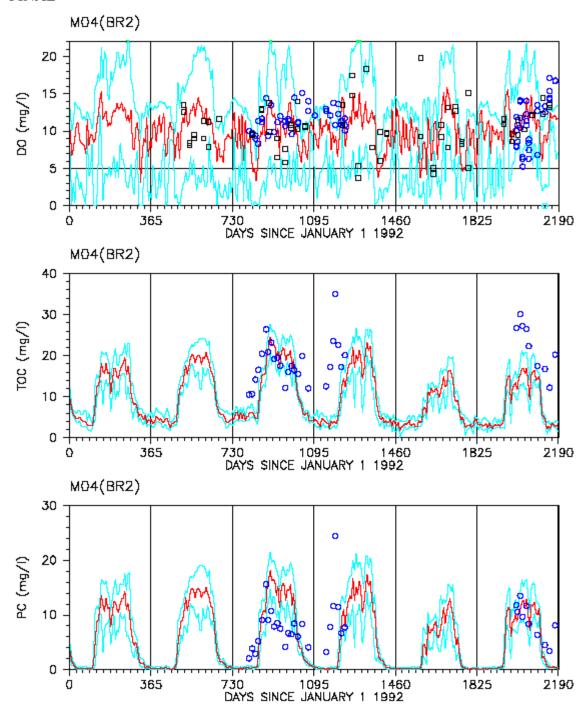


Fig. 20. Time series comparison of model calibration results and data for dissolved oxygen, total organic carbon, and particulate organic carbon in Back River (M04)

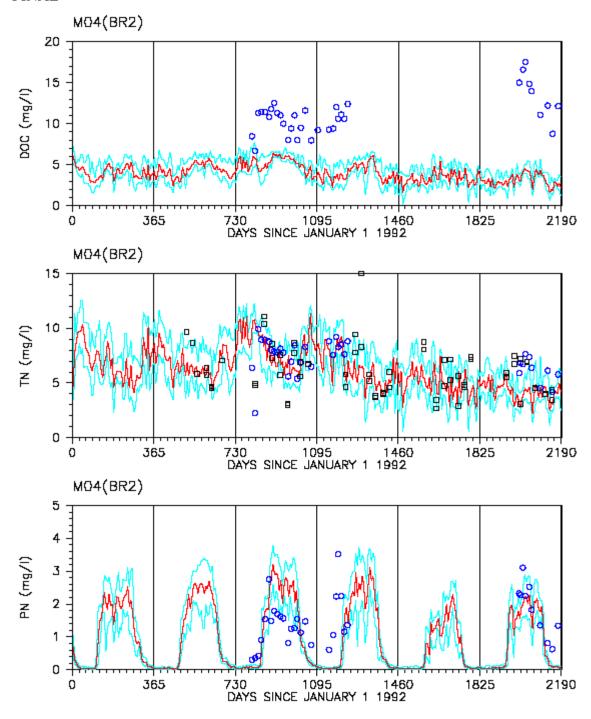


Fig. 21. Time series comparison of model calibration results and data for dissolved organic carbon, total nitrogen, and particulate nitrogen in Back River (M04)

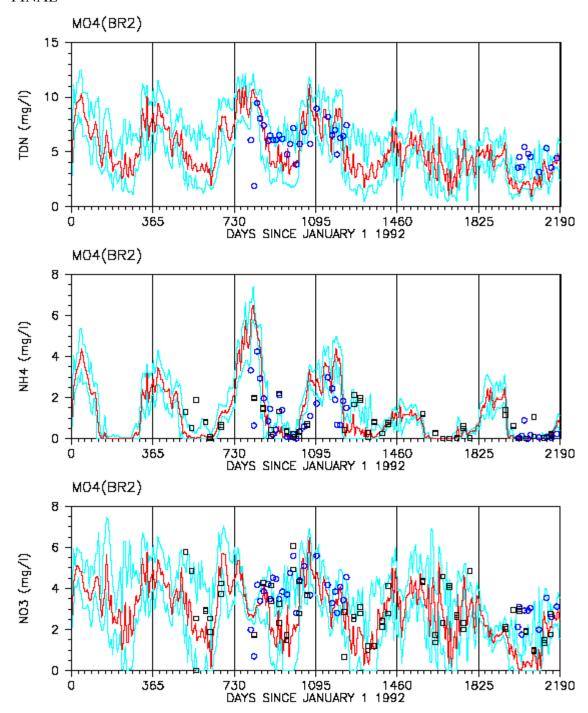


Fig. 22. Time series comparison of model calibration results and data for total dissolved nitrogen, ammonia, and nitrate nitrogen in Back River (M04)

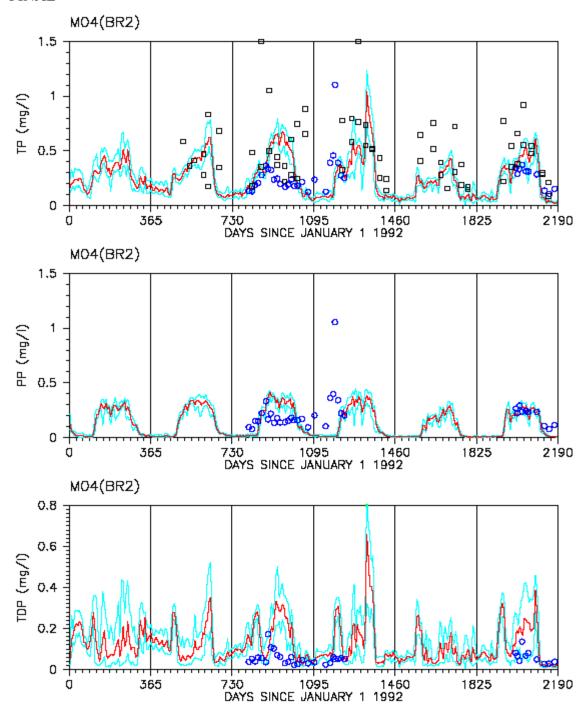


Fig. 23. Time series comparison of model calibration results and data for total phosphorus, particulate phosphorus, and total dissolved phosphorus in Back River (M04)

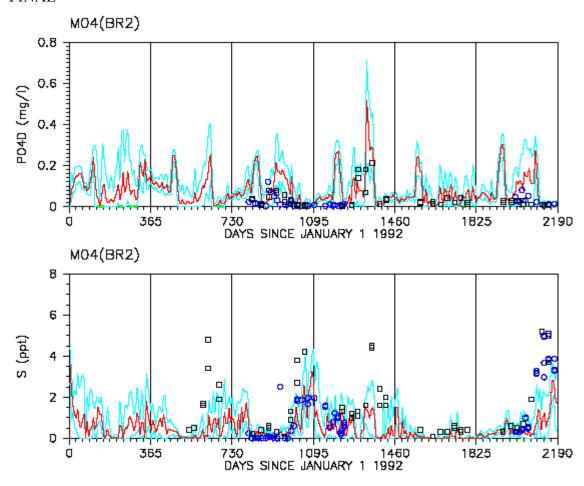


Fig. 24. Time series comparison of model calibration results and data for dissolved phosphate and salinity in Back River (M04)

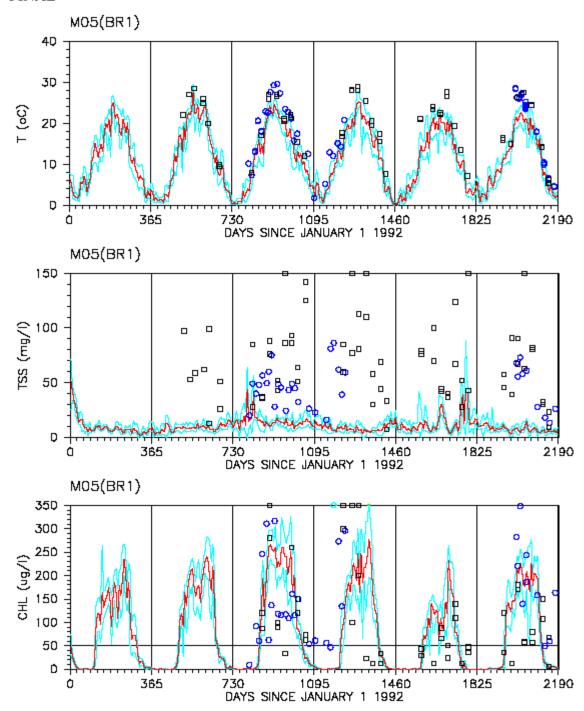


Fig. 25. Time series comparison of model calibration results and data for temperature, total suspended solids, and chlorophyll a in Back River (M05)

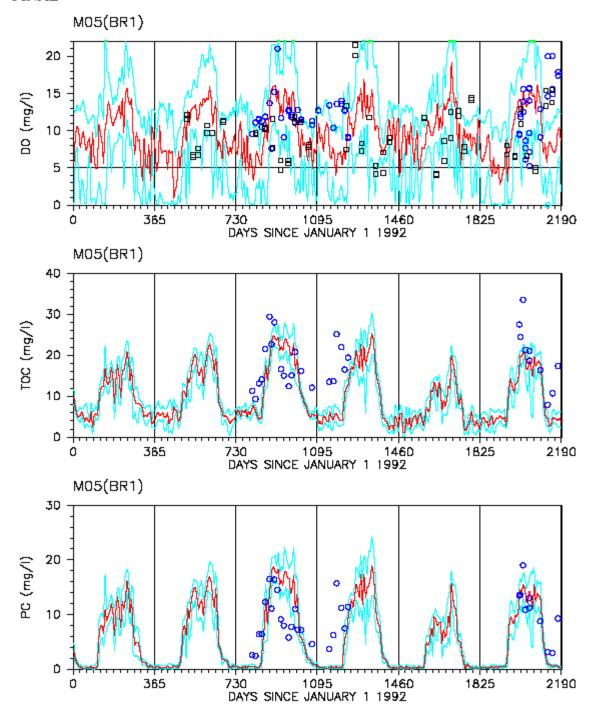


Fig. 26. Time series comparison of model calibration results and data for dissolved oxygen, total organic carbon, and particulate organic carbon in Back River (M05)

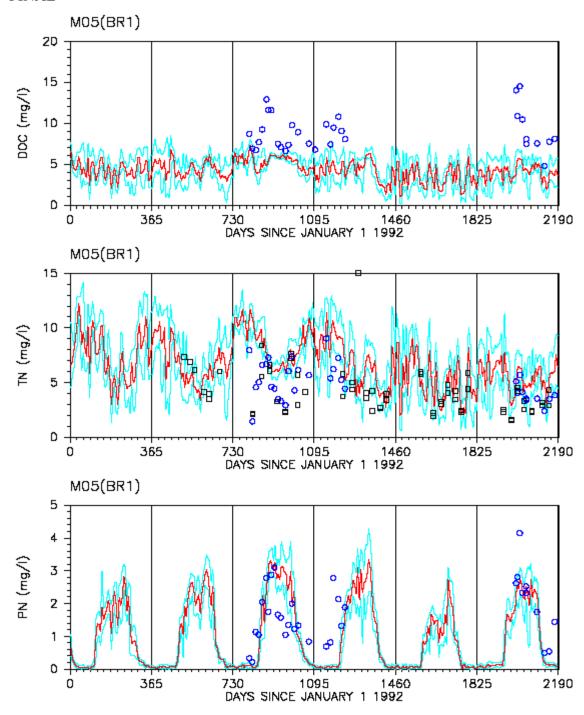


Fig. 27. Time series comparison of model calibration results and data for dissolved organic carbon, total nitrogen, and particulate nitrogen in Back River (M05)

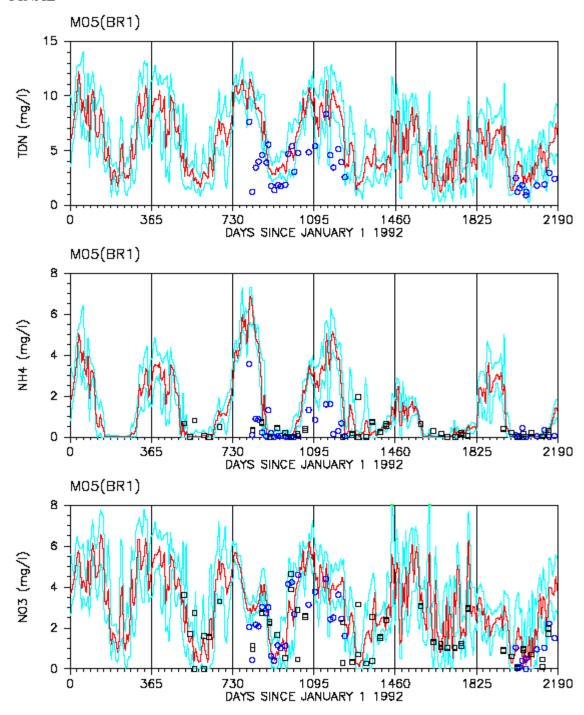


Fig. 28. Time series comparison of model calibration results and data for total dissolved nitrogen, ammonia, and nitrate nitrogen in Back River (M05)

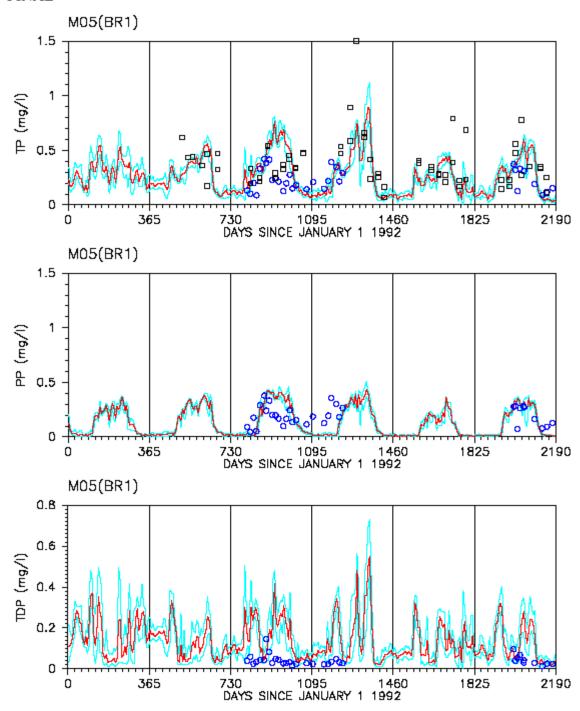


Fig. 29. Time series comparison of model calibration results and data for total phosphorus, particulate phosphorus, and total dissolved phosphorus in Back River (M05)

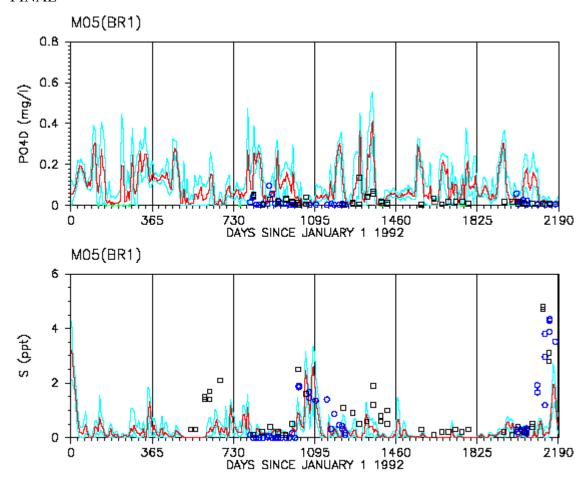


Fig. 30. Time series comparison of model calibration results and data for dissolved phosphate and salinity in Back River (M05)



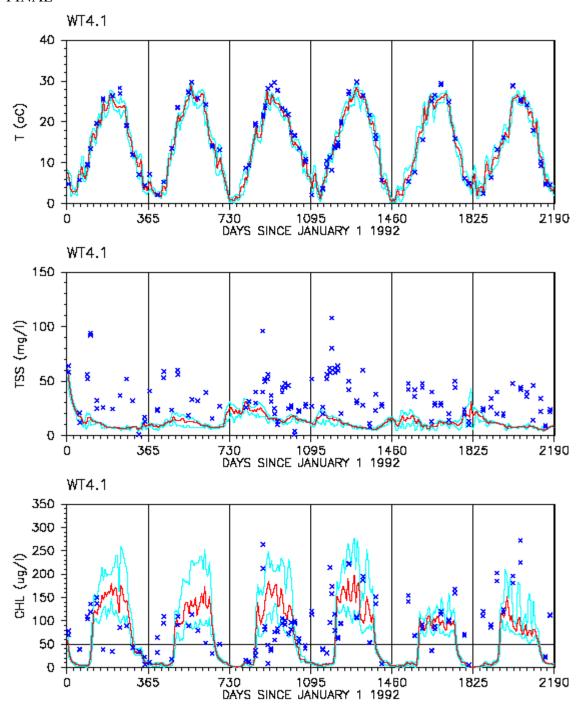


Fig. 31. Time series comparison of model calibration results and data for temperature, total suspended solids, and chlorophyll a in Back River (WT4.1)

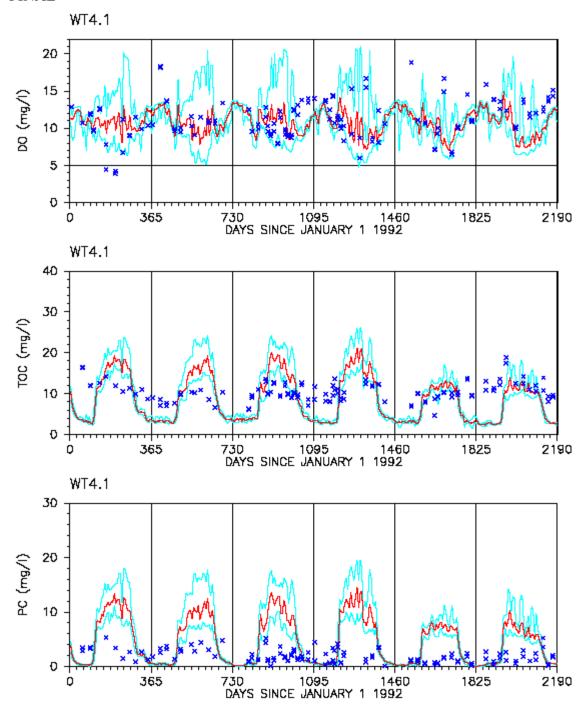


Fig. 32. Time series comparison of model calibration results and data for dissolved oxygen, total organic carbon, and particulate organic carbon in Back River (WT4.1)



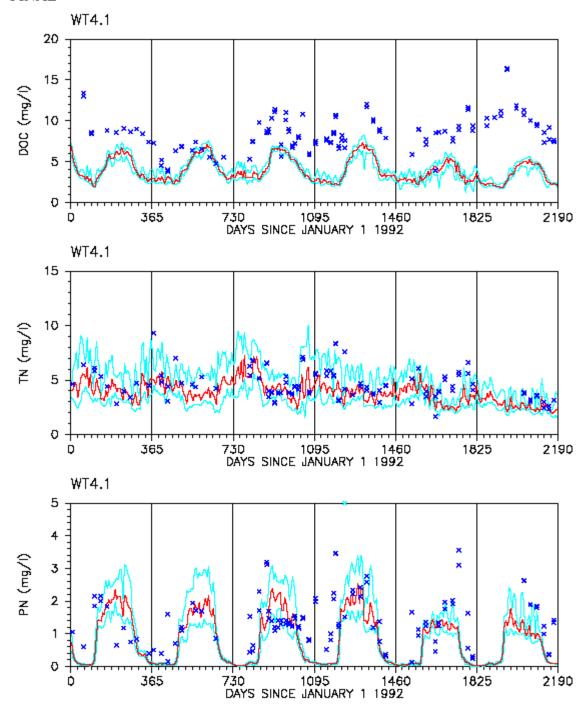


Fig. 33. Time series comparison of model calibration results and data for dissolved organic carbon, total nitrogen, and particulate nitrogen in Back River (WT4.1)



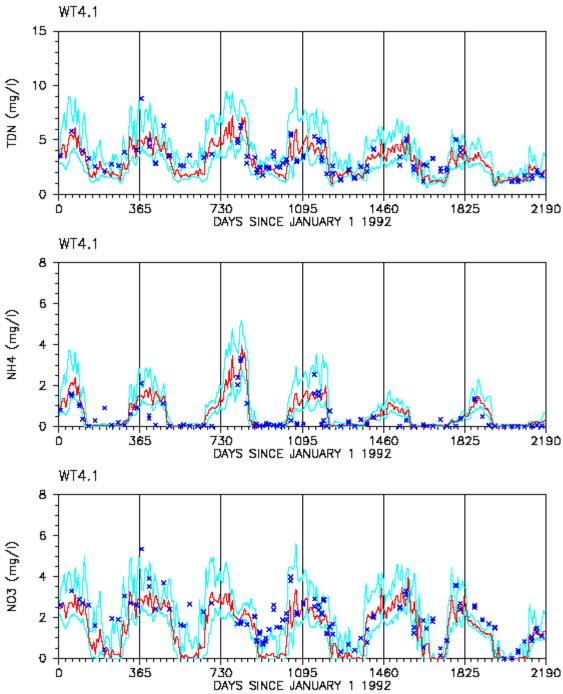


Fig. 34. Time series comparison of model calibration results and data for total dissolved nitrogen, ammonia, and nitrate nitrogen in Back River (WT4.1)



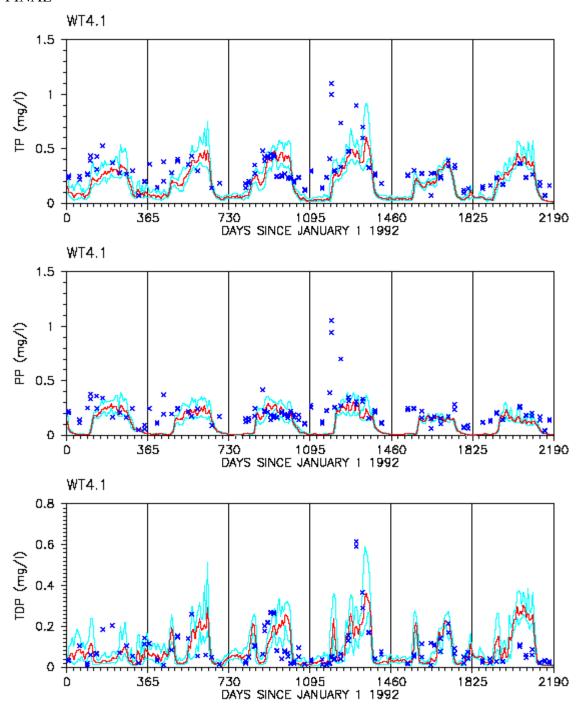


Fig. 35. Time series comparison of model calibration results and data for total phosphorus, particulate phosphorus, and total dissolved phosphorus in Back River (WT4.1)

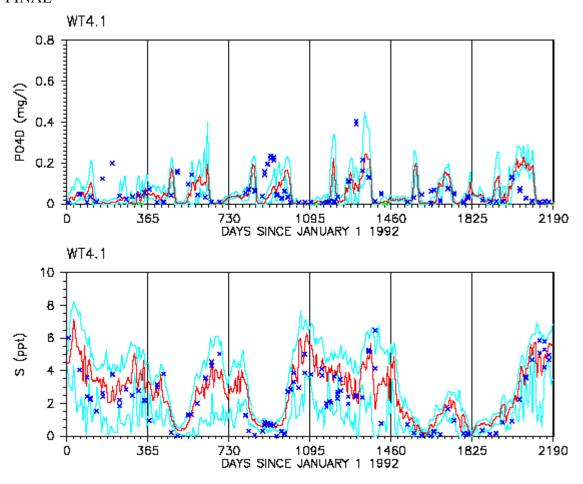


Fig. 36. Time series comparison of model calibration results and data for dissolved phosphate and salinity in Back River (WT4.1)

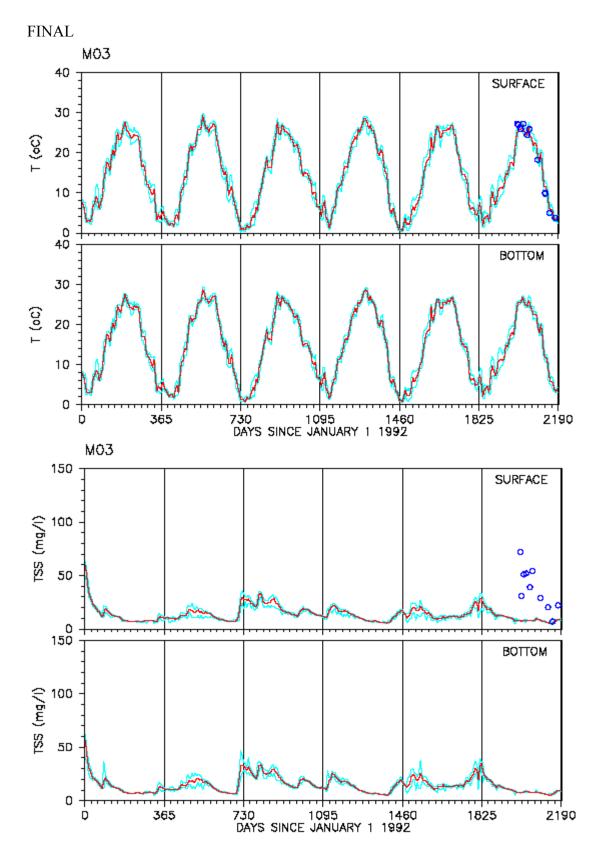


Fig. 37. Time series comparison of model calibration results and data for temperature and total suspended solids in Back River (M03)



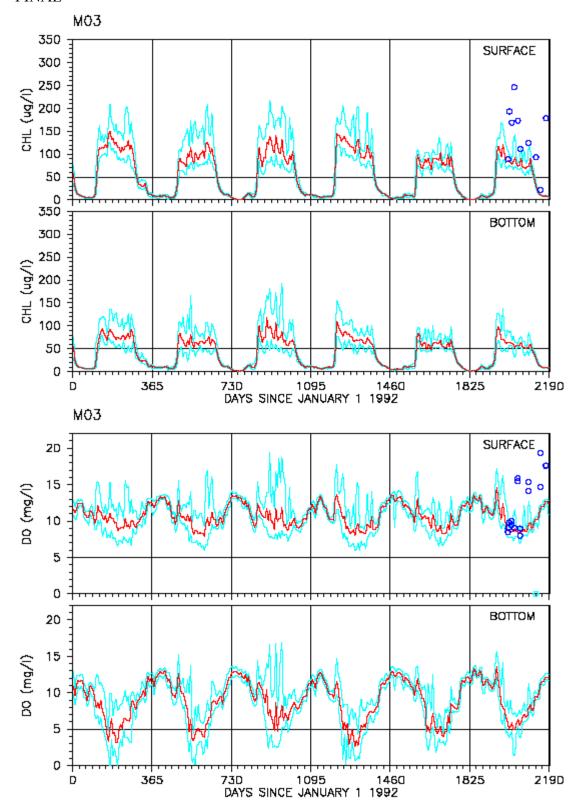


Fig. 38. Time series comparison of model calibration results and data for chlorophyll a and dissolved oxygen in Back River (M03)



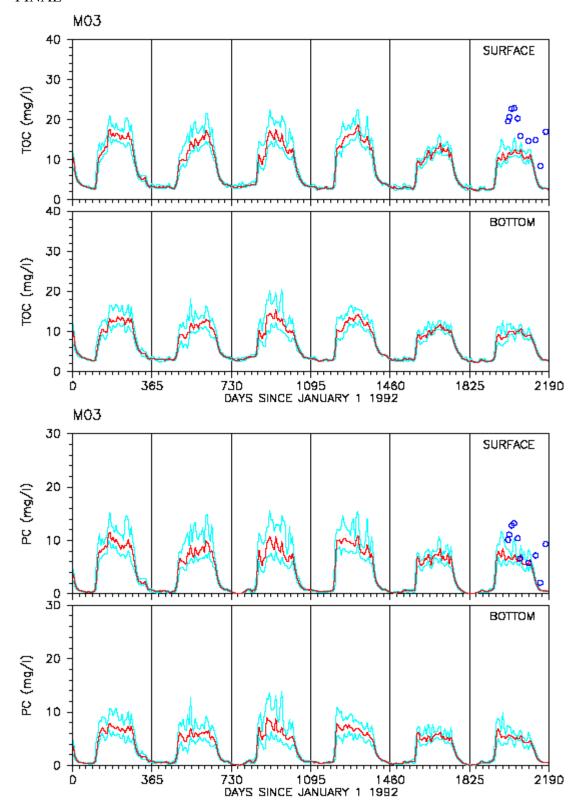


Fig. 39. Time series comparison of model calibration results and data for total organic carbon and particulate organic carbon in Back River (M03)



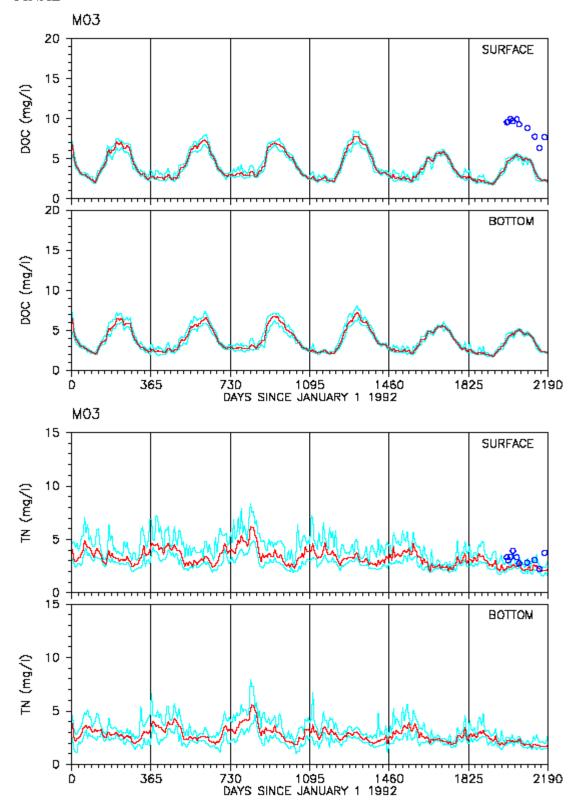


Fig. 40. Time series comparison of model calibration results and data for dissolved organic carbon and total nitrogen in Back River (M03)



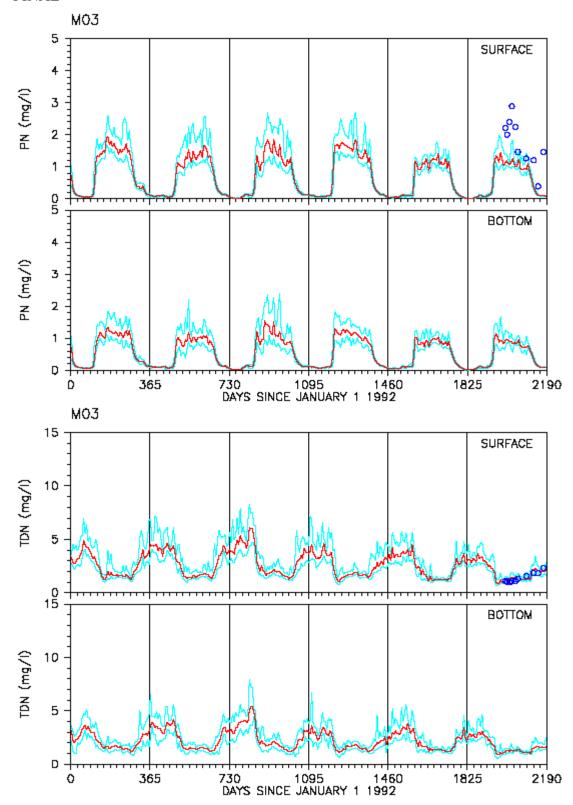


Fig. 41. Time series comparison of model calibration results and data for particulate nitrogen and total dissolved nitrogen in Back River (M03)

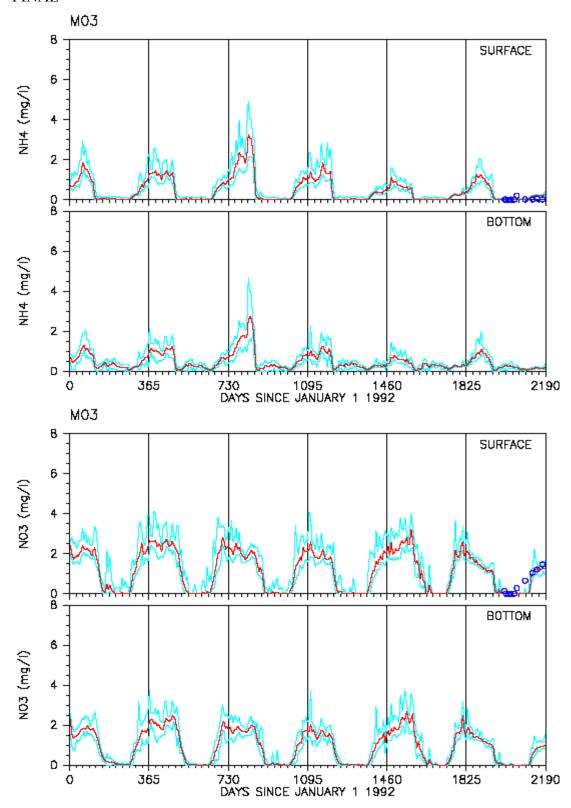


Fig. 42. Time series comparison of model calibration results and data for ammonia and nitrate nitrogen in Back River (M03)

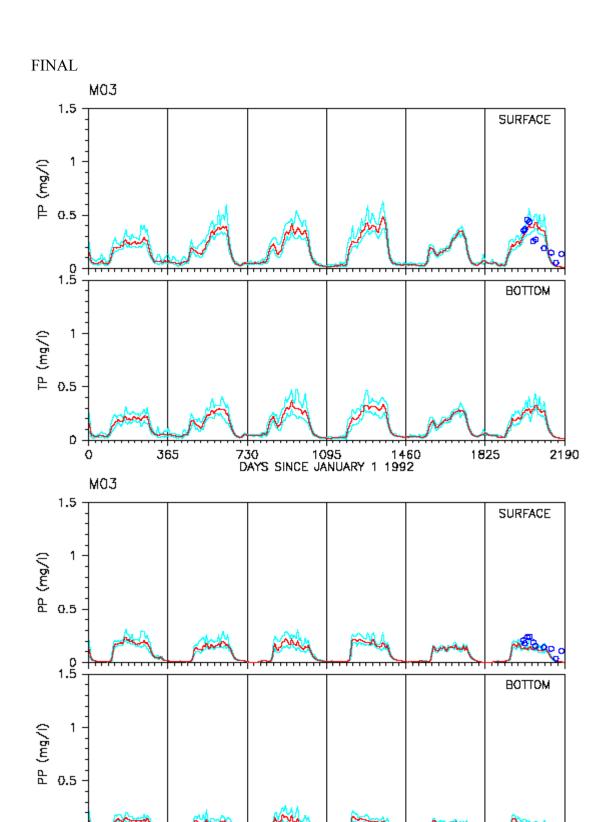


Fig. 43. Time series comparison of model calibration results and data for total phosphorus and particulate phosphorus in Back River (M03)

B43

730 1095 1460 DAYS SINCE JANUARY 1 1992

1825

2190

365

D

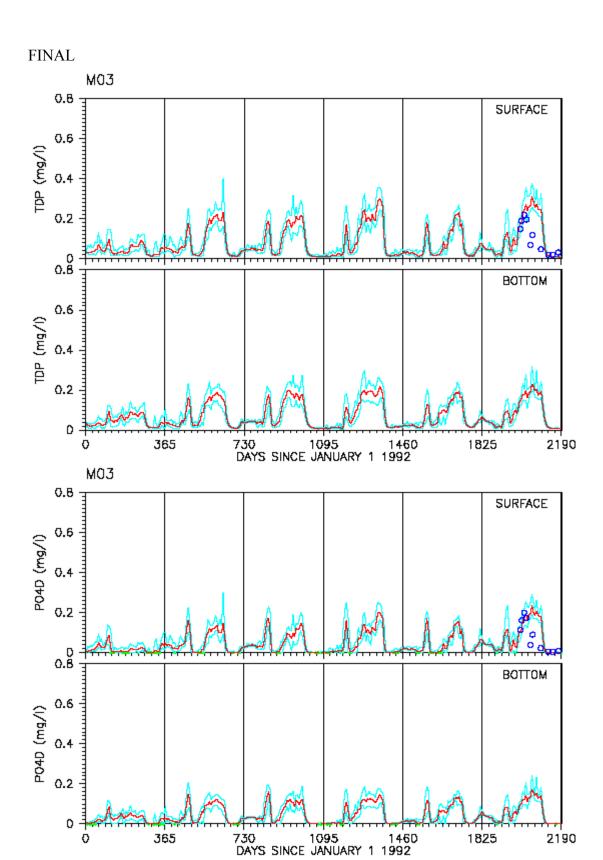


Fig. 44. Time series comparison of model calibration results and data for total dissolved phosphorus and dissolved phosphate in Back River (M03)

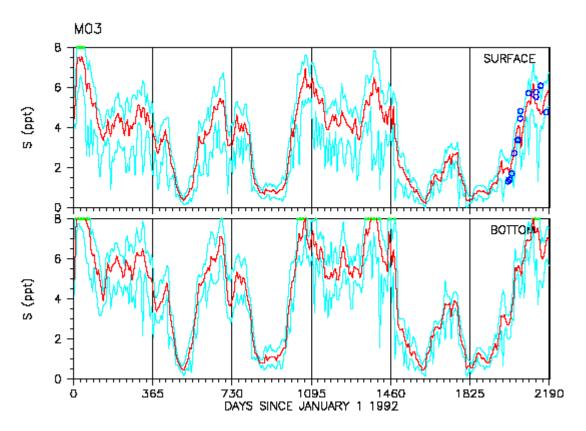


Fig. 45. Time series comparison of model calibration results and data for salinity in Back River (M03)

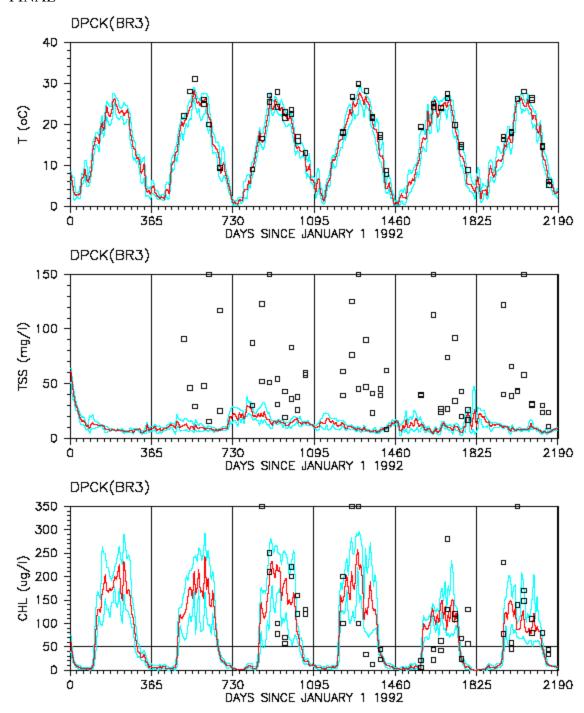


Fig. 46. Time series comparison of model calibration results and data for temperature, total suspended solids, and chlorophyll a in Back River (BR3)

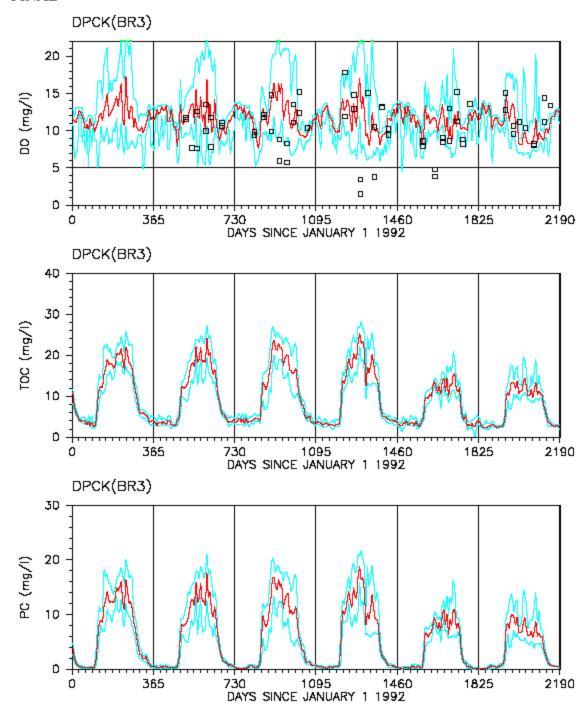


Fig. 47. Time series comparison of model calibration results and data for dissolved oxygen, total organic carbon, and particulate organic carbon in Back River (BR3)

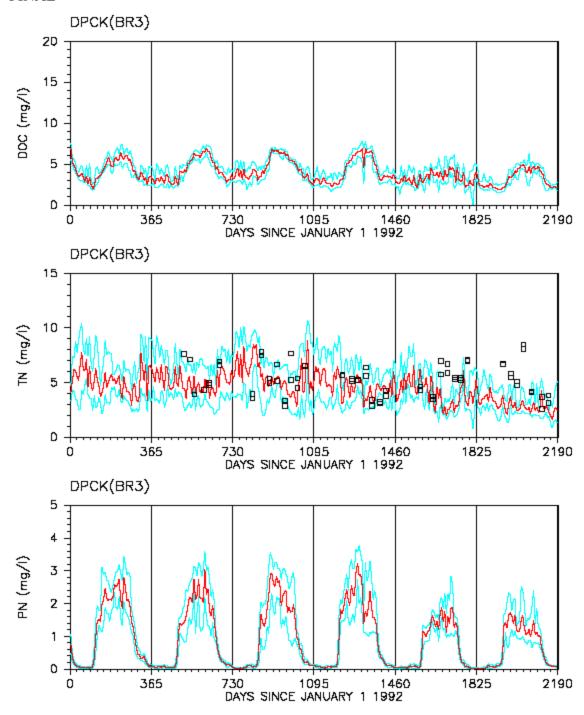


Fig. 48. Time series comparison of model calibration results and data for dissolved organic carbon, total nitrogen, and particulate nitrogen in Back River (BR3)

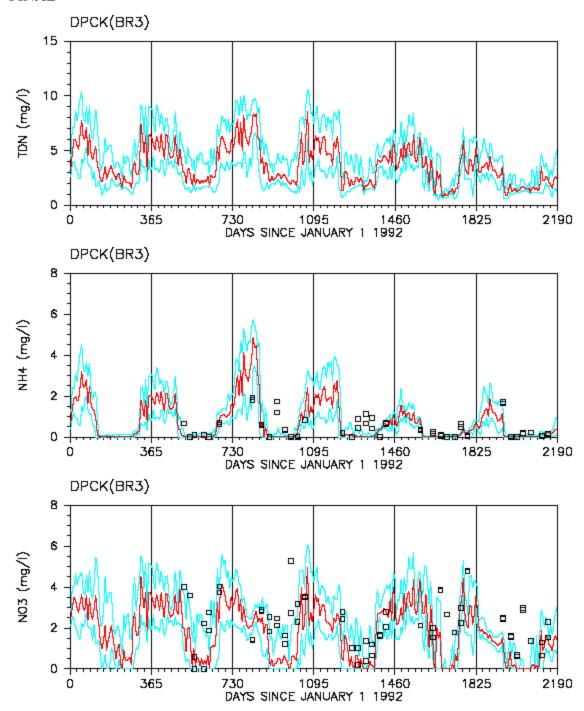


Fig. 49. Time series comparison of model calibration results and data for total dissolved nitrogen, ammonia, and nitrate nitrogen in Back River (BR3)

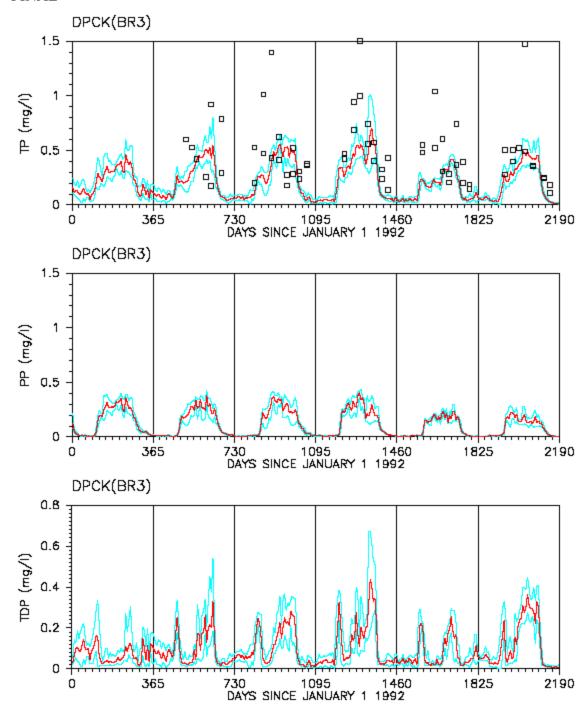


Fig. 50. Time series comparison of model calibration results and data for total phosphorus, particulate phosphorus, and total dissolved phosphorus in Back River (BR3)

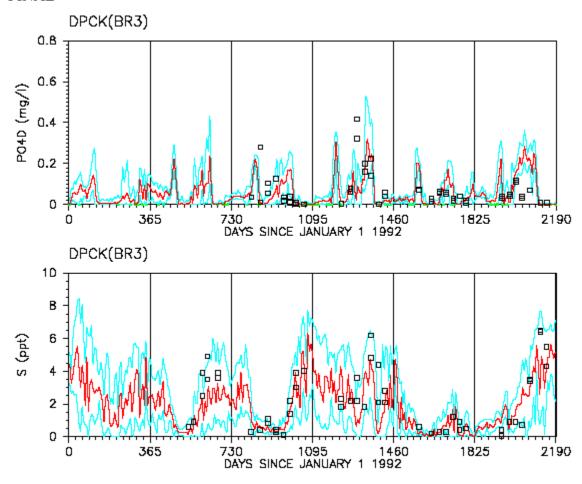


Fig. 51. Time series comparison of model calibration results and data for dissolved phosphate and salinity in Back River (BR3)

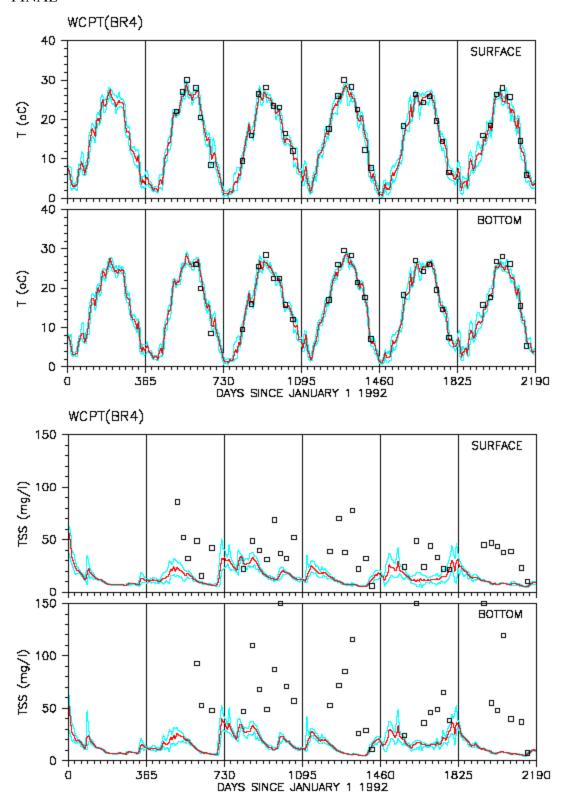


Fig. 52. Time series comparison of model calibration results and data for temperature and total suspended solids in Back River (BR4)

B52

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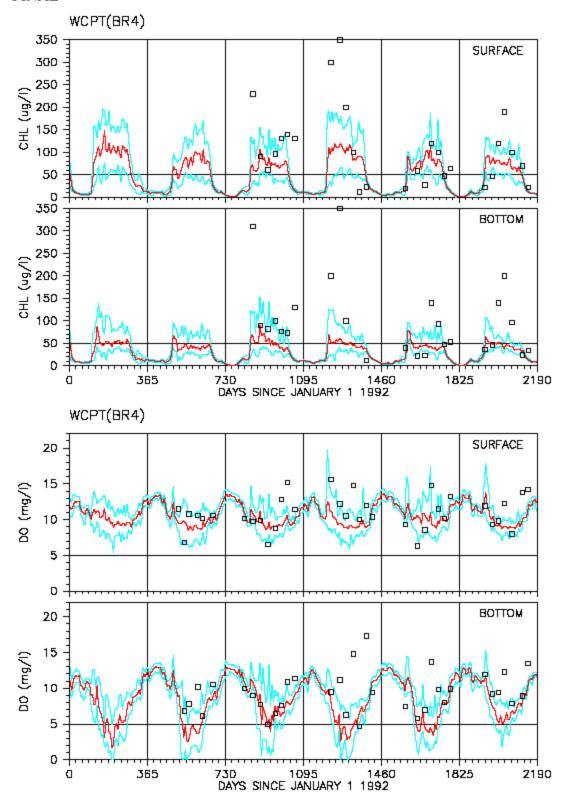


Fig. 53. Time series comparison of model calibration results and data for chlorophyll a and dissolved oxygen in Back River (BR4)



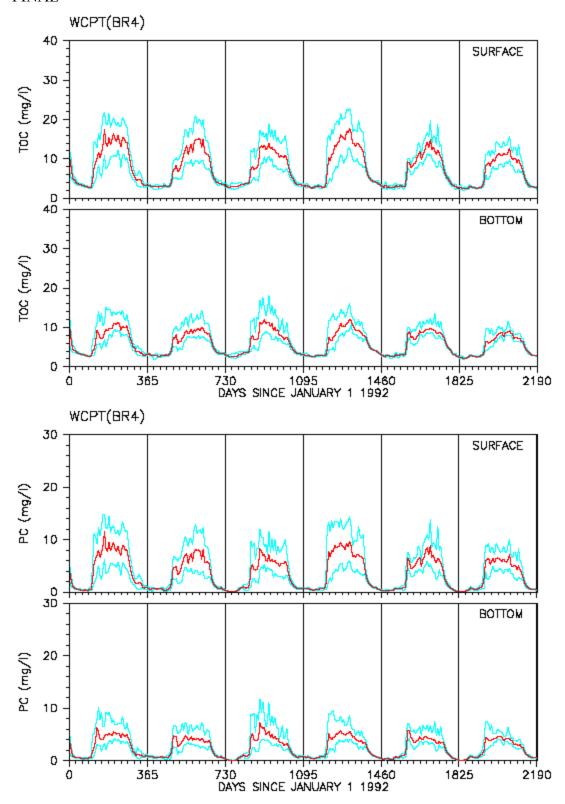


Fig. 54. Time series comparison of model calibration results and data for total organic carbon and particulate organic carbon in Back River (BR4)

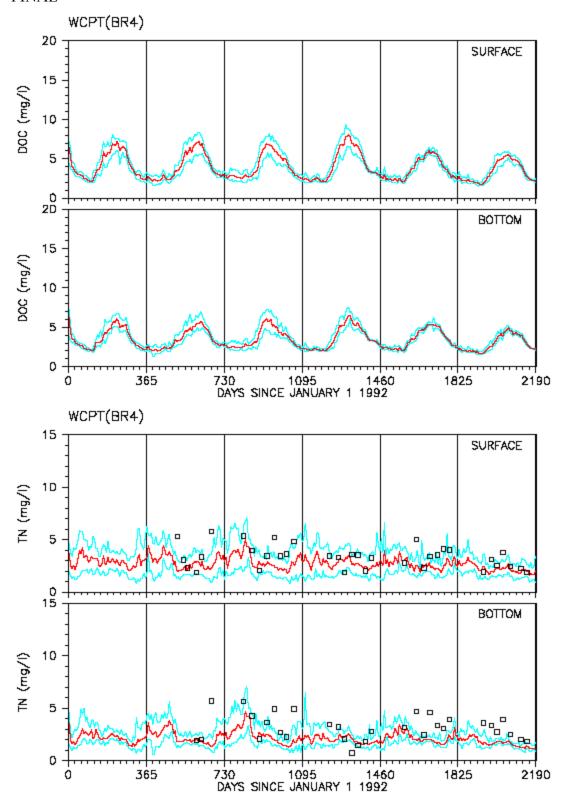


Fig. 55. Time series comparison of model calibration results and data for dissolved organic carbon and total nitrogen in Back River (BR4)

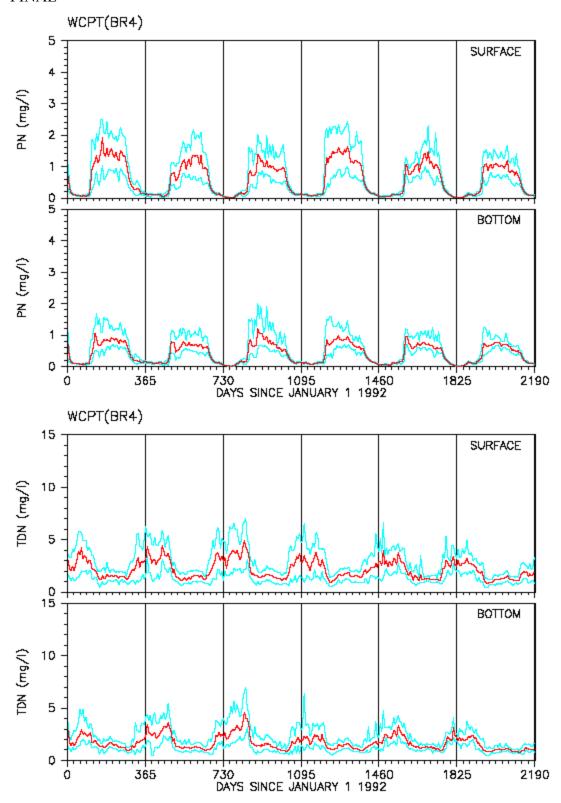


Fig. 56. Time series comparison of model calibration results and data for particulate nitrogen and total dissolved nitrogen in Back River (BR4)

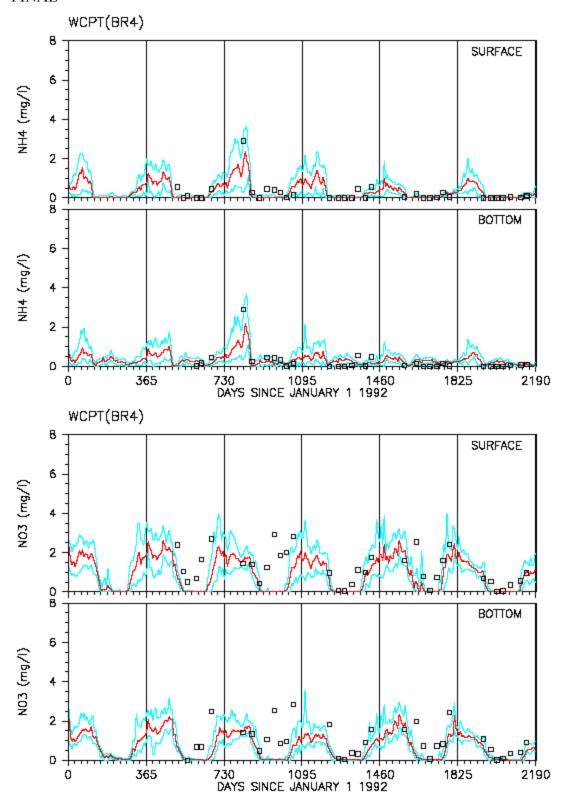


Fig. 57. Time series comparison of model calibration results and data for ammonia and nitrate nitrogen in Back River (BR4)



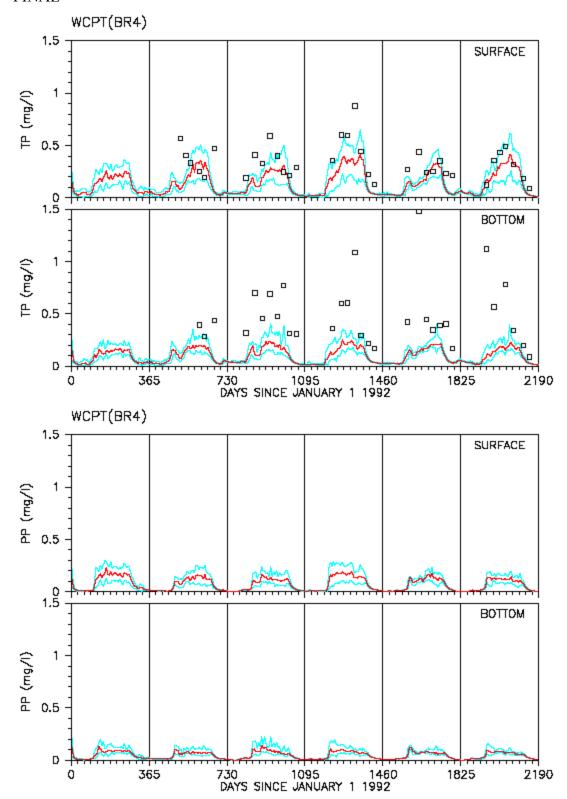


Fig. 58. Time series comparison of model calibration results and data for total phosphorus and particulate phosphorus in Back River (BR4)



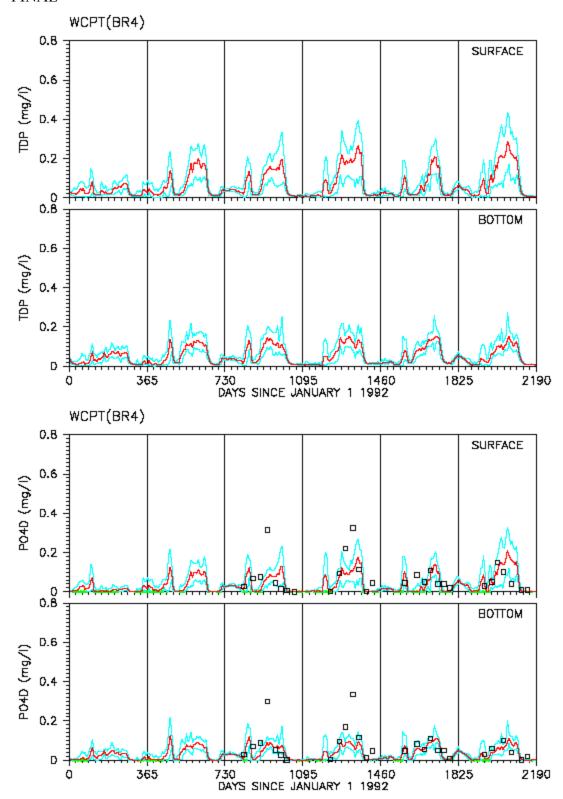


Fig. 59. Time series comparison of model calibration results and data for total dissolved phosphorus and dissolved phosphate in Back River (BR4)

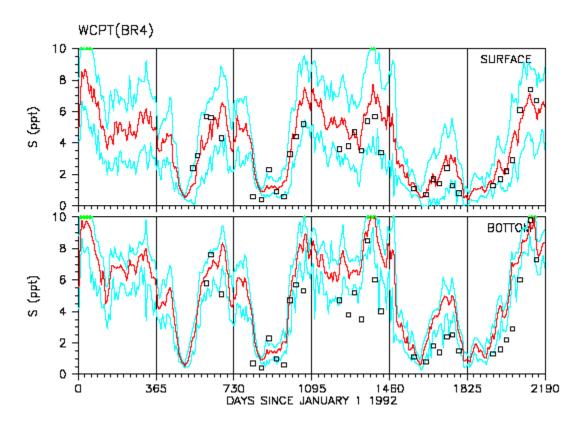


Fig. 60. Time series comparison of model calibration results and data for salinity in Back River (BR4)

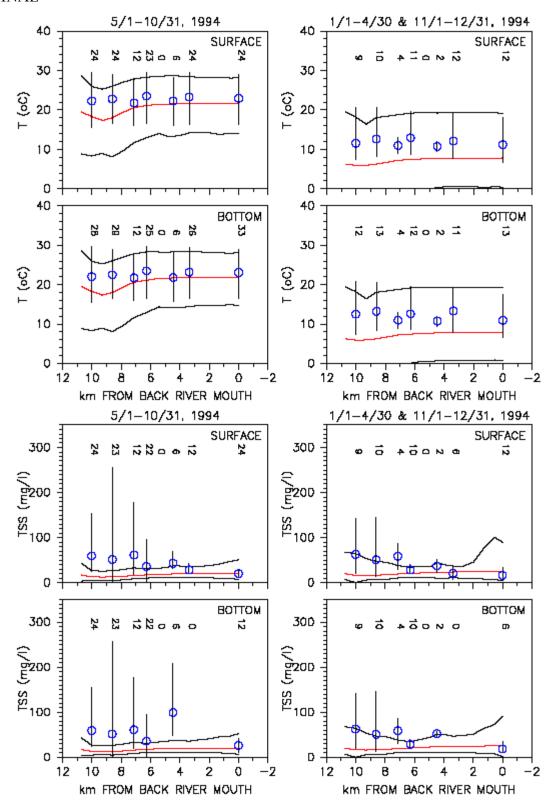


Fig. 61. Longitudinal comparison of model calibration results and data for temperature and total suspended solids in Back River transect

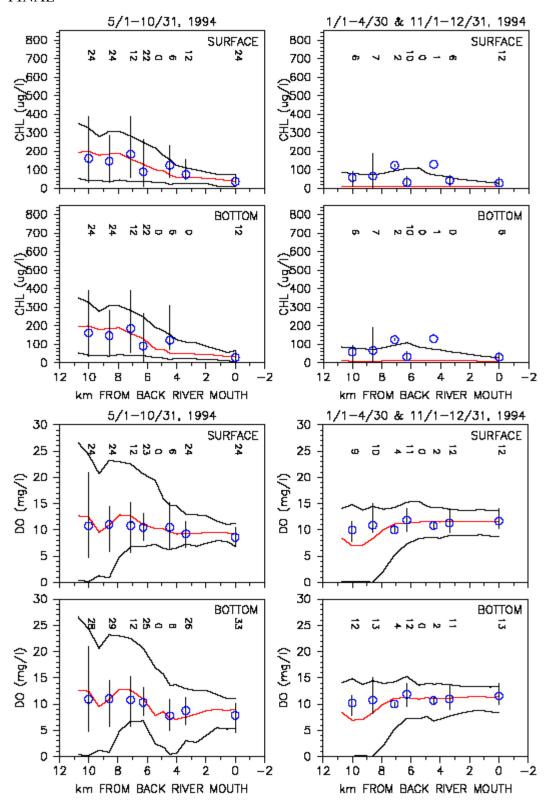


Fig. 62. Longitudinal comparison of model calibration results and data for chlorophyll a and dissolved oxygen in Back River transect

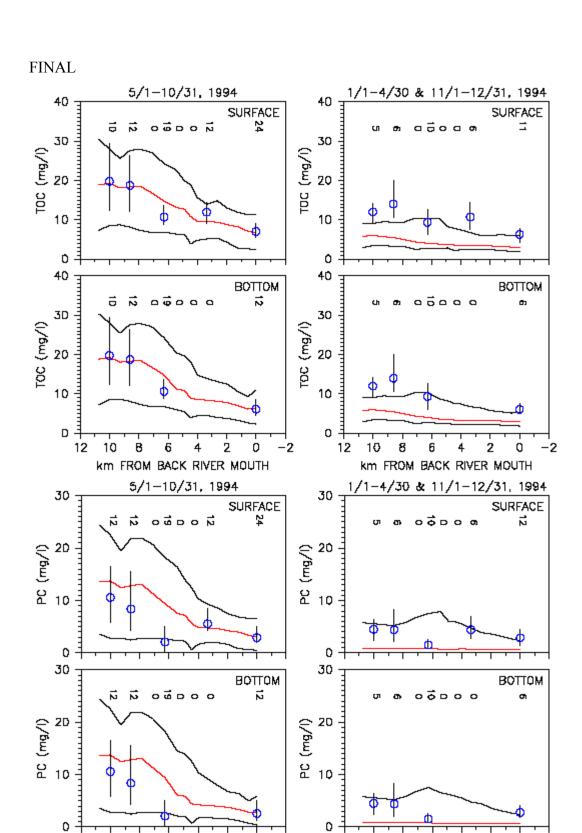


Fig. 63. Longitudinal comparison of model calibration results and data for total organic carbon and particulate organic carbon in Back River transect

km FROM BACK RIVER MOUTH

km FROM BACK RIVER MOUTH

D

-2

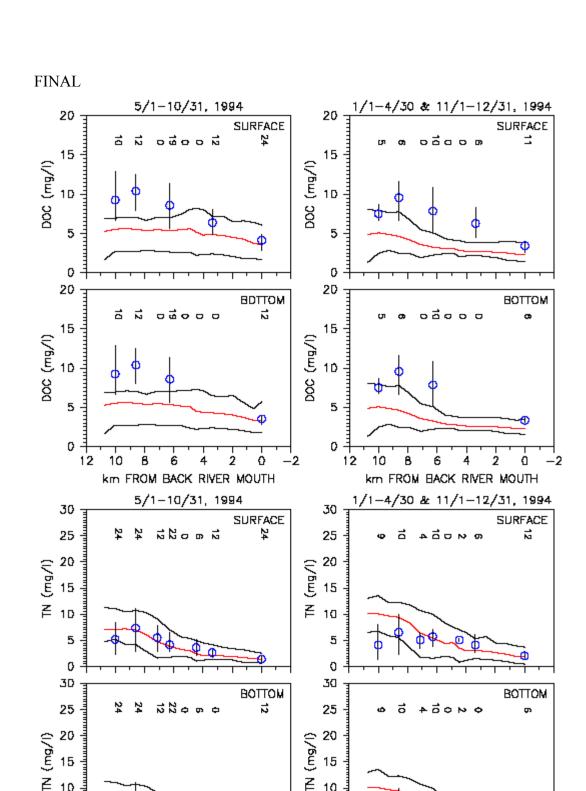


Fig. 64. Longitudinal comparison of model calibration results and data for dissolved organic carbon and total nitrogen in Back River transect

15

10

5

a

12

10

8

6

km FROM BACK RIVER MOUTH

2

Q

2

0

-2

15

10

5

D

12

10

В

6

km FROM BACK RIVER MOUTH

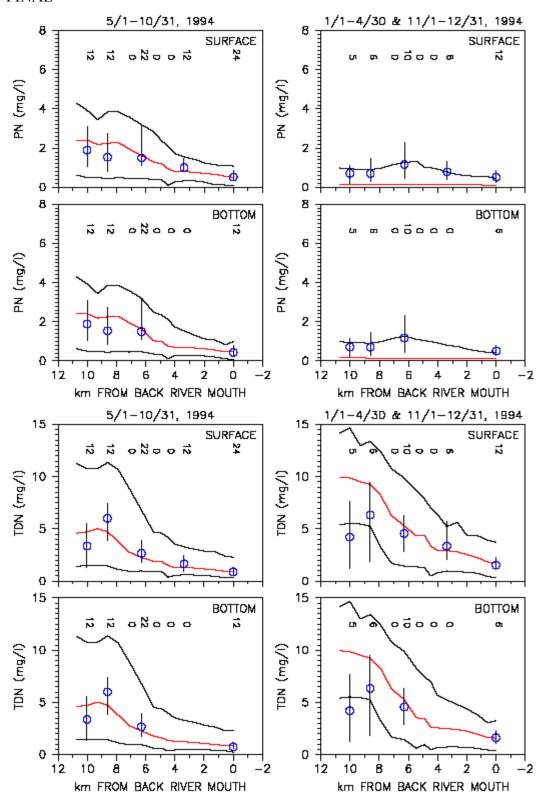


Fig. 65. Longitudinal comparison of model calibration results and data for particulate nitrogen and total dissolved nitrogen in Back River transect

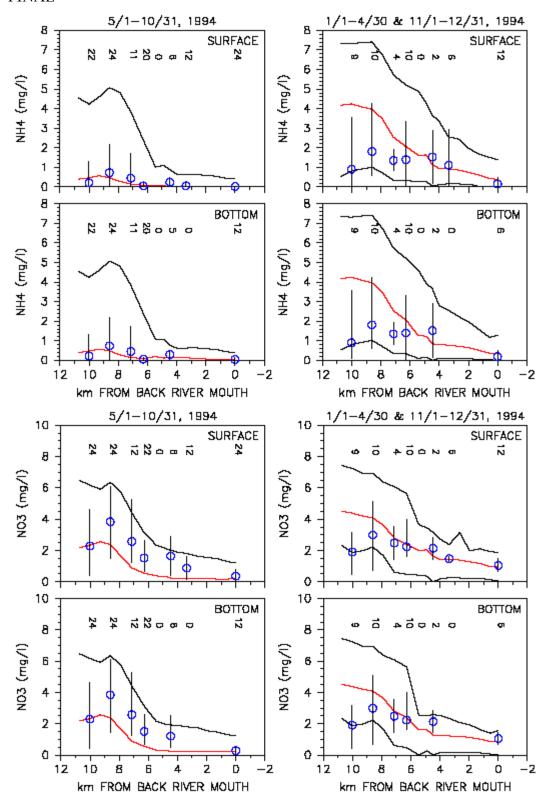


Fig. 66. Longitudinal comparison of model calibration results and data for ammonia and nitrate nitrogen in Back River transect

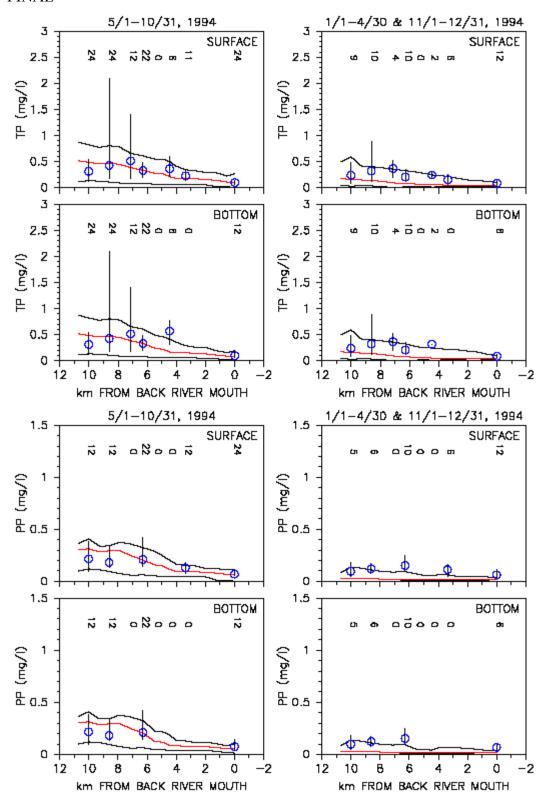


Fig. 67. Longitudinal comparison of model calibration results and data for total phosphorus and particulate phosphorus in Back River transect



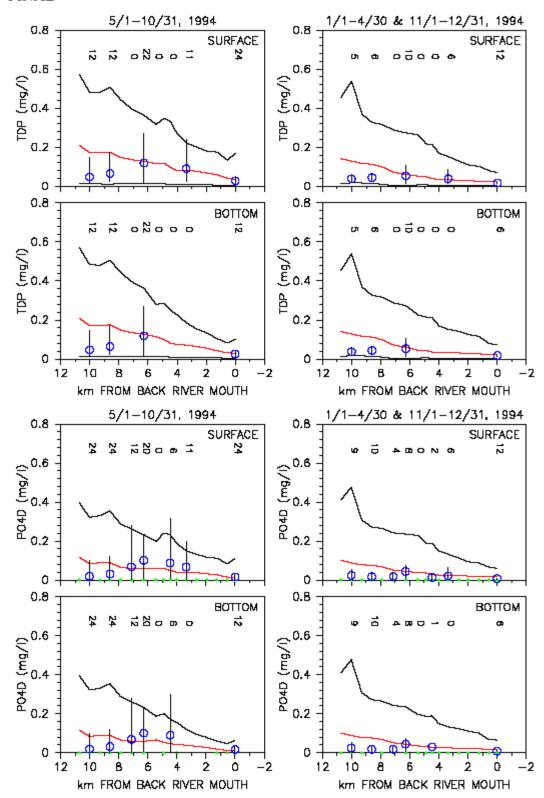


Fig. 68. Longitudinal comparison of model calibration results and data for total dissolved phosphorus and dissolved phosphate in Back River transect

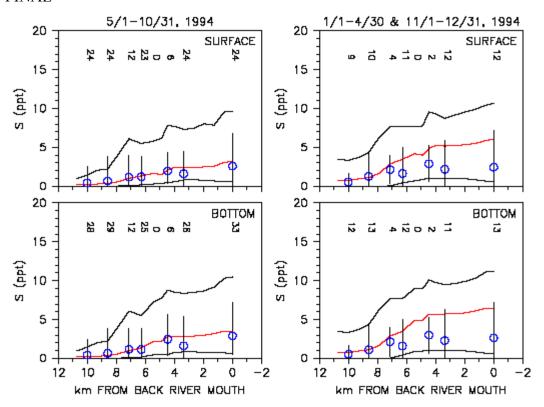


Fig. 69. Longitudinal comparison of model calibration results and data for salinity for Back River transect