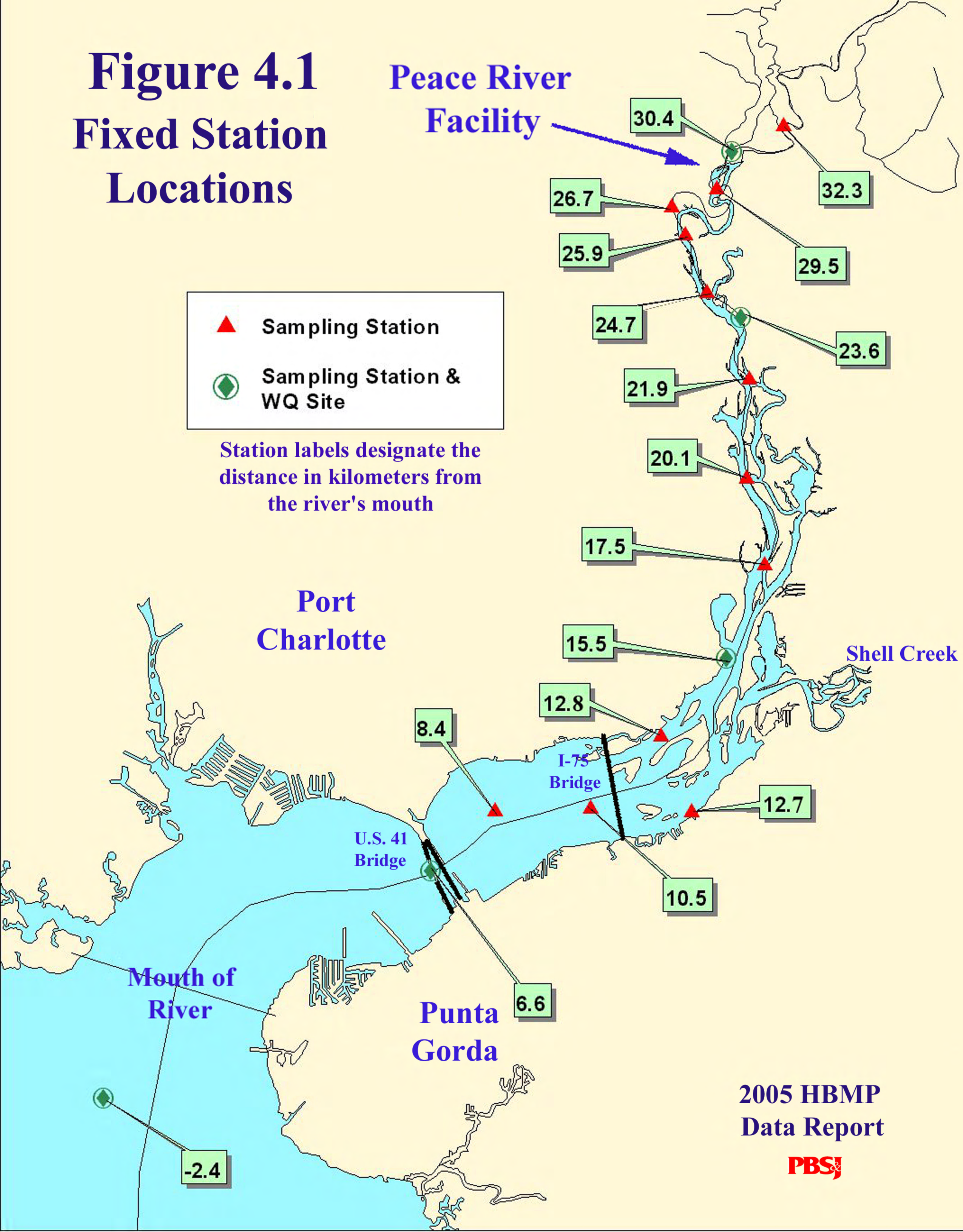
Figure 4.1
Fixed Station Locations



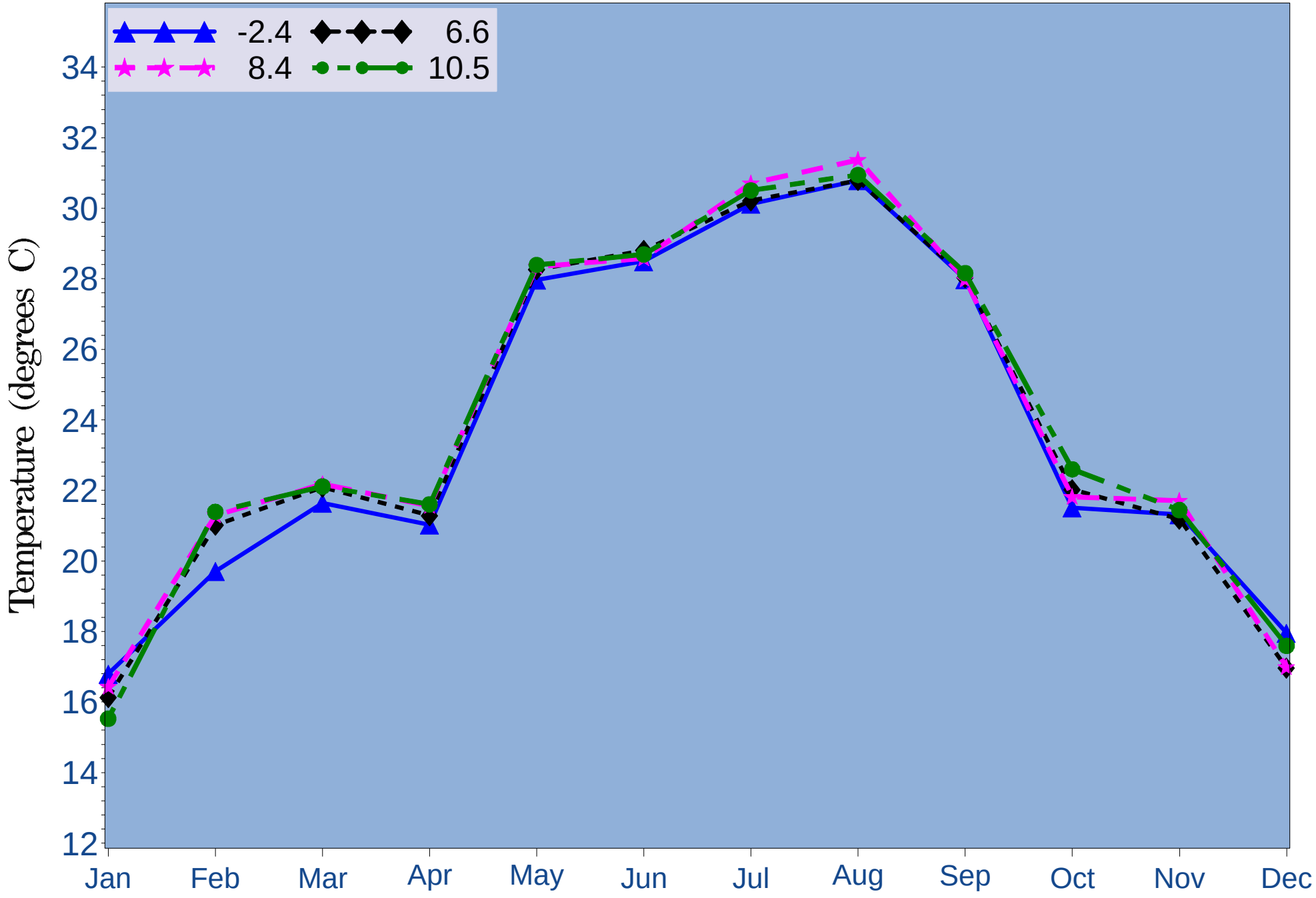


Figure 4.2a 2005 Mean monthly Mean monthly temperature at river kilometers -2.4, 6.6, 8.4 and 10.5

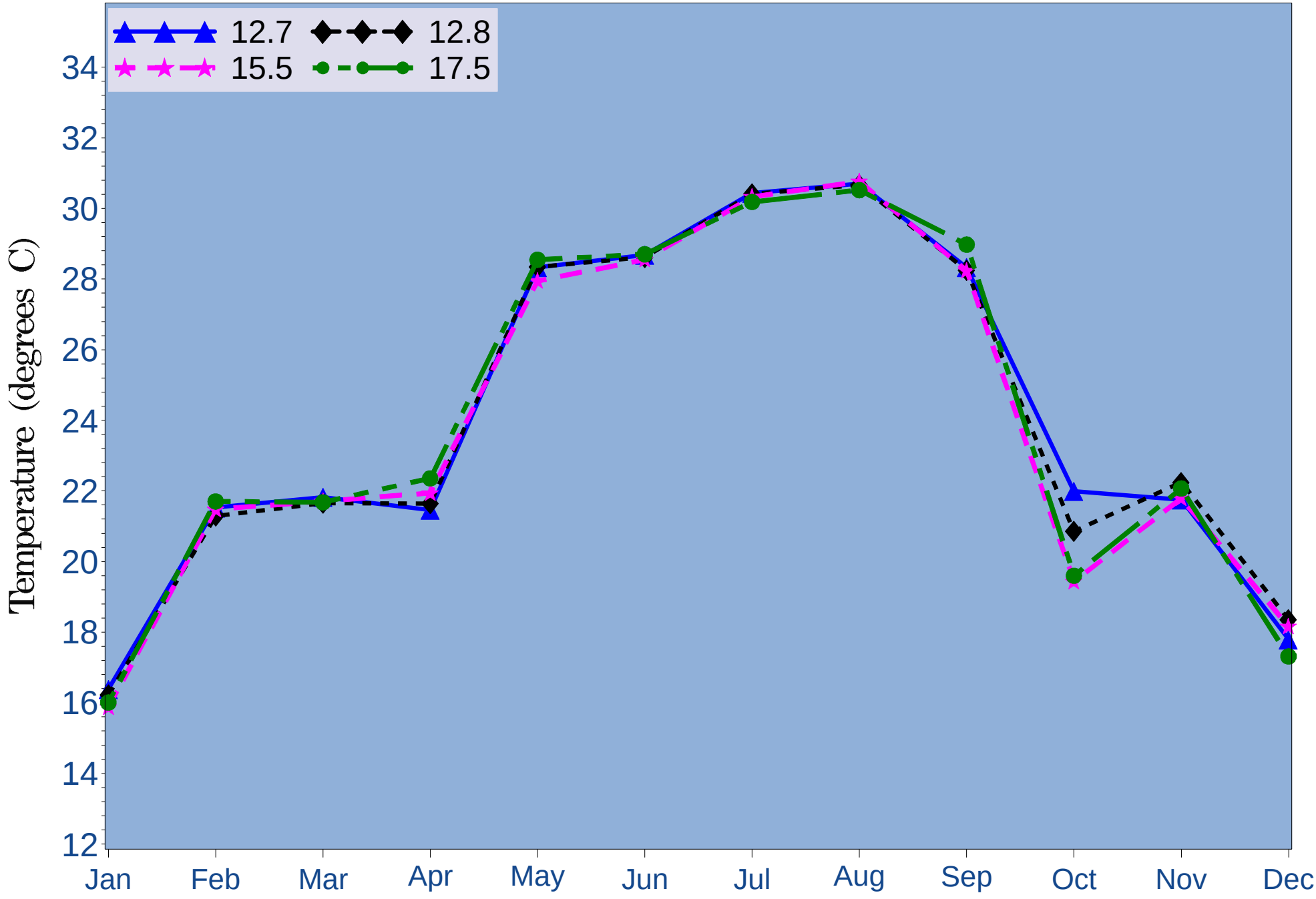


Figure 4.2b 2005 Mean monthly temperature at river kilometers 12.7, 12.8, 15.5 and 17.5

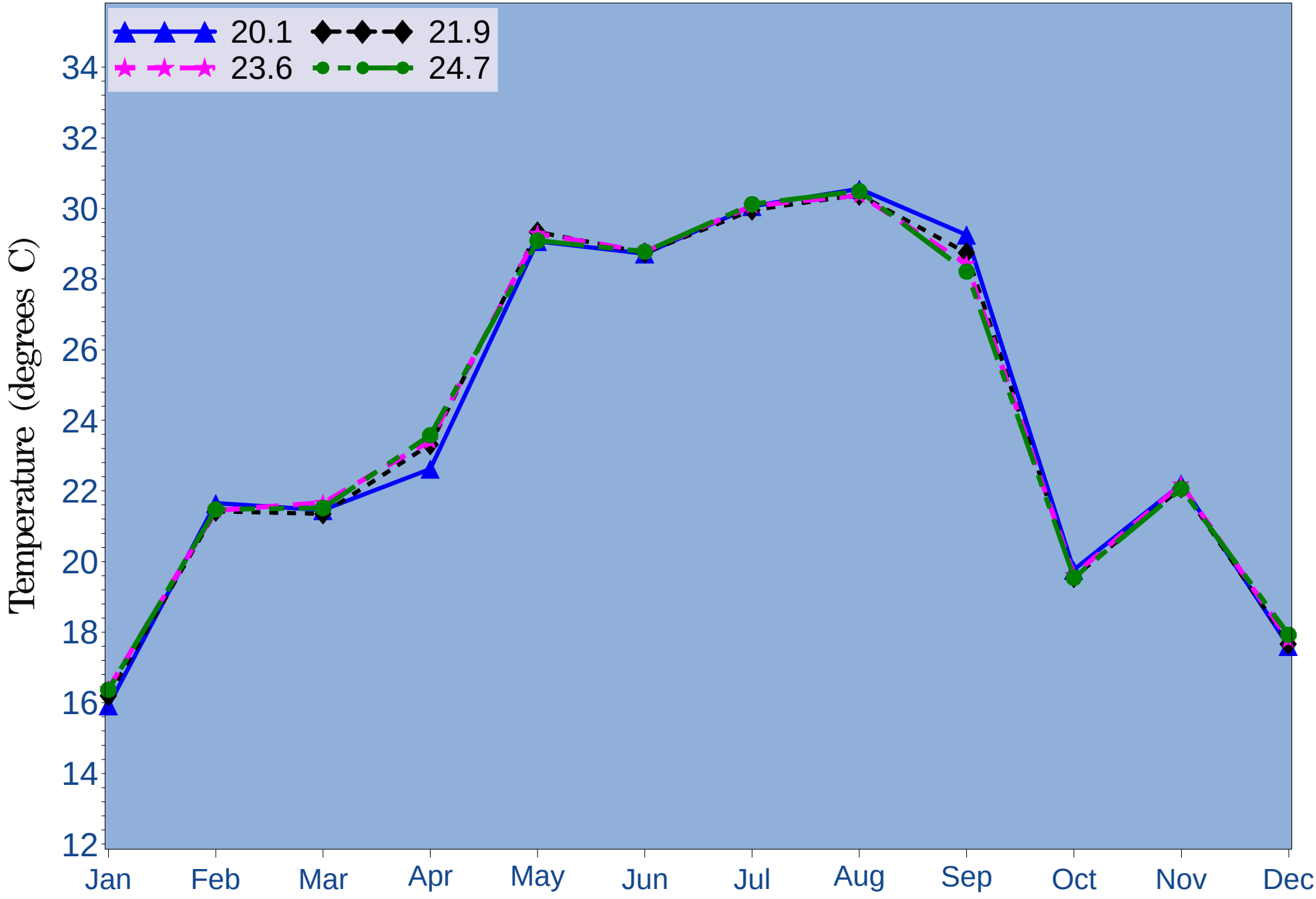


Figure 4.2c 2005 Mean monthly temperature at river kilometers 20.1, 21.9, 23.6 and 24.7

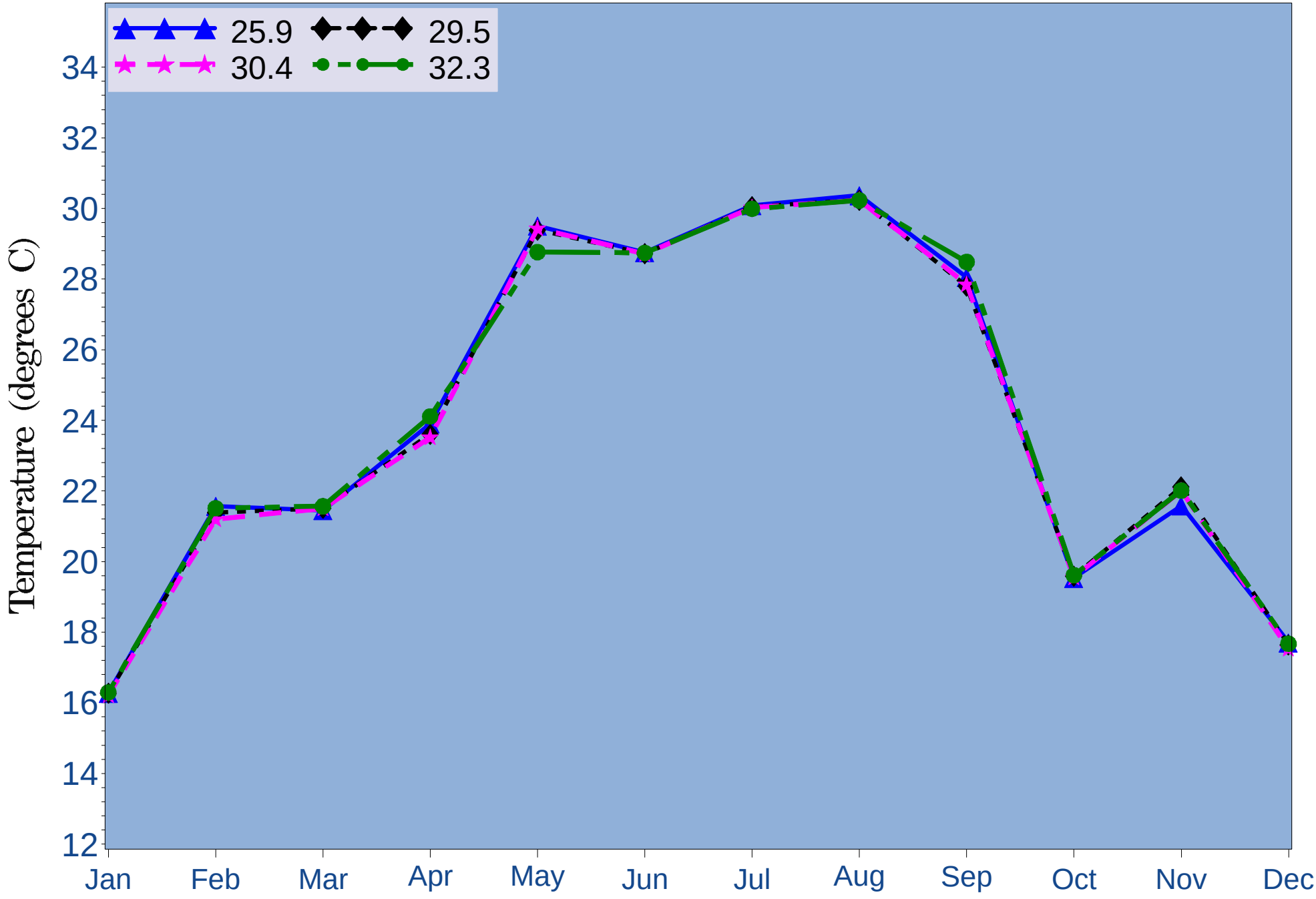


Figure 4.2d 2005 Mean monthly temperature at river kilometers 25.9, 29.5, 30.4 and 32.3

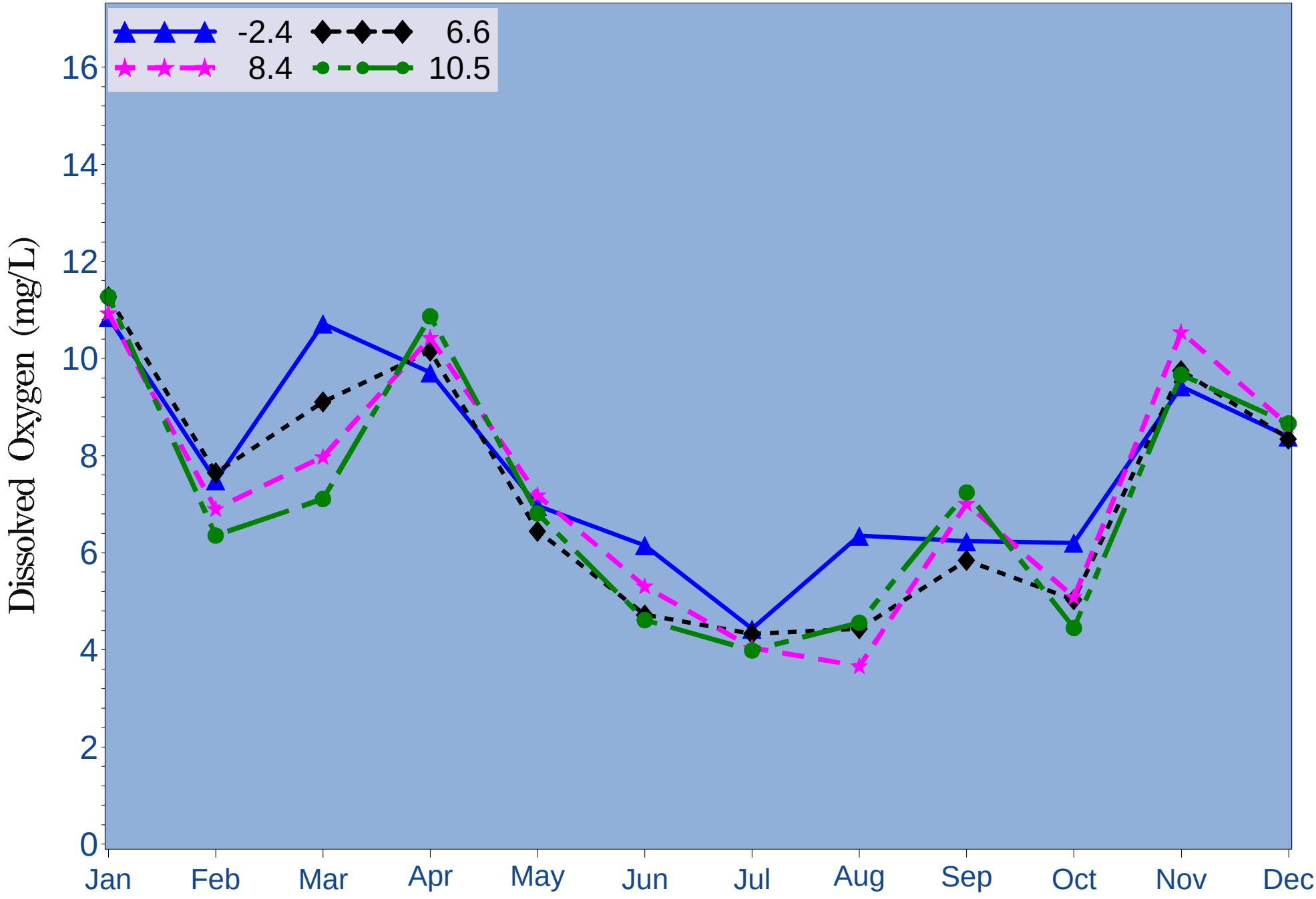


Figure 4.3a 2005 Mean monthly dissolved oxygen at river kilometers -2.4, 6.6, 8.4 and 10.5

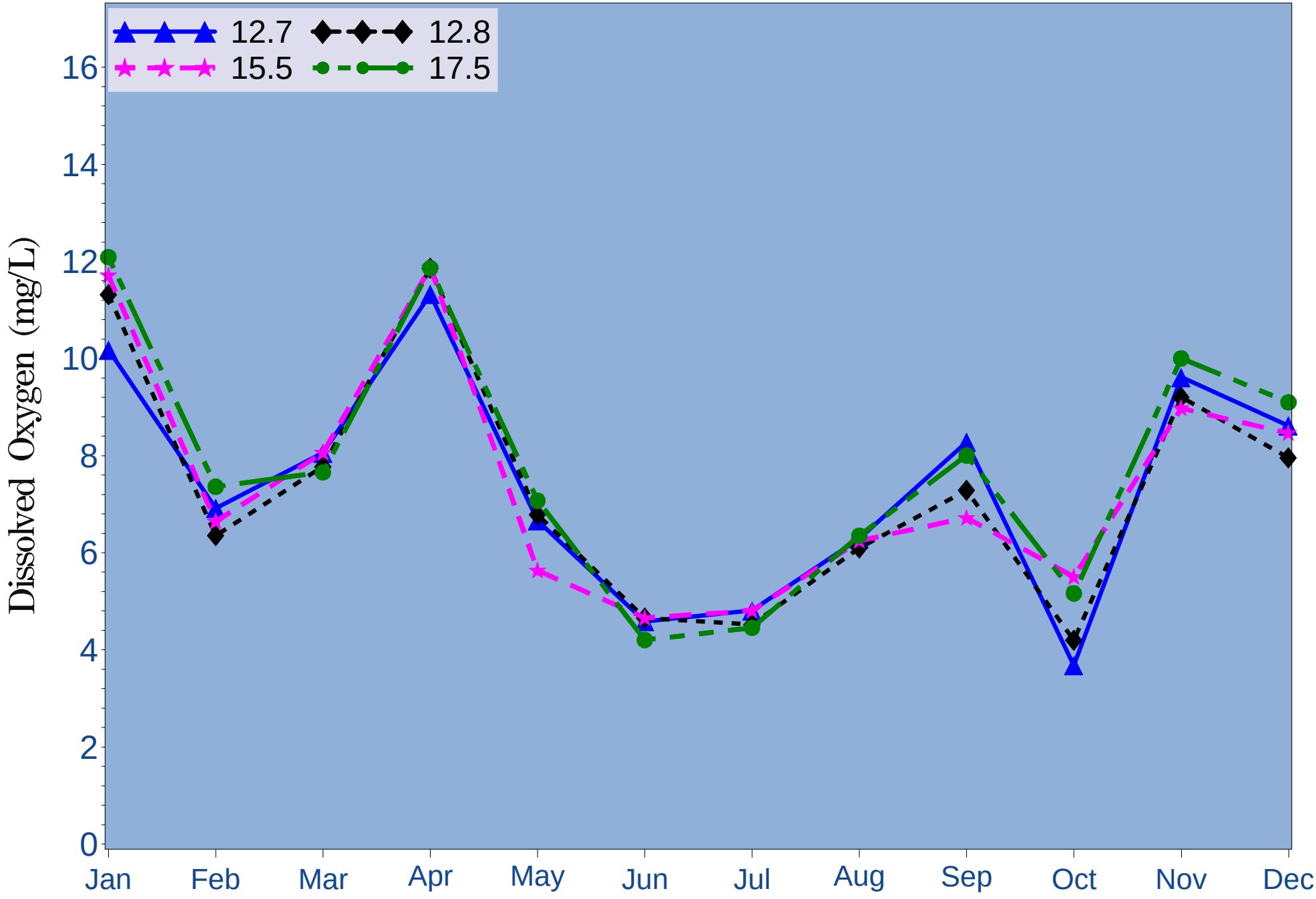


Figure 4.3b 2005 Mean monthly dissolved oxygen at river kilometers 12.7, 12.8, 15.5 and 17.5

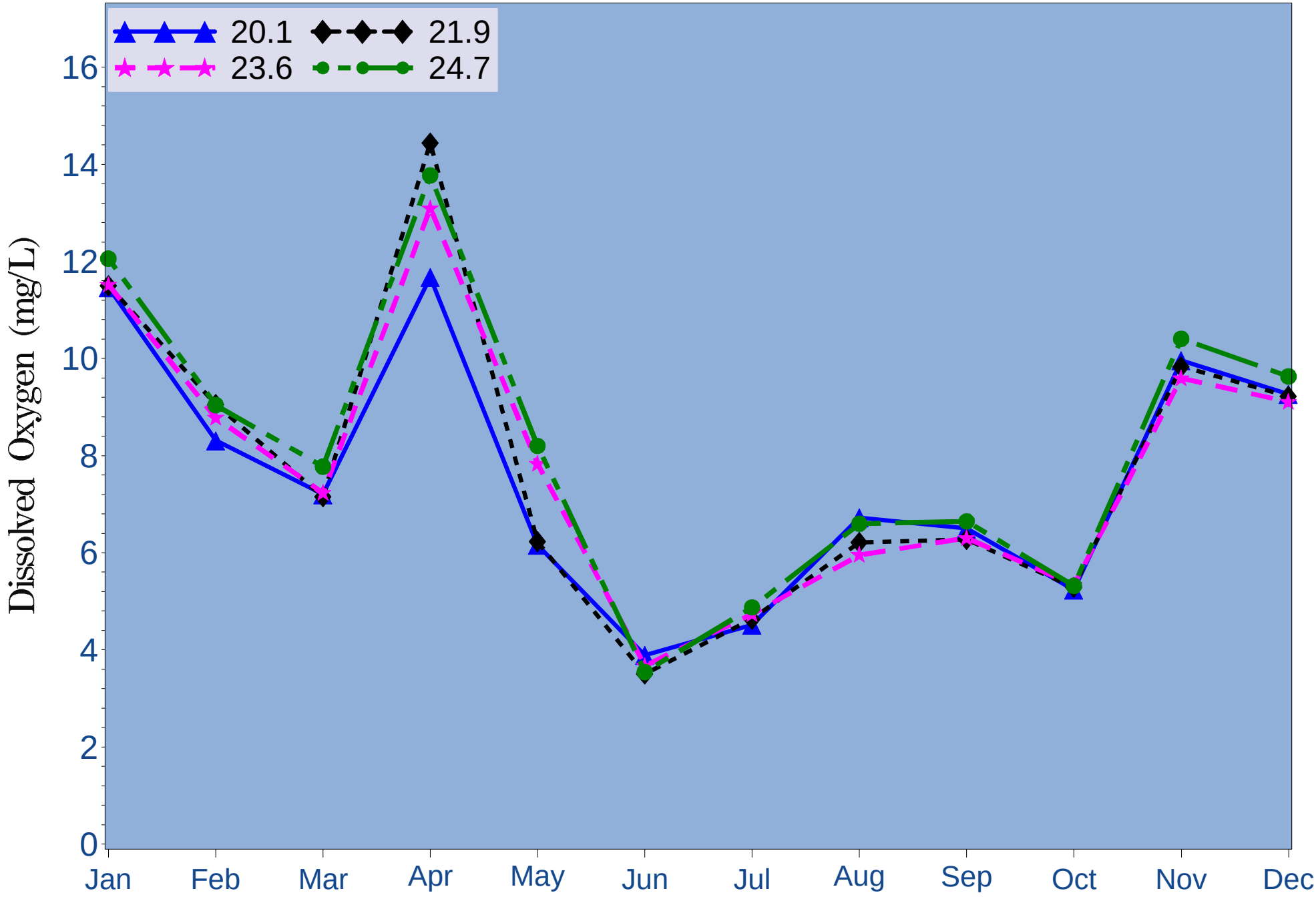


Figure 4.3c 2005 Mean monthly dissolved oxygen at river kilometers 20.1, 21.9, 23.6 and 24.7

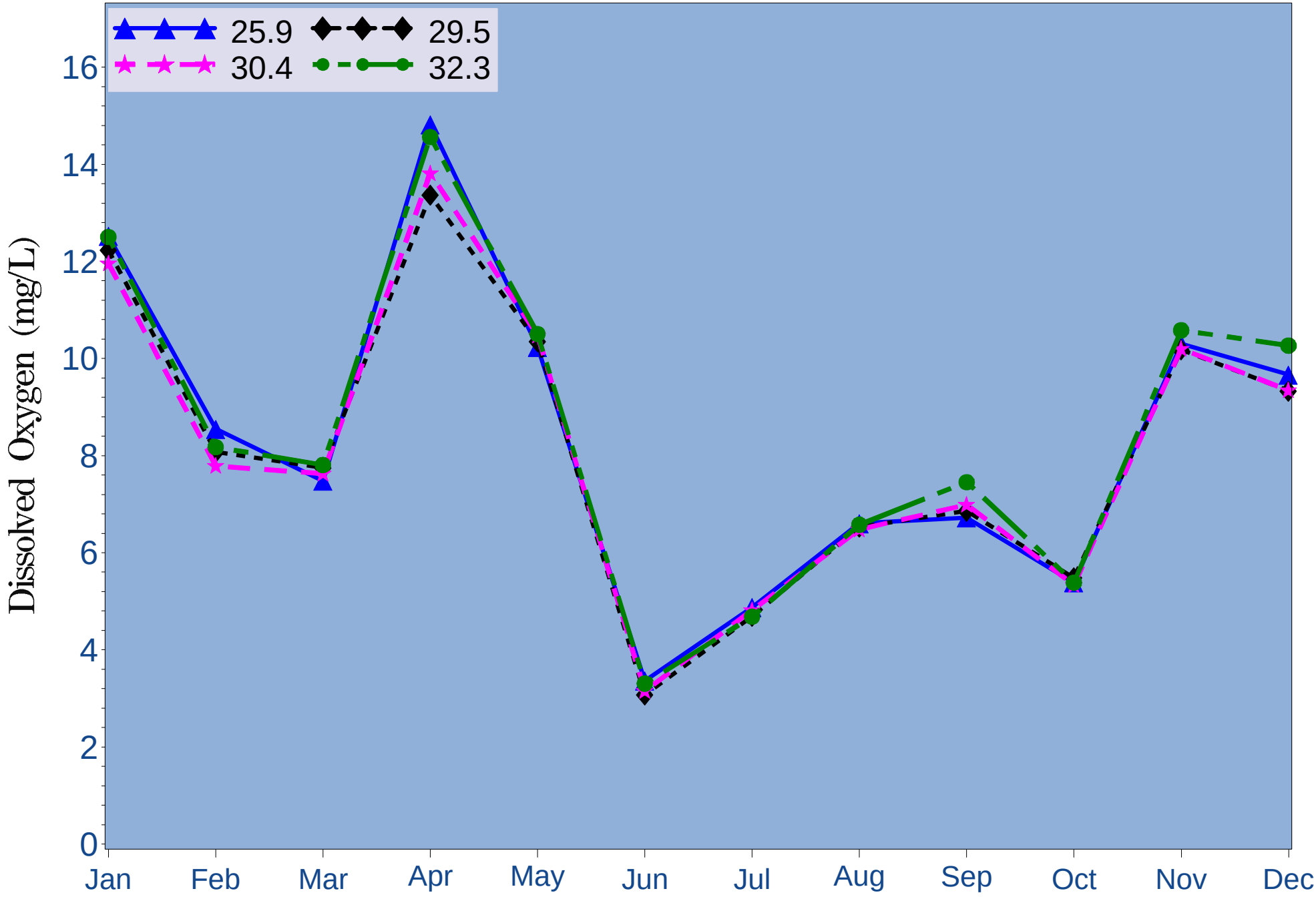


Figure 4.3d 2005 Mean monthly dissolved oxygen at river kilometers 25.9, 29.5, 30.4 and 32.3

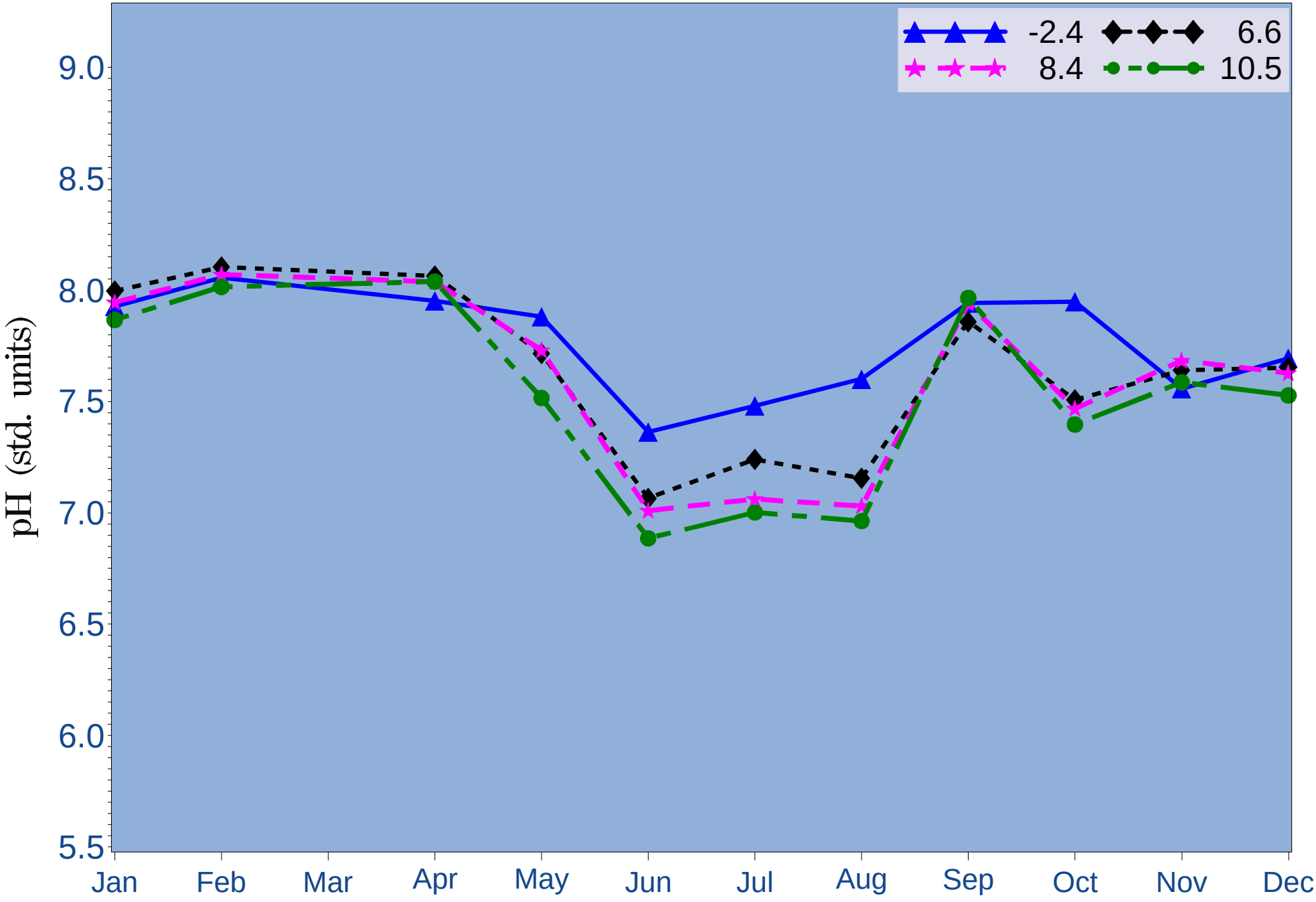


Figure 4.4a 2005 Mean monthly pH at river kilometers -2.4, 6.6, 8.4 and 10.5

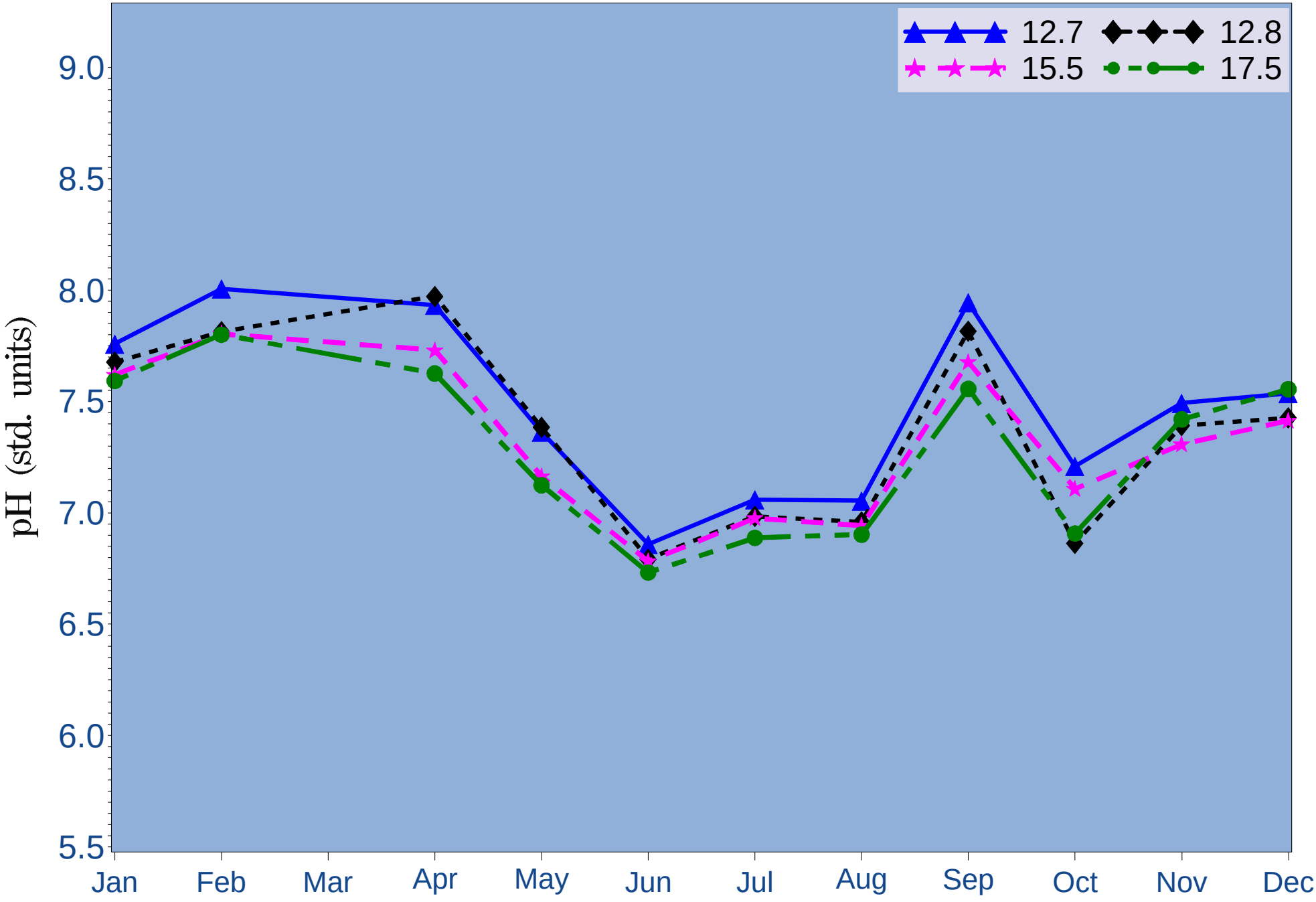


Figure 4.4b 2005 Mean monthly pH at river kilometers 12.7, 12.8, 15.5 and 17.5

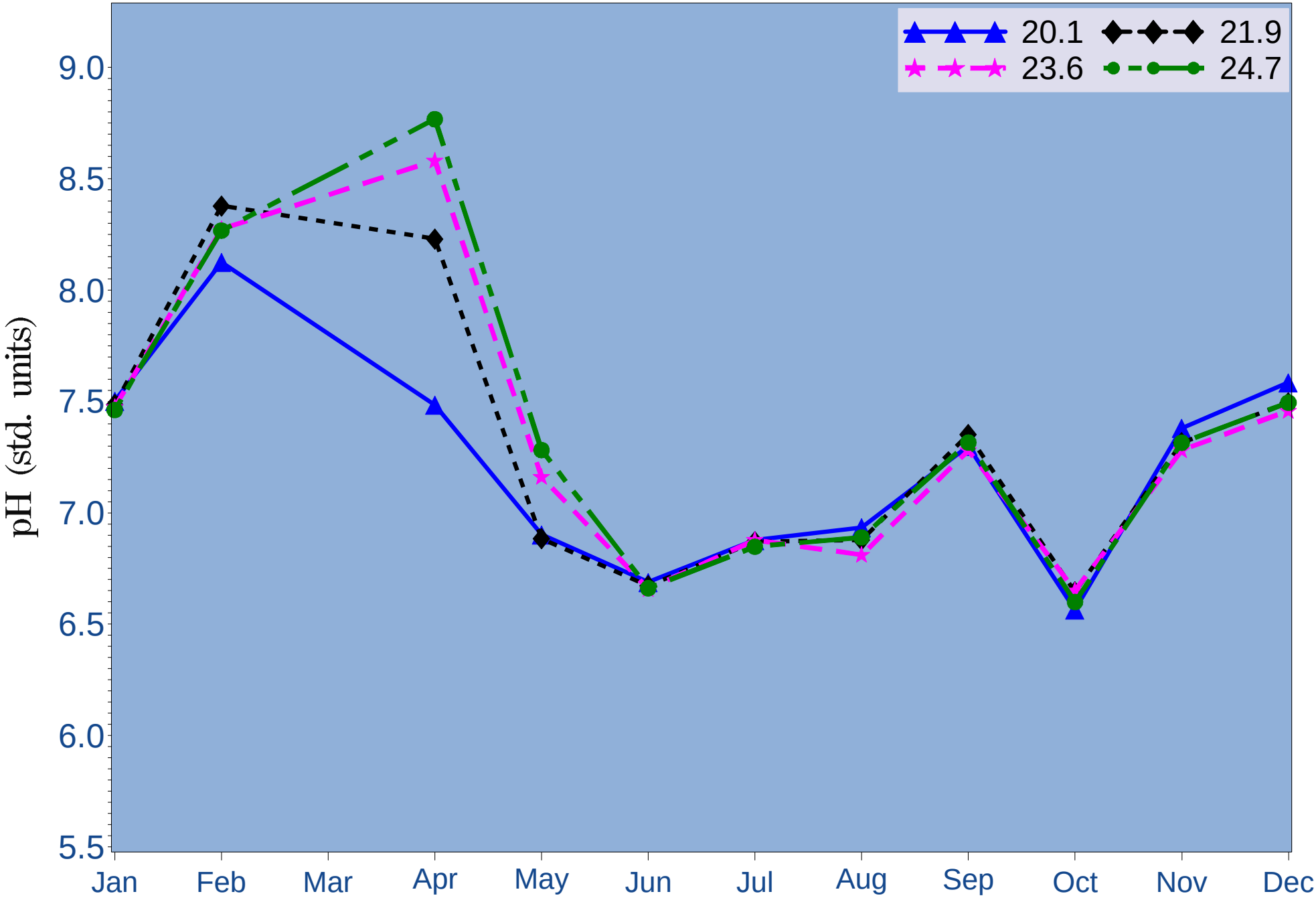


Figure 4.4c 2005 Mean monthly pH at river kilometers 20.1, 21.9, 23.6 and 24.7

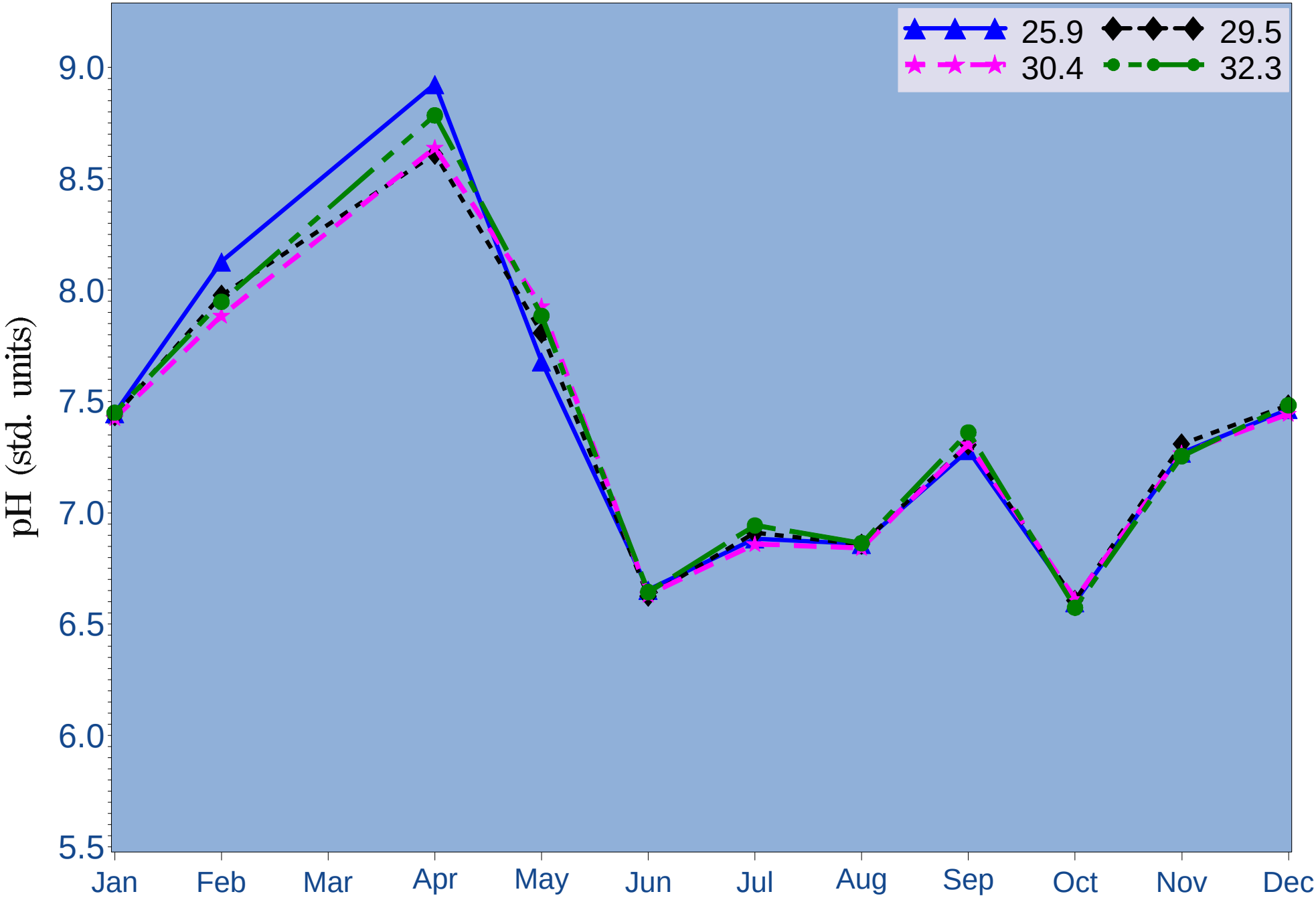


Figure 4.4d 2005 Mean monthly pH at river kilometers 25.9, 29.5, 30.4 and 32.3

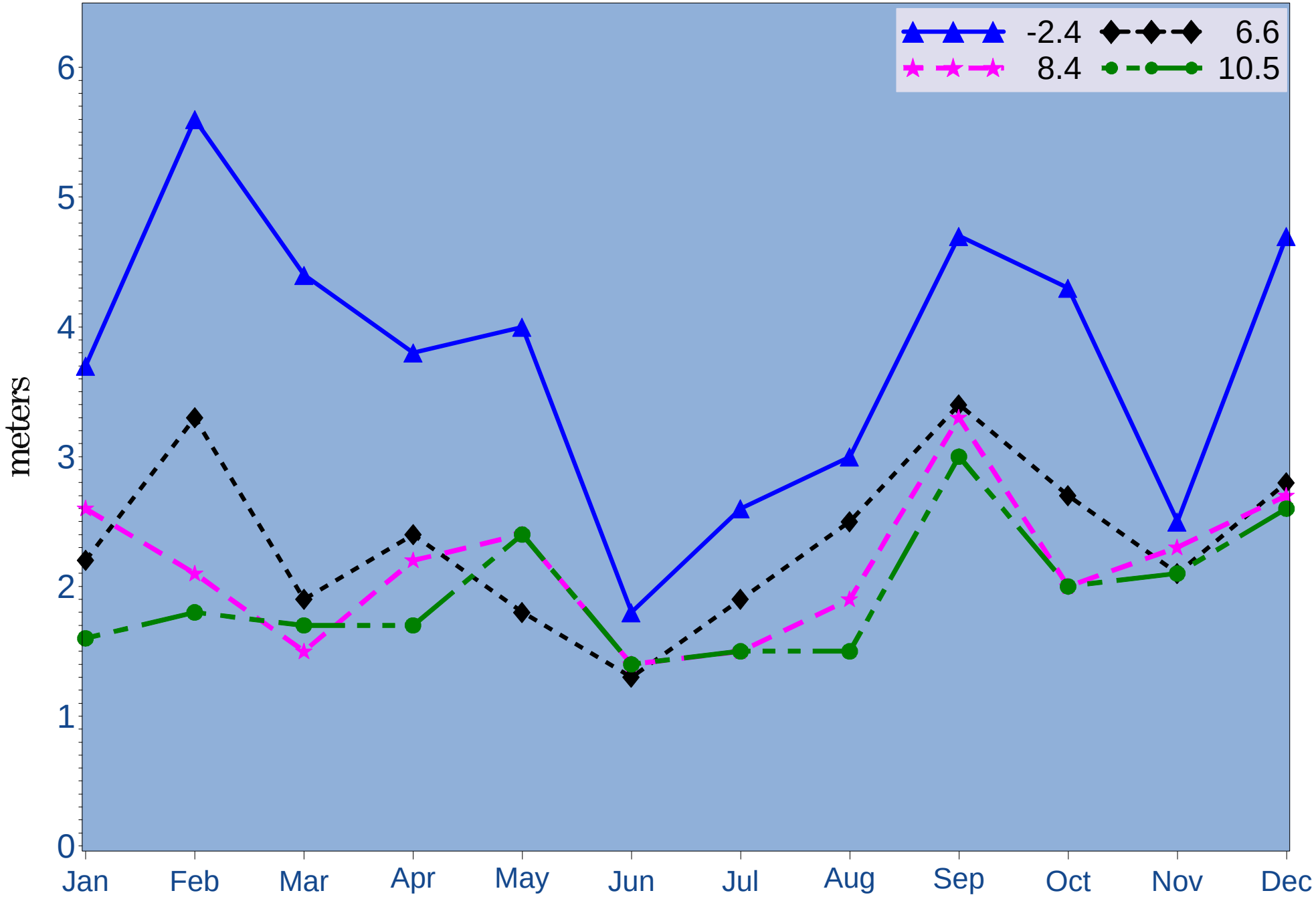


Figure 4.5a 2005 Monthly 1% light depth at river kilometers -2.4, 6.6, 8.4 and 10.5

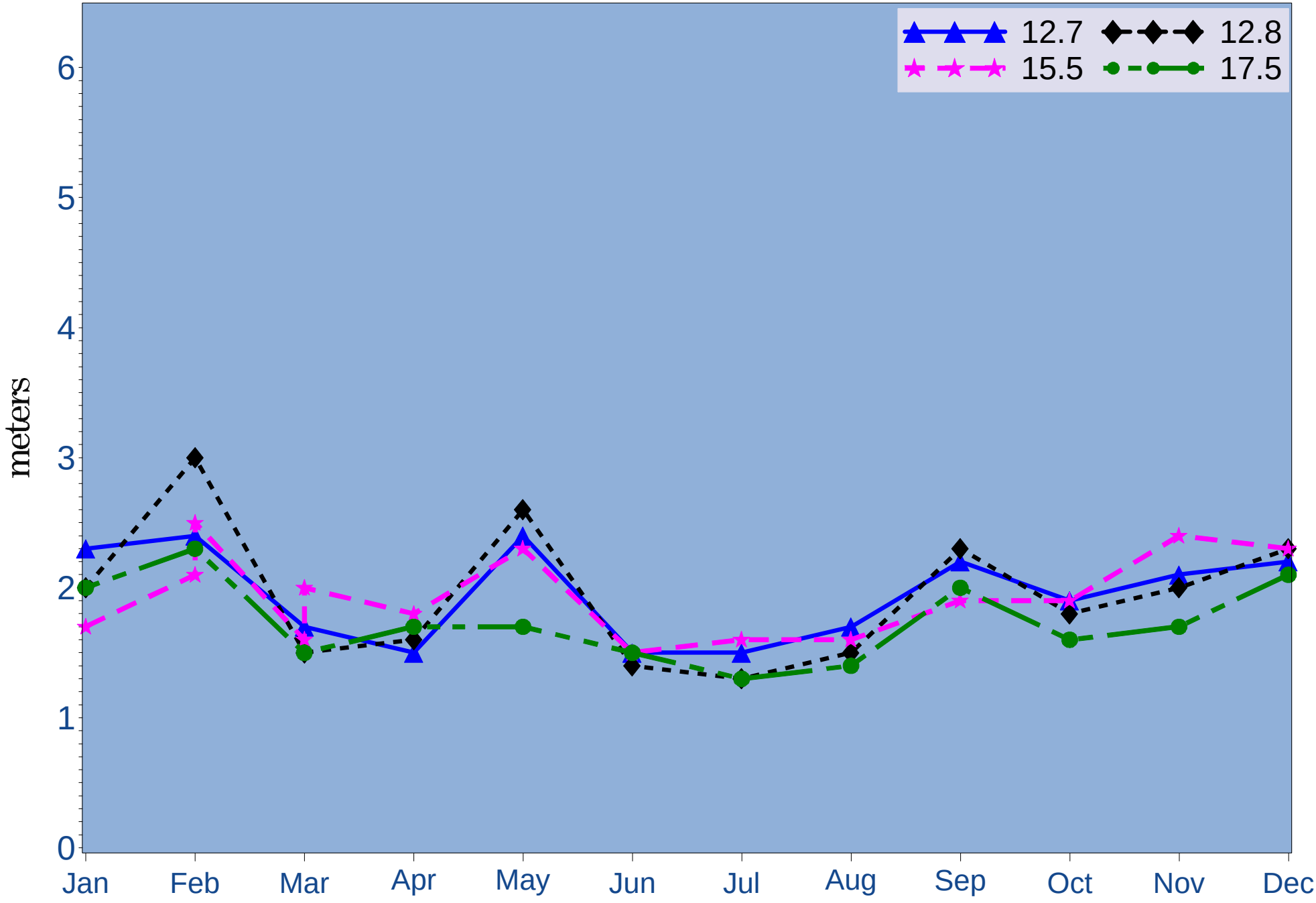


Figure 4.5b 2005 Monthly 1% light depth at river kilometers 12.7, 12.8, 15.5 and 17.5

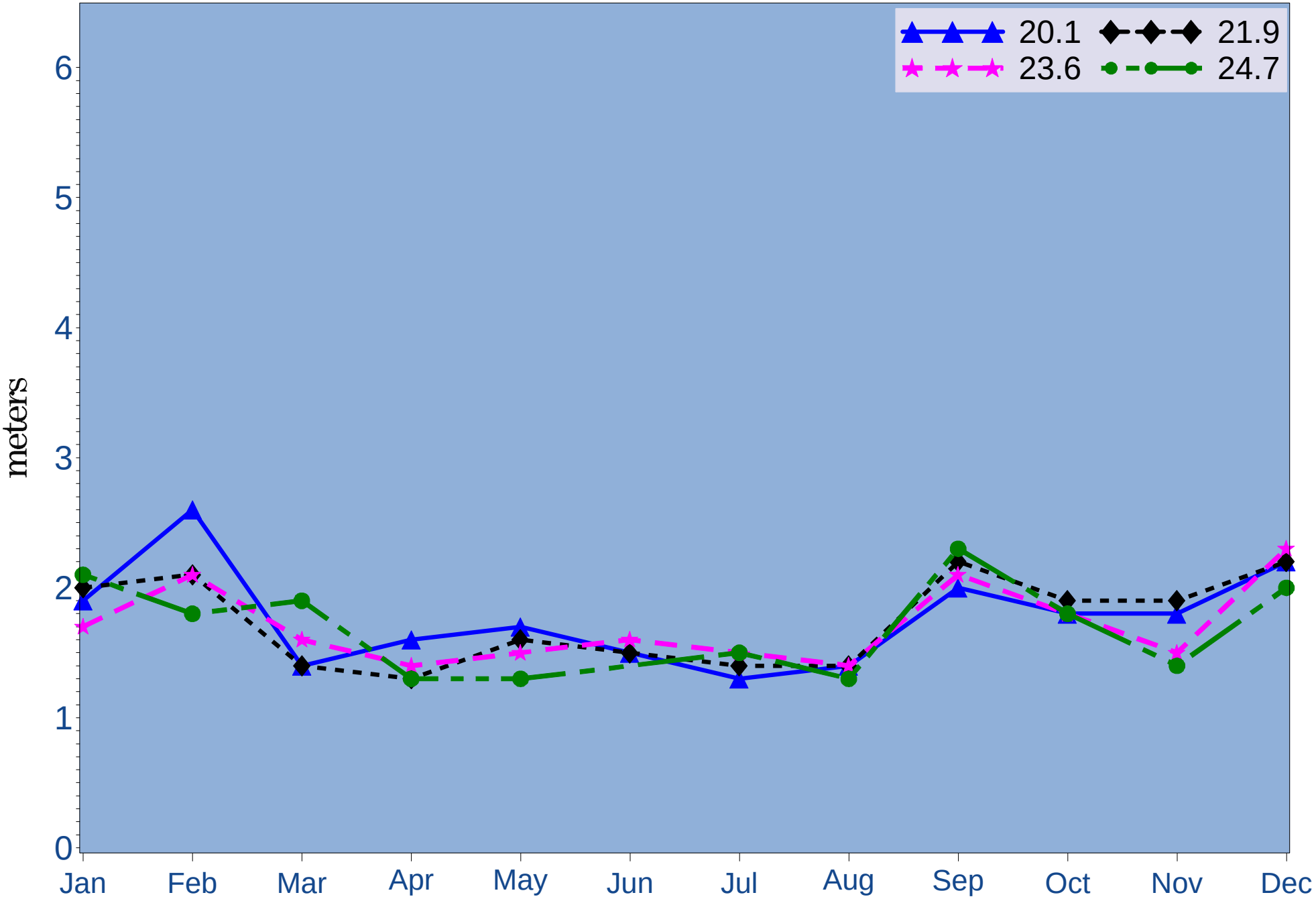


Figure 4.5c 2005 Monthly 1% light depth at river kilometers 20.1, 21.9, 23.6 and 24.7

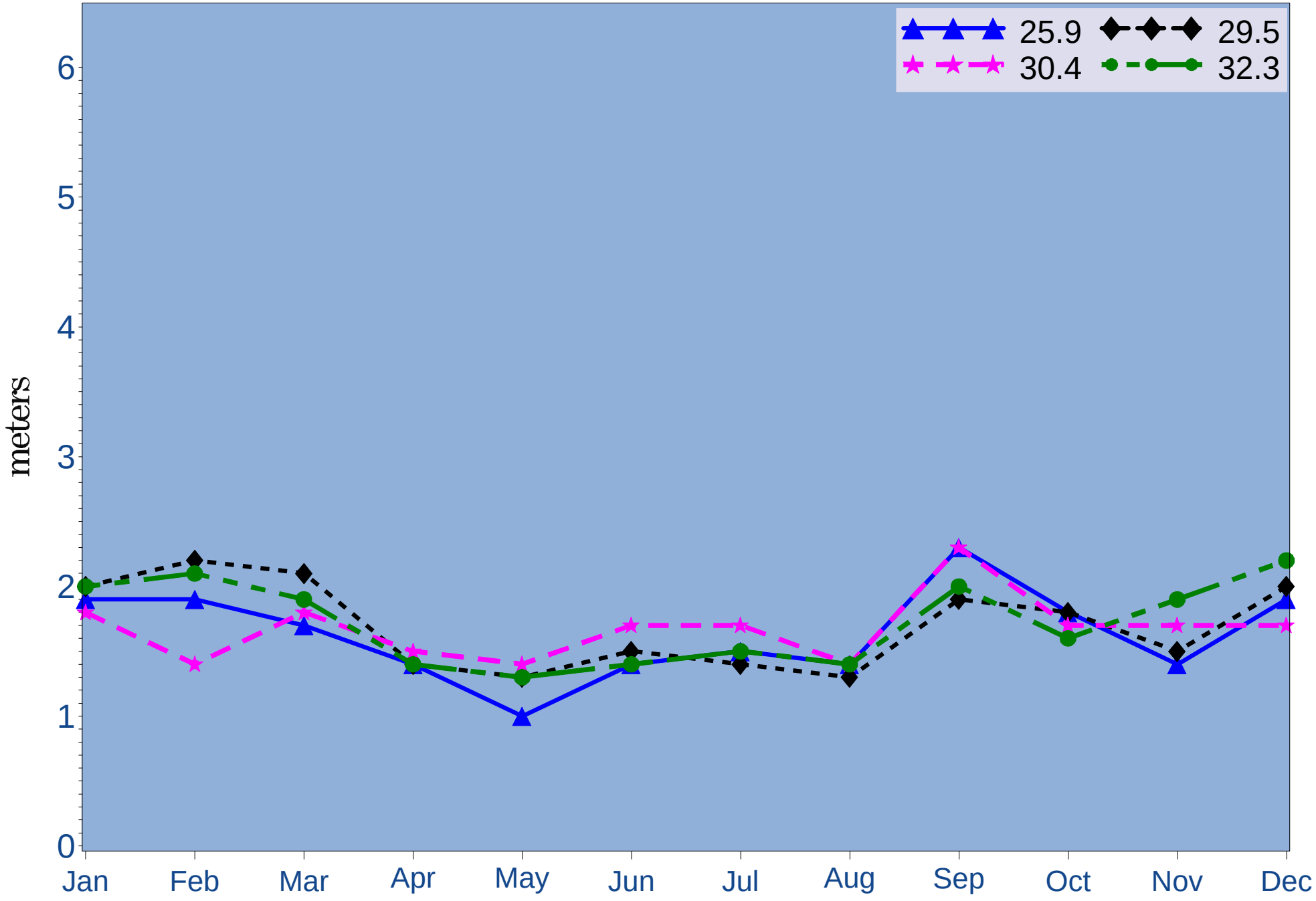


Figure 4.5d 2005 Monthly 1% light depth at river kilometers 25.9, 29.5, 30.4 and 32.3

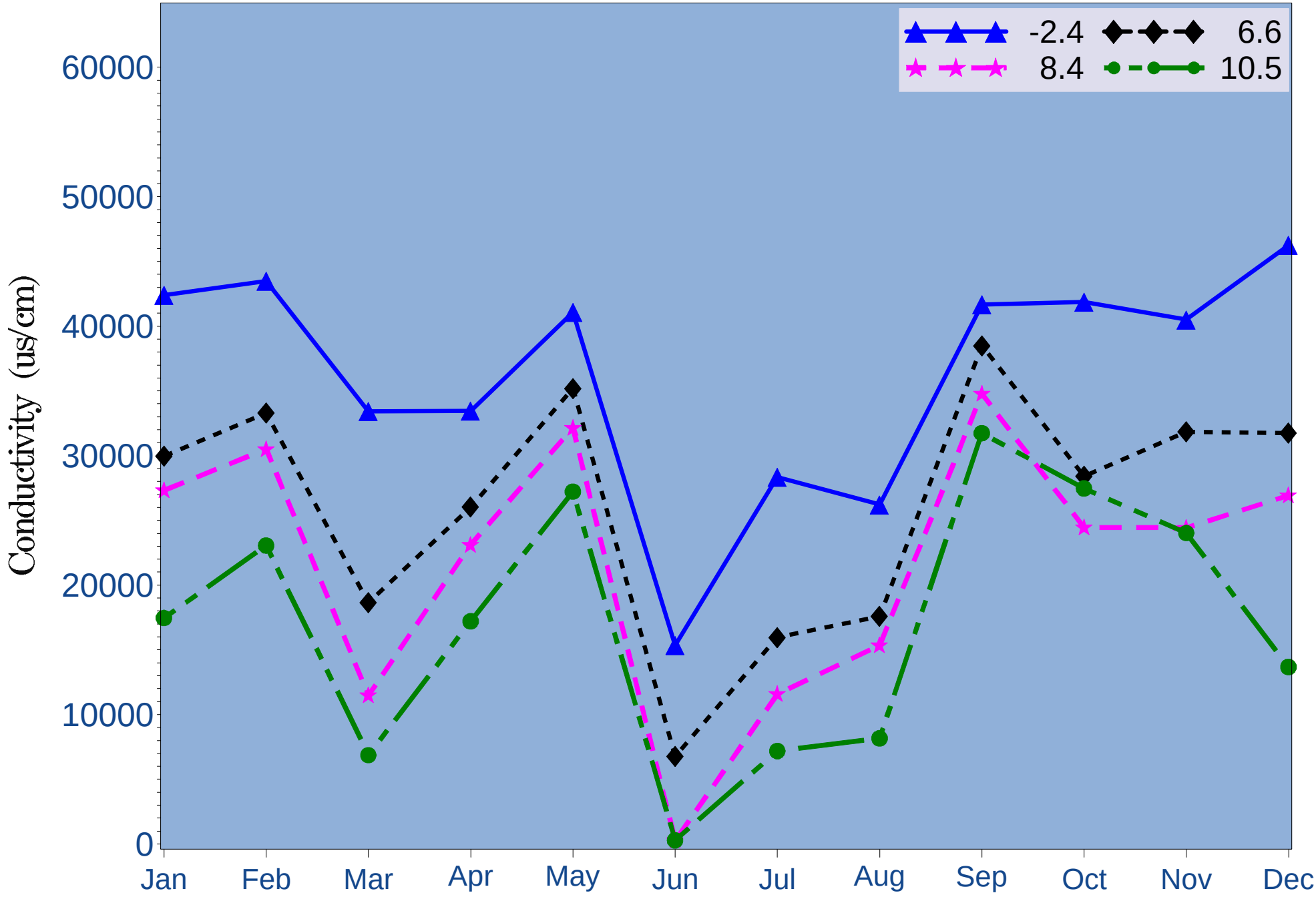


Figure 4.6a 2005 Mean monthly specific conductance at river kilometers -2.4, 6.6, 8.4 and 10.5

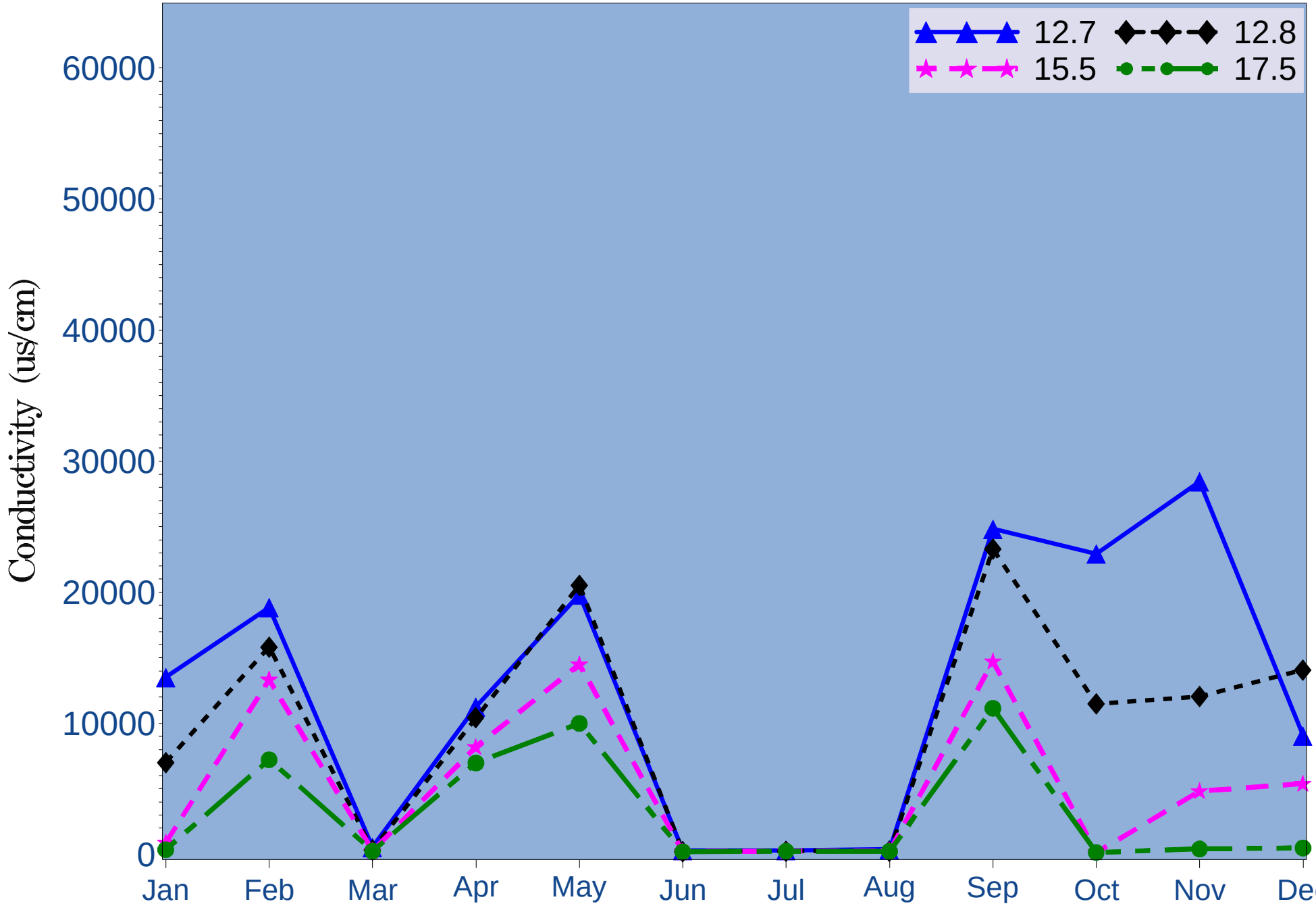


Figure 4.6b 2005 Mean monthly specific conductance at river kilometers 12.7, 12.8, 15.5 and 17.5

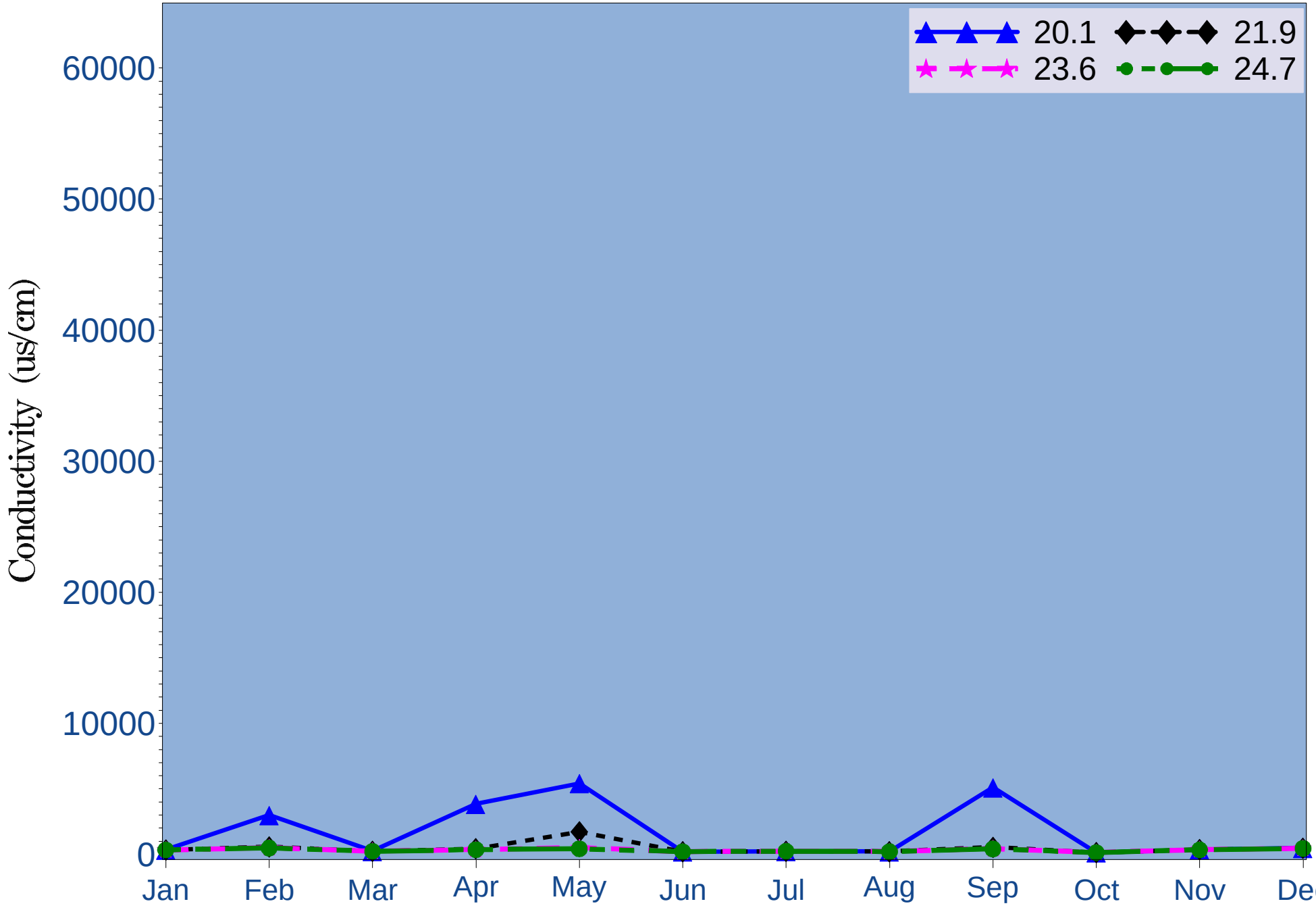


Figure 4.6c 2005 Mean monthly specific conductance at river kilometers 20.1, 21.9, 23.6 and 24.7

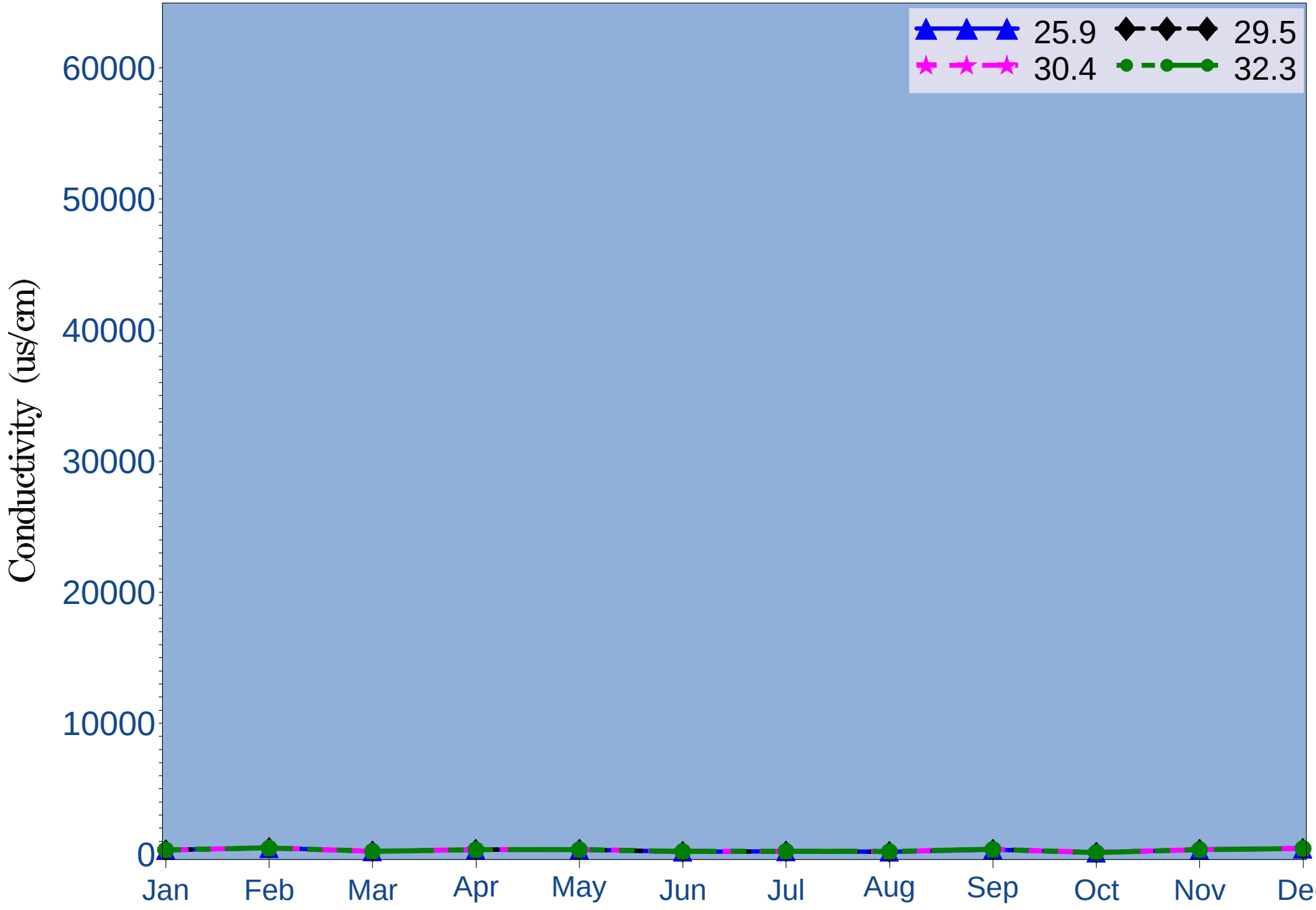


Figure 4.6d 2005 Mean monthly specific conductance at river kilometers 25.9, 29.5, 30.4 and 32.3

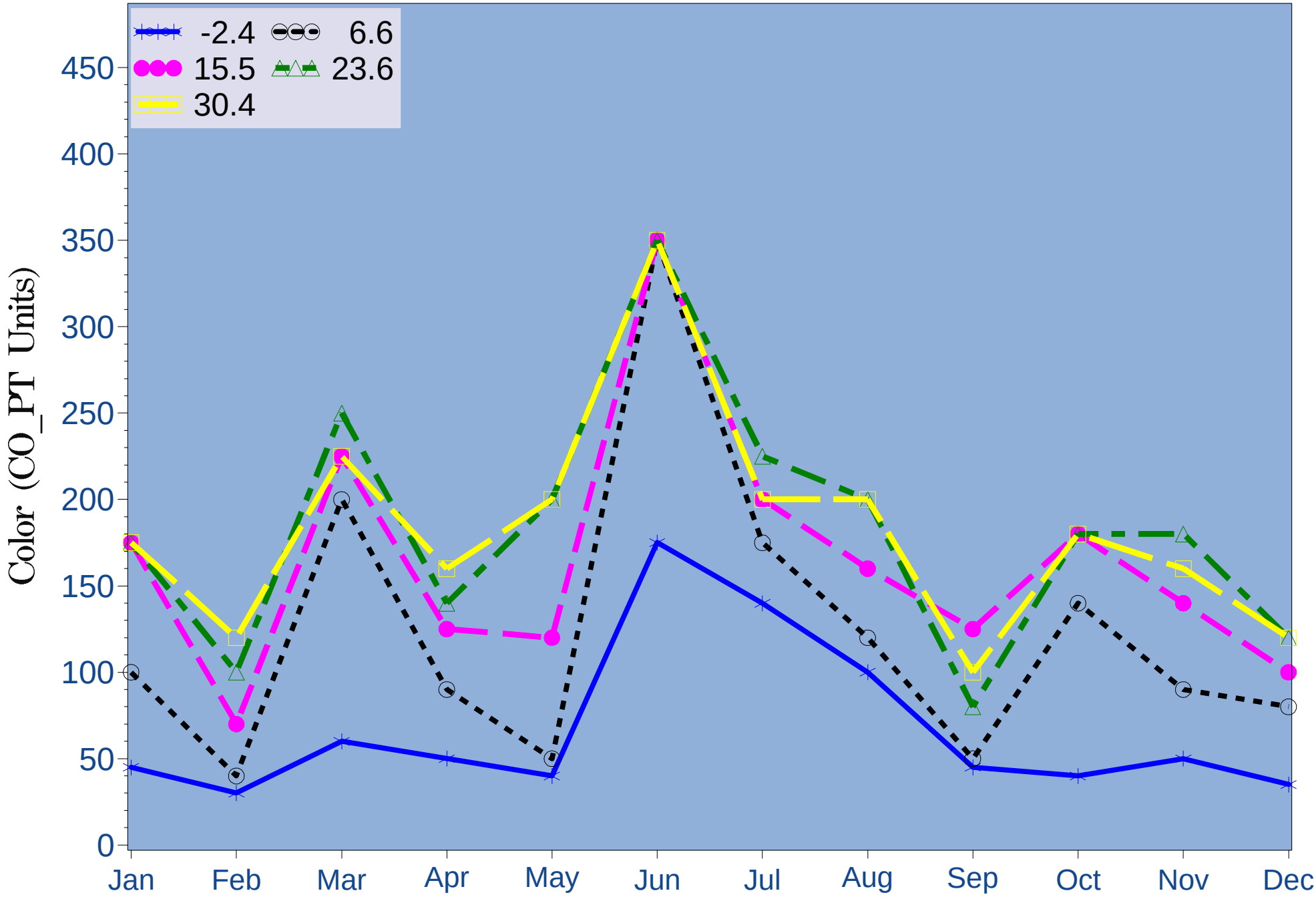


Figure 4.7a Surface color at fixed sampling stations (2005)

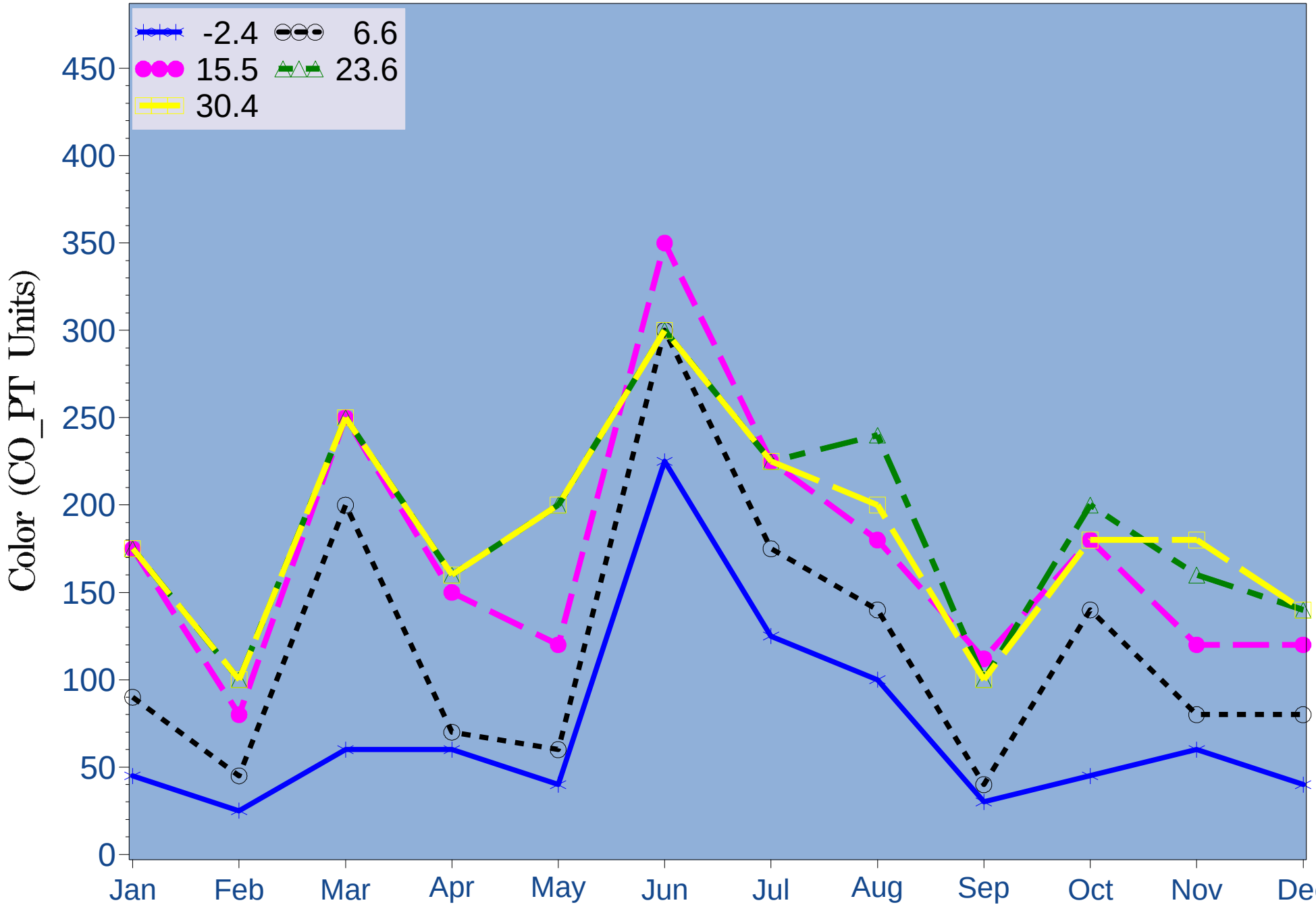


Figure 4.7b Bottom color at fixed sampling stations (2005)

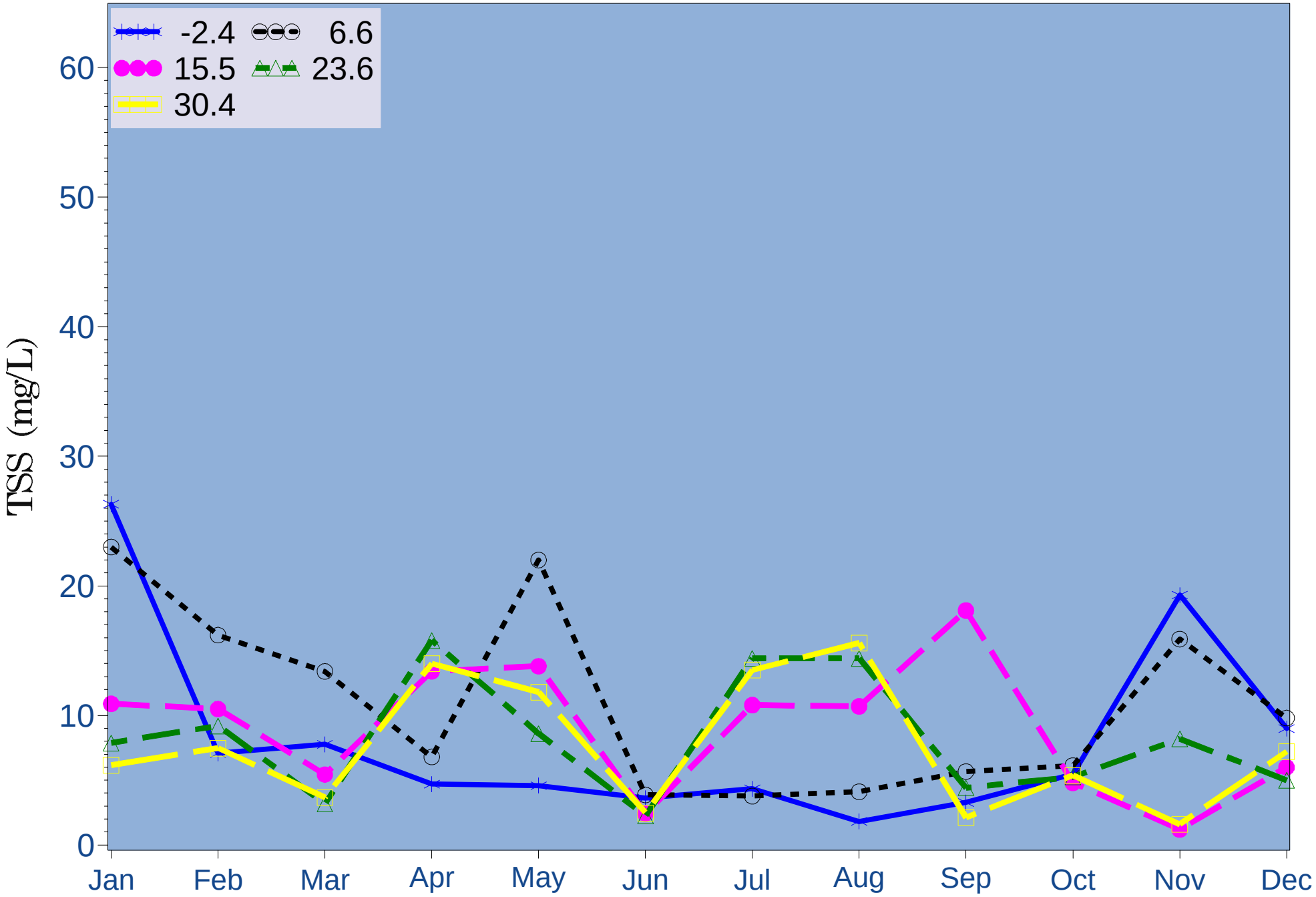


Figure 4.8a Surface total suspended solids at fixed sampling stations (2005)

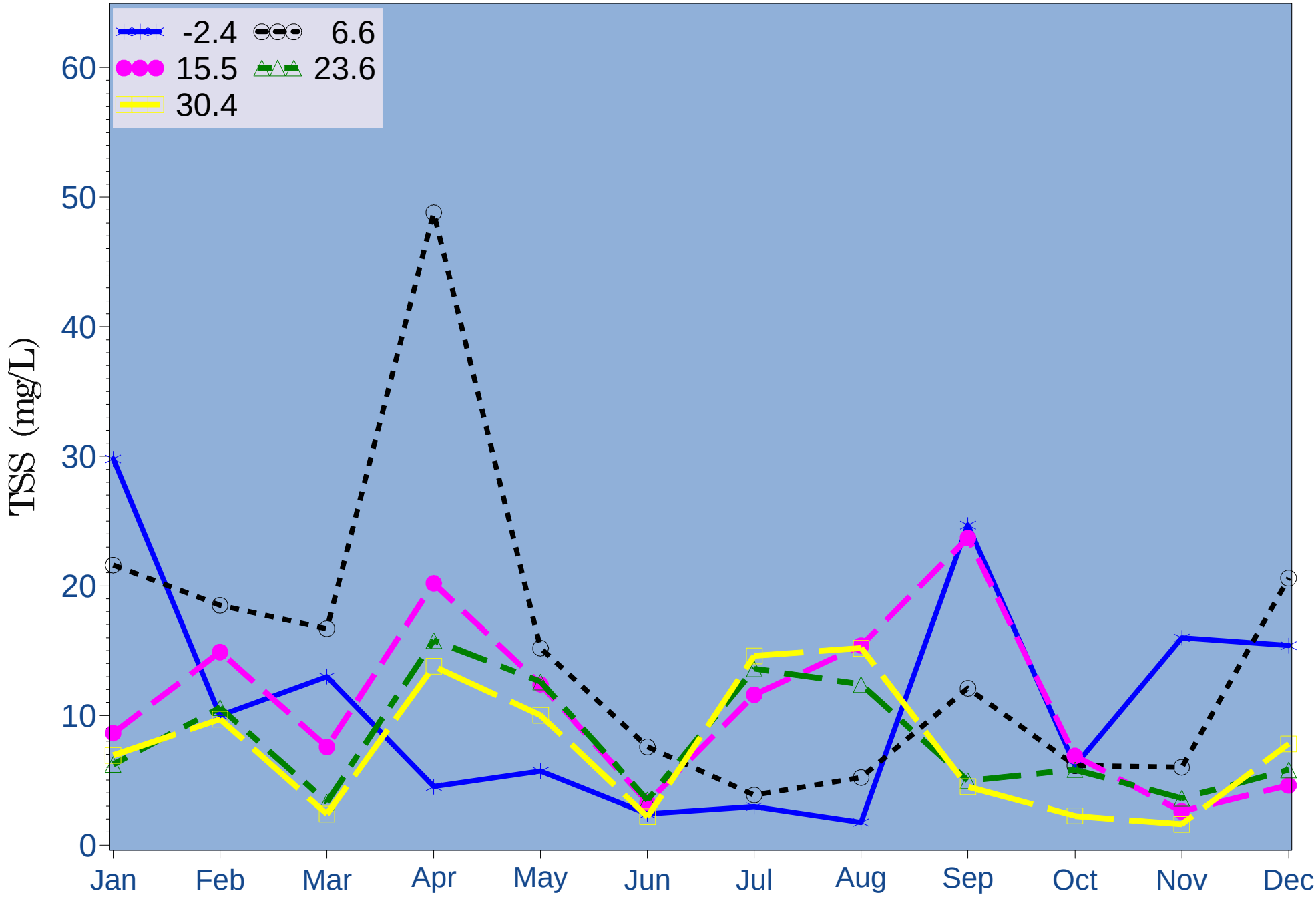


Figure 4.8b Monthly bottom total suspended solids at fixed sampling stations (2005)

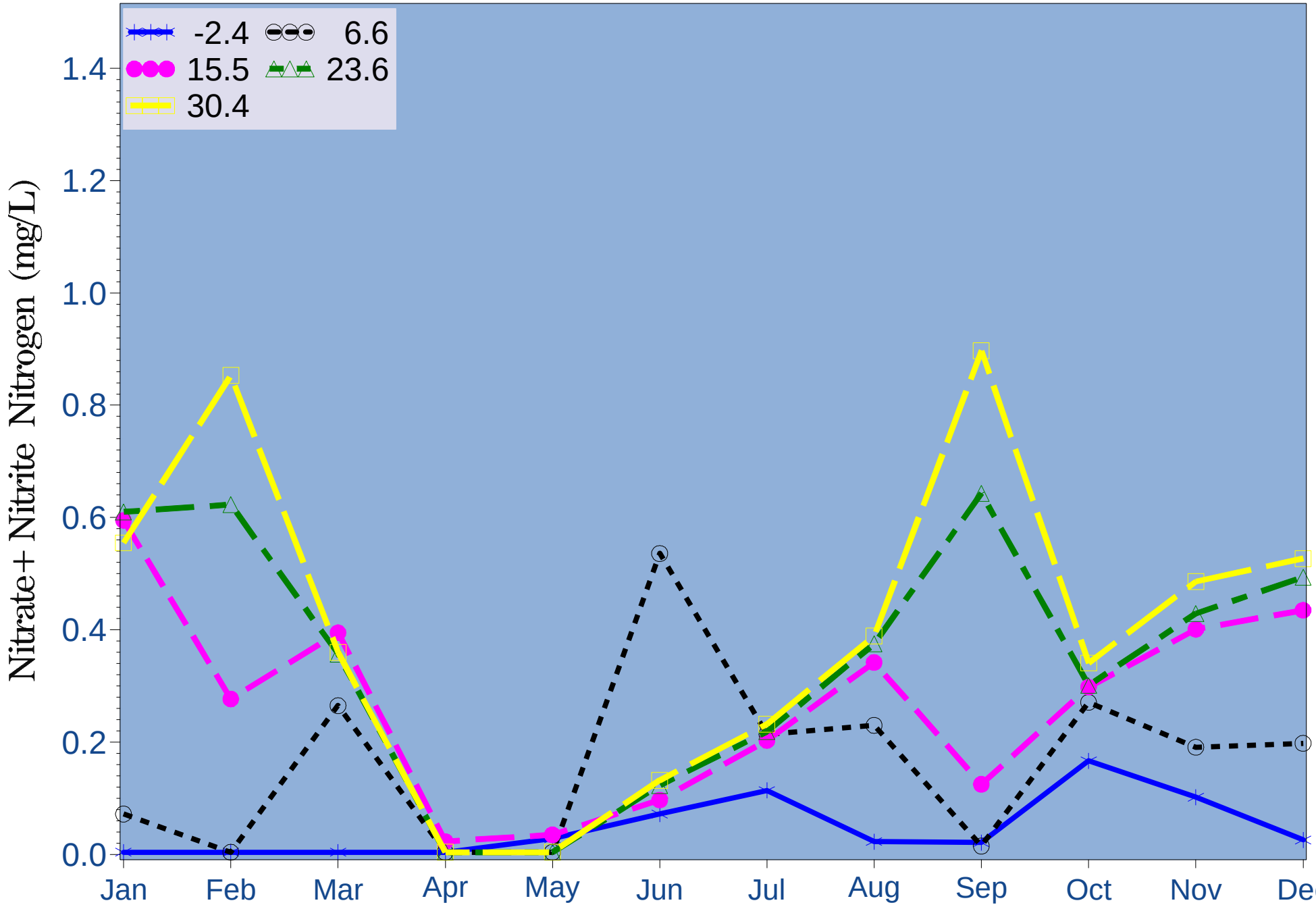


Figure 4.9a Monthly surface nitrate/nitrite nitrogen at fixed sampling stations (2005)

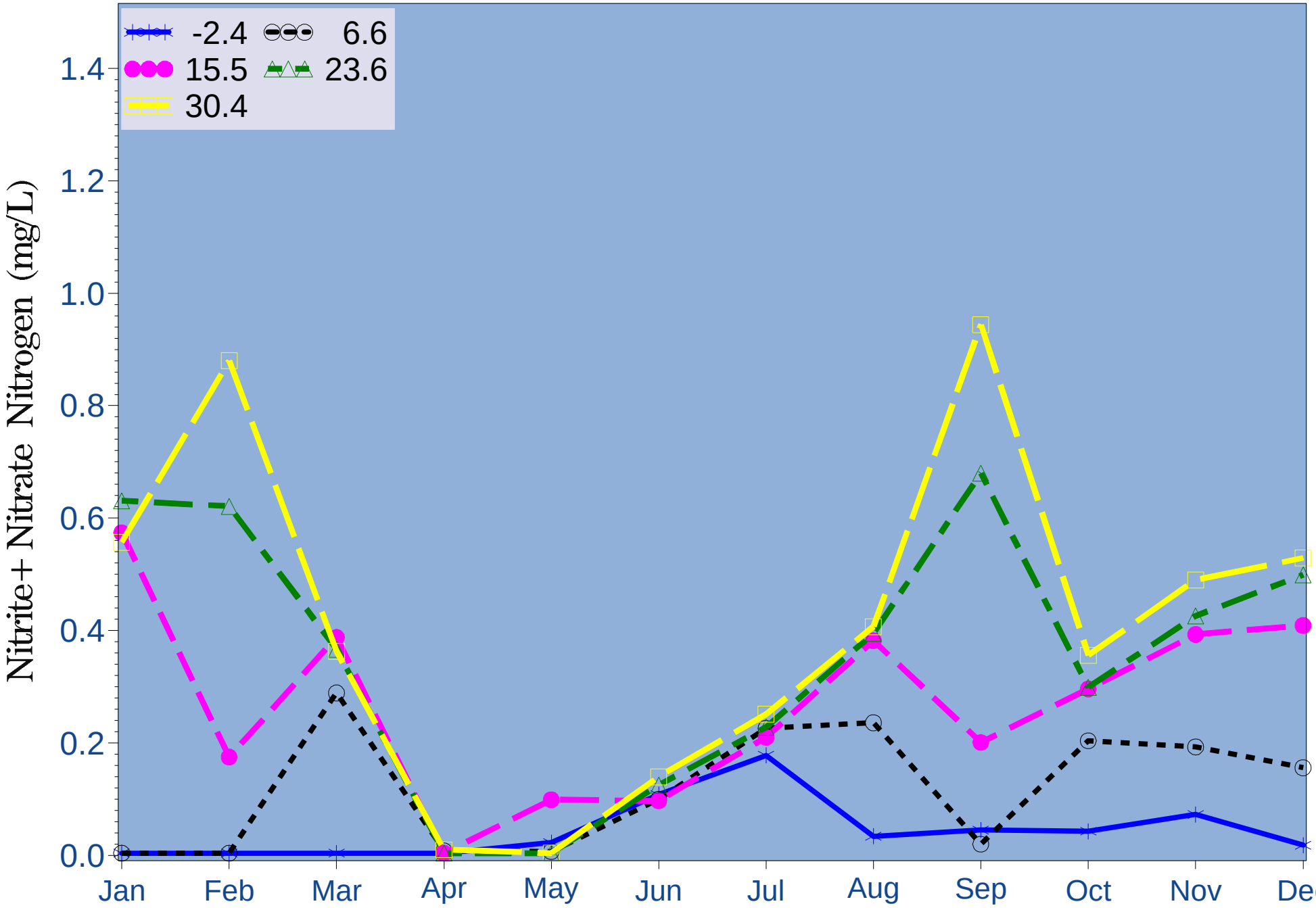


Figure 4.9b Monthly bottom nitrite/nitrate nitrogen at fixed sampling stations (2005)

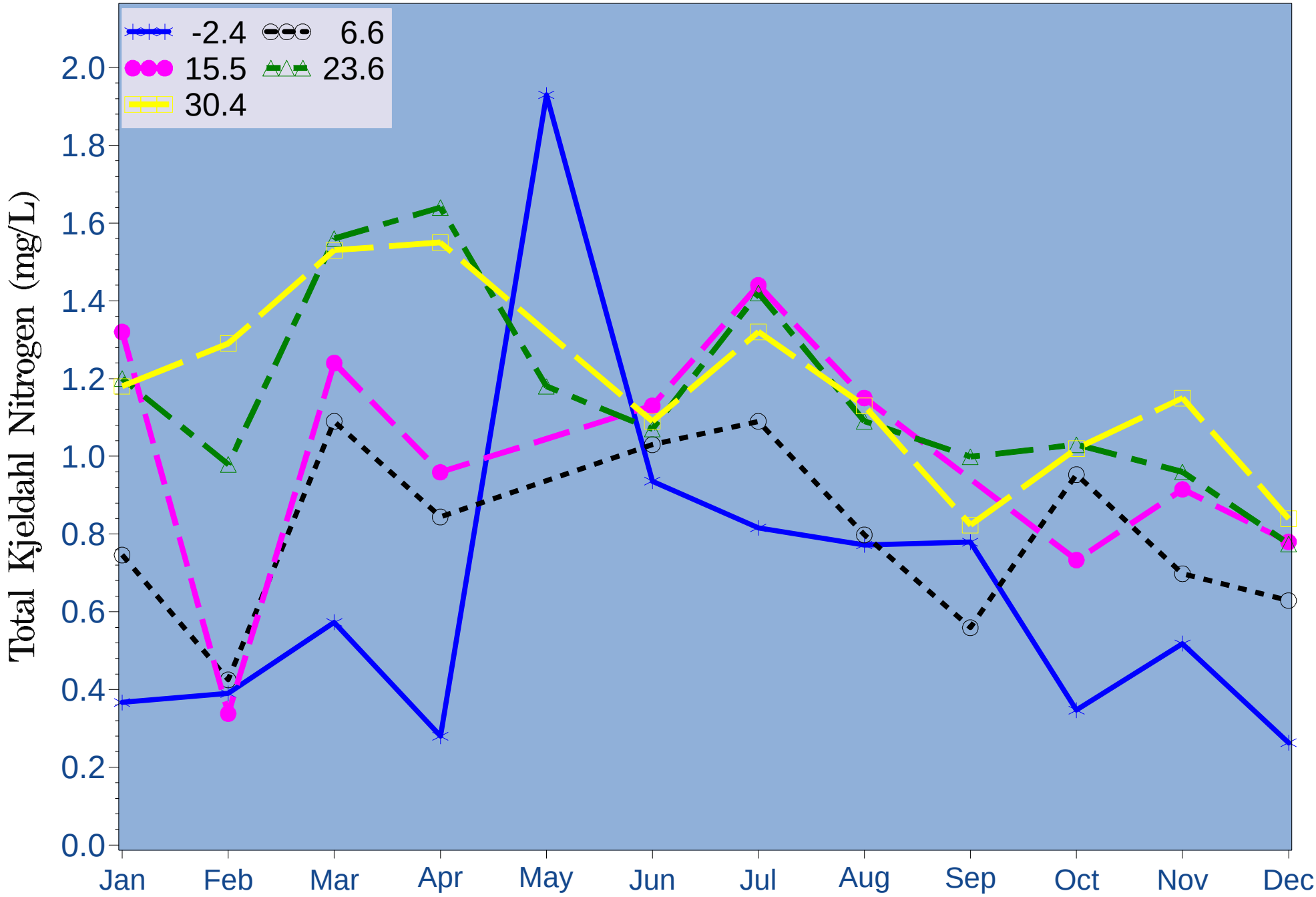


Figure 4.10a Monthly surface total Kjeldahl nitrogen at fixed sampling stations (2005)

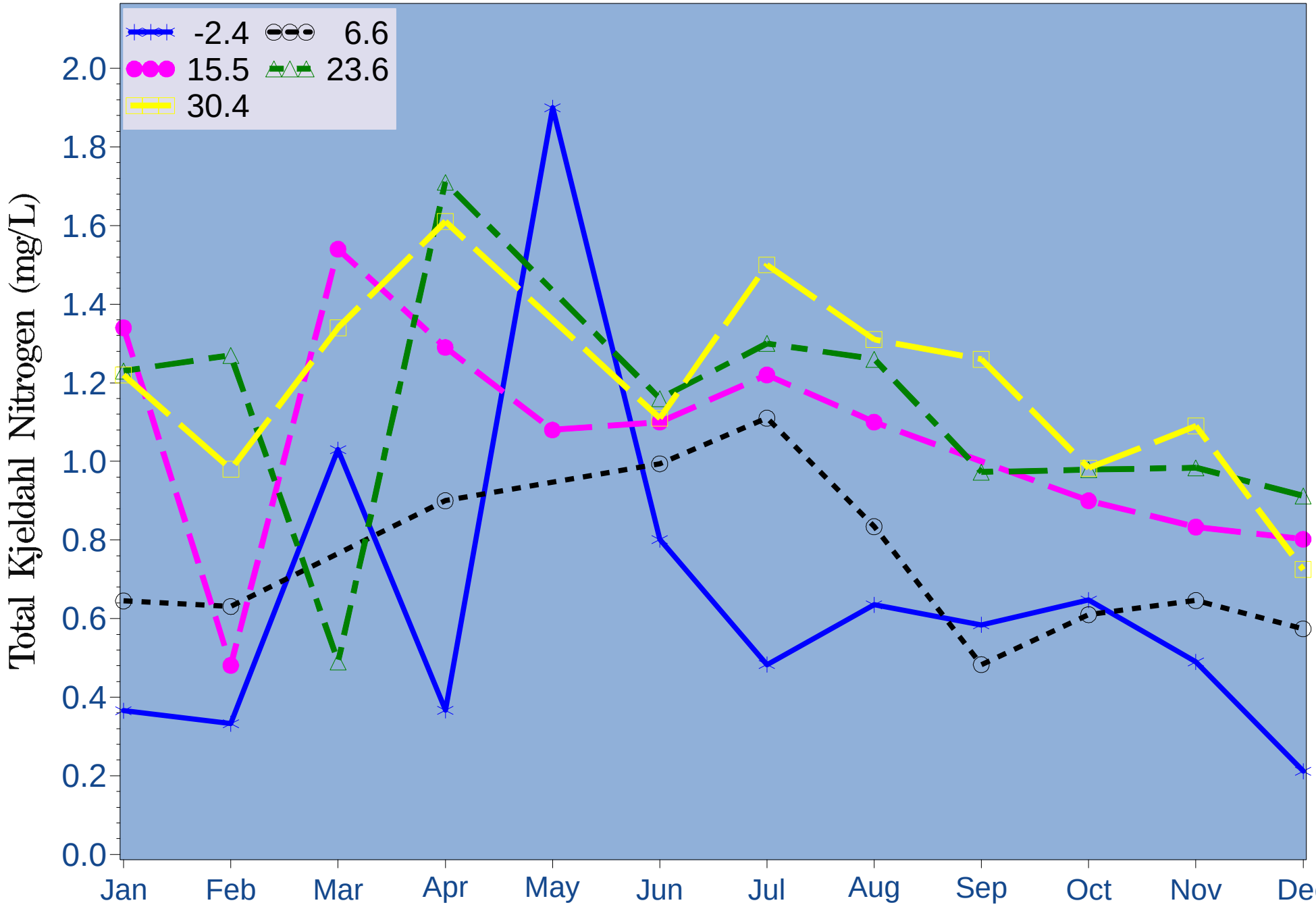


Figure 4.10b Monthly bottom total Kjeldahl nitrogen at fixed sampling stations (2005)

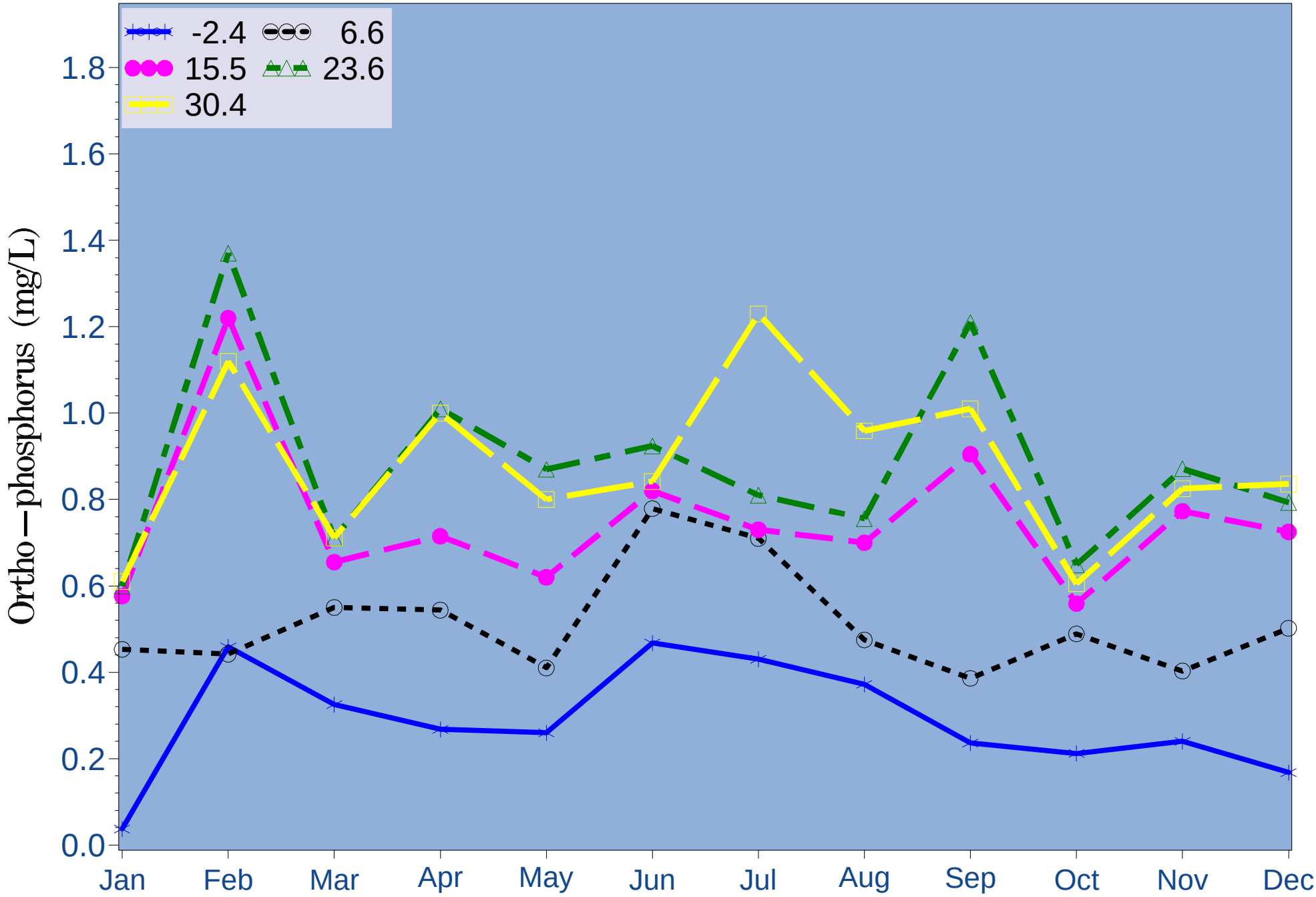


Figure 4.11a Monthly surface ortho-phosphorus at fixed sampling stations (2005)

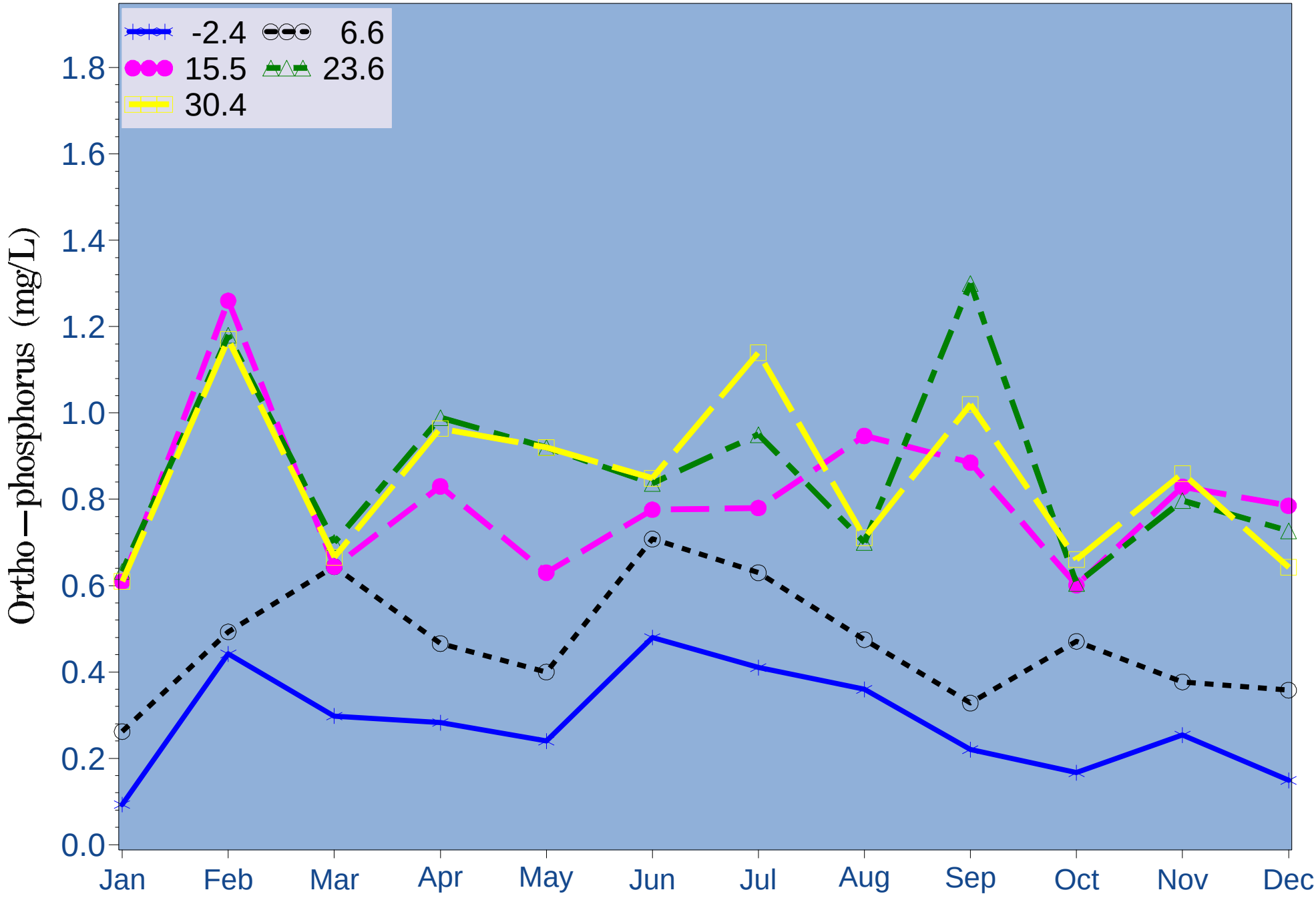


Figure 4.11b Monthly bottom orth-ophosphorus at fixed sampling stations (2005)

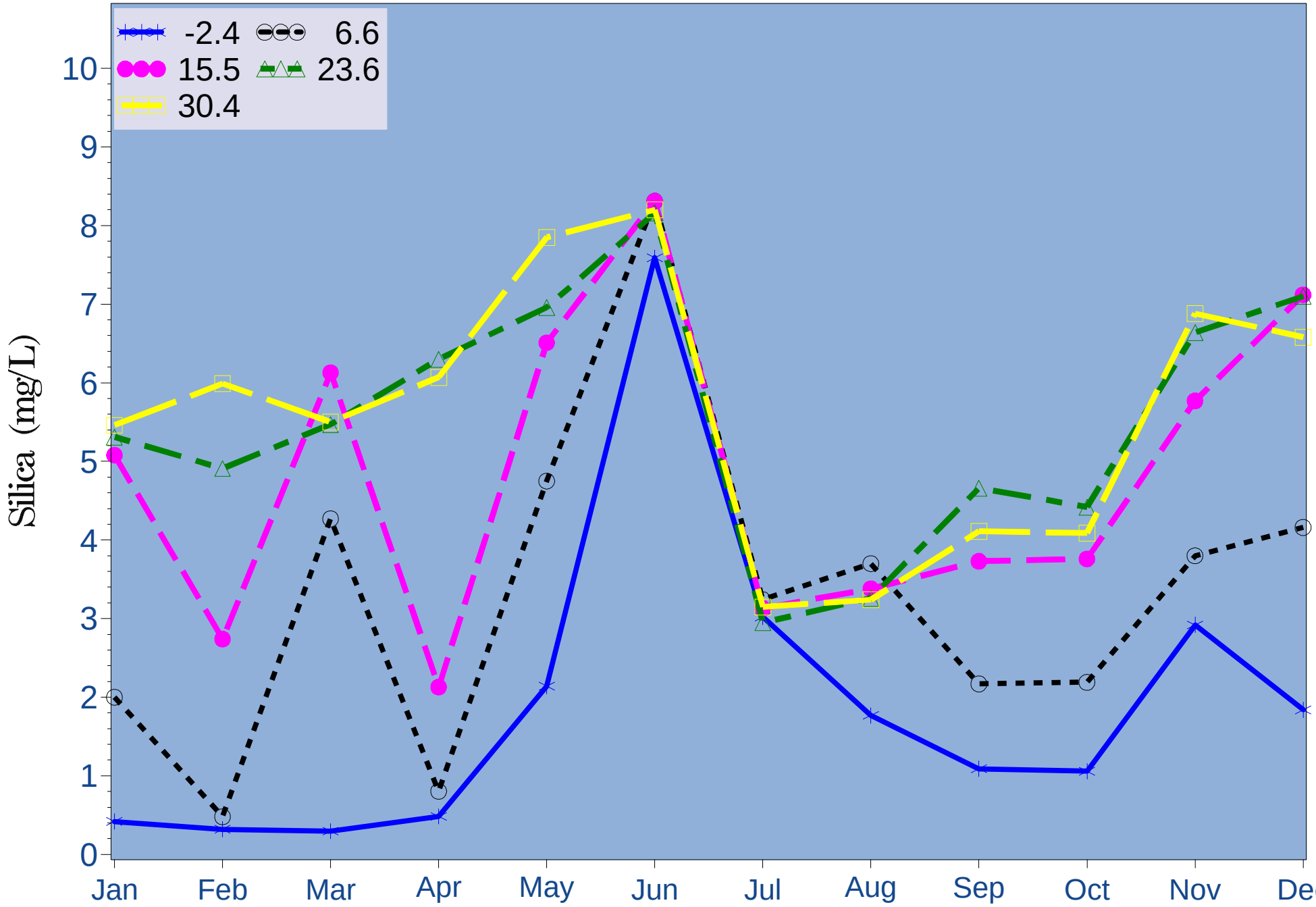


Figure 4.12a Monthly surface silica at fixed sampling stations (2005)

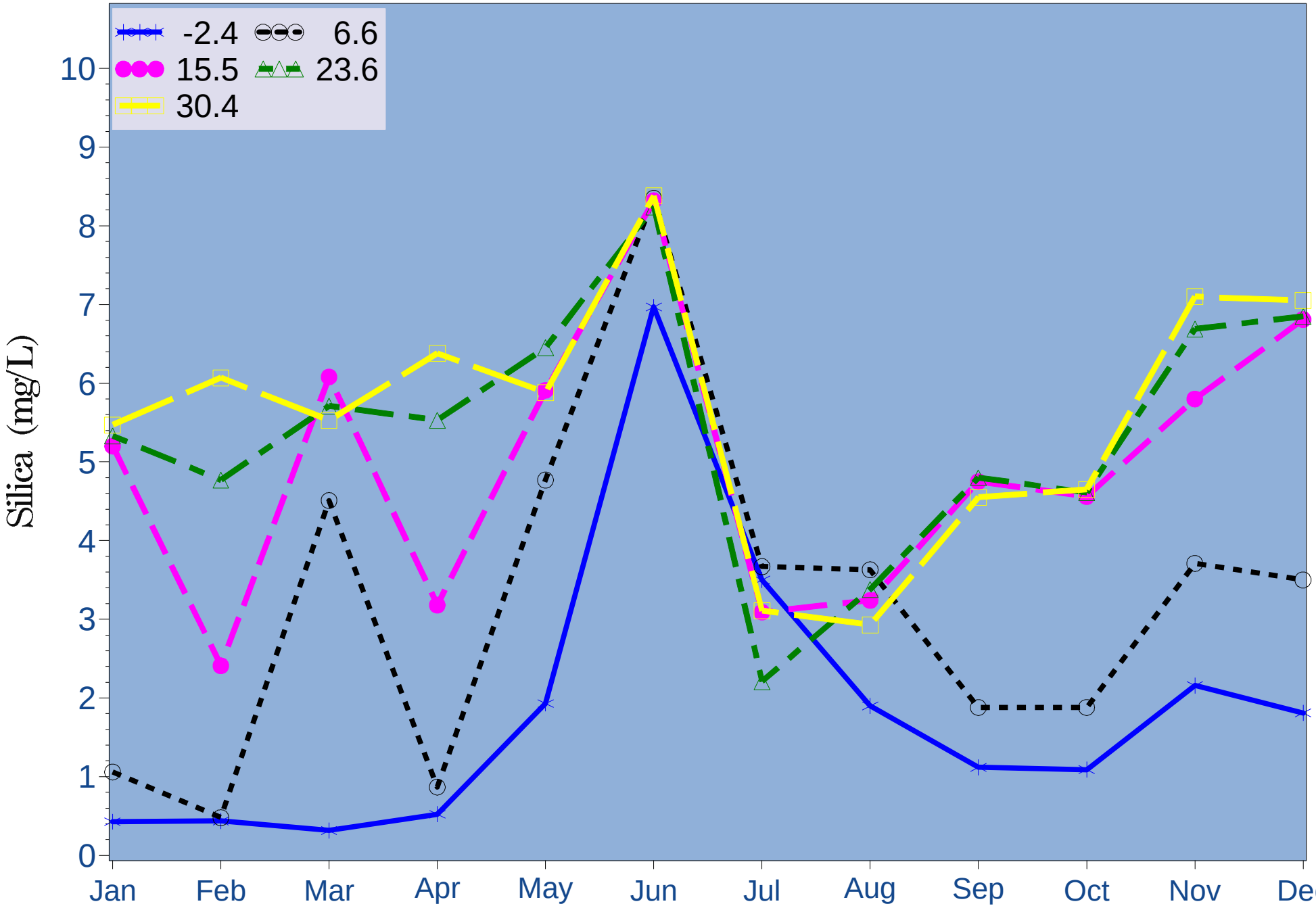


Figure 4.12b Monthly bottom silica at fixed sampling stations (2005)

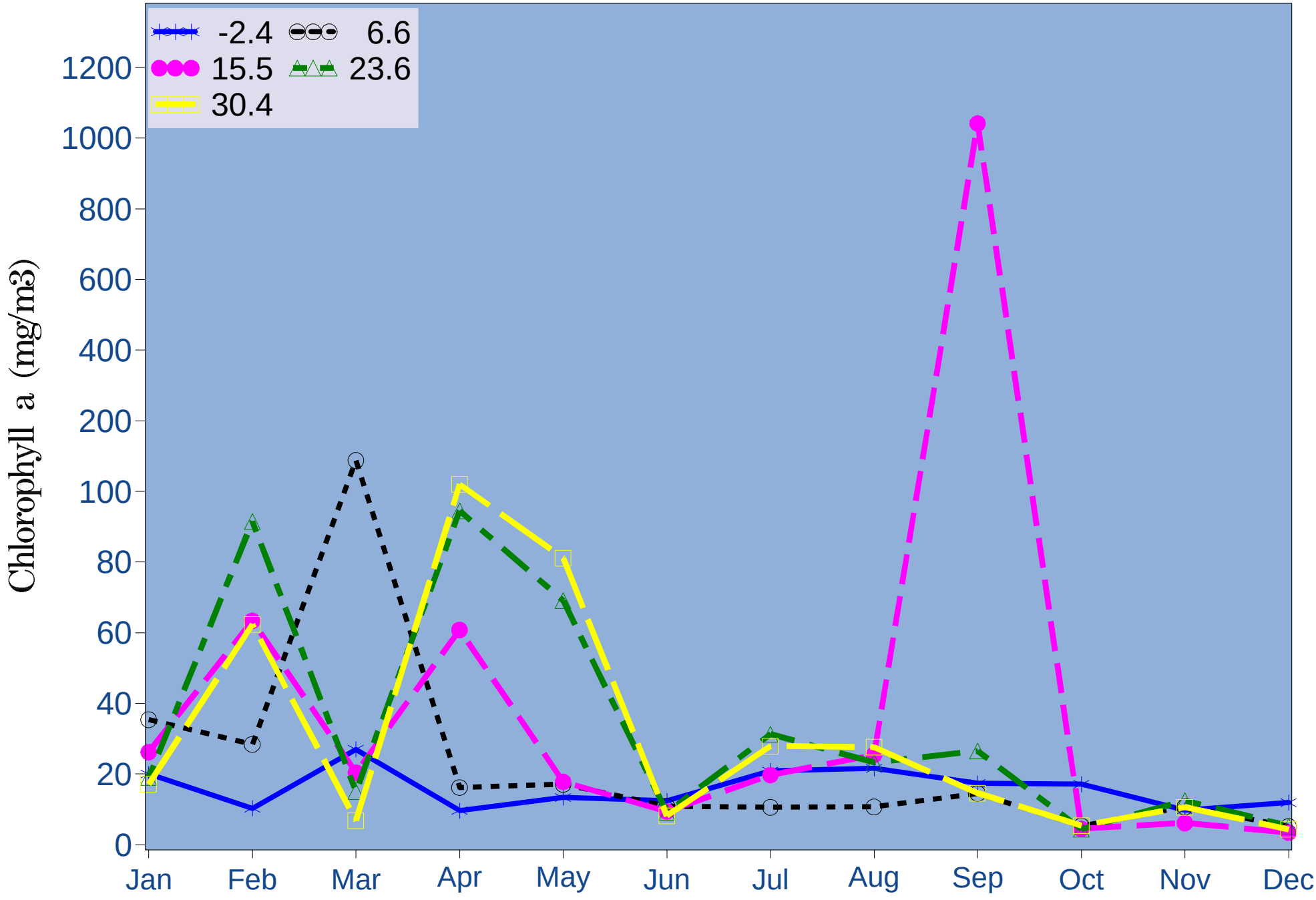


Figure 4.13a Monthly Surface chlorophyll a (mg/m3) at fixed stations (2005)

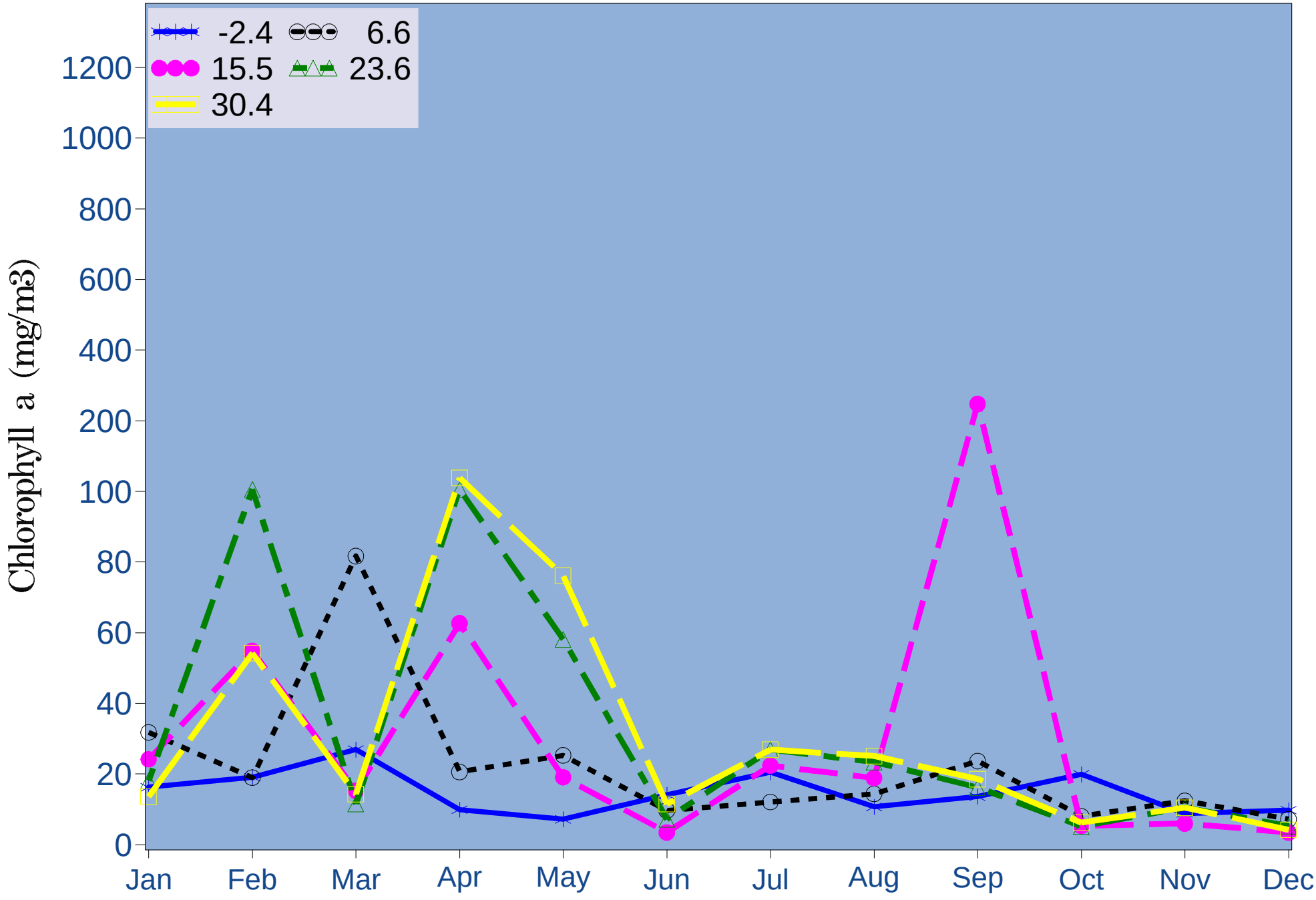


Figure 4.13b Monthyl bottom chlorophyll a (mg/m3) at fixed stations (2005)

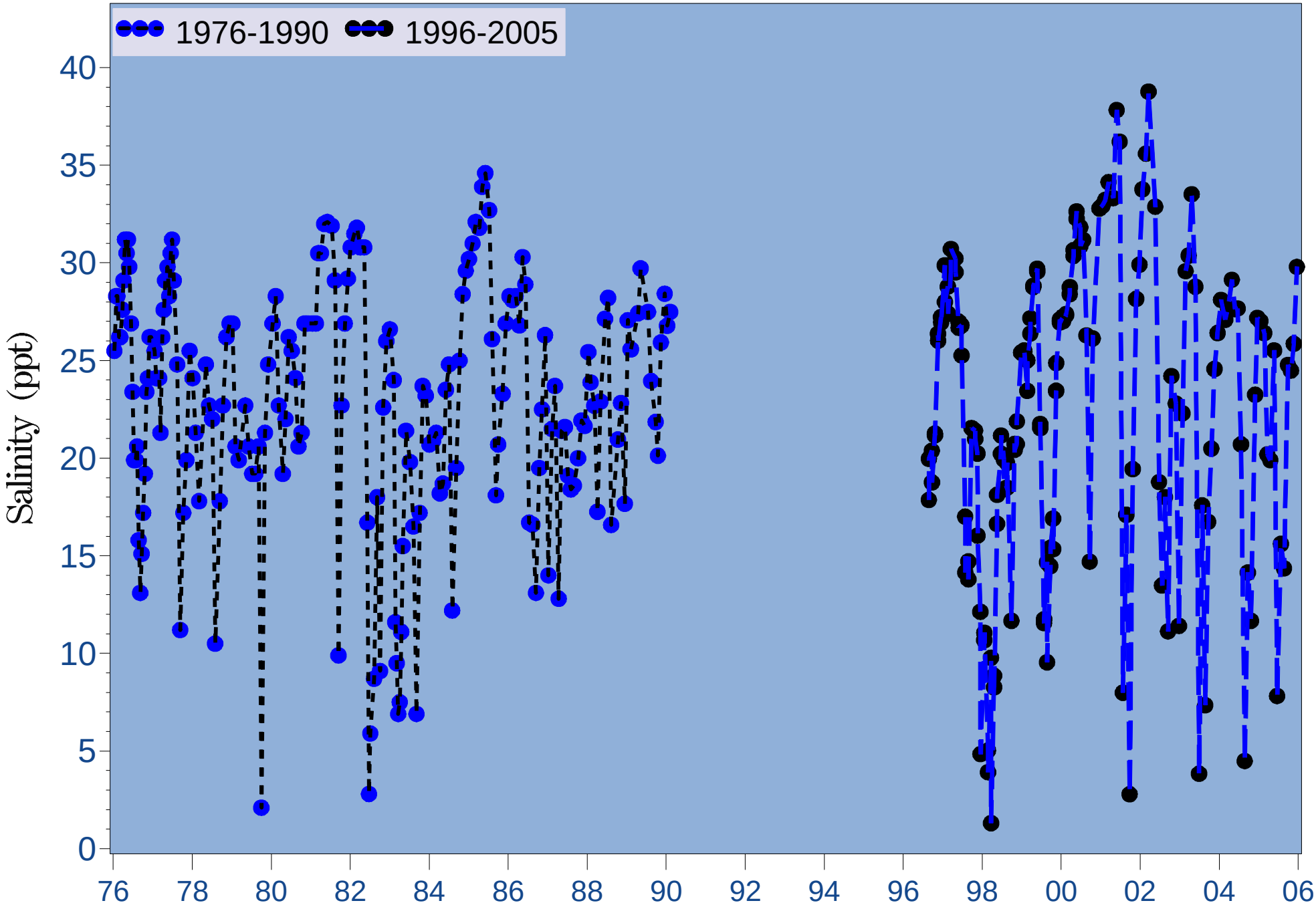


Figure 4.14a Monthly long-term surface salinity at river kilometer -2.4

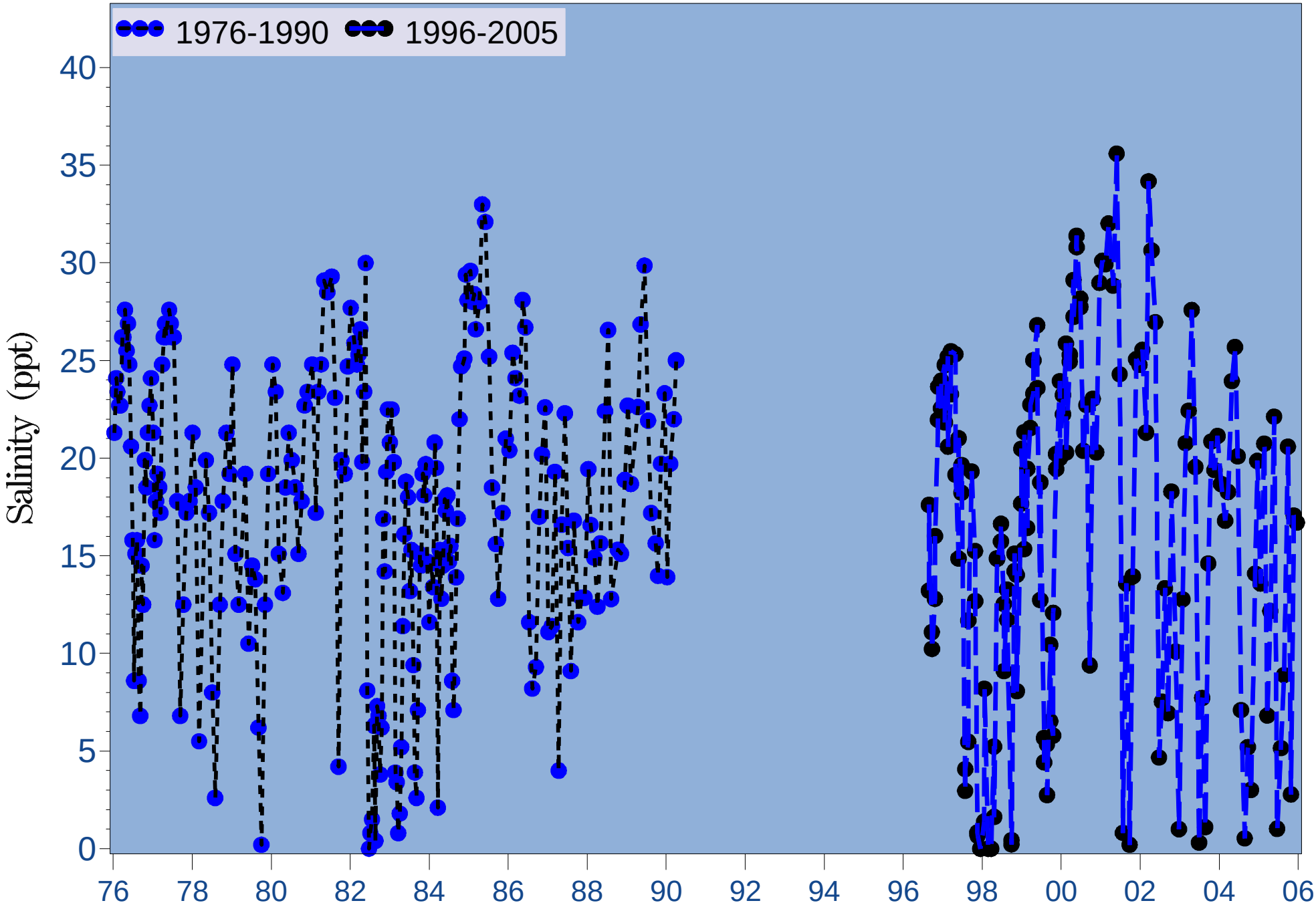


Figure 4.14b Monthly long-term surface salinity at river kilometer 6.6

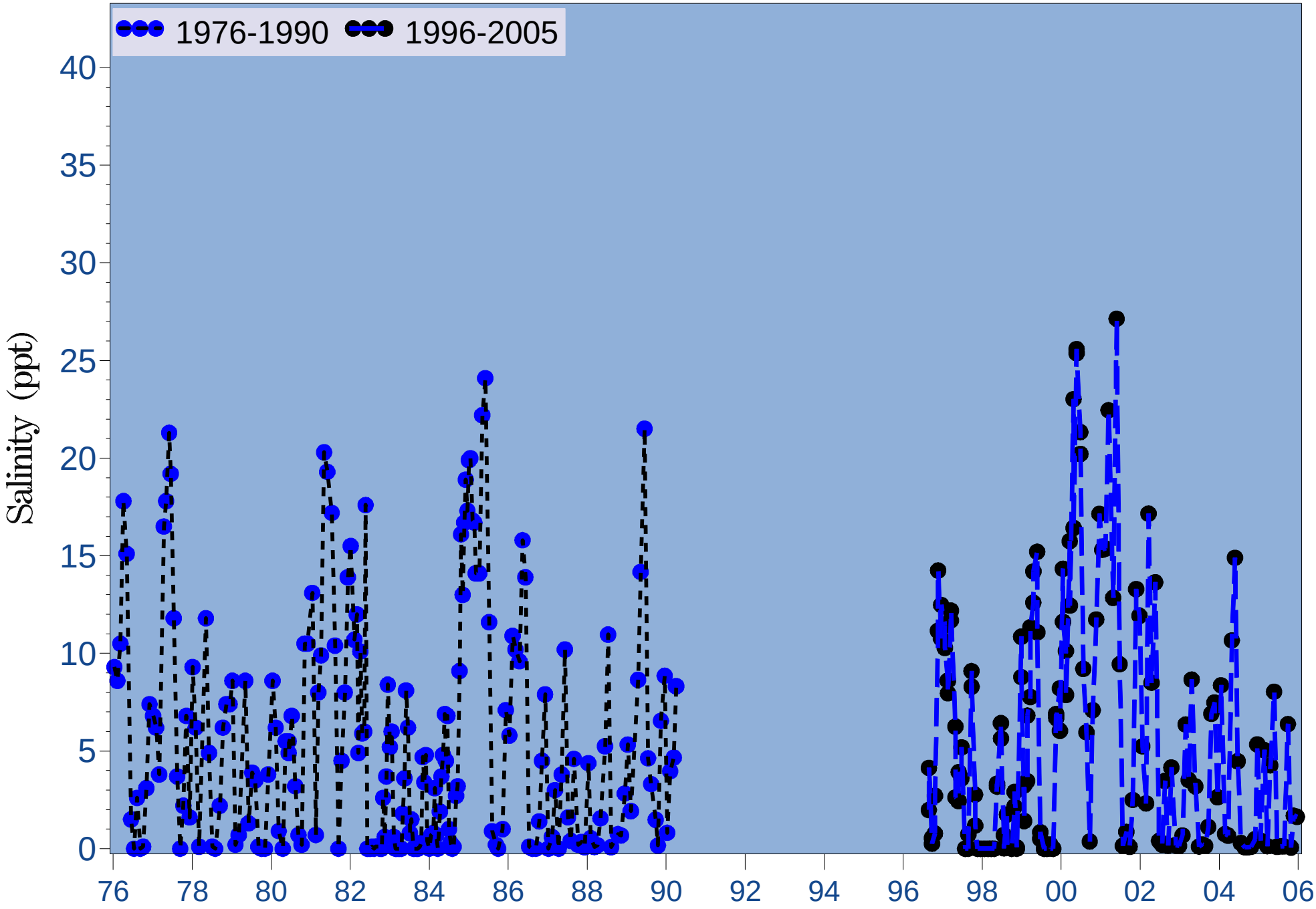


Figure 4.14c Monthly long-term surface salinity at river kilometer 15.5

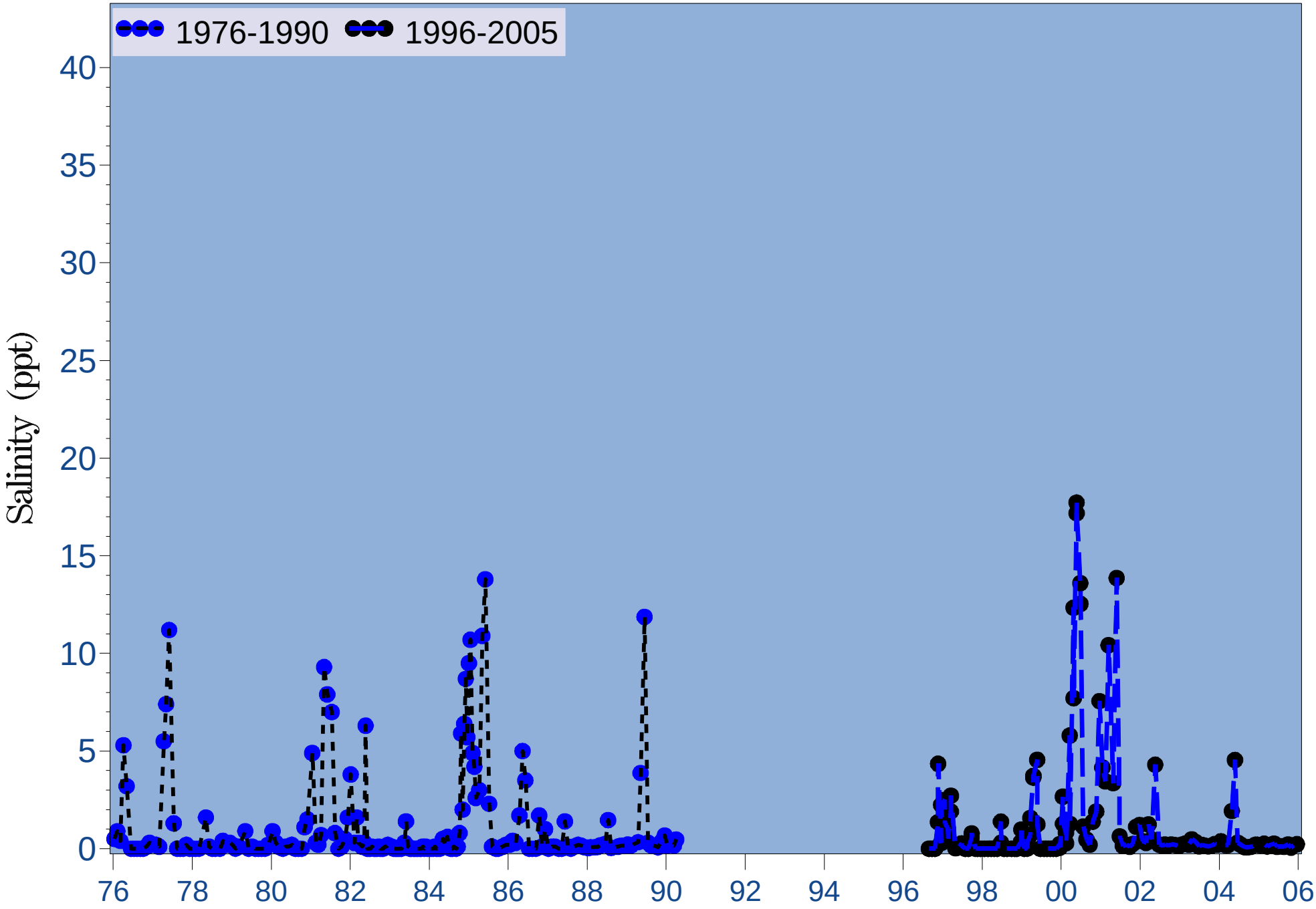


Figure 4.14d Monthly long-term surface salinity at river kilometer 23.6

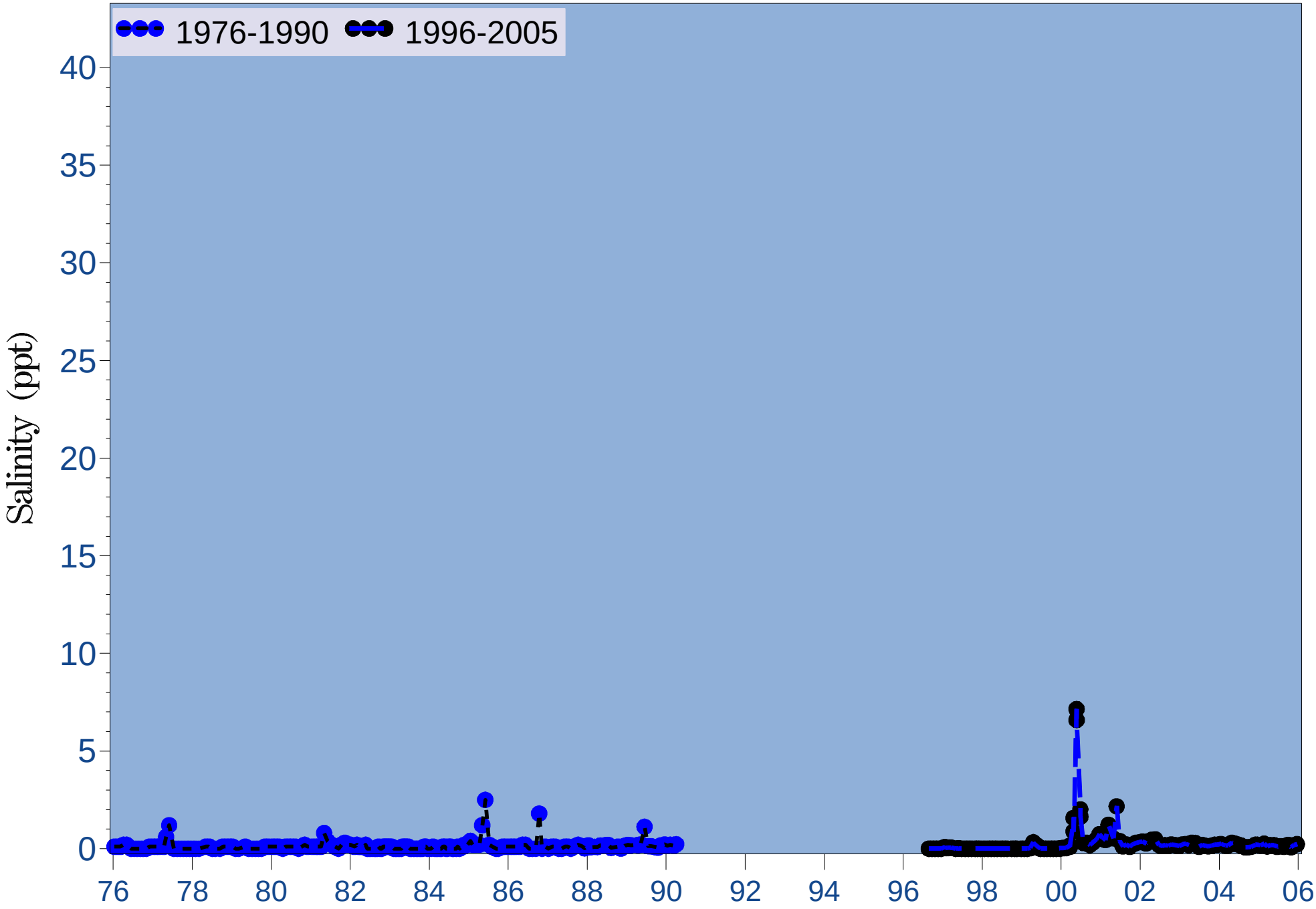


Figure 4.14e Monthly long-term surface salinity at river kilometer 30.4

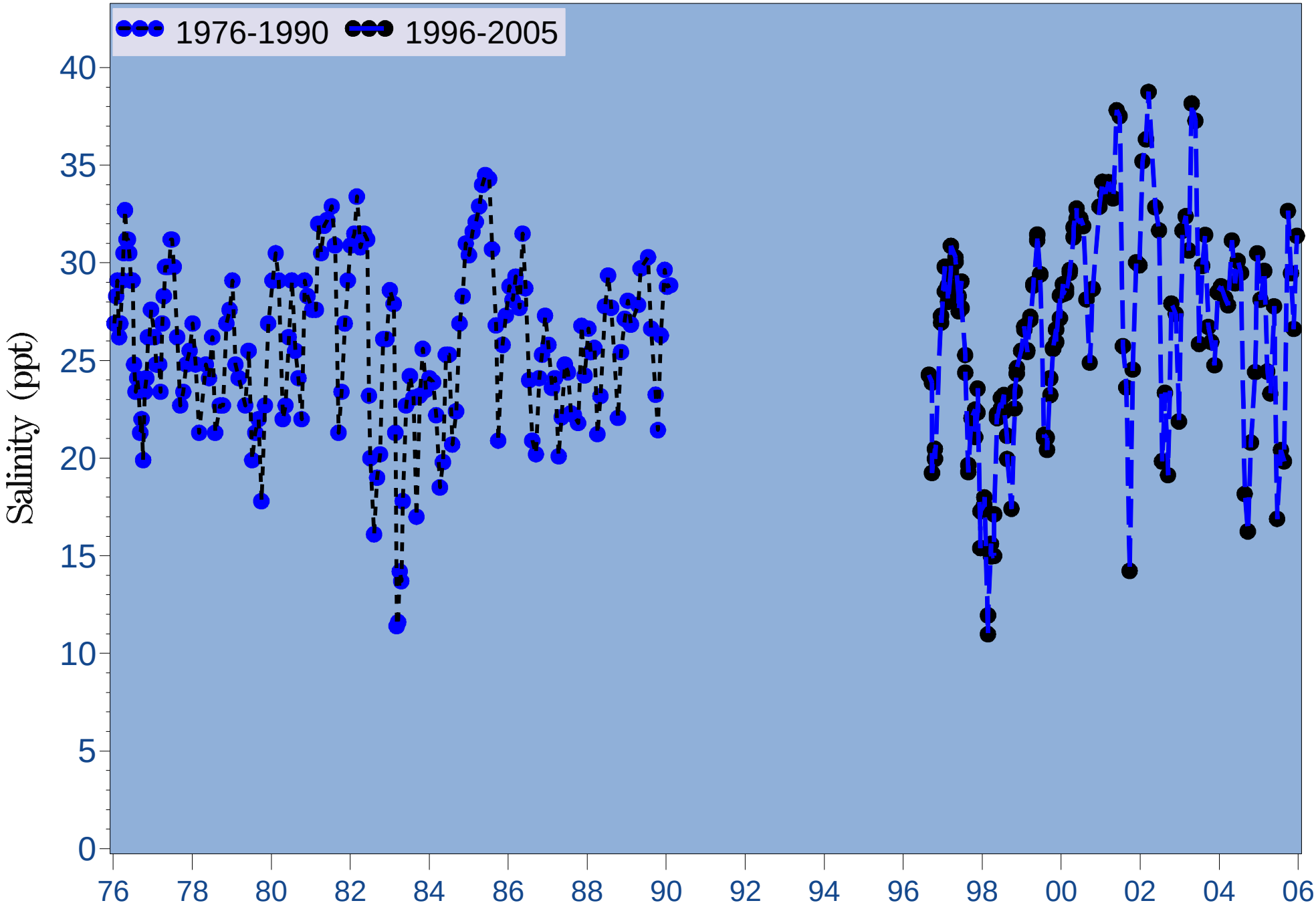


Figure 4.15a Monthly long-term bottom salinity at river kilometer -2.4

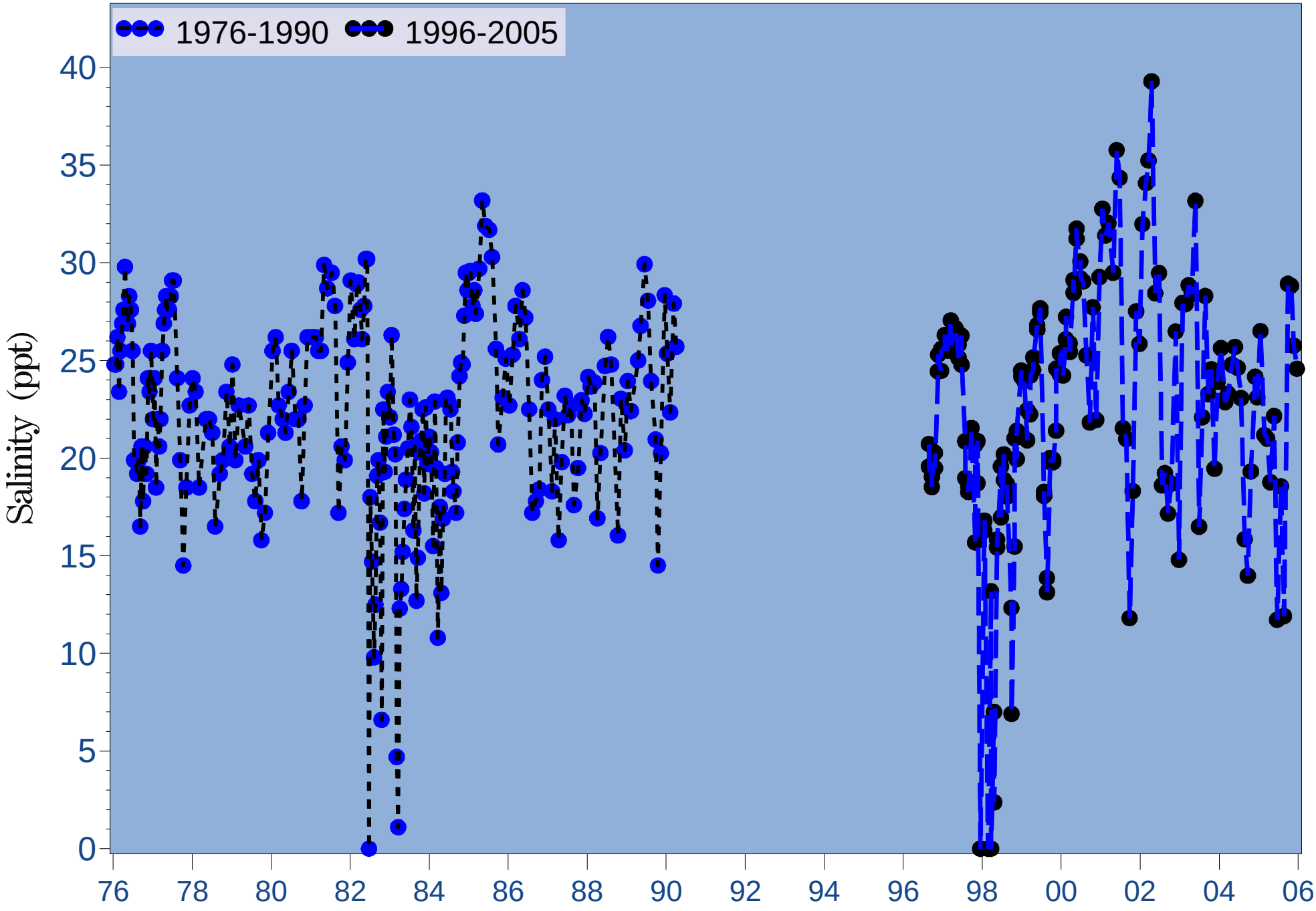


Figure 4.15b Monthly long-term bottom salinity at river kilometer 6.6

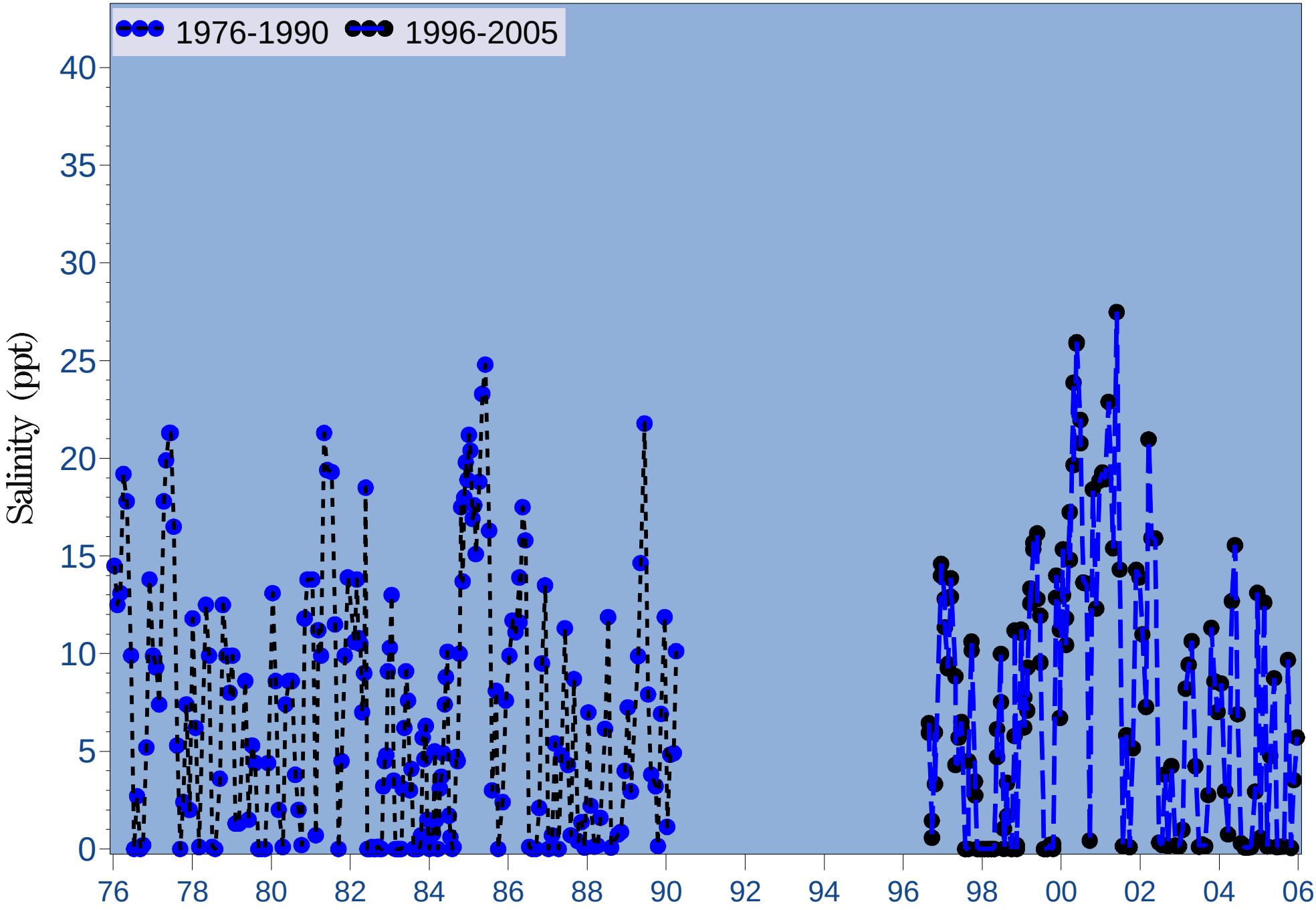


Figure 4.15c Monthly long-term bottom salinity at river kilometer 15.5

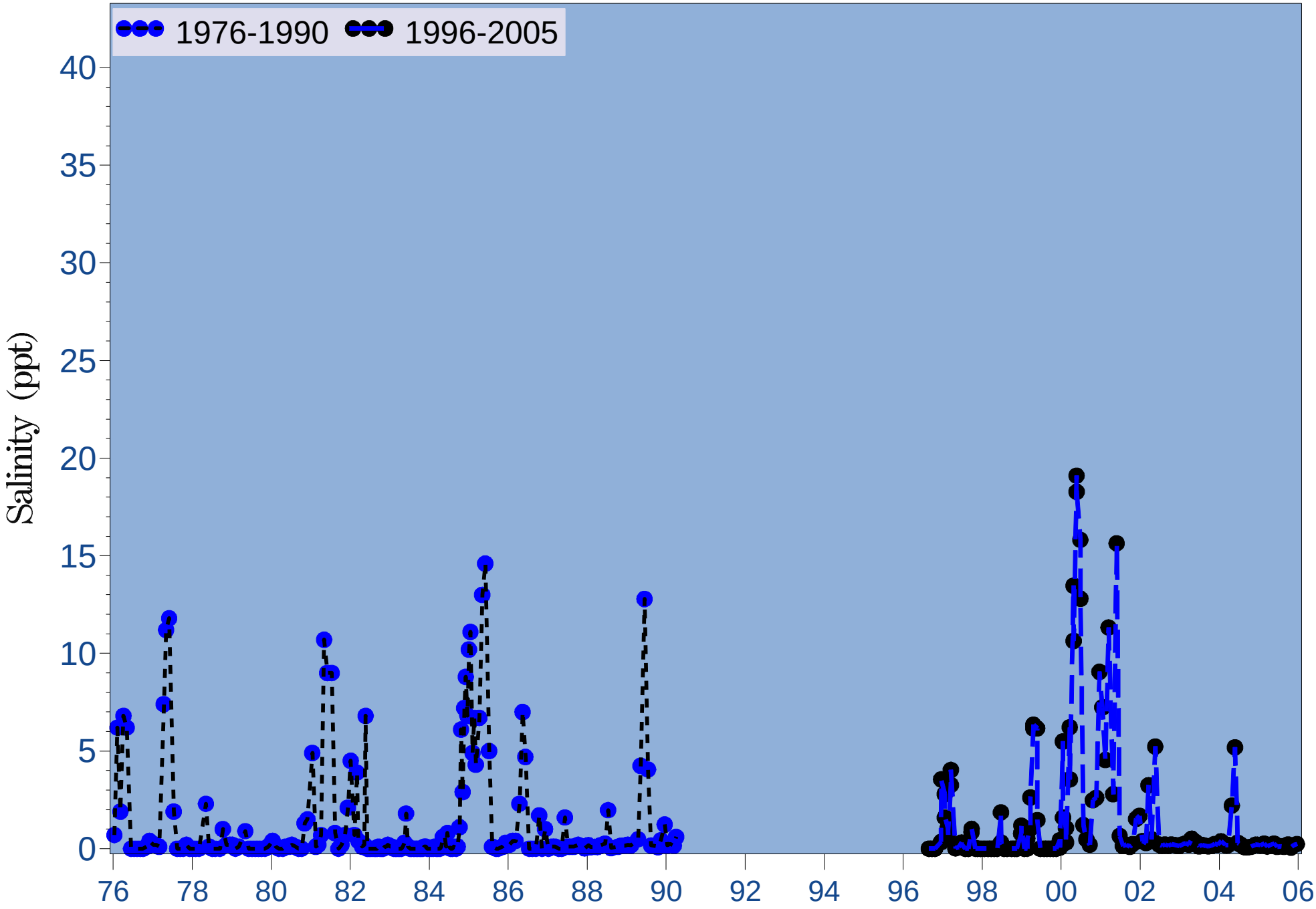


Figure 4.15d Monthly long-term bottom salinity at river kilometer 23.6

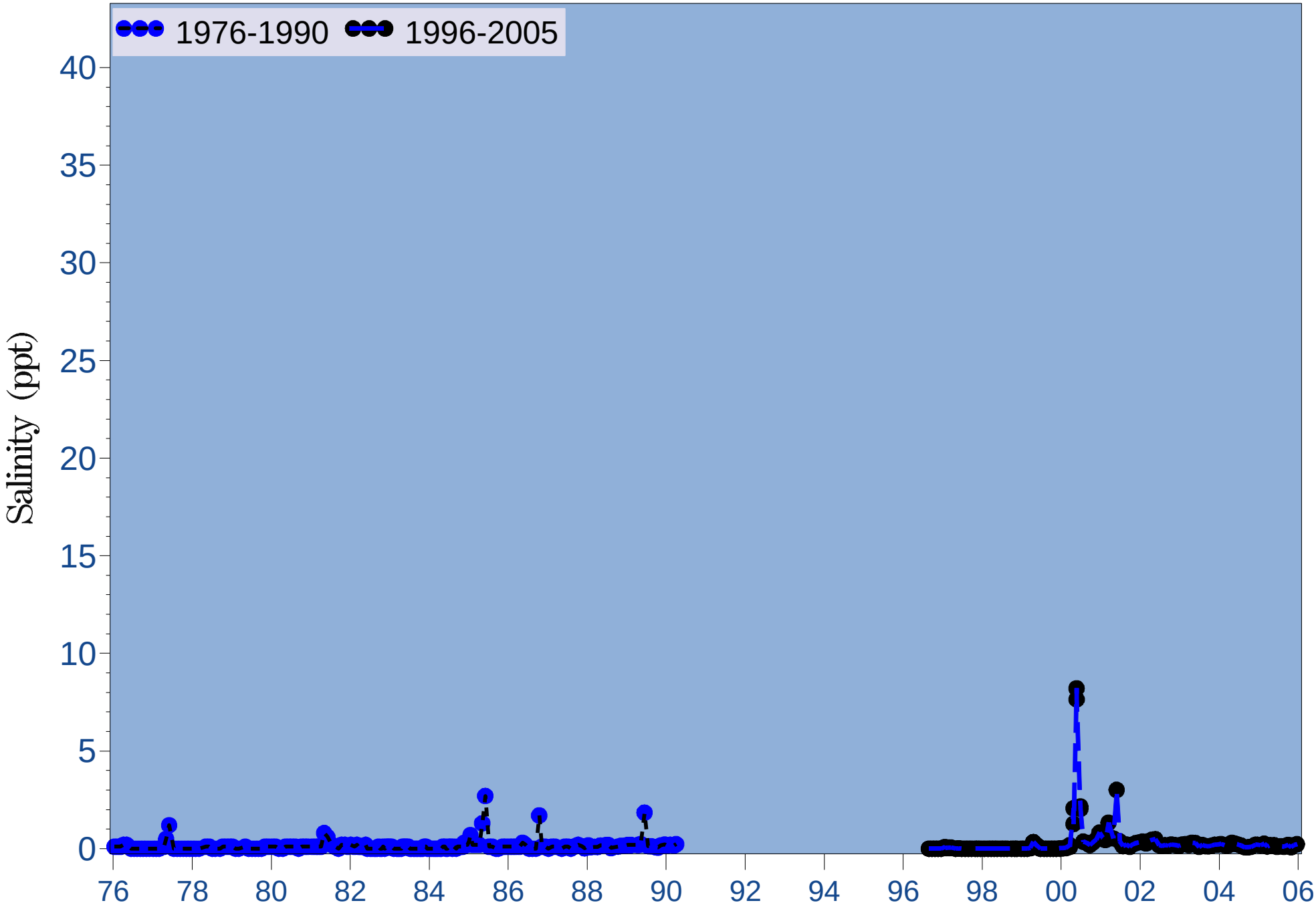


Figure 4.15e Monthly long-term bottom salinity at river kilometer 30.4

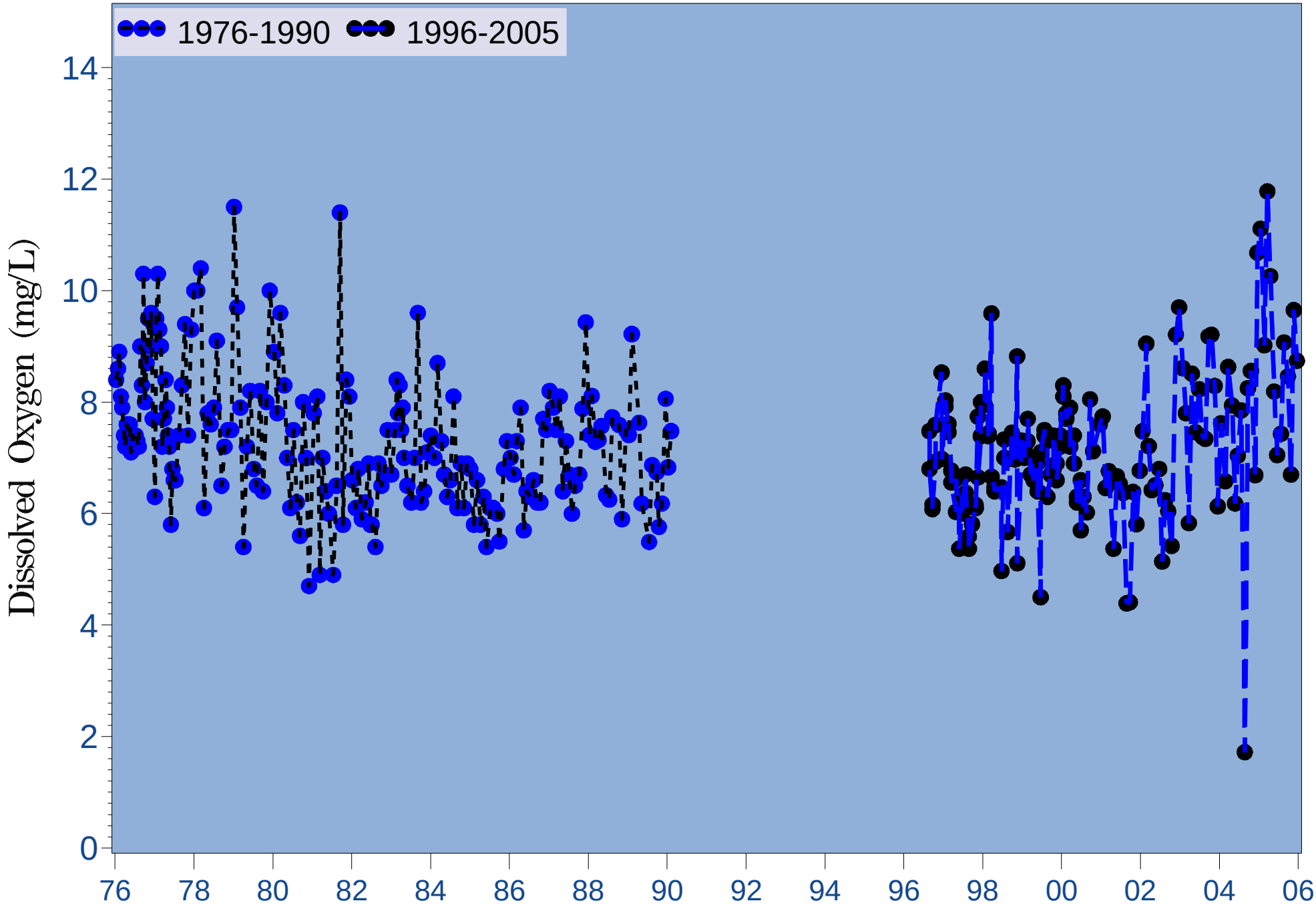


Figure 4.16a Monthly long-term surface dissolved oxygen at river kilometer -2.4

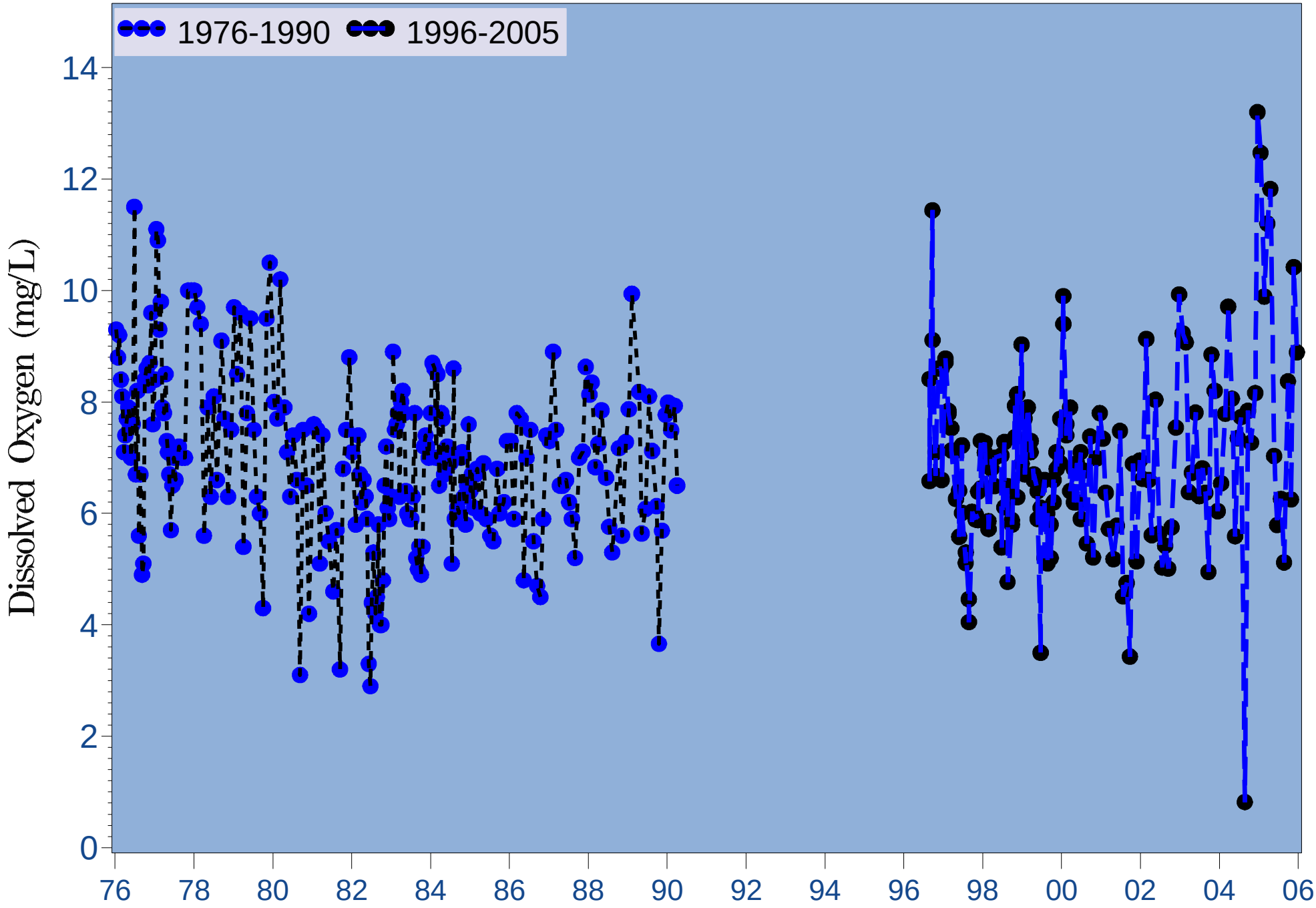


Figure 4.16b Monthly long-term surface dissolved oxygen at river kilometer 6.6

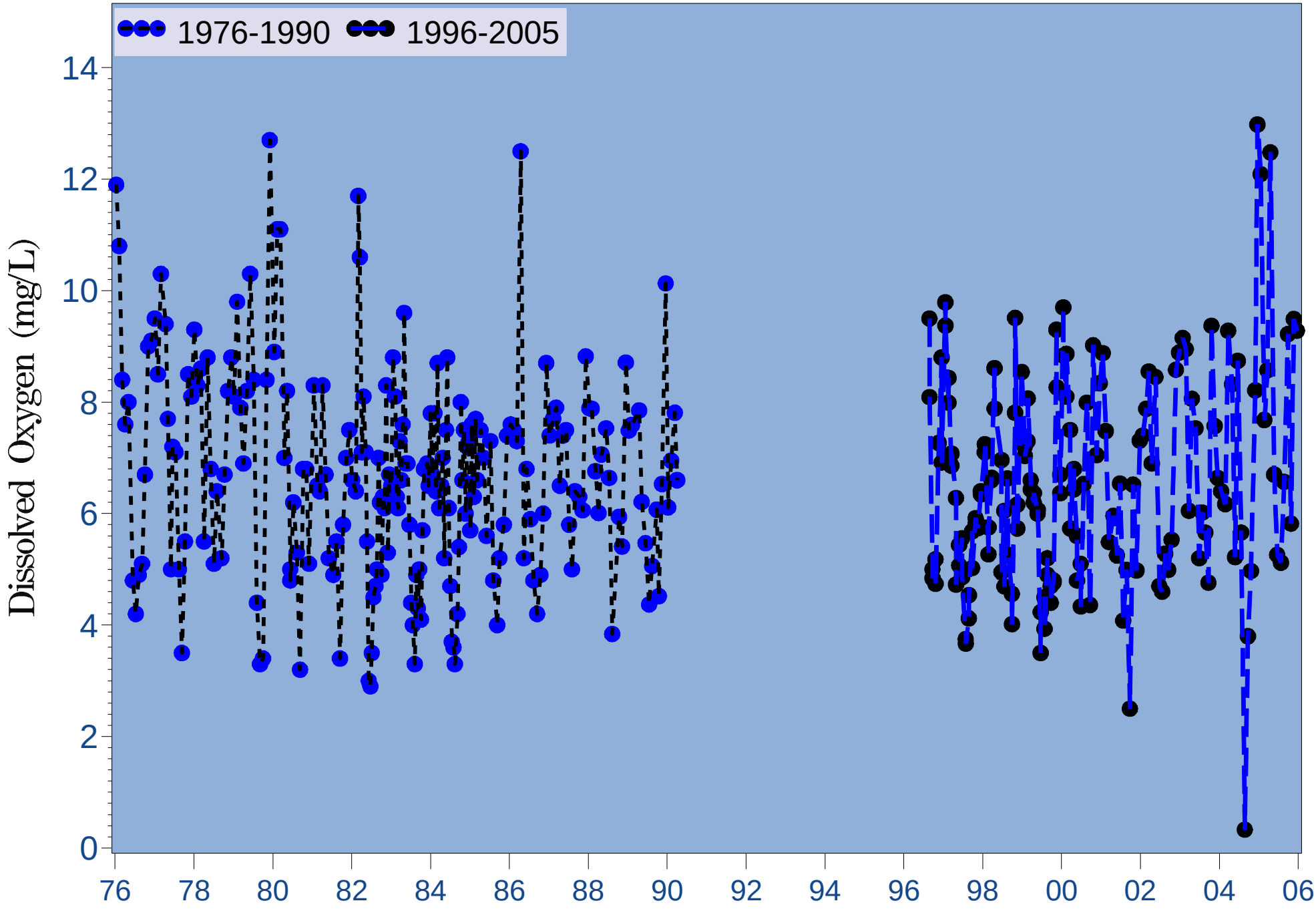


Figure 4.16c Monthly long-term surface dissolved oxygen at river kilometer 15.5

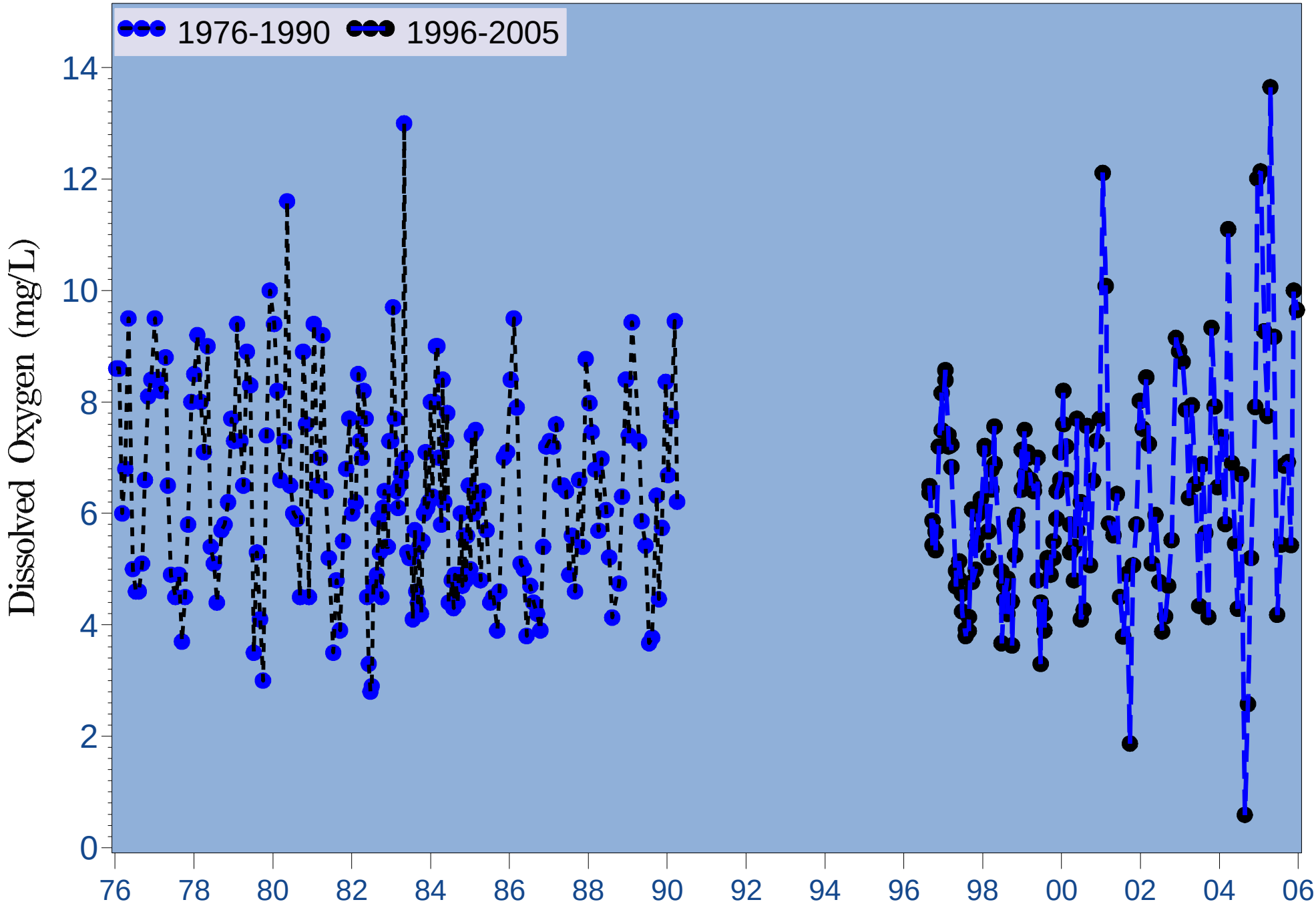


Figure 4.16d Monthly long-term surface dissolved oxygen at river kilometer 23.6

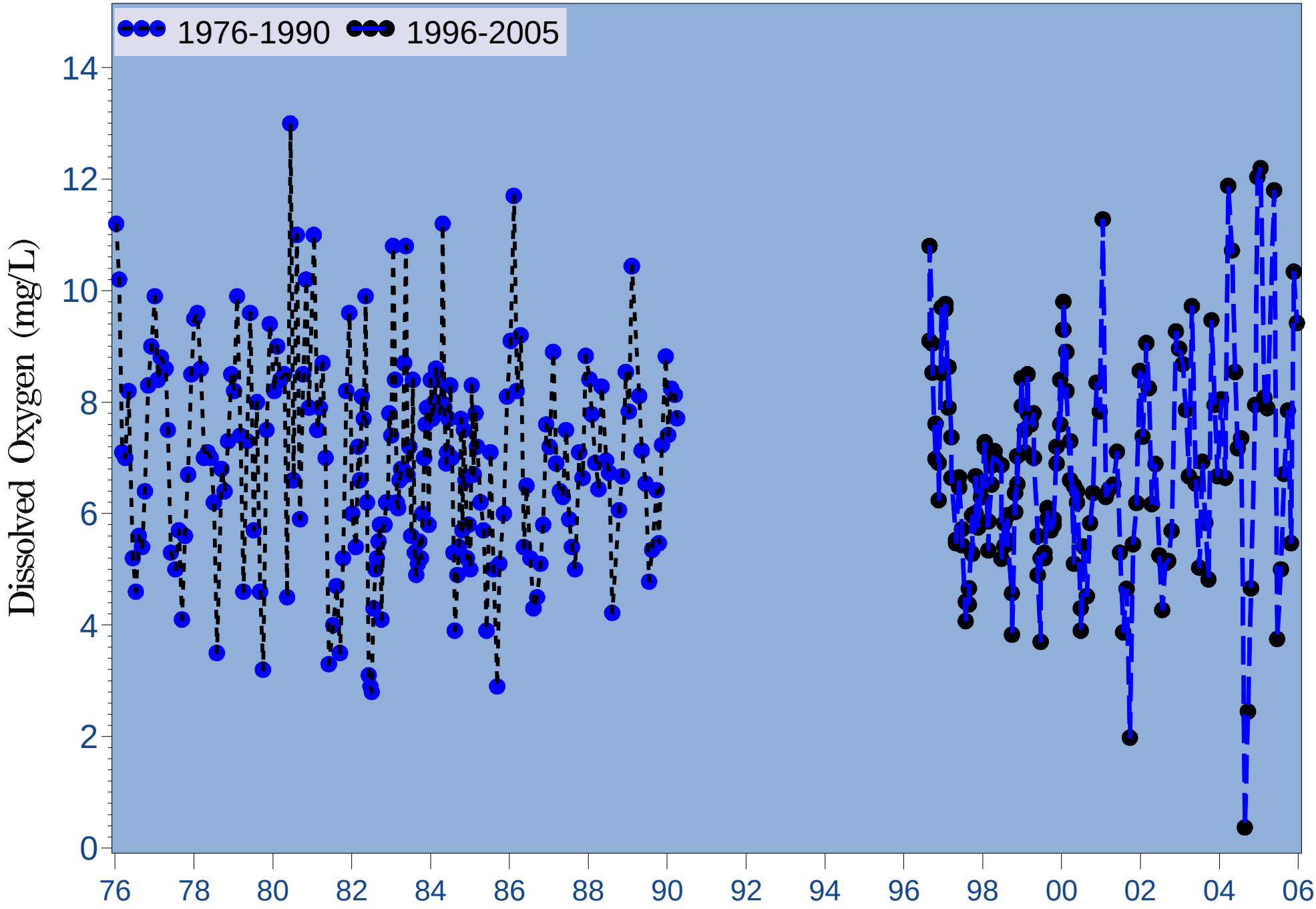


Figure 4.16e Monthly long-term surface dissolved oxygen at river kilometer 30.4

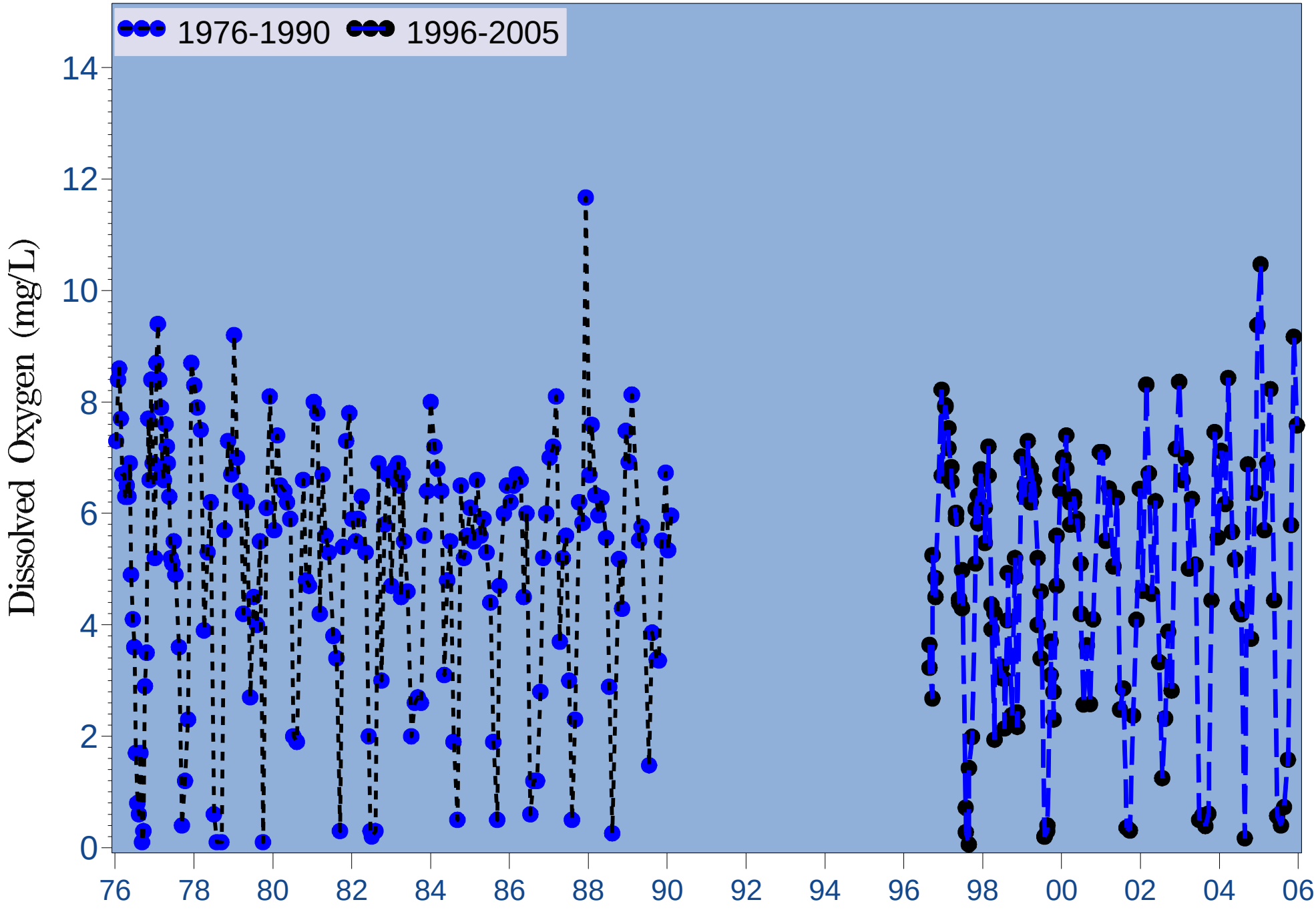


Figure 4.17a Monthly long-term bottom dissolved oxygen at river kilometer -2.4

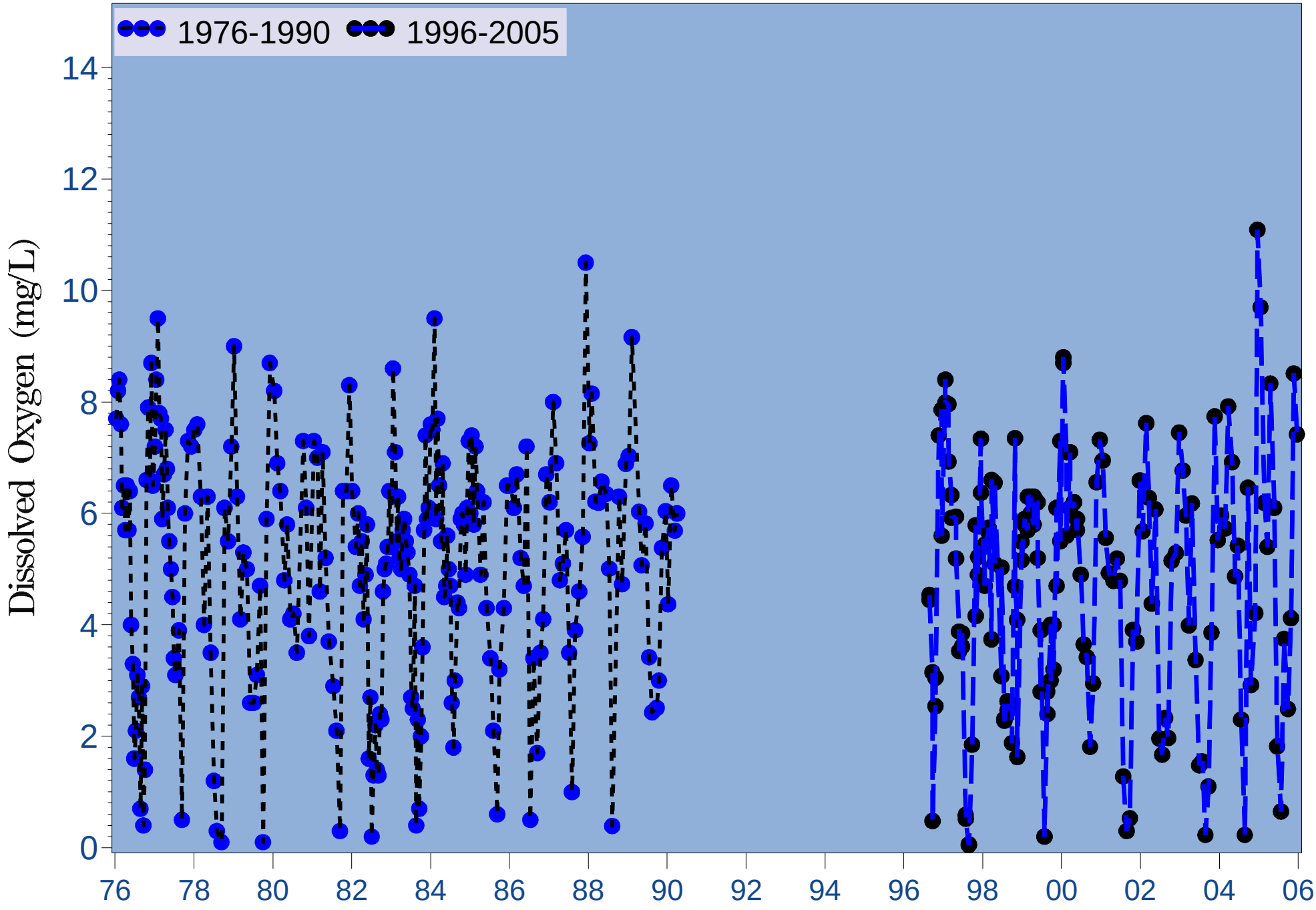


Figure 4.17b Monthly long-term bottom dissolved oxygen at river kilometer 6.6

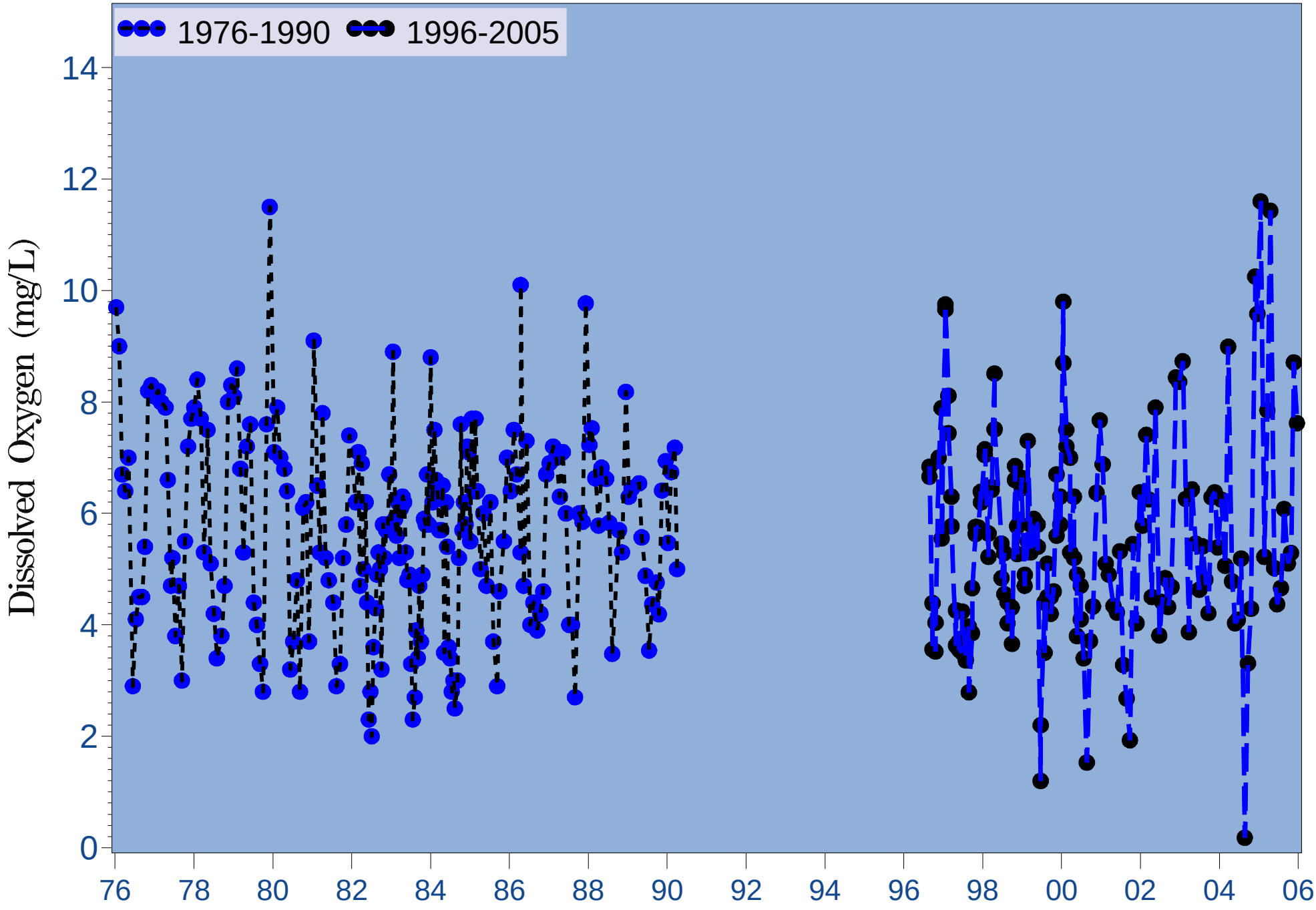


Figure 4.17c Monthly long-term bottom dissolved oxygen at river kilometer 15.5

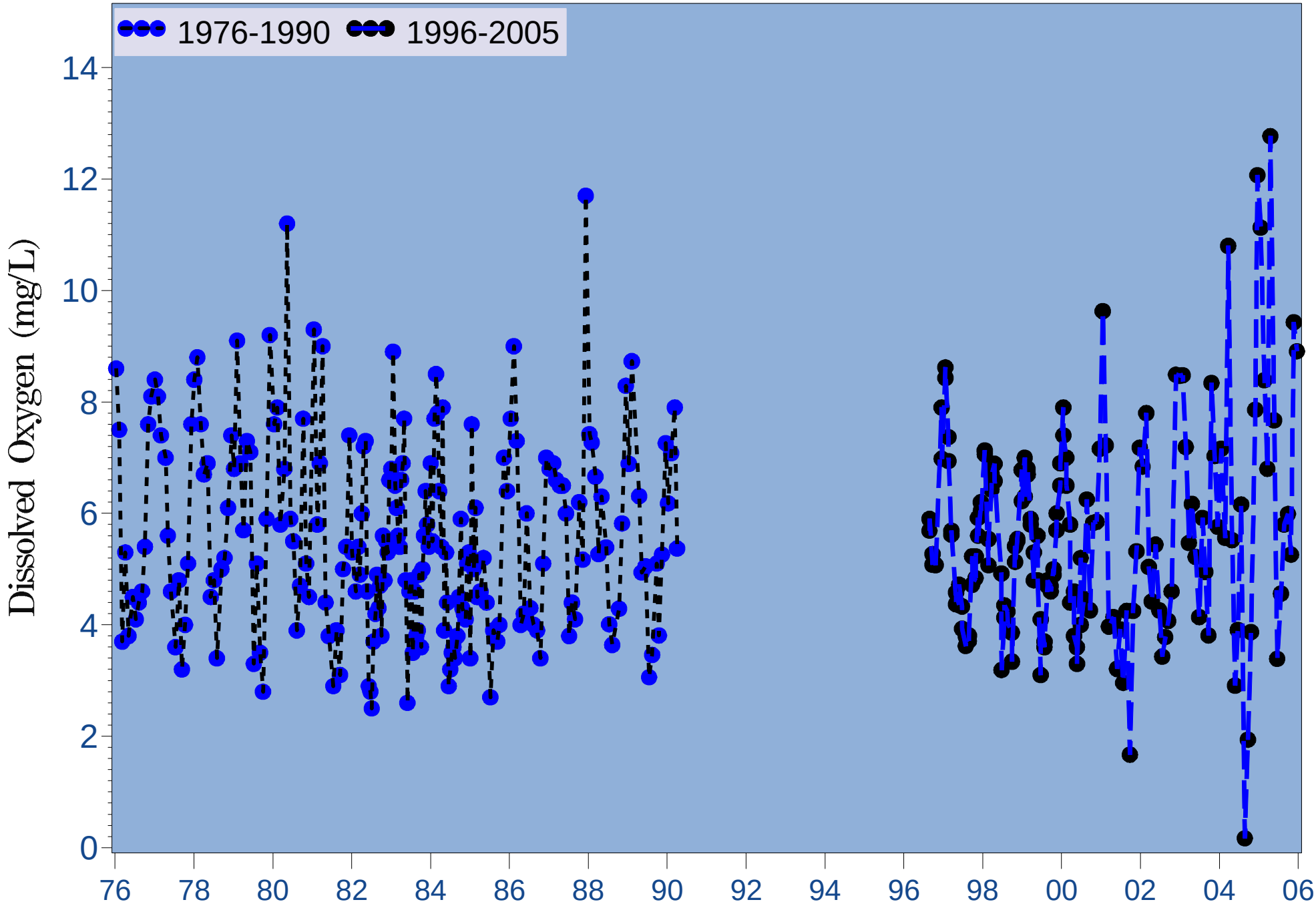


Figure 4.17d Monthly long-term bottom dissolved oxygen at river kilometer 23.6

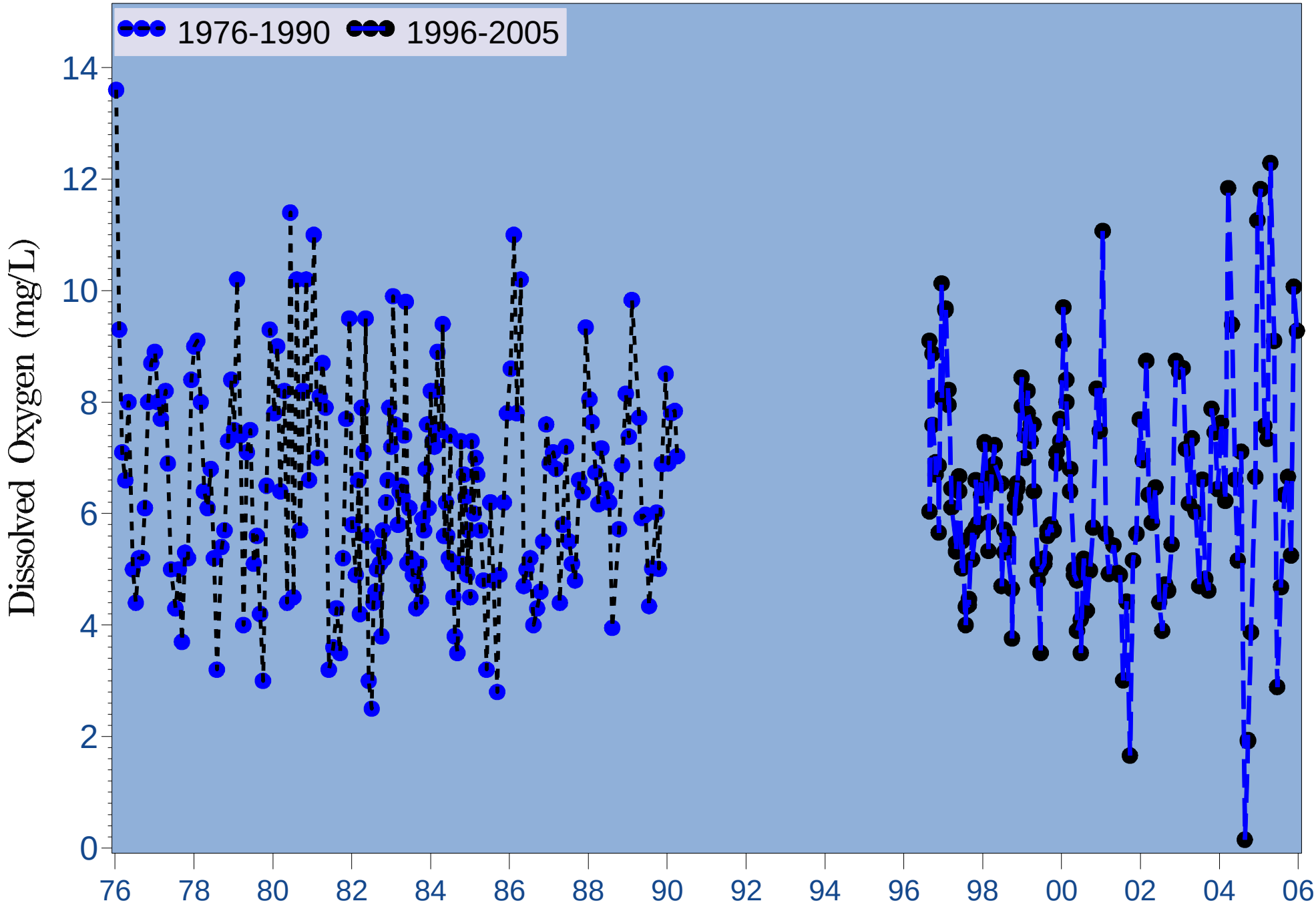


Figure 4.17e Monthly long-term bottom dissolved oxygen at river kilometer 30.4

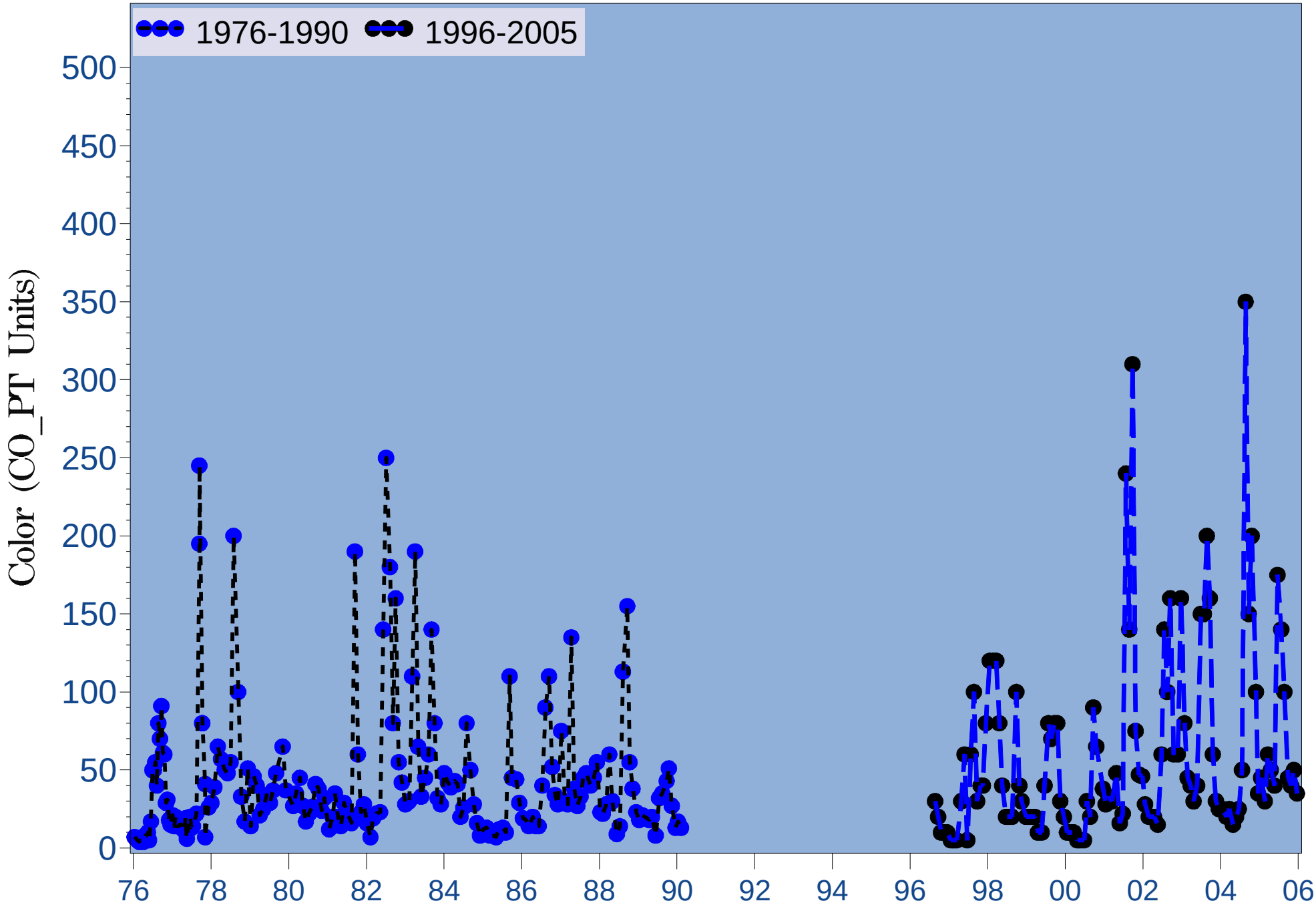


Figure 4.18a Monthly long-term surface color at river kilometer -2.4

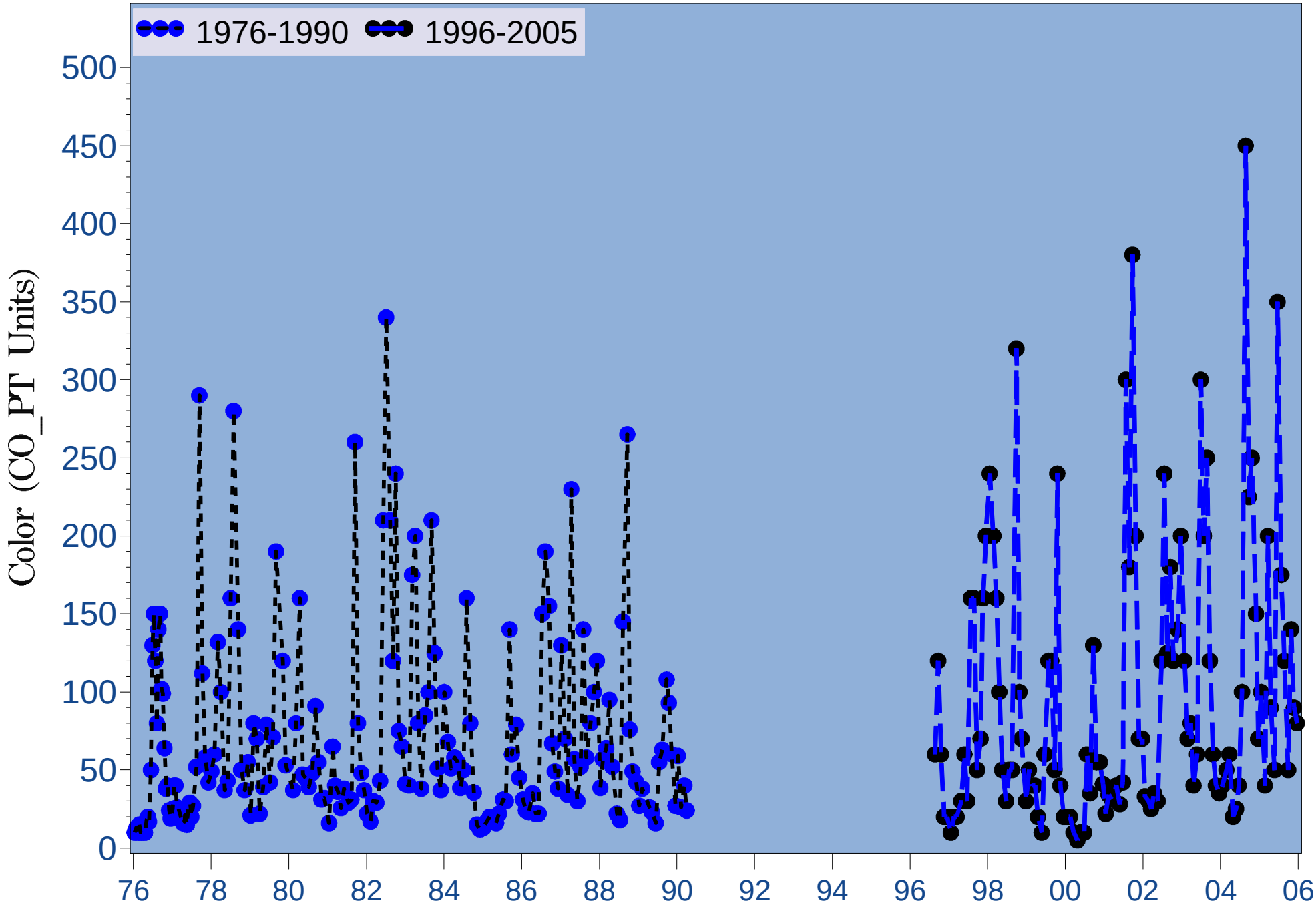


Figure 4.18b Monthly long-term surface color at river kilometer 6.6

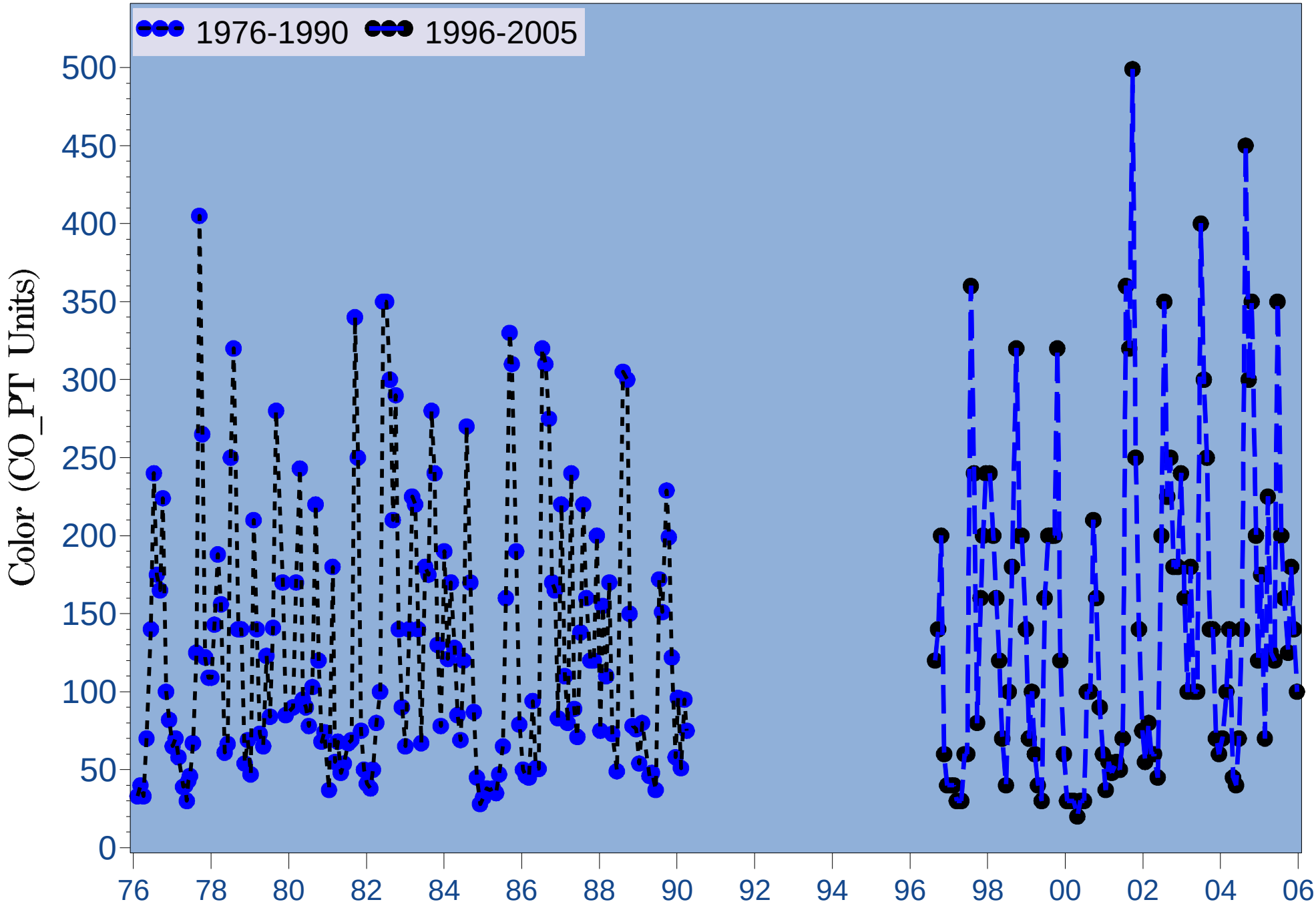


Figure 4.18c Monthly long-term surface color at river kilometer 15.5

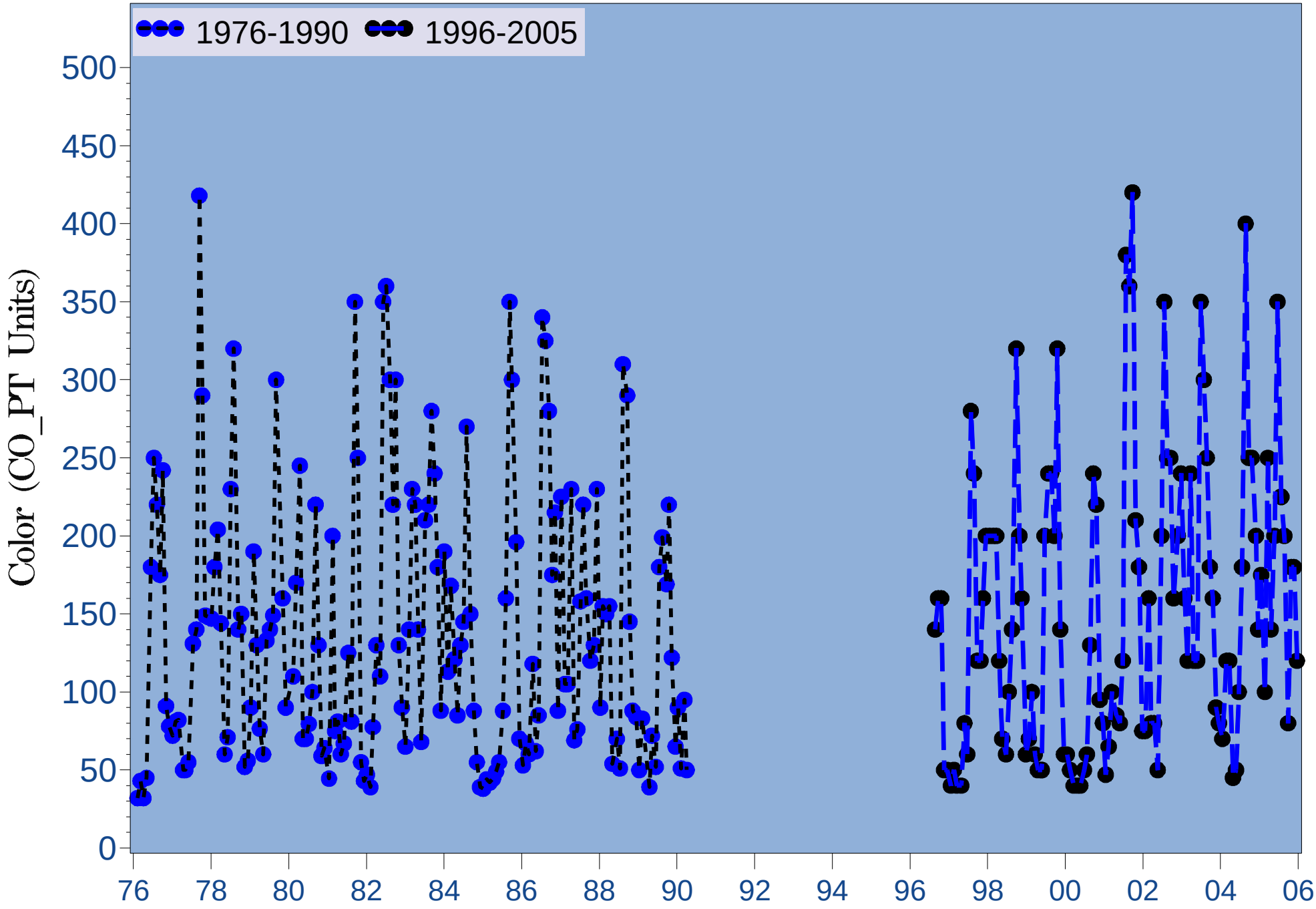


Figure 4.18d Monthly long-term surface color at river kilometer 23.6

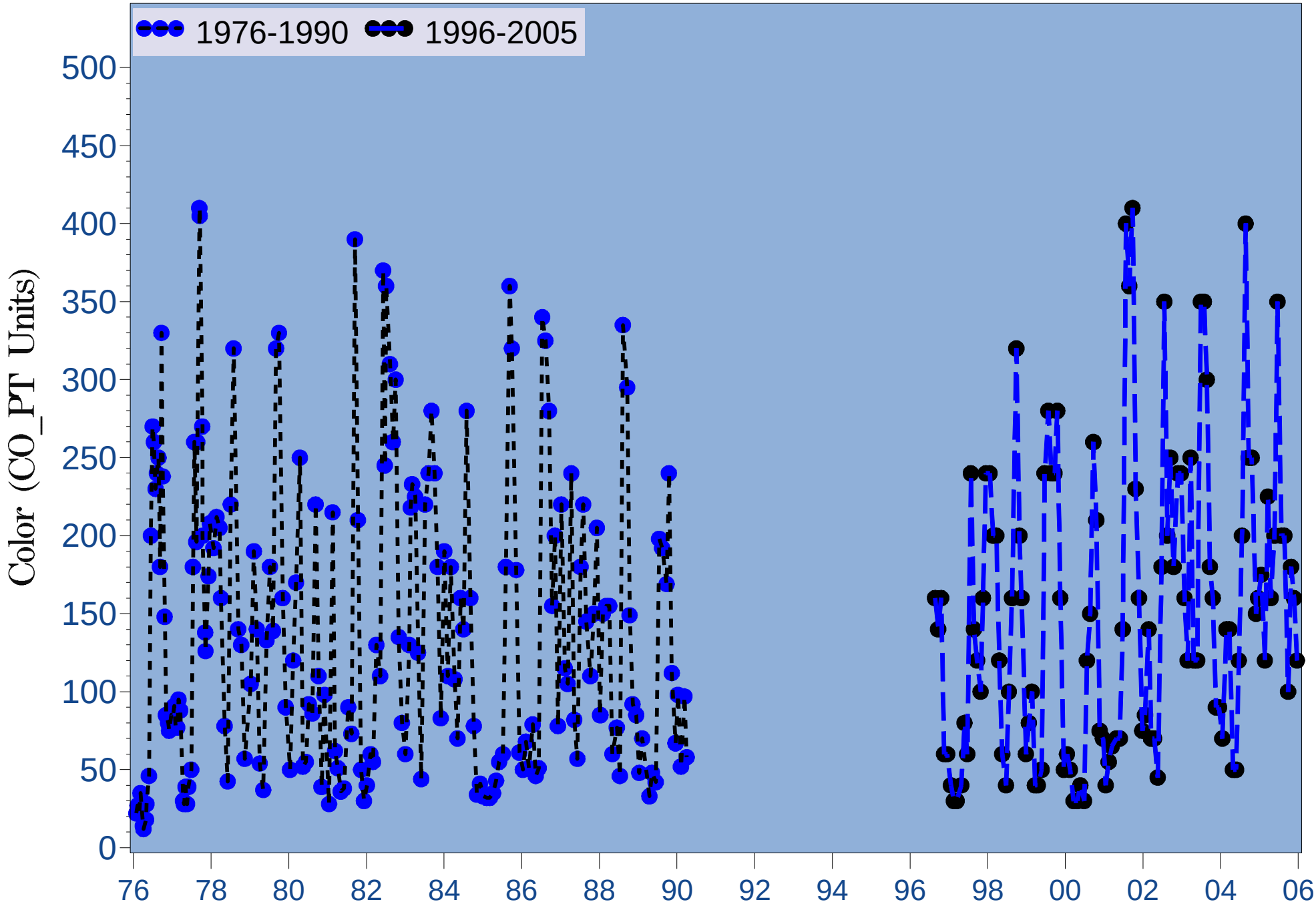


Figure 4.18e Monthly long-term surface color at river kilometer 30.4

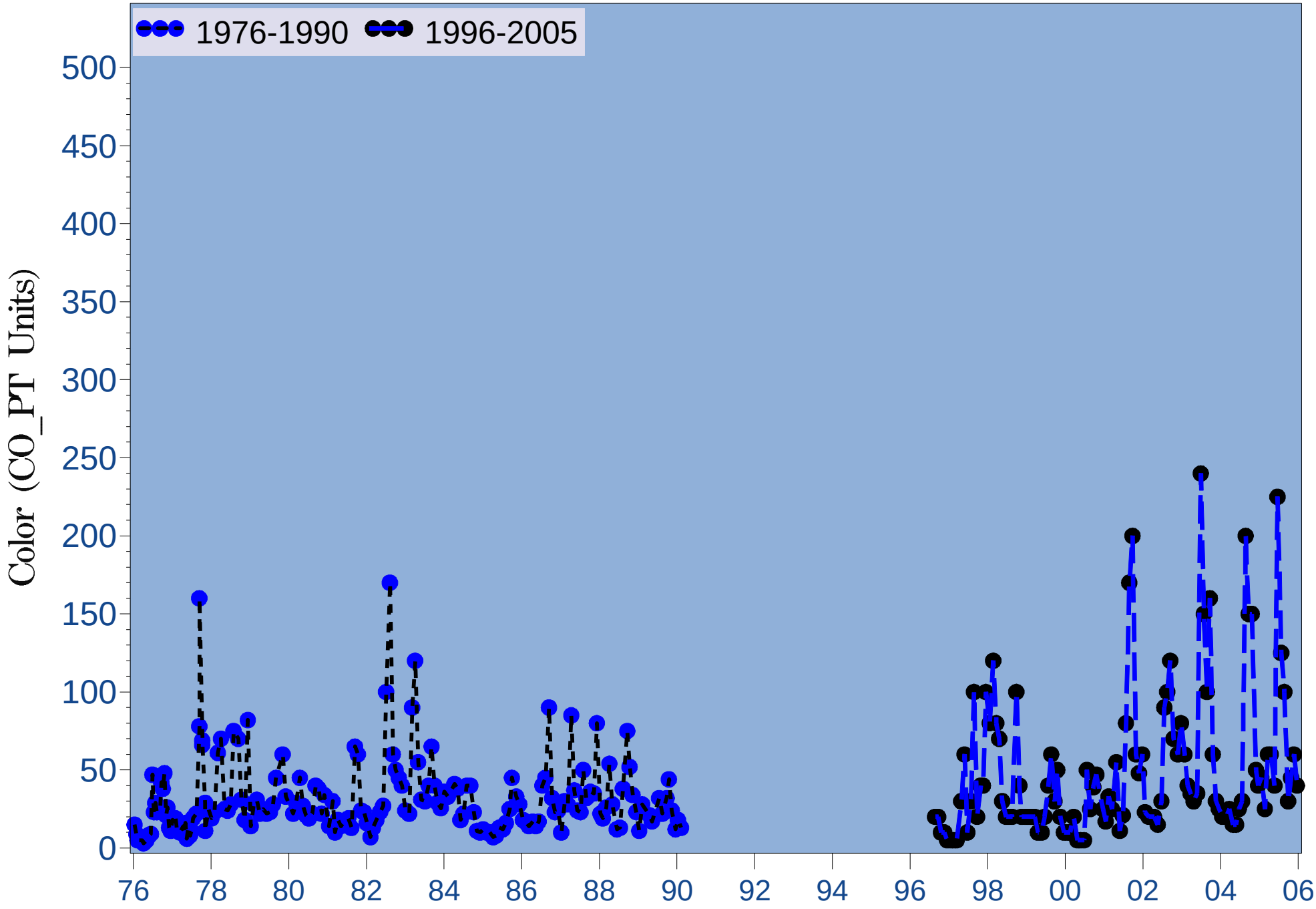


Figure 4.19a Monthly long-term bottom color at river kilometer -2.4

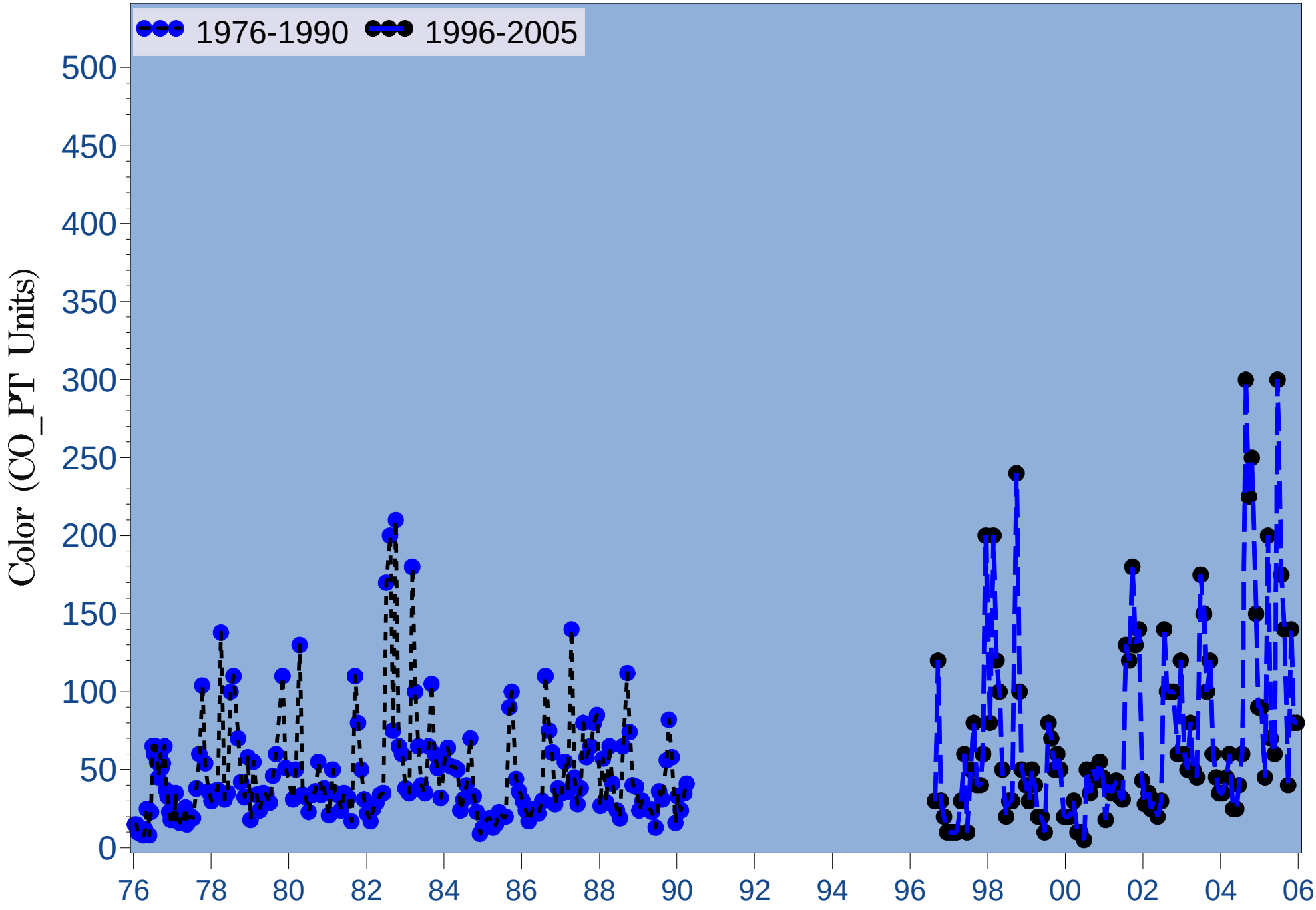


Figure 4.19b Monthly long-term bottom color at river kilometer 6.6

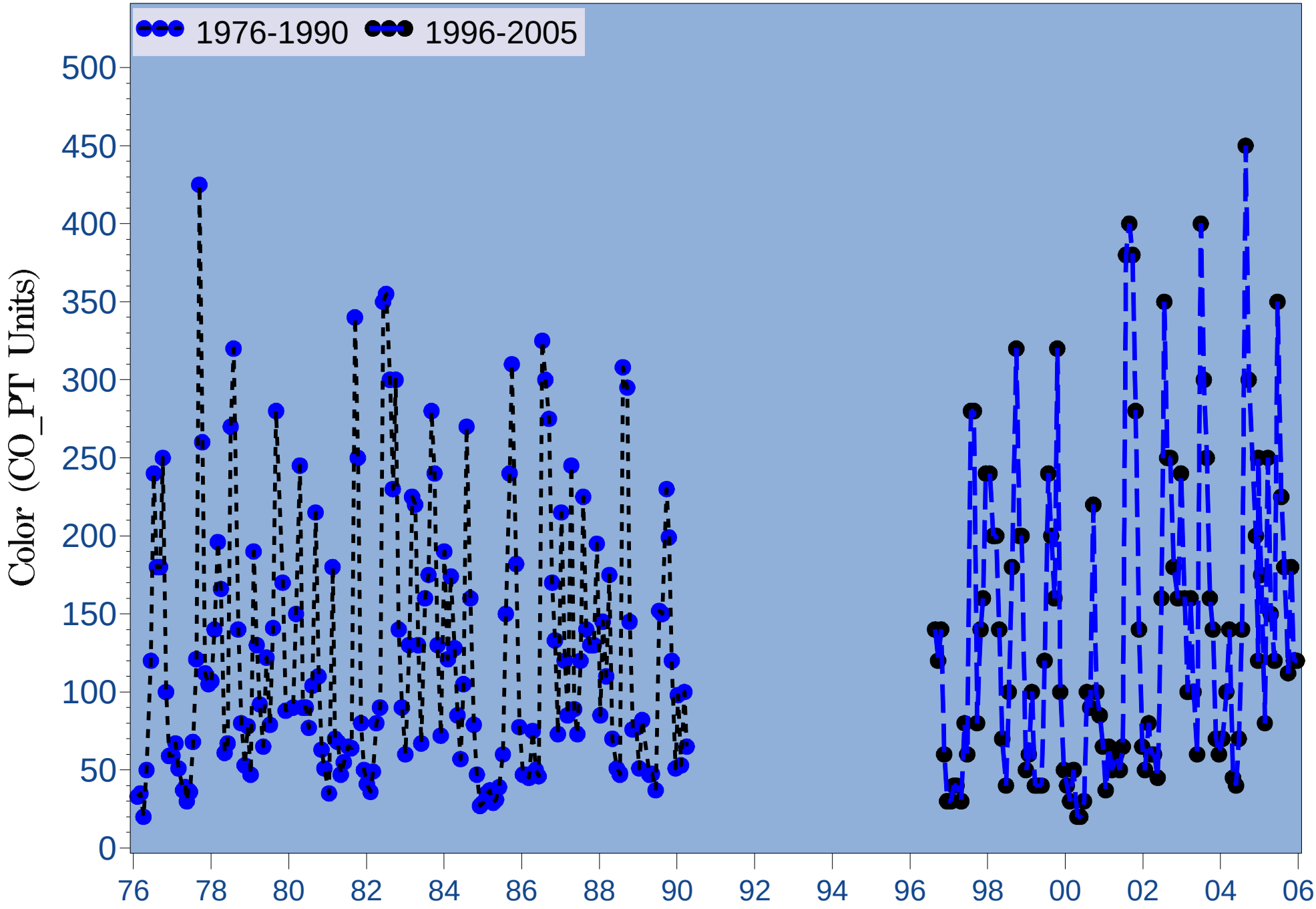


Figure 4.19c Monthly long-term bottom color at river kilometer 15.5

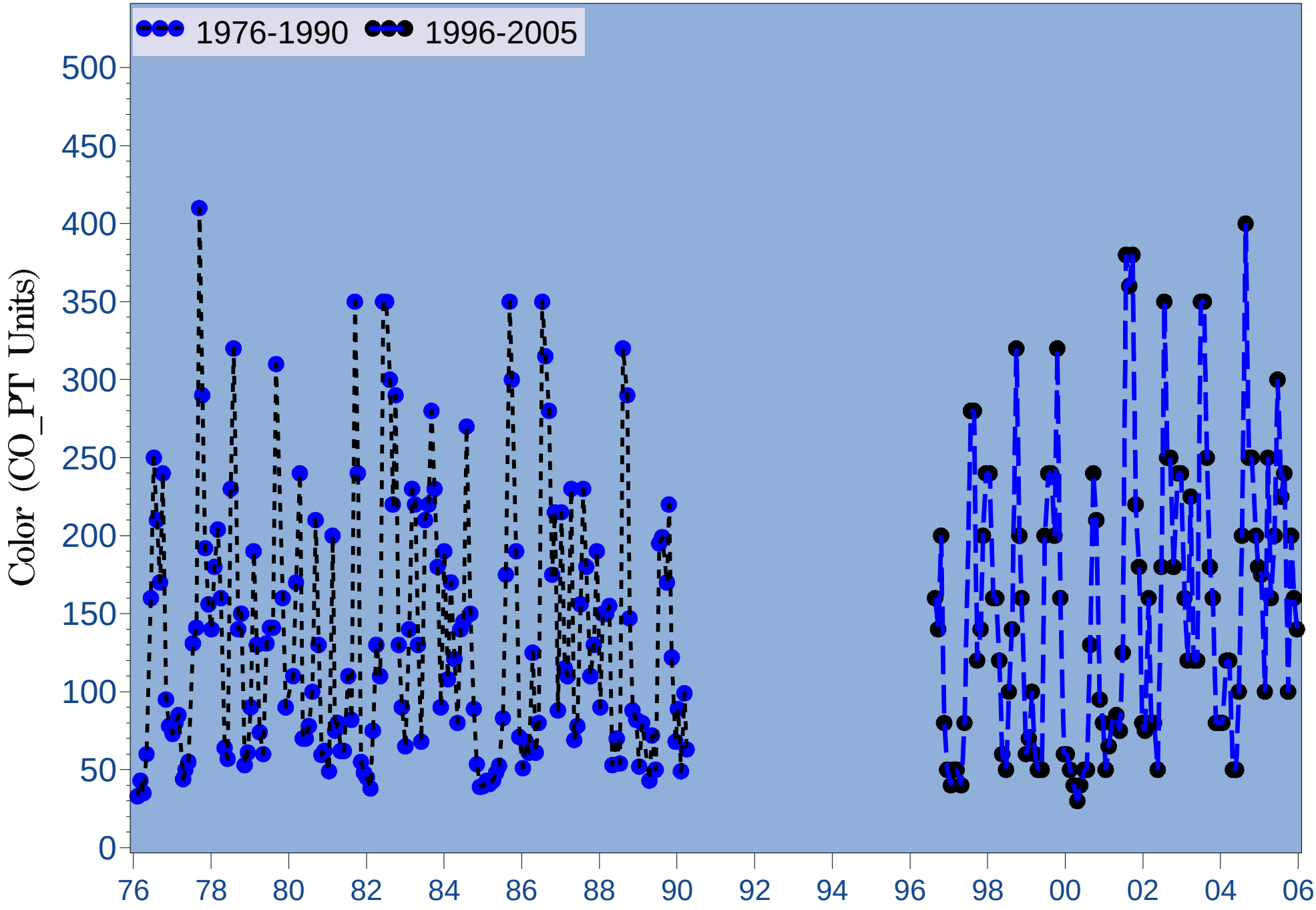


Figure 4.19d Monthly long-term bottom color at river kilometer 23.6

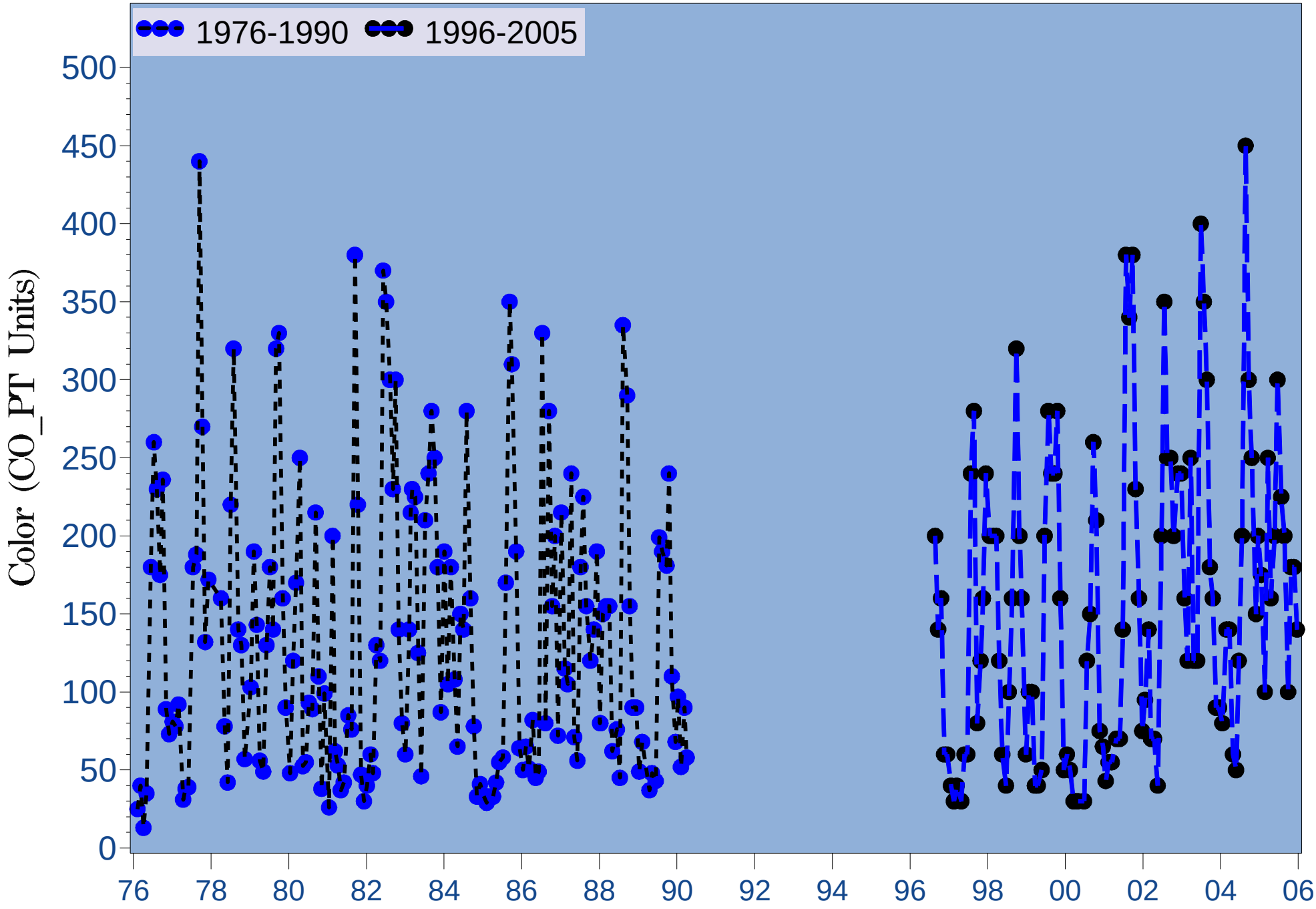


Figure 4.19e Monthly long-term bottom color at river kilometer 30.4

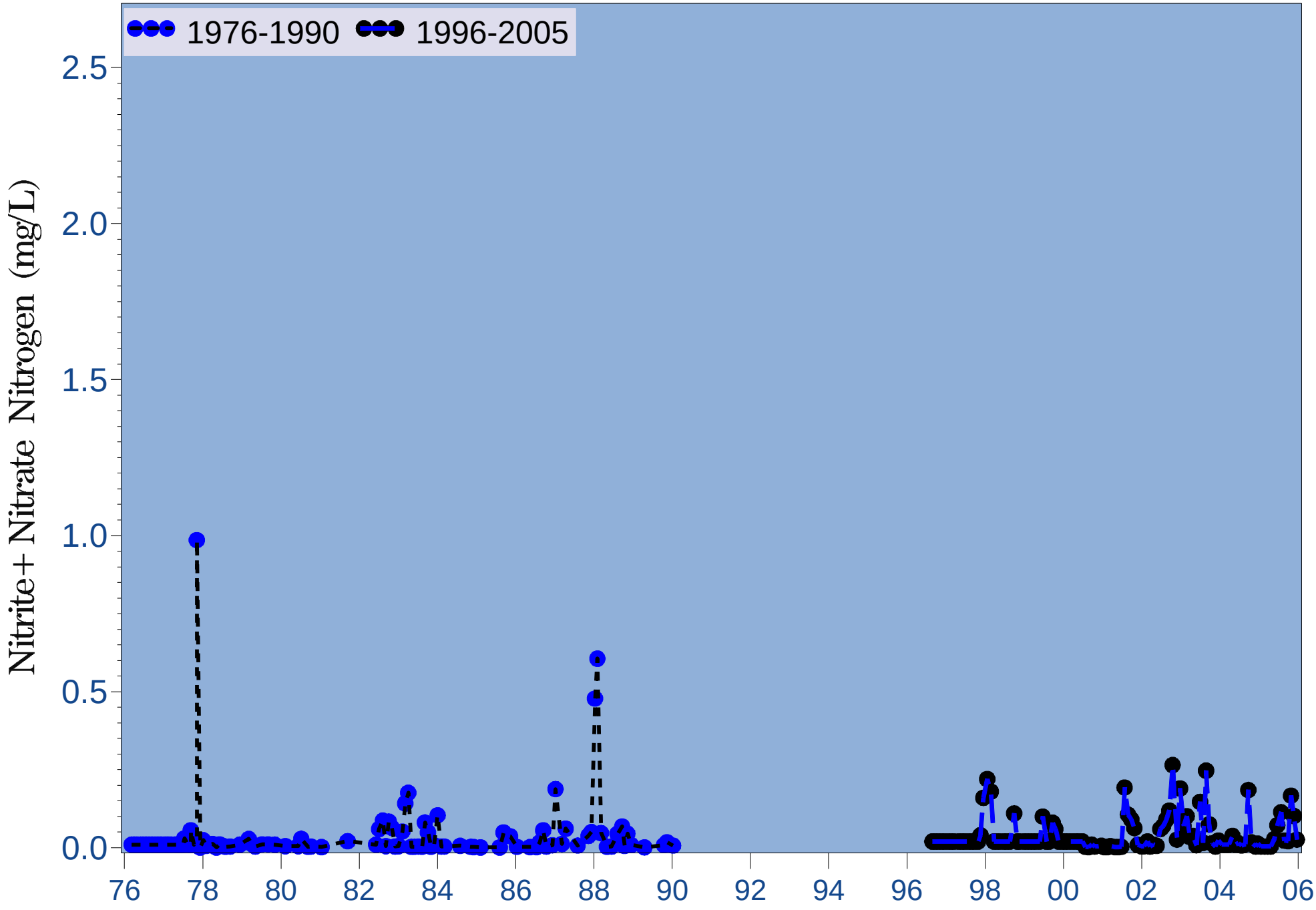


Figure 4.20a Monthly long-term surface nitrite/nitrate nitrogen at river kilometer -2.4

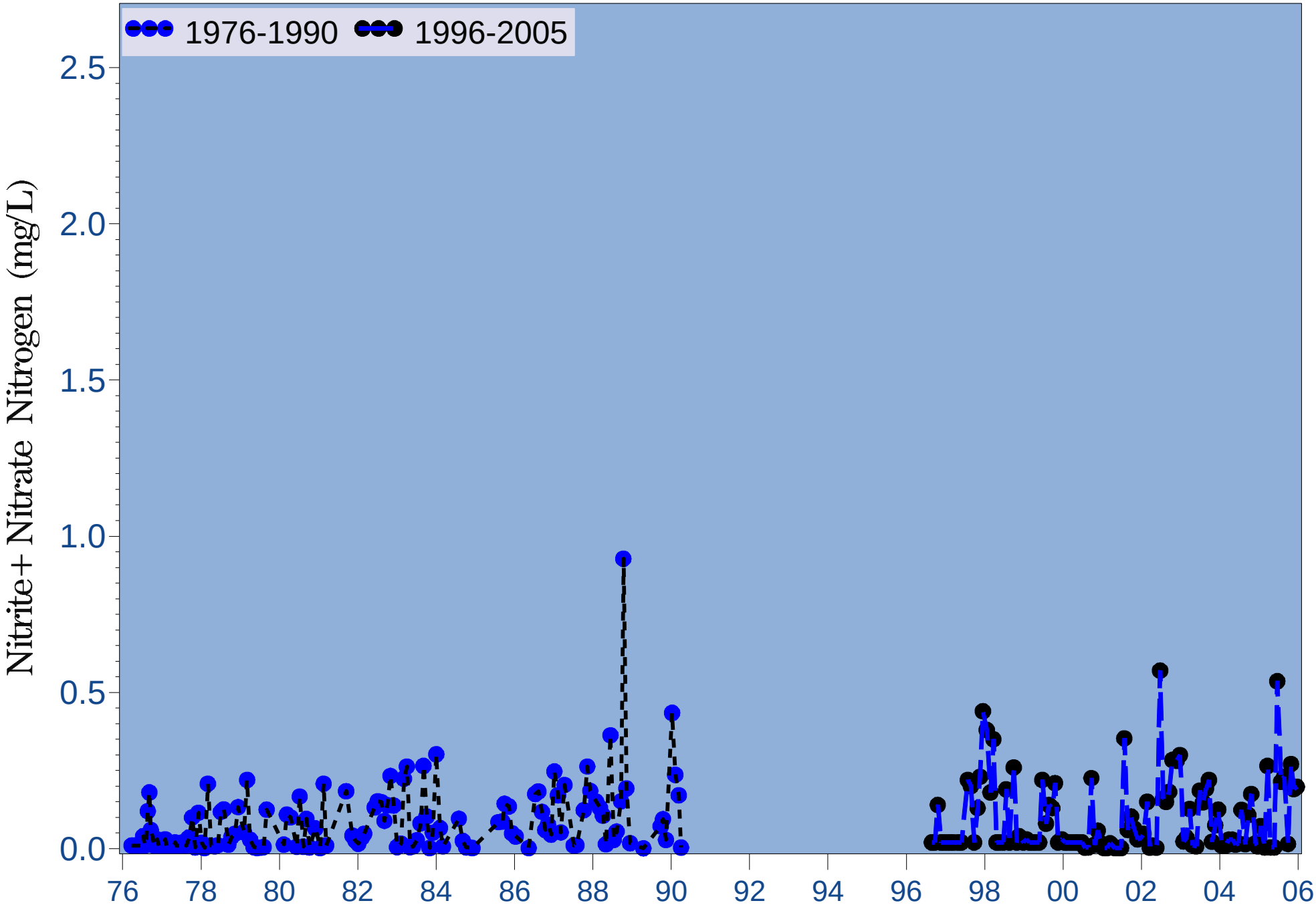


Figure 4.20b Monthly long-term surface nitrite/nitrate nitrogen at river kilometer 6.6

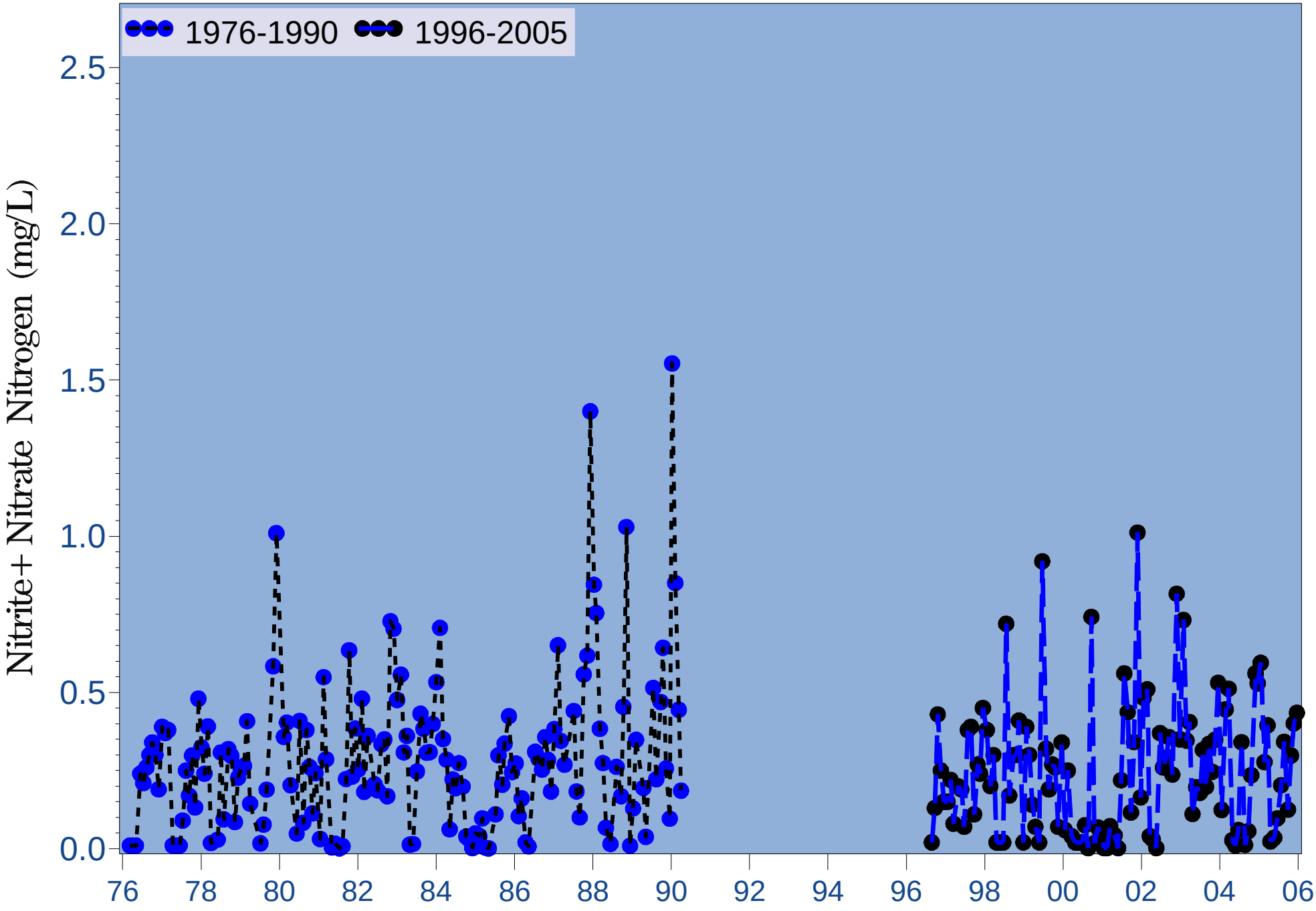


Figure 4.20c Monthly long-term surface nitrite/nitrate nitrogen at river kilometer 15.5

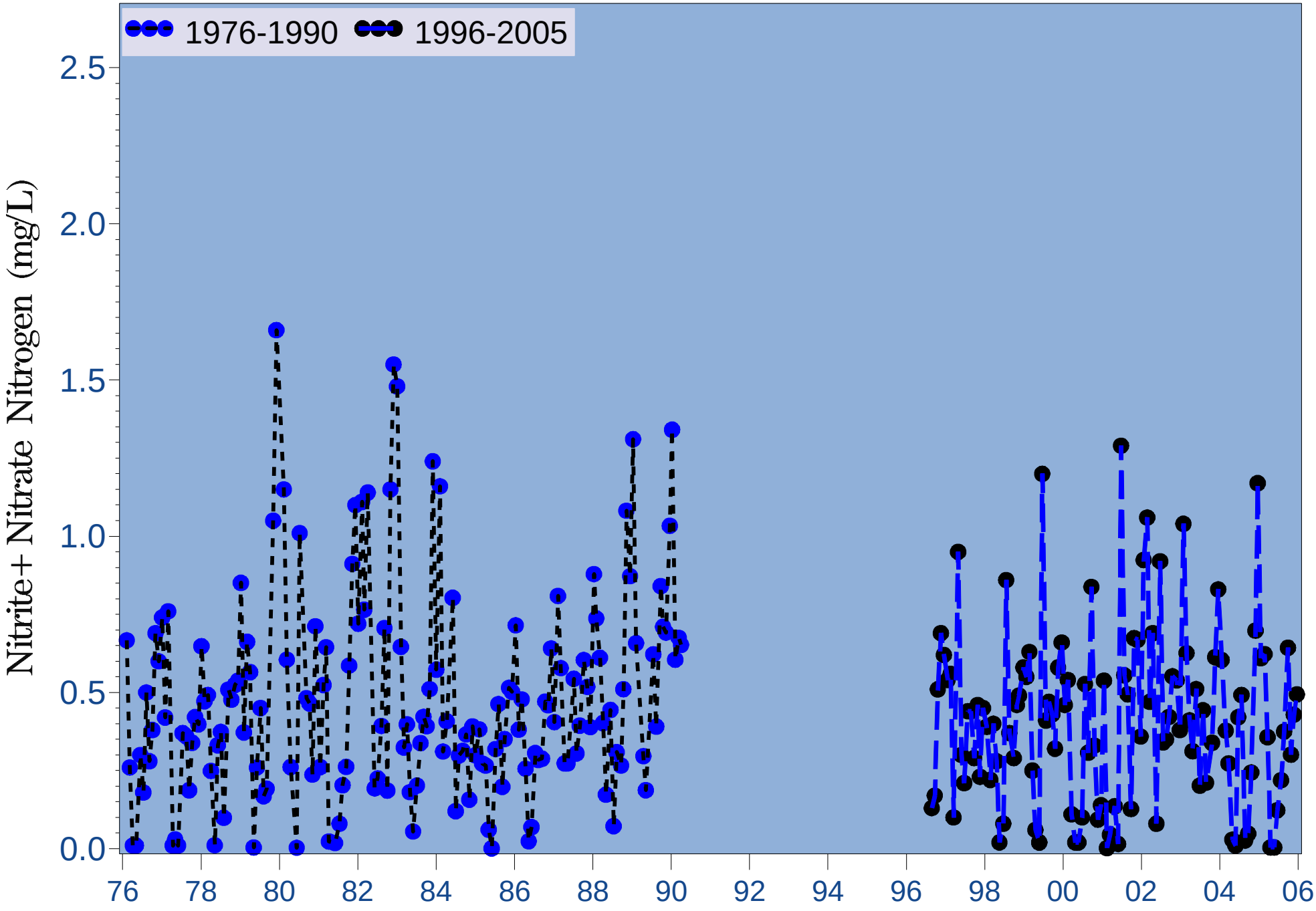


Figure 4.20d Monthly long-term surface nitrite/nitrate nitrogen at river kilometer 23.6

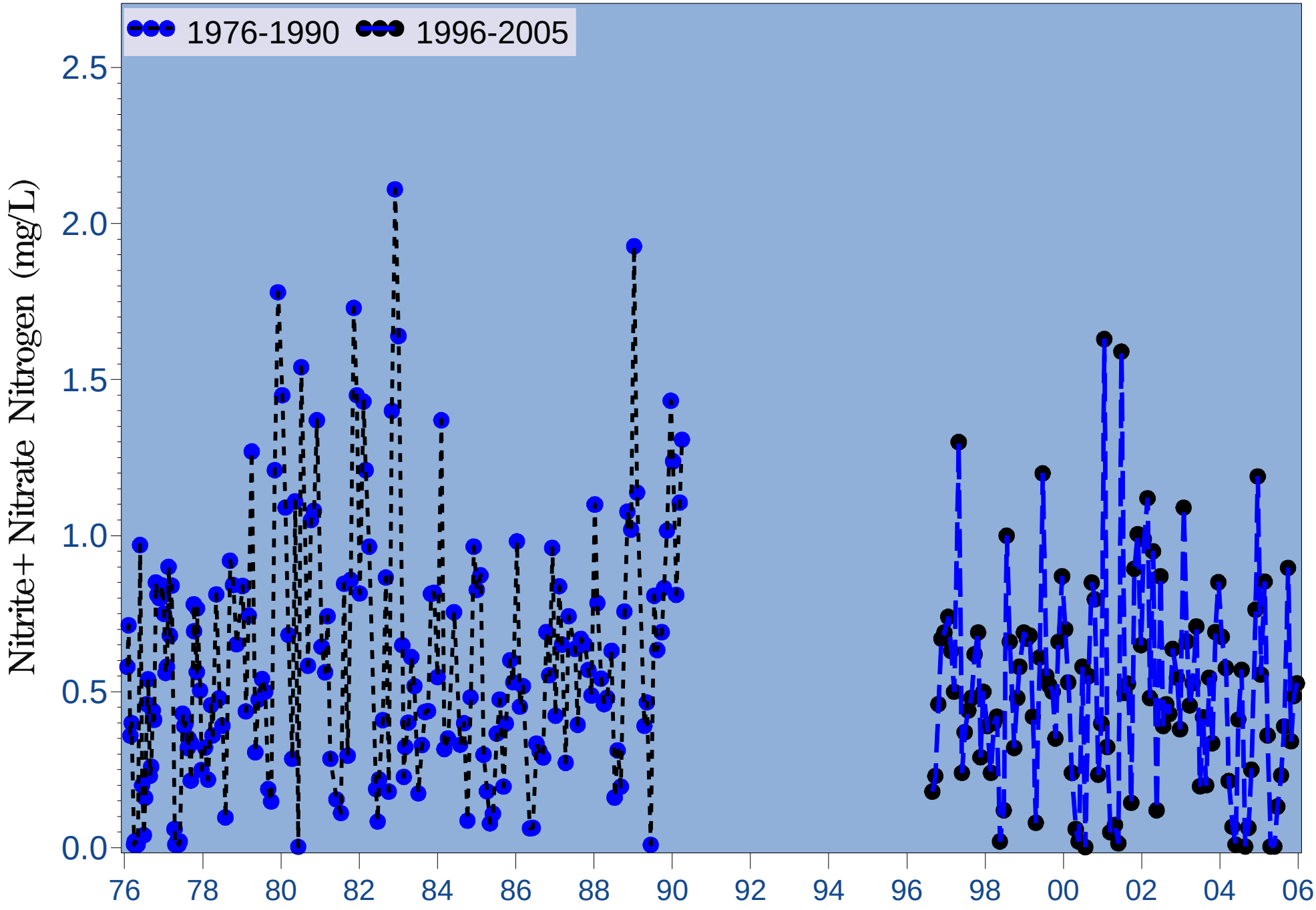


Figure 4.20e Monthly long-term surface nitrite/nitrate nitrogen at river kilometer 30.4

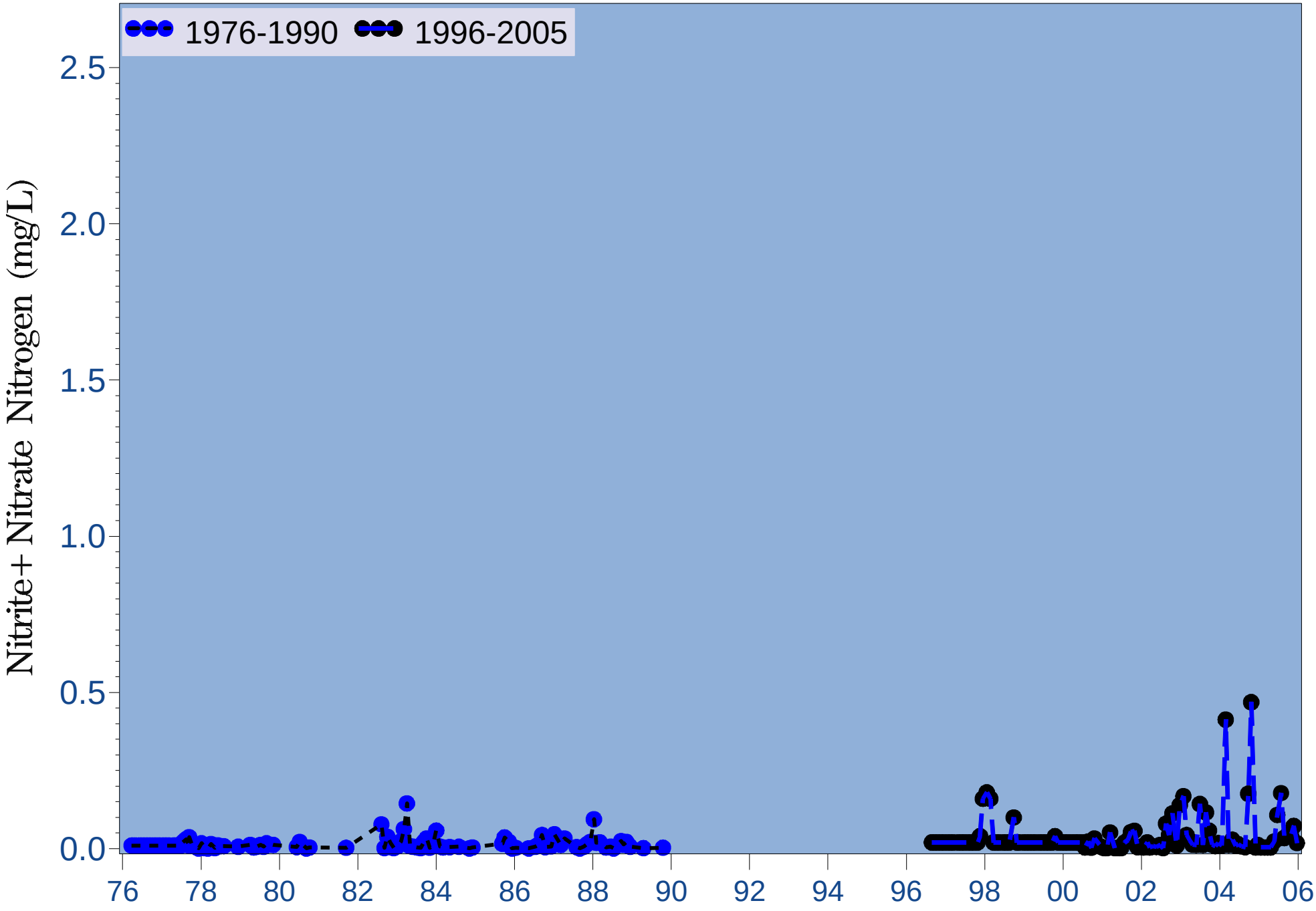


Figure 4.21a Monthly long-term bottom nitrate/nitrite nitrogen at river kilometer -2.4

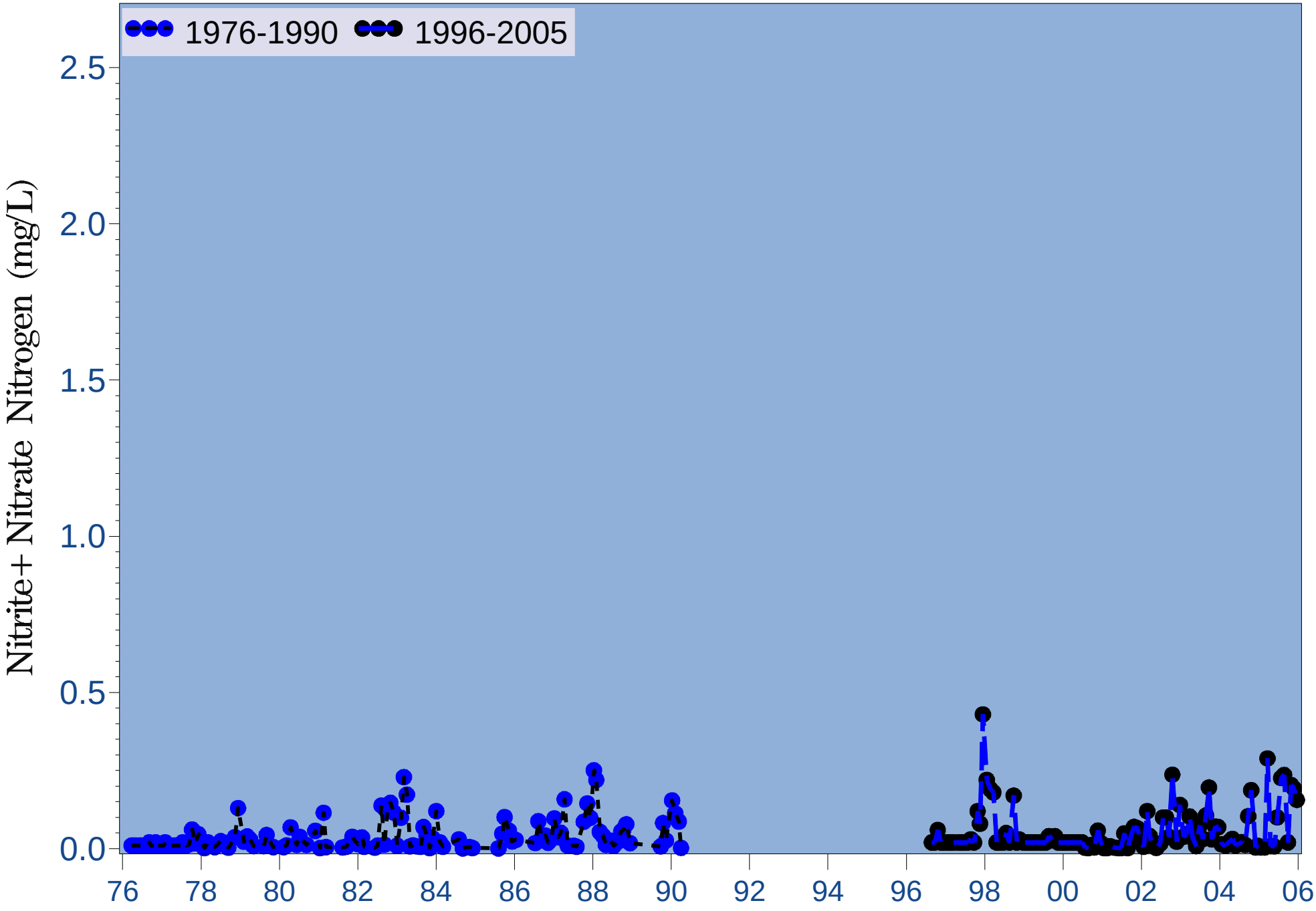


Figure 4.21b Monthly long-term bottom nitrate/nitrite nitrogen at river kilometer 6.6

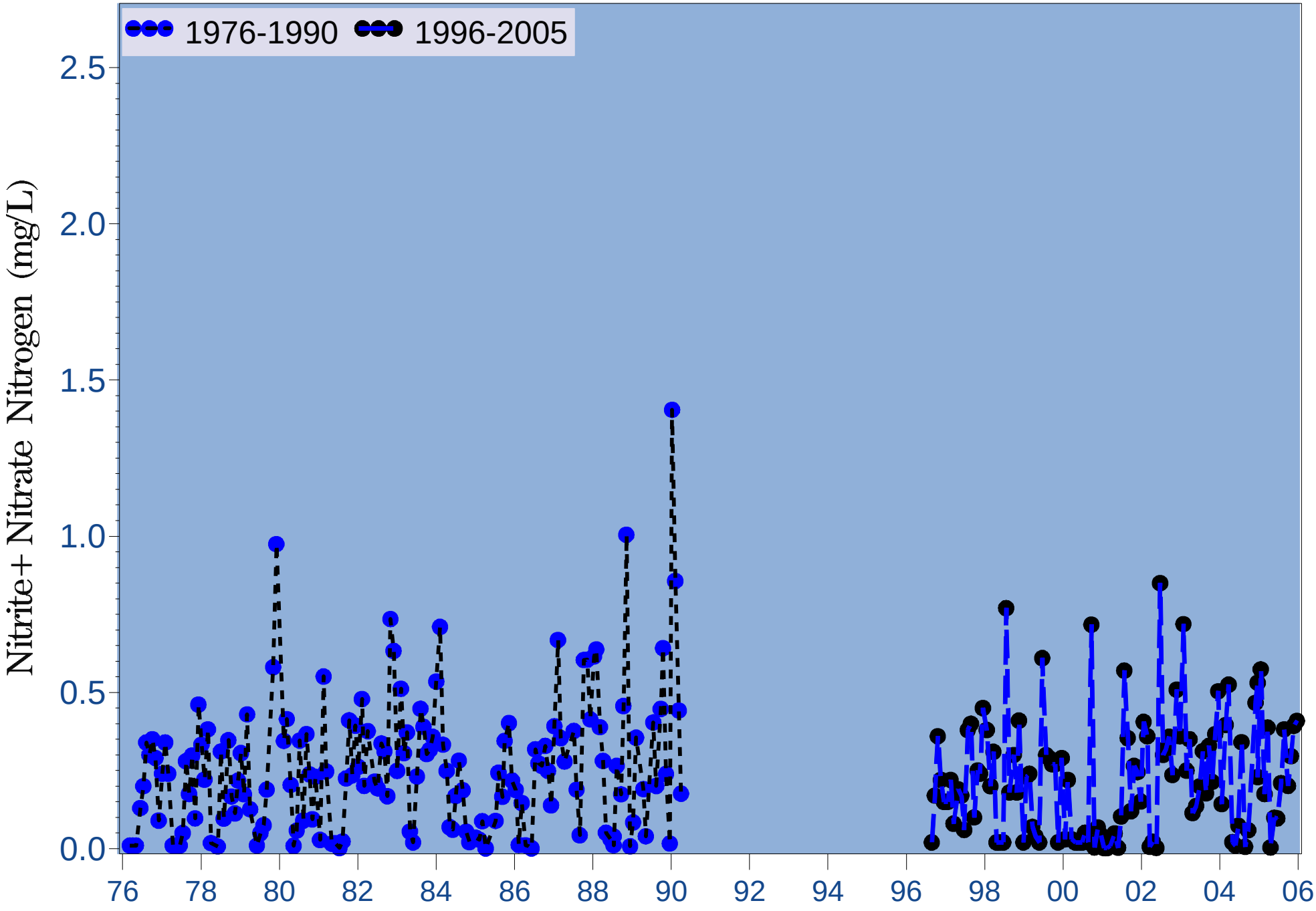


Figure 4.21c Monthly long-term bottom nitrate/nitrite nitrogen at river kilometer 15.5

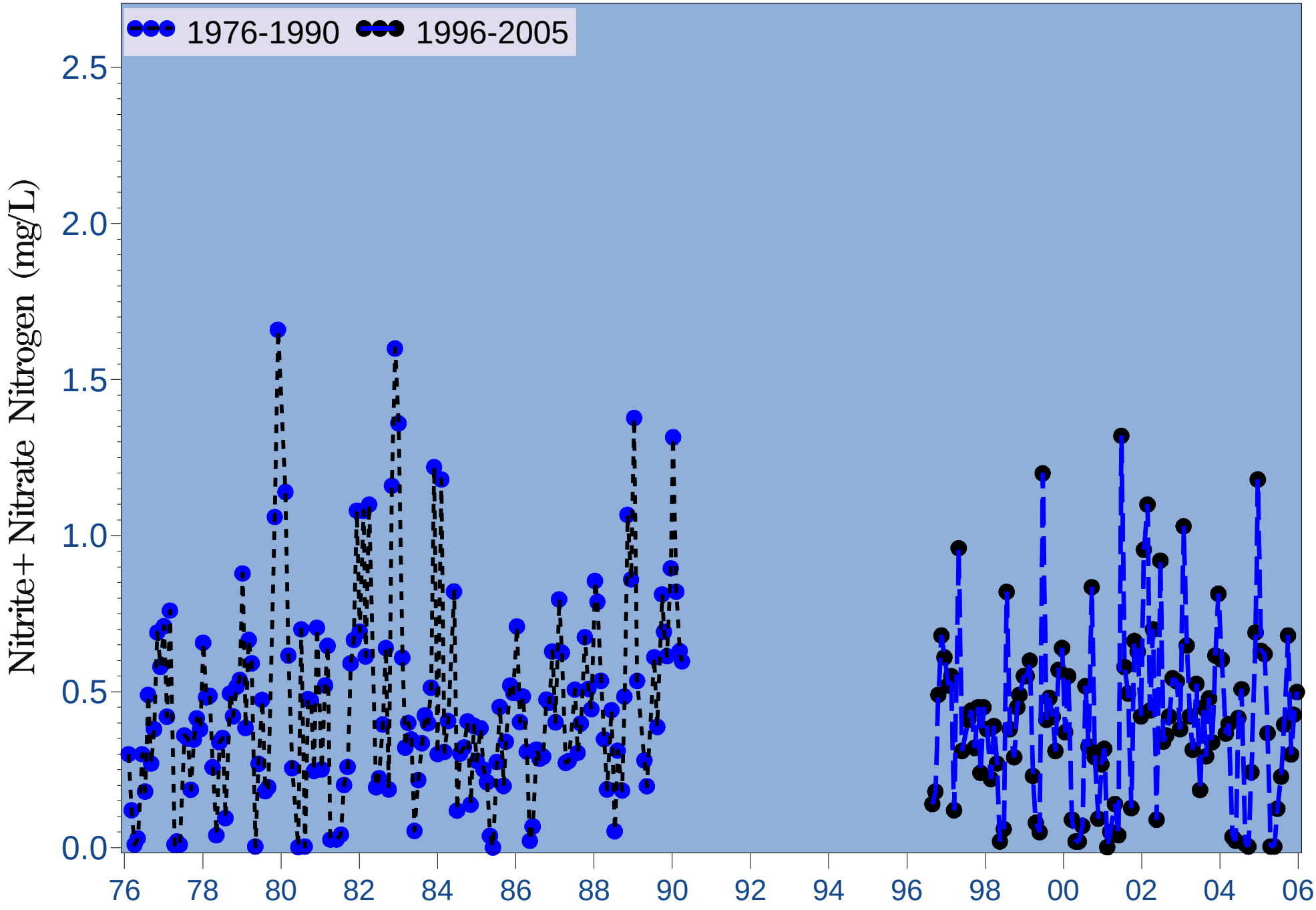


Figure 4.21d Monthly long-term bottom nitrate/nitrite nitrogen at river kilometer 23.6

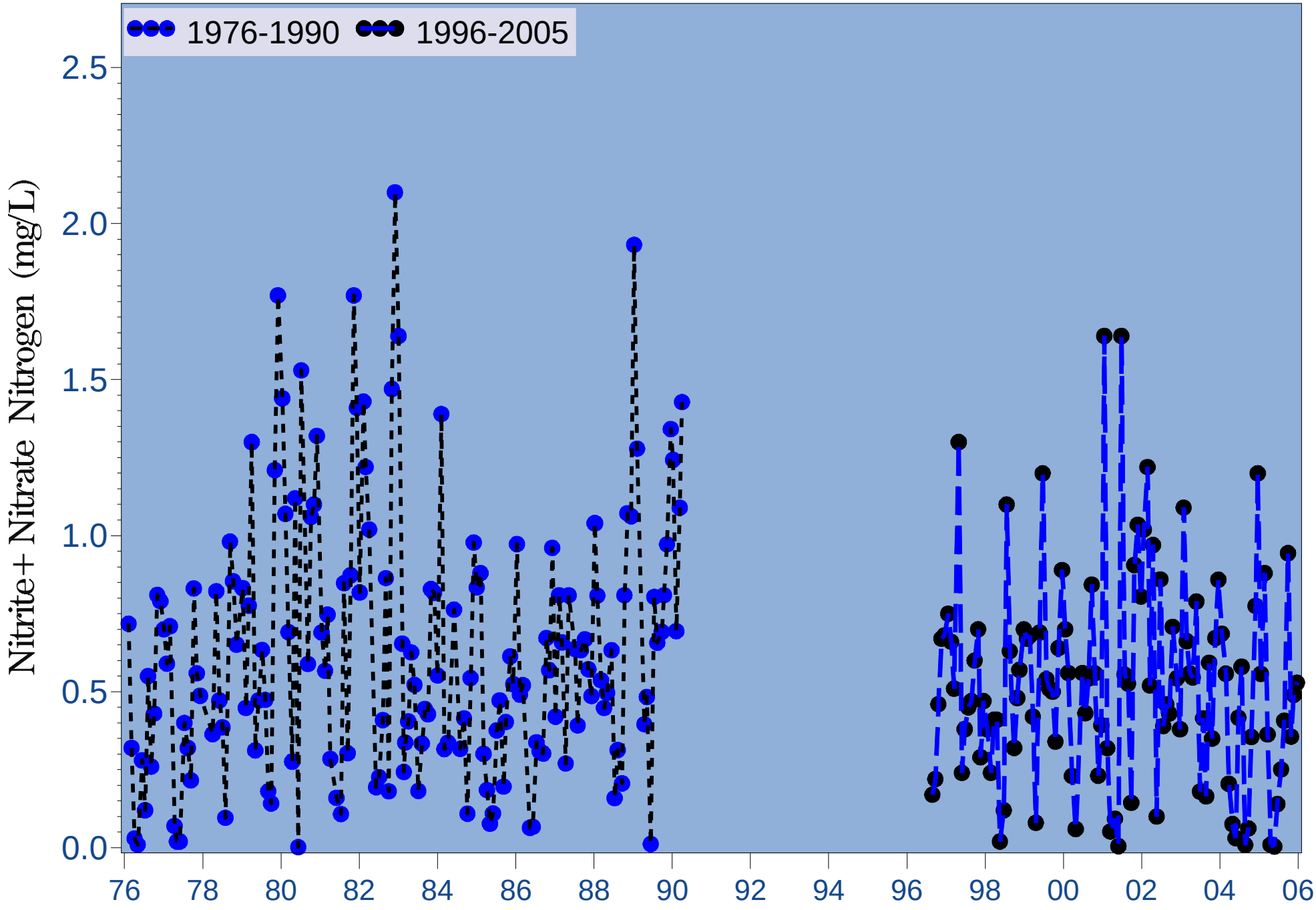


Figure 4.21e Monthly long-term bottom nitrate/nitrite nitrogen at river kilometer 30.4

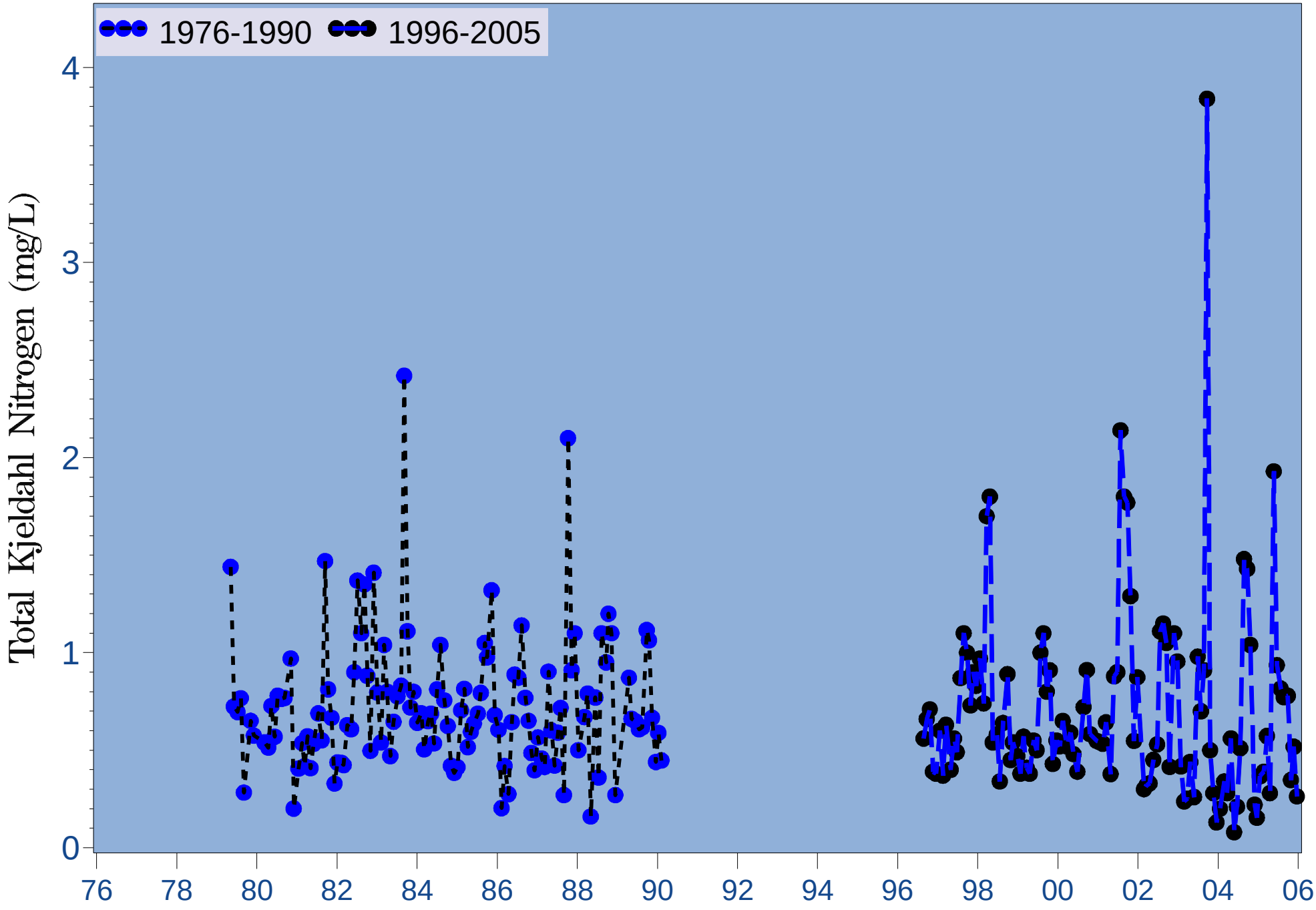


Figure 4.22a Monthly long-term surface total Kjeldahl nitrogen at river kilometer -2.4

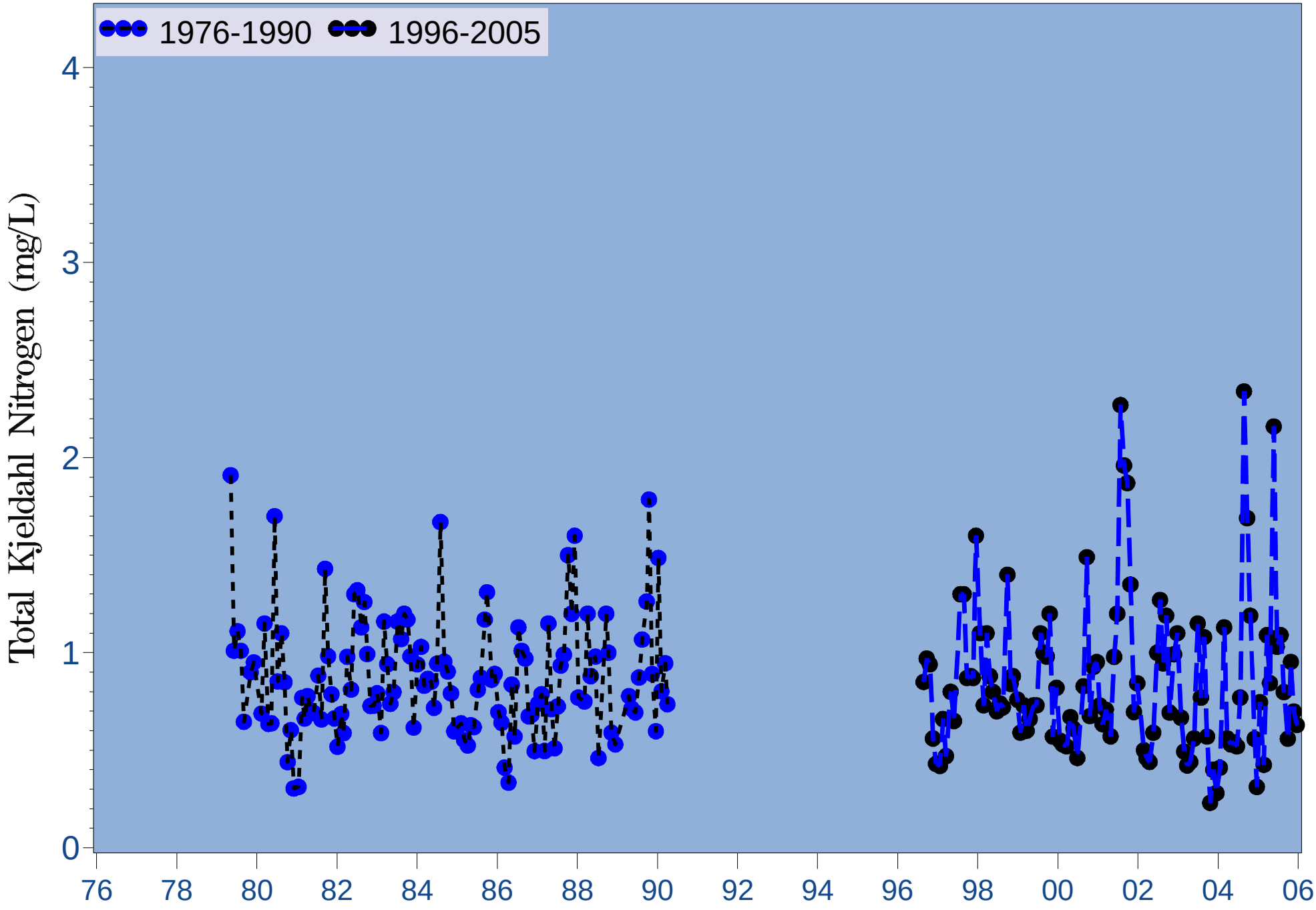


Figure 4.22b Monthly long-term surface total Kjeldahl nitrogen at river kilometer 6.6

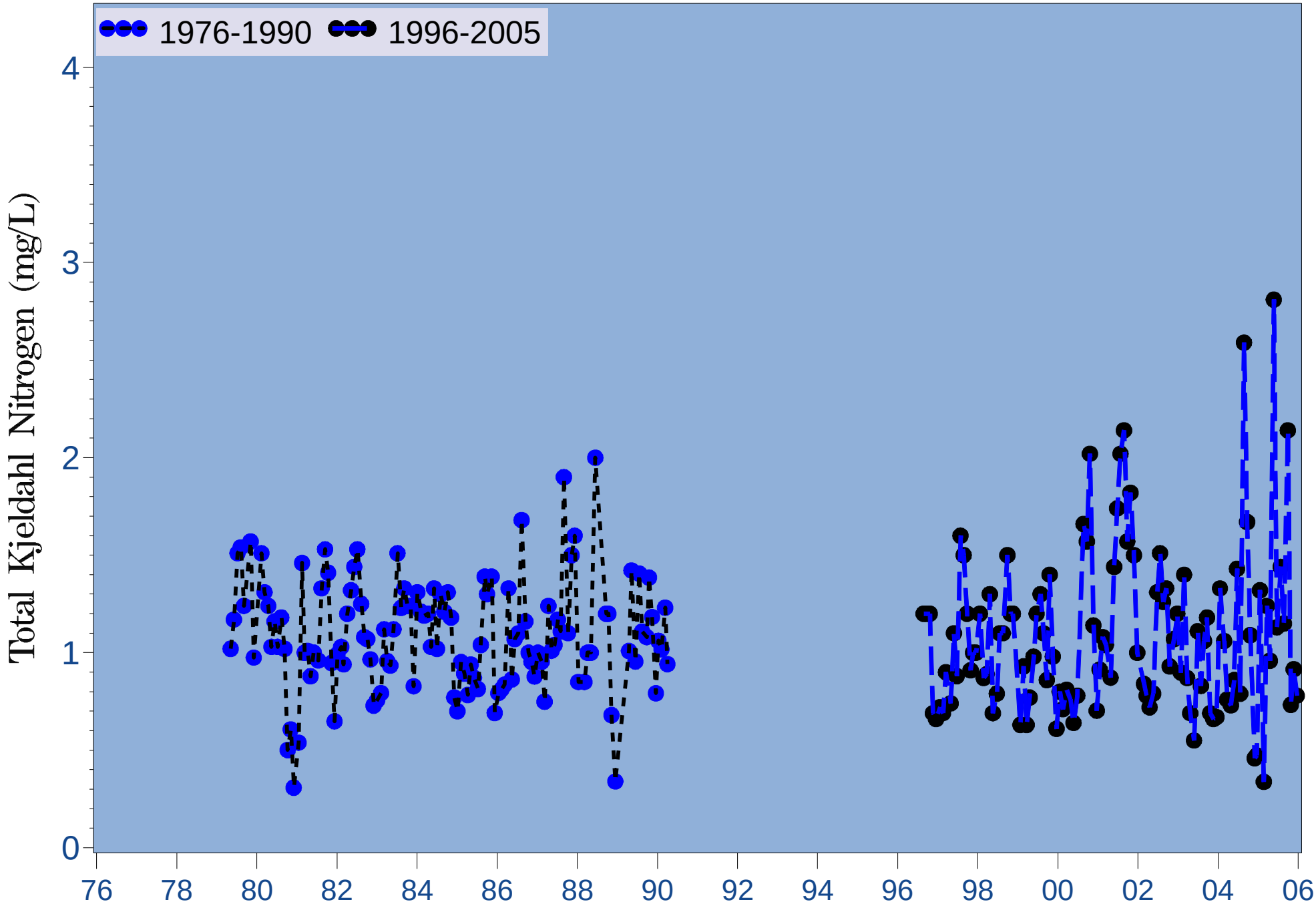


Figure 4.22c Monthly long-term surface total Kjeldahl nitrogen at river kilometer 15.5

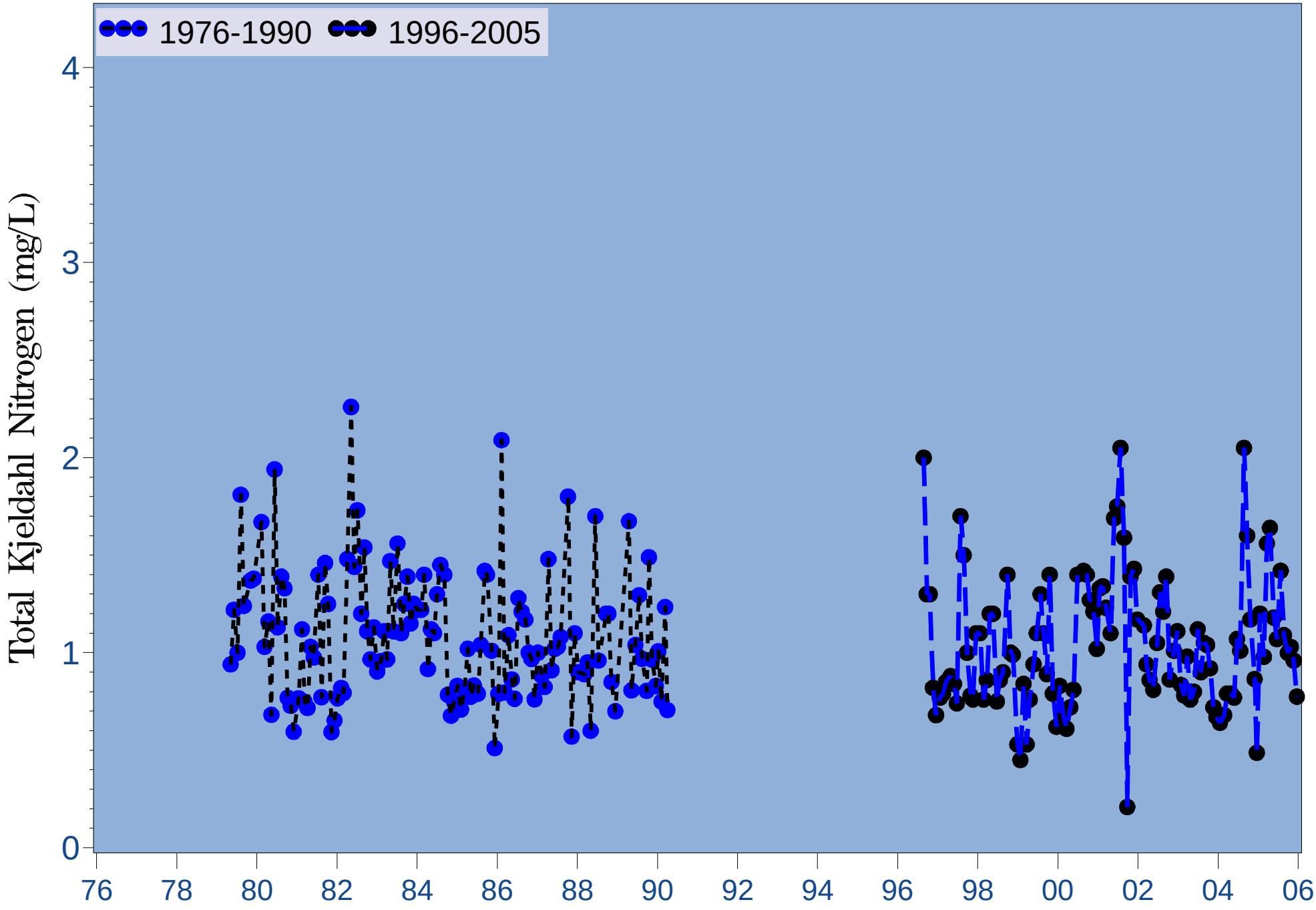


Figure 4.22d Monthly long-term surface total Kjeldahl nitrogen at river kilometer 23.6

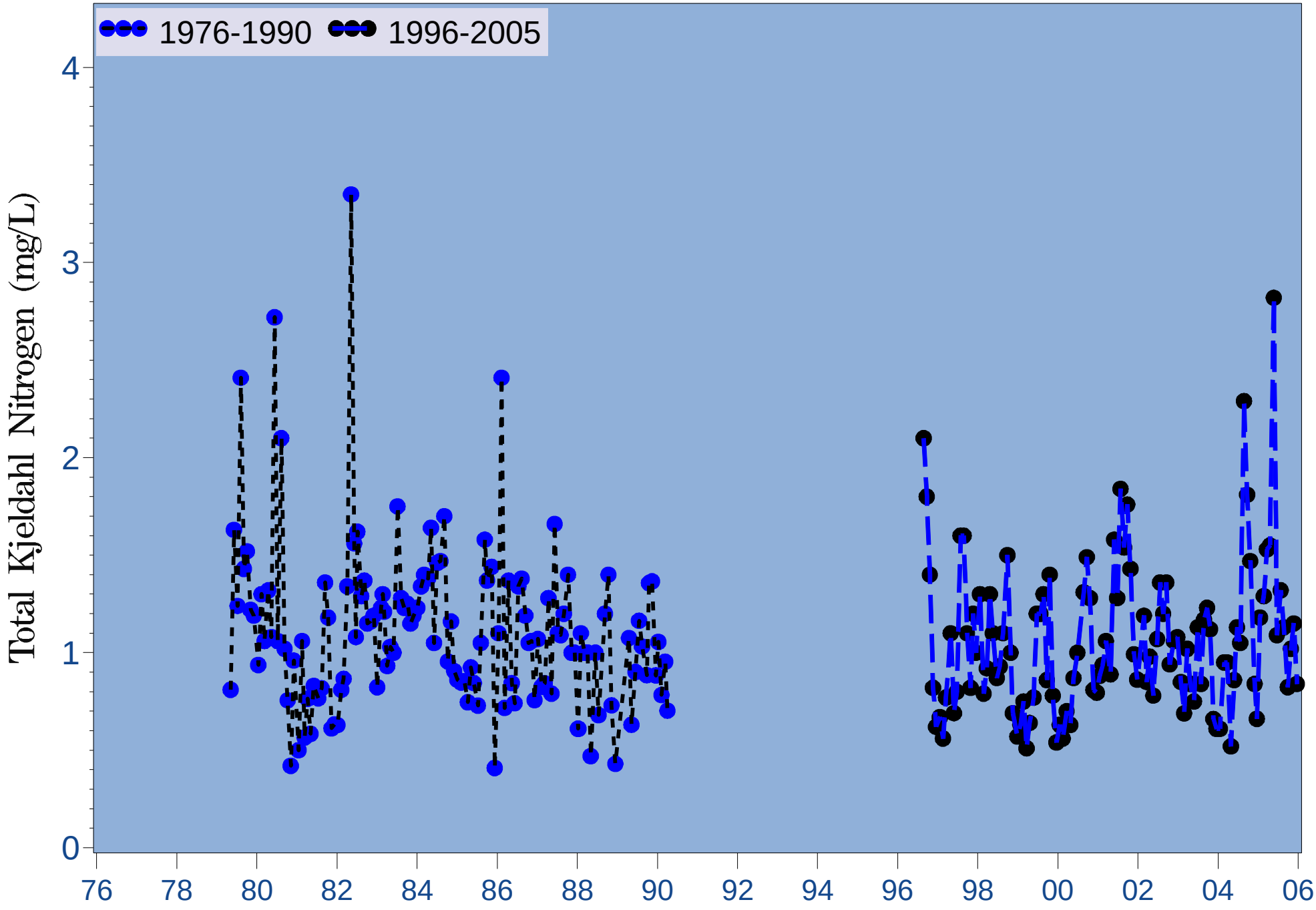


Figure 4.22e Monthly long-term surface total Kjeldahl nitrogen at river kilometer 30.4

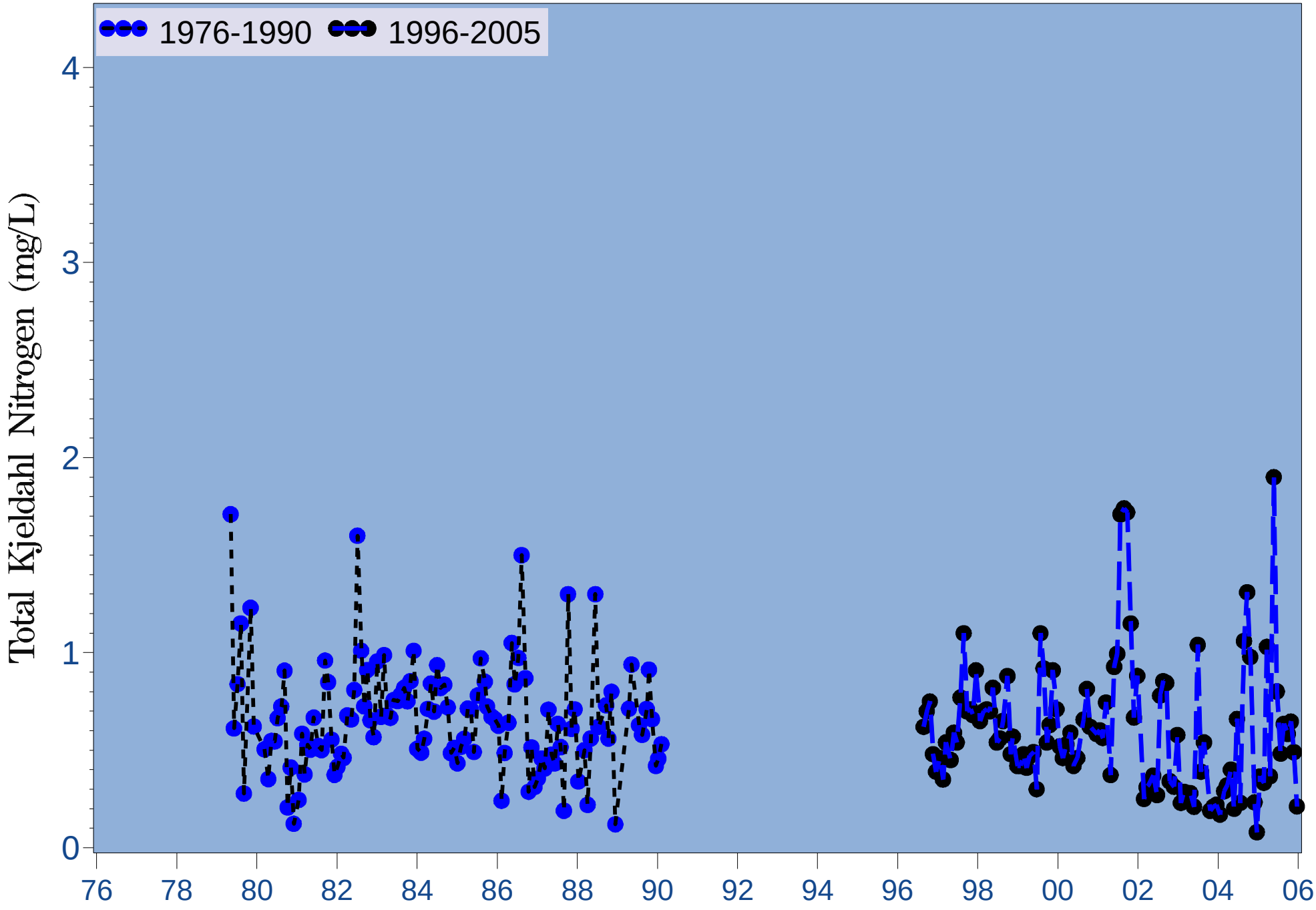


Figure 4.23a Monthly long-term bottom total Kjeldhal nitrogen at river kilometer -2.4

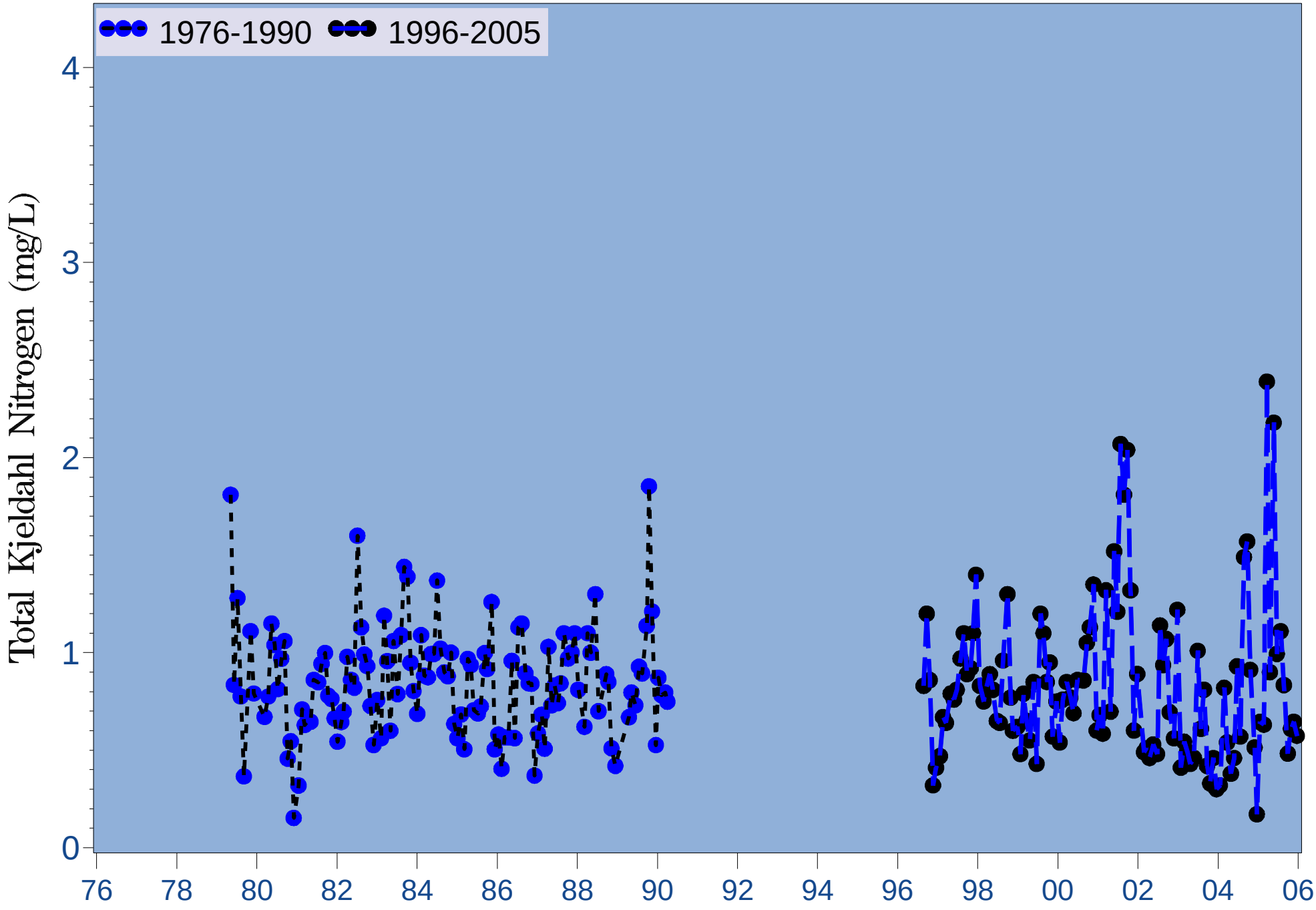


Figure 4.23b Monthly long-term bottom total Kjeldhal nitrogen at river kilometer 6.6

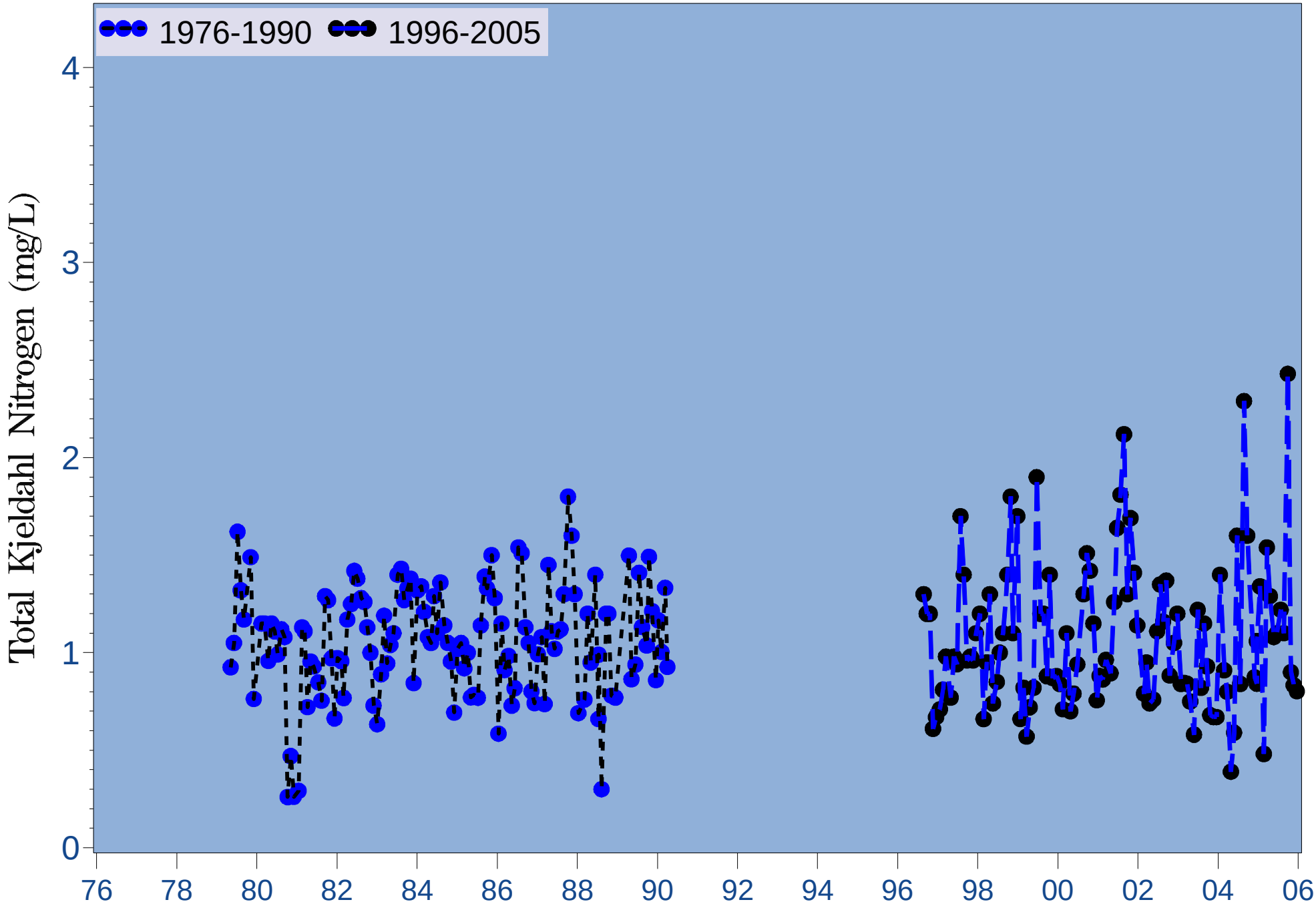


Figure 4.23c Monthly long-term bottom total Kjeldhal nitrogen at river kilometer 15.5

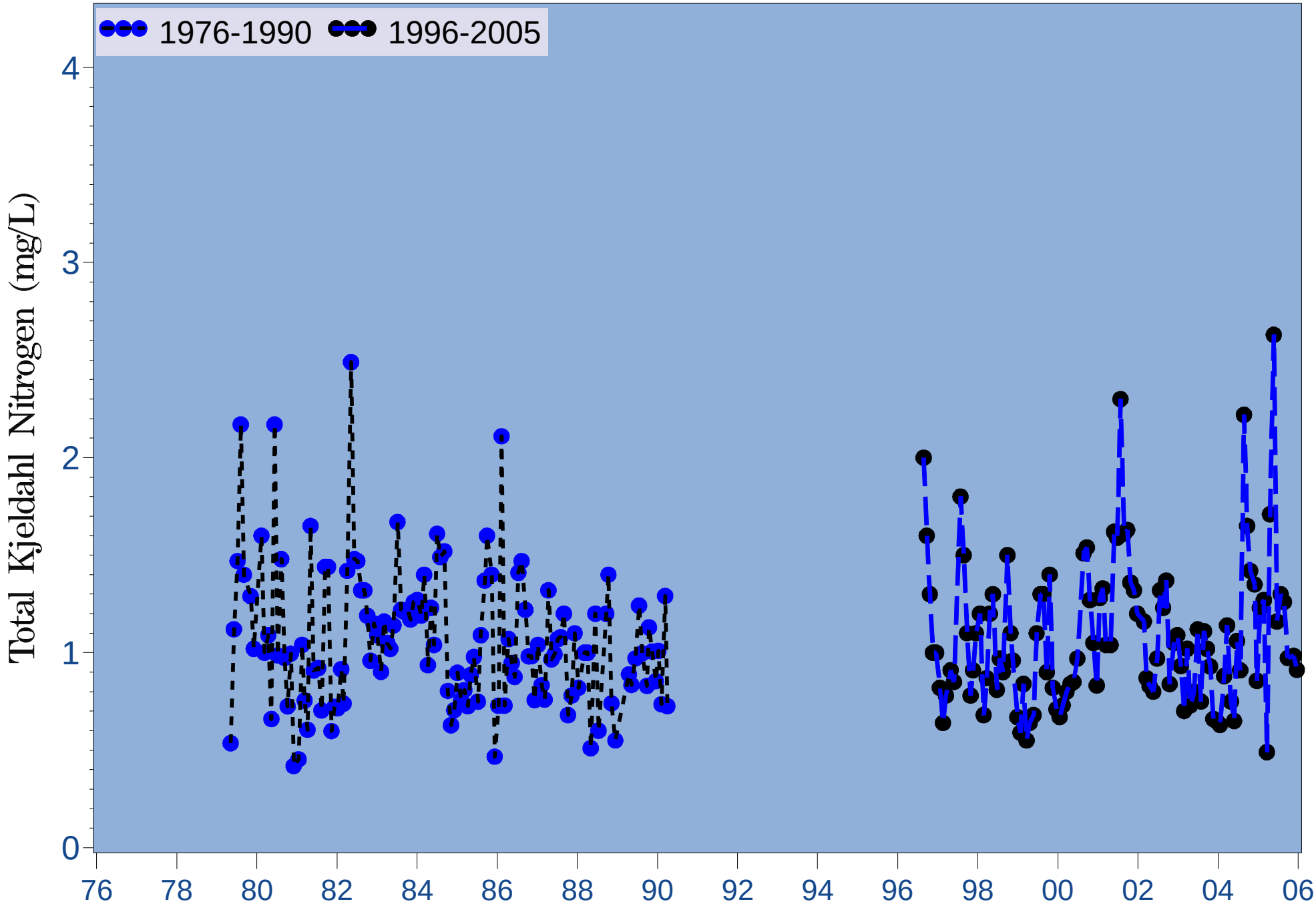


Figure 4.23d Monthly long-term bottom total Kjeldhal nitrogen at river kilometer 23.6

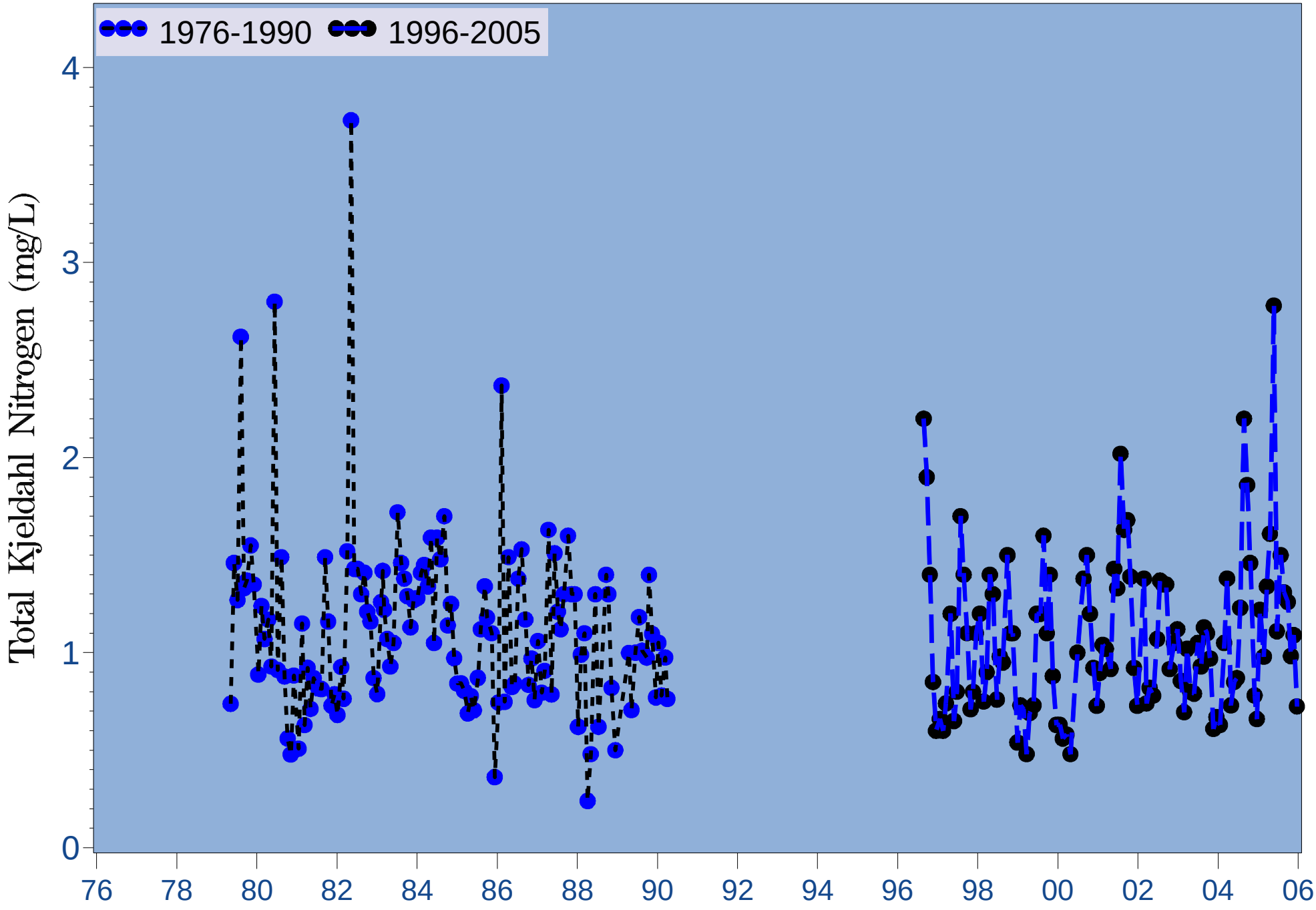


Figure 4.23e Monthly long-term bottom total Kjeldhal nitrogen at river kilometer 30.4

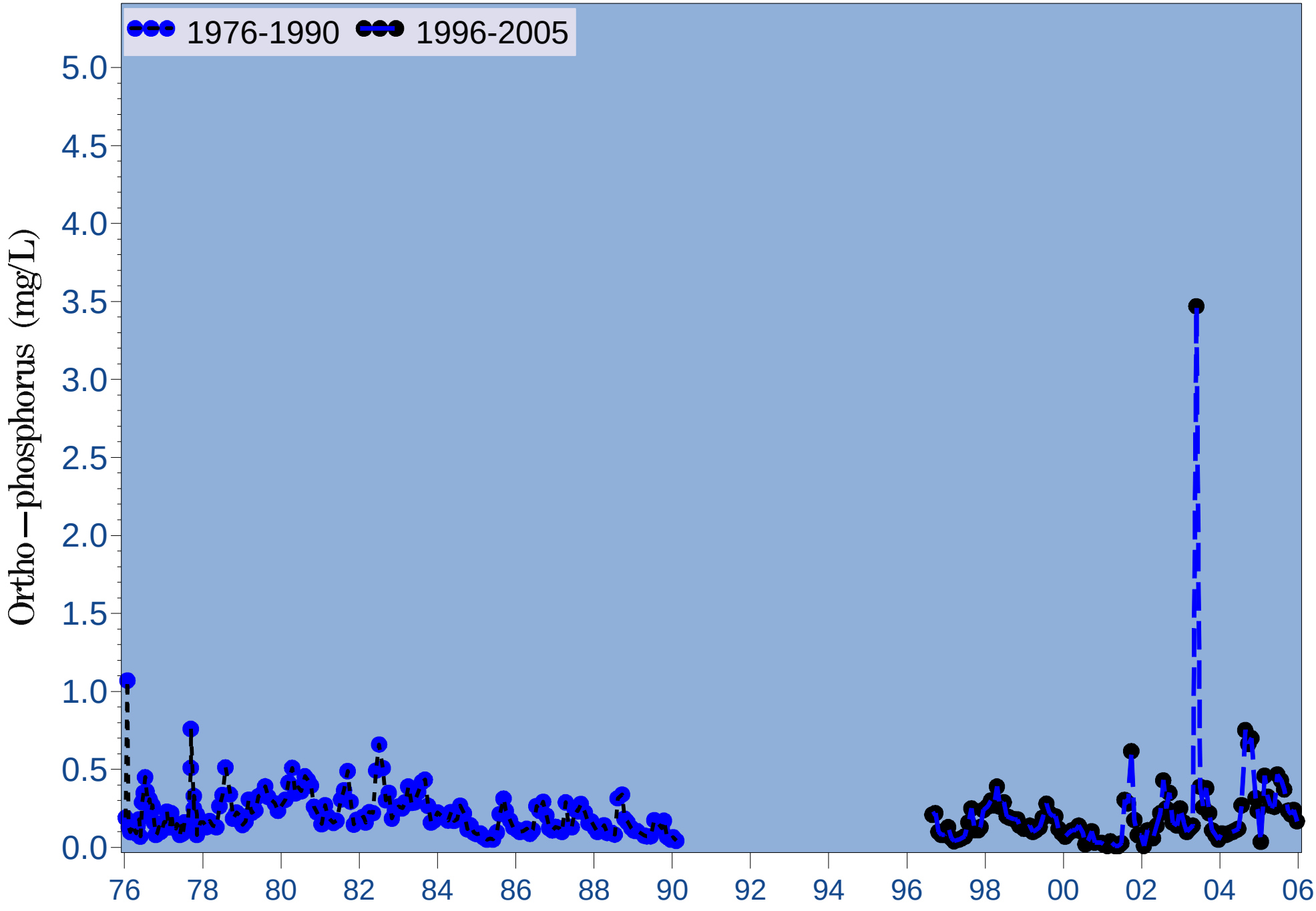


Figure 4.24a Monthly long-term surface ortho-phosphorus at river kilometer -2.4

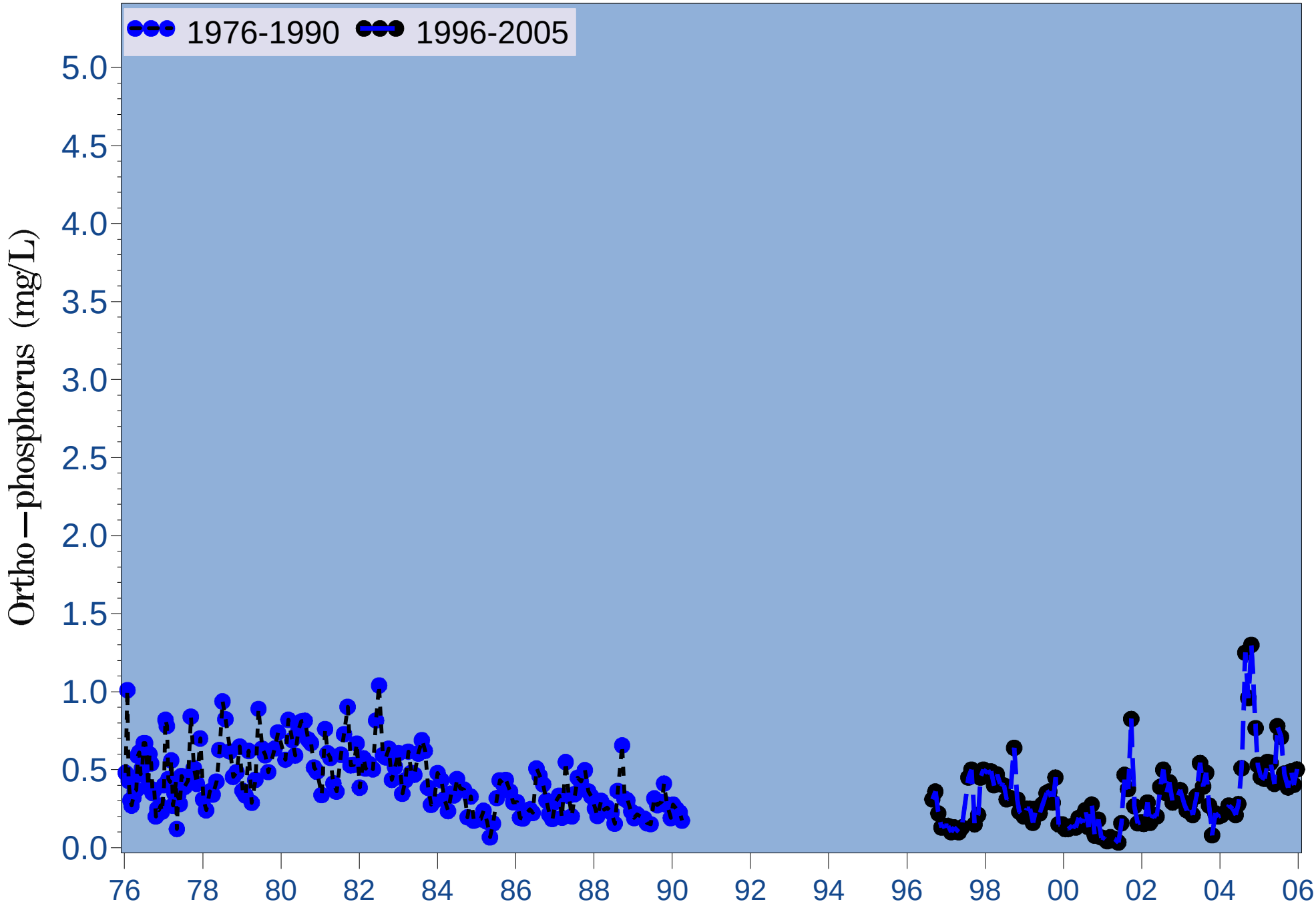


Figure 4.24b Monthly long-term surface ortho-phosphorus at river kilometer 6.6

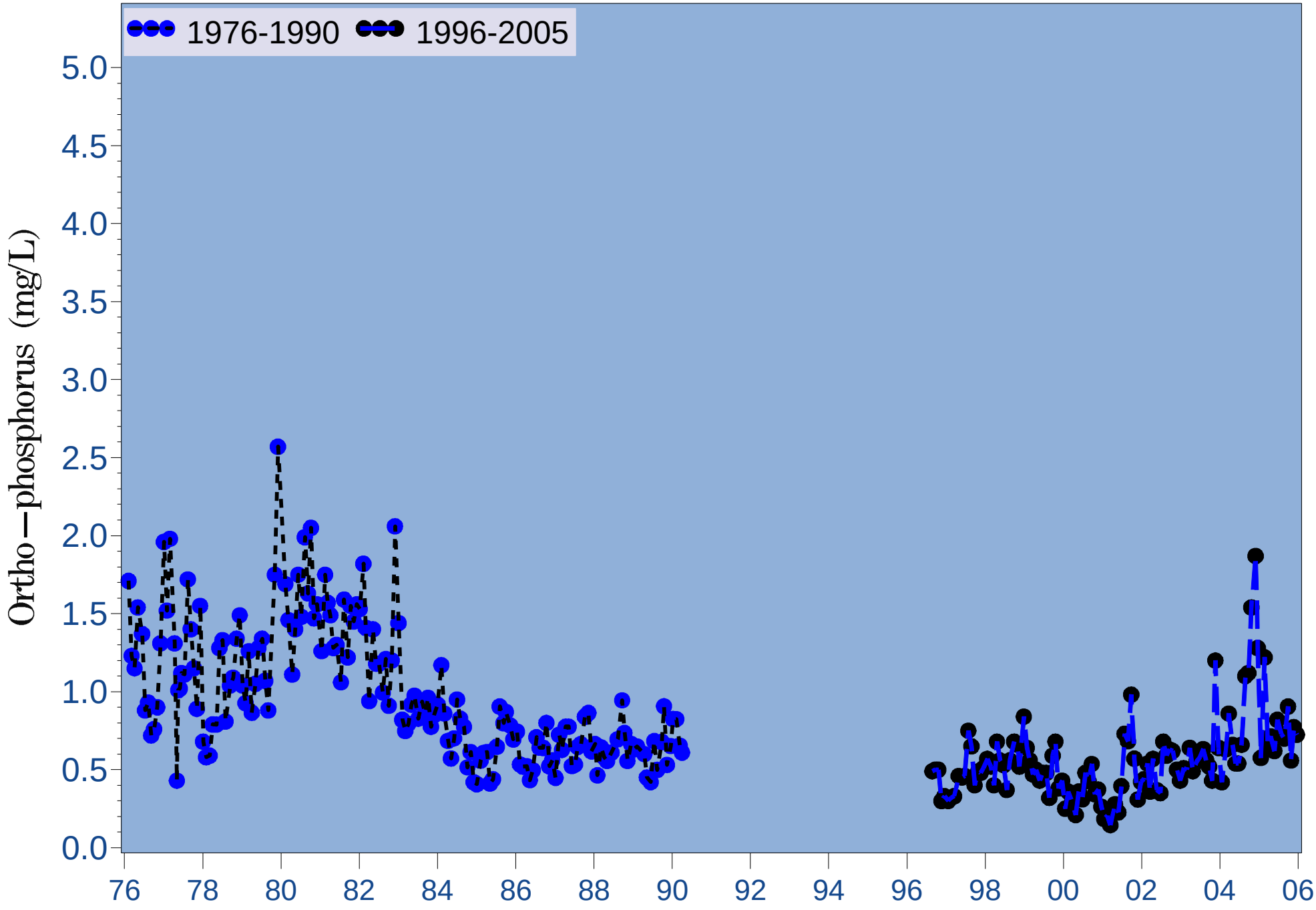


Figure 4.24c Monthly long-term surface ortho-phosphorus at river kilometer 15.5

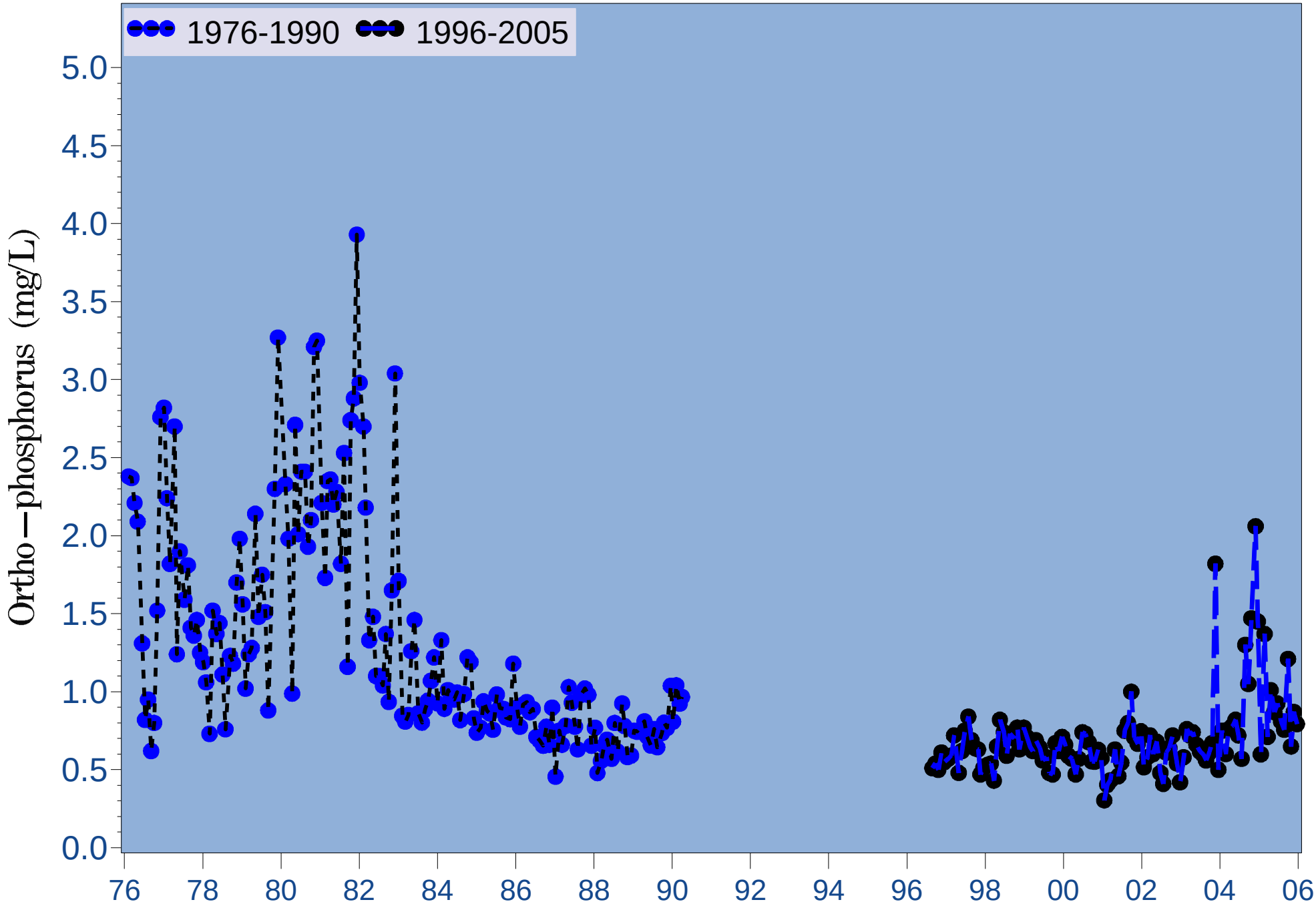


Figure 4.24d Monthly long-term surface ortho-phosphorus at river kilometer 23.6

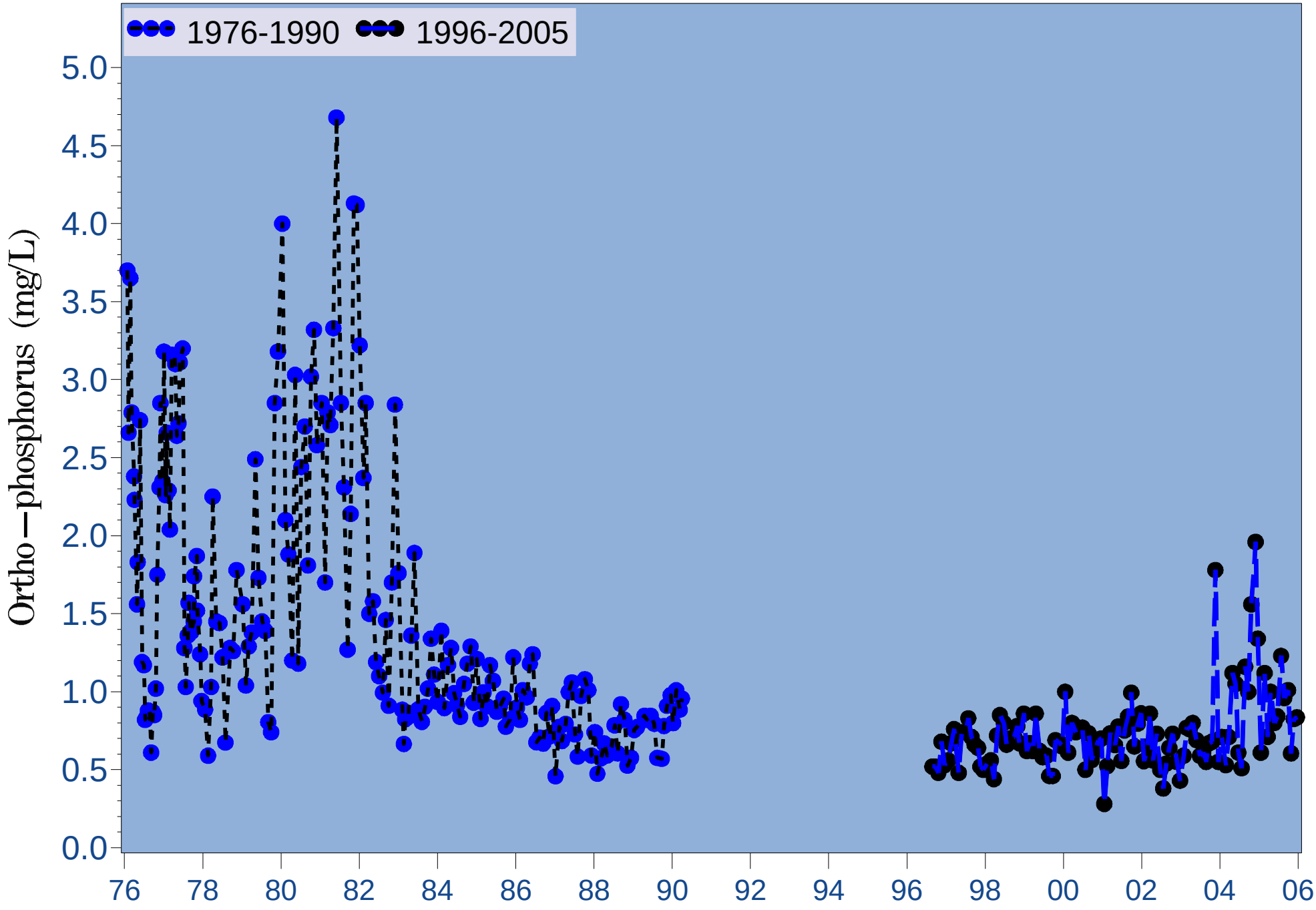


Figure 4.24e Monthly long-term surface ortho-phosphorus at river kilometer 30.4

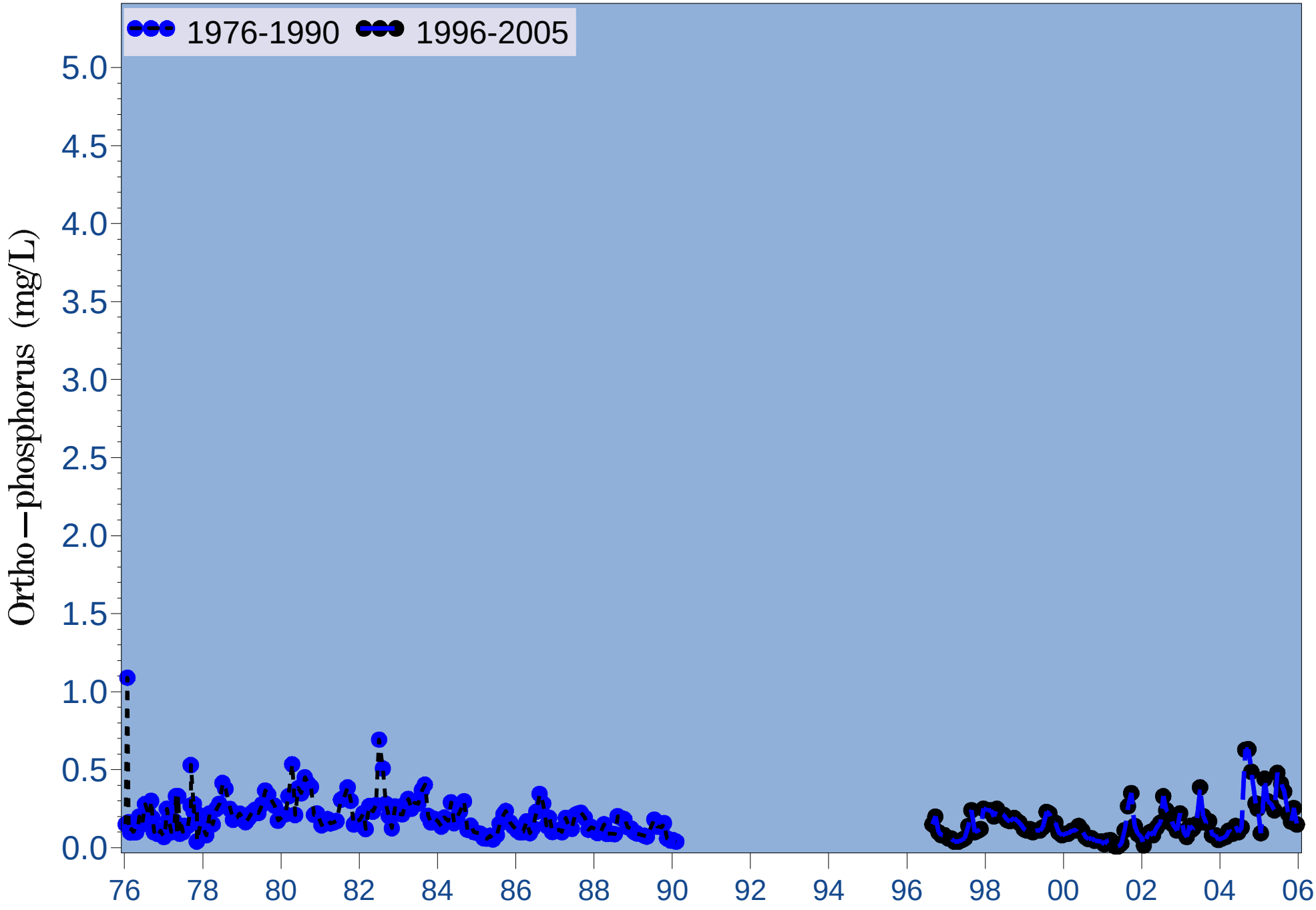


Figure 4.25a Monthly long-term bottom ortho-phosphorus at river kilometer -2.4

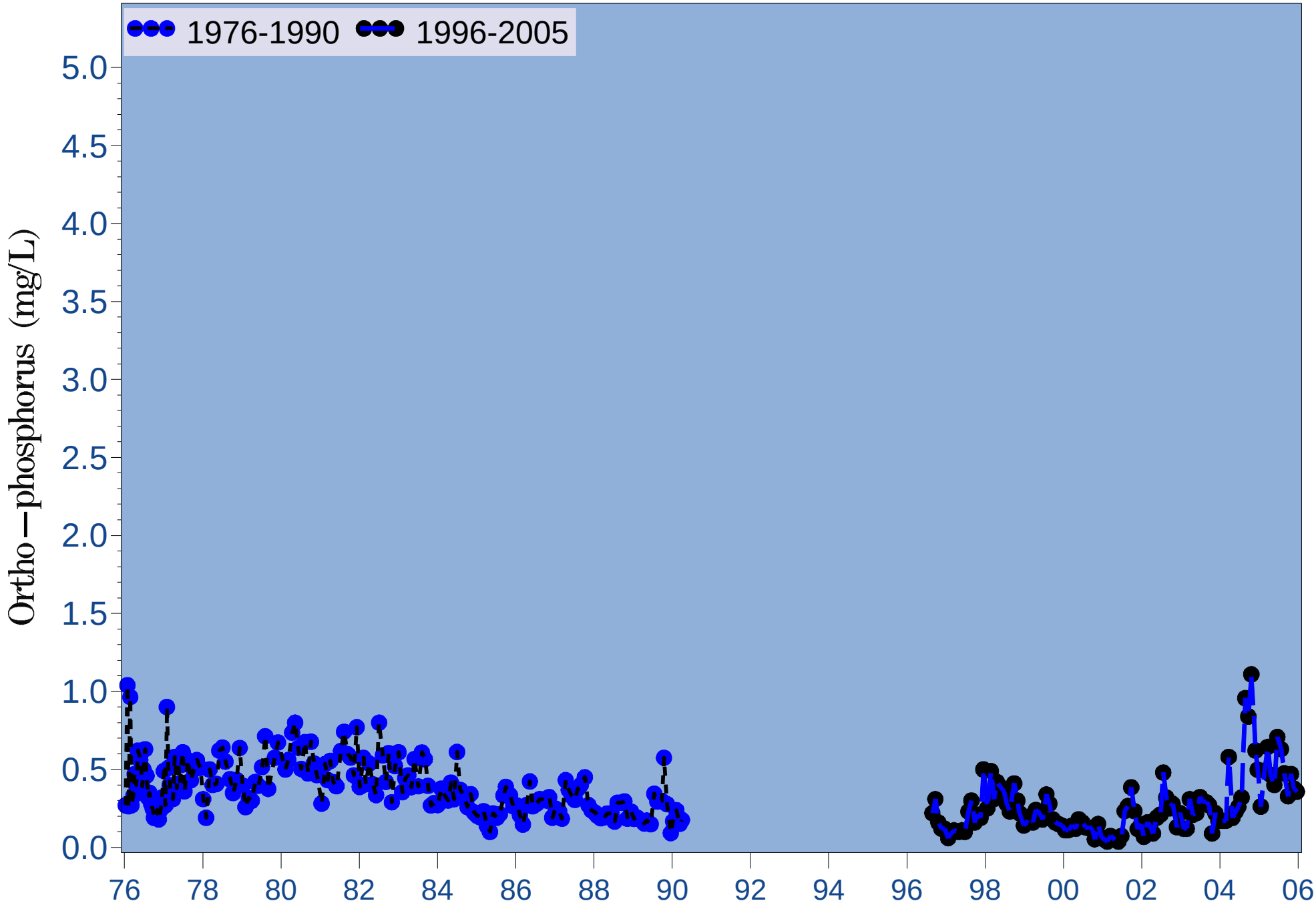


Figure 4.25b Monthly long-term bottom ortho-phosphorus at river kilometer 6.6

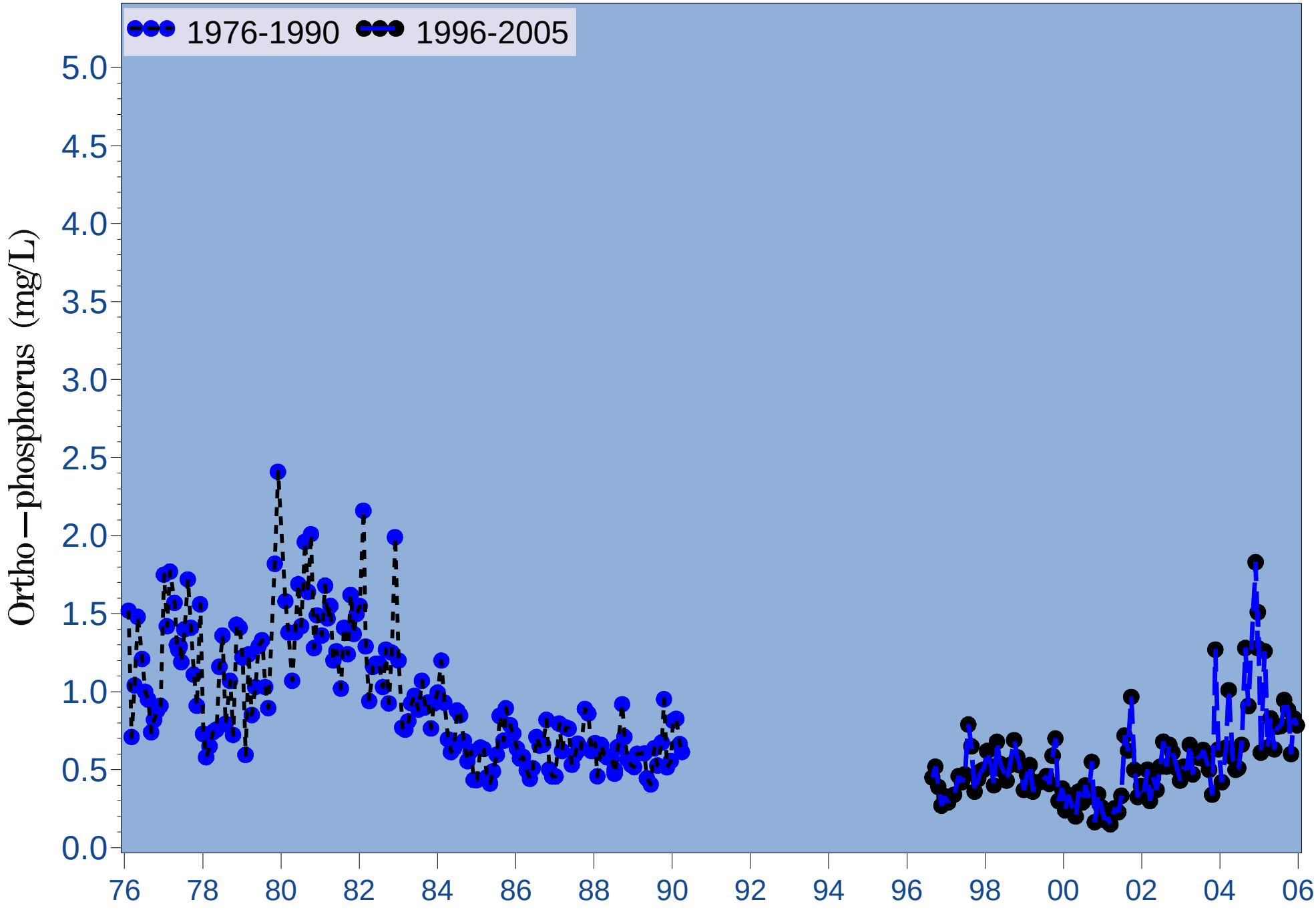


Figure 4.25c Monthly long-term bottom ortho-phosphorus at river kilometer 15.5

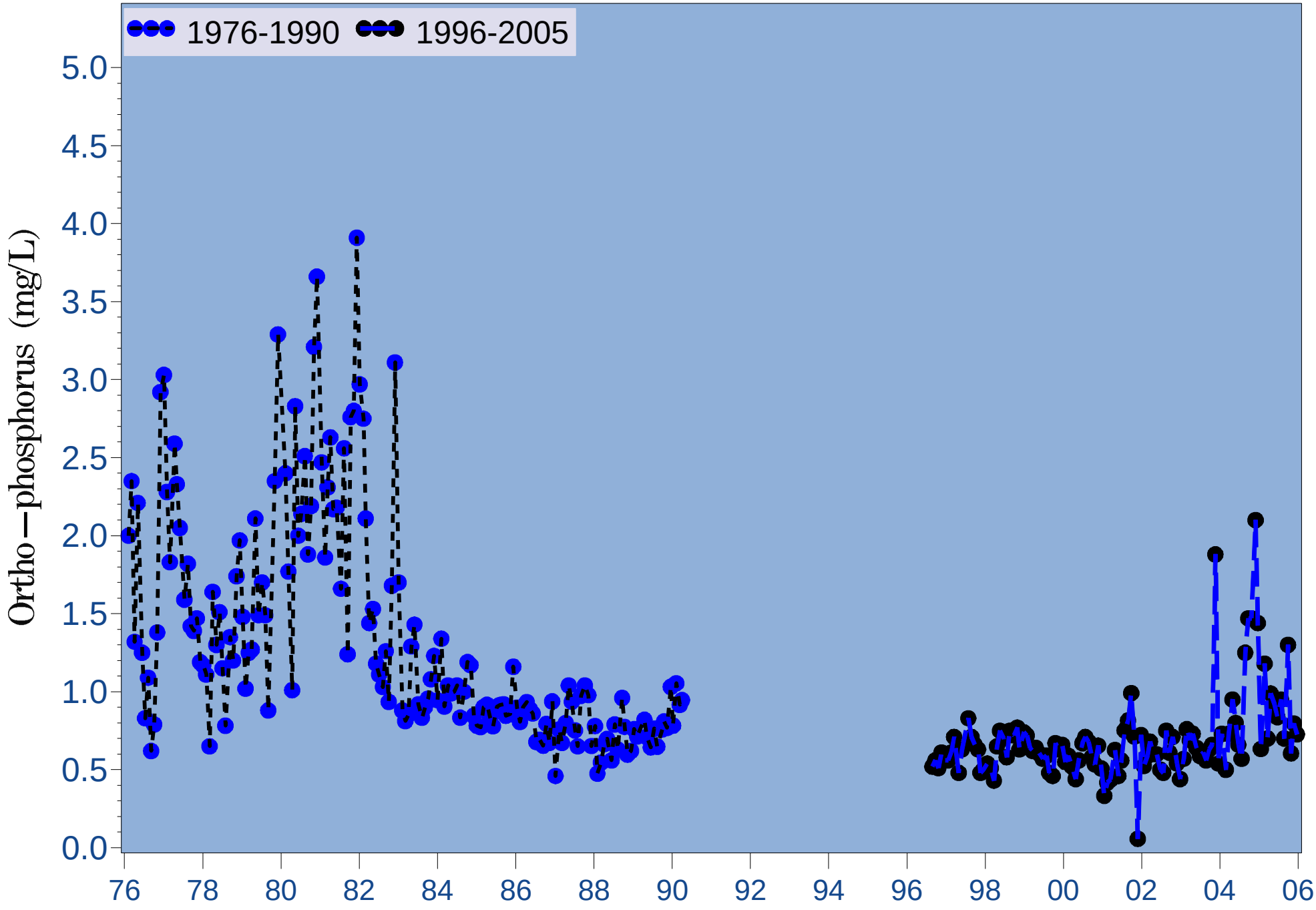


Figure 4.25d Monthly long-term bottom ortho-phosphorus at river kilometer 23.6

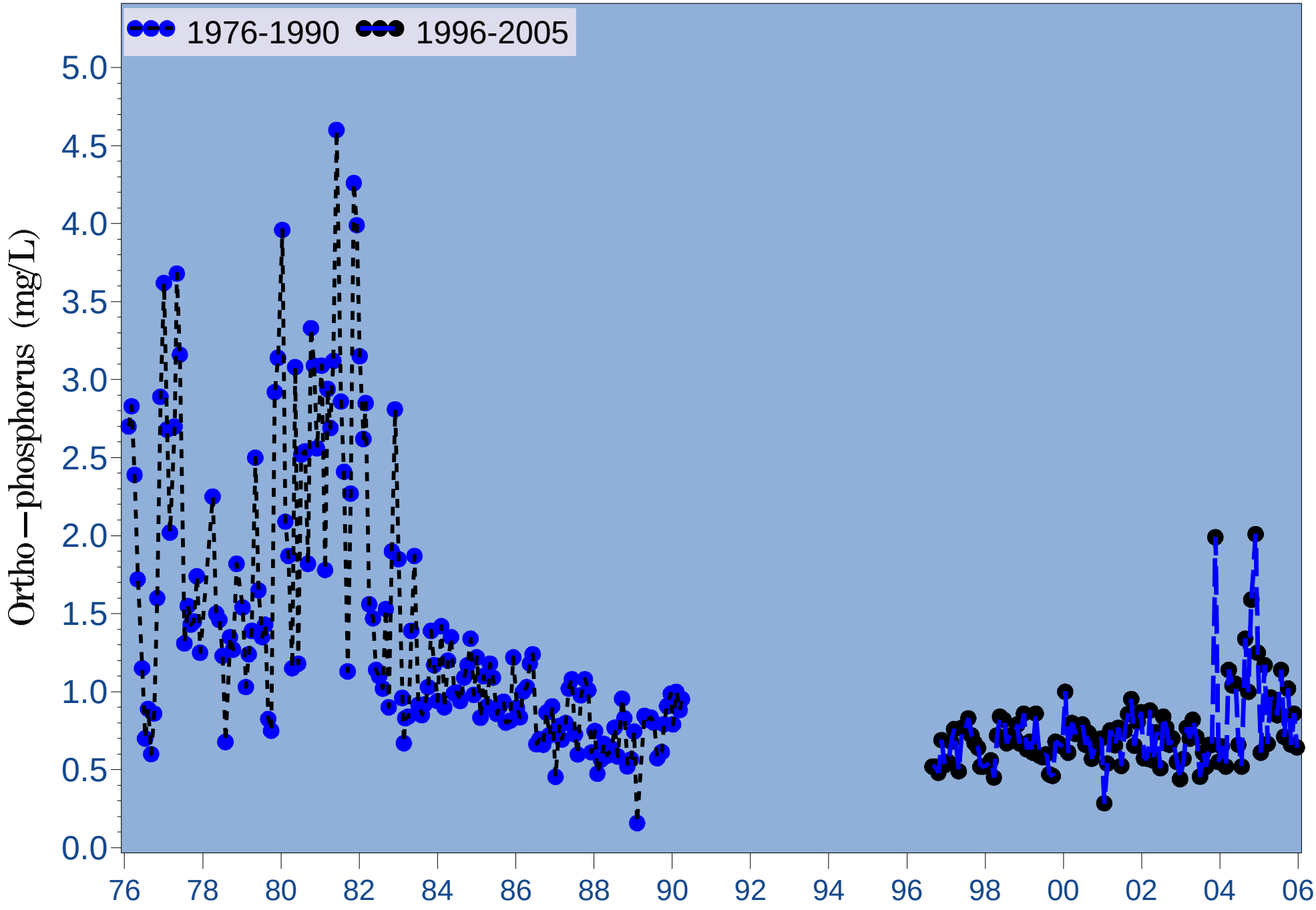


Figure 4.25e Monthly long-term bottom ortho-phosphorus at river kilometer 30.4

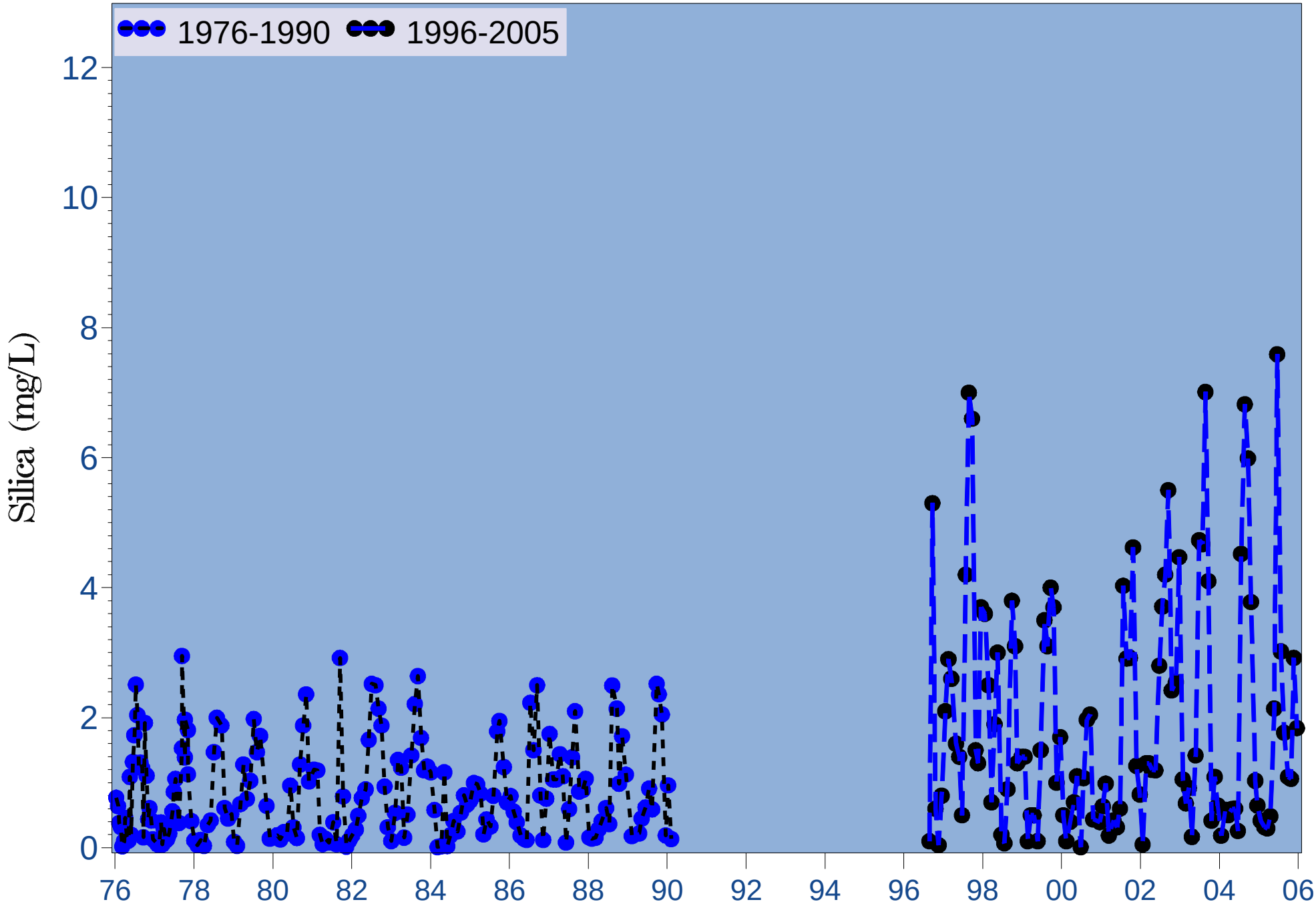


Figure 4.26a Monthly long-term surface silica at river kilometer -2.4

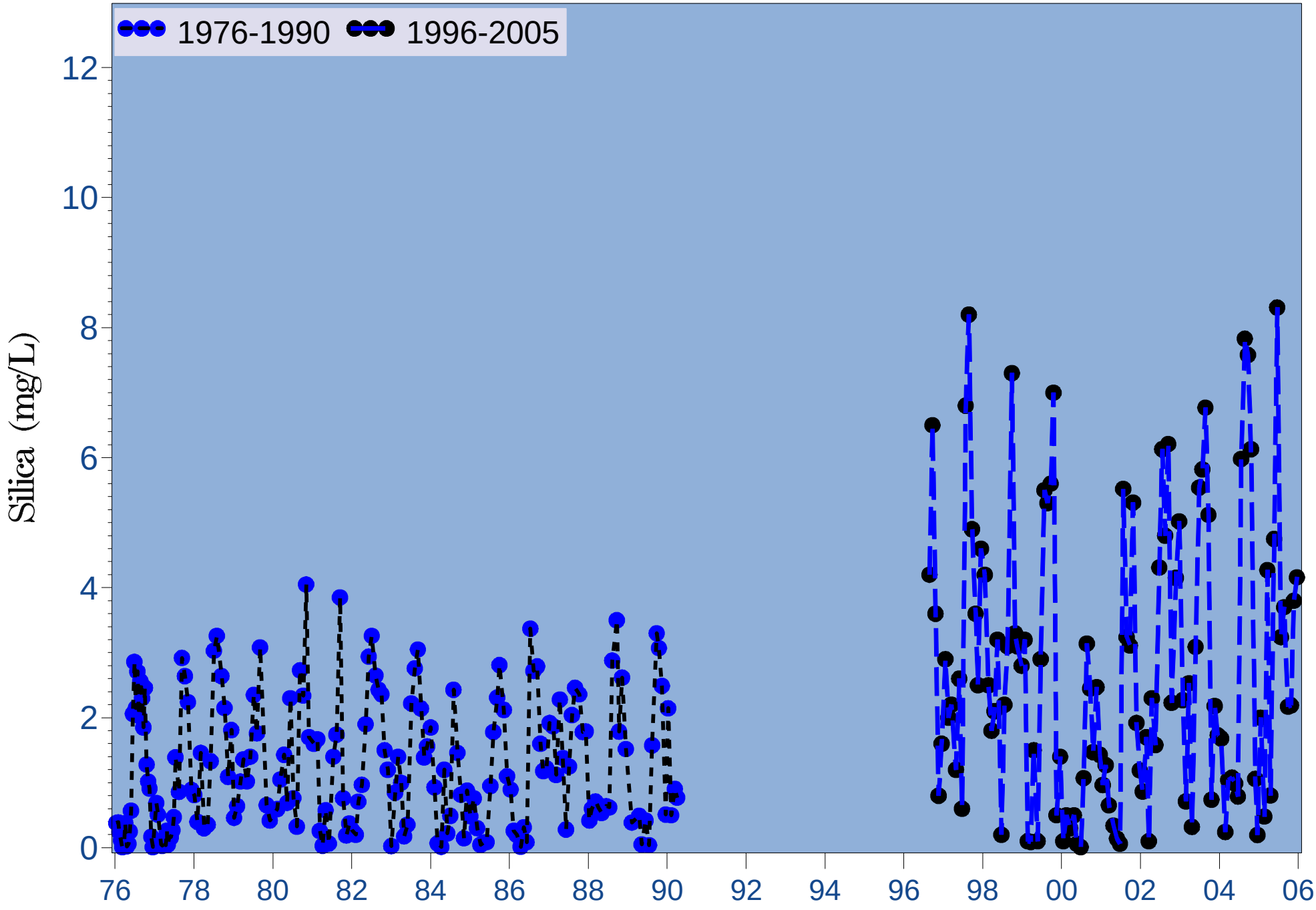


Figure 4.26b Monthly long-term surface silica at river kilometer 6.6

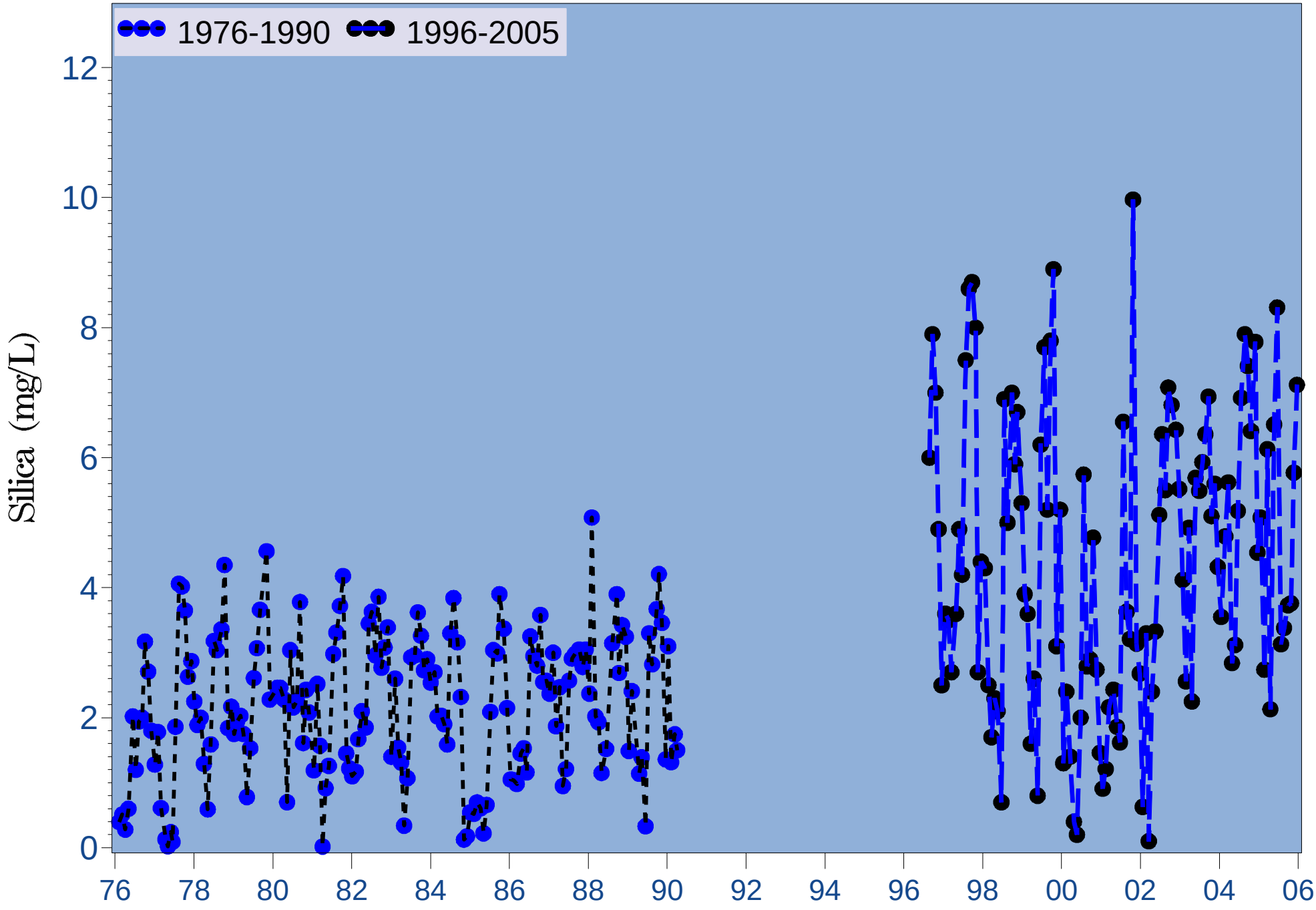


Figure 4.26c Monthly long-term surface silica at river kilometer 15.5

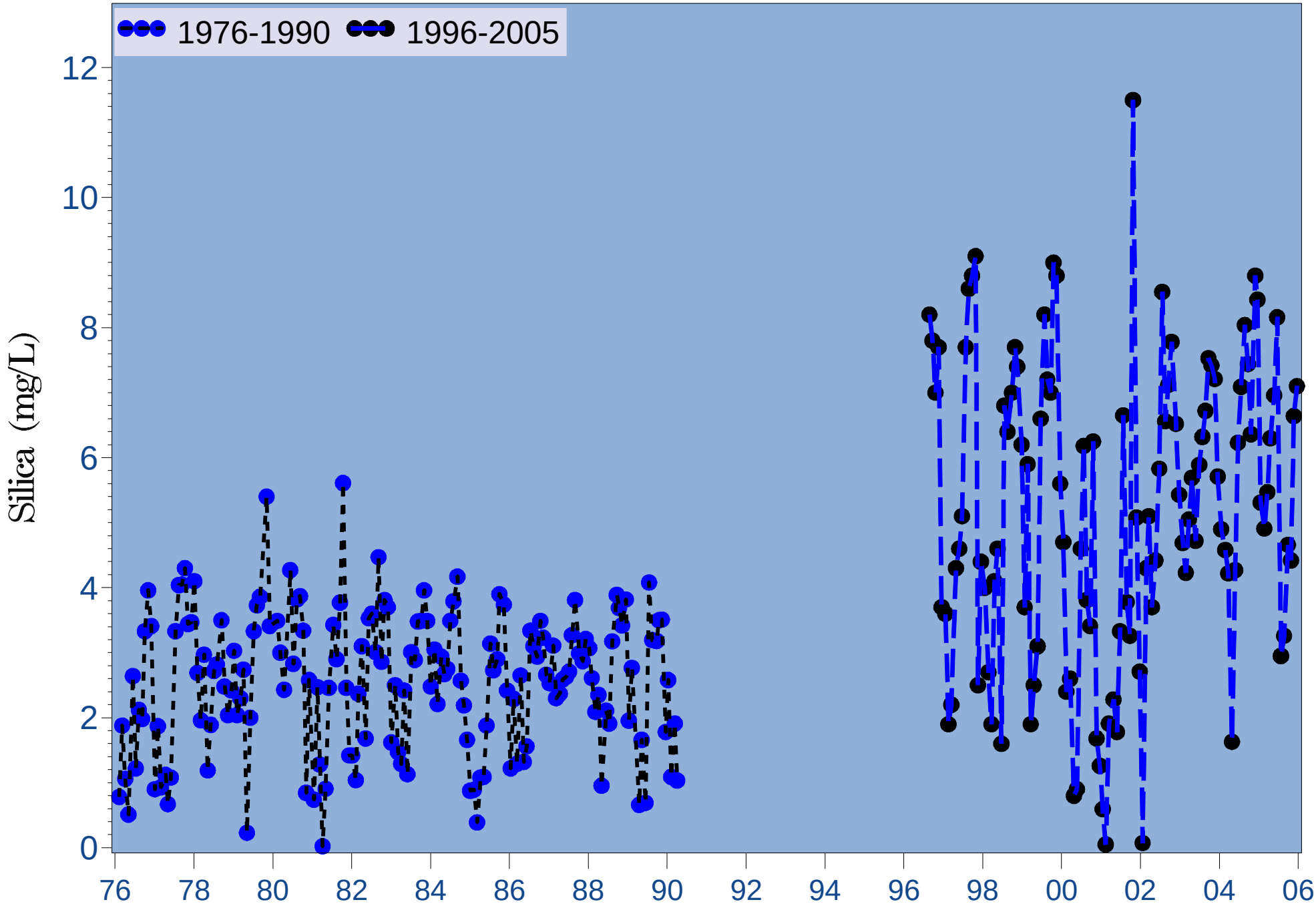


Figure 4.26d Monthly long-term surface silica at river kilometer 23.6

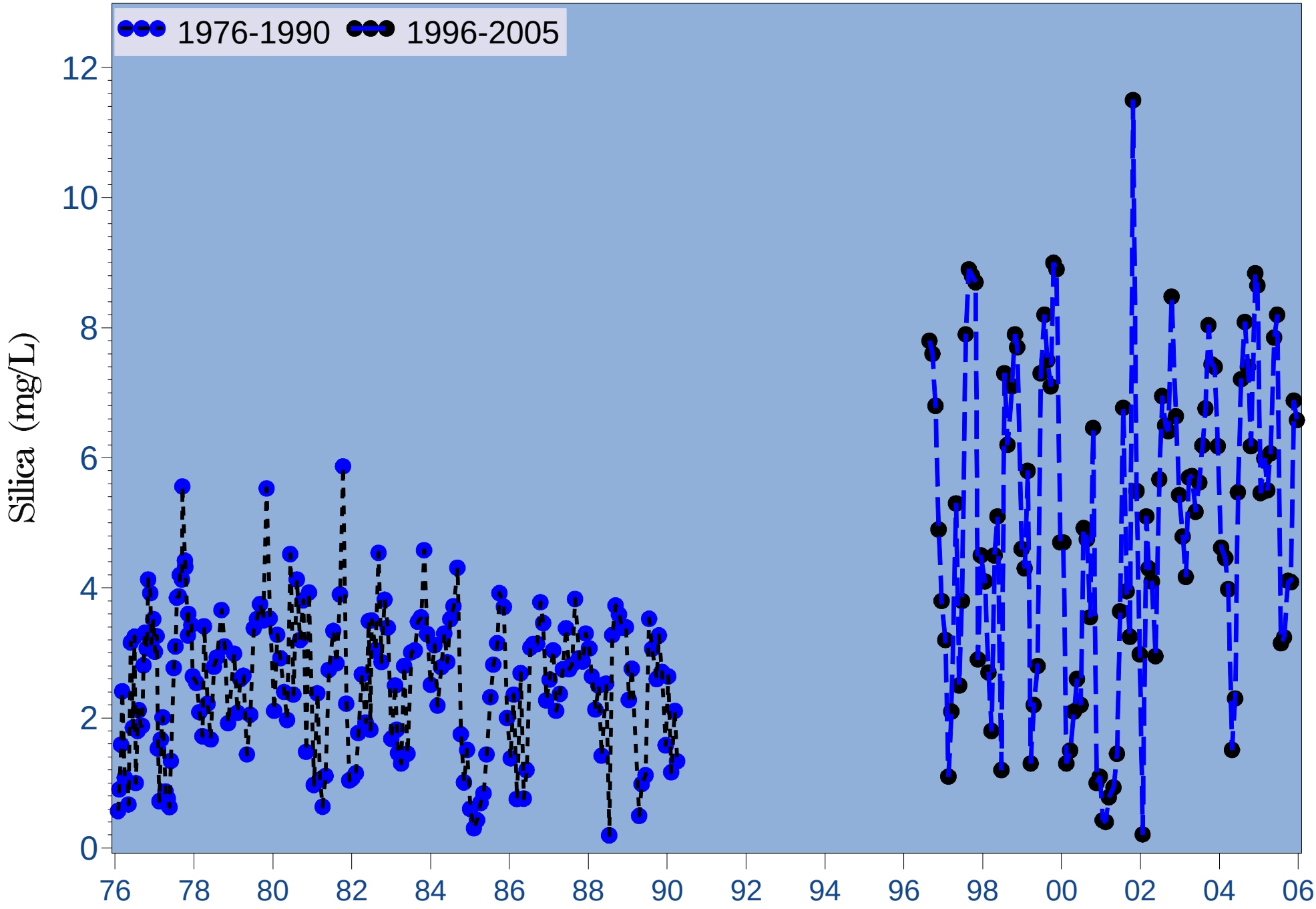


Figure 4.26e Monthly long-term surface silica at river kilometer 30.4

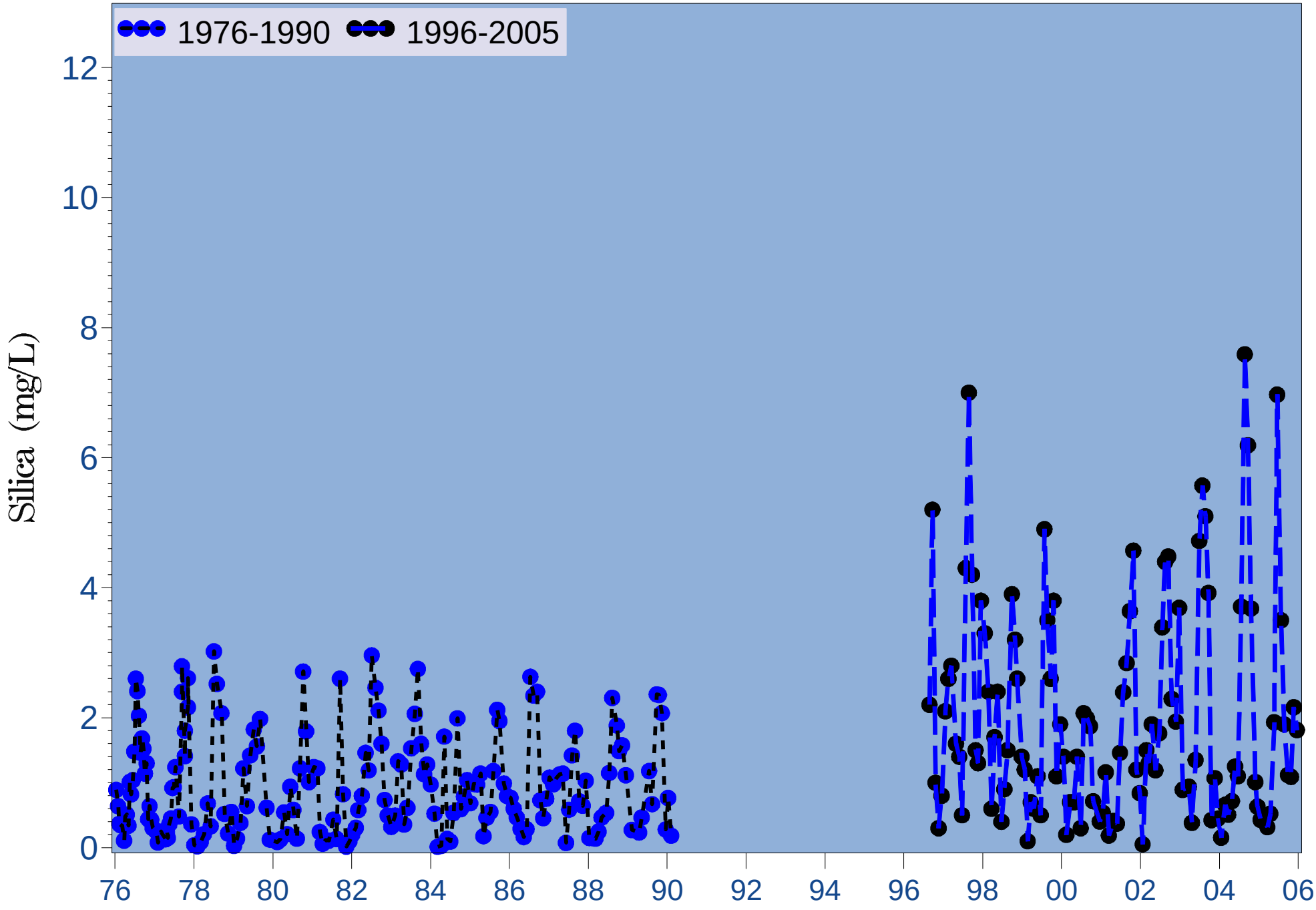


Figure 4.27a Monthly long-term bottom silica at river kilometer -2.4

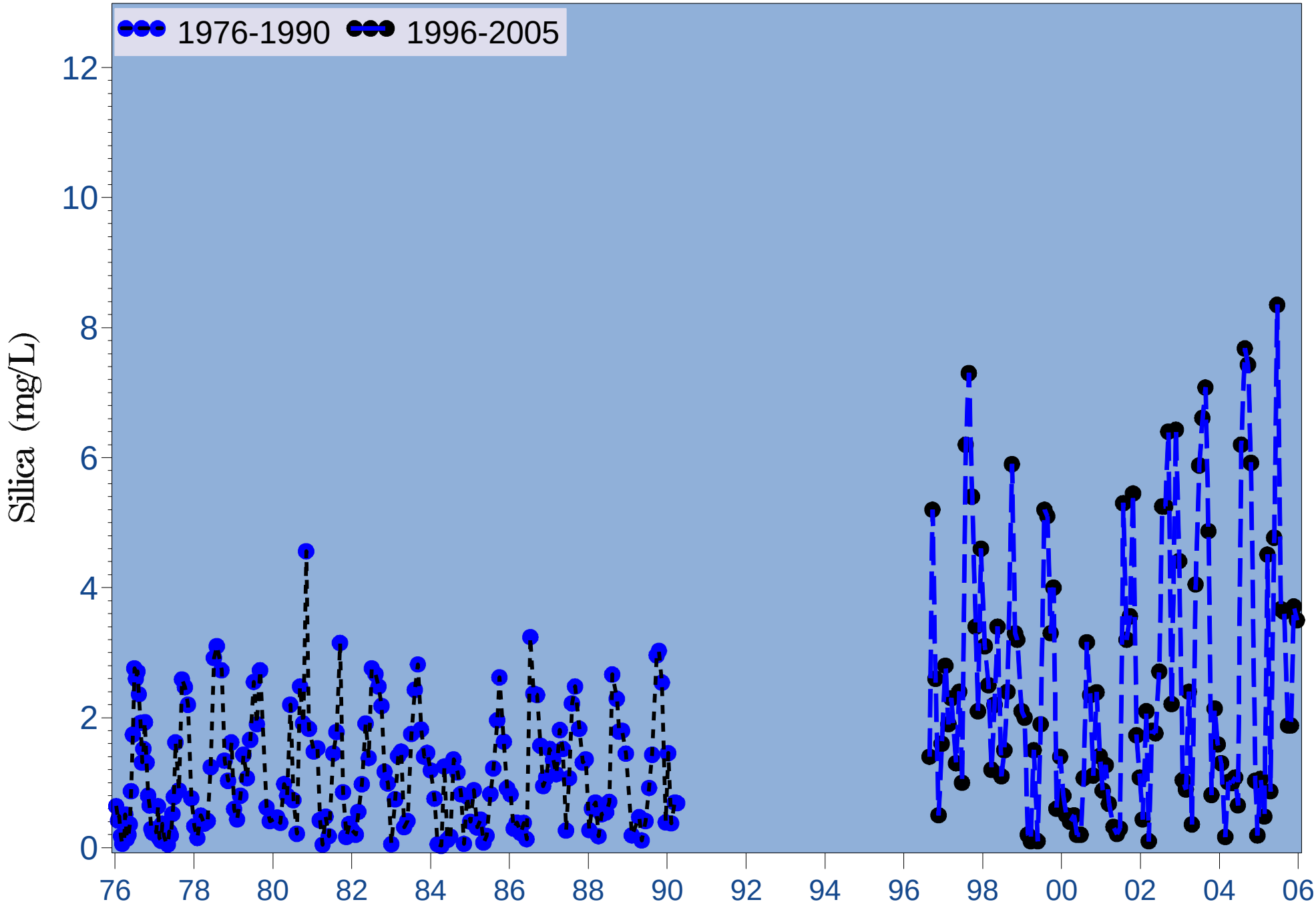


Figure 4.27b Monthly long-term bottom silica at river kilometer 6.6

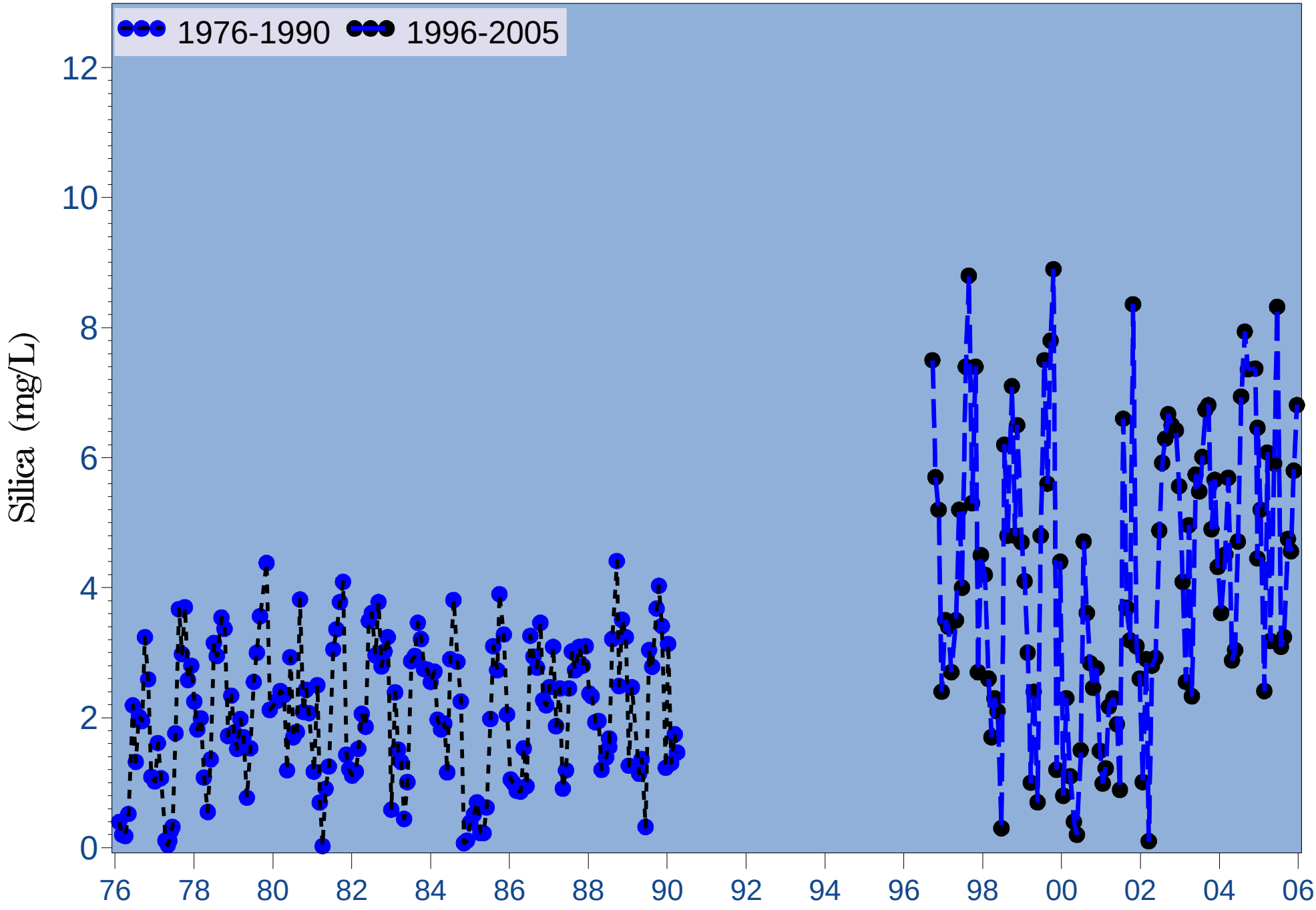


Figure 4.27c Monthly long-term bottom silica at river kilometer 15.5

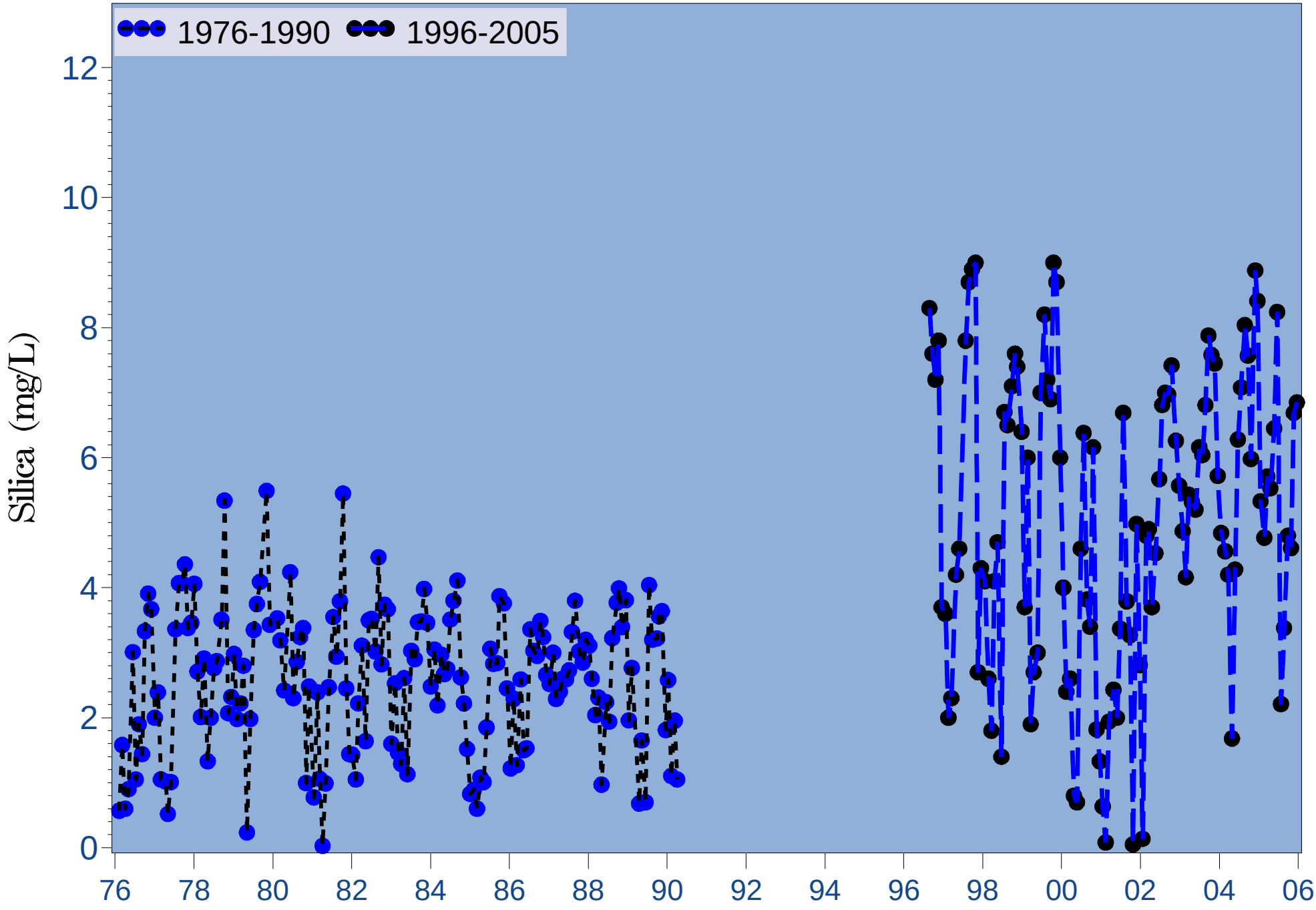


Figure 4.27d Monthly long-term bottom silica at river kilometer 23.6

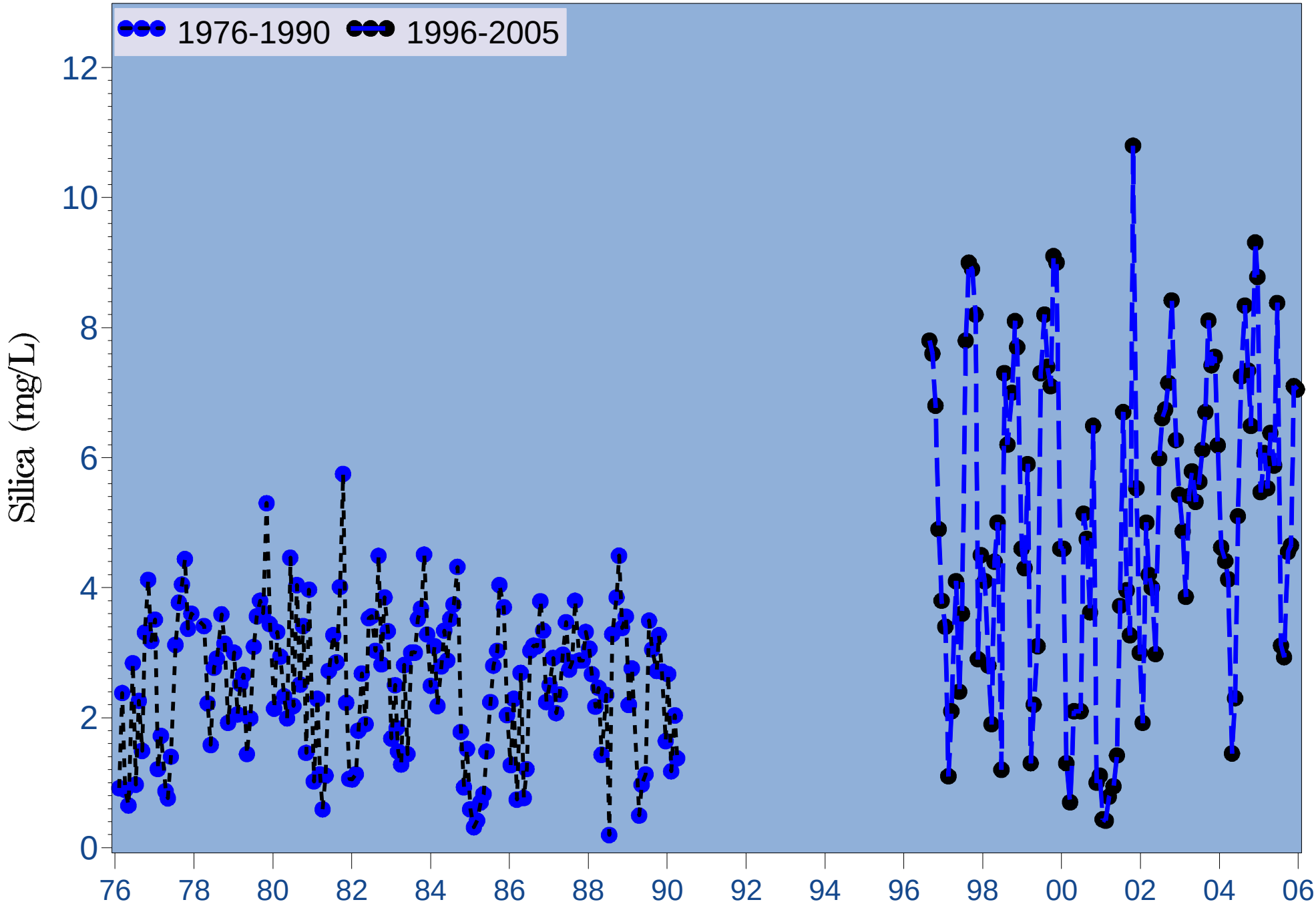


Figure 4.27e Monthly long-term bottom silica at river kilometer 30.4

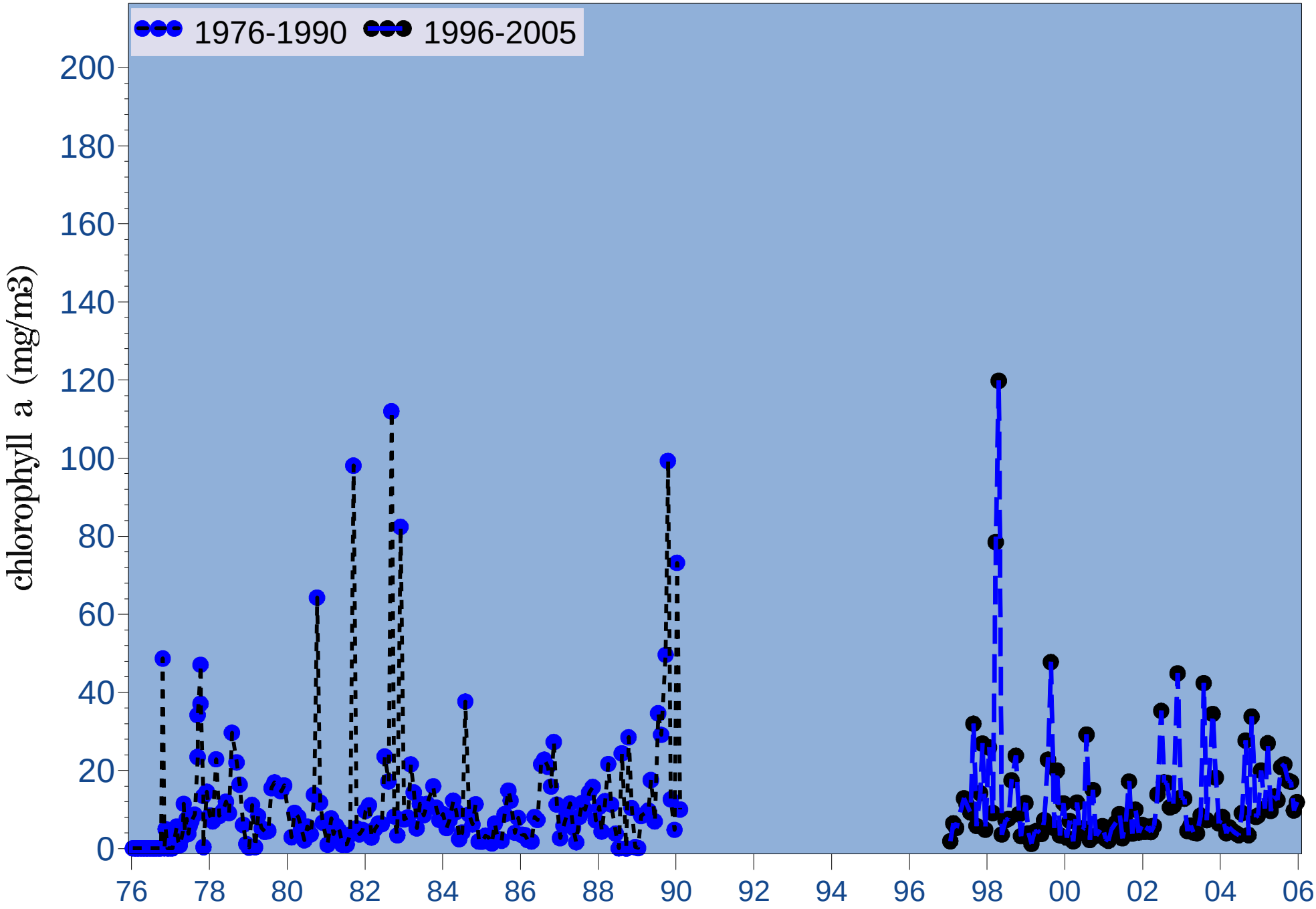


Figure 4.28a Monthly long-term surface chlorophyll a at river kilometer -2.4

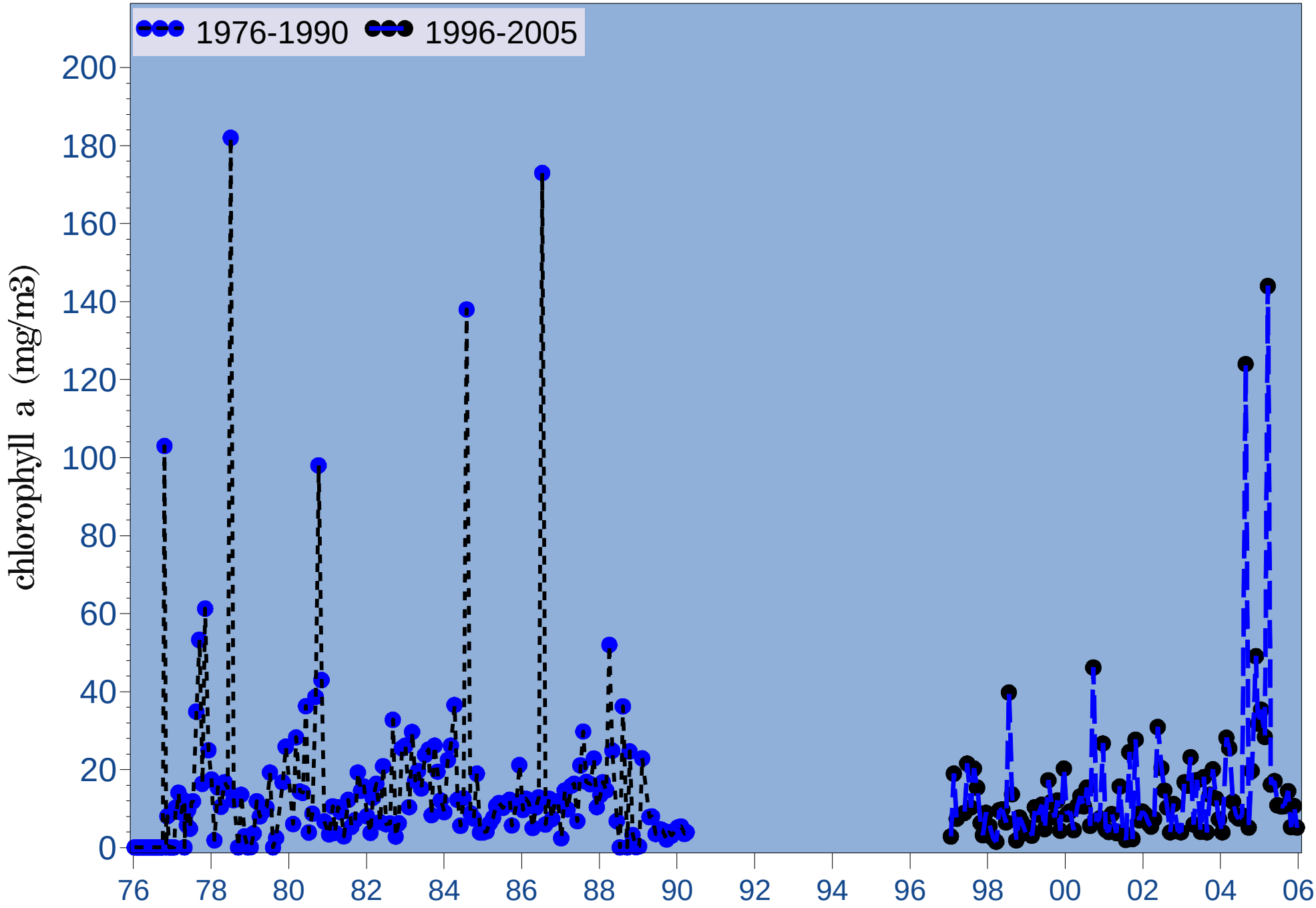


Figure 4.28b Monthly long-term surface chlorophyll a at river kilometer 6.6

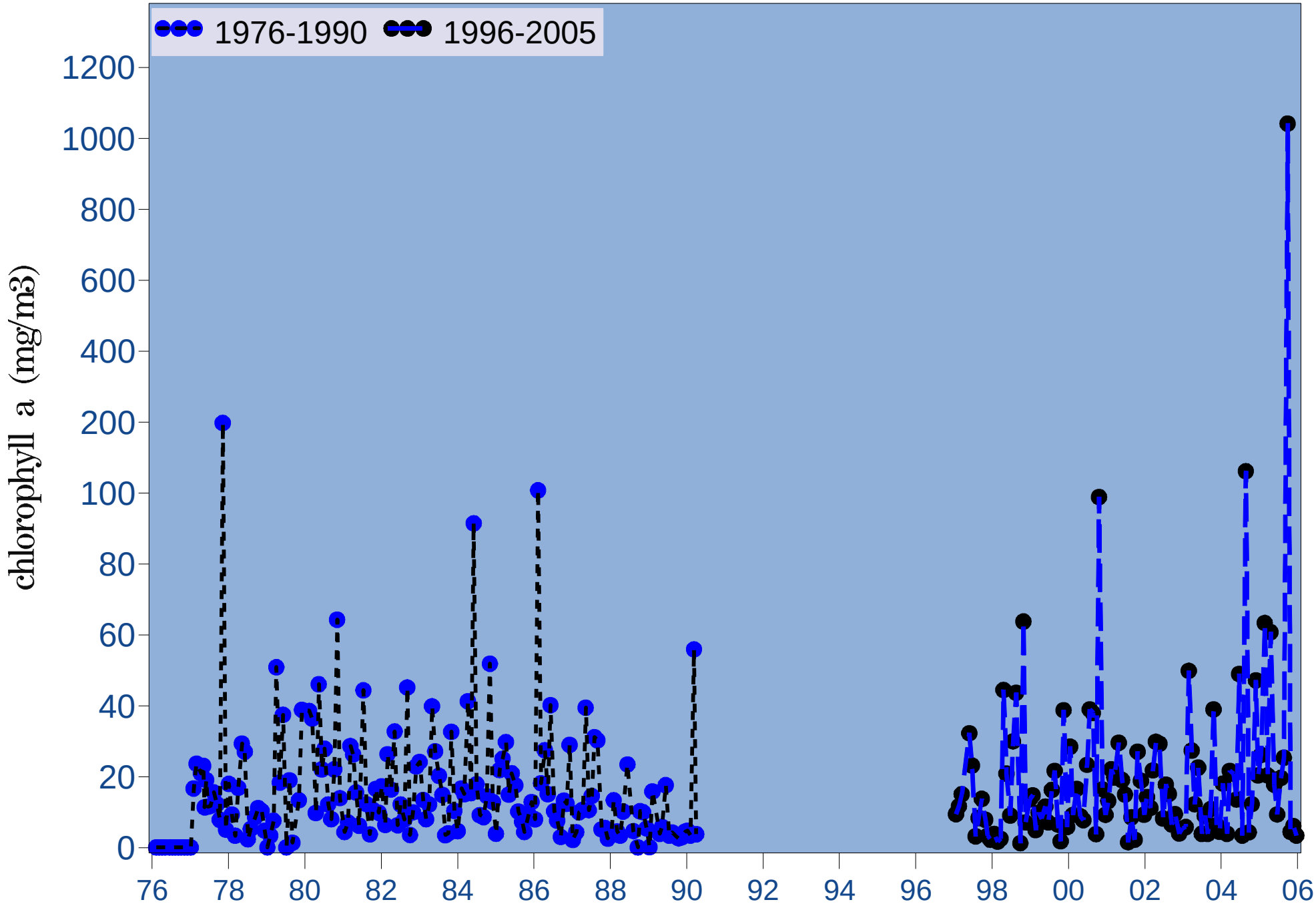


Figure 4.28c Monthly long-term surface chlorophyll a at river kilometer 15.5

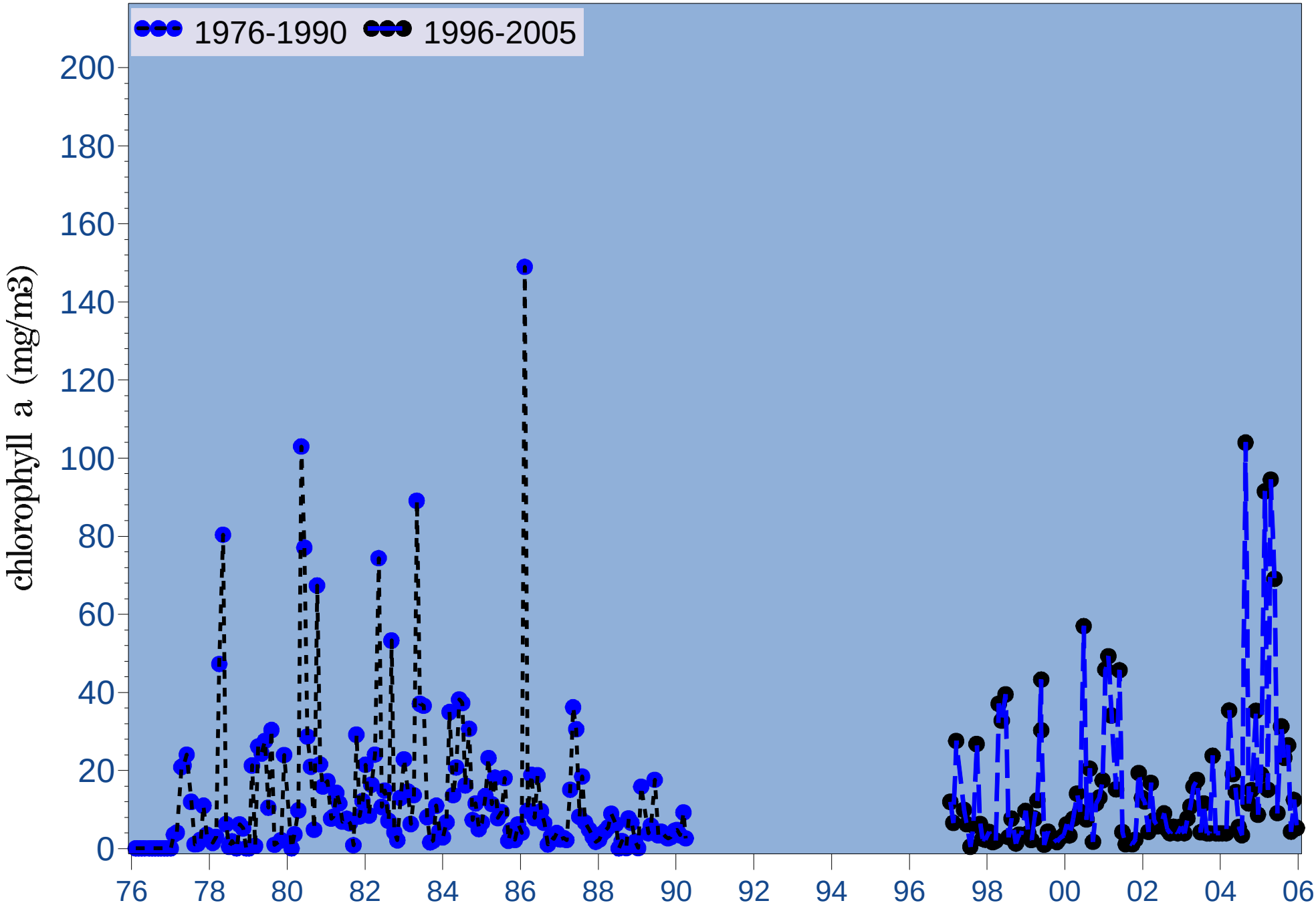


Figure 4.28d Monthly long-term surface chlorophyll a at river kilometer 23.6

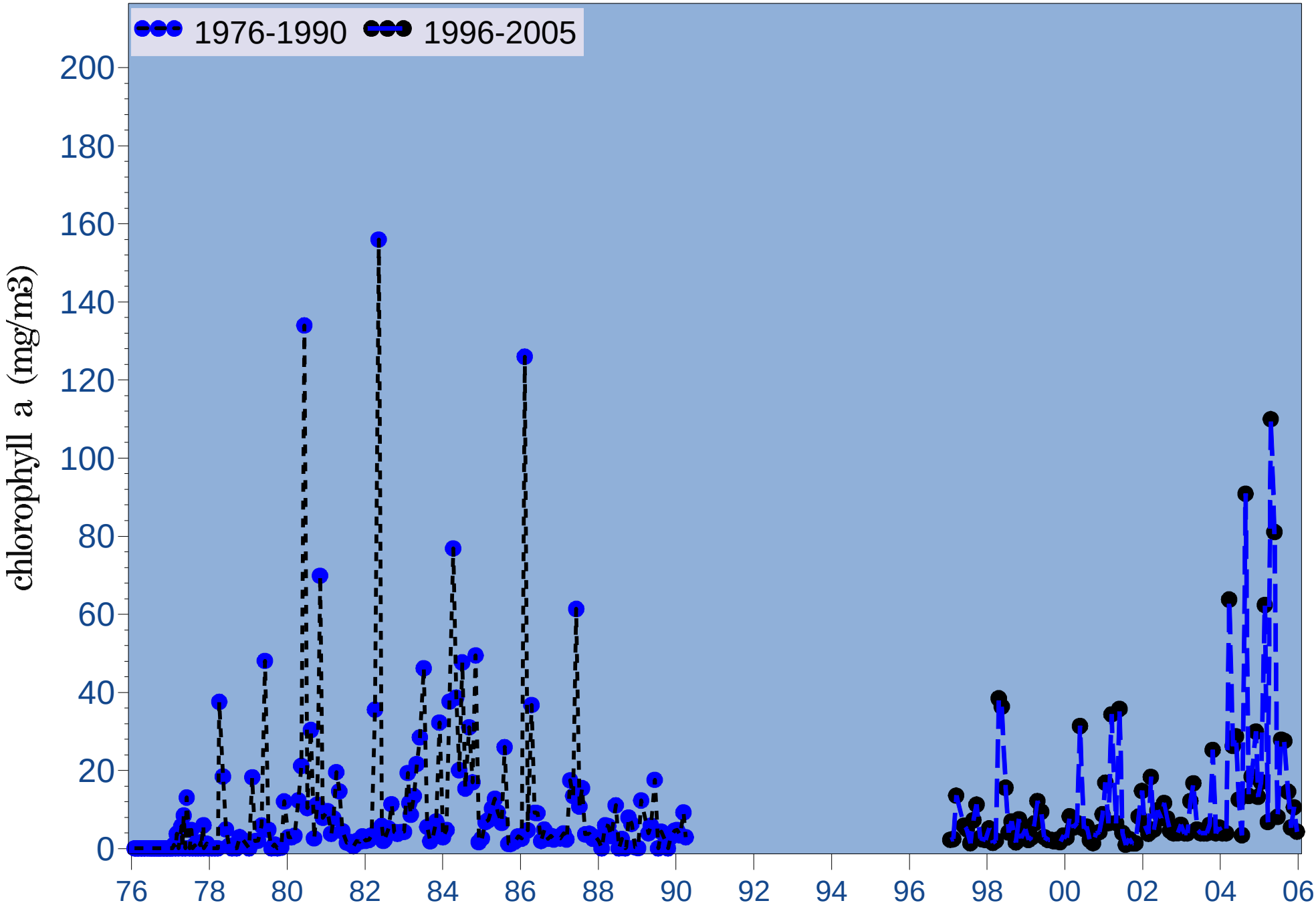


Figure 4.28e Monthly long-term surface chlorophyll a at river kilometer 30.4

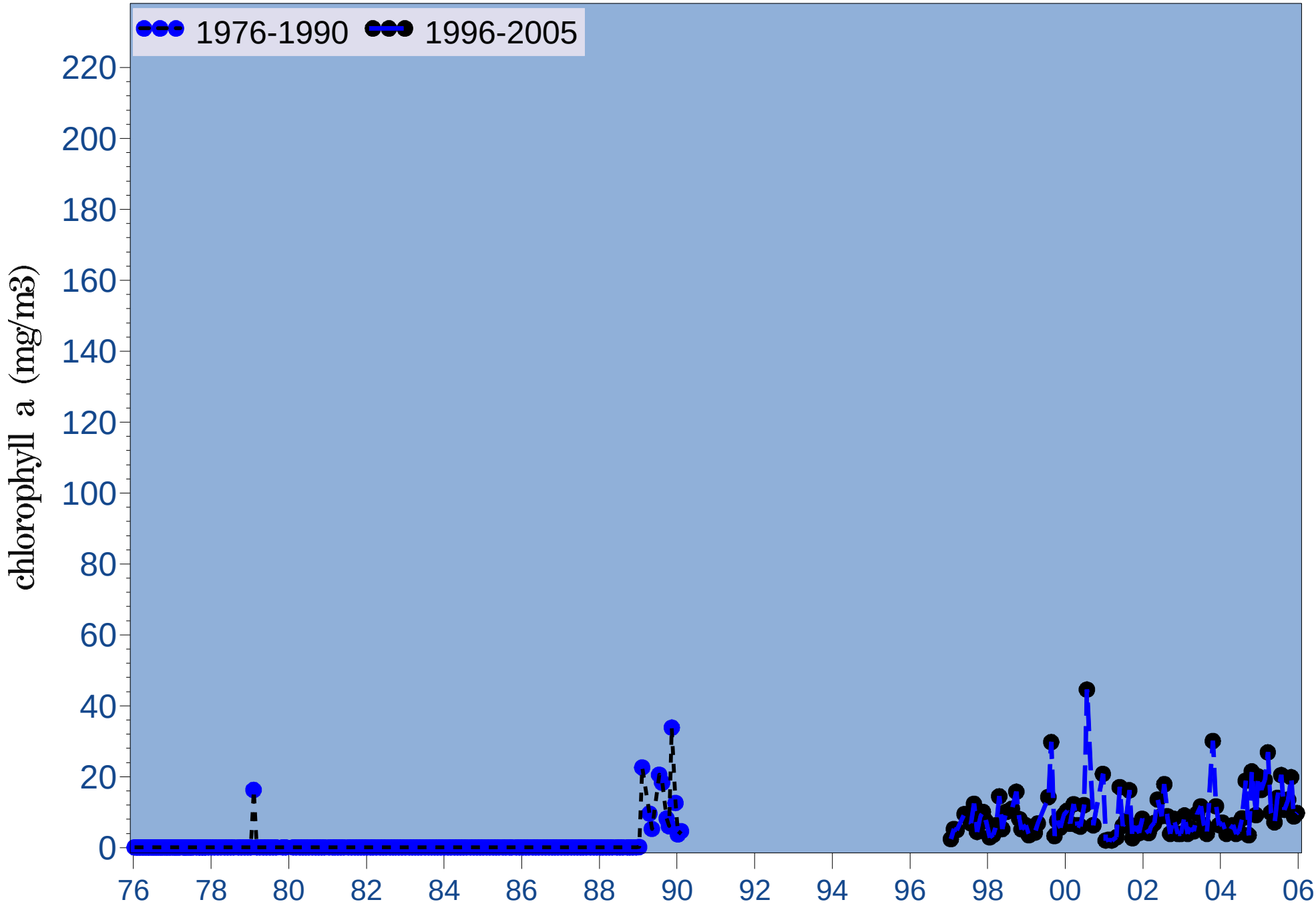


Figure 4.29a Monthly long-term bottom chlorophyll a at river kilometer -2.4

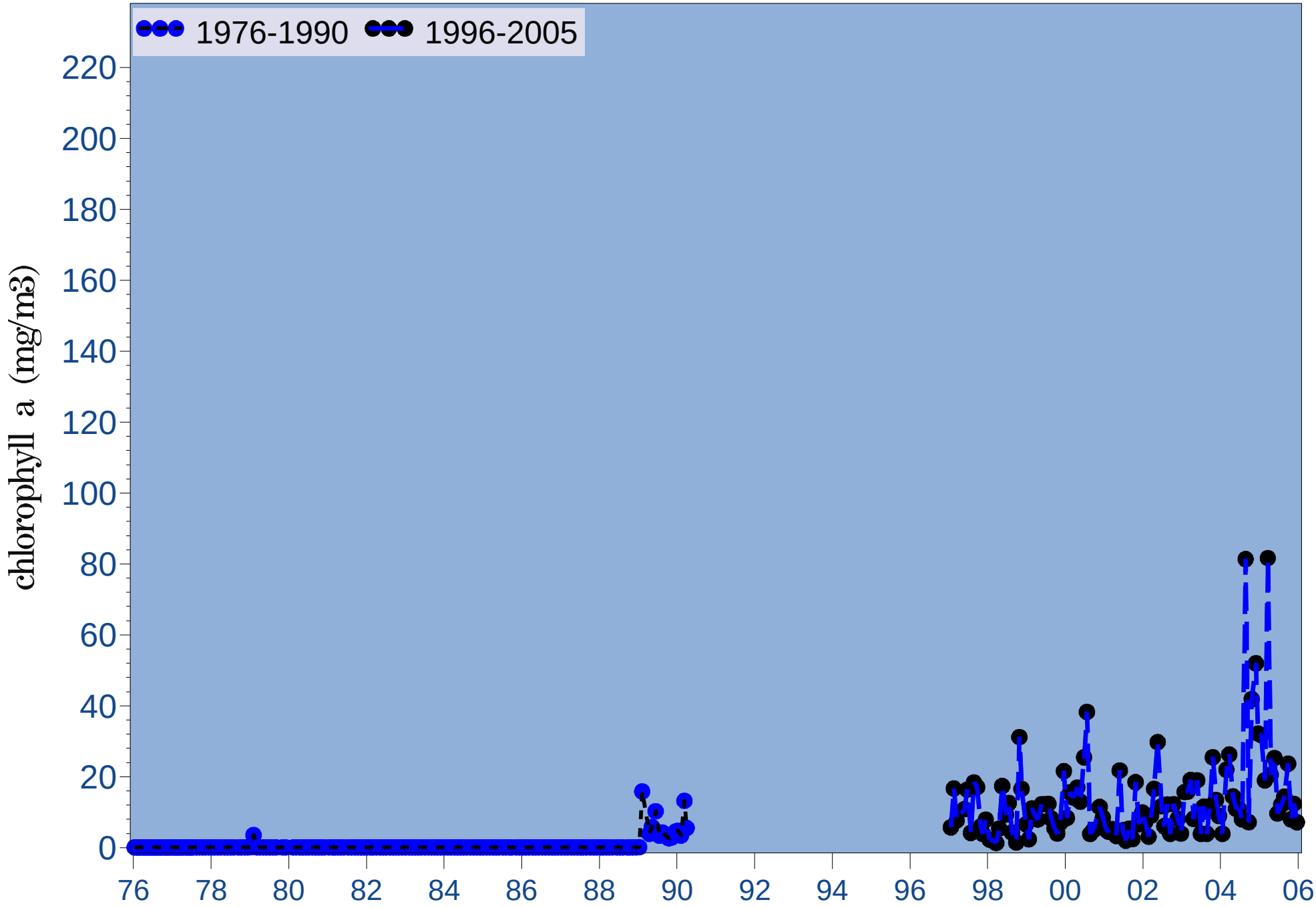


Figure 4.29b Monthly long-term bottom chlorophyll a at river kilometer 6.6

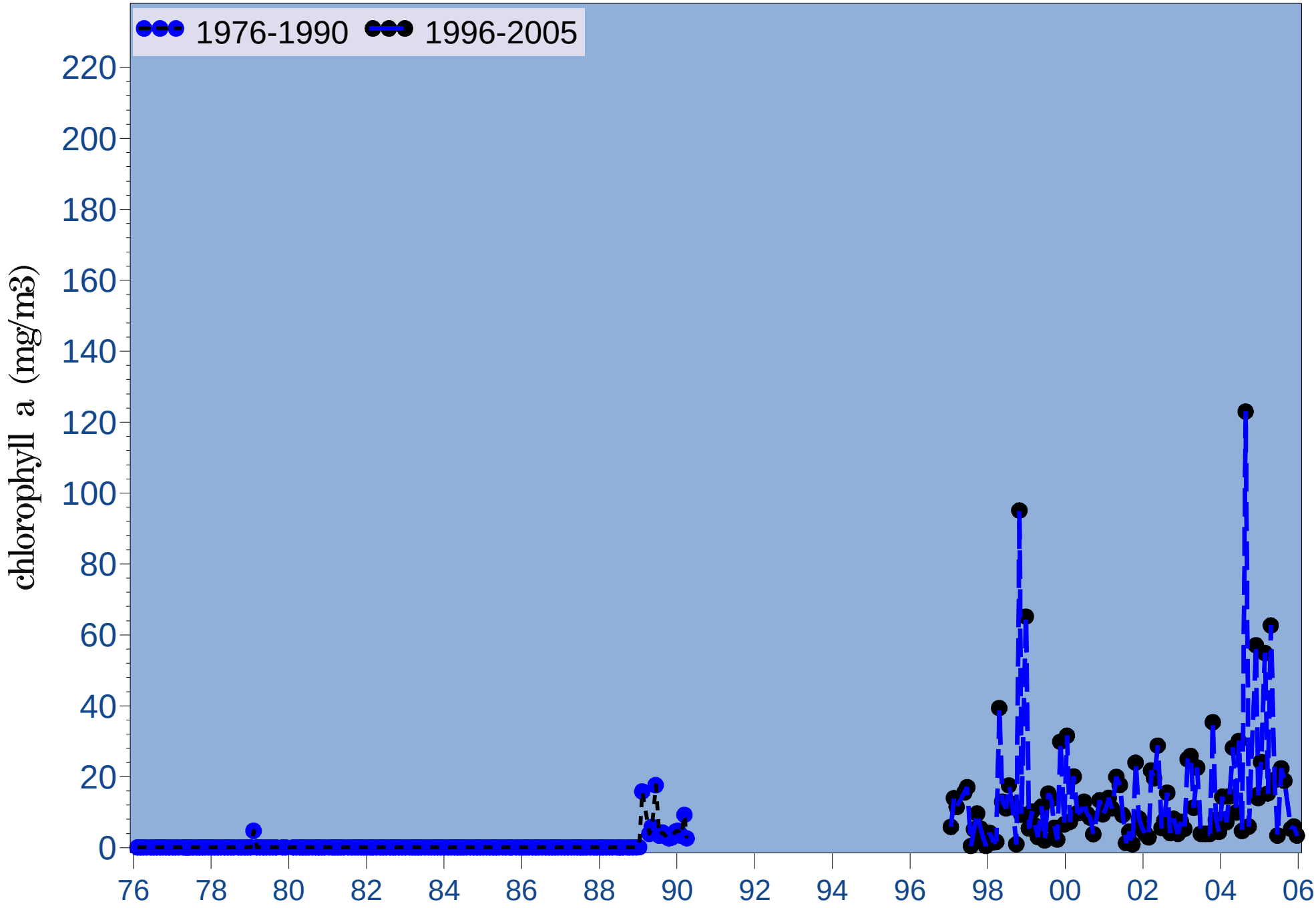


Figure 4.29c Monthly long-term bottom chlorophyll a at river kilometer 15.5

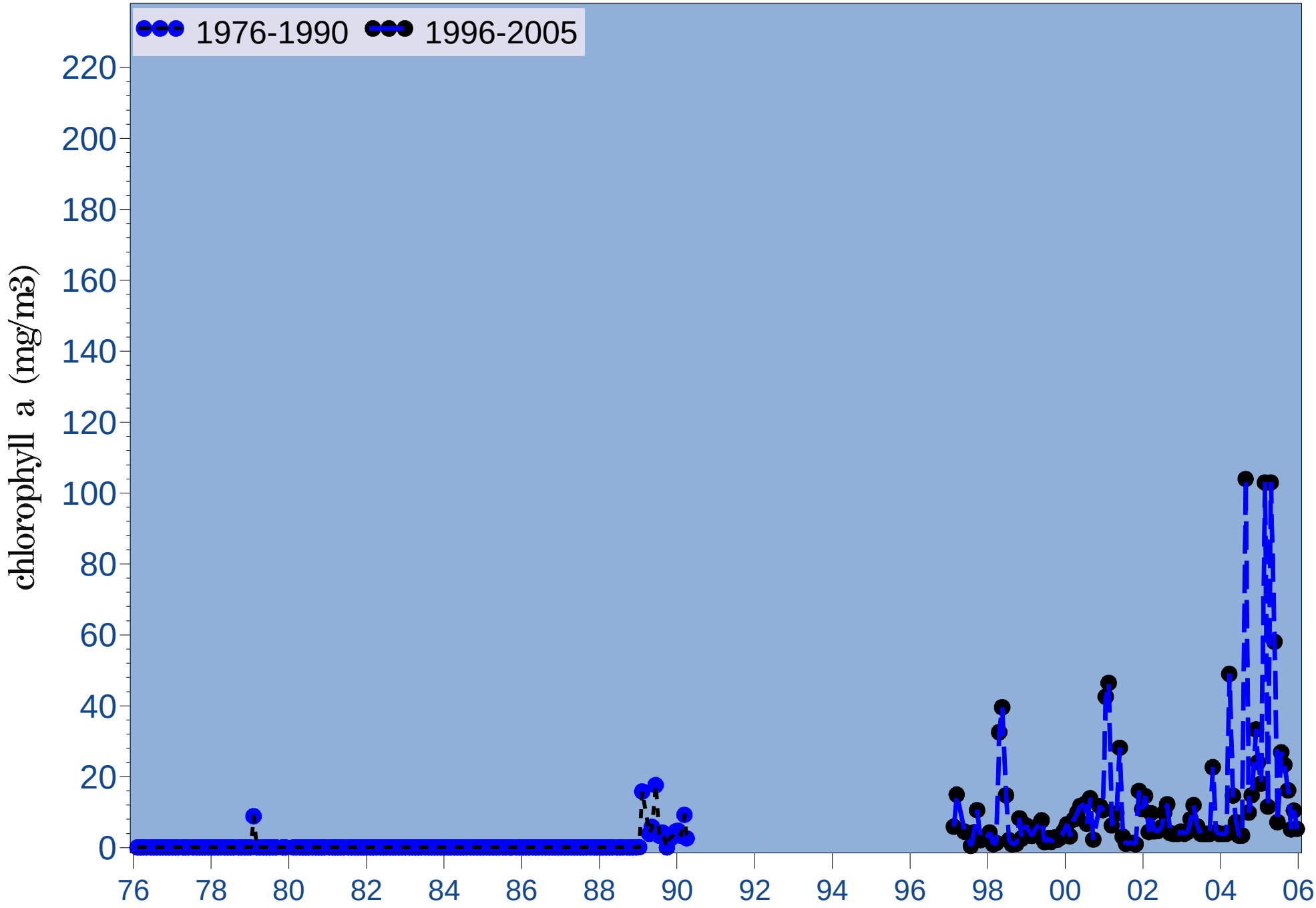


Figure 4.29d Monthly long-term bottom chlorophyll a at river kilometer 23.6

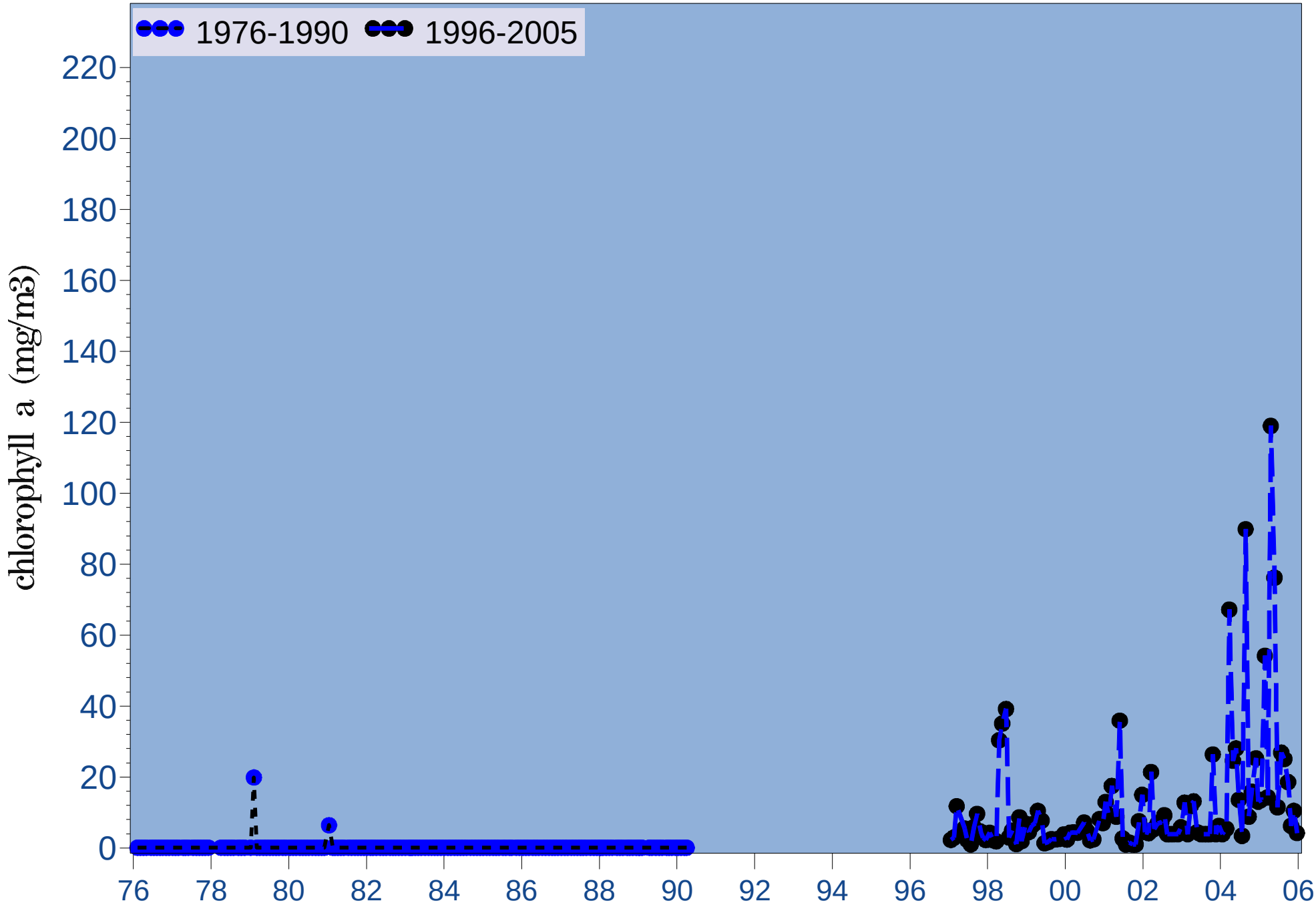


Figure 4.29e Monthly long-term bottom chlorophyll a at river kilometer 30.4

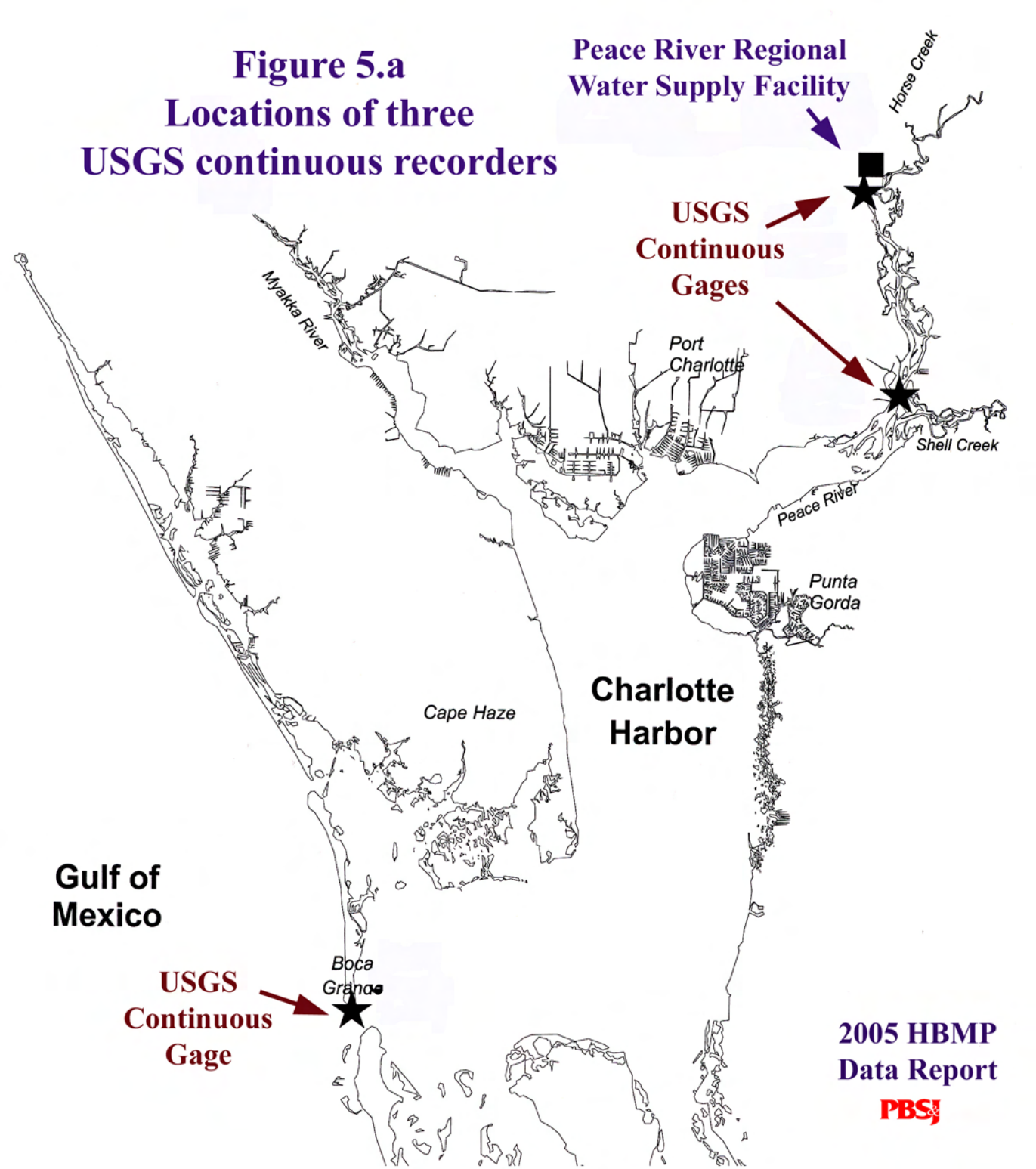


Figure 5.a
Locations of three
USGS continuous recorders
Peace River Regional
Water Supply Facility
Horse Creek
USGS
Continuous
Gages
Myakka River
Port
Charlotte
Shell Creek
Peace River
Punta
Gorda
Charlotte
Harbor
Cape Haze
Gulf of
Mexico
Boca
Grande
USGS
Continuous
Gage
2005 HBMP
Data Report
PBSJ

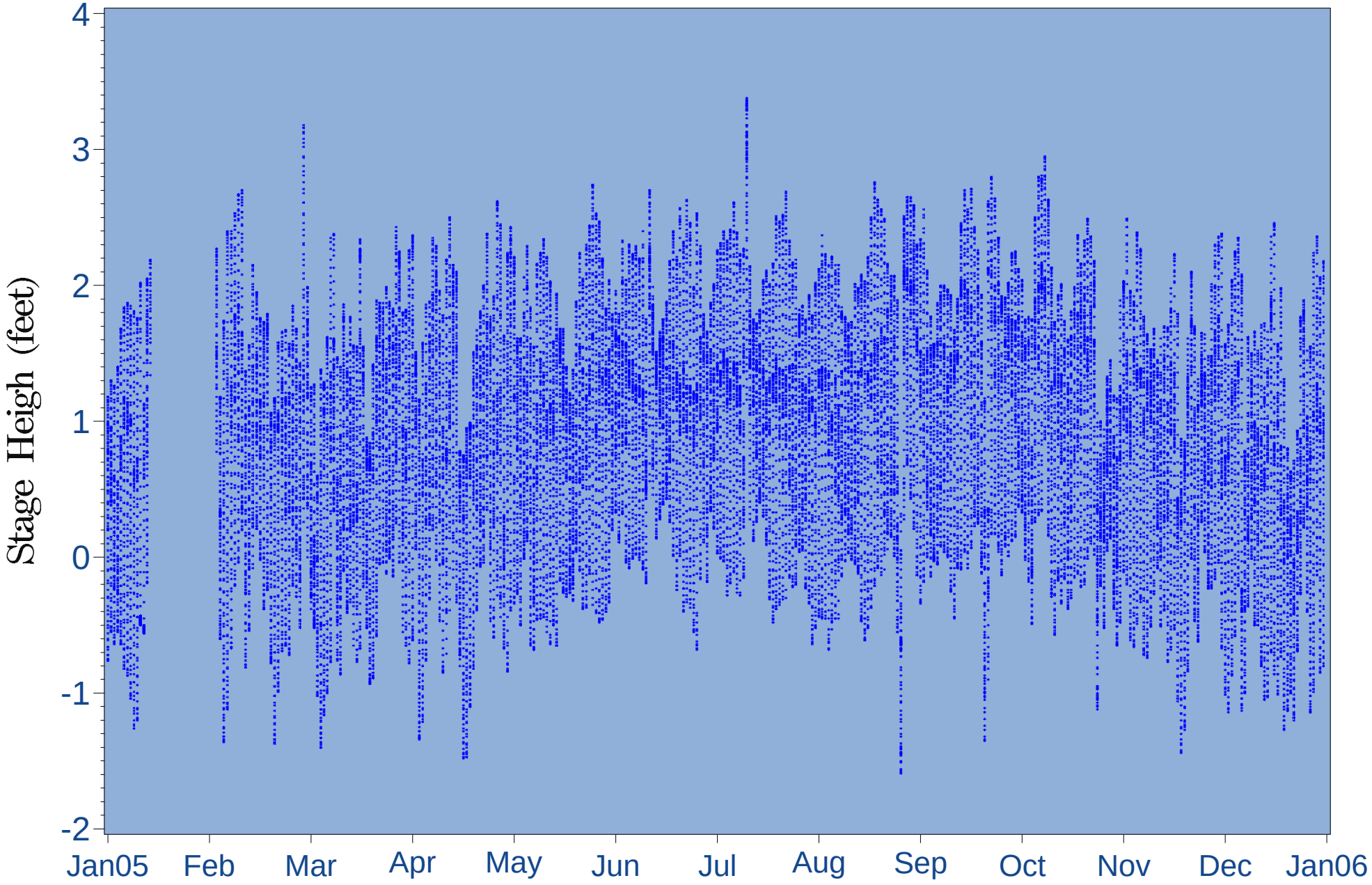


Figure 5.1 2005 Stage height (15-min intervals) for Peace River fixed station at Harbour Heights - USGS Gage 02297460 (River Kilometer=15.5)

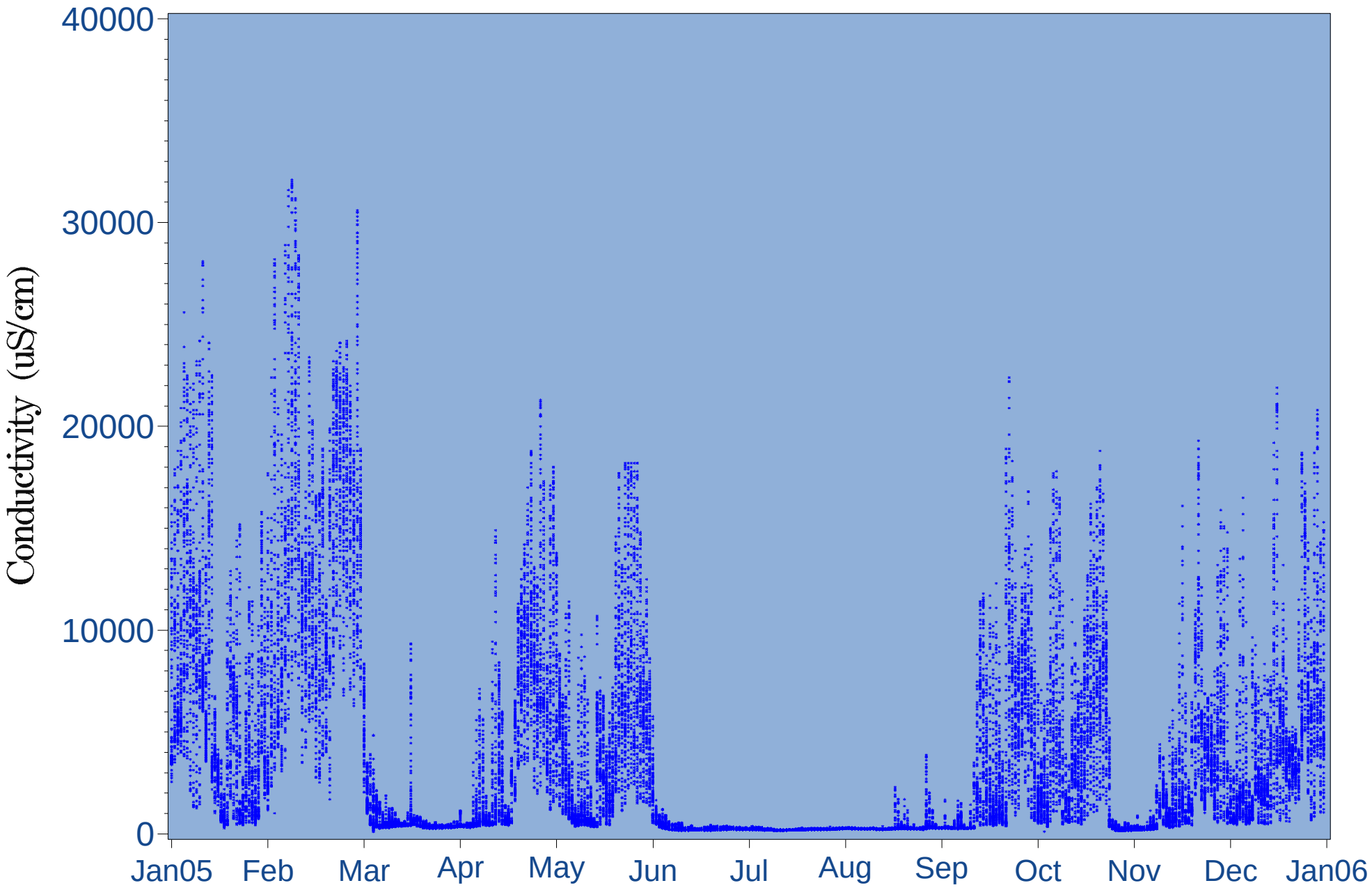


Figure 5.2 2005 Surface conductivity (15-min intervals) for Peace River fixed station at Harbour Heights - USGS Gage 02297460 (River Kilometer=15.5)

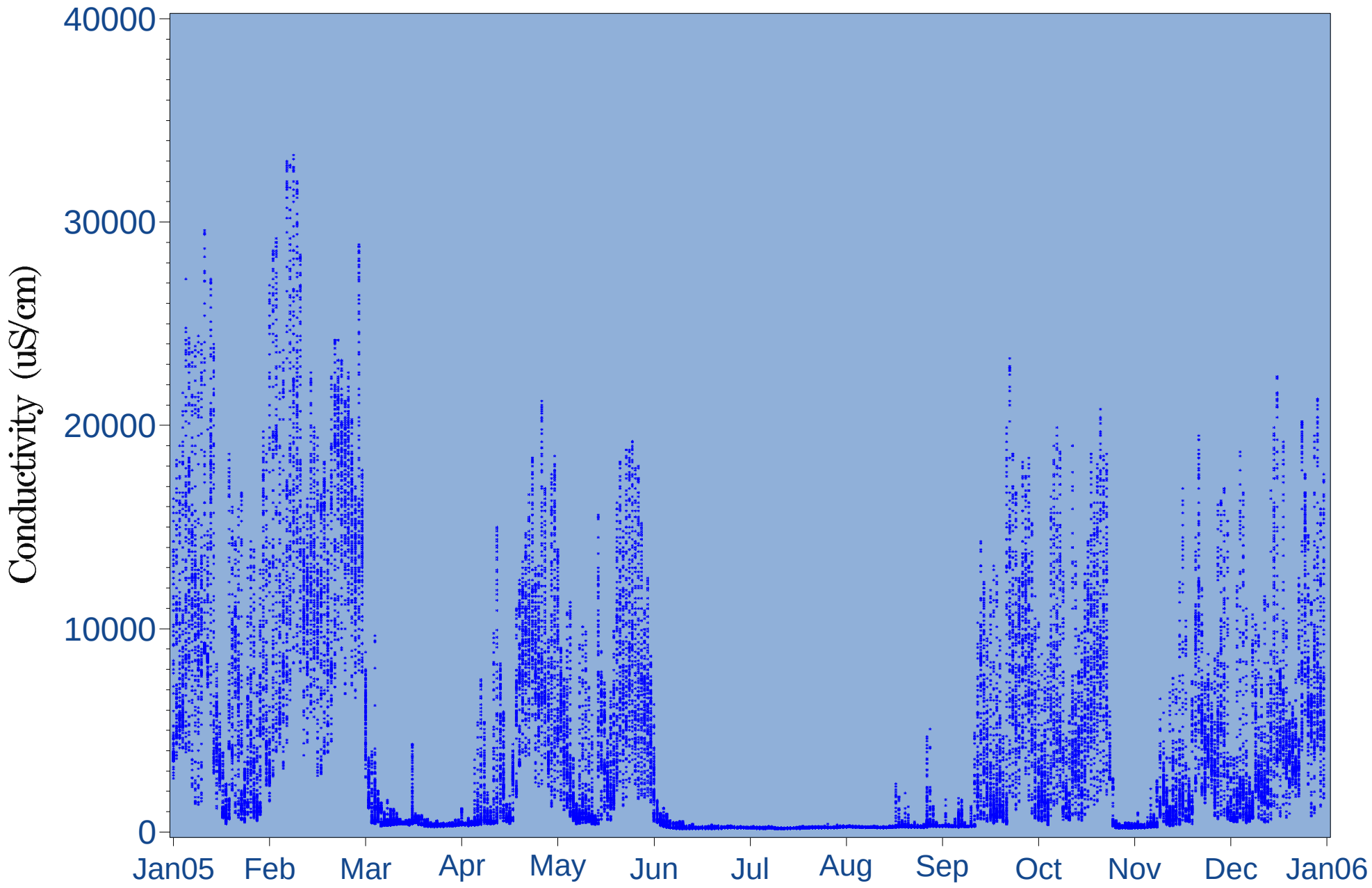


Figure 5.3 2005 Bottom conductivity (15-min intervals) for Peace River fixed station at Harbour Heights - USGS Gage 02297460 (River Kilometer=15.5)

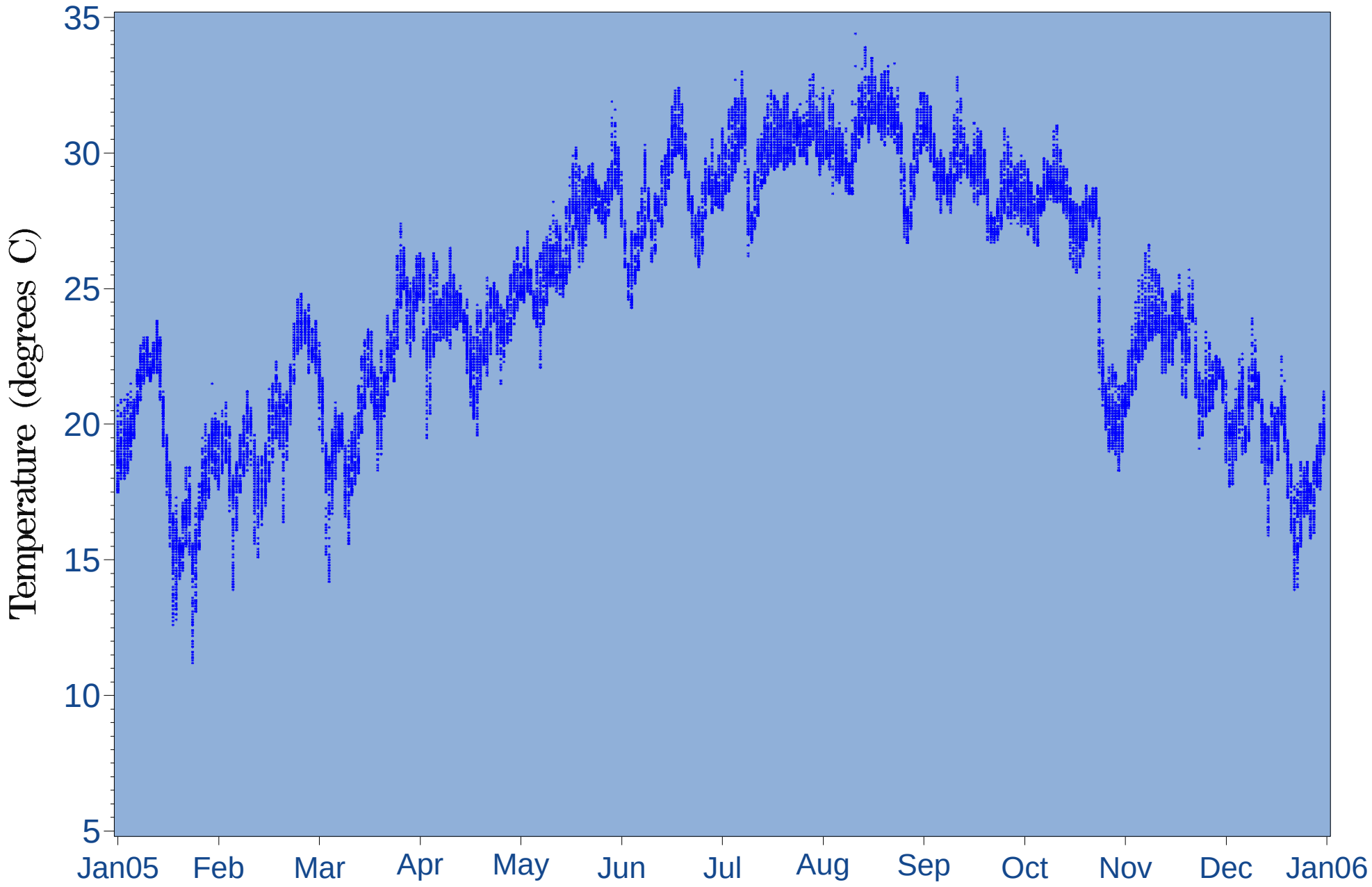


Figure 5.4 2005 Surface temperature (15-min intervals) for Peace River fixed station at Harbour Heights - USGS Gage 02297460 (River Kilometer=15.5)

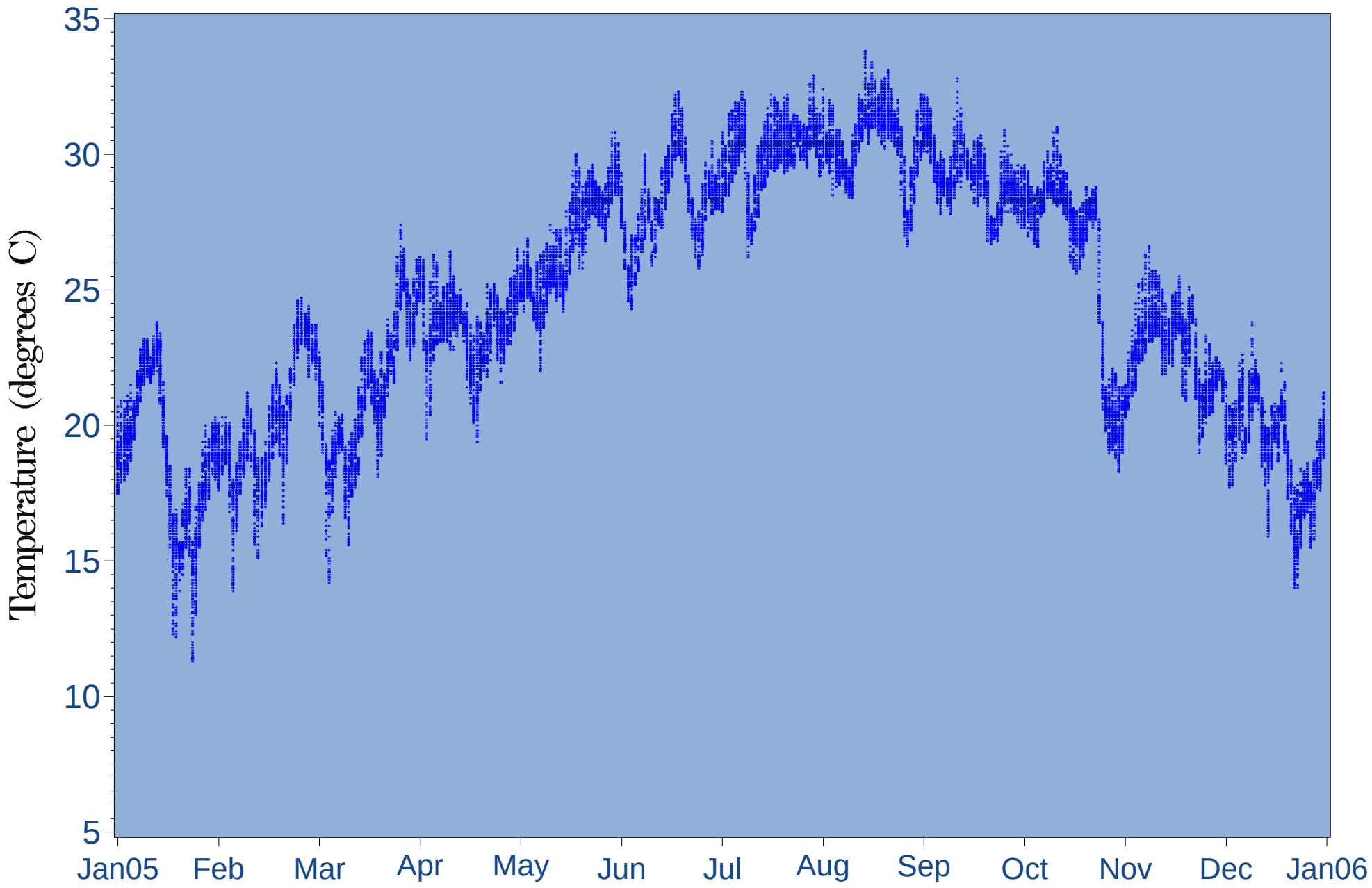


Figure 5.5 2005 Bottom temperature (15-min intervals) for Peace River fixed station at Harbour Heights - USGS Gage 02297460 (River Kilometer=15.5)

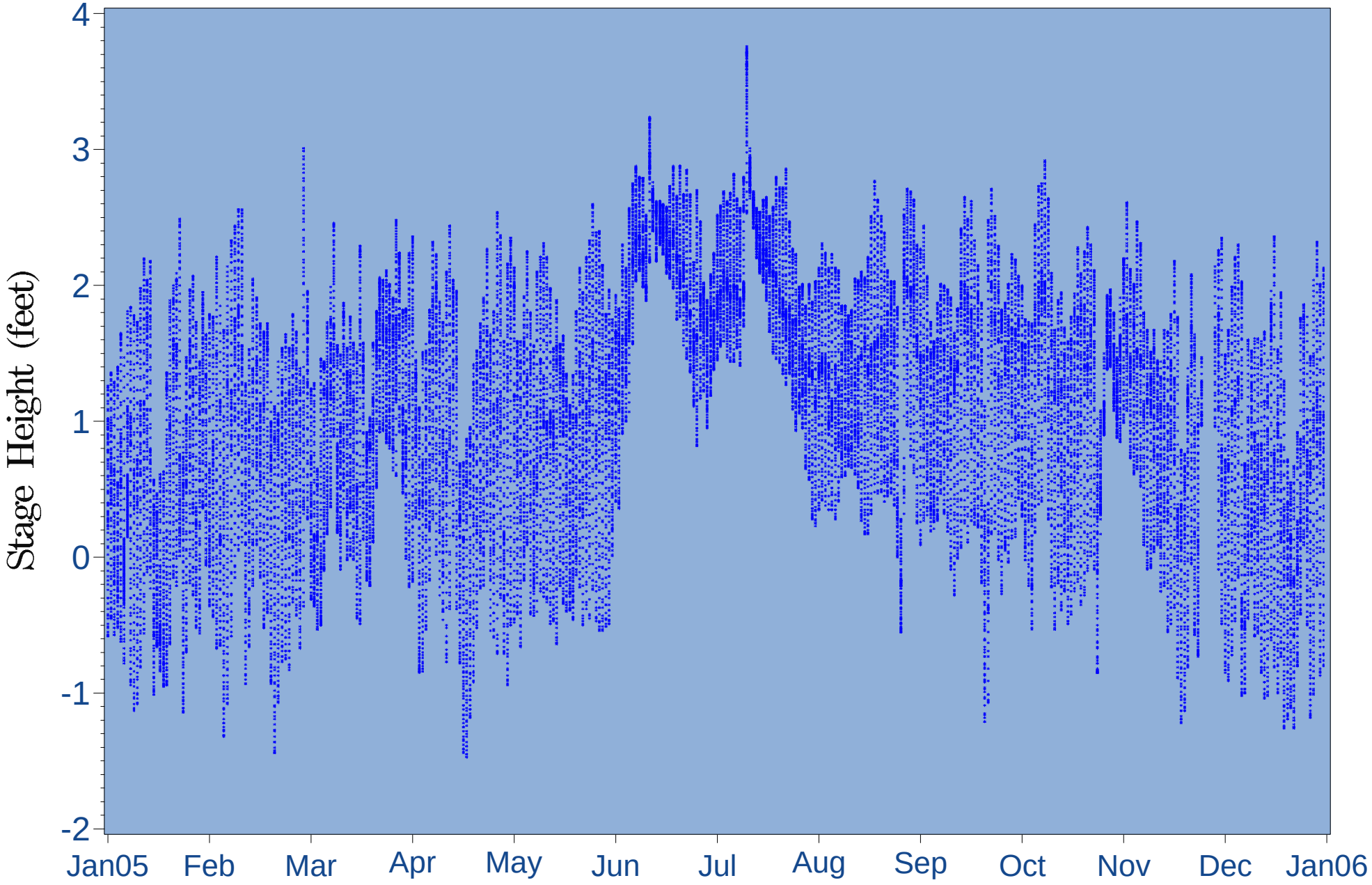


Figure 5.6 2005 Stage height (15-min intervals) for Peace River fixed station at Peace River Heights - USGS gage 02297350 (River Kilometer=26.7)

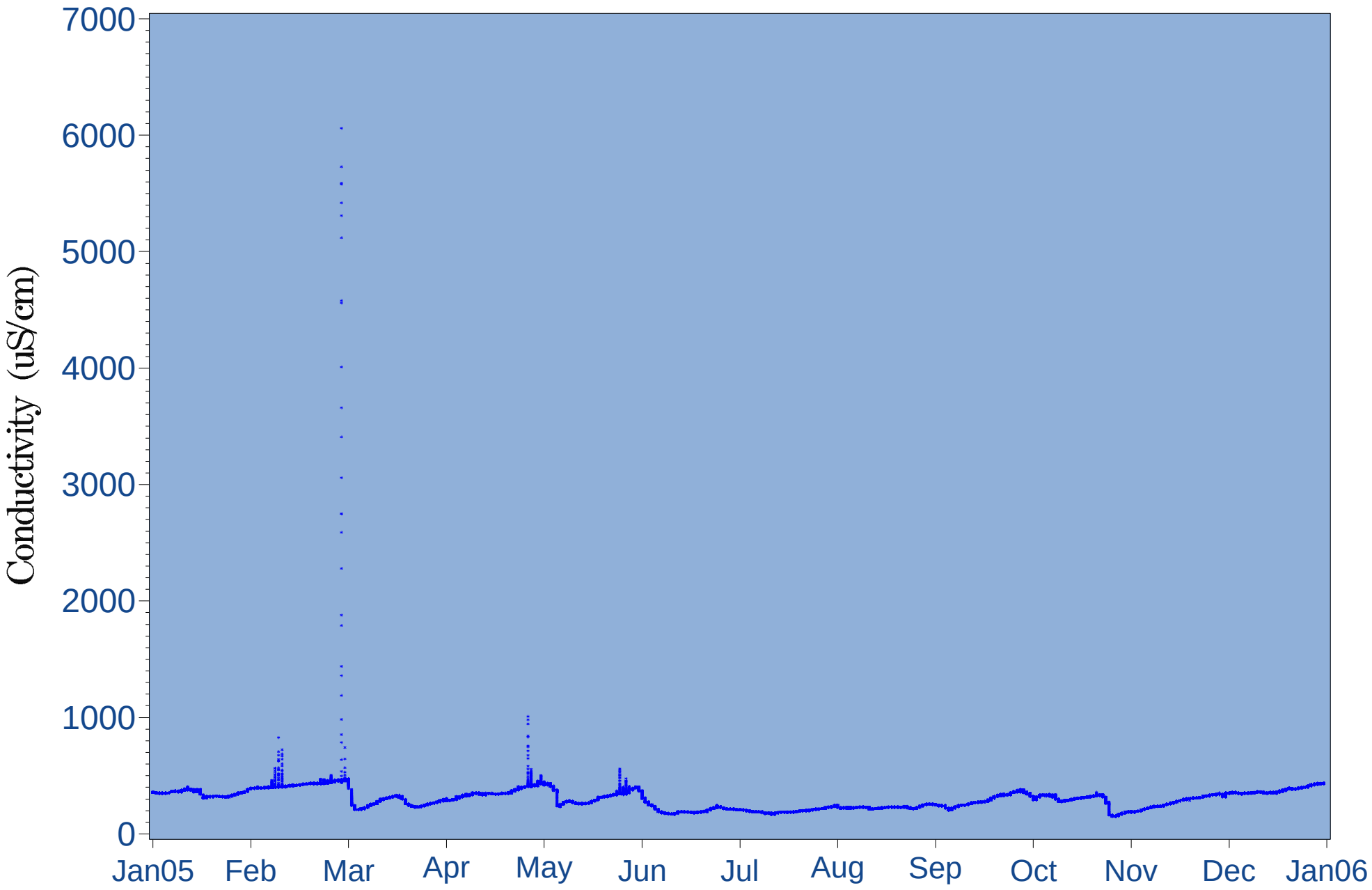


Figure 5.7 2005 Surface conductivity (15-min intervals) for Peace River fixed station at Peace River Heights - USGS gage 02297350 (River Kilometer=26.7)

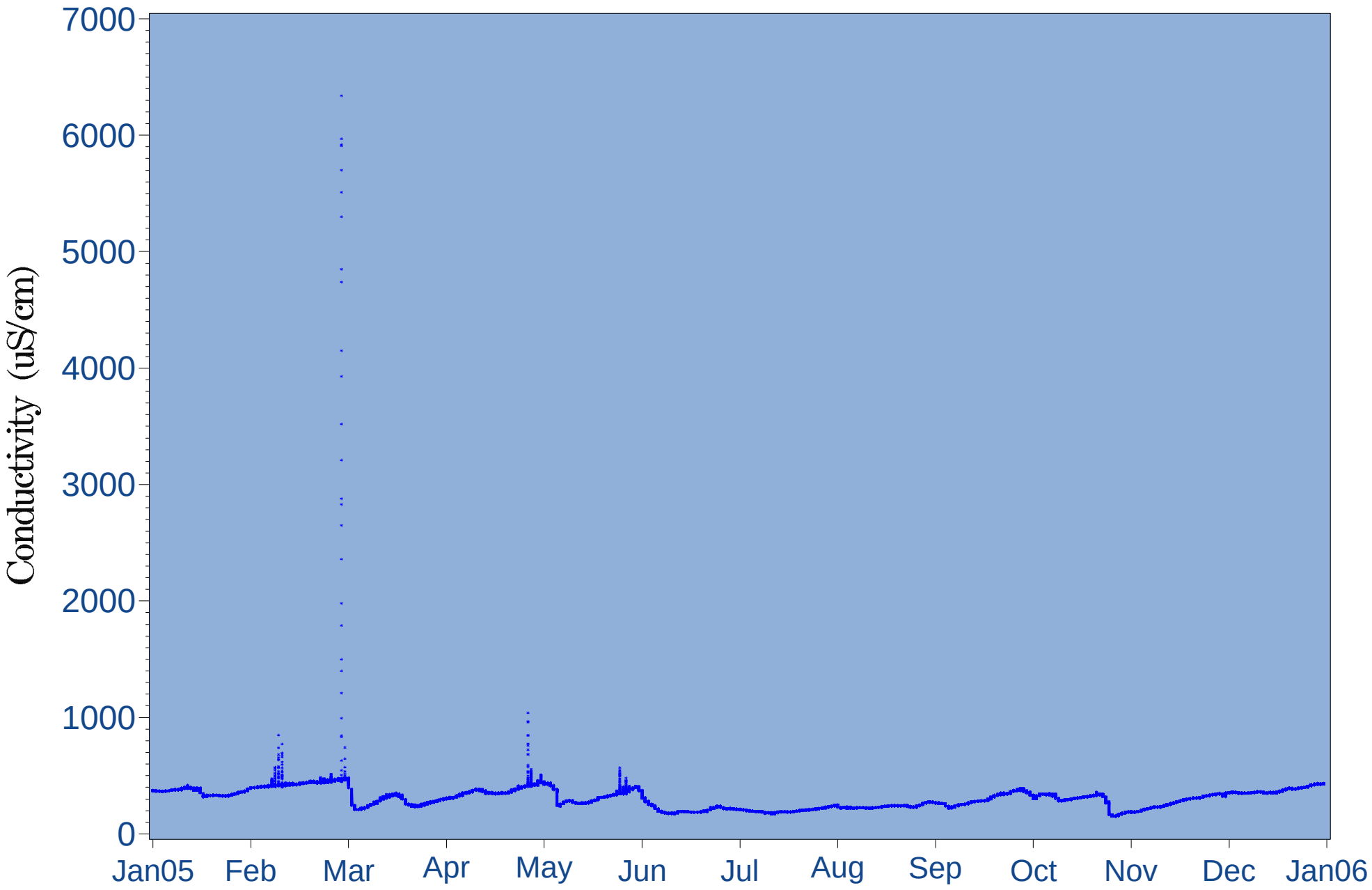


Figure 5.8 2005 Bottom conductivity (15-min intervals) for Peace River fixed station at Peace River Heights - USGS gage 02297350 (River Kilometer=26.7)

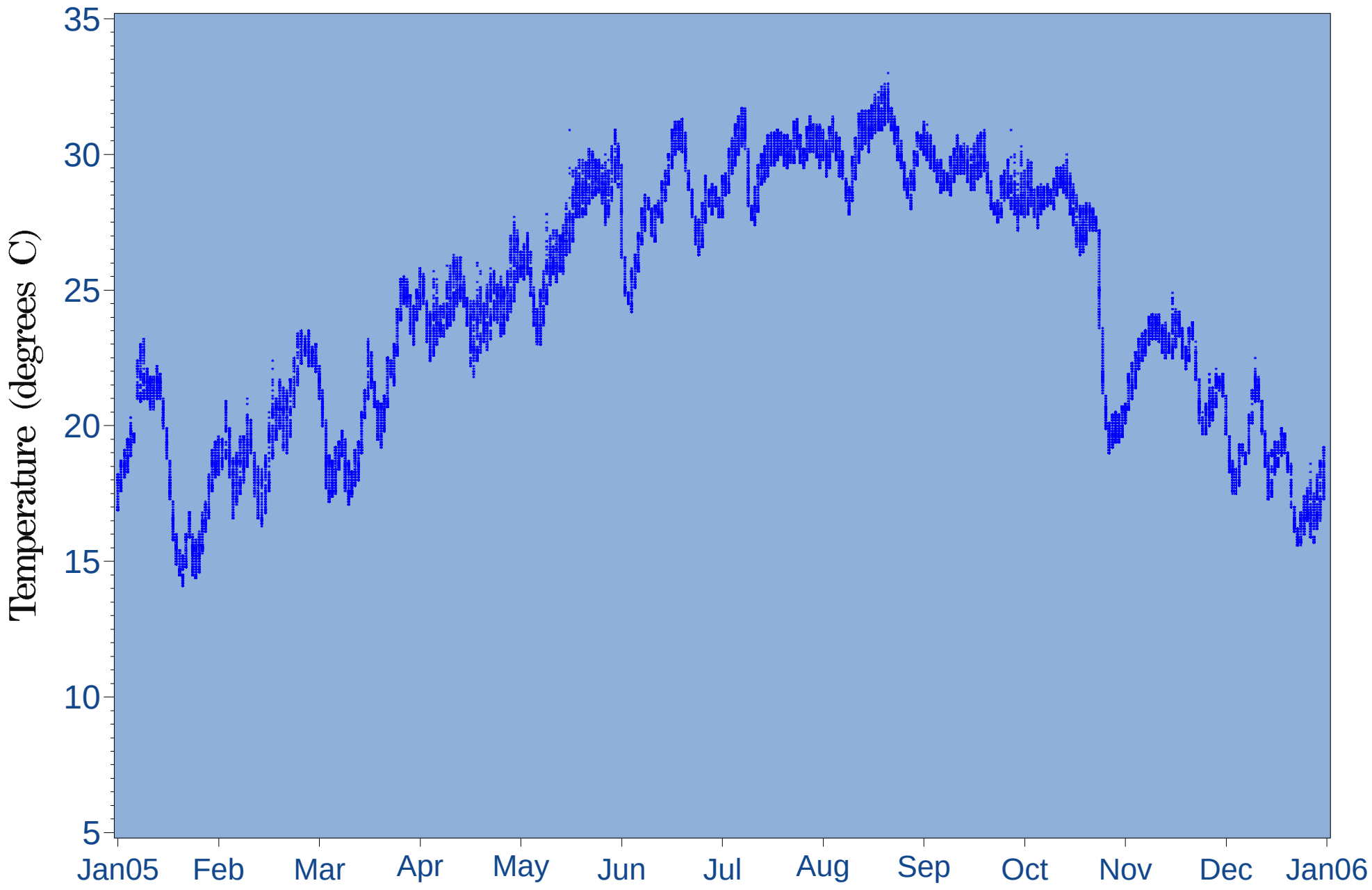


Figure 5.9 2005 Surface temperature (15-min intervals) for Peace River fixed station at Peace River Heights - USGS gage 02297350 (River Kilometer=26.7)

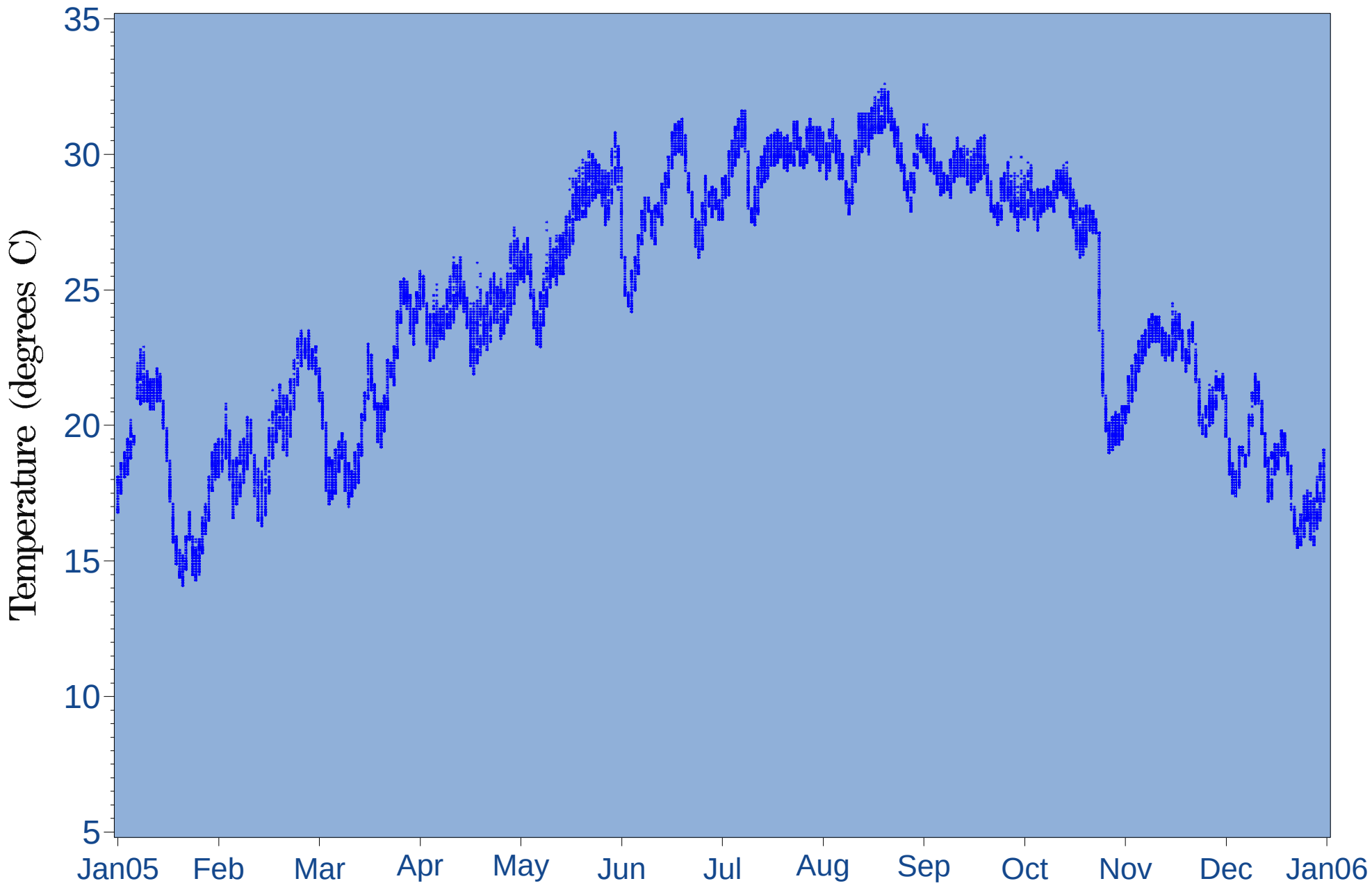


Figure 5.10 2005 Bottom temperature (15-min intervals) for Peace River fixed station at Peace River Heights - USGS gage 02297350 (River Kilometer=26.7)

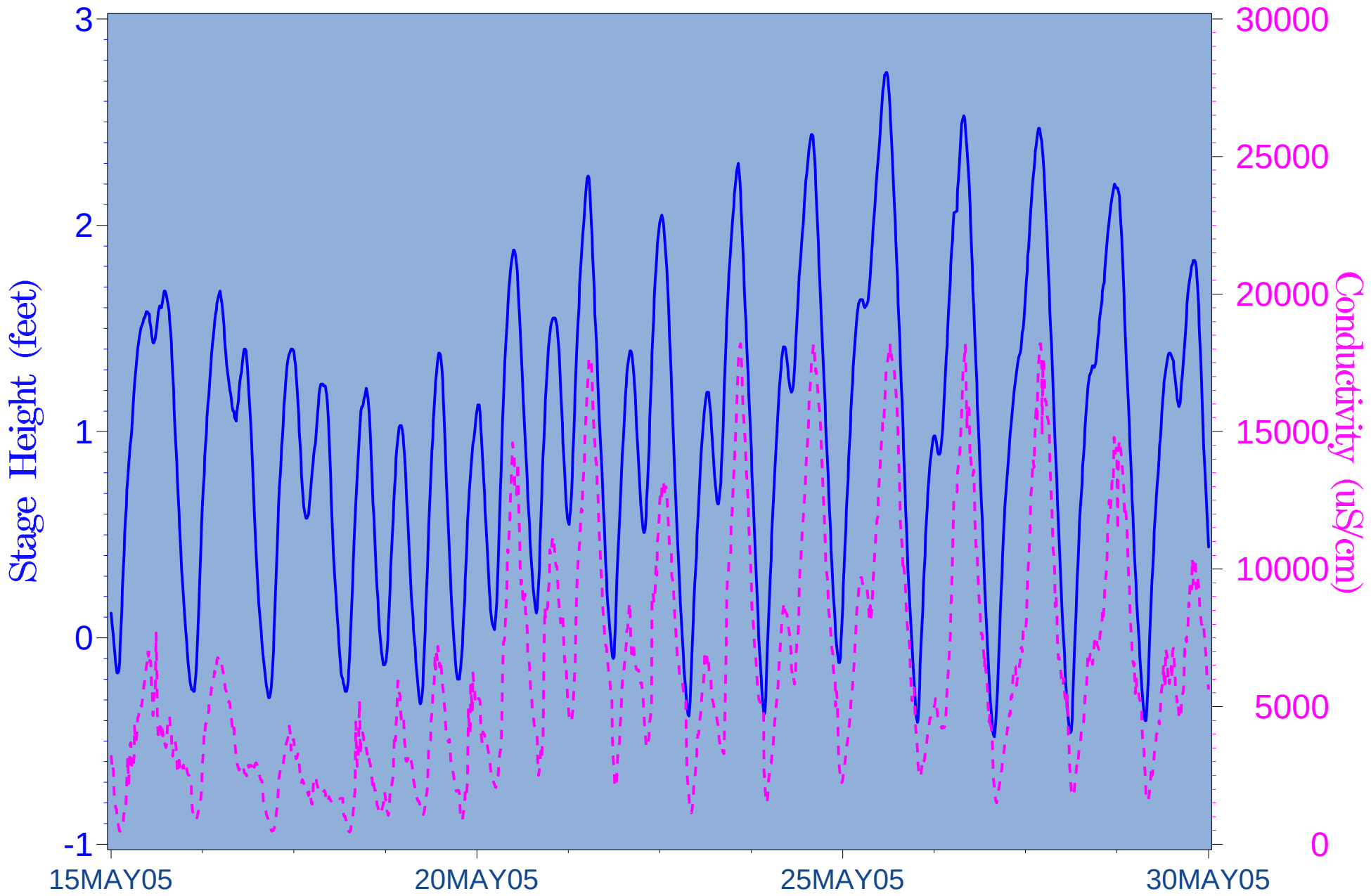


Figure 5.11 Surface conductivity and stage height in May at Harbour Heights - USGS Gage 02297460 (River Kilometer 15.5)

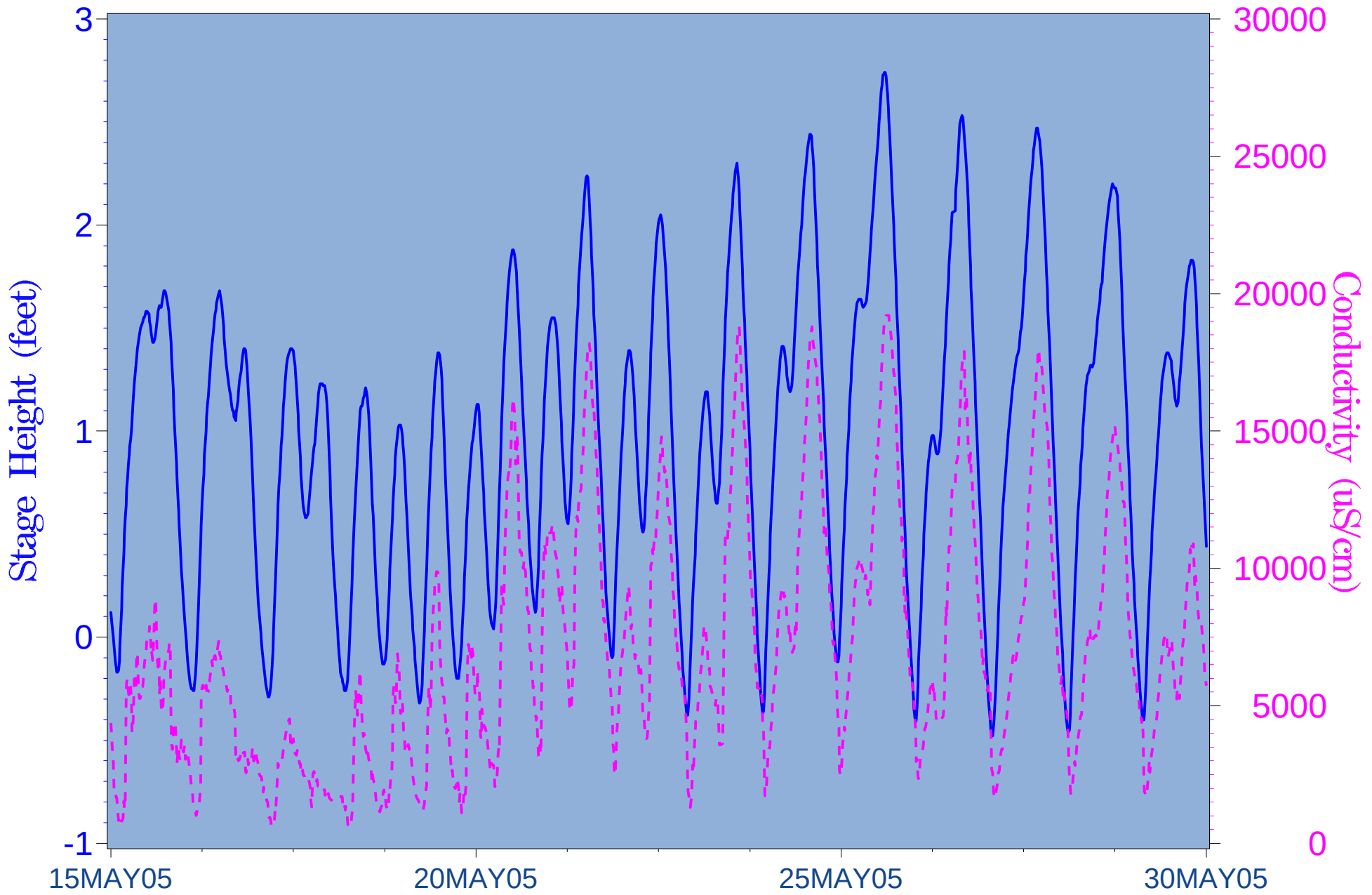


Figure 5.12 Bottom conductivity and stage height in May at Harbour Heights - USGS Gage 02297460 (River Kilometer 15.5)

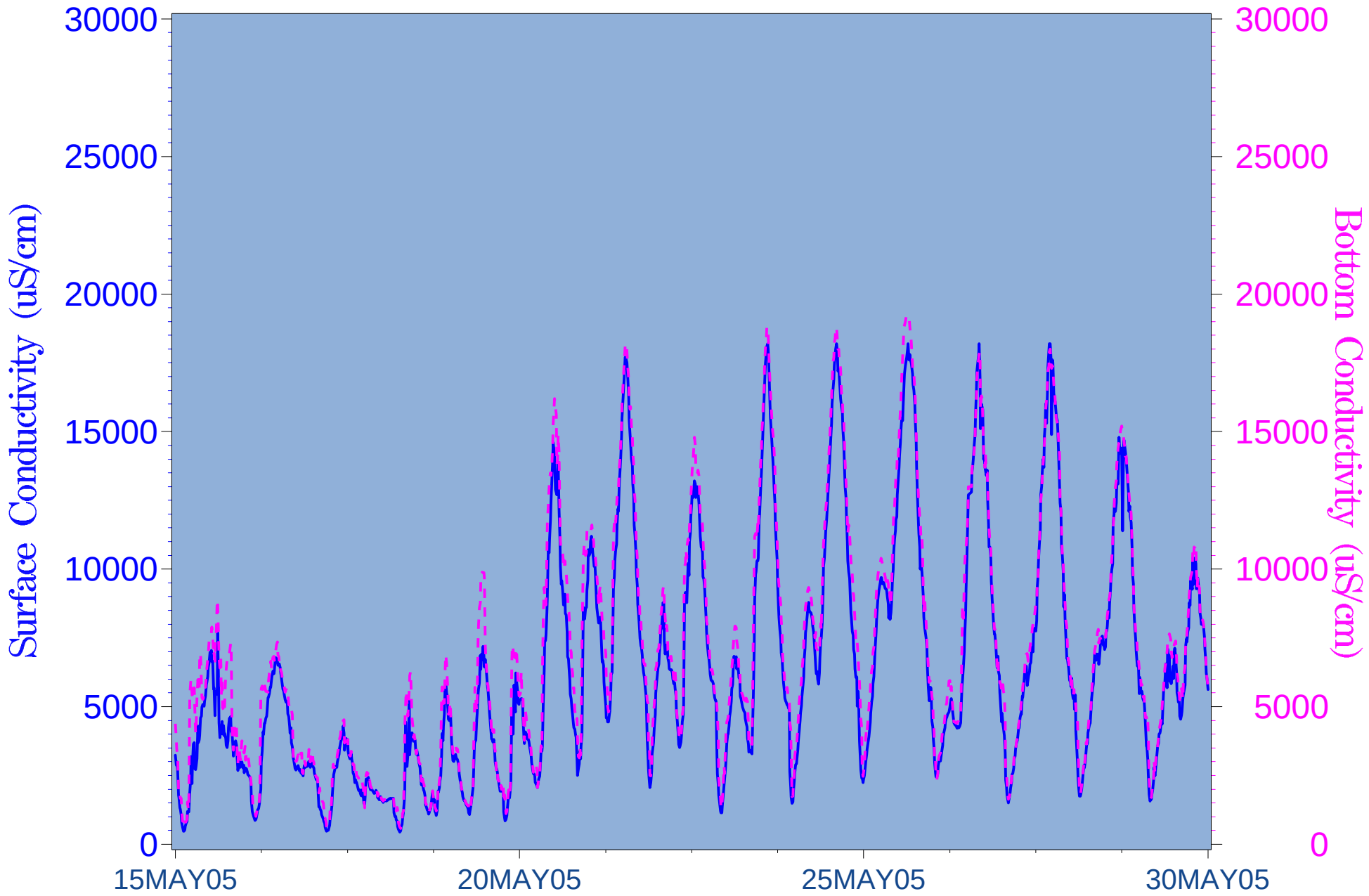


Figure 5.13 Surface & bottom conductivity in May at Harbour Heights - USGS Gage 02297460 (River Kilometer 15.5)

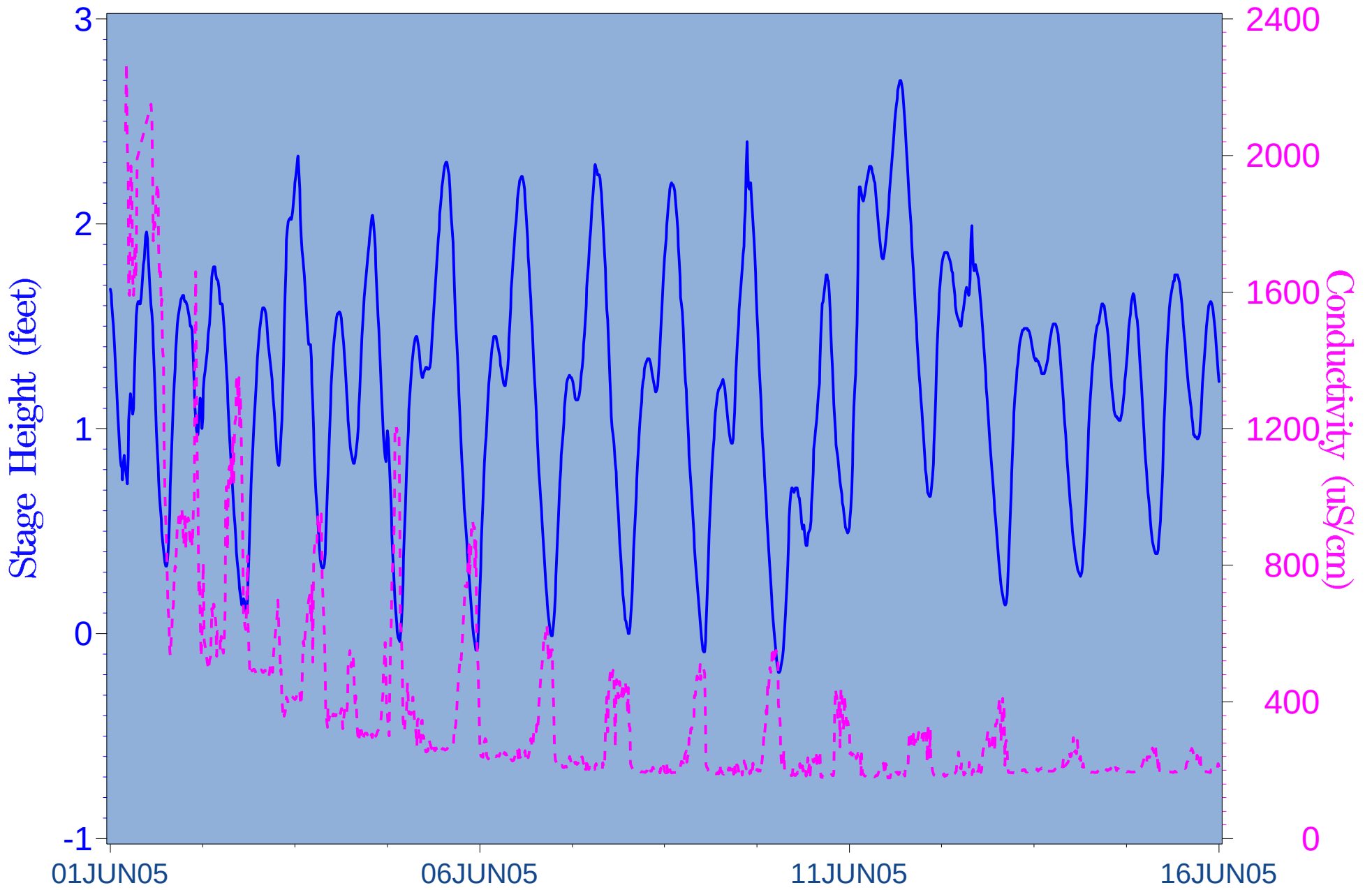


Figure 5.14 Surface conductivity and stage height in June at Harbour Heights - USGS Gage 02297460 (River Kilometer 15.5)

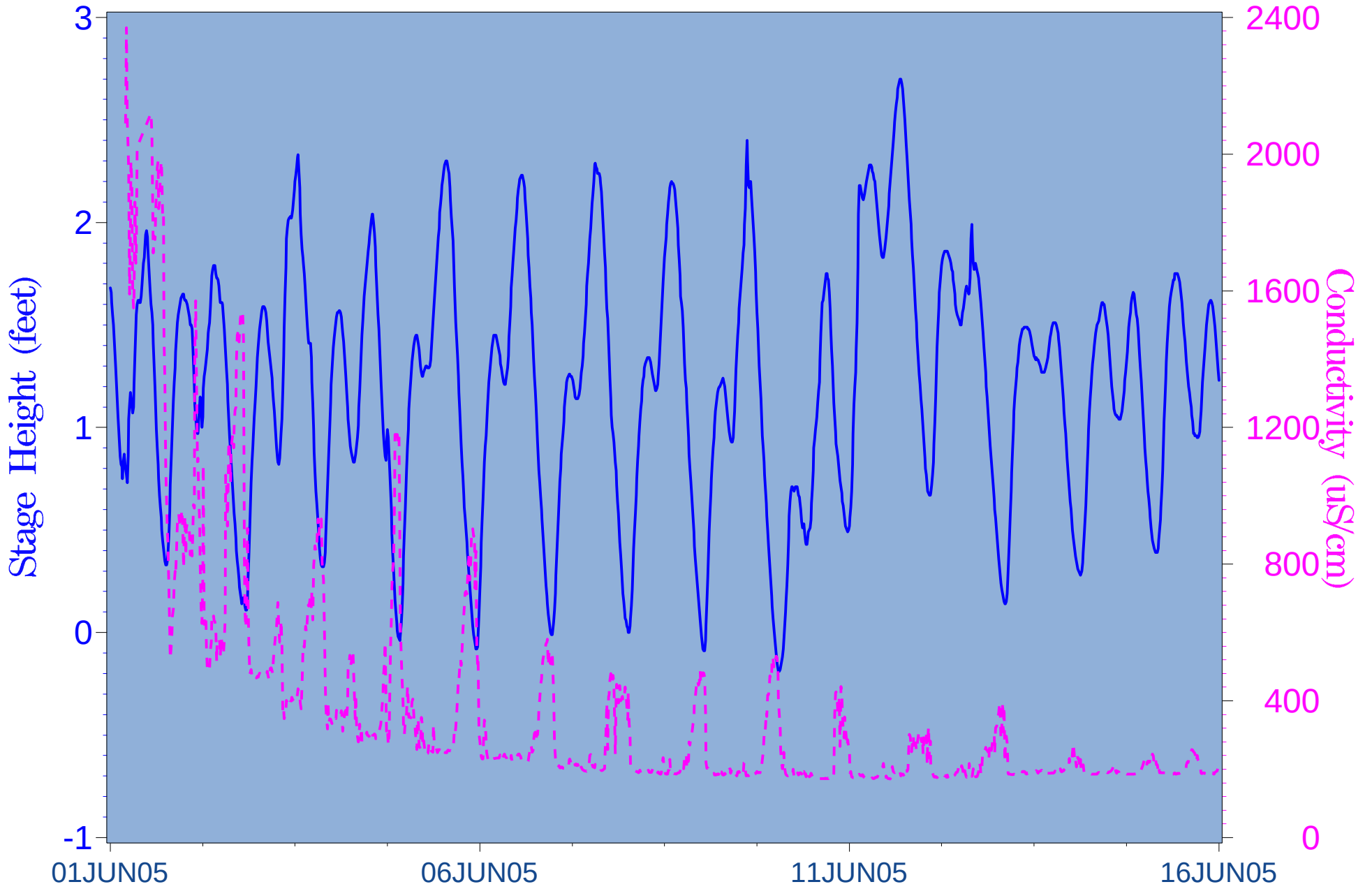


Figure 5.15 Bottom conductivity and stage height in June at Harbour Heights - USGS Gage 02297460 (River Kilometer 15.5)

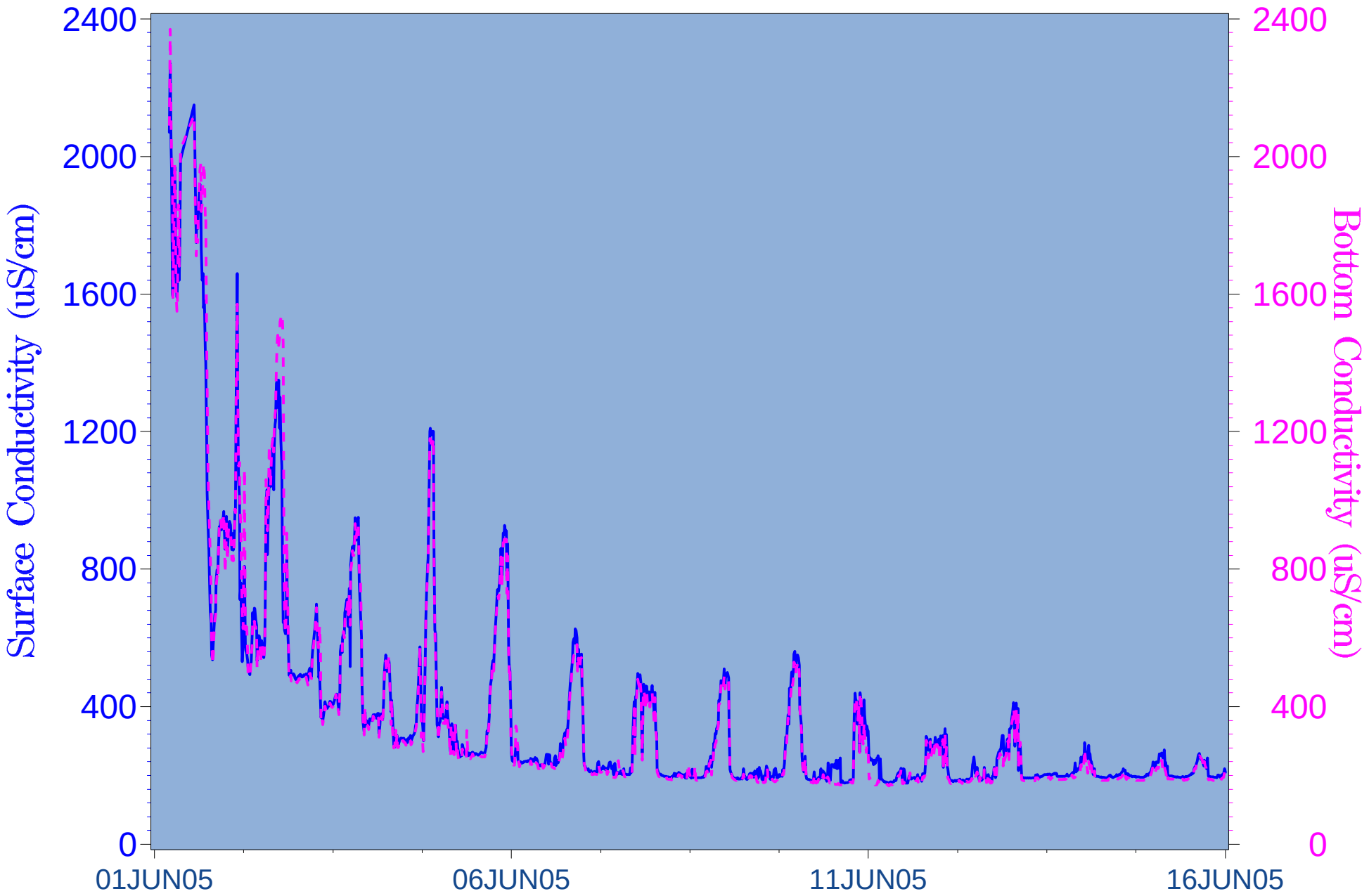


Figure 5.16 Surface and bottom conductivity in June at Harbour Heights - USGS Gage 02297460 (River Kilometer 15.5)

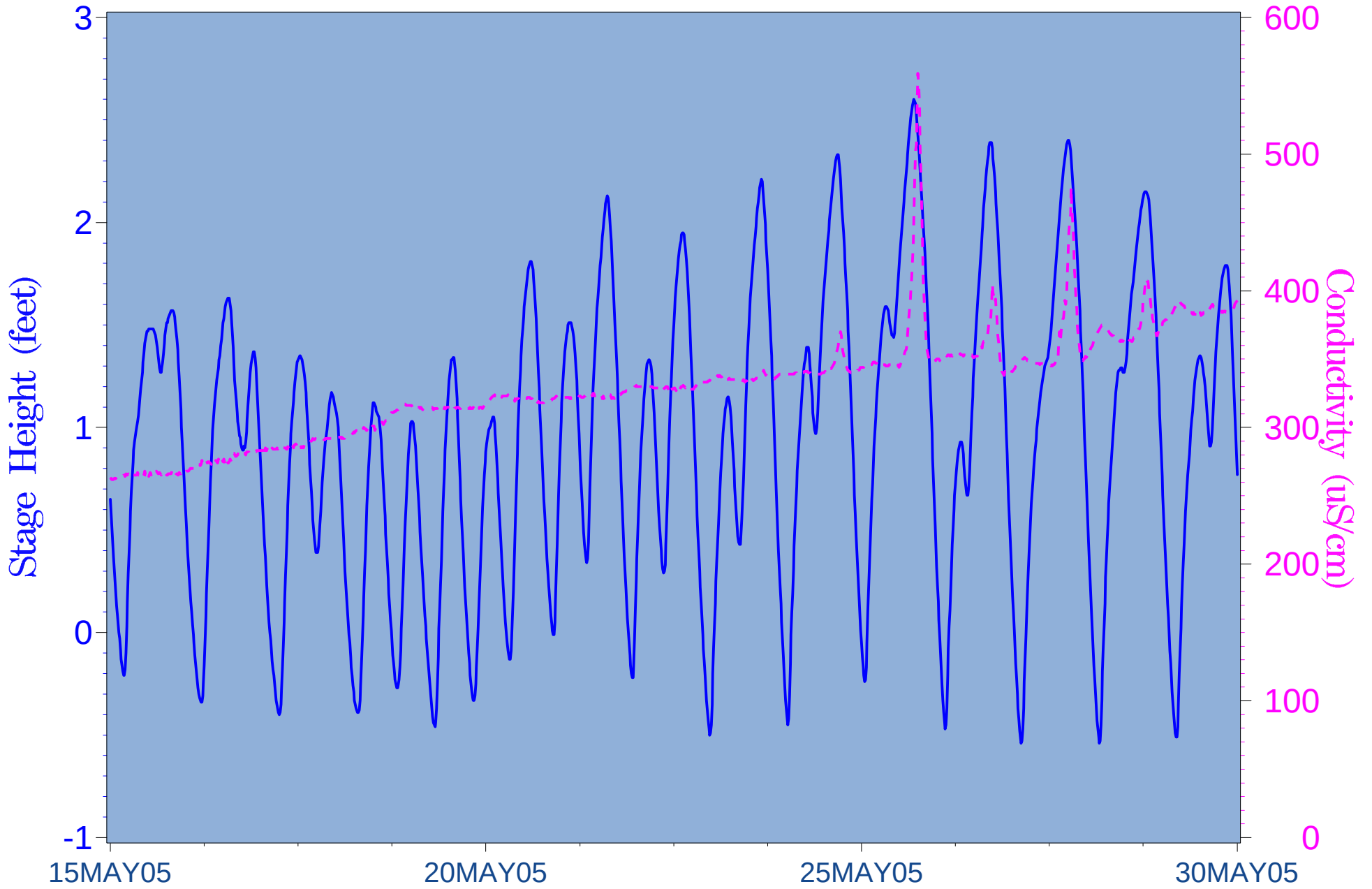


Figure 5.17 Surface conductivity and stage height in May - USGS Gage 02297350 (River Kilometer 26.7)

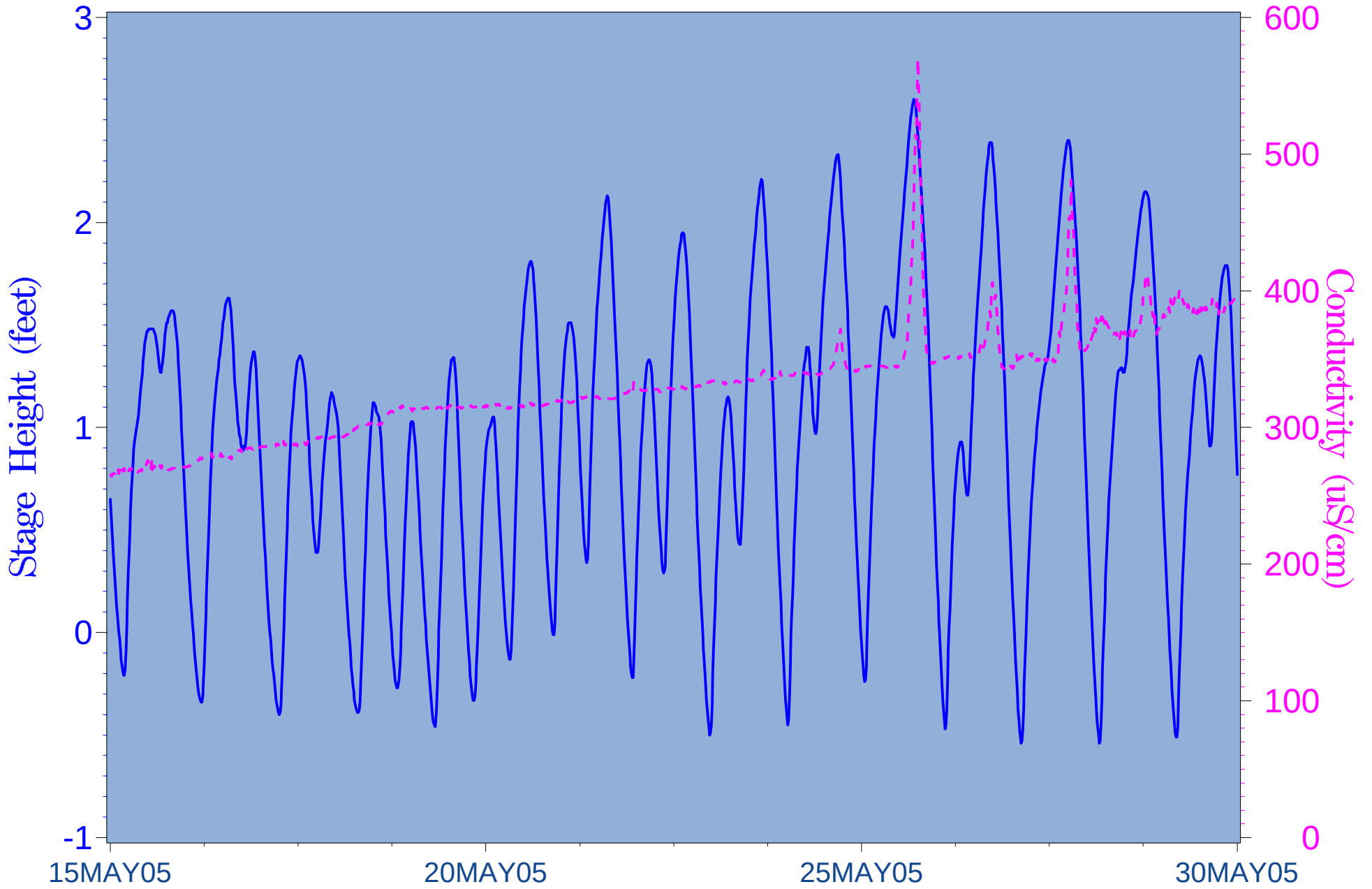


Figure 5.18 Bottom conductivity and stage height in May - USGS Gage 02297350 (River Kilometer 26.7)

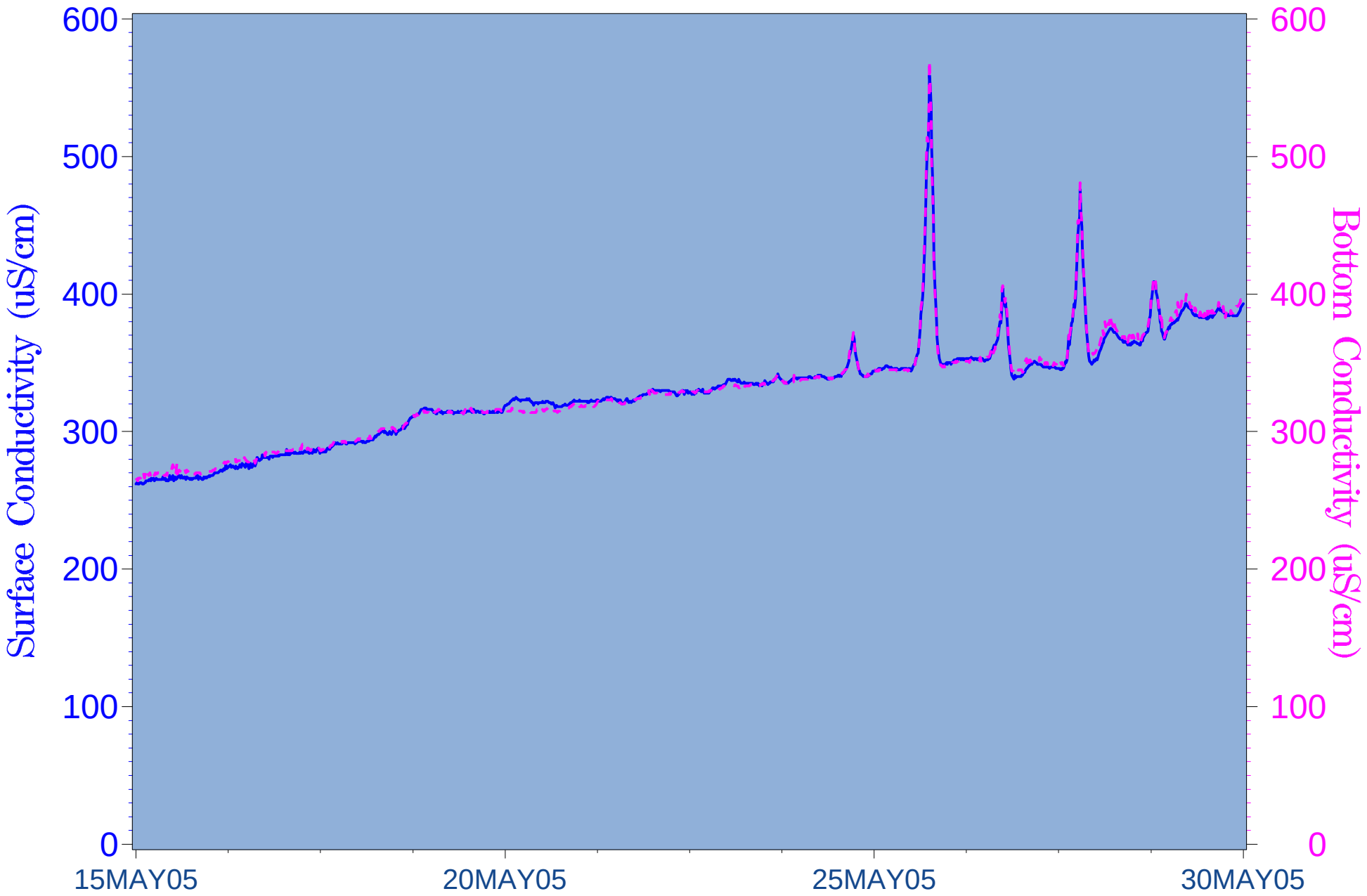


Figure 5.19 Surface and bottom conductivity in May - USGS Gage 02297350 (River Kilometer 26.7)

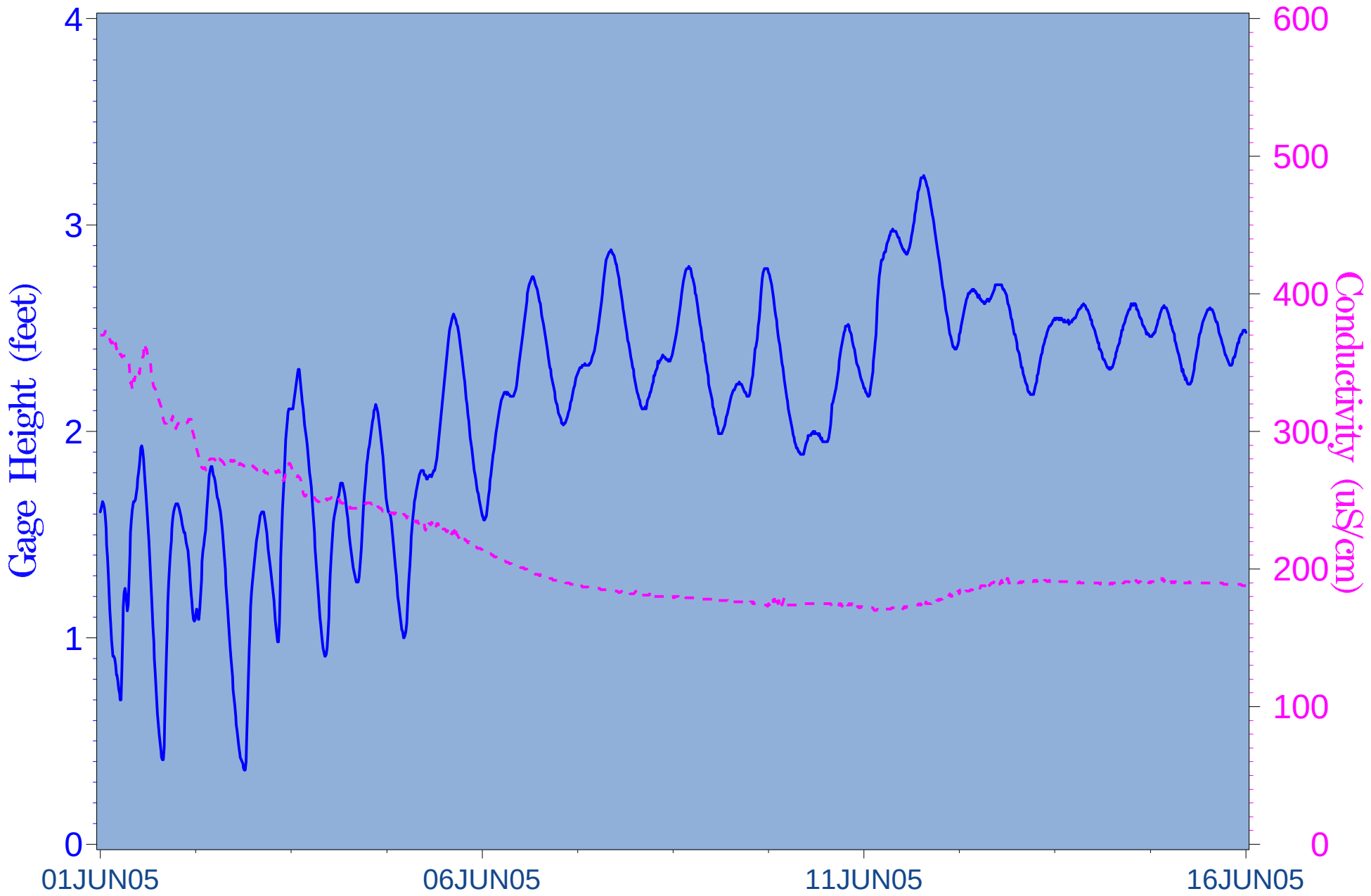


Figure 5.20 Surface conductivity and stage height in June - USGS Gage 02297350 (River Kilometer 26.7)

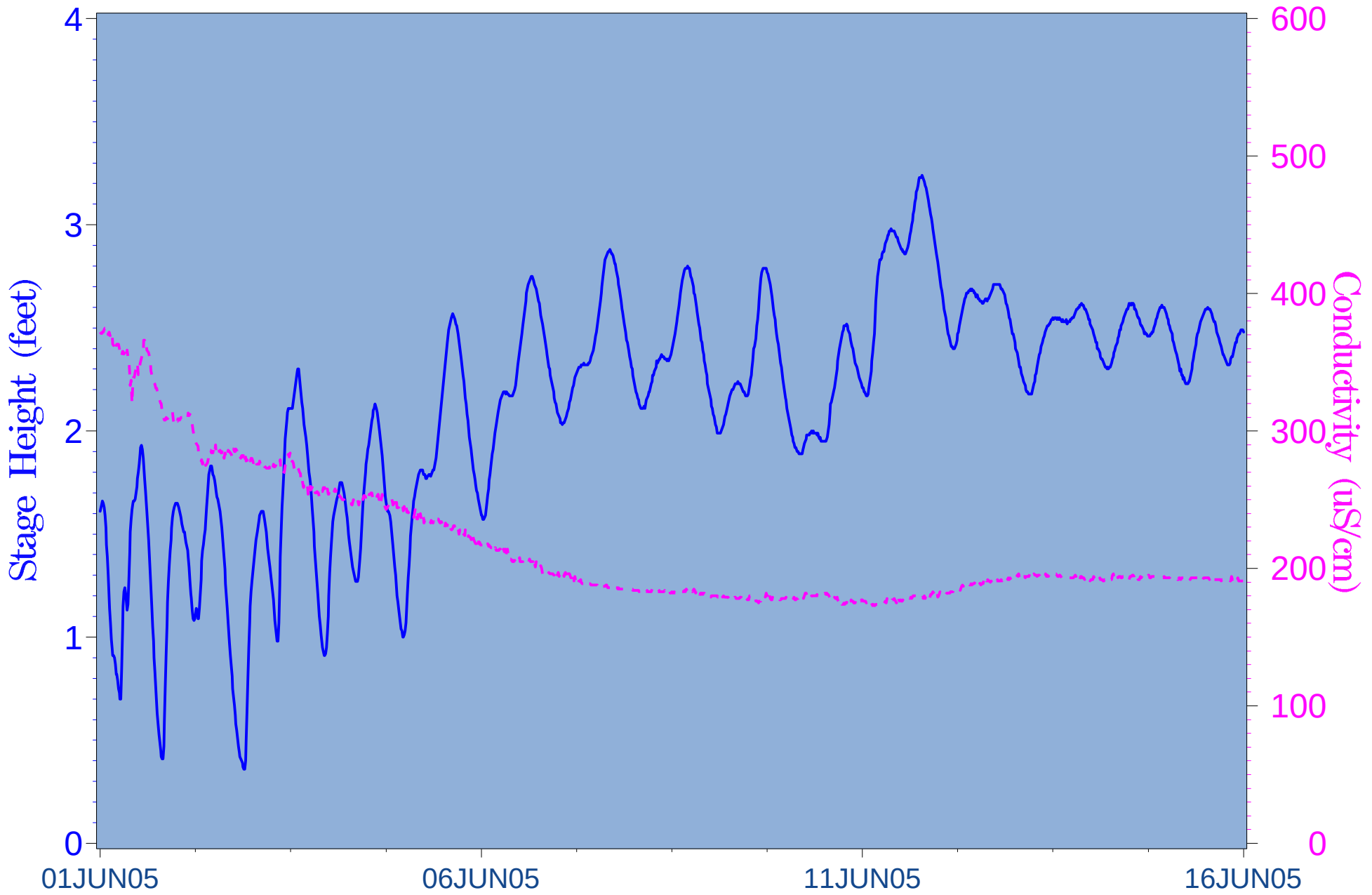


Figure 5.21 Bottom conductivity and stage height in June - USGS Gage 02297350 (River Kilometer 26.7)

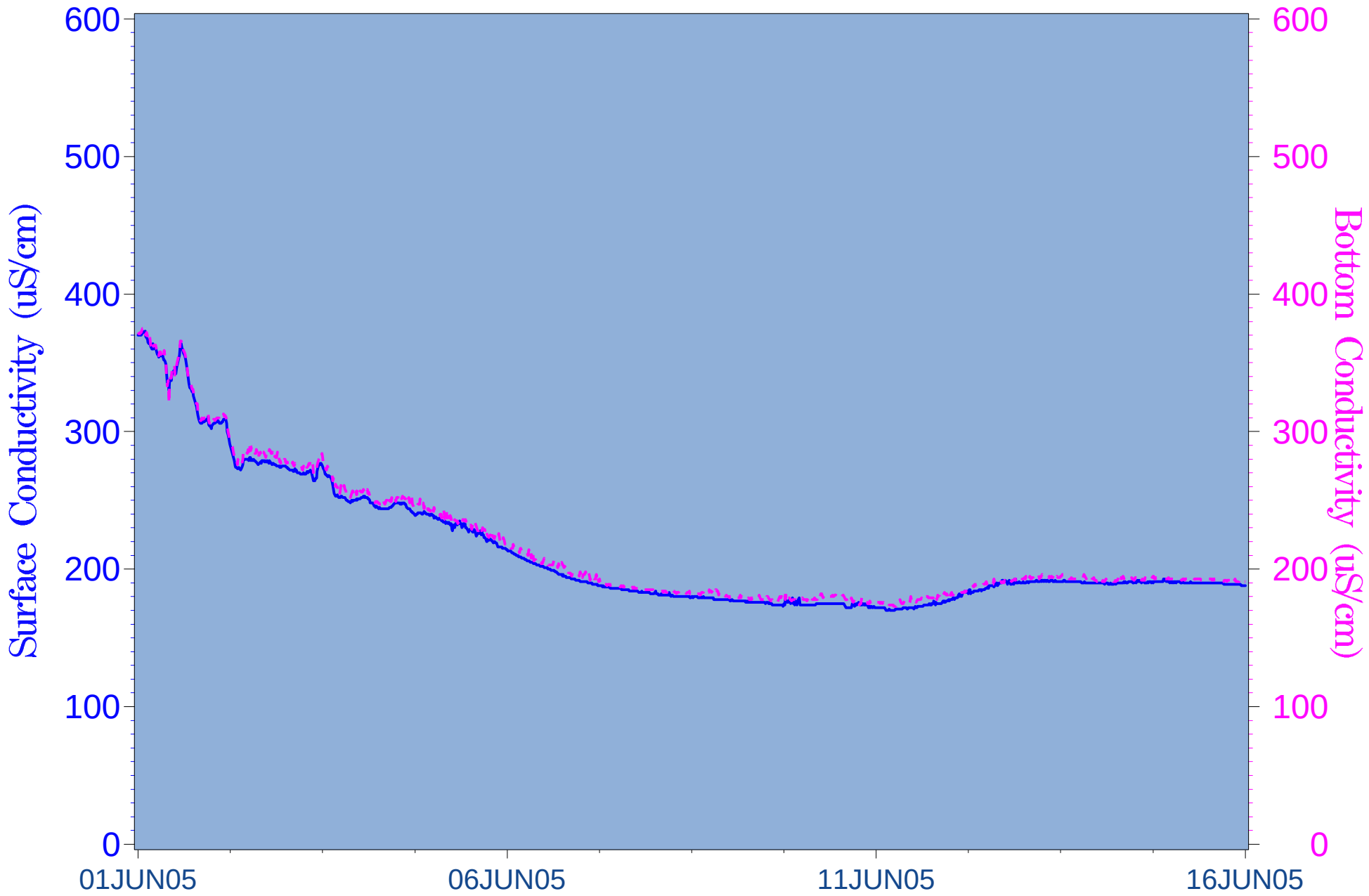


Figure 5.22 Surface and bottom conductivity in June - USGS Gage 02297350 (River Kilometer 26.7)

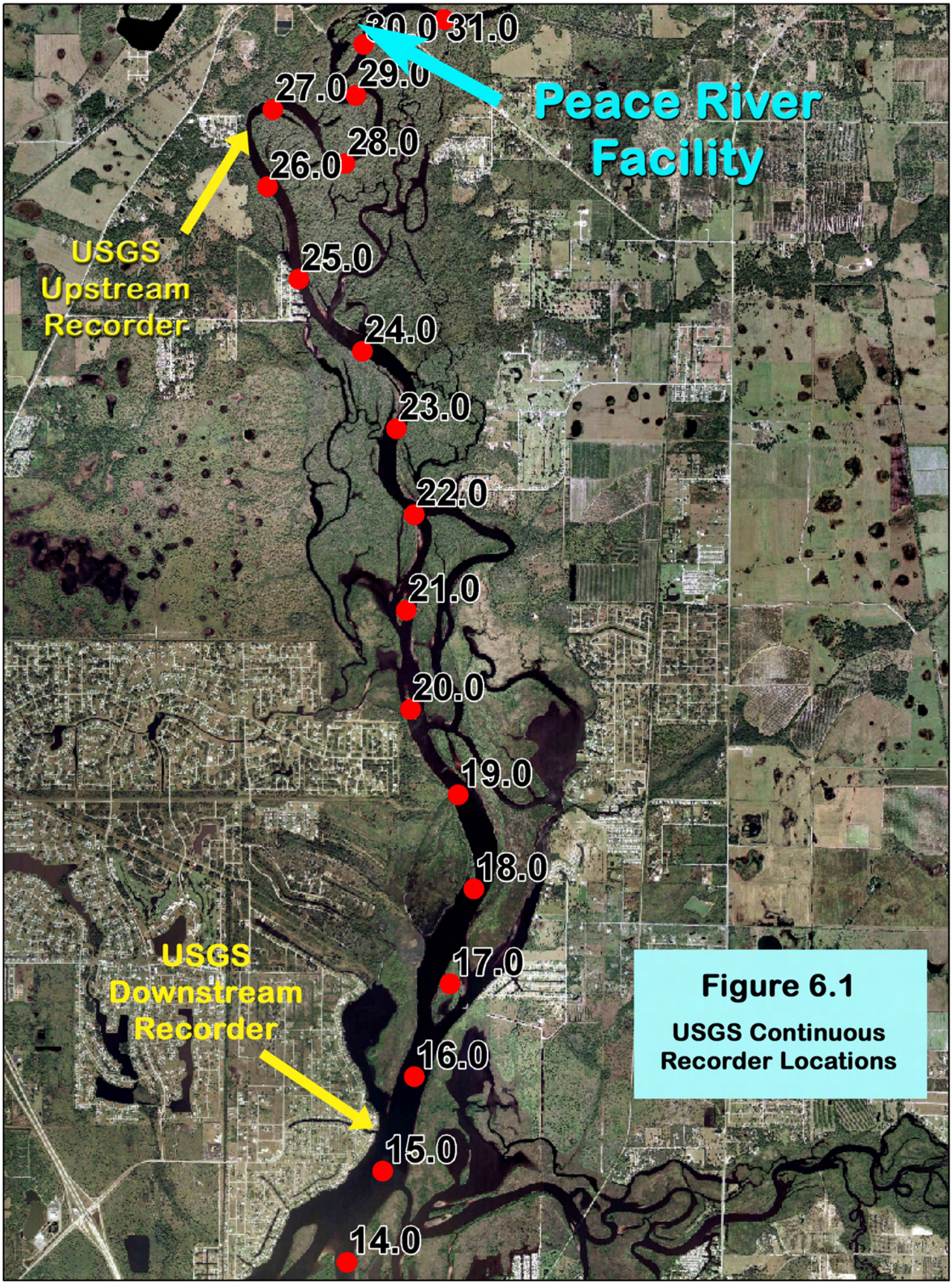


Figure 6.1

USGS Continuous Recorder Locations

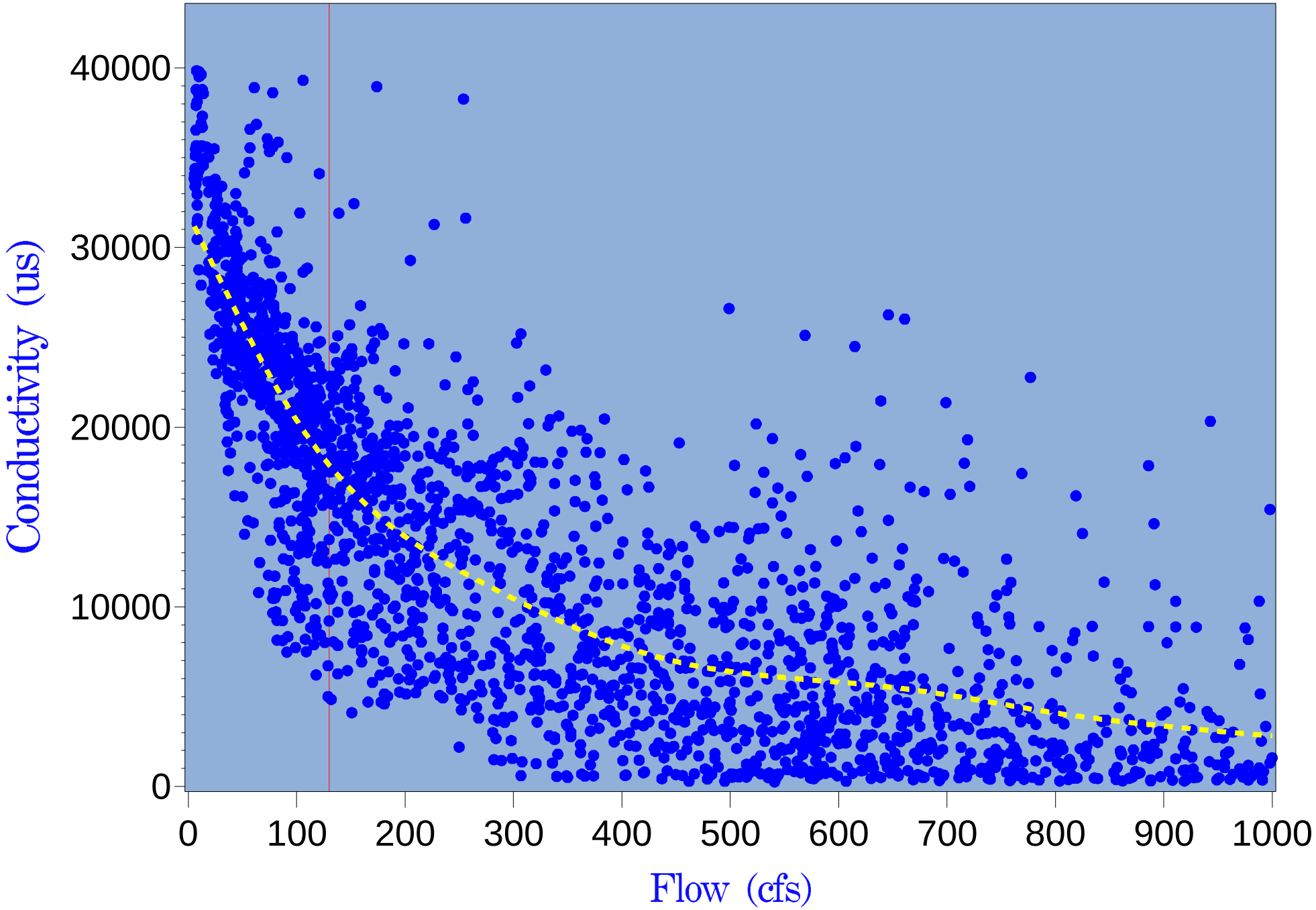


Figure 6.2 Recorder surface conductivity at river kilometer 15.5 versus flow

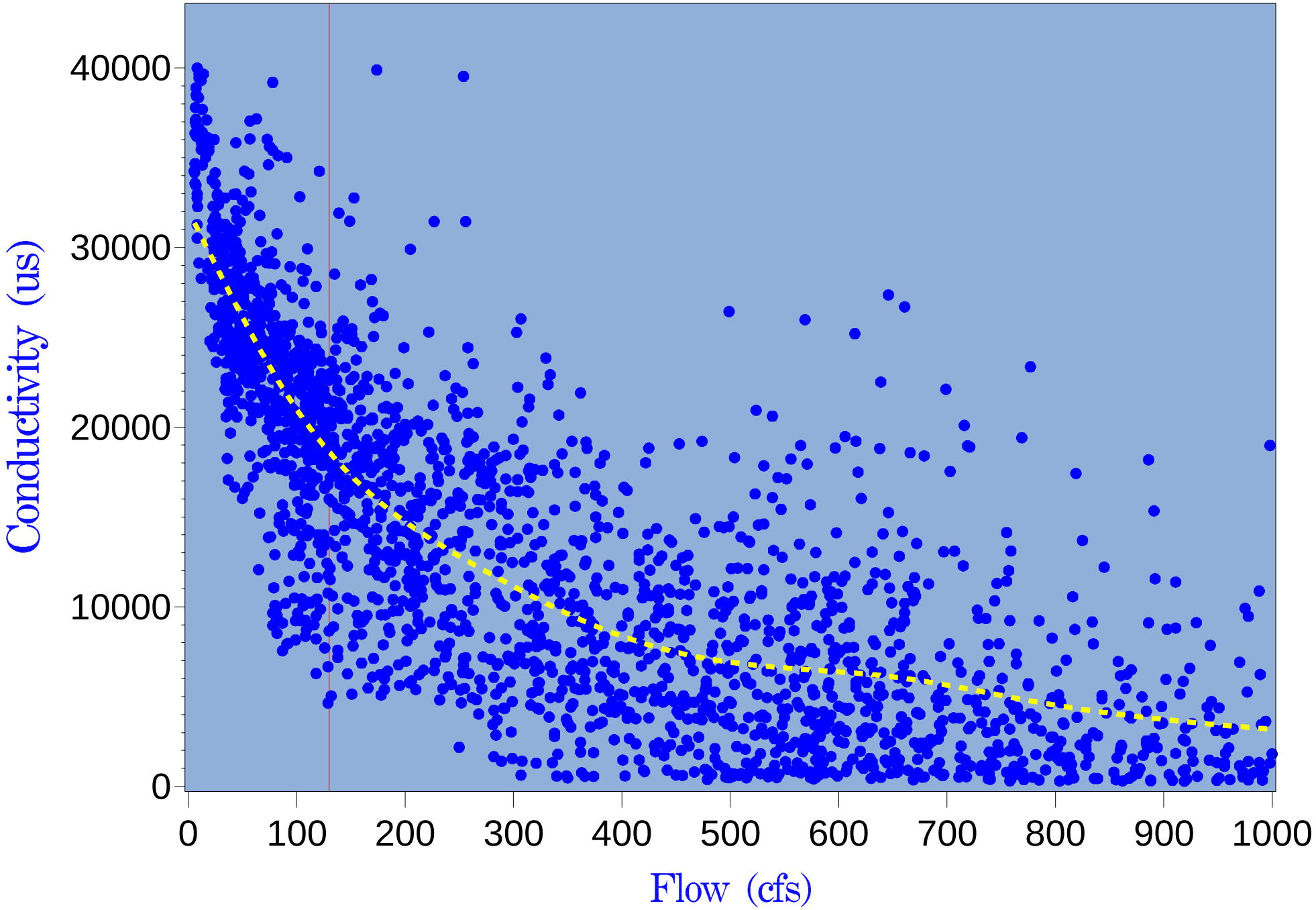


Figure 6.3 Recorder bottom conductivity at river kilometer 15.5 versus flow

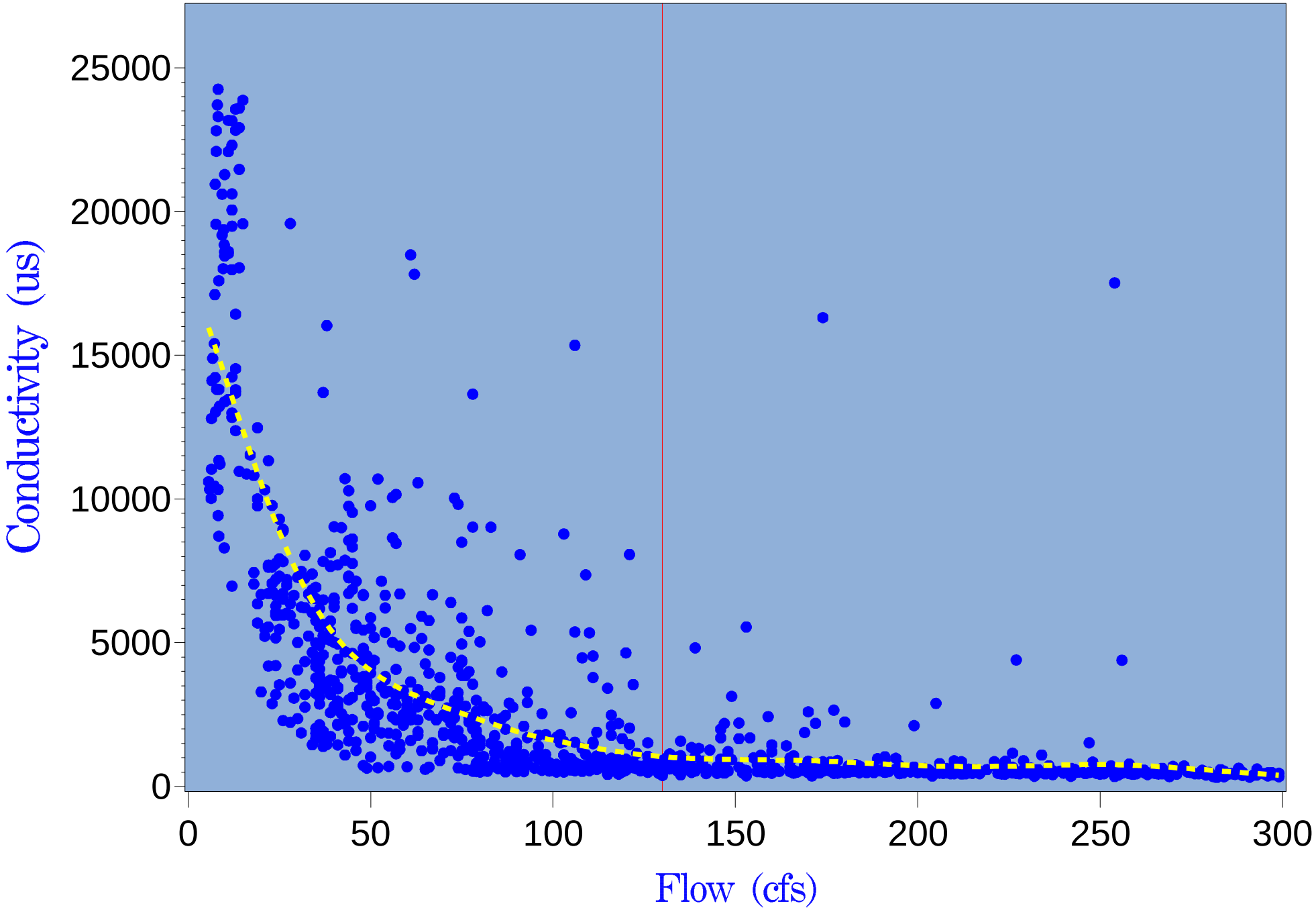


Figure 6.4 Recorder surface conductivity at river kilometer 26.7 versus flow

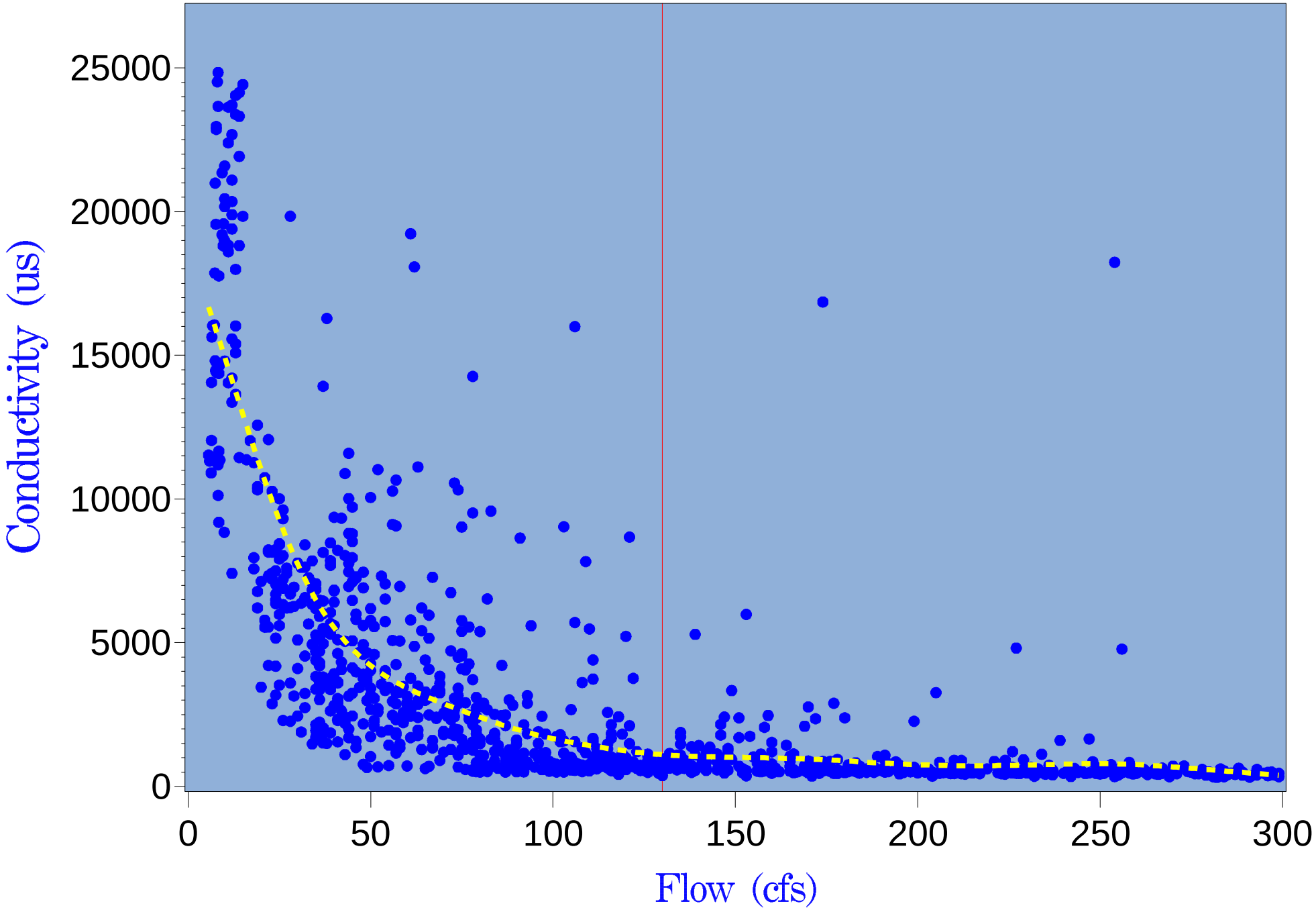


Figure 6.5 Recorder bottom conductivity at river kilometer 26.7 versus flow

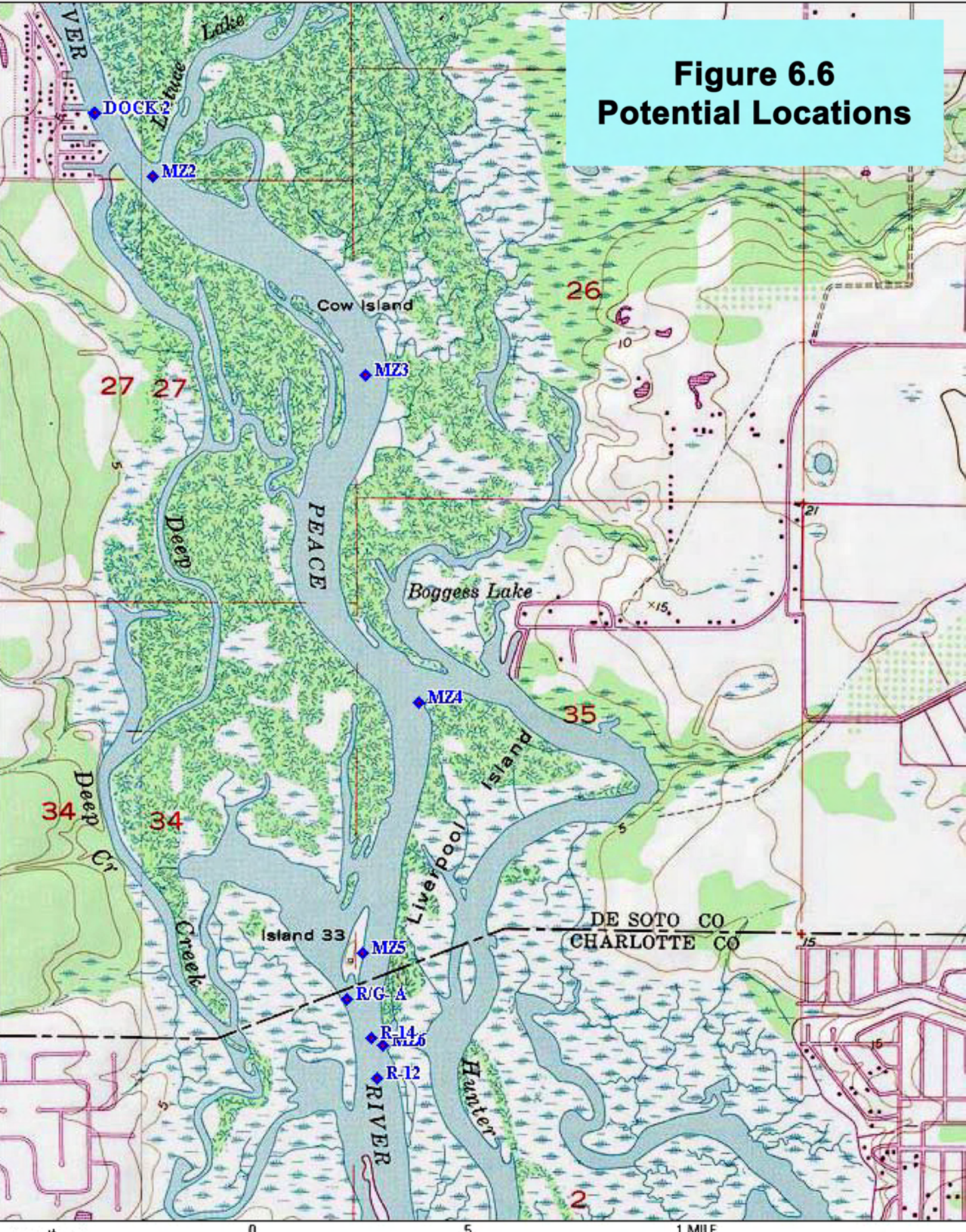


Figure 6.6
Potential Locations
DOCK 2
MZ2
MZ3
MZ4
MZ5
R/G "A"
R-14
MZ6
R-12
Cow Island
PEACE RIVER
Deep Creek
Boggess Lake
Liverpool Island
Hunter
Island 33
DE SOTO CO
CHARLOTTE CO
26
27
27
34
34
35
2
MN 5°
TN
0 .5 1 MILE
0 1000 FEET 0 500 1000 METERS
Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

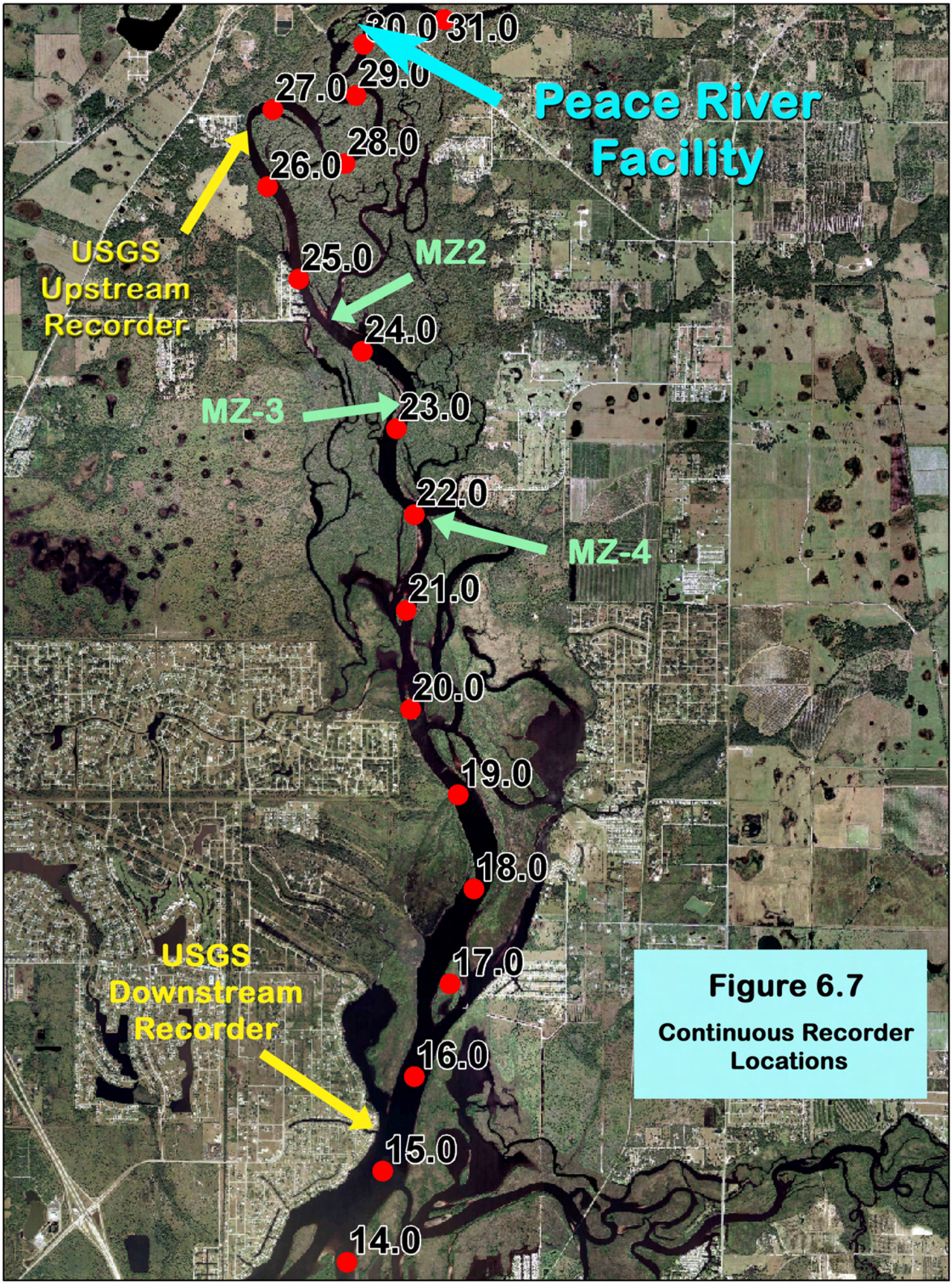


Figure 6.7

Continuous Recorder Locations

Figure 6.8
Diagram of Attachement to Existing Manatee Speed Zone Sign

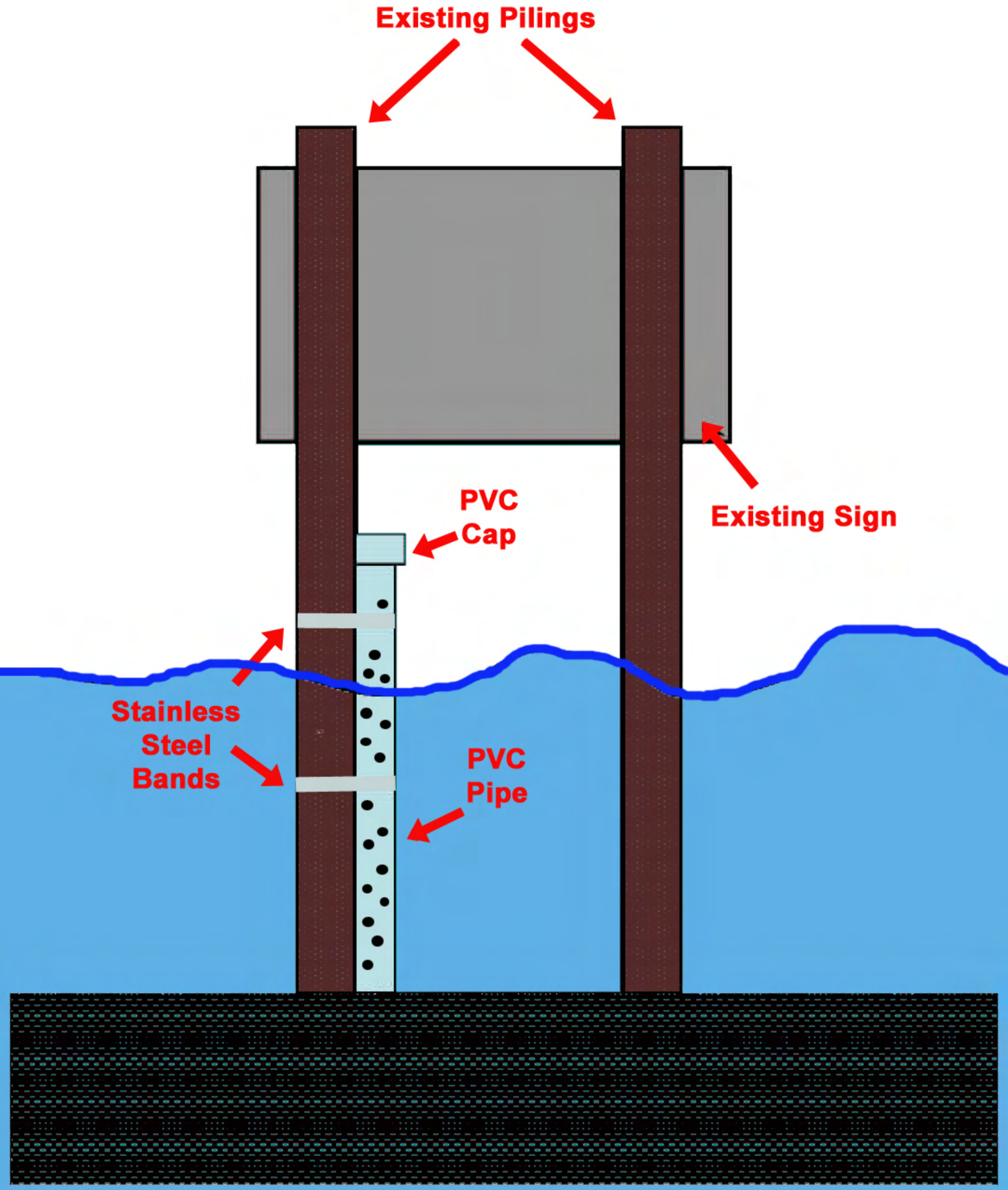


Figure 6.9

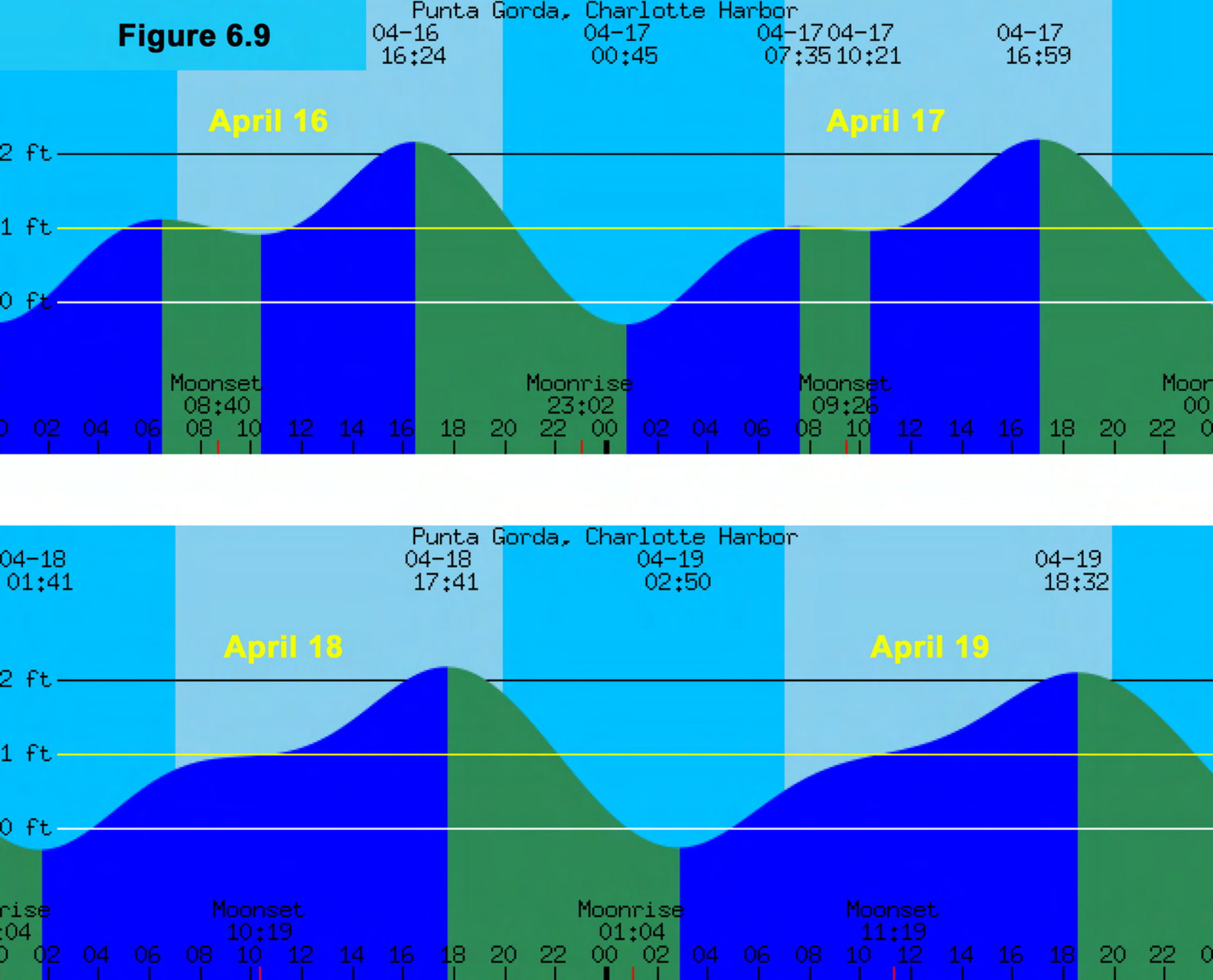

Punta Gorda, Charlotte Harbor
04-16
16:24
04-17
00:45
04-17
07:35
04-17
10:21
04-17
16:59
April 16
April 17
2 ft
1 ft
0 ft
Moonset
08:40
Moonrise
23:02
Moonset
09:26
Moor
00
0 02 04 06 08 10 12 14 16 18 20 22 00 02 04 06 08 10 12 14 16 18 20 22 0
Punta Gorda, Charlotte Harbor
04-18
01:41
04-18
17:41
04-19
02:50
04-19
18:32
April 18
April 19
2 ft
1 ft
0 ft
rise
:04
Moonset
10:19
Moonrise
01:04
Moonset
11:19
0 02 04 06 08 10 12 14 16 18 20 22 00 02 04 06 08 10 12 14 16 18 20 22 0

Figure 7.1

Conceptual Mode Of Impact Of Surface Water Withdrawals

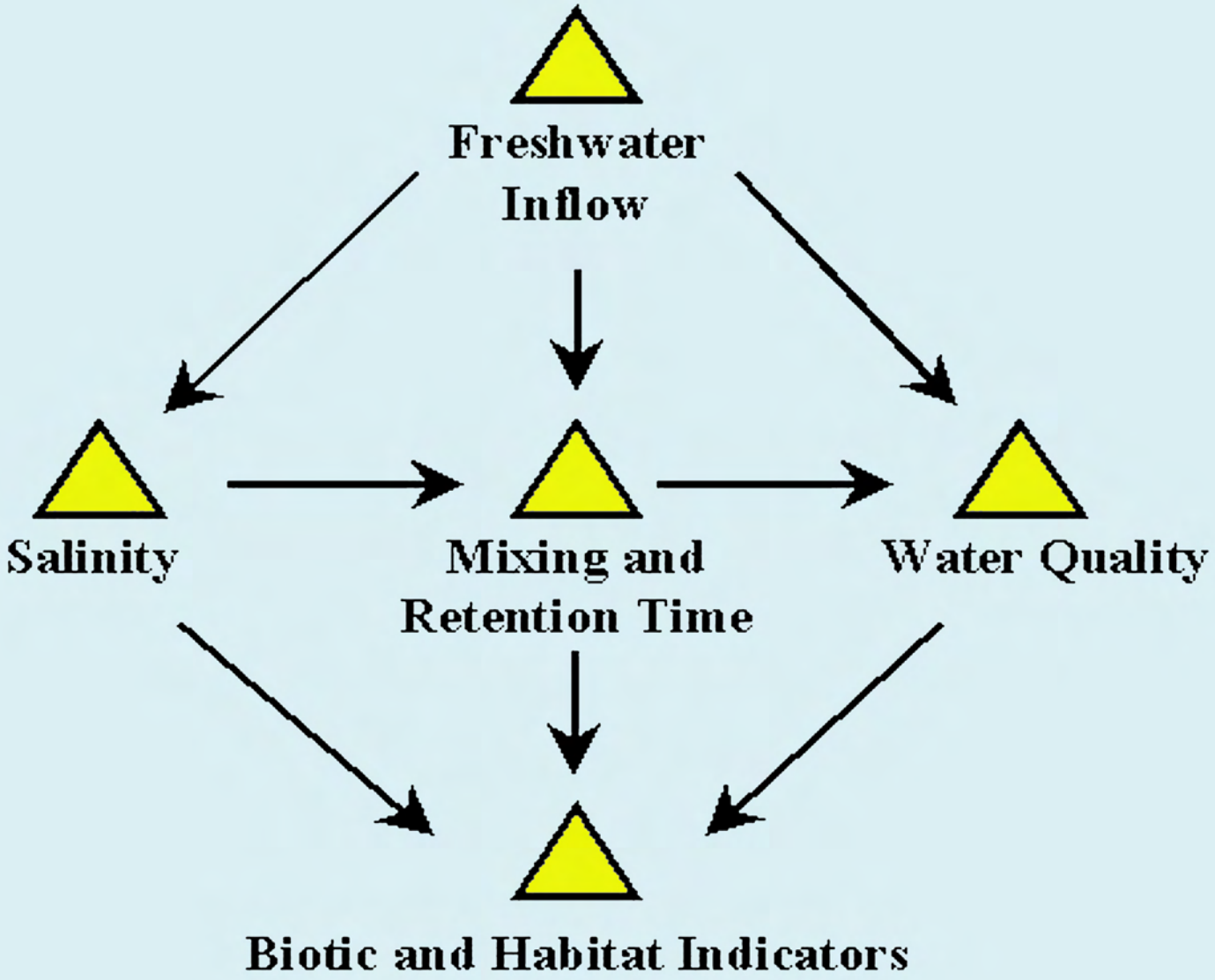
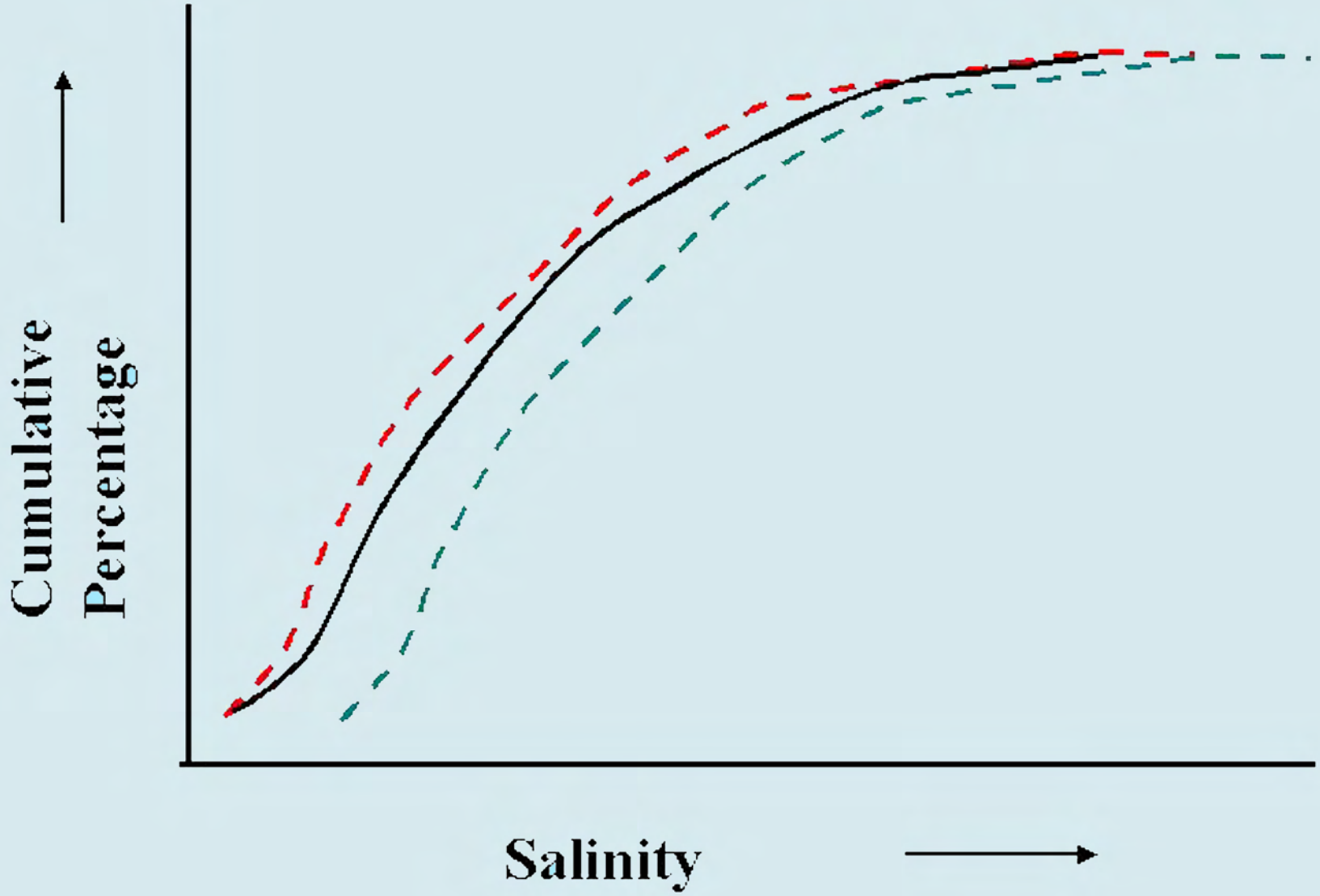


Figure 7.2

Conceptual Illustration Of A Salinity Target Range



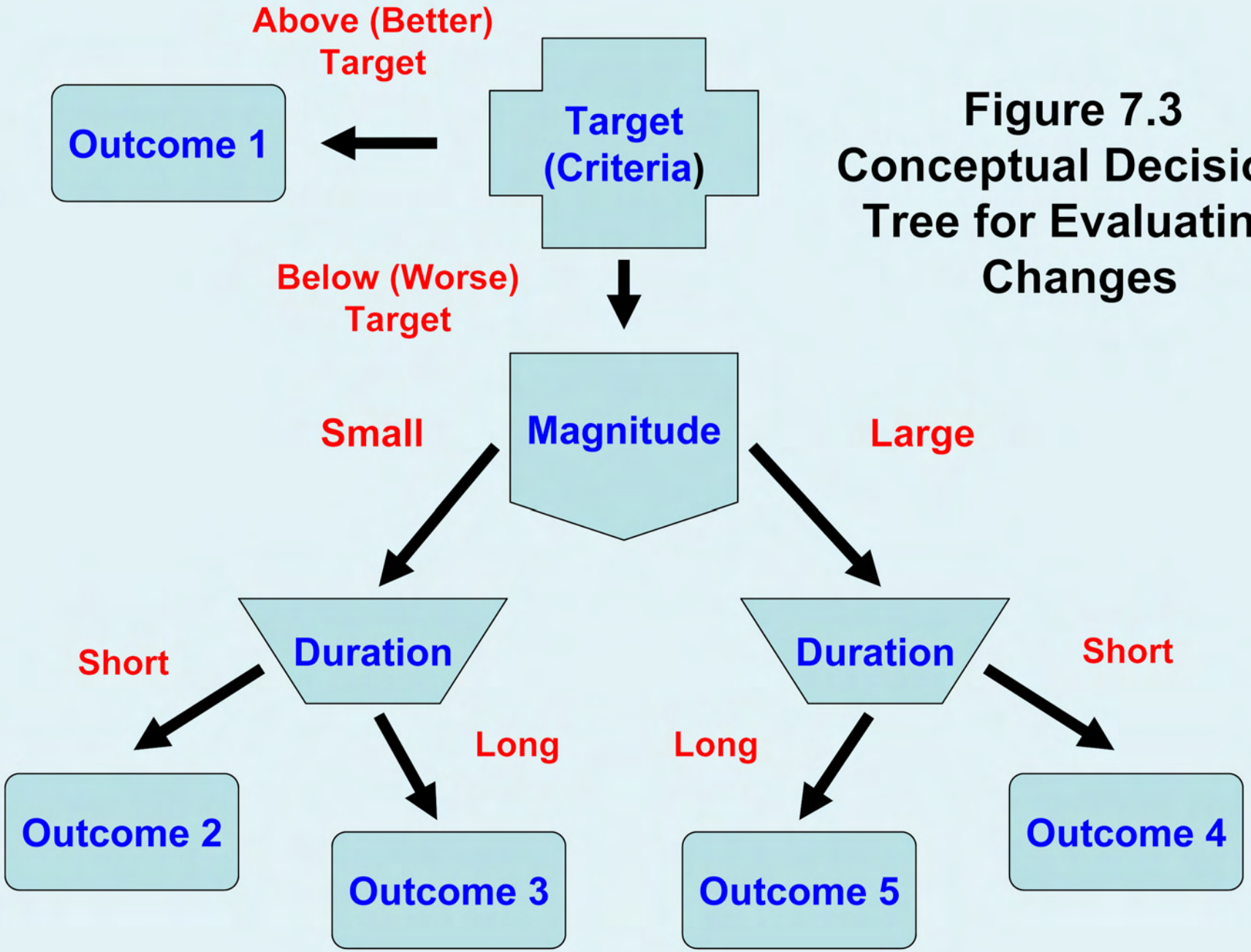


Figure 7.3 Conceptual Decision Tree for Evaluating Changes

Figure 7.4
Relationship of Change to Response