F-75-R-6 and
F-113-R-1 3320S
3320T

Region 1
also,
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INTERIM DATA COMPILATION AND UPDATE FOR SELECTED STREAMS WITHIN THE BEAVERHEAD RIVER DRAINAGE OF SOUTHWEST MONTANA 2000 - 2001

By:

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Region Three
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Executive Summary

Fisheries data for streams within the Beaverhead River drainage of southwest Montana were last compiled, presented, and discussed by Oswald (2000) in a written report submitted in compliance with the Federal Aid in Fish and Wildlife Restoration Acts. The report covered the sampling period from 1993 through 1999 and Project Numbers F-78-R-1 through F-78-R-5. Fisheries data collected in 2000 and 2001 for streams in the Big Hole River drainage and lakes and reservoirs within the project area will be presented in complete written reports in 2002. Data presented in graphic form in this report represent sampling conducted within the Beaverhead River drainage in 2000 and 2001 and will be fully discussed in an edited written report in 2003.

Data presented in this compilation of graphs were collected from specific stream sampling sections within the Beaverhead River drainage. Data from the upper Beaverhead River tailwater reach include trout population statistics for the Hildreth and Pipe Organ Study Sections. The middle reach of the Beaverhead River in the vicinity of Dillon, Montana is represented via data collected from the Fish and Game and Low Flow Study Sections. Data collected in the lower Beaverhead River are presented for the Anderson, the Mule Shoe, and the Silver Bow Study Sections. The Silver Bow Section is new and was instituted in 2000 to better monitor the Arctic grayling reintroduction effort in the lower Beaverhead River.

Ruby River fisheries data are presented for the upper watershed which includes reaches upstream from Ruby Reservoir and for the lower river which includes reaches downstream from the reservoir. Lower river study sections include a tailwater reach represented by the Maloney Section data and a downstream reach represented by the Silver Spring and Sailor Study Sections. Upper Ruby River fish populations are described by the Three Forks and Greenhorn Study Sections which also assist in monitoring Arctic grayling introduction efforts.

Data are also presented for several selected tributary fisheries. The brown trout populations of Poindexter Slough are described for Study Section Three. Poindexter Slough is a valley floor spring creek tributary to the Beaverhead River. Brown and rainbow trout populations statistics are presented for the Canyon and Shearing Pen Study Sections on Big Sheep Creek, a relatively large tributary of the Red Rock River. Finally, data describing the response of westslope cutthroat and brook trout populations to habitat improvement in the Taft Study section of Odell Creek is presented. Odell Creek is also tributary to the Red Rock River.

LITERATURE CITED

Oswald, R.A. 2000. Inventory and survey of selected stream fisheries of the Red Rock, Ruby, and Beaverhead River drainages of southwest Montana. Job Prog. Rpt., Fed. Aid in Fish and Wildlife Restoration Acts, Montana Project Nos. F-78-R-1 through F-78-R-5. 75 pp.

Report Prepared By: Richard A. Oswald, MFWP, Region 3, Bozeman, June 2002

All Work Included in this Report in Conjunction with Federal Aid in Fish and Wildlife Restoration Acts:
Montana Project Numbers: F-78-R-6 and F-113-R-1

Montana Fish, Wildlife & Parks Project Numbers 3320S and 3320T

Figure 1. Estimated spring density and standing crop of brown trout in the Hildreth Section of the Beaverhead River, 1986 - 2001.

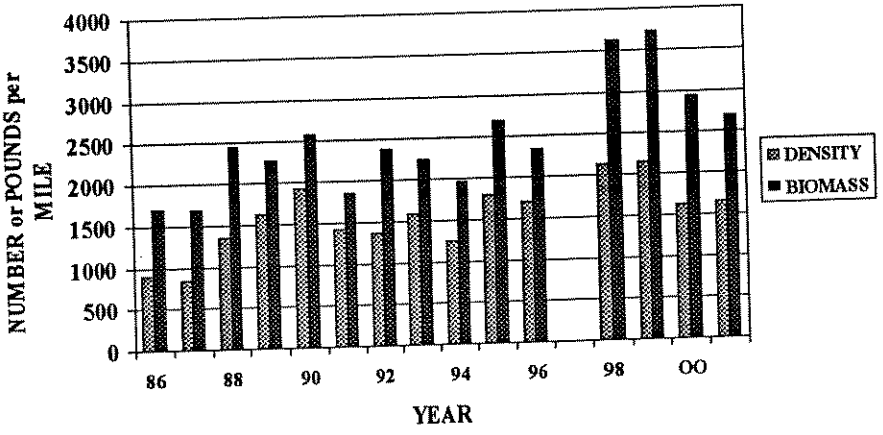

Figure 2. Estimated spring density of 18 inch and larger brown trout in the Hildreth Section of the Beaverhead River, 1986 - 2001.

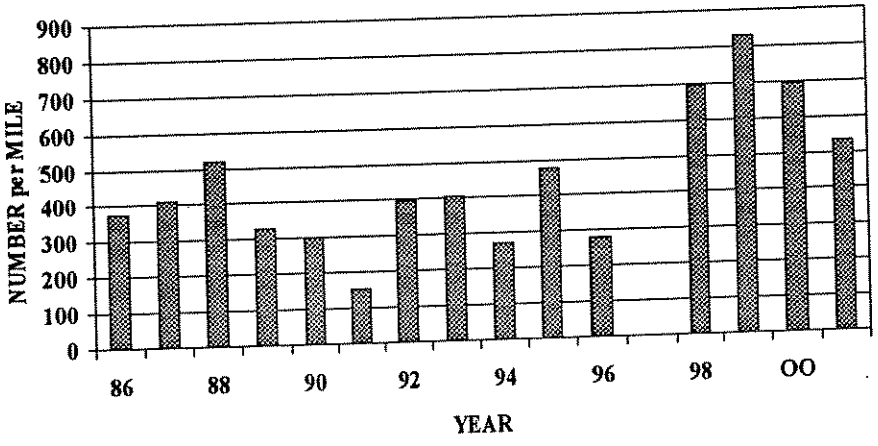

Figure 3. Density of 18 inch and larger brown trout as a percentage of the total spring brown trout population in the Hildreth Section of the Beaverhead River; 1986 - 2001.

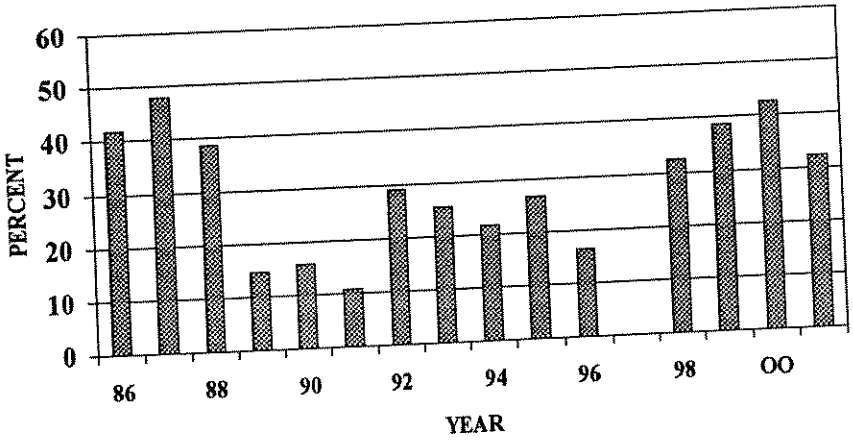

Figure 4. Estimated spring density of 20 inch and larger brown trout in the Hildreth Section of the Beaverhead River, 1986 - 2001.

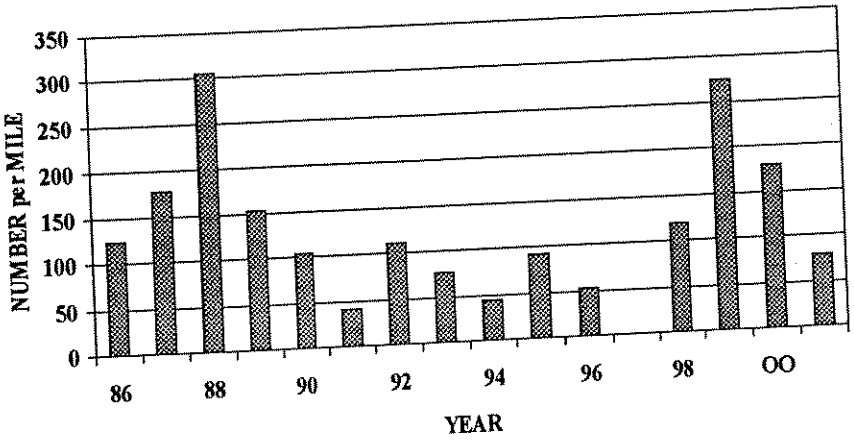

Figure 5. Density of 20 inch and larger brown trout as a percentage of the 18 inch and larger segment of the brown trout population in the Hildreth Section of the Beaverhead River, 1986-2001.

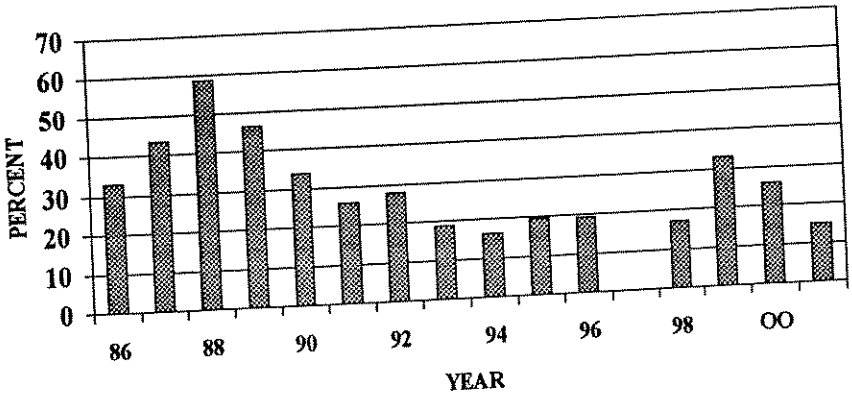

Figure 6. Estimated spring density of 22 inch and larger brown trout in the Hildreth Section of the Beaverhead River, 1986 - 2001.

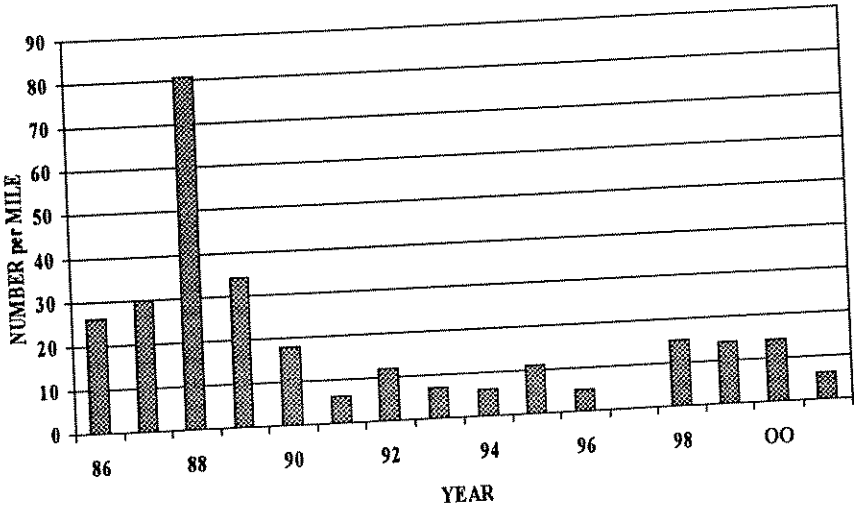

Figure 7. Density of 22 inch and larger brown trout as a percentage of the 18 inch and larger segment of the brown trout population in the Hildreth Section of the Beaverhead River, 1986 - 2001.

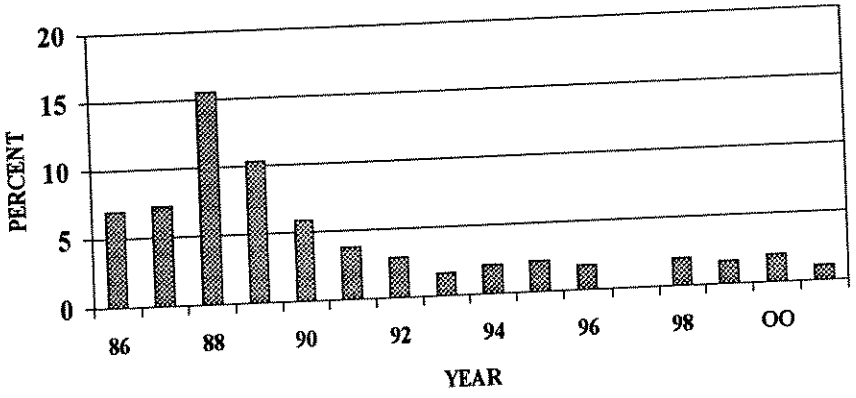

Figure 8. Estimated fall density and standing crop of Age I and older rainbow trout in the Hildreth Section of the Beaverhead River 1986 - 2000.

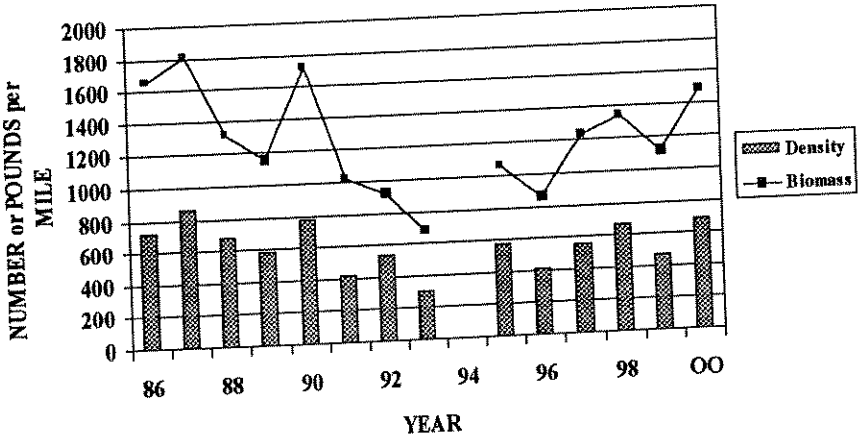

Figure 9. Estimated fall density of 18 inch and larger and 20 inch and larger rainbow trout in the Hildreth Section of the Beaverhead River, 1986 - 2000.

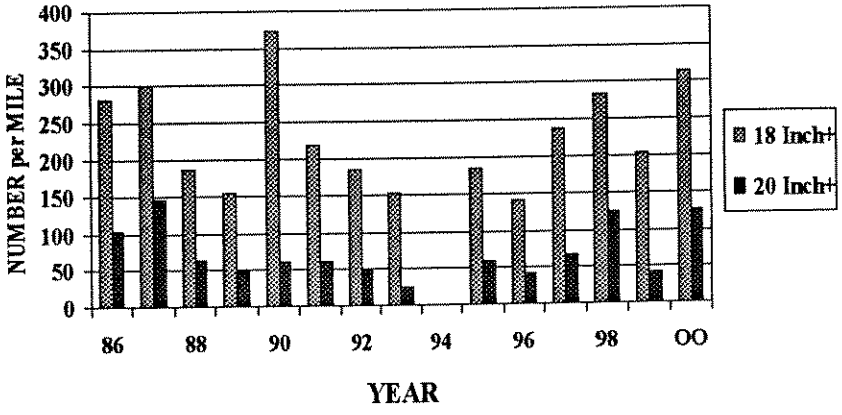

Figure 10. Estimated spring density and standing crop of Age II and older brown trout in the Pipe Organ Section of the Beaverhead River, 1986 - 2001.

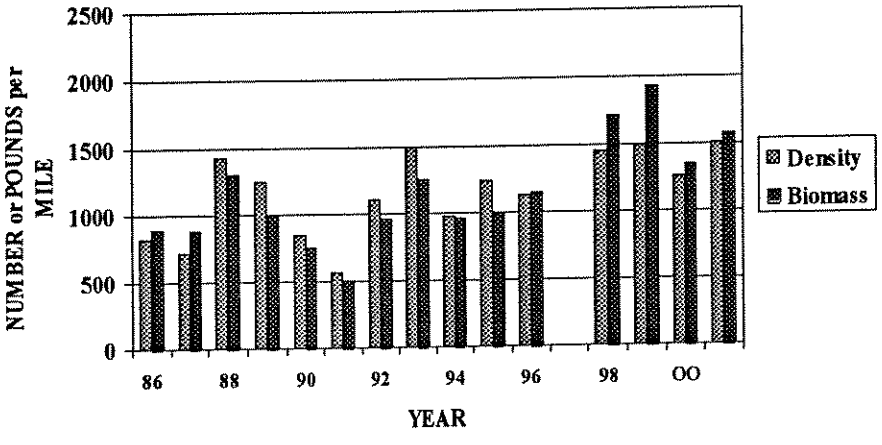

Figure 11. Estimated spring density of 18 inch and larger brown trout in the Pipe Organ Section of the Beaverhead River, 1986 - 2001.

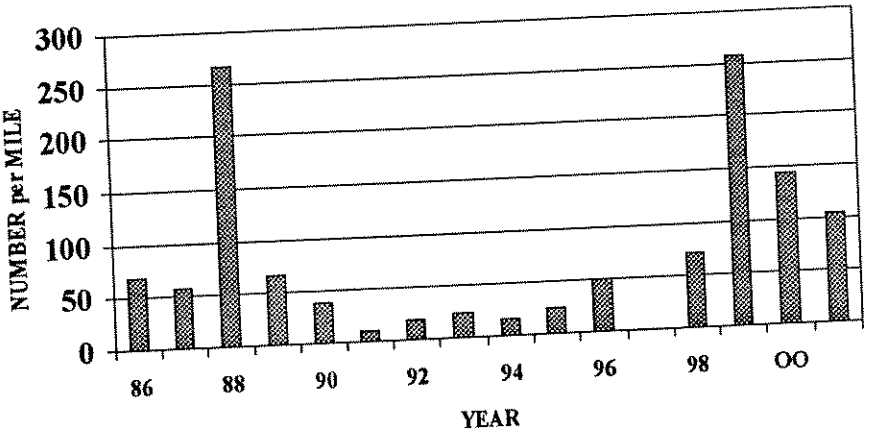

Figure 12. Estimated spring density and standing crop of Age II and older brown trout in the Fish and Game Section of the Beaverhead River, 1988 - 2001.

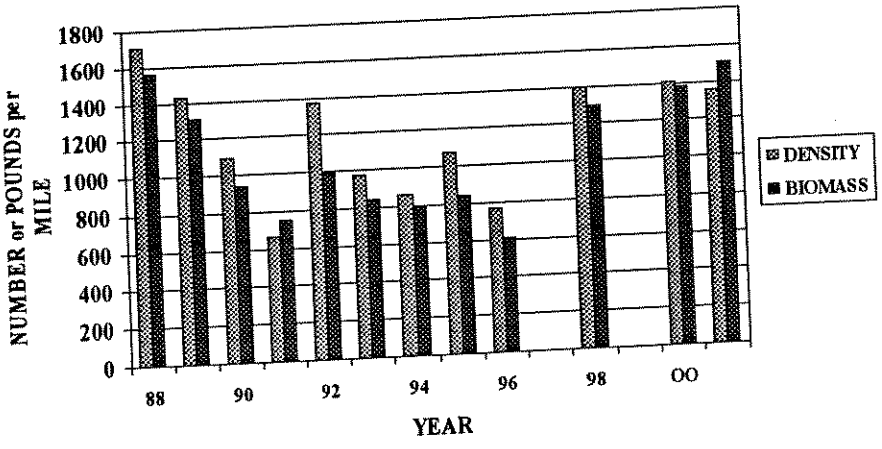

Figure 13.Estimated spring densities, by length group, of Age II and older brown trout in the Fish and Game Section of the Beaverhead River, 1988 - 2001.

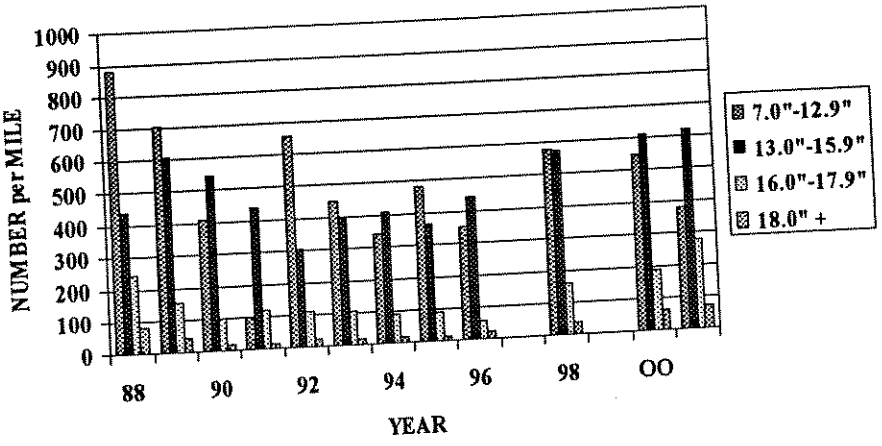

Figure 14. Estimated spring density and standing crop of Age II and older brown trout in the Low Flow Section of the Beaverhead River, 1987 - 2000.

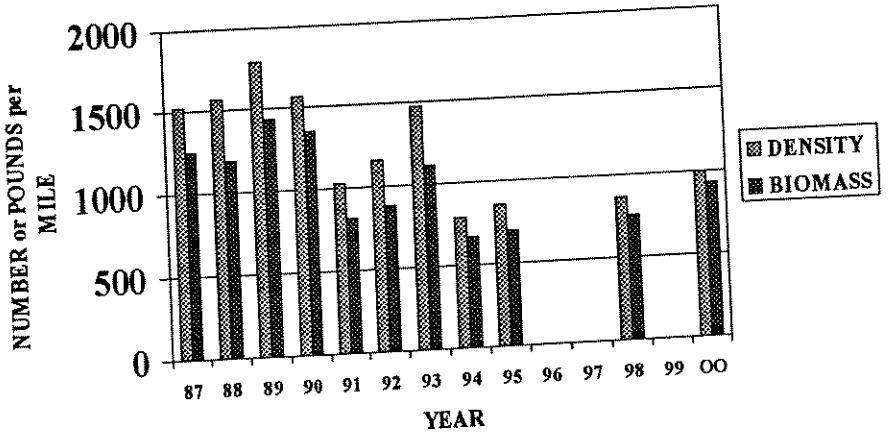

Figure 15. Estimated spring densities, by length group, of Age II and older brown trout in the Low Flow Section of the Beaverhead River, 1987 - 2000.

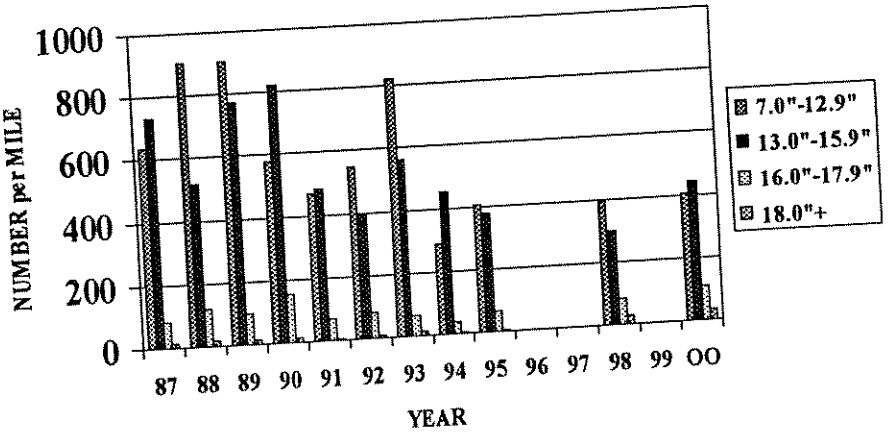

Figure 16. Estimated spring density and standing crop of Age II and older brown trout in the Anderson Section of the Beaverhead River, 1991 - 2001.

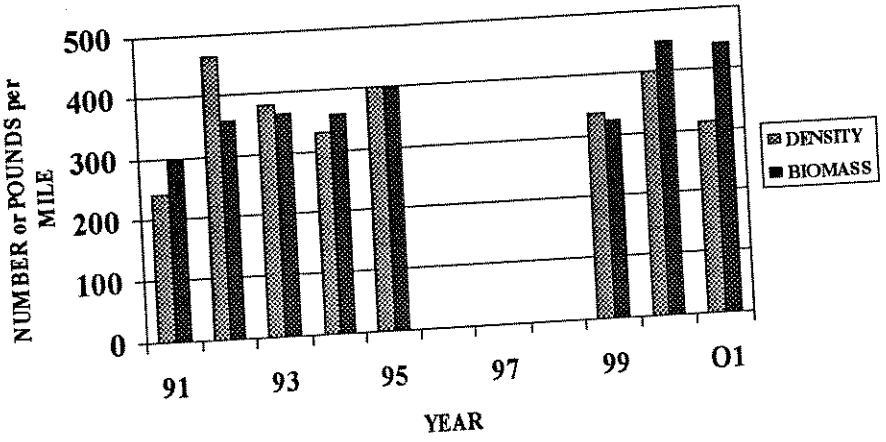

Figure 17. Estimated spring densities, by length group, of Age II and older brown trout in the Anderson Section of the Beaverhead River, 1991 - 2001.

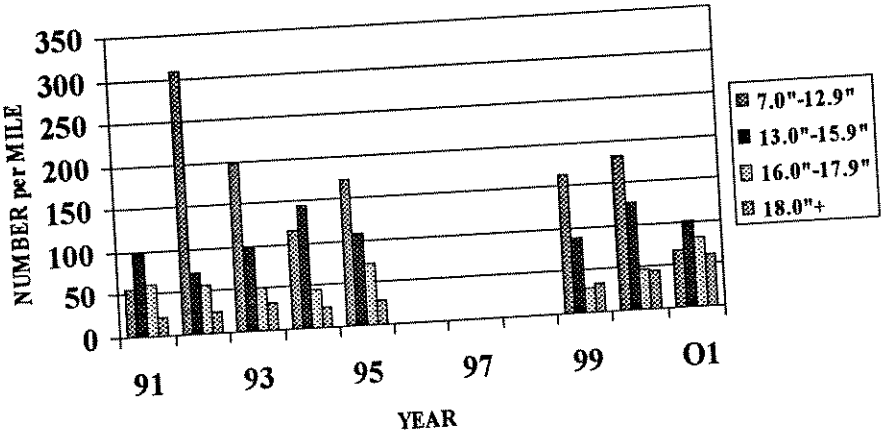

Figure 18. Estimated spring density and standing crop of Age II and older brown trout in the Mule Shoe Section of the Beaverhead River, 1990 - 2001.

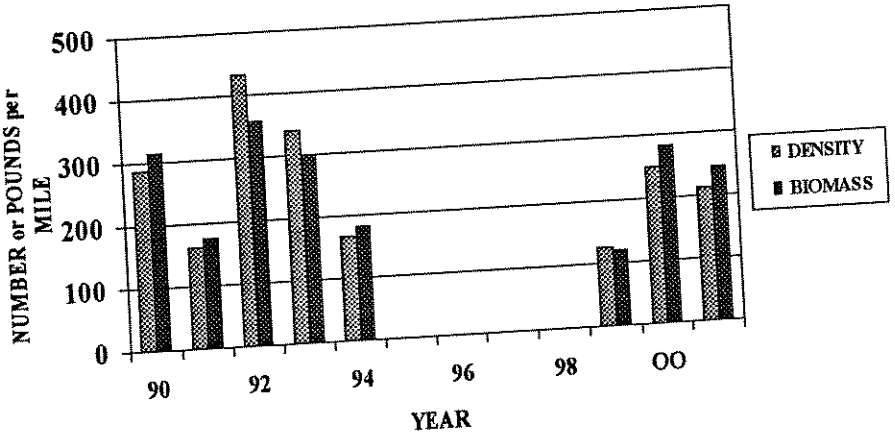

Figure 19. Estimated spring densities, by length group, of Age II and older brown trout in the Mule Shoe Section of the Beaverhead River, 1990 - 2001.

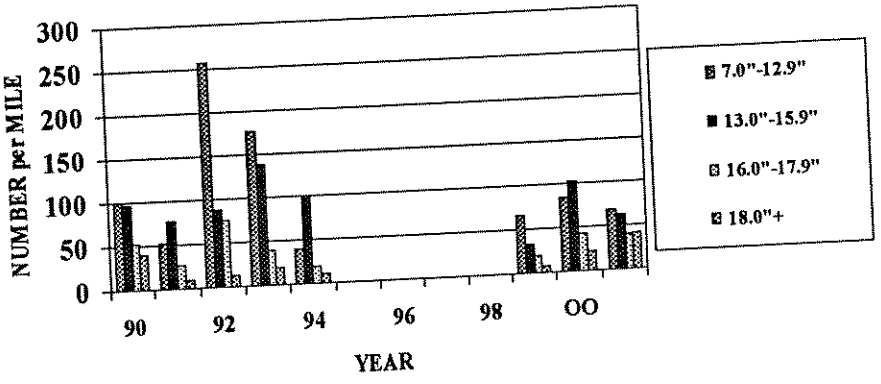

Figure 20. Estimated spring density and standing crop of Age II and older brown trout in the Silver Bow Section of the Beaverhead River, 2001.

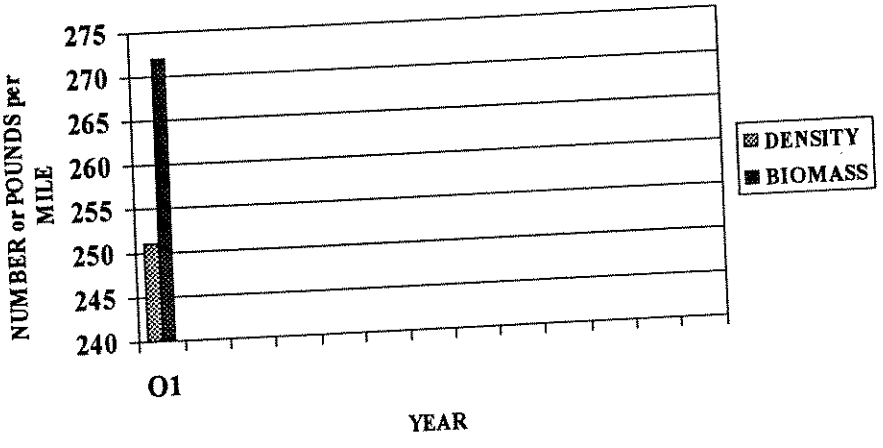

Figure 21. Estimated spring densities, by length group, of Age II and older brown trout in the Silver Bow Section of the Beaverhead River, 2001.

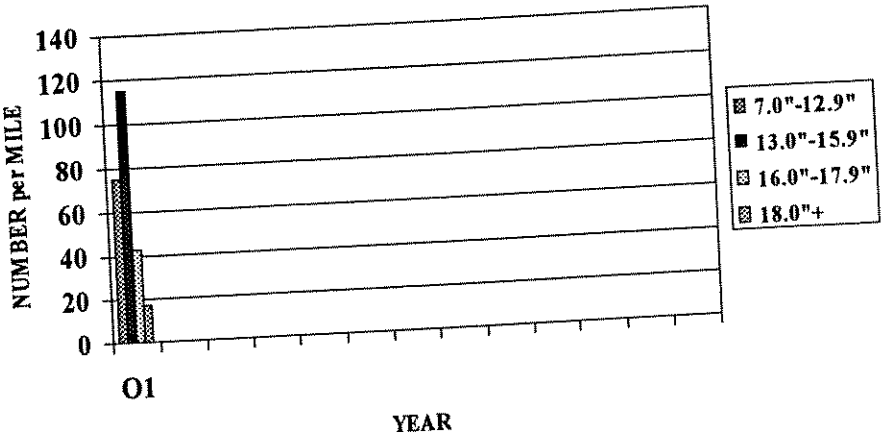

Figure 22. Estimated fall density and standing crop of Age I and older rainbow x cutthroat hybrid trout in the Three Forks Section of the Ruby River, 1987 - 2001.

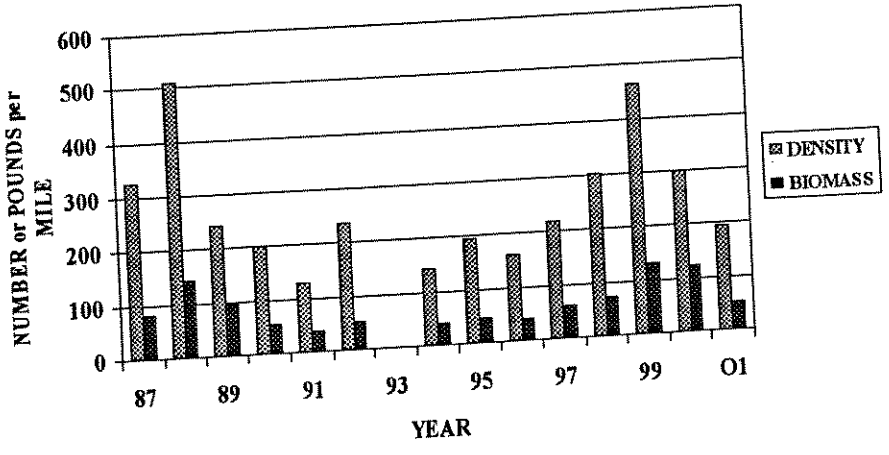

Figure 23. Estimated fall density, by length group, for Age I and older rainbow x cutthroat hybrid trout in the Three Forks Section of the Ruby River, 1987 - 2001.

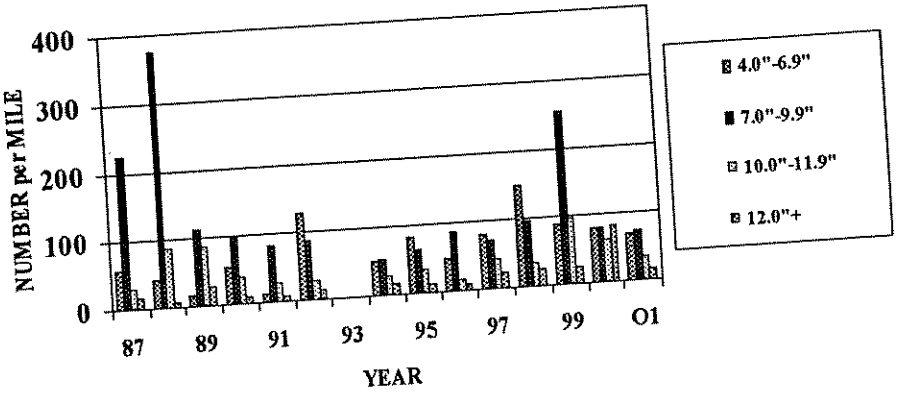

Figure 24. Mean fall Condition Factor (K) for Age I and older rainbow x cutthroat hybrid trout in the Three Forks Section of the Ruby River, 1987 - 2001.

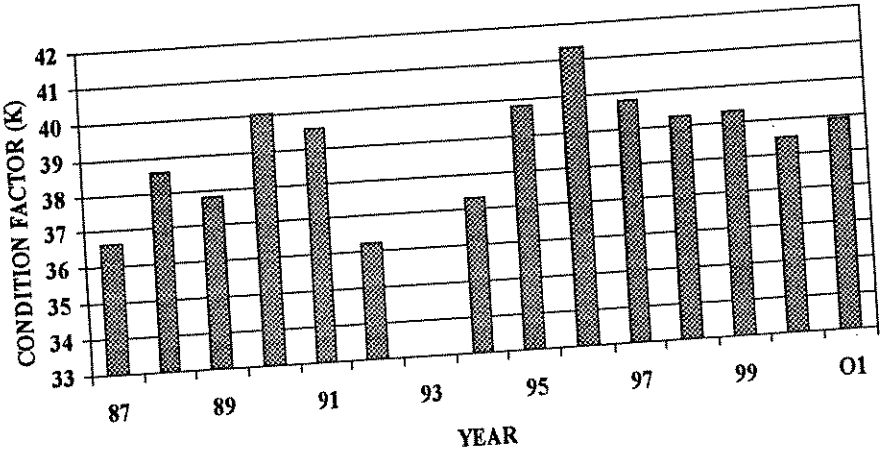

Figure 25. Estimated fall density and standing crop for Age I and older Arctic grayling in the Three Forks Section of the Ruby River 1998 - 2001.

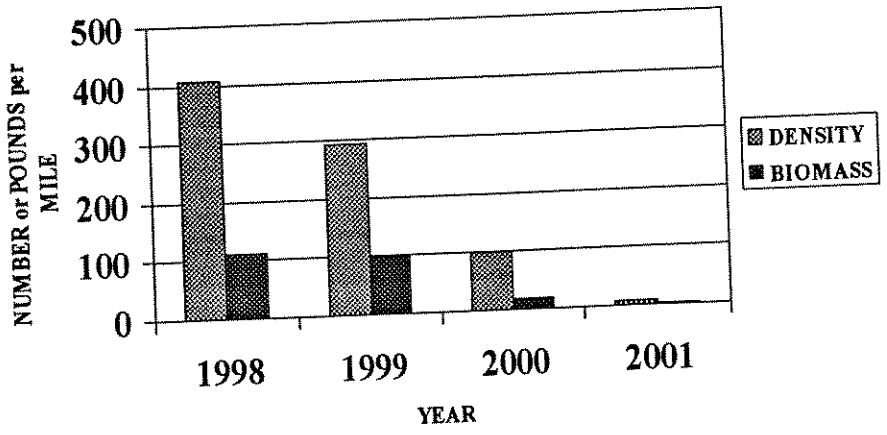

Figure 26. Estimated fall density and standing crop of Age I and older rainbow trout in the Greenhorn Section of the Ruby River, 1990 - 2001.

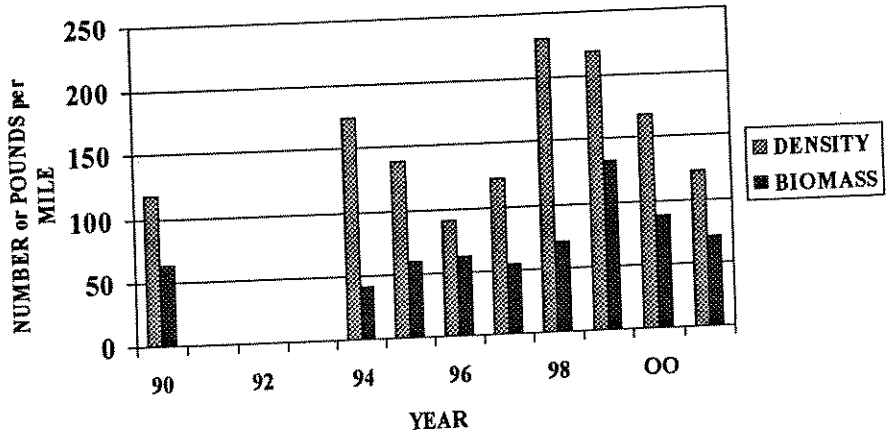

Figure 27. Estimated fall densities, by length group, of Age I and older rainbow trout in the Greenhorn Section of the Ruby River 1990 -2001.

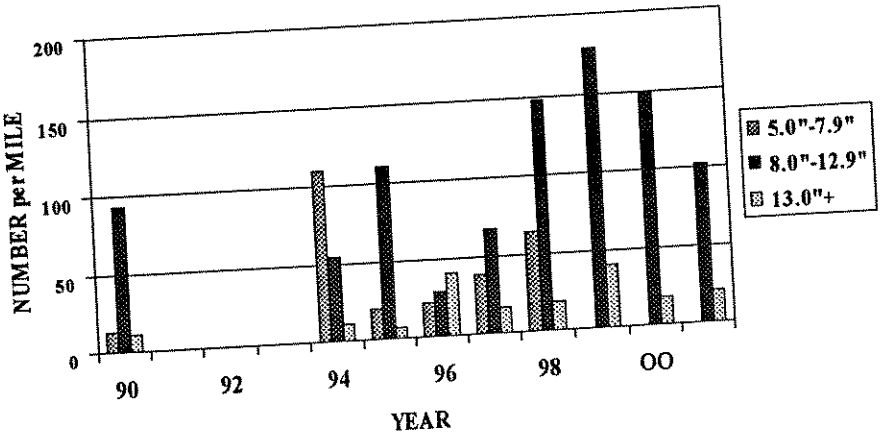

Figure 28. Estimated fall density and standing crop of Age I and older brown trout in the Greenhorn Section of the Ruby River, 1990 - 2001.

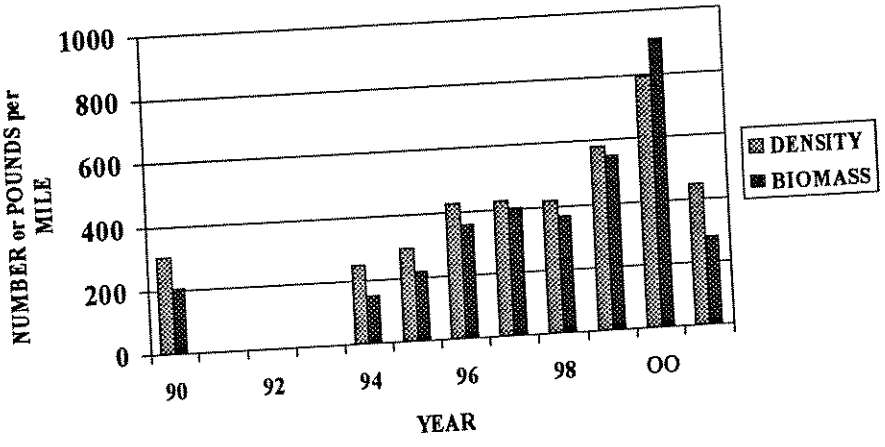

Figure 29. Estimated fall densities, by length group, of Age I and older brown trout in the Greenhorn Section of the Ruby River, 1990 - 2001.

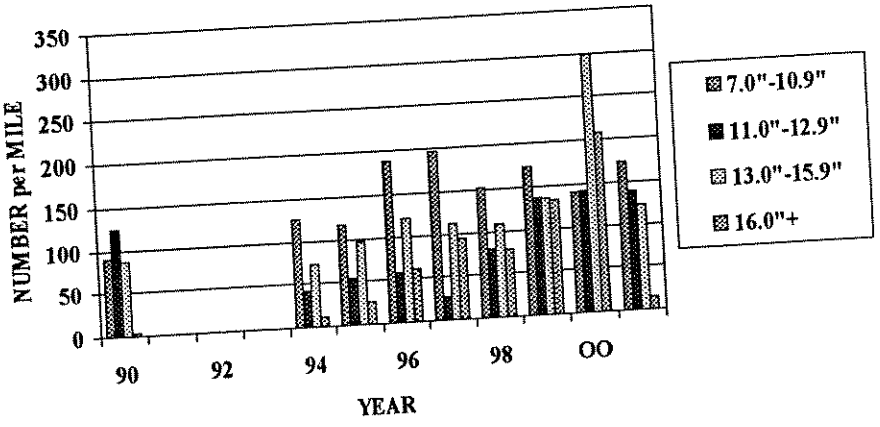

Figure 30. Estimated density and standing crop of fall Age I and older brown trout in the Passamari (PASS) Section (1994 - 1997) and spring Age II and older brown trout in the Maloney (MAL) Section (1998 - 2001) of the Ruby River.

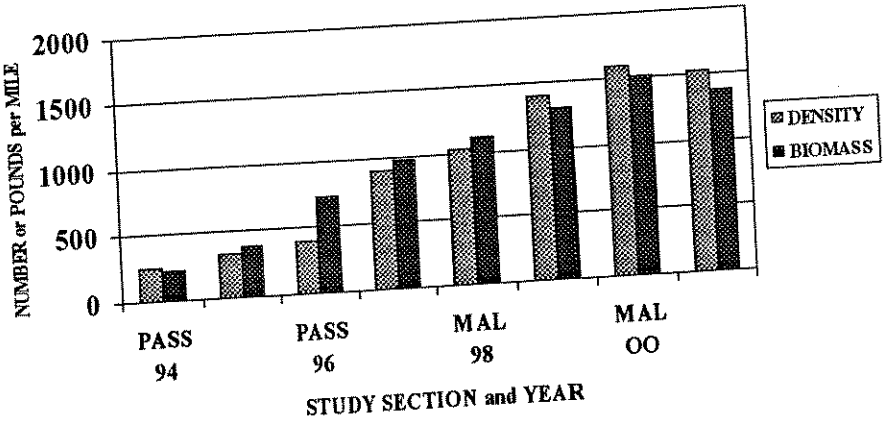

Figure 31. Estimated densities of 13 inch and larger brown trout from fall samples in the Passamari (PASS) Section and spring samples in the Maloney (MAL) Section of the Ruby River, 1994 - 2001.

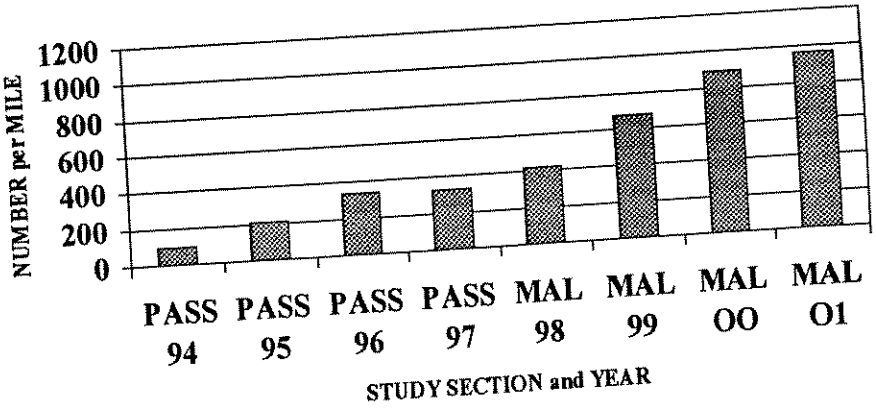

Figure 32. Estimated densities of 18 inch and larger brown trout from fall samples in the Passamari (PASS) Section and spring samples in the Maloney (MAL) Section of the Ruby River, 1994 - 2001.

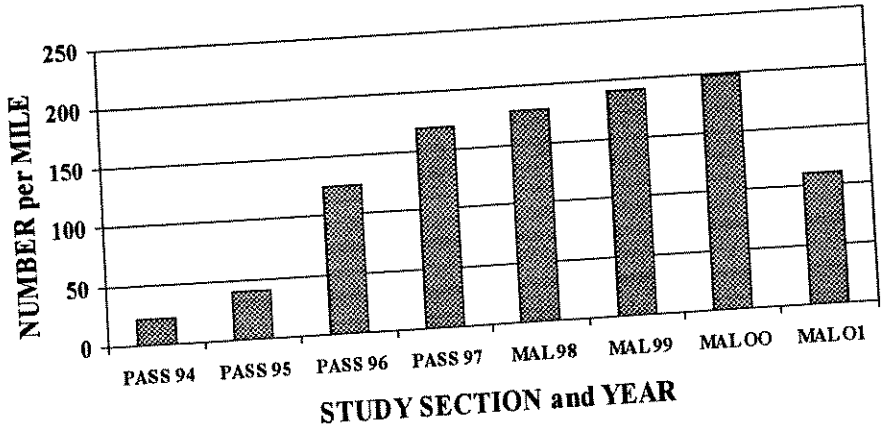

Figure 33. Estimated densities of juvenile brown trout from fall samples of Age I fish in the Passamari (PASS) Section and spring samples of Age II fish in the Maloney (MAL) Section of the Ruby River, 1994 - 2001.

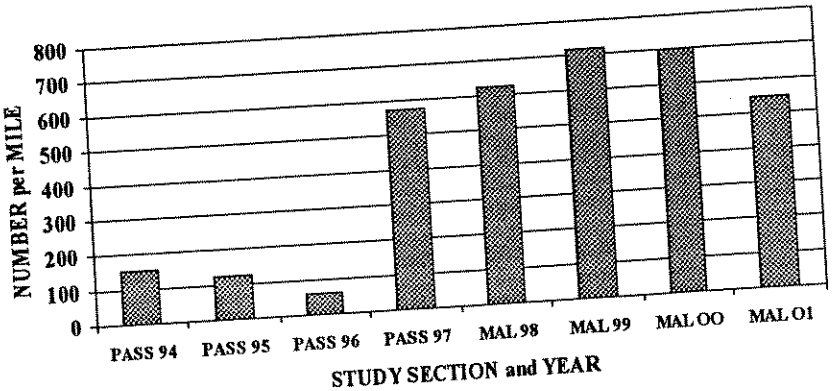

Figure 45. Estimated spring density and standing crop of Age II and older brown trout in the Silver Spring Section of the Ruby River, 1989 - 2001.

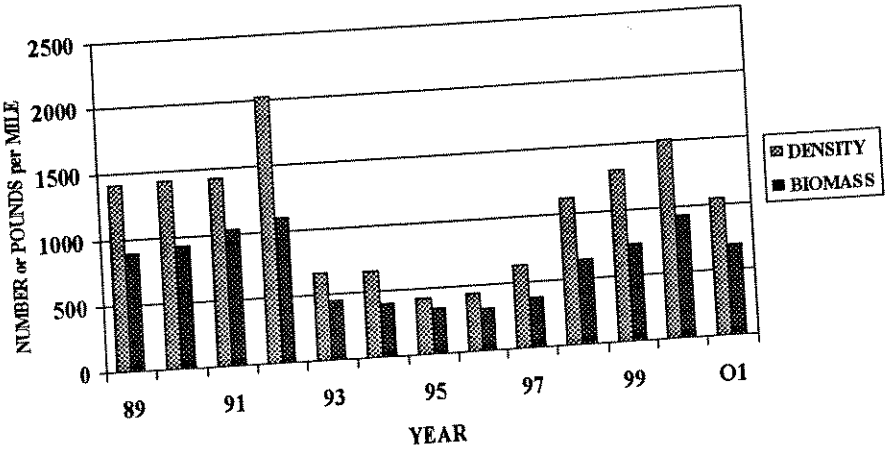

Figure 46. Estimated spring densities of juvenile (Age I and Age II) brown trout in the Silver Spring Section of the Ruby River, 1989 - 2001.

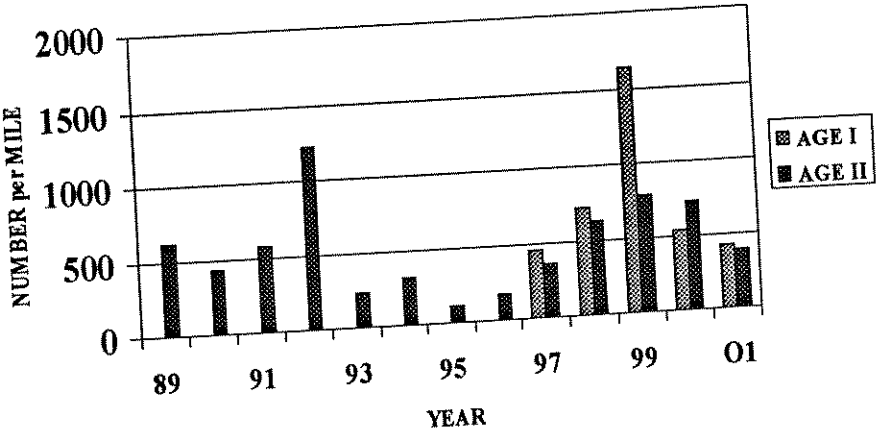

Figure 47. Estimated spring density of 13 inch and larger brown trout in the Silver Spring Section of the Ruby River, 1989 - 2001.

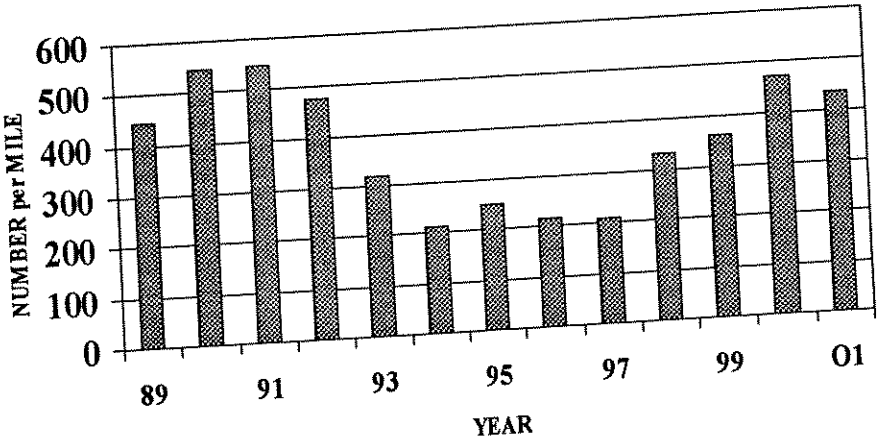

Figure 48. Estimated spring density of 16 inch and larger brown trout in the Silver Spring Section of the Ruby River, 1989 - 2001.

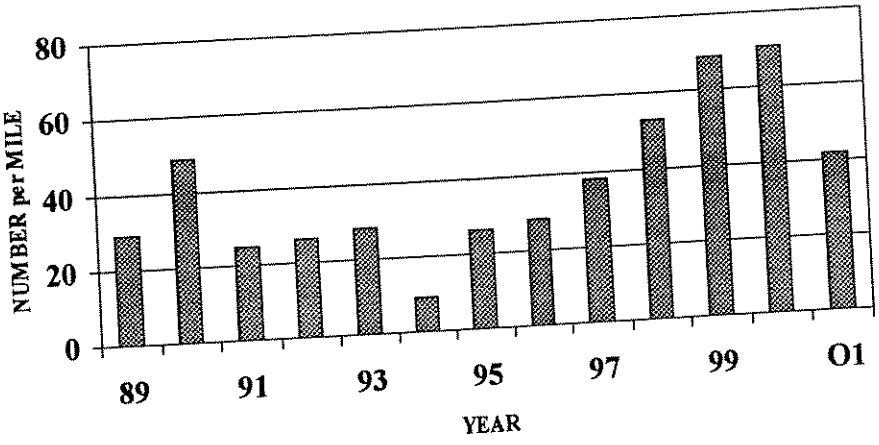

Figure 49. Estimated spring density and standing crop of Age II and older brown trout in the Sailor Section of the Ruby River, 1979 - 2000.

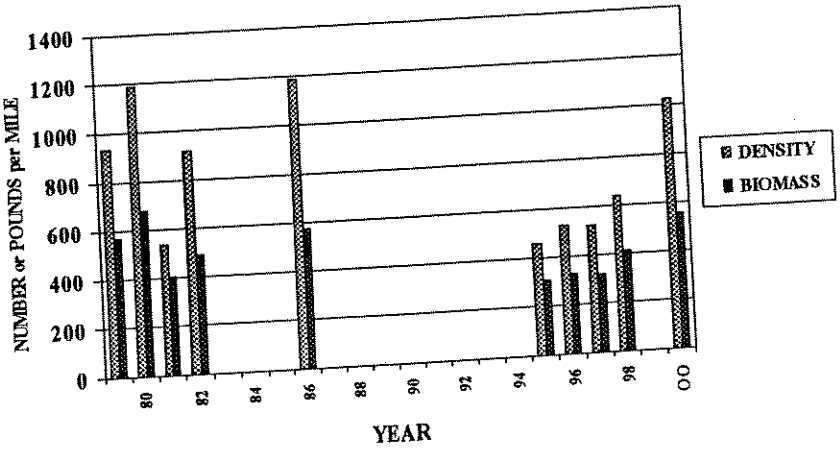

Figure 50. Estimated spring densities of juvenile (Age I and Age II) brown trout in the Sailor Section of the Ruby River, 1995 - 2000.

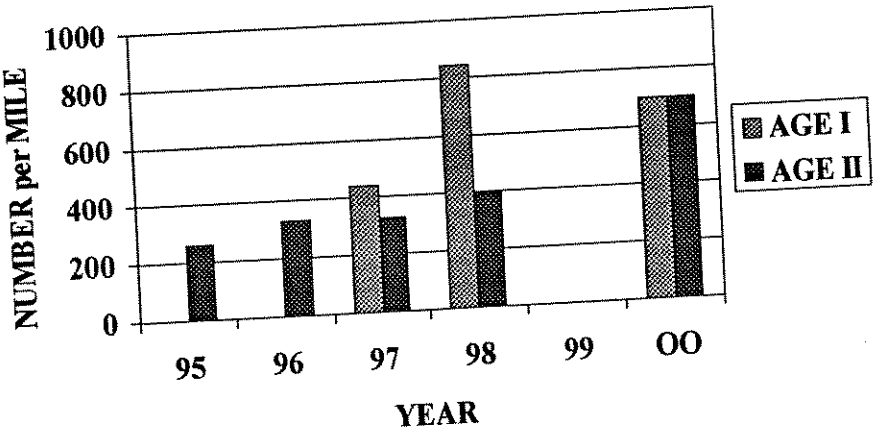

Figure 51. Estimated spring density of 13 inch and larger brown trout in the Sailor Section of the Ruby River, 1995 - 2000.

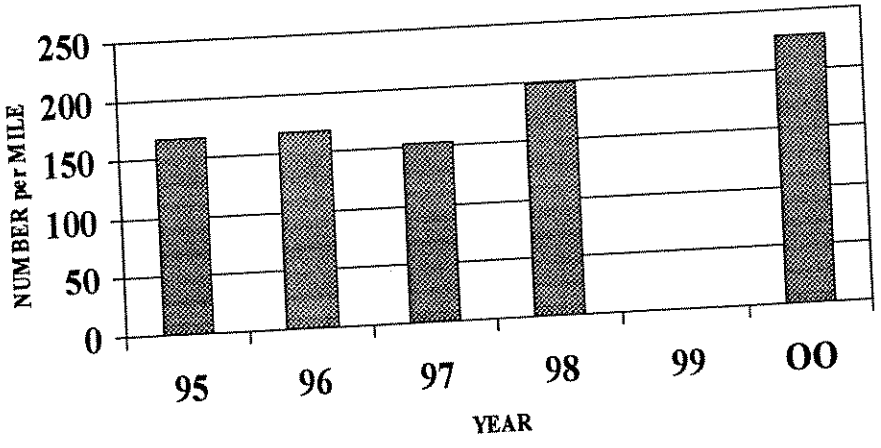

Figure 52. Estimated spring density of 16 inch and larger brown trout in the Sailor Section of the Ruby River, 1995 - 2000.

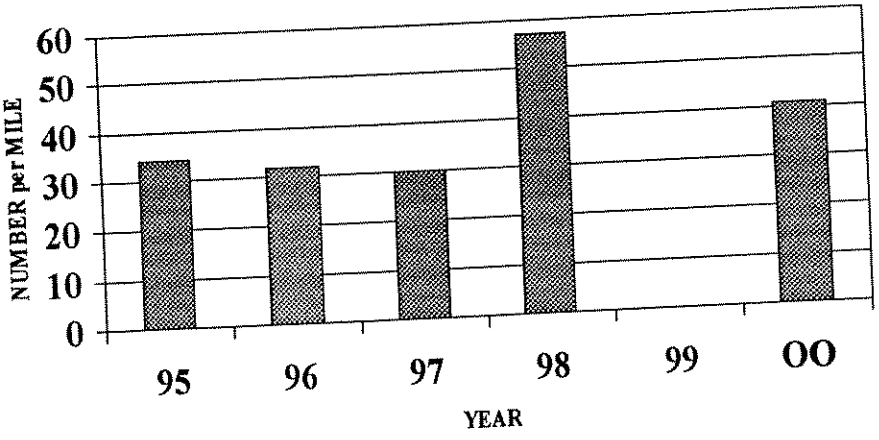

Figure 53. Estimated spring density and standing crop of Age I and older brown trout in Section Three of Poindexter Slough, 1989 - 2001.

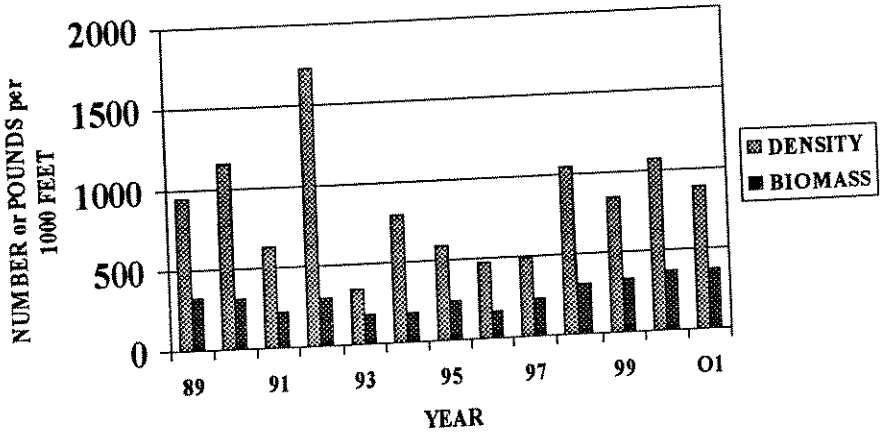

Figure 54. Estimated spring density of Age I brown trout in Section Three of Poindexter Slough, 1989 - 2001.

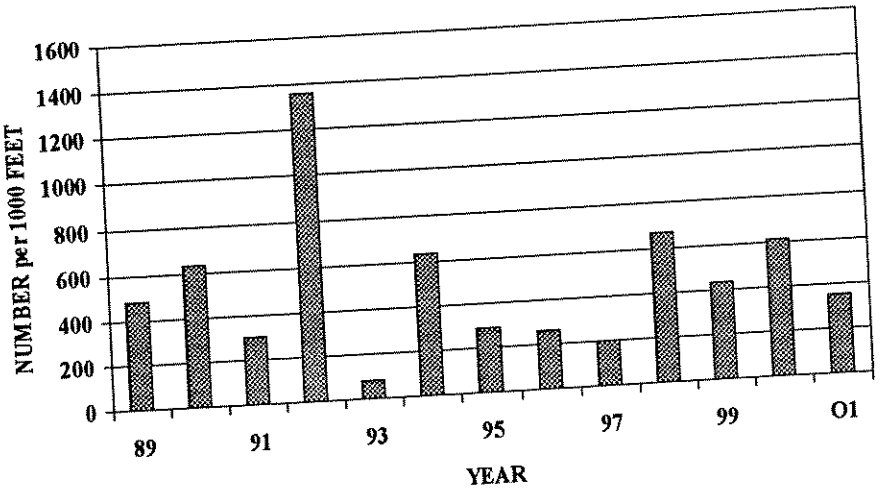

Figure 55. Estimated spring density of 13 inch and larger brown trout in Section Three of Poindexter Slough, 1989 - 2001.

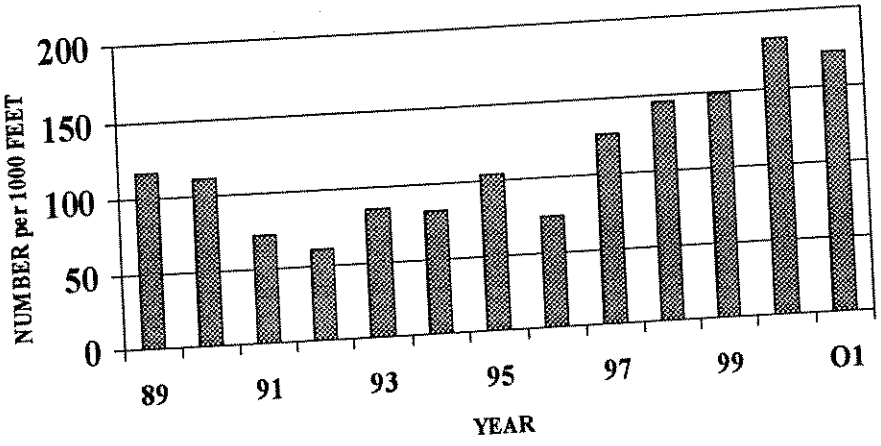

Figure 56. Estimated spring density of 15 inch and larger brown trout in Section Three of Poindexter Slough, 1989 - 2001.

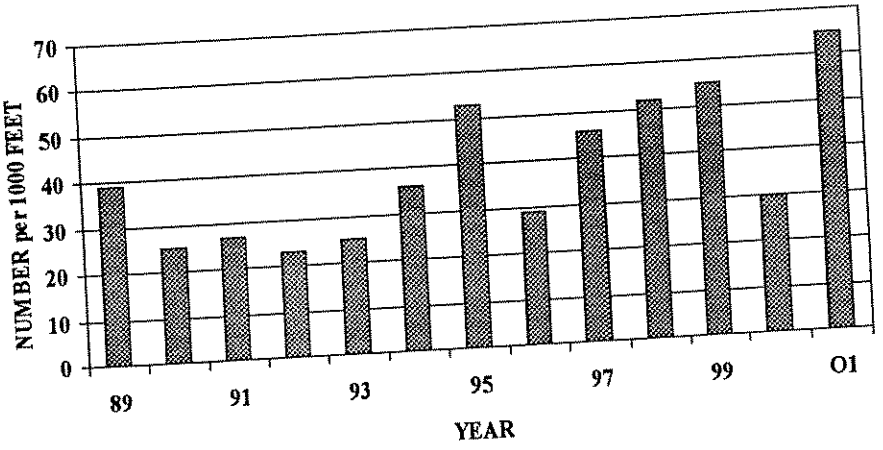

Figure 57. Estimated spring or fall density and standing crop of brown trout in the Shearing Pen Section of Big Sheep Creek, 1980, 1986, 1996 and 2000.

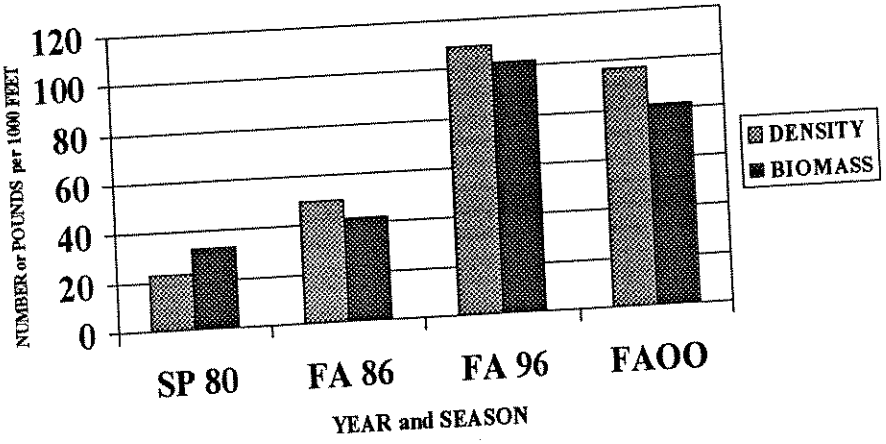

Figure 58. Estimated density of juvenile (fall Age I or spring Age II) brown trout in the Shearing Pen Section of Big Sheep Creek, 1980, 1986, 1996 and 2000.

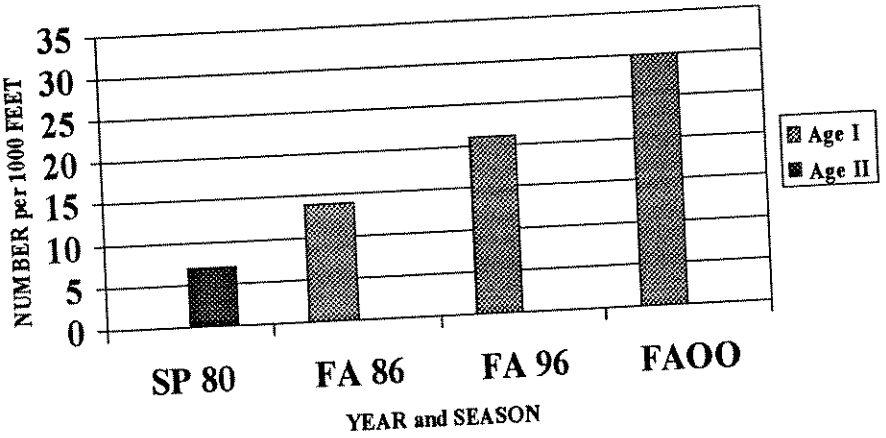

Figure 59. Estimated spring or fall densities of 13 inch and larger and 16 inch and larger brown trout in the Shearing Pen Section of Big Sheep Creek, 1980, 1986, 1996 and 2000.

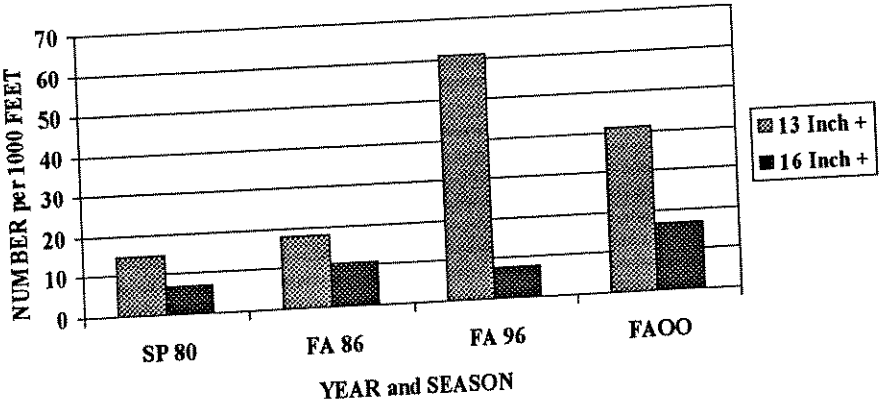

Figure 60. Estimated spring or fall density and standing crop of rainbow trout in the Shearing Pen Section of Big Sheep Creek; 1980, 1986, 1999 and 2000.

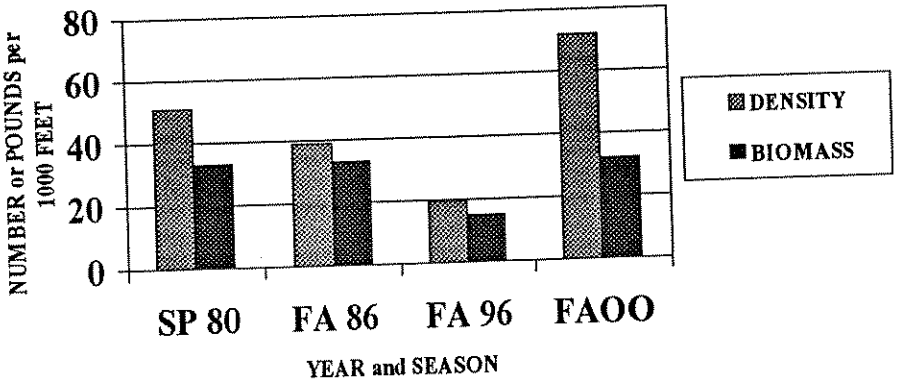

Figure 61. Estimated density of juvenile (fall Age I or spring Age II) rainbow trout in the Shearing Pen Section of Big Sheep Creek; 1980, 1986, 1996 and 2000.

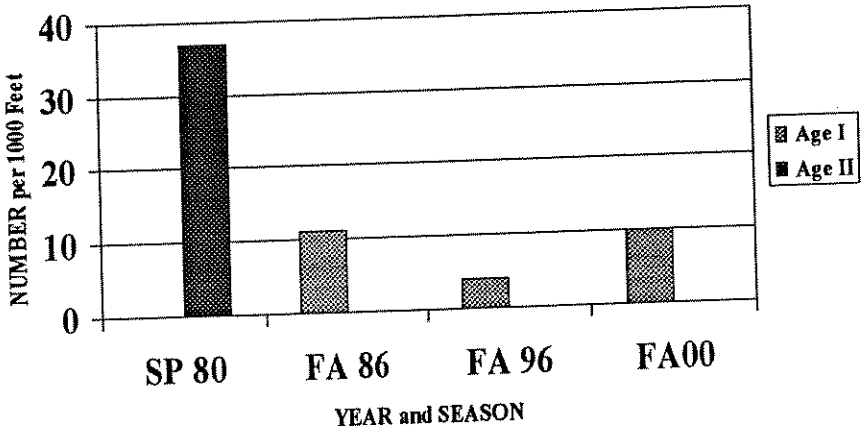

Figure 62. Estimated spring or fall densities of 13 inch and larger and 15 inch and larger rainbow trout in the Shearing Pen Section of Big Sheep Creek; 1980, 1986, 1996 and 2000.

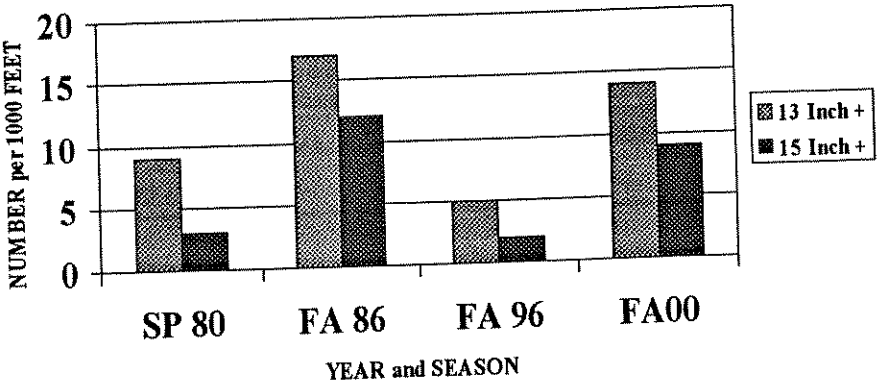

Figure 63. Estimated spring or fall density and standing crop of brown trout in the Canyon Section of Big Sheep Creek; 1982, '83, '87, '96 and 2000.

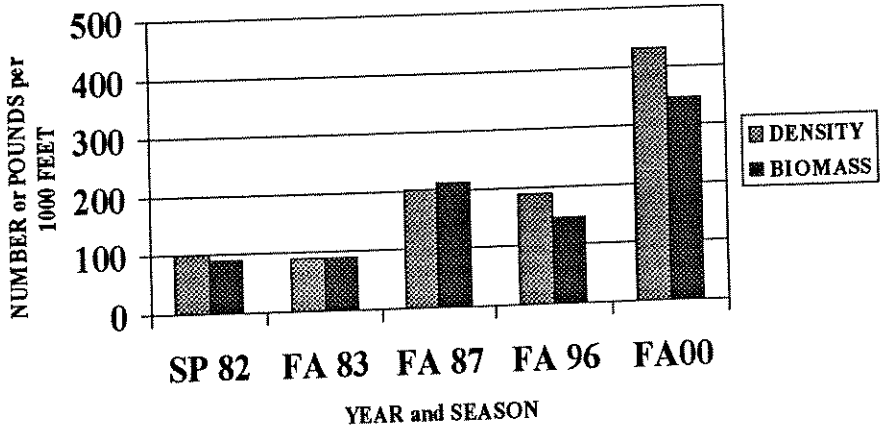

Figure 64. Estimated spring or fall density of juvenile (fall Age I or spring Age II) brown trout in the Canyon Section of Big Sheep Creek; 1982, '83, '87, and '96 and 2000.

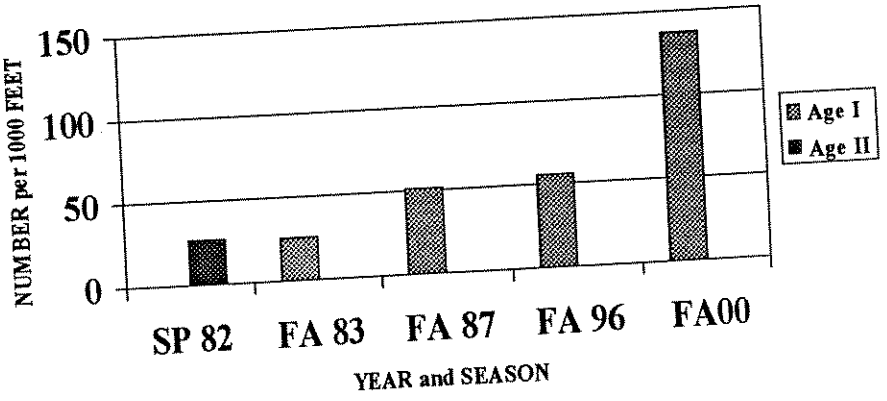

Figure 65. Estimated spring or fall densities of 13 inch and larger and 16 inch and larger brown trout in the Canyon Section of Big Sheep Creek; 1982, '83, '87, '96 and 2000.

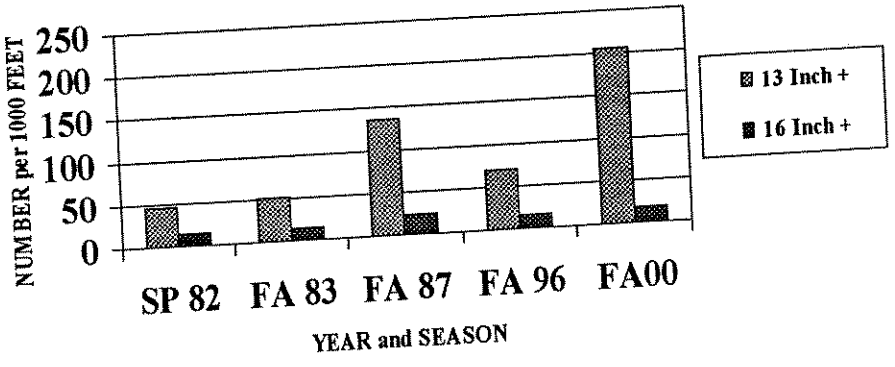

Figure 66. Estimated spring or fall density and standing crop of rainbow trout in the Canyon Section of Big Sheep Creek; 1982, '83, '87, '96 and 2000.

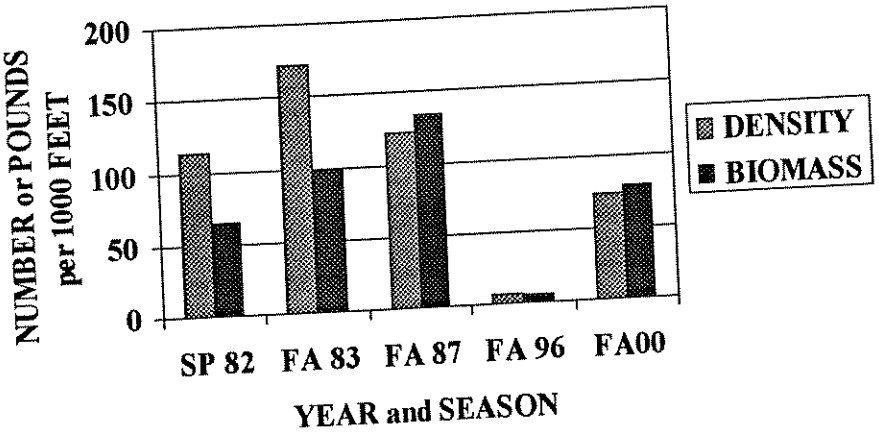

Figure 67. Estimated density of juvenile (fall Age I or spring Age II) rainbow trout in the Canyon Section of Big Sheep Creek; 1982, '83, '87, '96 and 2000.

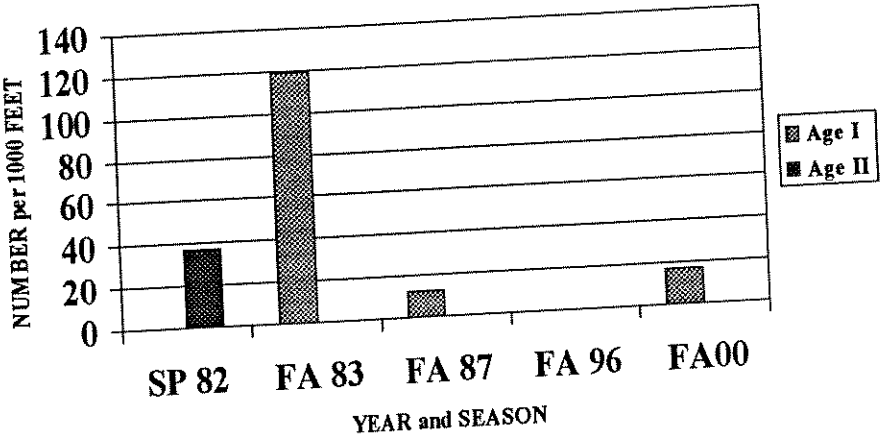

Figure 68. Estimated spring or fall densities of 13 inch and larger and 15 inch and larger rainbow trout in the Canyon Section of Big Sheep Creek; 1982, '83, '87, '96 and 2000.

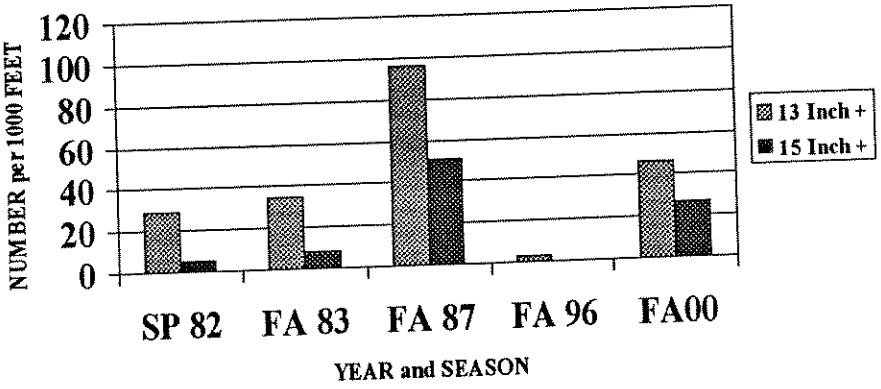

Figure 71. Estimated fall number and standing crop of westslope cutthroat trout and brook trout in the Taft Section of O'Dell Creek, 1994 and 2000.

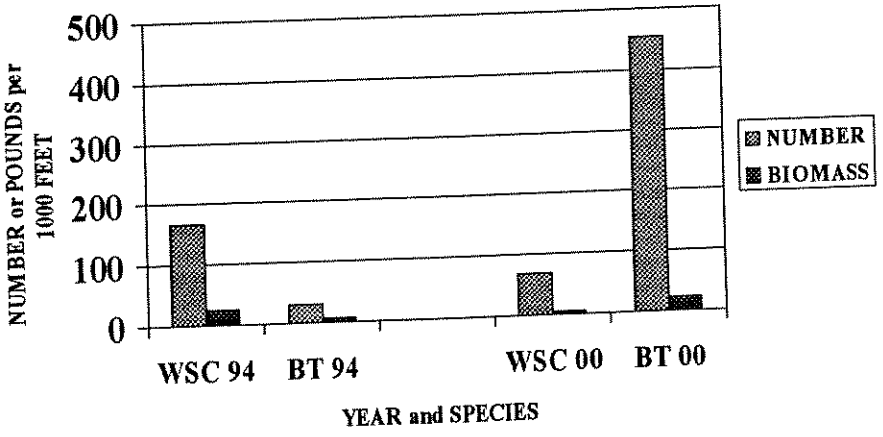

Figure 72. Estimated fall numbers, by length group, of westslope cuttroat trout and brook trout in the Taft Section of O'Dell Creek, 1994 and 2000.