

JUNIATA RIVER BASIN

**01559795 BOBS CREEK NEAR PAVIA, PA
(National Water-Quality Assessment Station)**

LOCATION.--Lat 40°16'21", long 78°35'55", Bedford County, Hydrologic Unit 02050303, on left bank 0.7 mi upstream from highway bridge on SR 869, 0.8 mi upstream from Wallacks Branch, and 1.3 mi northwest of Pavia at Blue Knob State Park.

DRAINAGE AREA.--16.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1993 to September 1994, April 1997 to September 2000 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,510 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges and those above 200 ft³/s, which are poor.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Apr. 22	2300	*204	*8.70	(No peaks above base discharge.)			

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	1.9	32	11	e6.6	92	26	29	43	10	5.8	3.6
2	3.2	19	27	11	e6.4	74	24	29	35	8.8	5.3	3.6
3	2.8	24	22	12	e6.2	59	24	24	28	10	12	3.9
4	3.3	13	18	15	e6.0	52	48	21	23	12	10	3.5
5	2.7	10	16	14	e6.0	46	50	19	25	8.4	6.3	3.0
6	2.4	8.9	15	12	e5.8	40	53	18	49	6.8	14	2.7
7	2.1	7.0	12	13	e5.8	36	51	16	37	6.1	59	2.7
8	2.0	6.5	10	14	e5.8	33	53	15	36	5.3	35	2.6
9	2.2	5.9	9.5	15	e5.8	29	49	14	33	5.0	27	2.7
10	7.6	5.6	11	18	7.2	27	47	13	29	5.9	20	2.7
11	5.4	4.8	11	19	e10	31	47	12	24	5.1	16	4.9
12	3.4	4.3	9.0	16	e14	35	59	11	23	4.4	14	4.3
13	3.1	4.3	9.2	e15	20	29	61	10	21	4.1	11	9.0
14	4.7	4.0	30	e15	61	30	60	9.6	21	4.7	9.8	4.1
15	4.2	3.8	41	e14	63	31	54	8.3	34	8.1	8.5	3.7
16	3.9	3.6	44	e14	e54	32	48	7.7	29	4.9	8.1	3.8
17	3.6	3.6	42	e14	e50	36	47	7.4	24	4.2	6.7	3.6
18	3.1	3.3	38	e13	61	30	48	7.1	27	3.9	6.8	3.1
19	2.3	3.4	33	e13	62	30	47	22	27	3.9	6.3	3.0
20	2.7	3.9	33	e13	56	30	50	20	24	4.0	5.3	3.0
21	2.7	4.2	31	e13	51	46	107	14	32	3.5	4.7	2.8
22	2.9	4.2	27	e12	49	60	159	13	36	3.5	4.4	2.6
23	3.0	4.3	25	e11	58	70	177	18	31	3.2	4.3	2.7
24	3.3	4.0	24	e10	79	71	137	41	28	3.3	5.3	3.7
25	2.7	6.6	e22	e8.0	141	64	98	37	24	3.4	4.2	3.5
26	2.4	76	e20	e7.5	158	55	72	34	21	3.1	3.7	5.9
27	2.1	86	19	e7.0	129	48	59	33	19	3.0	3.7	4.1
28	1.9	63	17	e6.9	126	43	48	42	16	6.1	4.1	3.2
29	2.0	50	15	e6.5	104	40	39	57	14	8.4	3.7	2.9
30	1.9	40	14	e6.7	---	33	33	58	12	4.5	3.7	2.7
31	1.9	---	13	e6.8	---	29	---	52	---	4.9	3.6	---
TOTAL	96.0	479.1	689.7	376.4	1407.6	1361	1875	712.1	825	172.5	332.3	107.6
MEAN	3.10	16.0	22.2	12.1	48.5	43.9	62.5	23.0	27.5	5.56	10.7	3.59
MAX	7.6	86	44	19	158	92	177	58	49	12	59	9.0
MIN	1.9	1.9	9.0	6.5	5.8	27	24	7.1	12	3.0	3.6	2.6
CFSM	.19	.96	1.34	.73	2.92	2.64	3.77	1.38	1.66	.34	.65	.22
IN.	.22	1.07	1.55	.84	3.15	3.05	4.20	1.60	1.85	.39	.74	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2000, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	4.17	57.5	25.5	21.8	44.2	77.3	93.9	43.5
MAX	5.98	143	45.3	42.0	48.9	136	159	73.5
(WY)	1994	1998	1994	1998	1994	1994	1994	1997
MIN	1.70	1.63	1.71	9.03	30.9	43.9	61.0	12.8
(WY)	1999	1999	1999	1994	1999	2000	1998	1999

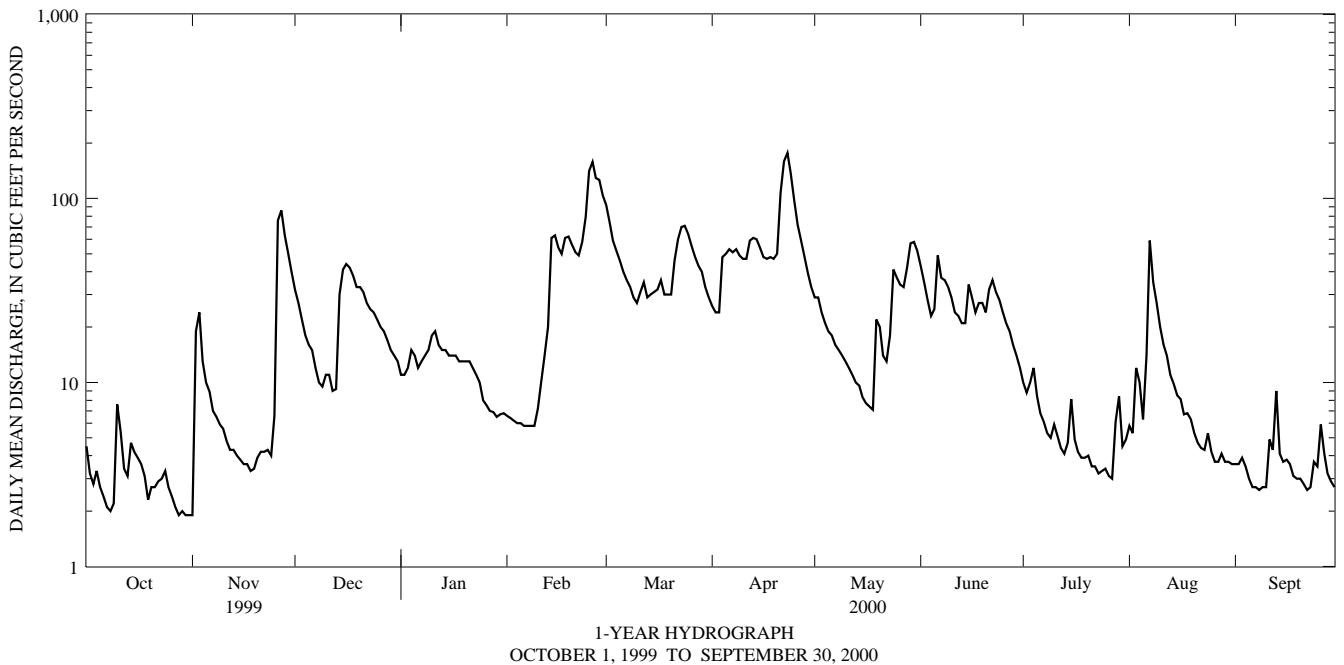
e Estimated.

JUNIATA RIVER BASIN

01559795 BOBS CREEK NEAR PAVIA, PA--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1993 - 2000	
ANNUAL TOTAL	7842.59		8434.3			
ANNUAL MEAN	21.5		23.0		32.4	
HIGHEST ANNUAL MEAN					46.6	
LOWEST ANNUAL MEAN					18.4	
HIGHEST DAILY MEAN	238	Apr 10	177	Apr 23	1820	Nov 8 1997
LOWEST DAILY MEAN	.70	Sep 3	1.9	Oct 28 ^a	.70	Sep 3 1999
ANNUAL SEVEN-DAY MINIMUM	.79	Aug 30	2.0	Oct 26	.79	Aug 30 1999
INSTANTANEOUS PEAK FLOW			204	Apr 22	^b 3680	Nov 8 1997
INSTANTANEOUS PEAK STAGE			8.70	Apr 22	10.63	Nov 8 1997
INSTANTANEOUS LOW FLOW			1.8	Oct 28 ^c	.69	Oct 15 1998
ANNUAL RUNOFF (CFSM)	1.29		1.39		1.95	
ANNUAL RUNOFF (INCHES)	17.57		18.90		26.51	
10 PERCENT EXCEEDS	67		54		69	
50 PERCENT EXCEEDS	6.0		13		8.6	
90 PERCENT EXCEEDS	1.3		3.1		1.5	

- ^a Also Oct. 30, 31, Nov. 1.
- ^b From rating curve extended above 200 ft³/s.
- ^c Also Oct. 31, Nov. 1.



JUNIATA RIVER BASIN

01559795 BOBS CREEK NEAR PAVIA, PA--Continued
(National Water-Quality Assessment Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD: April 1993 to August 1995. April 1997 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1993 to September 1995.

WATER TEMPERATURE: December 1993 to September 1995. April 1997 to current year.

INSTRUMENTATION.--Daily record measured and collected with in-situ probes and electronic data logger.

REMARKS.--From October 1999 to March 2000, water-quality samples were collected monthly for nutrients, major ions, and suspended sediment, and from April to September 2000, samples were collected monthly for pesticides, nutrients, major ions, and suspended sediment. Habitat characterization and ecological samples for invertebrates, algae, moss, fish-community, chlorophyl-a, chlorophyl-b, and periphyton biomass were collected June 7-8. Ecological data shown in this report include fish community, chlorophyl-a, and chlorophyl-b.

Quality-control data for sequentially-collected replicate samples using natural water are shown for June 6, 2000 at 0951 (pesticides), July 5, 2000 at 1001(nutrients, major ions, and sediment).

The remark code "E" indicates an estimated value with uncertain accuracy and precision for the analyte. Some values for "dissolved" parameters exceed values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 94 microsiemens, Feb. 28, 1995; minimum, 51 microsiemens, Aug. 17, 1994.

WATER TEMPERATURE: Maximum, 23.0°C, July 5, 6, 31, 1999; minimum, 0.0°C, many days during winters.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 20.0°C, Sept. 3; minimum, 0.0°C, many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (µS/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
OCT 05...	1000	80020	1028	3.0	715	90	9.5	7.2	91	5.7	10.1	30
NOV 02...	1015	80020	1028	3.0	--	--	9.2	7.4	89	13.7	11.1	29
30...	1010	80020	1028	41	722	108	13.4	7.4	72	-2.1	3.9	23
JAN 04...	0945	80020	1028	14	701	95	10.9	7.5	80	10.6	5.9	25
FEB 01...	1050	80020	1028	19	709	92	12.5	8.0	75	-4.1	.2	23
MAR 07...	0930	80020	1028	37	716	96	11.9	7.0	72	7.3	3.8	23
APR 04...	1040	80020	1028	50	700	94	9.9	7.2	82	8.9	9.2	25
MAY 02...	1040	80020	1028	29	712	97	10.1	7.4	68	11.7	10.4	22
JUN 06...	0950	80020	1028	47	709	95	9.6	6.9	74	11.9	11.5	24
06...	0951	80020	1028	--	--	--	--	--	--	--	--	--
07...	1130	80020	1028	--	--	--	--	--	--	--	--	--
JUL 05...	1000	80020	1028	7.7	712	91	8.5	7.1	77	17.1	15.3	25
05...	1001	80020	1028	--	--	--	--	--	--	--	--	25
AUG 01...	1020	80020	1028	4.7	717	96	8.6	7.5	77	20.1	17.7	26
SEP 05...	1030	80020	1028	2.7	723	95	9.2	7.5	82	12.0	14.3	30

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L) AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM, DIS- SOLVED (MG/L) AS NA) (00930)	SODIUM PERCENT (00932)	ALKA- LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	ALKA- LINITY WAT DIS TOT IT FIELD CAC03) (MG/L AS CAC03) (39086)	BICAR- BONATE WAT.DIS FET FIELD HCO3 (MG/L) (29804)	BICAR- BONATE WATER DIS IT FIELD HCO3) (MG/L AS HCO3) (00453)	CAR- BONATE WAT.DIS FET FIELD CO3 (MG/L) (29807)
OCT 05...	16	6.98	3.04	1.2	.3	3.9	21	15	14	19	17	.0
NOV 02...	8	6.82	2.98	1.2	.3	3.9	21	23	22	28	26	.0
30...	17	5.42	2.33	1.1	.2	2.7	19	8.0	7	9	8	.0
JAN 04...	12	5.77	2.50	.9	.3	3.4	22	14	13	17	15	.0
FEB 01...	14	5.43	2.34	.8	.3	2.9	21	9.3	--	--	--	.0
MAR 07...	12	5.35	2.35	.8	.3	3.0	21	12	10	15	13	.0
APR 04...	15	5.72	2.50	1.1	.4	4.1	26	11	10	14	12	.0
MAY 02...	15	5.17	2.25	.9	.2	2.6	19	8.2	7	10	9	.0
JUN 06...	12	5.66	2.33	1.2	.3	3.4	22	13	12	16	14	.0
06...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 05...	12	5.84	2.46	1.1	.3	2.9	20	14	12	17	15	.0
05...	--	5.98	2.52	1.0	.3	3.0	20	13	12	16	14	.0
AUG 01...	13	6.16	2.63	1.1	.3	3.1	20	15	14	19	16	.0
SEP 05...	15	7.04	2.95	1.1	.3	3.4	19	16	15	20	18	.0

DATE	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F) (00950)	SILICA, DIS- SOLVED (MG/L) AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L) AS SO4) (00945)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L) AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L) AS N) (00607)	NITRO- GEN, TOTAL (MG/L) AS N) (00600)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS NH4) (71846)
OCT 05...	0	7.7	<.1	5.0	10.3	.12	.11	<.020	--	.61	--
NOV 02...	0	7.7	<.1	1.5	10.2	E.10	.10	<.020	--	--	--
30...	0	4.0	<.1	5.3	9.4	E.10	<.10	.022	--	--	.03
JAN 04...	0	7.9	<.1	4.1	11.0	<.10	.12	<.020	--	1.0	--
FEB 01...	0	5.5	<.1	4.7	10.7	<.10	<.10	<.020	--	--	--
MAR 07...	0	5.7	<.1	5.3	10.3	E.10	E.10	<.020	--	--	--
APR 04...	0	7.6	<.1	4.4	10.0	.10	.29	<.020	--	1.1	--
MAY 02...	0	5.2	<.1	4.8	9.8	.12	E.10	<.020	--	--	--
JUN 06...	0	5.6	<.1	4.9	10.7	.15	.26	.021	.13	.95	.03
06...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
JUL 05...	0	6.0	<.1	5.0	10.3	E.10	.11	.029	--	.69	.04
05...	0	5.4	<.1	5.1	9.3	<.10	.11	.026	--	.93	.03
AUG 01...	0	5.6	<.1	5.0	9.2	<.10	.14	<.020	--	.74	--
SEP 05...	0	6.2	.1	4.8	8.9	E.10	E.10	<.020	--	--	--

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01559795 BOBS CREEK NEAR PAVIA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
OCT 05...	.61	.492	<.010	--	--	.010	<.010	.017	.07	.42	51
NOV 02...	--	<.050	<.010	--	--	E.005	<.010	E.005	.07	.43	52
NOV 30...	--	1.17	<.010	--	.037	.007	.012	E.006	.06	5.10	46
JAN 04...	--	.911	<.010	--	.040	E.004	.013	E.006	.06	1.78	46
FEB 01...	--	1.02	<.010	--	--	E.004	<.010	E.006	.05	1.97	39
MAR 07...	--	1.02	<.010	--	--	E.005	<.010	E.006	.07	4.97	50
APR 04...	.87	.763	<.010	--	--	.012	<.010	.050	.06	6.34	47
MAY 02...	.93	.812	<.010	--	--	.006	<.010	.011	.05	3.14	40
JUN 06...	.84	.686	<.010	.24	.031	.018	.010	.035	.07	6.63	52
JUN 06...	--	--	--	--	--	--	--	--	--	--	--
JUN 07...	--	--	--	--	--	--	--	--	--	--	--
JUL 05...	--	.581	<.010	.08	.037	.016	.012	.022	.07	1.01	49
JUL 05...	--	.817	<.010	.08	.037	.018	.012	.023	--	--	48
AUG 01...	--	.602	<.010	--	.071	.019	.023	.025	.07	.61	48
SEP 05...	--	.574	<.010	--	.046	.016	.015	.021	.07	.36	49

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M ²) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M ²) (70958)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 µ GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER, FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)
OCT 05...	49	--	--	<10	8	35.7	--	--	--	--	--
NOV 02...	47	--	--	E10	7	36.0	--	--	--	--	--
NOV 30...	39	--	--	<10	E2	26.5	--	--	--	--	--
JAN 04...	47	--	--	E10	E1	28.9	--	--	--	--	--
FEB 01...	43	--	--	<10	E1	26.8	--	--	--	--	--
MAR 07...	44	--	--	<10	<2	25.8	--	--	--	--	--
APR 04...	45	--	--	20	3	29.2	<.003	<.002	<.002	<.002	.004
MAY 02...	39	--	--	E10	3	25.5	<.003	<.002	<.002	<.002	.005
JUN 06...	44	--	--	30	3	28.2	<.003	<.002	<.002	<.002	.062
JUN 06...	--	--	--	--	--	--	<.003	E.003	<.002	<.002	.065
JUN 07...	--	4.8	4.1	--	--	--	--	--	--	--	--
JUL 05...	44	--	--	E10	3	29.0	<.003	.005	<.002	<.002	.023
JUL 05...	--	--	--	<10	E1	29.6	--	--	--	--	--
AUG 01...	43	--	--	10	3	31.3	<.003	<.002	<.002	<.002	.010
SEP 05...	46	--	--	E10	7	34.9	<.003	<.002	<.002	<.002	.008

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01559795 BOBS CREEK NEAR PAVIA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	BEN- FLUR- ALIN WAT FLT 0.7 µ GF, REC (µG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (µG/L) (84028)	CAR- BARYL WATER FLTRD 0.7 µ GF, REC (µG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 µ GF, REC (µG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (µG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (µG/L) (84041)	DCPA WATER FLTRD 0.7 µ GF, REC (µG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (µG/L) (84040)	DIAZ- INON D10 SRG WAT FLT 0.7 µ GF, REC PERCENT (µG/L) (91063)	DI- AZINON, DIS- SOLVED (µG/L) (39572)	DI- ELDRIN DIS- SOLVED (µG/L) (39381)
OCT 05...	--	--	--	--	--	--	--	--	--	--	--
NOV 02...	--	--	--	--	--	--	--	--	--	--	--
NOV 30...	--	--	--	--	--	--	--	--	--	--	--
JAN 04...	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--	--	--
APR 04...	E.002	<.002	<.003	<.003	<.004	<.004	<.002	E.007	92	.006	<.001
MAY 02...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	E.010	111	<.002	<.001
JUN 06...	<.002	<.002	E.002	<.003	<.004	<.004	<.002	E.019	108	<.002	<.001
JUN 06...	<.002	<.002	E.002	<.003	<.004	<.004	<.002	E.019	117	<.002	<.001
JUN 07...	--	--	--	--	--	--	--	--	--	--	--
JUL 05...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	E.013	101	<.002	<.001
JUL 05...	--	--	--	--	--	--	--	--	--	--	--
AUG 01...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	E.011	111	<.002	<.001
SEP 05...	<.002	<.002	<.003	<.003	<.004	<.004	<.002	E.012	115	<.002	<.001
DATE	DISUL- FOTON WATER FLTRD 0.7 µ GF, REC (µG/L) (82677)	EPTC WATER FLTRD 0.7 µ GF, REC (µG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 µ GF, REC (µG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 µ GF, REC (µG/L) (82672)	FONOFOS WATER DISS REC (µG/L) (84095)	HCH ALPHA D6 SRG WAT FLT 0.7 µ GF, REC PERCENT (µG/L) (91065)	LINDANE DIS- SOLVED (µG/L) (39341)	LIN- URON WATER FLTRD 0.7 µ GF, REC (µG/L) (82666)	MALA- THION, DIS- SOLVED (µG/L) (39532)	METHYL AZIN- PHOS WAT FLT 0.7 µ GF, REC (µG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 µ GF, REC (µG/L) (82667)
OCT 05...	--	--	--	--	--	--	--	--	--	--	--
NOV 02...	--	--	--	--	--	--	--	--	--	--	--
NOV 30...	--	--	--	--	--	--	--	--	--	--	--
JAN 04...	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--	--	--
APR 04...	<.017	<.002	<.004	<.003	<.003	81	<.004	<.002	<.005	<.001	<.006
MAY 02...	<.017	<.002	<.004	<.003	<.003	95	<.004	<.002	<.005	<.001	<.006
JUN 06...	<.017	<.002	<.004	<.003	<.003	87	<.004	<.002	<.005	<.001	<.006
JUN 06...	<.017	<.002	<.004	<.003	<.003	96	<.004	<.002	<.005	<.001	<.006
JUN 07...	--	--	--	--	--	--	--	--	--	--	--
JUL 05...	<.017	<.002	<.004	<.003	<.003	90	<.004	<.002	<.005	<.001	<.006
JUL 05...	--	--	--	--	--	--	--	--	--	--	--
AUG 01...	<.017	<.002	<.004	<.003	<.003	98	<.004	<.002	<.005	<.001	<.006
SEP 05...	<.017	<.002	<.004	<.003	<.003	113	<.004	<.002	<.005	<.001	<.006

JUNIATA RIVER BASIN

01559795 BOBS CREEK NEAR PAVIA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	METO- LACHLOR WATER DISSOLV (µG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (µG/L) (82630)	MOL- INATE WATER FLTRD 0.7 µ (µG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 µ (µG/L) (82684)	P, P' DDE DISSOLV (µG/L) (34653)	PARA- THION, DIS- SOLVED (µG/L) (39542)	PEB- ULATE WATER FILTRD 0.7 µ (µG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 µ (µG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 µ (µG/L) (82687)	PHORATE WATER FLTRD 0.7 µ (µG/L) (82664)	PRO- METON, WATER, DISS, REC (µG/L) (04037)
OCT 05...	--	--	--	--	--	--	--	--	--	--	--
NOV 02...	--	--	--	--	--	--	--	--	--	--	--
NOV 30...	--	--	--	--	--	--	--	--	--	--	--
JAN 04...	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--	--	--
APR 04...	<.002	<.004	<.004	<.003	E.002	<.004	<.004	<.004	<.005	<.002	<.018
MAY 02...	<.002	<.004	<.004	<.003	<.006	<.004	<.004	<.004	<.005	<.002	<.018
JUN 06...	.009	<.004	<.004	<.003	<.006	<.004	<.004	<.004	<.005	<.002	E.004
JUN 06...	.008	<.004	<.004	<.003	<.006	<.004	<.004	<.004	<.005	<.002	E.004
JUN 07...	--	--	--	--	--	--	--	--	--	--	--
JUL 05...	<.002	<.004	<.004	<.003	<.006	<.004	<.004	<.004	<.005	<.002	<.018
JUL 05...	--	--	--	--	--	--	--	--	--	--	--
AUG 01...	<.002	<.004	<.004	<.003	<.006	<.004	<.004	<.004	<.005	<.002	<.018
SEP 05...	<.002	<.004	<.004	<.003	<.006	<.004	<.004	<.004	<.005	<.002	<.018
DATE	PRON- AMIDE WATER FLTRD 0.7 µ (µG/L) (82676)	PROPA- CHLOR, WATER, DISS, REC (µG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 µ (µG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 µ (µG/L) (82685)	SI- MAZINE, WATER, DISS, REC (µG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 µ (µG/L) (82670)	TER- BACIL WATER FLTRD 0.7 µ (µG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 µ (µG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 µ (µG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 µ (µG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 µ (µG/L) (82661)
OCT 05...	--	--	--	--	--	--	--	--	--	--	--
NOV 02...	--	--	--	--	--	--	--	--	--	--	--
NOV 30...	--	--	--	--	--	--	--	--	--	--	--
JAN 04...	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--	--	--	--	--
APR 04...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
MAY 02...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
JUN 06...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
JUN 06...	<.003	<.007	<.004	<.013	E.004	<.010	<.007	<.013	<.002	<.001	<.002
JUN 07...	--	--	--	--	--	--	--	--	--	--	--
JUL 05...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
JUL 05...	--	--	--	--	--	--	--	--	--	--	--
AUG 01...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002
SEP 05...	<.003	<.007	<.004	<.013	<.005	<.010	<.007	<.013	<.002	<.001	<.002

JUNIATA RIVER BASIN

01559795 BOBS CREEK NEAR PAVIA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	PROJECT NUMBER (00029)	PURPOSE SITE VISIT, (CODE) (50280)	QUALITY ASSUR- ANCE DATA INDICA- TOR CODE (99111)	REP- LICATE TYPE (CODE) (99105)	SAMPLE PURPOSE CODE (71999)	SAMPLER TYPE (CODE) (84164)	SAM- PLING METHOD, CODES (82398)	MEDIUM CODE
OCT 05...	4	.03	75	20703	1001	1	--	15.00	3045	10	9
NOV 02...	3	.02	71	20703	1001	1	--	15.00	3045	10	9
NOV 30...	3	.33	78	20703	1001	1	--	15.00	3045	10	9
JAN 04...	2	.08	71	20703	1001	1	--	15.00	3045	10	9
FEB 01...	2	.10	57	20703	1001	1	--	15.00	8010	70	9
MAR 07...	2	.20	60	20703	1001	1	--	15.00	3045	10	9
APR 04...	20	2.7	92	20703	1001	1	--	15.00	3045	10	9
MAY 02...	3	.24	67	20703	1001	10	--	15.00	3045	10	9
JUN 06...	11	1.4	84	20703	1001	100	20.00	15.00	3045	10	9
JUN 06...	--	--	--	20703	1098	--	20.00	15.00	3045	10	R
JUN 07...	--	--	--	20703	1099	--	--	15.00	--	--	D
JUL 05...	3	.06	70	20703	1001	30	20.00	15.00	3045	10	9
JUL 05...	3	--	80	20703	1098	--	20.00	15.00	3045	10	R
AUG 01...	5	.06	71	20703	1001	10	--	15.00	3045	10	9
SEP 05...	3	.02	80	20703	1001	1	--	15.00	3045	10	9

JUNIATA RIVER BASIN

01559795 BOBS CREEK NEAR PAVIA, PA--Continued

REMARKS.--The following analyses are quality control samples processed during the 2000 water year and are defined in the explanation of records section entitled, "Water Quality-Control Data". Explanation of column headings and abbreviations--NUT&ION: nutrient and major ion; PEST: pesticide.

QUALITY-CONTROL DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAMPLE TYPE	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)				
MAY 02...	1020	NUT&ION BLANK	80020	1028	E.01	<.01	<.2	<.1	<.3	<.1	<.1	<.3				
AUG 01...	1005	PEST BLANK	80020	1028	--	--	--	--	--	--	--	--				
DATE					NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL SOLVED (MG/L AS P) (00665)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	IRON, DIS-SOLVED (MG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (MG/L AS MN) (01056)	STRON-TIUM, DIS-SOLVED (MG/L AS SR) (01080)
MAY 02...	<.10	<.10	<.020	<.050	<.010	<.006	<.010	<.008	<10	<10	<2	<1.0				
AUG 01...	--	--	--	--	--	--	--	--	--	--	--	--				
DATE		2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µG/L) (82660)	ACETO-CHLOR, WATER, FLTRD REC (µG/L) (49260)	ALA-CHLOR, WATER, DISS, REC (µG/L) (46342)	ALPHA BHC DIS-SOLVED (µG/L) (34253)	ATRA-ZINE, WAT FLD DISS, REC (µG/L) (39632)	BEN-FLUR-ALIN, WAT FLD 0.7 µ GF, REC (µG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (µG/L) (04028)	CAR-BARYL, WATER, FLTRD 0.7 µ GF, REC (µG/L) (82680)	CARBO-FURAN, WATER, FLTRD 0.7 µ GF, REC (µG/L) (82674)	CHLOR-PYRIFOS, DIS-SOLVED (µG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (µG/L) (04041)	DCPA, WATER, FLTRD 0.7 µ GF, REC (µG/L) (82682)			
MAY 02...	--	--	--	--	--	--	--	--	--	--	--	--	--			
AUG 01...	<.003	<.002	<.002	<.002	<.001	<.002	<.002	<.002	<.003	<.003	<.004	<.004	<.002			
DATE		DEETHYL ATRA-ZINE, WATER, DISS, REC (µG/L) (04040)	DIAZ-INON D10 SRG WAT FLT 0.7 µ GF, REC PERCENT (91063)	DI-AZINON, DIS-SOLVED (µG/L) (39572)	DI-ELDRIN, DIS-SOLVED (µG/L) (39381)	DISUL-FOTON, WATER, FLTRD 0.7 µ GF, REC (µG/L) (82677)	EPTC, WATER, FLTRD 0.7 µ GF, REC (µG/L) (82668)	ETHAL-FLUR-ALIN, WAT FLT 0.7 µ GF, REC (µG/L) (82663)	ETHO-PROP, WATER, FLTRD 0.7 µ GF, REC (µG/L) (82672)	FONOFOS, WATER, DISS, REC (µG/L) (04095)	HCH ALPHA D6 SRG WAT FLT 0.7 µ GF, REC PERCENT (91065)	LINDANE, DIS-SOLVED (µG/L) (39341)				
MAY 02...	--	--	--	--	--	--	--	--	--	--	--	--				
AUG 01...	<.002	127	<.002	<.001	<.017	<.002	<.004	<.003	<.003	96	<.004					

JUNIATA RIVER BASIN

01559795 BOBS CREEK NEAR PAVIA, PA--Continued

QUALITY-CONTROL DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	LIN- URON WATER FLTRD 0.7 µ GF, REC (µG/L) (82666)	MALA- THION, DIS- SOLVED (µG/L) (39532)	METHYL AZIN- PHOS WAT FLT 0.7 µ GF, REC (µG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 µ GF, REC (µG/L) (82667)	METO- LACHLOR WATER DISSOLV (µG/L) (39415)	METRI- BUZIN WATER DISSOLV (µG/L) (82630)	MOL- INATE WATER FLTRD 0.7 µ GF, REC (µG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 µ GF, REC (µG/L) (82684)	P, P' DDE DISSOLV (µG/L) (34653)	PARA- THION, DIS- SOLVED (µG/L) (39542)	PEB- ULATE WATER FLTRD 0.7 µ GF, REC (µG/L) (82669)
MAY 02...	--	--	--	--	--	--	--	--	--	--	--
AUG 01...	<.002	<.005	<.001	<.006	<.002	<.004	<.004	<.003	<.006	<.004	<.004
DATE	PENDI- METH- ALIN WAT FLT 0.7 µ GF, REC (µG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 µ GF, REC (µG/L) (82687)	PHORATE WATER FLTRD 0.7 µ GF, REC (µG/L) (82664)	PRO- METON, WATER, DISS, REC (µG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 µ GF, REC (µG/L) (82676)	PROPA- CHLOR, WATER, DISS, REC (µG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 µ GF, REC (µG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 µ GF, REC (µG/L) (82685)	SI- MAZINE, WATER, DISS, REC (µG/L) (04035)	TEBU- THURON WATER FLTRD 0.7 µ GF, REC (µG/L) (82670)	TER- BACIL WATER FLTRD 0.7 µ GF, REC (µG/L) (82665)
MAY 02...	--	--	--	--	--	--	--	--	--	--	--
AUG 01...	<.004	<.005	<.002	<.018	<.003	<.007	<.004	<.013	<.005	<.010	<.007
DATE	TER- BUFOS WATER FLTRD 0.7 µ GF, REC (µG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 µ GF, REC (µG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 µ GF, REC (µG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 µ GF, REC (µG/L) (82661)	BLANK, SOURCE OF SOLU- TION (CODE) (99101)	BLANK, TYPE OF SAMPLE (CODE) (99102)	BLANK, TYPE OF SOLU- TION (CODE) (99100)	PROJECT NUMBER (00029)	PURPOSE SITE VISIT, (CODE) (50280)	REF- ERENCE MA- TERIAL/ SPIKE SOURCE (CODE) (99104)	SAMPLE PURPOSE CODE (71999)
MAY 02...	--	--	--	--	80.00	100.00	10.00	20703	1098	12	15.00
AUG 01...	<.013	<.002	<.001	<.002	10.00	100.00	40.00	20703	1098	39201	15.00

JUNIATA RIVER BASIN

01559795 BOBS CREEK NEAR PAVIA, PA--Continued

REMARKS.--Concentrations of pesticides and herbicides in replicate and spiked replicate from Bobs Creek near Pavia, Pa., June 6, 2000 and calculated recoveries, in percent; "<" = less than; less-than values were set equal to zero for calculations; E = estimated value.

QUALITY-CONTROL DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

Parameter code	Constituent	Concentration, in micrograms per liter				
		Laboratory results			Recovery in percent [(B-A)/C] x 100	
		Replicate 1 (not spiked) (06/06/00 @ 0951) A	Replicate 2 (spiked) (06/06/00 @ 0952) B	^a Calculated concentration in replicate 2 C		
49260	Acetochlor	E0.003	0.134	.107	122	
46342	Alachlor	<0.002	0.124	.107	116	
34253	Alpha BHC	<0.002	0.095	.107	89	
39632	Atrazine	0.065	0.132	.107	63	
82673	Benfluralin	<0.002	0.088	.107	82	
04028	Butylate	<0.002	0.108	.107	101	
82680	Carbaryl	E0.002	E0.244	.107	226	
82674	Carbofuran	<0.003	E0.232	.107	217	
38933	Chlorpyrifos	<0.004	0.093	.107	87	
04041	Cyanazine	<0.004	0.136	.107	127	
82682	DCPA	<0.002	0.101	.107	94	
04040	Desethyl Atrazine	E0.019	E0.100	.107	76	
39572	Diazinon	<0.002	0.111	.107	104	
39381	Dieldrin	<0.001	0.097	.107	91	
82660	2,6-Diethyl Aniline	<0.003	0.112	.107	105	
82677	Disulfoton	<0.017	0.061	.107	57	
82668	EPTC	<0.002	0.106	.107	99	
82663	Ethalfuralin	<0.004	0.098	.107	92	
82672	Ethoprop	<0.003	0.101	.107	94	
04095	Fonofos	<0.003	0.085	.107	79	
39341	Lindane	<0.004	0.104	.107	97	
82666	Linuron	<0.002	0.151	.107	141	
39532	Malathion	<0.005	0.098	.107	92	
82686	Methyl Azinphos	<0.001	E0.153	.107	143	
82667	Methyl Parathion	<0.006	0.117	.107	109	
39415	Metolachlor	0.008	0.122	.107	107	
82630	Metribuzin	<0.004	0.119	.107	111	
82671	Molinate	<0.004	0.107	.107	100	
82684	Napropamide	<0.003	0.103	.107	96	
34653	P, P' DDE	<0.006	0.057	.107	53	
39542	Parathion	<0.004	0.108	.107	101	
82669	Pebulate	<0.004	0.106	.107	99	
82683	Pendimethalin	<0.004	0.098	.107	92	
82687	Permethrin	<0.005	0.050	.107	47	
82664	Phorate	<0.002	0.069	.107	64	
04037	Prometon	E0.004	0.110	.107	99	
82676	Pronamide	<0.003	0.108	.107	101	
04024	Propachlor	<0.007	0.123	.107	115	
82679	Propanil	<0.004	0.118	.107	110	
82685	Propargite	<0.013	0.097	.107	91	
04035	Simazine	E0.004	0.103	.107	93	
82670	Tebuthiuron	<0.010	0.150	.107	140	
82665	Terbacil	<0.007	E0.168	.107	157	
82675	Terbufos	<0.013	0.083	.107	78	
82681	Thiobencarb	<0.002	0.111	.107	104	
82678	Triallate	<0.001	0.105	.107	98	
82661	Trifluralin	<0.002	0.087	.107	81	
					Mean recovery	103
					Standard deviation	34
					Median recovery	99

^a Calculated concentration of spike in sample equals the concentration of the spike solution, in micrograms per milliliter x amount of spike added, in milliliters, divided by the spiked sample volume, in liters

JUNIATA RIVER BASIN

01559795 BOBS CREEK NEAR PAVIA, PA--Continued

ECOLOGICAL SURVEY OF FIXED SITES--FISH SPECIES TAXONOMIC LIST

REMARKS.--A fish-community survey was conducted at Bobs Creek near Pavia, Pa. (01559795) on June 8, 2000. Fish were collected by electrofishing using a pulsed-DC current. Two electrofishing passes were conducted in an upstream pattern covering the 208-meter reach. Fish were identified, sorted by species, measured for total and standard length, weighed, and checked for external anomalies. Additional information can be obtained from the U.S. Geological Survey, Lemoyne, Pa. Water-quality data are available on page XX.

Explanation of table--Fish family names are in uppercase; scientific names are in italics; and common names are in parentheses. Common names follow those of the American Fisheries Society (1991).

FISH SPECIES AND NUMBER, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

SPECIES NAME	NUMBER OF FISH
CYPRINIDAE (carp and minnows)	
<i>Exoglossum maxillingua</i> (cutlips minnow)	33
<i>Rhinichthys atratulus</i> (blacknose dace)	305
<i>Rhinichthys cataractae</i> (longnose dace)	47
CATASTOMIDAE (suckers)	
<i>Catostomus commersoni</i> (white sucker)	6
SALMONIDAE (trouts)	
<i>Salmo trutta</i> (brown trout)	55
<i>Salvelinus fontinalis</i> (brook trout)	17
COTTIDAE (sculpins)	
<i>Cottus spp.</i> (sculpin)	662

JUNIATA RIVER BASIN

01559795 BOBS CREEK NEAR PAVIA, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.0	11.0	12.0	12.5	9.5	10.5	3.5	1.5	2.5	2.5	1.0	2.0
2	13.5	11.0	12.0	12.0	10.5	11.0	4.0	2.0	2.5	4.5	2.5	3.0
3	13.5	12.0	12.5	11.5	6.5	8.5	5.0	3.0	4.0	5.5	4.0	4.5
4	13.5	12.5	13.0	7.0	5.0	6.0	7.0	4.5	5.5	6.5	5.5	5.5
5	13.0	10.0	11.5	8.0	4.5	6.0	8.0	6.5	7.0	5.5	2.5	3.5
6	11.0	8.5	10.0	10.5	7.5	8.5	7.5	6.5	7.5	2.5	.5	1.5
7	11.0	8.0	9.0	10.0	6.5	7.5	6.5	4.5	5.0	2.5	1.0	1.5
8	10.0	7.5	8.5	7.0	5.0	6.0	4.5	2.5	3.5	2.5	.5	1.5
9	12.0	10.0	11.0	9.5	5.5	7.0	5.0	3.0	3.5	3.5	2.0	2.5
10	13.0	12.0	12.5	10.5	9.0	9.5	5.5	4.0	4.5	3.5	3.0	3.5
11	14.0	13.0	13.0	10.5	8.5	10.0	4.5	3.0	3.5	3.5	3.0	3.5
12	13.0	9.5	11.0	8.5	6.5	7.5	3.5	2.0	2.5	3.0	1.5	2.5
13	12.5	9.5	11.0	9.0	7.0	7.5	4.0	3.0	3.5	3.0	1.5	2.5
14	12.5	10.0	11.0	9.5	6.5	7.5	5.0	4.0	4.5	1.5	.0	.5
15	10.0	7.5	9.0	8.0	6.0	6.5	5.5	5.0	5.0	.0	.0	.0
16	11.0	8.0	9.5	6.0	3.5	4.5	5.5	3.5	5.0	1.5	.0	.5
17	12.0	9.5	10.5	4.0	2.5	3.0	4.0	2.5	3.0	.5	.0	.0
18	12.0	10.0	11.0	4.0	1.5	3.0	4.5	4.0	4.0	.0	.0	.0
19	10.0	7.5	9.0	8.5	3.0	4.0	4.5	4.0	4.0	.0	.0	.0
20	10.0	9.0	9.5	5.5	3.5	4.5	5.0	4.0	4.5	.0	.0	.0
21	9.5	7.0	8.5	8.5	5.5	7.0	5.5	3.0	4.0	.0	.0	.0
22	9.0	6.5	7.5	9.0	6.5	7.5	3.0	1.5	2.5	.0	.0	.0
23	8.5	7.5	7.5	10.0	9.0	9.5	2.0	.5	1.0	.0	.0	.0
24	8.5	7.0	7.5	11.0	10.0	10.0	1.0	.0	.5	.0	.0	.0
25	8.5	6.0	7.0	10.5	8.0	9.0	.5	.0	.0	.0	.0	.0
26	9.0	5.5	7.0	9.5	7.5	8.0	1.0	.0	.5	.0	.0	.0
27	8.5	6.0	7.0	9.0	7.5	8.5	1.0	.5	.5	.0	.0	.0
28	8.5	5.0	6.5	8.0	6.0	7.0	.5	.0	.5	.0	.0	.0
29	10.0	6.0	7.5	6.0	5.0	5.5	1.0	.0	.5	.0	.0	.0
30	11.0	7.5	9.0	5.0	3.5	4.5	2.0	.5	1.0	.0	.0	.0
31	11.5	7.5	9.5	---	---	---	3.0	2.0	2.5	.0	.0	.0
MONTH	14.0	5.0	9.7	12.5	1.5	7.2	8.0	.0	3.2	6.5	.0	1.2
	FEBRUARY			MARCH			APRIL			MAY		
1	.0	.0	.0	6.0	4.5	5.0	9.5	4.0	6.5	13.5	7.5	10.0
2	.0	.0	.0	6.0	4.0	5.0	9.0	6.5	7.5	14.0	10.0	11.5
3	.0	.0	.0	5.5	2.5	3.5	11.0	8.0	9.0	15.0	8.5	11.5
4	.0	.0	.0	6.0	2.5	4.0	10.5	7.5	9.5	14.5	10.0	12.5
5	.5	.0	.0	7.0	3.5	5.0	7.5	4.5	6.0	16.5	11.5	14.0
6	.5	.0	.0	7.0	3.0	5.0	10.5	5.5	7.5	17.5	13.0	15.0
7	.5	.0	.5	8.5	3.5	5.5	9.5	6.5	8.0	18.5	13.5	16.0
8	.5	.0	.0	11.5	7.0	8.5	8.5	7.0	8.0	17.5	14.0	16.0
9	.0	.0	.0	11.0	7.0	9.0	7.0	4.0	5.5	18.5	14.0	16.0
10	1.0	.0	.5	10.0	7.5	8.0	8.5	4.0	6.0	18.0	14.5	16.0
11	1.0	.0	.5	7.5	5.5	6.0	7.5	5.5	6.5	15.5	11.0	13.5
12	.5	.0	.0	6.0	3.5	5.0	7.0	5.5	6.5	16.5	12.5	14.0
13	.5	.0	.0	5.5	2.0	3.5	8.5	4.0	6.0	17.0	14.5	15.5
14	.5	.0	.5	6.5	3.0	4.5	10.5	5.0	7.0	15.5	12.0	13.5
15	1.5	.0	.5	8.5	4.0	5.5	13.0	7.5	9.5	13.5	10.0	11.5
16	4.0	1.0	2.0	7.5	5.5	7.0	13.5	8.5	11.0	12.5	9.0	11.0
17	3.0	1.0	2.0	7.5	4.5	6.5	12.0	8.5	10.0	14.5	11.0	12.5
18	2.5	.0	1.0	5.5	1.5	3.5	8.5	7.5	8.0	16.0	12.5	14.0
19	3.0	1.5	2.5	5.5	3.0	4.0	11.0	7.0	8.5	15.5	14.0	14.5
20	3.0	1.5	2.0	5.0	4.0	4.5	12.0	7.5	9.5	15.0	12.5	13.5
21	4.0	2.0	2.5	4.5	4.0	4.0	11.5	9.5	10.0	14.0	12.0	12.5
22	4.5	1.5	3.0	6.0	4.0	5.0	9.5	7.5	8.5	14.0	12.0	13.0
23	5.5	3.0	4.0	8.0	5.0	6.5	8.5	7.5	8.0	13.5	12.0	12.5
24	6.0	3.5	4.5	10.0	5.0	7.0	11.5	7.0	8.5	15.0	12.0	13.0
25	7.0	4.5	5.5	11.0	6.5	8.5	12.0	8.0	9.5	14.5	12.5	13.5
26	6.5	5.5	6.0	10.0	7.0	8.5	10.5	7.5	9.0	13.5	10.5	12.0
27	7.5	6.0	6.5	8.0	5.5	6.5	10.0	7.0	8.5	13.0	11.5	12.0
28	7.5	5.0	6.0	7.5	6.0	7.0	13.0	8.0	10.0	11.5	11.0	11.0
29	6.5	4.0	5.0	7.0	5.5	6.0	12.5	7.5	10.0	11.5	10.5	11.0
30	---	---	---	8.5	4.5	6.0	13.5	8.0	10.5	12.0	9.5	11.0
31	---	---	---	9.0	4.0	6.0	---	---	---	13.5	10.0	11.5
MONTH	7.5	.0	1.9	11.5	1.5	5.8	13.5	4.0	8.3	18.5	7.5	13.1

