

# **Atrazine Reduces Reproduction in Fathead Minnow (*Pimephales promelas*)—Raw Data Report**

Data Series 805



# **Atrazine Reduces Reproduction in Fathead Minnow (*Pimephales promelas*)—Raw Data Report**

By Donald E. Tillitt, Diana M. Papoulias, Jeffrey J. Whyte , and Catherine A. Richter

Data Series 805

**U.S. Department of the Interior  
U.S. Geological Survey**

**U.S. Department of the Interior**

SALLY JEWELL, Secretary

**U.S. Geological Survey**

Suzette M. Kimball, Acting Director

U.S. Geological Survey, Reston, Virginia: 2014

For more information on the USGS—the Federal source for science about the Earth, its natural and living resources, natural hazards, and the environment, visit <http://www.usgs.gov> or call 1–888–ASK–USGS.

For an overview of USGS information products, including maps, imagery, and publications, visit <http://www.usgs.gov/pubprod>

Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Although this information product, for the most part, is in the public domain, it also may contain copyrighted materials as noted in the text. Permission to reproduce copyrighted items must be secured from the copyright owner.

Although these data have been processed successfully on a computer system at the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data on any other system, or for general or scientific purposes, nor shall the act of distribution constitute any such warranty. The USGS shall not be held liable for improper or incorrect use of the data described and/or contained herein.

Suggested citation:

Tillitt, D.E., Papoulias, D.M., Whyte, J.J., and Richter, C.A., 2014, Atrazine reduces reproduction in fathead minnow (*Pimephales promelas*)—Raw data report: U.S. Geological Survey Data Series 805, 136 p., <http://dx.doi.org/10.3133/ds805>.

ISSN 2327-638X (online)

## Contents

Abstract.....	1
References Cited.....	136

## Tables

1. Summary egg production data for fathead minnows exposed to atrazine.....	4
2. Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset .....	8
3. Raw data on egg production and egg viability for fathead minnows exposed to atrazine .....	35
4. Raw egg production data organized by tank for fathead minnows exposed to atrazine .....	59
5. Raw data on gonad stages for female fathead minnows exposed to atrazine .....	86
6. Raw data on gonad stages for female fathead minnows exposed to atrazine with tanks containing 2 male fish removed from the dataset .....	96
7. Raw data and summaries of brain and gonad aromatase activities in fathead minnows exposed to atrazine .....	104
8. Gonad-somatic index raw data for fathead minnows exposed to atrazine .....	109
9. Gonad-somatic index raw data and summaries of fathead minnows exposed to atrazine .....	114
10. Abnormal gonad histology counts and comments for female fathead minnows exposed to atrazine .....	119
11. Abnormal gonad histology counts and comments for male fathead minnows exposed to atrazine .....	121
12. Atrazine daily measurements in each exposure tank during fathead minnow exposures to atrazine.....	122
13. Atrazine water concentrations and summary statistics during fathead minnow exposures.....	124
14. Atrazine water concentration summaries by tank during fathead minnow exposures.....	127
15. Estrogen and testosterone concentration measurements in male and female fathead minnows exposed to atrazine .....	128



# Atrazine Reduces Reproduction in Fathead Minnow (*Pimephales promelas*)—Raw Data Report

By Donald E. Tillitt<sup>1</sup>, Diana M. Papoulias<sup>1</sup>, Jeffrey J. Whyte<sup>2</sup>, and Catherine A. Richter<sup>1</sup>

## Abstract

The herbicide, atrazine, routinely is observed in surface and groundwaters, particularly in the “corn belt” region, a high-use area of the United States. Atrazine has demonstrated effects on reproduction in mammals and amphibians, but the characterization of endocrine-related effects in fish has received only limited attention. Peak concentrations of

atrazine in surface water of streams from these agricultural areas coincide with annual spawning events of native fishes. Consequently, there was an unacceptable level of uncertainty in our understanding of the risks associated with the periods of greatest atrazine exposure and greatest vulnerability of certain species of fishes. For this reason, a study of the effects of atrazine on fathead minnow reproduction was undertaken (Tillitt and others, 2010). This report provides the raw data from that study.

---

<sup>1</sup>U.S. Geological Survey

<sup>2</sup> University of Missouri, Columbia





# Tables

---

**Table 1.** Summary egg production data for fathead minnows exposed to atrazine.

[µg/L, micrograms per liter; Std, standard; %, percent]

Date	Day	Dose (µg/L)	Total eggs/day	Mean eggs/tank/ day	Std eggs/ tank/day	Mean eggs/ female/day	Mean eggs/ tank/day	Cumulative egg/ concentration	Tank with spawn	Tanks	Tanks with spawned eggs (%)	Egg/ spawned tank/day	Egg/female in spawned tank/day	Cumulative mean egg/tank
7/27	1	0.0	429	39	74	20	39	429	4	11	36	107	53.6	39
7/28	2	0.0	710	65	98	32	65	1,139	4	11	36	178	88.8	104
7/29	3	0.0	0	0	0	0	0	1,139	0	11	0	0	0.0	104
7/30	4	0.0	559	51	110	25	51	1,698	3	11	27	186	93.2	154
7/31	5	0.0	249	23	55	11	23	1,947	2	11	18	125	62.3	177
8/1	6	0.0	301	27	70	14	27	2,248	2	11	18	151	75.3	204
8/2	7	0.0	664	60	110	30	60	2,912	5	11	45	133	66.4	265
8/3	8	0.0	348	32	56	16	32	3,260	4	11	36	87	43.5	296
8/4	9	0.0	294	27	49	13	27	3,554	3	11	27	98	49.0	323
8/5	10	0.0	65	6	12	3	6	3,619	3	11	27	22	10.8	329
8/6	11	0.0	117	11	19	5	11	3,736	3	11	27	39	19.5	340
8/7	12	0.0	1,036	94	115	47	94	4,772	6	11	55	173	86.3	434
8/8	13	0.0	364	33	46	17	33	5,136	5	11	45	73	36.4	467
8/9	14	0.0	170	15	51	8	15	5,306	1	11	9	170	85.0	482
8/10	15	0.0	831	76	156	38	76	6,137	4	11	36	208	103.9	558
8/11	16	0.0	305	51	125	25	51	6,442	1	6	17	305	152.5	1,074
8/12	17	0.0	248	41	74	21	41	6,690	2	6	33	124	62.0	1,115
8/13	18	0.0	376	63	97	31	63	7,066	2	6	33	188	94.0	1,178
8/14	19	0.0	686	114	140	57	114	7,752	3	6	50	229	114.3	1,292
8/15	20	0.0	326	54	84	27	54	8,078	2	6	33	163	81.5	1,346
8/16	21	0.0	288	48	118	24	48	8,366	1	6	17	288	144.0	1,394
8/17	22	0.0	102	17	42	9	17	8,468	1	6	17	102	51.0	1,411
8/18	23	0.0	734	122	149	61	122	9,202	3	6	50	245	122.3	1,534
8/19	24	0.0	124	21	51	10	21	9,326	1	6	17	124	62.0	1,554
8/20	25	0.0	147	25	58	12	25	9,473	2	6	33	74	36.8	1,579
8/21	26	0.0	299	50	78	25	50	9,772	2	6	33	150	74.8	1,629
8/22	27	0.0	57	10	15	5	10	9,829	3	6	50	19	9.5	1,638
8/23	28	0.0	0	0	0	0	0	9,829	0	6	0	0	0.0	1,638
8/24	29	0.0	0	0	0	0	0	9,829	0	6	0	0	0.0	1,638
7/27	1	0.5	10	1	3	0	1	10	1	11	9	10	5.0	1

**Table 1.** Summary egg production data for fathead minnows exposed to atrazine.—Continued

[µg/L, micrograms per liter; Std, standard; %, percent]

Date	Day	Dose (µg/L)	Total eggs/day	Mean eggs/tank/ day	Std eggs/ tank/day	Mean eggs/ female/day	Mean eggs/ tank/day	Cumulative egg/ concentration	Tank with spawn	Tanks	Tanks with spawned eggs (%)	Egg/ spawned tank/day	Egg/female in spawned tank/day	Cumulative mean egg/tank
7/28	2	0.5	0	0	0	0	0	10	0	11	0	0	0.0	1
7/29	3	0.5	190	17	57	9	17	200	1	11	9	190	95.0	18
7/30	4	0.5	168	15	51	8	15	368	1	11	9	168	84.0	33
7/31	5	0.5	394	36	116	18	36	762	2	11	18	197	98.5	69
8/1	6	0.5	176	16	36	8	16	938	2	11	18	88	44.0	85
8/2	7	0.5	1,712	156	189	78	156	2,650	6	11	55	285	142.7	241
8/3	8	0.5	410	37	88	19	37	3,060	3	11	27	137	68.3	278
8/4	9	0.5	224	20	35	10	20	3,284	3	11	27	75	37.3	299
8/5	10	0.5	87	8	24	4	8	3,371	2	11	18	44	21.8	306
8/6	11	0.5	897	82	133	41	82	4,268	5	11	45	179	89.7	388
8/7	12	0.5	288	26	58	13	26	4,556	2	11	18	144	72.0	414
8/8	13	0.5	627	57	109	29	57	5,183	3	11	27	209	104.5	471
8/9	14	0.5	632	57	153	29	57	5,815	2	11	18	316	158.0	529
8/10	15	0.5	187	17	30	9	17	6,002	3	11	27	62	31.2	546
8/11	16	0.5	392	78	118	39	78	6,394	3	5	60	131	65.3	1,279
8/12	17	0.5	18	4	8	2	4	6,412	1	5	20	18	9.0	1,282
8/13	18	0.5	160	32	72	16	32	6,572	1	5	20	160	80.0	1,314
8/14	19	0.5	91	18	41	9	18	6,663	1	5	20	91	45.5	1,333
8/15	20	0.5	287	57	128	29	57	6,950	1	5	20	287	143.5	1,390
8/16	21	0.5	0	0	0	0	0	6,950	0	5	0	0	0.0	1,390
8/17	22	0.5	0	0	0	0	0	6,950	0	5	0	0	0.0	1,390
8/18	23	0.5	0	0	0	0	0	6,950	0	5	0	0	0.0	1,390
8/19	24	0.5	260	52	116	26	52	7,210	1	5	20	260	130.0	1,442
8/20	25	0.5	29	6	13	3	6	7,239	1	5	20	29	14.5	1,448
8/21	26	0.5	25	5	11	3	5	7,264	1	5	20	25	12.5	1,453
8/22	27	0.5	87	17	38	9	17	7,351	2	5	40	44	21.8	1,470
8/23	28	0.5	0	0	0	0	0	7,351	0	5	0	0	0.0	1,470
8/24	29	0.5	0	0	0	0	0	7,351	0	5	0	0	0.0	1,470
7/27	1	5.0	552	46	90	23	46	552	4	12	33	138	69.0	46
7/28	2	5.0	0	0	0	0	0	552	0	12	0	0	0.0	46
7/29	3	5.0	655	55	107	27	55	1,207	3	12	25	218	109.2	101

**Table 1.** Summary egg production data for fathead minnows exposed to atrazine.—Continued

[µg/L, micrograms per liter; Std, standard; %, percent]

Date	Day	Dose (µg/L)	Total eggs/day	Mean eggs/tank/ day	Std eggs/ tank/day	Mean eggs/ female/day	Mean eggs/ tank/day	Cumulative egg/ concentration	Tank with spawn	Tanks	Tanks with spawned eggs (%)	Egg/ spawned tank/day	Egg/female in spawned tank/day	Cumulative mean egg/tank
7/30	4	5.0	214	18	62	9	18	1,421	1	12	8	214	107.0	118
7/31	5	5.0	350	29	93	15	29	1,771	2	12	17	175	87.5	148
8/1	6	5.0	32	3	9	1	3	1,803	1	12	8	32	16.0	150
8/2	7	5.0	365	30	82	15	30	2,168	3	12	25	122	60.8	181
8/3	8	5.0	509	42	69	21	42	2,677	4	12	33	127	63.6	223
8/4	9	5.0	133	11	38	6	11	2,810	1	12	8	133	66.5	234
8/5	10	5.0	84	7	24	4	7	2,894	1	12	8	84	42.0	241
8/6	11	5.0	518	43	103	22	43	3,412	3	12	25	173	86.3	284
8/7	12	5.0	356	30	63	15	30	3,768	3	12	25	119	59.3	314
8/8	13	5.0	1,089	91	129	45	91	4,857	6	12	50	182	90.8	405
8/9	14	5.0	801	67	190	33	67	5,658	2	12	17	401	200.3	472
8/10	15	5.0	68	6	20	3	6	5,726	1	12	8	68	34.0	477
8/11	16	5.0	821	137	157	68	137	6,547	3	6	50	274	136.8	1,091
8/12	17	5.0	234	39	69	20	39	6,781	2	6	33	117	58.5	1,130
8/13	18	5.0	43	7	18	4	7	6,824	1	6	17	43	21.5	1,137
8/14	19	5.0	315	53	83	26	53	7,139	2	6	33	158	78.8	1,190
8/15	20	5.0	0	0	0	0	0	7,139	0	6	0	0	0.0	1,190
8/16	21	5.0	0	0	0	0	0	7,139	0	6	0	0	0.0	1,190
8/17	22	5.0	125	21	51	10	21	7,264	1	6	17	125	62.5	1,211
8/18	23	5.0	432	72	176	36	72	7,696	1	6	17	432	216.0	1,283
8/19	24	5.0	0	0	0	0	0	7,696	0	6	0	0	0.0	1,283
8/20	25	5.0	229	38	93	19	38	7,925	1	6	17	229	114.5	1,321
8/21	26	5.0	0	0	0	0	0	7,925	0	6	0	0	0.0	1,321
8/22	27	5.0	0	0	0	0	0	7,925	0	6	0	0	0.0	1,321
8/23	28	5.0	0	0	0	0	0	7,925	0	6	0	0	0.0	1,321
8/24	29	5.0	0	0	0	0	0	7,925	0	6	0	0	0.0	1,321
7/27	1	50	214	18	44	9	18	214	2	12	17	107	53.5	18
7/28	2	50	0	0	0	0	0	214	0	12	0	0	0.0	18
7/29	3	50	90	8	24	4	8	304	2	12	17	45	22.5	25
7/30	4	50	564	47	72	24	47	868	4	12	33	141	70.5	72
7/31	5	50	0	0	0	0	0	868	0	12	0	0	0.0	72

**Table 1.** Summary egg production data for fathead minnows exposed to atrazine.—Continued

[µg/L, micrograms per liter; Std, standard; %, percent]

Date	Day	Dose (µg/L)	Total eggs/day	Mean eggs/tank/ day	Std eggs/ tank/day	Mean eggs/ female/day	Mean eggs/ tank/day	Cumulative egg/ concentration	Tank with spawn	Tanks	Tanks with spawned eggs (%)	Egg/ spawned tank/day	Egg/female in spawned tank/day	Cumulative mean egg/tank
8/1	6	50	0	0	0	0	0	868	0	12	0	0	0.0	72
8/2	7	50	657	55	88	27	55	1,525	4	12	33	164	82.1	127
8/3	8	50	690	58	105	29	58	2,215	3	12	25	230	115.0	185
8/4	9	50	134	11	26	6	11	2,349	2	12	17	67	33.5	196
8/5	10	50	445	37	119	19	37	2,794	2	12	17	223	111.3	233
8/6	11	50	424	35	57	18	35	3,218	4	12	33	106	53.0	268
8/7	12	50	131	11	34	5	11	3,349	3	12	25	44	21.8	279
8/8	13	50	315	26	68	13	26	3,664	2	12	17	158	78.8	305
8/9	14	50	437	36	87	18	36	4,101	3	12	25	146	72.8	342
8/10	15	50	2	0	1	0	0	4,103	1	12	8	2	1.0	342
8/11	16	50	0	0	0	0	0	4,103	0	6	0	0	0.0	684
8/12	17	50	54	9	22	5	9	4,157	1	6	17	54	27.0	693
8/13	18	50	187	31	76	16	31	4,344	1	6	17	187	93.5	724
8/14	19	50	128	21	52	11	21	4,472	1	6	17	128	64.0	745
8/15	20	50	141	24	58	12	24	4,613	1	6	17	141	70.5	769
8/16	21	50	0	0	0	0	0	4,613	0	6	0	0	0.0	769
8/17	22	50	526	88	149	44	88	5,139	2	6	33	263	131.5	857
8/18	23	50	279	47	114	23	47	5,418	1	6	17	279	139.5	903
8/19	24	50	228	38	85	19	38	5,646	2	6	33	114	57.0	941
8/20	25	50	0	0	0	0	0	5,646	0	6	0	0	0.0	941
8/21	26	50	0	0	0	0	0	5,646	0	6	0	0	0.0	941
8/22	27	50	0	0	0	0	0	5,646	0	6	0	0	0.0	941
8/23	28	50	295	49	120	25	49	5,941	1	6	17	295	147.5	990
8/24	29	50	75	13	30	6	13	6,016	2	6	33	38	18.8	1,003

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
7/27/2004	1	1	6	1	0.0	3	0.27							
7/27/2004	1	1	7	2	0.0	0	0.00							
7/27/2004	1	1	8	2	0.0	108	9.82							
7/27/2004	1	1	21	2	0.0	90	8.18							
7/27/2004	1	1	22	2	0.0	0	0.00							
7/27/2004	1	1	23	1	0.0	0	0.00							
7/27/2004	1	1	24	2	0.0	0	0.00							
7/27/2004	1	1	53	1	0.0	0	0.00							
7/27/2004	1	1	54	1	0.0	0	0.00							
7/27/2004	1	1	55	2	0.0	0	0.00							
7/27/2004	1	1	56	1	0.0	228	20.73	74.18	429	39.00	39.00	429	39	19.5
7/28/2004	2	1	6	1	0.0	0	0.00							
7/28/2004	2	1	7	2	0.0	0	0.00							
7/28/2004	2	1	8	2	0.0	212	19.27							
7/28/2004	2	1	21	2	0.0	165	15.00							
7/28/2004	2	1	22	2	0.0	83	7.55							
7/28/2004	2	1	23	1	0.0	0	0.00							
7/28/2004	2	1	24	2	0.0	0	0.00							
7/28/2004	2	1	53	1	0.0	0	0.00							
7/28/2004	2	1	54	1	0.0	0	0.00							
7/28/2004	2	1	55	2	0.0	250	22.73							
7/28/2004	2	1	56	1	0.0	0	0.00	97.84	710	64.55	103.5	1,139	64.5454545455	32.2727272727
7/29/2004	3	1	6	1	0.0	0	0.00							
7/29/2004	3	1	7	2	0.0	0	0.00							
7/29/2004	3	1	8	2	0.0	0	0.00							
7/29/2004	3	1	21	2	0.0	0	0.00							
7/29/2004	3	1	22	2	0.0	0	0.00							
7/29/2004	3	1	23	1	0.0	0	0.00							
7/29/2004	3	1	24	2	0.0	0	0.00							
7/29/2004	3	1	53	1	0.0	0	0.00							
7/29/2004	3	1	54	1	0.0	0	0.00							
7/29/2004	3	1	55	2	0.0	0	0.00							
7/29/2004	3	1	56	1	0.0	0	0.00	0.00	0	0.00	103.5	1,139	0	0
7/30/2004	4	1	6	1	0.0	0	0.00							
7/30/2004	4	1	7	2	0.0	0	0.00							
7/30/2004	4	1	8	2	0.0	356	32.36							
7/30/2004	4	1	21	2	0.0	69	6.27							
7/30/2004	4	1	22	2	0.0	134	12.18							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
7/30/2004	4	1	23	1	0.0	0	0.00							
7/30/2004	4	1	24	2	0.0	0	0.00							
7/30/2004	4	1	53	1	0.0	0	0.00							
7/30/2004	4	1	54	1	0.0	0	0.00							
7/30/2004	4	1	55	2	0.0	0	0.00							
7/30/2004	4	1	56	1	0.0	0	0.00	110.02	559	50.82	154.4	1,698	50.8181818182	25.4090909091
7/31/2004	5	1	6	1	0.0	0	0.00							
7/31/2004	5	1	7	2	0.0	0	0.00							
7/31/2004	5	1	8	2	0.0	0	0.00							
7/31/2004	5	1	21	2	0.0	74	6.73							
7/31/2004	5	1	22	2	0.0	0	0.00							
7/31/2004	5	1	23	1	0.0	0	0.00							
7/31/2004	5	1	24	2	0.0	0	0.00							
7/31/2004	5	1	53	1	0.0	0	0.00							
7/31/2004	5	1	54	1	0.0	0	0.00							
7/31/2004	5	1	55	2	0.0	0	0.00							
7/31/2004	5	1	56	1	0.0	175	15.91	55.19	249	22.64	177.0	1,947	22.6363636364	11.3181818182
8/1/2004	6	1	6	1	0.0	0	0.00							
8/1/2004	6	1	7	2	0.0	0	0.00							
8/1/2004	6	1	8	2	0.0	0	0.00							
8/1/2004	6	1	21	2	0.0	0	0.00							
8/1/2004	6	1	22	2	0.0	0	0.00							
8/1/2004	6	1	23	1	0.0	228	20.73							
8/1/2004	6	1	24	2	0.0	73	6.64							
8/1/2004	6	1	53	1	0.0	0	0.00							
8/1/2004	6	1	54	1	0.0	0	0.00							
8/1/2004	6	1	55	2	0.0	0	0.00							
8/1/2004	6	1	56	1	0.0	0	0.00	70.05	301	27.36	204.4	2,248	27.3636363636	13.6818181818
8/2/2004	7	1	6	1	0.0	0	0.00							
8/2/2004	7	1	7	2	0.0	0	0.00							
8/2/2004	7	1	8	2	0.0	10	0.91							
8/2/2004	7	1	21	2	0.0	230	20.91							
8/2/2004	7	1	22	2	0.0	0	0.00							
8/2/2004	7	1	23	1	0.0	0	0.00							
8/2/2004	7	1	24	2	0.0	0	0.00							
8/2/2004	7	1	53	1	0.0	94	8.55							
8/2/2004	7	1	54	1	0.0	15	1.36							
8/2/2004	7	1	55	2	0.0	315	28.64							
8/2/2004	7	1	56	1	0.0	0	0.00	110.09	664	60.36	264.7	2,912	60.3636363636	30.1818181818

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/3/2004	8	2	6	1	0.0	0	0.00							
8/3/2004	8	2	7	2	0.0	0	0.00							
8/3/2004	8	2	8	2	0.0	120	10.91							
8/3/2004	8	2	21	2	0.0	0	0.00							
8/3/2004	8	2	22	2	0.0	0	0.00							
8/3/2004	8	2	23	1	0.0	72	6.55							
8/3/2004	8	2	24	2	0.0	0	0.00							
8/3/2004	8	2	53	1	0.0	150	13.64							
8/3/2004	8	2	54	1	0.0	0	0.00							
8/3/2004	8	2	55	2	0.0	0	0.00							
8/3/2004	8	2	56	1	0.0	6	0.55	55.78	348	31.64	296.4	3,260	31.6363636364	15.8181818182
8/4/2004	9	2	6	1	0.0	0	0.00							
8/4/2004	9	2	7	2	0.0	0	0.00							
8/4/2004	9	2	8	2	0.0	0	0.00							
8/4/2004	9	2	21	2	0.0	109	9.91							
8/4/2004	9	2	22	2	0.0	0	0.00							
8/4/2004	9	2	23	1	0.0	0	0.00							
8/4/2004	9	2	24	2	0.0	130	11.82							
8/4/2004	9	2	53	1	0.0	0	0.00							
8/4/2004	9	2	54	1	0.0	0	0.00							
8/4/2004	9	2	55	2	0.0	0	0.00							
8/4/2004	9	2	56	1	0.0	55	5.00	48.94	294	26.73	323.1	3,554	26.7272727273	13.3636363636
8/5/2004	10	2	6	1	0.0	0	0.00							
8/5/2004	10	2	7	2	0.0	0	0.00							
8/5/2004	10	2	8	2	0.0	35	3.18							
8/5/2004	10	2	21	2	0.0	0	0.00							
8/5/2004	10	2	22	2	0.0	9	0.82							
8/5/2004	10	2	23	1	0.0	0	0.00							
8/5/2004	10	2	24	2	0.0	0	0.00							
8/5/2004	10	2	53	1	0.0	0	0.00							
8/5/2004	10	2	54	1	0.0	21	1.91							
8/5/2004	10	2	55	2	0.0	0	0.00							
8/5/2004	10	2	56	1	0.0	0	0.00	11.67	65	5.91	329.0	3,619	5.9090909091	2.9545454545
8/6/2004	11	2	6	1	0.0	0	0.00							
8/6/2004	11	2	7	2	0.0	0	0.00							
8/6/2004	11	2	8	2	0.0	43	3.91							
8/6/2004	11	2	21	2	0.0	0	0.00							
8/6/2004	11	2	22	2	0.0	0	0.00							



**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/6/2004	11	2	23	1	0.0	0	0.00							
8/6/2004	11	2	24	2	0.0	0	0.00							
8/6/2004	11	2	53	1	0.0	0	0.00							
8/6/2004	11	2	54	1	0.0	28	2.55							
8/6/2004	11	2	55	2	0.0	46	4.18							
8/6/2004	11	2	56	1	0.0	0	0.00	18.72	117	10.64	339.6	3,736	10.6363636364	5.3181818182
8/7/2004	12	2	6	1	0.0	0	0.00							
8/7/2004	12	2	7	2	0.0	0	0.00							
8/7/2004	12	2	8	2	0.0	80	7.27							
8/7/2004	12	2	21	2	0.0	52	4.73							
8/7/2004	12	2	22	2	0.0	0	0.00							
8/7/2004	12	2	23	1	0.0	296	26.91							
8/7/2004	12	2	24	2	0.0	124	11.27							
8/7/2004	12	2	53	1	0.0	0	0.00							
8/7/2004	12	2	54	1	0.0	0	0.00							
8/7/2004	12	2	55	2	0.0	224	20.36							
8/7/2004	12	2	56	1	0.0	260	23.64	115.02	1036	94.18	433.8	4,772	94.1818181818	47.0909090909
8/8/2004	13	2	6	1	0.0	50	4.55							
8/8/2004	13	2	7	2	0.0	0	0.00							
8/8/2004	13	2	8	2	0.0	89	8.09							
8/8/2004	13	2	21	2	0.0	92	8.36							
8/8/2004	13	2	22	2	0.0	0	0.00							
8/8/2004	13	2	23	1	0.0	0	0.00							
8/8/2004	13	2	24	2	0.0	117	10.64							
8/8/2004	13	2	53	1	0.0	0	0.00							
8/8/2004	13	2	54	1	0.0	16	1.45							
8/8/2004	13	2	55	2	0.0	0	0.00							
8/8/2004	13	2	56	1	0.0	0	0.00	45.59	364	33.09	466.9	5,136	33.0909090909	16.5454545455
8/9/2004	14	2	6	1	0.0	0	0.00							
8/9/2004	14	2	7	2	0.0	0	0.00							
8/9/2004	14	2	8	2	0.0	0	0.00							
8/9/2004	14	2	21	2	0.0	0	0.00							
8/9/2004	14	2	22	2	0.0	0	0.00							
8/9/2004	14	2	23	1	0.0	0	0.00							
8/9/2004	14	2	24	2	0.0	0	0.00							
8/9/2004	14	2	53	1	0.0	0	0.00							
8/9/2004	14	2	54	1	0.0	170	15.45							
8/9/2004	14	2	55	2	0.0	0	0.00							
8/9/2004	14	2	56	1	0.0	0	0.00	51.26	170	15.45	482.4	5,306	15.4545454545	7.7272727273

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/10/2004	15	3	6	1	0.0	0	0.00							
8/10/2004	15	3	7	2	0.0	0	0.00							
8/10/2004	15	3	8	2	0.0	0	0.00							
8/10/2004	15	3	21	2	0.0	0	0.00							
8/10/2004	15	3	22	2	0.0	157	14.27							
8/10/2004	15	3	23	1	0.0	13	1.18							
8/10/2004	15	3	24	2	0.0	152	13.82							
8/10/2004	15	3	53	1	0.0	0	0.00							
8/10/2004	15	3	54	1	0.0	0	0.00							
8/10/2004	15	3	55	2	0.0	509	46.27							
8/10/2004	15	3	56	1	0.0	0	0.00	156.28	831	75.55	557.9	6,137	75.5454545455	37.7727272727
8/11/2004	16	3	7	2	0.0	0	0.00							
8/11/2004	16	3	8	2	0.0	305	50.83							
8/11/2004	16	3	21	2	0.0	0	0.00							
8/11/2004	16	3	22	2	0.0	0	0.00							
8/11/2004	16	3	24	2	0.0	0	0.00							
8/11/2004	16	3	55	2	0.0	0	0.00	124.52	305	50.83	608.7	6,442	50.8333333333	25.4166666667
8/12/2004	17	3	7	2	0.0	0	0.00							
8/12/2004	17	3	8	2	0.0	0	0.00							
8/12/2004	17	3	21	2	0.0	64	10.67							
8/12/2004	17	3	22	2	0.0	0	0.00							
8/12/2004	17	3	24	2	0.0	184	30.67							
8/12/2004	17	3	55	2	0.0	0	0.00	74.43	248	41.33	650.1	6,690	41.3333333333	20.6666666667
8/13/2004	18	3	7	2	0.0	0	0.00							
8/13/2004	18	3	8	2	0.0	0	0.00							
8/13/2004	18	3	21	2	0.0	174	29.00							
8/13/2004	18	3	22	2	0.0	0	0.00							
8/13/2004	18	3	24	2	0.0	202	33.67							
8/13/2004	18	3	55	2	0.0	0	0.00	97.49	376	62.67	712.7	7,066	62.6666666667	31.3333333333
8/14/2004	19	3	7	2	0.0	0	0.00							
8/14/2004	19	3	8	2	0.0	185	30.83							
8/14/2004	19	3	21	2	0.0	0	0.00							
8/14/2004	19	3	22	2	0.0	0	0.00							
8/14/2004	19	3	24	2	0.0	161	26.83							
8/14/2004	19	3	55	2	0.0	340	56.67	139.51	686	114.33	827.1	7,752	114.3333333333	57.1666666667
8/15/2004	20	3	7	2	0.0	0	0.00							
8/15/2004	20	3	8	2	0.0	168	28.00							
8/15/2004	20	3	21	2	0.0	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/15/2004	20	3	22	2	0.0	158	26.33							
8/15/2004	20	3	24	2	0.0	0	0.00							
8/15/2004	20	3	55	2	0.0	0	0.00	84.23	326	54.33	881.4	8,078	54.3333333333	27.1666666667
8/16/2004	21	3	7	2	0.0	0	0.00							
8/16/2004	21	3	8	2	0.0	0	0.00							
8/16/2004	21	3	21	2	0.0	0	0.00							
8/16/2004	21	3	22	2	0.0	0	0.00							
8/16/2004	21	3	24	2	0.0	288	48.00							
8/16/2004	21	3	55	2	0.0	0	0.00	117.58	288	48.00	929.4	8,366	48	24
8/17/2004	22	4	7	2	0.0	0	0.00							
8/17/2004	22	4	8	2	0.0	102	17.00							
8/17/2004	22	4	21	2	0.0	0	0.00							
8/17/2004	22	4	22	2	0.0	0	0.00							
8/17/2004	22	4	24	2	0.0	0	0.00							
8/17/2004	22	4	55	2	0.0	0	0.00	41.64	102	17.00	946.4	8,468	17	8.5
8/18/2004	23	4	7	2	0.0	0	0.00							
8/18/2004	23	4	8	2	0.0	0	0.00							
8/18/2004	23	4	21	2	0.0	314	52.33							
8/18/2004	23	4	22	2	0.0	126	21.00							
8/18/2004	23	4	24	2	0.0	0	0.00							
8/18/2004	23	4	55	2	0.0	294	49.00	149.07	734	122.33	1,068.7	9,202	122.3333333333	61.1666666667
8/19/2004	24	4	7	2	0.0	0	0.00							
8/19/2004	24	4	8	2	0.0	0	0.00							
8/19/2004	24	4	21	2	0.0	0	0.00							
8/19/2004	24	4	22	2	0.0	0	0.00							
8/19/2004	24	4	24	2	0.0	0	0.00							
8/19/2004	24	4	55	2	0.0	124	20.67	50.62	124	20.67	1,089.4	9,326	20.6666666667	10.3333333333
8/20/2004	25	4	7	2	0.0	0	0.00							
8/20/2004	25	4	8	2	0.0	5	0.83							
8/20/2004	25	4	21	2	0.0	0	0.00							
8/20/2004	25	4	22	2	0.0	142	23.67							
8/20/2004	25	4	24	2	0.0	0	0.00							
8/20/2004	25	4	55	2	0.0	0	0.00	57.60	147	24.50	1,113.9	9,473	24.5	12.25
8/21/2004	26	4	7	2	0.0	0	0.00							
8/21/2004	26	4	8	2	0.0	0	0.00							
8/21/2004	26	4	21	2	0.0	136	22.67							
8/21/2004	26	4	22	2	0.0	0	0.00							
8/21/2004	26	4	24	2	0.0	163	27.17							
8/21/2004	26	4	55	2	0.0	0	0.00	77.67	299	49.83	1,163.7	9,772	49.8333333333	24.9166666667

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/22/2004	27	4	7	2	0.0	0	0.00							
8/22/2004	27	4	8	2	0.0	0	0.00							
8/22/2004	27	4	21	2	0.0	36	6.00							
8/22/2004	27	4	22	2	0.0	1	0.17							
8/22/2004	27	4	24	2	0.0	20	3.33							
8/22/2004	27	4	55	2	0.0	0	0	15.20	57	9.50	1,173.2	9,829	9.5	4.75
8/23/2004	28	4	7	2	0.0	0	0							
8/23/2004	28	4	8	2	0.0	0	0							
8/23/2004	28	4	21	2	0.0	0	0							
8/23/2004	28	4	22	2	0.0	0	0							
8/23/2004	28	4	24	2	0.0	0	0							
8/23/2004	28	4	55	2	0.0	0	0	0.00	0	0.00	1,173.2	9,829	0	0
8/24/2004	29	5	7	2	0.0	0	0							
8/24/2004	29	5	8	2	0.0	0	0							
8/24/2004	29	5	21	2	0.0	0	0							
8/24/2004	29	5	22	2	0.0	0	0							
8/24/2004	29	5	24	2	0.0	0	0							
8/24/2004	29	5	55	2	0.0	0	0	0.00	0	0.00	1,173.2	9,829	0	0
7/27/2004	1	1	25	2	0.5	0	0.00							
7/27/2004	1	1	26	1	0.5	0	0.00							
7/27/2004	1	1	27	1	0.5	0	0.00							
7/27/2004	1	1	28	2	0.5	0	0.00							
7/27/2004	1	1	33	1	0.5	0	0.00							
7/27/2004	1	1	34	1	0.5	10	0.91							
7/27/2004	1	1	35	1	0.5	0	0.00							
7/27/2004	1	1	36	2	0.5	0	0.00							
7/27/2004	1	1	41	2	0.5	0	0.00							
7/27/2004	1	1	43	1	0.5	0	0.00							
7/27/2004	1	1	44	2	0.5	0	0.00	3.0151134458	10	0.91	0.9	10.00	0.9090909091	0.4545454545
7/28/2004	2	1	25	2	0.5	0	0.00							
7/28/2004	2	1	26	1	0.5	0	0.00							
7/28/2004	2	1	27	1	0.5	0	0.00							
7/28/2004	2	1	28	2	0.5	0	0.00							
7/28/2004	2	1	33	1	0.5	0	0.00							
7/28/2004	2	1	34	1	0.5	0	0.00							
7/28/2004	2	1	35	1	0.5	0	0.00							
7/28/2004	2	1	36	2	0.5	0	0.00							
7/28/2004	2	1	41	2	0.5	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
7/28/2004	2	1	43	1	0.5	0	0.00							
7/28/2004	2	1	44	2	0.5	0	0.00	0	0	0.00	0.9	10.00	0	0
7/29/2004	3	1	25	2	0.5	0	0.00							
7/29/2004	3	1	26	1	0.5	0	0.00							
7/29/2004	3	1	27	1	0.5	0	0.00							
7/29/2004	3	1	28	2	0.5	0	0.00							
7/29/2004	3	1	33	1	0.5	190	17.27							
7/29/2004	3	1	34	1	0.5	0	0.00							
7/29/2004	3	1	35	1	0.5	0	0.00							
7/29/2004	3	1	36	2	0.5	0	0.00							
7/29/2004	3	1	41	2	0.5	0	0.00							
7/29/2004	3	1	43	1	0.5	0	0.00							
7/29/2004	3	1	44	2	0.5	0	0.00	57.2871554698	190	17.27	18.2	200.00	17.2727272727	8.6363636364
7/30/2004	4	1	25	2	0.5	0	0.00							
7/30/2004	4	1	26	1	0.5	0	0.00							
7/30/2004	4	1	27	1	0.5	0	0.00							
7/30/2004	4	1	28	2	0.5	0	0.00							
7/30/2004	4	1	33	1	0.5	0	0.00							
7/30/2004	4	1	34	1	0.5	0	0.00							
7/30/2004	4	1	35	1	0.5	168	15.27							
7/30/2004	4	1	36	2	0.5	0	0.00							
7/30/2004	4	1	41	2	0.5	0	0.00							
7/30/2004	4	1	43	1	0.5	0	0.00							
7/30/2004	4	1	44	2	0.5	0	0.00	50.6539058891	168	15.27	33.5	368.00	15.2727272727	7.6363636364
7/31/2004	5	1	25	2	0.5	0	0.00							
7/31/2004	5	1	26	1	0.5	0	0.00							
7/31/2004	5	1	27	1	0.5	0	0.00							
7/31/2004	5	1	28	2	0.5	384	34.91							
7/31/2004	5	1	33	1	0.5	0	0.00							
7/31/2004	5	1	34	1	0.5	0	0.00							
7/31/2004	5	1	35	1	0.5	0	0.00							
7/31/2004	5	1	36	2	0.5	0	0.00							
7/31/2004	5	1	41	2	0.5	0	0.00							
7/31/2004	5	1	43	1	0.5	0	0.00							
7/31/2004	5	1	44	2	0.5	10	0.91	115.517806577	394	35.82	69.3	762.00	35.8181818182	17.9090909091
8/1/2004	6	1	25	2	0.5	98	8.91							
8/1/2004	6	1	26	1	0.5	0	0.00							
8/1/2004	6	1	27	1	0.5	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/1/2004	6	1	28	2	0.5	0	0.00							
8/1/2004	6	1	33	1	0.5	0	0.00							
8/1/2004	6	1	34	1	0.5	0	0.00							
8/1/2004	6	1	35	1	0.5	78	7.09							
8/1/2004	6	1	36	2	0.5	0	0.00							
8/1/2004	6	1	41	2	0.5	0	0.00							
8/1/2004	6	1	43	1	0.5	0	0.00							
8/1/2004	6	1	44	2	0.5	0	0.00	35.8775695944	176	16.00	85.3	938.00	16	8
8/2/2004	7	1	25	2	0.5	0	0.00							
8/2/2004	7	1	26	1	0.5	542	49.27							
8/2/2004	7	1	27	1	0.5	0	0.00							
8/2/2004	7	1	28	2	0.5	406	36.91							
8/2/2004	7	1	33	1	0.5	139	12.64							
8/2/2004	7	1	34	1	0.5	265	24.09							
8/2/2004	7	1	35	1	0.5	113	10.27							
8/2/2004	7	1	36	2	0.5	247	22.45							
8/2/2004	7	1	41	2	0.5	0	0.00							
8/2/2004	7	1	43	1	0.5	0	0.00							
8/2/2004	7	1	44	2	0.5	0	0.00	188.5403260458	1,712	155.64	240.9	2,650.00	155.6363636364	77.8181818182
8/3/2004	8	2	25	2	0.5	0	0.00							
8/3/2004	8	2	26	1	0.5	39	3.55							
8/3/2004	8	2	27	1	0.5	292	26.55							
8/3/2004	8	2	28	2	0.5	0	0.00							
8/3/2004	8	2	33	1	0.5	79	7.18							
8/3/2004	8	2	34	1	0.5	0	0.00							
8/3/2004	8	2	35	1	0.5	0	0.00							
8/3/2004	8	2	36	2	0.5	0	0.00							
8/3/2004	8	2	41	2	0.5	0	0.00							
8/3/2004	8	2	43	1	0.5	0	0.00							
8/3/2004	8	2	44	2	0.5	0	0.00	88.1726611928	410	37.27	278.2	3,060.00	37.2727272727	18.6363636364
8/4/2004	9	2	25	2	0.5	0	0.00							
8/4/2004	9	2	26	1	0.5	0	0.00							
8/4/2004	9	2	27	1	0.5	83	7.55							
8/4/2004	9	2	28	2	0.5	0	0.00							
8/4/2004	9	2	33	1	0.5	70	6.36							
8/4/2004	9	2	34	1	0.5	0	0.00							
8/4/2004	9	2	35	1	0.5	71	6.45							
8/4/2004	9	2	36	2	0.5	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/4/2004	9	2	41	2	0.5	0	0.00							
8/4/2004	9	2	43	1	0.5	0	0.00							
8/4/2004	9	2	44	2	0.5	0	0.00	35.0264834868	224	20.36	298.5	3,284.00	20.3636363636	10.1818181818
8/5/2004	10	2	25	2	0.5	0	0.00							
8/5/2004	10	2	26	1	0.5	0	0.00							
8/5/2004	10	2	27	1	0.5	0	0.00							
8/5/2004	10	2	28	2	0.5	0	0.00							
8/5/2004	10	2	33	1	0.5	6	0.55							
8/5/2004	10	2	34	1	0.5	81	7.36							
8/5/2004	10	2	35	1	0.5	0	0.00							
8/5/2004	10	2	36	2	0.5	0	0.00							
8/5/2004	10	2	41	2	0.5	0	0.00							
8/5/2004	10	2	43	1	0.5	0	0.00							
8/5/2004	10	2	44	2	0.5	0	0.00	24.3082477585	87	7.91	306.5	3,371.00	7.9090909091	3.9545454545
8/6/2004	11	2	25	2	0.5	0	0.00							
8/6/2004	11	2	26	1	0.5	24	2.18							
8/6/2004	11	2	27	1	0.5	0	0.00							
8/6/2004	11	2	28	2	0.5	240	21.82							
8/6/2004	11	2	33	1	0.5	0	0.00							
8/6/2004	11	2	34	1	0.5	0	0.00							
8/6/2004	11	2	35	1	0.5	72	6.55							
8/6/2004	11	2	36	2	0.5	0	0.00							
8/6/2004	11	2	41	2	0.5	0	0.00							
8/6/2004	11	2	43	1	0.5	399	36.27							
8/6/2004	11	2	44	2	0.5	162	14.73	132.536307204	897	81.55	388.0	4,268.00	81.5454545455	40.7727272727
8/7/2004	12	2	25	2	0.5	147	13.36							
8/7/2004	12	2	26	1	0.5	0	0.00							
8/7/2004	12	2	27	1	0.5	141	12.82							
8/7/2004	12	2	28	2	0.5	0	0.00							
8/7/2004	12	2	33	1	0.5	0	0.00							
8/7/2004	12	2	34	1	0.5	0	0.00							
8/7/2004	12	2	35	1	0.5	0	0.00							
8/7/2004	12	2	36	2	0.5	0	0.00							
8/7/2004	12	2	41	2	0.5	0	0.00							
8/7/2004	12	2	43	1	0.5	0	0.00							
8/7/2004	12	2	44	2	0.5	0	0.00	58.2663164819	288	26.18	414.2	4,556.00	26.1818181818	13.0909090909
8/8/2004	13	2	25	2	0.5	0	0.00							
8/8/2004	13	2	26	1	0.5	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/8/2004	13	2	27	1	0.5	330	30.00							
8/8/2004	13	2	28	2	0.5	0	0.00							
8/8/2004	13	2	33	1	0.5	0	0.00							
8/8/2004	13	2	34	1	0.5	0	0.00							
8/8/2004	13	2	35	1	0.5	122	11.09							
8/8/2004	13	2	36	2	0.5	0	0.00							
8/8/2004	13	2	41	2	0.5	0	0.00							
8/8/2004	13	2	43	1	0.5	175	15.91							
8/8/2004	13	2	44	2	0.5	0	0.00	108.9357608869	627	57.00	471.2	5,183.00	57	28.5
8/9/2004	14	2	25	2	0.5	130	11.82							
8/9/2004	14	2	26	1	0.5	502	45.64							
8/9/2004	14	2	27	1	0.5	0	0.00							
8/9/2004	14	2	28	2	0.5	0	0.00							
8/9/2004	14	2	33	1	0.5	0	0.00							
8/9/2004	14	2	34	1	0.5	0	0.00							
8/9/2004	14	2	35	1	0.5	0	0.00							
8/9/2004	14	2	36	2	0.5	0	0.00							
8/9/2004	14	2	41	2	0.5	0	0.00							
8/9/2004	14	2	43	1	0.5	0	0.00							
8/9/2004	14	2	44	2	0.5	0	0.00	152.5099102592	632	57.45	528.6	5,815.00	57.4545454545	28.7272727273
8/10/2004	15	3	25	2	0.5	0	0.00							
8/10/2004	15	3	26	1	0.5	0	0.00							
8/10/2004	15	3	27	1	0.5	0	0.00							
8/10/2004	15	3	28	2	0.5	0	0.00							
8/10/2004	15	3	33	1	0.5	0	0.00							
8/10/2004	15	3	34	1	0.5	0	0.00							
8/10/2004	15	3	35	1	0.5	64	5.82							
8/10/2004	15	3	36	2	0.5	79	7.18							
8/10/2004	15	3	41	2	0.5	0	0.00							
8/10/2004	15	3	43	1	0.5	0	0.00							
8/10/2004	15	3	44	2	0.5	44	4.00	30.156259715	187	17.00	545.6	6,002.00	17	8.5
8/11/2004	16	3	25	2	0.5	0	0							
8/11/2004	16	3	28	2	0.5	268	53.6							
8/11/2004	16	3	36	2	0.5	5	1							
8/11/2004	16	3	41	2	0.5	0	0							
8/11/2004	16	3	44	2	0.5	119	23.8	117.5555187986	392	78.40	624.0	6,394	78.4	39.2
8/12/2004	17	3	25	2	0.5	0	0							
8/12/2004	17	3	28	2	0.5	0	0							



**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/12/2004	17	3	36	2	0.5	0	0							
8/12/2004	17	3	41	2	0.5	18	3.6							
8/12/2004	17	3	44	2	0.5	0	0	8.049844719	18	3.60	627.6	6,412	3.6	1.8
8/13/2004	18	3	25	2	0.5	160	32							
8/13/2004	18	3	28	2	0.5	0	0							
8/13/2004	18	3	36	2	0.5	0	0							
8/13/2004	18	3	41	2	0.5	0	0							
8/13/2004	18	3	44	2	0.5	0	0	71.55417528	160	32.00	659.6	6,572	32	16
8/14/2004	19	3	25	2	0.5	0	0							
8/14/2004	19	3	28	2	0.5	0	0							
8/14/2004	19	3	36	2	0.5	0	0							
8/14/2004	19	3	41	2	0.5	0	0							
8/14/2004	19	3	44	2	0.5	91	18.2	40.6964371905	91	18.20	677.8	6,663	18.2	9.1
8/15/2004	20	3	25	2	0.5	0	0							
8/15/2004	20	3	28	2	0.5	287	57.4							
8/15/2004	20	3	36	2	0.5	0	0							
8/15/2004	20	3	41	2	0.5	0	0							
8/15/2004	20	3	44	2	0.5	0	0	128.3503019085	287	57.40	735.2	6,950	57.4	28.7
8/16/2004	21	3	25	2	0.5	0	0							
8/16/2004	21	3	28	2	0.5	0	0							
8/16/2004	21	3	36	2	0.5	0	0							
8/16/2004	21	3	41	2	0.5	0	0							
8/16/2004	21	3	44	2	0.5	0	0	0	0	0.00	735.2	6,950	0	0
8/17/2004	22	4	25	2	0.5	0	0							
8/17/2004	22	4	28	2	0.5	0	0							
8/17/2004	22	4	36	2	0.5	0	0							
8/17/2004	22	4	41	2	0.5	0	0							
8/17/2004	22	4	44	2	0.5	0	0	0	0	0.00	735.2	6,950	0	0
8/18/2004	23	4	25	2	0.5	0	0							
8/18/2004	23	4	28	2	0.5	0	0							
8/18/2004	23	4	36	2	0.5	0	0							
8/18/2004	23	4	41	2	0.5	0	0							
8/18/2004	23	4	44	2	0.5	0	0	0	0	0.00	735.2	6,950	0	0
8/19/2004	24	4	25	2	0.5	0	0							
8/19/2004	24	4	28	2	0.5	0	0							
8/19/2004	24	4	36	2	0.5	260	52							
8/19/2004	24	4	41	2	0.5	0	0							
8/19/2004	24	4	44	2	0.5	0	0	116.27553483	260	52.00	787.2	7,210	52	26

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/20/2004	25	4	25	2	0.5	0	0							
8/20/2004	25	4	28	2	0.5	29	5.8							
8/20/2004	25	4	36	2	0.5	0	0							
8/20/2004	25	4	41	2	0.5	0	0							
8/20/2004	25	4	44	2	0.5	0	0	12.9691942695	29	5.80	793.0	7,239	5.8	2.9
8/21/2004	26	4	25	2	0.5	0	0							
8/21/2004	26	4	28	2	0.5	25	5							
8/21/2004	26	4	36	2	0.5	0	0							
8/21/2004	26	4	41	2	0.5	0	0							
8/21/2004	26	4	44	2	0.5	0	0	11.1803398875	25	5.00	798.0	7,264	5	2.5
8/22/2004	27	4	25	2	0.5	0	0							
8/22/2004	27	4	28	2	0.5	86	17.2							
8/22/2004	27	4	36	2	0.5	0	0							
8/22/2004	27	4	41	2	0.5	0	0							
8/22/2004	27	4	44	2	0.5	1	0.2	38.3510104169	87	17.40	815.4	7,351	17.4	8.7
8/23/2004	28	4	25	2	0.5	0	0							
8/23/2004	28	4	28	2	0.5	0	0							
8/23/2004	28	4	36	2	0.5	0	0							
8/23/2004	28	4	41	2	0.5	0	0							
8/23/2004	28	4	44	2	0.5	0	0	0	0	0.00	815.4	7,351	0	0
8/24/2004	29	5	25	2	0.5	0	0							
8/24/2004	29	5	28	2	0.5	0	0							
8/24/2004	29	5	36	2	0.5	0	0							
8/24/2004	29	5	41	2	0.5	0	0							
8/24/2004	29	5	44	2	0.5	0	0	0	0	0.00	815.4	7,351	0	0
7/27/2004	1	1	1	2	5.0	0	0.00							
7/27/2004	1	1	2	1	5.0	0	0.00							
7/27/2004	1	1	3	2	5.0	91	8.27							
7/27/2004	1	1	4	1	5.0	0	0.00							
7/27/2004	1	1	9	2	5.0	19	1.73							
7/27/2004	1	1	10	1	5.0	282	25.64							
7/27/2004	1	1	11	2	5.0	0	0.00							
7/27/2004	1	1	12	2	5.0	0	0.00							
7/27/2004		1	49	2	5.0	0	0							
7/27/2004	1	1	50	1	5.0	0	0.00							
7/27/2004	1	1	51	1	5.0	160	14.55							
7/27/2004	1	1	52	1	5.0	0	0.00	89.6325833612	552	50.1818181818	50.2	552	46	23
7/28/2004	2	1	1	2	5.0	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
7/28/2004	2	1	2	1	5.0	0	0.00							
7/28/2004	2	1	3	2	5.0	0	0.00							
7/28/2004	2	1	4	1	5.0	0	0.00							
7/28/2004	2	1	9	2	5.0	0	0.00							
7/28/2004	2	1	10	1	5.0	0	0.00							
7/28/2004	2	1	11	2	5.0	0	0.00							
7/28/2004	2	1	12	2	5.0	0	0.00							
7/28/2004		1	49	2	5.0	0	0							
7/28/2004	2	1	50	1	5.0	0	0.00							
7/28/2004	2	1	51	1	5.0	0	0.00							
7/28/2004	2	1	52	1	5.0	0	0.00	0	0	0	50.2	552	0	0
7/29/2004	3	1	1	2	5.0	166	15.09							
7/29/2004	3	1	2	1	5.0	0	0.00							
7/29/2004	3	1	3	2	5.0	0	0.00							
7/29/2004	3	1	4	1	5.0	0	0.00							
7/29/2004	3	1	9	2	5.0	0	0.00							
7/29/2004	3	1	10	1	5.0	156	14.18							
7/29/2004	3	1	11	2	5.0	0	0.00							
7/29/2004	3	1	12	2	5.0	0	0.00							
7/29/2004		1	49	2	5.0	333	27.75							
7/29/2004	3	1	50	1	5.0	0	0.00							
7/29/2004	3	1	51	1	5.0	0	0.00							
7/29/2004	3	1	52	1	5.0	0	0.00	107.4620087907	655	57.0227272727	107.2	1,207	54.5833333333	27.2916666667
7/30/2004	4	1	1	2	5.0	0	0.00							
7/30/2004	4	1	2	1	5.0	0	0.00							
7/30/2004	4	1	3	2	5.0	0	0.00							
7/30/2004	4	1	4	1	5.0	214	19.45							
7/30/2004	4	1	9	2	5.0	0	0.00							
7/30/2004	4	1	10	1	5.0	0	0.00							
7/30/2004	4	1	11	2	5.0	0	0.00							
7/30/2004	4	1	12	2	5.0	0	0.00							
7/30/2004		1	49	2	5.0	0	0							
7/30/2004	4	1	50	1	5.0	0	0.00							
7/30/2004	4	1	51	1	5.0	0	0.00							
7/30/2004	4	1	52	1	5.0	0	0.00	61.7764788033	214	19.4545454545	126.7	1,421	17.8333333333	8.9166666667
7/31/2004	5	1	1	2	5.0	0	0.00							
7/31/2004	5	1	2	1	5.0	0	0.00							
7/31/2004	5	1	3	2	5.0	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
7/31/2004	5	1	4	1	5.0	0	0.00							
7/31/2004	5	1	9	2	5.0	0	0.00							
7/31/2004	5	1	10	1	5.0	323	29.36							
7/31/2004	5	1	11	2	5.0	0	0.00							
7/31/2004	5	1	12	2	5.0	0	0.00							
7/31/2004		1	49	2	5.0	0	0							
7/31/2004	5	1	50	1	5.0	0	0.00							
7/31/2004	5	1	51	1	5.0	0	0.00							
7/31/2004	5	1	52	1	5.0	27	2.45	92.8584781789	350	31.8181818182	158.5	1,771	29.1666666667	14.5833333333
8/1/2004	6	1	1	2	5.0	0	0.00							
8/1/2004	6	1	2	1	5.0	0	0.00							
8/1/2004	6	1	3	2	5.0	0	0.00							
8/1/2004	6	1	4	1	5.0	0	0.00							
8/1/2004	6	1	9	2	5.0	0	0.00							
8/1/2004	6	1	10	1	5.0	0	0.00							
8/1/2004	6	1	11	2	5.0	0	0.00							
8/1/2004	6	1	12	2	5.0	0	0.00							
8/1/2004		1	49	2	5.0	0	0							
8/1/2004	6	1	50	1	5.0	32	2.91							
8/1/2004	6	1	51	1	5.0	0	0.00							
8/1/2004	6	1	52	1	5.0	0	0.00	9.237604307	32	2.9090909091	161.4	1,803	2.6666666667	1.3333333333
8/2/2004	7	1	1	2	5.0	0	0.00							
8/2/2004	7	1	2	1	5.0	0	0.00							
8/2/2004	7	1	3	2	5.0	0	0.00							
8/2/2004	7	1	4	1	5.0	0	0.00							
8/2/2004	7	1	9	2	5.0	0	0.00							
8/2/2004	7	1	10	1	5.0	39	3.55							
8/2/2004	7	1	11	2	5.0	0	0.00							
8/2/2004	7	1	12	2	5.0	0	0.00							
8/2/2004		1	49	2	5.0	0	0							
8/2/2004	7	1	50	1	5.0	0	0.00							
8/2/2004	7	1	51	1	5.0	287	26.09							
8/2/2004	7	1	52	1	5.0	39	3.55	82.190973109	365	33.1818181818	194.6	2,168	30.4166666667	15.2083333333
8/3/2004	8	2	1	2	5.0	53	4.82							
8/3/2004	8	2	2	1	5.0	0	0.00							
8/3/2004	8	2	3	2	5.0	0	0.00							
8/3/2004	8	2	4	1	5.0	177	16.09							
8/3/2004	8	2	9	2	5.0	165	15.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/3/2004	8	2	10	1	5.0	114	10.36							
8/3/2004	8	2	11	2	5.0	0	0.00							
8/3/2004	8	2	12	2	5.0	0	0.00							
8/3/2004		2	49	2	5.0	0	0							
8/3/2004	8	2	50	1	5.0	0	0.00							
8/3/2004	8	2	51	1	5.0	0	0.00							
8/3/2004	8	2	52	1	5.0	0	0.00	69.2616361518	509	46.2727272727	240.8	2,677	42.4166666667	21.2083333333
8/4/2004	9	2	1	2	5.0	0	0.00							
8/4/2004	9	2	2	1	5.0	0	0.00							
8/4/2004	9	2	3	2	5.0	0	0.00							
8/4/2004	9	2	4	1	5.0	0	0.00							
8/4/2004	9	2	9	2	5.0	0	0.00							
8/4/2004	9	2	10	1	5.0	133	12.09							
8/4/2004	9	2	11	2	5.0	0	0.00							
8/4/2004	9	2	12	2	5.0	0	0.00							
8/4/2004		2	49	2	5.0	0	0							
8/4/2004	9	2	50	1	5.0	0	0.00							
8/4/2004	9	2	51	1	5.0	0	0.00							
8/4/2004	9	2	52	1	5.0	0	0.00	38.3937929011	133	12.0909090909	252.9	2,810	11.0833333333	5.5416666667
8/5/2004	10	2	1	2	5.0	0	0.00							
8/5/2004	10	2	2	1	5.0	0	0.00							
8/5/2004	10	2	3	2	5.0	0	0.00							
8/5/2004	10	2	4	1	5.0	82	7.45							
8/5/2004	10	2	9	2	5.0	0	0.00							
8/5/2004	10	2	10	1	5.0	0	0.00							
8/5/2004	10	2	11	2	5.0	0	0.00							
8/5/2004	10	2	12	2	5.0	2	0.18							
8/5/2004		2	49	2	5.0	0	0							
8/5/2004	10	2	50	1	5.0	0	0.00							
8/5/2004	10	2	51	1	5.0	0	0.00							
8/5/2004	10	2	52	1	5.0	0	0.00	23.6258717973	84	7.6363636364	260.6	2,894	7	3.5
8/6/2004	11	2	1	2	5.0	0	0.00							
8/6/2004	11	2	2	1	5.0	0	0.00							
8/6/2004	11	2	3	2	5.0	0	0.00							
8/6/2004	11	2	4	1	5.0	122	11.09							
8/6/2004	11	2	9	2	5.0	351	31.91							
8/6/2004	11	2	10	1	5.0	0	0.00							
8/6/2004	11	2	11	2	5.0	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/6/2004	11	2	12	2	5.0	45	4.09							
8/6/2004		2	49	2	5.0	0	0							
8/6/2004	11	2	50	1	5.0	0	0.00							
8/6/2004	11	2	51	1	5.0	0	0.00							
8/6/2004	11	2	52	1	5.0	0	0.00	103.4626268346	518	47.0909090909	307.7	3,412	43.1666666667	21.5833333333
8/7/2004	12	2	1	2	5.0	0	0.00							
8/7/2004	12	2	2	1	5.0	0	0.00							
8/7/2004	12	2	3	2	5.0	51	4.64							
8/7/2004	12	2	4	1	5.0	0	0.00							
8/7/2004	12	2	9	2	5.0	0	0.00							
8/7/2004	12	2	10	1	5.0	205	18.64							
8/7/2004	12	2	11	2	5.0	0	0.00							
8/7/2004	12	2	12	2	5.0	100	9.09							
8/7/2004		2	49	2	5.0	0	0							
8/7/2004	12	2	50	1	5.0	0	0.00							
8/7/2004	12	2	51	1	5.0	0	0.00							
8/7/2004	12	2	52	1	5.0	0	0.00	63.2920120385	356	32.3636363636	340.0	3,768	29.6666666667	14.8333333333
8/8/2004	13	2	1	2	5.0	394	35.82							
8/8/2004	13	2	2	1	5.0	288	26.18							
8/8/2004	13	2	3	2	5.0	78	7.09							
8/8/2004	13	2	4	1	5.0	100	9.09							
8/8/2004	13	2	9	2	5.0	90	8.18							
8/8/2004	13	2	10	1	5.0	0	0.00							
8/8/2004	13	2	11	2	5.0	0	0.00							
8/8/2004	13	2	12	2	5.0	139	12.64							
8/8/2004		2	49	2	5.0	0	0							
8/8/2004	13	2	50	1	5.0	0	0.00							
8/8/2004	13	2	51	1	5.0	0	0.00							
8/8/2004	13	2	52	1	5.0	0	0.00	128.932064564	1,089	99	439.0	4,857	90.75	45.375
8/9/2004	14	2	1	2	5.0	0	0.00							
8/9/2004	14	2	2	1	5.0	0	0.00							
8/9/2004	14	2	3	2	5.0	0	0.00							
8/9/2004	14	2	4	1	5.0	0	0.00							
8/9/2004	14	2	9	2	5.0	144	13.09							
8/9/2004	14	2	10	1	5.0	0	0.00							
8/9/2004	14	2	11	2	5.0	0	0.00							
8/9/2004	14	2	12	2	5.0	0	0.00							
8/9/2004		2	49	2	5.0	0	0							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/9/2004	14	2	50	1	5.0	0	0.00							
8/9/2004	14	2	51	1	5.0	0	0.00							
8/9/2004	14	2	52	1	5.0	657	59.73	190.4344912419	801	72.8181818182	511.8	5,658	66.75	33.375
8/10/2004	15	3	1	2	5.0	0	0.00							
8/10/2004	15	3	2	1	5.0	0	0.00							
8/10/2004	15	3	3	2	5.0	0	0.00							
8/10/2004	15	3	4	1	5.0	0	0.00							
8/10/2004	15	3	9	2	5.0	0	0.00							
8/10/2004	15	3	10	1	5.0	68	6.18							
8/10/2004	15	3	11	2	5.0	0	0.00							
8/10/2004	15	3	12	2	5.0	0	0.00							
8/10/2004		3	49	2	5.0	0	0							
8/10/2004	15	3	50	1	5.0	0	0.00							
8/10/2004	15	3	51	1	5.0	0	0.00							
8/10/2004	15	3	52	1	5.0	0	0.00	19.6299091524	68	6.1818181818	518.0	5,726	5.6666666667	2.8333333333
8/11/2004	16	3	1	2	5.0	0	0							
8/11/2004	16	3	3	2	5.0	0	0							
8/11/2004	16	3	9	2	5.0	247	49.4							
8/11/2004	16	3	11	2	5.0	0	0							
8/11/2004	16	3	12	2	5.0	358	71.6							
8/11/2004		3	49	2	5.0	216	36	157.1552311145	821	157	675.0	6,547	136.8333333333	68.4166666667
8/12/2004	17	3	1	2	5.0	64	12.8							
8/12/2004	17	3	3	2	5.0	0	0							
8/12/2004	17	3	9	2	5.0	170	34							
8/12/2004	17	3	11	2	5.0	0	0							
8/12/2004	17	3	12	2	5.0	0	0							
8/12/2004		3	49	2	5.0	0	0	69.0941386805	234	46.8	721.8	6,781	39	19.5
8/13/2004	18	3	1	2	5.0	43	8.6							
8/13/2004	18	3	3	2	5.0	0	0							
8/13/2004	18	3	9	2	5.0	0	0							
8/13/2004	18	3	11	2	5.0	0	0							
8/13/2004	18	3	12	2	5.0	0	0							
8/13/2004		3	49	2	5.0	0	0	17.5546764899	43	8.6	730.4	6,824	7.1666666667	3.5833333333
8/14/2004	19	3	1	2	5.0	0	0							
8/14/2004	19	3	3	2	5.0	0	0							
8/14/2004	19	3	9	2	5.0	185	37							
8/14/2004	19	3	11	2	5.0	0	0							
8/14/2004	19	3	12	2	5.0	130	26							
8/14/2004		3	49	2	5.0	0	0	83.171509545	315	63	793.4	7,139	52.5	26.25

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/15/2004	20	3	1	2	5.0	0	0							
8/15/2004	20	3	3	2	5.0	0	0							
8/15/2004	20	3	9	2	5.0	0	0							
8/15/2004	20	3	11	2	5.0	0	0							
8/15/2004	20	3	12	2	5.0	0	0							
8/15/2004		3	49	2	5.0	0	0	0	0	0	793.4	7,139	0	0
8/16/2004	21	3	1	2	5.0	0	0							
8/16/2004	21	3	3	2	5.0	0	0							
8/16/2004	21	3	9	2	5.0	0	0							
8/16/2004	21	3	11	2	5.0	0	0							
8/16/2004	21	3	12	2	5.0	0	0							
8/16/2004		3	49	2	5.0	0	0	0	0	0	793.4	7,139	0	0
8/17/2004	22	4	1	2	5.0	0	0							
8/17/2004	22	4	3	2	5.0	0	0							
8/17/2004	22	4	9	2	5.0	0	0							
8/17/2004	22	4	11	2	5.0	0	0							
8/17/2004	22	4	12	2	5.0	125	25							
8/17/2004		4	49	2	5.0	0	0	51.031036308	125	25	818.4	7,264	20.8333333333	10.4166666667
8/18/2004	23	4	1	2	5.0	432	86.4							
8/18/2004	23	4	3	2	5.0	0	0							
8/18/2004	23	4	9	2	5.0	0	0							
8/18/2004	23	4	11	2	5.0	0	0							
8/18/2004	23	4	12	2	5.0	0	0							
8/18/2004		4	49	2	5.0	0	0	176.3632614804	432	86.4	904.8	7,696	72	36
8/19/2004	24	4	1	2	5.0	0	0							
8/19/2004	24	4	3	2	5.0	0	0							
8/19/2004	24	4	9	2	5.0	0	0							
8/19/2004	24	4	11	2	5.0	0	0							
8/19/2004	24	4	12	2	5.0	0	0							
8/19/2004		4	49	2	5.0	0	0	0	0	0	904.8	7,696	0	0
8/20/2004	25	4	1	2	5.0	0	0							
8/20/2004	25	4	3	2	5.0	0	0							
8/20/2004	25	4	9	2	5.0	0	0							
8/20/2004	25	4	11	2	5.0	229	45.8							
8/20/2004	25	4	12	2	5.0	0	0							
8/20/2004		4	49	2	5.0	0	0	93.4888585162	229	45.8	950.6	7,925	38.1666666667	19.0833333333
8/21/2004	26	4	1	2	5.0	0	0							
8/21/2004	26	4	3	2	5.0	0	0							



**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/21/2004	26	4	9	2	5.0	0	0							
8/21/2004	26	4	11	2	5.0	0	0							
8/21/2004	26	4	12	2	5.0	0	0							
8/21/2004		4	49	2	5.0	0	0	0	0	0	950.6	7,925	0	0
8/22/2004	27	4	1	2	5.0	0	0							
8/22/2004	27	4	3	2	5.0	0	0							
8/22/2004	27	4	9	2	5.0	0	0							
8/22/2004	27	4	11	2	5.0	0	0							
8/22/2004	27	4	12	2	5.0	0	0							
8/22/2004		4	49	2	5.0	0	0	0	0	0	950.6	7,925	0	0
8/23/2004	28	4	1	2	5.0	0	0							
8/23/2004	28	4	3	2	5.0	0	0							
8/23/2004	28	4	9	2	5.0	0	0							
8/23/2004	28	4	11	2	5.0	0	0							
8/23/2004	28	4	12	2	5.0	0	0							
8/23/2004		4	49	2	5.0	0	0	0	0	0	950.6	7,925	0	0
8/24/2004	29	5	1	2	5.0	0	0							
8/24/2004	29	5	3	2	5.0	0	0							
8/24/2004	29	5	9	2	5.0	0	0							
8/24/2004	29	5	11	2	5.0	0	0							
8/24/2004	29	5	12	2	5.0	0	0							
8/24/2004		5	49	2	5.0	0	0	0	0	0	950.6	7,925	0	0
7/27/2004	1	1	17	2	50.0	0	0.00							
7/27/2004	1	1	18	1	50.0	0	0.00							
7/27/2004	1	1	19	2	50.0	141	12.82							
7/27/2004		1	20	1	50.0	0	0							
7/27/2004	1	1	29	1	50.0	0	0.00							
7/27/2004	1	1	30	1	50.0	0	0.00							
7/27/2004	1	1	31	2	50.0	0	0.00							
7/27/2004	1	1	32	2	50.0	0	0.00							
7/27/2004	1	1	45	1	50.0	0	0.00							
7/27/2004	1	1	46	2	50.0	0	0.00							
7/27/2004	1	1	47	1	50.0	73	6.64							
7/27/2004	1	1	48	2	50.0	0	0.00	44.100779901	214	19.45	19.5	214	17.8333333333	8.9166666667
7/28/2004	2	1	17	2	50.0	0	0.00							
7/28/2004	2	1	18	1	50.0	0	0.00							
7/28/2004	2	1	19	2	50.0	0	0.00							
7/28/2004		1	20	1	50.0	0	0							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
7/28/2004	2	1	29	1	50.0	0	0.00							
7/28/2004	2	1	30	1	50.0	0	0.00							
7/28/2004	2	1	31	2	50.0	0	0.00							
7/28/2004	2	1	32	2	50.0	0	0.00							
7/28/2004	2	1	45	1	50.0	0	0.00							
7/28/2004	2	1	46	2	50.0	0	0.00							
7/28/2004	2	1	47	1	50.0	0	0.00							
7/28/2004	2	1	48	2	50.0	0	0.00	0	0	0.00	19.5	214	0	0
7/29/2004	3	1	17	2	50.0	0	0.00							
7/29/2004	3	1	18	1	50.0	0	0.00							
7/29/2004	3	1	19	2	50.0	0	0.00							
7/29/2004		1	20	1	50.0	82	6.83333333333							
7/29/2004	3	1	29	1	50.0	0	0.00							
7/29/2004	3	1	30	1	50.0	0	0.00							
7/29/2004	3	1	31	2	50.0	0	0.00							
7/29/2004	3	1	32	2	50.0	0	0.00							
7/29/2004	3	1	45	1	50.0	0	0.00							
7/29/2004	3	1	46	2	50.0	0	0.00							
7/29/2004	3	1	47	1	50.0	0	0.00							
7/29/2004	3	1	48	2	50.0	8	0.73	23.5738684294	90	7.56	27.0	304	7.5	3.75
7/30/2004	4	1	17	2	50.0	0	0.00							
7/30/2004	4	1	18	1	50.0	0	0.00							
7/30/2004	4	1	19	2	50.0	129	11.73							
7/30/2004		1	20	1	50.0	0	0							
7/30/2004	4	1	29	1	50.0	193	17.55							
7/30/2004	4	1	30	1	50.0	0	0.00							
7/30/2004	4	1	31	2	50.0	0	0.00							
7/30/2004	4	1	32	2	50.0	0	0.00							
7/30/2004	4	1	45	1	50.0	0	0.00							
7/30/2004	4	1	46	2	50.0	0	0.00							
7/30/2004	4	1	47	1	50.0	138	12.55							
7/30/2004	4	1	48	2	50.0	104	9.45	72.1374949788	564	51.27	78.3	868	47	23.5
7/31/2004	5	1	17	2	50.0	0	0.00							
7/31/2004	5	1	18	1	50.0	0	0.00							
7/31/2004	5	1	19	2	50.0	0	0.00							
7/31/2004		1	20	1	50.0	0	0							
7/31/2004	5	1	29	1	50.0	0	0.00							
7/31/2004	5	1	30	1	50.0	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
7/31/2004	5	1	31	2	50.0	0	0.00							
7/31/2004	5	1	32	2	50.0	0	0.00							
7/31/2004	5	1	45	1	50.0	0	0.00							
7/31/2004	5	1	46	2	50.0	0	0.00							
7/31/2004	5	1	47	1	50.0	0	0.00							
7/31/2004	5	1	48	2	50.0	0	0.00	0	0	0.00	78.3	868	0	0
8/1/2004	6	1	17	2	50.0	0	0.00							
8/1/2004	6	1	18	1	50.0	0	0.00							
8/1/2004	6	1	19	2	50.0	0	0.00							
8/1/2004		1	20	1	50.0	0	0							
8/1/2004	6	1	29	1	50.0	0	0.00							
8/1/2004	6	1	30	1	50.0	0	0.00							
8/1/2004	6	1	31	2	50.0	0	0.00							
8/1/2004	6	1	32	2	50.0	0	0.00							
8/1/2004	6	1	45	1	50.0	0	0.00							
8/1/2004	6	1	46	2	50.0	0	0.00							
8/1/2004	6	1	47	1	50.0	0	0.00							
8/1/2004	6	1	48	2	50.0	0	0.00	0	0	0.00	78.3	868	0	0
8/2/2004	7	1	17	2	50.0	0	0.00							
8/2/2004	7	1	18	1	50.0	0	0.00							
8/2/2004	7	1	19	2	50.0	0	0.00							
8/2/2004		1	20	1	50.0	152	12.6666666667							
8/2/2004	7	1	29	1	50.0	231	21.00							
8/2/2004	7	1	30	1	50.0	199	18.09							
8/2/2004	7	1	31	2	50.0	0	0.00							
8/2/2004	7	1	32	2	50.0	0	0.00							
8/2/2004	7	1	45	1	50.0	0	0.00							
8/2/2004	7	1	46	2	50.0	0	0.00							
8/2/2004	7	1	47	1	50.0	0	0.00							
8/2/2004	7	1	48	2	50.0	75	6.82	88.2765540786	657	58.58	136.9	1,525	54.75	27.375
8/3/2004	8	2	17	2	50.0	0	0.00							
8/3/2004	8	2	18	1	50.0	0	0.00							
8/3/2004	8	2	19	2	50.0	0	0.00							
8/3/2004		2	20	1	50.0	0	0							
8/3/2004	8	2	29	1	50.0	0	0.00							
8/3/2004	8	2	30	1	50.0	0	0.00							
8/3/2004	8	2	31	2	50.0	233	21.18							
8/3/2004	8	2	32	2	50.0	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/3/2004	8	2	45	1	50.0	0	0.00							
8/3/2004	8	2	46	2	50.0	0	0.00							
8/3/2004	8	2	47	1	50.0	200	18.18							
8/3/2004	8	2	48	2	50.0	257	23.36	104.7347298481	690	62.73	199.6	2,215	57.5	28.75
8/4/2004	9	2	17	2	50.0	0	0.00							
8/4/2004	9	2	18	1	50.0	0	0.00							
8/4/2004	9	2	19	2	50.0	75	6.82							
8/4/2004		2	20	1	50.0	0	0							
8/4/2004	9	2	29	1	50.0	0	0.00							
8/4/2004	9	2	30	1	50.0	0	0.00							
8/4/2004	9	2	31	2	50.0	0	0.00							
8/4/2004	9	2	32	2	50.0	0	0.00							
8/4/2004	9	2	45	1	50.0	0	0.00							
8/4/2004	9	2	46	2	50.0	0	0.00							
8/4/2004	9	2	47	1	50.0	59	5.36							
8/4/2004	9	2	48	2	50.0	0	0.00	26.3018607476	134	12.18	211.8	2,349	11.1666666667	5.5833333333
8/5/2004	10	2	17	2	50.0	0	0.00							
8/5/2004	10	2	18	1	50.0	0	0.00							
8/5/2004	10	2	19	2	50.0	0	0.00							
8/5/2004		2	20	1	50.0	0	0							
8/5/2004	10	2	29	1	50.0	0	0.00							
8/5/2004	10	2	30	1	50.0	0	0.00							
8/5/2004	10	2	31	2	50.0	414	37.64							
8/5/2004	10	2	32	2	50.0	0	0.00							
8/5/2004	10	2	45	1	50.0	31	2.82							
8/5/2004	10	2	46	2	50.0	0	0.00							
8/5/2004	10	2	47	1	50.0	0	0.00							
8/5/2004	10	2	48	2	50.0	0	0.00	119.0320494148	445	40.45	252.2	2,794	37.0833333333	18.5416666667
8/6/2004	11	2	17	2	50.0	0	0.00							
8/6/2004	11	2	18	1	50.0	0	0.00							
8/6/2004	11	2	19	2	50.0	0	0.00							
8/6/2004		2	20	1	50.0	131	10.9166666667							
8/6/2004	11	2	29	1	50.0	65	5.91							
8/6/2004	11	2	30	1	50.0	0	0.00							
8/6/2004	11	2	31	2	50.0	0	0.00							
8/6/2004	11	2	32	2	50.0	0	0.00							
8/6/2004	11	2	45	1	50.0	71	6.45							
8/6/2004	11	2	46	2	50.0	0	0.00							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/6/2004	11	2	47	1	50.0	157	14.27							
8/6/2004	11	2	48	2	50.0	0	0.00	57.2829235753	424	37.55	289.8	3,218	35.3333333333	17.6666666667
8/7/2004	12	2	17	2	50.0	0	0.00							
8/7/2004	12	2	18	1	50.0	0	0.00							
8/7/2004	12	2	19	2	50.0	120	10.91							
8/7/2004		2	20	1	50.0	0	0							
8/7/2004	12	2	29	1	50.0	8	0.73							
8/7/2004	12	2	30	1	50.0	3	0.27							
8/7/2004	12	2	31	2	50.0	0	0.00							
8/7/2004	12	2	32	2	50.0	0	0.00							
8/7/2004	12	2	45	1	50.0	0	0.00							
8/7/2004	12	2	46	2	50.0	0	0.00							
8/7/2004	12	2	47	1	50.0	0	0.00							
8/7/2004	12	2	48	2	50.0	0	0.00	34.43428084	131	11.91	301.7	3,349	10.9166666667	5.4583333333
8/8/2004	13	2	17	2	50.0	0	0.00							
8/8/2004	13	2	18	1	50.0	0	0.00							
8/8/2004	13	2	19	2	50.0	226	20.55							
8/8/2004		2	20	1	50.0	0	0							
8/8/2004	13	2	29	1	50.0	0	0.00							
8/8/2004	13	2	30	1	50.0	0	0.00							
8/8/2004	13	2	31	2	50.0	0	0.00							
8/8/2004	13	2	32	2	50.0	0	0.00							
8/8/2004	13	2	45	1	50.0	89	8.09							
8/8/2004	13	2	46	2	50.0	0	0.00							
8/8/2004	13	2	47	1	50.0	0	0.00							
8/8/2004	13	2	48	2	50.0	0	0.00	67.9091973956	315	28.64	330.3	3,664	26.25	13.125
8/9/2004	14	2	17	2	50.0	0	0.00							
8/9/2004	14	2	18	1	50.0	0	0.00							
8/9/2004	14	2	19	2	50.0	0	0.00							
8/9/2004		2	20	1	50.0	0	0							
8/9/2004	14	2	29	1	50.0	0	0.00							
8/9/2004	14	2	30	1	50.0	2	0.18							
8/9/2004	14	2	31	2	50.0	269	24.45							
8/9/2004	14	2	32	2	50.0	0	0.00							
8/9/2004	14	2	45	1	50.0	166	15.09							
8/9/2004	14	2	46	2	50.0	0	0.00							
8/9/2004	14	2	47	1	50.0	0	0.00							
8/9/2004	14	2	48	2	50.0	0	0.00	87.3898874255	437	39.73	370.1	4,101	36.4166666667	18.2083333333

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/10/2004	15	3	17	2	50.0	0	0.00							
8/10/2004	15	3	18	1	50.0	0	0.00							
8/10/2004	15	3	19	2	50.0	2	0.18							
8/10/2004		3	20	1	50.0	0	0							
8/10/2004	15	3	29	1	50.0	0	0.00							
8/10/2004	15	3	30	1	50.0	0	0.00							
8/10/2004	15	3	31	2	50.0	0	0.00							
8/10/2004	15	3	32	2	50.0	0	0.00							
8/10/2004	15	3	45	1	50.0	0	0.00							
8/10/2004	15	3	46	2	50.0	0	0.00							
8/10/2004	15	3	47	1	50.0	0	0.00							
8/10/2004	15	3	48	2	50.0	0	0.00	0.5773502692	2	0.18	370.2	4,103	0.1666666667	0.0833333333
8/11/2004	16	3	17	2	50.0	0	0							
8/11/2004	16	3	19	2	50.0	0	0							
8/11/2004	16	3	31	2	50.0	0	0							
8/11/2004	16	3	32	2	50.0	0	0							
8/11/2004	16	3	46	2	50.0	0	0							
8/11/2004	16	3	48	2	50.0	0	0	0	0	0	370.2	4,103	0	0
8/12/2004	17	3	17	2	50.0	0	0							
8/12/2004	17	3	19	2	50.0	0	0							
8/12/2004	17	3	31	2	50.0	54	9							
8/12/2004	17	3	32	2	50.0	0	0							
8/12/2004	17	3	46	2	50.0	0	0							
8/12/2004	17	3	48	2	50.0	0	0	22.045407685	54	9	379.2	4,157	9	4.5
8/13/2004	18	3	17	2	50.0	0	0							
8/13/2004	18	3	19	2	50.0	187	31.1666666667							
8/13/2004	18	3	31	2	50.0	0	0							
8/13/2004	18	3	32	2	50.0	0	0							
8/13/2004	18	3	46	2	50.0	0	0							
8/13/2004	18	3	48	2	50.0	0	0	76.3424303167	187	31.1666666667	410.4	4,344	31.1666666667	15.5833333333
8/14/2004	19	3	17	2	50.0	0	0							
8/14/2004	19	3	19	2	50.0	128	21.3333333333							
8/14/2004	19	3	31	2	50.0	0	0							
8/14/2004	19	3	32	2	50.0	0	0							
8/14/2004	19	3	46	2	50.0	0	0							
8/14/2004	19	3	48	2	50.0	0	0	52.2557811794	128	21.3333333333	431.7	4,472	21.3333333333	10.6666666667
8/15/2004	20	3	17	2	50.0	0	0							
8/15/2004	20	3	19	2	50.0	0	0							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/15/2004	20	3	31	2	50.0	0	0							
8/15/2004	20	3	32	2	50.0	0	0							
8/15/2004	20	3	46	2	50.0	141	23.5							
8/15/2004	20	3	48	2	50.0	0	0	57.5630089554	141	23.5	455.2	4,613	23.5	11.75
8/16/2004	21	3	17	2	50.0	0	0							
8/16/2004	21	3	19	2	50.0	0	0							
8/16/2004	21	3	31	2	50.0	0	0							
8/16/2004	21	3	32	2	50.0	0	0							
8/16/2004	21	3	46	2	50.0	0	0							
8/16/2004	21	3	48	2	50.0	0	0	0	0	0	455.2	4,613	0	0
8/17/2004	22	4	17	2	50.0	0	0							
8/17/2004	22	4	19	2	50.0	168	28							
8/17/2004	22	4	31	2	50.0	0	0							
8/17/2004	22	4	32	2	50.0	358	59.6666666667							
8/17/2004	22	4	46	2	50.0	0	0							
8/17/2004	22	4	48	2	50.0	0	0	148.5094834233	526	87.6666666667	542.9	5,139	87.6666666667	43.8333333333
8/18/2004	23	4	17	2	50.0	0	0							
8/18/2004	23	4	19	2	50.0	0	0							
8/18/2004	23	4	31	2	50.0	0	0							
8/18/2004	23	4	32	2	50.0	0	0							
8/18/2004	23	4	46	2	50.0	279	46.5							
8/18/2004	23	4	48	2	50.0	0	0	113.9012730394	279	46.5	589.4	5,418	46.5	23.25
8/19/2004	24	4	17	2	50.0	0	0							
8/19/2004	24	4	19	2	50.0	210	35							
8/19/2004	24	4	31	2	50.0	0	0							
8/19/2004	24	4	32	2	50.0	0	0							
8/19/2004	24	4	46	2	50.0	18	3							
8/19/2004	24	4	48	2	50.0	0	0	84.5694980475	228	38	627.4	5,646	38	19
8/20/2004	25	4	17	2	50.0	0	0							
8/20/2004	25	4	19	2	50.0	0	0							
8/20/2004	25	4	31	2	50.0	0	0							
8/20/2004	25	4	32	2	50.0	0	0							
8/20/2004	25	4	46	2	50.0	0	0							
8/20/2004	25	4	48	2	50.0	0	0	0	0	0	627.4	5,646	0	0
8/21/2004	26	4	17	2	50.0	0	0							
8/21/2004	26	4	19	2	50.0	0	0							
8/21/2004	26	4	31	2	50.0	0	0							
8/21/2004	26	4	32	2	50.0	0	0							

**Table 2.** Raw data and initial statistics on egg production of fathead minnows exposed to atrazine—with tanks containing 2 male fish removed from the dataset.—Continued

[Shaded rows indicate end of collection day; µg/L, micrograms per liter]

Date collected	Exposure day	Week	Tank number	Time	Concentration (µg/L)	Number of eggs	Mean egg/concentration/day	Standard deviation	Number of eggs (sum)	Sum mean	Cumulative mean	Cumulative sum	Mean eggs/tank/day	Mean eggs/female/day
8/21/2004	26	4	46	2	50.0	0	0							
8/21/2004	26	4	48	2	50.0	0	0	0	0	0	627.4	5,646	0	0
8/22/2004	27	4	17	2	50.0	0	0							
8/22/2004	27	4	19	2	50.0	0	0							
8/22/2004	27	4	31	2	50.0	0	0							
8/22/2004	27	4	32	2	50.0	0	0							
8/22/2004	27	4	46	2	50.0	0	0							
8/22/2004	27	4	48	2	50.0	0	0	0	0	0	627.4	5,646	0	0
8/23/2004	28	4	17	2	50.0	0	0							
8/23/2004	28	4	19	2	50.0	0	0							
8/23/2004	28	4	31	2	50.0	0	0							
8/23/2004	28	4	32	2	50.0	0	0							
8/23/2004	28	4	46	2	50.0	295	49.1666666667							
8/23/2004	28	4	48	2	50.0	0	0	120.4332456868	295	49.1666666667	676.6	5,941	49.1666666667	24.5833333333
8/24/2004	29	5	17	2	50.0	0	0							
8/24/2004	29	5	19	2	50.0	0	0							
8/24/2004	29	5	31	2	50.0	0	0							
8/24/2004	29	5	32	2	50.0	0	0							
8/24/2004	29	5	46	2	50.0	73	12.1666666667							
8/24/2004	29	5	48	2	50.0	2	0.3333333333	29.6496205709	75	12.5	689.1	6,016	12.5	6.25



**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
7/27/2004	1	1	2	5.0	0	0	0	0.00	-5
7/27/2004	1	2	1	5.0	0	0	0	0.00	-5
7/27/2004	1	3	2	5.0	91	4	87	0.956044	-0.01952
7/27/2004	1	4	1	5.0	0	0	0	0.00	-5
7/27/2004	1	5	1	0.0	0	0	0	0.00	-5
7/27/2004	1	6	1	0.0	3	3	0	0	-5
7/27/2004	1	7	2	0.0	0	0	0	0.00	-5
7/27/2004	1	8	2	0.0	108	20	88	0.814815	-0.08894
7/27/2004	1	9	2	5.0	19	2	17	0.894737	-0.0483
7/27/2004	1	10	1	5.0	282	96	186	0.659574	-0.18074
7/27/2004	1	11	2	5.0	0	0	0	0.00	-5
7/27/2004	1	12	2	5.0	0	0	0	0.00	-5
7/27/2004	1	17	2	50.0	0	0	0	0.00	-5
7/27/2004	1	18	1	50.0	0	0	0	0.00	-5
7/27/2004	1	19	2	50.0	141	49	92	0.652482	-0.18543
7/27/2004	1	20	1	50.0	0	0	0	0.00	-5
7/27/2004	1	21	2	0.0	90	22	68	0.755556	-0.12173
7/27/2004	1	22	2	0.0	0	0	0	0.00	-5
7/27/2004	1	23	1	0.0	0	0	0	0.00	-5
7/27/2004	1	24	2	0.0	0	0	0	0.00	-5
7/27/2004	1	25	2	0.5	0	0	0	0.00	-5
7/27/2004	1	26	1	0.5	0	0	0	0.00	-5
7/27/2004	1	27	1	0.5	0	0	0	0.00	-5
7/27/2004	1	28	2	0.5	0	0	0	0.00	-5
7/27/2004	1	29	1	50.0	0	0	0	0.00	-5
7/27/2004	1	30	1	50.0	0	0	0	0.00	-5
7/27/2004	1	31	2	50.0	0	0	0	0.00	-5
7/27/2004	1	32	2	50.0	0	0	0	0.00	-5
7/27/2004	1	33	1	0.5	0	0	0	0.00	-5
7/27/2004	1	34	1	0.5	10	7	3	0.3	-0.52288
7/27/2004	1	35	1	0.5	0	0	0	0.00	-5
7/27/2004	1	36	2	0.5	0	0	0	0.00	-5
7/27/2004	1	41	2	0.5	0	0	0	0.00	-5
7/27/2004	1	42	2	0.5	0	0	0	0.00	-5
7/27/2004	1	43	1	0.5	0	0	0	0.00	-5
7/27/2004	1	44	2	0.5	0	0	0	0.00	-5
7/27/2004	1	45	1	50.0	0	0	0	0.00	-5
7/27/2004	1	46	2	50.0	0	0	0	0.00	-5
7/27/2004	1	47	1	50.0	73	17	56	0.767123	-0.11513
7/27/2004	1	48	2	50.0	0	0	0	0.00	-5
7/27/2004	1	49	2	5.0	0	0	0	0.00	-5
7/27/2004	1	50	1	5.0	0	0	0	0.00	-5
7/27/2004	1	51	1	5.0	160	16	144	0.9	-0.04576
7/27/2004	1	52	1	5.0	0	0	0	0.00	-5
7/27/2004	1	53	1	0.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
7/27/2004	1	54	1	0.0	0	0	0	0.00	-5
7/27/2004	1	55	2	0.0	0	0	0	0.00	-5
7/27/2004	1	56	1	0.0	228	36	192	0.842105	-0.07463
7/28/2004	1	1	2	5.0	0	0	0	0.00	-5
7/28/2004	1	2	1	5.0	0	0	0	0.00	-5
7/28/2004	1	3	2	5.0	0	0	0	0.00	-5
7/28/2004	1	4	1	5.0	0	0	0	0.00	-5
7/28/2004	1	5	1	0.0	0	0	0	0.00	-5
7/28/2004	1	6	1	0.0	0	0	0	0.00	-5
7/28/2004	1	7	2	0.0	0	0	0	0.00	-5
7/28/2004	1	8	2	0.0	212	101	111	0.523585	-0.28101
7/28/2004	1	9	2	5.0	0	0	0	0.00	-5
7/28/2004	1	10	1	5.0	0	0	0	0.00	-5
7/28/2004	1	11	2	5.0	0	0	0	0.00	-5
7/28/2004	1	12	2	5.0	0	0	0	0.00	-5
7/28/2004	1	17	2	50.0	0	0	0	0.00	-5
7/28/2004	1	18	1	50.0	0	0	0	0.00	-5
7/28/2004	1	19	2	50.0	0	0	0	0.00	-5
7/28/2004	1	20	1	50.0	0	0	0	0.00	-5
7/28/2004	1	21	2	0.0	165	25	140	0.848485	-0.07136
7/28/2004	1	22	2	0.0	83	30	53	0.638554	-0.1948
7/28/2004	1	23	1	0.0	0	0	0	0.00	-5
7/28/2004	1	24	2	0.0	0	0	0	0.00	-5
7/28/2004	1	25	2	0.5	0	0	0	0.00	-5
7/28/2004	1	26	1	0.5	0	0	0	0.00	-5
7/28/2004	1	27	1	0.5	0	0	0	0.00	-5
7/28/2004	1	28	2	0.5	0	0	0	0.00	-5
7/28/2004	1	29	1	50.0	0	0	0	0.00	-5
7/28/2004	1	30	1	50.0	0	0	0	0.00	-5
7/28/2004	1	31	2	50.0	0	0	0	0.00	-5
7/28/2004	1	32	2	50.0	0	0	0	0.00	-5
7/28/2004	1	33	1	0.5	0	0	0	0.00	-5
7/28/2004	1	34	1	0.5	0	0	0	0.00	-5
7/28/2004	1	35	1	0.5	0	0	0	0.00	-5
7/28/2004	1	36	2	0.5	0	0	0	0.00	-5
7/28/2004	1	41	2	0.5	0	0	0	0.00	-5
7/28/2004	1	42	2	0.5	0	0	0	0.00	-5
7/28/2004	1	43	1	0.5	0	0	0	0.00	-5
7/28/2004	1	44	2	0.5	0	0	0	0.00	-5
7/28/2004	1	45	1	50.0	0	0	0	0.00	-5
7/28/2004	1	46	2	50.0	0	0	0	0.00	-5
7/28/2004	1	47	1	50.0	0	0	0	0.00	-5
7/28/2004	1	48	2	50.0	0	0	0	0.00	-5
7/28/2004	1	49	2	5.0	0	0	0	0.00	-5
7/28/2004	1	50	1	5.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
7/28/2004	1	51	1	5.0	0	0	0	0.00	-5
7/28/2004	1	52	1	5.0	0	0	0	0.00	-5
7/28/2004	1	53	1	0.0	0	0	0	0.00	-5
7/28/2004	1	54	1	0.0	0	0	0	0.00	-5
7/28/2004	1	55	2	0.0	250	20	230	0.92	-0.03621
7/28/2004	1	56	1	0.0	0	0	0	0.00	-5
7/29/2004	1	1	2	5.0	166	47	119	0.716867	-0.14456
7/29/2004	1	2	1	5.0	0	0	0	0.00	-5
7/29/2004	1	3	2	5.0	0	0	0	0.00	-5
7/29/2004	1	4	1	5.0	0	0	0	0.00	-5
7/29/2004	1	5	1	0.0	0	0	0	0.00	-5
7/29/2004	1	6	1	0.0	0	0	0	0.00	-5
7/29/2004	1	7	2	0.0	0	0	0	0.00	-5
7/29/2004	1	8	2	0.0	0	0	0	0.00	-5
7/29/2004	1	9	2	5.0	0	0	0	0.00	-5
7/29/2004	1	10	1	5.0	156	7	149	0.955128	-0.01994
7/29/2004	1	11	2	5.0	0	0	0	0.00	-5
7/29/2004	1	12	2	5.0	0	0	0	0.00	-5
7/29/2004	1	17	2	50.0	0	0	0	0.00	-5
7/29/2004	1	18	1	50.0	0	0	0	0.00	-5
7/29/2004	1	19	2	50.0	0	0	0	0.00	-5
7/29/2004	1	20	1	50.0	82	9	73	0.890244	-0.05049
7/29/2004	1	21	2	0.0	0	0	0	0.00	-5
7/29/2004	1	22	2	0.0	0	0	0	0.00	-5
7/29/2004	1	23	1	0.0	0	0	0	0.00	-5
7/29/2004	1	24	2	0.0	0	0	0	0.00	-5
7/29/2004	1	25	2	0.5	0	0	0	0.00	-5
7/29/2004	1	26	1	0.5	0	0	0	0.00	-5
7/29/2004	1	27	1	0.5	0	0	0	0.00	-5
7/29/2004	1	28	2	0.5	0	0	0	0.00	-5
7/29/2004	1	29	1	50.0	0	0	0	0.00	-5
7/29/2004	1	30	1	50.0	0	0	0	0.00	-5
7/29/2004	1	31	2	50.0	0	0	0	0.00	-5
7/29/2004	1	32	2	50.0	0	0	0	0.00	-5
7/29/2004	1	33	1	0.5	190	24	166	0.873684	-0.05865
7/29/2004	1	34	1	0.5	0	0	0	0.00	-5
7/29/2004	1	35	1	0.5	0	0	0	0.00	-5
7/29/2004	1	36	2	0.5	0	0	0	0.00	-5
7/29/2004	1	41	2	0.5	0	0	0	0.00	-5
7/29/2004	1	42	2	0.5	0	0	0	0.00	-5
7/29/2004	1	43	1	0.5	0	0	0	0.00	-5
7/29/2004	1	44	2	0.5	0	0	0	0.00	-5
7/29/2004	1	45	1	50.0	0	0	0	0.00	-5
7/29/2004	1	46	2	50.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
7/29/2004	1	47	1	50.0	0	0	0	0.00	-5
7/29/2004	1	48	2	50.0	8	0	8	1	0
7/29/2004	1	49	2	5.0	333	193	140	0.42042	-0.37632
7/29/2004	1	50	1	5.0	0	0	0	0.00	-5
7/29/2004	1	51	1	5.0	0	0	0	0.00	-5
7/29/2004	1	52	1	5.0	0	0	0	0.00	-5
7/29/2004	1	53	1	0.0	0	0	0	0.00	-5
7/29/2004	1	54	1	0.0	0	0	0	0.00	-5
7/29/2004	1	55	2	0.0	0	0	0	0.00	-5
7/29/2004	1	56	1	0.0	0	0	0	0.00	-5
7/30/2004	1	1	2	5.0	0	0	0	0.00	-5
7/30/2004	1	2	1	5.0	0	0	0	0.00	-5
7/30/2004	1	3	2	5.0	0	0	0	0.00	-5
7/30/2004	1	4	1	5.0	214	7	207	0.96729	-0.01444
7/30/2004	1	5	1	0.0	0	0	0	0.00	-5
7/30/2004	1	6	1	0.0	0	0	0	0.00	-5
7/30/2004	1	7	2	0.0	0	0	0	0.00	-5
7/30/2004	1	8	2	0.0	356	76	280	0.786517	-0.10429
7/30/2004	1	9	2	5.0	0	0	0	0.00	-5
7/30/2004	1	10	1	5.0	0	0	0	0.00	-5
7/30/2004	1	11	2	5.0	0	0	0	0.00	-5
7/30/2004	1	12	2	5.0	0	0	0	0.00	-5
7/30/2004	1	17	2	50.0	0	0	0	0.00	-5
7/30/2004	1	18	1	50.0	0	0	0	0.00	-5
7/30/2004	1	19	2	50.0	129	1	128	0.992248	-0.00338
7/30/2004	1	20	1	50.0	0	0	0	0.00	-5
7/30/2004	1	21	2	0.0	69	17	52	0.753623	-0.12285
7/30/2004	1	22	2	0.0	134	45	89	0.664179	-0.17771
7/30/2004	1	23	1	0.0	0	0	0	0.00	-5
7/30/2004	1	24	2	0.0	0	0	0	0.00	-5
7/30/2004	1	25	2	0.5	0	0	0	0.00	-5
7/30/2004	1	26	1	0.5	0	0	0	0.00	-5
7/30/2004	1	27	1	0.5	0	0	0	0.00	-5
7/30/2004	1	28	2	0.5	0	0	0	0.00	-5
7/30/2004	1	29	1	50.0	193	37	156	0.80829	-0.09243
7/30/2004	1	30	1	50.0	0	0	0	0.00	-5
7/30/2004	1	31	2	50.0	0	0	0	0.00	-5
7/30/2004	1	32	2	50.0	0	0	0	0.00	-5
7/30/2004	1	33	1	0.5	0	0	0	0.00	-5
7/30/2004	1	34	1	0.5	0	0	0	0.00	-5
7/30/2004	1	35	1	0.5	168	23	145	0.863095	-0.06394
7/30/2004	1	36	2	0.5	0	0	0	0.00	-5
7/30/2004	1	41	2	0.5	0	0	0	0.00	-5
7/30/2004	1	42	2	0.5	0	0	0	0.00	-5
7/30/2004	1	43	1	0.5	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
7/30/2004	1	44	2	0.5	0	0	0	0.00	-5
7/30/2004	1	45	1	50.0	0	0	0	0.00	-5
7/30/2004	1	46	2	50.0	0	0	0	0.00	-5
7/30/2004	1	47	1	50.0	138	18	120	0.869565	-0.0607
7/30/2004	1	48	2	50.0	104	8	96	0.923077	-0.03476
7/30/2004	1	49	2	5.0	0	0	0	0.00	-5
7/30/2004	1	50	1	5.0	0	0	0	0.00	-5
7/30/2004	1	51	1	5.0	0	0	0	0.00	-5
7/30/2004	1	52	1	5.0	0	0	0	0.00	-5
7/30/2004	1	53	1	0.0	0	0	0	0.00	-5
7/30/2004	1	54	1	0.0	0	0	0	0.00	-5
7/30/2004	1	55	2	0.0	0	0	0	0.00	-5
7/30/2004	1	56	1	0.0	0	0	0	0.00	-5
7/31/2004	1	1	2	5.0	0	0	0	0.00	-5
7/31/2004	1	2	1	5.0	0	0	0	0.00	-5
7/31/2004	1	3	2	5.0	0	0	0	0.00	-5
7/31/2004	1	4	1	5.0	0	0	0	0.00	-5
7/31/2004	1	5	1	0.0	0	0	0	0.00	-5
7/31/2004	1	6	1	0.0	0	0	0	0.00	-5
7/31/2004	1	7	2	0.0	0	0	0	0.00	-5
7/31/2004	1	8	2	0.0	0	0	0	0.00	-5
7/31/2004	1	9	2	5.0	0	0	0	0.00	-5
7/31/2004	1	10	1	5.0	323	23	300	0.928793	-0.03208
7/31/2004	1	11	2	5.0	0	0	0	0.00	-5
7/31/2004	1	12	2	5.0	0	0	0	0.00	-5
7/31/2004	1	17	2	50.0	0	0	0	0.00	-5
7/31/2004	1	18	1	50.0	0	0	0	0.00	-5
7/31/2004	1	19	2	50.0	0	0	0	0.00	-5
7/31/2004	1	20	1	50.0	0	0	0	0.00	-5
7/31/2004	1	21	2	0.0	74	9	65	0.878378	-0.05632
7/31/2004	1	22	2	0.0	0	0	0	0.00	-5
7/31/2004	1	23	1	0.0	0	0	0	0.00	-5
7/31/2004	1	24	2	0.0	0	0	0	0.00	-5
7/31/2004	1	25	2	0.5	0	0	0	0.00	-5
7/31/2004	1	26	1	0.5	0	0	0	0.00	-5
7/31/2004	1	27	1	0.5	0	0	0	0.00	-5
7/31/2004	1	28	2	0.5	384	123	261	0.679688	-0.16769
7/31/2004	1	29	1	50.0	0	0	0	0.00	-5
7/31/2004	1	30	1	50.0	0	0	0	0.00	-5
7/31/2004	1	31	2	50.0	0	0	0	0.00	-5
7/31/2004	1	32	2	50.0	0	0	0	0.00	-5
7/31/2004	1	33	1	0.5	0	0	0	0.00	-5
7/31/2004	1	34	1	0.5	0	0	0	0.00	-5
7/31/2004	1	35	1	0.5	0	0	0	0.00	-5
7/31/2004	1	36	2	0.5	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
7/31/2004	1	41	2	0.5	0	0	0	0.00	-5
7/31/2004	1	42	2	0.5	0	0	0	0.00	-5
7/31/2004	1	43	1	0.5	0	0	0	0.00	-5
7/31/2004	1	44	2	0.5	10	7	3	0.3	-0.52288
7/31/2004	1	45	1	50.0	0	0	0	0.00	-5
7/31/2004	1	46	2	50.0	0	0	0	0.00	-5
7/31/2004	1	47	1	50.0	0	0	0	0.00	-5
7/31/2004	1	48	2	50.0	0	0	0	0.00	-5
7/31/2004	1	49	2	5.0	0	0	0	0.00	-5
7/31/2004	1	50	1	5.0	0	0	0	0.00	-5
7/31/2004	1	51	1	5.0	0	0	0	0.00	-5
7/31/2004	1	52	1	5.0	27	17	10	0.37037	-0.43136
7/31/2004	1	53	1	0.0	0	0	0	0.00	-5
7/31/2004	1	54	1	0.0	0	0	0	0.00	-5
7/31/2004	1	55	2	0.0	0	0	0	0.00	-5
7/31/2004	1	56	1	0.0	175	33	142	0.811429	-0.09075
8/1/2004	1	1	2	5.0	0	0	0	0.00	-5
8/1/2004	1	2	1	5.0	0	0	0	0.00	-5
8/1/2004	1	3	2	5.0	0	0	0	0.00	-5
8/1/2004	1	4	1	5.0	0	0	0	0.00	-5
8/1/2004	1	5	1	0.0	0	0	0	0.00	-5
8/1/2004	1	6	1	0.0	0	0	0	0.00	-5
8/1/2004	1	7	2	0.0	0	0	0	0.00	-5
8/1/2004	1	8	2	0.0	0	0	0	0.00	-5
8/1/2004	1	9	2	5.0	0	0	0	0.00	-5
8/1/2004	1	10	1	5.0	0	0	0	0.00	-5
8/1/2004	1	11	2	5.0	0	0	0	0.00	-5
8/1/2004	1	12	2	5.0	0	0	0	0.00	-5
8/1/2004	1	17	2	50.0	0	0	0	0.00	-5
8/1/2004	1	18	1	50.0	0	0	0	0.00	-5
8/1/2004	1	19	2	50.0	0	0	0	0.00	-5
8/1/2004	1	20	1	50.0	0	0	0	0.00	-5
8/1/2004	1	21	2	0.0	0	0	0	0.00	-5
8/1/2004	1	22	2	0.0	0	0	0	0.00	-5
8/1/2004	1	23	1	0.0	228	7	221	0.969298	-0.01354
8/1/2004	1	24	2	0.0	73	13	60	0.821918	-0.08517
8/1/2004	1	25	2	0.5	98	35	63	0.642857	-0.19189
8/1/2004	1	26	1	0.5	0	0	0	0.00	-5
8/1/2004	1	27	1	0.5	0	0	0	0.00	-5
8/1/2004	1	28	2	0.5	0	0	0	0.00	-5
8/1/2004	1	29	1	50.0	0	0	0	0.00	-5
8/1/2004	1	30	1	50.0	0	0	0	0.00	-5
8/1/2004	1	31	2	50.0	0	0	0	0.00	-5
8/1/2004	1	32	2	50.0	0	0	0	0.00	-5
8/1/2004	1	33	1	0.5	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/1/2004	1	34	1	0.5	0	0	0	0.00	-5
8/1/2004	1	35	1	0.5	78	8	70	0.897436	-0.047
8/1/2004	1	36	2	0.5	0	0	0	0.00	-5
8/1/2004	1	41	2	0.5	0	0	0	0.00	-5
8/1/2004	1	42	2	0.5	0	0	0	0.00	-5
8/1/2004	1	43	1	0.5	0	0	0	0.00	-5
8/1/2004	1	44	2	0.5	0	0	0	0.00	-5
8/1/2004	1	45	1	50.0	0	0	0	0.00	-5
8/1/2004	1	46	2	50.0	0	0	0	0.00	-5
8/1/2004	1	47	1	50.0	0	0	0	0.00	-5
8/1/2004	1	48	2	50.0	0	0	0	0.00	-5
8/1/2004	1	49	2	5.0	0	0	0	0.00	-5
8/1/2004	1	50	1	5.0	32	4	28	0.875	-0.05799
8/1/2004	1	51	1	5.0	0	0	0	0.00	-5
8/1/2004	1	52	1	5.0	0	0	0	0.00	-5
8/1/2004	1	53	1	0.0	0	0	0	0.00	-5
8/1/2004	1	54	1	0.0	0	0	0	0.00	-5
8/1/2004	1	55	2	0.0	0	0	0	0.00	-5
8/1/2004	1	56	1	0.0	0	0	0	0.00	-5
8/2/2004	1	1	2	5.0	0	0	0	0.00	-5
8/2/2004	1	2	1	5.0	0	0	0	0.00	-5
8/2/2004	1	3	2	5.0	0	0	0	0.00	-5
8/2/2004	1	4	1	5.0	0	0	0	0.00	-5
8/2/2004	1	5	1	0.0	0	0	0	0.00	-5
8/2/2004	1	6	1	0.0	0	0	0	0.00	-5
8/2/2004	1	7	2	0.0	0	0	0	0.00	-5
8/2/2004	1	8	2	0.0	10	5	5	0.5	-0.30103
8/2/2004	1	9	2	5.0	0	0	0	0.00	-5
8/2/2004	1	10	1	5.0	39	7	32	0.820513	-0.08591
8/2/2004	1	11	2	5.0	0	0	0	0.00	-5
8/2/2004	1	12	2	5.0	0	0	0	0.00	-5
8/2/2004	1	17	2	50.0	0	0	0	0.00	-5
8/2/2004	1	18	1	50.0	0	0	0	0.00	-5
8/2/2004	1	19	2	50.0	0	0	0	0.00	-5
8/2/2004	1	20	1	50.0	152	63	89	0.585526	-0.23245
8/2/2004	1	21	2	0.0	230	36	194	0.843478	-0.07393
8/2/2004	1	22	2	0.0	0	0	0	0.00	-5
8/2/2004	1	23	1	0.0	0	0	0	0.00	-5
8/2/2004	1	24	2	0.0	0	0	0	0.00	-5
8/2/2004	1	25	2	0.5	0	0	0	0.00	-5
8/2/2004	1	26	1	0.5	542	539	3	0.005535	-2.25688
8/2/2004	1	27	1	0.5	0	0	0	0.00	-5
8/2/2004	1	28	2	0.5	406	367	39	0.096059	-1.01746
8/2/2004	1	29	1	50.0	231	7	224	0.969697	-0.01336
8/2/2004	1	30	1	50.0	199	48	151	0.758794	-0.11988

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/2/2004	1	31	2	50.0	0	0	0	0.00	-5
8/2/2004	1	32	2	50.0	0	0	0	0.00	-5
8/2/2004	1	33	1	0.5	139	21	118	0.848921	-0.07113
8/2/2004	1	34	1	0.5	265	226	39	0.14717	-0.83218
8/2/2004	1	35	1	0.5	113	57	56	0.495575	-0.30489
8/2/2004	1	36	2	0.5	247	247	0	0	-5
8/2/2004	1	41	2	0.5	0	0	0	0.00	-5
8/2/2004	1	42	2	0.5	0	0	0	0.00	-5
8/2/2004	1	43	1	0.5	0	0	0	0.00	-5
8/2/2004	1	44	2	0.5	0	0	0	0.00	-5
8/2/2004	1	45	1	50.0	0	0	0	0.00	-5
8/2/2004	1	46	2	50.0	0	0	0	0.00	-5
8/2/2004	1	47	1	50.0	0	0	0	0.00	-5
8/2/2004	1	48	2	50.0	75	6	69	0.92	-0.03621
8/2/2004	1	49	2	5.0	0	0	0	0.00	-5
8/2/2004	1	50	1	5.0	0	0	0	0.00	-5
8/2/2004	1	51	1	5.0	287	282	5	0.017422	-1.75891
8/2/2004	1	52	1	5.0	39	6	33	0.846154	-0.07255
8/2/2004	1	53	1	0.0	94	35	59	0.62766	-0.20228
8/2/2004	1	54	1	0.0	15	15	0	0	-5
8/2/2004	1	55	2	0.0	315	103	212	0.673016	-0.17197
8/2/2004	1	56	1	0.0	0	0	0	0.00	-5
8/3/2004	2	1	2	5.0	53	1	52	0.981132	-0.00827
8/3/2004	2	2	1	5.0	0	0	0	0.00	-5
8/3/2004	2	3	2	5.0	0	0	0	0.00	-5
8/3/2004	2	4	1	5.0	177	11	166	0.937853	-0.02787
8/3/2004	2	5	1	0.0	0	0	0	0.00	-5
8/3/2004	2	6	1	0.0	0	0	0	0.00	-5
8/3/2004	2	7	2	0.0	0	0	0	0.00	-5
8/3/2004	2	8	2	0.0	120	9	111	0.925	-0.03386
8/3/2004	2	9	2	5.0	165	29	136	0.824242	-0.08395
8/3/2004	2	10	1	5.0	114	4	110	0.964912	-0.01551
8/3/2004	2	11	2	5.0	0	0	0	0.00	-5
8/3/2004	2	12	2	5.0	0	0	0	0.00	-5
8/3/2004	2	17	2	50.0	0	0	0	0.00	-5
8/3/2004	2	18	1	50.0	0	0	0	0.00	-5
8/3/2004	2	19	2	50.0	0	0	0	0.00	-5
8/3/2004	2	20	1	50.0	0	0	0	0.00	-5
8/3/2004	2	21	2	0.0	0	0	0	0.00	-5
8/3/2004	2	22	2	0.0	0	0	0	0.00	-5
8/3/2004	2	23	1	0.0	72	7	65	0.902778	-0.04442
8/3/2004	2	24	2	0.0	0	0	0	0.00	-5
8/3/2004	2	25	2	0.5	0	0	0	0.00	-5
8/3/2004	2	26	1	0.5	39	6	33	0.846154	-0.07255
8/3/2004	2	27	1	0.5	292	98	194	0.664384	-0.17758



**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/3/2004	2	28	2	0.5	0	0	0	0.00	-5
8/3/2004	2	29	1	50.0	0	0	0	0.00	-5
8/3/2004	2	30	1	50.0	0	0	0	0.00	-5
8/3/2004	2	31	2	50.0	233	7	226	0.969957	-0.01325
8/3/2004	2	32	2	50.0	0	0	0	0.00	-5
8/3/2004	2	33	1	0.5	79	15	64	0.810127	-0.09145
8/3/2004	2	34	1	0.5	0	0	0	0.00	-5
8/3/2004	2	35	1	0.5	0	0	0	0.00	-5
8/3/2004	2	36	2	0.5	0	0	0	0.00	-5
8/3/2004	2	41	2	0.5	0	0	0	0.00	-5
8/3/2004	2	42	2	0.5	0	0	0	0.00	-5
8/3/2004	2	43	1	0.5	0	0	0	0.00	-5
8/3/2004	2	44	2	0.5	0	0	0	0.00	-5
8/3/2004	2	45	1	50.0	0	0	0	0.00	-5
8/3/2004	2	46	2	50.0	0	0	0	0.00	-5
8/3/2004	2	47	1	50.0	200	16	184	0.92	-0.03621
8/3/2004	2	48	2	50.0	257	51	206	0.801556	-0.09607
8/3/2004	2	49	2	5.0	0	0	0	0.00	-5
8/3/2004	2	50	1	5.0	0	0	0	0.00	-5
8/3/2004	2	51	1	5.0	0	0	0	0.00	-5
8/3/2004	2	52	1	5.0	0	0	0	0.00	-5
8/3/2004	2	53	1	0.0	150	53	97	0.646667	-0.18932
8/3/2004	2	54	1	0.0	0	0	0	0.00	-5
8/3/2004	2	55	2	0.0	0	0	0	0.00	-5
8/3/2004	2	56	1	0.0	6	2	4	0.666667	-0.17609
8/4/2004	2	1	2	5.0	0	0	0	0.00	-5
8/4/2004	2	2	1	5.0	0	0	0	0.00	-5
8/4/2004	2	3	2	5.0	0	0	0	0.00	-5
8/4/2004	2	4	1	5.0	0	0	0	0.00	-5
8/4/2004	2	5	1	0.0	0	0	0	0.00	-5
8/4/2004	2	6	1	0.0	0	0	0	0.00	-5
8/4/2004	2	7	2	0.0	0	0	0	0.00	-5
8/4/2004	2	8	2	0.0	0	0	0	0.00	-5
8/4/2004	2	9	2	5.0	0	0	0	0.00	-5
8/4/2004	2	10	1	5.0	133	1	132	0.992481	-0.00328
8/4/2004	2	11	2	5.0	0	0	0	0.00	-5
8/4/2004	2	12	2	5.0	0	0	0	0.00	-5
8/4/2004	2	17	2	50.0	0	0	0	0.00	-5
8/4/2004	2	18	1	50.0	0	0	0	0.00	-5
8/4/2004	2	19	2	50.0	75	6	69	0.92	-0.03621
8/4/2004	2	20	1	50.0	0	0	0	0.00	-5
8/4/2004	2	21	2	0.0	109	7	102	0.93578	-0.02883
8/4/2004	2	22	2	0.0	0	0	0	0.00	-5
8/4/2004	2	23	1	0.0	0	0	0	0.00	-5
8/4/2004	2	24	2	0.0	130	5	125	0.961538	-0.01703

#### 44 Atrazine Reduces Reproduction in Fathead Minnow (*Pimephales promelas*)—Raw Data Report

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/4/2004	2	25	2	0.5	0	0	0	0.00	-5
8/4/2004	2	26	1	0.5	0	0	0	0.00	-5
8/4/2004	2	27	1	0.5	83	4	79	0.951807	-0.02145
8/4/2004	2	28	2	0.5	0	0	0	0.00	-5
8/4/2004	2	29	1	50.0	0	0	0	0.00	-5
8/4/2004	2	30	1	50.0	0	0	0	0.00	-5
8/4/2004	2	31	2	50.0	0	0	0	0.00	-5
8/4/2004	2	32	2	50.0	0	0	0	0.00	-5
8/4/2004	2	33	1	0.5	70	4	66	0.942857	-0.02555
8/4/2004	2	34	1	0.5	0	0	0	0.00	-5
8/4/2004	2	35	1	0.5	71	10	61	0.859155	-0.06593
8/4/2004	2	36	2	0.5	0	0	0	0.00	-5
8/4/2004	2	41	2	0.5	0	0	0	0.00	-5
8/4/2004	2	42	2	0.5	0	0	0	0.00	-5
8/4/2004	2	43	1	0.5	0	0	0	0.00	-5
8/4/2004	2	44	2	0.5	0	0	0	0.00	-5
8/4/2004	2	45	1	50.0	0	0	0	0.00	-5
8/4/2004	2	46	2	50.0	0	0	0	0.00	-5
8/4/2004	2	47	1	50.0	59	20	39	0.661017	-0.17979
8/4/2004	2	48	2	50.0	0	0	0	0.00	-5
8/4/2004	2	49	2	5.0	0	0	0	0.00	-5
8/4/2004	2	50	1	5.0	0	0	0	0.00	-5
8/4/2004	2	51	1	5.0	0	0	0	0.00	-5
8/4/2004	2	52	1	5.0	0	0	0	0.00	-5
8/4/2004	2	53	1	0.0	0	0	0	0.00	-5
8/4/2004	2	54	1	0.0	0	0	0	0.00	-5
8/4/2004	2	55	2	0.0	0	0	0	0.00	-5
8/4/2004	2	56	1	0.0	55	5	50	0.909091	-0.04139
8/5/2004	2	1	2	5.0	0	0	0	0.00	-5
8/5/2004	2	2	1	5.0	0	0	0	0.00	-5
8/5/2004	2	3	2	5.0	0	0	0	0.00	-5
8/5/2004	2	4	1	5.0	82	18	64	0.780488	-0.10763
8/5/2004	2	5	1	0.0	0	0	0	0.00	-5
8/5/2004	2	6	1	0.0	0	0	0	0.00	-5
8/5/2004	2	7	2	0.0	0	0	0	0.00	-5
8/5/2004	2	8	2	0.0	35	13	22	0.628571	-0.20165
8/5/2004	2	9	2	5.0	0	0	0	0.00	-5
8/5/2004	2	10	1	5.0	0	0	0	0.00	-5
8/5/2004	2	11	2	5.0	0	0	0	0.00	-5
8/5/2004	2	12	2	5.0	2	2	0	0	-5
8/5/2004	2	17	2	50.0	0	0	0	0.00	-5
8/5/2004	2	18	1	50.0	0	0	0	0.00	-5
8/5/2004	2	19	2	50.0	0	0	0	0.00	-5
8/5/2004	2	20	1	50.0	0	0	0	0.00	-5
8/5/2004	2	21	2	0.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/5/2004	2	22	2	0.0	9	2	7	0.777778	-0.10914
8/5/2004	2	23	1	0.0	0	0	0	0.00	-5
8/5/2004	2	24	2	0.0	0	0	0	0.00	-5
8/5/2004	2	25	2	0.5	0	0	0	0.00	-5
8/5/2004	2	26	1	0.5	0	0	0	0.00	-5
8/5/2004	2	27	1	0.5	0	0	0	0.00	-5
8/5/2004	2	28	2	0.5	0	0	0	0.00	-5
8/5/2004	2	29	1	50.0	0	0	0	0.00	-5
8/5/2004	2	30	1	50.0	0	0	0	0.00	-5
8/5/2004	2	31	2	50.0	414	14	400	0.966184	-0.01494
8/5/2004	2	32	2	50.0	0	0	0	0.00	-5
8/5/2004	2	33	1	0.5	6	1	5	0.833333	-0.07918
8/5/2004	2	34	1	0.5	81	7	74	0.91358	-0.03925
8/5/2004	2	35	1	0.5	0	0	0	0.00	-5
8/5/2004	2	36	2	0.5	0	0	0	0.00	-5
8/5/2004	2	41	2	0.5	0	0	0	0.00	-5
8/5/2004	2	42	2	0.5	0	0	0	0.00	-5
8/5/2004	2	43	1	0.5	0	0	0	0.00	-5
8/5/2004	2	44	2	0.5	0	0	0	0.00	-5
8/5/2004	2	45	1	50.0	31	23	8	0.258065	-0.58827
8/5/2004	2	46	2	50.0	0	0	0	0.00	-5
8/5/2004	2	47	1	50.0	0	0	0	0.00	-5
8/5/2004	2	48	2	50.0	0	0	0	0.00	-5
8/5/2004	2	49	2	5.0	0	0	0	0.00	-5
8/5/2004	2	50	1	5.0	0	0	0	0.00	-5
8/5/2004	2	51	1	5.0	0	0	0	0.00	-5
8/5/2004	2	52	1	5.0	0	0	0	0.00	-5
8/5/2004	2	53	1	0.0	0	0	0	0.00	-5
8/5/2004	2	54	1	0.0	21	7	14	0.666667	-0.17609
8/5/2004	2	55	2	0.0	0	0	0	0.00	-5
8/5/2004	2	56	1	0.0	0	0	0	0.00	-5
8/6/2004	2	1	2	5.0	0	0	0	0.00	-5
8/6/2004	2	2	1	5.0	0	0	0	0.00	-5
8/6/2004	2	3	2	5.0	0	0	0	0.00	-5
8/6/2004	2	4	1	5.0	122	31	91	0.745902	-0.12732
8/6/2004	2	5	1	0.0	0	0	0	0.00	-5
8/6/2004	2	6	1	0.0	0	0	0	0.00	-5
8/6/2004	2	7	2	0.0	0	0	0	0.00	-5
8/6/2004	2	8	2	0.0	43	8	35	0.813953	-0.0894
8/6/2004	2	9	2	5.0	351	123	228	0.649573	-0.18737
8/6/2004	2	10	1	5.0	0	0	0	0.00	-5
8/6/2004	2	11	2	5.0	0	0	0	0.00	-5
8/6/2004	2	12	2	5.0	45	7	38	0.844444	-0.07343
8/6/2004	2	17	2	50.0	0	0	0	0.00	-5
8/6/2004	2	18	1	50.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/6/2004	2	19	2	50.0	0	0	0	0.00	-5
8/6/2004	2	20	1	50.0	131	56	75	0.572519	-0.24221
8/6/2004	2	21	2	0.0	0	0	0	0.00	-5
8/6/2004	2	22	2	0.0	0	0	0	0.00	-5
8/6/2004	2	23	1	0.0	0	0	0	0.00	-5
8/6/2004	2	24	2	0.0	0	0	0	0.00	-5
8/6/2004	2	25	2	0.5	0	0	0	0.00	-5
8/6/2004	2	26	1	0.5	24	5	19	0.791667	-0.10146
8/6/2004	2	27	1	0.5	0	0	0	0.00	-5
8/6/2004	2	28	2	0.5	240	121	119	0.495833	-0.30466
8/6/2004	2	29	1	50.0	65	3	62	0.953846	-0.02052
8/6/2004	2	30	1	50.0	0	0	0	0.00	-5
8/6/2004	2	31	2	50.0	0	0	0	0.00	-5
8/6/2004	2	32	2	50.0	0	0	0	0.00	-5
8/6/2004	2	33	1	0.5	0	0	0	0.00	-5
8/6/2004	2	34	1	0.5	0	0	0	0.00	-5
8/6/2004	2	35	1	0.5	72	10	62	0.861111	-0.06494
8/6/2004	2	36	2	0.5	0	0	0	0.00	-5
8/6/2004	2	41	2	0.5	0	0	0	0.00	-5
8/6/2004	2	42	2	0.5	30	6	24	0.8	-0.09691
8/6/2004	2	43	1	0.5	399	205	194	0.486216	-0.31317
8/6/2004	2	44	2	0.5	162	25	137	0.845679	-0.07279
8/6/2004	2	45	1	50.0	71	59	12	0.169014	-0.77208
8/6/2004	2	46	2	50.0	0	0	0	0.00	-5
8/6/2004	2	47	1	50.0	157	30	127	0.808917	-0.0921
8/6/2004	2	48	2	50.0	0	0	0	0.00	-5
8/6/2004	2	49	2	5.0	0	0	0	0.00	-5
8/6/2004	2	50	1	5.0	0	0	0	0.00	-5
8/6/2004	2	51	1	5.0	0	0	0	0.00	-5
8/6/2004	2	52	1	5.0	0	0	0	0.00	-5
8/6/2004	2	53	1	0.0	0	0	0	0.00	-5
8/6/2004	2	54	1	0.0	28	10	18	0.642857	-0.19189
8/6/2004	2	55	2	0.0	46	7	39	0.847826	-0.07169
8/6/2004	2	56	1	0.0	0	0	0	0.00	-5
8/7/2004	2	1	2	5.0	0	0	0	0.00	-5
8/7/2004	2	2	1	5.0	0	0	0	0.00	-5
8/7/2004	2	3	2	5.0	51	3	48	0.941176	-0.02633
8/7/2004	2	4	1	5.0	0	0	0	0.00	-5
8/7/2004	2	5	1	0.0	0	0	0	0.00	-5
8/7/2004	2	6	1	0.0	0	0	0	0.00	-5
8/7/2004	2	7	2	0.0	0	0	0	0.00	-5
8/7/2004	2	8	2	0.0	80	7	73	0.9125	-0.03977
8/7/2004	2	9	2	5.0	0	0	0	0.00	-5
8/7/2004	2	10	1	5.0	205	5	200	0.97561	-0.01072
8/7/2004	2	11	2	5.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/7/2004	2	12	2	5.0	100	13	87	0.87	-0.06048
8/7/2004	2	17	2	50.0	0	0	0	0.00	-5
8/7/2004	2	18	1	50.0	0	0	0	0.00	-5
8/7/2004	2	19	2	50.0	120	2	118	0.983333	-0.0073
8/7/2004	2	20	1	50.0	0	0	0	0.00	-5
8/7/2004	2	21	2	0.0	52	6	46	0.884615	-0.05325
8/7/2004	2	22	2	0.0	0	0	0	0.00	-5
8/7/2004	2	23	1	0.0	296	56	240	0.810811	-0.09108
8/7/2004	2	24	2	0.0	124	20	104	0.83871	-0.07639
8/7/2004	2	25	2	0.5	147	8	139	0.945578	-0.0243
8/7/2004	2	26	1	0.5	0	0	0	0.00	-5
8/7/2004	2	27	1	0.5	141	27	114	0.808511	-0.09231
8/7/2004	2	28	2	0.5	0	0	0	0.00	-5
8/7/2004	2	29	1	50.0	8	5	3	0.375	-0.42597
8/7/2004	2	30	1	50.0	3	0	3	1	0
8/7/2004	2	31	2	50.0	0	0	0	0.00	-5
8/7/2004	2	32	2	50.0	0	0	0	0.00	-5
8/7/2004	2	33	1	0.5	0	0	0	0.00	-5
8/7/2004	2	34	1	0.5	0	0	0	0.00	-5
8/7/2004	2	35	1	0.5	0	0	0	0.00	-5
8/7/2004	2	36	2	0.5	0	0	0	0.00	-5
8/7/2004	2	41	2	0.5	0	0	0	0.00	-5
8/7/2004	2	42	2	0.5	337	81	256	0.759644	-0.11939
8/7/2004	2	43	1	0.5	0	0	0	0.00	-5
8/7/2004	2	44	2	0.5	0	0	0	0.00	-5
8/7/2004	2	45	1	50.0	0	0	0	0.00	-5
8/7/2004	2	46	2	50.0	0	0	0	0.00	-5
8/7/2004	2	47	1	50.0	0	0	0	0.00	-5
8/7/2004	2	48	2	50.0	0	0	0	0.00	-5
8/7/2004	2	49	2	5.0	0	0	0	0.00	-5
8/7/2004	2	50	1	5.0	0	0	0	0.00	-5
8/7/2004	2	51	1	5.0	0	0	0	0.00	-5
8/7/2004	2	52	1	5.0	0	0	0	0.00	-5
8/7/2004	2	53	1	0.0	0	0	0	0.00	-5
8/7/2004	2	54	1	0.0	0	0	0	0.00	-5
8/7/2004	2	55	2	0.0	224	6	218	0.973214	-0.01179
8/7/2004	2	56	1	0.0	260	19	241	0.926923	-0.03296
8/8/2004	2	1	2	5.0	394	36	358	0.908629	-0.04161
8/8/2004	2	2	1	5.0	288	19	269	0.934028	-0.02964
8/8/2004	2	3	2	5.0	78	7	71	0.910256	-0.04084
8/8/2004	2	4	1	5.0	100	4	96	0.96	-0.01773
8/8/2004	2	5	1	0.0	0	0	0	0.00	-5
8/8/2004	2	6	1	0.0	50	4	46	0.92	-0.03621
8/8/2004	2	7	2	0.0	0	0	0	0.00	-5
8/8/2004	2	8	2	0.0	89	5	84	0.94382	-0.02511

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/8/2004	2	9	2	5.0	90	13	77	0.855556	-0.06775
8/8/2004	2	10	1	5.0	0	0	0	0.00	-5
8/8/2004	2	11	2	5.0	0	0	0	0.00	-5
8/8/2004	2	12	2	5.0	139	8	131	0.942446	-0.02574
8/8/2004	2	17	2	50.0	0	0	0	0.00	-5
8/8/2004	2	18	1	50.0	0	0	0	0.00	-5
8/8/2004	2	19	2	50.0	226	41	185	0.818584	-0.08694
8/8/2004	2	20	1	50.0	0	0	0	0.00	-5
8/8/2004	2	21	2	0.0	92	8	84	0.913043	-0.03951
8/8/2004	2	22	2	0.0	0	0	0	0.00	-5
8/8/2004	2	23	1	0.0	0	0	0	0.00	-5
8/8/2004	2	24	2	0.0	117	3	114	0.974359	-0.01128
8/8/2004	2	25	2	0.5	0	0	0	0.00	-5
8/8/2004	2	26	1	0.5	0	0	0	0.00	-5
8/8/2004	2	27	1	0.5	330	47	283	0.857576	-0.06673
8/8/2004	2	28	2	0.5	0	0	0	0.00	-5
8/8/2004	2	29	1	50.0	0	0	0	0.00	-5
8/8/2004	2	30	1	50.0	0	0	0	0.00	-5
8/8/2004	2	31	2	50.0	0	0	0	0.00	-5
8/8/2004	2	32	2	50.0	0	0	0	0.00	-5
8/8/2004	2	33	1	0.5	0	0	0	0.00	-5
8/8/2004	2	34	1	0.5	0	0	0	0.00	-5
8/8/2004	2	35	1	0.5	122	7	115	0.942623	-0.02566
8/8/2004	2	36	2	0.5	0	0	0	0.00	-5
8/8/2004	2	41	2	0.5	0	0	0	0.00	-5
8/8/2004	2	42	2	0.5	0	0	0	0.00	-5
8/8/2004	2	43	1	0.5	175	24	151	0.862857	-0.06406
8/8/2004	2	44	2	0.5	0	0	0	0.00	-5
8/8/2004	2	45	1	50.0	89	49	40	0.449438	-0.34733
8/8/2004	2	46	2	50.0	0	0	0	0.00	-5
8/8/2004	2	47	1	50.0	0	0	0	0.00	-5
8/8/2004	2	48	2	50.0	0	0	0	0.00	-5
8/8/2004	2	49	2	5.0	0	0	0	0.00	-5
8/8/2004	2	50	1	5.0	0	0	0	0.00	-5
8/8/2004	2	51	1	5.0	0	0	0	0.00	-5
8/8/2004	2	52	1	5.0	0	0	0	0.00	-5
8/8/2004	2	53	1	0.0	0	0	0	0.00	-5
8/8/2004	2	54	1	0.0	16	5	11	0.6875	-0.16273
8/8/2004	2	55	2	0.0	0	0	0	0.00	-5
8/8/2004	2	56	1	0.0	0	0	0	0.00	-5
8/9/2004	2	1	2	5.0	0	0	0	0.00	-5
8/9/2004	2	2	1	5.0	0	0	0	0.00	-5
8/9/2004	2	3	2	5.0	0	0	0	0.00	-5
8/9/2004	2	4	1	5.0	0	0	0	0.00	-5
8/9/2004	2	5	1	0.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/9/2004	2	6	1	0.0	0	0	0	0.00	-5
8/9/2004	2	7	2	0.0	0	0	0	0.00	-5
8/9/2004	2	8	2	0.0	0	0	0	0.00	-5
8/9/2004	2	9	2	5.0	144	9	135	0.9375	-0.02803
8/9/2004	2	10	1	5.0	0	0	0	0.00	-5
8/9/2004	2	11	2	5.0	0	0	0	0.00	-5
8/9/2004	2	12	2	5.0	0	0	0	0.00	-5
8/9/2004	2	17	2	50.0	0	0	0	0.00	-5
8/9/2004	2	18	1	50.0	0	0	0	0.00	-5
8/9/2004	2	19	2	50.0	0	0	0	0.00	-5
8/9/2004	2	20	1	50.0	0	0	0	0.00	-5
8/9/2004	2	21	2	0.0	0	0	0	0.00	-5
8/9/2004	2	22	2	0.0	0	0	0	0.00	-5
8/9/2004	2	23	1	0.0	0	0	0	0.00	-5
8/9/2004	2	24	2	0.0	0	0	0	0.00	-5
8/9/2004	2	25	2	0.5	130	9	121	0.930769	-0.03116
8/9/2004	2	26	1	0.5	502	410	92	0.183267	-0.73692
8/9/2004	2	27	1	0.5	0	0	0	0.00	-5
8/9/2004	2	28	2	0.5	0	0	0	0.00	-5
8/9/2004	2	29	1	50.0	0	0	0	0.00	-5
8/9/2004	2	30	1	50.0	2	1	1	0.5	-0.30103
8/9/2004	2	31	2	50.0	269	90	179	0.665428	-0.1769
8/9/2004	2	32	2	50.0	0	0	0	0.00	-5
8/9/2004	2	33	1	0.5	0	0	0	0.00	-5
8/9/2004	2	34	1	0.5	0	0	0	0.00	-5
8/9/2004	2	35	1	0.5	0	0	0	0.00	-5
8/9/2004	2	36	2	0.5	0	0	0	0.00	-5
8/9/2004	2	41	2	0.5	0	0	0	0.00	-5
8/9/2004	2	42	2	0.5	66	3	63	0.954545	-0.0202
8/9/2004	2	43	1	0.5	0	0	0	0.00	-5
8/9/2004	2	44	2	0.5	0	0	0	0.00	-5
8/9/2004	2	45	1	50.0	166	44	122	0.73494WWW	-0.13375
8/9/2004	2	46	2	50.0	0	0	0	0.00	-5
8/9/2004	2	47	1	50.0	0	0	0	0.00	-5
8/9/2004	2	48	2	50.0	0	0	0	0.00	-5
8/9/2004	2	49	2	5.0	0	0	0	0.00	-5
8/9/2004	2	50	1	5.0	0	0	0	0.00	-5
8/9/2004	2	51	1	5.0	0	0	0	0.00	-5
8/9/2004	2	52	1	5.0	657	589	68	0.103501	-0.98506
8/9/2004	2	53	1	0.0	0	0	0	0.00	-5
8/9/2004	2	54	1	0.0	170	24	146	0.858824	-0.0661
8/9/2004	2	55	2	0.0	0	0	0	0.00	-5
8/9/2004	2	56	1	0.0	0	0	0	0.00	-5
8/10/2004	3	1	2	5.0	0	0	0	0.00	-5
8/10/2004	3	2	1	5.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/10/2004	3	3	2	5.0	0	0	0	0.00	-5
8/10/2004	3	4	1	5.0	0	0	0	0.00	-5
8/10/2004	3	5	1	0.0	0	0	0	0.00	-5
8/10/2004	3	6	1	0.0	0	0	0	0.00	-5
8/10/2004	3	7	2	0.0	0	0	0	0.00	-5
8/10/2004	3	8	2	0.0	0	0	0	0.00	-5
8/10/2004	3	9	2	5.0	0	0	0	0.00	-5
8/10/2004	3	10	1	5.0	68	21	47	0.691176	-0.16041
8/10/2004	3	11	2	5.0	0	0	0	0.00	-5
8/10/2004	3	12	2	5.0	0	0	0	0.00	-5
8/10/2004	3	17	2	50.0	0	0	0	0.00	-5
8/10/2004	3	18	1	50.0	0	0	0	0.00	-5
8/10/2004	3	19	2	50.0	2	2	0	0	-5
8/10/2004	3	20	1	50.0	0	0	0	0.00	-5
8/10/2004	3	21	2	0.0	0	0	0	0.00	-5
8/10/2004	3	22	2	0.0	157	57	100	0.636943	-0.1959
8/10/2004	3	23	1	0.0	13	4	9	0.692308	-0.1597
8/10/2004	3	24	2	0.0	152	58	94	0.618421	-0.20872
8/10/2004	3	25	2	0.5	0	0	0	0.00	-5
8/10/2004	3	26	1	0.5	0	0	0	0.00	-5
8/10/2004	3	27	1	0.5	0	0	0	0.00	-5
8/10/2004	3	28	2	0.5	0	0	0	0.00	-5
8/10/2004	3	29	1	50.0	0	0	0	0.00	-5
8/10/2004	3	30	1	50.0	0	0	0	0.00	-5
8/10/2004	3	31	2	50.0	0	0	0	0.00	-5
8/10/2004	3	32	2	50.0	0	0	0	0.00	-5
8/10/2004	3	33	1	0.5	0	0	0	0.00	-5
8/10/2004	3	34	1	0.5	0	0	0	0.00	-5
8/10/2004	3	35	1	0.5	64	16	48	0.75	-0.12494
8/10/2004	3	36	2	0.5	79	74	5	0.063291	-1.19866
8/10/2004	3	41	2	0.5	0	0	0	0.00	-5
8/10/2004	3	42	2	0.5	0	0	0	0.00	-5
8/10/2004	3	43	1	0.5	0	0	0	0.00	-5
8/10/2004	3	44	2	0.5	44	1	43	0.977273	-0.00998
8/10/2004	3	45	1	50.0	0	0	0	0.00	-5
8/10/2004	3	46	2	50.0	0	0	0	0.00	-5
8/10/2004	3	47	1	50.0	0	0	0	0.00	-5
8/10/2004	3	48	2	50.0	0	0	0	0.00	-5
8/10/2004	3	49	2	5.0	0	0	0	0.00	-5
8/10/2004	3	50	1	5.0	0	0	0	0.00	-5
8/10/2004	3	51	1	5.0	0	0	0	0.00	-5
8/10/2004	3	52	1	5.0	0	0	0	0.00	-5
8/10/2004	3	53	1	0.0	0	0	0	0.00	-5
8/10/2004	3	54	1	0.0	0	0	0	0.00	-5
8/10/2004	3	55	2	0.0	509	504	5	0.009823	-2.00775



**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/10/2004	3	56	1	0.0	0	0	0	0.00	-5
8/11/2004	3	1	2	5.0	0	0	0	0.00	-5
8/11/2004	3	3	2	5.0	0	0	0	0.00	-5
8/11/2004	3	7	2	0.0	0	0	0	0.00	-5
8/11/2004	3	8	2	0.0	305	166	139	0.455738	-0.34129
8/11/2004	3	9	2	5.0	247	5	242	0.979757	-0.00888
8/11/2004	3	11	2	5.0	0	0	0	0.00	-5
8/11/2004	3	12	2	5.0	358	178	180	0.502793	-0.29861
8/11/2004	3	17	2	50.0	0	0	0	0.00	-5
8/11/2004	3	19	2	50.0	0	0	0	0.00	-5
8/11/2004	3	21	2	0.0	0	0	0	0.00	-5
8/11/2004	3	22	2	0.0	0	0	0	0.00	-5
8/11/2004	3	24	2	0.0	0	0	0	0.00	-5
8/11/2004	3	25	2	0.5	0	0	0	0.00	-5
8/11/2004	3	28	2	0.5	268	207	61	0.227612	-0.6428
8/11/2004	3	31	2	50.0	0	0	0	0.00	-5
8/11/2004	3	32	2	50.0	0	0	0	0.00	-5
8/11/2004	3	36	2	0.5	5	5	0	0	-5
8/11/2004	3	41	2	0.5	0	0	0	0.00	-5
8/11/2004	3	42	2	0.5	0	0	0	0.00	-5
8/11/2004	3	44	2	0.5	119	32	87	0.731092	-0.13603
8/11/2004	3	46	2	50.0	0	0	0	0.00	-5
8/11/2004	3	48	2	50.0	0	0	0	0.00	-5
8/11/2004	3	49	2	5.0	216	50	166	0.768519	-0.11435
8/11/2004	3	55	2	0.0	0	0	0	0.00	-5
8/12/2004	3	1	2	5.0	64	14	50	0.78125	-0.10721
8/12/2004	3	3	2	5.0	0	0	0	0.00	-5
8/12/2004	3	7	2	0.0	0	0	0	0.00	-5
8/12/2004	3	8	2	0.0	0	0	0	0.00	-5
8/12/2004	3	9	2	5.0	170	12	158	0.929412	-0.03179
8/12/2004	3	11	2	5.0	0	0	0	0.00	-5
8/12/2004	3	12	2	5.0	0	0	0	0.00	-5
8/12/2004	3	17	2	50.0	0	0	0	0.00	-5
8/12/2004	3	19	2	50.0	0	0	0	0.00	-5
8/12/2004	3	21	2	0.0	64	17	47	0.734375	-0.13408
8/12/2004	3	22	2	0.0	0	0	0	0.00	-5
8/12/2004	3	24	2	0.0	184	24	160	0.869565	-0.0607
8/12/2004	3	25	2	0.5	0	0	0	0.00	-5
8/12/2004	3	28	2	0.5	0	0	0	0.00	-5
8/12/2004	3	31	2	50.0	54	35	19	0.351852	-0.45364
8/12/2004	3	32	2	50.0	0	0	0	0.00	-5
8/12/2004	3	36	2	0.5	0	0	0	0.00	-5
8/12/2004	3	41	2	0.5	18	11	7	0.388889	-0.41017
8/12/2004	3	42	2	0.5	0	0	0	0.00	-5
8/12/2004	3	44	2	0.5	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/12/2004	3	46	2	50.0	0	0	0	0.00	-5
8/12/2004	3	48	2	50.0	0	0	0	0.00	-5
8/12/2004	3	49	2	5.0	0	0	0	0.00	-5
8/12/2004	3	55	2	0.0	0	0	0	0.00	-5
8/13/2004	3	1	2	5.0	43	10	33	0.767442	-0.11495
8/13/2004	3	3	2	5.0	0	0	0	0.00	-5
8/13/2004	3	7	2	0.0	0	0	0	0.00	-5
8/13/2004	3	8	2	0.0	0	0	0	0.00	-5
8/13/2004	3	9	2	5.0	0	0	0	0.00	-5
8/13/2004	3	11	2	5.0	0	0	0	0.00	-5
8/13/2004	3	12	2	5.0	0	0	0	0.00	-5
8/13/2004	3	17	2	50.0	0	0	0	0.00	-5
8/13/2004	3	19	2	50.0	187	37	150	0.802139	-0.09575
8/13/2004	3	21	2	0.0	174	16	158	0.908046	-0.04189
8/13/2004	3	22	2	0.0	0	0	0	0.00	-5
8/13/2004	3	24	2	0.0	202	17	185	0.915842	-0.03818
8/13/2004	3	25	2	0.5	160	30	130	0.8125	-0.09018
8/13/2004	3	28	2	0.5	0	0	0	0.00	-5
8/13/2004	3	31	2	50.0	0	0	0	0.00	-5
8/13/2004	3	32	2	50.0	0	0	0	0.00	-5
8/13/2004	3	36	2	0.5	0	0	0	0.00	-5
8/13/2004	3	41	2	0.5	0	0	0	0.00	-5
8/13/2004	3	42	2	0.5	0	0	0	0.00	-5
8/13/2004	3	44	2	0.5	0	0	0	0.00	-5
8/13/2004	3	46	2	50.0	0	0	0	0.00	-5
8/13/2004	3	48	2	50.0	0	0	0	0.00	-5
8/13/2004	3	49	2	5.0	0	0	0	0.00	-5
8/13/2004	3	55	2	0.0	0	0	0	0.00	-5
8/14/2004	3	1	2	5.0	0	0	0	0.00	-5
8/14/2004	3	3	2	5.0	0	0	0	0.00	-5
8/14/2004	3	7	2	0.0	0	0	0	0.00	-5
8/14/2004	3	8	2	0.0	185	34	151	0.816216	-0.08819
8/14/2004	3	9	2	5.0	185	22	163	0.881081	-0.05498
8/14/2004	3	11	2	5.0	0	0	0	0.00	-5
8/14/2004	3	12	2	5.0	130	3	127	0.976923	-0.01014
8/14/2004	3	17	2	50.0	0	0	0	0.00	-5
8/14/2004	3	19	2	50.0	128	61	67	0.523438	-0.28114
8/14/2004	3	21	2	0.0	0	0	0	0.00	-5
8/14/2004	3	22	2	0.0	0	0	0	0.00	-5
8/14/2004	3	24	2	0.0	161	32	129	0.801242	-0.09624
8/14/2004	3	25	2	0.5	0	0	0	0.00	-5
8/14/2004	3	28	2	0.5	0	0	0	0.00	-5
8/14/2004	3	31	2	50.0	0	0	0	0.00	-5
8/14/2004	3	32	2	50.0	0	0	0	0.00	-5
8/14/2004	3	36	2	0.5	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/14/2004	3	41	2	0.5	0	0	0	0.00	-5
8/14/2004	3	42	2	0.5	0	0	0	0.00	-5
8/14/2004	3	44	2	0.5	91	26	65	0.714286	-0.14613
8/14/2004	3	46	2	50.0	0	0	0	0.00	-5
8/14/2004	3	48	2	50.0	0	0	0	0.00	-5
8/14/2004	3	49	2	5.0	0	0	0	0.00	-5
8/14/2004	3	55	2	0.0	340	85	255	0.75	-0.12494
8/15/2004	3	1	2	5.0	0	0	0	0.00	-5
8/15/2004	3	3	2	5.0	0	0	0	0.00	-5
8/15/2004	3	7	2	0.0	0	0	0	0.00	-5
8/15/2004	3	8	2	0.0	168	63	105	0.625	-0.20412
8/15/2004	3	9	2	5.0	0	0	0	0.00	-5
8/15/2004	3	11	2	5.0	0	0	0	0.00	-5
8/15/2004	3	12	2	5.0	0	0	0	0.00	-5
8/15/2004	3	17	2	50.0	0	0	0	0.00	-5
8/15/2004	3	19	2	50.0	0	0	0	0.00	-5
8/15/2004	3	21	2	0.0	0	0	0	0.00	-5
8/15/2004	3	22	2	0.0	158	85	73	0.462025	-0.33533
8/15/2004	3	24	2	0.0	0	0	0	0.00	-5
8/15/2004	3	25	2	0.5	0	0	0	0.00	-5
8/15/2004	3	28	2	0.5	287	271	16	0.055749	-1.25376
8/15/2004	3	31	2	50.0	0	0	0	0.00	-5
8/15/2004	3	32	2	50.0	0	0	0	0.00	-5
8/15/2004	3	36	2	0.5	0	0	0	0.00	-5
8/15/2004	3	41	2	0.5	0	0	0	0.00	-5
8/15/2004	3	42	2	0.5	0	0	0	0.00	-5
8/15/2004	3	44	2	0.5	0	0	0	0.00	-5
8/15/2004	3	46	2	50.0	141	96	45	0.319149	-0.49601
8/15/2004	3	48	2	50.0	0	0	0	0.00	-5
8/15/2004	3	49	2	5.0	0	0	0	0.00	-5
8/15/2004	3	55	2	0.0	0	0	0	0.00	-5
8/16/2004	3	1	2	5.0	0	0	0	0.00	-5
8/16/2004	3	3	2	5.0	0	0	0	0.00	-5
8/16/2004	3	7	2	0.0	0	0	0	0.00	-5
8/16/2004	3	8	2	0.0	0	0	0	0.00	-5
8/16/2004	3	9	2	5.0	0	0	0	0.00	-5
8/16/2004	3	11	2	5.0	0	0	0	0.00	-5
8/16/2004	3	12	2	5.0	0	0	0	0.00	-5
8/16/2004	3	17	2	50.0	0	0	0	0.00	-5
8/16/2004	3	19	2	50.0	0	0	0	0.00	-5
8/16/2004	3	21	2	0.0	0	0	0	0.00	-5
8/16/2004	3	22	2	0.0	0	0	0	0.00	-5
8/16/2004	3	24	2	0.0	288	29	259	0.899306	-0.04609
8/16/2004	3	25	2	0.5	0	0	0	0.00	-5
8/16/2004	3	28	2	0.5	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/16/2004	3	31	2	50.0	0	0	0	0.00	-5
8/16/2004	3	32	2	50.0	0	0	0	0.00	-5
8/16/2004	3	36	2	0.5	0	0	0	0.00	-5
8/16/2004	3	41	2	0.5	0	0	0	0.00	-5
8/16/2004	3	42	2	0.5	0	0	0	0.00	-5
8/16/2004	3	44	2	0.5	0	0	0	0.00	-5
8/16/2004	3	46	2	50.0	0	0	0	0.00	-5
8/16/2004	3	48	2	50.0	0	0	0	0.00	-5
8/16/2004	3	49	2	5.0	0	0	0	0.00	-5
8/16/2004	3	55	2	0.0	0	0	0	0.00	-5
8/17/2004	4	1	2	5.0	0	0	0	0.00	-5
8/17/2004	4	3	2	5.0	0	0	0	0.00	-5
8/17/2004	4	7	2	0.0	0	0	0	0.00	-5
8/17/2004	4	8	2	0.0	102	13	89	0.872549	-0.05921
8/17/2004	4	9	2	5.0	0	0	0	0.00	-5
8/17/2004	4	11	2	5.0	0	0	0	0.00	-5
8/17/2004	4	12	2	5.0	125	42	83	0.664	-0.17783
8/17/2004	4	17	2	50.0	0	0	0	0.00	-5
8/17/2004	4	19	2	50.0	168	73	95	0.565476	-0.24759
8/17/2004	4	21	2	0.0	0	0	0	0.00	-5
8/17/2004	4	22	2	0.0	0	0	0	0.00	-5
8/17/2004	4	24	2	0.0	0	0	0	0.00	-5
8/17/2004	4	25	2	0.5	0	0	0	0.00	-5
8/17/2004	4	28	2	0.5	0	0	0	0.00	-5
8/17/2004	4	31	2	50.0	0	0	0	0.00	-5
8/17/2004	4	32	2	50.0	358	90	268	0.748603	-0.12575
8/17/2004	4	36	2	0.5	0	0	0	0.00	-5
8/17/2004	4	41	2	0.5	0	0	0	0.00	-5
8/17/2004	4	42	2	0.5	0	0	0	0.00	-5
8/17/2004	4	44	2	0.5	0	0	0	0.00	-5
8/17/2004	4	46	2	50.0	0	0	0	0.00	-5
8/17/2004	4	48	2	50.0	0	0	0	0.00	-5
8/17/2004	4	49	2	5.0	0	0	0	0.00	-5
8/17/2004	4	55	2	0.0	0	0	0	0.00	-5
8/18/2004	4	1	2	5.0	432	237	195	0.451389	-0.34545
8/18/2004	4	3	2	5.0	0	0	0	0.00	-5
8/18/2004	4	7	2	0.0	0	0	0	0.00	-5
8/18/2004	4	8	2	0.0	0	0	0	0.00	-5
8/18/2004	4	9	2	5.0	0	0	0	0.00	-5
8/18/2004	4	11	2	5.0	0	0	0	0.00	-5
8/18/2004	4	12	2	5.0	0	0	0	0.00	-5
8/18/2004	4	17	2	50.0	0	0	0	0.00	-5
8/18/2004	4	19	2	50.0	0	0	0	0.00	-5
8/18/2004	4	21	2	0.0	314	264	50	0.159236	-0.79796
8/18/2004	4	22	2	0.0	126	17	109	0.865079	-0.06294

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/18/2004	4	24	2	0.0	0	0	0	0.00	-5
8/18/2004	4	25	2	0.5	0	0	0	0.00	-5
8/18/2004	4	28	2	0.5	0	0	0	0.00	-5
8/18/2004	4	31	2	50.0	0	0	0	0.00	-5
8/18/2004	4	32	2	50.0	0	0	0	0.00	-5
8/18/2004	4	36	2	0.5	0	0	0	0.00	-5
8/18/2004	4	41	2	0.5	0	0	0	0.00	-5
8/18/2004	4	42	2	0.5	0	0	0	0.00	-5
8/18/2004	4	44	2	0.5	0	0	0	0.00	-5
8/18/2004	4	46	2	50.0	279	213	66	0.236559	-0.62606
8/18/2004	4	48	2	50.0	0	0	0	0.00	-5
8/18/2004	4	49	2	5.0	0	0	0	0.00	-5
8/18/2004	4	55	2	0.0	294	63	231	0.785714	-0.10474
8/19/2004	4	1	2	5.0	0	0	0	0.00	-5
8/19/2004	4	3	2	5.0	0	0	0	0.00	-5
8/19/2004	4	7	2	0.0	0	0	0	0.00	-5
8/19/2004	4	8	2	0.0	0	0	0	0.00	-5
8/19/2004	4	9	2	5.0	0	0	0	0.00	-5
8/19/2004	4	11	2	5.0	0	0	0	0.00	-5
8/19/2004	4	12	2	5.0	0	0	0	0.00	-5
8/19/2004	4	17	2	50.0	0	0	0	0.00	-5
8/19/2004	4	19	2	50.0	210	30	180	0.857143	-0.06695
8/19/2004	4	21	2	0.0	0	0	0	0.00	-5
8/19/2004	4	22	2	0.0	0	0	0	0.00	-5
8/19/2004	4	24	2	0.0	0	0	0	0.00	-5
8/19/2004	4	25	2	0.5	0	0	0	0.00	-5
8/19/2004	4	28	2	0.5	0	0	0	0.00	-5
8/19/2004	4	31	2	50.0	0	0	0	0.00	-5
8/19/2004	4	32	2	50.0	0	0	0	0.00	-5
8/19/2004	4	36	2	0.5	260	259	1	0.003846	-2.41497
8/19/2004	4	41	2	0.5	0	0	0	0.00	-5
8/19/2004	4	42	2	0.5	0	0	0	0.00	-5
8/19/2004	4	44	2	0.5	0	0	0	0.00	-5
8/19/2004	4	46	2	50.0	18	1	17	0.944444	-0.02482
8/19/2004	4	48	2	50.0	0	0	0	0.00	-5
8/19/2004	4	49	2	5.0	0	0	0	0.00	-5
8/19/2004	4	55	2	0.0	124	48	76	0.612903	-0.21261
8/20/2004	4	1	2	5.0	0	0	0	0.00	-5
8/20/2004	4	3	2	5.0	0	0	0	0.00	-5
8/20/2004	4	7	2	0.0	0	0	0	0.00	-5
8/20/2004	4	8	2	0.0	5	1	4	0.8	-0.09691
8/20/2004	4	9	2	5.0	0	0	0	0.00	-5
8/20/2004	4	11	2	5.0	229	60	169	0.737991	-0.13195
8/20/2004	4	12	2	5.0	0	0	0	0.00	-5
8/20/2004	4	17	2	50.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/20/2004	4	19	2	50.0	0	0	0	0.00	-5
8/20/2004	4	21	2	0.0	0	0	0	0.00	-5
8/20/2004	4	22	2	0.0	142	26	116	0.816901	-0.08783
8/20/2004	4	24	2	0.0	0	0	0	0.00	-5
8/20/2004	4	25	2	0.5	0	0	0	0.00	-5
8/20/2004	4	28	2	0.5	29	17	12	0.413793	-0.38322
8/20/2004	4	31	2	50.0	0	0	0	0.00	-5
8/20/2004	4	32	2	50.0	0	0	0	0.00	-5
8/20/2004	4	36	2	0.5	0	0	0	0.00	-5
8/20/2004	4	41	2	0.5	0	0	0	0.00	-5
8/20/2004	4	42	2	0.5	0	0	0	0.00	-5
8/20/2004	4	44	2	0.5	0	0	0	0.00	-5
8/20/2004	4	46	2	50.0	0	0	0	0.00	-5
8/20/2004	4	48	2	50.0	0	0	0	0.00	-5
8/20/2004	4	49	2	5.0	0	0	0	0.00	-5
8/20/2004	4	55	2	0.0	0	0	0	0.00	-5
8/21/2004	4	1	2	5.0	0	0	0	0.00	-5
8/21/2004	4	3	2	5.0	0	0	0	0.00	-5
8/21/2004	4	7	2	0.0	0	0	0	0.00	-5
8/21/2004	4	8	2	0.0	0	0	0	0.00	-5
8/21/2004	4	9	2	5.0	0	0	0	0.00	-5
8/21/2004	4	11	2	5.0	0	0	0	0.00	-5
8/21/2004	4	12	2	5.0	0	0	0	0.00	-5
8/21/2004	4	17	2	50.0	0	0	0	0.00	-5
8/21/2004	4	19	2	50.0	0	0	0	0.00	-5
8/21/2004	4	21	2	0.0	136	43	93	0.683824	-0.16506
8/21/2004	4	22	2	0.0	0	0	0	0.00	-5
8/21/2004	4	24	2	0.0	163	20	143	0.877301	-0.05685
8/21/2004	4	25	2	0.5	0	0	0	0.00	-5
8/21/2004	4	28	2	0.5	25	8	17	0.68	-0.16749
8/21/2004	4	31	2	50.0	0	0	0	0.00	-5
8/21/2004	4	32	2	50.0	0	0	0	0.00	-5
8/21/2004	4	36	2	0.5	0	0	0	0.00	-5
8/21/2004	4	41	2	0.5	0	0	0	0.00	-5
8/21/2004	4	42	2	0.5	0	0	0	0.00	-5
8/21/2004	4	44	2	0.5	0	0	0	0.00	-5
8/21/2004	4	46	2	50.0	0	0	0	0.00	-5
8/21/2004	4	48	2	50.0	0	0	0	0.00	-5
8/21/2004	4	49	2	5.0	0	0	0	0.00	-5
8/21/2004	4	55	2	0.0	0	0	0	0.00	-5
8/22/2004	4	1	2	5.0	0	0	0	0.00	-5
8/22/2004	4	3	2	5.0	0	0	0	0.00	-5
8/22/2004	4	7	2	0.0	0	0	0	0.00	-5
8/22/2004	4	8	2	0.0	0	0	0	0.00	-5
8/22/2004	4	9	2	5.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/22/2004	4	11	2	5.0	0	0	0	0.00	-5
8/22/2004	4	12	2	5.0	0	0	0	0.00	-5
8/22/2004	4	17	2	50.0	0	0	0	0.00	-5
8/22/2004	4	19	2	50.0	0	0	0	0.00	-5
8/22/2004	4	21	2	0.0	36	22	14	0.388889	-0.41017
8/22/2004	4	22	2	0.0	1	1	0	0	-5
8/22/2004	4	24	2	0.0	20	6	14	0.7	-0.1549
8/22/2004	4	25	2	0.5	0	0	0	0.00	-5
8/22/2004	4	28	2	0.5	86	40	46	0.534884	-0.27174
8/22/2004	4	31	2	50.0	0	0	0	0.00	-5
8/22/2004	4	32	2	50.0	0	0	0	0.00	-5
8/22/2004	4	36	2	0.5	0	0	0	0.00	-5
8/22/2004	4	41	2	0.5	0	0	0	0.00	-5
8/22/2004	4	42	2	0.5	0	0	0	0.00	-5
8/22/2004	4	44	2	0.5	1	1	0	0	-5
8/22/2004	4	46	2	50.0	0	0	0	0.00	-5
8/22/2004	4	48	2	50.0	0	0	0	0.00	-5
8/22/2004	4	49	2	5.0	0	0	0	0.00	-5
8/22/2004	4	55	2	0.0	0	0	0	0.00	-5
8/23/2004	4	1	2	5.0	0	0	0	0.00	-5
8/23/2004	4	3	2	5.0	0	0	0	0.00	-5
8/23/2004	4	7	2	0.0	0	0	0	0.00	-5
8/23/2004	4	8	2	0.0	0	0	0	0.00	-5
8/23/2004	4	9	2	5.0	0	0	0	0.00	-5
8/23/2004	4	11	2	5.0	0	0	0	0.00	-5
8/23/2004	4	12	2	5.0	0	0	0	0.00	-5
8/23/2004	4	17	2	50.0	0	0	0	0.00	-5
8/23/2004	4	19	2	50.0	0	0	0	0.00	-5
8/23/2004	4	21	2	0.0	0	0	0	0.00	-5
8/23/2004	4	22	2	0.0	0	0	0	0.00	-5
8/23/2004	4	24	2	0.0	0	0	0	0.00	-5
8/23/2004	4	25	2	0.5	0	0	0	0.00	-5
8/23/2004	4	28	2	0.5	0	0	0	0.00	-5
8/23/2004	4	31	2	50.0	0	0	0	0.00	-5
8/23/2004	4	32	2	50.0	0	0	0	0.00	-5
8/23/2004	4	36	2	0.5	0	0	0	0.00	-5
8/23/2004	4	41	2	0.5	0	0	0	0.00	-5
8/23/2004	4	42	2	0.5	0	0	0	0.00	-5
8/23/2004	4	44	2	0.5	0	0	0	0.00	-5
8/23/2004	4	46	2	50.0	295	71	224	0.759322	-0.11957
8/23/2004	4	48	2	50.0	0	0	0	0.00	-5
8/23/2004	4	49	2	5.0	0	0	0	0.00	-5
8/23/2004	4	55	2	0.0	0	0	0	0.00	-5
8/24/2004	5	1	2	5.0	0	0	0	0.00	-5
8/24/2004	5	3	2	5.0	0	0	0	0.00	-5

**Table 3.** Raw data on egg production and egg viability for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter; Proplive, proportion alive; Loglive, log of proportion alive]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Total eggs	Number of dead eggs	Net eggs	Proplive	Loglive
8/24/2004	5	7	2	0.0	0	0	0	0.00	-5
8/24/2004	5	8	2	0.0	0	0	0	0.00	-5
8/24/2004	5	9	2	5.0	0	0	0	0.00	-5
8/24/2004	5	11	2	5.0	0	0	0	0.00	-5
8/24/2004	5	12	2	5.0	0	0	0	0.00	-5
8/24/2004	5	17	2	50.0	0	0	0	0.00	-5
8/24/2004	5	19	2	50.0	0	0	0	0.00	-5
8/24/2004	5	21	2	0.0	0	0	0	0.00	-5
8/24/2004	5	22	2	0.0	0	0	0	0.00	-5
8/24/2004	5	24	2	0.0	0	0	0	0.00	-5
8/24/2004	5	25	2	0.5	0	0	0	0.00	-5
8/24/2004	5	28	2	0.5	0	0	0	0.00	-5
8/24/2004	5	31	2	50.0	0	0	0	0.00	-5
8/24/2004	5	32	2	50.0	0	0	0	0.00	-5
8/24/2004	5	36	2	0.5	0	0	0	0.00	-5
8/24/2004	5	41	2	0.5	0	0	0	0.00	-5
8/24/2004	5	42	2	0.5	0	0	0	0.00	-5
8/24/2004	5	44	2	0.5	0	0	0	0.00	-5
8/24/2004	5	46	2	50.0	73	14	59	0.808219	-0.09247
8/24/2004	5	48	2	50.0	2	2	0	0	-5
8/24/2004	5	49	2	5.0	0	0	0	0.00	-5
8/24/2004	5	55	2	0.0	0	0	0	0.00	-5.00



**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
7/27/2004	1	1	2	5.0	0	0	
7/28/2004	1	1	2	5.0	0	0	
7/29/2004	1	1	2	5.0	166	47	119
7/30/2004	1	1	2	5.0	0	0	0
7/31/2004	1	1	2	5.0	0	0	0
8/1/2004	1	1	2	5.0	0	0	0
8/2/2004	1	1	2	5.0	0	0	0
8/3/2004	2	1	2	5.0	53	1	52
8/4/2004	2	1	2	5.0	0	0	0
8/5/2004	2	1	2	5.0	0	0	0
8/6/2004	2	1	2	5.0	0	0	0
8/7/2004	2	1	2	5.0	0	0	0
8/8/2004	2	1	2	5.0	394	36	358
8/9/2004	2	1	2	5.0	0	0	0
8/10/2004	3	1	2	5.0	0	0	0
8/11/2004	3	1	2	5.0	0	0	0
8/12/2004	3	1	2	5.0	64	14	50
8/13/2004	3	1	2	5.0	43	10	33
8/14/2004	3	1	2	5.0	0	0	0
8/15/2004	3	1	2	5.0	0	0	0
8/16/2004	3	1	2	5.0	0	0	0
8/17/2004	4	1	2	5.0	0	0	0
8/18/2004	4	1	2	5.0	432	237	195
8/19/2004	4	1	2	5.0	0	0	0
8/20/2004	4	1	2	5.0	0	0	0
8/21/2004	4	1	2	5.0	0	0	0
8/22/2004	4	1	2	5.0	0	0	0
8/23/2004	4	1	2	5.0	0	0	0
8/24/2004	5	1	2	5.0	0	0	0
Total time 1					613	84	529
Total time 2					1,152	345	807
7/27/2004	1	2	1	5.0	0	0	0
7/28/2004	1	2	1	5.0	0	0	0
7/29/2004	1	2	1	5.0	0	0	0
7/30/2004	1	2	1	5.0	0	0	0
7/31/2004	1	2	1	5.0	0	0	0
8/1/2004	1	2	1	5.0	0	0	0
8/2/2004	1	2	1	5.0	0	0	0
8/3/2004	2	2	1	5.0	0	0	0
8/4/2004	2	2	1	5.0	0	0	0
8/5/2004	2	2	1	5.0	0	0	0
8/6/2004	2	2	1	5.0	0	0	0
8/7/2004	2	2	1	5.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/8/2004	2	2	1	5.0	288	19	269
8/9/2004	2	2	1	5.0	0	0	0
8/10/2004	3	2	1	5.0	0	0	0
Total time 1					288	19	269
Total time 2							
7/27/2004	1	3	2	5.0	91	4	87
7/28/2004	1	3	2	5.0	0	0	0
7/29/2004	1	3	2	5.0	0	0	0
7/30/2004	1	3	2	5.0	0	0	0
7/31/2004	1	3	2	5.0	0	0	0
8/1/2004	1	3	2	5.0	0	0	0
8/2/2004	1	3	2	5.0	0	0	0
8/3/2004	2	3	2	5.0	0	0	0
8/4/2004	2	3	2	5.0	0	0	0
8/5/2004	2	3	2	5.0	0	0	0
8/6/2004	2	3	2	5.0	0	0	0
8/7/2004	2	3	2	5.0	51	3	48
8/8/2004	2	3	2	5.0	78	7	71
8/9/2004	2	3	2	5.0	0	0	0
8/10/2004	3	3	2	5.0	0	0	0
8/11/2004	3	3	2	5.0	0	0	0
8/12/2004	3	3	2	5.0	0	0	0
8/13/2004	3	3	2	5.0	0	0	0
8/14/2004	3	3	2	5.0	0	0	0
8/15/2004	3	3	2	5.0	0	0	0
8/16/2004	3	3	2	5.0	0	0	0
8/17/2004	4	3	2	5.0	0	0	0
8/18/2004	4	3	2	5.0	0	0	0
8/19/2004	4	3	2	5.0	0	0	0
8/20/2004	4	3	2	5.0	0	0	0
8/21/2004	4	3	2	5.0	0	0	0
8/22/2004	4	3	2	5.0	0	0	0
8/23/2004	4	3	2	5.0	0	0	0
8/24/2004	5	3	2	5.0	0	0	0
Total time 1					220	14	206
Total time 2					220	14	206
7/27/2004	1	4	1	5.0	0	0	0
7/28/2004	1	4	1	5.0	0	0	0
7/29/2004	1	4	1	5.0	0	0	0
7/30/2004	1	4	1	5.0	214	7	207
7/31/2004	1	4	1	5.0	0	0	0
8/1/2004	1	4	1	5.0	0	0	0
8/2/2004	1	4	1	5.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/3/2004	2	4	1	5.0	177	11	166
8/4/2004	2	4	1	5.0	0	0	0
8/5/2004	2	4	1	5.0	82	18	64
8/6/2004	2	4	1	5.0	122	31	91
8/7/2004	2	4	1	5.0	0	0	0
8/8/2004	2	4	1	5.0	100	4	96
8/9/2004	2	4	1	5.0	0	0	0
8/10/2004	3	4	1	5.0	0	0	0
Total time 1					695	71	624
Total time 2							
7/27/2004	1	5	1	0.0	0	0	0
7/28/2004	1	5	1	0.0	0	0	0
7/29/2004	1	5	1	0.0	0	0	0
7/30/2004	1	5	1	0.0	0	0	0
7/31/2004	1	5	1	0.0	0	0	0
8/1/2004	1	5	1	0.0	0	0	0
8/2/2004	1	5	1	0.0	0	0	0
8/3/2004	2	5	1	0.0	0	0	0
8/4/2004	2	5	1	0.0	0	0	0
8/5/2004	2	5	1	0.0	0	0	0
8/6/2004	2	5	1	0.0	0	0	0
8/7/2004	2	5	1	0.0	0	0	0
8/8/2004	2	5	1	0.0	0	0	0
8/9/2004	2	5	1	0.0	0	0	0
8/10/2004	3	5	1	0.0	0	0	0
Total time 1					0	0	0
Total time 2							
7/27/2004	1	6	1	0.0	3	3	0
7/28/2004	1	6	1	0.0	0	0	0
7/29/2004	1	6	1	0.0	0	0	0
7/30/2004	1	6	1	0.0	0	0	0
7/31/2004	1	6	1	0.0	0	0	0
8/1/2004	1	6	1	0.0	0	0	0
8/2/2004	1	6	1	0.0	0	0	0
8/3/2004	2	6	1	0.0	0	0	0
8/4/2004	2	6	1	0.0	0	0	0
8/5/2004	2	6	1	0.0	0	0	0
8/6/2004	2	6	1	0.0	0	0	0
8/7/2004	2	6	1	0.0	0	0	0
8/8/2004	2	6	1	0.0	50	4	46
8/9/2004	2	6	1	0.0	0	0	0
8/10/2004	3	6	1	0.0	0	0	0
Total time 1					53	7	46

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
Total time 2							
7/27/2004	1	7	2	0.0	0	0	0
7/28/2004	1	7	2	0.0	0	0	0
7/29/2004	1	7	2	0.0	0	0	0
7/30/2004	1	7	2	0.0	0	0	0
7/31/2004	1	7	2	0.0	0	0	0
8/1/2004	1	7	2	0.0	0	0	0
8/2/2004	1	7	2	0.0	0	0	0
8/3/2004	2	7	2	0.0	0	0	0
8/4/2004	2	7	2	0.0	0	0	0
8/5/2004	2	7	2	0.0	0	0	0
8/6/2004	2	7	2	0.0	0	0	0
8/7/2004	2	7	2	0.0	0	0	0
8/8/2004	2	7	2	0.0	0	0	0
8/9/2004	2	7	2	0.0	0	0	0
8/10/2004	3	7	2	0.0	0	0	0
8/11/2004	3	7	2	0.0	0	0	0
8/12/2004	3	7	2	0.0	0	0	0
8/13/2004	3	7	2	0.0	0	0	0
8/14/2004	3	7	2	0.0	0	0	0
8/15/2004	3	7	2	0.0	0	0	0
8/16/2004	3	7	2	0.0	0	0	0
8/17/2004	4	7	2	0.0	0	0	0
8/18/2004	4	7	2	0.0	0	0	0
8/19/2004	4	7	2	0.0	0	0	0
8/20/2004	4	7	2	0.0	0	0	0
8/21/2004	4	7	2	0.0	0	0	0
8/22/2004	4	7	2	0.0	0	0	0
8/23/2004	4	7	2	0.0	0	0	0
8/24/2004	5	7	2	0.0	0	0	0
Total time 1					0	0	0
Total time 2					0	0	0
7/27/2004	1	8	2	0.0	108	20	88
7/28/2004	1	8	2	0.0	212	101	111
7/29/2004	1	8	2	0.0	0	0	0
7/30/2004	1	8	2	0.0	356	76	280
7/31/2004	1	8	2	0.0	0	0	0
8/1/2004	1	8	2	0.0	0	0	0
8/2/2004	1	8	2	0.0	10	5	5
8/3/2004	2	8	2	0.0	120	9	111
8/4/2004	2	8	2	0.0	0	0	0
8/5/2004	2	8	2	0.0	35	13	22
8/6/2004	2	8	2	0.0	43	8	35

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/7/2004	2	8	2	0.0	80	7	73
8/8/2004	2	8	2	0.0	89	5	84
8/9/2004	2	8	2	0.0	0	0	0
8/10/2004	3	8	2	0.0	0	0	0
8/11/2004	3	8	2	0.0	305	166	139
8/12/2004	3	8	2	0.0	0	0	0
8/13/2004	3	8	2	0.0	0	0	0
8/14/2004	3	8	2	0.0	185	34	151
8/15/2004	3	8	2	0.0	168	63	105
8/16/2004	3	8	2	0.0	0	0	0
8/17/2004	4	8	2	0.0	102	13	89
8/18/2004	4	8	2	0.0	0	0	0
8/19/2004	4	8	2	0.0	0	0	0
8/20/2004	4	8	2	0.0	5	1	4
8/21/2004	4	8	2	0.0	0	0	0
8/22/2004	4	8	2	0.0	0	0	0
8/23/2004	4	8	2	0.0	0	0	0
8/24/2004	5	8	2	0.0	0	0	0
Total time 1					1,053	244	809
Total time 2					1,818	521	1,297
7/27/2004	1	9	2	5.0	19	2	17
7/28/2004	1	9	2	5.0	0	0	0
7/29/2004	1	9	2	5.0	0	0	0
7/30/2004	1	9	2	5.0	0	0	0
7/31/2004	1	9	2	5.0	0	0	0
8/1/2004	1	9	2	5.0	0	0	0
8/2/2004	1	9	2	5.0	0	0	0
8/3/2004	2	9	2	5.0	165	29	136
8/4/2004	2	9	2	5.0	0	0	0
8/5/2004	2	9	2	5.0	0	0	0
8/6/2004	2	9	2	5.0	351	123	228
8/7/2004	2	9	2	5.0	0	0	0
8/8/2004	2	9	2	5.0	90	13	77
8/9/2004	2	9	2	5.0	144	9	135
8/10/2004	3	9	2	5.0	0	0	0
8/11/2004	3	9	2	5.0	247	5	242
8/12/2004	3	9	2	5.0	170	12	158
8/13/2004	3	9	2	5.0	0	0	0
8/14/2004	3	9	2	5.0	185	22	163
8/15/2004	3	9	2	5.0	0	0	0
8/16/2004	3	9	2	5.0	0	0	0
8/17/2004	4	9	2	5.0	0	0	0
8/18/2004	4	9	2	5.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/19/2004	4	9	2	5.0	0	0	0
8/20/2004	4	9	2	5.0	0	0	0
8/21/2004	4	9	2	5.0	0	0	0
8/22/2004	4	9	2	5.0	0	0	0
8/23/2004	4	9	2	5.0	0	0	0
8/24/2004	5	9	2	5.0	0	0	0
Total time 1					769	176	593
Total time 2					1,371	215	1,156
7/27/2004	1	10	1	5.0	282	96	186
7/28/2004	1	10	1	5.0	0	0	0
7/29/2004	1	10	1	5.0	156	7	149
7/30/2004	1	10	1	5.0	0	0	0
7/31/2004	1	10	1	5.0	323	23	300
8/1/2004	1	10	1	5.0	0	0	0
8/2/2004	1	10	1	5.0	39	7	32
8/3/2004	2	10	1	5.0	114	4	110
8/4/2004	2	10	1	5.0	133	1	132
8/5/2004	2	10	1	5.0	0	0	0
8/6/2004	2	10	1	5.0	0	0	0
8/7/2004	2	10	1	5.0	205	5	200
8/8/2004	2	10	1	5.0	0	0	0
8/9/2004	2	10	1	5.0	0	0	0
8/10/2004	3	10	1	5.0	68	21	47
Total time 1					1,320	164	1,156
Total time 2							0
7/27/2004	1	11	2	5.0	0	0	0
7/28/2004	1	11	2	5.0	0	0	0
7/29/2004	1	11	2	5.0	0	0	0
7/30/2004	1	11	2	5.0	0	0	0
7/31/2004	1	11	2	5.0	0	0	0
8/1/2004	1	11	2	5.0	0	0	0
8/2/2004	1	11	2	5.0	0	0	0
8/3/2004	2	11	2	5.0	0	0	0
8/4/2004	2	11	2	5.0	0	0	0
8/5/2004	2	11	2	5.0	0	0	0
8/6/2004	2	11	2	5.0	0	0	0
8/7/2004	2	11	2	5.0	0	0	0
8/8/2004	2	11	2	5.0	0	0	0
8/9/2004	2	11	2	5.0	0	0	0
8/10/2004	3	11	2	5.0	0	0	0
8/11/2004	3	11	2	5.0	0	0	0
8/12/2004	3	11	2	5.0	0	0	0
8/13/2004	3	11	2	5.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/14/2004	3	11	2	5.0	0	0	0
8/15/2004	3	11	2	5.0	0	0	0
8/16/2004	3	11	2	5.0	0	0	0
8/17/2004	4	11	2	5.0	0	0	0
8/18/2004	4	11	2	5.0	0	0	0
8/19/2004	4	11	2	5.0	0	0	0
8/20/2004	4	11	2	5.0	229	60	169
8/21/2004	4	11	2	5.0	0	0	0
8/22/2004	4	11	2	5.0	0	0	0
8/23/2004	4	11	2	5.0	0	0	0
8/24/2004	5	11	2	5.0	0	0	0
Total time 1					0	0	0
Total time 2					229	60	169
7/27/2004	1	12	2	5.0	0	0	0
7/28/2004	1	12	2	5.0	0	0	0
7/29/2004	1	12	2	5.0	0	0	0
7/30/2004	1	12	2	5.0	0	0	0
7/31/2004	1	12	2	5.0	0	0	0
8/1/2004	1	12	2	5.0	0	0	0
8/2/2004	1	12	2	5.0	0	0	0
8/3/2004	2	12	2	5.0	0	0	0
8/4/2004	2	12	2	5.0	0	0	0
8/5/2004	2	12	2	5.0	2	2	0
8/6/2004	2	12	2	5.0	45	7	38
8/7/2004	2	12	2	5.0	100	13	87
8/8/2004	2	12	2	5.0	139	8	131
8/9/2004	2	12	2	5.0	0	0	0
8/10/2004	3	12	2	5.0	0	0	0
8/11/2004	3	12	2	5.0	358	178	180
8/12/2004	3	12	2	5.0	0	0	0
8/13/2004	3	12	2	5.0	0	0	0
8/14/2004	3	12	2	5.0	130	3	127
8/15/2004	3	12	2	5.0	0	0	0
8/16/2004	3	12	2	5.0	0	0	0
8/17/2004	4	12	2	5.0	125	42	83
8/18/2004	4	12	2	5.0	0	0	0
8/19/2004	4	12	2	5.0	0	0	0
8/20/2004	4	12	2	5.0	0	0	0
8/21/2004	4	12	2	5.0	0	0	0
8/22/2004	4	12	2	5.0	0	0	0
8/23/2004	4	12	2	5.0	0	0	0
8/24/2004	5	12	2	5.0	0	0	0
Total time 1					286	30	256

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
Total time 2					899	253	646
7/27/2004	1	17	2	50.0	0	0	0
7/28/2004	1	17	2	50.0	0	0	0
7/29/2004	1	17	2	50.0	0	0	0
7/30/2004	1	17	2	50.0	0	0	0
7/31/2004	1	17	2	50.0	0	0	0
8/1/2004	1	17	2	50.0	0	0	0
8/2/2004	1	17	2	50.0	0	0	0
8/3/2004	2	17	2	50.0	0	0	0
8/4/2004	2	17	2	50.0	0	0	0
8/5/2004	2	17	2	50.0	0	0	0
8/6/2004	2	17	2	50.0	0	0	0
8/7/2004	2	17	2	50.0	0	0	0
8/8/2004	2	17	2	50.0	0	0	0
8/9/2004	2	17	2	50.0	0	0	0
8/10/2004	3	17	2	50.0	0	0	0
8/11/2004	3	17	2	50.0	0	0	0
8/12/2004	3	17	2	50.0	0	0	0
8/13/2004	3	17	2	50.0	0	0	0
8/14/2004	3	17	2	50.0	0	0	0
8/15/2004	3	17	2	50.0	0	0	0
8/16/2004	3	17	2	50.0	0	0	0
8/17/2004	4	17	2	50.0	0	0	0
8/18/2004	4	17	2	50.0	0	0	0
8/19/2004	4	17	2	50.0	0	0	0
8/20/2004	4	17	2	50.0	0	0	0
8/21/2004	4	17	2	50.0	0	0	0
8/22/2004	4	17	2	50.0	0	0	0
8/23/2004	4	17	2	50.0	0	0	0
8/24/2004	5	17	2	50.0	0	0	0
Total time 1					0	0	0
Total time 2					0	0	0
7/27/2004	1	18	1	50.0	0	0	0
7/28/2004	1	18	1	50.0	0	0	0
7/29/2004	1	18	1	50.0	0	0	0
7/30/2004	1	18	1	50.0	0	0	0
7/31/2004	1	18	1	50.0	0	0	0
8/1/2004	1	18	1	50.0	0	0	0
8/2/2004	1	18	1	50.0	0	0	0
8/3/2004	2	18	1	50.0	0	0	0
8/4/2004	2	18	1	50.0	0	0	0
8/5/2004	2	18	1	50.0	0	0	0
8/6/2004	2	18	1	50.0	0	0	0



**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/7/2004	2	18	1	50.0	0	0	0
8/8/2004	2	18	1	50.0	0	0	0
8/9/2004	2	18	1	50.0	0	0	0
8/10/2004	3	18	1	50.0	0	0	0
Total time 1					0	0	0
Total time 2							
7/27/2004	1	19	2	50.0	141	49	92
7/28/2004	1	19	2	50.0	0	0	0
7/29/2004	1	19	2	50.0	0	0	0
7/30/2004	1	19	2	50.0	129	1	128
7/31/2004	1	19	2	50.0	0	0	0
8/1/2004	1	19	2	50.0	0	0	0
8/2/2004	1	19	2	50.0	0	0	0
8/3/2004	2	19	2	50.0	0	0	0
8/4/2004	2	19	2	50.0	75	6	69
8/5/2004	2	19	2	50.0	0	0	0
8/6/2004	2	19	2	50.0	0	0	0
8/7/2004	2	19	2	50.0	120	2	118
8/8/2004	2	19	2	50.0	226	41	185
8/9/2004	2	19	2	50.0	0	0	0
8/10/2004	3	19	2	50.0	2	2	0
8/11/2004	3	19	2	50.0	0	0	0
8/12/2004	3	19	2	50.0	0	0	0
8/13/2004	3	19	2	50.0	187	37	150
8/14/2004	3	19	2	50.0	128	61	67
8/15/2004	3	19	2	50.0	0	0	0
8/16/2004	3	19	2	50.0	0	0	0
8/17/2004	4	19	2	50.0	168	73	95
8/18/2004	4	19	2	50.0	0	0	0
8/19/2004	4	19	2	50.0	210	30	180
8/20/2004	4	19	2	50.0	0	0	0
8/21/2004	4	19	2	50.0	0	0	0
8/22/2004	4	19	2	50.0	0	0	0
8/23/2004	4	19	2	50.0	0	0	0
8/24/2004	5	19	2	50.0	0	0	0
Total time 1					693	101	592
Total time 2					1,386	302	1,084
7/27/2004	1	20	1	50.0	0	0	0
7/28/2004	1	20	1	50.0	0	0	0
7/29/2004	1	20	1	50.0	82	9	73
7/30/2004	1	20	1	50.0	0	0	0
7/31/2004	1	20	1	50.0	0	0	0
8/1/2004	1	20	1	50.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/2/2004	1	20	1	50.0	152	63	89
8/3/2004	2	20	1	50.0	0	0	0
8/4/2004	2	20	1	50.0	0	0	0
8/5/2004	2	20	1	50.0	0	0	0
8/6/2004	2	20	1	50.0	131	56	75
8/7/2004	2	20	1	50.0	0	0	0
8/8/2004	2	20	1	50.0	0	0	0
8/9/2004	2	20	1	50.0	0	0	0
8/10/2004	3	20	1	50.0	0	0	0
Total time 1					365	128	237
Total time 2							
7/27/2004	1	21	2	0.0	90	22	68
7/28/2004	1	21	2	0.0	165	25	140
7/29/2004	1	21	2	0.0	0	0	0
7/30/2004	1	21	2	0.0	69	17	52
7/31/2004	1	21	2	0.0	74	9	65
8/1/2004	1	21	2	0.0	0	0	0
8/2/2004	1	21	2	0.0	230	36	194
8/3/2004	2	21	2	0.0	0	0	0
8/4/2004	2	21	2	0.0	109	7	102
8/5/2004	2	21	2	0.0	0	0	0
8/6/2004	2	21	2	0.0	0	0	0
8/7/2004	2	21	2	0.0	52	6	46
8/8/2004	2	21	2	0.0	92	8	84
8/9/2004	2	21	2	0.0	0	0	0
8/10/2004	3	21	2	0.0	0	0	0
8/11/2004	3	21	2	0.0	0	0	0
8/12/2004	3	21	2	0.0	64	17	47
8/13/2004	3	21	2	0.0	174	16	158
8/14/2004	3	21	2	0.0	0	0	0
8/15/2004	3	21	2	0.0	0	0	0
8/16/2004	3	21	2	0.0	0	0	0
8/17/2004	4	21	2	0.0	0	0	0
8/18/2004	4	21	2	0.0	314	264	50
8/19/2004	4	21	2	0.0	0	0	0
8/20/2004	4	21	2	0.0	0	0	0
8/21/2004	4	21	2	0.0	136	43	93
8/22/2004	4	21	2	0.0	36	22	14
8/23/2004	4	21	2	0.0	0	0	0
8/24/2004	5	21	2	0.0	0	0	0
Total time 1					881	130	751
Total time 2					1,605	492	1,113
7/27/2004	1	22	2	0.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
7/28/2004	1	22	2	0.0	83	30	53
7/29/2004	1	22	2	0.0	0	0	0
7/30/2004	1	22	2	0.0	134	45	89
7/31/2004	1	22	2	0.0	0	0	0
8/1/2004	1	22	2	0.0	0	0	0
8/2/2004	1	22	2	0.0	0	0	0
8/3/2004	2	22	2	0.0	0	0	0
8/4/2004	2	22	2	0.0	0	0	0
8/5/2004	2	22	2	0.0	9	2	7
8/6/2004	2	22	2	0.0	0	0	0
8/7/2004	2	22	2	0.0	0	0	0
8/8/2004	2	22	2	0.0	0	0	0
8/9/2004	2	22	2	0.0	0	0	0
8/10/2004	3	22	2	0.0	157	57	100
8/11/2004	3	22	2	0.0	0	0	0
8/12/2004	3	22	2	0.0	0	0	0
8/13/2004	3	22	2	0.0	0	0	0
8/14/2004	3	22	2	0.0	0	0	0
8/15/2004	3	22	2	0.0	158	85	73
8/16/2004	3	22	2	0.0	0	0	0
8/17/2004	4	22	2	0.0	0	0	0
8/18/2004	4	22	2	0.0	126	17	109
8/19/2004	4	22	2	0.0	0	0	0
8/20/2004	4	22	2	0.0	142	26	116
8/21/2004	4	22	2	0.0	0	0	0
8/22/2004	4	22	2	0.0	1	1	0
8/23/2004	4	22	2	0.0	0	0	0
8/24/2004	5	22	2	0.0	0	0	0
Total time 1					383	134	249
Total time 2					810	263	547
7/27/2004	1	23	1	0.0	0	0	0
7/28/2004	1	23	1	0.0	0	0	0
7/29/2004	1	23	1	0.0	0	0	0
7/30/2004	1	23	1	0.0	0	0	0
7/31/2004	1	23	1	0.0	0	0	0
8/1/2004	1	23	1	0.0	228	7	221
8/2/2004	1	23	1	0.0	0	0	0
8/3/2004	2	23	1	0.0	72	7	65
8/4/2004	2	23	1	0.0	0	0	0
8/5/2004	2	23	1	0.0	0	0	0
8/6/2004	2	23	1	0.0	0	0	0
8/7/2004	2	23	1	0.0	296	56	240
8/8/2004	2	23	1	0.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/9/2004	2	23	1	0.0	0	0	0
8/10/2004	3	23	1	0.0	13	4	9
Total time 1					609	74	535
Total time 2							
7/27/2004	1	24	2	0.0	0	0	0
7/28/2004	1	24	2	0.0	0	0	0
7/29/2004	1	24	2	0.0	0	0	0
7/30/2004	1	24	2	0.0	0	0	0
7/31/2004	1	24	2	0.0	0	0	0
8/1/2004	1	24	2	0.0	73	13	60
8/2/2004	1	24	2	0.0	0	0	0
8/3/2004	2	24	2	0.0	0	0	0
8/4/2004	2	24	2	0.0	130	5	125
8/5/2004	2	24	2	0.0	0	0	0
8/6/2004	2	24	2	0.0	0	0	0
8/7/2004	2	24	2	0.0	124	20	104
8/8/2004	2	24	2	0.0	117	3	114
8/9/2004	2	24	2	0.0	0	0	0
8/10/2004	3	24	2	0.0	152	58	94
8/11/2004	3	24	2	0.0	0	0	0
8/12/2004	3	24	2	0.0	184	24	160
8/13/2004	3	24	2	0.0	202	17	185
8/14/2004	3	24	2	0.0	161	32	129
8/15/2004	3	24	2	0.0	0	0	0
8/16/2004	3	24	2	0.0	288	29	259
8/17/2004	4	24	2	0.0	0	0	0
8/18/2004	4	24	2	0.0	0	0	0
8/19/2004	4	24	2	0.0	0	0	0
8/20/2004	4	24	2	0.0	0	0	0
8/21/2004	4	24	2	0.0	163	20	143
8/22/2004	4	24	2	0.0	20	6	14
8/23/2004	4	24	2	0.0	0	0	0
8/24/2004	5	24	2	0.0	0	0	0
Total time 1					596	99	497
Total time 2					1,614	227	1,387
7/27/2004	1	25	2	0.5	0	0	0
7/28/2004	1	25	2	0.5	0	0	0
7/29/2004	1	25	2	0.5	0	0	0
7/30/2004	1	25	2	0.5	0	0	0
7/31/2004	1	25	2	0.5	0	0	0
8/1/2004	1	25	2	0.5	98	35	63
8/2/2004	1	25	2	0.5	0	0	0
8/3/2004	2	25	2	0.5	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/4/2004	2	25	2	0.5	0	0	0
8/5/2004	2	25	2	0.5	0	0	0
8/6/2004	2	25	2	0.5	0	0	0
8/7/2004	2	25	2	0.5	147	8	139
8/8/2004	2	25	2	0.5	0	0	0
8/9/2004	2	25	2	0.5	130	9	121
8/10/2004	3	25	2	0.5	0	0	0
8/11/2004	3	25	2	0.5	0	0	0
8/12/2004	3	25	2	0.5	0	0	0
8/13/2004	3	25	2	0.5	160	30	130
8/14/2004	3	25	2	0.5	0	0	0
8/15/2004	3	25	2	0.5	0	0	0
8/16/2004	3	25	2	0.5	0	0	0
8/17/2004	4	25	2	0.5	0	0	0
8/18/2004	4	25	2	0.5	0	0	0
8/19/2004	4	25	2	0.5	0	0	0
8/20/2004	4	25	2	0.5	0	0	0
8/21/2004	4	25	2	0.5	0	0	0
8/22/2004	4	25	2	0.5	0	0	0
8/23/2004	4	25	2	0.5	0	0	0
8/24/2004	5	25	2	0.5	0	0	0
Total time 1					375	52	323
Total time 2					535	82	453
7/27/2004	1	26	1	0.5	0	0	0
7/28/2004	1	26	1	0.5	0	0	0
7/29/2004	1	26	1	0.5	0	0	0
7/30/2004	1	26	1	0.5	0	0	0
7/31/2004	1	26	1	0.5	0	0	0
8/1/2004	1	26	1	0.5	0	0	0
8/2/2004	1	26	1	0.5	542	539	3
8/3/2004	2	26	1	0.5	39	6	33
8/4/2004	2	26	1	0.5	0	0	0
8/5/2004	2	26	1	0.5	0	0	0
8/6/2004	2	26	1	0.5	24	5	19
8/7/2004	2	26	1	0.5	0	0	0
8/8/2004	2	26	1	0.5	0	0	0
8/9/2004	2	26	1	0.5	502	410	92
8/10/2004	3	26	1	0.5	0	0	0
Total time 1					1,107	960	147
Total time 2							
7/27/2004	1	27	1	0.5	0	0	0
7/28/2004	1	27	1	0.5	0	0	0
7/29/2004	1	27	1	0.5	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
7/30/2004	1	27	1	0.5	0	0	0
7/31/2004	1	27	1	0.5	0	0	0
8/1/2004	1	27	1	0.5	0	0	0
8/2/2004	1	27	1	0.5	0	0	0
8/3/2004	2	27	1	0.5	292	98	194
8/4/2004	2	27	1	0.5	83	4	79
8/5/2004	2	27	1	0.5	0	0	0
8/6/2004	2	27	1	0.5	0	0	0
8/7/2004	2	27	1	0.5	141	27	114
8/8/2004	2	27	1	0.5	330	47	283
8/9/2004	2	27	1	0.5	0	0	0
8/10/2004	3	27	1	0.5	0	0	0
Total time 1					846	176	670
Total time 2							
7/27/2004	1	28	2	0.5	0	0	0
7/28/2004	1	28	2	0.5	0	0	0
7/29/2004	1	28	2	0.5	0	0	0
7/30/2004	1	28	2	0.5	0	0	0
7/31/2004	1	28	2	0.5	384	123	261
8/1/2004	1	28	2	0.5	0	0	0
8/2/2004	1	28	2	0.5	406	367	39
8/3/2004	2	28	2	0.5	0	0	0
8/4/2004	2	28	2	0.5	0	0	0
8/5/2004	2	28	2	0.5	0	0	0
8/6/2004	2	28	2	0.5	240	121	119
8/7/2004	2	28	2	0.5	0	0	0
8/8/2004	2	28	2	0.5	0	0	0
8/9/2004	2	28	2	0.5	0	0	0
8/10/2004	3	28	2	0.5	0	0	0
8/11/2004	3	28	2	0.5	268	207	61
8/12/2004	3	28	2	0.5	0	0	0
8/13/2004	3	28	2	0.5	0	0	0
8/14/2004	3	28	2	0.5	0	0	0
8/15/2004	3	28	2	0.5	287	271	16
8/16/2004	3	28	2	0.5	0	0	0
8/17/2004	4	28	2	0.5	0	0	0
8/18/2004	4	28	2	0.5	0	0	0
8/19/2004	4	28	2	0.5	0	0	0
8/20/2004	4	28	2	0.5	29	17	12
8/21/2004	4	28	2	0.5	25	8	17
8/22/2004	4	28	2	0.5	86	40	46
8/23/2004	4	28	2	0.5	0	0	0
8/24/2004	5	28	2	0.5	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
Total time 1					1,030	611	419
Total time 2					1,725	1154	571
7/27/2004	1	29	1	50.0	0	0	0
7/28/2004	1	29	1	50.0	0	0	0
7/29/2004	1	29	1	50.0	0	0	0
7/30/2004	1	29	1	50.0	193	37	156
7/31/2004	1	29	1	50.0	0	0	0
8/1/2004	1	29	1	50.0	0	0	0
8/2/2004	1	29	1	50.0	231	7	224
8/3/2004	2	29	1	50.0	0	0	0
8/4/2004	2	29	1	50.0	0	0	0
8/5/2004	2	29	1	50.0	0	0	0
8/6/2004	2	29	1	50.0	65	3	62
8/7/2004	2	29	1	50.0	8	5	3
8/8/2004	2	29	1	50.0	0	0	0
8/9/2004	2	29	1	50.0	0	0	0
8/10/2004	3	29	1	50.0	0	0	0
Total time 1					497	52	445
Total time 2							
7/27/2004	1	30	1	50.0	0	0	0
7/28/2004	1	30	1	50.0	0	0	0
7/29/2004	1	30	1	50.0	0	0	0
7/30/2004	1	30	1	50.0	0	0	0
7/31/2004	1	30	1	50.0	0	0	0
8/1/2004	1	30	1	50.0	0	0	0
8/2/2004	1	30	1	50.0	199	48	151
8/3/2004	2	30	1	50.0	0	0	0
8/4/2004	2	30	1	50.0	0	0	0
8/5/2004	2	30	1	50.0	0	0	0
8/6/2004	2	30	1	50.0	0	0	0
8/7/2004	2	30	1	50.0	3	0	3
8/8/2004	2	30	1	50.0	0	0	0
8/9/2004	2	30	1	50.0	2	1	1
8/10/2004	3	30	1	50.0	0	0	0
Total time 1					204	49	155
Total time 2							
7/27/2004	1	31	2	50.0	0	0	0
7/28/2004	1	31	2	50.0	0	0	0
7/29/2004	1	31	2	50.0	0	0	0
7/30/2004	1	31	2	50.0	0	0	0
7/31/2004	1	31	2	50.0	0	0	0
8/1/2004	1	31	2	50.0	0	0	0
8/2/2004	1	31	2	50.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/3/2004	2	31	2	50.0	233	7	226
8/4/2004	2	31	2	50.0	0	0	0
8/5/2004	2	31	2	50.0	414	14	400
8/6/2004	2	31	2	50.0	0	0	0
8/7/2004	2	31	2	50.0	0	0	0
8/8/2004	2	31	2	50.0	0	0	0
8/9/2004	2	31	2	50.0	269	90	179
8/10/2004	3	31	2	50.0	0	0	0
8/11/2004	3	31	2	50.0	0	0	0
8/12/2004	3	31	2	50.0	54	35	19
8/13/2004	3	31	2	50.0	0	0	0
8/14/2004	3	31	2	50.0	0	0	0
8/15/2004	3	31	2	50.0	0	0	0
8/16/2004	3	31	2	50.0	0	0	0
8/17/2004	4	31	2	50.0	0	0	0
8/18/2004	4	31	2	50.0	0	0	0
8/19/2004	4	31	2	50.0	0	0	0
8/20/2004	4	31	2	50.0	0	0	0
8/21/2004	4	31	2	50.0	0	0	0
8/22/2004	4	31	2	50.0	0	0	0
8/23/2004	4	31	2	50.0	0	0	0
8/24/2004	5	31	2	50.0	0	0	0
Total time 1					916	111	805
Total time 2					970	146	824
7/27/2004	1	32	2	50.0	0	0	0
7/28/2004	1	32	2	50.0	0	0	0
7/29/2004	1	32	2	50.0	0	0	0
7/30/2004	1	32	2	50.0	0	0	0
7/31/2004	1	32	2	50.0	0	0	0
8/1/2004	1	32	2	50.0	0	0	0
8/2/2004	1	32	2	50.0	0	0	0
8/3/2004	2	32	2	50.0	0	0	0
8/4/2004	2	32	2	50.0	0	0	0
8/5/2004	2	32	2	50.0	0	0	0
8/6/2004	2	32	2	50.0	0	0	0
8/7/2004	2	32	2	50.0	0	0	0
8/8/2004	2	32	2	50.0	0	0	0
8/9/2004	2	32	2	50.0	0	0	0
8/10/2004	3	32	2	50.0	0	0	0
8/11/2004	3	32	2	50.0	0	0	0
8/12/2004	3	32	2	50.0	0	0	0
8/13/2004	3	32	2	50.0	0	0	0
8/14/2004	3	32	2	50.0	0	0	0



**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/15/2004	3	32	2	50.0	0	0	0
8/16/2004	3	32	2	50.0	0	0	0
8/17/2004	4	32	2	50.0	358	90	268
8/18/2004	4	32	2	50.0	0	0	0
8/19/2004	4	32	2	50.0	0	0	0
8/20/2004	4	32	2	50.0	0	0	0
8/21/2004	4	32	2	50.0	0	0	0
8/22/2004	4	32	2	50.0	0	0	0
8/23/2004	4	32	2	50.0	0	0	0
8/24/2004	5	32	2	50.0	0	0	0
Total time 1					0	0	0
Total time 2					358	90	268
7/27/2004	1	33	1	0.5	0	0	0
7/28/2004	1	33	1	0.5	0	0	0
7/29/2004	1	33	1	0.5	190	24	166
7/30/2004	1	33	1	0.5	0	0	0
7/31/2004	1	33	1	0.5	0	0	0
8/1/2004	1	33	1	0.5	0	0	0
8/2/2004	1	33	1	0.5	139	21	118
8/3/2004	2	33	1	0.5	79	15	64
8/4/2004	2	33	1	0.5	70	4	66
8/5/2004	2	33	1	0.5	6	1	5
8/6/2004	2	33	1	0.5	0	0	0
8/7/2004	2	33	1	0.5	0	0	0
8/8/2004	2	33	1	0.5	0	0	0
8/9/2004	2	33	1	0.5	0	0	0
8/10/2004	3	33	1	0.5	0	0	0
Total time 1					484	65	419
Total time 2							
7/27/2004	1	34	1	0.5	10	7	3
7/28/2004	1	34	1	0.5	0	0	0
7/29/2004	1	34	1	0.5	0	0	0
7/30/2004	1	34	1	0.5	0	0	0
7/31/2004	1	34	1	0.5	0	0	0
8/1/2004	1	34	1	0.5	0	0	0
8/2/2004	1	34	1	0.5	265	226	39
8/3/2004	2	34	1	0.5	0	0	0
8/4/2004	2	34	1	0.5	0	0	0
8/5/2004	2	34	1	0.5	81	7	74
8/6/2004	2	34	1	0.5	0	0	0
8/7/2004	2	34	1	0.5	0	0	0
8/8/2004	2	34	1	0.5	0	0	0
8/9/2004	2	34	1	0.5	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/10/2004	3	34	1	0.5	0	0	0
Total time 1					356	240	116
Total time 2							
7/27/2004	1	35	1	0.5	0	0	0
7/28/2004	1	35	1	0.5	0	0	0
7/29/2004	1	35	1	0.5	0	0	0
7/30/2004	1	35	1	0.5	168	23	145
7/31/2004	1	35	1	0.5	0	0	0
8/1/2004	1	35	1	0.5	78	8	70
8/2/2004	1	35	1	0.5	113	57	56
8/3/2004	2	35	1	0.5	0	0	0
8/4/2004	2	35	1	0.5	71	10	61
8/5/2004	2	35	1	0.5	0	0	0
8/6/2004	2	35	1	0.5	72	10	62
8/7/2004	2	35	1	0.5	0	0	0
8/8/2004	2	35	1	0.5	122	7	115
8/9/2004	2	35	1	0.5	0	0	0
8/10/2004	3	35	1	0.5	64	16	48
Total time 1					688	131	557
Total time 2							
7/27/2004	1	36	2	0.5	0	0	0
7/28/2004	1	36	2	0.5	0	0	0
7/29/2004	1	36	2	0.5	0	0	0
7/30/2004	1	36	2	0.5	0	0	0
7/31/2004	1	36	2	0.5	0	0	0
8/1/2004	1	36	2	0.5	0	0	0
8/2/2004	1	36	2	0.5	247	247	0
8/3/2004	2	36	2	0.5	0	0	0
8/4/2004	2	36	2	0.5	0	0	0
8/5/2004	2	36	2	0.5	0	0	0
8/6/2004	2	36	2	0.5	0	0	0
8/7/2004	2	36	2	0.5	0	0	0
8/8/2004	2	36	2	0.5	0	0	0
8/9/2004	2	36	2	0.5	0	0	0
8/10/2004	3	36	2	0.5	79	74	5
8/11/2004	3	36	2	0.5	5	5	0
8/12/2004	3	36	2	0.5	0	0	0
8/13/2004	3	36	2	0.5	0	0	0
8/14/2004	3	36	2	0.5	0	0	0
8/15/2004	3	36	2	0.5	0	0	0
8/16/2004	3	36	2	0.5	0	0	0
8/17/2004	4	36	2	0.5	0	0	0
8/18/2004	4	36	2	0.5	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/19/2004	4	36	2	0.5	260	259	1
8/20/2004	4	36	2	0.5	0	0	0
8/21/2004	4	36	2	0.5	0	0	0
8/22/2004	4	36	2	0.5	0	0	0
8/23/2004	4	36	2	0.5	0	0	0
8/24/2004	5	36	2	0.5	0	0	0
Total time 1					326	321	5
Total time 2					591	585	6
7/27/2004	1	41	2	0.5	0	0	0
7/28/2004	1	41	2	0.5	0	0	0
7/29/2004	1	41	2	0.5	0	0	0
7/30/2004	1	41	2	0.5	0	0	0
7/31/2004	1	41	2	0.5	0	0	0
8/1/2004	1	41	2	0.5	0	0	0
8/2/2004	1	41	2	0.5	0	0	0
8/3/2004	2	41	2	0.5	0	0	0
8/4/2004	2	41	2	0.5	0	0	0
8/5/2004	2	41	2	0.5	0	0	0
8/6/2004	2	41	2	0.5	0	0	0
8/7/2004	2	41	2	0.5	0	0	0
8/8/2004	2	41	2	0.5	0	0	0
8/9/2004	2	41	2	0.5	0	0	0
8/10/2004	3	41	2	0.5	0	0	0
8/11/2004	3	41	2	0.5	0	0	0
8/12/2004	3	41	2	0.5	18	11	7
8/13/2004	3	41	2	0.5	0	0	0
8/14/2004	3	41	2	0.5	0	0	0
8/15/2004	3	41	2	0.5	0	0	0
8/16/2004	3	41	2	0.5	0	0	0
8/17/2004	4	41	2	0.5	0	0	0
8/18/2004	4	41	2	0.5	0	0	0
8/19/2004	4	41	2	0.5	0	0	0
8/20/2004	4	41	2	0.5	0	0	0
8/21/2004	4	41	2	0.5	0	0	0
8/22/2004	4	41	2	0.5	0	0	0
8/23/2004	4	41	2	0.5	0	0	0
8/24/2004	5	41	2	0.5	0	0	0
Total time 1					0	0	0
Total time 2					18	11	7
7/27/2004	1	42	2	0.5	0	0	0
7/28/2004	1	42	2	0.5	0	0	0
7/29/2004	1	42	2	0.5	0	0	0
7/30/2004	1	42	2	0.5	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
7/31/2004	1	42	2	0.5	0	0	0
8/1/2004	1	42	2	0.5	0	0	0
8/2/2004	1	42	2	0.5	0	0	0
8/3/2004	2	42	2	0.5	0	0	0
8/4/2004	2	42	2	0.5	0	0	0
8/5/2004	2	42	2	0.5	0	0	0
8/6/2004	2	42	2	0.5	30	6	24
8/7/2004	2	42	2	0.5	337	81	256
8/8/2004	2	42	2	0.5	0	0	0
8/9/2004	2	42	2	0.5	66	3	63
8/10/2004	3	42	2	0.5	0	0	0
8/11/2004	3	42	2	0.5	0	0	0
8/12/2004	3	42	2	0.5	0	0	0
8/13/2004	3	42	2	0.5	0	0	0
8/14/2004	3	42	2	0.5	0	0	0
8/15/2004	3	42	2	0.5	0	0	0
8/16/2004	3	42	2	0.5	0	0	0
8/17/2004	4	42	2	0.5	0	0	0
8/18/2004	4	42	2	0.5	0	0	0
8/19/2004	4	42	2	0.5	0	0	0
8/20/2004	4	42	2	0.5	0	0	0
8/21/2004	4	42	2	0.5	0	0	0
8/22/2004	4	42	2	0.5	0	0	0
8/23/2004	4	42	2	0.5	0	0	0
8/24/2004	5	42	2	0.5	0	0	0
Total time 1					433	90	343
Total time 2					433	90	343
7/27/2004	1	43	1	0.5	0	0	0
7/28/2004	1	43	1	0.5	0	0	0
7/29/2004	1	43	1	0.5	0	0	0
7/30/2004	1	43	1	0.5	0	0	0
7/31/2004	1	43	1	0.5	0	0	0
8/1/2004	1	43	1	0.5	0	0	0
8/2/2004	1	43	1	0.5	0	0	0
8/3/2004	2	43	1	0.5	0	0	0
8/4/2004	2	43	1	0.5	0	0	0
8/5/2004	2	43	1	0.5	0	0	0
8/6/2004	2	43	1	0.5	399	205	194
8/7/2004	2	43	1	0.5	0	0	0
8/8/2004	2	43	1	0.5	175	24	151
8/9/2004	2	43	1	0.5	0	0	0
8/10/2004	3	43	1	0.5	0	0	0
Total time 1					574	229	345

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
Total time 2							
7/27/2004	1	44	2	0.5	0	0	0
7/28/2004	1	44	2	0.5	0	0	0
7/29/2004	1	44	2	0.5	0	0	0
7/30/2004	1	44	2	0.5	0	0	0
7/31/2004	1	44	2	0.5	10	7	3
8/1/2004	1	44	2	0.5	0	0	0
8/2/2004	1	44	2	0.5	0	0	0
8/3/2004	2	44	2	0.5	0	0	0
8/4/2004	2	44	2	0.5	0	0	0
8/5/2004	2	44	2	0.5	0	0	0
8/6/2004	2	44	2	0.5	162	25	137
8/7/2004	2	44	2	0.5	0	0	0
8/8/2004	2	44	2	0.5	0	0	0
8/9/2004	2	44	2	0.5	0	0	0
8/10/2004	3	44	2	0.5	44	1	43
8/11/2004	3	44	2	0.5	119	32	87
8/12/2004	3	44	2	0.5	0	0	0
8/13/2004	3	44	2	0.5	0	0	0
8/14/2004	3	44	2	0.5	91	26	65
8/15/2004	3	44	2	0.5	0	0	0
8/16/2004	3	44	2	0.5	0	0	0
8/17/2004	4	44	2	0.5	0	0	0
8/18/2004	4	44	2	0.5	0	0	0
8/19/2004	4	44	2	0.5	0	0	0
8/20/2004	4	44	2	0.5	0	0	0
8/21/2004	4	44	2	0.5	0	0	0
8/22/2004	4	44	2	0.5	1	1	0
8/23/2004	4	44	2	0.5	0	0	0
8/24/2004	5	44	2	0.5	0	0	0
Total time 1					216	33	183
Total time 2					427	92	335
7/27/2004	1	45	1	50.0	0	0	0
7/28/2004	1	45	1	50.0	0	0	0
7/29/2004	1	45	1	50.0	0	0	0
7/30/2004	1	45	1	50.0	0	0	0
7/31/2004	1	45	1	50.0	0	0	0
8/1/2004	1	45	1	50.0	0	0	0
8/2/2004	1	45	1	50.0	0	0	0
8/3/2004	2	45	1	50.0	0	0	0
8/4/2004	2	45	1	50.0	0	0	0
8/5/2004	2	45	1	50.0	31	23	8
8/6/2004	2	45	1	50.0	71	59	12

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/7/2004	2	45	1	50.0	0	0	0
8/8/2004	2	45	1	50.0	89	49	40
8/9/2004	2	45	1	50.0	166	44	122
8/10/2004	3	45	1	50.0	0	0	0
Total time 1					357	175	182
Total time 2							
7/27/2004	1	46	2	50.0	0	0	0
7/28/2004	1	46	2	50.0	0	0	0
7/29/2004	1	46	2	50.0	0	0	0
7/30/2004	1	46	2	50.0	0	0	0
7/31/2004	1	46	2	50.0	0	0	0
8/1/2004	1	46	2	50.0	0	0	0
8/2/2004	1	46	2	50.0	0	0	0
8/3/2004	2	46	2	50.0	0	0	0
8/4/2004	2	46	2	50.0	0	0	0
8/5/2004	2	46	2	50.0	0	0	0
8/6/2004	2	46	2	50.0	0	0	0
8/7/2004	2	46	2	50.0	0	0	0
8/8/2004	2	46	2	50.0	0	0	0
8/9/2004	2	46	2	50.0	0	0	0
8/10/2004	3	46	2	50.0	0	0	0
8/11/2004	3	46	2	50.0	0	0	0
8/12/2004	3	46	2	50.0	0	0	0
8/13/2004	3	46	2	50.0	0	0	0
8/14/2004	3	46	2	50.0	0	0	0
8/15/2004	3	46	2	50.0	141	96	45
8/16/2004	3	46	2	50.0	0	0	0
8/17/2004	4	46	2	50.0	0	0	0
8/18/2004	4	46	2	50.0	279	213	66
8/19/2004	4	46	2	50.0	18	1	17
8/20/2004	4	46	2	50.0	0	0	0
8/21/2004	4	46	2	50.0	0	0	0
8/22/2004	4	46	2	50.0	0	0	0
8/23/2004	4	46	2	50.0	295	71	224
8/24/2004	5	46	2	50.0	73	14	59
Total time 1					0	0	0
Total time 2					806	395	411
7/27/2004	1	47	1	50.0	73	17	56
7/28/2004	1	47	1	50.0	0	0	0
7/29/2004	1	47	1	50.0	0	0	0
7/30/2004	1	47	1	50.0	138	18	120
7/31/2004	1	47	1	50.0	0	0	0
8/1/2004	1	47	1	50.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/2/2004	1	47	1	50.0	0	0	0
8/3/2004	2	47	1	50.0	200	16	184
8/4/2004	2	47	1	50.0	59	20	39
8/5/2004	2	47	1	50.0	0	0	0
8/6/2004	2	47	1	50.0	157	30	127
8/7/2004	2	47	1	50.0	0	0	0
8/8/2004	2	47	1	50.0	0	0	0
8/9/2004	2	47	1	50.0	0	0	0
8/10/2004	3	47	1	50.0	0	0	0
Total time 1					627	101	526
Total time 2							
7/27/2004	1	48	2	50.0	0	0	0
7/28/2004	1	48	2	50.0	0	0	0
7/29/2004	1	48	2	50.0	8	0	8
7/30/2004	1	48	2	50.0	104	8	96
7/31/2004	1	48	2	50.0	0	0	0
8/1/2004	1	48	2	50.0	0	0	0
8/2/2004	1	48	2	50.0	75	6	69
8/3/2004	2	48	2	50.0	257	51	206
8/4/2004	2	48	2	50.0	0	0	0
8/5/2004	2	48	2	50.0	0	0	0
8/6/2004	2	48	2	50.0	0	0	0
8/7/2004	2	48	2	50.0	0	0	0
8/8/2004	2	48	2	50.0	0	0	0
8/9/2004	2	48	2	50.0	0	0	0
8/10/2004	3	48	2	50.0	0	0	0
8/11/2004	3	48	2	50.0	0	0	0
8/12/2004	3	48	2	50.0	0	0	0
8/13/2004	3	48	2	50.0	0	0	0
8/14/2004	3	48	2	50.0	0	0	0
8/15/2004	3	48	2	50.0	0	0	0
8/16/2004	3	48	2	50.0	0	0	0
8/17/2004	4	48	2	50.0	0	0	0
8/18/2004	4	48	2	50.0	0	0	0
8/19/2004	4	48	2	50.0	0	0	0
8/20/2004	4	48	2	50.0	0	0	0
8/21/2004	4	48	2	50.0	0	0	0
8/22/2004	4	48	2	50.0	0	0	0
8/23/2004	4	48	2	50.0	0	0	0
8/24/2004	5	48	2	50.0	2	2	0
7/27/2004	1	49	2	5.0	0	0	0
Total time 1					444	65	379
Total time 2					446	67	379

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
7/28/2004	1	49	2	5.0	0	0	0
7/29/2004	1	49	2	5.0	333	193	140
7/30/2004	1	49	2	5.0	0	0	0
7/31/2004	1	49	2	5.0	0	0	0
8/1/2004	1	49	2	5.0	0	0	0
8/2/2004	1	49	2	5.0	0	0	0
8/3/2004	2	49	2	5.0	0	0	0
8/4/2004	2	49	2	5.0	0	0	0
8/5/2004	2	49	2	5.0	0	0	0
8/6/2004	2	49	2	5.0	0	0	0
8/7/2004	2	49	2	5.0	0	0	0
8/8/2004	2	49	2	5.0	0	0	0
8/9/2004	2	49	2	5.0	0	0	0
8/10/2004	3	49	2	5.0	0	0	0
8/11/2004	3	49	2	5.0	216	50	166
8/12/2004	3	49	2	5.0	0	0	0
8/13/2004	3	49	2	5.0	0	0	0
8/14/2004	3	49	2	5.0	0	0	0
8/15/2004	3	49	2	5.0	0	0	0
8/16/2004	3	49	2	5.0	0	0	0
8/17/2004	4	49	2	5.0	0	0	0
8/18/2004	4	49	2	5.0	0	0	0
8/19/2004	4	49	2	5.0	0	0	0
8/20/2004	4	49	2	5.0	0	0	0
8/21/2004	4	49	2	5.0	0	0	0
8/22/2004	4	49	2	5.0	0	0	0
8/23/2004	4	49	2	5.0	0	0	0
8/24/2004	5	49	2	5.0	0	0	0
Total time 1					333	193	140
Total time 2					549	243	306
7/27/2004	1	50	1	5.0	0	0	0
7/28/2004	1	50	1	5.0	0	0	0
7/29/2004	1	50	1	5.0	0	0	0
7/30/2004	1	50	1	5.0	0	0	0
7/31/2004	1	50	1	5.0	0	0	0
8/1/2004	1	50	1	5.0	32	4	28
8/2/2004	1	50	1	5.0	0	0	0
8/3/2004	2	50	1	5.0	0	0	0
8/4/2004	2	50	1	5.0	0	0	0
8/5/2004	2	50	1	5.0	0	0	0
8/6/2004	2	50	1	5.0	0	0	0
8/7/2004	2	50	1	5.0	0	0	0
8/8/2004	2	50	1	5.0	0	0	0



**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/9/2004	2	50	1	5.0	0	0	0
8/10/2004	3	50	1	5.0	0	0	0
Total time 1					32	4	28
Total time 2							
7/27/2004	1	51	1	5.0	160	16	144
7/28/2004	1	51	1	5.0	0	0	0
7/29/2004	1	51	1	5.0	0	0	0
7/30/2004	1	51	1	5.0	0	0	0
7/31/2004	1	51	1	5.0	0	0	0
8/1/2004	1	51	1	5.0	0	0	0
8/2/2004	1	51	1	5.0	287	282	5
8/3/2004	2	51	1	5.0	0	0	0
8/4/2004	2	51	1	5.0	0	0	0
8/5/2004	2	51	1	5.0	0	0	0
8/6/2004	2	51	1	5.0	0	0	0
8/7/2004	2	51	1	5.0	0	0	0
8/8/2004	2	51	1	5.0	0	0	0
8/9/2004	2	51	1	5.0	0	0	0
8/10/2004	3	51	1	5.0	0	0	0
Total time 1					447	298	149
Total time 2							
7/27/2004	1	52	1	5.0	0	0	0
7/28/2004	1	52	1	5.0	0	0	0
7/29/2004	1	52	1	5.0	0	0	0
7/30/2004	1	52	1	5.0	0	0	0
7/31/2004	1	52	1	5.0	27	17	10
8/1/2004	1	52	1	5.0	0	0	0
8/2/2004	1	52	1	5.0	39	6	33
8/3/2004	2	52	1	5.0	0	0	0
8/4/2004	2	52	1	5.0	0	0	0
8/5/2004	2	52	1	5.0	0	0	0
8/6/2004	2	52	1	5.0	0	0	0
8/7/2004	2	52	1	5.0	0	0	0
8/8/2004	2	52	1	5.0	0	0	0
8/9/2004	2	52	1	5.0	657	589	68
8/10/2004	3	52	1	5.0	0	0	0
Total time 1					723	612	111
Total time 2							
7/27/2004	1	53	1	0.0	0	0	0
7/28/2004	1	53	1	0.0	0	0	0
7/29/2004	1	53	1	0.0	0	0	0
7/30/2004	1	53	1	0.0	0	0	0
7/31/2004	1	53	1	0.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/1/2004	1	53	1	0.0	0	0	0
8/2/2004	1	53	1	0.0	94	35	59
8/3/2004	2	53	1	0.0	150	53	97
8/4/2004	2	53	1	0.0	0	0	0
8/5/2004	2	53	1	0.0	0	0	0
8/6/2004	2	53	1	0.0	0	0	0
8/7/2004	2	53	1	0.0	0	0	0
8/8/2004	2	53	1	0.0	0	0	0
8/9/2004	2	53	1	0.0	0	0	0
8/10/2004	3	53	1	0.0	0	0	0
Total time 1					244	88	156
Total time 2							
7/27/2004	1	54	1	0.0	0	0	0
7/28/2004	1	54	1	0.0	0	0	0
7/29/2004	1	54	1	0.0	0	0	0
7/30/2004	1	54	1	0.0	0	0	0
7/31/2004	1	54	1	0.0	0	0	0
8/1/2004	1	54	1	0.0	0	0	0
8/2/2004	1	54	1	0.0	15	15	0
8/3/2004	2	54	1	0.0	0	0	0
8/4/2004	2	54	1	0.0	0	0	0
8/5/2004	2	54	1	0.0	21	7	14
8/6/2004	2	54	1	0.0	28	10	18
8/7/2004	2	54	1	0.0	0	0	0
8/8/2004	2	54	1	0.0	16	5	11
8/9/2004	2	54	1	0.0	170	24	146
8/10/2004	3	54	1	0.0	0	0	0
Total time 1					250	61	189
Total time 2							
7/27/2004	1	55	2	0.0	0	0	0
7/28/2004	1	55	2	0.0	250	20	230
7/29/2004	1	55	2	0.0	0	0	0
7/30/2004	1	55	2	0.0	0	0	0
7/31/2004	1	55	2	0.0	0	0	0
8/1/2004	1	55	2	0.0	0	0	0
8/2/2004	1	55	2	0.0	315	103	212
8/3/2004	2	55	2	0.0	0	0	0
8/4/2004	2	55	2	0.0	0	0	0
8/5/2004	2	55	2	0.0	0	0	0
8/6/2004	2	55	2	0.0	46	7	39
8/7/2004	2	55	2	0.0	224	6	218
8/8/2004	2	55	2	0.0	0	0	0
8/9/2004	2	55	2	0.0	0	0	0

**Table 4.** Raw egg production data organized by tank for fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate tanks that were removed from the dataset because they had two males in them; mg/L, milligrams per liter]

Date collected	Week	Tank number	Time	Concentration (mg/L)	Number of eggs	Number of dead eggs	Viable eggs
8/10/2004	3	55	2	0.0	509	504	5
8/11/2004	3	55	2	0.0	0	0	0
8/12/2004	3	55	2	0.0	0	0	0
8/13/2004	3	55	2	0.0	0	0	0
8/14/2004	3	55	2	0.0	340	85	255
8/15/2004	3	55	2	0.0	0	0	0
8/16/2004	3	55	2	0.0	0	0	0
8/17/2004	4	55	2	0.0	0	0	0
8/18/2004	4	55	2	0.0	294	63	231
8/19/2004	4	55	2	0.0	124	48	76
8/20/2004	4	55	2	0.0	0	0	0
8/21/2004	4	55	2	0.0	0	0	0
8/22/2004	4	55	2	0.0	0	0	0
8/23/2004	4	55	2	0.0	0	0	0
8/24/2004	5	55	2	0.0	0	0	0
Total time 1					1,344	640	704
Total time 2					2,102	836	1,266
7/27/2004	1	56	1	0.0	228	36	192
7/28/2004	1	56	1	0.0	0	0	0
7/29/2004	1	56	1	0.0	0	0	0
7/30/2004	1	56	1	0.0	0	0	0
7/31/2004	1	56	1	0.0	175	33	142
8/1/2004	1	56	1	0.0	0	0	0
8/2/2004	1	56	1	0.0	0	0	0
8/3/2004	2	56	1	0.0	6	2	4
8/4/2004	2	56	1	0.0	55	5	50
8/5/2004	2	56	1	0.0	0	0	0
8/6/2004	2	56	1	0.0	0	0	0
8/7/2004	2	56	1	0.0	260	19	241
8/8/2004	2	56	1	0.0	0	0	0
8/9/2004	2	56	1	0.0	0	0	0
8/10/2004	3	56	1	0.0	0	0	0
Total time 1							
Total time 2					724	95	629

**Table 5.** Raw data on gonad stages for female fathead minnows exposed to atrazine.

[pre, previtellogenic oocytes; VTG, vitellogenin]

Time	Dose	Number of fish	Sample identifier	Stages I and II	Stages I and II percent of total	Stage III	Stage III percent of total	Stage IV	Stage IV percent of total	Average pre/female	Average VTG/female	Average late/female
0	0	2	10-38	181	70.42801556	47	18.28793774	29	11.28404669			
0	0	2	10-38	166	64.59143969	68	26.45914397	23	8.949416342			
0	0	2	10-38	215	69.80519481	75	24.35064935	18	5.844155844			
0	0	2	10-38	156	56.52173913	99	35.86956522	21	7.608695652	65.3365973	26.24182407	8.421578633
0	0	3	10-38	36	76.59574468	11	23.40425532	0	0			
0	0	3	10-38	31	75.6097561	10	24.3902439	0	0	76.10275039	23.89724961	0
0	0	3	10-39	36	90	4	10	0	0			
0	0	3	10-39	57	91.93548387	5	8.064516129	0	0	90.96774194	9.032258065	0
0	0	2	10-40	92	50.82872928	55	30.38674033	34	18.78453039			
0	0	2	10-40	54	45	26	21.66666667	40	33.33333333	47.91436464	26.0267035	26.05893186
0	0	3	10-40	16	51.61290323	14	45.16129032	1	3.225806452			
0	0	3	10-40	21	58.33333333	14	38.88888889	1	2.777777778	54.97311828	42.02508961	3.001792115
0	0	2	4-13	45	76.27118644	7	11.86440678	7	11.86440678			
0	0	2	4-13	46	65.71428571	16	22.85714286	8	11.42857143	70.99273608	17.36077482	11.6464891
0	0	1	4-13	72	79.12087912	18	19.78021978	1	1.098901099			
0	0	1	4-13	66	78.57142857	16	19.04761905	2	2.380952381	78.84615385	19.41391941	1.73992674
0	0	2	4-14	117	84.7826087	21	15.2173913	0	0			
0	0	2	4-14	98	80.99173554	23	19.00826446	0	0	82.88717212	17.11282788	0
0	0	3	4-14	67	77.01149425	20	22.98850575	0	0			
0	0	3	4-14	76	80.85106383	18	19.14893617	0	0	78.93127904	21.06872096	0
1	0	1	2-5	21	28.76712329	16	21.91780822	36	49.31506849			
1	0	1	2-5	16	29.09090909	11	20	28	50.90909091	28.92901619	20.95890411	50.1120797
1	0	1	2-6	10	27.02702703	8	21.62162162	19	51.35135135			
1	0	1	2-6	14	28.57142857	15	30.6122449	20	40.81632653	27.7992278	26.11693326	46.08383894
1	0	2	2-6	27	35.06493506	24	31.16883117	26	33.76623377			
1	0	2	2-6	20	27.39726027	27	36.98630137	26	35.61643836			
1	0	2	2-6	13	21.31147541	26	42.62295082	22	36.06557377			
1	0	2	2-6	14	22.95081967	24	39.3442623	23	37.70491803	26.68112261	37.53058641	35.78829098
1	0	1	6-23	25	33.78378378	23	31.08108108	26	35.13513514			
1	0	1	6-23	36	40	24	26.66666667	30	33.33333333	36.89189189	28.87387387	34.23423423
1	0	2	6-23	24	43.63636364	10	18.18181818	21	38.18181818			
1	0	2	6-23	13	38.23529412	10	29.41176471	11	32.35294118	40.93582888	23.79679144	35.26737968
1	0	1	14-53	38	44.18604651	27	31.39534884	21	24.41860465			
1	0	1	14-53	42	42.42424242	38	38.38383838	19	19.19191919	43.30514447	34.88959361	21.80526192
1	0	2	14-53	115	74.67532468	39	25.32467532	0	0			
1	0	2	14-53	109	76.22377622	34	23.77622378	0	0	75.44955045	24.55044955	0
1	0	1	14-54	33	40.24390244	24	29.26829268	25	30.48780488			
1	0	1	14-54	24	30	20	25	36	45	35.12195122	27.13414634	37.74390244
1	0	2	14-54	21	32.30769231	24	36.92307692	20	30.76923077			
1	0	2	14-54	31	32.29166667	39	40.625	26	27.08333333	32.29967949	38.77403846	28.92628205
1	0	2	14-56	21	47.72727273	11	25	12	27.27272727			
1	0	2	14-56	19	50	10	26.31578947	9	23.68421053	48.86363636	25.65789474	25.4784689
1	0.5	1	9-33	25	42.37288136	13	22.03389831	21	35.59322034			
1	0.5	1	9-33	30	50	7	11.66666667	23	38.33333333	46.18644068	16.85028249	36.96327684
1	0.5	2	9-33	33	54.09836066	9	14.75409836	19	31.14754098			
1	0.5	2	9-33	59	47.2	20	16	46	36.8			
1	0.5	2	9-33	54	43.90243902	26	21.13821138	43	34.95934959			
1	0.5	2	9-33	11	28.94736842	11	28.94736842	16	42.10526316			
1	0.5	2	9-33	32	35.16483516	18	19.78021978	41	45.05494505			
1	0.5	2	9-33	21	28	16	21.33333333	38	50.66666667	39.55216721	20.32553855	40.12229424

Average pre within tank	Average VTG within tank	Average late within tank	Average pre across tanks	Standard pre	Average VTG across tanks	Standard vtg	Average late across tanks	Standard late
65.3365973	26.24182407	8.421578633						
90.96774194	9.032258065	0						
51.44374146	34.02589655	14.53036199						
74.91944496	18.38734712	6.693207922						
80.90922558	19.09077442	19.09077442	72.71535025	15.10028778	21.35562004	9.357034	9.747184593	7.353113
28.92901619	20.95890411	50.1120797						
27.2401752	31.82375984	40.93606496						
38.91386038	26.33533266	34.75080696						
59.37734746	29.72002158	10.90263096						
33.71081535	32.9540924	33.33509225						
48.86363636	25.65789474	25.4784689	39.50580849	12.47953242	27.90833422	4.47003	32.58585729	13.43741
42.86930394	18.58791052	38.54278554						

**Table 5.** Raw data on gonad stages for female fathead minnows exposed to atrazine.—Continued

[pre, previtellogenic oocytes; VTG, vitellogenin]

Time	Dose	Number of fish	Sample identifier	Stages I and II	Stages I and II percent of total	Stage III	Stage III percent of total	Stage IV	Stage IV percent of total	Average pre/female	Average VTG/female	Average late/female
1	0.5	2	9-34	111	56.92307692	55	28.20512821	29	14.87179487			
1	0.5	2	9-34	65	50	49	37.69230769	16	12.30769231	53.46153846	32.94871795	13.58974359
1	0.5	1a	9-35	41	44.56521739	21	22.82608696	30	32.60869565			
1	0.5	1a	9-35	26	49.05660377	12	22.64150943	15	28.30188679	46.81091058	22.7337982	34.93016418
1	0.5	1b	9-35	28	36.36363636	17	22.07792208	32	41.55844156			
1	0.5	1b	9-35	10	29.41176471	8	23.52941176	16	47.05882353	32.88770053	22.80366692	44.30863254
1	0.5	1	11-43	63	51.2195122	27	21.95121951	33	26.82926829	]		
1	0.5	1	11-43	52	40.31007752	49	37.98449612	28	21.70542636	45.76479486	29.96785782	24.26734732
1	0.5	2	11-43	47	47.47474747	22	22.22222222	30	30.3030303			
1	0.5	2	11-43	29	37.17948718	18	23.07692308	31	39.74358974	42.32711733	22.64957265	35.02331002
1	0.5	1	7-26	34	34.34343434	29	29.29292929	36	36.36363636			
1	0.5	1	7-26	21	30	25	35.71428571	24	34.28571429	32.17171717	32.5036075	35.32467532
1	0.5	2	7-26	12	22.64150943	23	43.39622642	18	33.96226415			
1	0.5	2	7-26	8	17.0212766	19	40.42553191	20	42.55319149	19.83139301	41.91087916	38.25772782
1	0.5	1	7-27	57	50.89285714	18	16.07142857	37	33.03571429			
1	0.5	1	7-27	56	50.45045045	30	27.02702703	25	22.52252252	50.6716538	21.5492278	27.7791184
1	0.5	2	7-27	57	45.6	33	26.4	35	28			
1	0.5	2	7-27	34	34	38	38	28	28	39.8	32.2	28
1	5	1	1-2	28	36.36363636	20	25.97402597	29	37.66233766			
1	5	1	1-2	43	55.84415584	21	27.27272727	13	16.88311688	46.1038961	26.62337662	27.27272727
1	5	2	1-2	20	52.63157895	8	21.05263158	10	26.31578947			
1	5	2	1-2	16	47.05882353	10	29.41176471	8	23.52941176	49.84520124	25.23219814	24.92260062
1	5	1	1-4	6	30	6	30	8	40			
1	5	1	1-4	7	41.17647059	8	47.05882353	2	11.76470588	35.58823529	38.52941176	25.88235294
1	5	2	1-4	58	78.37837838	16	21.62162162	0	0			
1	5	2	1-4	55	80.88235294	13	19.11764706	0	0	79.63036566	20.36963434	0
1	5	1	3-10	2	7.407407407	10	37.03703704	15	55.55555556			
1	5	1	3-10	7	24.13793103	14	48.27586207	8	27.5862069	15.77266922	42.65644955	41.57088123
1	5	2	3-10	39	51.31578947	9	11.84210526	28	36.84210526			
1	5	2	3-10	42	56.75675676	24	32.43243243	8	10.81081081	54.03627312	22.13726885	23.82645804
1	5	1	13-50	12	27.27272727	10	22.72727273	22	50			
1	5	1	13-50	7	18.91891892	3	8.108108108	27	72.97297297	23.0958231	15.41769042	61.48648649
1	5	2	13-50	1	4.545454545	4	18.18181818	17	77.27272727			
1	5	2	13-50	6	35.29411765	1	5.882352941	10	58.82352941	19.9197861	12.03208556	68.04812834
1	5	1	13-51	22	36.66666667	19	31.66666667	19	31.66666667			
1	5	1	13-51	36	61.01694915	11	18.6440678	12	20.33898305	48.84180791	25.15536723	26.00282486
1	5	2	13-51	6	26.08695652	3	13.04347826	14	60.86956522			
1	5	2	13-51	8	40	0	0	12	60	33.04347826	6.52173913	60.43478261
1	5	1	13-52	40	48.7804878	18	21.95121951	24	29.26829268			
1	5	1	13-52	74	73.26732673	7	6.930693069	20	19.8019802	61.02390727	14.44095629	24.53513644
1	5	2	13-52	25	37.87878788	10	15.15151515	31	46.96969697			
1	5	2	13-52	21	33.33333333	14	22.22222222	28	44.44444444	35.60606061	18.68686869	45.70707071
1	50	1	12-45	10	19.60784314	21	41.17647059	20	39.21568627			
1	50	1	12-45	0	0	13	50	13	50	9.803921569	45.58823529	44.60784314
1	50	2	12-45	19	34.54545455	22	40	14	25.45454545			
1	50	2	12-45	40	54.05405405	12	16.21621622	22	29.72972973	44.2997543	28.10810811	37.72727273
1	50	2	12-47	13	23.63636364	12	21.81818182	30	54.54545455			
1	50	2	12-47	13	22.80701754	14	24.56140351	30	52.63157895	23.22169059	23.18979266	53.58851675
1	50	1	12-47	82	78.0952381	23	21.9047619	0	0			

Average pre within tank	Average VTG within tank	Average late within tank	Average pre across tanks	Standard pre	Average VTG across tanks	Standard vtg	Average late across tanks	Standard late
53.46153846	32.94871795	13.58974359						
39.84930556	22.76873256	39.61939836						
44.04595609	26.30871523	29.64532867						
26.00155509	37.20724333	36.79120157						
45.2358269	26.8746139	27.8895592	41.91058101	9.025594903	27.44932225	6.745727	31.01300282	9.79134
47.97454867	25.92778738	26.09766395						
57.60930048	29.44952305	12.94117647						
34.90447117	32.3968592	32.69866963						
21.5078046	13.72488799	64.76730741						
40.94264309	15.83855318	43.21880373						
48.31498394	16.56391249	35.12110357	41.87562532	12.57399146	22.31692055	7.929778	35.80745413	17.44066
27.05183793	36.8481717	41.16755793						

**Table 5.** Raw data on gonad stages for female fathead minnows exposed to atrazine.—Continued

[pre, previtellogenic oocytes; VTG, vitellogenin]

Time	Dose	Number of fish	Sample identifier	Stages I and II	Stages I and II percent of total	Stage III	Stage III percent of total	Stage IV	Stage IV percent of total	Average pre/female	Average VTG/female	Average late/female
1	50	1	12-47	75	79.78723404	19	20.21276596	0	0	78.94123607	21.05876393	0
1	50	1	5-18	13	32.5	17	42.5	10	25			
1	50	1	5-18	13	30.23255814	16	37.20930233	14	32.55813953			
1	50	1	5-18	13	40.625	6	18.75	13	40.625			
1	50	1	5-18	6	20	11	36.66666667	13	43.33333333	30.83938953	33.78149225	35.37911822
1	50	2	5-18	2	5.128205128	17	43.58974359	20	51.28205128			
1	50	2	5-18	1	3.03030303	22	66.66666667	10	30.3030303	4.079254079	55.12820513	40.79254079
1	50	2	5-20	3	9.375	7	21.875	22	68.75			
1	50	2	5-20	20	27.77777778	21	29.16666667	31	43.05555556	18.57638889	25.52083333	55.90277778
1	50	2	8-29	30	42.85714286	12	17.14285714	28	40			
1	50	2	8-29	32	49.23076923	18	27.69230769	15	23.07692308	46.04395604	22.41758242	31.53846154
1	50	1	8-29	10	22.72727273	11	25	23	52.27272727			
1	50	1	8-29	7	13.46153846	15	28.84615385	30	57.69230769	18.09440559	26.92307692	54.98251748
1	50	1	8-30	34	75.55555556	11	24.44444444	0	0			
1	50	1	8-30	13	65	7	35	0	0	70.27777778	29.72222222	0
1	50	2	8-30	88	73.33333333	13	10.83333333	19	15.83333333			
1	50	2	8-30	65	73.03370787	9	10.11235955	15	16.85393258	73.1835206	10.47284644	16.34363296
2	0	1	2-7	15	39.47368421	5	13.15789474	18	47.36842105			
2	0	1	2-7	12	30	10	25	18	45	34.73684211	19.07894737	46.18421053
2	0	2	2-7	52	55.91397849	16	17.20430108	25	26.88172043			
2	0	2	2-7	54	52.42718447	23	22.33009709	26	25.24271845	54.17058148	19.76719908	26.06221944
2	0	1	2-8	58	51.32743363	31	27.43362832	24	21.23893805			
2	0	1	2-8	42	48.27586207	21	24.13793103	24	27.5862069	49.80164785	25.78577968	24.41257247
2	0	2	2-8	10	29.41176471	13	38.23529412	11	32.35294118			
2	0	2	2-8	10	31.25	10	31.25	12	37.5			
2	0	2	2-8	9	29.03225806	6	19.35483871	16	51.61290323			
2	0	2	2-8	5	14.28571429	12	34.28571429	18	51.42857143	25.99493426	30.78146178	43.22360396
2	0	1	6-21	59	53.63636364	29	26.36363636	22	20			
2	0	1	6-21	34	41.97530864	29	35.80246914	18	22.22222222	47.80583614	31.08305275	21.11111111
2	0	2	6-21	18	50	6	16.66666667	12	33.33333333			
2	0	2	6-21	15	44.11764706	6	17.64705882	13	38.23529412	47.05882353	17.15686275	35.78431373
2	0	1	6-22	37	47.43589744	14	17.94871795	27	34.61538462			
2	0	1	6-22	19	36.53846154	16	30.76923077	17	32.69230769	41.98717949	24.35897436	33.65384615
2	0	2	6-22	13	25.49019608	20	39.21568627	18	35.29411765			
2	0	2	6-22	23	29.11392405	29	36.70886076	27	34.17721519	27.30206006	37.96227352	34.73566642
2	0	1	6-24	17	22.36842105	22	28.94736842	37	48.68421053			
2	0	1	6-24	21	30	26	37.14285714	23	32.85714286	26.18421053	33.04511278	40.77067669
2	0	2	6-24	38	50.66666667	14	18.66666667	23	30.66666667			
2	0	2	6-24	24	44.44444444	9	16.66666667	21	38.88888889	47.55555556	17.66666667	34.77777778
2	0	1	14-55	27	39.13043478	15	21.73913043	27	39.13043478			
2	0	1	14-55	25	43.10344828	18	31.03448276	15	25.86206897	41.11694153	26.3868066	32.49625187
2	0	2	14-55	21	30.88235294	25	36.76470588	22	32.35294118			
2	0	2	14-55	28	34.14634146	30	36.58536585	24	29.26829268			
2	0	2	14-55	20	43.47826087	15	32.60869565	11	23.91304348			
2	0	2	14-55	11	36.66666667	9	30	10	33.33333333			
2	0	2	14-55	22	40.74074074	17	31.48148148	15	27.77777778			
2	0	2	14-55	14	31.81818182	12	27.27272727	18	40.90909091	36.28875742	32.45216269	31.25907989
2	0.5	1	9-36	23	39.6517241	9	15.51724138	26	44.82758621			
2	0.5	1	9-36	15	36.58536585	8	19.51219512	18	43.90243902	38.12026913	17.51471825	44.36501262



Average pre within tank	Average VTG within tank	Average late within tank	Average pre across tanks	Standard pre	Average VTG across tanks	Standard vtg	Average late across tanks	Standard late
51.08146333	22.1242783	26.79425837						
17.45932181	44.45484869	38.0858295						
18.57638889	25.52083333	55.90277778						
32.06918082	24.67032967	43.26048951						
71.73064919	20.09753433	8.171816479	36.32814033	21.1959604	28.952666	9.568833	35.56378826	16.35788
44.45371179	19.42307322	36.12321498						
37.89829106	28.28362073	33.81808822						
47.43232983	24.11995775	28.44771242						
34.64461978	31.16062394	34.19475629						
36.86988304	25.35588972	37.77422723						
38.70284947	29.41948464	31.87766588	40.00028083	4.891882757	26.293775	4.247998	33.70594417	3.275278

**Table 5.** Raw data on gonad stages for female fathead minnows exposed to atrazine.—Continued

[pre, previtellogenic oocytes; VTG, vitellogenin]

Time	Dose	Number of fish	Sample identifier	Stages I and II	Stages I and II percent of total	Stage III	Stage III percent of total	Stage IV	Stage IV percent of total	Average pre/female	Average VTG/female	Average late/female
2	0.5	2	9-36	1	8.333333333	2	16.66666667	9	75			
2	0.5	2	9-36	16	51.61290323	5	16.12903226	10	32.25806452	29.97311828	16.39784946	53.62903226
2	0.5	1	11-41	18	40.90909091	8	18.18181818	18	40.90909091			
2	0.5	1	11-41	9	31.03448276	8	27.5862069	12	41.37931034	35.97178683	22.88401254	41.14420063
2	0.5	2	11-42	36	50.70422535	5	7.042253521	30	42.25352113			
2	0.5	2	11-42	17	36.17021277	2	4.255319149	28	59.57446809	43.43721906	5.648786335	50.91399461
2	0.5	2a	11-44	7	25	9	32.14285714	12	42.85714286			
2	0.5	2a	11-44	18	40	12	26.66666667	15	33.33333333	32.5	29.4047619	38.0952381
2	0.5	2b	11-44	12	48	5	20	8	32			
2	0.5	2b	11-44	16	43.24324324	7	18.91891892	14	37.83783784	45.62162162	19.45945946	34.91891892
2	0.5	1	7-25	54	67.5	9	11.25	17	21.25			
2	0.5	1	7-25	38	62.29508197	6	9.836065574	17	27.86885246	64.89754098	10.54303279	24.55942623
2	0.5	2	7-25	18	33.96226415	10	18.86792453	25	47.16981132			
2	0.5	2	7-25	10	33.33333333	7	23.33333333	13	43.33333333	33.64779874	21.10062893	45.25157233
2	0.5	1	7-28	22	40.74074074	9	16.66666667	23	42.59259259			
2	0.5	1	7-28	11	25.58139535	7	16.27906977	25	58.13953488	33.16106804	16.47286822	50.36606374
2	0.5	2	7-28	24	39.3442623	11	18.03278689	26	42.62295082			
2	0.5	2	7-28	16	37.20930233	6	13.95348837	21	48.8372093	38.27678231	15.99313763	45.73008006
2	5	1	1-1	9	22.5	12	30	19	47.5			
2	5	1	1-1	7	19.44444444	21	58.33333333	8	22.22222222	20.97222222	44.16666667	34.86111111
2	5	2	1-1	13	38.23529412	4	11.76470588	17	50			
2	5	2	1-1	19	65.51724138	6	20.68965517	4	13.79310345	51.87626775	16.22718053	31.89655172
2	5	1	1-3	26	50.98039216	8	15.68627451	17	33.33333333			
2	5	1	1-3	68	85	12	15	0	0	67.99019608	15.34313725	16.66666667
2	5	2	1-3	7	25.92592593	5	18.51851852	15	55.55555556			
2	5	2	1-3	11	27.5	10	25	19	47.5	26.71296296	21.75925926	51.52777778
2	5	1	3-9	34	44.73684211	15	19.73684211	27	35.52631579			
2	5	1	3-9	32	60.37735849	9	16.98113208	12	22.64150943	52.5571003	18.35898709	29.08391261
2	5	2	3-9	26	46.42857143	18	32.14285714	12	21.42857143			
2	5	2	3-9	4	26.66666667	7	46.66666667	4	26.66666667	36.54761905	39.4047619	24.04761905
2	5	1	3-11	28	51.85185185	8	14.81481481	18	33.33333333			
2	5	1	3-11	16	51.61290323	2	6.451612903	13	41.93548387	51.73237754	10.63321386	37.6344086
2	5	2	3-11	9	25	7	19.44444444	20	55.55555556			
2	5	2	3-11	3	25	7	58.33333333	2	16.66666667	25	38.88888889	36.11111111
2	5	2	13-49	14	34.14634146	6	14.63414634	21	51.2195122			
2	5	2	13-49	2	16.66666667	4	33.33333333	6	50	25.40650407	23.98373984	50.6097561
2	50	2	8-32	21	37.5	18	32.14285714	17	30.35714286			
2	50	2	8-32	21	40.38461538	16	30.76923077	15	28.84615385	38.94230769	31.45604396	29.60164835
2	50	1	8-32	14	43.75	12	37.5	6	18.75			
2	50	1	8-32	22	52.38095238	12	28.57142857	8	19.04761905	48.06547619	33.03571429	18.89880952
2	50	1	12-46	30	55.55555556	10	18.51851852	14	25.92592593			
2	50	1	12-46	20	54.05405405	6	16.21621622	11	29.72972973	54.8048048	17.36736737	27.82782783
2	50	2	12-46	91	81.25	21	18.75	0	0			
2	50	2	12-46	77	75.49019608	25	24.50980392	0	0	78.37009804	21.62990196	0
2	50	1	12-48	61	57.00934579	38	35.51401869	8	7.476635514			
2	50	1	12-48	21	28	48	64	6	8	42.5046729	49.75700935	7.738317757
2	50	3	12-48	191	88.8372093	24	11.1627907	0	0			
2	50	3	12-48	176	88.88888889	22	11.11111111	0	0	88.8630491	11.1369509	0
2	50	1	5-17	13	20	7	10.76923077	45	69.23076923			

Average pre within tank	Average VTG within tank	Average late within tank	Average pre across tanks	Standard pre	Average VTG across tanks	Standard vtg	Average late across tanks	Standard late
34.04669371	16.95628386	48.99702244						
35.97178683	22.88401254	41.14420063						
43.43721906	5.648786335	50.91399461						
39.06081081	24.43211068	36.50707851						
49.27266986	15.82183086	34.90549928						
35.71892518	16.23300292	48.0480719	39.58468424	5.790336662	16.99600453	6.643585	43.41931123	6.843196
36.42424499	30.1969236	33.37883142						
47.35157952	18.55119826	34.09722222						
44.55235967	28.8818745	26.56576583						
38.36618877	24.76105137	36.87275986						
25.40650407	23.98373984	50.6097561	38.4201754	8.525197328	25.27495751	4.592817	36.30486708	8.849263
43.50389194	32.24587912	24.25022894						
66.58745142	19.49863466	13.91391391						
65.683861	30.44698013	3.869158879						

**Table 5.** Raw data on gonad stages for female fathead minnows exposed to atrazine.—Continued

[pre, previtellogenic oocytes; VTG, vitellogenin]

Time	Dose	Number of fish	Sample identifier	Stages I and II	Stages I and II percent of total	Stage III	Stage III percent of total	Stage IV	Stage IV percent of total	Average pre/female	Average VTG/female	Average late/female
2	50	1	5-17	5	13.51351351	3	8.108108108	29	78.37837838	16.75675676	9.438669439	73.8045738
2	50	2	5-17	7	38.88888889	2	11.11111111	9	50			
2	50	2	5-17	8	44.44444444	2	11.11111111	8	44.44444444	41.66666667	11.11111111	47.22222222
2	50	1	5-19	17	33.33333333	16	31.37254902	18	35.29411765			
2	50	1	5-19	13	27.65957447	16	34.04255319	18	38.29787234			
2	50	1	5-19	5	17.85714286	11	39.28571429	12	42.85714286			
2	50	1	5-19	9	22.5	16	40	15	37.5	25.33751266	36.17520412	38.48728321
2	50	2	5-19	10	28.57142857	9	25.71428571	16	45.71428571			
2	50	2	5-19	3	14.28571429	9	42.85714286	9	42.85714286	21.42857143	34.28571429	44.28571429
2	50	1	8-31	12	36.36363636	9	27.27272727	12	36.36363636			
2	50	1	8-31	13	37.14285714	14	40	8	22.85714286	36.75324675	33.63636364	29.61038961

Average pre within tank	Average VTG within tank	Average late within tank	Average pre across tanks	Standard pre	Average VTG across tanks	Standard vfg	Average late across tanks	Standard late
29.21171171	10.27489027	60.51339801						
23.38304205	35.2304592	41.38649875						
36.75324675	33.63636364	29.61038961	44.18720081	18.31221727	26.88886784	9.870242	28.92393135	20.14233

**Table 6.** Raw data on gonad stages for female fathead minnows exposed to atrazine with tanks containing 2 male fish removed from the dataset.

[pre, previtellogenic oocytes; VTG, vitellogenin]

Time	Dose	Number of fish	Sample identifier	Stages I and II	Stages I and II percent of total	Stage III	Stage III percent of total	Stage IV	Stage IV percent of total	Average pre/female	Average VTG/female	Average late/female
0	0	2	10-38	181	70.42801556	47	18.28793774	29	11.28404669			
0	0	2	10-38	166	64.59143969	68	26.45914397	23	8.949416342			
0	0	2	10-38	215	69.80519481	75	24.35064935	18	5.844155844			
0	0	2	10-38	156	56.52173913	99	35.86956522	21	7.608695652	65.3365973	26.24182407	8.421578633
0	0	3	10-38	36	76.59574468	11	23.40425532	0	0			
0	0	3	10-38	31	75.6097561	10	24.3902439	0	0	76.10275039	23.89724961	0
0	0	3	10-39	36	90	4	10	0	0			
0	0	3	10-39	57	91.93548387	5	8.064516129	0	0	90.96774194	9.032258065	0
0	0	2	10-40	92	50.82872928	55	30.38674033	34	18.78453039			
0	0	2	10-40	54	45	26	21.66666667	40	33.33333333	47.91436464	26.0267035	26.05893186
0	0	3	10-40	16	51.61290323	14	45.16129032	1	3.225806452			
0	0	3	10-40	21	58.33333333	14	38.88888889	1	2.777777778	54.97311828	42.02508961	3.001792115
0	0	2	4-13	45	76.27118644	7	11.86440678	7	11.86440678			
0	0	2	4-13	46	65.71428571	16	22.85714286	8	11.42857143	70.99273608	17.36077482	11.6464891
0	0	1	4-13	72	79.12087912	18	19.78021978	1	1.098901099			
0	0	1	4-13	66	78.57142857	16	19.04761905	2	2.380952381	78.84615385	19.41391941	1.73992674
0	0	2	4-14	117	84.7826087	21	15.2173913	0	0			
0	0	2	4-14	98	80.99173554	23	19.00826446	0	0	82.88717212	17.11282788	0
0	0	3	4-14	67	77.01149425	20	22.98850575	0	0			
0	0	3	4-14	76	80.85106383	18	19.14893617	0	0	78.93127904	21.06872096	0
1	0	1	2-6	10	27.02702703	8	21.62162162	19	51.35135135			
1	0	1	2-6	14	28.57142857	15	30.6122449	20	40.81632653	27.7992278	26.11693326	46.08383894
1	0	2	2-6	27	35.06493506	24	31.16883117	26	33.76623377			
1	0	2	2-6	20	27.39726027	27	36.98630137	26	35.61643836			
1	0	2	2-6	13	21.31147541	26	42.62295082	22	36.06557377			
1	0	2	2-6	14	22.95081967	24	39.3442623	23	37.70491803	26.68112261	37.53058641	35.78829098
1	0	1	6-23	25	33.78378378	23	31.08108108	26	35.13513514			
1	0	1	6-23	36	40	24	26.66666667	30	33.33333333	36.89189189	28.87387387	34.23423423
1	0	2	6-23	24	43.63636364	10	18.18181818	21	38.18181818			
1	0	2	6-23	13	38.23529412	10	29.41176471	11	32.35294118	40.93582888	23.79679144	35.26737968
1	0	1	14-53	38	44.18604651	27	31.39534884	21	24.41860465			
1	0	1	14-53	42	42.42424242	38	38.38383838	19	19.19191919	43.30514447	34.88959361	21.80526192
1	0	2	14-53	115	74.67532468	39	25.32467532	0	0			
1	0	2	14-53	109	76.22377622	34	23.77622378	0	0	75.44955045	24.55044955	0
1	0	1	14-54	33	40.24390244	24	29.26829268	25	30.48780488			
1	0	1	14-54	24	30	20	25	36	45	35.12195122	27.13414634	37.74390244
1	0	2	14-54	21	32.30769231	24	36.92307692	20	30.76923077			
1	0	2	14-54	31	32.29166667	39	40.625	26	27.08333333	32.29967949	38.77403846	28.92628205
1	0	2	14-56	21	47.72727273	11	25	12	27.27272727			
1	0	2	14-56	19	50	10	26.31578947	9	23.68421053	48.86363636	25.65789474	25.4784689
1	0.5	1	9-33	25	42.37288136	13	22.03389831	21	35.59322034			
1	0.5	1	9-33	30	50	7	11.66666667	23	38.33333333	46.18644068	16.85028249	36.96327684
1	0.5	2	9-33	33	54.09836066	9	14.75409836	19	31.14754098			
1	0.5	2	9-33	59	47.2	20	16	46	36.8			
1	0.5	2	9-33	54	43.90243902	26	21.13821138	43	34.95934959			
1	0.5	2	9-33	11	28.94736842	11	28.94736842	16	42.10526316			
1	0.5	2	9-33	32	35.16483516	18	19.78021978	41	45.05494505			
1	0.5	2	9-33	21	28	16	21.33333333	38	50.66666667	39.55216721	20.32553855	40.12229424
1	0.5	1	9-34	33	40.24390244	15	18.29268293	34	41.46341463			

Average pre within tank	Average VTG within tank	Average late within tank	Average pre across tanks	Standard pre	Average VTG across tanks	Standard VTG	Average late across tanks	Standard late
70.71967384	25.06953684	4.210789316						
90.96774194	9.032258065	0						
51.44374146	34.02589655	14.53036199						
74.91944496	18.38734712	6.693207922						
80.90922558	19.09077442	0	73.79196556	14.62716643	21.1211626	9.217641	6.358589806	6.108315
27.2401752022	31.8237598366	40.9360649612						
38.9138603844	26.3353326589	34.7508069567						
59.3773474587	29.7200215805	10.9026309608						
33.7108153533	32.9540924015	33.3350922452						
48.8636363636	25.6578947368	25.4784688995	41.6211669525	12.6930237172	29.2982202429	3.238531	29.0806128047	11.55658
42.86930394	18.58791052	38.54278554						

**Table 6.** Raw data on gonad stages for female fathead minnows exposed to atrazine with tanks containing 2 male fish removed from the dataset.—Continued

[pre, previtellogenic oocytes; VTG, vitellogenin]

Time	Dose	Number of fish	Sample identifier	Stages I and II	Stages I and II percent of total	Stage III	Stage III percent of total	Stage IV	Stage IV percent of total	Average pre/female	Average VTG/female	Average late/female
1	0.5	1	9-34	40	42.10526316	22	23.15789474	33	34.73684211	41.1745828	20.72528883	38.10012837
1	0.5	2	9-34	111	56.92307692	55	28.20512821	29	14.87179487			
1	0.5	2	9-34	65	50	49	37.69230769	16	12.30769231	53.46153846	32.94871795	13.58974359
1	0.5	1a	9-35	41	44.56521739	21	22.82608696	30	32.60869565			
1	0.5	1a	9-35	26	49.05660377	12	22.64150943	15	28.30188679	46.81091058	22.7337982	34.93016418
1	0.5	1b	9-35	28	36.36363636	17	22.07792208	32	41.55844156			
1	0.5	1b	9-35	10	29.41176471	8	23.52941176	16	47.05882353	32.88770053	22.80366692	44.30863254
1	0.5	1	11-43	63	51.2195122	27	21.95121951	33	26.82926829			
1	0.5	1	11-43	52	40.31007752	49	37.98449612	28	21.70542636	45.76479486	29.96785782	24.26734732
1	0.5	2	11-43	47	47.47474747	22	22.22222222	30	30.3030303			
1	0.5	2	11-43	29	37.17948718	18	23.07692308	31	39.74358974	42.32711733	22.64957265	35.02331002
1	0.5	1	7-26	34	34.34343434	29	29.29292929	36	36.36363636			
1	0.5	1	7-26	21	30	25	35.71428571	24	34.28571429	32.17171717	32.5036075	35.32467532
1	0.5	2	7-26	12	22.64150943	23	43.39622642	18	33.96226415			
1	0.5	2	7-26	8	17.0212766	19	40.42553191	20	42.55319149	19.83139301	41.91087916	38.25772782
1	0.5	1	7-27	57	50.89285714	18	16.07142857	37	33.03571429			
1	0.5	1	7-27	56	50.45045045	30	27.02702703	25	22.52252252	50.6716538	21.5492278	27.7791184
1	0.5	2	7-27	57	45.6	33	26.4	35	28			
1	0.5	2	7-27	34	34	38	38	28	28	39.8	32.2	28
1	5	1	1-2	28	36.36363636	20	25.97402597	29	37.66233766			
1	5	1	1-2	43	55.84415584	21	27.27272727	13	16.88311688	46.1038961	26.62337662	27.27272727
1	5	2	1-2	20	52.63157895	8	21.05263158	10	26.31578947			
1	5	2	1-2	16	47.05882353	10	29.41176471	8	23.52941176	49.84520124	25.23219814	24.92260062
1	5	1	1-4	6	30	6	30	8	40			
1	5	1	1-4	7	41.17647059	8	47.05882353	2	11.76470588	35.58823529	38.52941176	25.88235294
1	5	2	1-4	58	78.37837838	16	21.62162162	0	0			
1	5	2	1-4	55	80.88235294	13	19.11764706	0	0	79.63036566	20.36963434	0
1	5	1	3-10	2	7.407407407	10	37.03703704	15	55.55555556			
1	5	1	3-10	7	24.13793103	14	48.27586207	8	27.5862069	15.77266922	42.65644955	41.57088123
1	5	2	3-10	39	51.31578947	9	11.84210526	28	36.84210526			
1	5	2	3-10	42	56.75675676	24	32.43243243	8	10.81081081	54.03627312	22.13726885	23.82645804
1	5	1	13-51	22	36.66666667	19	31.66666667	19	31.66666667			
1	5	1	13-51	36	61.01694915	11	18.6440678	12	20.33898305	48.84180791	25.15536723	26.00282486
1	5	2	13-51	6	26.08695652	3	13.04347826	14	60.86956522			
1	5	2	13-51	8	40	0	0	12	60	33.04347826	6.52173913	60.43478261
1	5	1	13-52	40	48.7804878	18	21.95121951	24	29.26829268			
1	5	1	13-52	74	73.26732673	7	6.930693069	20	19.8019802	61.02390727	14.44095629	24.53513644
1	5	2	13-52	25	37.87878788	10	15.15151515	31	46.96969697			
1	5	2	13-52	21	33.33333333	14	22.22222222	28	44.44444444	35.60606061	18.68686869	45.70707071
1	50	1	12-45	10	19.60784314	21	41.17647059	20	39.21568627			
1	50	1	12-45	0	0	13	50	13	50	9.803921569	45.58823529	44.60784314
1	50	2	12-45	19	34.54545455	22	40	14	25.45454545			
1	50	2	12-45	40	54.05405405	12	16.21621622	22	29.72972973	44.2997543	28.10810811	37.72727273
1	50	2	12-47	13	23.63636364	12	21.81818182	30	54.54545455			
1	50	2	12-47	13	22.80701754	14	24.56140351	30	52.63157895	23.22169059	23.18979266	53.58851675
1	50	1	12-47	82	78.0952381	23	21.9047619	0	0			
1	50	1	12-47	75	79.78723404	19	20.21276596	0	0	78.94123607	21.05876393	0
1	50	1	5-18	13	32.5	17	42.5	10	25			
1	50	1	5-18	13	30.23255814	16	37.20930233	14	32.55813953			



Average pre within tank	Average VTG within tank	Average late within tank	Average pre across tanks	Standard pre	Average VTG across tanks	Standard VTG	Average late across tanks	Standard late
47.31806063	26.83700339	25.84493598						
39.84930556	22.76873256	39.61939836						
44.04595609	26.30871523	29.64532867						
26.00155509	37.20724333	36.79120157						
45.2358269	26.8746139	27.8895592	40.88666804	7.704967851	26.43070316	6.187572	33.05553489	5.957499
47.9745486711	25.9277873829	26.097663946						
57.6093004769	29.4495230525	12.9411764706						
34.9044711681	32.3968592004	32.6986696315						
40.9426430852	15.838553181	43.2188037337						
48.3149839374	16.5639124888	35.1211035738	45.9491894678	8.5543638151	24.0353270611	7.513642	30.0154834711	11.34103
27.05183793	36.8481717	41.16755793						
51.08146333	22.1242783	26.79425837						

**100     Atrazine Reduces Reproduction in Fathead Minnow (*Pimephales promelas*)—Raw Data Report**

**Table 6.** Raw data on gonad stages for female fathead minnows exposed to atrazine with tanks containing 2 male fish removed from the dataset.—Continued

[pre, previtellogenic oocytes; VTG, vitellogenin]

Time	Dose	Number of fish	Sample identifier	Stages I and II	Stages I and II percent of total	Stage III	Stage III percent of total	Stage IV	Stage IV percent of total	Average pre/female	Average VTG/female	Average late/female
1	50	1	5-18	13	40.625	6	18.75	13	40.625			
1	50	1	5-18	6	20	11	36.66666667	13	43.33333333	30.83938953	33.78149225	35.37911822
1	50	2	5-18	2	5.128205128	17	43.58974359	20	51.28205128			
1	50	2	5-18	1	3.03030303	22	66.66666667	10	30.3030303	4.079254079	55.12820513	40.79254079
1	50	2	5-20	3	9.375	7	21.875	22	68.75			
1	50	2	5-20	20	27.77777778	21	29.16666667	31	43.05555556	18.57638889	25.52083333	55.90277778
1	50	1	8-30	34	75.55555556	11	24.44444444	0	0			
1	50	1	8-30	13	65	7	35	0	0	70.27777778	29.72222222	0
1	50	2	8-30	88	73.33333333	13	10.83333333	19	15.83333333			
1	50	2	8-30	65	73.03370787	9	10.11235955	15	16.85393258	73.1835206	10.47284644	16.34363296
2	0	1	2-7	15	39.47368421	5	13.15789474	18	47.36842105			
2	0	1	2-7	12	30	10	25	18	45	34.73684211	19.07894737	46.18421053
2	0	2	2-7	52	55.91397849	16	17.20430108	25	26.88172043			
2	0	2	2-7	54	52.42718447	23	22.33009709	26	25.24271845	54.17058148	19.76719908	26.06221944
2	0	1	2-8	58	51.32743363	31	27.43362832	24	21.23893805			
2	0	1	2-8	42	48.27586207	21	24.13793103	24	27.5862069	49.80164785	25.78577968	24.41257247
2	0	2	2-8	10	29.41176471	13	38.23529412	11	32.35294118			
2	0	2	2-8	10	31.25	10	31.25	12	37.5			
2	0	2	2-8	9	29.03225806	6	19.35483871	16	51.61290323			
2	0	2	2-8	5	14.28571429	12	34.28571429	18	51.42857143	25.99493426	30.78146178	43.22360396
2	0	1	6-21	59	53.63636364	29	26.36363636	22	20			
2	0	1	6-21	34	41.97530864	29	35.80246914	18	22.22222222	47.80583614	31.08305275	21.11111111
2	0	2	6-21	18	50	6	16.66666667	12	33.33333333			
2	0	2	6-21	15	44.11764706	6	17.64705882	13	38.23529412	47.05882353	17.15686275	35.78431373
2	0	1	6-22	37	47.43589744	14	17.94871795	27	34.61538462			
2	0	1	6-22	19	36.53846154	16	30.76923077	17	32.69230769	41.98717949	24.35897436	33.65384615
2	0	2	6-22	13	25.49019608	20	39.21568627	18	35.29411765			
2	0	2	6-22	23	29.11392405	29	36.70886076	27	34.17721519	27.30206006	37.96227352	34.73566642
2	0	1	6-24	17	22.36842105	22	28.94736842	37	48.68421053			
2	0	1	6-24	21	30	26	37.14285714	23	32.85714286	26.18421053	33.04511278	40.77067669
2	0	2	6-24	38	50.66666667	14	18.66666667	23	30.66666667			
2	0	2	6-24	24	44.44444444	9	16.66666667	21	38.88888889	47.55555556	17.66666667	34.77777778
2	0	1	14-55	27	39.13043478	15	21.73913043	27	39.13043478			
2	0	1	14-55	25	43.10344828	18	31.03448276	15	25.86206897	41.11694153	26.3868066	32.49625187
2	0	2	14-55	21	30.88235294	25	36.76470588	22	32.35294118			
2	0	2	14-55	28	34.14634146	30	36.58536585	24	29.26829268			
2	0	2	14-55	20	43.47826087	15	32.60869565	11	23.91304348			
2	0	2	14-55	11	36.66666667	9	30	10	33.33333333			
2	0	2	14-55	22	40.74074074	17	31.48148148	15	27.77777778			
2	0	2	14-55	14	31.81818182	12	27.27272727	18	40.90909091	36.28875742	32.45216269	31.25907989
2	0.5	1	9-36	23	39.65517241	9	15.51724138	26	44.82758621			
2	0.5	1	9-36	15	36.58536585	8	19.51219512	18	43.90243902	38.12026913	17.51471825	44.36501262
2	0.5	2	9-36	1	8.333333333	2	16.66666667	9	75			
2	0.5	2	9-36	16	51.61290323	5	16.12903226	10	32.25806452	29.97311828	16.39784946	53.62903226
2	0.5	1	11-41	18	40.90909091	8	18.18181818	18	40.90909091			
2	0.5	1	11-41	9	31.03448276	8	27.5862069	12	41.37931034	35.97178683	22.88401254	41.14420063
2	0.5	1	11-44	7	25	9	32.14285714	12	42.85714286			
2	0.5	1	11-44	18	40	12	26.66666667	15	33.33333333	32.5	29.4047619	38.0952381
2	0.5	2	11-44	12	48	5	20	8	32			

Average pre within tank	Average VTG within tank	Average late within tank	Average pre across tanks	Standard pre	Average VTG across tanks	Standard VTG	Average late across tanks	Standard late
17.45932181	44.45484869	38.0858295						
18.57638889	25.52083333	55.90277778						
71.73064919	20.09753433	8.171816479	37.17993223	23.58271191	29.80913327	10.43799	34.02444801	17.79617
44.45371179	19.42307322	36.12321498						
37.89829106	28.28362073	33.81808822						
47.43232983	24.11995775	28.44771242						
34.64461978	31.16062394	34.19475629						
36.86988304	25.35588972	37.77422723						
38.70284947	29.41948464	31.87766588	34.285955	4.891882757	26.293775	4.247998	33.70594417	3.275278
34.04669371	16.95628386	48.99702244						
35.97178683	22.88401254	41.14420063						

**Table 6.** Raw data on gonad stages for female fathead minnows exposed to atrazine with tanks containing 2 male fish removed from the dataset.—Continued

[pre, previtellogenic oocytes; VTG, vitellogenin]

Time	Dose	Number of fish	Sample identifier	Stages I and II	Stages I and II percent of total	Stage III	Stage III percent of total	Stage IV	Stage IV percent of total	Average pre/female	Average VTG/female	Average late/female
2	0.5	2	11-44	16	43.24324324	7	18.91891892	14	37.83783784	45.62162162	19.45945946	34.91891892
2	0.5	1	7-25	54	67.5	9	11.25	17	21.25			
2	0.5	1	7-25	38	62.29508197	6	9.836065574	17	27.86885246	64.89754098	10.54303279	24.55942623
2	0.5	2	7-25	18	33.96226415	10	18.86792453	25	47.16981132			
2	0.5	2	7-25	10	33.33333333	7	23.33333333	13	43.33333333	33.64779874	21.10062893	45.25157233
2	0.5	1	7-28	22	40.74074074	9	16.66666667	23	42.59259259			
2	0.5	1	7-28	11	25.58139535	7	16.27906977	25	58.13953488	33.16106804	16.47286822	50.36606374
2	0.5	2	7-28	24	39.3442623	11	18.03278689	26	42.62295082			
2	0.5	2	7-28	16	37.20930233	6	13.95348837	21	48.8372093	38.27678231	15.99313763	45.73008006
2	5	1	1-1	9	22.5	12	30	19	47.5			
2	5	1	1-1	7	19.44444444	21	58.33333333	8	22.22222222	20.97222222	44.16666667	34.86111111
2	5	2	1-1	13	38.23529412	4	11.76470588	17	50			
2	5	2	1-1	19	65.51724138	6	20.68965517	4	13.79310345	51.87626775	16.22718053	31.89655172
2	5	1	1-3	26	50.98039216	8	15.68627451	17	33.33333333			
2	5	1	1-3	68	85	12	15	0	0	67.99019608	15.34313725	16.66666667
2	5	2	1-3	7	25.92592593	5	18.51851852	15	55.55555556			
2	5	2	1-3	11	27.5	10	25	19	47.5	26.71296296	21.75925926	51.52777778
2	5	1	3-9	34	44.73684211	15	19.73684211	27	35.52631579			
2	5	1	3-9	32	60.37735849	9	16.98113208	12	22.64150943	52.5571003	18.35898709	29.08391261
2	5	2	3-9	26	46.42857143	18	32.14285714	12	21.42857143			
2	5	2	3-9	4	26.66666667	7	46.66666667	4	26.66666667	36.54761905	39.4047619	24.04761905
2	5	1	3-11	28	51.85185185	8	14.81481481	18	33.33333333			
2	5	1	3-11	16	51.61290323	2	6.451612903	13	41.93548387	51.73237754	10.63321386	37.6344086
2	5	2	3-11	9	25	7	19.44444444	20	55.55555556			
2	5	2	3-11	3	25	7	58.33333333	2	16.66666667	25	38.88888889	36.11111111
2	50	2	8-32	21	37.5	18	32.14285714	17	30.35714286			
2	50	2	8-32	21	40.38461538	16	30.76923077	15	28.84615385	38.94230769	31.45604396	29.60164835
2	50	1	8-32	14	43.75	12	37.5	6	18.75			
2	50	1	8-32	22	52.38095238	12	28.57142857	8	19.04761905	48.06547619	33.03571429	18.89880952
2	50	1	12-46	30	55.55555556	10	18.51851852	14	25.92592593			
2	50	1	12-46	20	54.05405405	6	16.21621622	11	29.72972973	54.8048048	17.36736737	27.82782783
2	50	2	12-46	91	81.25	21	18.75	0	0			
2	50	2	12-46	77	75.49019608	25	24.50980392	0	0	78.37009804	21.62990196	0
2	50	1	12-48	61	57.00934579	38	35.51401869	8	7.476635514			
2	50	1	12-48	21	28	48	64	6	8	42.5046729	49.75700935	7.738317757
2	50	3	12-48	194	83.26180258	39	16.73819742	0	0			
2	50	3	12-48	143	74.47916667	49	25.52083333	0	0	78.87048462	21.12951538	0
2	50	1	5-17	13	20	7	10.76923077	45	69.23076923			
2	50	1	5-17	5	13.51351351	3	8.108108108	29	78.37837838	16.75675676	9.438669439	73.8045738
2	50	2	5-17	7	38.88888889	2	11.11111111	9	50			
2	50	2	5-17	8	44.44444444	2	11.11111111	8	44.44444444	41.66666667	11.11111111	47.22222222
2	50	1	5-19	17	33.33333333	16	31.37254902	18	35.29411765			
2	50	1	5-19	13	27.65957447	16	34.04255319	18	38.29787234			
2	50	1	5-19	5	17.85714286	11	39.28571429	12	42.85714286			
2	50	1	5-19	9	22.5	16	40	15	37.5	25.33751266	36.17520412	38.48728321
2	50	2	5-19	10	28.57142857	9	25.71428571	16	45.71428571			
2	50	2	5-19	3	14.28571429	9	42.85714286	9	42.85714286	21.42857143	34.28571429	44.28571429
2	50	1	8-31	12	36.36363636	9	27.27272727	12	36.36363636			
2	50	1	8-31	13	37.14285714	14	40	8	22.85714286	36.75324675	33.63636364	29.61038961

Average pre within tank	Average VTG within tank	Average late within tank	Average pre across tanks	Standard pre	Average VTG across tanks	Standard VTG	Average late across tanks	Standard late
39.06081081	24.43211068	36.50707851						
49.27266986	15.82183086	34.90549928						
35.71892518	16.23300292	48.0480719	38.81417728	6.120244355	19.26544817	4.067397	41.92037455	6.456437
36.42424499	30.1969236	33.37883142						
47.35157952	18.55119826	34.09722222						
44.55235967	28.8818745	26.56576583						
38.36618877	24.76105137	36.87275986	41.67359324	5.132296621	25.59776193	5.237424	32.72864483	4.376091
43.50389194	32.24587912	24.25022894						
66.58745142	19.49863466	13.91391391						
60.68757876	35.44326236	3.869158879						
29.21171171	10.27489027	60.51339801						
23.38304205	35.2304592	41.38649875						
36.75324675	33.63636364	29.61038961	43.35448711	17.22023291	27.72158154	10.4256	28.92393135	20.14233

**Table 7.** Raw data and summaries of brain and gonad aromatase activities in fathead minnows exposed to atrazine.

[Shaded rows indicate fish found to be male; pmole/mg, picomole per milligram; arom, aromatase; F, female; SD, standard deviation; SE, standard error; *n*, number; M, male]

Time	Dose	Row	Tank	Number of fish	Sex	Gonad pmole/mg protein	Brain arom pmole/mg protein		Gonad pmole/mg protein	Brain arom pmole/mg protein
0	0.0	4	13	1	F	0.0704	0.046912772			
0	0.0	4	13	2	F	0.1534	0.109977204			
0	0.0	4	14	1	F	0.0160	0.035713375			
0	0.0	4	14	2	F	0.0300				
0	0.0	4	16	1	F	0.0598				
0	0.0	4	16	2	F	0.0156				
0	0.0	10	38	1	F	1.1148	0.062694552			
0	0.0	10	38	2	F	0.0186	0.031335495			
0	0.0	10	39	1	F	0.1985		<b>Average</b>	0.21	0.06
0	0.0	10	39	2	F	0.3766		<b>Mean</b>	0.08	0.06
0	0.0	10	40	1	F			<b>SD</b>	0.34	0.03
0	0.0	10	40	2	F		0.092848117	<b>SE</b>	0.11	0.01
								<b><i>n</i></b>	10	6
0	0.0	4	13	3	M					
0	0.0	4	14	3	M					
0	0.0	4	16	3	M					
0	0.0	10	38	3	M					
0	0.0	10	39	3	M					
0	0.0	10	40	3	M					
1	0.0	2	5	1	F	0.0209	0.012310693			
1	0.0	2	5	2	F		0.012614178			
1	0.0	2	6	1	F	0.0457				
1	0.0	2	6	2	F	0.0396				
1	0.0	6	23	1	F	0.4073				
1	0.0	6	23	2	F	0.0274	0.010398887			
1	0.0	14	53	1	F	0.1171				
1	0.0	14	53	2	F	0.1502	0.010076915			
1	0.0	14	54	1	F	0.0313	0.016815395	<b>Average</b>	0.14	0.01
1	0.0	14	54	2	F	0.5008		<b>Mean</b>	0.07	0.01
1	0.0	14	56	1	F		0.007767713	<b>SD</b>	0.17	0.00
1	0.0	14	56	2	F	0.0370		<b>SE</b>	0.05	0.00
								<b><i>n</i></b>	10	6
1	0.0	2	5	3	M					
1	0.0	2	6	3	M					
1	0.0	6	23	3	M					
1	0.0	14	53	3	M					
1	0.0	14	54	3	M					
1	0.0	14	56	3	M					

**Table 7.** Raw data and summaries of brain and gonad aromatase activities in fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate fish found to be male; pmole/mg, picomole per milligram; arom, aromatase; F, female; SD, standard deviation; SE, standard error; *n*, number; M, male]

Time	Dose	Row	Tank	Number of fish	Sex	Gonad pmole/mg protein	Brain arom pmole/mg protein		Gonad pmole/mg protein	Brain arom pmole/mg protein
1	0.5	7	26	1	F	0.0504				
1	0.5	7	26	2	F	0.0184				
1	0.5	7	27	1	F	0.0781				
1	0.5	7	27	2	F	0.0896	0.009634816			
1	0.5	9	33	1	F		0.009834804			
1	0.5	9	33	2	F	0.0175	0.012185493			
1	0.5	9	34	1	F	0.0398	0.011218795			
1	0.5	9	34	2	F	0.0921				
1	0.5	9	35	1	F	0.0200		<b>Average</b>	0.06	0.01
1	0.5	9	35	2	F	0.1124		<b>Mean</b>	0.05	0.01
1	0.5	11	43	1	F	0.0445	0.007556889	<b>SD</b>	0.03	0.00
1	0.5	11	43	2	F	0.0802	0.006959092	<b>SE</b>	0.01	0.00
								<b><i>n</i></b>	11	6
1	0.5	7	26	3	M					
1	0.5	7	27	3	M					
1	0.5	9	33	3	M					
1	0.5	9	34	3	M					
1	0.5	9	35	3	M					
1	0.5	9	36	3	M					
1	0.5	11	43	3	M					
1	5.0	1	2	1	F	0.1263	0.010028749			
1	5.0	1	2	2	F	0.1694	0.010931083			
1	5.0	1	4	1	F	0.3824				
1	5.0	1	4	2	F					
1	5.0	3	10	1	F	0.3451				
1	5.0	3	10	2	F	0.4879	0.005739166			
1	5.0	13	50	1	F	0.0279	0.013940496			
1	5.0	13	50	2	F	0.0549	0.005754194			
1	5.0	13	51	1	F	0.0415	0.011153832	<b>Average</b>	0.21	0.01
1	5.0	13	51	2	F	0.0194		<b>Mean</b>	0.12	0.01
1	5.0	13	52	1	F	0.5475		<b>SD</b>	0.19	0.00
1	5.0	13	52	2	F	0.1176		<b>SE</b>	0.06	0.00
								<b><i>n</i></b>	11	6
1	5.0	1	2	3	M					
1	5.0	1	4	3	M					
1	5.0	3	10	3	M					
1	5.0	13	50	3	M					
1	5.0	13	51	3	M					

**Table 7.** Raw data and summaries of brain and gonad aromatase activities in fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate fish found to be male; pmole/mg, picomole per milligram; arom, aromatase; F, female; SD, standard deviation; SE, standard error; *n*, number; M, male]

Time	Dose	Row	Tank	Number of fish	Sex	Gonad pmole/mg protein	Brain arom pmole/mg protein		Gonad pmole/mg protein	Brain arom pmole/mg protein
1	5.0	13	52	3	M					
1	50.0	5	18	1	F	0.0561				
1	50.0	5	18	2	F	14.5314	0.012832991			
1	50.0	5	20	1	F					
1	50.0	5	20	2	F	0.0285	0.007817456			
1	50.0	8	29	1	F	0.1977	0.023463465			
1	50.0	8	29	2	F		0.010513537			
1	50.0	8	30	1	F	0.2222				
1	50.0	8	30	2	F	0.0282				
1	50.0	12	45	1	F	0.1023	0.018408979	<b>Average</b>	1.56	0.01
1	50.0	12	45	2	F	0.3186		<b>Mean</b>	0.13	0.01
1	50.0	12	47	1	F	0.0249		<b>SD</b>	4.56	0.01
1	50.0	12	47	2	F	0.0624		<b>SE</b>	1.44	0.00
								<b><i>n</i></b>	10	5
1	50.0	5	20	3	M					
1	50.0	8	29	3	M					
1	50.0	8	30	3	M					
1	50.0	12	45	3	M					
1	50.0	12	47	3	M					
2	0.0	2	7	1	F	0.2035	0.028243826			
2	0.0	2	7	2	F	0.0365				
2	0.0	2	8	1	F	0.1001				
2	0.0	2	8	2	F	0.1714				
2	0.0	6	21	1	F	0.0412	0.046693286			
2	0.0	6	21	2	F	0.1011	0.022789471			
2	0.0	6	22	1	F	0.0212				
2	0.0	6	22	2	F	0.1512				
2	0.0	6	24	1	F	0.0280		<b>Average</b>	0.10	0.03
2	0.0	6	24	2	F	0.0881	0.039663983	<b>Mean</b>	0.08	0.03
2	0.0	14	55	1	F	0.1816	0.036364319	<b>SD</b>	0.07	0.01
2	0.0	14	55	2	F		0.032734185	<b>SE</b>	0.02	0.00
								<b><i>n</i></b>	11	6
2	0.0	2	7	3	M					
2	0.0	2	8	3	M					
2	0.0	6	21	3	M					
2	0.0	6	22	3	M					
2	0.0	6	24	3	M					
2	0.0	14	55	3	M					



**Table 7.** Raw data and summaries of brain and gonad aromatase activities in fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate fish found to be male; pmole/mg, picomole per milligram; arom, aromatase; F, female; SD, standard deviation; SE, standard error; *n*, number; M, male]

Time	Dose	Row	Tank	Number of fish	Sex	Gonad pmole/mg protein	Brain arom pmole/mg protein		Gonad pmole/mg protein	Brain arom pmole/mg protein
2	0.5	7	25	1	F	0.0779				
2	0.5	7	25	2	F	0.0380	0.018411508			
2	0.5	7	28	1	F	0.0550	0.024072658			
2	0.5	7	28	2	F	0.2907	0.064041443			
2	0.5	9	36	1	F	0.0249				
2	0.5	9	36	2	F	0.1298	0.030329279			
2	0.5	11	41	1	F	0.0257	0.080755981	<b>Average</b>	0.09	0.04
2	0.5	11	42	2	F	0.0352		<b>Mean</b>	0.06	0.03
2	0.5	11	44	1	F	0.0563	0.013286719	<b>SD</b>	0.08	0.03
2	0.5	11	44	2	F	0.1606		<b>SE</b>	0.03	0.01
								<b><i>n</i></b>	10	6
2	0.5	7	25	3	M					
2	0.5	7	28	3	M					
2	0.5	11	41	3	M					
2	0.5	11	42	1	M					
2	0.5	11	42	3	M					
2	0.5	11	44	3	M					
2	5.0	1	1	1	F	0.0173	0.02260373			
2	5.0	1	1	2	F		0.027672245			
2	5.0	1	3	1	F		0.040738278			
2	5.0	1	3	2	F	0.0429				
2	5.0	3	9	2	F	0.1079				
2	5.0	3	9	1	F	0.0532				
2	5.0	3	11	1	F	0.1950		<b>Average</b>	0.06	0.03
2	5.0	3	11	2	F	0.0166		<b>Mean</b>	0.04	0.03
2	5.0	13	49	1	F		0.034746936	<b>SD</b>	0.07	0.01
2	5.0	13	49	2	F	0.0141	0.044394392	<b>SE</b>	0.03	0.00
								<b><i>n</i></b>	7	5
2	5.0	1	1	3	M					
2	5.0	1	3	3	M					
2	5.0	3	9	3	M					
2	5.0	3	11	3	M					
2	5.0	3	12	3	M					
2	5.0	13	49	3	M					
2	50.0	5	17	1	F	0.0121	0.036511242			
2	50.0	5	17	2	F	0.0118				
2	50.0	5	19	1	F	0.0229				

**Table 7.** Raw data and summaries of brain and gonad aromatase activities in fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate fish found to be male; pmole/mg, picomole per milligram; arom, aromatase; F, female; SD, standard deviation; SE, standard error; *n*, number; M, male]

Time	Dose	Row	Tank	Number of fish	Sex	Gonad pmole/mg protein	Brain arom pmole/mg protein		Gonad pmole/mg protein	Brain arom pmole/mg protein
2	50.0	5	19	2	F	0.0881				
2	50.0	8	31	1	F					
2	50.0	8	32	1	F	0.0177	0.035740551			
2	50.0	8	32	2	F	0.2860	0.024859626			
2	50.0	12	46	1	F	0.3005		<b>Average</b>	0.12	0.04
2	50.0	12	46	2	F	0.1364	0.056017991	<b>Mean</b>	0.07	0.03
2	50.0	12	48	1	F	0.1579	0.028388759	<b>SD</b>	0.11	0.01
2	50.0	12	48	2	F	0.1988		<b>SE</b>	0.04	0.01
								<b><i>n</i></b>	10	5
2	50.0	5	17	3	M					
2	50.0	5	18	3	M					
2	50.0	5	19	3	M					
2	50.0	8	31	3	M					
2	50.0	8	32	3	M					
2	50.0	12	46	3	M					
2	50.0	12	48	3	M					

**Table 8.** Gonad-somatic index (GSI) raw data for fathead minnows exposed to atrazine.

[ID, identifier; wt, weight; g, grams; GSI, gonad-somatic index; F, female; BW, body weight; SD, standard deviation; M, male; ---, no data]

Fish ID	Time	Dose	Row	Tank	Number of fish	Sex	Body wt (g)	Gonad wt (g)	GSI	Sex				
1301	0	0.0	4	13	1	F	1.36	0.21	18.26					
1302	0	0.0	4	13	2	F	1.21	0.13	12.04					
1401	0	0.0	4	14	1	F	1.61	0.34	26.77					
1402	0	0.0	4	14	2	F	2.00	0.20	11.11					
1601	0	0.0	4	16	1	F	2.33	0.36	18.27					
1602	0	0.0	4	16	2	F	1.90	0.37	24.18					
3801	0	0.0	10	38	1	F	1.32	0.07	5.60					
3802	0	0.0	10	38	2	F	2.10	0.25	13.51					
3901	0	0.0	10	39	1	F	3.12	0.27	9.47					
3902	0	0.0	10	39	2	F	1.82	0.29	18.95		<b>Time 0</b>			
4001	0	0.0	10	40	1	F	1.25	0.06	5.04	F	<b>Mean BW</b>	<b>SD</b>	<b>Range</b>	
4002	0	0.0	10	40	2	F	1.18	0.01	0.85		1.77	0.575679	1.18	3.12
1303	0	0.0	4	13	3	M	2.42	0.05	2.11					
1403	0	0.0	4	14	3	M	2.51	0.03	1.21					
1603	0	0.0	4	16	3	M	2.63	0.04	1.54					
3803	0	0.0	10	38	3	M	1.97	0.04	2.07		<b>Time 0</b>			
3903	0	0.0	10	39	3	M	3.72	0.04	1.09	M	<b>Mean BW</b>	<b>SD</b>	<b>Range</b>	
4003	0	0.0	10	40	3	M	3.35	0.03	0.90		2.77	0.646302	1.97	3.72
501	1	0.0	2	5	1	F	1.85	0.35	23.33					
502	1	0.0	2	5	2	F	1.82	too small	---					
601	1	0.0	2	6	1	F	1.64	0.19	13.10					
602	1	0.0	2	6	2	F	1.80	0.22	13.92					
2301	1	0.0	6	23	1	F	1.36	0.11	8.80					
2302	1	0.0	6	23	2	F	1.98	0.27	15.79					
5301	1	0.0	14	53	1	F	1.70	0.25	17.24					
5302	1	0.0	14	53	2	F	1.68	0.21	14.29					
5401	1	0.0	14	54	1	F	2.22	0.36	19.35					
5402	1	0.0	14	54	2	F	1.50	0.23	18.11		<b>Time 1</b>	Without tank 5 fish 2		
5601	1	0.0	14	56	1	F	1.66	0.05	3.11	F	<b>Mean BW</b>	<b>SD</b>	<b>Range</b>	
5602	1	0.0	14	56	2	F	2.01	0.38	23.31		1.76	0.243732	1.36	2.22
503	1	0.0	2	5	3	M	3.44	0.04	1.18					
603	1	0.0	2	6	3	M	3.96	0.04	1.02					
2303	1	0.0	6	23	3	M	4.05	0.05	1.25					
5303	1	0.0	14	53	3	M	2.36	0.02	0.85		<b>Time 1</b>			
5403	1	0.0	14	54	3	M	3.68	0.04	1.10	M	<b>Mean BW</b>	<b>SD</b>	<b>Range</b>	
5603	1	0.0	14	56	3	M	3.79	0.04	1.07		3.55	0.619796	2.36	4.05

# 110      Atrazine Reduces Reproduction in Fathead Minnow (*Pimephales promelas*)—Raw Data Report

**Table 8.** Gonad-somatic index (GSI) raw data for fathead minnows exposed to atrazine.—Continued

[ID, identifier; wt, weight; g, grams; GSI, gonad-somatic index; F, female; BW, body weight; SD, standard deviation; M, male; ---, no data]

Fish ID	Time	Dose	Row	Tank	Number of fish	Sex	Body wt (g)	Gonad wt (g)	GSI	Sex				
2601	1	0.5	7	26	1	F	1.80	0.23	14.65					
2602	1	0.5	7	26	2	F	2.25	0.44	24.31					
2701	1	0.5	7	27	1	F	1.87	0.20	11.98					
2702	1	0.5	7	27	2	F	2.55	0.25	10.87					
3301	1	0.5	9	33	1	F	1.87	0.28	17.61					
3302	1	0.5	9	33	2	F	1.93	0.30	18.40					
3401	1	0.5	9	34	1	F	2.29	0.34	17.44					
3402	1	0.5	9	34	2	F	2.02	0.18	9.78					
3501	1	0.5	9	35	1	F	1.42	0.23	19.33					
3502	1	0.5	9	35	2	F	1.54	0.17	12.41					
4301	1	0.5	11	43	1	F	1.89	0.22	13.17	F	Time 1			
4302	1	0.5	11	43	2	F	1.75	0.22	14.38		Mean BW	SD	Range	
											1.93	0.315475	1.42	2.55
2603	1	0.5	7	26	3	M	3.48	0.07	2.05					
2703	1	0.5	7	27	3	M	3.81	0.04	1.06					
3303	1	0.5	9	33	3	M	3.15	0.04	1.29					
3403	1	0.5	9	34	3	M	4.12	0.03	0.73					
3503	1	0.5	9	35	3	M	3.12	0.03	0.97		Time 1			
3603	1	0.5	9	36	3	M	4.75	0.07	1.50	M	Mean BW	SD	Range	
4303	1	0.5	11	43	3	M	4.82	0.05	1.05		3.89	0.70384	3.12	4.82
201	1	5.0	1	2	1	F	2.59	0.38	17.19					
202	1	5.0	1	2	2	F	1.92	0.22	12.94					
401	1	5.0	1	4	1	F	1.40	0.11	8.53					
402	1	5.0	1	4	2	F	1.39	0.16	13.01					
1001	1	5.0	3	10	1	F	2.52	0.21	9.09					
1002	1	5.0	3	10	2	F	2.00	0.17	9.29					
5001	1	5.0	13	50	1	F	1.69	0.18	11.92					
5002	1	5.0	13	50	2	F	2.50	0.14	5.93					
5101	1	5.0	13	51	1	F	1.10	0.12	12.24					
5102	1	5.0	13	51	2	F	2.45	0.47	23.74		Time 1			
5201	1	5.0	13	52	1	F	2.37	0.21	9.72	F	Mean BW	SD	Range	
5202	1	5.0	13	52	2	F	2.62	0.35	15.42		2.05	0.540344	1.10	2.62
203	1	5.0	1	2	3	M	3.43	0.04	1.18					
403	1	5.0	1	4	3	M	2.72	0.04	1.49					
1003	1	5.0	3	10	3	M	3.12	0.04	1.30					
5003	1	5.0	13	50	3	M	4.93	0.08	1.65		Time 1			
5103	1	5.0	13	51	3	M	4.56	0.05	1.11	M	Mean BW	SD	Range	
5203	1	5.0	13	52	3	M	3.06	0.05	1.66		3.64	0.895291	2.72	4.93

**Table 8.** Gonad-somatic index (GSI) raw data for fathead minnows exposed to atrazine.—Continued

[ID, identifier; wt, weight; g, grams; GSI, gonad-somatic index; F, female; BW, body weight; SD, standard deviation; M, male; ---, no data]

Fish ID	Time	Dose	Row	Tank	Number of fish	Sex	Body wt (g)	Gonad wt (g)	GSI	Sex				
1801	1	50.0	5	18	1	F	1.46	0.15	11.45					
1802	1	50.0	5	18	2	F	1.38	0.15	12.20					
2001	1	50.0	5	20	1	F	2.04	0.00	0.00					
2002	1	50.0	5	20	2	F	2.58	0.43	20.00					
2901	1	50.0	8	29	1	F	1.94	0.24	14.12					
2902	1	50.0	8	29	2	F	2.40	0.09	3.90					
3001	1	50.0	8	30	1	F	1.77	0.21	13.46					
3002	1	50.0	8	30	2	F	1.69	0.28	19.86					
4501	1	50.0	12	45	1	F	2.17	0.23	11.86					
4502	1	50.0	12	45	2	F	1.88	0.22	13.25					
4701	1	50.0	12	47	1	F	1.87	0.31	19.87	F				
4702	1	50.0	12	47	2	F	1.88	0.24	14.63					
											Time 1 without tank 29 fish 2			
											Mean BW	SD	Range	
											1.88	0.328324	1.38	2.58
2003	1	50.0	5	20	3	M	4.53	0.07	1.57					
2903	1	50.0	8	29	3	M	3.12	0.03	0.97					
3003	1	50.0	8	30	3	M	2.95	0.03	1.03					
4503	1	50.0	12	45	3	M	3.71	0.07	1.92	M				
4703	1	50.0	12	47	3	M	4.26	0.07	1.67					
											Time 1			
											Mean BW	SD	Range	
											3.71	0.689297	2.95	4.53
701	2	0.0	2	7	1	F	2.98	0.51	20.65					
702	2	0.0	2	7	2	F	2.38	0.24	11.21					
801	2	0.0	2	8	1	F	1.32	0.10	8.20					
802	2	0.0	2	8	2	F	1.43	0.17	13.49					
2101	2	0.0	6	21	1	F	2.05	0.22	12.02					
2102	2	0.0	6	21	2	F	1.94	0.21	12.14					
2201	2	0.0	6	22	1	F	1.89	0.28	17.39					
2202	2	0.0	6	22	2	F	1.97	0.17	9.44					
2401	2	0.0	6	24	1	F	1.59	0.20	14.39					
2402	2	0.0	6	24	2	F	1.51	0.16	11.85					
5501	2	0.0	14	55	1	F	1.77	0.15	9.26	F				
5502	2	0.0	14	55	2	F	1.67	0.31	22.79					
											Time 2			
											Mean BW	SD	Range	
											1.88	0.456638	1.32	2.98
703	2	0.0	2	7	3	M	4.43	0.02	0.45					
803	2	0.0	2	8	3	M	3.20	0.02	0.63					
2103	2	0.0	6	21	3	M	5.29	0.05	0.95					
2203	2	0.0	6	22	3	M	3.24	0.03	0.93					
2403	2	0.0	6	24	3	M	3.45	0.09	2.68	M				
5503	2	0.0	14	55	3	M	2.98	0.03	1.02					
											Time 2			
											Mean BW	SD	Range	
											3.77	0.903122	2.98	5.29

**Table 8.** Gonad-somatic index (GSI) raw data for fathead minnows exposed to atrazine.—Continued

[ID, identifier; wt, weight; g, grams; GSI, gonad-somatic index; F, female; BW, body weight; SD, standard deviation; M, male; ---, no data]

Fish ID	Time	Dose	Row	Tank	Number of fish	Sex	Body wt (g)	Gonad wt (g)	GSI	Sex					
2501	2	0.5	7	25	1	F	2.17	0.22	11.28						
2502	2	0.5	7	25	2	F	1.56	0.21	15.56						
2801	2	0.5	7	28	1	F	2.02	0.27	15.43						
2802	2	0.5	7	28	2	F	1.52	0.12	8.57						
3601	2	0.5	9	36	1	F	2.13	0.35	19.66						
3602	2	0.5	9	36	2	F	1.73	0.16	10.19						
4101	2	0.5	11	41	1	F	1.88	0.24	14.63						
4202	2	0.5	11	42	2	F	2.81	0.60	27.15		Time 2				
4401	2	0.5	11	44	1	F	2.04	0.32	18.60	F	Mean BW	SD	Range		
4402	2	0.5	11	44	2	F	1.69	0.14	9.03		1.96	0.378748	1.52	2.81	
2503	2	0.5	7	25	3	M	4.06	0.04	1.00						
2803	2	0.5	7	28	3	M	3.60	0.03	0.84						
4103	2	0.5	11	41	3	M	3.97	0.03	0.76						
4201	2	0.5	11	42	1	M	2.06	0.02	0.98		Time 2				
4203	2	0.5	11	42	3	M	4.55	0.08	1.79	M	Mean BW	SD	Range		
4403	2	0.5	11	44	3	M	4.56	0.05	1.11		3.80	0.927815	2.06	4.56	
101	2	5.0	1	1	1	F	2.09	0.30	16.76						
102	2	5.0	1	1	2	F	1.52	0.26	20.63						
301	2	5.0	1	3	1	F	1.48	0.06	4.23						
302	2	5.0	1	3	2	F	2.29	0.48	26.52						
901	2	5.0	3	9	2	F	1.14	0.11	10.68						
902	2	5.0	3	9	1	F	1.66	0.20	13.70						
1101	2	5.0	3	11	1	F	1.67	0.30	21.90						
1102	2	5.0	3	11	2	F	1.89	0.41	27.70		Time 2	without tank 49 fish 1			
4901	2	5.0	13	49	1	F	2.16	too small	---	F	Mean BW	SD	Range		
4902	2	5.0	13	49	2	F	1.75	0.29	19.86		1.72	0.341264	1.14	2.29	
103	2	5.0	1	1	3	M	4.27	0.06	1.43						
303	2	5.0	1	3	3	M	7.02	0.12	1.74						
903	2	5.0	3	9	3	M	4.25	0.05	1.19						
1103	2	5.0	3	11	3	M	3.06	0.22	7.75		Time 2				
1203	2	5.0	3	12	3	M	3.22	0.03	0.94	M	Mean BW	SD	Range		
4903	2	5.0	13	49	3	M	3.96	0.07	1.80		4.30	1.429779	3.06	7.02	



**Table 9.** Gonad-somatic index (GSI) raw data and summaries of fathead minnows exposed to atrazine.[GSI, gonad-somatic index; *n*, number; SD, standard deviation; SE, standard error; ---, no data]

Fish identifier	Time	Dose	Row	Tank	Number of fish	Sex	GSI		
1301	0	0.0	4	13	1	F	18.3		
1302	0	0.0	4	13	2	F	12.0		
1401	0	0.0	4	14	1	F	26.8		
1402	0	0.0	4	14	2	F	11.1		
1601	0	0.0	4	16	1	F	18.3		
1602	0	0.0	4	16	2	F	24.2		
3801	0	0.0	10	38	1	F	5.6		
3802	0	0.0	10	38	2	F	13.5	<i>n</i>	12
3901	0	0.0	10	39	1	F	9.5	<b>GSI average</b>	13.7
3902	0	0.0	10	39	2	F	19.0	<b>GSI mean</b>	10.44805
4001	0	0.0	10	40	1	F	5.0	<b>GSI SD</b>	7.879898
4002	0	0.0	10	40	2	F	0.9	<b>GSI SE</b>	2.274731
1303	0	0.0	4	13	3	M	2.1		
1403	0	0.0	4	14	3	M	1.2	<i>n</i>	6
1603	0	0.0	4	16	3	M	1.5	<b>GSI average</b>	1.5
3803	0	0.0	10	38	3	M	2.1	<b>GSI mean</b>	1.414897
3903	0	0.0	10	39	3	M	1.1	<b>GSI SD</b>	0.512092
4003	0	0.0	10	40	3	M	0.9	<b>GSI SE</b>	0.209061
501	1	0.0	2	5	1	F	23.3		
502	1	0.0	2	5	2	F	---	fish was male	
601	1	0.0	2	6	1	F	13.1		
602	1	0.0	2	6	2	F	13.9		
2301	1	0.0	6	23	1	F	8.8		
2302	1	0.0	6	23	2	F	15.8		
5301	1	0.0	14	53	1	F	17.2		
5302	1	0.0	14	53	2	F	14.3	<i>n</i>	11
5401	1	0.0	14	54	1	F	19.4	<b>GSI average</b>	15.5
5402	1	0.0	14	54	2	F	18.1	<b>GSI mean</b>	13.88471
5601	1	0.0	14	56	1	F	3.1	<b>GSI SD</b>	5.961567
5602	1	0.0	14	56	2	F	23.3	<b>GSI SE</b>	1.79748
503	1	0.0	2	5	3	M	1.2		
603	1	0.0	2	6	3	M	1.0	<i>n</i>	6
2303	1	0.0	6	23	3	M	1.3	<b>GSI average</b>	1.1
5303	1	0.0	14	53	3	M	0.9	<b>GSI mean</b>	1.070314
5403	1	0.0	14	54	3	M	1.1	<b>GSI SD</b>	1.050261
5603	1	0.0	14	56	3	M	1.1	<b>GSI SE</b>	1.789402



**Table 9.** Gonad-somatic index (GSI) raw data and summaries of fathead minnows exposed to atrazine.—Continued[GSI, gonad-somatic index; *n*, number; SD, standard deviation; SE, standard error; ---, no data]

Fish identifier	Time	Dose	Row	Tank	Number of fish	Sex	GSI		
2601	1	0.5	7	26	1	F	14.6		
2602	1	0.5	7	26	2	F	24.3		
2701	1	0.5	7	27	1	F	12.0		
2702	1	0.5	7	27	2	F	10.9		
3301	1	0.5	9	33	1	F	17.6		
3302	1	0.5	9	33	2	F	18.4		
3401	1	0.5	9	34	1	F	17.4		
3402	1	0.5	9	34	2	F	9.8	<i>n</i>	12
3501	1	0.5	9	35	1	F	19.3	<b>GSI average</b>	15.4
3502	1	0.5	9	35	2	F	12.4	<b>GSI mean</b>	14.86525
4301	1	0.5	11	43	1	F	13.2	<b>GSI SD</b>	4.179574
4302	1	0.5	11	43	2	F	14.4	<b>GSI SE</b>	1.206539
2603	1	0.5	7	26	3	M	2.1		
2703	1	0.5	7	27	3	M	1.1	<i>n</i>	7
3303	1	0.5	9	33	3	M	1.3	<b>GSI average</b>	1.2
3403	1	0.5	9	34	3	M	0.7	<b>GSI mean</b>	1.176919
3503	1	0.5	9	35	3	M	1.0	<b>GSI SD</b>	0.433166
3603	1	0.5	9	36	3	M	1.5	<b>GSI SE</b>	0.163722
4303	1	0.5	11	43	3	M	1.0		
201	1	5.0	1	2	1	F	17.2		
202	1	5.0	1	2	2	F	12.9		
401	1	5.0	1	4	1	F	8.5		
402	1	5.0	1	4	2	F	13.0		
1001	1	5.0	3	10	1	F	9.1		
1002	1	5.0	3	10	2	F	9.3		
5001	1	5.0	13	50	1	F	11.9		
5002	1	5.0	13	50	2	F	5.9	<i>n</i>	12
5101	1	5.0	13	51	1	F	12.2	<b>GSI average</b>	12.4
5102	1	5.0	13	51	2	F	23.7	<b>GSI mean</b>	11.67637
5201	1	5.0	13	52	1	F	9.7	<b>GSI SD</b>	4.730695
5202	1	5.0	13	52	2	F	15.4	<b>GSI SE</b>	1.365634

**Table 9.** Gonad-somatic index (GSI) raw data and summaries of fathead minnows exposed to atrazine.—Continued[GSI, gonad-somatic index; *n*, number; SD, standard deviation; SE, standard error; ---, no data]

Fish identifier	Time	Dose	Row	Tank	Number of fish	Sex	GSI		
203	1	5.0	1	2	3	M	1.2		
403	1	5.0	1	4	3	M	1.5	<i>n</i>	6
1003	1	5.0	3	10	3	M	1.3	<b>GSI average</b>	1.4
5003	1	5.0	13	50	3	M	1.6	<b>GSI mean</b>	1.381359
5103	1	5.0	13	51	3	M	1.1	<b>GSI SD</b>	0.23772
5203	1	5.0	13	52	3	M	1.7	<b>GSI SE</b>	0.097049
1801	1	50.0	5	18	1	F	11.5		
1802	1	50.0	5	18	2	F	12.2		
2001	1	50.0	5	20	1	F	0.0		left out
2002	1	50.0	5	20	2	F	20.0		
2901	1	50.0	8	29	1	F	14.1		
2902	1	50.0	8	29	2	F	3.9		
3001	1	50.0	8	30	1	F	13.5		
3002	1	50.0	8	30	2	F	19.9	<i>n</i>	11
4501	1	50.0	12	45	1	F	11.9	<b>GSI average</b>	14.1
4502	1	50.0	12	45	2	F	13.3	<b>GSI mean</b>	13.05435
4701	1	50.0	12	47	1	F	19.9	<b>GSI SD</b>	4.716703
4702	1	50.0	12	47	2	F	14.6	<b>GSI SE</b>	1.422139
2003	1	50.0	5	20	3	M	1.6	<i>n</i>	5
2903	1	50.0	8	29	3	M	1.0	<b>GSI average</b>	1.4
3003	1	50.0	8	30	3	M	1.0	<b>GSI mean</b>	1.381367
4503	1	50.0	12	45	3	M	1.9	<b>GSI SD</b>	0.41634
4703	1	50.0	12	47	3	M	1.7	<b>GSI SE</b>	0.186193
701	2	0.0	2	7	1	F	20.6		
702	2	0.0	2	7	2	F	11.2		
801	2	0.0	2	8	1	F	8.2		
802	2	0.0	2	8	2	F	13.5		
2101	2	0.0	6	21	1	F	12.0		
2102	2	0.0	6	21	2	F	12.1		
2201	2	0.0	6	22	1	F	17.4		
2202	2	0.0	6	22	2	F	9.4	<i>n</i>	12
2401	2	0.0	6	24	1	F	14.4	<b>GSI average</b>	13.6
2402	2	0.0	6	24	2	F	11.9	<b>GSI mean</b>	12.94256
5501	2	0.0	14	55	1	F	9.3	<b>GSI SD</b>	4.551483
5502	2	0.0	14	55	2	F	22.8	<b>GSI SE</b>	1.3139

**Table 9.** Gonad-somatic index (GSI) raw data and summaries of fathead minnows exposed to atrazine.—Continued[GSI, gonad-somatic index; *n*, number; SD, standard deviation; SE, standard error; ---, no data]

Fish identifier	Time	Dose	Row	Tank	Number of fish	Sex	GSI			
703	2	0.0	2	7	3	M	0.5			
803	2	0.0	2	8	3	M	0.6	<i>n</i>	6	
2103	2	0.0	6	21	3	M	1.0	GSI average	1.1	
2203	2	0.0	6	22	3	M	0.9	GSI mean	0.94068	
2403	2	0.0	6	24	3	M	2.7	GSI SD	0.798312	
5503	2	0.0	14	55	3	M	1.0	GSI SE	0.32591	
2501	2	0.5	7	25	1	F	11.3			
2502	2	0.5	7	25	2	F	15.6			
2801	2	0.5	7	28	1	F	15.4			
2802	2	0.5	7	28	2	F	8.6			
3601	2	0.5	9	36	1	F	19.7			
3602	2	0.5	9	36	2	F	10.2	<i>n</i>	10	
4101	2	0.5	11	41	1	F	14.6	GSI average	15.0	
4202	2	0.5	11	42	2	F	27.1	GSI mean	14.09959	11 - 42 fish 1 was left out was male
4401	2	0.5	11	44	1	F	18.6	GSI SD	5.743175	
4402	2	0.5	11	44	2	F	9.0	GSI SE	1.816152	
2503	2	0.5	7	25	3	M	1.0			
2803	2	0.5	7	28	3	M	0.8	<i>n</i>	6	
4103	2	0.5	11	41	3	M	0.8	GSI average	1.1	
4201	2	0.5	11	42	1	M	1.0	GSI mean	1.03629	
4203	2	0.5	11	42	3	M	1.8	GSI SD	0.368939	
4403	2	0.5	11	44	3	M	1.1	GSI SE	0.150619	
101	2	5.0	1	1	1	F	16.8			
102	2	5.0	1	1	2	F	20.6			
301	2	5.0	1	3	1	F	4.2			
302	2	5.0	1	3	2	F	26.5			
901	2	5.0	3	9	2	F	10.7			
902	2	5.0	3	9	1	F	13.7	<i>n</i>	9	
1101	2	5.0	3	11	1	F	21.9	GSI average	18.0	
1102	2	5.0	3	11	2	F	27.7	GSI mean	15.98943	
4901	2	5.0	13	49	1	F	---	GSI SD	7.547326	male
4902	2	5.0	13	49	2	F	19.9	GSI SE	2.515775	

**Table 9.** Gonad-somatic index (GSI) raw data and summaries of fathead minnows exposed to atrazine.—Continued[GSI, gonad-somatic index; *n*, number; SD, standard deviation; SE, standard error; ---, no data]

Fish identifier	Time	Dose	Row	Tank	Number of fish	Sex	GSI		
103	2	5.0	1	1	3	M	1.4		
303	2	5.0	1	3	3	M	1.7	<i>n</i>	6
903	2	5.0	3	9	3	M	1.2	<b>GSI average</b>	1.4
1103	2	5.0	3	11	3	M	1.6	<b>GSI mean</b>	1.413905
1203	2	5.0	3	12	3	M	0.9	<b>GSI SD</b>	0.333423
4903	2	5.0	13	49	3	M	1.8	<b>GSI SE</b>	0.136119
1701	2	50.0	5	17	1	F	23.4		
1702	2	50.0	5	17	2	F	22.0		
1901	2	50.0	5	19	1	F	21.1		
1902	2	50.0	5	19	2	F	---		
3101	2	50.0	8	31	1	F	11.5		
3201	2	50.0	8	32	1	F	21.2		
3202	2	50.0	8	32	2	F	5.7	<i>n</i>	10
4601	2	50.0	12	46	1	F	21.2	<b>GSI average</b>	15.4
4602	2	50.0	12	46	2	F	10.7	<b>GSI mean</b>	13.65973
4801	2	50.0	12	48	1	F	5.4	<b>GSI SD</b>	7.052108
4802	2	50.0	12	48	2	F	12.2	<b>GSI SE</b>	2.230072
1703	2	50.0	5	17	3	M	1.1		
1803	2	50.0	5	18	3	M	1.0	<i>n</i>	7
1903	2	50.0	5	19	3	M	1.4	<b>GSI average</b>	1.5
3103	2	50.0	8	31	3	M	1.7	<b>GSI mean</b>	1.408342
3203	2	50.0	8	32	3	M	1.9	<b>GSI SD</b>	0.674566
4603	2	50.0	12	46	3	M	2.8	<b>GSI SE</b>	0.254962
4803	2	50.0	12	48	3	M	0.8		

**Table 10.** Abnormal gonad histology counts and comments for female fathead minnows exposed to atrazine.

[µg ATR/L, micrograms atrazine per liter]

Identifier	Time	µg ATR/L	Atresia	Number of females	Number of fish with atresia	Other	Number of fish	Comments
2-5	1	0	few	1	1			2 males in this tank, not used in analysis.
2-6	1	0	no	2	0			
2-7	2	0	few	2	1			
2-8	2	0	few	2	1			
6-21	2	0	no	2	0			
6-22	2	0	no	2	0			
6-23	1	0	few	2	1			
6-24	2	0	few	2	2			
14-53	1	0	few	2	2			
14-54	1	0	no	2	0			
14-55	2	0	no	2	0			
14-56	1	0	no	1	0			Only 1 female for histo, not used in analysis.
9-33	1	0.5	few	2	2			
9-34	1	0.5	no	1	0			
9-35	1	0.5	no	2	0			
9-36	2	0.5	few	2	1			
11-41	2	0.5	few	1	1			
11-42	2	0.5	few	1	1			2 males in this tank, not used in analysis.
11-43	1	0.5	few	2	2			
11-44	2	0.5	few	2	2			
7-25	2	0.5	no	2	0			
7-26	1	0.5	few	2	1			
7-27	1	0.5	few	2	1	follicle cyst	1	
7-28	2	0.5	heavy	2	1			
1-1	2	5	few	2	1			
1-2	1	5	few	2	2			
1-3	2	5	few	2	1			
1-4	1	5	few	2	1			
3-9	2	5	no	2	0			
3-10	1	5	no	2	0			
3-11	2	5	heavy	2	2			
3-12	2	5						No histology on females, not used in analysis.
13-49	2	5	few	2	2	undifferentiated germ cells	1	
13-50	1	5	few	1	2	undifferentiated germ cells	1	
13-51	1	5	few	2	1			
13-52	1	5	no	2	0			
8-32	2	50	few	2	1			
12-45	1	50	few	2	1			

**Table 10.** Abnormal gonad histology counts and comments for female fathead minnows exposed to atrazine.—Continued

[µg ATR/L, micrograms atrazine per liter]

Identifier	Time	µg ATR/L	Atresia	Number of females	Number of fish with atresia	Other	Number of fish	Comments
12-46	2	50	no	2	0			
12-47	1	50	few	2	1			
12-48	2	50	few	2	1			
5-17	2	50	few	2	2			
5-18	1	50	few	2	2	follicle cyst	1	
5-19	2	50	no	2	0			
5-20	1	50	few	1	1	follicle cyst	1	
8-29	1	50	few	1	1	undifferentiated germ cells	1	
8-30	1	50	no	2	0			
8-31	2	50	heavy	1	1	follicle cyst	1	

**Table 11.** Abnormal gonad histology counts and comments for male fathead minnows exposed to atrazine.

[fhm, fathead minnow; µg/L, micrograms per liter]

Male stages fhm 2004 atrazine								
Time	Identifier	0 µg/L	Identifier	0.5 µg/L	Identifier	5.0 µg/L	Identifier	50 µg/L
0	4-16	Normal						
0	4-13	Normal						
0	10-39	Normal						
0	10-38	Normal						
1	14-54	Fat pyknosis	9-35	Mineralization pyknosis	1-4	Mineralization	8-29	Normal.
1	2-5A	Normal	11-43	Mineralization	1-2	Mineralization	12-45	Normal.
1	2-5B	Normal						
1	2-6	Mineralization pyknosis	7-27	Mineralization syncytia	3-10	Normal	12-47	Mineralization.
1	14-53	Normal	9-33	Normal	13-50	Testicular oocytes mineralization granulomatus inflammation	5-18	Normal.
1	6-23	Mineralization pyknosis	9-34	Normal	13-51	Normal	5-20	Normal.
1	14-56	Normal	7-26	Syncytia	13-52	Syncytia	8-30	Syncytia.
2	14-55	Normal	7-28	Normal	3-9	Normal	12-46	Normal.
2	2-7	Mineralization	11-44	Normal	3-11	Syncytia	12-48	Normal.
2	6-21	Granulomatus inflammation	11-42A	Syncytia	3-12	Normal	5-17	Normal.
2	6-22	Normal	11-42B	Normal	1-3	Normal	5-19	Normal.
2	6-24	Normal	7-25	Normal	13-49	Normal	8-31	Normal.
2	2-8	Mineralization	9-36	Syncytia			8-32	Mineralization.
			11-41	Normal				

**Table 12.** Atrazine daily measurements in each exposure tank during fathead minnow exposures to atrazine.

[&lt;MDL, less than method detection limit]

Aquaria			Checked dkn 8/6/07	Checked dkn 8/6/07	no Ohmicron data tapes found	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07
	Date of sampling		7/28/2004	8/2/2004	8/5/2004	8/9/2004	8/12/2004	8/16/2004	8/19/2004	8/23/2004
	Exposure day sampled		2	7	10	14	17	21	24	28
	Date of analysis		7/30/04 A and B	8/2/04 A and B	8/6/2004 A and B	8/9/04 A and B	8/12/2004	8/16/2004	8/20/2004	8/27/2004
Concentration (milligrams per liter)										
1-1	5.00		5.31	1.66	2.58	9.11	0.67	8.35	7.55	4.19
1-2	5.00		5.00	1.62	2.28	7.74				
1-3	5.00		3.42	2.01	2.38	7.43	0.86	7.35	7.88	4.09
1-4	5.00		6.12	1.84	2.92	8.28				
2-5	0.00		<MDL	<MDL	<MDL	<MDL				
2-6	0.00		<MDL	<MDL	<MDL	0.06				
2-7	0.00		<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
2-8	0.00		<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
3-9	5.00		5.81	1.92	2.50	8.86	0.60	7.28	7.11	4.39
3-10	5.00		4.99	2.05	2.56	7.70				
3-11	5.00		3.37	1.58	2.38	9.09	0.65	7.66	8.28	4.59
3-12	5.00		4.95	2.27	2.52	7.29	0.96	7.17	7.14	4.17
5-17	50.00		56.68	30.64	23.00	56.39	30.95	57.07	60.50	48.08
5-18	50.00		47.45	43.19	31.40	54.38				
5-19	50.00		56.52	30.64	32.80	57.38	42.86	70.23	54.83	51.30
5-20	50.00		36.99	36.01	34.60	66.81				
6-21	0.00		<MDL	<MDL	<MDL	<MDL	<MDL	0.06	0.10	<MDL
6-22	0.00		<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	0.07	<MDL
6-23	0.00		<MDL	<MDL	<MDL	<MDL				
6-24	0.00		<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
7-25	0.50		<MDL	0.17	0.39	0.54	<MDL	0.40	0.43	0.70
7-26	0.50		<MDL	0.55	0.64	0.56				
7-27	0.50		0.05	0.33	0.41	0.49				
7-28	0.50		0.09	0.33	0.57	0.51	<MDL	0.28	0.57	0.68
8-29	50.00		49.22	31.80	31.40	65.36				
8-30	50.00		34.15	33.66	42.20	65.36				



**Table 12.** Atrazine daily measurements in each exposure tank during fathead minnow exposures to atrazine.—Continued

[&lt;MDL, less than method detection limit]

Aquaria			Checked dkn 8/6/07	Checked dkn 8/6/07	no Ohmicron data tapes found	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07
	Date of sampling		7/28/2004	8/2/2004	8/5/2004	8/9/2004	8/12/2004	8/16/2004	8/19/2004	8/23/2004
	Exposure day sampled		2	7	10	14	17	21	24	28
	Date of analysis		7/30/04 A and B	8/2/04 A and B	8/6/2004 A and B	8/9/04 A and B	8/12/2004	8/16/2004	8/20/2004	8/27/2004
Concentration (milligrams per liter)										
8-31	50.00		50.09	31.52	33.60		28.60	57.07	65.63	48.65
8-32	50.00		4.12	34.69	38.20	62.47	20.99	59.99	60.76	48.22
9-33	0.50		0.08	0.36	0.59	0.57				
9-34	0.50		0.03	0.30	0.51	0.55				
9-35	0.50		<MDL	0.31	0.39	0.43				
9-36	0.50		0.11	0.40	0.50	0.50	<MDL	0.32	0.41	0.66
11-41	0.50		0.08	0.18	0.43	0.55	<MDL	0.43	0.41	0.63
11-42	0.50		0.07	0.29	0.54	0.58	<MDL	0.38	0.26	0.73
11-43	0.50		0.08	0.62	0.41	0.52				
11-44	0.50		<MDL	0.35	0.37	0.47	<MDL	0.36	0.39	0.64
12-45	50.00		56.84	38.18	44.00	64.94				
12-46	50.00		133.94	29.15	41.00	66.45	29.65	60.82	68.91	44.89
12-47	50.00		48.10	27.54	35.20	64.65				
12-48	50.00		50.09	26.73	45.40	52.79	28.33	55.33	60.76	49.07
13-49	5.00		5.29	1.79	3.20	9.38	0.80	8.35	8.28	4.22
13-50	5.00		4.69	1.74	3.28	8.12				
13-51	5.00		4.72	1.83	3.14	8.05				
13-52	5.00		5.20	2.35	1.54	8.33				
14-53	0.00		<MDL	<MDL	<MDL	<MDL				
14-54	0.00		<MDL	<MDL	<MDL	<MDL				
14-55	0.00		<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
14-56	0.00		<MDL	<MDL	<MDL	<MDL				

**Table 13.** Atrazine water concentrations and summary statistics during fathead minnow exposures.[Yellow shaded rows indicate assayed in duplicate. Blue shaded rows indicate 0.025 (one-half mean method detection limit) was used for calculations. SD, standard deviation; *n*, number; SE, standard error]

Aquaria		Checked dkn 8/6/07	Checked dkn 8/6/07	no Ohmicron data tapes found	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07
	Date of sampling	7/28/2004	8/2/2004	8/5/2004	8/9/2004	8/12/2004	8/16/2004	8/19/2004	8/23/2004
	Exposure day sampled	2	7	10	14	17	21	24	28
	Date of analysis	7/30/04 A and B	8/2/04 A and B	8/6/2004 A and B	8/9/04 A and B	8/12/2004	8/16/2004	8/20/2004	8/27/2004
Concentration (milligrams per liter)									
1-1	5.00	5.31	1.66	2.58	9.11	0.67	8.35	7.55	4.19
1-2	5.00	5.00	1.62	2.28	7.74				
1-3	5.00	3.42	2.01	2.38	7.43	0.86	7.35	7.88	4.09
1-4	5.00	6.12	1.84	2.92	8.28				
2-5	0.00	0.03	0.03	0.03	0.03				
2-6	0.00	0.03	0.03	0.03	0.06				
2-7	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2-8	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3-9	5.00	5.81	1.92	2.50	8.86	0.60	7.28	7.11	4.39
3-10	5.00	4.99	2.05	2.56	7.70				
3-11	5.00	3.37	1.58	2.38	9.09	0.65	7.66	8.28	4.59
3-12	5.00	4.95	2.27	2.52	7.29	0.96	7.17	7.14	4.17
5-17	50.00	56.68	30.64	23.00	56.39	30.95	57.07	60.50	48.08
5-18	50.00	47.45	43.19	31.40	54.38				
5-19	50.00	56.52	30.64	32.80	57.38	42.86	70.23	54.83	51.30
5-20	50.00	36.99	36.01	34.60	66.81				
6-21	0.00	0.03	0.03	0.03	0.03	0.03	0.06	0.10	0.03
6-22	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.07	0.03
6-23	0.00	0.03	0.03	0.03	0.03				
6-24	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
7-25	0.50	0.03	0.17	0.39	0.54	0.03	0.40	0.43	0.70
7-26	0.50	0.03	0.55	0.64	0.56				
7-27	0.50	0.06	0.33	0.41	0.49				
7-28	0.50	0.09	0.33	0.57	0.51	0.03	0.28	0.57	0.68
8-29	50.00	49.22	31.80	31.40	65.36				
8-30	50.00	34.15	33.66	42.20	65.36				

**Table 13.** Atrazine water concentrations and summary statistics during fathead minnow exposures.—Continued[Yellow shaded rows indicate assayed in duplicate. Blue shaded rows indicate 0.025 (one-half mean method detection limit) was used for calculations. SD, standard deviation; *n*, number; SE, standard error]

Aquaria		Checked dkn 8/6/07	Checked dkn 8/6/07	no Ohmicron data tapes found	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07
	Date of sampling	7/28/2004	8/2/2004	8/5/2004	8/9/2004	8/12/2004	8/16/2004	8/19/2004	8/23/2004
	Exposure day sampled	2	7	10	14	17	21	24	28
	Date of analysis	7/30/04 A and B	8/2/04 A and B	8/6/2004 A and B	8/9/04 A and B	8/12/2004	8/16/2004	8/20/2004	8/27/2004
Concentration (milligrams per liter)									
8-31	50.00	50.09	31.52	33.60		28.60	57.07	65.63	48.65
8-32	50.00	4.12	34.69	38.20	62.47	20.99	59.99	60.76	48.22
9-33	0.50	0.08	0.36	0.59	0.57				
9-34	0.50	0.04	0.30	0.51	0.55				
9-35	0.50	0.03	0.31	0.39	0.43				
9-36	0.50	0.11	0.40	0.50	0.50	0.03	0.32	0.41	0.66
11-41	0.50	0.08	0.18	0.43	0.55	0.03	0.43	0.41	0.63
11-42	0.50	0.07	0.29	0.54	0.58	0.03	0.38	0.26	0.73
11-43	0.50	0.08	0.62	0.41	0.52				
11-44	0.50	0.03	0.35	0.37	0.47	0.03	0.36	0.39	0.64
12-45	50.00	56.84	38.18	44.00	64.94				
12-46	50.00	133.94	29.15	41.00	66.45	29.65	60.82	68.91	44.89
12-47	50.00	48.10	27.54	35.20	64.65				
12-48	50.00	50.09	26.73	45.40	52.79	28.33	55.33	60.76	49.07
13-49	5.00	5.29	1.79	3.20	9.38	0.80	8.35	8.28	4.22
13-50	5.00	4.69	1.74	3.28	8.12				
13-51	5.00	4.72	1.83	3.14	8.05				
13-52	5.00	5.20	2.35	1.54	8.33				
14-53	0.00	0.03	0.03	0.03	0.03				
14-54	0.00	0.03	0.03	0.03	0.03				
14-55	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
14-56	0.00	0.03	0.03	0.03	0.03				

**Table 13.** Atrazine water concentrations and summary statistics during fathead minnow exposures.—Continued[Yellow shaded rows indicate assayed in duplicate. Blue shaded rows indicate 0.025 (one-half mean method detection limit) was used for calculations. SD, standard deviation; *n*, number; SE, standard error]

		Checked dkn 8/6/07	Checked dkn 8/6/07	no Ohmicron data tapes found	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07	Checked dkn 8/6/07
Date of sampling		7/28/2004	8/2/2004	8/5/2004	8/9/2004	8/12/2004	8/16/2004	8/19/2004	8/23/2004
Exposure day sampled		2	7	10	14	17	21	24	28
Date of analysis		7/30/04 A and B	8/2/04 A and B	8/6/2004 A and B	8/9/04 A and B	8/12/2004	8/16/2004	8/20/2004	8/27/2004
Concentration (milligrams per liter)									
Dose 0	<b>Geomean</b>	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03
	<b>SD</b>	3.62372E-18	3.62372E-18	3.62372E-18	0.00924705	3.80059E-18	0.012745895	0.031689098	3.80059E-18
	<b><i>n</i></b>	12	12	12	12	6	6	6	6
	<b>SE</b>	1.04608E-18	1.04608E-18	1.04608E-18	0.002669393	1.55158E-18	0.00520349	0.01293702	1.55158E-18
Dose 0.5	<b>Geomean</b>	0.051454028	0.328197119	0.47144821	0.519438732	0.025	0.359150457	0.40341565	0.674833143
	<b>SD</b>	0.03043543	0.12991989	0.091100178	0.043243302	3.80059E-18	0.053892354	0.097882489	0.039328968
	<b><i>n</i></b>	12	12	12	12	6	6	6	6
	<b>SE</b>	0.008785952	0.037504642	0.026298356	0.012483266	1.55158E-18	0.022001461	0.039960359	0.016055984
Dose 5.0	<b>Geomean</b>	4.835460426	1.87472954	2.561113559	8.254369441	0.745654693	7.67558625	7.693397162	4.270758751
	<b>SD</b>	0.818803392	0.24331407	0.482141687	0.696628771	0.140151566	0.534404183	0.524644299	0.185373806
	<b><i>n</i></b>	12	12	12	12	6	6	6	6
	<b>SE</b>	0.236368179	0.070238722	0.139182316	0.201099404	0.057216637	0.218169594	0.214185138	0.075678539
Dose 50	<b>Geomean</b>	42.60590094	32.52259051	35.50917656	61.33369262	29.57340368	59.89773745	61.73960843	48.33241651
	<b>SD</b>	29.6452767	4.684697787	6.399621201	5.243146927	7.097020762	5.371399388	4.850053566	2.065297807
	<b><i>n</i></b>	12	12	12	11	6	6	6	6
	<b>SE</b>	8.557854241	1.352355764	1.847411512	1.58086828	2.897346593	2.192864617	1.980026077	0.843154299

**Table 14.** Atrazine water concentration summaries by tank during fathead minnow exposures.

[Shaded rows indicate means are less than 0.05 parts per billion—less than method detection limit. SD, standard deviation; *n*, number; SE, standard error; ELISA, enzyme-linked immunosorbent assay; <MDL, less than method detection limit]

Exposure day sampled		2	7	10	14	17	21	24	28
Dose 0	<b>Geomean</b>	0.025	0.025	0.025	0.02677865	0.025	0.028615391	0.03745707	0.025
	<b>SD</b>	3.62372E-18	3.62372E-18	3.62372E-18	0.00924705	3.80059E-18	0.012745895	0.031689098	3.80059E-18
	<b><i>n</i></b>	12	12	12	12	6	6	6	6
	<b>SE</b>	1.04608E-18	1.04608E-18	1.04608E-18	0.002669393	1.55158E-18	0.00520349	0.01293702	1.55158E-18
Dose 0.5	<b>Geomean</b>	0.051454028	0.328197119	0.47144821	0.519438732	0.025	0.359150457	0.40341565	0.674833143
	<b>SD</b>	0.03043543	0.12991989	0.091100178	0.043243302	3.80059E-18	0.053892354	0.097882489	0.039328968
	<b><i>n</i></b>	12	12	12	12	6	6	6	6
	<b>SE</b>	0.008785952	0.037504642	0.026298356	0.012483266	1.55158E-18	0.022001461	0.039960359	0.016055984
Dose 5.0	<b>Geomean</b>	4.835460426	1.87472954	2.561113559	8.254369441	0.745654693	7.67558625	7.693397162	4.270758751
	<b>SD</b>	0.818803392	0.24331407	0.482141687	0.696628771	0.140151566	0.534404183	0.524644299	0.185373806
	<b><i>n</i></b>	12	12	12	12	6	6	6	6
	<b>SE</b>	0.236368179	0.070238722	0.139182316	0.201099404	0.057216637	0.218169594	0.214185138	0.075678539
Dose 50	<b>Geomean</b>	42.60590094	32.52259051	35.50917656	61.33369262	29.57340368	59.89773745	61.73960843	48.33241651
	<b>SD</b>	29.6452767	4.684697787	6.399621201	5.243146927	7.097020762	5.371399388	4.850053566	2.065297807
	<b><i>n</i></b>	12	12	12	11	6	6	6	6
	<b>SE</b>	8.557854241	1.352355764	1.847411512	1.58086828	2.897346593	2.192864617	1.980026077	0.843154299
Atrazine dose		Mean (se) ELISA measured atrazine concentration (parts per billion)							
Control		<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
0.5		0.05 (0.03)	0.3 (0.1)	0.5 (0.09)	0.5 (0.04)	<MDL	0.4 (0.05)	0.4 (0.1)	0.7 (0.04)
5		4.8 (0.8)	1.9 (0.2)	2.6 (0.5)	8.3 (0.7)	0.8 (0.1)	7.7 (0.5)	7.7 (0.5)	4.3 (0.2)
50		43 (30)	33 (4.5)	36 (6.4)	61 (5.2)	30 (7.1)	60 (5.4)	62 (4.9)	48 (2.1)

**Table 15.** Estrogen and testosterone concentration measurements in male and female fathead minnows exposed to atrazine.

[Shaded rows indicate missing data; ID, identifier; g, grams; Homog, homogenate; vol, volume; ml, milliliters; wt, weight; %, percent; µL, microliters; E, estrogen; ng/g, nanograms per gram; T, testosterone; QCed E, quality control checked estrogen; QCed T, quality control checked testosterone; E/T, estrogen to testosterone ratio; F, female; M, male; ---, no data]

Row	Tank	Fish ID	Sex	Time	Weight (g)	Homog vol (ml)	Homog wt (g)	Total wt (g)	% of fish tissue	% Methanol	700 µL wt (g)	Tissue wt (g)
1	1	1	F	2	1.0700	3.210	2.542	3.612	29.621	70.379	0.6723	0.20169
1	1	2	F	2	0.8110	2.430	1.925	2.736	29.647	70.353	0.6723	0.20169
1	1	3	M	2	2.9550	8.800	6.970	9.925	29.774	70.226	0.6723	0.20169
1	2	1	F	1	1.3520	4.056	3.212	4.564	29.621	70.379	0.6723	0.20169
1	2	2	F	1	0.9110	2.730	2.162	3.073	29.644	70.356	0.6723	0.20169
1	2	3	M	1	2.4680	7.400	5.861	8.329	29.632	70.368	0.6723	0.20169
1	3	1	F	2	0.9430	2.830	2.241	3.184	29.613	70.387	0.6723	0.20169
1	3	2	F	2	1.2440	3.732	2.956	4.200	29.621	70.379	0.6723	0.20169
1	3	3	M	2	4.9200	14.760	11.690	16.610	29.621	70.379	0.6723	0.20169
1	4	1	F	1	0.7960	2.388	1.891	2.687	29.621	70.379	0.6723	0.20169
1	4	2	F	1	0.6804	2.000	1.584	2.264	30.048	69.952	0.6723	0.20169
1	4	3	M	1	1.8121	5.436	4.305	6.117	29.622	70.378	0.6723	0.20169
2	5	1	F	1	0.9290	2.790	2.210	3.139	29.598	70.402	0.6723	0.20169
2	5	2	F	1	1.2770	3.830	3.033	4.310	29.626	70.374	0.6723	0.20169
2	5	3	M	1	2.3980	7.194	5.698	8.096	29.621	70.379	0.6723	0.20169
2	6	1	F	1	0.8830	2.650	2.099	2.982	29.613	70.387	0.6723	0.20169
2	6	2	F	1	1.0070	3.020	2.392	3.399	29.628	70.372	0.6723	0.20169
2	6	3	M	1	2.6610	7.980	6.320	8.981	29.629	70.371	0.6723	0.20169
2	7	1	F	2	1.5870	4.761	3.771	5.358	29.621	70.379	0.6723	0.20169
2	7	2	F	2	0.7270	2.181	1.727	2.454	29.621	70.379	0.6723	0.20169
2	7	3	M	2	2.9040	8.712	6.900	9.804	29.621	70.379	0.6723	0.20169
2	8	1	F	2	0.7990	2.397	1.898	2.697	29.621	70.379	0.6723	0.20169
2	8	2	F	2	0.8260	2.478	1.963	2.789	29.621	70.379	0.6723	0.20169
3	9	1	F	2	0.9840	2.950	2.336	3.320	29.635	70.365	0.6723	0.20169
3	9	2	F	2	0.6800	2.040	1.616	2.296	29.621	70.379	0.6723	0.20169
3	9	3	M	2	3.0450	9.140	7.239	10.284	29.609	70.391	0.6723	0.20169
3	10	1	F	1	1.4670	4.400	3.485	4.952	29.626	70.374	0.6723	0.20169
3	10	2	F	1	1.9780	5.930	4.697	6.675	29.635	70.365	0.6723	0.20169
3	10	3	M	1	1.1420	3.430	2.717	3.859	29.597	70.403	0.6723	0.20169
3	11	1	F	2	0.8280	2.480	1.964	2.792	29.654	70.346	0.6723	0.20169
3	11	2	F	2	1.1290	3.390	2.685	3.814	29.602	70.398	0.6723	0.20169
3	11	3	M	2	2.1510	6.450	5.108	7.259	29.631	70.369	0.6723	0.20169
3	12	3	M	2	2.2460	6.740	5.338	7.584	29.615	70.385	0.6723	0.20169
4	13	1	F	0	0.7751	2.325	1.841	2.617	29.624	70.376	0.6723	0.20169
4	13	2	F	0	0.9523	2.860	2.265	3.217	29.598	70.402	0.6723	0.20169
4	13	3	M	0	0.9422	2.830	2.241	3.184	29.596	70.404	0.6723	0.20169
4	14	1	F	0	0.8743	2.623	2.077	2.952	29.620	70.380	0.6723	0.20169
4	14	2	F	0	1.3287	3.986	3.157	4.486	29.621	70.379	0.6723	0.20169
4	14	3	M	0	0.7910	2.370	1.877	2.668	29.647	70.353	0.6723	0.20169

Methanol wt (g)	E correction (ng/g)	T correction (ng/g)	QCed E (ng/g)	QCed T (ng/g)	Ratio E/T	Total eggs 2 weeks	Total eggs 4 weeks	Total viable 2 weeks	Total viable 4 weeks
0.47061	4.9291	0.3870	3.4859	0.8922		613	1,152	529	807
0.47061	6.46	0.4697	4.3995	0.7959					
0.47061	0.66	0.4074	0.8979	0.7063					
0.47061	13.44	0.6630	10.8384	1.0361		288		269	
0.47061	7.7410	0.1819	4.1615	0.4864					
0.47061	0.8030	1.2376	0.8490	2.3700					
0.47061	6.8595	0.3115	3.7156	0.8725		220	220	206	206
0.47061	11.5634	0.7219	7.8605	1.0593					
0.47061	0.8181	0.4192	1.0115	0.6975					
0.47061	4.8417	0.1586	3.4725	0.2416		695		624	
0.47061	7.9603	0.2397	5.7548	0.4473					
0.47061	0.7202	0.4049	0.8727	0.7618					
0.47061	4.1724	0.2994	2.4767	0.8412		0		0	
0.47061	1.4145	0.1804	1.2057	0.4810					
0.47061	1.0125	0.8603	1.1586	1.1964					
0.47061	7.2746	0.0660	2.9665	---		53		46	
0.47061	7.2876	0.3061	2.9695	0.4750					
0.47061	0.0889	0.2356	0.1181	0.3337					
0.47061	14.9505	0.3997	11.5913	0.6697		0	0	0	0
0.47061	2.9117	0.2580	2.2959	0.4372					
0.47061	0.7991	0.4396	0.9964	0.7258					
0.47061	5.2074	0.1905	3.7100	0.3288		1,053	1,818	809	1,297
0.47061	3.9834	0.2065	2.9355	0.3694					
0.47061	9.52	0.6102	6.6158	0.9751		769	1,371	593	1,156
0.47061	5.26	0.3332	3.6707	0.5878					
0.47061	0.75	3.4935	0.9774	2.9908					
0.47061	6.5183	0.4871	3.5495	1.2610		68	1,320	47	1,156
0.47061	4.5788	0.3496	2.6567	0.9662					
0.47061	0.8211	0.6751	0.8608	1.5951					
0.47061	12.0084	0.1353	4.0276	0.0658		0	229	0	169
0.47061	4.0932	0.1837	2.1541	0.2086					
0.47061	0.0828	0.27595	0.08280	0.55190					
0.47061	---	0.35473	---	0.70950		286	899	256	646
0.47061	11.1592	0.7151	9.1035	1.1925					
0.47061	10.3913	0.8790	7.2837	1.5990					
0.47061	6.9597	0.1664	4.7104	0.3686					
0.47061	2.4214	0.3716	1.9973	0.7056					
0.47061	4.0125	0.2827	2.9533	0.5393					
0.47061	10.7173	0.4770	7.5780	1.0499					

**Table 15.** Estrogen and testosterone concentration measurements in male and female fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate missing data; ID, identifier; g, grams; Homog, homogenate; vol, volume; ml, milliliters; wt, weight; %, percent; µL, microliters; E, estrogen; ng/g, nanograms per gram; T, testosterone; QCed E, quality control checked estrogen; QCed T, quality control checked testosterone; E/T, estrogen to testosterone ratio; F, female; M, male; ---, no data]

Row	Tank	Fish ID	Sex	Time	Weight (g)	Homog vol (ml)	Homog wt (g)	Total wt (g)	% of fish tissue	% Methanol	700 µL wt (g)	Tissue wt (g)
4	16	1	F	0	0.6306	1.892	1.498	2.129	29.619	70.381	0.6723	0.20169
4	16	2	F	0	1.0014	3.000	2.376	3.377	29.650	70.350	0.6723	0.20169
4	16	3	M	0	1.3817	4.145	3.283	4.665	29.621	70.379	0.6723	0.20169
5	17	3	M	2	1.8280	5.484	4.343	6.171	29.621	70.379	0.6723	0.20169
5	17	1	F	2	1.0540	3.160	2.503	3.557	29.634	70.366	0.6723	0.20169
5	17	2	F	2	2.1350	6.410	5.077	7.212	29.605	70.395	0.6723	0.20169
5	18	1	F	1	0.8870	2.660	2.107	2.994	29.629	70.371	0.6723	0.20169
5	18	2	F	1	0.7360	2.210	1.750	2.486	29.602	70.398	0.6723	0.20169
5	18	3	M	2	1.8570	5.570	4.411	6.268	29.625	70.375	0.6723	0.20169
5	19	1	F	2	0.7970	2.390	1.893	2.690	29.630	70.370	0.6723	0.20169
5	19	2	F	2	1.5300	4.590	3.635	5.165	29.621	70.379	0.6723	0.20169
5	19	3	M	2	1.5310	4.593	3.638	5.169	29.621	70.379	0.6723	0.20169
5	20	1	F	1	1.3620	4.090	3.239	4.601	29.600	70.400	0.6723	0.20169
5	20	2	F	1	1.4100	4.230	3.350	4.760	29.621	70.379	0.6723	0.20169
5	20	3	M	1	2.9760	8.928	7.071	10.047	29.621	70.379	0.6723	0.20169
6	21	3	M	2	3.5198	10.560	8.364	11.883	29.620	70.380	0.6723	0.20169
6	21	1	F	2	1.1190	3.360	2.661	3.780	29.602	70.398	0.6723	0.20169
6	21	2	F	2	1.0520	3.160	2.503	3.555	29.594	70.406	0.6723	0.20169
6	22	2	F	2	1.1700	3.510	2.780	3.950	29.621	70.379	0.6723	0.20169
6	22	3	M	2	2.1430	6.429	5.092	7.235	29.621	70.379	0.6723	0.20169
6	22	1	F	2	1.0780	3.230	2.558	3.636	29.647	70.353	0.6723	0.20169
6	23	1	F	1	0.7710	2.313	1.832	2.603	29.621	70.379	0.6723	0.20169
6	23	2	F	1	1.1570	3.471	2.749	3.906	29.621	70.379	0.6723	0.20169
6	23	3	M	1	2.7240	8.172	6.472	9.196	29.621	70.379	0.6723	0.20169
6	24	3	M	2	2.3558	7.074	5.603	7.958	29.601	70.399	0.6723	0.20169
6	24	1	F	2	0.8170	2.450	1.940	2.757	29.629	70.371	0.6723	0.20169
6	24	2	F	2	0.9890	2.970	2.352	3.341	29.600	70.400	0.6723	0.20169
7	25	1	F	2	1.2620	3.790	3.002	4.264	29.599	70.401	0.6723	0.20169
7	25	2	F	2	0.9110	2.730	2.162	3.073	29.644	70.356	0.6723	0.20169
7	25	3	M	2	2.7950	8.390	6.645	9.440	29.608	70.392	0.6723	0.20169
7	26	1	F	1	1.0760	3.230	2.558	3.634	29.608	70.392	0.6723	0.20169
7	26	2	F	1	1.2300	3.690	2.922	4.152	29.621	70.379	0.6723	0.20169
7	26	3	M	1	2.3710	7.110	5.631	8.002	29.630	70.370	0.6723	0.20169
7	27	3	M	1	2.3635	7.090	5.615	7.979	29.622	70.378	0.6723	0.20169
7	27	1	F	1	1.0920	3.280	2.598	3.690	29.595	70.405	0.6723	0.20169
7	27	2	F	1	1.5320	4.600	3.643	5.175	29.603	70.397	0.6723	0.20169
7	28	1	F	2	1.1026	3.300	2.614	3.716	29.670	70.330	0.6723	0.20169
7	28	2	F	2	0.8209	2.460	1.948	2.769	29.644	70.356	0.6723	0.20169
7	28	3	M	2	2.5200	7.560	5.988	8.508	29.621	70.379	0.6723	0.20169



Methanol wt (g)	E correction (ng/g)	T correction (ng/g)	QCed E (ng/g)	QCed T (ng/g)	Ratio E/T	Total eggs 2 weeks	Total eggs 4 weeks	Total viable 2 weeks	Total viable 4 weeks
0.47061	5.2187	0.5622	3.7174	0.9969					
0.47061	8.4901	0.3583	6.2190	0.6822					
0.47061	0.5415	0.5039	0.7190	0.9147					
0.47061	0.3690	0.1081	0.5483	0.0774		0	0	0	0
0.47061	5.7940	0.2838	3.2073	0.8000					
0.47061	0.4217	0.9423	0.5602	1.9924					
0.47061	2.7372	0.1190	1.7385	0.0091		0		0	
0.47061	4.6993	0.1726	2.3217	0.1786					
0.47061	0.0335	0.2573	---	0.3801					
0.47061	1.4400	0.4880	1.4479	0.7902		693	1,386	592	1,084
0.47061	8.1333	1.8298	5.2628	1.9503					
0.47061	0.5124	0.7297	0.7437	1.0674					
0.47061	0.8360	0.4154	1.0256	0.6922		365		237	
0.47061	0.0636	0.6510	0.0501	0.9835					
0.47061	0.8814	0.5625	1.0609	0.8824					
0.47061	0.5484	0.3802	0.8171	0.8794		881	1,605	751	1,113
0.47061	5.0630	0.2728	2.8733	0.7700					
0.47061	10.3637	0.3727	5.6835	1.0199					
0.47061	5.6323	0.1668	3.9937	0.2649		383	810	249	547
0.47061	0.4306	0.1565	0.6127	0.2354					
0.47061	3.7388	0.5532	2.2856	1.3855					
0.47061	4.7277	0.5833	3.2693	0.9069		609		535	
0.47061	10.3655	1.5163	6.8564	1.7325					
0.47061	1.0817	1.1707	1.2081	1.4679					
0.47061	0.8290	0.3879	0.9509	0.7335		596	1,614	497	1,387
0.47061	5.11	0.4286	3.5850	0.7377					
0.47061	9.50	0.2631	6.5990	0.4599					
0.47061	2.1675	0.22173	2.16750	0.44350		375	535	323	453
0.47061	3.2042	0.61895	3.20420	1.23790					
0.47061	0.0040	0.21446	0.00400	0.42890					
0.47061	2.0083	0.12411	2.00830	0.24820		1,107		147	
0.47061	3.9036	0.36623	3.90360	0.73250					
0.47061	0.0829	0.38829	0.08290	0.77660					
0.47061	0.7694	0.3257	1.0118	0.7717		846		670	
0.47061	8.2649	0.5452	4.4398	1.3709					
0.47061	7.3270	0.2010	3.9488	0.5524					
0.47061	11.7954	0.2129	8.6369	0.5055		1,030	1,725	419	571
0.47061	5.1544	0.1163	3.6152	0.1889					
0.47061	1.4513	0.1409	1.4996	0.2826					

**Table 15.** Estrogen and testosterone concentration measurements in male and female fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate missing data; ID, identifier; g, grams; Homog, homogenate; vol, volume; ml, milliliters; wt, weight; %, percent; µL, microliters; E, estrogen; ng/g, nanograms per gram; T, testosterone; QCed E, quality control checked estrogen; QCed T, quality control checked testosterone; E/T, estrogen to testosterone ratio; F, female; M, male; ---, no data]

Row	Tank	Fish ID	Sex	Time	Weight (g)	Homog vol (ml)	Homog wt (g)	Total wt (g)	% of fish tissue	% Methanol	700 µL wt (g)	Tissue wt (g)
8	29	1	F	1	0.9499	2.850	2.257	3.207	29.619	70.381	0.6723	0.20169
8	29	2	F	1	1.5505	4.652	3.684	5.235	29.619	70.381	0.6723	0.20169
8	29	3	M	1	2.0780	6.230	4.934	7.012	29.634	70.366	0.6723	0.20169
8	30	1	F	1	1.0000	3.000	2.376	3.376	29.621	70.379	0.6723	0.20169
8	30	2	F	1	0.9090	2.730	2.162	3.071	29.598	70.402	0.6723	0.20169
8	30	3	M	1	1.9340	5.800	4.594	6.528	29.628	70.372	0.6723	0.20169
8	31	1	F	2	1.3470	4.041	3.200	4.547	29.621	70.379	0.6723	0.20169
8	31	3	M	2	2.2390	6.717	5.320	7.559	29.621	70.379	0.6723	0.20169
8	32	1	F	2	1.4317	4.300	3.406	4.837	29.597	70.403	0.6723	0.20169
8	32	2	F	2	1.2736	3.820	3.025	4.299	29.625	70.375	0.6723	0.20169
8	32	3	M	2	4.0700	12.210	9.670	13.740	29.621	70.379	0.6723	0.20169
9	33	1	F	1	1.0030	3.000	2.376	3.379	29.683	70.317	0.6723	0.20169
9	33	2	F	1	1.0441	3.130	2.479	3.523	29.636	70.364	0.6723	0.20169
9	33	3	M	1	2.1630	6.490	5.140	7.303	29.618	70.382	0.6723	0.20169
9	34	1	F	1	1.3170	3.950	3.128	4.445	29.626	70.374	0.6723	0.20169
9	34	2	F	1	1.2460	3.740	2.962	4.208	29.610	70.390	0.6723	0.20169
9	34	3	M	1	2.8130	8.439	6.684	9.497	29.621	70.379	0.6723	0.20169
9	35	1	F	1	0.6910	2.070	1.639	2.330	29.651	70.349	0.6723	0.20169
9	35	2	F	1	0.8470	2.540	2.012	2.859	29.629	70.371	0.6723	0.20169
9	35	3	M	1	2.0530	6.160	4.879	6.932	29.617	70.383	0.6723	0.20169
9	36	1	F	2	1.1830	3.550	2.812	3.995	29.615	70.385	0.6723	0.20169
9	36	2	F	2	0.8190	2.460	1.948	2.767	29.595	70.405	0.6723	0.20169
9	36	3	M	1	3.1200	9.360	7.413	10.533	29.621	70.379	0.6723	0.20169
10	38	3	M	0	1.2170	3.365	2.665	3.882	31.349	68.651	0.6723	0.20169
10	38	1	F	0	1.2145	3.640	2.883	4.097	29.641	70.359	0.6723	0.20169
10	38	2	F	0	1.2770	3.830	3.033	4.310	29.626	70.374	0.6723	0.20169
10	39	1	F	0	1.0020	3.010	2.384	3.386	29.593	70.407	0.6723	0.20169
10	39	2	F	0	1.3760	4.128	3.269	4.645	29.621	70.379	0.6723	0.20169
10	39	3	M	0	1.2290	3.690	2.922	4.151	29.604	70.396	0.6723	0.20169
10	40	1	F	0	0.8530	2.560	2.028	2.881	29.613	70.387	0.6723	0.20169
10	40	2	F	0	1.2300	3.690	2.922	4.152	29.621	70.379	0.6723	0.20169
10	40	3	M	0	0.8100	2.430	1.925	2.735	29.621	70.379	0.6723	0.20169
11	41	1	F	2	1.1250	3.380	2.677	3.802	29.590	70.410	0.6723	0.20169
11	41	3	M	2	2.5540	7.660	6.067	8.621	29.626	70.374	0.6723	0.20169
11	42	1	F	2	1.4870	4.461	3.533	5.020	29.621	70.379	0.6723	0.20169
11	42	2	F	2	1.5390	4.670	3.699	5.238	29.383	70.617	0.6723	0.20169
11	42	3	M	2	3.1600	9.480	7.508	10.668	29.621	70.379	0.6723	0.20169
11	43	1	F	1	1.1230	3.370	2.669	3.792	29.615	70.385	0.6723	0.20169
11	43	2	F	1	2.5860	7.760	6.146	8.732	29.615	70.385	0.6723	0.20169

Methanol wt (g)	E correction (ng/g)	T correction (ng/g)	QCed E (ng/g)	QCed T (ng/g)	Ratio E/T	Total eggs 2 weeks	Total eggs 4 weeks	Total viable 2 weeks	Total viable 4 weeks
0.47061	8.2632	0.0851	6.0166	---		497		445	
0.47061	1.2787	0.0608	1.2814	---					
0.47061	0.61	1.0140	0.8530	1.3871					
0.47061	4.3333	0.06755	4.33330	0.13510		204		155	
0.47061	1.8593	0.08992	1.85930	0.17980					
0.47061	0.0990	0.51854	0.09900	1.03710					
0.47061	1.1682	0.4482	1.2684	0.7375		916	970	805	824
0.47061	0.6842	1.7023	0.9012	1.8638					
0.47061	10.4634	0.4547	7.3478	1.0125		0	358	0	268
0.47061	5.0339	0.2083	3.5459	0.4928					
0.47061	0.7900	0.6974	1.0286	1.3735					
0.47061	5.2774	0.2010	3.6864	0.4724		484		419	
0.47061	3.1910	0.1555	2.5149	0.3330					
0.47061	0.7327	0.6299	0.8017	1.5200					
0.47061	8.1315	0.3881	4.3679	1.0547		356		116	
0.47061	9.1367	0.4857	4.9290	1.2582					
0.47061	0.9596	1.0574	1.1199	1.3735					
0.47061	11.4157	0.1786	3.8986	0.1951		688		557	
0.47061	12.2061	0.3403	4.0706	0.5349					
0.47061	0.0709	0.3361	0.0645	0.5279					
0.47061	8.3674	0.4073	3.2203	0.6413		326	591	5	6
0.47061	17.6119	0.4383	5.2425	0.6863					
0.47061	0.0433	0.2317	---	0.3251					
0.47061	0.5979	0.2639	0.7695	0.5003					
0.47061	10.4427	1.4718	7.3294	2.2005					
0.47061	3.27	0.2400	2.5419	0.4129					
0.47061	11.45	0.5083	8.4176	0.8480					
0.47061	2.15	0.4366	1.9089	0.7492					
0.47061	7.53	0.3865	5.1095	0.6744					
0.47061	12.4384	0.2582	9.3408	0.6212					
0.47061	6.8948	0.1170	4.6688	0.1916					
0.47061	7.7760	0.1410	5.2521	0.2828					
0.47061	0.0337	0.0894	---	---		0	18	0	7
0.47061	0.0385	0.3472	---	0.5466					
0.47061	0.3294	0.1173	0.5042	0.1103		433	433	343	343
0.47061	5.4841	0.4142	3.0645	1.1117					
0.47061	0.7223	0.5214	0.7945	1.3266					
0.47061	5.81	0.2654	4.0021	0.4644		574		345	
0.47061	1.65	1.0197	1.6081	1.3922					

**Table 15.** Estrogen and testosterone concentration measurements in male and female fathead minnows exposed to atrazine.—Continued

[Shaded rows indicate missing data; ID, identifier; g, grams; Homog, homogenate; vol, volume; ml, milliliters; wt, weight; %, percent; µL, microliters; E, estrogen; ng/g, nanograms per gram; T, testosterone; QCed E, quality control checked estrogen; QCed T, quality control checked testosterone; E/T, estrogen to testosterone ratio; F, female; M, male; ---, no data]

Row	Tank	Fish ID	Sex	Time	Weight (g)	Homog vol (ml)	Homog wt (g)	Total wt (g)	% of fish tissue	% Methanol	700 µL wt (g)	Tissue wt (g)
11	43	3	M	1	3.2230	9.670	7.659	10.882	29.619	70.381	0.6723	0.20169
11	44	1	F	2	1.1490	3.450	2.732	3.881	29.603	70.397	0.6723	0.20169
11	44	2	F	2	0.9340	2.800	2.218	3.152	29.636	70.364	0.6723	0.20169
11	44	3	M	2	3.0800	9.240	7.318	10.398	29.621	70.379	0.6723	0.20169
12	45	1	F	1	1.1760	3.528	2.794	3.970	29.621	70.379	0.6723	0.20169
12	45	2	F	1	1.1960	3.590	2.843	4.039	29.609	70.391	0.6723	0.20169
12	45	3	M	1	2.2470	6.740	5.338	7.585	29.624	70.376	0.6723	0.20169
12	46	1	F	2	0.9610	2.880	2.281	3.242	29.643	70.357	0.6723	0.20169
12	46	3	M	2	2.5820	7.750	6.138	8.720	29.610	70.390	0.6723	0.20169
12	47	1	F	1	1.0290	3.090	2.447	3.476	29.601	70.399	0.6723	0.20169
12	47	2	F	1	1.0810	3.240	2.566	3.647	29.640	70.360	0.6723	0.20169
12	47	3	M	1	2.8750	8.630	6.835	9.710	29.609	70.391	0.6723	0.20169
12	48	1	F	2	0.9890	2.967	2.350	3.339	29.621	70.379	0.6723	0.20169
12	48	2	F	2	1.0360	3.110	2.463	3.499	29.607	70.393	0.6723	0.20169
12	48	3	M	2	2.4460	7.340	5.813	8.259	29.615	70.385	0.6723	0.20169
13	49	1	F	2	1.4040	4.210	3.334	4.738	29.631	70.369	0.6723	0.20169
13	49	2	F	2	0.9580	2.870	2.273	3.231	29.650	70.350	0.6723	0.20169
13	49	3	M	2	2.8400	8.520	6.748	9.588	29.621	70.379	0.6723	0.20169
13	50	3	M	1	3.4967	10.490	8.308	11.805	29.621	70.379	0.6723	0.20169
13	50	1	F	1	0.9940	2.982	2.362	3.356	29.621	70.379	0.6723	0.20169
13	50	2	F	1	1.7090	3.127	2.477	4.186	40.831	59.169	0.6723	0.20169
13	51	1	F	1	0.5950	1.785	1.414	2.009	29.621	70.379	0.6723	0.20169
13	51	2	F	1	1.4690	4.407	3.490	4.959	29.621	70.379	0.6723	0.20169
13	51	3	M	1	2.8190	8.460	6.700	9.519	29.613	70.387	0.6723	0.20169
13	52	1	F	1	1.4175	4.250	3.366	4.784	29.633	70.367	0.6723	0.20169
13	52	2	F	1	1.4603	4.380	3.469	4.929	29.625	70.375	0.6723	0.20169
13	52	3	M	1	2.1000	6.300	4.990	7.090	29.621	70.379	0.6723	0.20169
14	53	1	F	1	0.9117	2.740	2.170	3.082	29.584	70.416	0.6723	0.20169
14	53	3	M	1	1.4936	4.480	3.548	5.042	29.625	70.375	0.6723	0.20169
14	53	2	F	1	0.6960	2.090	1.655	2.351	29.601	70.399	0.6723	0.20169
14	54	1	F	1	1.1090	3.330	2.637	3.746	29.602	70.398	0.6723	0.20169
14	54	2	F	1	0.8140	2.440	1.932	2.746	29.638	70.362	0.6723	0.20169
14	54	3	M	1	2.4500	7.350	5.821	8.271	29.621	70.379	0.6723	0.20169
14	55	1	F	2	0.9900	2.970	2.352	3.342	29.621	70.379	0.6723	0.20169
14	55	2	F	2	1.0560	3.170	2.511	3.567	29.608	70.392	0.6723	0.20169
14	55	3	M	2	1.6950	5.090	4.031	5.726	29.600	70.400	0.6723	0.20169
14	56	1	F	1	1.1810	3.540	2.804	3.985	29.639	70.361	0.6723	0.20169
14	56	2	F	1	0.8740	2.620	2.075	2.949	29.637	70.363	0.6723	0.20169
14	56	3	M	1	0.9810	2.940	2.328	3.309	29.642	70.358	0.6723	0.20169

Methanol wt (g)	E correction (ng/g)	T correction (ng/g)	QCed E (ng/g)	QCed T (ng/g)	Ratio E/T	Total eggs 2 weeks	Total eggs 4 weeks	Total viable 2 weeks	Total viable 4 weeks
0.47061	1.01	0.4281	1.1760	0.7369					
0.47061	1.8621	0.03062	1.86210	0.06120		216	427	183	335
0.47061	2.6272	0.05680	2.62720	0.11360					
0.47061	0.1298	0.19235	0.12980	0.38470					
0.47061	12.1174	0.6066	8.3700	0.9339		357		182	
0.47061	21.8012	0.2266	6.1780	0.3132					
0.47061	0.4079	0.1534	0.5908	0.1230					
0.47061	4.8805	0.02290	4.88050	0.04580		0	806	0	411
0.47061	0.0879	0.05778	0.08790	0.11560					
0.47061	2.1439	0.27710	2.14390	0.55420		627		526	
0.47061	2.5090	0.29109	2.50900	0.58220					
0.47061	0.0416	0.15193	0.04160	0.30390					
0.47061	3.2701	0.1166	2.5045	0.1079		444	446	379	379
0.47061	11.5318	0.2251	6.4904	0.6300					
0.47061	0.8748	0.6269	0.8954	1.5149					
0.47061	2.10	0.4803	1.8746	0.8105		333	549	140	306
0.47061	8.85	0.5721	6.0722	0.9291					
0.47061	0.8534	0.5257	0.8817	1.3348					
0.47061	0.3755	0.1330	0.5553	0.1633		32		28	
0.47061	10.2548	0.2345	6.7696	0.3914					
0.47061	3.1362	0.2867	2.4171	0.4896					
0.47061	1.8149	0.2131	1.6274	0.3855		447		149	
0.47061	1.1092	0.3422	1.1648	0.6534					
0.47061	0.61	0.4764	0.8534	0.8051					
0.47061	6.6353	0.0837	4.5043	0.0409		723		111	
0.47061	10.3797	0.1716	7.2734	0.3851					
0.47061	0.5677	0.5214	0.8354	1.1211					
0.47061	10.1150	0.1707	7.0425	0.3823		244		156	
0.47061	0.5726	0.1945	0.8400	0.4539					
0.47061	11.1146	0.2398	7.4696	0.4019					
0.47061	11.4018	0.4135	3.8956	0.6505		250		189	
0.47061	9.4018	0.49454	9.40180	0.98910					
0.47061	0.1524	0.69307	0.15240	1.38610					
0.47061	9.9255	0.2491	3.5709	0.3629		1,344	2,102	704	1,266
0.47061	10.2527	0.2144	3.6434	0.2854					
0.47061	0.1621	1.6317	0.2777	1.7006					
0.47061	1.02	0.3787	1.1839	0.6621		724		629	
0.47061	7.40	0.5935	5.0219	0.9551					
0.47061	1.38	2.0497	1.4315	2.1586					

## References Cited

Tillitt, D.E., Papoulias, D.M., Whyte, J.J., and Richter, C.A.,  
2010, Atrazine reduces reproduction in fathead minnow  
(*Pimephales promelas*): Aquatic Toxicology, v. 99, no. 2,  
p. 149–159.

Publishing support provided by:  
Rolla Publishing Service Center

For more information concerning this publication, contact:  
Director, USGS Columbia Environmental Research Center  
4200 New Haven Road  
Columbia, MO 65201  
(573) 875–5399

Or visit the Columbia Environmental Research Center Web site at:  
<http://www.cerc.usgs.gov/>



