

ILLINOIS NATURAL HISTORY SURVEY  
 CENTER FOR AQUATIC ECOLOGY  
 2002 CREEL SURVEY RESULTS

**2002 KASKASKIA RIVER**  
**ATHENS TO EVANSVILLE**  
 924 ACRES  
 REGION 4, DISTRICT 17

STRATIFICATION SUMMARY:

Day creel only.  
 Results cover 03/15/2002 through 10/31/2002  
 Year periods stratified.  
 Fishing modes (boat vs. shore) stratified.  
 Day types (weekday vs. weekend/holiday) stratified.  
 Day periods (morning, midday, and afternoon) stratified.

SAMPLING RATIO: 485/693 = 70.0%

NUMBER OF INTERVIEWS: 1259

Table 1. Total fishing effort, by fishing mode and day type.

| FISHING MODE | DAYTYPE | ANGLER-HOURS | 95% CI             | HOURS/ACRE | 95% CI       | % EFF |
|--------------|---------|--------------|--------------------|------------|--------------|-------|
| BOAT         | WEEKDAY | 22358        | 16931-27785 ( 24%) | 24         | 18-30 ( 24%) | 7%    |
|              | HOLIDAY | 17347        | 14349-20345 ( 17%) | 19         | 16-22 ( 17%) | 17%   |
|              | TOTAL   | 39705        | 33505-45905 ( 16%) | 43         | 36-50 ( 16%) | 11%   |
| SHORE        | WEEKDAY | 746          | 398-1095 ( 47%)    | 1          | 0-1 ( 47%)   | 8%    |
|              | HOLIDAY | 793          | 470-1116 ( 41%)    | 1          | 1-1 ( 41%)   | 15%   |
|              | TOTAL   | 1539         | 1064-2014 ( 31%)   | 2          | 1-2 ( 31%)   | 11%   |
| BOAT & SHORE | WEEKDAY | 23104        | 17666-28542 ( 24%) | 25         | 19-31 ( 24%) | 7%    |
|              | HOLIDAY | 18140        | 15125-21156 ( 17%) | 20         | 16-23 ( 17%) | 17%   |
|              | TOTAL   | 41244        | 35026-47463 ( 15%) | 45         | 38-51 ( 15%) | 11%   |

Table 2. Total fishing harvest and harvest rates, in numbers of fish.

| # HARVESTED | 95% CI            | #/HOUR | 95% CI            | #/HA  | #/ACRE | SPECIES              |
|-------------|-------------------|--------|-------------------|-------|--------|----------------------|
| 12848       | 9223-16472 ( 28%) | .135   | .102-.169 ( 25%)  | 34.37 | 13.91  | All species          |
| 27          | 0-98 (257%)       | .000   | .000-.001 (257%)  | 0.07  | 0.03   | Blue catfish         |
| 35          | 0-84 (143%)       | .001   | .000-.001 (144%)  | 0.09  | 0.04   | Bighead carp         |
| 532         | 0-1120 (111%)     | .007   | .000-.015 (113%)  | 1.42  | 0.58   | Black crappie        |
| 667         | 88-1246 ( 87%)    | .011   | .000-.028 (159%)  | 1.79  | 0.72   | Bluegill             |
|             |                   | ****   | NOT RECORDED **** |       |        | Bowfin               |
| 4           | 0-11 (206%)       | .000   | .000-.000 (206%)  | 0.01  | 0.00   | Unidentified buffalo |
| 25          | 0-55 (124%)       | .001   | .000-.002 (129%)  | 0.07  | 0.03   | Carp                 |
| 7366        | 5150-9582 ( 30%)  | .077   | .053-.101 ( 31%)  | 19.71 | 7.98   | Channel catfish      |
| 147         | 59-235 ( 60%)     | .002   | .000-.003 ( 86%)  | 0.39  | 0.16   | Flathead catfish     |
| 78          | 15-140 ( 81%)     | .000   | .000-.001 ( 82%)  | 0.21  | 0.08   | Freshwater drum      |
|             |                   | ****   | NOT RECORDED **** |       |        | Gizzard shad         |
| 14          | 0-34 (148%)       | .000   | .000-.000 (185%)  | 0.04  | 0.01   | Largemouth bass      |
|             |                   | ****   | NOT RECORDED **** |       |        | Shortnose gar        |
|             |                   | ****   | NOT RECORDED **** |       |        | Warmouth             |
| 827         | 315-1338 ( 62%)   | .005   | .002-.008 ( 59%)  | 2.21  | 0.89   | White bass           |
| 3128        | 1631-4625 ( 48%)  | .032   | .015-.050 ( 55%)  | 8.37  | 3.39   | White crappie        |
|             |                   | ****   | NOT RECORDED **** |       |        | Yellow bass          |

Table 3. Total fishing harvest and harvest rates, in kilograms.

| KG HARVESTED | 95% CI           | KG/HOUR | 95% CI            | KG/HA | AVE KG | SPECIES              |
|--------------|------------------|---------|-------------------|-------|--------|----------------------|
| 7453         | 5347-9560 ( 28%) | .067    | .055-.079 ( 18%)  | 19.94 | 0.580  | All species          |
| 49           | 0-176 (257%)     | .000    | .000-.002 (245%)  | 0.13  | 1.798  | Blue catfish         |
|              |                  | ****    | NOT RECORDED **** |       |        | Bighead carp         |
| 185          | 0-425 (130%)     | .002    | .000-.006 (129%)  | 0.49  | 0.348  | Black crappie        |
| 65           | 8-122 ( 87%)     | .001    | .000-.002 (133%)  | 0.17  | 0.098  | Bluegill             |
|              |                  | ****    | NOT RECORDED **** |       |        | Bowfin               |
|              |                  | ****    | NOT RECORDED **** |       |        | Unidentified buffalo |
| 34           | 0-81 (141%)      | .001    | .000-.002 (129%)  | 0.09  | 1.373  | Carp                 |
| 5601         | 3858-7344 ( 31%) | .049    | .039-.059 ( 20%)  | 14.99 | 0.760  | Channel catfish      |
| 422          | 110-734 ( 74%)   | .003    | .001-.006 ( 73%)  | 1.13  | 2.872  | Flathead catfish     |
| 127          | 14-240 ( 89%)    | .001    | .000-.002 (108%)  | 0.34  | 1.643  | Freshwater drum      |
|              |                  | ****    | NOT RECORDED **** |       |        | Gizzard shad         |
| 21           | 0-56 (167%)      | .000    | .000-.000 (206%)  | 0.06  | 1.537  | Largemouth bass      |
|              |                  | ****    | NOT RECORDED **** |       |        | Shortnose gar        |
|              |                  | ****    | NOT RECORDED **** |       |        | Warmouth             |
| 210          | 100-320 ( 52%)   | .001    | .001-.002 ( 57%)  | 0.56  | 0.254  | White bass           |
| 739          | 402-1076 ( 46%)  | .008    | .004-.012 ( 56%)  | 1.98  | 0.236  | White crappie        |
|              |                  | ****    | NOT RECORDED **** |       |        | Yellow bass          |

Table 4. Total fishing harvest and harvest rates, in pounds.

| LB HARVESTED | 95% CI      |        | LB/HOUR | 95% CI            | LB/ACRE | AVE LB | SPECIES              |
|--------------|-------------|--------|---------|-------------------|---------|--------|----------------------|
| 16432        | 11787-21077 | ( 28%) | .148    | .121-.175 ( 18%)  | 17.79   | 1.279  | All species          |
| 109          | 0-388       | (257%) | .001    | .000-.004 (245%)  | 0.12    | 3.965  | Blue catfish         |
|              |             |        | ****    | NOT RECORDED **** |         |        | Bighead carp         |
| 407          | 0-936       | (130%) | .005    | .000-.012 (129%)  | 0.44    | 0.766  | Black crappie        |
| 144          | 18-269      | ( 87%) | .002    | .000-.004 (133%)  | 0.16    | 0.215  | Bluegill             |
|              |             |        | ****    | NOT RECORDED **** |         |        | Bowfin               |
|              |             |        | ****    | NOT RECORDED **** |         |        | Unidentified buffalo |
| 74           | 0-179       | (141%) | .002    | .000-.005 (129%)  | 0.08    | 3.026  | Carp                 |
| 12348        | 8507-16190  | ( 31%) | .107    | .085-.129 ( 20%)  | 13.37   | 1.676  | Channel catfish      |
| 930          | 241-1618    | ( 74%) | .007    | .002-.013 ( 73%)  | 1.01    | 6.333  | Flathead catfish     |
| 281          | 32-530      | ( 89%) | .002    | .000-.005 (108%)  | 0.30    | 3.621  | Freshwater drum      |
|              |             |        | ****    | NOT RECORDED **** |         |        | Gizzard shad         |
| 47           | 0-124       | (167%) | .000    | .000-.001 (206%)  | 0.05    | 3.389  | Largemouth bass      |
|              |             |        | ****    | NOT RECORDED **** |         |        | Shortnose gar        |
|              |             |        | ****    | NOT RECORDED **** |         |        | Warmouth             |
| 463          | 221-705     | ( 52%) | .003    | .001-.005 ( 57%)  | 0.50    | 0.561  | White bass           |
| 1629         | 886-2372    | ( 46%) | .018    | .008-.028 ( 56%)  | 1.76    | 0.521  | White crappie        |
|              |             |        | ****    | NOT RECORDED **** |         |        | Yellow bass          |

Table 5. Total fishing catch and catch rates, in numbers of fish.  
Catch includes both harvested and released fish.

| # CAUGHT | 95% CI             | #/HOUR | 95% CI           | #/HA  | #/ACRE | SPECIES              |
|----------|--------------------|--------|------------------|-------|--------|----------------------|
| 30972    | 23672-38272 ( 24%) | .283   | .234-.332 ( 17%) | 82.86 | 33.53  | All species          |
| 34       | 0-104 (201%)       | .000   | .000-.001 (183%) | 0.09  | 0.04   | Blue catfish         |
| 51       | 0-110 (115%)       | .001   | .000-.001 (136%) | 0.14  | 0.06   | Bighead carp         |
| 770      | 2-1538 (100%)      | .012   | .001-.023 ( 93%) | 2.06  | 0.83   | Black crappie        |
| 1986     | 977-2994 ( 51%)    | .029   | .008-.050 ( 72%) | 5.31  | 2.15   | Bluegill             |
| 33       | 6-59 ( 80%)        | .000   | .000-.000 ( 84%) | 0.09  | 0.04   | Bowfin               |
| 4        | 0-11 (206%)        | .000   | .000-.000 (206%) | 0.01  | 0.00   | Unidentified buffalo |
| 36       | 4-69 ( 89%)        | .001   | .000-.002 (106%) | 0.10  | 0.04   | Carp                 |
| 12110    | 8512-15708 ( 30%)  | .128   | .096-.161 ( 25%) | 32.40 | 13.11  | Channel catfish      |
| 147      | 59-235 ( 60%)      | .002   | .000-.003 ( 86%) | 0.39  | 0.16   | Flathead catfish     |
| 1507     | 1123-1892 ( 25%)   | .014   | .008-.021 ( 43%) | 4.03  | 1.63   | Freshwater drum      |
| 2        | 0-6 (209%)         | .000   | .000-.001 (209%) | 0.01  | 0.00   | Gizzard shad         |
| 4954     | 3596-6313 ( 27%)   | .024   | .018-.030 ( 26%) | 13.25 | 5.36   | Largemouth bass      |
| 94       | 25-163 ( 73%)      | .001   | .000-.002 ( 83%) | 0.25  | 0.10   | Shortnose gar        |
| 3        | 0-9 (213%)         | .000   | .000-.000 (212%) | 0.01  | 0.00   | Warmouth             |
| 2589     | 1702-3476 ( 34%)   | .016   | .011-.022 ( 33%) | 6.93  | 2.80   | White bass           |
| 6643     | 3020-10267 ( 55%)  | .055   | .030-.079 ( 44%) | 17.77 | 7.19   | White crappie        |
| 8        | 0-25 (206%)        | .000   | .000-.000 (206%) | 0.02  | 0.01   | Yellow bass          |

Table 6. Total fishing catch and catch rates, in kilograms.

| KG CAUGHT | 95% CI            | KG/HOUR | 95% CI            | KG/HA | AVE KG | SPECIES              |
|-----------|-------------------|---------|-------------------|-------|--------|----------------------|
| 11968     | 9383-14553 ( 22%) | .097    | .083-.111 ( 15%)  | 32.02 | 0.386  | All species          |
| 53        | 0-175 (227%)      | .001    | .000-.002 (219%)  | 0.14  | 1.550  | Blue catfish         |
|           |                   | ****    | NOT RECORDED **** |       |        | Bighead carp         |
| 197       | 0-445 (126%)      | .003    | .000-.006 (121%)  | 0.53  | 0.256  | Black crappie        |
| 131       | 53-210 ( 59%)     | .002    | .000-.003 ( 76%)  | 0.35  | 0.066  | Bluegill             |
| 6         | 1-11 ( 78%)       | .000    | .000-.000 ( 80%)  | 0.02  | 0.187  | Bowfin               |
|           |                   | ****    | NOT RECORDED **** |       |        | Unidentified buffalo |
| 53        | 1-105 ( 98%)      | .001    | .000-.002 (103%)  | 0.14  | 1.456  | Carp                 |
| 6210      | 4277-8143 ( 31%)  | .055    | .044-.066 ( 20%)  | 16.62 | 0.513  | Channel catfish      |
| 422       | 110-734 ( 74%)    | .003    | .001-.006 ( 73%)  | 1.13  | 2.872  | Flathead catfish     |
| 1174      | 727-1621 ( 38%)   | .010    | .005-.014 ( 46%)  | 3.14  | 0.779  | Freshwater drum      |
| 0         | 0-0 (209%)        | .000    | .000-.000 (209%)  | 0.00  | 0.037  | Gizzard shad         |
| 2219      | 1524-2914 ( 31%)  | .010    | .007-.013 ( 28%)  | 5.94  | 0.448  | Largemouth bass      |
| 66        | 10-122 ( 85%)     | .001    | .000-.001 ( 85%)  | 0.18  | 0.702  | Shortnose gar        |
| 0         | 0-1 (213%)        | .000    | .000-.000 (213%)  | 0.00  | 0.063  | Warmouth             |
| 497       | 326-668 ( 34%)    | .003    | .002-.004 ( 36%)  | 1.33  | 0.192  | White bass           |
| 938       | 491-1384 ( 48%)   | .009    | .004-.014 ( 52%)  | 2.51  | 0.141  | White crappie        |
| 0         | 0-1 (206%)        | .000    | .000-.000 (206%)  | 0.00  | 0.046  | Yellow bass          |

Table 7. Total fishing catch and catch rates, in pounds.

| LB CAUGHT | 95% CI             | LB/HOUR | 95% CI            | LB/ACRE | AVE LB | SPECIES              |
|-----------|--------------------|---------|-------------------|---------|--------|----------------------|
| 26385     | 20686-32084 ( 22%) | .214    | .182-.246 ( 15%)  | 28.57   | 0.852  | All species          |
| 118       | 0-385 (227%)       | .001    | .000-.004 (219%)  | 0.13    | 3.417  | Blue catfish         |
|           |                    | ****    | NOT RECORDED **** |         |        | Bighead carp         |
| 435       | 0-982 (126%)       | .006    | .000-.013 (121%)  | 0.47    | 0.565  | Black crappie        |
| 290       | 118-462 ( 59%)     | .004    | .001-.007 ( 76%)  | 0.31    | 0.146  | Bluegill             |
| 14        | 3-24 ( 78%)        | .000    | .000-.000 ( 80%)  | 0.01    | 0.411  | Bowfin               |
|           |                    | ****    | NOT RECORDED **** |         |        | Unidentified buffalo |
| 117       | 3-231 ( 98%)       | .003    | .000-.005 (103%)  | 0.13    | 3.211  | Carp                 |
| 13691     | 9430-17953 ( 31%)  | .121    | .097-.144 ( 20%)  | 14.82   | 1.131  | Channel catfish      |
| 930       | 241-1618 ( 74%)    | .007    | .002-.013 ( 73%)  | 1.01    | 6.333  | Flathead catfish     |
| 2588      | 1602-3574 ( 38%)   | .022    | .012-.032 ( 46%)  | 2.80    | 1.717  | Freshwater drum      |
| 0         | 0-0 (209%)         | .000    | .000-.000 (209%)  | 0.00    | 0.081  | Gizzard shad         |
| 4893      | 3360-6425 ( 31%)   | .022    | .016-.028 ( 28%)  | 5.30    | 0.988  | Largemouth bass      |
| 145       | 22-269 ( 85%)      | .001    | .000-.002 ( 85%)  | 0.16    | 1.549  | Shortnose gar        |
| 0         | 0-1 (213%)         | .000    | .000-.000 (212%)  | 0.00    | 0.140  | Warmouth             |
| 1096      | 718-1474 ( 34%)    | .007    | .004-.009 ( 36%)  | 1.19    | 0.423  | White bass           |
| 2067      | 1083-3051 ( 48%)   | .020    | .010-.031 ( 52%)  | 2.24    | 0.311  | White crappie        |
| 1         | 0-3 (206%)         | .000    | .000-.000 (206%)  | 0.00    | 0.100  | Yellow bass          |

Table 8. Hours per completed trip and supplementary questions for all trips.

|                           | MEAN | 95% CI    |       | MIN | MAX | #SAMPLES |
|---------------------------|------|-----------|-------|-----|-----|----------|
| HOURS PER COMPLETED TRIP* |      |           |       |     |     |          |
| BOAT                      | 4.1  | 3.9-4.3   | ( 5%) | 0.5 | 9.5 | 329      |
| SHORE                     | 1.1  | 1.1-1.1   | ( 0%) | 0.2 | 3.0 | 10       |
| BOAT & SHORE              | 4.0  | 3.8-4.2   | ( 6%) | 0.2 | 9.5 | 339      |
| MILES TRAVELED            | 28.7 | 27.3-30.2 | ( 5%) | 1   | 500 | 927      |
| SUCCESS RATING (1-10)     | 3.2  | 3.0-3.4   | ( 5%) | 1   | 10  | 927      |

\*192 samples were from split interviews of completed trips.  
31.9% of all 1062 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 0 out of 1062 interviews with illegal harvests.

Table 9. Frequency distribution of angler party size for all interviews.

| PARTY SIZE:      | 1   | 2   | 3  | 4  | 5 | 6 | 7 | 8 | 9 | 10+ |
|------------------|-----|-----|----|----|---|---|---|---|---|-----|
| BOAT INTERVIEWS  | 267 | 670 | 42 | 11 |   |   |   |   |   |     |
| SHORE INTERVIEWS | 21  | 33  | 12 | 4  | 2 |   |   |   |   |     |

Table 10. Number of interviews (and %) per species sought for all interviews.

|              |     |                      |
|--------------|-----|----------------------|
| 168 ( 15.8%) | ANY | All species          |
| 3 ( 0.3%)    | BLG | Bluegill             |
| 1 ( 0.1%)    | CAP | Carp                 |
| 375 ( 35.3%) | CAT | Unidentified catfish |
| 4 ( 0.4%)    | CCF | Channel catfish      |
| 131 ( 12.3%) | CRP | Crappie spp.         |
| 378 ( 35.6%) | LMB | Largemouth bass      |
| 2 ( 0.2%)    | WHB | White bass           |

Table 11. Number of anglers with a given harvest &amp; release for completed trips

| # OF FISH:       | 0   | 1   | 2  | 3  | 4  | 5  | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15+ |
|------------------|-----|-----|----|----|----|----|---|---|---|---|----|----|----|----|----|-----|
| Blue catfish     |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 583 | 3   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| RELEASE          | 586 | -   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| Bighead carp     |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 584 | 2   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| RELEASE          | 582 | 4   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| Black crappie    |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 579 | 2   | 1  | -  | -  | -  | 3 | 1 | - | - | -  | -  | -  | -  | -  | -   |
| RELEASE          | 584 | 2   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| Bluegill         |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 579 | -   | 1  | 2  | -  | -  | - | - | 2 | - | -  | -  | -  | -  | -  | 2   |
| RELEASE          | 568 | 7   | 2  | 4  | -  | -  | 3 | - | - | - | 2  | -  | -  | -  | -  | -   |
| Bowfin           |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 586 | -   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| RELEASE          | 580 | 6   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| Carp             |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 585 | 1   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| RELEASE          | 586 | -   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| Channel catfish  |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 456 | 23  | 36 | 22 | 17 | 15 | 4 | 8 | 4 | 1 | -  | -  | -  | -  | -  | -   |
| RELEASE          | 504 | 35  | 17 | 15 | 3  | 9  | 3 | - | - | - | -  | -  | -  | -  | -  | -   |
| Flathead catfish |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 570 | 16  | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| RELEASE          | 586 | -   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| Freshwater drum  |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 582 | 4   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| RELEASE          | 513 | 45  | 21 | 5  | 2  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| Gizzard shad     |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 586 | -   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| RELEASE          | 584 | 2   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| Largemouth bass  |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 585 | 1   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| RELEASE          | 423 | 102 | 25 | 26 | 3  | 3  | 2 | - | - | - | -  | 1  | -  | -  | 1  | -   |
| Shortnose gar    |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |
| HARVEST          | 586 | -   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| RELEASE          | 578 | 8   | -  | -  | -  | -  | - | - | - | - | -  | -  | -  | -  | -  | -   |
| White bass       |     |     |    |    |    |    |   |   |   |   |    |    |    |    |    |     |

