

ILLINOIS NATURAL HISTORY SURVEY
 CENTER FOR AQUATIC ECOLOGY
 2005 CREEL SURVEY RESULTS

2005 APPLE CANYON
 450 ACRES
 REGION 1, DISTRICT 1

STRATIFICATION SUMMARY:

Day creel only.
 Results cover 04/01/2005 through 10/31/2005
 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: 295/642 = 46.0%

NUMBER OF INTERVIEWS: 2540

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 | 22119 | 19670-24567 (11%) | 49 | 44-55 (11%) | 12% |
| | HOLIDAY | 23242 | 20343-26140 (12%) | 52 | 45-58 (12%) | 24% |
| | TOTAL | 45360 | 41566-49155 (8%) | 101 | 92-109 (8%) | 18% |
| SHORE | WEEKDAY | 4696 | 3709-5682 (21%) | 10 | 8-13 (21%) | 8% |
| | HOLIDAY | 4676 | 3959-5394 (15%) | 10 | 9-12 (15%) | 15% |
| | TOTAL | 9372 | 8153-10592 (13%) | 21 | 18-24 (13%) | 11% |
| BOAT & SHORE | WEEKDAY | 26814 | 24174-29454 (10%) | 60 | 54-65 (10%) | 11% |
| | HOLIDAY | 27918 | 24932-30904 (11%) | 62 | 55-69 (11%) | 22% |
| | TOTAL | 54733 | 50747-58718 (7%) | 122 | 113-130 (7%) | 17% |

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

| # HARVESTED | 95% CI | #/HOUR | 95% CI | #/HA | #/ACRE | SPECIES |
|-------------|--------------------|--------|-------------------|--------|--------|-----------------|
| 55736 | 48297-63175 (13%) | .818 | .701-.935 (14%) | 306.05 | 123.86 | All species |
| 6 | 0-18 (207%) | .000 | .000-.001 (207%) | 0.03 | 0.01 | Black bullhead |
| 1635 | 1044-2225 (36%) | .028 | .016-.040 (43%) | 8.98 | 3.63 | Black crappie |
| 48633 | 41745-55521 (14%) | .712 | .602-.821 (15%) | 267.05 | 108.07 | Bluegill |
| | | **** | NOT RECORDED **** | | | Carp |
| 20 | 0-45 (129%) | .000 | .000-.001 (140%) | 0.11 | 0.04 | Channel catfish |
| | | **** | NOT RECORDED **** | | | Golden shiner |
| 128 | 34-222 (73%) | .002 | .000-.004 (86%) | 0.70 | 0.28 | Green sunfish |
| 5100 | 4321-5880 (15%) | .070 | .057-.082 (18%) | 28.01 | 11.33 | Largemouth bass |
| | | **** | NOT RECORDED **** | | | Muskellunge |
| 27 | 0-78 (186%) | .001 | .000-.002 (169%) | 0.15 | 0.06 | Northern pike |
| | | **** | NOT RECORDED **** | | | Smallmouth bass |
| 187 | 92-283 (51%) | .005 | .000-.010 (132%) | 1.03 | 0.42 | Walleye |
| | | **** | NOT RECORDED **** | | | White crappie |

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

| KG HARVESTED | 95% CI | KG/HOUR | 95% CI | KG/HA | AVE KG | SPECIES |
|--------------|--------------------|---------|-------------------|-------|--------|-----------------|
| 11934 | 10417-13450 (13%) | .174 | .152-.197 (13%) | 65.53 | 0.214 | All species |
| 2 | 0-7 (207%) | .000 | .000-.000 (207%) | 0.01 | 0.397 | Black bullhead |
| 714 | 471-957 (34%) | .012 | .007-.018 (42%) | 3.92 | 0.437 | Black crappie |
| 8186 | 6947-9424 (15%) | .118 | .100-.136 (16%) | 44.95 | 0.168 | Bluegill |
| | | **** | NOT RECORDED **** | | | Carp |
| 17 | 0-37 (124%) | .000 | .000-.001 (139%) | 0.09 | 0.854 | Channel catfish |
| | | **** | NOT RECORDED **** | | | Golden shiner |
| 10 | 3-17 (72%) | .000 | .000-.000 (88%) | 0.06 | 0.079 | Green sunfish |
| 2705 | 2284-3125 (16%) | .036 | .030-.043 (19%) | 14.85 | 0.530 | Largemouth bass |
| | | **** | NOT RECORDED **** | | | Muskellunge |
| 67 | 0-194 (188%) | .002 | .000-.005 (171%) | 0.37 | 2.456 | Northern pike |
| | | **** | NOT RECORDED **** | | | Smallmouth bass |
| 233 | 116-351 (50%) | .005 | .000-.011 (112%) | 1.28 | 1.245 | Walleye |
| | | **** | NOT RECORDED **** | | | White crappie |

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

| LB HARVESTED | 95% CI | LB/HOUR | 95% CI | LB/ACRE | AVE LB | SPECIES |
|--------------|--------------------|---------|-------------------|---------|--------|-----------------|
| 26310 | 22967-29653 (13%) | .384 | .334-.434 (13%) | 58.47 | 0.472 | All species |
| 5 | 0-16 (207%) | .000 | .000-.001 (207%) | 0.01 | 0.876 | Black bullhead |
| 1575 | 1039-2110 (34%) | .027 | .016-.039 (42%) | 3.50 | 0.963 | Black crappie |
| 18046 | 15316-20776 (15%) | .260 | .219-.300 (16%) | 40.10 | 0.371 | Bluegill |
| | | **** | NOT RECORDED **** | | | Carp |
| 37 | 0-82 (124%) | .001 | .000-.001 (139%) | 0.08 | 1.882 | Channel catfish |
| | | **** | NOT RECORDED **** | | | Golden shiner |
| 22 | 6-39 (72%) | .000 | .000-.001 (88%) | 0.05 | 0.175 | Green sunfish |
| 5963 | 5036-6890 (16%) | .080 | .065-.095 (19%) | 13.25 | 1.169 | Largemouth bass |
| | | **** | NOT RECORDED **** | | | Muskellunge |
| 148 | 0-417 (182%) | .004 | .000-.010 (171%) | 0.33 | 5.414 | Northern pike |
| | | **** | NOT RECORDED **** | | | Smallmouth bass |
| 514 | 255-773 (50%) | .012 | .000-.025 (112%) | 1.14 | 2.744 | Walleye |
| | | **** | NOT RECORDED **** | | | White crappie |

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 |
|----------|--------------------|--------|-------------------|--------|--------|-----------------|
| 164702 | 149242-180162(9%) | 2.202 | 2.005-2.400(9%) | 904.40 | 366.00 | All species |
| 6 | 0-18 (207%) | .000 | .000-.001 (207%) | 0.03 | 0.01 | Black bullhead |
| 3916 | 2492-5339 (36%) | .065 | .042-.087 (35%) | 21.50 | 8.70 | Black crappie |
| 81387 | 71389-91385 (12%) | 1.185 | 1.024-1.347(14%) | 446.90 | 180.86 | Bluegill |
| 4 | 0-12 (220%) | .000 | .000-.000 (220%) | 0.02 | 0.01 | Carp |
| 49 | 7-91 (86%) | .001 | .000-.002 (101%) | 0.27 | 0.11 | Channel catfish |
| 8 | 0-20 (152%) | .000 | .000-.000 (190%) | 0.04 | 0.02 | Golden shiner |
| 184 | 80-289 (57%) | .002 | .001-.004 (78%) | 1.01 | 0.41 | Green sunfish |
| 77576 | 69406-85746 (11%) | .926 | .842-1.011(9%) | 425.98 | 172.39 | Largemouth bass |
| 3 | 0-9 (257%) | .000 | .000-.000 (278%) | 0.01 | 0.01 | Muskellunge |
| 461 | 337-585 (27%) | .007 | .004-.009 (40%) | 2.53 | 1.02 | Northern pike |
| 451 | 291-610 (35%) | .006 | .000-.012 (103%) | 2.47 | 1.00 | Smallmouth bass |
| 622 | 472-772 (24%) | .009 | .003-.015 (65%) | 3.42 | 1.38 | Walleye |
| 35 | 0-99 (186%) | .001 | .000-.002 (223%) | 0.19 | 0.08 | White crappie |

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

| KG CAUGHT | 95% CI | KG/HOUR | 95% CI | KG/HA | AVE KG | SPECIES |
|-----------|--------------------|---------|------------------|--------|--------|-----------------|
| 50892 | 45841-55943 (10%) | .631 | .579-.684 (8%) | 279.45 | 0.309 | All species |
| 2 | 0-7 (207%) | .000 | .000-.000 (207%) | 0.01 | 0.397 | Black bullhead |
| 1388 | 1065-1710 (23%) | .023 | .016-.030 (30%) | 7.62 | 0.354 | Black crappie |
| 10365 | 8958-11772 (14%) | .152 | .130-.173 (14%) | 56.91 | 0.127 | Bluegill |
| 20 | 0-64 (218%) | .000 | .000-.000 (218%) | 0.11 | 5.259 | Carp |
| 47 | 12-83 (75%) | .001 | .000-.001 (86%) | 0.26 | 0.968 | Channel catfish |
| 0 | 0-1 (154%) | .000 | .000-.000 (199%) | 0.00 | 0.055 | Golden shiner |
| 13 | 5-21 (59%) | .000 | .000-.000 (82%) | 0.07 | 0.072 | Green sunfish |
| 37379 | 32999-41759 (12%) | .431 | .386-.476 (10%) | 205.25 | 0.482 | Largemouth bass |
| 11 | 0-40 (257%) | .000 | .000-.000 (257%) | 0.06 | 4.383 | Muskellunge |
| 856 | 628-1084 (27%) | .012 | .007-.017 (41%) | 4.70 | 1.859 | Northern pike |
| 245 | 144-346 (41%) | .004 | .000-.008 (113%) | 1.34 | 0.543 | Smallmouth bass |
| 560 | 412-709 (27%) | .008 | .003-.014 (70%) | 3.08 | 0.900 | Walleye |
| 5 | 0-15 (188%) | .000 | .000-.000 (226%) | 0.03 | 0.146 | White crappie |

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

| LB CAUGHT | 95% CI | LB/HOUR | 95% CI | LB/ACRE | AVE LB | SPECIES |
|-----------|----------------------|---------|-------------------|---------|--------|-----------------|
| 112198 | 101063-123333 (10%) | 1.392 | 1.275-1.508 (8%) | 249.33 | 0.681 | All species |
| 5 | 0-16 (207%) | .000 | .000-.001 (207%) | 0.01 | 0.876 | Black bullhead |
| 3059 | 2348-3771 (23%) | .050 | .035-.066 (30%) | 6.80 | 0.781 | Black crappie |
| 22850 | 19748-25952 (14%) | .334 | .287-.381 (14%) | 50.78 | 0.281 | Bluegill |
| 44 | 0-140 (218%) | .000 | .000-.001 (218%) | 0.10 | 11.595 | Carp |
| 104 | 26-183 (75%) | .001 | .000-.002 (86%) | 0.23 | 2.134 | Channel catfish |
| 1 | 0-3 (154%) | .000 | .000-.000 (199%) | 0.00 | 0.121 | Golden shiner |
| 29 | 12-47 (59%) | .000 | .000-.001 (82%) | 0.07 | 0.160 | Green sunfish |
| 82406 | 72750-92062 (12%) | .951 | .852-1.049 (10%) | 183.12 | 1.062 | Largemouth bass |
| 25 | 0-93 (278%) | .000 | .000-.000 (278%) | 0.05 | 9.663 | Muskellunge |
| 1888 | 1385-2391 (27%) | .027 | .016-.039 (41%) | 4.19 | 4.098 | Northern pike |
| 540 | 318-762 (41%) | .008 | .000-.018 (113%) | 1.20 | 1.198 | Smallmouth bass |
| 1235 | 908-1563 (27%) | .019 | .006-.032 (70%) | 2.74 | 1.985 | Walleye |
| 11 | 0-32 (188%) | .000 | .000-.001 (226%) | 0.02 | 0.322 | White crappie |

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

| | MEAN | 95% CI | MIN | MAX | #SAMPLES |
|---------------------------|------|-----------------|-----|-----|----------|
| HOURS PER COMPLETED TRIP* | | | | | |
| BOAT | 4.8 | 4.4-5.1 (6%) | 0.8 | 8.7 | 244 |
| SHORE | 2.5 | 1.7-3.2 (29%) | 0.5 | 9.8 | 33 |
| BOAT & SHORE | 4.5 | 4.2-4.8 (7%) | 0.5 | 9.8 | 277 |
| MILES TRAVELED | 60.6 | 58.2-63.0 (4%) | 1 | 850 | 1918 |
| SUCCESS RATING (1-10) | 4.3 | 4.2-4.4 (2%) | 1 | 10 | 1893 |

*170 samples were from split interviews of completed trips.
11.7% of all 2371 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 14 out of 2371 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 | 519 | 960 | 300 | 100 | 49 | 16 | 10 | | 1 | 1 |
| SHORE INTERVIEWS | 194 | 161 | 46 | 8 | 5 | | 1 | | | |

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

| | | |
|---------------|-----|---|
| 182 (7.7%) | ANY | All species |
| 12 (0.5%) | BLC | Black crappie |
| 841 (35.5%) | BLG | Bluegill |
| 1 (0.0%) | BSS | Black bass spp. |
| 4 (0.2%) | CCF | Channel catfish |
| 53 (2.2%) | CRP | Crappie spp. |
| 1186 (50.0%) | LMB | Largemouth bass |
| 18 (0.8%) | MUE | Muskellunge |
| 8 (0.3%) | NOP | Northern pike |
| 1 (0.0%) | SMB | Smallmouth bass |
| 3 (0.1%) | SUN | Sunfish spp. excluding Crappie and Black Bass |
| 62 (2.6%) | WAE | Walleye |

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

| # OF FISH: | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25+ | |
|-----------------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|
| Black crappie | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HARVEST | 488 | 19 | 8 | - | 1 | - | 3 | - | 1 | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RELEASE | 484 | 23 | 5 | 5 | 1 | 2 | - | 1 | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bluegill | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HARVEST | 405 | 9 | 9 | 3 | 10 | 1 | 5 | 3 | - | 12 | 9 | 7 | 10 | 5 | 5 | 4 | 2 | 5 | 1 | 2 | 1 | 2 | - | - | - | - | 12 |
| RELEASE | 380 | 23 | 15 | 10 | 6 | 5 | 12 | 13 | 10 | - | 22 | 6 | 2 | - | - | 5 | - | - | 4 | - | 3 | 2 | - | - | - | - | 4 |
| Channel catfish | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HARVEST | 522 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RELEASE | 518 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Green sunfish | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HARVEST | 522 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RELEASE | 520 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Largemouth bass | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HARVEST | 450 | 21 | 50 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RELEASE | 78 | 55 | 43 | 59 | 33 | 28 | 26 | 13 | 16 | 15 | 15 | 6 | 11 | 5 | 19 | 4 | 2 | 2 | 6 | 7 | 4 | 3 | 4 | 4 | 4 | 5 | 59 |
| Muskellunge | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HARVEST | 522 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RELEASE | 520 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Northern pike | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HARVEST | 522 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RELEASE | 467 | 55 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Smallmouth bass | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HARVEST | 522 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RELEASE | 506 | 15 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Walleye | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HARVEST | 519 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RELEASE | 497 | 23 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

2005 APPLE CANYON

DAY CREEL

04/01/2005 - 10/31/2005

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

| # OF FISH: | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25+ |
|---------------|-----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| White crappie | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HARVEST | 522 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RELEASE | 520 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

