



2018 Alligator Management Report



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Adult American Alligator in slough off of Arkansas River, Desha County, Arkansas, April 25, 2017.
Photograph by Mark Barbee.

EXECUTIVE SUMMARY

This report presents information on the status of the Arkansas Game and Fish Commission's Alligator Management Program for 2018, in fulfillment of U.S. Fish and Wildlife Service requirements for CITES compliance. This report contains data and/or information on: (1) the number of CITES tags issued and their application; (2) nuisance Alligator occurrences; (3) Alligator harvest data; (4) methods used in determining harvest levels; and (5) post-harvest population survey data.

Eighty one (81) CITES tags were issued to successful Alligator hunters in 2018. The number of nuisance complaints decreased by approximately 8% from 2017 with a total of 63 reports, of which 83% occurred in Alligator Management Zones (AMZs) 1 and 3. AMZs 1, 2 and 3 are the only management zones open to the Alligator sport hunt and a total of 81 Alligators were harvested. Although 168 tags were available for 2018 only 148 permits were issued to qualifying hunters. These hunters in 2018 had a 55% hunter success rate and a slight decrease from the 2017 harvest with a 57% success rate. The harvest sex ratio was 1.6:1 (M:F), a decrease from the 2017 harvest ratio of 1.8:1. There were nine (9) sub-adults (4-6 ft. size class) harvested in 2018 the same as the 2017 season. Males continued to be harvested in greater numbers, comprising 62% of the harvest. Until the 2018 season harvested males (for all harvest years) had consistently been larger in AMZ 1 than those from AMZ 3. The 2018 season harvest resulted in a mean TL of 8.2 ft. (AMZ 1) and 9.2 ft. (AMZ 3). The maximum size harvest record of 13'10" was harvested in AMZ 3 during the 2015 season and continues to be the largest alligator harvested to date.

Harvest quotas are based on population density values, which are generated using the standard metric "number of Alligators observed per mile of survey route" (APM) and the data for this calculation are obtained using replicated spotlight surveys. Post-harvest spotlight survey routes were sampled in April - June 2019. Approximately 75% of all 2019 surveys exhibited a decrease in the APM metric. The pooled mean APM value for the 2018 post-harvest surveys was 11.2 APM, an increase of 2.3 APM from 2017 (8.9 APM). The pooled APM values of long-term survey sites from 2008-2017 range from 5.7 – 11.2, with the greatest difference still observed between the 2011 and 2012 surveys. Arkansas continues to experience wide climatic extremes from severe drought to major flooding over the past few years, which has a direct impact on: (1) the Alligator population, e.g., potential reduction of smaller size classes due to

increased predation/cannibalism during drought conditions; and (2) survey results i.e., major flooding prevents conducting surveys and/or disperses animals thereby decreasing observability rates resulting in reduced APM values. The Alligator population is considered stable at present, with the caveat that significant population fluctuations are occurring as a result of climate extremes. The Alligator Management Team proposes issuance of 147 Alligator sport hunt permits for 2019. Post-harvest population survey data will be closely monitored in the future to ensure that the number of harvest permits is not negatively impacting core populations.

The following is a summary of relevant Alligator management information and data for the 2018 calendar year. This is presented to the U. S. Fish and Wildlife Service to fulfill CITES compliance requirements by providing evidence that management activities have not been detrimental to Arkansas' wild Alligator population.

Alligator Management Zones – The Arkansas Game and Fish Commission (AGFC) established a network of Alligator population management zones (AMZs) in 2007 and has retained these zones to date without any changes (Fig. 1). AMZs 1, 2 and 3 remain open to the Alligator sport hunt, while AMZ 4 and 5 are closed to hunting.

CITES Tags Use – A total of 81 CITES tags were issued in 2018 (Table 1). These tags were issued to successful Alligator sport hunters at the time that their Alligator was verified by AGFC personnel. There were no active Alligator Farmer Permittees in 2018, hence no issuance of CITES tags for farmed Alligators. The AGFC does not allow the collection of wild Alligator eggs or hatchlings for commercial purposes, and all farmed Alligator stocks have historically been obtained as juveniles from legally permitted Alligator farmers in Florida or Louisiana.

Nuisance Occurrences – A total of 63 nuisance Alligator occurrences were recorded from 17 counties within AMZs 1–5 (Table 2). The number of nuisance occurrences in 2018 decreased by approximately 9% from 2017. AMZs 1 and 3 accounted for 81% of all nuisance occurrences. The ranked distribution in terms of number of occurrences remained constant among AMZs in descending order AMZ 1, 3, and 2. The mean annual number of nuisance Alligator reports increased in 2017 to 66.7 (Table 3).

AMZ 1: Hempstead and Miller County had the greatest number (n = 10) of nuisance reports among AMZs and counties; thirteen (13) Alligators were harvested in Miller County (Tables 2 and 4). Lafayette County had the second greatest number (n = 4) and five (5) Alligators were harvested in Lafayette County.

AMZ 3: Arkansas, Chicot, Desha and Drew County had the greatest number (n = 4) of nuisance reports, twenty (20) Alligators were harvested from Arkansas county. Desha and Drew County had the next greatest number (n = 6) of nuisance reports per county.

Alligator Harvest – Arkansas’ twelfth Alligator sport hunt was held during the last two full weekends in September 2018 in AMZ’s 1, 2 and 3. A total of 81 Alligators were harvested out of a possible 148 qualifying permit holders, yielding a 55% hunter success rate. AMZ 1 produced the highest harvest of Alligators in 2018, with a harvest of 42 Alligators; Hempstead and County comprised the majority of those taken (Table 4). AMZ 3 produced the second highest harvest of Alligators in 2018, with a harvest of 39 Alligators; Arkansas County produced the majority of Alligators in 2018 with a harvest of twenty (20) Alligators. Arkansas County consistently produces the greatest number of harvested Alligators (n=20), this is due to the fact that Arkansas County contains more optimal habitat, in terms of areal extent, within the Arkansas River wetland complex than other areas within AMZ 3. Alligators were collectively harvested from eleven (11) counties in both AMZ 1 and AMZ 3 (Table 4).

Harvest Demographics – The 2018 harvest sex ratio was 1.6:1 (M: F) (Table 5). Nine (9) sub-adults [4–≤6 ft. total length (TL)], were harvested in 2018 (Table 4). This is the same as the 2017 sub-adult harvest. The mean TL of all males (n = 50) was 0.1 ft. less than in 2017. Harvested males from AMZ 3 had a slight higher mean TL (Table 6). The mean TL of all females (n = 31) was 0.2 ft. less than in 2017. Males comprised 62% of the harvest in 2018 (64% 2017, 70% 2016, 82% 2015, 69% 2014, 68 % 2013, 77% 2012, 65% 2011, 67% 2010, 58% 2009, 89% 2008 and 57% 2007).

2018 Post-Harvest Population Survey – Spotlight survey routes were conducted during April – June 2018 (survey methods are described in the 2007–2008 annual reports). The 2018 post-harvest survey routes (n = 16; Table 7) when combined with historic data allow for long-term trend assessment. Ten (10) of these localities had harvests in 2018. The Arkansas River

Complex and Hampton Farm listed in Table 7 consist of multiple survey routes in close proximity and are pooled as metapopulations for calculations of the APM metric. These areas consistently produce harvested Alligators.

Approximately 75% of all 2019 surveys (Table 7) exhibited a decrease in the APM metric. While the remaining 25% reflected increased APM's it is a decrease from the 2018 post-harvest survey data where approximately 82% of survey routes exhibited increased APMs. The difference between years can again be attributed to a historical and prolonged high water event during the 2019 surveys, which significantly increased dispersion and decreased observability due to increased aquatic vegetation.

The decrease in APM ($\Delta -12.2$) at Grassy Lake is in contrast to the increase in the APM ($\Delta 39.2$) between 2015 and 2016 surveys. This population fluctuation is likely an effect of an unusual prolonged early year flood event that potentially dispersed the population prior to survey. Only one survey was completed, with no replicate, during the 2019 survey period. This site serves as a control site in AMZ 1 as no hunting has occurred on this site since the initiation of the sport hunt. Grassy Lake continues to harbor the highest density population in the entire state (68.0 APM). The decrease in APM ($\Delta -2.5$) within the Arkansas River Complex was likely influenced by the encroachment of aquatic vegetation and high water levels that may have dispersed alligators out of available open water and into remote shallow areas. Less than optimum weather conditions this year also played a vital role in movement and detectability.

In 2019 only one survey was conducted for each route (table 7). Historically each route had two surveys completed and an average calculated. This new methodology allowed for optimal conditions (weather, water levels and aquatic vegetation growth) to be capitalized.

The pooled mean APM value for all 2019 post-harvest surveys was 8.8, a decrease of 2.4 APM from 2018 (11.2 APM). The 2018 pooled mean is currently the highest to date. The pooled mean APM (2008 – 2019) ranges from 5.9 to 11.2 with the greatest difference observed between the 2011 and 2012 surveys.

Harvest Estimation and Proposed 2019 Harvest – The recommendations for the proposed 2019 Alligator harvest are based on the data generated from the post-harvest population survey. The following parameters were used in determining the 2019 harvest rate: (1) only observations of Alligators ≥ 4 ft. TL were used in calculating the harvest rate and (2) a harvest goal of 4% of

the estimated Alligator population was applied for all surveyed private land and public land localities.

The proposed harvest rate for 2019 will be a maximum of 147 permits. The Alligator Management Team will recommend that no more than 59 harvest tags be issued in AMZ 1: forty five (45) tags will be issued to the public through a randomized computer drawing, fifteen (15) for specific public lands and thirty (30) for private land-at-large; and fourteen (14) tags will be issued directly to private landowners with surveyed populations. A maximum of 5 harvest tags will be issued in AMZ 2. A maximum of 83 harvest tags will be issued in AMZ 3: fifty (50) tags will be issued to the public through a randomized computer drawing, twenty (20) for specific public lands and thirty (30) for private land-at-large; and no more than thirty three (33) tags will be issued directly to private landowners with surveyed populations. All other AMZs will remain closed to the harvest of Alligators.

Future Harvest Rate Recommendations – The recommendations for the 2020 Alligator harvest will be based on the 2019 post-harvest population survey data. A maximum of 200 quota tags may be issued for public and private land hunts. The actual quota number of tags issued may vary based upon 2019 post-harvest survey results. Only Alligators ≥ 4 ft. TL will be used in calculating harvest rates. The harvest rate for all zones will not exceed a maximum of 4% for both private and public land. A variable harvest rate of 2-4% will be applied to future harvest rates if biological or environmental factors (i.e., excessive winter kill die off, drought conditions, etc.) warrant adjustment of the harvest rate.

Table 1. Number of CITES tags issued in 2018. “Harvested” applies to Alligators taken during the sport hunt. There were no active Alligator farmers in 2018.

| Application | <i>N</i> |
|-------------|----------|
| Harvested | 81 |
| Farmed | 0 |
| Total | 81 |

Table 2. Number of nuisance occurrences by Alligator Management Zone (AMZ) and county in 2018.

| AMZ 1 | | AMZ 2 | | AMZ 3 | | AMZ 4 | |
|--------------|----------|-------------|----------|-----------|----------|---------|----------|
| County | <i>N</i> | County | <i>N</i> | County | <i>N</i> | County | <i>N</i> |
| Hempstead | 10 | Hot Springs | 1 | Arkansas | 4 | Lonoke | 4 |
| Howard | 2 | Union | 2 | Ashley | 3 | Monroe | 2 |
| Lafayette | 4 | | | Chicot | 4 | Prairie | 3 |
| Little River | 3 | | | Desha | 4 | | |
| Miller | 10 | | | Drew | 4 | | |
| Sevier | 1 | | | Jefferson | 2 | | |
| Total | 30 | | 3 | | 21 | | 9 |

Table 3. Number of nuisance Alligator complaints statewide by year, includes data from AMZs 4 and 5 for some years. Note: data for 2000 and 2001 are incomplete as data collection was not coordinated at that time.

| Year | <i>N</i> | Mean | Year | <i>N</i> | Mean |
|------|----------|------|------|----------|------|
| 2000 | 11 | – | 2011 | 75 | 65.2 |
| 2001 | 32 | – | 2012 | 52 | 64 |
| 2002 | 64 | 64 | 2013 | 78 | 65.2 |
| 2003 | 58 | 61 | 2014 | 60 | 64.8 |
| 2004 | 50 | 57.3 | 2015 | 83 | 66.1 |
| 2005 | 47 | 54.8 | 2016 | 73 | 66.6 |
| 2006 | 36 | 51 | 2017 | 69 | 66.7 |
| 2007 | 71 | 54.3 | 2018 | 63 | 66.5 |
| 2008 | 61 | 55.3 | | | |
| 2009 | 108 | 61.9 | | | |
| 2010 | 82 | 64.4 | | | |

Table 4. Data for 2018 Alligator harvest. (TAPT = Temporary Alligator Possession Tag)

| CITES | AMZ | County | Capture | Harvest | Sex | TL |
|---------|-----|--------------|---------|------------|--------|---------|
| 18-0131 | 1 | Little River | Harpoon | Shotgun | Female | 7'9" |
| 18-0051 | 1 | Little River | Harpoon | Shotgun | Female | 7'7" |
| 18-0137 | 1 | Lafayette | Harpoon | Shotgun | Female | 4'10" |
| 18-0174 | 1 | Hempstead | Harpoon | Shotgun | Female | 7'10" |
| 18-0052 | 1 | Hempstead | Harpoon | Shotgun | Female | 7'6" |
| 18-0138 | 1 | Miller | Harpoon | Shotgun | Female | 7'2" |
| 18-0126 | 1 | Howard | Snare | Shotgun | Female | 6'6" |
| 18-0127 | 1 | Howard | Snare | Shotgun | Female | 6' |
| 18-0180 | 1 | Miller | Harpoon | Shotgun | Female | 4'1" |
| 18-0171 | 1 | Miller | Harpoon | Shotgun | Female | 4'3" |
| 18-0109 | 1 | Miller | Harpoon | Shotgun | Female | 6'6" |
| 18-0135 | 1 | Miller | Harpoon | Shotgun | Female | 8'5" |
| 18-0065 | 1 | Hempstead | Harpoon | Shotgun | Female | 6'2" |
| 18-0103 | 1 | Lafayette | Harpoon | Shotgun | Female | 6'2" |
| 18-0176 | 1 | Miller | Harpoon | Shotgun | Female | 7'10" |
| 18-0058 | 1 | Hempstead | Snare | Shotgun | Female | 5" |
| 18-0177 | 1 | Miller | Harpoon | Shotgun | Female | 5'5" |
| 18-0101 | 1 | Miller | Snare | Shotgun | Female | 7' 3" |
| 18-0055 | 1 | Hempstead | Harpoon | Shotgun | Female | 10' 4" |
| 18-0117 | 1 | Little River | Harpoon | Shotgun | Female | 7'6" |
| 18-0102 | 1 | Lafayette | Snare | Shotgun | Male | 9'3" |
| 18-0123 | 1 | Little River | Harpoon | Shotgun | Male | 8'9" |
| 18-0129 | 1 | Lafayette | Harpoon | Shotgun | Male | 6'5" |
| 18-0069 | 1 | Little River | Harpoon | Shotgun | Male | 9'6" |
| 18-0115 | 1 | Hempstead | Harpoon | Bang Stick | Male | 8'7" |
| 18-0112 | 1 | Little River | Harpoon | Shotgun | Male | 7'3" |
| 18-0044 | 1 | Little River | Harpoon | Shotgun | Male | 8'5" |
| 18-0038 | 1 | Little River | Harpoon | Shotgun | Male | 12'1" |
| 18-0067 | 1 | Little River | Harpoon | Shotgun | Male | 7'3" |
| 18-0054 | 1 | Hempstead | Harpoon | Shotgun | Male | 12' |
| 18-0172 | 1 | Miller | Harpoon | Shotgun | Male | 6' |
| 18-0108 | 1 | Miller | Harpoon | Shotgun | Male | 8'6" |
| 18-0178 | 1 | Miller | Harpoon | Shotgun | Male | 8'11" |
| 18-0037 | 1 | Little River | Harpoon | Shotgun | Male | 8' 9" |
| 18-0128 | 1 | Hempstead | Harpoon | Shotgun | Male | 8ft |
| 18-0125 | 1 | Miller | Harpoon | Shotgun | Male | 10'1.5" |
| 18-0077 | 1 | Hempstead | Snare | Shotgun | Male | 5'6" |
| 18-0116 | 1 | Miller | Harpoon | Shotgun | Male | 5'2" |
| 18-0068 | 1 | Lafayette | Snare | Shotgun | Male | 9'3" |

| | | | | | | |
|---------|---|--------------|---------|---------|--------|-------|
| 18-0107 | 1 | Little River | Harpoon | Shotgun | Male | 6'3" |
| 18-0119 | 1 | Hempstead | Harpoon | Shotgun | Male | 7'2" |
| 18-0066 | 1 | Hempstead | Harpoon | Shotgun | Male | 6'9" |
| 18-0078 | 3 | Arkansas | Harpoon | Shotgun | Female | 6'9" |
| 18-0089 | 3 | Drew | Harpoon | Shotgun | Female | 7' |
| 18-0099 | 3 | Arkansas | Harpoon | Shotgun | Female | 6'4" |
| 18-0048 | 3 | Arkansas | Harpoon | Shotgun | Female | 6'1" |
| 18-0049 | 3 | Arkansas | Harpoon | Shotgun | Female | 7'5" |
| 18-0006 | 3 | Arkansas | Harpoon | Shotgun | Female | 8' |
| 18-0017 | 3 | Arkansas | Harpoon | Shotgun | Female | 8'2" |
| 18-0009 | 3 | Desha | Harpoon | Shotgun | Female | 9'1" |
| 18-0026 | 3 | Chicot | Harpoon | Shotgun | Female | 7'6" |
| 18-0088 | 3 | Drew | Harpoon | Shotgun | Female | 6'7" |
| 18-0015 | 3 | Drew | Snare | Shotgun | Female | 6'8" |
| 18-0050 | 3 | Arkansas | Harpoon | Shotgun | Male | 11'9" |
| 18-0008 | 3 | Arkansas | Harpoon | Shotgun | Male | 10'3" |
| 18-0039 | 3 | Desha | Snare | Shotgun | Male | 5'9" |
| 18-0036 | 3 | Arkansas | Harpoon | Shotgun | Male | 9'3" |
| 18-0004 | 3 | Lincoln | Harpoon | Shotgun | Male | 10'4" |
| 18-0062 | 3 | Arkansas | Harpoon | Shotgun | Male | 12'4" |
| 18-0023 | 3 | Desha | Harpoon | Shotgun | Male | 11'8" |
| 18-0053 | 3 | Arkansas | Harpoon | Shotgun | Male | 10'1" |
| 18-0025 | 3 | Drew | Harpoon | Shotgun | Male | 9' |
| 18-0018 | 3 | Lincoln | Harpoon | Shotgun | Male | 9' |
| 18-0097 | 3 | Drew | Harpoon | Shotgun | Male | 12'2" |
| 18-0031 | 3 | Ashley | Snare | Shotgun | Male | 11' |
| 18-0092 | 3 | Drew | Harpoon | Shotgun | Male | 6'3" |
| 18-0057 | 3 | Desha | Harpoon | Shotgun | Male | 8'2" |
| 18-0104 | 3 | Arkansas | Harpoon | Shotgun | Male | 6' 6" |
| 18-0027 | 3 | Arkansas | Harpoon | Shotgun | Male | 8'2" |
| 18-0033 | 3 | Ashley | Snare | Shotgun | Male | 6'0" |
| 18-0011 | 3 | Arkansas | Harpoon | Shotgun | Male | 10'6" |
| 18-0002 | 3 | Arkansas | Harpoon | Shotgun | Male | 8'6" |
| 18-0133 | 3 | Arkansas | Harpoon | Shotgun | Male | 11'5" |
| 18-0084 | 3 | Arkansas | Harpoon | Shotgun | Male | 8'4" |
| 18-0019 | 3 | Arkansas | Harpoon | Shotgun | Male | 9'6" |
| 18-0045 | 3 | Arkansas | Harpoon | Shotgun | Male | 7' |
| 18-0028 | 3 | Desha | Harpoon | Shotgun | Male | 8'1" |
| 18-0070 | 3 | Desha | Harpoon | Shotgun | Male | 8'1" |
| 18-0040 | 3 | Lincoln | Harpoon | Shotgun | Male | 6'2" |
| 18-0020 | 3 | Arkansas | Harpoon | Shotgun | Male | 13'6" |
| 18-0081 | 3 | Drew | Harpoon | Shotgun | Male | 7'10" |

Table 5. Comparison of total length (feet) by sex for all sport harvested Alligators in 2018.

| Sex | <i>N</i> | Range | Mean (\bar{x}) |
|--------|----------|------------|--------------------|
| Male | 50 | 5.2 – 13.5 | 8.7 |
| Female | 31 | 5.4 – 10.3 | 6.9 |

Table 6. Comparison of total length (feet) by AMZ and sex for sport harvested Alligators in 2018.

| AMZ 1 | | | | AMZ 3 | | | |
|--------|----------|------------|--------------------|--------|----------|------------|--------------------|
| Sex | <i>N</i> | Range | Mean (\bar{x}) | Sex | <i>N</i> | Range | Mean (\bar{x}) |
| Male | 22 | 5.2 – 12.1 | 8.2 | Male | 28 | 5.8 – 13.5 | 9.2 |
| Female | 20 | 5.4 – 10.3 | 6.7 | Female | 11 | 6.3 – 9.1 | 7.2 |

Table 7. Pre- and post-harvest comparison of Alligator density, based on the metric Alligators observed per survey mile (APM). Δ APM is the change in density between the 2015 and 2016 surveys. *= Pre-harvest data cited in: Irwin, K. 2006. Alligator population survey 2003-2004: Final Report. Arkansas Game and Fish Commission, Little Rock. 47 pp. n/a = data not available.

| AMZ | Location | 2018 Harvest | Pre-harvest APM* | 2009 APM | 2010 APM | 2011 APM | 2012 APM | 2013 APM | 2014 APM | 2015 APM | 2016 APM | 2017 APM | 2018 APM | 2019 APM | Δ APM |
|-----|-------------------------------------|--------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------|----------|----------|--------------|
| | Holly Mound | Yes | n/a | 2.5 | 3.3 | 1.2 | 2.0 | 3.0 | 1.8 | 3.0 | 3.2 | 2.0 | 2.8 | 2.3 | -0.5 |
| | Bois d'Arc Lake | Yes | 1.8 | 1.8 | 23.6 | 5.8 | 3.6 | 10.5 | 5.4 | 6.0 | 3.1 | 3.3 | 3.4 | 6.6 | 3.2 |
| | Lake Erling | No | 1.4 | 0.2 | 1.5 | 1.3 | 1.0 | 0.9 | 3.4 | - ⁴ | 0.0 | 0.9 | 1.0 | 1.0 | 0.0 |
| | Lost Lakes | Yes | n/a | 3.9 | 8.7 | 6.7 | 12.2 | 13.6 | 9.3 | 21.6 | 19.8 | 18.2 | 17.0 | 12.0 | -5.0 |
| 1 | Yellow Creek/Cypress Bayou | Yes | 1.3 | 1.5 | 5.4 | 3.5 | 5.0 | 4.1 | 7.6 | 1.9 | 6.2 | 5.1 | 5.5 | 5.1 | -0.4 |
| | Grassy Lake | No | 30.8 | 42.4 | 51.3 ¹ | 35.7 ¹ | 62.9 ¹ | 67.8 ¹ | 59.1 ¹ | 89.6 ¹ | 50.4 ¹ | 48.9 | 68.0 | 55.8 | -12.2 |
| | Mercer Bayou | Yes | 0.6 | 0.1 | 1.2 | 1.2 | 1.8 | 1.8 | 1.4 | 1.6 | 0.3 | 2.2 | 4.8 | 1.9 | -2.9 |
| | Millwood Lake | Yes | 0.6 | 1.6 | 4.8 | 2.3 | 4.5 | 2.0 | 2.7 ¹ | 1.5 ¹ | 1.4 | 4.9 | 5.3 | 2.3 | -3.0 |
| | Beard's Lake | No | 1.7 | 2.3 | 4.4 | 4.8 | 4.9 | 3.9 | 4.2 | 2.8 | 3.4 | 4.7 | 4.2 | 6.3 | 2.1 |
| | Long Lake | No | 0.4 | 1.2 | 1.4 | 3.7 | 3.3 | 0.7 | 0.4 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | Bragg Lake | No | 1.0 | 0.4 | 0.6 | 1.1 | 1.1 | 1.5 | 1.5 | 1.7 | 1.1 | 3.0 | 2.7 | 1.3 | -1.4 |
| | White Oak Lake | No | 0.2 | 0.1 | 0.0 | 0.1 | 0.6 | 0.3 | 0.4 | 0.5 | 0.3 | 0.5 | 1.7 | 0.0 | -1.7 |
| | Arkansas River Complex ² | Yes | 4.0 | 11.7 | 13.2 | 1.7 ³ | 9.1 | 8.1 | 12.7 | 9.2 | 5.9 | 7.3 | 10.8 | 8.3 | -2.5 |
| 3 | Tillar Duck Club | Yes | 5.0 | 8.8 | 11.1 | 9.0 | 15.0 | 12.6 | 15.2 | 9.9 | 8.3 | 19.6 | 26.4 | 21.2 | -5.2 |
| | McClendon Farm | Yes | 3.1 | 9.7 | 13.8 | 12.1 | 16.3 | 14.7 | 10.6 | 8.8 | 6.8 | 13.1 | 14.7 | 9.1 | -5.6 |
| | Hampton Farm | Yes | 5.6 | 11.8 ¹ | 6.4 | 6.4 | 8.2 | 6.3 | 6.3 | 6.3 | 5.7 | 8.9 | 11.0 | 7.2 | -3.8 |

1 = One survey was completed, i.e., no replicate survey conducted.

2 = The Arkansas River wetland complex consists of four survey routes in close proximity: Moore's Bayou, Merisach Lake, Arkansas River Ship Canal, and Arkansas Post Lake.

3 = All 2019 survey routes conducted with excessive high water levels.

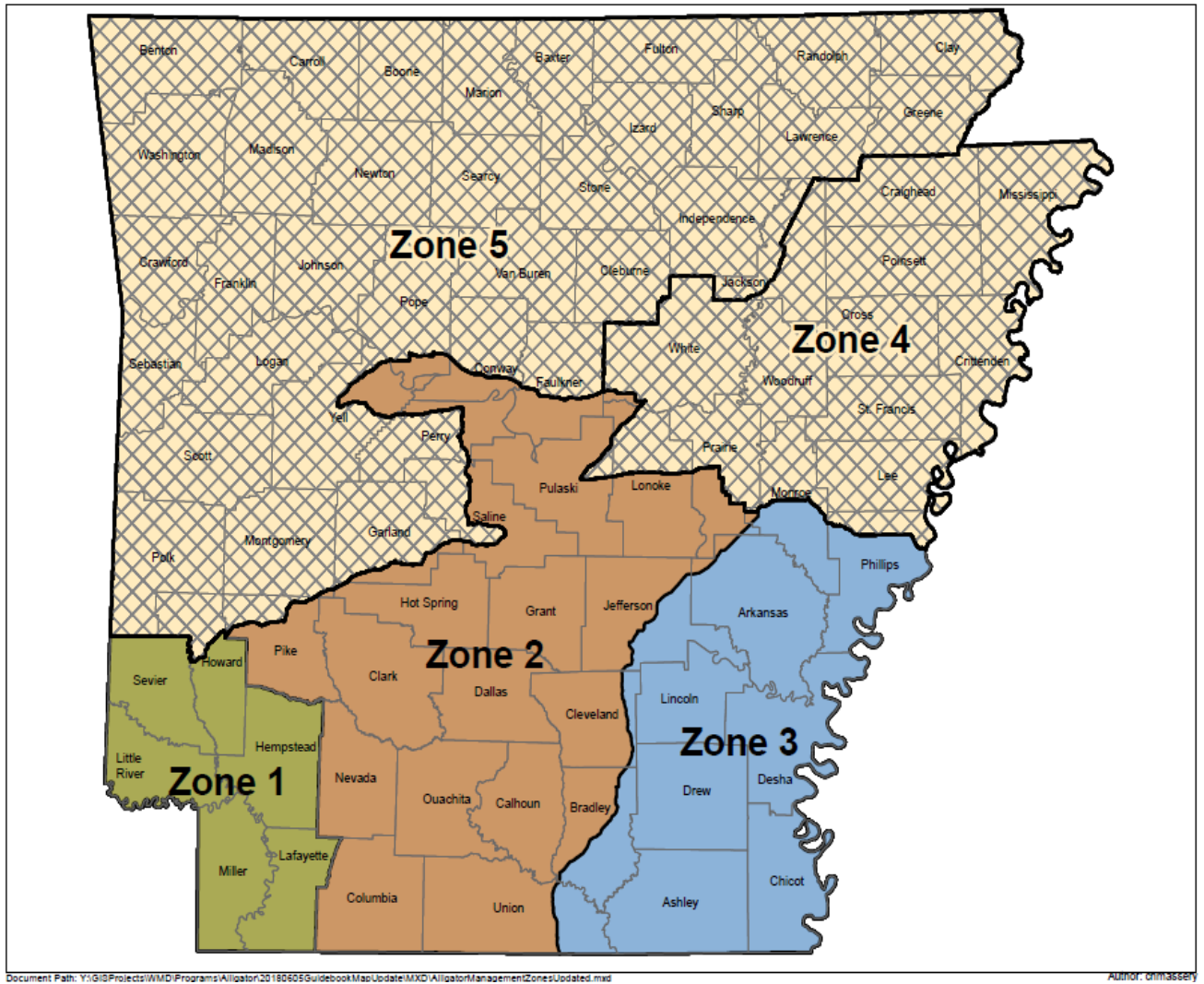


Fig. 1. Current Alligator Management Zones (AMZs); the Alligator sport hunt is permitted in highlighted zones 1, 2 and 3.