WILDLIFE MANAGEMENT AND RESEARCH NOTE

INDIANA DIVISION OF FISH & WILDLIFE

Number	Author	Date
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	Title 2015–2016 River Otter Harvest Summary	

Project #: 300FW1W45R02000 Activity #:W45R507

INTRODUCTION

After a highly successful reintroduction of river otter (*Lontra canadensis*) in Indiana in the 1990s, otter were removed from the state's endangered species list in 2009. Established and continuously expanding populations allowed for limited harvest and Indiana's first regulated river otter trapping season began on November 15, 2015.

METHODS

A statewide harvest quota of 600 river otter was set for the 2015–2016 season with a season bag limit of two otter per licensed trapper. Otter trapping was open in 66 of Indiana's 92 counties (Figure 1). Successful trappers were required to check their otter in through Indiana's online CheckIN game system and deliver the pelt and carcass to a designated check station to obtain a federal CITES tag. Carcasses were collected at check stations and teeth and reproductive tracts were later removed for assessment. Age was determined by cementum annuli analysis of a lower canine using an assumed parturition date of 1 April. Maximum reproductive potential was determined from counts of corpora lutea, which are temporary cysts that form in the ovaries when an egg has been ovulated, or shed from the ovary. Because otters are induced ovulators, the presence of corpora lutea indicates a female has mated. This method represents the maximum potential reproduction because not all eggs become fertilized or implant to develop into embryos.

RESULTS

In the 2015–2016 season, 604 river otter were harvested, the statewide quota was met and the season closed on March 9, 2016. Most otters were harvested on private land (n = 502; 83%) by either a bodygrip (n = 408; 68%) or foothold (n = 157; 26%) trap. The first six weeks of the season saw harvest average 64 otter per week, with a peak of 74 otter harvested (Figure 2). Harvest tapered off after December 27 with an average of 19 river otter harvested per week until the season closed in March. The majority of trappers (n = 543; 90%) felt that otter populations were increasing, 8% (n = 46) were unsure, and 1% felt otter were either decreasing (n = 8) or there was no change (n = 7). The majority of trappers were setting specifically for river otter (n = 395; 65%), with beaver being the most common intended target species after river otter. Trappers setting specifically for river otter set an average of 4.8 traps/day for an average of 8.4 days. Harvest occurred in 61 of 66 counties open to trapping and county-level harvest ranged from 0 to 33 (Figure 3). Warrick (n = 33), Jasper (n = 33), White (n = 32), and Pulaski (n = 28) counties reported the highest river otter harvest.

A total of 568 carcasses (94% of harvest) were collected for analysis. Sex distribution was 315 male (55%), 247 female (43%) and six (1%) unknown (Table 1). Age ranged from <1 (juvenile) to 12 years (x = 1.3 ± 1.8 yrs). Reproductive tracts were collected from 239 (97%) female otter, with eight tracts unable to be examined. Corpora lutea were found in 78 of 239 (32%) female reproductive tracts examined with an average corpora lutea count of 2.3 ± 0.8 (range = 1–5; Table 2). Mean age of females with corpora lutea was 2.3 ± 2.0 (maximum = 8). Adult female river otter had a pregnancy rate (percent of females with corpora lutea present) of 67% and an average corpora lutea count of 2.6 ± 1.13. Yearlings had a pregnancy rate of 30% and an average corpora lutea count of 2.24 ± 1.02 and juveniles had a pregnancy rate of 5% and an average corpora lutea count of 2.0 ± 1.18. Adult and yearling pregnancy rates are lower than previously recorded for river otter in Indiana. The reason is unknown, but procedures for processing reproductive tracts by staff will be reviewed to ensure counts are as accurate as possible. Additionally, because river otter exhibit delayed reproduction it is extremely unusual for juveniles to breed, so it is possible the number of juveniles with corpora lutea documented was the result of documentation or aging errors.

Acknowledgement is due to all IDNR Law Enforcement and Fish and Wildlife personnel for their continued collaboration.

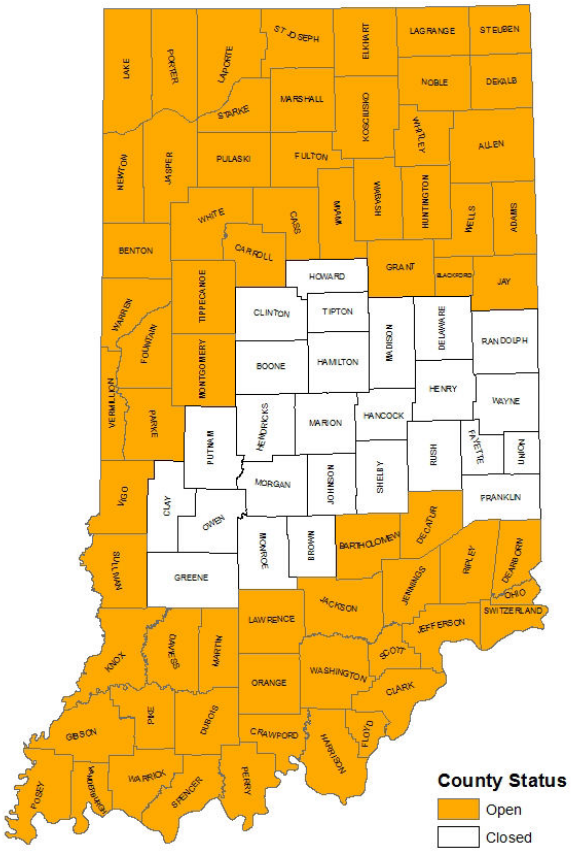


Figure 1. Indiana counties (n = 66) open to river otter harvest, 2015–2016.

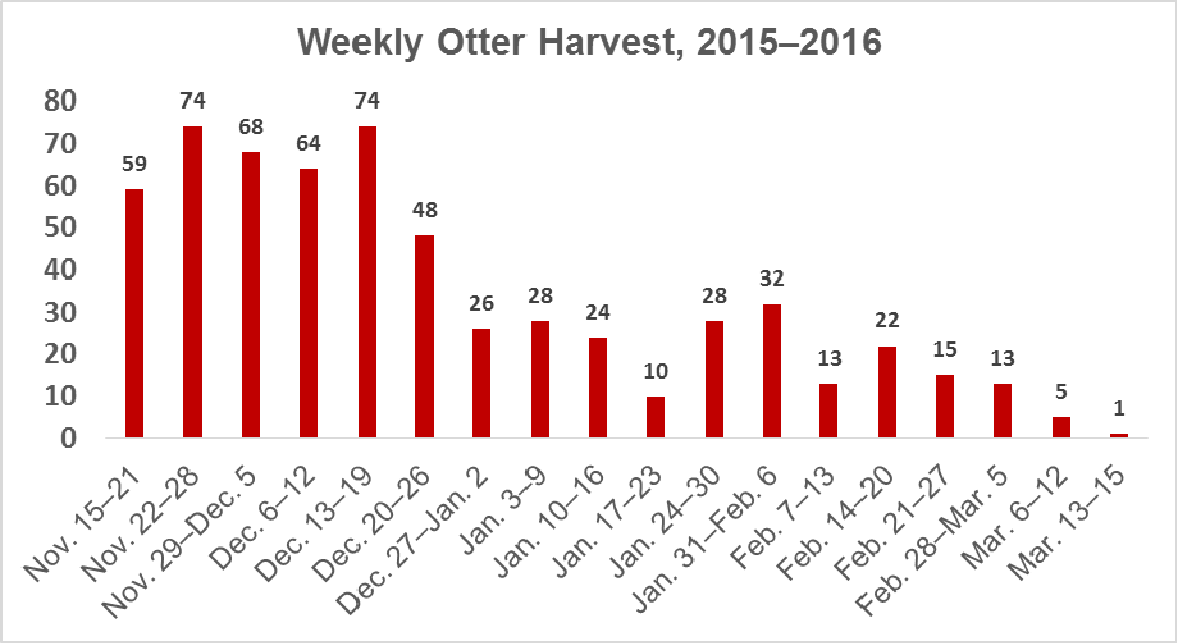
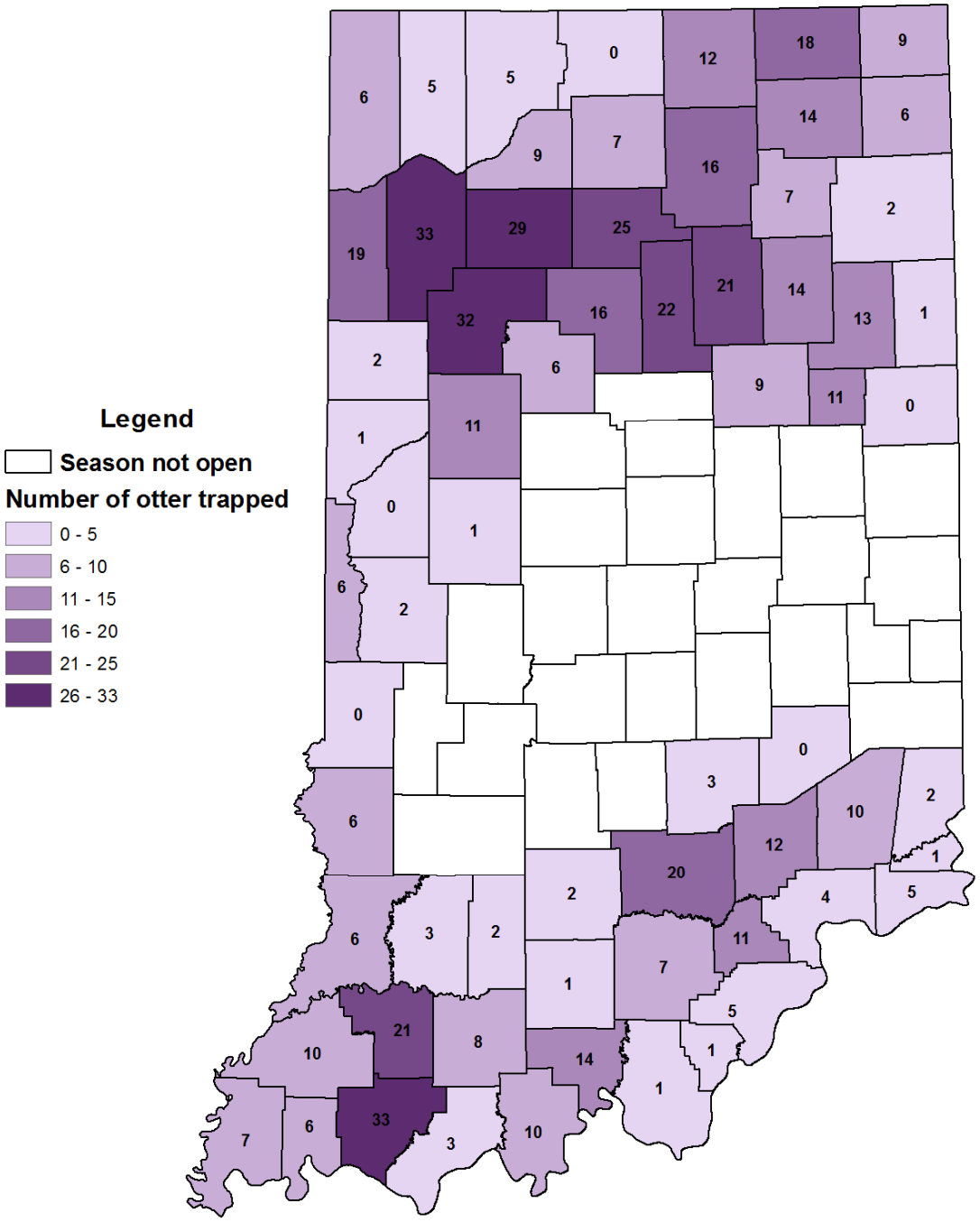


Figure 2. Weekly river otter harvest in Indiana, 2015–2016.



Note: Number listed in county is actual number trapped in that county

Figure 3. Distribution of river otter harvest in Indiana, 2015–2016.

Table 1. Mean (± SD) age of river otter harvested in Indiana, 2015–2016.

Sex	*n*	Age (y)	Range (y)
Male	315	1.4 ± 1.9	<1 - 12
Female	247	1.2 ± 1.7	<1 - 9
Unknown	6	1.3 ± 1.0	<1 - 3
Combined	568	1.3 ± 1.8	

Table 2. Mean (± SD) number of corpora lutea (CL) of juvenile (<1 y), yearling (1–2 y), and adult (>2 y) female river otters harvested in Indiana, 2015–2016. Age class assumes parturition date of 1 April.

Age class	No. examined	No. with CL (%)	Mean ± SD	Range
Juvenile	108	12 (5%)	2.00 ± 1.18	1–4
Yearling	71	21 (30%)	2.25 ± 1.02	1–5
Adult	67	45 (67%))	2.56 ± x.1.13	1–6
Combined	239	78 (32%)	2.31 ± 1.17	1–6