### **GENERAL NOTES**

# ALBINO RACCOONS (*PROCYON LOTOR*) FROM LEAGUE CITY, TEXAS

#### Adrian A. Castellanos<sup>1</sup> & Daniel M. Brooks<sup>2</sup>

<sup>1</sup>Department of Wildlife & Fisheries Sciences, Texas A&M University, College Station, Texas 77843-2258 <sup>2</sup>Houston Museum of Natural Science, Department of Vertebrate Zoology, 5555 Hermann Park Drive, Houston, Texas 77030-1799

Several different categories of aberrant coloration may be expressed in animals. For example, reduced pigmentation can range from partial (leucism) to a complete lack of pigmentation (albinism) (Acevedo and Aguayo 2008). Additionally, true albinos lack a pigmented iris and have red eyes because of a transparent view of the retinal blood vessels (Rees 2003).

Albinism is caused by recessive alleles that prevent synthesis of melanin in the organism, resulting in lack of pigmentation (Searle 1990). Allen and Neil (1955) indicate that albinism in raccoons was linked to a single recessive allele, however more recent evidence suggests that two loci may determine albinism in this species (Long & Hogan 1988).

*Procyon lotor* is a North American carnivore whose range extends throughout most areas of the continent (Lotze and Anderson 1979). This species ranges from southern Canada to Panama, with many populations inhabiting several small coastal islands (Lotze and Anderson 1979). The common raccoon has a broad diet that allows it to adapt to many different environments, including urban and suburban environments (Prange et al. 2003). Thus human interaction and observation of this species is common and may provide useful information. This report documents albinism in raccoons and is based upon voucher specimens and personal communications and observations obtained from several individuals. In early January 2001, a phone call was received from B. House indicating the League City Animal Control (LCAC) had obtained an albino raccoon that had died of distemper. The raccoon was collected on 2 January 2001 in the 200 block of Waco St. in League City, Galveston Co., Texas by LCAC. The specimen was obtained from LCAC, after which standard measurements were taken (total length = 84 cm, tail length = 29, pes = 10.8, ear = 5.5). The specimen was sent to a taxidermist for mounting, and the mount and its associated skull were accessioned into the Houston Museum of Natural Science's (HMNS) Vertebrate Mammalogy collection as catalogued specimen VM 510 on 9 July 2002.

As part of HMNS' centennial celebration, an internet blog was created featuring 100 of the museum's most unique objects. The albino raccoon mount (Fig. 1A) was the third specimen featured from the Vertebrate Zoology collection (HMNS Beyond Bones 2009). Several individuals responded to the blog post that they had collected, obtained or observed albino raccoons in nature. James Oberg posted on 11 July 2011 that he saw an albino raccoon the night prior (10 July 2011) feeding from his cat's outdoor food bowl. Oberg remained in contact by e-mail following his posted reply and stated in an email dated 31 October 2011 that the raccoon visited the cat food and water bowl at night until early September. Oberg indicated the raccoon was accompanied by a normally colored raccoon of similar size. Oberg successfully photographed the raccoon (Fig. 1B) and indicated it was in League City but was unwilling to divulge the specific location. On 29 August 2014 he informed us that an adult albino raccoon was captured in a trap at the same location, and was unable to determine if it represented a different individual than the aforementioned animal.

On 20 April 2012, Joe Butler trapped an adult leucistic raccoon approximately 7 km south of Cleveland, Montgomery Co., Texas. This site (on Mandell Road east of Fostoria Road) is approximately 100 km north of League City. The animal was reported (via telephone conversation on 23 April 2012) as an albino, possibly with



Figure 1. Albino Procyon lotor collected in League City, Galveston County, Texas.
A) Life mount accessioned at the Houston Museum of Natural Science (VM 510) collected on 2 January 2001 (Photo by T. DuBrock); B) Photograph of a live albino P. lotor captured July 2011 in League City (Photo by J. Oberg).

an albino kit. Butler submitted a photograph of the animal to the HMNS for verification, showing that its head and appendages were white. However, the presence of dark caudal rings and otherwise ivory coat suggested a leucistic specimen rather than a true albino.

Albino raccoons have been documented sporadically in Florida in the 1950's (Allen and Neil 1955), Ohio as recently as 2001 (A. Stewart, in lit.), and in West Knoxville, Tennessee with individuals observed in 1988 and 2011 (S. Allen, in lit.). We document two cases of albino *P. lotor* from League City along the upper Texas coast.

While there are several cases of aberrant coloration documented in birds (Cestari & Vieira 2007; Gonçalves Jr. et al. 2008; Beerden & Otis 2011; Nogueira & Alves 2011; Conn and Brooks 2012), aberrantly colored mammals have not been documented as frequently (Laacke et al. 2006). It is interesting that both of the albino *P. lotor* specimens were from the same town (League City, Texas). Additional verified observations and specimens of albino or leucistic *P. lotor* from League City might indicate the presence of a population of mammals with a high frequency of alleles expressing albinism.

While several color varieties of captive raccoons are commercially bred on fur farms (Rask 2011). It is unlikely that these two cases were captive bred color mutations because both were wild animals and such fur farms do not occur in the region. Although HMNS has a flat pelt of an additional albino raccoon specimen, it is unknown if it originated from nature or a fur farm. A leucistic subadult male raccoon is also in the collection (HMNS VM 1365), collected two miles west of Gladewater, Upshaw Co., Texas in early November 2012.

Other mammals in the HMNS collection showing albinism include an entirely albino bobcat (*Felis rufus* HMNS VM 1285) and partially albino specimens of striped skunk (*Mephitis mephitis* HMNS VM 1175) and plains pocket gopher (*Geomys bursarius* HMNS VM 381). The skunk is a sub-adult female collected two miles west of Yoakum (Yoakum Co.), Texas in late April 2009 and except for the normal colored feet, face and parts of the left side, is almost entirely white. The pocket gopher is an adult male collected six miles north of Dean (Clay Co.), Texas in late March 1970 and is entirely normal colored except for thin white blazes on the nose and on top of the head.

# LITERATURE CITED

- Acevedo, J. & M. Aguayo. 2008. Leucistic South American sea lion in Chile, with a review of anomalously color in otariids. Revista de Biología Marina y Oceanografía, 43:413-417.
- Allen, E. R. & W. T. Neil. 1955. Albinistic sibling raccoons from Florida. Journal of Mammalogy, 37:120.
- Beerden, J. B. & D. L. Otis. 2011. An observation of a partially albinistic Zenaida macroura (Mourning Dove). Southeastern Naturalist, 10:185-188.
- Cestari, C. & T. V. V. Costa. 2007. A case of leucism in Southern Lapwing (Vanellus chilensis) in the Pantanal, Brazil. Boletin de la Sociedad Antioqueña de Ornitologia/SAO, 17:145-147.
- Conn, A. R. and D. M. Brooks. 2012. Aberrant plumage in Texas bird specimens housed in the Houston Museum of Natural Science. Bulletin of the Texas Ornithological Society, 45(1-2):67-71.

### TEXAS J. SCI. 65(4), NOVEMBER, 2013 (PUBLISHED JAN 2016)

- Gonçalves Jr., C. C., E. Aparecido da Silva, A. C. DeLuca, T. Pongillupi, & F. de Barros Molina. 2008. Record of a leucistic Rufous-bellied Thrush *Turdus rufiventris* (Passeriformes, Turdidae) in São Paulo city, Southeastern Brazil. Revista Brasileira de Ornitologia, 16:72-75.
- Houston Museum of Natural Science Beyond Bones. 2009. 100 Years 100 Objects: Albino Racoon. Available: http://blog.hmns.org/?p=2989. (Accessed 9 Feb 2009).
- Laacke, R. J., W. F. Laudenslayer, T. Diamond, K. Viotto, C. A. Long, and C. A. Jones. 2006. Erythrism in the North American badger, *Taxidea taxus*. Southwestern Naturalist, 51:289-291.
- Long, C. A. & A. Hogan. 1988. Two independent loci for albinism in raccoons, Procyon lotor. Journal of Heredity, 79:387-389
- Lotze, J.-H. & S. Anderson. 1979. Procyon lotor. Mammalian Species, 119:1-8.
- Nogueira, D. M., & M. A. S. Alves. 2011. A case of leucism in the burrowing owl *Athene cunicularia* (Aves: Strigiformes) with confirmation of species identity using cytogenetic analysis. Zoologia (Curitiba, Impresso), 28:53-57.
- Prange, S., S. D. Gehrt, & E. P. Wiggers. 2003. Demographic factors contributing to high raccoon densities in urban landscapes. Journal of Wildlife Management, 67:324-333. Rask. P. 2011. Svbil's Den raccoon care sheet: color variations.
- Available: http://sybilsden.com/caresheet/raccoons.htm. (Accessed 5 October 2011).
- Rees, J. L. 2003. Genetics of hair and skin color. Annu. Rev. Genet., 37:67-90.
- Searle, A. G. 1990. Comparitive genetics of albinism. Ophthalmic Pediatrics and Genetics, 11:159-164.

AAC at: acastellanos@tamu.edu

Copyright of Texas Journal of Science is the property of Texas Academy of Science and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.