

## An Extralimital Record of a Louisiana-Banded Mottled Duck Recovered in South Dakota

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**Abstract** - *Anas fulvigula* (Mottled Duck) primarily occupy coastal marshes along the western Gulf of Mexico and Florida. Previous extralimital records of Mottled Ducks have been recorded in Great Plains states and in some states along the Atlantic Coast. We report on a female Mottled Duck that was banded in 2007 on Rockefeller Wildlife Refuge (Cameron Parish, LA) and harvested near Alpena, SD (Sanborn County). This minimum movement of 1680 km is highly unusual in a species where individuals rarely stray more than 160 km from the coast. Among recent and reliably documented reports (since 1980), this observation represents the northernmost documented record for this species. We presume that this individual migrated north with wintering *Anas platyrhynchos* (Mallard) it associated with in coastal Louisiana.

*Anas fulvigula* Ridgway (Mottled Duck) is a nonmigratory, coastal waterfowl species that resides in peninsular Florida and along the western Gulf of Mexico in Alabama, Mississippi, Louisiana, Texas, and south to Veracruz, Mexico (Fig. 1; Moorman and Grey 1994, Stutzenbaker 1988). The population that occurs in peninsular Florida is considered geographically separated and genetically distinct relative to the western Gulf population (McCracken et al. 2001). The coastal distribution of Mottled Ducks often extends 80–160 km inland from the coastline, with few records outside this “coastal” zone (Stutzenbaker 1988). Previous records of waifs from the western Gulf Coast population have occurred as far inland as northeastern Texas, Nebraska, Iowa, North Dakota, and Wisconsin (Dinsmore and Brees 2007; J. Lutmerding, USGS Birding Lab, Patuxent Wildlife Research Center, Laurel, MD, pers. comm.; Moorman and Gray 1994, Silcock et al. 1986, Stutzenbaker 1988), while individuals likely from Florida populations have been observed in Georgia, Virginia, New Jersey, and extreme southern Ontario (Johnson et al., unpubl. ms., cited in Moorman and Gray 1994; Richards 2008). Extralimital reports of the species are apparently increasing, particularly in the Great Plains and interior states (Dinsmore and Silcock 2004).

Mottled Duck population dynamics has been a major waterfowl research focus at Rockefeller Wildlife Refuge (RWR) since 1994 (Louisiana Department of Wildlife and Fisheries, Coastal and Non-game Resources Division). Banding efforts for Mottled Ducks were initiated in order to determine their status/population trends in Louisiana given that others were suggesting that Texas populations of Mottled Ducks were declining; the latter has been confirmed, while Louisiana populations are considered stable (Wilson 2007). Since the inception of this project, over 35,000 Mottled Ducks have been banded in Louisiana, with the vast majority of efforts and number of ducks banded occurring in the marshes

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of coastal southwestern Louisiana. Banding occurred within Cameron and Vermilion parishes, including within RWR boundaries, the Southwestern Louisiana

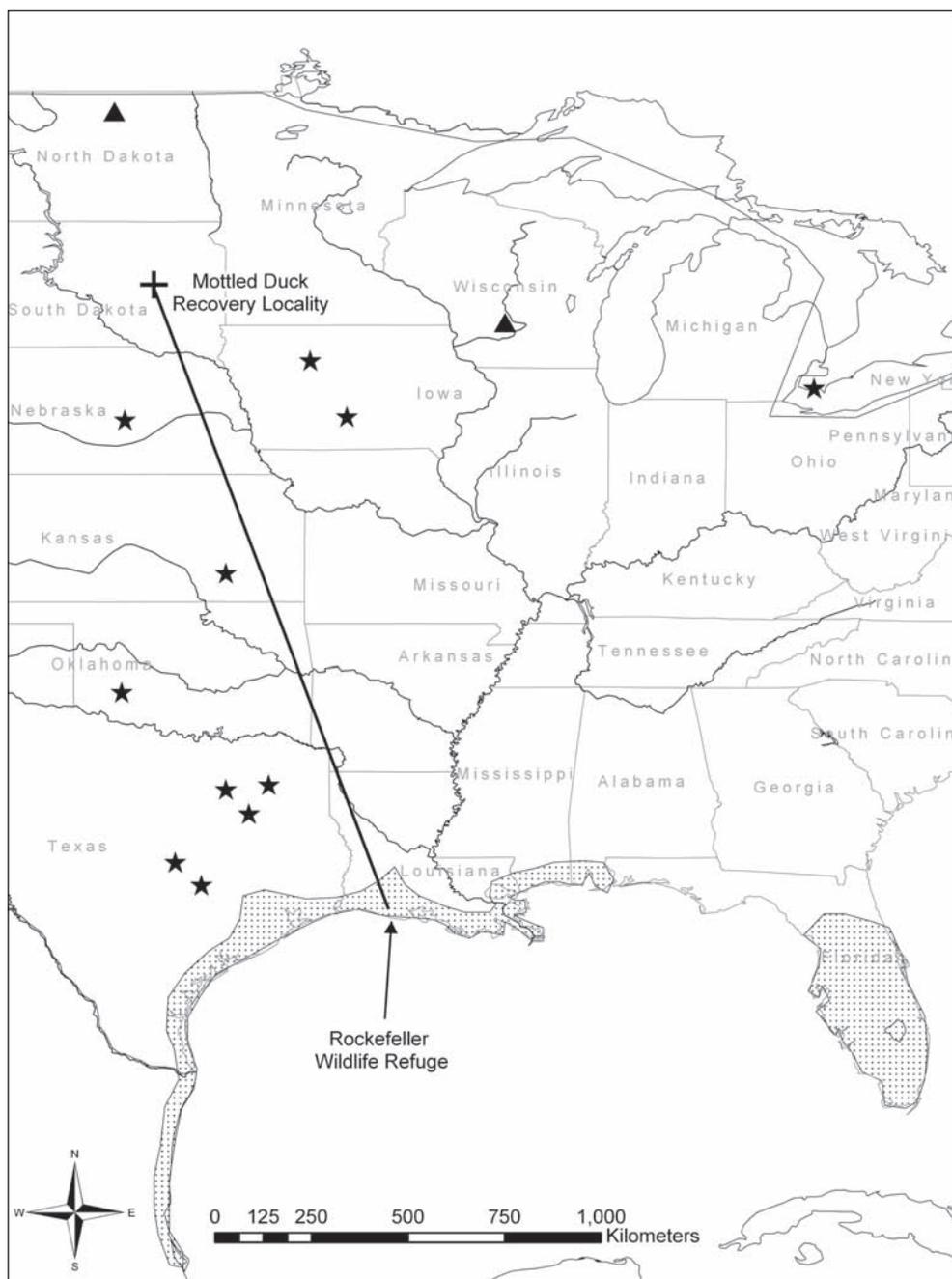


Figure 1. Approximate range of Mottled Ducks (*Anas fulvigula*) along the Gulf of Mexico and Florida (stippled), old/recent confirmed records (black stars), older unconfirmed records (black triangles), and the recovery locality of a female Mottled Duck near Alpena, SD (black cross). Mottled Duck range and extralimital records derived primarily from Stutzenbaker (1988), Moorman and Grey (1994), and others cited in text.

National Wildlife Refuge complex (Sabine and Cameron Prairie), and by permission on private property holdings north of RWR. Banding occurred during summer months (June–August) and coincided with brood rearing and molt (Moorman and Gray 1994). Mottled Ducks are easily captured by hand from an airboat at night with the aid of spotlights and an experienced airboat operator (Moorman et al. 1993). We report here on a record of a Mottled Duck that was originally banded on RWR (Cameron Parish, LA) and harvested in South Dakota (Sanborn County). We believe this is the northernmost reliable report for this coastal waterfowl species.

On 18 October 2010, a hunter harvested a banded “hen Mallard” (*Anas platyrhynchos*) approximately 4.5 miles southeast of Alpena, SD (Sanborn County; 44°07'N, 98°19'W). The hunter reported the species identification and band number (1757-77681) to the US Geological Survey Bird Banding Lab (USGS BBL). Subsequently, the hunter-reported information was discovered to be inconsistent with the original banding data with the USGS BBL, and L. Reynolds was asked to resolve the discrepancy. The band number was confirmed by W. Selman to have been placed on a female Mottled Duck that was captured and banded as a “local” or hatch-year bird at RWR (Cameron Parish, LA; 29°40'N, 92°40'W) on 6 June 2007. After further communication with the USGS BBL, the hunter acknowledged that he could not differentiate between a female Mottled Duck and a female Mallard (as would be expected from an inland hunter). The hunter also provided images of the band and harvested duck (Fig. 2) for further



Figure 2. Banded female Mottled Duck (*Anas fulvigula*; right) and female Mallard (*Anas platyrhynchos*; left) that were harvested from the same flock near Alpena, SD. Note the darker coloration on the breast of the Mottled Duck (including buffy feather margins), as well as the contrasting coloration of the head and body of the Mottled Duck. Picture taken by Todd Engelson and provided by Brett Engelson.

documentation. Later conversations between the hunter and W. Selman indicated that the female Mottled Duck was harvested in a flooded soybean field and that there were other ducks that flushed in the flock with the Mottled Duck, including a female Mallard shot from the same flock ( $\approx 5$  other ducks in the group not identified to species).

The banding location of the Mottled Duck on 6 June 2007 was within the interior portion of RWR and in the vicinity of Unit 6 and Unit 13; the exact locality is not known because night banding efforts usually occur within several square kilometers during a single banding-night. The area where the duck was captured and banded is considered to be intermediate marsh, where the dominant plant species included *Spartina patens* (Aiton) Muhl. (Saltmeadow Cordgrass) and *Typha* spp. (cattails). There was abundant submerged aquatic vegetation (*Myriophyllum spicatum* L. [Eurasian Watermilfoil], *Najas guadalupensis* (Spreng.) Magnus [Southern Naiad], *Potamogeton pusillus* L. [Slender Pondweed], and *Ruppia maritima* L. [Widgeongrass]) and other emergent vegetation (including *Echinochloa walteri* (Pursh) A. Heller [Walter's Millet], *Leptochloa fusca* (L.) Kunth [Sprangletop], and *Cyperus* spp. [nutgrass]). This habitat type contrasts sharply with the habitat where the individual was harvested in South Dakota, where the landscape is dominated by agricultural fields (*Glycine max* (L.) Merr. [Soybean] and *Zea mays* L. [Corn]) and pasture land. This area of South Dakota had received much higher levels of moisture than other years, so there was some standing water present in the Soybean field where the duck was harvested (B. Engelson, hunter who shot the Mottled Duck, pers. comm.).

Overall, this banded duck traveled a minimum straight-line distance of 1680 km (1040 mi) between the original banding location and the point of harvest over a period of 3.5 years (Fig. 2). From the photograph provided by the hunter, the female Mottled Duck appeared to be in good health. Because this Mottled Duck was shot in a group with at least one other Mallard, we presume this female Mottled Duck became associated during the winter with Mallards in Louisiana and thereafter migrated north with the Mallard flock. However, we do not know if this is the only northward migration that this individual made or if it had made previous trips out of the coastal range of Mottled Ducks. It is not uncommon to find mixed flocks of Mallards and Mottled Ducks in southern Louisiana during winter, as well as interspecific pairing and hybridization of the two species (McCracken et al. 2001).

Although harvest recoveries of Mottled Ducks have been reported from more northern localities in the 1970s (Wisconsin and North Dakota), these records were not confirmed or investigated to the extent that extralimital records currently are today (J. Lutmerding, USGS Patuxent Wildlife Research Center, Laurel, MD, pers. comm.). For example, with older records, it is unclear if the reported information indicates the location of harvested ducks or the home location of the hunter (Din-smore and Brees 2007). Therefore, we believe that this record from South Dakota is farther north than any other reliably documented record for Mottled Ducks (i.e., Iowa, Nebraska, and southern Ontario) and supports the assertion that extralimital reports of Mottled Ducks are increasing in the Great Plains states (Din-smore and Silcock 2004).

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