

UNDERWEIGHT AMERICAN WOODCOCK SPECIMENS FROM NEW MEXICO

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Abstract – There are currently 16 American Woodcock records for New Mexico. Three of these records are documented with specimens. Two of the specimens were salvaged from Socorro County near the town of Magdalena, and both are deposited at the Museum of Southwestern Biology at the University of New Mexico. Both of these specimens were males and were underweight compared to the species average from the core of the woodcock wintering range in the southeastern United States. The salvaged Magdalena specimens apparently were unable to find sufficient food to maintain body weight in drier Chihuahuan Desert habitat outside of mesic riparian areas.

The American Woodcock (*Scolopax minor*) is a migratory woodland shorebird (Scolopacidae) of Eastern North America. It inhabits upland thickets, shrubland, wet and open forest, and brushy swampland on breeding and wintering grounds. Woodcocks breed from eastern Saskatchewan to Nova Scotia and south to the panhandle of Florida and across southern states to eastern Texas. The wintering distribution of the American Woodcock extends from the Lower Rio Grande Valley of Texas to the Everglades of Florida and north along the Atlantic coast to southern Maine. Inland the northern limit of wintering woodcocks is roughly 40 degrees north latitude. As a migrant, woodcocks tend to remain in the forested eastern half of North America, rarely venturing west into the Great Plains (McAuley et al. 2013). In this note, we provide a synopsis of American Woodcock records for New Mexico and report on the body masses of the two salvaged specimens.

Sixteen American Woodcocks have been documented in New Mexico; three with specimens, four with photographs, and nine with adequately written details (S. O. Williams III *in litt.* 2013). Five woodcock records are from the Pecos drainage with one from the “Melrose Migrant Trap” on the eastern plains in Roosevelt County (Parmeter 2007) and four from the lower Pecos River Valley in Eddy County. Seven woodcock records are from the middle and lower Rio Grande Valley in Sandoval, Bernalillo, Socorro, and Doña Ana Counties. The remaining four records are from west of the Rio Grande corridor. Three of these are from western Socorro County and one is from west of the continental divide in Catron County.

Fifteen of these 16 records were from late autumn or early spring migration periods for the species (McAuley et al. 2013), with eight records during 11 October - 12 December and seven records during 25 January - 29 March. The remaining record was a mid-summer observation on 9 July 1982 (NMOS Field Notes database online).

The first American Woodcock record for New Mexico was a specimen collected by F. Turner on 25 January 1964 along the Del Rio Canal, two miles north of Mesilla Dam in Doña Ana County (Harris 1965). This bird flushed from a stand of salt cedar (*Tamarix* spp.). The specimen is deposited at the Vertebrate Museum, Biology Department, New Mexico State University (No. 2767). It was sexed as a female, but no information was reported on body mass, fat deposition, or stomach contents (Peter Houde *in litt.* 2012).

The remaining two American Woodcock specimens are from west of the Rio Grande Valley near Magdalena, Socorro County, where they were salvaged 42 years apart; both were males and both were prepared as study skins and deposited at the Museum of Southwestern Biology (MSB) at the University of New Mexico. The first (MSB 3507) was found dead on 29 March 1969, 10 miles west of Magdalena. It was prepared by J. D. Ligon and described as ‘thin and dehydrated,’ weighed 97.6 g, and had adult and larval beetles in its stomach. The second male (MSB 39139) was found alive on 2 December 2011 in Magdalena after a major windstorm. It was brought to a rehabilitator where it died shortly after. We received the bird from Wildlife Rescue, Inc. of New Mexico. This bird, prepared by SGD, weighed 72.2 g, and its sternal keel was noted as protruding when the bird was prepared. It had survived in captivity briefly and its stomach contents would not have reflected its natural diet, thus were not examined. The body masses of MSB 3507 and MSB 39139 were approximately 35% and 50% less, respectively, than the average mass of wintering males from Louisiana and Mississippi at 155 +/- 1 g (Owen and Krohn 1973).

The American Woodcock diet consists of up to 79% earthworms by volume (McAuley et al. 2013). Woodcocks, however, exhibit notable geographic variation in their consumption of other invertebrate prey items (McAuley et al. 2013). These geographic differences are likely associated with shifts in local invertebrate abundances, suggesting that the American Woodcock is an opportunistic invertebrate feeder (Miller and Causey 1985, McAuley et al. 2013). The Chihuahuan Desert of central and southern New Mexico is depauperate of earthworms and other suitable invertebrate prey items (Gates 1967, Whitford et al. 1995).

Given its preference for mesic habitat (McAuley et al. 2013), suitable woodcock habitat is quite limited in New Mexico. Not surprisingly, 13 of the 16 records are from wet, muddy, shady areas in or near riparian habitat where earthworms and other invertebrate prey are likely common. The three woodcocks documented away from riparian habitat consist of the Melrose Migrant Trap observation and the two Magdalena specimens. The Melrose Migrant Trap is a grove of large cottonwoods and poplars (*Populus* spp.) with a sapling understory, deep shade, and leaf litter in a shallow drainage at a capped spring (Parmeter 2007; S.O. Williams *in litt.* 2013).

The two Magdalena specimens were found away from mesic, riparian habitat and were unable to maintain sufficient weight, despite MSB 3507 having beetle prey items in its stomach. Captive woodcocks can require a daily food intake of over twice their body mass to maintain weight (McAuley et al. 2013). Migrating woodcocks would thus require an abundance of invertebrate prey items to maintain sufficient body mass to

fuel migration. The southwestern United States is generally sub-optimal for the American Woodcock, but the limited riparian habitats within the region may provide sufficient sustenance for continued migration should a bird be fortunate enough to find these areas.

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LITERATURE CITED

- Gates, G.E. 1967. On the earthworm fauna of the great American desert and adjacent areas. *Great Basin Naturalist* 27: 142-176.
- Harris, B. K. 1965. More specimen records of birds unusual in New Mexico. *Auk* 82:648-650.
- McAuley, D., D.M. Keppie, and R.M. Whiting, Jr. 2013. American Woodcock (*Scolopax minor*). *The Birds of North America Online* (A. Poole, Ed.) Cornell Lab of Ornithology, Ithaca, NY. <http://bna.birds.cornell.edu/bna/species/100>. Accessed 7 October 2013.
- Miller, D.L., and M.K. Causey. 1985. Food Preferences of American Woodcock Wintering in Alabama. *J. Wildl. Manage.* 49(2): 492-496.
- New Mexico Ornithological Society. 2013. NMOS Field Notes Database 1962-2009. Albuquerque, NM. Online: <http://nhnm.unm.edu/partners/NMOS>. Accessed 9 October 2013.
- Owen, R.B., Jr. and W.B. Krohn. 1973. Molt Patterns and Weight Changes of the American Woodcock. *Wilson Bulletin* 85: 31-41.
- Parmeter, J. E. 2007. Annotated checklist of the birds of the Melrose Migrant Trap, Roosevelt County, New Mexico. *NMOS Bulletin* 35: 1-40.

Whitford, W.G., G.S. Forbes, and G.I. Kerley. 1995. Diversity, spatial variability, and functional roles of invertebrates in desert grassland ecosystems. Pages 152-195 *In* The desert grassland (M.P. McClaran and T.R. Van Devender, Eds.). University of Arizona Press, Tucson.