

## GADWALL PAIR RECAPTURED IN SUCCESSIVE WINTERS ON THE SOUTHERN HIGH PLAINS OF TEXAS

ALAN M. FEDYNICH<sup>1</sup> AND RALPH D. GODFREY, JR.

*Department of Range and Wildlife Management  
Texas Tech University  
Lubbock, Texas 79409 USA*

**Abstract.**—Winter homing, and establishment of pair bonds with the same mate in two successive winters, was documented when a male and female Gadwall (*Anas strepera*) were captured 28 Jan. 1986 and subsequently recaptured on 18 Dec. 1986 at the same trapping location on the Southern High Plains. Gadwalls occurred infrequently, and were observed as singles or in small groups consisting of two to three individuals.

### RECAPTURA DE INDIVIDUOS DE *ANAS STREPERA* DURANTE EL INVIERNO EN SOUTHERN HIGH PLAINS, TEXAS

**Resumen.**—El vínculo sólido de parejas de *Anas strepera* durante dos inviernos sucesivos, fue documentado cuando una pareja de estas aves fue capturada el 28 de enero de 1986 y subsecuentemente recapturada el 18 de diciembre de 1986 en la misma área en Southern High Plains. Estos patos visitan el área con poca frecuencia. Usualmente son observados individuos solitarios o pequeños grupos de dos o tres individuos.

Studies of winter homing in anatids have been largely limited to Mallards (*Anas platyrhynchos*), Green-winged Teals (*A. crecca*), and Northern Pintails (*A. acuta*), probably due to the emphasis and abundance of these species as game birds (Munro 1943, 1944, 1949; Sugden et al. 1974). While most studies on wintering Gadwalls have centered around food habits (Allouche and Tamisier 1984, Paulus 1982), other aspects are less known. Such lack of information prompts this report of winter homing and the establishment of pair-bonds, with the same mate, for Gadwalls in two successive winters.

Waterfowl were captured in baited funnel traps on an intermittent stream with several ponds of permanent water at the Caprock Feedlot (34°28'30"N, 102°55'30"W) by U.S. Fish and Wildlife Service and Texas Tech University personnel during the winters 1984-1985, 1985-1986, and 1986-1987. Among the ducks banded were five Gadwalls. Repeat and return data were obtained from personal records and the Bird Banding Laboratory.

Evidence of pair-bond formation, at least by the end of January, occurred when a male and female Gadwall were captured in the same trap on 28 Jan. 1986. Bellrose (1980) reported that initiation of pair-bonds had not been studied in Gadwalls, but believed pair-bond formation began in the midautumn through midwinter period. Paulus (1983) found 81% of Gadwalls paired by late November. Repeat captures of this female occurred on 31 Jan., and 1 and 21 Feb. 1986. On each of these three

<sup>1</sup> Current address: Florida Game and Fresh Water Fish Commission, Division of Wildlife, Route 7, Box 440, Lake City, Florida 32055 USA.

dates, a male Gadwall was seen swimming around the trap in which the female was captured, and reluctantly flew off when banders approached the trap. On 18 Dec. 1986 both Gadwalls were recaptured together at the same trapping location.

Apparently both Gadwalls were paired to each other both winters. Several possibilities may account for successive pairing with the same mate. First, both ducks could have returned to the breeding grounds, dissolved their pair-bond after the breeding period, mixed with Gadwalls of the local population, and by chance paired a second time. Second, this pair could have bred at a location where Gadwall numbers were low. In ducks, a particular subpopulation may tend to breed, migrate, and winter together (Munro 1943, 1944, 1949). Gadwalls breeding and wintering at locations where other Gadwalls are few, may increase their chances of pairing a second time due to lack of alternate mates. Such a situation may occur on the Southern High Plains, as few wintering Gadwalls were observed (surveys by the authors found mainly individuals, or occasional groups of two to three). A third scenario involves no northward migration, but instead, the two remained paired throughout the entire year on the Southern High Plains. Gates (1962) and Oring (1969) observed that pair-bonds in Gadwalls were usually dissolved during the incubation period. In rare instances pair-bonds lasted up to a week after broods hatched (Chura 1962). However, long-term pairing could occur if the hen did not nest or the nesting attempt failed. Only four summer sightings of Gadwalls have been reported from the Southern High Plains, one of which included a female with two ducklings (Hawkins 1945, Oberholser 1974). Finally, it is possible that both birds were broodmates when initially captured and either remained together or became mates the second year.

#### ACKNOWLEDGMENTS

We thank the owners and operators of Caprock Feedlot for allowing access. We thank and acknowledge R. K. Krey and A. C. Jones from Muleshoe and Grulla NWR for banding data, and J. F. Bergan and the U.S. Fish and Wildlife Service Office of Migratory Bird Management for supplying return data. We are grateful to E. G. Bolen, H. W. Miller, and D. B. Pence for their comments during the preparation of this manuscript. Financial support was provided by the Caesar Kleberg Foundation for Wildlife Conservation. This is Contribution No. T-9-509, Coll. Agric. Sci., Texas Tech Univ.

#### LITERATURE CITED

- ALLOUCHE, L., AND A. TAMISIER. 1984. Feeding convergence of gadwall, coot and other herbivorous waterfowl species wintering in the Camargue: a preliminary approach. *Wildfowl* 35:135-142.
- BELLROSE, F. C. 1980. Ducks, geese, and swans of North America. Stackpole Books Co., Harrisburg, Pennsylvania. 540 pp.
- CHURA, N. J. 1962. Observations of drakes accompanying hens with brood. *Auk* 79:484.
- GATES, J. M. 1962. Breeding biology of the gadwall in northern Utah. *Wilson Bull.* 74: 43-67.
- HAWKINS, A. S. 1945. Bird life in the Texas Panhandle. *Panhandle-Plains Hist. Soc.* 18: 110-150.
- MUNRO, J. A. 1943. Studies of waterfowl in British Columbia. Mallard. *Can. J. Res.* 21:223-260.

- . 1944. Studies of waterfowl in British Columbia. Pintail. *Can. J. Res.* 22:60-86.
- . 1949. Studies of waterfowl in British Columbia. Green-winged Teal. *Can. J. Res.* 27:149-178.
- OBERHOLSER, H. C. 1974. The bird life of Texas. Vol 1. E. B. Kincaid, Jr., ed. University of Texas Press, Austin. 530 pp.
- ORING, L. W. 1969. Summer biology of the Gadwall at Delta, Manitoba. *Wilson Bull.* 81:44-54.
- PAULUS, S. L. 1982. Feeding ecology of gadwalls in Louisiana in winter. *J. Wildl. Manage.* 46:71-79.
- . 1983. Dominance relations, resource use, and pairing chronology of Gadwalls in winter. *Auk* 100:947-952.
- SUGDEN, L. G., W. J. THURLOW, R. D. HARRIS, AND K. VERMEER. 1974. Investigations of mallards overwintering at Calgary, Alberta. *Can. Field-Nat.* 88:303-311.

Received 8 Dec. 1987; accepted 2 Oct. 1988.