

## Fish-line Entanglement of Nesting Mourning Dove, *Zenaida macroura*

GLENN H. PARKER and CHRIS G. BLOMME

Department of Biology, Laurentian University, Sudbury, Ontario P3E 2C6 Canada

Parker, Glenn H., and Chris G. Blomme. 2007. Fish-line entanglement of nesting Mourning Dove, *Zenaida macroura*. *Canadian Field-Naturalist* 121(4): 436-437.

We give a detailed account of monofilament entanglement in nesting material of a gravid female Mourning Dove (*Zenaida macroura*) which resulted in death. Such incidents substantiate the hazards of anthropogenic materials and the need to dispose of them with due diligence.

**Key Words:** *Zenaida macroura*, Mourning Dove, monofilament, fish line, avian anthropogenic hazards.

Mourning Doves (*Zenaida macroura*) nest annually in the town of Val Therese (46°39'N, 81°01'W), Sudbury District, Ontario. On 12 April 2005, an unusual flash of movement attracted my eye to the neighbour's 15-meter-tall Blue Spruce (*Picea pungens*). Upon more careful inspection, I noticed a Mourning Dove hanging unnaturally among the interior boughs of the spruce. An additional bird was present, presumed to be the other of a mated pair. Entering under the boughs, I noticed that the lifeless dove was hanging from a thread of monofilament fish line to which it had succumbed following an obvious struggle. One meter above the dangling bird, situated on a branch 1.75 meters from the trunk and 2.75 meters off the ground, was a fully-formed nest.

The hanging bird was a female Mourning Dove weighing 124 grams. Autopsy revealed that the bird was in a healthy state; the crop was full of wild seeds and normal amounts of adipose tissue were present throughout the body. A fully-developed egg with a near-calcified shell was present in the oviduct, indicating that egg laying would probably have occurred within a day. The nest was well-formed but empty, implying that nest construction had been completed and egg laying was about to commence.

The fish line was of ten-pound test and consisted of two separate lengths each entwined in the nesting material. The smaller piece measured 25 centimeters and the longer piece 2.5 meters. The longer piece was woven into the nest at mid-level, indicating that it had been incorporated during nest building rather than added later. The bird had become entangled with a portion of the longer line. The fish line ran between the sixth and seventh primary on the underside of the right wing, then looped over the dorsal surface of the humerus to the neck where it was looped completely around the neck. Subsequently, the line stretched to the left wing which was wrapped twice very close to the body, and then extended from the dorsum of the bird as a free end. The bird was dangling from the line anchored within the nest, with a single upwardly-extended wing and a severely down-turned head and neck directed into the pit of the extended wing. Strangulation as a result of the initial entanglement and panic response is inferred as the cause of death.

Various anthropogenic hazards have been reported to contribute to mortality in Mourning Doves, including decapitation from power lines, utility lines and TV towers while in flight (Stoddard and Norris 1967), window strikes (Terres 1980), and vehicle, train and aircraft strikes (Terres 1980). Monofilament fish line entanglement has been well documented in waterfowl, marine birds (Manville 2005; King et al. 1979) and loons *Gavia* spp. (Sidor et al 2003) as well as noted in doves on previous occasions (Sadler 1993; Mirarchi and Baskett 1994). The tendency of certain species to incorporate foreign anthropogenic materials during nest building, including fine wires as noted in dove nests reported by Peck and James (1983), appears to predispose such species to higher risk levels. Specific details of incident reports appear to be lacking in much of the literature. This note serves to further document the use of discarded fish line (a non-natural nesting material) and its potential contribution to mortality in a common tree-nesting species.

### Literature Cited

- King, W. B., R. G. B. Brown, and G. A. Sanger. 1979. Mortality to marine birds through commercial fishing. Pages 95-199 in *Conservation of marine birds in northern North America*. Edited by J. C. Bartonek and D. N. Nettleship. Wildlife Research Report (11). Fish and Wildlife Service, U.S. Department of the Interior.
- Manville, A. M., II. 2005. Seabird and waterbird bycatch in fishing gear: next steps in dealing with a problem. Pages 1071-1082 in *USDA Forest Service General Technical Report PSW-GTR-191*.
- Mirarchi, R. E., and T. S. Baskett. 1994. Mourning Dove (*Zenaida macroura*). In *The Birds of North America* (117). Edited by A. Poole and F. Gill. The Academy of Natural Sciences, Philadelphia; The American Ornithologists' Union, Washington, D.C.
- Peck, G. K., and R. D. James. 1983. Breeding birds of Ontario, Nidology and distribution. Volume 1: Nonpasserines. Publications in Life Sciences. Royal Ontario Museum, Toronto. 321 pages.
- Sadler, K. C. 1993. Other natural mortality. Pages 225-230 in *Ecology and management of the Mourning Dove*. Edited by T. S. Baskett, M. W. Sayre, R. E. Tomlinson, and R.E. Mirarchi. Stackpole Books, Harrisburg, Pennsylvania.
- Sidor, I. F., M. A. Pokras, A. R. Major, R. H. Poppenga, K. M. Taylor, and R. M. Miconi. 2003. Mortality of the

common loons in New England, 1987 to 2000. *Journal of Wildlife Diseases* 39: 306-315.

**Stoddard, H. L., and R. A. Norris.** 1967. Bird casualties at a Leon County, Florida TV tower: An eleven year study. Tall Timbers Research Station. Bulletin (8). Tallahassee, Florida.

**Terres, J. K.** 1980. *The Audubon Society Encyclopedia of North American Birds*. Knopf Inc., New York.

Received 14 May 2007

Accepted 28 July 2008